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DICTIONARY OF POLITICAL ECONOMY

DICTIONARY

OF

POLITICAL ECONOMY

EDITED BY

R. H. INGLIS PALGRAVE, F.R.S.

Ore trahit quodcumque potest atque addit acervo.

VOL. I.

A—E

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INTRODUCTION TO VOLUME I.

THE complete preface to a book naturally cannot be written till the work itself is finished; but with the first volume some remarks by way of introduction will be useful, to explain the object for which this work has been written, and the method on which it is arranged.

The primary object of the *Dictionary of Political Economy* is to provide the student with such assistance as may enable him to understand the position of economic thought at the present time, and to pursue such branches of inquiry as may be necessary for that end.

The table of the contents of the work shows how large is the range of investigation which the student must follow at the present time.

During recent years the course of economic study has extended so widely that it was obviously impossible to restrict the work to the old and formerly well-recognised boundaries. The development of the historical school has opened out new and fertile fields, while the wants of those who follow the mathematical method of study have also to be considered. These two main lines of treatment are here but mentioned as examples. They are far from exhausting the countless ramifications of inquiry now rightly thought necessary for the complete investigation of a study bounded only by the requirements of human life in every social relation.

In making the selection necessitated by the limits of space, the requirements of different classes of students have throughout been borne in mind. On the one side purely business matters, such as banking, the foreign exchanges, and the operations of the mint come in; on the other, subjects of a philosophical character have been dealt with, such as questions of ethics and methods of definition, analysis, and reasoning;—and the ways in which diagrams and mathematical processes may lend assistance to economic inquiry have also been discussed. Again, those interested in historical studies require an explanation of words found in early works, and those derived from classical and mediæval times; also of legal phrases, now archaic, together with the modern correlative terms, for only thus can it be understood how ancient usage has influenced present habit. Life in the present day, even in the most modern settlements in the United States, in our Australian colonies, in the new countries coming into existence in different parts

of the world, is influenced largely by the past. The stream of existence, if the simile may be permitted, reaches us deeply coloured by the soil of the fields through which it has flowed, by the varied strata of the cliffs—some of them undermined by it—that have bounded its long and devious course.

Considerations of space have necessarily confined the scope of the work mainly to the developments of economic study in England, the United States, and our English-speaking colonies—and, in regard to these, an endeavour has been made to present under all the subjects treated an account of the best and most recent authorities; whilst the opinions held in other countries have also, as far as the required limits allowed, been considered and mentioned.

The biographies introduced have been selected with the same end. They show what has actually been written in former times, and hence will enable the reader to trace the progress of economic thought. Much attention has been given to the less-known writers. It is difficult for the student under ordinary circumstances to trace out when such authors lived, the surroundings which influenced their lives, and the opinions they held. While the oversights in science are sometimes as remarkable as the discoveries, these earlier labourers have not unfrequently been the precursors of other and better-known men, and have sometimes anticipated opinions that have held sway for long periods after them.

The different economic schools in the principal countries of the world are also described. Thus this volume contains notices of the American, Austrian, Dutch and English schools, and the French, German, Italian, and Spanish schools will follow in due course.

A work extending over so wide a range of subjects is, necessarily, the production of many minds, of writers whose pursuits, occupations, and studies are very diverse and varied. I desire to record my warm thanks to the contributors to the book, which is, I think, in itself an almost unique example of economic co-operation. Where all have assisted so heartily, it is less easy to select individual names; but I wish to be allowed to express my special thanks to Professor Dunbar, Dr. Keynes, Professor Marshall, Professor Montague, Professor Nicholson, Signor M. Pantaleoni, Mr. L. R. Phelps, Mr. L. L. Price, Mr. E. Schuster, Professor H. Sidgwick, and General Walker for valuable assistance in different directions, and particularly to Dr. Bonar, Professor Edgeworth, Mr. Henry Higgs, and Mr. H. R. Tedder, who have kindly helped in the more arduous labour of the preparation of the work for the press.

This is but an act of justice, that readers may know to whom they are specially indebted.

R. H. INGLIS PALGRAVE.

BELTON, NEAR GREAT YARMOUTH,
Christmas 1893.

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THE great art therefore of political œconomy is, first to adapt the different operations of it to the spirit, manners, habits, and customs of the people; and afterwards to model these circumstances so, as to be able to introduce a set of new and more useful institutions.

The principal object of this science is to secure a certain fund of subsistence for all the inhabitants, to obviate every circumstance which may render it precarious; to provide everything necessary for supplying the wants of the society, and to employ the inhabitants (supposing them to be free men) in such a manner as naturally to create reciprocal relations and dependencies between them, so as to make their several interests lead them to supply one another with their reciprocal wants.—SIR JAMES STEUART, *Inquiry into the Principles of Political Œconomy.*

The more extended our research becomes, the more we find that knowledge is a thing of slow progression, that the very notions which appear to ourselves new have arisen, though perhaps in a very indirect manner, from successive modifications of traditional opinions. Each word we utter, each thought we think, has in it the vestiges, is in itself the impress, of antecedent words and thoughts.—SIR W. R. GROVE, *Correlation of Physical Forces.*

DICTIONARY OF POLITICAL ECONOMY

ABATEMENT—ABOLITIONIST

ABATEMENT or REBATE. A deduction, drawback, or decrease made. A proportionate reduction of a payment allowed for special reasons—*e.g.* for prompt payment. E. S.

ABBOT, CHARLES, afterwards Lord Colchester (born 1757, died 1829), entered parliament in 1795, and became chairman of Pitt's finance committee 1797. He carried in 1800 a bill for charging public paymasters with the payment of interest on sums in hand. He was also the initiator of the commission of inquiry into the public records in the same year. But perhaps his chief title to fame is his introduction, in 1800, of the motion for a complete census of Great Britain. In spite of some opposition the Population Act, as it was called, was duly passed, and its provisions carried into force in the next year (see CENSUS). As speaker (elected 1802) he gave his casting vote against Lord Melville in 1805. On his retirement from the House of Commons in 1817 he was made a peer, and received a pension of £4000 a year. He devoted his later years to foreign travel, and to the improvement of roads in the Scottish highlands. J. B.

ABEILLE, LOUIS PAUL (born 1719, died 1807), became secretary of the Agricultural Society of Brittany, established through GOURNAY'S influence in 1757. He was an ardent physiocrat, and argued (1763) for free trade in corn, along with QUESNAY, MORELLET, and the elder MIRABEAU. Writing later on the same subject (1768) he fell into the fallacy that high corn prices make high wages. DUPONT speaks of his style as "cold and heavy" but "clear." He wrote occasionally in the *Journal d'Agriculture* of Paris, when Dupont became its editor in 1765; but he seems never to have been on very good terms with that economist. When he was chosen inspector-general of manufactures (1768) his ardour seems to have cooled down, and he is not to be reckoned among the few who upheld the physiocratic cause after TURGOT'S death in 1781. His writings include (besides the *Corps d'Observations* of the Breton Agricultural Society) the following:—

Lettre d'un négociant sur la nature du commerce des Grains, Paris, 1763.—*Réflexions sur la police des Grains en Angleterre et en France*, Paris, 1764.—*Effets d'un privilège exclusif sur les droits de propriété*, Paris, 1764.—*Principes sur la liberté du commerce des Grains*, Paris, 1768.—*Faits qui ont influé sur la cherté des Grains en France et en Angleterre*, Paris, 1768.—*Mémoire présenté par la Société Royale d'Agriculture sur l'usage des domaines congéables*, Paris, 1791.—*Mémoire en faveur d'Argant*, the inventor of the "Argand" lamp, Geneva, 1785.—*Mémoire à consulter* (*on the subject of the French East India Company*), Paris, 1768.—[See Schelle's *Dupont de Nemours et l'école Physiocratique* (1888) *passim*, Daire's *Physiocrates*, 1846 (*e.g.* p. 38).] J. B.

ABOLITIONIST. A term applied specially to the social reformers headed by Thomas CLARKSON, who advocated and carried the abolition of the slave-trade in the British dominions; and applied generally to all who have aimed at abolishing either the trade in slaves or the institution of SLAVERY, whether in the British dominions or elsewhere.

The causes which contributed to abolition in the first sense are arranged by Clarkson (*q.v.*), the historian of the movement, in four divisions, quaintly illustrated by four confluent streams (*History of the Abolition of Slave-Trade*, 1808, p. 259). The four classes of abolitionists may be summarily described as (1) miscellaneous, mostly literary (Pope, Thomson, etc.); (2) Quakers in England; (3) Quakers in America; (4) Clarkson himself, with his fellow-workers. In 1787 the first committee for the abolition of this trade was formed by Clarkson and his associates. At first their efforts were devoted to the abolition only of the trade in slaves, as the abolition of slavery itself seemed hopeless. In 1789 Wilberforce introduced a measure into parliament, founded upon Clarkson's materials, but it was not till 1807 that the bill for the abolition of the slave-trade passed the House of Commons, and not till 1833 that British colonial slavery was abolished by act of parliament. The abolition of slavery in the British dominions gave prominence to two points of economic interest—the inefficiency

of slave labour, and the right to compensation in case of expropriation, even when the kind of property has received the most severe public moral condemnation.

The movement towards liberty, initiated by England, has been continued by most of the continental nations at varying rates down to the present time. Denmark, indeed, has the honour of anticipating the action of England. In 1792 it was ordered that slave-trade should cease in Danish dominions after 1802. In the United States the movement in favour of abolition is coeval with the union. Before the end of last century, or early in the beginning of the present one, slavery was abolished in many of the original states. The admission of new states has more than once raised the question, within what limits should slavery be tolerated? Thus, on the admission of Missouri, the boundaries within which slavery was permitted or prohibited were carefully defined by the "Missouri compromise" (1820). That arrangement was at a later period (in the case of Dred Scott, 1856-57) interpreted unfavourably to the cause of abolition. The indignation of abolitionists was roused by the cruel administration of the fugitive slave law and other iniquities. Slavery was a cause, and abolition a result, of the Civil War 1861-65.

The economic questions connected with American slavery have been well treated by CAIRNES in his work on the *Slave Power* (see SLAVERY). See also, with reference to America, H. GREELEY, *The American Conflict*, 1865. Clarkson published in 1808 a *History of the Abolition of the Slave-Trade* (2 vols.)

J. S. N.

ABOUT, EDMOND (member of the *Académie Française*), born at Dieuze (Lorraine), 1828, died at Paris, 1885. It was especially as a novelist that About made his reputation, and it is to be regretted that politics, after 1871, reduced this inimitable romance writer, who had produced such works as the *Roi des Montagnes* and the *Mariages de Paris*, to the position of a mere editor of a journal (the *XIX. Siècle*). The works which should be noticed in this place were written between the purely literary period and the more *militant* period of About's animated life. In *Maitre Pierre* (1858) and the *Lettres d'un bon jeune homme* (1860) About, as a passionate admirer of the wonders of human industry, and the conscientious defender of the principles of *laissez faire laissez passer*, still writes as a novelist and a story-teller. But genuine didactic works followed. We may cite *le Progrès* (1864) and *l'A B C du travailleur* (1868), *l'Assurance* (1865) and *le Capital pour tous* (1869). In these last-named works the author limits himself to setting forth the principles which others had formulated before him, while he denounces certain errors of interpretation. Though About may be described as only a *populariser*, he yet deserves consideration from the students of economic science, to which, for ten years, he devoted all the resources of his humour, imagination, and incomparable style.

A. DE F.

ABRASION. The abrasion or loss by wear and tear of the coins in use is an important factor in the cost of a metallic circulation. This differs between one country and another according to the hardness of the coin which results from the description of ALLOY employed, to the surface of the coin exposed to wear in proportion to its bulk, to the greater or less employment of coin in circulation. At the present time the wear of the principal gold coin of the British empire (SOVEREIGN) is very considerable. The investigation set on foot by JEVONS in 1868 shows that the sovereign in ordinary use loses on an average ·043 of a grain annually. In other words, the wear and tear of an English sovereign appears to be at the rate of $\frac{350}{1000000}$ parts, or something less than one-tenth of a penny per annum (J. B. Martin, "Media of Exchange," *Journal of Statistical Society*, 1884, p. 489). The standard weight is 123·274 grains, and the lowest weight of legal currency 122·5 grains, so that the sovereign loses the ·774 grains, which reduces it below legal tender, on an average in about 15·7 years. In the case of the HALF-SOVEREIGN, the difference between standard weight and the lowest current weight is ·512 grains; and as the yearly loss of the half-sovereign averages ·069 grains, these coins are reduced below legal tender weight generally in the short period of seven and a half years. The wear of the English coinage cannot, however, be taken as the criterion of the wear of all coinages everywhere, as varying rapidity of circulation, use of small paper representatives of money, etc., cause great differences between one country and another. The estimates of the actual amount differ very greatly from each other; one made by JACOB, which includes the wear both of gold and silver coins, is of "one part in three hundred and sixty annually" (Jacob on the *Precious Metals*, vol. ii. p. 186).

[For detailed information see *An Historical Inquiry into the Production and Consumption of the Precious Metals*, W. Jacob, London, 1831 (2 vols.) —"Paper on the Condition of the Gold Coinage of the United Kingdom," W. S. Jevons, *Journal of the Statistical Society of London*, reprinted with much similar information in Jevons's *Investigations in Currency and Finance*.—See also paper by John B. Martin, "Our Gold Coinage," *Journal of the Institute of Bankers*, June 1882.—Paper by R. H. Inglis Palgrave, "The Deficiency in Weight of our Gold Coinage, with a Proposal for its Reform," March 1883; "The Gold Coinage," December 1884 (both in *Journal, Institute of Bankers*).—*Reports of Deputy Master of Mint*, particularly those for 1883, 1884, 1885, and *passim*,—and *Evidence and Reports Royal Commission on Recent Changes in the Relative Values of the Precious Metals*, which

includes a translation of A. Soetbeer's *Materials for the Illustration and Criticism of the Economic Relations of the Precious Metals, and of the Currency Question.—Evidence and Reports Royal Commission on Depression of Trade and Industry*, 1886.]

ABROAD. See JURISDICTION.

ABSENTEE. An absentee may be variously defined (1) as a landed proprietor who resides away from his estate, or (2) from his country; or more generally (3) any unproductive consumer who lives out of the country from which he derives his income.

Examples of these species are (1) a seigneur under the *ancien régime* living in Paris at a distance from his estates; (2) an Irish landlord resident abroad; (3) an Anglo-Indian ex-official resident in England and drawing a pension from India. In writing briefly on the evils of absenteeism it is difficult to use general terms appropriate to all the definitions; but considerations primarily relating to some one definition may easily be adapted to another by the reader.

It is useful to consider separately the effects of the absentee proprietor's consumption upon the wealth of his countrymen; and the moral, as well as economical effects of other circumstances.

I. The more abstract question turns upon the fact that the income of an absentee is mostly remitted by means of exports. "The tribute, subsidy, or remittance is always in goods . . . unless the country possesses mines of the precious metals" (Mill). So far as the proprietor, if resident at home, would consume foreign produce, his absence, not increasing exports, does not affect local industry. So far as the proprietor's absence causes manufactures to be exported, his countrymen are not prejudiced. For they may have as profitable employment in manufacturing those exports as, if the proprietor had resided at home, they would have had in supplying manufactured commodities or services for his use. But if the proprietor by his absence causes raw materials to be exported, while if present he would have used native manufactures and services, his absence tends to deprive his countrymen of employment, to diminish their prosperity, and perhaps their numbers. This reasoning is based on SENIOR'S *Lectures on the Rate of Wages* (Lecture II.), and *Political Economy* (pp. 155-161). Senior's position is in a just mean between two extremes, —the popular fallacy and the paradox of M'CULLOCH. On the one hand it is asserted that between the payment of a debt to an absentee and a resident there is the same difference as between the payment and non-payment of a tribute to a foreign country. On the other hand it is denied that there is any difference at all. The grosser form of the vulgar error, the conception that the income of the absentee is drawn from the tributary country in specie, is exemplified in Thomas PRIOR'S *List of Absentees* (1829). M'Culloch's arguments are stated in the essay on "Absenteeism" in his *Treatises and Essays on Money*, etc., and in the evidence given by him before some of the parliamentary commissions which are referred to below. Asked "Do you see any difference between raw produce and manufactured goods," M'Culloch replies, "I do not think it makes any difference" (compare *Treatises and Essays*, p. 232). He appeals to observation, and finds that the tenants of absentee landlords are "subjected to less fleecing and extortion than those of residents."

J. S. MILL attributes to absenteeism a tendency to lower the level of prices in the country from which the absentee draws an income; with the consequence that the inhabitants of that country obtain their imports at an increased cost of effort and sacrifice (*Unsettled Questions*, essay i. p. 43). Mill's meaning may be made clearer by a study of the rest of the essay which has been cited, and of the parallel passage in his *Political Economy* (bk. v. ch. iv. § 6), where he argues that an inequality between exports and imports results in an "efflux of money" from one country to another.

Upon less distinct grounds QUESNAY connects absenteeism with a development of trade and industry in an unhealthy direction (*Œuvres*, éd. Oncken, p. 189). Among recondite considerations which may bear on the subject should be mentioned CANTILLON'S theory concerning the effect of the consumption of the rich on the growth of population (*Essai*, pt. i. ch. xv.)

II. Other economical advantages lost by absenteeism are those which spring from the interest which a resident is apt to take in the things and persons about him. Thus he may be prompted to invest capital in local improvements, or to act as an employer of workmen. "It is not the simple amount of the rental being remitted to another country," says Arthur YOUNG, "but the damp on all sorts of improvements." D'ARGENSON in his *Considérations sur le gouvernement ancien et présent de la France* (1765, p. 183), attributes great importance to the master's eye.

The good feeling which is apt to grow up between a resident landlord and his tenantry has material as well as moral results, which are generally beneficial. The absentee is less likely to take account of circumstances (*e.g.* tenant's improvements), which render rack-renting unjust. He is less likely to make allowance for calamities which render punctual payment difficult. "Miseries of which he can see nothing, and probably hear as little of, can make no impression," A. YOUNG. He is glad to get rid of responsibility by dealing with a "middleman," or intermediate tenant—an additional wheel in the machinery of exaction, calculated to grind relentlessly those placed underneath it. Without the softening influence

of personal communication between the owner and the cultivator of the soil, the "cash nexus" is liable to be strained beyond the limit of human patience, and to burst violently. There can be little doubt but that absenteeism has been one potent cause of the misery and disturbances in Ireland. The same cause has produced like effects in cases widely different in other respects. The cruellest oppressors of the French peasantry before the Revolution were the *fermiers*, who purchased for an annual sum the right to collect the dues of absentee seigneurs. The violence of the GRANGER Railway legislation in the western states of America is attributed to the fact that the shareholders damnified were absentee proprietors (Seligman, *Journal of Political Science*, 1888).

There are also the moral advantages due to the influence and example of a cultivated upper class. The extent of this benefit will vary according to the character of the proprietors and the people. In some cases it may be, as Adam SMITH says, that "the inhabitants of a large village, after having made considerable progress in manufactures, have become idle in consequence of a great lord having taken up his residence in their neighbourhood." The opposite view, presented by Miss EDGEWORTH in her *Absentee*, may be true in other states of civilisation. Perhaps the safest generalisation is that made by Senior that "in general the presence of men of large fortune is morally detrimental, and that of men of moderate fortune morally beneficial, to their immediate neighbourhood."

[The references cited below are to be added to those which have been already made. They fall under two heads: (*a*) the unfortunately large class relating specially to Ireland, and (*b*) Miscellaneous. (*a*) The Act 3 Richard II. and 28 Henry VIII., inflicting on absentees forfeiture of two-thirds of the yearly profits from their lands. These and other acts relating to absentees are cited in *Tracts and Treatises Illustrative of . . . Ireland* (reprinted by Thom), 1840. The index to this work, under the heading "Absentees" gives some other useful references. SWIFT, *Seventh Drapier's Letter* (vol. vii. p. 40, ed. Walter Scott).—Thomas Prior, *List of Absentees*, 1727 (cited above), and continuations in subsequent years.—Lecky, *History of England in 18th Century*, vol. ii. 2d ed. ch. vii. p. 237 *et seq.*; *Id.*, vol. iv. ch. xvi. p. 317 *et seq.*—Arthur Young, *Tour in Ireland*, 1780, ii. p. 59 (a terrific "general picture" of the evils of absenteeism).—Edward WAKEFIELD, *Account of Ireland*, 1812 (passages referred to in index).—*Westminster Review* 1827.—*John Wiggin's* (a land agent) *Letter to . . . Absentee Landlords*, 1822 (anonymous at first), (recommends absentee landlord to employ a confidential friend to visit the estate occasionally).—Minutes of evidence taken before the select committee of the House of Lords . . . Ireland, *Parliamentary Papers*, 1825, ix.—Minutes of evidence taken before the Select Committee of the House of Commons . . . Ireland, *Parliamentary Papers*, 1825, viii.—*Quarterly Journal*, March 1826.—*London Magazine*, April 1826. — *Westminster Review*, January 1829.—De Beaumont, *L'Irlande*, 1829.—Bicheno, *Ireland and its Economy*, 1830, ch. viii. (sensible remarks on the paradox of "the economists").—Select committee on state of the poor in Ireland, *Parliamentary Papers*, 1830, vii.—Debate in the House of Commons, 1833, Hansard, xix. p. 583 (cp. xvi. p. 727).—*Westminster Review*, October 1833.—Von Raumer (a writer quoted with approbation by Mill), *England in 1835*, letter lxii. (very forcible). — *Westminster Review*, October 1835.—G. Cornewall LEWIS, *Disturbances in Ireland*, 1836, p. 451.—Report of the Devon Commission, *Parliamentary Papers*, 1845, xix.-xxii. (Answers referred to under the head of *Estate Management* nearly, but not quite, unanimous that the estates of absentees are badly managed.) Digest of the same (ch. xxiv., on estate management).—*Dublin University Magazine*, 1850.—LAVERGNE, *Economie rurale de l'Angleterre*, 1858, pp. 378, 383 (referring to M'CULLOCH's paradox says, "En ce qui concerne l'Irland la question me parait tranchée par les faits"). — CAIRNES, *Political Essays*, 1873 (Fragments on Ireland), p. 168.

(*b*) MONCHRETIEN, *Traicté de l'œconomie politique*, . . . 1615, edited by T. Funck-Brentano, Paris, 1881, p. 41 (early appearance of absenteeism in France).—*Adam Smith*, bk. v. ch. ii. (Tax on absentees)—A. TOCQUEVILLE (Clerel de), *L'Ancien Régime*, 1857, ch. xii. (Absentéisme de cœur of the small resident proprietors).—H. Taine, *Ancien Régime*, 1876, liv. i. ch. iii. pp. 52-77; and numerous authorities there cited. — H. CAREY, *Lectures on Wages* . . . 1835, p. 46 (criticises Senior's theory).—E. Levasseur, *La Population Française*, 1889, ch. xi. p. 237.—Hadley, *Railway Transportation*, 1886, p. 133 (absentee shareholders), and p. 21).—*Journal des Economistes*, 1885, November and December, summarising the results of the recent Italian Commission.—Brodrick, *English Land and Landlords* (passages referred to in index under heading "Absentee"). Reference in Lavergne, *Economie rurale de la France* (medium properties, as in England, lead to absenteeism less than large properties).]

F. Y. E.

ABSTINENCE. This well-chosen expression of SENIOR'S, to use J. S. MILL'S well-known description, has been unfortunate in giving rise to much controversy. It was intended to refer to that element in profits which might be considered as the "natural" reward of the capitalist for abstaining from immediate consumption. It was thus closely connected with the effective desire of accumulation and the theory of a "minimum rate of profits." It has also been much used in the establishment of economic harmonies in the style of BASTIAT with the view of showing that "natural" economic laws are in fundamental accord with "common-sense" morality. As might have been expected from the ambiguity of the terms "natural" and "common-sense," and from the vagueness of the conception abstinence itself, this economic harmony has been severely criticised in the first place by the

Socialists (*e.g.* LASSALLE in *Schulze-Delitsch*, Karl MARX in *Das Capital*). It was easy to point out that the virtue of abstinence could in many cases be reduced merely to desire for money as such and to a positive reluctance to spend. This criticism does not, however, seem capable of general extension. More recently another line of criticism has been developed and attention has been drawn to the positive effort required to convert wealth into capital for use in production corresponding in the main to the management or superintendence required after the capital has been formed (compare BAGEHOT, *Economic Studies*, and Schönberg's *Handbuch*, art. "Capital"). (See CAPITAL.) J. S. N.

ABSTRACT OF TITLE. An epitome of the evidence of ownership showing the soundness of one's right to an estate. In the absence of any agreement to the contrary the purchaser of a freehold estate is entitled to have such evidence for a period of forty years, but in the case of advowsons the period is one hundred years. The abstract is sufficient if it shows that the vendor is either himself competent to convey or can otherwise procure to be vested in the purchaser the legal and equitable estates free from incumbrances. [Dart's *Vendors and Purchasers*, London, 1888.] J. E. C. M.

ABSTRACT POLITICAL ECONOMY. Political economy is sometimes described as a wholly abstract science, dealing with an unreal and imaginary subject, that is to say, not with the entire real man as we know him in fact, but with a simpler being who is supposed to be engrossed with one desire only, namely, the desire of wealth. Thus, according to the doctrine laid down by J. S. MILL in his *Unsettled Questions of Political Economy*, the science makes entire abstraction of every human passion and motive, other than the pursuit of wealth, and the perpetually antagonising principles to that pursuit, namely, aversion to labour, and desire of the present enjoyment of costly indulgences. In other words, the economist is described as always working on the hypothesis that the acquisition of wealth is the sole end and aim of human action. In opposition to this view is that of the so-called "realistic" school, some of whom practically deny the utility of any abstract or hypothetical treatment of political economy at all. It is maintained by COMTE and others that any attempt to separate economic science from social philosophy in general must necessarily end in failure. The truth seems to lie between these two extreme doctrines; and it may be pointed out that writers who, like Mill and BAGEHOT, describe political economy as in its complete form a purely abstract science, nevertheless do not treat it as such in their own writings. It is true that they employ an abstract method in many of their reasonings, but it is also true that, taking their doctrines as a whole, they do not hold themselves aloof from the concrete realities of actual life to anything like the extent that their description of the science would lead one to anticipate. They begin with abstractions, but do not end with them; and herein is the true method of the science roughly set forth. We ought accordingly to recognise two stages in economic doctrine, which may be called the abstract and the concrete stage respectively. It may not be possible to draw a hard and fast line between the two, but this does not destroy the value of the distinction. Abstract political economy concerns itself entirely with certain broad general principles, irrespective of particular economic conditions; or, as JEVONS puts it, with "those general laws which are so simple in nature, and so deeply grounded in the constitution of man and the outer world, that they remain the same throughout all those ages which are within our consideration" (*Fortnightly Review*, Nov. 1876, p. 625). It may thus be of universal validity, but this is after all only in virtue of its hypothetical character. It may remain remote from the actual concrete facts. Concrete political economy comes in, therefore, as a supplement. It takes account of special conditions that the pure theory avowedly neglects, and especially concerns itself with the qualifications and limitations, with which the abstract doctrines need to be interpreted. It puts forth no claim to universality, but is content if it can interpret and explain the actual economic phenomena, characteristic of a given period or a given state of society.

[Compare Mill, *Unsettled Questions of Political Economy*, Essay v.;—Bagehot, *Economic Studies*, Essays i. ii.;—Jevons, *The Future of Political Economy*;—*Fortnightly Review*, Nov. 1876;—Keynes, *Scope and Method of Political Economy*, ch. iv., note A.] J. N. K.

ABUNDANCE. In economical, as in popular, discussions, abundance is usually the correlative of scarcity and the synonym of plenty. If there is a distinction plenty is taken to mean a sufficient, and abundance a more than sufficient, provision for wants. Abundance taken absolutely, in the sense of an overflowing plenty, of all and every sort of goods is certainly one ultimate aim of economic effort; and BASTIAT in the cause of free trade has done good service by his assertion and illustration of this axiom. As an overflowing plenty it implies the possibility of leisure; it is a provision secured without cost of labour. Though this is an unrealisable ideal, the economical progress of any society may nevertheless be measured by its approximation to it. In the introduction to the *Wealth of Nations* "the abundance or scantiness of the annual supply of the necessaries and conveniences of life" is made synonymous with wealth and poverty. In ordinary language, however, abundance does not, like wealth or riches, suggest a contrast of more fortunate with

less fortunate men, but rather a relation of the wants of individual men to their means of satisfaction, without any idea of contrast with their neighbours.

Taken in a narrower sense, abundance, not of all and sundry, but of particular classes of goods, is less clearly a benefit than general abundance. To the seller, abundance (which lowers the value of his wares) is an evil. The paradox of QUESNAY and other physiocrats, "Disette et cherté est misère; abondance et cherté est opulence" (*e.g.* Daire's *Physiocrates*, p. 98, cf. 391 ft.), meant, for example, that the agriculturist could only prosper if he had a good market for his crops as well as a large harvest of them. It is bad policy, they said, to create an abundance of necessaries in preference to an abundance of other goods, damaging one class of producers in order to benefit the rest. So it is a fact of common experience that abundance, when confined to one kind of goods, means an "over-production" or "glut" of them. The remedy (as Say pointed out) is not to decrease the abundance of the one kind but to increase the abundance of the others, and so bring the community nearer its ideal of general abundance (see also GLUT; OVER-PRODUCTION; PHYSIOCRATS; J. B. SAY; VALUE; and WEALTH). J. B.

ACCEPTANCE. In relation to contracts generally, the term "acceptance" means the signification of assent by one person to a proposal made by another.

In relation to contracts of sale the term has two significations which must be distinguished. There is an acceptance in performance of the contract when the buyer intimates to the seller that he has accepted the goods, or when he does any act in relation to them inconsistent with the ownership of the seller; but for the purposes of the 17th section of the Statute of Frauds, it is sufficient if he does any act which recognises a pre-existing contract of sale, even though he may not be precluded from afterwards rejecting the goods (see SALE).

In relation to bills of exchange the term primarily means the acceptance by the drawee of a bill of exchange duly written thereon and signed; but as the main object of the drawer of a bill is to get it accepted, the term "acceptance" is frequently used to denote the bill itself, and is then synonymous with "bill of exchange" (see BILL OF EXCHANGE). M. D. C.

ACCEPTILATION (Scots and civil law). Extinction of a debt by discharge granted gratuitously or for trifling payment. A. D.

ACCEPTOR. The person on whom a bill of exchange is drawn, namely, the *drawee*, becomes the *acceptor* by signifying his assent to the document in writing (see BILL OF EXCHANGE). The validity of an acceptance sometimes turns on very intricate points of law.

For details on this, see *The Practice of Banking*, by John Hutchison, especially vols. i. and iii.

ACCESSIO. A term of Roman law used to express the acquisition of property by an addition to former property, due to an accidental circumstance. If, for instance, a plot of land on the bank of a river was increased by the gradual deposit of earth on the bank, the property in the new piece of land was said to be acquired by "accessio." E. S.

ACCESSION, DEED OF. See BANKRUPTCY IN SCOTLAND.

ACCOMMODATION BILL. An accommodation bill may be described as a bill given without receipt of value, in order that the person to whom it is given may raise money and obtain credit by means of it. Ordinarily, the person who lends his name accepts a bill drawn on him by the person he wishes to accommodate, but sometimes a bill is drawn, accepted, and indorsed by different persons, in order to accommodate some person who is not a party to the bill at all. Perhaps the strict legal definition of an accommodation bill would be a bill whereon the principal debtor, according to the terms of the instrument, is in substance a mere surety for some other person, whether that person be a party to the bill or not. When an accommodation bill gets into the hands of a holder for value he may enforce payment of it precisely in the same way as if the bill had been given for value. When, however, an accommodation bill is dishonoured, some special considerations come into play. In the first place a drawer or indorser for whose accommodation the bill was accepted cannot set up as a defence either absence of notice of dishonour or informality in presentment for payment, for he was the party primarily liable to meet the bill. Secondly, if the bill be held by a person who knows the real relationship of the parties, the ordinary rule of the law of principal and surety then attaches, and a discharge of, or binding agreement to give time to, the principal debtor may discharge the surety. For instance, suppose the holder of a bill knows that it was accepted to accommodate the drawer. If it is dishonoured, he may sue either the acceptor or the drawer, or both; but if, for some fresh consideration, he agrees with the drawer not to press him for (say) three months, he thereby discharges the acceptor. So if a joint and several note is made by three persons, two of whom sign to accommodate the third, and the holder accepts a non-statutory composition from such third person, the two co-makers who signed to accommodate him would ordinarily be discharged. M. D. C.

ACCOUNT. On the stock exchange there are settlements, bi-monthly in general securities, and monthly in British consols and India Government sterling stocks. The account begins after one settlement and ends at the date of the

next. Transactions are said to be "for the account," and prices are quoted for the account, to distinguish these transactions from bargains done "for cash," meaning for ready money. Practically, all the speculation that goes on in the stock exchange is done by buying or selling "for the account" (see CARRYING-OVER; BACKWARDATION). A. E.

ACCOUNT DUTY. See DEATH DUTIES.

ACCOUNTS, MERCHANTS'. See PRESCRIPTION, SCOTCH.

ACCRETION (Scots law term). Referring back an after-acquired title so as to complete a right originally defective or imperfect. A. D.

ACCRUE. To arise or spring as a natural growth or result. Accrued interest is the interest due for the period which, at a given moment, has elapsed since the last payment of interest, as for the time being it increases the principal debt. The word is not always free from ambiguity; if, for instance, property accruing after a certain date is spoken of, it is not quite clear whether property in which a future interest was acquired before the period named, but which only came into possession afterwards, is included. E. S.

ACCUMULATION. Without entering into the difficulties involved in the definitions of CAPITAL; WEALTH (*q.v.*), and simply assuming that accumulation refers to wealth set aside from present consumption for future uses, the rate of accumulation in any country at any time is held to depend upon two groups of causes: (I.) causes affecting the fund from which savings can be made; (II.) causes which induce people to save rather than to consume their wealth.

Under the *first* group of causes may be enumerated—(1) natural resources, *e.g.* minerals, climate, harbours, rivers, etc.; (2) efficiency of labour and capital, including industrial skill and organisation (see EFFICIENCY OF LABOUR); (3) the amount taken by government for public purposes either directly by taxation or indirectly by exacting services, as in conscription for military purposes. The indirect effects and methods of expending it must always be taken into account (see TAXATION); (4) foreign trade, under which we must take into account the various elements of international indebtedness (see FOREIGN EXCHANGES), *e.g.* earnings for freight and returns on foreign investments; (5) credit, which indirectly and directly saves both labour and capital. Division of labour in the modern sense would hardly be possible without credit, and it is largely owing to credit that saving in the economic sense has taken the place of hoarding (see CREDIT); (6) means of communication, *e.g.* roads, canals, and railways, play an important part in the production of wealth, for the act of production is not complete till the commodity is in the hands of the consumer. To summarise in a sentence, the amount of the fund from which savings can be made depends upon the efficiency of the three great agents of production—natural agents, labour, and capital, as compared with the total expenses of all kinds, both of individuals and governments, which are necessary to preserve what is called the STATIONARY STATE (*q.v.*)

Secondly we must consider the motives which induce people to save rather than to consume this real net produce. The following are held to be the most important factors: (1) security that what is saved will be preserved to or enjoyed by the owner. Even slaves, out of their small *peculium* have been known to save if they were sure of their savings. Security, as MILL points out, must be given not only by the government but against the government (compare Turkey at present or the old Roman provinces). Security of life owing to climatic or other natural causes may also be mentioned; (2) effective desire of accumulation; this consists really of a group of motives. It may be weak from intellectual deficiency, mere want of power to look forward (compare American Indians and Chinese), or from moral deficiency, no interest in others, no sufficient care to avoid pauperism in old age, or to provide for a family, etc.; (3) desire to rise in the social scale—the importance attached to the mere possession of wealth apart from its uses—a point too often overlooked; (4) facilities for investment; this is specially illustrated by the case of labourers and savings facilitated by growth of savings banks, building societies, etc., and by insurance companies for all classes; (5) the difference of the classes among which the national wealth is distributed, as certain classes tend to save more than others (compare France before and after the Revolution, the waste of the aristocracy and the saving of the peasants); (6) the rate of interest, which operates in two ways. If the return is high there is a greater *inducement* to invest, though Adam SMITH, in speaking of the high profits of the monopoly of the colonial trade, thinks it tends to promote extravagance. If the return is low, however, there is need to save more to make a certain provision against old age, sickness, etc.

[The subject of accumulation is treated at length in all the principal text-books. Special attention, however, may be called to the criticism by JONES (*Political Economy*, edited by WHEWELL) of previous writers, and to the practical example in Sir R. Giffen's paper entitled "Recent Accumulation of Capital," *Essays in Finance*, 1878, and by the same author *The Growth of Capital*, 1889 (see CAPITAL).] J. S. N.

ACHENWALL, GOTTFRIED, economist and statistician, born in 1719 at Elbing in West Prussia, died in 1772 at Göttingen, where he was a professor in the university. He was author of *Staatsklugheit nach ihren ersten Grundsätzen*, 1761, a work in which, as ROSCHER remarks, description greatly preponderates over

criticism. He belongs to the same school as JUSTI, namely, that of the moderate mercantilists. It is in the history of statistics more than in connection with economics that he holds a really high place; the Germans indeed sometimes call him the Father of Statistics, strangely ignoring the claims of PETTY and other earlier writers. The work by which he is known in this department is his *Staatsverfassung der heutigen vornehmsten Europäischen Reiche*, 1752. There is prefixed to this treatise an introduction on statistics in general, in which he seeks to determine accurately the province of the study, and to distinguish it clearly from other kindred branches of research. In the body of the work he gives a view of the constitutions of the several states of Europe, and describes the condition of their agriculture, manufactures, and commerce, often supplying numerical details in relation to these subjects. He seems to have been the first to use the German word *Statistik*; the Latin adjective *Statisticus* is found in the title of a book by a German publicist, known as Helenus Politanus (*Microscopium Statisticum, quo status imperii Romano-Germanici repraesentatur*) published in 1672 (Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 466). J. K. I.

ACKERSDYK, JOHN, born at Bois-le-duc, 20th Oct. 1790, studied law at Utrecht, and graduated there in 1810. He died 1861. First a lawyer, afterwards a judge, he was appointed in 1825 a professor at the University of Liège, and in 1830, after the Belgian revolution, a professor at Utrecht. Here from 1849 till 1860 he taught economics.

During his long and frequent travels Ackersdyk collected a vast mass of information which he availed himself of to enrich his lectures. His writings are not very numerous, being principally short essays in periodicals. The following are specially deserving of notice: *Bedenkingen over de Korenwetten* (Remarks on the Corn Laws), 1835;—*Nederlands financien—Nationale Schuld* (Financial condition of Holland—National debt), 1843;—*Nederlands Muntwezen* (The Dutch Currency), 1845;—*Over belastingen en Bezuinigingen* (On Taxes and Savings), 1849. A. F. v. L.

ACKNOWLEDGMENT. The formal admission of some fact—*e.g.* acknowledgement of indebtedness. The "acknowledgement of an account" in commercial language is equivalent to the "account stated" of legal language, which is an admission by one party who is in account with another that there is a balance due from him. Such an admission in our law imports a promise to pay upon request. "Acknowledgement of married women" is the technical expression for the particular method which must be adopted whenever a married woman alienates real property which is not included in her separate estate. The deed conveying the property must be *acknowledged* by the woman on being examined by a judge or commissioner apart from her husband. As the sphere of the separate estate has been considerably enlarged by the Married Women's Property Acts, the opportunities for adopting this procedure are less frequent. E. S.

ACLAND, REV. JOHN, born in 1699, was the second son of John Acland, M.P., of Woodly, Yorkshire. He graduated M.A. at Oxford (Exeter Coll.) in 1725, was instituted vicar of Broad Clyst, Devonshire, in 1753, and was led by the failure of friendly society legislation in that county to publish—*A Plan for rendering the Poor independent on Public Contribution founded on the basis of Friendly Societies commonly called Clubs, to which is added a letter from Dr. Price*, Exeter, 1786, 8vo. Acland's proposal was that Parliament should establish throughout England a general club for the poor in sickness, old age, or when out of work; to this every adult wage-earner should contribute as well as the general community (see INSURANCE, NATIONAL). This plan was criticised in a pamphlet (1788) by the Rev. John HOWLETT (*q.v.*) An abstract of it may be seen in EDEN'S *State of the Poor*, i. 373-380. Acland also wrote *An Answer to a Pamphlet published by E. King, in which he attempts to Prove the Public Utility of the National Debt, and a True Statement of the Real Cause of the present high price of Provisions*, 1796, 8vo (a tractate on the evils of the National Debt). H. R. T.

ACQUITTANCE. (1) Release, discharge. (2) A receipt in full, which bars a further demand. E. S.

ACT OF BANKRUPTCY. For Scotch equivalent (Notour bankruptcy) see BANKRUPTCY IN SCOTLAND. A. D.

ACTOR SEQUITUR FORUM REI. See JURISDICTION.

ACTUARY. The officer of a life insurance company whose duty it is to advise upon all questions relating to their tariffs, rates of premium, and periodical valuations of assets and liabilities, in which the calculations are based upon mathematical science, the laws of probability, and the statistics of death and of survivorship, in combination with all the scientific formulæ connected with interest of money and with commercial finance. In this sense the designation defines a distinct class of professional men, and, as such, it has long been used in the legislative enactments relating to life assurances and annuities, and to friendly societies. In the year 1884 the united members of this profession received a charter of incorporation from the crown, empowering the existing members of two societies theretofore known as the Actuaries Club and the Institute of Actuaries to combine under specified regulations, by the title of that institute, and the present and future members to affix the

denoting letters of F.I.A. to their names. The *Journal of the Institute of Actuaries* is published quarterly, and its twenty-eighth volume has already been reached. The earlier volumes bore the title of *The Assurance Magazine*. Its contents may with confidence be recommended to students, as embracing papers of the highest importance in connection with the doctrine, history, and practice of life assurance, and vital and other statistics bearing thereon and upon annuities, marine and fire insurance. The designation of actuary has also been long applied to certain officers invested with duties, more or less like the above, in savings banks and in government offices such as those of the commissioners for the reduction of the national debt, the war office, etc. It has also been applied in the last two centuries to the clerk to the convocation of clergy, but the name is in this case derived from his being the recording officer of the acts arising out of the deliberations of that ancient body, in the same way that the "actuar," a functionary of the courts of justice in Germany, has to record and to see to the promulgation of their decrees. An account of the designation of *actuaries* in the case of public officers of other kinds in ancient Greece and Rome, may be read in Sir George Cornwall Lewis's *Methods of reasoning in matters of Politics* (see Insurance). F. H.

ACTUS. An expression of Roman law used to indicate the right of an adjoining owner to drive cattle and take carts over his neighbour's land. E. S.

ADAMS, Charles Francis, born in Boston 1807; died 1886; was a lawyer and diplomatist, and during the civil war minister to England. In the period 1835-40 he gave considerable attention to the subject of currency, and differed from the Whig party's position. Adams wrote, in 1837, *Reflections upon the present state of the currency in the United States*, Boston, pp. 34, also *Further reflections upon the state of the currency in the United States*, Boston, pp. 41. He asserted that the financial disturbance of 1837 was due to over-banking, and not to over-trading with foreign countries, and that it would be impossible to secure a uniform currency until it was taken in hand by the national government. Adams was opposed to the sub-treasury system, and favoured a national bank. He must not be confounded with his son, Charles Francis Adams the younger, the well-known writer on the railway question. D. R. D.

ADDISON, Joseph, born 1672, died 1719. Addison's brilliant literary career has drawn away general attention from his official position in the government of his time, and his occupation as one of the lords commissioners of trade (see Board of Trade). His remarks (No. 69 of the *Spectator*) on the importance of the traffic of the merchant in reference to the general prosperity of the country may still be read with interest as embodying those facts on which the principles of free trade rest.

ADEMPTION OF LEGACY occurs where a legacy does not take effect owing to some act on the part of a testator not affecting the validity of the will; (1) Where the testator alienates the subject matter during his lifetime the legacy fails; (2) Where a parent or a person *in loco parentis* gives a legacy to a child, and afterwards advances to such child a portion on marriage, or on preferment in life, if the portion be equal to or greater than the legacy, it operates as a total ademption of such legacy; if of lesser amount it adeems the legacy *pro tanto*.

[See Williams on *Executors*, 1879, pp. 1327-1345.] J. E. C. M.

ADJUSTMENT, Average. A Rhodian law provided that if, in order to save a vessel, a portion of the cargo was thrown overboard, the owners of the rest of the cargo should contribute to the loss. This principle has been followed by modern nations, and in the English law it has been expressed in the following terms:—"All loss which arises in consequence of extraordinary sacrifices made or expenses incurred for the preservation of the ship and cargo comes within general average, and must be borne proportionally by all who are interested" (Lowndes on *General Average*, 4th ed., London, 1888, p. 21). The calculation of the losses incurred and the adjustment of the amount to be contributed by the ship, the cargo, and the freight respectively, is effected by a class of arbitrators called "average adjusters," whose duty it is to give their decision in accordance with legal principles. In computing the amount to be made good the following are the chief rules. (1) Disbursements are estimated at the amount expended *plus* the costs of raising funds. (2) Cargo sacrificed is valued at such a sum as would place the owner in the same position at the time and place of adjustment as if not his goods but those of some other person had been sacrificed. (3) Ship's materials sacrificed are valued at the cost of repair, less a deduction of one-third in respect of the advantage derived by the owner from the fresh repairs.

To the amount of loss so ascertained contribution has to be made (1) by the ship in proportion to its actual value to the owner at the time of adjustment; (2) by the cargo in proportion to its net market value at the date of delivery or at the time and place of adjustment, deducting the expenses the merchant incurs in case of delivery; (3) by the freight less the expense of earning it which would have been saved had the ship been lost (see Average, Maritime).

[*The Law of General Average, English and Foreign*, by Richard Lowndes, 4th ed., London, 1888.] J. E. C. M.

ADMINISTRATION. The term administration is not easy to define. It is oftenest used to describe the executive business of the state. The functions of the state are usually classified as legislative, judicial, and executive, and this classification, while open to many objections, is as good as any other that has been suggested. If we adopt it and take administration as equivalent to the executive function, administration will practically comprehend all the activities of the state with two important exceptions, the function of making laws—the legislative function—and the function of interpreting laws—the judicial function. Administration in this sense includes an immense number of subordinate functions, which demand separate treatment. In a general view of administration it is only necessary to discuss the following topics: (I) The sphere of administration as defined (*a*) by theoretical writers, (*b*) in concrete historical instances. (II) The organisation of administration. (III) The relation of the administrative organisation to (*a*) the sovereign person or body of persons, (*b*) the individual citizen. (IV) The economic aspects of administration.

I. *Sphere of Administration* (*a*) as defined by theoretical writers. The innumerable theories on this subject may be reduced to three types, the *laissez-faire* type, the *socialist* type, and the *empirical* type. The LAISSEZ-FAIRE theory may be stated thus: Individual liberty is the one indispensable condition of goodness and happiness. Constraint is put upon the individual by any and every action of the state. The action of the state is therefore an evil to be reduced within the narrowest limits. The state, therefore, should undertake only those functions which cannot possibly be discharged by private persons, singly or associated. Therefore administration should be restricted to protecting the individual from interference, either by lawbreakers at home or by enemies from abroad. The only useful departments of administration are the army, navy, and police. The *socialist* theory may be stated thus—The co-operation of all for the good of all is the one indispensable condition of goodness and happiness. This co-operation can be effected by the state and by the state alone. The action of the state is therefore a blessing to be extended as much as possible. Every human being should be an official either in training, on service, or pensioned off. Administration should be co-extensive with social life, and there should be as many administrative departments as there are branches of industry.

The *empirical* theory may be stated thus—Individual liberty and compulsory co-operation are not ends in themselves, but only means to human well-being. Some wants of society can be provided for only by individuals, other wants only by the state; but there are many other wants of society respecting the satisfaction of which no general rule can be laid down. Experience must in each case decide what the state should and what it should not attempt. Different maxims will apply to different cases. What should be done by administration in any country will depend on the circumstances of that country. This theory being elastic, its professors differ greatly among themselves, some inclining to *laissez-faire* and some to socialism.

(*b*) The sphere of administration, as seen in concrete historical instances, has varied widely, although it has never corresponded to the requirements of extreme socialism or extreme *laissez-faire*. So long as society remains a collection of self-governing families, the sphere of administration, like that of legislation, is restricted. So long as population continues sparse, wealth restricted, and wants few, there is little work for administration. There is hardly a circumstance in the condition of a people which does not contribute to determine the sphere of administrative action.

II. *The Organisation of Administration.*—Administrative organisation takes innumerable forms. But the character of an administrative system depends mainly on the question whether it is carried on by paid officials (in which case it is popularly called a bureaucracy), or whether it is carried on by unpaid citizens (in which case it is popularly called self-government). With this distinction is connected the distinction between a centralised and a localised administration. A centralised administration must, necessarily, be conducted by paid officials, since private persons cannot regularly travel long distances to take part in administrative work, most of which lies outside their knowledge or interest. A localised administration might be wholly conducted by paid officials of the local authority. But in practice it is usually in great measure conducted by private persons, who make up for the want of professional skill by the knowledge of their own wants, and give their unpaid service because they obtain an indirect return in power, consideration, and the satisfaction of managing their own affairs.

BUREAUCRACY and self-government must not, however, be regarded as mutually exclusive systems of administration. In all civilised states they supplement one another, although their relative importance is hardly ever in two instances the same. It is a mistake to suppose that there is no self-government in Prussia, in France, or even in Russia. It is a mistake to suppose that bureaucracy does not play a great part in England. In fact the administration of a civilised state is so serious a task as to demand all the power of bureaucracy and self-government combined. The paid official has,

or should have, the advantage in professional knowledge, professional skill, professional discipline, whilst the unpaid citizen has, or should have, the advantage in familiarity with local requirements, in local patriotism, and in freedom from technical prejudice and routine. An ideal system would make the unpaid citizen do as much work for the public as could be got out of him, and ensure his doing it properly by providing official information, supervision, and audit. A certain independence is necessary to make unpaid work attractive to able and honest men. On the other hand some duties can never be efficiently discharged by unpaid officers, because they need a special training and a special skill.

Administrative organisation admits of innumerable variations in detail. A certain similarity may nevertheless be noted in the administrative systems of states which are similar in extent and civilisation. In very small states the administrative system must necessarily have rather a municipal than an imperial character. Thus in the states of ancient Greece and of ancient and mediæval Italy, we find administrative organisations suited to the wants of a single town (see CITY—ANCIENT, MEDIÆVAL). When the state expanded beyond these dimensions a municipal had to be transformed into an imperial administration. The most striking instance of this process is afforded by the history of Rome. But in very large states the imperial and the municipal organisations are distinct from the first. The central administration is from the first contrasted with the local administration. Both, however, are servants and representatives of the state. Both exist in order to carry out its laws. Their separation is due to the necessities of public business. It is qualified by the superior power of the central as compared with that of the local authority, and of the sovereign as compared with both. Yet it is so important that each must be considered by itself.

Central Administration in modern Europe has had its root in the power of the monarch and has grown with the growth of that power. Thus in France the development of the central administration is almost co-extensive with the political history of the nation. In England, before the Conquest, there was hardly anything which could be called a central administration, although the local administration was tolerably complete. After the Conquest the nucleus of a strong administration was created by the Norman kings, who had to maintain their authority at once against a recently conquered people and a lawless feudal nobility. By the DOMESDAY survey the central government was, for the first time, informed of the population and resources of the kingdom. The taxes were much augmented and the exchequer was organised for the business of collection and management. The circuits of the itinerant justices, at first designed as much for financial as for judicial business, began under Henry I. and were systematised by Henry II. By means of these circuits the central administrative authority was placed in direct contact with the local administrative authorities. Great works of architecture were executed at the royal expense. Mercenary armies were frequently employed. But the administration as yet concerned itself with a few comparatively simple matters. It was still indissolubly blended with the economy of the king's household. Throughout the Middle Ages public health, public communications, and police in so far as provided for, were in the hands of the local authorities. The local authorities enforced the many regulations respecting agriculture, manufactures, and trade, which were enacted either by themselves or by parliament. EDUCATION and the RELIEF of the poor were for the most part left to the care of the church. From the accession of the house of Tudor down to our own time the strength and activity of the central administration have constantly grown, but so gradually and irregularly that a summary account of the change is almost impossible. The following are the chief points which call for attention. During the 16th century the central administration is in the hands of the monarch and his privy council, whose power is seen rather in particular arbitrary acts than in a minute official interference with ordinary life. By the political revolution of the 17th century a prime minister depending on the House of Commons and a cabinet are substituted for the king and privy council as heads of the administration. The distinction between the CIVIL LIST (*q.v.*) and the rest of the public expenditure prepares the way for the ultimate total separation between the royal household and the central administration. At the same time the establishment, first of a regular navy, then of a regular army, and the growth of commerce and of colonies, involves the creation of new administrative departments. But every addition was made piecemeal, so that the central administration in the last century presented a scene of extraordinary confusion. In the 19th century, especially since the passing of the Reform Act of 1832, the central administration has been almost completely transformed. At the accession of William IV. the civil list was so arranged as to complete the separation between the personal income of the monarch and the other public charges. The POOR LAW Amendment Act of 1834 established the poor law board, since developed into the local government board, a body which supervises and controls the great majority of local authorities. The modern legislation on public health, beginning with the act of 1848 and consolidated by the Public Health Act, 1875, is also enforced by the local government board. The Committee

of Council of Education, established in 1839, became in virtue of the Education Act of 1870 an education department controlling the public elementary education of England. The military and naval departments have undergone, and are still undergoing, various modifications.

Local Administration.—The character of a system of local administration depends chiefly upon (*a*) the mode in which the country is distributed into administrative areas; (*b*) the constitution of the administrative authorities; (*c*) the functions entrusted to them; and (*d*) their relation to the central administrative authority. (*a*) In modern states it has generally been found advisable to divide the territory into at least three species of administrative areas, the smallest being the TOWNSHIP, PARISH, or COMMUNE, the intermediate being the hundred or UNION or arrondissement, and the largest, the COUNTY, province, or DEPARTMENT. The whole territory is thus divided into three systems of areas. But certain parts of the territory, especially towns and cities, differ so much from the rest in requirements and resources that they are usually constituted into special administrative areas. The space covered by these areas may or may not be withdrawn from the general subdivision. Thus many of the larger English cities and towns possess all the attributes of counties, but they are distributed into parishes.

Again, the larger areas may be formed by grouping the smaller areas, or they may have no reference to them. Thus in England the union area has always been made up by grouping a number of poor-law parishes; but these parishes may be in more than one county, so that the boundaries of the union often intersect those of the county. Again, the union area and the area of a municipal borough may coincide, but generally they have been traced without reference to each other, and a municipal area may contain fragments of two or three poor-law areas. Besides these, many other administrative areas have been created at different times and have not been harmonised with one another. This confusion of areas is, however, almost confined to England, and is being gradually mitigated. In England and elsewhere different methods of division have prevailed in different periods. The county has always remained the largest administrative area; but the HUNDRED has almost disappeared, whilst the POOR-LAW union is quite modern; and in the lowest range the township has in many instances been succeeded by the MANOR, and this again by the parish, civil or ecclesiastical.

(*b*) The constitution of the local authority in each area admits of much variety, but is generally reducible to one of four types; an assembly of all householders in the area, an assembly of elected representatives, a comparatively small ruling body recruited either by co-optation or by the selection of the supreme government, and a staff of officials paid by, and immediately controlled by, that government. Thus the Anglo-Saxon township and the township of New England had as their authority the assembly of householders, and the same type of authority appears modified by feudal influence in the courts of the mediæval manor, and modified by ecclesiastical influence in the general vestry of the modern parish. Something similar is seen in the village council of eastern Europe and of Asia. But this type of authority is suitable only to the smallest area. The second type of authority, the elective assembly, is seen in the English select vestry, board of guardians, and modern municipal and county councils, and generally in the urban communities of the civilised world. Unlike the popular assembly, it is compatible with an extensive area and with multifarious administrative duties, and as it harmonises with democratic sentiment, it is coming into more general employment. The third type of authority, the exclusive body, was seen in many English municipal corporations before the act of 1835, and in the English county authorities before the act of 1888. Some of the municipal bodies of this class renewed themselves by co-optation. The Quarter Sessions were recruited by the appointment of the crown from a list presented by the lord-lieutenant, and composed of persons having a certain property qualification. The fourth type of authority, the staff of government officials, is almost unknown in England and is not common anywhere. But in many countries the head of the administrative body, and the possessor of all real administrative power, the prefect or mayor, is a government official, and his elective colleagues exist chiefly in order to disguise the fact that there is no real self-government.

(*c*) As regards the functions of the local authority, these have undergone many changes. In England they originally comprised, besides certain legislative and judicial duties, the duty of maintaining a police, the duty of keeping up public communications, the duty of taking certain precautions for the public health by removal of nuisances, etc., and the duty of enforcing a multitude of regulations as to weights and measures, the quality of goods offered for sale, especially provisions, and other matters connected with manufactures and commerce. A series of statutes culminating in the poor law of Elizabeth passed in 1601 added the function of relieving the poor, formerly left to ecclesiastical or to private charity. The duty of providing for the public health, which had been little more than nominal, has become in our time a great branch of local administration. The duty of providing for elementary education is still more recent. Besides these functions local authorities have acquired, under a number of general or special acts, power to

provide almost everything which can minister to the health, decency, comfort, or amusement of a dense population—gas and water works, markets, museums, galleries of art, libraries, parks, gardens, baths, lodging-houses, and burial grounds.

(*d*) Relation to the central authority. This relation differs widely not only in different states but in the same state at different times, or with respect to different classes of local authority. Thus in England the control of the central authority has usually been less strict than in France. In England there was hardly any effective control of local administrative bodies by a central authority, until the Poor Law Amendment Act of 1834. The poor law commission first, and afterwards the local government board, have exercised over the union authorities a pretty complete control. It has been said that the only question with respect to which a board of guardians has any real discretion is that of granting or refusing applications for relief. The municipal corporations on the other hand, especially those of the largest boroughs, have retained a real independence.

The central administrative authority may influence the local administration in one or more of the following ways: (*a*) By collecting, preserving, and circulating statistical and other information useful for administrative purposes; (*b*) by enacting rules to guide the local authority; (*c*) by periodical inspection or constant supervision to ensure the observance of these rules; (*d*) by periodical audit of the accounts of the local authority. The means of enforcing this control are various. The extreme penalty for disobedience is the dissolution of the offending local authority. In England a board of guardians may be dissolved by order of the local government board, but a municipal corporation cannot be dissolved by any merely administrative authority. A lighter penalty is the withholding either altogether or in part of grants of money, ordinarily made by the central to the local authority. Thus a school board in England obtains the government grant only in so far as the education given by it satisfies the education department.

III. *Relation of the Administrative Organisation* to (*a*) the sovereign person or body of persons; (*b*) the individual citizen. The sovereign in each state will necessarily control the administration, but this will be effected in different ways. Under the older form of constitutional monarchy the monarch made laws by the advice of his parliament and carried on the administration by the help of his council. The ministers were his ministers, and through them he controlled every branch of the administration. At the same time he depended on his parliament for the necessary funds, and his ministers were liable to parliamentary impeachment. Under the later form of constitutional monarchy, the prime minister takes the place of the king and the cabinet takes the place of the privy council. The prime minister and cabinet owe their power to the support of the majority in the more popular house of the legislature. Thus that house which is virtually sovereign has a direct control over the administration. Most modern republics are organised on the model of constitutional monarchy. In the United States the president is perhaps more influential in the administration than was formerly the king of England. The ministers are his ministers and do not even sit in congress. In France the president takes the place of a modern king of England, the prime minister is the real ruler of the state, and he and his cabinet hold office at the pleasure of the majority in the chamber of deputies. In despotic monarchies the monarch has sole control of the administration, unchecked either by a power of withholding supplies or by a power of impeachment residing in a representative body.

The relation of the administrative system to the individual citizen differs in different countries according to the nature of the authority empowered to decide upon their respective rights and duties. In many despotic states of a rude type administrative and judicial functions are united in the hands of the monarch and the provincial governors. Under this system there can be little protection for the individual citizen. In the despotic states of civilised Europe the administrative and judicial organisations were usually kept distinct, but acts done in the course of administration were placed under a special law administered by special tribunals, and in many cases action could not be taken before these tribunals without the previous sanction of the government. In France this system survived many revolutions and has but recently been modified. It is also found more or less developed in many other continental states. In England a special administrative law and special administrative tribunals are unknown. Every branch of the public service has its own regulations and discipline, but these affect only its members. Every administrative authority stands in the position of a private person empowered by law to discharge certain special functions. Acts done in the course of administration are on the footing of all other acts. If a policeman uses excessive violence in taking a prisoner to the police station, or if a collector of taxes exceeds his lawful powers, redress is afforded by the ordinary courts of justice applying the same laws and observing the same procedure as in any other case of assault or of extortion. So too the rights and duties of any government department or local authority are determined like those of any private individual.

IV. *Economic Aspects of Administration.*—These are numerous and complicated. In the first place administration includes the business

of raising the PUBLIC REVENUE. It thus includes the whole of public finance. In this light the questions as to the safe limits of TAXATION, as to the best kinds of taxes, as to the most economical methods of levying them, as to the least harmful ways of raising and the least oppressive modes of liquidating public loans, are all administrative questions, although they are so extensive that they cannot be treated in this article. In the second place administration includes the business of spending the public revenue. That business suggests the inquiry as to the proper functions of the state. What should the state attempt to do itself? what should it attempt to regulate? what should it leave entirely out of view? These questions raise other than economical issues; but they raise economical issues too. Thus experience shows that in countries where capital and knowledge are rare many of the requisites of production such as RAILWAYS, CANALS, aqueducts, DOCKS, drainage, and irrigation works, can be provided only by administrative effort. By providing these the state does not lessen individual energy or narrow its field of action. On the contrary, by facilitating production these administrative undertakings have often strengthened the spirit of individual enterprise and accumulation. A notable illustration of the service which may thus be rendered by an efficient administration is seen in the growing prosperity of British India. In a later stage of economic development more can be done by private effort and less needs to be done by administration. But the growing complexity of life and industry, the gathering of multitudes into large cities, the concentration of industries in huge factories, the production of the necessaries of life, not by domestic labour, but by scientific processes on a vast scale, the new combinations of labour and of capital, the increased attention given to health, the more exacting demand for enjoyment, and education, the dissolution of old customs and beliefs, all these changes bring with them difficulties which compel interference here and interference there and a vast process of administrative regulation. No general rule can be laid down respecting the effect of such regulation; the effect can be known in each case only by experience. All that can be said is that before regulating any branch of industry the fullest information possible should be procured, and that all new regulation should be tentative. In the third place we have to consider the economic effect of efficiency or inefficiency in administration irrespective of its objects. The industry, the integrity, and the intelligence of the administration are great economic forces. Compare the administrative staff in Turkey with the administrative staff in Prussia and consider their influence on the economic condition of their respective countries. If the administrator is an official, his efficiency will depend greatly upon the spirit, education, and traditions of the service of which he is a member; if he is a private citizen, his efficiency will depend greatly upon the spirit, education, and traditions of the class from which he comes. In the fourth place the magnitude of the administrative staff is a circumstance of economic importance. An overgrown civil service means a great number of idlers and a waste of productive power, especially power of mind. It also means a heavier taxation of the productive classes (see BUREAUCRACY; CIVIL LIST; GOVERNMENT).

[For a general view of the modern state and its organs, see Bluntschli, *Theory of the State*; for the history of the English administrative system consult Stubbs's and Gneist's *Constitutional Histories of England*; for its present state consult the volumes on *Central Government, Local Government, The National Income and Expenditure, The State in Relation to Labour*, and *The State in Relation to Trade* in the English Citizen Series, and the statutes and other authorities to which they refer.] F. C. M.

ADMINISTRATION, LETTERS OF. When a person dies intestate his real estate passes immediately to his heir, *i.e.* to the person designated by law as entitled to its enjoyment. His personal estate, however, has to be administered for the benefit of (1) his creditors, (2) of the next of kin entitled to enjoy the surplus after payment of his debts. The administrator is a person who takes out letters of administration, *i.e.* procures himself to be nominated by the Probate Division of the High Court to the administration of the estate. Letters of administration are granted usually to some of the next of kin; failing them, to a creditor, and, if there be no creditor, to any person whom the Court thinks suitable. Once appointed, the administrator very closely resembles an executor appointed by will. Like the executor the administrator, as such, has no beneficial interest in the estate, and no liability for anything beyond the assets which he receives. He is bound to realise the personal estate of the intestate to pay the funeral expenses and debts, and to distribute the balance, if any, among the persons entitled under the Statutes of DISTRIBUTION (22 & 23 Car. II. c. 10, and acts explaining or amending). He may himself happen to be one of these persons.

It may happen that although the deceased has made a will he has named no EXECUTOR, or that the executor named refuses to act, or becomes incapable, or dies before the testator. In any of these cases an administrator must be appointed, and his administration is said to be "cum testamento annexo," since it is his duty to give effect to the provisions of the will. Should the sole executor or the administrator be an infant, his guardian will obtain letters of administration "durante minori aetate," that is, until the infant attains his majority.

Should the administrator die before he has fully administered the estate, a new administrator must be appointed. For the office of administrator does not pass like the office of executor to the personal representatives of the person who held it. The new administrator has administration "de bonis non administratis" (often termed "de bonis non") *i.e.* of goods not administered by his predecessor.

What would be the best law of intestate succession is a question which has been much discussed, and involves complicated economical considerations. But, whatever the nature of that law, the office of administrator of the estate of the intestate appears equally necessary.

[See Williams's *Personal Property.*] F. C. M.

ADMINISTRATOR. The personal representative of a deceased intestate or of a testator whose will does not appoint any executors, or whose executors are unable or unwilling to act. The nearest relative who is willing to act is appointed administrator, and in default of relatives administration may be granted to a creditor. The instrument certifying the grant is called "letters of administration." The personal estate of the intestate or testator (and since 1882 such real estate as was held by him in a fiduciary capacity) becomes vested in the administrator, who has to pay all debts chargeable to the estate, and to distribute the residue according to law, viz. in case of intestacy in accordance with the Statutes of Distribution and the modifying enactments (22 & 23 Car. II. c. 10 ; 1 Jac. II. c. 17), and, where there is a valid will in accordance with the directions contained in the same. In the latter case the grant is made "with the will annexed" (*cum testamento annexo*). E. S.

ADULTERATION. The alteration of an article into something inferior, but not readily distinguishable in appearance, by the addition of cheaper materials. Legislation has endeavoured to provide, in many instances, but not always successfully, that the articles thus deteriorated should be marked out so distinctly that the unwary may be always able to escape the pitfall. Against this endeavour the maxims of Caveat Emptor and, with less ground, of Laissez Faire, are sometimes invoked. Occasionally even the spirit of class opposition (as when legislation against adulteration is promoted by producers whose interests are individually affected) is called up to hinder the prevention of the sale of something which, though confessedly not what it professes to be, is claimed to be a cheaper and as useful an article as that for which it is substituted. Professor Marshall observed (*Inaugural Address*, Co-operative Congress, Ipswich, 1889), in speaking of adulteration, "That term is often used so as to include open and undisguised changes in the character of goods to suit the wants and the tastes of consumers. But you seem to me to have a clear duty: it is to explain to consumers what things are cheap and what things only appear to be cheap; to give them for their money as high class goods as you can afford, and as much truthful information about them as you possess."

AD VALOREM DUTY. A duty levied on a commodity in proportion to the value, in contrast to a specific charge on the quantity. At first sight this form of taxation appears the more equitable one. In practice, however, customs duties *ad valorem* have been found to work out with great inequality, and also to be inconvenient to levy for various reasons, among which are the following: (1) the difficulty of ascertaining correctly the values of the goods charged with the duty; (2) the opening to fraud ; (3) the delay and hindrances caused to importers and others. In theory it might be supposed that *ad valorem* taxes on all commodities would not affect their relative values, but it has been maintained that, owing to the different proportions in which fixed and circulating capitals enter into their cost of production, this would not be so. Thus J. S. Mill remarks (*Principles of Pol. Econ.* bk. v. ch. iv. § 1) that in case of an *ad valorem* duty on all commodities exactly in proportion to their value there would be a disturbance of values owing to . . . "the different durability of the capital employed in different occupations." An *ad valorem* duty was levied at an early date in this country. There existed *temp.* Edward I. an *ad valorem* duty of 3d. upon every *librate* or twenty solidi of lead and tin (*Customs Revenue of England*, Hubert Hall, vol. i. p. 66). At the present date *ad valorem* duties, as such, are practically unknown to the British fiscal system; the wine duties levied differently on different classes of wine approach them (see Taxation).

Cournot arrives by mathematical reasoning at the conclusion that the effect of an *ad valorem* tax of so much per cent will be the increase of the expenses of production (including transmission into the consumer's hands) by a larger percentage. Let n be that fraction of the value which constitutes the tax. Then the effect is as if the expenses of production had been increased in the ratio $1-n:1$. Whence it follows that, other things being equal, a tax will be heavier as the expense of production is greater, that is "as in the price of the commodity a smaller part represents the profit" of the seller. The theorem is true both in a *régime* of monopoly and of competition.

[See James Mill, *Elements of Pol. Econ.*—J. S. Mill, *Principles of Pol. Econ.*—J. R. M'Culloch, *Principles of Pol. Econ.*, *Taxation and the Funding System*, p. ii. ch. iii.—S. Buxton, *Finance and Politics, an Historical Study*, 1786-1885.—Paul Leroy-Beaulieu, *Traité de la Science des Finances*, vol. i. ed. 1877, p. 566.—*Dictionnaire des Finances*, 1889, vol. i., "Droits ad valorem."

Recherches sur les principes Mathématiques de la Theorie des Richesses, arts. 41 and 53. The passages referred to contain some other abstract theorems relating to an *ad valorem* tax.]

ADVANCES. In the writings of the French PHYSIOCRATS "advances" are an outlay of wealth with a view to some future return, as opposed to an outlay for immediate consumption. This notion was wide enough to include the advances of food made by a parent to his infant child (DAIRE, *Physiocrates*, ed. 1846, p. 391), and might include the means of preparing a feast or making a toy. But more commonly the word was used almost as we now use "capital." "The weapons made by the first hunter were a great augmentation of his capital *or* his advances" (Daire, *ib.*) The physiocrats distinguished three sorts of advances in agriculture:—(1) The ground expenses or *avances foncières* which are laid out once for all, *e.g.* on clearing, draining, etc.; (2) The original advances or *avances primitives*, needing *occasional* repair or renewal, *e.g.* on ploughs, carts, oxen, and manure; (3) the annual expenses, or *dépenses annuelles*, which need regular and continual renewal, *e.g.* wages of labourers and food of cattle (Daire, *ib.*, p. 344). TURGOT applies similar distinctions even to manufacture (*Form. et Distrib. des Rich.* § 52 *seq.*) The distinction drawn by Adam SMITH between fixed and circulating capital rests not on this difference of durability but on the retention or non-retention of the capital in the hands of the investor. RICARDO adopts the criterion of durability while preserving the twofold instead of the physiocratic threefold division. Later economists have followed Ricardo, though most of them admit with him that such a distinction, being one of mere degree, cannot be closely pressed. The "advances necessary to produce a commodity" are sometimes described as synonymous with the capital necessary to produce it (*e.g.* MALTHUS, *Pol. Econ.*, 1st ed., p. 293); and sometimes we hear of the "advance of capital" (Senior, *Pol. Econ.*, p. 194); but it is specially in relation to wages and the wages fund that the word "advances" has been most frequently employed (see CAPITAL; W. N. SENIOR; WAGES FUND). The financial sense of the word (*e.g.* advances to government by the bank) calls for no special consideration here. J. B.

ADVENTURERS, MERCHANTS. English companies for the conduct and extension of foreign commerce have been of two different kinds—(1) Regulated, and (2) Joint-stock companies. "When they do not trade upon a joint stock," says Adam SMITH (bk. v. ch. i.), "but are obliged to admit any person, properly qualified, upon paying a certain fine and agreeing to submit to the regulations of the company, each member trading upon his own stock and at his own risk, they are called regulated companies. When they trade upon a joint stock, each member sharing in the common profit and loss in proportion to his share in the stock, they are called joint-stock companies." The oldest and most celebrated of the former class was the company of Merchants Adventurers. To understand its history, we must advert to the system of the STAPLE, established *temp.* Henry III. Certain places on the continent were fixed by royal authority as the sole marts for English wares, where goods were to be "collected, tried, and assessed." During the 13th and 14th centuries the five great exports of England were wool, woolfells, leather, tin, and lead, the first by far the most important. Bruges in Flanders was most commonly the seat of the Staple, but the English kings frequently transferred it to other continental towns, as, for example, to Bergen, Dort, and Calais, usually for political rather than commercial reasons. When the English cloth manufacture began to assume importance, the company of Merchants Adventurers came into existence, and from the first it was most closely, though not exclusively, associated with the export of cloth. Wheeler, secretary of the company, says of it (*Treatise of Commerce*, 1601): "It consisteth of a great number of wealthy and well experimented merchants, dwelling in diverse great cities, maritime towns, and other parts of the realm, to wit, London, York, Norwich, Exeter, Ipswich, Newcastle, Hull, etc. These men, of old time, linked and bound themselves together in company for the exercise of merchandise and seafare, trading in cloth, kersie, and all other, as well English as foreign, commodities vendible abroad." The origin of the company is obscure, and the date of its incorporation cannot be determined with certainty. But privileges were granted to it in the 14th century by the Count of Flanders for trading in his dominions, and Edward III. fixed Bruges as the place to which its commodities should be carried. In 1407 Henry IV. gave its members the right of appointing their own governor. About the middle of the 15th century they came into conflict with the Merchants of the Staple. The latter alleged that the Merchants Adventurers had no right to exact the regular contribution to their society from all persons exporting cloth to the Low Countries. The quarrel came to a head *temp.* Henry VII., who favoured the claims of the Merchants Adventurers, because they had given him valuable help during his diplomatic differences with Margaret of Burgundy arising out of the assistance she gave to Perkin Warbeck. They had prevented distress and discontent among the artisans by "taking up the commodities of the kingdom, though they lay dead upon their hands for want of vent" (Bacon, *Hist. of Henry VII.*) The amount which the company could exact for membership was limited by act of parliament, but its right to control

the cloth-trade to the Netherlands was recognised. It received, in 1501, a charter authorising its members to elect a president and twenty-four assessors, to make their own decrees for the management of the trade, and to punish transgressors. The Star Chamber, in 1505, decided that the merchants of either of the contending companies who wished to share in the trade of the other must pay the ordinary contribution. From this time the extension of English commerce was principally the work of the Merchants Adventurers. Henry VII. had obtained from the government of the Netherlands in 1496 a treaty known as the INTERCURSUS MAGNUS, which secured mutual freedom of trade; the merchants of both countries were allowed proper houses for residence and for the storing of their merchandise. The English traders were also permitted (1499) to sell their woollen cloths in other towns of the Netherlands besides Bruges and Antwerp. The further right to sell by retail was afterwards obtained by pressure exercised on the Archduke Philip, when driven by a storm on the coast of England in 1506; but this concession was strongly protested against by the Flemings, who called the agreement the INTERCURSUS MALUS, and it was before long revoked. Antwerp had drawn away from Bruges the greater part of the English trade by offering special advantages, and though the return of the Merchants Adventurers to Bruges had been agitated from time to time, it now soon ceased to be thought of, and Antwerp became the great market for English cloth. About the same time (1516), the King of Portugal removed to Antwerp the staple for oriental wares, and the Portuguese merchants thenceforth purchased there the English cloth which they sold in the eastern countries and in Brazil.

The second great struggle of the Merchants Adventurers was with the Hanseatic traders in England. In the 14th century the HANSEATIC LEAGUE (*q.v.*) had been a great power, but towards the end of the 15th it began to decline. It had established itself (*temp.* Henry III.) strongly in England. Its merchants assisted the English kings financially and were therefore favoured. Having first settled in some of the towns on the east coast, they finally concentrated themselves in the STEELYARD at London, where they had an establishment imposing by its magnitude and strong defences. A rigorous discipline was maintained amongst the EASTERLINGS, as they were called, the jealous hostility of the city population requiring them to be perpetually on their guard. The Merchants Adventurers, when they had successfully asserted their claims against their English rivals, were eager to get into their hands the whole export trade, at least that in woollen cloth. They were jealous of the comparative immunity from customs enjoyed by the cloths exported through the Hanse traders. The treaty of Utrecht, 1474, had provided that Englishmen should possess the same privileges in Hanseatic towns abroad as the Germans did in England. But the English merchants complained that this reciprocity was not accorded to them. Efforts were made in consequence by Henry VII. to obtain such compacts with Denmark, and such a footing in Livonia, as would to some extent make English traders independent of the Hanse. But political motives led the king to recede from the attitude thus taken up, and to confirm to the Hanseatic traders the privileges they enjoyed in London. Henry VIII. also, unwilling to provoke the enmity of the League, continued to protect the rights of the "Merchants of the Steelyard."

Meantime the Merchants Adventurers had been pushing with great energy their trade with the Low Countries. Wolsey, dissatisfied with the treatment of English traders in the Netherlands, sought to remove the staple for cloth to Calais, and Thomas Cromwell wished to establish it in England. But both these projects failed. The latter proposal was revived in the reign of Elizabeth, and was strongly advocated by Cecil; but the Merchants Adventurers preferred to continue trading to Antwerp, probably because the new arrangement would have necessitated the granting to foreigners in England an equality with the native traders. The Duke of Alva, when sent to the Netherlands by Philip II., seized the property of the English merchants at Antwerp, and they in consequence withdrew in 1578 to Hamburg, where special inducements were offered them. Antwerp, as a commercial centre, was ruined by the civil war; many of the Netherland merchants also removed to England, and a great number of artisans did the same, thus introducing branches of the cloth manufacture which had not previously been practised there. Already in 1552 the English merchants had obtained from the Privy Council a decree abolishing the privileges of the Steelyard, and reducing the Hanse traders in England to the position of other foreigners. Their privileges were, however, partially restored under Mary, and in the early part of Elizabeth's reign; but, failing to recover their old position, they procured the expulsion from Hamburg of the English merchants who had been invited thither. After various measures of retaliation on both sides, the English were, in 1597, expelled from all the dominions of the Empire. Elizabeth forthwith directed the civic authorities of London to close the Steelyard, and ordered the German merchants to leave England, thus bringing to an end the history of the Hanseatic league in this country.

After this period, we find the "foreign residence or comptoir" of the Merchants Adventurers fixed successively at Groningen, Delft, and Dort. In 1649 they are invited to return to Bruges, but decline to do so. They are then

finally established at Hamburg, and come to be commonly known as the Hamburg Company.

The general model of the Merchants Adventurers' Association was followed in the regulated companies which are the great feature of English commerce from the middle of the 16th century. To encourage the trade with Russia opened by Chancellor, Queen Mary incorporated the MUSCOVY Company, and English factors settled at Novgorod; the charter of the company gave it the exclusive right of trading to Russia. The EASTLAND or Baltic Company was incorporated 1579, the TURKEY Company 1581, the Mauritania Company 1585, and the Guinea Company 1588. (See COMPANIES.)

Mercantile companies, with special powers entrusted to them by the government for the protection of trade, may, Adam Smith remarks, "have been useful for the first introduction of some branches of commerce, by making at their own expense an experiment which the state might not think it prudent to make." And the trade of England was certainly in its early stages greatly furthered by the action of the Merchants Adventurers. The abuse to which such corporations are liable is the restriction of the greater part of the trade to the directors of the company and their particular friends, and the enforcement of burdensome regulations with a view to that end. The Merchants Adventurers were not always free from this evil; but by the interference of parliament, as we have seen, the terms of admission were reduced, and, ANDERSON tells us, from the middle of the 17th century no complaint was made against them. Smith admits that the RUSSIA and Eastland Companies were not, in his time, oppressive. The Turkey trade, he says, notwithstanding recent legislation to open the corresponding company fully, was still considered by many people as very far from being altogether free. He does not believe the AFRICAN COMPANY, though accused of "restraining the trade, and establishing some sort of improper monopoly," really open to that charge. But he censures it on the ground that it did not fulfil its duty of properly maintaining forts and garrisons. And, where such maintenance is necessary from the trade being with barbarous or semi-civilised communities, he holds that regulated companies are less likely to attend to it than joint-stock companies, first, because the directors of the former have no interest in the prosperity of the general trade of their company, and may even be gainers by its limitation; and, secondly, because they have no adequate fund at their disposal, the company possessing no common stock, and being dependent for their outlay on the casual revenue from admission fines and corporation dues. While Smith appears scarcely to allow the regulated companies due credit for the part which most competent authorities assign them in the extension of English commerce, it is, doubtless, true that, when he wrote, the services which such corporations were fitted to render were substantially exhausted, and, as he says, the highest eulogy that could be bestowed on them was that of being merely useless.

[J. Wheeler, *Treatise of Commerce*, 1601.—A. Anderson, *Historical and Chronological Deduction of the Origin of Commerce*, 1764.—G. Schanz, *Englische Handelspolitik gegen Ende des Mittelalters*, 1881.—W. Cunningham, *Growth of English Industry and Commerce*, 1890.—In the present article we are much indebted to *Foreign Commerce of England under the Tudors* (Stanhope Essay for 1883, by John Bruce Williamson), an excellent abstract of Schanz, with information from other sources.] J. K. I.

ADVICE. Primarily, an order given by one person to another to perform some act of business, such as the payment of a bill of exchange, for him—used also in the sense of giving information on business matters more generally.

AFRICAN COMPANIES, EARLY. The circumstances of trade with Africa, or rather with Africa excluding the Mediterranean coast, were of such a nature as to favour particularly the formation and maintenance of privileged trading companies. The trade was sufficiently dangerous to suggest the need of special privileges, and not sufficiently profitable to permit of being carried on without them. England, however, was not the first country to enter into trading relations with the west coast of Africa. Portugal held that position, and practically enjoyed a monopoly till 1536. In that year we hear of English adventurers and of their success. Benin on the Guinea coast was the attraction of the traders. The venture was probably repeated more than once; without leading immediately to the formation of a company. That result, however, soon ensued, and the first charter was granted, the precursor of many others.

(1) 1588; Elizabeth granted to certain merchants of Devonshire, Exeter, and London a charter giving exclusive trading privileges for ten years to the rivers of Senegal, Gambia, and the neighbouring district. This company, called *The Guinea Company*, was in reality the forerunner of the African companies, among which it may itself be numbered. They were all companies formed to trade with the west coast. Under the auspices of this company several voyages were made, the chief goods brought back being pepper, ivory, palm oil, cotton cloth. It seems to have been very unsuccessful, owing in part to the action of "interlopers" or independent traders.

(2) 1618; a new exclusive charter to Sir Robert Rich and other Londoners. It too was unsuccessful, first through the action of private traders and secondly owing to the very small profit gained by those engaged in this trade

before the development of the slave trade between the west coast and the English plantations in America.

(3) 1631; a new company was formed, the charter granted to Sir Richard Young, Sir Kenelm Digby, and others for thirty-one years, the limits assigned extending from Cape Blanco to the Cape of Good Hope. Similar causes to those before enumerated appear to have led to its dissolution.

(4) 1662; a fourth company formed this time with the definite object of conveying 3000 slaves a year to the American settlements. Its development was interfered with by wars with the Dutch, and it gave way to—

(5) 1672; the *Royal African Company*, which really bought out the rights of the proprietors of the foregoing. These, like other trading companies of the time, were based on grants of exclusive privileges to certain persons made by royal charter. As such they were doomed by the act passed after the Revolution of 1688, whereby all exclusive privileges except those authorised or granted by parliament were withdrawn. The African trade was thus thrown open though it must be remembered that the company was not destroyed. Its exclusive rights were taken away; but (1698) some part of these rights were restored by statute (9 & 10 Will. III.) in regard of the settlements and forts which had to be supported. Traders other than those belonging to the company were burdened with differential duties. From this time onwards disputes continually arose as to the expediency of restriction. But despite the attention devoted to the trade, it continued to be most unprofitable. At one time its stock dropped to 4½, and though it rose above this low figure it seems never to have approached par except at the time of the SOUTH SEA BUBBLE. In consequence of the low credit it stood in, and of the increased liabilities incurred by the company, it was resolved to transfer its property to a new company composed of the proprietors of the old company and its creditors, and—

(6) 1750; a new African company was established. It was of course without exclusive rights. In 1752 the property of the former company was finally transferred to its hands.

[Anderson, *History of Commerce.*—Macpherson, *Annals of Commerce.*—Rymer, *Fœdera.*—Lansdown MSS. in Brit. Mus.] E. C. K. G.

(7) 1791; the *Sierra Leone Company* may be classed with the early African companies in the sense that the acts of parliament establishing and determining it both precede the act determining the old African companies.

The Sierra Leone Company originated in the philanthropic schemes of certain gentlemen who (1787) formed themselves into a committee and raised a fund for assisting destitute blacks, most of whom had been the victims of the slave trade, to settle in Sierra Leone. The project very quickly took the form of a regular company, and in 1791 an act was passed incorporating the Sierra Leone Company. In 1800 letters patent were issued definitely granting the peninsula of Sierra Leone, so far as was in the power of the crown, to the company. But the French war very adversely affected the fortunes of the company, and heavy subsidies were granted from imperial funds to sustain it, so that in 1807 an act was passed providing for the extinction in seven years' time of the Sierra Leone Company and its rights over the colony. In 1809 a charter was granted to the company providing for the "Colony of Sierra Leone," and after the powers given to the company had expired, this charter was (in 1821) regranted direct to the colonists, who were then placed directly under the crown of Great Britain. C. A. H.

AFRICAN COMPANIES, RECENT. It would appear from a review of historical facts that in periods when a number of different civilised nations have been actively competing for the possession or settlement of an unallotted region, the favourite method of occupation has been the quasi-national company. The recent allotment of a great portion of the African continent amongst chartered companies is on a par with the early settlement of North America and the West Indies.

Putting aside the Congo Free State, which in some respects is analogous to a chartered company, we have in order of time the *Royal Niger Company* (chartered as the *National African Company* in 1886) dominating the basin of the river Niger on the west, the *Imperial British East African Company* (1888) on the Somali coast to the east, and the *British South African Company* (1889) between the Zambesi and the British colonies to the south. All these are British companies, and all hold a royal charter. A German South-West African Company has been at work for some years with indifferent success, and does not seem to enjoy any privileged position. The *German East African Company*, which is chartered, was formed in 1888 by a coalition of the private Commandite Company and Karl Peters and Co., to compete with the British company in the Somali and Zanzibar districts.

An amalgamation of powerful houses in West Africa is at this time moving to obtain a charter as the *Oil Rivers Company*. The *African Lakes Company* is unchartered and is likely to become merged with the *British South African Company*. The *Congo Company* is an ordinary one, with its seat of operations in the Congo Free State. The "*United African Company*" of 1879 was the parent of the "*National African Company*," now the *Royal Niger Company*; it successfully competed with and eventually absorbed two French companies which received considerable support from their government.

The new British companies differ from the last of the old ones—the *Sierra Leone Company* (see AFRICAN COMPANIES, EARLY)—in being avowedly commercial. As explained in the article on COLONIES, *Government by Companies* (*q.v.*)—they are similar in conception and aim to the old *Royal African* and *Guinea Companies*. Governments, however strong, have usually shrunk from the responsibility of administering a large unknown tract of territory, but have been willing to encourage the hazards and adopt the successes of a company. In the first blush of African development Bechuanaland was annexed as a protectorate under the immediate care of the British crown, but this policy was too severely criticised by the timid to encourage its repetition in dealing with African territories. When the movement went on and in various parts of Africa a number of ordinary commercial companies had secured valuable concessions or established the nucleus of a trade, their present security and the future establishment of a colonial dependency was assured by their consolidation into large associations under boards of directors of recognised substance, with wide powers over considerable extents of territory, and enjoying the prestige of a royal charter.

The charters of the existing companies are all very similar. That of the *South African Company* has a special colouring, in that two or three of its provisions (*Clauses* 10, 17, 18) appear to contemplate the future transfer of its powers to a crown colony; for instance it may make "ordinances" subject to confirmation by the secretary of state. All through the charters modern caution and modern philanthropy are conspicuous. The control of the crown through one of the secretaries of state is secured at every point, especially as regards any foreign relations. In the case of the *Royal Niger* and *Imperial British East African Companies* this control is exercised through the foreign office; in the case of the *British South African Company* through the colonial office. The difference of the controlling department was determined solely by the fact that in the case of the first two companies their immediate contact was with foreign states, in that of the *British South African Company* it was with British colonies and protectorates. The stipulations in respect of the slave trade and liquor traffic with the natives are the offspring of a humanitarian age. Subject to these limitations the companies have wide powers, not only of carrying on commerce and industries on their own account, but of granting concessions and powers to individuals for every sort of undertaking. They have all the attributes of large joint-stock companies with some of those of independent states. But they cannot enjoy or create any monopoly of trade.

The *Imperial British East African Company* has at present less individuality than the others; a great part of its sphere is within the territory of the sultan of Zanzibar, and there it is bound to use the sultan's flag and conform to the sultan's trade restrictions. Herein the different genius of the British and German companies (see COLONIES, *Government by Companies*) was well illustrated. Both had their sphere of operations in the territory of the sultan; the British company, as just mentioned, was carefully kept by the British government subservient to their ally; the German company everywhere hoisted the German flag and displayed its nationality; it was, in fact, the German government working through the company for paramount influence.

The sphere of influence dominated by Germany through its *East African Company* lies between those of the *Imperial British East African Company* and the *British South African Company*, stretching from the east coast inland to Lake Tanganyika and the Congo Free State, with which last it is continuous. It thus covers some of the richest country in the Continent, the object of considerable jealousy to English traders.

The commercial success of the *Royal Niger Company* has, on the whole, been considerable; that of the *South African Company* is yet in the future; the British and German companies in East Africa have hitherto cut each other's throats.

[The charters of the three companies are to be found in the *London Gazette* of 13th July 1886 (Niger),—7th September 1888 (East African),—20th December 1889 (South African),—and a short account of the first and last is contained in the *Colonial Office List* for 1890, published by Messrs. Harrison and Sons. The *Royal Niger Company* and *British South African Company* have printed interesting accounts of their development for private circulation.] C. A. H.

AGAZZINI, MICHELE (an Italian economist of the commencement of the 19th century), published a system of political economy not destitute of original ideas, or, at least, of an original manner of presenting old ones. He had a clear idea of what was later called by SENIOR and CAREY the *cost of reproduction*, and makes it the centre of his theory of value. Every producer, according to Agazzini, obtains for his produce a price determined by the cost (in labour and abstinence) which the consumer *saves*; this same law holds good for the price of commodities, of labour, and of capital. The law of supply and demand (he says) regulates current prices, and the cost of reproduction normal value. All this is, however, explained in a language totally lacking technical precision. His most important work was first written and published by him in French under the title:

La science de l'économie politique, ou principes de la formation, du progrès et de la décadence de la richesse, et application de ces principes à l'ad-

ministration, 1822. Paris et Londres, Bossange père. It was published at Venice in Italian in 1827. Later, in 1834, Agazzini published a critical essay on Smith, Say, and Malthus, in which only the history of the doctrines concerning *value* are noteworthy. He is particularly successful in the correct exposition of the doctrines of the mediæval canonists. *Sconvenevolezza delle teoriche del valore insegnate da Smith, dai professori Malthus e Say e dagli scrittori più celebri di publica economia*, Milano, Fontana, 1834. M. P.

AGENCY, LAW OF. An agent is a person authorised by another (called the principal) to act on his behalf. An agent authorised to act for a special purpose only is called a particular agent; if there is a general authority to act within a given sphere, the agent is called a general agent. A partnership is an instance of general agency in the widest sense, each partner being, as a rule, considered the agent of his copartners for all purposes coming within the scope of the partnership business. An agent may not, according to English law, derive any concealed profit from his agency, and he may not, as a general rule, delegate his authority to another person. An agent may in his dealings with third parties act as principal, or he may state the fact of the agency without disclosing the name of the principal, or he may deal on behalf of a named principal. The rules of law concerning the liabilities and mutual relations of the various parties in all these cases are too complicated to be stated here, and the general rules are often modified by the customs of particular localities or particular trades. The authority of an agent acting on behalf of a corporate body cannot extend beyond the limits imposed upon the sphere of action of the corporation either by Act of Parliament, or by the charter of incorporation or by the memorandum of association (see ULTRA VIRES). E. S.

AGENTS OF PRODUCTION. The causes or requisites of production, often called "agents of production," may be divided into two classes: human action and external nature; commonly distinguished as "labour," and "natural agents." The first category comprises mental as well as muscular exertion; the second, force as well as matter. To the second factor is sometimes applied the term *land*: in a technical sense, denoting not only the "brute earth," but also all other physical elements with their properties. But this term is more frequently employed in another classification, according to which the agents of production are divided into three classes—land, labour, and capital. Of the two classifications which have been stated the former appears the more fundamental and philosophical. That "all production is the result of two and only two elementary agents of production, nature and labour," is particularly well argued by Böhm-Bawerk in his *Kapital und Kapitalzins*, pt. ii. p. 83. "There is no room for a third elementary source," he maintains. This view is countenanced by high authorities, of whom some are cited below. Even J. S. MILL, who is disposed to make capital nearly as important as the other members of the tripartite division, yet admits that "labour and natural agents" are "the primary and universal requisites of production" (*Pol. Econ.*, bk. i. ch. iv. § 1). Prof. Marshall, dividing the subject more closely, thinks "it is perhaps best to say that there are three factors of production, land, labour, and the sacrifice involved in waiting" (*Principles of Economics*, p. 614, *note*). For further remarks on the third species of agent see CAPITAL.

In the case where both labour and natural agents are required, the most frequent and important case, the question may be raised whether nature or man contributes more to the result. According to QUESNAY (*Maximes*, Edn. Oncken, p. 331) land is the sole source of riches. According to Adam SMITH, in manufactures "nature does nothing, man does all" (*Wealth of Nations*, bk. ii. ch. v.) The better view appears to be that the division of industries into those in which labour does most and those in which nature does most is not significant. It is like attempting "to decide which half of a pair of scissors has most to do in the act of cutting" (Mill, *Pol. Econ.*, bk. i. ch. i. § 3).

Agents of production may be subdivided into those which are limited, and those which are practically unlimited. This distinction applies principally to natural agents. For labour may in general be regarded as an article of which the supply is limited. The ownership or use of those agents of production which are limited and capable of being appropriated acquires a value in exchange. Hence rent of land and wages of labour take their origin.

To account for the difference in the rents paid for different lands, it has been usual, after RICARDO, to arrange the lands in a sort of scale of fertility: No. 1, No. 2, and so on. Upon this classification it is to be remarked that productivity, the real basis of the differences in question, does not vary according to any one attribute, such as the indestructible powers of the soil, or proximity to the centres of industry; but upon a number of attributes (compare B. PRICE, *Practical Pol. Econ.*, chapter on "Rent"). Moreover a scale in which lands, or other natural agents, were arranged according to their productive power, would hold good only so long as the other factor of production, human action, might remain constant. A light sandy soil may be more productive than a heavy clay, so long as the doses of labour applied to each are small. But the order of fertility may be reversed when the cultivation is higher. As Prof. Sidgwick remarks "these material advantages" [afforded by natural agents] "do not remain

the same in all stages of industrial development: but vary with the varying amounts of labour applied, and the varying efficiency of instruments and processes" (*Pol. Econ.*, bk. i. ch. iv. § 3). Compare Prof. Marshall, *Principles of Economics*, bk. iv. ch. iii. § 4.

A similar difficulty attends the attempt to arrange the other agent of production, human labour, in a scale of excellence; whereby to determine what has been called RENT OF ABILITY (*q.v.*). Prof. Macvane has noticed this difficulty in an article on "Business Profits" in the *Quarterly Journal of Economics* (Harvard) for Oct. 1887. Prof. Walker, in a reply to Prof. Macvane in the same journal, April 1888, admits and very happily illustrates the difficulty (p. 227).

[On this subject as many references might be given as there are treatises on political economy. The twofold classification above indicated is illustrated by the following:—HOBBES, *Leviathan*, beginning of ch. xxiv. ("The plenty of matter" consists of "those commodities which from the two breasts of our common mother, land and sea, God usually either freely giveth, or for labour selleth to mankind").—PETTY, *Treatises on Taxes* (3d ed. 1685), ch. viii. p. 57 (labour the father, land the mother, of wealth).—BERKELEY, *Querist*, Query 4. ("Whether the four elements and man's labour therein be not the true source of wealth.")—CANTILLON, *Essay*, pt. i. ch. i. (land the matter and labour the form of riches).—Courcelle-Seneuil *Traité théorique*, bk. i. ch. iii.—Hearn, *Plutology*, ch. ii.] F. Y. E.

AGIO. An Italian word, the original meaning of which is "ease, convenience." It was introduced into general mercantile language to express the additional sum payable by a person who wished to exchange one kind of money against another kind, the kind taken in exchange being in greater demand than the kind given in exchange; the person effecting the exchange paid the premium for his convenience. The expression when now used is employed in countries where a premium is payable on metallic money, and where paper money with a forced currency is the regular medium of exchange. E. S.

AGIOTAGE, OR AGIO, was a term first used in Venetian finance to denote the difference in exchange between depreciated currency and metal of full value. Such depreciated currency formerly consisted mainly of debased or worn coins, but more recently paper money, whether bank notes or government notes, have afforded illustrations under this head. The banks established at Venice, Hamburg, Genoa, Amsterdam and elsewhere, were bound by law to receive deposits and make payments according to certain standards, and the premiums charged upon such money as compared with the general circulation represented the *agio* payable to the banks in question. These banks were used in making international payments for the reason that their standard was a fixed, not a varying quantity, and served greatly to introduce the system of economising coinage by exchanging bills and promises to pay instead of actual metal. See BANKS, EARLY EUROPEAN.

AGNATI (ADGNATI). The members of a Roman family having a common legitimate male ancestor in the male line, either naturally or by fiction of law (adoption or marriage with *in manum conventio*). *Cognati*, on the other hand, are relatives in the modern sense. E. S.

AGRICULTURAL COMMUNITY. In giving an account of agricultural communities it seems best to follow the plan adopted by Mr. Seebohm in his standard work on the *English Village Community*, and to proceed from known and undisputed facts, open to present observation, back through historical evidence which step by step decreases in authority and increases in difficulty of interpretation until we arrive at the tribal organisations, clans, and kindred settlements of prehistoric times; that is to say, the comparative method may be first applied to existing communities, and to the traces and survivals of the past, and then an explanation may be attempted by the historical method.

Communities in which land is practically owned and cultivated in a collective manner, according to customary rules of great antiquity, and in which the rights and powers of any individual are strictly limited, still exist over large areas and among vast populations. In Central Asia the tribes of pastoral nomads are made up of groups, each under the authority of the head of a family, and nothing is the subject of separate ownership except clothes and weapons (LE PLAY, *Ouvriers Européens*). When a group becomes too large a division is made by the head in a manner suggestive of the division made between Abraham and Lot.

More interest, however, attaches to the communities which have a settled system of agriculture in a fixed area. The most important at present is the Russian MIR, which may be described as "the aggregation of inhabitants of a village possessing in common the land attached to it." Each male inhabitant of full age is entitled to an equal share of the land. The period of distribution at present varies in different districts, nine years being the average, and the limits from three to fifteen. The arrangements for the partition are decided by the peasants under the presidency of the *stavosta* (headman or mayor). All the arable land is divided into three concentric zones which extend round the village, and these zones are again divided into three fields to admit of the three-field system of cultivation. These fields again are divided into long narrow strips, in length from one to four furlongs, and in breadth from one to two rods. The division of the parcels is arranged so that every man has

at least one parcel in each of the great fields. The bundle of parcels is arranged before the lots are drawn. As a rule there is not much difference in the fertility of the land, but in some cases the measuring rods are of different lengths according to the fertility. Formerly a certain amount of forest, pasture, and meadow was attached to each village, the inhabitants paying a kind of labour rent, but by the Act of Emancipation of 1861 this part of the land was made over to the lord. The cultivation is carried on in a strictly routine manner, the time of sowing, reaping, etc., being fixed by the village assembly, and there being no division between the parcels of land, and no separate approach. The dwelling-house, *izba*, with its enclosed garden ground, is, however, private property, although even in this case the owner cannot sell it to a stranger without the consent of the *mir*, which has always the right of pre-emption. Before the abolition of serfdom the lord of the manor (to give the nearest English equivalent) granted about half the arable land to the SERFS, and cultivated the remainder with their forced labour of about three days a week. On the emancipation a rent (redeemable—the money being in many cases advanced by government) was fixed, and a minimum amount of land assigned to each serf. Power was given to the *mirs* by a two-thirds majority to abandon the system of collectivism in favour of individual ownership, but on the whole the *mir* has been rather strengthened, and is taken by the government as the basis of taxation. From the economic standpoint the most striking objections to the *mir*, which also seem to render its long continuance under modern conditions doubtful, are (1) the natural growth of population under the system of equal division. Hitherto this increase has been slow, owing partly to the large mortality of the children, and partly to the women being much older than their husbands, and to the prevalence of immorality. But the infant mortality might readily be lessened, and the system of unequal marriages, which rests on the convenience of the head of the family in obtaining women-servants by the marriage of his boys, seems to be falling into disfavour. (2) The second objection lies in the constraint placed upon individual enterprise by the compulsory cultivation according to fixed methods, in the impossibility of highly extensive cultivation with the periodic divisions of the land, and the absence of enclosures, and in causes similar to those which in England in the 15th century secured the victory of *several* (enclosed, individual) over *champion* (non-enclosed, common) cultivation (compare E. de LAVELEYE, *Primitive Property*, ch. iii. "Economic Results of the Russian Mir").

Next to Russia, India is the most important example of the present existence of village communities, although in the manner described by Sir H. Maine (*Village Communities*, Lect. IV.) their primitive simplicity and essential features were sacrificed for a time at least to alien English and Mohammedan law; the ZEMINDAR or official collector of customary taxes having been converted into a kind of manorial proprietor. In recent years, however, the tendency has been to protect these communities, and over large districts to regard them as the agricultural and fiscal unit. The general features—allowance being made for differences in climate—are not unlike those of the Russian *mir* and the early Teutonic settlements described below. There is the division into strips, and the cultivation according to minute customary rules of the arable portion, and there is a certain portion of waste enjoyed as pasture by the different members. The village consists of households, each under a despotic head, the family life being characterised by extraordinary secrecy and isolation. In many communities the customs are declared and interpreted not by a council of elders but by the headman alone, his office being sometimes hereditary and sometimes nominally elective. The various trades or crafts necessary to a self-supporting village are also often hereditary, *e.g.* the blacksmith, the harness maker, etc.

In Java a system prevails closely analogous to that of India. The village is jointly responsible for the payment of taxes, and there is common use of the waste. The rice fields are periodically divided amongst the village families and the houses and gardens are private property. Irrigation is conducted according to communal rules and plans (cp. De Laveleye, *Primitive Property*, ch. iv.) The *Allmends* of Switzerland furnish another example of common cultivation. These are lands belonging to the communes, the right of use, however, being hereditary in certain families only, and most residents even of long standing and although having political rights, are excluded. The *Allmend* furnishes wood for fire and building, pasture for cattle on the *alp*, and a certain portion of arable land. In some cases there is still periodical division of the land, in others the land is let and the proceeds devoted to the expenses of the commune.

In Scotland, in the crofting parishes, we find as a rule that the tenants have a certain amount of hill ground on which they have the right to pasture so many sheep or cattle, the number varying in different cases according to the holding. As soon as the crops are gathered the ground is thrown open in the same way. There are, however, no periodical divisions, and the village had no rights not derived from the feudal proprietor until the recent legislation giving effect to presumed custom established fixity of tenure at a "fair rent," and made provisions for consolidating holdings.

In England there still survive a number of

COMMONS and LAMMAS-LANDS in which certain members of a village have definite rights, and there are abundant traces of the old agricultural communities. In most of the countries of Europe where private property has become the rule there are also survivals which point to the wide prevalence of customary cultivation in common. On the historical development and gradual decay of the village community, the reader should consult Mr. Seebohm's remarkable work, which, on its broad outlines has been mainly followed in the rest of this article. Although nominally this work is confined to England, the search for a rational explanation led the writer to make a wide survey of many other countries at different times. Before Mr. Seebohm's work appeared many writers had called attention to the wide prevalence of common cultivation in England in recent times. A passage is quoted by Sir Henry Maine (*Village Communities*, p. 90) from Marshall's *Treatise on Landed Property* (1804), in which the writer from personal observation of "provincial practice" attempts to construct a picture of the ancient agricultural state of England. He notices the division of the arable land into three great unenclosed fields adapted for the regular triennial succession of fallow, wheat (or rye), and spring crops (oats, beans, peas, etc.) He describes also the division of these fields into strips and the mode in which the meadows and the waste were used. He gives also statistics on the extent to which in his day these open and common fields existed, which have been summarised by E. NASSE, *The Common Field System for England in the Middle Ages*. Mr. Seebohm points out (p. 14) that taking the whole of England with roughly speaking its 10,000 parishes, nearly 4000 Enclosure Acts were passed between 1760 and 1844, the object of these acts being expressly to get rid of the old common unenclosed fields. But in spite of the Enclosure Acts the old system has left many indelible traces on the surface of the land itself and the nature of the holdings in the size and shape of the fields (compare also Canon Taylor's paper in *Domesday Studies* on "Domesday Survivals"). The open fields were nominally divided into long acre strips a furlong (*i.e.* a furrow-long) in length and four rods in width. Originally these strips were separated by green *balks* of unploughed turf, and these balks can still be traced. A bundle of these long acre strips a furlong in width made a "shot" (Anglo-Saxon) "quarentena" (Latin) "furlong" (old English), and these furlongs were divided by broader balks generally overgrown with bushes. The roads by which access was obtained to the strips usually lay along the side of the furlong and at the end of the strips, and these roads, often at right angles to one another, still survive. There are further traces on the land itself of the old "head-lands" (Scotch headrig), the "linches," "butts," "gored acres" and pieces of "no man's land" (Seebohm, p. 6). Canon Taylor in the paper cited above gives some very remarkable examples of the effects of the same method of ploughing in these open fields having been practised for many generations.

But not only on the surface of the land, but in the present distribution of the fields and "closes" constituting a farm, the effect of its common open fields may be traced. Taking any manor as a centre we find the farms of which it is composed not consisting only of solid blocks (as in the newly-settled land of the United States), but of a number of little fields scattered about in the most "admired disorder," and at a considerable distance from one another. Of the present inconvenience and want of economy involved in the arrangement of farming land there can be no doubt from the modern agricultural standpoint, and if a *tabula rasa* could be made of the land such a wasteful method of distribution would never be adopted. The inference is plain that this irregular straggling scattered ownership and occupation of the land must be a survival from a past custom of which the inner meaning has been lost. The great merit of Mr. Seebohm's work is that he provides a key for the explanation of this peculiarity, and whatever modifications may be found necessary with further research this explanation is certainly at any rate a most valuable working hypothesis. Evidence of the full existence of the open-field system is easily perceived as far back as the 16th, 15th, and 14th centuries. We have the literary remains of the great agricultural controversy, in the two former centuries, on "champion" and "several" already alluded to, and for the 14th century we have the graphic touches of Piers Plowman in describing his "fair felde" full of all sorts of folk. Then through a series of documents such as the *Winslow Manor Rolls* (reign of Edward III.), the *Hundred Rolls* (Edward I.), the records of various abbeys, the *Boldon Book* (1183 A.D.), we are taken back to the great *Domesday Survey* (1086 A.D.) So far the result of the evidence is certainly to show that the further we go back the more clearly do we discover the wide prevalence of the open-field system and cultivation in common. Up to the time of *Domesday* at any rate, Mr. Seebohm may be admitted to have proved his case, and it will be convenient in this short summary at this point to abandon the retrogressive chronological method and to notice the principal features of the system at the time of the Conquest and the processes and causes of its decay.

At the completion of the Conquest there were certainly manors everywhere, some belonging to the king, others to great barons and prelates, and others to the mesne tenants of these greater lords (cp. Madox, *Exchequer*). Some lords held many manors and were represented by a steward or REEVE (*villicus*). The typical MANOR was a

manorial lord's estate with a village or township upon it under his jurisdiction and held in the peculiar system of serfdom known as villenage.

Passing now to the internal economic constitution of one of these manors and leaving the legal difficulties on one side, we observe that the arable land was divided into the lord's *demesne* and the land in villenage. The whole of the arable land was in three great open fields, and the demesne land was interspersed with the villein's land. For the present purpose the *liberi homines* may be omitted, and we may observe that there were three classes of tenants in villenage, namely *villani* (proper), *cotarii* or *bordarii* (cottagers), and *servi* (slaves). The chief interest attaches to the villeins. The typical villein holding was a virgate or yardland, and a VIRGATE normally consists of thirty acres, namely ten of the long-acre strips in each of the three great open fields. It has been calculated (Seebohm, p. 102) that about 5,000,000 acres were under the plough in the counties named in the survey, about half being held by the villeins.

The normal virgate was an indivisible bundle of strips of land passing with the homestead by regrant from the lord to a single successor. There were also rights to certain use of meadow and waste. The virgates with their homesteads were sometimes called for generations by the family name of the holder. The central idea of the system was to keep up the services of various kinds due to the lord of the manor, and the virgate was a typical family holding. The services consisted of so much WEEK WORK, generally three days, an uncertain quantity of boon-work (*ad precem*, precarious) at the will of the lord, and certain payments, occasionally of money but more frequently in kind. There were also restrictions upon the personal freedom of the villeins, *e.g.* the lord's licence must be obtained on the marriage of a daughter, or the sale of an ox, etc., and no one could leave the land without the lord's assent.

The normal outfit of the VILLEIN was a pair of oxen, and the ploughing was usually done with a team of eight oxen. Thus even so far as the beasts were concerned the co-operation of at least four villeins was required. We find also that certain craftsmen held their virgates in virtue of their services to the village, and the principal wants of the community were satisfied by its own labour. Everywhere and in everything custom was in force limiting the nature and amount of the services and prescribing the times and methods of cultivation. The principal differences between the English village community at the Conquest and at the time of the Black Death (1349 A.D.) are to be found in the gradual break-up of these overpowering customs and the increasing scope given to individual enterprise and variety. The nature of the movement is shown by the increasing irregularity of the holdings and the departure from the normal type, by the progressive limitation of the services demanded and above all by the substitution of money payments for these services and payments in kind. This commutation in the mode of rendering tribute to the landowner was the most potent cause of economic progress in the mediæval period. By the time of the BLACK DEATH the option at any rate of money payments had become usual. The landowner found his advantage in the greater efficiency of hired labour, and the villein had the power of benefiting himself by exceptional industry.

For a long time, however, the customary methods of cultivation prevailed, and, as pointed out above, the open fields remained down to the close of last century. The principal point to observe is that starting with the Conquest, economic and agricultural improvement has been closely connected with the disintegration of VILLAGE COMMUNITIES. The nature of this movement is, however, often overlooked, because a comparison is made at different times between different parts of the social scale, the modern farm labourer being compared to the villein with the virgate, to the apparent disadvantage of the former in spite of serfdom. But the true counterpart of the modern labourer was the mediæval slave, and the villein corresponds to the modern small farmer or landowner.

When we go back beyond the Conquest we find strong evidence of the prevalence in the eastern districts of Britain of these village communities in serfdom under manorial lords, though the points of similarity are at first disguised by the difference of language. There seems, however, little doubt that, whatever may have happened at the time of the Saxon invasion and in the dark period which followed after the departure of the Romans, as soon as the Saxons were settled they developed (or adapted) the essential economic features of the manor (compare the Laws of Ine quoted by Mr. Seebohm, p. 142). It is at this point that the principal controversy arises. The older view generally associated with the name of Von Maurer was that the Saxons imported into this island the fully-developed MARK SYSTEM. The members of the *mark* were freemen, and in their assemblies decided on points of interest to the community. The arable land was divided, and the portions of meadow were allotted by popular vote. According to this view the village community in historical Saxon times had degenerated from this original type, the overlordship of a single individual having taken the place of the free assembly of equals. Against this view, however, Mr. Seebohm has made out a very strong case. His principal points are that the Saxons in their own homes do not appear to have cultivated land on the THREE-FIELD SYSTEM; that as soon as historical

evidence is available we find the closest analogies between the agricultural systems in Saxon-England and that in the Romano-Teutonic portion of southern Germany; that there is no sufficient time allowed for the full development independently of the manorial from the mark system, and that there is no reason to suppose that the Saxons exterminated the inhabitants and treated the land as if it were virgin forest. The conclusion is that to a great extent the Saxons simply adopted the system which they found already established by the Romans during their four centuries of occupation. This opinion is supported by the close analogy between the conditions of tenure of the Romano-British *colonus* and the later *villani* (Seebohm, p. 267). Thus the Roman *villa* is made to contribute some of the most important elements of the late English village. But now the question arises:—Whence were the elements of the Roman system in Britain derived? Did the Romans themselves import their own agricultural customs and impose them upon the inhabitants, or did they adapt what they found to their own uses? It is known from other sources that the most usual course of the Romans in their policy of *parcere subjectis* was to amalgamate as far as possible foreign customs with their own. It is known also from historical evidence that before the Roman invasion in many parts of Britain there was a settled system of agriculture, notably in the south-east, and it would be in accordance with their usual practice for the Romans to take what they found as the basis of their own methods of cultivation and extracting revenue from the people. We are thus thrown still further back, in order to discover the elements of this system which existed in Britain before the Roman invasion, and in the search we discover, following the lines of Mr. Seebohm's investigation, that through the whole period from pre-Roman to modern times there were two parallel systems of rural economy the essential features of which were preserved in spite of the Roman, English, and Norman invasions—namely the *village* community in the east and the *tribal* community in the west of the island. Neither system was introduced into Britain during a historical period of more than 2000 years. The *village* community of the east was connected with a settled system of agriculture; the equality and uniformity of the holdings were signs of serfdom, and this serfdom again had itself arisen from a lower stage of slavery. The *mark* with its equal freemen, so far as this part of Britain is concerned, is thus an untenable hypothesis. We have equality and community, it is true, but they are based not on freedom but on organised serfdom. On the other hand the TRIBAL SYSTEM which prevailed in the west of Britain (especially Scotland and Wales) and also in Ireland was connected with an earlier stage of economic development mainly of a pastoral kind. The tribal community was bound together by the strong ties of blood-relationship between free tribesmen. This free equality involved an equal division amongst the tribesmen according to various tribal rules, and this custom of sub-division has survived to our own day in the "RUN-DALE or "run-rig" system of the west of Scotland and Ireland. In this brief summary many interesting points have been omitted and many certainly require further investigation. The origin of the size and shape of the long-acre strips, the original object of the irregular scattering, and the way in which the system became solidified in such an inconvenient form for modern requirements, can only be alluded to. Perhaps the most remarkable general result is that co-operation which we are accustomed to regard as a purely modern product is very ancient, but whether this co-operation arose, unlike most other ancient institutions, purely from rational elements and from motives of economy and convenience, has not yet been the subject of sufficient investigation. Certainly hitherto the principal danger in re-constructing primitive societies has been to import too readily modern ideas and not to allow sufficiently for what we should now call irrational elements.

[Besides the works referred to above the reader may consult for the history of English villenage, *Six Centuries of English Work and Wages*, by Prof. Thorold Rogers; and for other matters Coote's *Romans in Britain*.—Skene's *Celtic Scotland*; various works and papers by Professors Hannsen and Meitzen and Lamprecht on the open-field system in Germany; also the volumes entitled *Domesday Studies*.—G. L. Gomme, *The Village Community with special reference to the origin and form of its survivals in Great Britain*. London, 1890.] J. S. N.

AGRICULTURAL GANGS. See GANGS.

AGRICULTURAL HOLDINGS ACTS. An Agricultural Holdings Act for England and Wales was passed in 1875, but, not being compulsory, remained inoperative, and was repealed by the act of 1883, which is now in force, and applies to agricultural and pastoral holdings, to market gardens, and to holdings let to tenants in connection with any employments. The principal provisions of this act come under five heads: (*a*) Compensation for improvements, (*b*) fixtures, (*c*) distress, (*d*) notice to terminate yearly tenancy, (*e*) resumption of holding by landlord for the purposes of carrying out improvements.

(*a*) At common law an outgoing tenant is not entitled to compensation for improvements, except under a local custom. It is now provided that every tenant on quitting his holding shall be entitled to compensation for the improvements made at his own expense during his tenancy. The act enumerates three classes of improvements. As regards the first class (comprising the erection of buildings,

laying down of permanent pasture, making of gardens, etc.), compensation cannot be claimed unless the landlord has given his consent to the improvement. As regards the second (drainage), notice must be given to the landlord, who has the option of executing the improvement at his own cost, charging 5 per cent interest. The improvements comprised in the third class (boning, chalking, liming, application of artificial manure, etc.) may be executed without the landlord's consent and without notice to him. The sum payable for compensation is to represent the value of the improvements to an incoming tenant. Any contract made by a tenant, by virtue of which he is deprived of his rights to compensation, is void.

(*b*) At common law fixtures on agricultural holdings belong to the landlord. The act now provides that engines, machines, fences, or buildings, which the tenant affixes or erects without being obliged to do so, may be removed by an outgoing tenant, unless the landlord (to whom notice must be given) elects to purchase them at a price representing their fair value to an incoming tenant.

(*c*) In ordinary cases the landlord may distrain for six years' arrears of rent, but in the case of holdings coming under the act the right to distrain is now limited to one year's rent. Some partial and total exemptions from distraint are also created by the act. Live-stock taken in to be fed at a fair price payable by the owner cannot be distrained, if other sufficient distress be found, and cannot in any case be distrained for a sum exceeding the amount remaining due from the owner for the cost of feeding. Hired machinery, and live-stock belonging to another person which is on the premises merely for breeding purposes, are not to be distrained at all.

(*d*) The usual tenancy from year to year can be terminated at the end of each year by a six-monthly notice, but in the case of a holding coming under the act, one year's notice is now required in the absence of any special arrangement.

(*e*) The act allows a landlord in the case of a tenancy from year to year to give notice to terminate the tenancy, as to part only, if the land be wanted for labourers' cottages, or gardens, for allotments, for the planting of trees, for mines, quarries, or sand-pits, or for making watercourses or reservoirs, roads, railways, etc. The tenant may, however, within twenty-eight days after receiving the notice, inform the landlord that he accepts it as a notice to quit the entire holding.

An act applying to Scotland was passed in the same year (1883); it contains provisions as to compensation, fixtures, notice, and some matters peculiar to Scots law. As regards Ireland, see IRISH LAND LAW. E. S.

AGRICULTURAL SYSTEMS. Adam SMITH uses this term in the title of ch. ix. of bk. iv. of the *Wealth of Nations*, as equivalent to "those systems of political economy which represent the produce of land as either the sole or the principal source of the revenue and wealth of every country." The last part of the chapter deals with the policy of favouring agriculture rather than manufactures and commerce adopted by China and ancient Egypt, Hindostan, Greece, and Rome. This policy Adam Smith treats as an agricultural system, presumably because he thought it to have been inspired by a belief that the produce of land is the "principal" source of wealth. But the chief object of the chapter is to explain and criticise the system of the French "economists" or physiocrats, in which the produce of land is represented as the "sole" source of wealth. For an account of this system see PHYSIOCRATS.

Prof. Oncken maintains in the Introduction to his *Quesnay*, that Adam Smith has done less than justice to the "sect" of the "economists."

AGRICULTURE IN ENGLAND. The agriculture of the Romans in England, familiar with writers like Columella, and supplying the needs of an advanced civilisation, was superior to that of their barbarous predecessors or successors. During the Roman occupation the land which was owned by individuals was tilled in one of three ways: (1) by slave labour directed by a steward (*villicus*); (2) by tenants at produce rents (*partiarii* or *métayers*); (3) by free farmers at money rents (*liberi coloni*). [See Dickson's *Husbandry of the Ancients*, Coote's *Romans in Britain*, Daubeny's *Lectures on Roman Husbandry*.] It is probable that among the Romans, the Celts, and the Anglo-Saxons, common tillage was practised (on the question whether the Anglo-Saxon communities ever, in this country, owned the land they cultivated, see COMMONS). In one essential point the farming of the Celtic people who preceded the Romans differed from that of the Teutonic settlers by whom they were succeeded. Among the Celts fresh tracts of grass-land were successively taken in by the co-partners, tilled for corn, and then thrown back into pasture. To this primitive form of nomadic farming the name of "wild-field-grass husbandry" has been given (cp. NASSE on *Village Community*, and Marshall's *Agriculture of the Western Counties*). In the common fields of the Anglo-Saxon communities, on the contrary, pasturage and tillage were permanently separated; grass-land always remained pasture; it was never broken up for tillage. This permanent separation of grass-land from tillage appears a retrogression in farming practice. It is the application to England of a system which was better adapted to the drier climate of the country whence the Saxon immigrants came. Among the early Saxons the soil had been tilled by VILLAGE COMMUNITIES. The land held by the association

was divided into two main divisions: (1) round the homesteads lay permanent enclosures held as private property (cp. Tacitus, *suam quisque domum spatio circumdat*); (2) beyond the village lay the common lands of the association. This latter portion consisted of (*a*) arable fields, sometimes two, generally three, and in later times four, in number; (*b*) meadowland for hay; (*c*) rough wild pasture for live stock. Of the three arable fields one was cultivated each year for wheat or rye, another for oats, barley, peas, and beans, and the third lay fallow. Thus each field every third year was fallow. Both the meadow and arable lands were cut into strips and annually allotted to the use of individuals from putting up for hay or from seed-time. Each partner held scattered intermixed parcels in each of the arable fields, so as to equalise the quality of the land, and to give each a share in the different crops cultivated. The farming was regulated by a system of "field constraint," or later by the REEVE of the manorial lord. After the crops were cleared, separate use terminated and common rights recommenced, the cattle and sheep of the community wandering over the fields before the common herdsman or shepherd (for a detailed account of the system see Seebohm's *The English Village Community*). Co-tillage remained a feature of English farming after the Norman Conquest. Up to the close of the 18th century half the soil of England was thus cultivated, and, in 1879, 600 acres at Stogoursey near Bridgwater were farmed on this system (for the theories respecting the changes effected at the Conquest, see COMMONS). By the close of the 11th century, the immediate lordship of the soil was vested in lords of manors, subject to regulated rights of user enjoyed by the co-operative farmers. The manorial estate was divided into three parts, the DEMESNE, the tenemental land of the associated farmers, and the lord's wastes, over which the live stock of the tenants grazed. The soil was tilled by serfs, by freemen, and by semi-servile tenants, who paid for their land by military or agricultural services. Out of these grades in the rural population sprang the freeholder, the copyholder, and the free wage-earning labourer. The most striking features in mediæval farming were the violent alternations from perpetual cropping to barrenness, from indolence to intense labour, from famine to feasting. Scarcely anything was grown for markets; nearly all the produce was consumed at home by the producers. Arable land exceeded grass-land. No manure was employed; horses were scarcely ever used; oxen were more economical; their food, harness, and shoes were cheaper; when dead they were meat for man. The crops were wheat, oats, barley, rye, beans, peas, flax, and hemp. Rye was the chief grain crop. Roots, artificial grasses, and potatoes were unknown. There was little or no winter keep for live stock; consequently cattle were killed at Michaelmas, after having been well nourished by the aftermath of the meadows, or the stubble and haulm of the arable land, and salted for winter provision. Wheaten bread was a luxury of the richest. The monks were the only pioneers of good farming. In the change from mediæval to modern farming two great epochs must be noted—(A) the Tudor period; (B) the latter part of the 18th century.

(A) The BLACK DEATH, 1348-49-61, is said to have destroyed half the population of the country (see Hecker's *Epidemics of the Middle Ages;* Rogers's *Hist. of Prices*, vol. i.; Jessop, *Coming of the Friars, and other Essays*). The mortality resulting raised the rate of wages 50 per cent. The attempts of manorial lords to fix rates of wages by statute (25 Ed. III.) or to resume personal services, caused the PEASANT REVOLT of 1381. This proves that by 1350 the relations of occupiers and owners had settled down into more modern conditions, that tenant-farmers, copyholders, and free wage-earning labourers had replaced the serfs and villeins, that leases had become common, that the customary services of the peasantry were first rendered certain and then commuted for money rents or money wages (see Denton's *England in the Fourteenth Century*, and Ashley's *Economic History*). The effects of the Black Death were social rather than agricultural, and as such will be noted elsewhere. With the close of the Wars of the Roses and the commencement of the 15th century, begins the era of farming for profit which characterises the Tudor period. Feudalism was extinct; commerce progressed; the wool trade flourished; landlords required money, not retainers. Two great changes were introduced: (1) individual for common occupation; (2) the conversion of arable land into pasture. (1) Lords of manors withdrew from the agrarian associations and enclosed their demesnes and wastes; common-field farmers were encouraged to extinguish their reciprocal common rights, and exchange solid tenements for their scattered strips. (2) Arable land was converted into pasture, farms were consolidated, farm-buildings destroyed, and England became a sheep-producing country. The increase of enclosures and decrease of tillage, combined with the dissolution of the monasteries and the absorption of church lands into the estates of adjoining landlords, inflicted serious losses on thousands of cottagers, common-field farmers, and labourers, and produced the widespread social discontent of the Tudor period. It is the first step in the separation of the peasantry from their interest in land and the extinction of the YEOMEN class. Towards the end of the reign of Elizabeth the balance of social relations began to recover its equilibrium. The 17th century was a period of theoretical progress, practically interrupted by civil disturbances. The improvement is shown in (1) the rise of agricultural literature,

beginning with FITZHERBERT and TUSSER; (2) the introduction of new crops—hops (Reginald Scot's *A Perfite Platform of a Hoppe-Garden*, 1574), potatoes (J. Foster's *English Happiness*, 1664), turnips (Sir R. Weston's *Discourse of Husbandry*, 1650), artificial grasses (HARTLIB's *Legacie*, 1652); (3) improved methods of cultivation—Gabriel Plattes advocated drill-sowing; Vaughan (*Water Workes*, 1610) urged irrigation; Blith (*The English Improver*, 1649) studied drainage as a science; (4) increased attention to live stock—(Mascall's *Government of Cattell*, 1605); (5) removal of feudal abuses (stat. 12 Car. II.); (6) increased enclosures (Joshua Lee's *Eutaxia tou Agrou*, 1656).

(B) The work of the 18th century may be summed up in the practical application, diffusion, and extension of these improvements through the work of men like Tull, Townshend, Bakewell, Arthur YOUNG, and Coke of Holkham. Tull was a man of scientific turn, who invented several improvements in implements and was the exponent of drill-husbandry. "Turnip" Townshend introduced into Norfolk turnips and artificial grasses. The alternations of these crops with cereals enabled farmers to observe what, in the absence of chemical manures, was the golden rule of not taking two corn-crops in succession, largely diminished the area of fallows, assisted them to carry more live stock and feed it in the winter, increased their command of manure, and consolidated the light sandy soils of the eastern counties. Bakewell was the founder of the grazier's art. He was the first scientific breeder of sheep and cattle; and the methods he adopted with his Leicester sheep and Leicester longhorns were applied throughout the country by other breeders to other breeds. As population advanced, sheep and cattle were valued more for their carcases than for their fleece or their powers of draught. So long as the common-field system prevailed, Townshend's or Bakewell's improvements were impossible. England, excluded from foreign markets by wars and commercial policy, was compelled to supply the needs of vast manufacturing centres from her native resources. The common-field system, only adapted to meet the wants of producers, was obsolete. Arthur Young was the theoretical, Coke of Holkham the practical, exponent of the new system of large farms and capitalist farmers. Landlords put themselves at the head of the movement, expended money in buildings, granted long leases. New roads and canals opened out new means of communication. Agricultural societies and shows were multiplied; surveys of the country were made by Young, MARSHALL, and the Board of Agriculture, which was constituted in 1793 (see BOARD OF AGRICULTURE). Between 1760 and 1820 more than 6,000,000 acres of land were enclosed. The change produced a new agricultural and social crisis more severe than that of the Tudor period. The century closed with the miseries which resulted from enclosures, consolidation of holdings, and the reduction of thousands of small farmers to the ranks of wage-dependent labourers. The result of the crisis was to consolidate large estates, extinguish the yeomanry and the peasant proprietary, and to sever the connection of the labourer from the soil. The subsequent history of agriculture may be summed up in the application of science to practice under the conditions of land-tenure, with which we are now familiar. Vast capital has been expended on farm-buildings and drainage; machinery and steam have lessened the cost of production; the farmer's resources of crops, winter food, manures, and implements are indefinitely increased; new means of transport have opened new markets in every direction; mechanics, capitalists, architects, geologists, chemists, physiologists, botanists, statisticians, are now enlisted on the side of the farmer. Smith of Deanston (1834) and Josiah Parkes (1843) applied their practical and scientific knowledge to drainage; Reed's cylindrical pipes (1843), Scrogg's machine (1843) for their construction, and the facilities provided by parliament for raising loans for land improvement (1846) enabled landlords to profit by improved science and new appliances. New manures were discovered. Nitrate of soda (1835), Lawes's superphosphates of bone dust (1843), Henslow's superphosphates from coprolites (1843), Odam's ammoniacal manures (1851), revolutionised the old rules of cropping. Inventions in agricultural implements of every description were rapidly produced. New crops such as swedes, field cabbages, kohl-rabi, mangel-wurzel, etc., were introduced. More live stock is kept, and it is better bred, better fed, and more rapidly brought to maturity. Intelligence is more widely diffused both among landlords and farmers. Agricultural statistics supply new and valuable information and record the results of striking experiments. The constitution of the Royal Agricultural Society in 1838, in place of the old Board of Agriculture which expired in 1819, marked the return of prosperity after the disastrous interval from 1795 to 1835. Many legislative improvements were effected, such as the new POOR LAWS, the Commutation of TITHES, the General ENCLOSURES Act, the Enfranchisement of Copyholds, the SETTLED LAND ACT, the AGRICULTURAL HOLDINGS ACTS. Recently also (1889) the BOARD OF AGRICULTURE (*q.v.*) has been re-established. But in the last fifteen years agriculture has ceased to progress, even if it has not retrograded, owing to the agricultural depression of 1873-89 (see DEPRESSION, TRADE AND AGRICULTURE).

[Besides the books mentioned in the text the student is referred to the following works: (1) Professor Rogers's *Agriculture and Prices*; (2)

Professor Rogers's *Six Centuries of Work and Wages*, both which contain an immense amount of valuable information; (3) Prothero's *Pioneers and Progress of English Farming*, which is intended to meet the want of a short history of agricultural progress, especially in the 18th and 19th centuries; (4) and the following original authorities—Arthur Young's *Tours of the English Counties* (Southern, 1768, 1 vol.), Northern (1770, 4 vols.), Eastern (1771, 4 vols.),—and *Tour in Ireland* (1776-79);—Marshall's *Rural Œconomy of the English Counties and Scotland* (1787-98, 14 vols.); —*Reports of the Board of Agriculture*, 1793-1815; —*Reports of the Royal Commissions on Agriculture*, 1820, '21, '22, '33,' 36, '37, and '79-81;—Pusey's *Parliamentary Committee on Agricultural Customs*, 1848;—Sir James Caird's letters to the *Times* as *Times* commissioner in 1850-51;—*Landed Interest*, 4th ed., 1880; and the letters of the commissioner of the *Morning Chronicle* in 1850;—the *Parliamentary Inquiry into Land Improvements*, 1873;—*Report of the Central Chamber of Agriculture on Agricultural Customs*, 1874;—and the *Agricultural Returns* annually published since 1864.]

R. E. P.

AICKIN, Rev. Joseph, author of *Mysteries of the Counterfeiting of the Coin of the Nation . . .* (London, 1696). As a method of "preventing the said abuse for ever," it is proposed that a licence should be required for all occupations in which the materials or implements employed in counterfeiting coin are made, sold, or used. F. Y. E.

AID, Auxilium. A tax, which might be assessed, while the feudal system prevailed, on the knight's fee on three occasions: (1) when the king made his eldest son a knight; (2) when the king gave his eldest daughter in marriage; (3) if the king were made captive, to ransom his person (Dowell, *History of Taxation in England*, vol. i. p. 21). Used also in same sense as Subsidy (*q.v.*)

AID, Rate in. See Local Taxation.

AIDES, Cour des. The *aides*, or indirect taxes on commodities, were first imposed in France by the States-general in 1355. Instead of entrusting their administration to the existing financial court, the *chambre des comptes* (see Comptes, Chambre des), a new body was created called the *cour des aides*. Before long its functions became almost solely judicial, the decision of disputes arising about the Gabelle on salt and other indirect taxes. Its jurisdiction was curtailed by the usurpations of the *conseil du roy*, and was frequently disputed by the rival *chambre des comptes*. It continued to exist as one of five *cours souveraines* till it was swept away with the other institutions of monarchical France by the Revolution.

[Gasquet, *Précis des Institutions politiques et sociales de l'ancienne France.*] R. L.

AIKIN, John, M.D. (1747-1822) brother of Mrs. Barbauld and author of *General Biography*, *Works of the British Poets*, etc., editor of *Dodsley's Annual Register* (1811-15), the *Athenæum*, etc., published in 1795 his *Description of the Country from 30 to 40 miles round Manchester*, giving details of commerce, manufactures, population, in addition to physical features, history, and biography of leading men—a work still valuable for the history of the Industrial Revolution (*q.v.*) J. B.

AISLABIE, John, born December 1670, sat as M.P. for Ripon 1695-1702, then for Northallerton, and for Ripon again from 1705 to his expulsion. He was chancellor of the exchequer in the Sunderland ministry in 1718, and supported the South Sea scheme for paying off the national debt. When the bubble broke in 1720, a secret Committee investigated his connection with the company and he was expelled the House of Commons. He died in 1742. He wrote:

Speech upon his Defence in the House of Lords against the Bill for raising Money upon the Estates of the South Sea Directors, London, 1721, 4to (three editions; also in Dutch).—*Second Speech*, London, 1721, 4to.—*Memorial of the Contractants with Mr. Aislabie in a Letter to Lixinius Stolo*, London, 1721, 8vo. H. R. T.

ALBA FIRMA. The term applied to rents reserved by the crown in silver, or white money, as opposed to rents reserved and payable in kind. 2 Coke's *Institutes*, 19. J. E. C. M.

ALCAVALA. A tax formerly charged in Spain and its colonies on all sales of property. The name, of Moorish origin, had existed from very early times; we possess documents of the 12th and 13th centuries in which it occurs; but it appears to have been then applied to a species of seigniorial due, or, perhaps, sometimes to a tax levied to meet a special emergency and confined to certain places. Alfonso XI., 1342, imposed it on the whole of Castile and Leon, his object being to procure money for the war with the Moors. At first only temporary, the cortes of Burgos, 1377, granted it to Henry II. without limitation of time. It was a duty, originally of 10, afterwards of 14 per cent on the selling price of every sort of property, whether movable or immovable, chargeable as often as the property was sold. In Adam Smith's time it had been reduced to 6 per cent. It continued to exist down to the invasion of Spain by Napoleon, except in Catalonia and Arragon, those provinces having purchased exemption from Philip V. It violated the fourth of Smith's canons of taxation, taking and keeping out of the pockets of the people more than it brought into the treasury of the state. It was, besides, a great annoyance to manufacturers, merchants, and shopkeepers who, for the purpose of its collection, were subjected to the continual surveillance of the tax-gatherers. Ustaritz attributes to it the ruin of the manufactures of Spain; he might, says Smith, have imputed to it also the decline of agriculture, as it was imposed not only on manufactures, but on the rude produce of the land.

[Colmeiro, *Historia de la Economia Política en España*, vol. ii. p. 550; Smith, *Wealth of Nations*, bk. v. ch. ii.] J. K. I.

ALCOCK, Rev. Thomas, was born in 1709, and died in 1798. He graduated M.A. at Oxford (Brasenose Coll.) in 1741. He was presented to the vicarage of Runcorn in Cheshire, and printed some small pieces, besides the following ably written pamphlets:—*Observations on the Defects of the Poor Laws, and on the causes and consequences of the great increase and burden of the Poor*, London, 1752, 8vo (an attack upon compulsory provision).—*Remarks on two Bills for the Better Maintenance of the Poor*, London, 1752, 8vo.—*Observations on that part of a late Act of Parliament which lays an Additional Duty on Cyder and Perry*, Plymouth, 1764, 8vo. (The duty of 4s. per hhd. on cider imposed in 1763 was repealed in 1766.) H. R. T.

ALEATORY (derived from the Latin *alea*, a die) means uncertain, risky. The more uncertain any prospective advantage appears, the less *ceteris paribus* will be given for the chance of obtaining it. In other words a greater risk must be compensated by a prospect of greater gain, the purchase-money being the same. Thus £100 stock bearing a fixed interest, say £3 per cent, will fetch a lower price the less safe the security is. A person investing a certain sum of money, say £100, will expect a higher interest according as the investment is more speculative. It must not be supposed that the diminution of value due to uncertainty admits of being determined by any actuarial calculation of probabilities. For the depreciation depends not so much on the real uncertainty as on the purchasers' estimate of the risk. On the one hand, as Prof. Sidgwick points out (*Principles of Political Economy*, bk. ii. ch. vi. § 2), "ignorant, rash, and credulous persons investing in novel undertakings are believed to get, on the average, considerably less interest than if they had lent their capital on perfectly good security." On the other hand "there may be and often is something to be allowed as a charge on account of uncertainty" . . . considered as "an evil in itself." . . . A railway stock that is certain to pay 4 per cent will sell for a higher price than one which is equally likely to pay 1 or 7 per cent, or any intermediate amount" (Prof. Marshall, *Principles of Economics*, bk. vi. ch. vi. § 5). Similar principles apply to the influence of risk upon the remuneration of different occupations. Adam Smith's remarks upon the "natural confidence which every man has more or less not only in his own abilities, but in his own good fortune" (*Wealth of Nations*, bk. i. ch. x.), do not require to be quoted. Prof. Marshall thinks that "in the large majority of cases the influence of risk is in the opposite direction" (*loc. cit.*), tending to increase the remuneration by an amount greater than the insurance against risk.

For a fuller discussion see Probability and Risk as an Element of Cost of Production. F. Y. E.

ALE-TASTER. This was the title of an officer formerly appointed under the Assize of Bread and ale (1267) to inspect the quality and regulate the sale of those commodities in every borough and manor. In some parts of England the office still survives, but its functions have become purely formal. R. L.

ALGAROTTI, Francis, born at Venice 1712, died at Pisa 1764. He was learned and very witty, and owes his reputation to his literary merits and his long personal intercourse and friendship with Frederick II. of Prussia, who ordered a monument to be erected at Pisa to his memory with the epitaph:

Algarotto . Ovidii . Aemulo
Newtoni . Discipulo
Fridericus . Magnus

He was a great admirer of English science, English literature, and English political institutions. As an economist he wrote but little—*An Essay on Commerce* and a short pamphlet on the advantages of developing Africa commercially rather than Asia or America. This little tract contained an idea which was utilised thirty years later by the African Company, directed by Sir Joseph Banks, at whose expense the famous traveller Mungo Park undertook his expedition. M. P.

ALIENI JURIS. Persons are *alieni juris* if they are not fully capable of binding themselves by contract or to alienate property, alienable in itself, *e.g.* infants and married women. They are opposed to persons *sui juris*. E. S.

ALIENS. The subjects or citizens of a foreign state. The disabilities of aliens have in England been almost entirely removed. Up to the year 1870, aliens were unable to acquire any land either by descent or purchase, and even natural-born subjects could not make a title to land by descent from alien ancestors. The only disqualification which still remains, as regards the ownership of property, arises from the rule of law that no alien may be owner or part owner of a British ship.

An alien *enemy*, though he can make a valid contract in England, has, during the continuance of the war, no right to enforce it by action, and if the war lasts long enough his claim may thus be barred by the Statute of Limitation. An alien cannot be a member of either house of parliament, and has no parliamentary vote; on the other hand he has the privilege of serving on juries if he has resided in England or Wales for upwards of ten years. An alien involved in civil or criminal litigation in England was up to the year 1870 entitled to a jury "de medietate linguæ"—*i.e.* a jury one half of which was composed of foreign subjects.

An alien may become a British subject by naturalisation, either by special act of parlia-

ment or by a certificate of the Secretary of State. The law as to NATURALISATION is at present regulated by the acts of 1870 and 1872, the effect of which is to confer on naturalised foreigners all the rights and privileges of a British-born subject. A candidate for naturalisation must have resided in the United Kingdom or served under the crown for at least five years, and must declare his intention to establish his permanent residence in the United Kingdom or to take service under the crown. He must also swear the oath of allegiance.

E. S.

ALISON, SIR ARCHIBALD, first baronet, son of Rev. A. Alison (born 1792, died 1867), was educated at Edinburgh University. A paper written by him in reply to MALTHUS determined his profession as a lawyer. Alison was called to the Scottish bar December 1814, and appointed advocate-depute in 1822. He travelled on the Continent, wrote much in *Blackwood*, was made Sheriff of Lanarkshire in 1834, and published his voluminous *History of Europe* (1789-1852), full of economical reflections, some biographies, an autobiography, and other works. The Act restricting the paper currency, the Reform of 1832, and the abolition of the corn laws were his special abominations. Few, if any, writers have insisted with more vehemence on the advantages of an increased production of the precious metals than Alison (*History of Europe*, ch. i. §§ 33-40, 1851-52). It was to the decrease in the supply of gold and silver and to the shrinkage in the circulatory medium thus caused, that he ascribes the decline and fall of the Roman Empire. Hence it was natural that Alison should entirely approve of the SUSPENSION OF SPECIE PAYMENTS in this country carried out in 1797, and the substitution of a paper currency during the severe struggle of the early years of this century (see Walker, *Money*, pp. 81-83, 349, 350, New York, 1883). He wrote:

The Principles of Population and their Connection with Human Happiness, Edinburgh, 1840, 2 vols. 8vo (dull and wordy; the relations between population and subsistence are elaborately set forth).—*Free Trade and Protection, being a Tract on the Necessity of Agricultural Protection*, Edinburgh, 1844, 8vo.—*England in 1815 and 1845, or a Sufficient and Contracted Currency*, Edinburgh, 1845 (4th ed. 1847).—*Free Trade and a Fettered Currency*, Edinburgh, 1847, 8vo.—*Essays*, Edinburgh, 1850, 3 vols. 8vo (many economical).

H. R. T.

ALISON, WILLIAM PULTENEY, M.D., professor of the practice of medicine in Edinburgh, brother of the historian, is best known by his *Observations on the Management of the Poor in Scotland*, 1840 (see Carlyle's *Past and Present*), and his *Remarks on the Report of the Commissioners on the Poor Laws of Scotland*, 1844. He gives extracts from the evidence, drawing special attention to the unemployed. In opposition to T. CHALMERS, and indeed to the Report itself, he pleads for an extension of legal relief. He wrote a dissertation on the *Reclamation of Waste Lands* (1850), in which he suggests this as a proper field of employment for convicts and paupers.

J. B.

ALLMEND. See AGRICULTURAL COMMUNITY.

ALLONGE. A slip of paper fastened to a bill of exchange to receive indorsements for which there is not space on the bill itself; "as a protection against fraud, and in compliance with the provisions of some of the foreign codes, the first of the indorsements in connection with it is sometimes so made that it begins on the bill and ends on the allonge. There is no legal limit to the number of indorsements."

[Hutchison, *The Practice of Banking*, vol. i. p. 188.]

ALLOTMENT. A small portion of land cultivated by a labourer or artisan in his leisure hours. There is ample evidence to show that previous to the Tudor period the labourer and the artisan had usually a piece of ground attached to their homes. A series of economic changes and the policy of the land system gradually resulted in the separation of the labourers from the soil (see Cliffe LESLIE'S *Land Systems of Ireland, England, and the Continent*, London, 1871; NASSE'S *Land Community of the Middle Ages*, London, 1871; ROGERS' *Six Centuries of Work and Wages*, London, 1884). An attempt to check this movement was made by the 31 Eliz. c. 7, which prohibited the building of any cottage without an allotment of four acres. The inclosure acts of the 18th century deprived many labourers of their land, though the advantages of allotments were recognised, in 1795, by a select committee of the House of Commons. The Select Vestry Act, 1819, empowered the churchwardens and overseers of a parish to let land to industrious inhabitants and the 1 & 2 Will. IV. c. 42; 1 & 2 Will. IV. c. 59; and 2 Will. IV. c. 42 contained similar provisions. The Allotments Committee of the House of Commons in 1843 recognised the importance of allotments, but the Women's and Children's employment committee of 1868 reported that but sparing use had been made of the facilities granted by the legislature. The total number of separate detached allotments under one acre existing in 1890 was 455,005. The number of other small holdings up to 50 acres was 409,422 (see *Return of Allotments and Small Holdings*, 1890, c. 6144).

In 1887 an act (50 & 51 Vict. c. 48) was passed which empowers a sanitary authority on the petition of six ratepayers to purchase land for allotments not exceeding one acre each. If the land cannot be obtained by agreement, the county council may authorise its being taken compulsorily, the price being determined by arbitration. All the conditions of tenancy are to be

fixed by the local authority, but no buildings save those mentioned in the act can be erected on the land. On the economic advantage of allotments see in addition to the authorities above quoted, *Report of the Poor Law Commissioners*, 1834; *English Land and English Landlords*, by G. C. Brodrick (London, 1881). As to small holdings, see Report of Select Committee H. of C., 1890.

[J. S. Mill objects, *Principles of Political Economy*, bk. ii. ch. xii. § 4, to the allotment system. For account of the law previous to 1886, see *The Law of Allotments*, by T. H. Hall (London, 1886).]

J. E. C. M.

ALLOWANCE (TARE, or difference between GROSS and NET). A commercial term signifying the deduction made from the gross weight of the goods, either to represent the weight of the package or refuse, or a particular deduction established by custom of certain trades, districts, or countries. *Tare* has been more especially described as the allowance for the weight of the box or package, or the cart or waggon in which the goods are conveyed; and *tret* as an allowance for waste, but the former is the word more generally in use; and gross weight and net weight, live weight and dead weight, and *allowance* in converting from one to the other, are business terms commonly understood. One instance of *allowance* will suffice. The coal merchant receives from the colliery 21 cwts. of coal from the pit for every ton purchased by him, while he sells to the consumer but 20 cwts. The difference is the allowance, or tare, to cover waste in transhipment, cartage, and screening. In many other industries similar allowances are made.

ALLOWANCE SYSTEM. The allowance system was a conspicuous feature in the administration of the poor law at the very end of the last and beginning of the present century. It was a form of out-door relief (see POOR LAW), and may be defined as relief given to those employed by individuals at the average wages of a district. It was thus, in effect, an attempt on the part of the state to regulate wages, and its history gives an illustration of the results which political economy leads us to expect from such interference. It is not too much to say that in the brief space of forty years, the allowance system sent large areas of land out of cultivation, forced capital into less profitable employments, and caused a demoralisation from which the labourers in some rural districts have not yet recovered. The very class which it was designed to benefit has suffered most from its action.

It originated with the administrative authority, viz. the justices of the peace. These derived or assumed their powers under 5 Eliz. c. 4, which authorised them to fix wages, taken in connection with 3 & 4 W. and M. c. 11, and 9 Geo. I. c. 7, which empowered them to order and direct relief. The system in practice dates from 6th May 1795, when the Berkshire justices resolved to make up by relief from the rates the difference between actual wages and what, in their judgment, was a minimum or "fair" rate for the county. In fixing this last, the price of bread and the size of the family were to be taken into account, *e.g.* when bread was at 1s. 8d. the gallon, a single man was to receive in all 4s. 6d., a man and wife 6s. 8d., man, wife and five children 17s. 6d. This resolution is often called the "Speenhamland Act," from the place of meeting of the justices, and the scale drawn up for Berkshire was used as a model by most of the southern counties. It may be doubted how far such action was even legal, as, by 9 Geo. I. c. 7, relief had been prohibited to those who refused to accept it in a workhouse; but it was supported by public opinion, and confirmed in principle the next year by 36 Geo. III. c. 23, which repealed the prohibitory clauses of 9 Geo. I. c. 7, and empowered justices to order relief to any industrious poor person at his own house or home.

The effects of the system were soon seen. Within forty years of the passing of 36 Geo. III. c. 23 it seemed probable that rents would cease altogether to be paid, and in one parish, Cholesbury, Bucks, the rates had actually swallowed up the rental. Where the leasehold system threw the burden temporarily on the occupier, no solvent tenants were forthcoming owing to uncertainty as to the amount which they might be called upon to pay, for in some cases the rates increased threefold in twenty years. In several counties (*e.g.* Kent, Cambridgeshire, Leicestershire) rent was gradually but surely disappearing.

It might seem, at first sight, as if profits would be raised by a system which forced non-employers to contribute to the wages of labour. But in agriculture any such advantage was more than counterbalanced by an increase in the cost of labour, due to its diminished efficiency. The motive to industry being removed when the reward of the labourer no longer depended on his exertions, industry itself disappeared. In manufactures, on the other hand, where piece-work was generally adopted, a closer supervision exercised, and a larger proportion of non-employers liable to the poor-rate, the system increased profits largely.

Both in agriculture and in manufactures the wages of labour were lowered, partly by the great diminution of efficiency, partly by the increase of population which was stimulated under a system which placed the married man with a family in a better position than the single man, and the mother of illegitimate children than the honest woman, partly, again, because employers were deterred from employing non-paupers by the consideration that they were thus reducing their neighbours' labour bill. More important still was the moral effect of the

system upon the labourers. Industry and prudential foresight were extinguished when the possession of property was a bar to employment, and the position of the thriftless was made an object of envy to the careful: parental responsibility, filial obligation and affection were discouraged; drunkenness, vice, and crime grew apace; and the deterioration of a large part of the labouring population in the districts in which the system was adopted became matter of common knowledge. Had it continued in force but a few years longer the whole social fabric must have crumbled away. The relations between employer and employed were embittered to an extent which showed itself in constant riots; in the southern counties the labourers established a reign of terror. Meanwhile the production of wealth fell off as the rates rose, population grew apace, and civilisation went backwards.

Allowances in aid of wages were gradually abolished as regards men, by the orders of the poor-law board restricting or prohibiting outdoor relief to the able-bodied. It may, however, be questioned whether the same results are not now produced in the case of women by a loose administration of the law.

[For a full account of the allowance system, see Poor-Law Commissioners' First Report, 1834 (reprinted by order of House of Commons, 1885). —Nicholls, *Hist. of the English Poor Law.*— Eden's *State of the Poor.*—Fowle, *The Poor Law* (Macmillan; English Citizen Series).] L. R. P.

[The following statement, taken from the obituary notice of the Rev. Henry Playsted Jeston, late perpetual curate of Cholesbury, Bucks, in the *Guardian* newspaper of 3d July 1889, gives a vivid picture of the effects of the allowance system under the old poor laws.

"In 1830 the parish (Cholesbury), under the old poor law, was on the verge of bankruptcy. In 1831, out of 98 who had a settlement in the parish (the total population being then 127, and in 1881 being 99), there were no less than 64 in receipt of relief, and the poor-rates alone exceeded 24s. in the pound. As the result, the glebe, as well as all the land in the parish save some sixteen acres, was thrown out of cultivation, and the parish had to exist for some time by means of rates in aid levied on other parishes in the hundred. This state of affairs, together with a series of letters which Mr. Jeston wrote to the *Times*, and his evidence before the poor-law commission, had a considerable share in bringing on the present poor law. Before his death Mr. Jeston saw his parishioners in a fairly prosperous condition, not one of them being in receipt of relief from the rates."]

ALLOY. With regard to the derivation of the word "alloy" it may be sufficient to point out that the old French *alei* was retained in the Norman as *alai* or *allai*, whence our word "allay." Through the erroneous fancy that the French *aloi* was equivalent to *à loi* (to law), the word meaning originally simple "combination union" came to be used specially of the mixing baser metal with gold and silver in coin so as to bring it to the recognised standard, and hence of the standard itself. The French word comes from *alleium* or *alaium*, the original being probably *adligo* (*allego*), to bind to.

The meaning of the word alloy in mint language is different from that ordinarily accepted in scientific phraseology, as it is applied to the base metal added to a more precious one, and not to the mass—which may be either molten or solidified—of the mixed metals.

The reasons for the use of alloys for the coinage in preference to pure metals are somewhat complex, and many conditions have to be taken into consideration in choosing the base metal to be added to the precious metal. The resulting alloy must be of good colour, must be ductile, and must not exhibit any traces of brittleness. In the case of gold, silver forms a very ductile alloy, but then it sensibly lowers the colour of the gold. Copper, on the other hand, heightens the tint and has the advantage of yielding a durable as well as ductile alloy. A triple alloy of gold, silver, and copper may be made of delicate tints, but a triple alloy is difficult to assay, and it is undesirable to complicate the accounts of a mint by the use of two precious metals and a base one in the same alloy, therefore a single base metal—copper—is almost universally used.

It has long been known that the union of two or more metals produces a result which often differs more in physical properties from either of its constituents than these do from each other. Copper and tin, for instance, yield alloys of a wide range of properties, and there is hardly any fact more remarkable in the whole range of metallurgy than the enormous influence exerted on a large mass of metal by a small quantity of another metal as metalloid.

The properties which are found the most desirable to be secured are:—(1) ductility; (2) durability; (3) uniformity of composition.

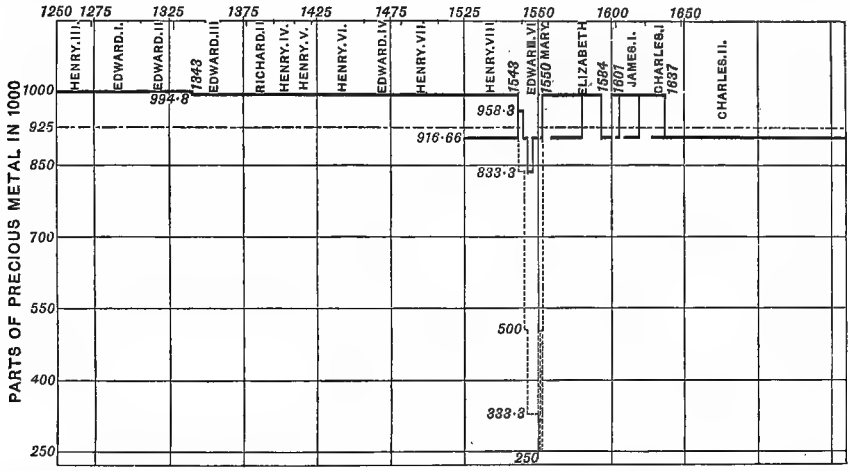
The alloys actually used for coinage at the present time are not numerous, but looking back over the numismatic history of the world, endless combinations of the precious and base metals will be found to have been used. Pure gold and silver have been used, either singly or alloyed with each other, or alloyed with copper, the latter metal in turn being sometimes employed with only infinitesimal additions of precious metal.

In the case of both the gold and silver currency of this country the adjustment of the relative proportions of the precious and the base metals was undoubtedly guided by the particular systems of weights used. To take the silver coinage first, the fineness of alloys of this metal has from very early times been computed by divisions of the troy POUND, which weight is still retained in weighing

gold and silver. The computation of the standard fineness for alloys of gold is based on the singular "carat" system of weights, the origin of which is popularly believed to have been derived from the weight of an oriental plant seed. It appears more probable, however, that it came from the "*Keration*," a small Greek weight (see also PERIOT).

The standard of fineness of the alloy used at the present time for the British gold coinage is 22 carats, or 916·66 parts in 1000 of pure gold; that for the silver coinage is 925 parts pure silver.

The accompanying table shows the variations in the standard of fineness from the reign of Henry III. to the present time. The coins in circulation in France from the beginning of the 17th to the end of the 18th century varied in fineness from 900 to 982, when, however, the decimal system of weights and measures was fairly established, coins were issued in conformity with it. The law of the 28th Thermidor, an. iii. (1796), enacted that the standard fineness of the silver coins should be 900, and eight years later a law prescribed the coinage of gold pieces of twenty francs, the standard of which was also 900. A subsequent law lowered the standard fineness of silver coins to 835. By the Monetary Convention of 1865 concluded between France,



Belgium, Italy, and Switzerland these standards of fineness were adhered to, and several other countries have adopted the same monetary system. In Germany the standard fineness of both gold and silver has been fixed at 900, and the same standard has been adopted in the United States for both metals.

It will be evident, from the table as well as from the foregoing remarks, that the two really important alloys used for the coinage of gold have respectively the standard fineness of 916·6 and 900, while the standard 900 is now more widely used than any other, England alone employing 925, which still maintains the connection with Saxon coins. C. R-A.

ALOD, ALODIAL LAND. When the German tribes overran Europe in the 5th century, they distributed among themselves the conquered lands. In England, owing to the displacement of the conquered population, this distribution was probably more complete than elsewhere. Each township or village received an allotment of land, the surplus being the FOLKLAND, or property of the tribe. Within the village a further distribution took place among the free heads of households, each of whom had a homestead as private property, while the arable and pasture land remained for some time in common occupation, being annually distributed for the harvest, whether of hay or corn. Land which was held in separate ownership was called *ethel* or *alod*. The derivation of the latter word is disputed, but it is probably connected with lot, and thus expresses the original method of distribution. In the 11th century we find the term applied in England to all land held independently, without rent or service to a superior. It thus included both the original *ethel*, and also BOCLAND, or private estates carved out of the *folkland* for the benefit of individuals. After the Norman Conquest alodial land ceased to exist, owing to the general introduction of feudal or conditional tenure.

[See Stubbs, *Constitutional History*, vol. i. ch. v.—Kemble, *Saxons in England*.—Freeman, *Norman Conquest*, vol. i.] R. L.

ALTERNATIVE STANDARD. It has been urged by monometallists that a STANDARD OF VALUE formed of two metals is not really a double, but only an alternative standard, debtors, where payment is permitted in either metal, naturally electing to use the cheaper

in discharge of their obligations. Jevons says on this subject, referring to the countries included in the Latin union—"When silver is lower in price than 5s. 0½⅝d. per ounce, silver becomes the standard; when silver rises above this price, gold takes its place as the real measure of value. So far the English economists are no doubt correct; but, in the first place, it does not follow that the prices of commodities follow the extreme fluctuations of value of both metals, as many writers have inconsiderately declared. Prices only depend upon the course of the metal which happens to have sunk in value below the legal ratio of 15½ to 1. . . . At any moment the standard of value is doubtless one metal or the other, and not both; yet the fact that there is an alternation tends to make each vary much less than it would otherwise do. It cannot prevent both metals from falling or rising in value compared with other commodities, but it can throw variations of supply and demand over a larger area, instead of leaving each metal to be affected merely by its own accidents." *Money*, by Prof. W. S. JEVONS, pp. 137-140.

It is alleged, on the other side. (1) That the currency may indeed alternate, in greater or less degree, under the influence of a difference of ratio in another bimetallic country; but that this does not affect the standard, nor the public right under a bimetallic law to have either metal coined at the legal ratio, and to pay one's debts in either at one's own choice.

(2) That, as to internal action, no one has yet shown how the debtor can obtain one metal at a "cheaper" rate than the other, inasmuch as it is inconceivable that the seller, who can get silver coined into a fixed number of francs or shillings at the mint, would be content to take a smaller number from any one else.

(3) That, as to external action, though it were true, which bimetallists maintain it never was, that either metal was wholly absent from the circulation, yet the effect of the law on monometallic countries would, and always did remain intact, the open mint, and the right of sending either metal to be coined into the current money of the bimetallic state, making it impossible that the metal so sent could materially fall in price in the monometallic state remitting it; because such remittance must always be realisable at the rate of exchange current between the two states; and that accordingly the price (of silver, for example) in the English market, neither did nor could fall below 5s. 0½⅝d., except so far as it might be modified by the current rate of exchange.

(4) That, consequently, a par of exchange was established and maintained between all silver- and gold-using countries. (See BIMETALLISM; GUINEA, RATING OF; STANDARD OF VALUE). These are the contentions on both sides.

[The difficulties experienced in keeping two metals in circulation are described in Sir I. Newton's three reports "Representations on the Subject of Money," 1711-1712, 1717. Private reprint of *Tracts on Money*, collected by J. R. M'Culloch (London, 1856), pp. 269-279. The two principal of these reports are also reprinted in *Report and Proceedings International Monetary Conference*, 1878 (Washington, 1879), pp. 317-321.—Also *Investigations on Currency and Finance*, Prof. W. S. Jevons.]

ALTHUSIUS, JOHANNES (1557-1638), a German writer, born at Diedenshausen (Witgenstein-Berleburg). He is said to have studied at Geneva under the influence of Calvinistic teachers. In 1586 he became professor of law and ethics at Herborn (Nassau), and in 1604 syndic of the free town of Emden. This honour was conferred upon him on account of his treatise on politics; in his new position he struggled successfully against the pretensions of the nobility and the count of Eastern Friesland. He died at Emden in 1638. His *Politica* is the first systematic treatise on that subject written in Germany; he regards politics as the art of constituting social life—"symbiotic art." The foundation of the organisation of "social life" is an express or tacit contract between associated men. As all rights therefore proceed from the people, they have the right of resistance against usurpations of authority. "Even if the people would like to do so, they could not transfer or alienate the sovereign power to any one else, just as no one can give to another the physical life he himself has." In consequence of these opinions Althusius has been ranked among the "monarchomachic school" (George Buchanan, 1579, Languet, 1579; Boucher, 1591; G. Rossaeus, 1590; Hotomannus, 1573; Mariana, 1599; Althusius, and John Milton, 1651), and was assailed by H. Arnisaeus, *De autoritate principum*, 1611; GROTIUS, *De jure belli ac pacis*, 1625, I. ch. iii. § 8; CONRING, *De auctoribus politicis*, and BOECLER, *Institutiones polit.*, Argentor, 1674, II. ch. i. p. 102. Though forgotten in the latter half of the 17th century, this work seems to have had considerable influence upon the formation of the political ideas of ROUSSEAU (compare Gierke, p. 201). The social and economical ideas contained in it are remarkable. It analyses the historic forms of political associations in the order of formation, and distinguishes between associations for the realisation of private common interests ("peculiare commune"), both natural (the family) and civil (corporations), and associations for public interests (the "politeuma") both particular (parish, town, province) and universal (the state). In the latter resides the supreme power, controlled, however, by ephori, and exercised by supreme "magistratus," whose creation is effected by a contract; and the different forms of government

are only as many species of supreme magistrates, be they monarchical or polyarchical.

The views held by Althusius on economic policy and in respect of which he follows BOTERO, are contained in the 32d chapter (*De administratione mediorum ad vitæ socialis commoditates necessariorum*). Trade enriches, as is shown by the example of Venice and Genoa, the sovereign and the people. Therefore the sovereign must procure a steady supply of all things needed for the public weal, secure the public from enhancement of prices, prevent the importation of dangerous or immoral commodities, and the exportation of provisions. The establishment of staples and the maintenance of GILD regulations are recommended by Althusius, but monopolies should only be allowed in case private means are not sufficient or security is wanting. Among monopolies he reckons combinations of artisans. His definition of monopolies has been quoted by Edw. MISSELDEN, *Free Trade, or, the Meanes to make Trade florish*, 1622, ch. iii. p. 59.

Politica methodice Digesta, Herbornæ, 1603, 2d ed., Groningæ, 1610; 3d ed., Arnheim, 1617; 8th and last ed., Herbornæ, 1654. His other works are: *Jurisprudentia Romana*, Herbornæ, 1588; *Dicæologicæ libri tres totum et universum jus, quo utimur, methodice complectentes*, Herbornæ, 1617; Francofurti, 1618.—See Otto Gierke, *Johannes Althusius und die Entwicklung der naturrechtlichen Staatstheorien*, Breslau, 1880, and Friedrich Althaus, *Theodor Althaus, ein Lebensbild*, Bonn, 1888. S. B.

ALTRUISM. Altruism is an ethical term which is often used in economic discussions on SOCIALISM, LAISSEZ-FAIRE, the functions of government, and generally questions of distribution. Altruism is the opposite of individualism or egoism, and embraces those moral motives which induce a man to regard the interests of others. Most English economists have written with the "regulative idea" that self-interest should at least provisionally and hypothetically be regarded as the mainspring of economic activity. In recent times, however, the tendency, especially under German influences, has been to give more weight to altruistic impulses.

[Compare Dr. Sidgwick's *Principles of Political Economy*, bk. iii. ch. ii.—and Prof. Marshall, *Principles of Economics*, bk. i. ch. vi.] J. S. N.

AMANA SOCIETY, THE, a communistic society and religious sect (*Wahre Inspirations Gemeinden*), consisting of Germans, established at Amana, Iowa Co., Iowa, U.S.A. More than a century after its foundation in Germany the sect, in 1843, emigrated to Ebenezer near Buffalo, and there adopted communism. The society thus formed eventually removed to Amana, where it still (1890) exists (see COMMUNISM). E. C.

AMERCEMENTS. The mediæval history of pecuniary penalties possesses an economical as well as a legal interest. Even in the royal courts of justice the decision of criminal or civil causes was not the sole object aimed at. For it was also the duty of the court to assess and account for the various fines and amercements found to be leviable in the course of the sitting. These payments form a regular portion of the issues of the County, and are duly accounted for by the sheriff at the exchequer. Their amount was limited by the clause of the Great Charter declaring that no free man shall be amerced except according to the measure of his offence, and protecting from seizure the freeman's house and household goods and the villein's wainage. The local seigneurial jurisdictions imitated the royal courts in making a free use of pecuniary penalties, but there is reason to believe that the amercements inflicted by them were of a far more extortionate character. The clause in Magna Charta gave little or no protection to the VILLEIN, and the STEWARD or REEVE who presided in these local courts, naturally found their chief interest in raising as much money as possible by way of "profits of the court," a regular item in manorial accounts. A glance through Prof. Maitland's *Select Pleas in Manorial Courts* brings out the fact that the regular punishment for manorial offences, such as bad ploughing, or not coming to wash the lord's sheep, was an amercement, amounting in some cases to a tax of 6s. 8d. on the township. Besides this, fines were levied for breaking the ASSIZE OF BEER, for trespassing on the lord's wood, for fighting, and for a large number of other reasons. The amount of these must frequently have been burdensome. The oppressive reeve is expressly reproved in the *Ayenbit of Inwyt* (written 1340); in his *Parson's Tale* Chaucer devotes a long passage to the blame of extortionate amercements; and the same tone can be noticed in *Piers Ploughman*, passus ix. (C. text) and in Wyclif's writings.

[*Select Pleas in Manorial Courts*, vol. i., edited for the Selden Society by F. W. Maitland, 1889. —Chaucer's *Canterbury Pilgrims; The Parson's Tale*, 1386. *The Vision of Piers Ploughman*, text C. passus ix. 1393, Early English Text Society. —*Unpublished English Works of Wyclif*, Early English Text Society, 1880.] C. G. C.

AMERICAN SCHOOL OF POLITICAL ECONOMY. Strictly speaking, an American school of political economy has not yet arisen, but two movements are sometimes referred to under that title: (1) In the strong protective agitation which began in the United States about 1820, the name "American system" was applied to the general policy of developing the resources of the country by high import duties on the one hand, and by extensive internal improvements on the other. But the phrase obviously points to an episode in political history rather than to a movement in political economy. The best advocacy of this American system is to be found in the speech of Henry

CLAY on the tariff, made in 1824, easily to be found in the various editions of his writings. (2) With more propriety, the term American school may be applied to the doctrines of HENRY C. CAREY (*q.v.*) and his followers. The rejection of the Ricardian doctrine of rent and of the Malthusian theory, the general optimism, the reference of value in all instances to cost of production, the advocacy of protection, are easily seen to be connected with the conditions of a new country possessed of abundant fertile land, rapidly increasing in population and wealth, confronted as yet by few of the difficulties that beset older communities, constantly varying and developing its industries as time passes on. Carey's doctrines in this sense are American; they are the most distinctively national contribution which the United States has yet made to economic literature. None of Carey's followers approached him in the range or quantity of their writings. Among them may be mentioned:

Erasmus Peshine Smith, *A Manual of Political Economy*, Philadelphia, 1852, and later editions. —William Elder, *Questions of the Day*, Philadelphia, 1871. —Robert Ellis Thompson, *Social Science and National Economy*, Philadelphia, 1875, and later editions; *Protection to Home Industry*, New York, 1886. — W. D. Kelley, *Speeches, Letters, and Addresses*, Philadelphia, 1872. F. W. T.

AMORTISATION, or AMORTIZATION. The financial signification of amortisation is the redemption, reimbursement, liquidation, or repayment of debt generally, and the term is often applied in connection with the sinking funds of mortgages and debentures. Thus, in the recent rearrangement of the Venezuelan debt we read, "the surplus applicable, after covering the interest, to amortisation shall be applied half-yearly," etc., and in the instance of one of the Buenos Ayres loans—"the government have the power to at any period increase the amount of the amortisation." But the word is much more often used in French finance. Thus M. Waddington wrote to Messrs. Rothschild on 28th October 1878, "nous déclinons toute responsabilité rélativement au paiement de l'intérêt et de l'amortissement de l'emprunt projeté." The French expressions "fonds d'amortissement" (sinking funds) and "caisse d'amortissement" (sinking fund office) are in common use. But here, in the sense of the amortisation of loans, the operation can be treated more in detail under the head of SINKING FUNDS (*q.v.*)

In law amortisation signifies the transfer of lands to a corporation, GUILD, or charitable body in perpetuity, or in other words, an alienation in mortmain. The laws in force restricting such amortisation of property in perpetuity are recounted under MORTMAIN (*q.v.*)

AMSTERDAM, BANK OF. See BANKS, EARLY EUROPEAN.

ANALYTICAL METHOD. We employ an analytical method in science when we commence with particular facts, and, by analysing them, discover the laws in operation, thus working up to general principles; we employ a SYNTHETIC METHOD when we commence with general principles, known or assumed, and combine them so as to obtain conclusions that serve to explain particular facts. In the one case, we proceed from the individual to the universal; in the other, from the universal to the individual. In political economy one of the main controversies as to method turns on this distinction. It is maintained, on the one hand, that our starting-point should be the analysis of complex industrial phenomena; it is affirmed, on the other hand, that the science should be constructed by deductive reasoning from elementary laws of human nature.

In reality the contrast here indicated is far too sharply drawn. A true economic science can be built up only by a method of combined analysis and synthesis. The former without the latter would yield merely empirical results of uncertain validity, and disconnected with one another. The latter without the former would yield results always hypothetical, and sometimes entirely remote from the actual facts of the economic world. Hence the synthetical method is required to rationalise and systematise conclusions gained by the method of analysis, and the analytical method is in its turn required to guide and give reality to the synthetical. It may be said that upon this point, thus broadly stated, economists are, generally speaking, coming to agreement. At the same time, some difference of opinion is always likely to remain in regard to the relative importance of the two methods in economic science, and the extent to which, at different stages of inquiry, each should in its turn be subordinated to the other. In the last resort, some latitude must be left to the natural intellectual bias of the individual investigator. For further discussion of this question, see DEDUCTIVE METHOD; INDUCTIVE METHOD. J. N. K.

ANARCHISM is the theory held by a party which denies the justice and expediency of both government and property, and tries to overthrow these institutions by violence. At the peace congress of Geneva in 1867, MICHAEL BAKOUNIN (*q.v.*), a Russian exile, advocated the abolition of centralised states, and the substitution of voluntary federations of independent communes. He urged the next congress, held at Berne under the presidency of Victor Hugo in 1868, to declare in favour of socialism, and join the INTERNATIONAL (*q.v.*) Failing to convince the assembly, he formed his supporters into a "Social Democratic Alliance," the aim of which was to make land and capital the collective property of society, and secure that they should be used only by agricultural and manufacturing associations. All existing states were to "dis-

appear in the universal union of free associations." The Alliance desired to be recognised as part of the International, but its claim was rejected, whereupon it dissolved after six months' existence, during which it had been active in Spain and Italy, and its sections joined the International separately. At the beginning of 1869 the groups of the International in French-speaking Switzerland organised themselves as the "Romance Federation." This speedily split into two sections, one of which, under James Guillaume, a disciple of Bakounin, became the "Federation of the Jura." Bakounin, Guillaume, and shortly afterwards the whole Federation, were expelled from the International. The Federation did not acquiesce in its expulsion, but held meetings in 1873, 1874, 1876, and 1877, which professed to be the sixth, seventh, eighth, and ninth general meetings of the International. To its influence Prince Kropotkin, in 1882, ascribed the greater part of the growth of anarchist opinions in France and elsewhere. As early as at the meeting of 1873, Brousse said incidentally "anarchy is your programme," but it was not till five or six years afterwards that the "anarchists" became definitely known by that name, and ceased to rank as collectivists (see COLLECTIVISM). In August 1882, a meeting held at Geneva for the express purpose of making clear "the separation of the anarchist party from all political parties," issued a manifesto which declared the enmity of "anarchists, that is men without chiefs," to all who have, or wish to get power—to the landowner, the capitalist employer, the state, "abstractions of authority," such as God and the Devil, and "the law, always made for the oppression of the weak by the strong." "We declare ourselves allies of every man, group, or society which denies the law by a revolutionary act. We reject all legal methods. . . We spurn the suffrage called universal. . . We wish to remain our own masters. . . Nevertheless we know that individual liberty cannot exist without association with other free comrades. . . . Every social product is a result of collective work to which all are equally entitled. We are therefore communists; we recognise that without the destruction of family, communal, provincial, and national boundaries, the work will always have to be done over again." The idea of making the commune the basis of a social reorganisation was a mere Russian importation (see MIR), which never obtained any hold on western minds, and may have been discredited by the failure of the COMMUNE OF PARIS (*q.v.*) to establish its independence. The "free association," which has taken the place of the commune, has acquired no definite shape. Anarchists are content to believe that every one would behave properly if governments with their forcible methods were abolished. They are not satisfied with watching or even with accelerating the gradual elimination of force which marks the progress of civilisation, but insist on the immediate extinction of force by force.

Bakounin died in 1876; the chief agitators who have carried on his work are Prince Kropotkin, Élisée Reclus, and Émile Gautier in Switzerland and France, and Most, editor of the *Freiheit* newspaper among Germans, first in England, and afterwards in America (see COMMUNISM; SOCIALISM; NIHILISM; PROUDHON).

[J. Garin, *L'Anarchie et les Anarchistes*, 1885.—E. de Laveleye, *Le Socialisme Contemporain*, 3me ed. 1885, ch. ix. x.—Elisée Reclus, "Anarchy" in the *Contemporary Review*, May 1884 (xlv. pp. 627-641, especially 635, 636).—John Rae, *Contemporary Socialism*, 1884.—Prince Kropotkin, "The Scientific Bases of Anarchy," in the *Nineteenth Century*, February 1887 (xxi. pp. 238-252, especially 242).—"The Coming Anarchy," *Ibid.*, August 1887 (xxii. pp. 149-164).—R. T. Ely, *Recent American Socialism* (*Johns Hopkins University Studies*, 3d Series, No. 4), April 1885.—Wm. Godwin's *Political Justice*, 1793, is to a great extent an anticipation of the anarchist theory.]

E. C.

ANATOCISMUS. A term employed in the technical language of the civil law for compound interest. The Roman law did not allow compound interest and even prevented a creditor from claiming an accumulation of simple interest in so far as it exceeded the amount of the principal. E. S.

ANDERSON, ADAM, born in Scotland about 1692, was for forty years a clerk in the South Sea House. He died at Clerkenwell, 10th January 1765. His only work was—

An Historical and Chronological Deduction of the Origin of Commerce from the Earliest Accounts to the Present Time, London, 1764, 2 vols. folio (a monument of industry in the form of annals, treating specially of Great Britain and Ireland). A new edition, *carefully revised and continued* (by Wm. Combe), London, 1787-89, 4 vols. 4to. Anderson's text from 1492 to 1760, was incorporated by David MACPHERSON in his *Annals of Commerce*, London, 1805, 4 vols. 4to. H. R. T.

ANDERSON, JAMES, LL.D., born at Hermiston, near Edinburgh, 1739, died at West Ham, Essex, 15th October 1808. A practical farmer, employed by PITT to survey the fisheries, Scottish rural economy owes much to him. Dr. Anderson first propounded the theory of "rent," afterwards rehandled by MALTHUS and RICARDO. In his works, *e.g.* in his *Observations on the National Industry of Scotland* (vol. ii. pp. 208-9, published 1779, but written 1775), he says that rent is a premium for the cultivation of the richer soils, reducing the profits of the cultivators to an equality with those of the cultivators of the poorer.

He edited *The Bee*, Edinburgh, 1790-94, 18 vols. 8vo;—*Recreations in Agriculture, Natural History*, etc., 1799-1802, 6 vols. 8vo, and wrote among

other things :—*Inquiry into the Nature of the Corn Laws, with a View to the new Corn Bill proposed for Scotland*, Edinburgh, 1777, 8vo (the earliest explanation of the theory of rent usually called after Ricardo ; see also his *Recreations*, v. 401-28). —*Inquiry into the Causes that have hitherto Retarded the Advancement of Agriculture in Europe*, Edinburgh, 1779, 8vo.—*Account of the Present State of the Hebrides and Western Coasts of Scotland*, Edinburgh, 1785, 8vo.—*Essays Relating to Agriculture and Rural Affairs*, 5th ed., London, 1800, 3 vols. 8vo.—*Investigation of the Circumstances that have led to the Present Scarcity of Grain in Britain*, London, 1801, 8vo (friendly to protection). H. R. T.

ANDERSON, James (No. 2). Passages such as *Observations on the National Industry of Scotland* (vol. ii. pp. 208-209, published 1779, but written 1775) show clearly that Anderson had a more correct view of the theory of rent than his greater contemporary and compatriot, A. Smith. Rent, he says, is a premium for the cultivation of the richer soils, reducing the profits of the cultivators to an equality with those of the cultivators of the poorer. J. B.

ANGARIE, Droit d' (*ἀγγαρεία*, see St. Matthew v. 41). Angarie means in international law the actual impressment of foreign (even neutral) vessels, as distinguished from embargo, which is mere exclusion from the ports. The right was exercised by the Prussians in the war of 1870-71, when they sank six English ships in the Seine. J. B.

ANGEL. English gold coin (Edward IV. to Charles I.) of the following weights, fineness, and value—

Reign.	Year.	Rating.	Weight.	Fineness.	Value in gold 916·6, fine at £3 : 17 : 10½ an oz.
			grains.		
Edward IV.	1466	6s. 8d.	85·25	994·8	15s.
Henry VIII.	1527	7s. 6d.	80	,,	14s. 1d.
,,	1543	8s.	,,	916·6	12s. 11¾d.
Edward VI.	1551	,,	,,	994·8	14s. 1d.
Mary	1553	10s.	,,	,,	,,
Elizabeth	1601	,,	79	,,	13s. 11d.
James I.	1605	,,	71	,,	12s. 6d.
,,	1606	,,	65·5	,,	11s. 6¼d.
,,	1610	11s.	,,	,,	,,
,,	1619	,,	64·25	,,	11s. 3¾d.
Charles I.	1627	10s.	,,	,,	,,

F. E. A.

ANNA (British India). One sixteenth of a rupee. Silver coins : 4 and 2 annas, 916·6 fine ; weight 45 and 22½ grains ; value 6½d. and 3¼d., or ·59 fr. and ·30 fr. respectively.

F. E. A.

ANNATES. This was the first year's revenue of a bishopric or benefice which was paid to the pope in all countries which acknowledged his spiritual headship. It is probable that the practice was not introduced into England until after 1213, when John did homage to the papacy. This and other papal exactions were very unpopular in England, and the clergy themselves petitioned for the abolition of annates, when Henry VIII. quarrelled with the pope about his divorce. A bill for this purpose was passed by parliament in 1532, but Henry postponed his consent, hoping to use it as a means of influencing the Roman court. In 1534, however, the Annates Act became law. Besides prohibiting the payment to Rome, this Act also laid down the regulations for the choice of bishops which are still observed. To the great disappointment of the clergy, the annates, instead of being abolished, were transferred to the crown. Mary surrendered them, but they were restored to the crown under Elizabeth. Ultimately Anne gave them back to the church, in order to subsidise small livings, and the fund still exists under the name of Queen Anne's bounty.

[Perry, *History of the English Church*, 1887, vol. ii.] R. L.

ANNEALING. Most metals and alloys, when submitted to the operations of rolling or wire drawing, lose their malleability or power of being extended. This may be restored by *annealing*, which consists in raising the metal to a high temperature, usually above redness, and allowing it to cool slowly. With some metals it is immaterial whether the cooling from the high temperature takes place rapidly or slowly. Thus certain alloys of copper and tin are rendered most malleable by rapid cooling and the same observation applies to alloys of iron and manganese which contain more than 8 per cent of manganese. In the preparation of steel for industrial use annealing is of great importance, and the particular temperature suitable to each variety of steel has to be determined with great accuracy. The density of rolled metals is generally diminished slightly by annealing. The process is of importance in the coinage of the precious metals (see Alloy). C. R-A.

ANNUAL RENT (Scotch). Nearly equivalent to rent charge.

ANNUITY. The simplest way in which an annuity can be defined from an economic point of view is to regard it as a payment in one instalment, or in any number of instalments, composed (1) of the sinking fund to redeem or restore the principal or purchase money of the annuity by an investment increasing at interest in geometrical progression ; and (2) of the interest on the principal or purchase money and its unredeemed balances throughout the term of the annuity, such interest decreasing in geometrical progression until the sinking fund replaces the whole of the principal or purchase money. Thus, if an annuity of £100 for one year be bought to pay 3 per cent interest, it is worth £97·0874 purchase money, and the annuity itself is made up :—

(1) Of the present value at 3 per cent interest of the sum of £100, due at the end of one year, or of a sinking fund of	£97·0874
(2) Of the interest at 3 per cent for one year on the £97·0874 purchase money	2·9126
Total annuity . .	£100·0000

The value of each instalment for any term of years for which an annuity is granted, may be similarly calculated; thus, the value at 3 per cent interest of an annuity of £100 per annum to endure in perpetuity or for an infinite number of years, may be stated in the same manner as made up:—

(1) Of the present value of £3333·3333 (or of the purchase money at 3 per cent of a perpetual annuity of £100) redeemable at the end of an infinite number of years	£000·0000
(2) Of the annual interest at 3 per cent upon the £3333·3333 purchase money	100·0000
Total annuity . .	£100·0000

In any scheme of taxation which deducts a percentage, or so much in the pound, upon the whole or gross amount of an annuity, without distinguishing between what part of it is sinking fund and what part interest, the result is that the fiscal burden infringes on property as well as on income, although in ordinary language this common mode of procedure is called an income-tax. If it were so purely and truly, it would, in the first of the above examples, make a deduction for tax, not upon the whole £100 of annuity, but upon £2·9126 only, so that the exaction is more than thirty-three times too great. In the second example the tax is rightly levied upon the whole £100 of annuity, as there is no possible existence of a sinking fund where the term the annuity has to run is infinite. It follows that the shorter such term is the greater is the inequity of assessment, and the longer the term the less its inequity. So much has this been felt by those who purchase annuities or rent charges by way of equated payments continuing for a given number of years, that it is not uncommon for purchasers of such annuities, or lenders of money on their security, to contract themselves out of the incidence of the INCOME-TAX on that part of the annual payment which represents SINKING FUND. This is done by the annuity or mortgage-deed containing a schedule setting forth in separate columns what is sinking fund and what is interest. Thus, for example, in an annuity of £100 granted for two years and calculated to pay the purchaser 3 per cent, the value or purchase money of this is, by calculation, £191·3470. The schedule runs thus:

Col. 1. Year.	*Col.* 2. Repayment of Purchase Money.	*Col.* 3. Interest on Yearly Balance of Purchase Money.	*Col.* 4. Total Annuity (col. 2+col. 3).
1 . . .	£94·2596	£5·7404	£100·
2 . . .	97·0874	2·9126	100·
Total payments	£191·3470	£8·6530	£200·

By this means income-tax becomes assessable in the two years upon £8·6530 instead of upon £200.

The same methods of analysis of an annuity ceasing at the death of a single life or of the survivor of any number of lives, could be applied so as to distinguish between capital and income, and the sinking fund and interest admit of being similarly separated and defined from the initial year or age at which the life-annuity commences to its ultimate or terminal year, which, in such cases, is the oldest age to which it is possible the life or lives can attain, according to the particular table of mortality on which the annuity is based or valued.

From what has been above stated several important economic conclusions follow—(1) that when a state borrows money by grant or sale of TERMINABLE ANNUITIES ceasing at the expiration of a certain number of years, long or short, and its fiscal system at the same time includes the imposition of what is called an income-tax, such a tax falls upon the whole of the capital out of which the annuity is constituted, and the tax becomes one on property as well as on income; (2) that although the system of borrowing on terminable as compared with that of borrowing on perpetual annuities has been frequently extolled as the more provident and beneficial of the two arrangements, it is really subject to much qualification, as it involves in every instance an obligatory sinking fund, which cannot be suspended, for the repayment of principal. This must continue for the whole of the term of years the annuities have to run, during which the borrower (and few modern states fail to be in that position over many years) is hampered with the prejudicial condition of having to borrow to pay debts, a course generally antagonistic to the principles of sound finance; (3) that as in these terminable annuities the state as borrower repays portions of principal combined with every payment of interest, the state creditor, small as well as great, is, in his turn, compelled to reinvest, periodically and with undeviating regularity, fractions of the principal returned to him, unless he be content to see his capital destroyed. This necessity of re-investment is a troublesome, and sometimes a difficult, task, and has a tendency

towards improvidence on the lender's part, as it exposes him to the temptation of omitting to save the means by which he may restore his capital; (4) the knowledge of these circumstances and the unfair incidence of the income-tax on terminable annuities combine in rendering it impossible, as a general rule, for large state loans to be contracted at as low a rate of interest in terminable annuities as in perpetual annuities. The market price of the former as compared with the latter has in almost every known instance revealed a lower public estimation of the terminable annuity, and it has shown that as the repayment of the principal augments in geometrical proportion with each instalment, the depression of the security grows greater and greater as the annuity approaches nearer and nearer to its terminal period. Out of the total sum of about 585 millions sterling raised by loans in England in 1792-1816, not more than 1½ per cent can be estimated to have been obtained through the employment, as an adjunct to other financial methods, of the terminable annuity system. The remaining 98½ per cent of what in those days was a huge mountain of fresh indebtedness, was raised by perpetual annuities. The terminable, or long annuities as they were called, mostly granted for sixty years, were only floated on terms of market valuation imposing a differential and higher rate of interest on the borrower of at least 1 per cent as compared with the terms for perpetual annuities. The writer of the present article was associated with the late Mr. Newmarch, in 1854-55, in the investigations that served as the basis of the elaborate essay by that economist *On the loans raised by Mr. Pitt during the first French War*, 1793-1801, *with some statements in defence of the methods of funding employed*. London: Effingham Wilson, 1855 (*vidé* pp. 29-31). This essay has now become extremely scarce. A short paragraph may be quoted from it as giving the pith of a very laborious inquiry. "Upon mere financial grounds a public loan contracted in terminable annuities is, perhaps for the state, the form of borrowing the most desirable, for at the lapse of the term the annual burden of the debt ceases. But connected with the plan of terminable annuities there are other considerations of a higher and more general nature than those of mere finance; and when the whole question has to be discussed it will appear, that while terminable annuities may be employed with advantage as one of several forms of funding, it would be exceedingly unwise to resort to them as the sole or even as the principal method." For Terminable Annuities see Debt, National. F. H.

ANSELL, Charles, F.R.S., born 1794, died 1881. He entered the Atlas Fire and Life Assurance Company in 1808, became actuary of the life branch in 1823, and held the office down to 1864. He applied himself much to the actuarial problems connected with friendly societies, and wrote—

A Treatise on Friendly Societies in which the Doctrine of the Interest of Money and the Doctrine of Probability are applied, London, 1835, 8vo (published by the Society for the Diffusion of Useful Knowledge; one of the first attempts to treat the subject scientifically). H. R. T.

ANTEDATE. To date a document from a point of time earlier than the actual date of execution. If this is done with the intention of defrauding a third party, the parties to the document are liable to be prosecuted for forgery. E. S.

ANTICHRESIS. A contract of Roman law by which a mortgagee acquired the right to take the profits of the mortgaged property in the place of interest on the mortgage debt. Such contracts were not allowed, if they were made with the intention of evading the Roman usury laws. E. S.

ANTI-CORN-LAW LEAGUE. It cannot be doubted that the irritation caused by the agitation for the factory acts, which applied to children only in the manufacturing districts, and not to those in the agricultural part of the country, supplied a great stimulus to the agitation against the corn laws. The formation of an association under the name of the Anti-Corn-Law League was the inevitable consequence, and apart from an active canvass all over the country, the association at last started a newspaper of great force and ability under the name of the *League*, complete copies of which are now very uncommon.

The success of the League was in great degree assisted by the potato plague and the very scanty harvest of 1845. Sir R. Peel, then in power, took the step of opening the ports, an expedient which the executive had frequently adopted during the scarcities of the 18th century. It was impossible to reverse this policy, and the repeal of the corn laws became inevitable in the next session of parliament. It is remarkable that a parliament certainly summoned to defend and maintain the laws, should have been the instrument of extirpating them, but the situation could not be trifled with, and Peel, as the introducer, said that his action averted the troubles of 1848 from the United Kingdom.

As soon as the act repealing the corn laws had received the royal assent, the leaders of the League at once broke up their organisation and extinguished the machinery which they had driven at high pressure. This policy was exceedingly conciliatory, and greatly assisted in obviating any reaction. J. T. R.

ANTI-RENT AGITATIONS. The phrase has been used by English writers with special reference to the movement countenanced by O'Connell in 1843, and a similar movement

countenanced by some of the Irish leaders in 1881, among the Irish tenants. In both cases the threat to pay no rent was a temporary expedient to enforce an article of popular policy. The advocates of the nationalisation of the land cannot be said to conduct an anti-rent agitation, for they do not aim at the removal of rent, but at a change of landlords. In the United States the name "anti-renters" was given to the farmers of New York State, holding their lands on long leases, who demanded the removal of quit rents and ground rents (1839-46). The movement led to riot and bloodshed; and was at the time only partially successful, though now the system of land-tenure which occasioned it has all but wholly disappeared.

See E. P. Cheyney, *The Anti-rent Agitation of the State of New York*, Philadelphia, 1887. J. B.

ANTONINUS, St., archbishop of Florence, was born 1389 and died 1459. Following Aquinas (*q.v.*), Antoninus defines what transactions are to be condemned as usury; and remarks on the difficulty of determining the fair price Justum Pretium of an article on sale. See his *Summa Theologica in quatuor partes distributa*, 2d Part, Title II. ch. 6, 7. F. Y. E.

A POSTERIORI reasoning is reasoning that is directly based on observation and inductive generalisation. It follows, therefore, and does not precede experience of the specific class of phenomena to which the conclusion relates. The kind of reasoning with which it is contrasted is called A Priori (*q.v.*)

It is held by the majority of English economists that in political economy the purely *a posteriori* method is inefficacious for arriving at any considerable body of valuable truth. The opposite view is maintained by the Historical School of Economists. Without entering here upon the controversy between these schools, it may be pointed out (1) that the *a posteriori* method is, in certain cases, employed even by those who for the most part reject its aid in economic reasoning; and (2) that when entire reliance is not placed upon it, it may still be used to supplement reasoning of a different type. As an illustration of *a posteriori* reasoning in economics, reference may be made to Mill's treatment of the subject of peasant proprietorship in the second book of his *Principles of Political Economy*. A considerable mass of evidence is cited as to the working of this system in those countries in which its operation can be observed on a large scale; and the force of Mill's argument as to the influence of peasant properties in stimulating industry, training intelligence, and promoting forethought and self-control, depends more upon the generalisations that the above evidence seems to justify, than upon direct deductions from general principles of human nature.

A posteriori reasoning is also described as analytical, and as inductive. For further discussion, see Analytical; Deductive; Inductive; Synthetic Method. J. N. K.

APPANAGE (French *apanage*, from Provençal verb *apanar*, to give bread), the provision made by French kings and barons for daughters and younger sons (*puis-nés*), as distinguished from the eldest son (*aîné = aisné, avant-né*). The appanage of royal princes consisted in some cases of lands so extensive and wealthy (*e.g.* Normandy or Burgundy) that the possessors were dangerous rivals to the monarch himself, especially as the salic law increased their prospects of ultimate succession to the throne; hence the attempts (*e.g.* of Charles V. in 14th century) to limit the appanage of sons to a specified money revenue from land. As early as Philip Augustus (13th century), the daughters' dowries were paid in that form. From St. Louis downwards (13th century), the kings tried to secure the reversion of the appanage to the crown on failure of male heirs; and the crown lands ceased in point of fact to be redivided. Appanages were abolished by the constituent assembly in 1790, and the burden put on the civil list; revived by Napoleon and the Bourbons, they disappeared definitively in the revolution of July 1830.

The corresponding provision in England is an annual income voted by parliament out of the imperial taxes (*e.g.* in 1889 for the Queen's grandchildren). A similar course is followed in Italy. In many German states the appanage is often a mere rent-charge on crown-lands. The German lawyers of last century confined the term *apanagium* to the provision in money, and used *paragium* for provision in lands (see Civil List). J. B.

APPLETON, Nathan, merchant and cotton manufacturer; born in New Hampshire 1779; died in Massachusetts 1861. He was one of the three founders of the great manufacturing town of Lowell; served a number of years in congress, where he was a champion of Whig principles. His best known pamphlet is *Remarks on currency and banking*, Boston, 1841, pp. 48 (3d ed. 1857, pp. 63). He favoured a national bank as a fiscal agent of the treasury, but denied its necessity to regulate the currency, equalise the exchanges, or supply a uniform paper medium. He also wrote *An examination of the banking system of Massachusetts in reference to the renewal of the bank charters*, Boston, 1831, pp. 48. Appleton objected to state banks with small capitals: the bank should have a paid-up capital exceeding its issues; and the tax should be upon the circulation instead of upon the capital. He persistently advocated high tariff duties by speeches in congress; of these the one of 30th May 1832 is the most valuable, in which he criticised at length the theory that a tax on imports is a tax on exports. In an article on *Labour*

in Europe and America compared, Hunt's Magazine, 1844, pp. 16, he denied that the theory of wages as stated by English economists applied to American labour, owing to the cheapness of land. A list of his writings is found in Robert C. Winthrop's *Memoir of Nathan Appleton*, Boston, 1861, pp. 64.

Among them may be mentioned, *What is a Revenue Standard? and a Review of Secretary Walker's Report*, 1846.—*Introduction of the Power-Loom and Origin of Lowell*, 1858.

D. R. D.

APPLIED ECONOMICS. The term *applied economics* or *applied political economy* has been used in at least three different senses: (*a*) To designate the application of economic science to the solution of practical questions; in this sense equivalent to what is also called the ART OF POLITICAL ECONOMY. (*b*) To designate the application of economic science to the interpretation and explanation of particular economic phenomena. (*c*) To mark off the more concrete and specialised portions of economic science from those more abstract doctrines, which are held to pervade all economic reasoning. The term is used in this last sense by JEVONS when he remarks that "currency, banking, the relations of labour and capital, those of landlord and tenant, pauperism, taxation, and finance, are some of the principal portions of applied political economy, all involving the same ultimate laws, manifested in most different circumstances." (*Fortnightly Review*, Nov. 1876, p. 626.) J. N. K.

APPORTIONMENT (No. 1). The distribution of one subject in proportion to another previously distributed. Though RENTS form the chief subject matter of apportionment, the term is also applied to the division of covenants and conditions. As regards rents a distinction has to be drawn between rent services and rent charges. A rent service may be apportioned by (1) act of God; (2) operation of law; (3) act of parties. (1) Where a portion of land demised is surrounded or covered by the sea, this being the act of God, the rent is apportioned so that the tenant pays rent in respect of the uncovered land only. (2) At common law there could be no apportionment of rent in respect of time, the contract for payment being regarded as "entire," or incapable of division. Hence a successor in interest succeeding before a periodical payment became due took the whole, and the representatives of his predecessor took nothing. This was remedied by the 11 Geo. II. c. 19, § 15; 4 & 5 Will. IV. c. 22; and 33 & 34 Vict. c. 35. The effect of these statutes is that all rents, annuities, dividends, and other periodical payments in the nature of income are like interest on money lent, to be regarded as accruing from day to day, and to be apportionable in respect of time.

(3) Where a part of a reversion was granted away, an apportioned part of the rent passed with it as incident thereto. By the 22 & 23 Vict. c. 35, § 3, where a reversion is severed into parts, and the rent is "legally apportioned," the assignee of each part becomes entitled, as regards his part, to the benefit of all conditions for securing the payment of rent attached to the original undivided rent, and the 10th section of the Conveyancing Act, 1881, extends this principle, and renders all conditions and provisos apportionable.

As regards rent charges, the general rule was that they could not be apportioned, and hence if the owner of a rent charge purchased any portion of the land out of which it issued, the whole rent charge became extinct. This was remedied by the 10th section of the 22 & 23 Vict. c. 35, which provided that the release from a rent charge of a part of the land charged, should only bar the right to recover any part of the rent charge out of the land released.

[*The Law of Rents*, by W. A. Copinger and J. E. C. Munro, London, 1886.] J. E. C. M.

APPORTIONMENT (No. 2). Apportionment may be further explained as the distribution of benefits or burdens connected with property among several persons becoming successively or simultaneously owners of the property to which they refer. With regard to *successive* owners, rent and other periodical payments were formerly not apportionable. If land was leased for the life of the tenant-for-life only, the subtenant was not liable to pay any rent for the period between the last payment and the death of the tenant-for-life. If the lease extended beyond the life of the tenant-for-life, and if the person entitled to the rent for life died on the day before the rent became due, his representatives could not claim any part of the rent, and the whole of it went to the person next entitled to the income of the land; the same thing happened with respect to dividends on stock, or annuities to which a person was entitled for life. Successive acts of parliament, beginning with one passed in the reign of George II., have gradually removed these anomalies, and now the Apportionment Act of 1870 provides that all rents, dividends, and periodical payments in the nature of income, shall be considered as accruing from day to day, and shall be apportionable in respect of time accordingly. Apportionment of benefits or burdens between persons becoming *simultaneously* owners of property was formerly not possible in many cases. Rent-charges, for instance, were not apportionable, and if the owner of a RENT-CHARGE purchased part of the land subject to it (which naturally had the effect of releasing that part from the rent-charge) the whole property became discharged; in the same way the benefits of conditions of re-entry and other conditions in leases could

not be apportioned; if land subject to a lease was sold in part or sold in several lots, the benefit of such conditions lapsed entirely. Ordinary rent was always apportionable between persons becoming simultaneously the owners of the property with respect to which it was payable, and modern acts (among which the Property Law Amendment Act of 1859, and the Conveyancing Act of 1881, are the most important) have provided for the apportionment of rent-charges, and of the benefit of conditions in leases among simultaneous owners of land subject to a rent-charge or a lease. Under the TITHE COMMUTATION ACT of 1836, the rent-charge in lieu of tithes may be specially apportioned, so as to throw the amount attributable to the tithes of an entire estate upon some particular persons in exoneration of the residue.

E. S.

APPRAISERS. Sworn and licensed valuers of poinded goods (goods on which execution is levied) in Scotland. The business of appraisers (valuers) in England is usually conjoined with that of the auctioneer.

APPRECIATION OF STANDARD. The alterations in purchasing power of the standard of value are, when the period over which the investigation extends is only a short one, among the most difficult questions into which the economist has to inquire. Remote events stand out in this respect more clearly. The great, and up to the present time permanent, depreciation occasioned by the enormous finds of the precious metals in South America which followed the discovery of that continent by Columbus, is now matter of history, as is also the further change in the same direction occasioned by the development of new mines in California and Australia, commencing rather less than fifty years ago. During a comparatively recent period, however, now extending over ten or fifteen years, the balance appears to have turned the other way, and an appreciation of gold, to a considerable extent, to have taken place. It was pointed out by Giffen, *Essays in Finance*, 2d series, p. 19, that average prices, 1885, stood "about 5 per cent less than the average of 1845-60," and by Palgrave, *Appendix B, Third Report of Royal Commission on Depression of Trade and Industry*, pp. 329, 330, that, as compared with 1865-69, prices in 1885 showed a drop of more than 20 per cent. *The Variation of Prices and the Value of the Currency since 1782-1865*, a paper by JEVONS, *Journal of the Statistical Society of London* for June 1865, reprinted in his volume *Investigations in Currency and Finance*, shows the oscillations of prices very clearly. Periods of transition in matters of this description are, as CHEVALIER remarks (*De la Baisse Probable de l'Or*), painful to pass through. It is here, however, the fact of a recent appreciation which it is desirable to note, not the causes which have led to it, or the results which have followed it. Though the tendency of the standard of value appears, so far as history extends, to have been generally towards depreciation, and not towards appreciation, so recent and marked an instance of appreciation deserves record (see also DEPRECIATION OF STANDARD, STANDARD OF VALUE).

[For history, Jacob, *On the Precious Metals* London, 1831.—Jevons, *Investigations in Currency and Finance*, London, 1884.—Giffen, *Essays in Finance*, 2d series, London, 1886.—Palgrave, *Appendix B, Third Report, Royal Commission on Depression of Trade and Industry*, 1886.]

APPRENTICESHIP. A system by which those intended to follow a particular occupation engage to serve and work under a master for a certain period, and the master engages to teach them during that period the industry or branch of industry in which he is occupied. This system was once very common, if not universal; and with few, if any, exceptions, every workman was compelled to serve a master for seven years before he could practise a handicraft on his own account. A large number of the rules and regulations of the mediæval craft guilds (see GUILDS) dealt with the conditions of apprenticeship; and a solemn ceremonial was observed when a boy was bound over to be an apprentice, and when, the period of his service being ended, he became a full member of the guild. These rules and regulations, which obtained the binding authority of uniform custom, were embodied in law by the statute of apprenticeship (5 Eliz. c. 4) by which it was "enacted that no person should for the future exercise any trade, craft, or mystery at that time exercised in England unless he had previously served to it an apprenticeship of seven years at least." The system, however, was open to abuse; and Adam SMITH (*Wealth of Nations*, bk. i. ch. x. part ii.), protested against the way in which the trade corporations employed it, to maintain a monopoly of their exclusive privileges. But gradually it came to be held that industries which had arisen since the passing of the statute, or which were not carried on in market towns, were exempt from its limitations; and in the development of factory industry at the close of the last and the commencement of the present century, manufacturers exhibited a wholesale disregard of the restrictions of apprenticeship. The efforts of the early trades unions (see TRADES UNIONS) were directed in many cases towards securing the observance of the ELIZABETHAN LEGISLATION. Prosecutions were instituted against the masters with successful results. But the operation of this statute was suspended by parliament for the cloth trade during successive years from 1803 to 1809, and in the last year it was altogether rescinded for that trade, and in 1814 for all trades. The custom, however, of apprenticeship

continued to prevail; and it still forms part, in theory at least, of the policy of some trades unions to attempt, by positive regulation or otherwise, to restrict the number of apprentices, and to insist on the production of evidence of having served a regular apprenticeship before a man is admitted to the membership of the union. But despite of these efforts the system appears, with the growing subdivision of labour, to be falling into disuse, in many trades, at any rate in its strict form. Some writers have urged, although others have maintained that this is impracticable, that technical education should be generally introduced as a substitute for apprenticeship.

[For the regulations of the old craft guilds on the matter cp. Brentano *on Gilds* and Howell's *Conflicts of Capital and Labour*, ch. i. pt. iv. For the efforts of early trades unions cp. the same book, ch. ii., and Arnold Toynbee's *Industrial Revolution: Lecture on Industry and Democracy*, pp. 178, etc. For the present attitude of workmen cp. Howell, ch. v. and Marshall's *Economics of Industry*, bk. iii. ch. v. §§ 3 and 9. A list of recent German works on Apprenticeships is given by Prof. Stieda in an article in *Jahrbücher für Nat. Oek. u. Stat.* 21st June 1890 ("Das gewerbliche Lehrlingswesen").] L. L. P.

APPRENTICESHIP, STATUTE OF (5 Eliz. c. 4). This statute is of considerable importance in the history of English labour. Its general drift was not new. Many of its provisions had been previously enacted. The preamble points out the failure of former statutes "partly through the imperfection and contrariety" in the laws themselves, and "chiefly for that the wages and allowances . . . are too small, and not answerable to this time (1562) respecting the advancement of prices of all things." The legislature proposed therefore "to digest and reduce into one sole law" the substance of the old statutes, in the hope that the new law (duly executed) would "banish idleness, encourage husbandry, and yield unto the hired person, both in the time of scarcity and in the time of plenty, a convenient proportion of wages." Former statutes, thirty-four in number since Edward III., were repealed so far as they concerned the hiring, keeping, wages, etc. of servants, labourers, artificers, and apprentices. According to the new statute certain persons were confined to the craft in which they were brought up, and all persons not otherwise employed, nor possessing a certain amount of property, were compelled to serve in husbandry. The latter clause was supplemented with a law of settlement, which however was relaxed in time of harvest. The regulations with regard to apprenticeship were important. The term of apprenticeship was to be seven years. Except in the case of smiths, wheelwrights, plaisterers, bricklayers, etc., certain property qualifications were necessary for apprenticeship, and the craft could be carried on only by those who had served their time. Every person with three apprentices must keep one journeyman. No one could be apprenticed over the age of twenty-one. Penalties of imprisonment were imposed on those who refused to be apprenticed. The act was administered by the justices of the peace, or other magistrates specified in the act. They were empowered to fix the rate of wages in their districts, etc. at the Easter Quarter Sessions, and to enforce this rate by fine and imprisonment. They were also to arbitrate in disputes between masters and apprentices. The hours of labour were to be from 5 A.M. till 6 or 8 P.M. in the summer, and from daylight to dusk in the winter, not more than two and a half hours being allowed for meals. There were numerous other provisions of a less important character. By 39 Eliz. c. 12 the act was extended to weavers. It was continued by 43 Eliz. c. 9, and 1 Jac. c. 6, the latter of which extended the power of the justices and town magistrates to fix limits to the wages of all labourers and workmen whatever. As Prof. Rogers points out (*Agriculture and Prices*, vol. v. p. 821) the law was "effectually supplemented" by 14 Car. II. c. 12, 3 W. and M. c. 11, 8 & 9 Will. III. c. 30, 9 Will. III. c. 11, and 11 Will. III. c. 13.

It is not easy to form a just estimate of the effects of Elizabeth's legislation. The materials are scanty, and contemporary evidence of the working of the statute difficult to obtain. A. SMITH (*Wealth of Nations*, bk. i. ch. x. pt. ii.) criticised the apprenticeship clauses in terms which were certainly justified at the end of the 18th century. Brentano (*English Gilds*, § 5) has taken a more favourable view of the statute, and has produced evidence to prove that modern trade unions originated in the non-observance of its provisions. Brentano's criticism, however, is open to much adverse comment. Prof. THOROLD ROGERS attributed much of the misery of the working classes in succeeding generations to the operation of this statute. He described it (*Work and Wages*, p. 353, cp. also *Agriculture and Prices*, vol. v. ch. xxiii., xxviii.) as "the third in the set of causes from which pauperism was the inevitable effect." He justly remarks that the statute "seems to favour traders and artisans at the expense of labourers in husbandry, by limiting the number of the former and making the latter the residuum of all non-apprenticed labour." It may be doubted, however, whether at present it is possible to form an accurate judgment with regard to the working of the statute. Comparatively few wages assessments have yet been discovered. In 1793, RUGGLES could refer to only one. Sir F. EDEN increased the number to eight, and Thorold Rogers to eleven. Four more are printed in Hamilton's *Quarter Sessions from Elizabeth to Anne*,

pp. 12, 163, 249, and 273, and two in the Belvoir Papers (one of them, 9th April 1621, in full). The act was no doubt a great hardship where it was rigorously enforced, especially amongst the agricultural labourers. Three Devonshire assessments covering a period of 119 years (*vide* Hamilton) indicate a very slow increase, except in the case of indoor servants, while in Bucks the rate of wages for farm labourers in the reign of Anne was no greater than that fixed in Devonshire in the reign of Elizabeth. It may, however, be doubted if the act was on the whole effectual. Prof. Rogers's statistics show that the wages received by the labourers in the main exceeded the rate fixed by the justices, *i.e.* the employers were more merciful than the Quarter Sessions, or (more probably) wages fluctuated in spite of the statutes. The statute continued in force, without substantial modification, until 1825, when it was repealed; but it had been practically a dead letter for many years.

[Adam Smith, *Wealth of Nations*, bk. i. ch. x.—Eden's *State of the Poor*, London, 1797.—Brentano's *English Gilds*, § 5.—Thorold Rogers's *Work and Wages*.—Thorold Rogers's *History of Agriculture and Prices*, vols. iv. v. vi.—Thorold Rogers's *Economic Interpretation of History*.—Hamilton's *Quarter Sessions from Elizabeth to Anne*.—MSS. of the Duke of Rutland preserved at Belvoir Castle vol. i. (Historical MSS. Commission).]

W. A. S. H.

APPROPRIATION. The appropriation of the instruments of production by individuals either singly or in groups, is of great antiquity. Food and other forms of movables seem to have been appropriated prior to land, and though we cannot imagine a time when private property was unknown, there is strong evidence to show that in primitive times the important forms of property were regarded as belonging to the group and not the individual. The Irish early feudal system was, for instance, based on the loan of cattle by the chief to his adherents, the land belonging to the whole tribe. The accumulation of movable property would begin, when once a separate household was acquired by a family, since a house would involve the necessity of some movable articles. When in course of time the relative importance of land and movables altered, land was appropriated by groups of men united by a real or supposed blood relationship. From this collective form of ownership private property in land was slowly evolved (see PROPERTY.—Maine's *Early History of Institutions*, London, 1875;—Maine's *Village Communities*, London, 1871;—Laveleye's *Primitive Property*, London, 1878).

The title of modern states to the territories appropriated by them is based either on conquest or on discovery and occupation, confirmed by lapse of time (Wheaton's *Int. Law*, ed. Boyd, London, 1880, c. iv.) It is now admitted that the high seas, *i.e.* the seas more than 3 miles distant from low water mark, cannot be appropriated either by a state or an individual (*Ib.* p. 251) though the fish in such seas may be taken by capture. As regards the seas within 3 miles of the coast, some writers allow a state jurisdiction only, whilst others assign to it property over such seas (see the various views in Hall's *Int. Law*, Oxford, 1890). From the maxim *cuius est solum eius est usque ad cœlum et ad inferos*, it follows that not only mines but even air may be appropriated. Under English law the owner of land as such is entitled to all the light and air that fall perpendicularly on his land. By lapse of time, *i.e.* twenty years, he may also acquire a right to the reception of light and air in a lateral direction, and that either for domestic or trade purposes (Gale on *Easements*, London, 1888).

The extent to which appropriation of natural agents is to be permitted is a matter for state regulation (see OCCUPATION, POSSESSION, PROPERTY).

J. E. C. M.

APPROVED BILL. A bill of exchange to which no reasonable objection can be made.

A PRIORI reasoning is reasoning that starts from general principles, and not from an inductive examination of particular instances. What constitutes the basis of the argument is thus prior to observation or experience of the specific class of phenomena to which the conclusion relates.

RICARDO'S ordinary method of reasoning is *a priori*. Thus, in order to show that a tax on raw produce falls on the consumer, he takes for granted the general principles that profits tend to equality, and that the price of raw produce is determined by its cost of production on land that yields no rent. Then, taking the case of produce raised on the margin of cultivation, he argues as follows: "A rise of price is the only means by which the cultivator could pay the tax, and continue to derive the usual and general profits from this employment of his capital. He could not deduct the tax from his rent, and oblige his landlord to pay it, for he pays no rent. He would not deduct it from his profits, for there is no reason why he should continue in an employment which yields small profits, when all other employments are yielding greater. There can then be no question, but that he will have the power of raising the price of raw produce by a sum equal to the tax. A tax on raw produce would not be paid by the landlord; it would not be paid by the farmer; but it would be paid, in an increased price, by the consumer" (*Principles of Political Economy and Taxation*, ch. ix.) It will be seen that this argument does not presuppose any examination of instances in which taxes on raw produce have actually been imposed, or of the consequences observed to result therefrom. According to the school of Ricardo the right method of economic reasoning in general is of the above character; it is *a priori*. The

same view is expressed in Senior's dictum that "political economy depends more on reasoning than on observation."

A priori reasoning is also described as synthetical, and as deductive, the terms used in antithesis being A POSTERIORI (*q.v.*), analytical, inductive. For further discussion see ANALYTICAL; DEDUCTIVE; INDUCTIVE; SYNTHETIC METHOD. J. N. K.

AQUINAS, ST. THOMAS (*b.* 1225, *d.* 1274), the greatest of the schoolmen, is of the utmost importance in the history of economic thought, in that he sums up the teaching of the mediæval church, and at the same time furnishes the point of departure for all subsequent reasoning down to the Renaissance. He would seem, indeed, to have had no special interest in the economic side of life; he was led to handle it partly because his *Summa Theologica* was intended to be encyclopædic, partly because the growth of industry and trade, and the tendency to apply to them the maxims of the CIVIL LAW (*q.v.*), rendered necessary a restatement of Christian principles. Politics and economics were not yet separated from theology; accordingly the utterances of Aquinas on political economy are to be found not in any one place, but scattered up and down his great treatise and his minor writings. It will, however, be convenient to group them under three heads—(i.) fundamental questions of social organisation; (ii.) the ethics of business; (iii.) the theory of taxation.

(i.) The early Christian Fathers had used language which might seem to deny the justice of private property; the canon law had expressly included community of goods among its examples of natural law, and had even incorporated a passage ascribed to Clement of Rome (bishop of Rome in the latter part of the 1st century), wherein it was laid down that the use of all that is in the world ought to be common to all men. Aquinas, with strong common sense, set himself to justify individual ownership without directly taking up a position of antagonism to those earlier ideals. In the first place, he explained away the significance of the generally accepted phrase as to natural law, by drawing a distinction between what was natural absolutely, and what was natural by way of consequence. In the former sense, it was true, there was no reason why a field should belong to one man rather than to another; but in the latter sense such ownership might properly be called natural, considering how necessary it was that the land should be cultivated and that its fruits should be enjoyed in peace. Moreover, argued Aquinas, the phrase did not mean that natural law forbade private property, but only that it did not introduce it; its introduction was due to positive law, the invention of human wisdom. In the second place, he fell back on the teaching of Aristotle—whose *Politics* he was the first of the schoolmen to incorporate with mediæval thought—and pointed out the beneficial results of private property; and in Aristotle's maxim that property should be *owned* separately but *used* for the common good, he found a distinction which seemed to harmonise with the meaning of the Fathers.

But if the absence of private property was not suitable for society generally, might it not be a duty incumbent on such Christians as sought perfection in the religious life to divest themselves of their wealth? St. Francis had taken poverty for his bride; there was a strong party among the Franciscans who opposed even the corporate holding of property; and the question of apostolic poverty was already beginning to tear the church asunder. Accordingly Aquinas devotes to this topic a more than usually long section. Poverty, he lays down, is not an end in itself, but a means—a means towards following Christ. Riches, therefore, are wrong only so far as they are hindrances in the way of this object. And if external goods are possessed only in such moderate quantities as are necessary for men's due maintenance, they need not distract the soul. If they are the common property of a religious body, the care of them may even be regarded as a work of charity. But in this case the degree in which material goods are desirable, will depend on the character of each particular organisation.

The duty of almsgiving had been closely associated in the teaching of the Fathers with their views as to property; and it had been inculcated without much regard to possible limitations. Here again Aquinas endeavoured to state traditional principles in a more prudent form. The giving of alms was, of course, with him also, a matter of divine command, and not merely a counsel of perfection. But it was to be guided by right reason, according to which men were not bound, unless in exceptional cases, to give more than their superfluity; and superfluity was defined as that which remained after providing for a man's due maintenance, and that of those dependent on him, in the rank of life to which they belonged.

In what to Aristotle was the other great fundamental question, viz. SLAVERY, Aquinas was clearly but little interested, doubtless owing to the changed conditions of society. He nowhere discusses at any length the justice of personal servitude, and his occasional arguments on the subject seem purely academic. He would appear to have accepted Aristotle's view of the expediency of slavery; but he differed from him in believing that by nature (in the "absolute" sense of the term) all men were equal; and he followed some of the Fathers in holding that slavery was among the consequences of the fall of Adam.

(ii.) Of wider practical importance was his teaching as to the ethics of business. He

contributed but little to the development of church doctrine in this regard; but he gave it a systematic shape which greatly strengthened its hold upon men's minds. In laying down that, in buying and selling, nothing but a JUST PRICE (*q.v.*) should ever be demanded or paid, Aquinas was quite conscious that he was enunciating a principle in direct opposition to that of the civil law; and he met the difficulty by urging that human law was necessarily limited, and that it could not, like divine law, prohibit all that was opposed to virtue. As to trade, he agreed with Aristotle that it was base (see ARISTOTLE), and with the Fathers that it was sinful, if carried on for the sake of gain; but it was not sinful when the merchant sought only a moderate reward for his exertions, and spent it in the maintenance of his family or the relief of the poor; still less when it was carried on for the public good, that a country might not be without the necessaries of life (see FATHERS). Concerning usury he repeated the arguments of his predecessors Alexander of Hales and Albert the Great, laying particular stress on the distinction between FUNGIBLES and CONSUMPTIBLES (*q.v.*): with the loan of a consumptible, such as money, passed the right to make use of it, so that to demand the return of the money *and* a payment for its use was to make a double charge for one thing. He allows, however, that a compensation may justly be received for a DAMNUM EMERGENS (*q.v.*), *i.e.* the loss arising from the non-restoration of a loan at the appointed time, though not for a LUCRUM CESSANS (*q.v.*) But he makes two dangerous concessions when he allows that a man may, without sin, *borrow* from one who is already a usurer, if it is for some good object; and that a man may, without sin, entrust his money to a usurer, if the purpose is not gain, but the safe keeping of the money.

(iii.) The treatise *De Regimine Principum*, the most popular manual of statecraft in the later Middle Ages, is, unfortunately, from the hand of Aquinas only as far as the middle of the second chapter of the second book (see PTOLEMY OF LUCCA). But there is extant almost interesting letter of his in reply to certain questions of the Duchess of Brabant; among others as to the justice of TAXATION. Aquinas replies that as princes are established by God, not that they may seek their own gain, but the common utility of the people, they should, as a general rule, content themselves with the revenues of their demesne lands. But when these will not suffice for the defence of the country or to meet other emergencies, then it is just that subjects should be called upon to give their aid. This position is identical with the demand, which appears so often in the constitutional struggles of the 14th century in England, that the king should "live of his own."

[There is no adequate account of the economic teaching of Aquinas, which indeed may be best collected from Aquinas himself. See the *Summa Theologica*, as to *private property*, Secunda Secundæ, Quæstio 77, Articulus 3; Q. 66, Art. 1, 2; as to *voluntary poverty*, Q. 188, Art. 7; as to *alms*, Q. 32, Art. 5, 6; as to *slavery*, Pars Prima, Q. 96, Art. 3; Prima Secundæ, Q. 94, Art. 5; as to *price*, Secunda Secundæ, Q. 77; as to *usury*, Q. 78; as to *taxation*, *De Regimine Judæorum* among the Opuscula. The best brief account will be found in C. Jourdain, *La Philosophie de S. Thomas d'Aquin*, 1858. See also W. J. Ashley, *Economic History*, vol. i. pt. i., 1888;—P. Janet, *Histoire de la Science Politique*, 3d ed., 1887;—H. Contzen, *Geschichte der Volkswirthschaftlichen Literatur im Mittelalter*, 2d ed., 1872;—J. J. Baumann, *Die Staatslehre des h. Thomas*, 1873 (little more than a series of extracts in German). For its relation to the teaching of the church in general, W. Endemann, *Studien in der Romanisch-Kanonistischen Wirthschafts u. Rechts-lehre*, vol. i., 1874; vol. ii., 1883; and the brief *Geschichte des Kirchlichen Zinsverbotes* of F. X. Funk, 1876.]

W. J. A.

ARABLE LAND, CONVERSION TO PASTURE IN GREAT BRITAIN. Naturally and historically Great Britain is a grass-growing pastoral country. Nature, by the moist climate, suggests a preponderance of permanent grass-land; history proves that, before the Napoleonic wars and the pressure of scarcity and corn laws, this preponderance in fact existed. But, at the beginning of last century, vast areas of poor soils, of downs, heaths, sheep-walks, and rabbit-warrens, were ploughed up under the temptation of high prices. These tracts cannot now be tilled with profit, nor can many of them be restored to pasture so as to benefit the present generation. Within recent years, the heavy fall in the price of cereals has led to the reconversion of arable land to pasture, and the consequent diminution of the corn-growing area. The increase of permanent pasture has been greatest in grain-growing districts, which are, by climate and by soil, least adapted for pasture, and the economic loss is consequently greater. In 1872 the total acreage of permanent pasture was 12½ million acres; in 1877 it was 13,575,606 acres; in 1887 it was 15,671,395 acres; in 1890 it is over 16 million acres. Bearing in mind the fact that the increase has been greatest in corn-growing districts, it is improbable that the reconverted pastures are really permanent, or that they represent more than a temporary loss of capital. The immediate results of the change are: (1) a considerable reduction in the farmer's labour bill. Assuming that farmers save £1 an acre by the change, more than two millions are annually withdrawn from the wages of the agricultural population. Half the population only is required when dairying replaces tillage, and less than half where neat stock are kept. The full results of the displacement of labour cannot be gauged, partly because the

area over which it extends is wide, partly because agricultural labourers, especially the older generation, remain at their homes, though employment may be precarious, in preference to seeking permanent work elsewhere. The census returns for 1881, compared with those for 1871, show a decrease in the number of agricultural labourers of 91,550. Part of this decrease must be of course attributed to the development of agricultural machinery. (2) A considerable loss in the producing power of the country is, for a time at least, the second result of the conversion. Under favourable circumstances of soil and climate, it takes ten years before a profitable permanent pasture can be obtained. Under unfavourable conditions, the period may be doubled or even trebled. The expense of converting arable land to pasture is greatest where the return is least, and longest postponed. Thus in the moist climate of the west, permanent pasture may be secured by allowing arable land to fall down to grass. In the eastern counties, "tumble-down" land can scarcely ever become profitable pasture. Great care, liberal management, abundance of manure, are necessary. If these are neglected, especially in the third and fourth years from the sowing, the soil will become bare as the desert. On reconverted pasture, the value of the additional sheep, cattle, pigs, hay, and milk will for many years—and the greater the necessary outlay of capital the longer the profits are postponed—fall below the value, even at present prices, of the corn and straw they replace.

[The practical side of the question is treated in all books on agriculture. But see especially the article by Mr. Faunce de Laune of Sharsted, Sittingbourne, in the *Journal of the Royal Agricultural Society*, pt. i. 1882, and *Permanent and Temporary Pasture*, by Martin J. Sutton.] R. E. P.

ARBITRAGE (Stock Exchange). On the stock exchange arbitrage dealings are those which are done by houses in London, for instance, to cover other transactions which may be done in Paris or Berlin or New York or in other distant places. The method pursued is often something like this: The arbitrage dealer learns by telegram from some distant place that his colleagues stationed there have bought or sold certain securities at advantageous prices. His business then is to sell or buy in London if possible at a better price for the same securities. For example, A. sells Egyptian Unified bonds in Paris at a price corresponding to 80 here. B., an arbitrage dealer in London, thereupon endeavours to buy the same amount here at 79¾, leaving a profit of ¼ per cent to be divided between the two firms. Or C. buys in New York Erie Railroad shares at 29½, and seeks to improve his bargain by instructing D., his colleague in arbitrage business, to sell the same number of shares at 30 here if possible. The nicest attention to the rate of exchange, cost of transit, insurance, loss of interest, etc., must be given to these transactions. Arbitrage is also conducted, under the title of "shunting," between London and Liverpool, or Manchester, or Glasgow, as the case may be, the favourite operations between these markets being English railway stocks, which are dealt in indifferently in each. A. E.

ARBITRAGE (General Business). An expression used in general business language for international dealings in stock exchange securities, bullion, specie, bills of exchange, etc. If the price of a security is higher in one place than in another, it is said that there is a margin between the two places in the particular security, and arbitrage dealers, whenever they discover such a margin, take advantage of it by effecting purchases in the cheaper, and sales in the dearer market. As one of the two operations must precede the other, the margin may disappear before the transaction is completed; but this is not the only element of uncertainty. The original arbitrage transaction always involves a covering transaction to re-imburse the buyer for his outlay. The re-imbursement can be effected either by a reversed buying and selling of some other security, or by the remittance of bills of exchange from the seller to the buyer, or by the issuing of a draft on the seller by the buyer. The first operation may not always be possible without loss, and the second and third may be disturbed by an unfavourable fluctuation in the rate of exchange. The original margin ought to be wide enough to cover all these risks as well as the outlay for carriage, insurance, bill stamps, security stamps, brokerage, etc. In some cases it may be advisable, instead of forwarding the securities, to continue the bargains on each side until the margin is reversed, and then to close the transaction by buying in the place where the first sale took place and by selling in the place where the first purchase took place. In this way all the forwarding expenses and stamps are saved on both transactions, but there must, of course, be a reasonable prospect of such a reversal in the margin within a measurable time, and there must be no unfavourable difference between the rates of continuation in the two places (as to rates of Continuation, see Contango). As whenever there is a margin in any security all arbitrage dealers buy in the one place and sell in the other, the price in the cheaper place necessarily rises almost immediately, and in the same way the price in the dearer place falls, and as, moreover, for various reasons, which it would not be possible to explain in a short space, arbitrage operations are frequently effected with a very slight, or even without, margin, the natural effect of arbitrage business is to maintain the prices of securities in all places on the same level. E. S.

ARBITRAGE (Exchange). The difference in the rates of exchange (*i.e.* the prices payable

for bills of exchange on foreign countries) in different places occasions the so-called "arbitrage transactions in exchange." If, for instance, bills on demand on Berlin can be bought in London at 20·40, and bills on London can be bought in Berlin at 20·35, it will be profitable for a Berlin banker to buy the latter and to obtain in exchange bills on Berlin. For every £1000 on London which he buys he has in that case to pay 20,350 marks, while the same £1000 in London will enable him to purchase 20,400 marks on Berlin; he therefore receives 50 marks more than he spent, from which sum, however, the expenses for postage, bill stamps, brokerage, etc., must be deducted. In the case of long bills, allowance must also be made for the rates of discount on both sides. These transactions become more complicated if a bill on a third place is remitted from one of the two places—if, for instance, the Berlin banker, instead of obtaining a bill on Berlin in London in exchange for the bill on London remitted by him, instructs his correspondent to send a bill on St. Petersburg; in such a case there is more risk of loss involved, as, before the St. Petersburg bill is received in Berlin and negotiated there the exchange may vary to the disadvantage of the transaction. The competition of arbitrage dealers naturally reduces the margins of profit, and the consequence is that the rates of exchange in all important centres very nearly correspond with each other. E. S.

ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED. A system of adjusting industrial disputes. It should not be identified with conciliation (see CONCILIATION, BOARDS OF), although a hard and fast line of distinction cannot be drawn. Arbitration may, perhaps, be said to be adapted to a more advanced stage of a dispute, and to be more compulsory in character. If the representatives of employers and employed at a board of conciliation cannot arrive at a mutual agreement, they may refer—and definite provision is generally made for such ultimate reference—to an arbitrator. Arbitration may also be found possible where there is no board of conciliation established, and has sometimes paved the way for the institution of such a board. The details of arbitration are subject to great variation. The arbitrator may be an outsider, or he may be himself a member of the trade in which he is called upon to arbitrate. The advantage of the former alternative is the avoidance of suspicions of bias which may naturally arise in the latter case; but one disadvantage is the necessity of acquainting the arbitrator with the meaning of those technical terms which would be familiar to a member of the trade. In some cases the attempt is made to avoid these difficulties by the appointment on either side of an arbitrator who is a member of the trade, and by the selection, in addition, of a single umpire who is an outsider invested with the power of final decision should the arbitrators disagree. The questions referred to an arbitrator may also be various, but, in the generality of cases, they are concerned with the regulation of wages. The procedure pursued, again, is subject to variation, but is usually of the following nature. The arbitrator holds a court, as it is termed, on a fixed day. Some time before he is furnished with statements from both the contending parties, setting forth their rival claims and the arguments on which they are based. On the day when the court sits representatives of both sides attend and state their case, sometimes by means of printed or written documents, sometimes supplementing these by, or substituting for them, oral pleadings. The arbitrator asks for any additional evidence he may consider necessary, and makes his award either at once or at a subsequent date. The difficulties connected with industrial arbitration may be summarised under three heads. The award may be disregarded, and to avoid this some writers have urged that a legal character should be given to courts of arbitration, and a legal sanction to the awards of arbitrators. Others have contended that this would tend to impart too elaborate and technical a character to the proceedings, and that it is not in harmony with English traditions or inclinations. They have also pointed to the fact that there is already provision in the statute book for legalised arbitration, *e.g.* (1) a series of acts passed in the 18th century, providing for the settlement of disputes in particular trades, and consolidated in 5 Geo. IV. c. 96; (2) Lord St. Leonard's Act of 1867 (30 & 31 Vict. c. 105), providing for the establishment of councils of conciliation after the model of the French *conseils de prud'hommes* (see CONSEILS DE PRUD'HOMMES); and (3) Mr. Mundella's Arbitration Act of 1872 (35 & 36 Vict. c. 46), and that this legislation has hitherto proved inoperative. And therefore, they contend, the only satisfactory means of avoiding the difficulty is to secure thorough representation of the contending parties by means of TRADES UNIONS and MASTERS' ASSOCIATIONS (which see). The second difficulty connected with arbitration is the element of contentiousness naturally attaching to the proceedings, which are, however, often, if not generally, conducted with remarkable courtesy. The third and last, and perhaps the crucial, difficulty is that of securing accurate data for the arbitrator, and of determining the principle on which his award should be based—whether, that is, decisions as to changes in wages should rest on changes in the prices of the articles produced by the wage earners, or on changes in the cost of the raw material, or on these or other circumstances combined (see COMPETITION).

[For an account of these difficulties see Price's *Industrial Peace*, ch. iii., where a history is

given of the board of conciliation and arbitration in the manufactured iron trade of the north of England, and Professor Marshall's preface to the same work.—Consult also Jevons's *The State in Relation to Labour*, ch. vii.—Marshall's *Economics of Industry*, bk. iii. ch. viii.—Howell's *Conflicts of Capital and Labour*, ch. xi. part ii.;—and for the difficulty of determining the principle on which the award should be based, Sidgwick's *Principles of Political Economy*, 2d ed., bk. ii. ch. x. § 5, and bk. iii. ch. vii. § 7, and Price's Paper on Sliding Scales and Economic Theory (*British Association Report*, 1889, pp. 523-35)—Crompton's *Industrial Conciliation* contains a good account of experiments in arbitration and conciliation, but is now out of print.] L. L. P.

ARBITRATION, SCOTCH. The principal distinctive features are: (1) the arbiter's award ("decreet-arbitral") can only be set aside by an action of reduction on the ground of bribery, corruption, or falsehood; (2) the arbiter has implied power to give costs; (3) the decree is attested and executed in the form of a regular deed; it is transcribed in the public registers, and gives warrant for execution issuing against either party. A. D.

ARBUTHNOT, JOHN, M.D., born 1667; died 27th February 1734-35; he was appointed physician to Queen Anne; founded the Scriblerus Club with Swift, Pope, Gay, and Parnell; wrote some witty political satires, a few professional papers, and the following important work.

Tables of the Grecian, Roman, and Jewish Measures, Weights, and Coins reduced to the English Standard, London [1705], 8vo, reprinted as *Tables of Ancient Coins, Weights, and Measures, Explained and Exemplified* [published by his son Charles], London, 1727, 4to.—*Second Edition, with Appendix, containing Observations*, by B. Langwith, D.D., London, 1754, 4to (Latin translation by D. König, Lugd. Bat., 1764, 4to). H. R. T.

ARBUTHNOT, JOHN, of Mitcham (Surrey), towards the end of 18th century, whose abilities as a farmer have been acknowledged by Arthur YOUNG (*On the Husbandry of three celebrated British Farmers*, 1811, pp. 17-28), refutes, in *An Inquiry into the Connection between the present Price of Provisions, and the Size of Farms, etc.*, By a Farmer, 1773, the views of authors ascribing the high price of provisions to large farms, asserts that the proportion of land which is in some degree governed by its value should be equal to a given capital (p. 35), and ascribes the dearness to failures of crops, luxury in the mode of living, and the increase of post-horses. The remedy consisting in the extension and improvement of agriculture, he recommends enclosures. Then "make the trade free . . . let corn flow like water, and it will find its level" (p. 88). Even the bounty on its exportation is needless. The effects of importation from America are not dangerous, "for there labour is dear." He laments only that the development of large farms was accompanied by "the loss of our yeomanry, that set of men who really kept up the independence of this nation; and sorry I am to see their lands now in the hands of monopolising lords, tenanted out to small farmers, who hold their leases on such conditions as to be little better than vassals ready to attend a summons on every mischievous occasion," p. 139 (see YEOMEN).

This work has been translated into French by Fréville, 1775, as the second volume of his *Arithmétique politique de A. Young*.—See M'Culloch, *The Literature of Political Economy*, pp. 193, 194.—K. Marx, *Capital*, vol. ii. pp. 746 note 2, 751 note 1. S. B.

ARCO, GHERARDO GIAMBATTISTA DEI CONTI D'ARCO, born at Arco in the Tyrol 1739, died at Goito 1791, was a great personal friend of CONDILLAC. As an economist he was a man of sound common sense, possessing no brilliant talent. His writings, consisting mostly of prize essays written for academies, have been collected by CUSTODI in his *Economisti classici Italiani*, 1804, Milano. His principal essays are dated as follows:

On the Political and Economical Harmony between Towns and Country, 1771 (Mantua Academy).—*On Corn Stores*, 1775 (Mantua Academy).—*On the Influence Commerce exerts over Talents and Habits*, published in 1782 (written in 1777 for the Academy of Marseilles).—*On the Influence the Spirit of Commerce exerts on the Domestic Economy of the People and on the prosperity of States*, 1778 (published in Cremona).—*Reply to the Question whether Agriculture or Industry is to be preferred in a fertile Country*, 1780 (Mantua Academy).—*On the Liberty of Transit Commerce*, 1784 (published in Mantua). M. P.

ARGENSON, RÉNÉ LOUIS DE VOYER DE PAULMY, Marquis d', born 1694, died 1757; was the eldest son of the "Garde des sceaux" of the same name, under the Regency. He is better known by his celebrated *mot* "*Pas trop gouverner*,"—lineal ancestor in the spirit of the "*laissez-faire, laissez-passer*" of GOURNAY,—than by his works, now little read. His *Considérations sur le gouvernement ancien et présent de la France* (published 1764, but written more than thirty years previously), in which he treats of democracy in a state governed by a monarch, deserves, however, to be reprinted. He was one of the most active members of the *Club de l'Entre-sol* (Place Vendôme), which was founded in 1724, and closed in 1731 by order of Cardinal de Fleury. A. C. f.

ARGENTARII. The bankers of ancient Rome. There were some special rules regarding their transactions. An action of a special kind could, for instance, be brought against an argentarius who had engaged to answer for the debt of another. The argentarii had special privileges as regards the right of set-off. E. S.

ARISTOCRACY. Aristocracy meant to the Greeks "government by those who are best,"

in other words not government by one individual (monarchy), or by the majority (democracy), but by a select class, who are privileged because of some real or alleged superiority to the rest. Government by a class, if it possessed no such superiority, was not aristocracy but oligarchy (government of the few). Such are in the main the distinctions of ARISTOTLE (*Politics*). Aristocracy, however, has come to mean in our own day simply that class in society which is, or claims to be, superior to the rest, with or without any special power in the government. Historically, therefore, there have been as many forms of aristocracy as there are forms of excellence amongst men. There were aristocracies built on a superiority of race and birth, aristocracies of culture (such as a caste of priests); aristocracies of age and experience (senatus, γερουσία); military aristocracies, territorial aristocracies (of proprietors of land), and finally aristocracies of wealth (*equites*, merchant princes). It is of the last that Cicero recorded his opinion: "Nec ulla deformior species est civitatis quam illa in quâ opulentissimi optimi putantur" (*Rep.* I. 34). The popular notion of aristocracy changes with the popular standard of excellence; and the changes have clearly been, on the whole, for the benefit of civilisation. Between the actual equality of men in barbarous societies, and the endeavour after equality in the most civilised, there are intervening stages where society is necessarily composed of privileged and unprivileged classes. The relative justification of slavery, for example, lies in the sparing of the conquered, the training of them to habits of industry, and the securing to their masters of the leisure for the acquisition of science and culture. But if these were the conditions of the beginning of progress, they are not necessarily the conditions of its continuance.

In the same way an aristocracy of birth has been the means of reducing a people to military and political discipline, as in the Roman republic and mediæval Europe. The republic of Venice grew strong and wealthy under a governing council filled entirely by sons of office-holders. But the lessons once learnt, the teachers are dismissed. In Venice, *e.g.*, the closing of the *Libro d'oro* in 1309 was the suicide of the governing class. In modern times the two types of most importance in economical and social development have been the territorial and the commercial aristocracies. The aristocracy of feudalism became territorial when the reward of victory was the grant of lands. Land was in those times "the means not of subsistence merely, but of power and protection." Such customs as PRIMOGENITURE and ENTAIL preserved the estate to the lord's family; to divide the land would have been to lessen the power. But by thus endeavouring to maintain their own power, the lords were giving security of person to their dependants, and to their country a continuity and stability of institutions which every country in Europe needed above everything in those times. In addition they introduced a rule of conduct (*noblesse oblige*) which had in many ways a real superiority to that of common folk. Nevertheless the growth of absolute monarchies, of towns, guilds, and commerce, not only made the feudal institutions unnecessary as guarantees of stability, but revealed the fact that they might be hindrances to progress. Economical causes worked, among others, to free the dependants and to raise up formidable rivals to the power of the nobles. Politically their exclusive privileges may be said to have lasted in France till the Revolution of 1789. In England territorial nobles tempered the hostility of the merchant princes by admitting many of the latter from time to time within their ranks; and they thus saved their privileges for another half century. The aristocracy of wealth, which at first rivalled and then conquered the aristocracy of birth in England, will no doubt give place in its turn to a successor when its work is done. It is of a nature to invite the odium of those who are excluded from it, in proportion as fortunes seem to be due to chance and speculation more than to industry and talent. The recognition of its superiority is often the confession of weakness in presence of strength rather than reverence before admitted excellence. The latter feeling is not only consistent with modern democracy, but is an imperative condition of its health. Democracy claims a fair field for the exercise of all the powers of men, and anything like a hereditary caste of privileged persons would never be willingly created, and is very reluctantly maintained by it. But it recognises an inequality of ability, an aristocracy of genius, and an aristocracy of labour. The differences in talent between individuals, and the effect of heredity in intensifying them, will remain a constant factor of economical and social development (see also EQUALITY, FEUDAL SYSTEM, HEREDITY, INHERITANCE).

[Bluntschli, *Staatslehre*, II. x. and VI. xix. (1875).—Stahl, *Philosophie des Rechts*, vol. ii. p. 103, *Der Adel* (1878).—Ad. Smith, *Wealth of Nations*, bk. iii.—G. C. Lewis, *Use and Abuse of Political Terms*, § 8 (1832).—Montesquieu, *Esprit des Lois*, II. iii., III. iv.] J. B.

ARISTOTLE. By *Œconomic* (οἰκονομική) Aristotle meant the practical science, or art, of household management—practical wisdom (φρόνησις) applied to the household (*Eth. Nic.* VI. 8 § 3), the household (οἰκία) including the three relations of husband and wife, father and child, master and slave, and obviously requiring property for its maintenance (*Pol.* I. 2). The two disconnected books called *The Œconomics*, which have come down to us among Aristotle's writings, are certainly not his, but works of the Peripatetic school, the first being earlier and of

more value than the second (Zeller, *Phil. der Griechen*, Ed. 3, Theil II., Abtheil. II. p. 944). The first book of the *Politics* constitutes his own contribution to the subject (cp. *Pol.* I. 3, § 1; and III. 6, § 3), and is, indeed, summarised under the title of *περὶ τοῦ οἰκονομικοῦ, i.e. Concerning the Œconomist*, in the epitome by Areius Didymus (?) preserved in Stobæus (*Ecl.* II. c. 6).

Χρηματιστική, the science or art of wealth, is, he tells us, by some considered identical with household management, by some regarded as the most important part of it (*Pol.* I. 3, § 3). He treats of it in chaps. 8-11; and in these chapters, taken along with *Eth. Nic.* V. 5, §§ 6-16, we have what would now be called the "political economy" of Aristotle. Both households and states require means for their support. WEALTH (πλοῦτος) is, therefore, defined as "a quantity of *instruments* for the household or state" (*Pol.* I. 8, § 15). This definition MILL (*Pol. Econ.* "Preliminary Remarks") would consider "philosophically correct," though like other English economists he prefers to define wealth in terms of EXCHANGE. In *Eth. Nic.* IV. 1, § 2, Aristotle defines, or rather describes, property (Χρήματα) as "everything whose value is measured by money;" but the more scientific definition of the *Politics* serves him as a basis for his opinion about the true relation of χρηματιστική to οἰκονομική and πολιτική (as we should say "of economics to politics"). A science of instruments or means is obviously subordinate to a science of ends.

Aristotle uses χρηματιστική in the widest sense as equivalent to κτητική, the art of acquisition in general; but in a narrower sense it is limited to the art of acquiring that wealth which is only rendered possible by exchange and, on any considerable scale, by MONEY. The kinds of acquisition are distinguished as "natural" and "unnatural," the latter arising through the introduction of exchange. "Natural" wealth is to the household just what nature's provision of food is to animals, *e.g.* mother's milk to the young, or its ordinary food to the graminivorous or carnivorous animal. And so hunting, either of wild animals for their flesh or skins (fishing would fall under the same head), or of slaves to serve as "living tools," is named among the "natural" modes of acquisition. The "nomadic" life of those who rear sheep and cattle, agriculture (including the cultivation of fruit-trees), the keeping of bees (important when sugar was little known), and the rearing of fowls and fish — all these are considered "natural" ways of supporting life. Intermediate between these and the "unnatural" class, Aristotle places wood-cutting and mining: the man who grows corn is in immediate contact with nature, but the man who makes the spade, or plough, or procures the materials for it, is a step removed from nature—such, at least, seems to be his line of thought. Exchange (μεταβλητική), as already said, introduces the "unnatural" kind of acquisition. Aristotle distinguishes, as Adam SMITH did again long afterwards, between the VALUE possessed by anything in *use* and its value in *exchange* (*Pol.* I. 9, § 2). If a shoe be worn, that is according to nature; if it be used to purchase other commodities, that is not "natural," though still a use of the shoe *quâ* shoe; for the person who takes it in exchange takes it because it is a shoe. Exchange only comes to be needed when we pass outside the limits of the household. In early stages of society, "as among many barbarians still," it took place by simple BARTER (*Pol.* I. 9, § 5). The introduction of money (νόμισμα)[1] makes no difference in the character of exchange (*Eth. Nic.* V. 5, § 16), but facilitates it enormously by supplying a measure of value (πάντα ποιεῖ σύμμετρα, "it makes all things commensurable," *Eth. Nic.* V. 5, § 15) and a convenient medium of exchange. Money is defined as "a conventional exchangeable representative of demand" (ὑπάλλαγμα τῆς χρείας κατὰ συνθήκην, *Eth. Nic.* V. 5, § 11. GOLD and SILVER serve this purpose best; being useful themselves, they are at the same time easily carried about (*Pol.* I. 9, § 8), and, although liable to change in value, they do so less than other commodities (*Eth. Nic.* V. 5, § 14). At first they were always weighed, afterwards a stamp was imposed (*Pol.* I. 9, § 8). This brings out the *conventional* character of CURRENCY, so that a change in the currency will make the old coins useless (*Eth. Nic.* V. 5, § 11). About money there are two opposite errors: (1) that wealth consists in a quantity of money (*Pol.* I. 9, § 10); (2) that it is something utterly valueless—(here he doubtless alludes to Cynic theories, such as are maintained in the pseudo-Platonic *Eryxias*).

The "unnatural" kind of χρηματιστική includes (1) Trade (ἐμπορία, commerce, and καπηλική, retail trade), different forms of which are ship-owning, the carrying-trade, shopkeeping; (2) Money-lending (τοκισμός, ὀβολοστατική), which is even more unnatural, for it is a perversion even of the natural use of money to make money breed money, instead of simply facilitating exchange; (3) LABOUR for wages (μισθαρνία); for while, in Aristotle's view, there are slaves by nature, the hired labourer, whether skilled or unskilled, is something contrary to nature—

[1] A remarkable proof of the force with which this conception has been impressed on modern thought is found in the reference made by MIRABEAU to Aristotle at the session of the National Assembly, 12th December 1790 (see Dana HORTON, *Report on International Monetary Conference*, Paris, 1878, p. 29 (art. BI-METALLISM).

The same influence is also exemplified in the statement made by recent bi-metallists, "that the greater part of the value of νόμισμα (money) is given it by νόμος (law), to which it, as Aristotle says, both etymologically and actually owes its origin" (see letter to the *Times* of Chrysargyros, 26th May 1881), and in the remarks of H. Cernuschi, "Money is instituted by law: *nomos*, law; *nomisma*, money" in his work, *Bi-metallism at 15½ a necessity of the Continent, for the United States, for England*, by H. Cernuschi, London, P. S. King, 1881.

something for which he can find no proper place in his political ideal. Regarding wealth as an *instrument* to life, and therefore as a means and not as an end, Aristotle rejects the money-making life as one that no rational man would choose (*Eth. Nic.* I. 5, § 8, ὁ δὲ χρηματιστὴς [sc. βίος], βίαιός τίς ἐστιν, "The money-making life is" *either* "unnatural" *or rather* "chosen only under compulsion," "as a mere necessary" —a passage of which the mistranslation, "The money-maker is a violent person," determined the position of the usurers in Dante's *Inferno*, canto xi.) But is Aristotle quite consistent in holding, as he does, that the city state is "prior by nature," and so higher in type, than the village community or patriarchal family, and yet condemning as unnatural all the more complex economic conditions of city civilisation? His economic views are really dependent on the ethical principle that conduct (πρᾶξις), and not the production of commodities (ποίησις), is the end for man. This and the prejudices of a slave-holding society prevented him, perhaps, from sufficiently understanding the economic structure even of the very society in which he was living.

To return to the original question, his answer is that only the natural kind of χρηματιστική is a part of household management. The other kind is subordinate or subservient (ὑπηρετική, *Pol.* I. 10, § 3); and, because concerned with mere means and instruments of living, both kinds are to be pursued only to a limited degree. Thus those are wrong who identify household management with amassing wealth, and statesmanship with finance.

While thus laying the foundations of a special science of wealth, Aristotle never treats the subject apart from ethical and political considerations. In *Eth. Nic.* V. 5, he seems to consider that the value of commodities is, in some way, determined by the value of the producers. Fair exchange is reciprocal action regulated by proportion (τὸ ἀντιπεπονθὸς κατ' ἀναλογίαν), *e.g.* as the farmer to the shoemaker, so must be the quantity of shoes that the farmer receives to the quantity of corn that the shoemaker receives. Money, as already said, makes commensurability and so equalisation possible between such incommensurable quantities. We may perhaps make his idea intelligible to ourselves by thinking of the amounts to be given in exchange as in the *inverse ratio* to the value of an hour's labour of each producer.

Aristotle was fully alive to the close relation between social or political institutions and economic conditions. In *Pol.* I. 8, he points out that, just as the food of animals determines their habits as gregarious or solitary, etc., so are men's lives different in the pastoral, the hunting and fishing, and the agricultural stage (or in various combinations of these). The pastoral is here placed first, not as being the rudest, but as that which leaves most leisure. And so in *Pol.* VI. (=VII. in the changed order of St. Hilaire, etc.) 4, when grouping the different types of democracy according to economic conditions, he considers a pastoral democracy less stable than an agricultural, because there is more leisure for political interests; while, again, an industrial population, living in a city, develops the most extreme form of democracy.

COLONIES are referred to as a remedy for over-population (VI. 5, § 9). The nature of a MONOPOLY (with the use of this term) is illustrated in I. 11. In criticising Plato's COMMUNISM Aristotle uses the argument, often repeated since, that "the magic of property" is needed to ensure due care of anything. Not abolition of all private property, but equalisation of property among the free citizens, along with the maintenance of a nearly equal population, constitutes his own ideal state on its economic side (*Pol.* VII. = IV. in order of St. Hilaire, etc.)

Most of Aristotle's economic discoveries may be said to have lain dormant, and to have required rediscovery in modern times. His influence, however, was directly exercised as one of the factors in the mediæval abhorrence of usury (cp. Ashley, *English Economic History*, I. pp. 145, 152. See CANON LAW; USURY).

[Newman, *The Politics of Aristotle* (Oxf. 1887), i. pp. 125-138; ii. pp. 165-208.—Jowett, *The Politics of Aristotle* (Oxf. 1885), vol. ii. pp. 24-37, especially p. 35, where will be found a convenient table of the various divisions of κτητική, which we are permitted to reproduce here in English:—

The art of acquisition (κτητική: but χρηματιστική is sometimes used in this wide sense).
1. Hunting (*a*) of wild beasts (*b*) of those who are "by nature slaves."
2. χρηματιστική (c. 9, § 1), the science or art of wealth.
   (1) Natural, including
      (*a*) keeping of cattle, flocks, etc.
      (*b*) agriculture (including cultivation of fruit trees).
      (*c*) bee-keeping.
      (*d*) keeping of fish.
      (*e*) keeping of birds.
   (2) Intermediate,
      (*a*) wood-cutting.
      (*b*) mining.
   (3) Unnatural (=μεταβλητική, exchange).
      (*a*) trade (commerce and retail trade).
         1st, ship-owning.
         2d, carrying-trade.
         3d, shopkeeping.
      (*b*) money-lending (usury).
      (*c*) labour for hire.
         1st, of the skilled artisan.
         2d, of the unskilled.] D. G. R.

ARITHMETIC, POLITICAL. Economic inquiry was sometimes styled thus during the early development of the study of economics, the best known example being found in the works of Sir William PETTY, who, writing in the latter half of the 17th century, speaks of

the mode in which he conducted his economic investigations—a mode which later inquirers have scarcely been able to improve on—thus: "The Method I take to do this, is not yet very usual; for instead of using only comparative and superlative Words, and intellectual Arguments, I have taken the Course (as a Specimen of the Political Arithmetick I have long aimed at) to express myself in Terms of *Number, Weight,* or *Measure*; to use only Arguments of Sense, and to consider only such Causes, as have visible Foundations in Nature; leaving those that depend upon the mutable Minds, Opinions, Appetites, and Passions of particular Men, to the Consideration of others: Really professing myself as unable to speak satisfactorily upon those Grounds (if they may be called Grounds,) as to foretell the Cast of a Dye; to play well at Tennis, Billiards, or Bowls (without long Practice,) by Virtue of the most elaborate Conceptions that have ever been written *De Projectilibus et Missilibus,* or of the Angles of Incidence and Reflection" (p. 98).

Several Essays in Political Arithmetick, by Sir William Petty, London (Fourth edition), 1755.

ARITHMETIC, POLITICAL. HISTORY OF. The name of this mother science, both of statistics and of political economy in England can be traced to Sir William PETTY'S *Discourse made before the Royal Society the 26th of November 1674, Concerning the use of duplicate proportions in sundry important particulars,* London, 1674 (the Epistle Dedicatory to His Grace William, Lord Duke of Newcastle). "There is," he says, "a *political arithmetic* and a *geometrical justice* to be yet further cultivated in the world; the errors and defects whereof neither wit, rhetoric, nor interest can more than palliate, never cure. For falsity, disproportion, and inconsistence cannot be rectified by any sermocinations, though made all of figurate and measured periods, pronounced in tune and cadence, through the most advantageous organs; much less by grandisonous or euphonical nonsence farded with formality; no more than vicious wines can be remedied with brandy and honey, or ill cookery with enormous proportions of spice and sugar: *Nam Res nolunt malè administrari.*" Besides the founder of this new science other eminent British writers laboured on the subject of "political arithmetic," desiring to supply by its means solid arguments in favour of the economical superiority of the nation. They extended the field of investigation to the extent and productiveness of land and population, considering them to be the real sources of national riches. These computations could be no more than estimates of complex facts of political interest, starting from the most typical and calculable instances. Though Adam SMITH confesses not to have great faith in political arithmetic (*Wealth of Nations,* bk. iv. ch. v.), its conclusions have often been affirmed by later investigations and its methods followed by modern statists.

This method is exemplified by the *Natural and Political Observations mentioned in a following Index and made upon the Bills of Mortality,* By John GRAUNT, citizen of London, *With Reference to the Government, Religion, Trade, Growth, Ayer, Diseases, and the several changes of the said City.* London, 1662. By an ingenious analysis of the bills of mortality (after 1603), Graunt constructed a rude statistical statement of births, deaths, and disease, the very beginnings of vital statistics.

Sir W. Petty used political arithmetic to inquire into the wealth of the nation, taking sometimes the annual consumption, sometimes the poll and other taxes as basis. His followers were Gregory KING (1696), whose name is connected with the laws of prices; Ch. DAVENANT (1656-1714), Erasmus PHILIPS (1725), A. HOOKE (1750), Mitchill (1767), Pulteney (1779), Arthur YOUNG in the second part of his *Political Arithmetick* (1779), the first being a treatise on agricultural politics (1774), and G. CHALMERS (1783, 1812). Decaying since Davenant, this branch of political arithmetic reached its end with the inquiries founded upon the new income tax [introduced in 1843]; H. BEEKE (1800); W. PLAYFAIR (1801, author of a *Breviary* showing on a principle entirely new the resources of every state and kingdom in Europe), London, 1801, and P. COLQUHOUN (1815), still professing the old method.

In France VAUBAN, *Dixme Royale* (1707), and later on QUESNAY and MIRABEAU (1760), LAVOISIER (1791), and LAGRANGE (1796) tried to calculate the production and consumption and revenue of their nation, relying on the doctrines known under the title of AGRICULTURAL SYSTEMS (*q.v.*)

To the inquiries into the number of population and its increase, about which numerous controversies had taken place (Hume *v.* Wallace, Temple *v.* Bell, Howlett *v.* Price, and at last Malthus *v.* Godwin), the census of 1801 put an end. The inquiries on the movement of population were continued and developed in the most remarkable manner by E. HALLEY, *An Estimate of the Degrees of Mortality,* 1693. He gave the first exact account of the chances of life and hints as to its application to insurances and annuities on lives. His followers in England were Derham (1713), De MOIVRE (1725), SHORT (1750), Simpson (1742), HODGSON (1747), Brakenridge (1755), PRICE (1771), HEYSHAM (1797);—see C. Walford, *The Insurance Cyclopædia,* vol. i., Annuities on Lives and Bills of Mortality. This branch of political arithmetic, concerning insurance calculations, has survived the others and is sometimes still called by its old name.

Following this line of inquiry, W. KERSSEBOOM (1777) in Holland, A. DEPARCIEUX (1746) in

France, Wargentin (1754-1767) in Sweden, inquired into the average probabilities of life. The most systematic of this series of writers is John Peter Süssmilch (*Göttliche Ordnung*, 1741, 4th ed., 1775). Taking the regularity of the phenomena of mortality and conjugal fertility, as well as that of the rarest events of life for a proof of divine interference, his work became the forerunner of Malthus's theory of population as well as of Quetelet's moral statistics.

It is besides worth notice that modern Demography (*q.v.*) comprehends nearly the same domain of statistical inquiry which was originally cultivated by political arithmetic; it deals with the numerical apprehension of facts "concerning trade and government, others concerning the air, countries, seasons, fruitfulness, health, diseases, longevity, and the proportions between the sex, of ages of mankind" (John Graunt, *Natural and Political Observations*, 1662. The Epistle Dedicatory).

[See Davenant, *Of the use of Political Arithmetic* (1698); *Works*, vol. i. p. 128.—Melon, *Essai politique sur le commerce*, 2d. ed. 1736, ch. xxiv.—Egerton Brydges, *Censura Literaria*, 1805, vol. i. pp. 59-79.—Ingram, *History of Political Economy*, p. 51.—John, *Geschichte der Statistik*, pp. 155-273.—Meitzen, *Geschichte, Theorie, und Technik der Statistik*, pp. 15-181.—J. B. Say, *Cours complet*, part ix. ch. iii.—M'Culloch, *Literature of Political Economy*, pp. 211, 258, 271.—R. Giffen, *The Growth of Capital*, 1890.—Gabaglio, *Storia e teoria generale della statistica*, 1880,—H. Westergaard, *Die Grundzüge der Theorie der Statistik*, 1890, pp. 253-270,—Farr, *Vital Statistics*, 1885.] S. B.

ARITHMETICAL RATIO OR PROGRESSION. Three or more quantities are in arithmetical progression when they increase or decrease by a common difference, *e.g.* 1, 4, 7, 10, where the common difference is 3; 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, where it is $\frac{1}{2}$; and 25, 21, 17, 13, where it is 4. Malthus introduced the term into political economy in comparing the possible increase of food with that of population. He thought that after a country was as fully peopled as Great Britain was in 1798, the addition which could be made in the course of any given period, such as twenty-five years, to the normal annual production of food would actually decrease as the annual production of food grew larger. But for the purpose of argument he was willing to suppose that instead of decreasing, the possible periodical addition might remain the same. Under this supposition, if the annual production of food were always increased as much as possible, it would be represented at the end of successive equal intervals of time by quantities in arithmetical progression, or, as Malthus put it, the production of food would increase in an arithmetical ratio. Population, on the other hand, Malthus described as having the capacity and tendency to increase in a Geometrical Ratio (*q.v.*)

[Todhunter's *Algebra*.—Malthus, *Essay on the Principle of Population*, bk. i. ch. i., and "Population" in the *Encyclopædia Britannica*, 4th ed., Supplement 1824.] E. C.

ARLES or ARRHES. Earnest-money—money paid on initiation of a bargain to secure its fulfilment.

ARMED NEUTRALITY. The right of neutral states to trade with belligerents was one of the most important questions in the 18th century. According to the policy of the Mercantile System every power tried to monopolise the trade with its own Colonies. But in time of war such a monopoly was often rendered impossible, and a belligerent found it necessary to relax its restrictions in order to receive colonial produce in neutral ships. England, in its frequent wars with France, endeavoured to prevent this practice, and acted upon the old-established principle that "the goods of an enemy found on a neutral ship are liable to seizure." The maritime ascendency of England enabled it to exercise its right of search with an efficiency that was resented by the neutral powers, especially as ports were often declared to be blockaded when there was no sufficient force to close them. In 1780, when France and Spain were supporting the American colonies of Great Britain against the mother country, the northern states, headed by Russia, concluded the Armed Neutrality to protect their interests. The chief principles which they laid down were, that neutral vessels may carry all goods of belligerents which are not contraband of war, and that a Blockade need not be respected unless there are a sufficient number of ships to enforce it. This league was extremely advantageous to the enemies of England, because it protected them from the complete interruption of their commerce which England was endeavouring to bring about. It was only gradually broken up by treaties between England and the various powers (see Search, Right of).

In 1800, during the war with revolutionary France, the northern states concluded a second Armed Neutrality on the same lines as the league of 1780. England still refused to accept the principles thus laid down, but this time she was able to act with more energy than on the previous occasion. Copenhagen was bombarded and the Danish fleet seized. In 1801 the death of the Czar Paul broke up the Armed Neutrality, and a convention at St. Petersburg fixed limits to the right of search and agreed that a blockade must be efficient to be respected. But the great questions at issue remained unsettled, and to this day the extent to which a belligerent is entitled to damage the trade of its enemy is a subject of discussion.

[Wheaton, *International Law*.—Lecky, *History of England in the 18th Century*.—Alison, *History of Europe*.] R. L.

ARMSTRONG, Clement (an English writer

about 1530) complains of the speculations in wool of merchant staplers, who drive by importations of foreign commodities the money out of the realm and destroy husbandry by converting the cornfields into sheepwalks. He proposes to erect a staple of woollen cloth in London, to restore tillage, and to set people to work, for "the holl welth of the body of the realme risith out of the labours and workes of the common peple" (p. 61). *Sermons and Declaracions agaynst Popish Ceremonies*, reprinted in *Drei volkswirtschaftliche Denkschriften aus der Zeit Heinrichs VIII. von England.* Zum ersten Male herausgegeben von Reinhold Pauli, 23, Bd. Abhandlungen der K. Gesellsch. der Wissenschaften zu Göttingen, 1878.—G. Schanz, *Englische Handelspolitik gegen Ende des Mittelalters*, Bd. i. pp. 83, 475.—Cunningham, *The Growth of English Industry and Commerce*, 1890, p. 292 n. S. B.

ARND, KARL (a German economist), born at Fulda, 1788, was an architect in Hesse, and died, 1877, at Hanau. He was a warm advocate of FREE TRADE and of one SINGLE TAX on rent. He opposed RICARDO's theories and his German followers, as well as Fr. LIST's protectionist views.

Die neuere Güterlehre, 1821.—*Die naturgemässe Volkswirtschaft*, 1845.—*Die Volkswirtschaft, begründet auf und andelbare Naturgesetze*, 1863.—*Die Befreiung der Bodenrente und die Emancipation des Bauernstandes*, 1865.—*Adam Smith's des jüngern Prüfung der heutigen volkswirtschaftlichen Systeme*, 1867; see Roscher, *Geschichte der Nationalökonomik in Deutschland*, p. 500; and *Handwörterbuch der Staatswissenschaften*, herausgegeben von Conrad, Lexis und Loening, 1890, vol. i. p. 931. S. B.

ARNOULD, AMBROISE-MARIE (1750-1812) a French economist, was director of the board of commerce under the revolution. His works contain valuable information upon the theory of trade, the state of the BALANCE OF TRADE in Europe during the 18th century, French finances, etc. He advocated the division of France into departments according to their homogeneous economical nature; and appealed to all maritime nations to confederate against the menacing power of England.

De la Balance du Commerce, 2 vols., 1791.—*Repartition de la contribution foncière*, 1791.—*Système maritime et politique des Européens pendant le 18e. siècle*, 1797.—*Histoire générale des finances de la France*, 1806. S. B.

ARRANGEMENT WITH CREDITORS. See BANKRUPTCY.

ARRANGEMENT, DEED OF. An instrument embodying an agreement between a debtor and the general body of his creditors for the purpose of modifying the debtor's obligations without resorting to bankruptcy proceedings. Some additional security is frequently given in such cases, but the fact of the other creditors foregoing part of their claims, and thus making the debtor's position an easier one, is considered to be a valid consideration for the indulgence granted by any individual creditor. An arrangement of this nature is, of course, binding on those creditors only who expressly assent to it. The Deed of Arrangement Act 1887 (50 & 51 Vict. c. 57), provides that a deed of arrangement is void unless registered within a given time and stamped with an *ad valorem* stamp. The register is open to the public. The act defines a deed of arrangement so as to include (*a*) any assignment of property; (*b*) any agreement for a composition; (*c*) any deed of inspectorship; (*d*) any letter of licence to carry on business with a view to the payment of debts; (*e*) any agreement for the carrying on or winding up a business for the benefit of creditors. E. S.

ARREARS. Sums remaining unpaid after they are due; for example—interest in arrear; arrears of dividend; instalments in arrear; arrears of wages, of rent, etc.; contracts in arrear, etc. Such arrears often involve penalties (see CONTRACT, LAW OF; WAGES).

ARREST. A process of the Admiralty Division of the High Court by which the removal of a ship or cargo pending an action referring to the same is prevented. Certain actions in that Division (called actions *in rem.*) are not brought against a personal defendant, but against a ship or a cargo against which the claim is directed. The owner may, on giving security, prevent the arrest by the entry of a *caveat* (*s.v.* CAVEAT) or, after the arrest has been effected, obtain a release. E. S.

ARRESTMENT (Scots law). Attachment of debt either before or after judgment.

ARRESTMENT JURISDICTIONIS FUNDANDÆ CAUSA. See JURISDICTION, SCOTCH.

ARRIVABENE, GIOVANNI, Count, born in 1787 in Mantua, died June 1881. Condemned to death for political conspiracy in 1824, he fled abroad. In 1847 he was a promoter of the economical congress of Brussels. His high position amongst political men, and in cultivated society, gave him a standing as an economist which he otherwise would not have held. He was a friend of N. W. SENIOR and translated some of his best writings. Arrivabene's writings were collected in 1870 under the title, *Scritti morali ed economici*, Firenze. A part of his life has been told by himself in *Un epoca della mia vita, Memorie*, Torino, 1860. The book which first established his credit was written by him in London, *Di varie società e istituzioni di beneficenza in Londra*, 1828, Lugano. M. P.

ART OF POLITICAL ECONOMY. By the majority of English economists for the last half century political economy has been held to be in itself a positive science, concerned exclusively with the investigation of uniformities, and not directly formulating a single practical rule of action. While the knowledge it affords may be turned to practical account by the legislator or

the social reformer, it is described as in itself standing neutral between competing social schemes. In other words, a sharp line of distinction is drawn between economic science, and the application of economic science to practice. A very different view is taken by the majority of continental economists, who, generally speaking, make little attempt to separate theoretical and practical problems. Adequately to treat these problems apart from one another is even maintained to be an impossibility, and hence it is denied that political economy can properly be regarded as a purely positive science. Its primary function, according to this view, is to direct conduct to given ends rather than merely to investigate facts of a given kind.

It has been further maintained that English economists are themselves inconsistent, and that, professing to construct a pure science of economics, they do in fact build up an economic art. It is pointed out, for instance, that nearly the whole of the last book of MILL's political economy is concerned with the discussion of practical questions. It would not be difficult to explain away this apparent inconsistency, so far as our leading economists are themselves concerned; but at the same time it cannot be maintained that the distinction which they profess to draw between political economy and its applications has ever been clearly grasped beyond what may be called the inner circle of their disciples. One consequence of this has been grave misconception as to the true meaning of many of the laws which they have formulated. They have often been understood to prescribe what ought to be, when their sole intention has been to determine what is. Partly to correct this error, and partly for other reasons, it has been proposed explicitly to recognise the twofold aspect of economic inquiry by definitely formulating an economic art as well as an economic science.

[See, in particular, Sidgwick, *Principles of Political Economy*, 1887, p. 395. The art is described by Dr. Sidgwick as consisting mainly of the theory of what ought to be done by government to improve production or distribution, and to provide for governmental expenditure. A similar division of economic doctrine was indicated by Senior, *Political Economy*, Introduction, p. 2 *et seq.*, ed. 1854, and the distinction is also put clearly by Professor Cossa. The latter writer describes the art of political economy as studying economic phenomena with the immediate aim of providing safe rules for administration, or of directing economic institutions, so that they may conduce to the general welfare. Compare, further, Keynes' *Scope and Method of Political Economy*, ch. ii., note B.] J. N. K.

ARTÉL (Russian for "gang,") is used specially of the Russian associations of independent workmen undertaking a job in concert and dividing its gains equally. This primitive form of *artél* is still to be found (*e.g.* among the fishermen of Archangel). But the peasants, at least in the less fertile districts, find greater security in working for a contractor; and the "gangs" so working have no co-operative feature, except occasionally the common purchase of provisions. In towns the *artél* is often simply a trade guild with mutual responsibility; thus that of bank porters is jointly responsible for its several members. Since the Emancipation, 1861, various local councils throughout Russia have tried to establish associations for production, with scant success. The workmen's own attempts have been more fortunate, especially in popular banks. But the new co-operative societies will not be a mere revival of the old *artél*. The industrial village of Struve & Co., engineers (founded 1885), is on the model of Pullman City, U.S. The communism of the sect called Douchobornians differs both from true co-operation and from the old *artél* (see BANKS, POPULAR; CO-OPERATION).

[*Les Artèles et le Mouvement Co-opératif en Russie*, W. Longuinine, (Paris, 1886).—*Russia*, Mackenzie Wallace, ch. vi. (1877).—*Proprietà Capitalista*, Loria (1889), vol. ii. pp. 436-7.—*Political Science Quarterly* (New York), March 1887,—Rabbeno, *Le Società Co-operative*, Part I. (Milan, 1889). See too the article by W. Stieda in the *Jahrbücher für Nationalök. und Statist* (Neue Folge), vi. pp. 192-230. The Russian authorities include Isajeff, Kalachoff, Nemiroff, Vreden, Scherbina, and Novoselsky.] J. B.

ARTICLES OF APPRENTICESHIP. Written agreements by which the master promises to instruct, and the apprentice promises to learn and serve. The master frequently receives a premium, which must be set forth as the consideration of the agreement for the purpose of ascertaining the stamp duty. Seven years were formerly the minimum period of apprenticeship, but there is now no fixed period. The master is entitled to all the apprentice's earnings and has certain other rights under the contract notwithstanding the apprentice's infancy, but he cannot bring an action to enforce the covenants of an infant apprentice, and the apprentice may disaffirm the contract on attaining the age of twenty-one. The master's bankruptcy determines the contract. Disputes between masters and apprentices to the business of a workman may be brought before the justices, who may make an order directing the apprentice to perform his duties under the apprenticeship, or may rescind the instrument of APPRENTICESHIP (*q.v.*) (38 & 39 Vict. c. 90, §§ 5-7). E. S.

ARTICLES OF ASSOCIATION contain the regulations concerning the constitution and management of joint-stock companies registered under the Companies Acts. The first schedule of the Companies Act 1862, Table A, contains a set of regulations which may be adopted wholly or in part, and which in the case of a company limited by shares are deemed to be adopted by the company, if the memorandum

of association is not on registration accompanied by articles, or in so far as the articles do not expressly exclude or modify them. In the case of a company limited by guarantee, or of an unlimited company, articles of association *must* always accompany the memorandum. While the MEMORANDUM OF ASSOCIATION cannot be varied even by the unanimous decision of all the shareholders unless such variation is confirmed by the court under the provisions of the act of 1890 (except with regard to the amount and division of the capital), articles of association may be varied by special resolution and the company cannot deprive itself of its power to alter them. In a conflict between the articles and the memorandum the former must give way. Articles of association generally contain most of the following heads: (1) Preliminary (definitions, commencement of business, allotment of shares, etc.), (2) Certificates, (3) Calls, (4) Transfer and Transmission of Shares and Stock, (5) Share Warrants, (6) Forfeiture and Lien, (7) Conversion of Shares into Stock, (8) Increase of Capital, (9) Reduction of Capital, Consolidation and Sub-division of Shares, (10) Surrender of Shares, (11) Borrowing Powers, (12) General Meetings, (13) Votes of Members, (14) Directors (qualification, etc.), (15) Proceedings and Powers of Directors, (16) Officers, (17) Dividends, (18) Accounts and Audit, (19) Notice, (20) Arbitration, (21) Winding up (see COMPANIES, JOINT-STOCK, etc.) E. S.

ARTICLES OF ROUP (Scotch). Conditions of sale by auction.

ARTISAN. An artisan is a person employed in the industrial arts, such as a carpenter or mechanic. It has been suggested that the artisan is distinguished from other labourers by the fact that he works for himself. This, however, is only true of a few remaining village artisans, such as the blacksmith and the carpenter. The early English artisans were few in number. They supplied labour only, their employers finding materials. In course of time they became organised in guilds, at least in the towns (see GUILD). The 15th century saw the rise of the capitalist artisan, but the invention of machinery paved the way for the modern forms of industry under which production is carried on by associated labour working under capitalists. The artisan is now usually a workman employed by others, though in some districts and in some villages a few of the old capitalist artisans still remain.

[*Six Centuries of Work and Wages*, by J. E. T. Rogers, London, 1884.—*Labour in Europe and America*, by Edward Young, Washington, 1870.—*Conflicts of Capital and Labour*, by George Howell, London, 1878 (see LABOUR, SKILLED).]

J. E. C. M.

ARTS AND CRAFTS. See CORPORATIONS OF ARTS AND TRADES.

AS. A Roman coin, of an alloy of copper and tin called *aes*, of different weights and composition at different times. Originally 1 lb., reduced to 2 oz. after the first Punic War, to 1 oz. during the second Punic War, and finally, by the Papirian Law, to ½ oz. Design: a sheep, (*pecus*, hence the word pecuniary), an ox, or a sow. F. E. A.

ASGILL, JOHN, born at Hanley Castle, Worcestershire, 1659, called to the English bar 1692, expelled from the Irish House of Commons 1703, and from the British Parliament 1707, for an eccentric pamphlet contending that man could be translated to heaven without dying. He left this world in the ordinary way, 1738. He wrote the following economic works.

Several Assertions proved in order to create another Species of Money than Gold and Silver, London, 1696, 8vo (based on the theory "man deals in nothing but earth;" a contemporary pamphlet asserts that it is plagiarised from J. BRISCOE'S (*q.v.*) *Discourse on the Late Funds*, 1694, 4to).—*Essay on a Registry for Titles of Land*, London, 1698, 12mo (4th ed., 1758).—*A Collection of Tracts*, London, 1715, 8 parts, 8vo.—*Abstract of the Publick Funds Granted and Continued to the Crown since 1 W. & M.*, London, 1715, 4to (reprinted in Somers's *Tracts*, 1815, xiii. pp. 730-742). H. R. T.

ASHBURTON, ALEXANDER BARING, first lord, second son of Sir Francis BARING, was born 1774. He visited America on business connected with his father's firm, the head of which he became in 1810; he was president of the BOARD OF TRADE in 1834, and raised to the peerage in 1835. He concluded the boundary treaty between the United States and England at Washington in 1842, and died 1848. He wrote—

Inquiry into the Causes and Consequences of the Orders in Council and an Examination of the Conduct of Great Britain towards the neutral Commerce of America, London, 1808, 8vo (two editions; opposes restrictions on commerce).—*The Financial and Commercial Crisis Considered*, London, 1847, 8vo (three editions; to show how mischievous at that date was the Bank Charter Act of 1844).

H. R. T.

ASHLEY, JOHN, member of council in Barbadoes, died at Blackheath, Kent, 1751. He wrote—

The Sugar Trade, with the Incumbrances thereon laid open, London, 1734, 8vo.—*Some Observations on a direct Importation of Sugar from the British Islands*, London, 1735, 4to.—*Memoirs and Considerations concerning the Trade and Revenues of the British Colonies in America*, London, 1740-43, 2 parts, 8vo. H. R. T.

ASSAY. The assay methods for SILVER and GOLD are analogous, in so far that both are purified by the action of a solvent, but the base metals are removed from silver by fused litharge, while in its turn silver is parted from gold by nitric acid.

If the silver has been associated only with readily oxidisable metals, especially copper, as is usually the case when silver coins are

assayed, it then only becomes a question of providing the amount of lead necessary to furnish, by oxidation, sufficient litharge to dissolve the oxides and carry them away. If, however, the silver is associated with gold, the latter metal resists oxidation, and will remain on the cupel with the silver. The cupellation stage must then be supplemented by a "parting" operation, that is, the silver must be dissolved away by some solvent that will leave the gold untouched, and for this purpose nitric acid is universally employed. If the silver contains but a minute particle of gold, the presence of the latter will be indicated by a few specks of brown powder left at the bottom of the vessel in which the silver is dissolved; if, however, the silver contains about one third of its mass of gold, and has been extended into a strip, the gold will remain, after the action of the acid, as a coherent band retaining the original form of the strip but much reduced in volume. There is this difference between the assay of gold and silver. In the case of the cupellation assay of silver, the button of metal has only to be removed from the cupel, and when the adhering bone ash has been removed with a brush, it passes direct to the balance. The process would also be sufficient for gold, if it contained no other precious metal; when, however, the problem is to ascertain by assay how much gold is contained in an alloy, which may contain silver or platinum and other metals of similar properties, then care must be taken that the amount of gold believed to be present in the alloy does not exceed the third part of the mass, as a larger proportion of gold would protect the alloy from the solvent action of the acid, and the greater the amount of gold, the less perfect would be the attack of the acid. The first stage of assaying a gold alloy, say a sovereign, is to melt it with such an amount of silver as shall yield a button containing rather less than one third of its weight of gold. For the sake of convenience and for the incidental advantage that the solvent action of fused litharge removes copper and other impurities, the first stage of the assay of gold is conducted on a cupel, the object to be attained being mainly to secure a button of gold and silver in a convenient form for submitting to the subsequent operations. The alloying stage would, however, be just as effective if it were conducted in a small nonporous receptacle, such as a small crucible of glazed porcelain.

The subsequent operations are, flattening the button, annealing it, rolling it into a strip, and annealing it a second time. It is then coiled into a spiral, or cornet, and treated by two successive portions of nitric acid in order to remove the silver; after this the spiral of spongy gold, which retains the original form given to the silver-gold alloy, is heated to redness, when it becomes bright, and is sometimes so coherent that it may be unrolled without fracture. The cornet is then weighed on a delicate balance, and its weight, compared with that of the portion of metal taken for assay, affords a means for readily calculating the proportion of precious metal present in the mass assayed (see ALLOY; PERIOT). C. R-A.

ASSESSED TAXES. A group of taxes "on houses, carriages, men-servants, saddle and carriage horses, and race horses" (Dowell, *History of Taxation*, 2d ed. vol. ii. p. 189). These were placed under better supervision by W. PITT, 1785, and were intended to be taxes on "luxuries." Hair powder and armorial bearings were afterwards added. The sporting and dog duties, though not included among assessed taxes, may be considered as of an analogous nature. Some of these taxes, as those on horses and hair powder, have been remitted, but the principle of taxing luxuries has been maintained, though not unfrequently modified, in our fiscal system (see TAXATION, TAXES, etc.)

[Dowell, *History of Taxation and Taxes in England*, 4 vols., 1888, 2d ed.]

ASSESSMENT. The official valuation of income or property for the purposes of taxation. The word is sometimes used in another sense, viz. the amount of a tax a particular person has to pay. It was also applied to certain taxes on lands and goods levied during the commonwealth, and which Dowell (*History of Taxation*, London, 1888, iii. p. 72) says formed the link between the SUBSIDY of the Tudor and earlier Stuarts and the PROPERTY TAX of William III. Where a tax has to be levied on property or on income, the amount of such property or income must be ascertained, and this is by no means an easy task. Even then the principles of taxation may require certain allowances to be deducted before the taxable property is ascertained. In some cases the assessors are officials, in other cases they are elected directly or indirectly by those who pay the tax.

1. *Imperial Taxation.*—In the case of imperial taxes, assessment is required for the LAND TAX, the inhabited house duty, the income tax, and the DEATH DUTIES. The amount of the land tax payable by each parish is fixed by statute, and each parish raises its quota by a rate on the yearly value of all lands and hereditaments. The great increase in the value of land in many parishes has greatly diminished the rate per £ necessary to raise the quota in such parishes (Bourdin's *Land Tax*, by S. Bunbury, London, 1885). Inhabited houses are assessed to the inhabited house duty at the yearly rent they are worth. Where the occupier is also the owner, some difficulty often exists in fixing the yearly value. Perhaps the soundest principle would be to take a certain interest, so much per cent, on the selling value as the estimated

rental (see INHABITED HOUSE DUTY). As regards income tax, income from landed property including houses, is assessed at its rent or annual value, but speaking generally with respect to profits for occupation of land the assessment is one-half the rent in England, and one-third in Scotland and Ireland, subject to rectification if the profits are less. No deduction is allowed on account of repairs. Returns are made by the occupiers, and on such returns the assessment is made. Income derived from public funds or from public offices is assessed at the amount received, and the tax is deducted where possible before the income is paid. Income derived from professions, trades, and other occupations is assessed upon the average profits of the preceding three years, other forms of income are assessed at the amount actually received. Incomes under £150 are exempt, and incomes under £400 are entitled to an abatement of £120 (see INCOME TAX).

2. *Local Taxation.*—Taxes required for local purposes, such as the poor rate, the county rate, the borough rate, are levied upon the full rateable value, with certain exceptions that are based on no definite principle. The assessment for the lighting and watching rate is three times greater on buildings than upon land, certain lands are assessed to the general district rate at one-fourth the rateable value, whilst owners of small tenements, if they compound for the rates, are assessed at one-half the rateable value. The rateable value for the poor rate which is conclusive for the majority of rates, is defined by the 6 & 7 Will. IV. c. 96, as "the net annual value of the several hereditaments rated thereto; that is to say, of the rent at which the same might reasonably be expected to let from year to year free of all usual tenants' rates and taxes and tithe commutation rent-charge, if any, and deducting therefrom the probable average annual cost of repairs, insurances, and other expenses, if any, necessary to maintain them in a state to command such rent." The provisions of 6 & 7 Will. IV. c. 96, do not, however, apply to the metropolis. In the metropolis the gross value is taken as the basis of the assessment for the purpose of ascertaining the rateable value, and deductions are made which vary according to the nature of the tenement, a maximum percentage being fixed for the deduction in each case. The maximum deduction is in the case of: Houses and buildings, or either of them, without land other than gardens, when the gross value is

under £20, . . .	25 per cent.
When the gross value is £20 and under £40, . . .	20 ,,
When the gross value is £40 or upwards, ...	16⅔ ,,

(32 & 33 Vict. c. 67, §§ 4, 51, 52, and third schedule). Land occupied by the crown for public purposes, property unoccupied or not capable of yielding any rent, and personal property, are not rateable. (As to the taxation of ground rents, see GROUND RENT.) The basis of the county rate is ascertained in a similar way, but the assessors are not bound to follow the poor-rate assessment (see COUNTY RATE). By the bill introduced by Mr. Goschen in the House of Commons on the 3d April 1871 it was proposed to render "every hereditament, corporeal or incorporeal," with the exception of rent-charges, liable to be rated to all local taxes (see *Local Taxation*, by G. J. Goschen, London, 1872; and the Report of the Select Committee of the House of Commons on Local Taxation, 1871).

[On assessment for local taxation see *Local Government and Local Taxation*, by R. S. Wright and H. Hobhouse (London, 1884).—*Law of Rating*, by E. J. Castle (London, 1886).—*Handbook for Council Authorities*, by A. Pulling (London, 1889). (For assessment for general average, see ADJUSTMENT, AVERAGE; AVERAGE, MARITIME.)] J. E. C. M.

ASSETS (Lat. *ad satis*; French *assez*); literally, sufficient. Originally the use of the word was confined to property which an executor or heir could apply for the discharge of the debts and legacies due from the estate of a deceased person. These obligations could only be enforced in so far as the property available for that purpose was sufficient. The application of the expression was afterwards extended to the property which could be applied for distribution among the creditors of an insolvent debtor, and in course of time acquired the still wider meaning of any person's property in so far as it could be used for the discharge of his liabilities. The assets remaining after the discharge of liabilities are a person's actual capital.

ASSIENTO TREATY. This treaty requires mention, owing to the connection between it and the development of slavery in North America. In 1713 Spain by agreement (Assiento) conceded to France the privilege of carrying negro slaves to the Spanish colonies. France, by the treaty of Utrecht, surrendered this privilege which, by the treaty de l'Assiento, was granted to England for thirty-three years from the 1st May 1713. England engaged to furnish 4800 slaves annually, and in return was entitled to send two ships every year with negroes to America. The SOUTH SEA COMPANY obtained the benefit of this monopoly. At the outbreak of the war with Spain, the Assiento was suspended, but it was renewed in 1725 and again in 1748.

[The leading clauses are set out in Hosack's *Law of Nations*, London, 1882, p. 355, and are taken from *Actes et Mémoires de la Paix d'Utrecht*. See also *Histoire des Traités de Paix*, par F. Schoell, p. 214 (Brussels, 1837).] J. E. C. M.

ASSIGNAT (from Lat., *Assignatus*). The PAPER MONEY issued by the French republic in 1789-94, in consequence of the scarcity of coin, was termed assignats because it was secured,

not upon coin, but upon crown and church property, in the purchase of which these notes were receivable at par. Each note was of 100 francs (£4), and notes returned to the state in payment of purchase money were to be cancelled. The first issue of 400,000,000 francs carried interest at a daily rate (as exchequer bills did here prior to 1862), but were inconvertible except in payment for property publicly assigned for the purpose. A second issue of 800,000,000 francs carried no interest, and further issues effected rapidly brought the total up to 3,750,000,000 francs, or £150,000,000, nominal. At that time, in August 1793, the depreciation of the assignat had become so great, it being quite impossible for the country properly to absorb this vast amount of paper, that the 100 francs nominal ranked for less than 20 francs' coin. Then recourse was had to protective legislation. First, May 1793, a decree was issued that farmers must declare the quantity of corn in their possession, and sell it in recognised markets, no one being permitted to purchase more than sufficient for one month's consumption. Then maximum prices were decreed, and as such laws could not rehabilitate the assignats, a forced loan of 1,000,000,000 francs, and the forced prepayment of taxes, were applied to the reduction of this paper currency. In this way the total was brought down to about 2,500,000,000 francs. But the wants of the government were so pressing that but a few months had elapsed before these notes had been reissued, and a far larger amount followed. In June 1794 the assignats in circulation reached the vast total of 6,536,000,000 francs, or £261,440,000, nominal. The result of legislation then was that the land remained untilled and all business was paralysed. At this time the 100 francs assignat was not worth 1 franc, and though, after the fall of Robespierre, the maximum laws were relaxed, the value of the assignats did not recover. The government and the entire country had been reduced to a state of pauperism, and when, in October 1795, the Directory had been established, the total issue reached 22,000,000,000 francs, or £880,000,000, nominal. Yet in two months another 15,000,000,000 francs were issued, and the depreciation was such that the paper became entirely valueless. Then followed the conversion of the assignats into *mandats* (or warrants) at the thirtieth part of their face value, and these in their turn were returned to the state in 1796 at about the seventieth part of the value of coin. Thiers' *History of the French Revolution* gives a vivid description of this eventful period, and of the disastrous effects of these issues of inconvertible paper.

In Russia in the early part of the present century an issue of paper was made similar in form to the assignats in France and became greatly depreciated. These notes were subsequently to a large extent withdrawn.

Professor F. A. WALKER has in his work on *Money* (ch. xvi.), described the development of the paper issue, and the fruitless opposition of NECKER. It was assumed that the republic could do safely what had been (1719-21) disastrous under the monarchy. "Paper money," it was argued before the assembly, "paper money under a despotism is dangerous, it favours corruption; but in a nation constitutionally governed, which takes care of its own notes, which determines their number and their use, that danger no longer exists." A desire to commit the thrifty middle class of France to the principles and measures of the Revolution for political purposes largely actuated the assembly. This was avowed by Mirabeau, "Partout où se placera un assignat-monnaie, là sûrement reposera avec lui un vœu secret pour le crédit des assignats, un désir de leur solidité . . . partout où se trouvera un porteur d'assignats, vous compterez un défenseur nécessaire de vos mesures, un créancier intéressé à vos succès." These notes, the Comte de MIRABEAU continued to declare, could never be issued in excess. "They represent," he said, "real property, the most secure of all possessions, the soil on which we tread." Again, "There cannot be a greater error than the fear so generally prevalent as to the over-issue of assignats. . . . Re-absorbed progressively in the purchase of the national domains, this paper money can never become redundant."

The following table of the depreciation of the assignats, derived from M. Bresson (*Hist. Financière de la France*), shows how entirely Mirabeau's anticipations were falsified by events.

24 livres in coin were worth in assignats—

April 1, 1795	238	Oct. 1, 1795	1205
May ,, ,,	299	Nov. ,, ,,	2588
June ,, ,,	439	Dec. ,, ,,	3575
July ,, ,,	808	Jan. ,, 1796	4658
Aug. ,, ,,	807	Feb. ,, ,,	5337
Sept. ,, ,,	1101		

At the last, "an assignat professing to be worth 100 francs was commonly exchanged for 5 sous 6 deniers, in other words, a paper note professing to be worth £4 sterling passed current for less than 3d. in money" (Twiss, *Progress of Political Economy*, p. 263).

M. Joseph GARNIER gives (*Traité de Finances*, p. 408), the following statement from a work of M. Ramel, former minister of finance. The figures represent millions of francs.

Assignats créés par l'assemblée constituante (lois des 21st Déc. 1789, 17th Avril 1790, 19th Juin 1790)			1,800
,,	,,	par l'assemblée legislative	900
,,	,,	directement par la Convention	7,278
,,	,,	par les Comités autorisés par le Directoire	33,603
			43,581

M. Bresson gives a total differing by only two or three millions from the above (see *Money*, by Francis A. WALKER, pp. 336-347, for further details). See CHAMBERLEN, H. ; LAW, J.

ASSIGNATION (Scots law term). Assignment.

ASSIGNEE. One to whom a right or property is transferred. The term "assignee in bankruptcy" is not used under the present bankruptcy law, but there is an "official assignee" on the London stock exchange on whom certain duties devolve in the case of the insolvency of a member.

ASSIGNMENT. The transfer of a right or property. In strict legal phraseology the word is used with reference to personal property only. It is correct to speak of the assignment of a lease, but the term could not be applied to the transfer of freehold property.

ASSIGNMENT, DEED OF. This expression, though it might be used for every deed assigning property, is more specially applied to instruments by which a debtor's property is conveyed or assigned to a trustee for the benefit of his creditors generally. An assignment of this nature is considered an act of bankruptcy (Bankruptcy Act 1883, § 4 (*a*)). E. S.

ASSIGNOR. One who transfers a right or property.

ASSIZE OF BREAD AND BEER. In the collection of ancient acts of parliament, two are always cited as of indefinite antiquity, neither reign nor date in which they were first enacted or promulgated being given, or indeed discoverable. These are the statute on weights and measures, and the assize of bread and beer. It is highly probable that these statutes are declaratory of very ancient custom, and were necessarily reduced to a form because they each represent rules exhibited in figures. They are constantly copied in those legal handy books which lawyers possessed and referred to, and of which some still survive, dating occasionally from the 13th century. It was at first the duty of the local court (that of the MANOR), to enforce the assize, and the records of those courts contain frequent entries of fines levied on those offenders who had broken the assize.

The assize of bread and beer is drawn up in the form of a sliding scale, the price of the unit (in bread, the weight of the unit) varying with the price of grain by the quarter, wheat and malt as the case may be, information as to the price having been easily procurable from market rates. The scale of prices goes beyond recorded experience of cheapness or dearness, at least as far as the writer has registered prices. The assize was therefore a regulation by ancient custom or law of the rate at which baker and brewer should be remunerated for the service which their labour did to society. The uniformity of this practice was the justification for other and subsequent statutes regulating the price of labour, statutes which were enacted and re-enacted from 1349 till 1824, at which latter date the labour statutes were repealed *en masse*. After the discipline of the manor court had become obsolete, the assize of bread and beer was enforced in quarter sessions uncertainly, but by the corporations of towns regularly into the last quarter of the 18th century, the archives of these corporations constantly supplying evidence of wheat and malt prices. The assize of bread and beer proves indirectly that the traditional food of the English was wheaten bread, and their drink barley beer, for the assize was a law which was operative all over England from the Scottish border to the Channel. It is to be observed that, except on very rare occasions, the legislature or the government did not affect to fix the price of the materials, wheat and malt, as foreign governments, especially that of France, habitually did. The regulation, too, was avowedly in the interest of consumers, for the rolls of parliament and the statute-book supply abundant evidence of the anxiety with which the government foresaw and provided against artificial dearness. Later experience has inferred that their remedies were nugatory, or even mischievous, but there can be no doubt as to their motives. In brief, the assize of bread and beer had the same object with the laws directed against BADGERS ; FORESTALLERS, AND REGRATORS, viz. the protection of the consumer.

J. E. T. R.

ASSIZE OF WEIGHTS AND MEASURES. Besides the assize of bread and beer, weights and measures, and the articles themselves which were thus computed, were subject to similar legislation. Thus innkeepers, licensed victuallers, vintners, butchers, and others were subject to regulations of the same class. The "inholders" were to use measures "a small quantity bigger than the standard" to allow for the "working and ascending of the Yest and Froth," and, with the "Cooks and Victuallers," were "forbidden to bake, seeth, or roast, any Fish or Flesh twice, or sell and utter unto the subjects any manner of corruptible Victuals, which may be to the hurt and the infection of Man's body"—their "excessive price" was guarded against, and a scale appointed at which horses were to be received "to Livery at Hay and Litter by Day and Night." If the price of hay was 31s. 6d. a load, the calculation was as follows :—

"Then if the Botel of Hay shall weigh three Pounds for a halfpenny, which is six Pound for one penny, and so 18 Pounds of Hay for three pence, the which 18 Pounds of Hay, with reasonable Provender at every watering, will suffice one Horse Day and Night." The rate for litter being fixed in proportion, it was considered that the "Inholder" would have "sufficient gain." The rates were to vary according as the

price of the "Load of Hay shall yearly increase and diminish." The rules for the butchers were more particular. These were "most carefully looked into and provided for by good and ancient Orders and Laws of this Realm, and also by Advice of the learned and skilful Physicians of the same;"—the Butchers were to take the utmost care that the meat was to be wholesome, they were not to "kill and sell any Bull or Bulls unbaiten." The weight also was to be exact and true. They were not to "sell their Flesh, with any Beam or Balance inclining more unto one end than to the other"; "Musty and Corrupted Meat" was also strictly guarded against. Similar regulations were also extended to other articles. "The Assize of Fuel, to be observed in the City of London, Westminster, and the suburbs of the same," fixed the size and weight of the sack of charcoal, the billet, and the faggot, requiring each "Faggot-band to contain in length three foot, and the Band of every such Faggot to be 14 inches about, besides the knot." Among the punishments for these offences was the pillory, the fraudulent butcher to be exposed there, and "his corrupt flesh to be burnt openly before his place in the Market-place," the fraudulent seller of fuel with a "Billet, Faggot, or Sack of Coals bound to some part of his body." Besides articles of this class, building materials were subject to similar regulations; the dimensions of lath, timber, and tiles were strictly laid down, and directions even given as to the manner in which the earth of which the tiles were made was to be worked. These regulations, together with those which regulated the assize of bread and beer, may be found described in *The Assize of Bread and other Assizes of Weights and Measures*, to which the name of John Powel, clerk of the market, originally of the king's (James I.) household, is attached. Reference is made in this to the order in council 31st January 1604, in which the whole question was reconsidered. The edition from which the quotations made above are made contains references to the early acts of parliament, etc., and is dated 1714. It is interesting as giving incidentally a vivid picture of "state regulation" in early ages.

[An account of the assize of bread, meat, and other necessaries in Germany is given by Rohrscheide in *Jahrbücher für Nationalökonomik*, October 1888.]

ASSUMPTION, DEED OF (Scots law term). Deed of appointment of new trustees.

ASSURANCE. See INSURANCE.

ASSYTHMENT (Scots law). Damages suable at common law by wife, family, or relatives of person killed, from person culpable, though not convicted and punished, the assythment being both a consolation and an indemnification for pecuniary damage. A. D.

ATELIERS NATIONAUX, government workshops, tried in France 1848, with the object of affording relief, in the form of wages, to the unemployed. The name is inexactly given to (1) the old *ateliers de charité*, which gave employment and a small wage, often in kind, to destitute workmen; (2) Louis Blanc's proposed *ateliers sociaux* or state-supported co-operative productive societies.

On the 25th February 1848, the day after the abdication of Louis Philippe, the provisional government, under urgent popular pressure, published a decree undertaking to guarantee a livelihood to every one who would work, and therefore to find labour for any citizen. Three days later public works were proclaimed to begin from 1st March; every one in want of employment was invited to apply to his mayor, who would immediately direct him to the national workshops. So precipitate was this step that no workshops could be found, nor any works except some trifling road repairs and navvies' jobs. To gain admittance to the "workshops" a man procured from his landlord a certificate of six months' residence in Paris, had this visaed by the local police, and exchanged it at the *mairie* for an admission ticket. The pay was two francs a day. When the number employed reached 6000 no work could be found for more. After vainly applying at each district, and having their admission tickets endorsed accordingly, men were paid 1½ frs. daily. Two central bureaux were opened to avoid the inconvenience of visiting each district. When the lack of work became notorious, men in regular work attended these bureaux, and drew 1½ frs. without quitting their own employment. Unscrupulous men obtained certificates from two landlords, and drew double pay. Moreover the "inactive" men formed angry crowds around the bureaux, endangering public order and alarming the government.

At this stage (3d March), a young chemist, M. Émile THOMAS, suggested that the men should be brigaded so as to assure regularity, centralise relief, and prevent double inscriptions, while a free registry should facilitate their employment by private persons. His plan was approved, and he was appointed director (6th March). He embodied ten men in a squad, five squads in a brigade, four brigades in a lieutenancy, and four lieutenancies in a company. Each division was under an officer eventually elected by his subordinates. A company, therefore, numbered 900 men. A *chef de service* commanded three companies, a *chef d'arrondissement* a district. The daily pay was: cadets, *élèves* is the original word, 5 frs.; these were students chosen by Émile Thomas from his old school the *École Centrale des Arts et Métiers*, where they were training for civil engineers, etc.; lieutenants, 4 frs.; brigadiers, 3 frs.; heads of squads, 2½ frs. (active), 1½ frs. (inactive); men, 2 frs. (active), 1 fr. (inactive).

By dint of tact and energy, M. Thomas maintained order. This was all he had under-

taken to do. He could not procure work. The government, glad to be momentarily rid of peril, turned a deaf ear to his appeals. He set some of the men to make shoes and clothes for others, but such small expedients availed little. His numbers steadily swelled, being: 21st March, 80,000; 16th April, 66,000; 15th May, 100,000; 25th May, over 115,000. The needy and criminal classes flowed in from all parts of France, and even from Belgium, and easily obtained false certificates of domicile. Ministers and influential men constantly pushed their friends and supporters into appointments as officers. 600 actors, artists, and clerks claimed in one day the right to employment. The expenses grew rapidly, but the government had political aims in view. At one time it counted on the *ateliers* for support at the polls; at another a minister spoke of using the men in the streets in case of a rising; yet again it was hinted that collapse would be useful in damaging the party of Louis Blanc, whose principles of *l'organisation du travail* and *le droit au travail*, were supposed to be bound up with the experiment (see BLANC, LOUIS). The jealousy of the official engineers still starved the *ateliers* of work. So futile were the tasks set the men that one of them sarcastically predicted they would be set to bottle off the Seine! After the elections, the government became alive to the expense and political danger of the growing agglomeration. The director was ordered (23d May) to dismiss immediately all bachelors under twenty-five who would not enlist in the army, all men who could not prove six months' residence in Paris, and all who refused offers of private employment in their own trade. Day work was to give way to task work; and men were to be liable to be drafted into the provinces. M. Thomas protested that this ordinance was harsh, dangerous, and contrary to the previous decree of the whole government (25th February, *supra*). It was withdrawn for a time. But on the 20th June (M. Thomas having, meanwhile, been superseded) it was approved by the national assembly, and published. The workmen revolted at once throughout Paris. The *ateliers* were dissolved, and the rising was suppressed by troops after three days' fighting (23d to 25th June), during which 10,000 men were killed and 12,000 captured.

The *ateliers* were evidently not fairly tried. But they are open to fatal political and economic objection. A heterogeneous crowd of social failures employed in indefinite numbers by a party majority must seriously endanger political morality. Louis Blanc would have each man engaged at his own trade. Obviously, however, this replaces private enterprise by pure socialism. MILL (*Dissertations*, ii. 384) contends that the right to labour depends upon the same principle as the poor law of Elizabeth. But is the state fitted to discharge the correlative duty of employment? Taxing and trading are widely different functions. Fawcett (*Manual*, p. 586) considers that government might *possibly*, though rarely, be justified in giving employment during occasional depression.

[Consult *Histoire des Ateliers Nationaux*, par Émile Thomas, Paris, 1848; well condensed in the *Quarterly Review* for June 1850 (vol. lxxxvii. No. 173).—*Rapport de la Commission d'Enquête sur l'Insurrection du 23 juin, et sur les évènements du 15 mai 1848*, Paris, 1848.—*Histoire de la Révolution de 1848*, par L. A. Garnier-Pagès, Paris, 1861-72.—*1848 Historical Revelations*, Louis Blanc, London, 1858.] H. H.

ATKINSON, WILLIAM, born towards commencement of 19th century, was a Fellow of the Statistical Society, from which he retired in 1844. One of the early assailants of the classical school, he lays great stress on its inability to agree upon questions of population, of the preference of home over foreign trade, and its want of moral and religious principle. Though his own arguments in favour of protection are founded upon a rather abstruse "law of proportions," they have been welcomed by American economists. His last work gives curious details upon the influence of the orthodox school on commercial politics in England.

The Principle of Protecting Home Trade or the Principle of Free Trade Refuted, 1833.—*The State of the Science of Political Economy investigated*, 1838.—*Principles of Political Economy*, 1840 (reprinted 1843, New York, with an introduction by Horace Greeley).—*Principles of Social and Political Economy*, vol. i. (and last) 1858 (see CLASSICAL ECONOMISTS). S. B.

ATTACHMENT. 1. The legal seizure of a debtor's property. In the Rules of the Supreme Court the term is used for the process by which a judgment creditor tries to secure for himself the judgment debtor's money claim against a third party (called the GARNISHEE). The court may, on satisfactory proof that the judgment remains unsatisfied, and that the garnishee (who must be within the jurisdiction) is indebted to the judgment debtor, order the garnishee to pay the applicant to the extent of his claim. A peculiar process (called *foreign* attachment), by which any part of a debtor's property may be seized *before* judgment, is available for creditors whose claims have arisen within the city of London, through the instrumentality of the Lord Mayor's Court.

2. A writ of attachment against a disobedient party is used in the supreme court for the enforcement of—(1) judgments for the recovery of any property other than land or money; (2) judgments for payment of money into court if the liability is within the exceptions of the Debtor's Act; (3) judgments or orders against corporations wilfully disobeyed by the directors or officers; (4) orders to answer interrogatories, or for discovery or inspection of documents, and in several other cases. The disobedient party

is imprisoned until his discharge is ordered by the court. E. S.

ATTESTATION. The verification of a document by the signature of a witness or witnesses who were present at the time of its execution.

ATTORNEY, POWER OF. A document generally authorising an agent to act for his principal.

ATTORNMENT. An acknowledgment of tenancy by the tenant to a landlord. The purchase of land subject to leases was formerly incomplete till the lessees had attorned to the purchaser; but this was rendered unnecessary by the statute 4 & 5 Anne, c. 3. It was formerly usual to insert attornment clauses into mortgage deeds, so as to create a tenancy between the mortgagor and the mortgagee, and to give the latter a landlord's preferential rights. A clause of this nature would now mostly be futile unless the forms required by the Bills of Sale Acts of 1878 and 1882 are complied with; and as it exposes the mortgagee to certain special liabilities, it is considered more prudent for mortgagees to omit it. E. S.

ATTWOOD, THOMAS (born 1783, died 1856), belonged to a Birmingham firm of bankers during the first half of this century. The Birmingham Currency School, to which he belonged, were, as mentioned by J. S. MILL (*Principles of Political Economy*, bk. iii. ch. xiii. § 5). strong supporters of inconvertible currency, Thomas Attwood wrote the following pamphlets: *Letter to N. Vansittart on the Creation of Money and on its Action upon National Prosperity*, Birmingham, 1817, 8vo.—*Observations on Currency, Population, and Pauperism*, Birmingham, 1818, 8vo.—*Exposition of the Cause and Remedy of the Agricultural Distress*, Hertford, 1828, 8vo. Evidence of Thomas Attwood before the Select Committee on the Depressed State of Agriculture, 1821, Parliamentary Papers, viii. pt. ii.—*Scotch Banker*, 1828, embodying six articles on banking and currency contributed by Thomas Attwood to *The Globe* (reviewed by Cobbett in his *Political Register*, for 24th May 1828, and noticed by the *Quarterly Review*, No. 78).—Letters of Thomas Attwood to the *Times* [and comments of the *Times* thereon, Oct.-Dec. 1843.] H. R. T.

ATTWOOD, THOMAS, AND THE BIRMINGHAM SCHOOL. Thomas Attwood is a signal example of good sense and general intelligence overborne by a futile monetary theory. He was the leader of the "Birmingham School," who advocated high prices maintained by inflation of the currency. Attwood and his followers taught a lesson needed by some of their contemporaries when they insisted on the hardship inflicted on debtors by a fall in general prices, or rise in the value of the monetary standard. But the extent of the evil was greatly exaggerated when the RESUMPTION OF SPECIE PAYMENTS in 1819 was made responsible for almost every trouble which subsequently befell the kingdom—the agricultural distress in England, the turbulence of O'Connell in Ireland, or the "Rebecca" riots in Wales. The argument directed against the resumption deserves particular attention. It was held that the depreciation of paper with respect to gold just before the resumption was much less than the appreciation of gold with respect to things in general which followed the resumption. "That measure (which it was said would only effect a charge to the extent of 3 per cent) had imposed an additional burthen of 25, 30, or 40 per cent on every man in the community in all cases of deed, mortgage, settlement, or contract." Prof. WALKER appears inclined to ascribe some weight to this argument (*Money*, p. 388; *Money, Trade, and Industry*, p. 282).

Thomas Attwood's advocacy of monetary reform derived strength from his political influence. He was the founder of the "Political Union" at Birmingham, and took an active part in the agitation for parliamentary reform. It was believed that Attwood desired political reform principally as a means whereby to obtain a rectification of the currency. To that end he moved in the reformed parliament for a select committee to inquire into the causes of the general distress. This motion, like others which emanated from the Birmingham School, was lost.

Thomas Attwood was greatly assisted in this monetary crusade by his brother Mathias (born 1779, died 1851). Mathias's speech on the currency, 11th June 1822, is placed by Alison with HUSKISSON'S speech on the other side, as "containing all that ever has, or ever can be, said on the subject." In 1830 Mathias proposed a double standard of silver and gold; at the rate of $15\frac{2}{1}\frac{1}{8}\frac{5}{6}\frac{2}{4}\frac{9}{0}$ lbs. of silver to 1 lb. of gold (Hansard, 1830, vol. xxv. pp. 102-145; Alison, *History of Europe*, 1815-52, vol. iv. ch. xxii. § 32). Mathias, unlike his brother, was a Tory. He was a successful banker, co-founder of the National Provincial Bank of Ireland, the Imperial Continental Gas, and other companies. So little is business power alone a guarantee of sound economical theory.

There is an appreciative account of Thomas Attwood and the Birmingham School in a series of letters which were addressed to the *Midland Counties Herald* in 1843 by two Birmingham men (T. B. Wright and J. Harlow) signing themselves *Gemini*, and were republished in 1844 in the form of a book under that title. The title *Gemini* was appropriate according to Sir Robert PEEL, for "the efforts of no single writer are equal to the production of so much nonsense" (Speech on the Bank Charter, 1844). According to this *par nobile* "the political economy of Mr. Attwood has this one great distinguishing feature, that it releases the nation from the thraldom of the heart-chilling doctrine of MALTHUS. The world is capable of multiplying its production to an

almost unlimited extent; the governments of the world would have only to provide for the proper distribution of the productions, and the wants of all people will be supplied." Such are the beneficent results of "accommodating our coinage to man, and not man to our coinage" (*Gemini*, Letter 24). The cardinal tenets of the "Birmingham economists" are compendiously stated at page 104, and again at page 285 of *Gemini*.

There is in the library of the British Museum a life of Thomas Attwood by his grandson, C. M. Wakefield, "printed for private circulation;" which throws much light on the history of the Birmingham School. Mr. Wakefield does not profess to interpret his grandfather's views on currency.

J. S. Mill devotes a paragraph to the refutation of Attwood's theory of currency (*Pol. Econ.*, bk. iii. ch. xiii. § 4). F. Y. E.

AUBAINE, Droit d'. Under the French rule of law, known as the *droit d'aubaine* or right of alienage, the whole property of an alien dying in France without leaving children born in that country escheated to the crown. The royal right was not universally exacted, and at a very early period special exceptions were introduced in favour of certain classes. Thus Louis XI. exempted merchants of Brabant, Flanders, Holland, and Zealand from the operation of the law, and a similar privilege was extended by Henri II. to merchants of the Hanse towns, and from Scotland. Henri IV. and Louis XIV., in their desire to promote the settlement of skilled artisans in France, exempted at a later date various classes of workmen, and the latter king extended the exception to include aliens serving five years in the navy and then settling in France. The towns of Lyons, Toulouse, Bourdeaux, and some other ports in Provence and Guienne were also free from the operation of the rule.

Originally one of the rights possessed by the feudal lord, the *droit d'aubaine* or similar institutions, existed in most countries where the form of society was feudal; and the alien's power of bequest was restrained in the same manner in Tuscany, the two Sicilies, Spain, Germany, Prussia, Holland, Denmark, and other countries. Even in England the power of the crown over the goods of aliens was formerly considerable, though no strictly similar rule of law seems to have existed in this country. Treaties for the mutual abrogation of the right did something to modify the application of the law. But its complete abrogation is due primarily to the policy of Necker, who was controller-general of finance at the time when the decree of the 6th August 1790 abolished the *droit d'aubaine* and the *droit de détraction* in France. In his work *De l'administration des Finances* he had already pointed out that owing to the expenses of collection the annual net produce of the right did not amount to more than 40,000 écus. The *droit d'aubaine* in its original form was never re-established in France. But with the *droit de détraction*, which enabled the state to confiscate part of the property bequeathed by aliens, it reappeared in the *Code Civile* in a modified form. Under the provisions of sections 726 and 912 no alien could possess in France a larger power of succession or bequest than a Frenchman would possess in the alien's country. But even this relic of the old feudal right was abolished by the law of the 14th July 1819.

[Diderot et D'Alembert, *Encyclopédie*, 1772.—*Dictionnaire général de la Politique*, par Maurice Block, 1873.—*Les Codes annotées de Sirey, Edition entièrement refondue*, par P. Gilbert, 1847.—*De l'administration des Finances de la France*, par M. Necker, 1784.] C. G. C.

AUCKLAND, William Eden, first lord, the third son of Sir Robert Eden, born 3d April 1744, M.P. for Woodstock 1774, was one of the five commissioners sent to America in 1778. As chief secretary, 1780-82, he established the National Bank of Ireland, and was sent by Pitt to Versailles, 1785, to negotiate the commercial treaty with France, signed 1786. He was raised to the English peerage 1793, and died 28th May 1814. Among his writings are—

Four Letters to the Earl of Carlisle, London, 1779, 8vo (on public debts, credit, revenue laws, etc.; 3d ed., 1780, with a fifth letter on population).—*Short Vindication of the French Treaty*. London, 1787, 8vo.—*Substance of a Speech in the House of Peers on the Third Reading of the Bill for granting certain Duties upon Income*, London, 1799, 8vo (three editions). H. R. T.

AUCTION, Ordinary (Lat. *auctio*, an increase—because each bid is an increase on the preceding one). A public sale in which successive bidders increase the price until one offers a price which no others are prepared to exceed. The auctioneer is recognised by law as the agent both of the vendor and purchaser; he is bound to take out a licence to the amount of £10 annually; he is bound to give due public notice of the sale; to provide a properly attested catalogue; and, as a rule, the conditions of sale are printed on the catalogue. The auctioneer is forbidden to buy on his own account; and his sign of office is a hammer, the fall of which represents that the sale has been effected. It is a common practice for the actual vendor of the property put up to auction to bid until what he regards as a sufficient price for his goods has been attained, or he may place a "reserve price" upon them. Until the hammer falls the bidder may retract his bid, but when the hammer falls the contract is notified and there is no appeal upon either side. The auctioneer makes a charge for his services, which is paid by the vendor. At one time a duty was payable to the government upon the value of all auction sales, and in 1830 a revenue of £234,854 was derived from

£6,326,481 worth goods sold. But this duty has now been relinquished by the state. The conditions of sale usually contain a statement in effect that "any error or mis-statement shall not vitiate the sale, but that an allowance shall be made for it in the purchase money," but this is only held to guard against unintentional errors, not designedly misleading statements. Many descriptions of merchandise, such as wool, tallow, hides and leather, timber, hemp, wine, etc., are sold by periodical auctions, at which buyers from all parts can conveniently attend and have a good selection to purchase from. At the five series of colonial wool sales in London, wool is annually disposed of to the value of £20,000,000 and more, and many others of these auction sales are most valuable in their results and in the worth of the goods disposed of. In 1830 the auctioneers' licences issued in the United Kingdom numbered 3043; in 1889 the number of licences issued in England and Wales was 5763, and in Scotland and Ireland 1278. The business of *auctioneer* is often combined with that of *appraiser* and *house-agent*, and in 1889 these combined businesses between them contributed £79,012 to the inland revenue. The sales of real property at the London Auction Mart are large, having amounted in 1889 to £4,304,954, in 1888 £4,447,840, in 1887 £3,989,099, in 1886 £4,120,044.

A DUTCH AUCTION is a public sale in which the vendor continues to lower his prices until a bidder is found, or until in his own interest he can lower them no more. Dutch auction sometimes enables a better price for the goods sold to be obtained than ordinary auction.

[As to effect on price by employing English or Dutch mode of sale by auction, see W. T. THORNTON on *Labour*, p. 47, *et seq.*, ed. 1869.]

AUDIFFRET, CH. L. G., Marquis d', born at Paris 1787, died April 1878. He entered, when still quite young, the financial department of the government, through all the grades of which he was destined to pass with great rapidity. Originally placed, 1805, as a book-keeper in the "Caisse des dépots et consignations," he became, 1808, a clerk in the public treasury, and was appointed, 1815, director of the office of the "comptabilité générale des finances." Then, in 1829, he passed, from being director of the finances to the presidency of the "cour des comptes." He prepared in 1830 the *Rapport au roi*, which appeared in March under the signature of the Comte de Chabrol; was appointed a "Pair de France" in 1837, and in 1838 drew up the famous *Réglement de la comptabilité publique*, a subject of which he was acknowledged a passed master. In 1839 Audiffret published the *Examen des revenus publics*, (1 vol. in 8vo); in 1840 the first edition of the *Système financier de la France* (2 vols. in 8vo), in 1841, *Le Budget* (1 vol. in 8vo); in 1843 the *Libération de la propriété ou reforme de l'administration des impots directs et des hypothèques* (8vo, pamphlet), and in 1848 *La crise financière de* 1848 (8vo, pamphlet). He entered the senate in 1852, having published, 1851, an 8vo pamphlet entitled *Réforme de l'administration financière des hypothèques*. An imperial decree, 24th April 1853, appointed him to the *Académie des sciences morales et politiques*. In 1854 he published a second edition of his principal work: *Le Système financier de la France* (5 vols. in 8vo); of this a 3rd ed., also in 5 vols., appeared in 1863-64. In these were embodied all his writings on administrative questions or others. To these five volumes were added a sixth in 1870, containing parliamentary reports, éloges, etc., and in 1876 a final one, under the title of *Souvenirs de ma carrière*, an autobiography in which he shows himself to be a persistent partisan of the monarchy, without regard to the occupant of the throne. A. C. f.

AUDIGANNE, AMAND, born at Antwerp 1814, died at Paris 1875. He was for many years employed at the *Ministère de l'agriculture et du commerce*; and wrote, commencing 1846, many articles in the *Revue des deux mondes*, on agriculture, trade, banking, railways, and particularly on the condition of the working classes, which had been the object of many conscientious inquiries on his part. Originally a declared Protectionist he became Liberal as time went on. In 1850 he published the *Ouvriers en famille* in the form of conversations (Paris, in 32mo, frequently reprinted), then, *Les populations ouvrières et les industries de la France* (2 vols. 1854, in 18mo, which has gone to a second edition), *L'industrie contemporaine* (1 vol. in 8vo, 1856), *Les ouvriers d'à présent et la nouvelle économie du travail* (1 vol. in 8vo, 1865), *L'economie de la paix et la richesse des peuples* (1 vol. in 8vo, 1866), *La lutte industrielle des peuples* (1 vol. in 8vo, 1867); then *Les chemins de fer aujourd'hui et dans cent ans chez tous les peuples* (2 vols. in 8vo, 1858-1862). This last is an economic and financial history of railways, principally in France, containing judicious remarks on the future of this great industry, some of which have been realised. A. C. f.

AUDIT. An audit is the examination of an account, or books of account, for the purpose of ascertaining their correctness. The word shows that such an examination originally consisted of the hearing of explanations from the person rendering the account, such as would be fitting from an agent when submitting his account to his principal. The term is now generally used in connection with the examination of accounts of public bodies or companies by persons appointed for the purpose, and accounts or books are considered as audited or proved if supported by such written evidence with regard to the transactions recorded as may, in the opinion of

the auditor, be considered sufficient to establish the correctness of the individual entries and the truth of the accounts. It has long been the habit of those responsible for the accounts of charitable institutions or publicly subscribed funds, to obtain and publish a certificate of one or more independent persons, to the effect that the accounts have been examined and found correct. Joint-stock companies also from an early period have employed the services of auditors, and the law which has grown up with regard to the management of these companies contains various regulations with reference to the audit of their accounts. The Companies Clauses Consolidation Act 1845 (8 Vict. c. 16) provides that, except where by special act auditors shall be directed to be appointed otherwise than by the company, two auditors, each holding at least one share in the undertaking, shall be elected by the company in general meeting, and that it shall be their duty to receive from the directors the periodical accounts and balance sheet, to examine the same, and confirm or report upon the accounts to be read at the ordinary meeting. The Companies Act 1862 (25 & 26 Vict. c. 89) and the great extension of joint-stock enterprise under limited liability which followed, led to greater attention being paid to the subject of audit. In the first schedule appended to that act, Table A, regulations for management are prescribed for such companies as may not have articles of association of their own framed to suit their individual requirements, and these include provisions with regard to the appointment and duties of auditors. The audit of the accounts of railway companies was the subject of special legislation in 1867, the attention of parliament having been drawn to the imperfect and erroneous accounts issued by some companies. The Railway Companies Act of that year (30 & 31 Vict. c. 127, § 30) prescribes :—

"No dividend shall be declared by a company until the auditors have certified that the half-yearly accounts proposed to be issued contain a full and true statement of the financial condition of the company, and that the dividend proposed to be declared on any shares is *bona fide* due thereon after charging the revenue of the half year with all expenses which ought to be paid thereout in the judgment of the auditors."

The Regulation of Railways Act 1868 (31 & 32 Vict. c. 119, § 12) repeals the regulation of the Companies Clauses Consolidation Act 1845 as to auditors being necessarily interested as shareholders.

The parliamentary accounts of the public expenditure of the United Kingdom—that is, of all moneys expended for the public service by the various departments of the State out of imperial public moneys—are rendered to and audited by the comptroller and auditor-general, under the Exchequer and Audit Departments Act 1866 (29 & 30 Vict. c. 39). This act, which abolished the former offices of comptroller-general of the exchequer and of commissioners of audit, defines the functions of the comptroller and auditor-general generally in regard to the examination of the public accounts; and in particular requires him, on behalf of the House of Commons, to examine and report on the "appropriation accounts" of money granted by parliament upon the annual estimates for the naval, military, and various civil services. These last-named annual accounts, and the reports of the controller and auditor-general thereon, are presented to the House of Commons at the commencement of the session immediately following their preparation, and are reviewed by a committee of the House, called the "Public Accounts Committee," who take evidence from the departments concerned, and from the TREASURY, on any points to which attention is drawn by the comptroller and auditor-general, and report their conclusions and recommendations to the House.

The procedure to be observed in an audit, and the extent to which an audit can be carried, depend largely on the character of the transactions of which the accounts which are the subject of the audit are the record. The audit of the cash account of a charity would naturally include the vouching of the payments by the written acknowledgments of the persons to whom the cash is paid, and of the receipts by the counterfoils of the printed forms filled up at the time of acknowledgment, or, if there be such, by the published list of subscriptions and donations. The auditor might obtain evidence to satisfy him that all the moneys that should have been received had been brought into the account, that the payments were correctly made and proper in their character, and that the balance of funds in hand at the date of closing the account duly existed. This should be proved by the bank pass-book supported by a certificate from the bankers. The audit in such a case might be thorough and complete.

The audit of a bank, on the other hand, cannot be carried much further than the examination of the accuracy of the balance-sheet as representing the financial position of the company at the date of the account. It would be impossible for the auditor, even if evidence were procurable, to prove the innumerable entries recording the transactions of the bank and resulting in the profit taken credit for, and his work necessarily consists mainly of an examination to ascertain that the assets and liabilities of the bank are correctly described in the balance-sheet, that the assets are taken at no more than their actual value, due reserves being made for any depreciation in the value of securities or for probable loss or bad debts, and that all the liabilities are brought into the account. The securities representing investments should be

examined at the date to which the accounts are made up; the stocks which are registered without the issue of a certificate, such as consols, bank stock, and most colonial stocks, being proved by a special letter from the Bank of England or other registering office, certifying the holding.

With railways, the abstracts of traffic from which the revenue is derived, are in all large companies submitted to the examination of a distinct department of the railway called the "audit department" which is wholly independent of the issue of tickets or the receipt of cash, and the shareholders' auditor can but accept the totals arrived at by that department as the gross earnings of the company. It is his duty to see that these are duly entered and accounted for, to examine into the correctness of the records of the company's expenditure, and more especially to satisfy himself that the allocation of this expenditure as between capital and revenue is a fair one.

It is not considered the duty of an auditor to express any opinion as to the policy of a board of directors, or to object to any outlay which the board, under parliamentary authority, or under the general powers entrusted to directors, may think fit to incur; but should any expenditure take place of an unusual character, or which, in the auditor's opinion, the directors are not authorised to make, or should the accounts be drawn up on what appears to him to be an erroneous basis, it is incumbent on him, if his views are not adopted by the board and the accounts amended accordingly, to see that the facts are laid before the shareholders.

The duties of auditing now form a very important portion of the business undertaken by chartered accountants. The variety and intricacy of present systems of account keeping make it difficult for persons, without special training and experience, to discover error and, it may be, fraud, on the part of those who draw them up, and it has become the practice of companies and other public bodies to appoint professional men for this purpose. As an instance of this tendency the statutes made for the universities of Oxford and Cambridge by the commissioners acting in pursuance of the Universities of Oxford and Cambridge Act 1877, provide for the audit of the accounts both of the universities and of all the colleges, either by professional accountants carrying on business in London or Westminster, or by persons conversant with accounts approved by the permanent secretary to Her Majesty's Treasury. It is also an increasing practice with private banks and commercial firms to have the accuracy of their books and annual balance-sheets tested by professional accountants. The rapidity of modern commercial transactions leads to the finance of business offices being entrusted more and more to salaried assistants, and, as a check on these, to the employment of independent persons to supervise the work periodically. The methods adopted by the professional accountant and his trained clerks in the examination of books, constitute a more complete, systematic, and independent audit than can be easily undertaken by a partner in the business, however conversant he may be with the work. An audit of this kind secures, as far as possible, accurate bookkeeping, the detection of fraud, correct and intelligible balance-sheets, and the proper distribution of profits or losses, and acts in not a few cases as a deterrent from crime by practically destroying the probabilities that wrong-doing will escape detection. Such firms and companies also who seek to attract business by exhibiting the sound condition of their finances, and with that object publish their balance-sheets, find it necessary to have their accounts confirmed by independent professional men, on whom a very large share of responsibility properly rests for the accuracy of the figures which they certify.

[*Auditors, their Duties and Responsibilities*, F. W. Pixley, London, 5th ed. 1889.] E. W.

AUDIT (Scots law). Taxation.

AUDIT OFFICE. The department of the state, officially designated the EXCHEQUER and audit department, which is entrusted with the audit and control of the public accounts.

The necessity of making provision for an efficient audit of the receipt and expenditure of public moneys has long been recognised, the office of auditor of the exchequer, the most ancient of all offices of control, having been established as far back as the year 1314. Many of the great departments of the state were at the outset subject to separate and independent audit arrangements, but in the year 1785 a special office for auditing the public accounts was created, and the first step of importance taken towards the concentration of this function in the hands of a single authority. In 1867 this object may be said to have been definitely attained by the amalgamation of the offices of the comptroller-general of the exchequer and of the commissioners for auditing the public accounts, a single department being then established for the dual purpose of controlling the receipts into and issues from the exchequer, and of examining the accounts of receipt and expenditure.

The responsible heads of this department are the comptroller and auditor-general and the assistant comptroller and auditor, both of whom are appointed by the crown and hold their offices during good behaviour, being immovable except on an address from both houses of parliament.

The comptroller and auditor-general is required to examine, on behalf of the House of Commons, the accounts of all moneys voted in supply, or which are a charge on the consoli-

dated fund, and for this purpose full powers of access to public accounts are given him. He is required to report the result of his examination annually, and if the treasury fail to present his reports to the House of Commons, he must do so himself. In addition to this duty technically described as the "appropriation audit," the comptroller and auditor-general must, if the treasury so direct, examine and audit any other public accounts submitted to him for the purpose, but in respect to this portion of his functions, the comptroller and auditor-general must accept the decision of the treasury on any question which he may raise, his direct responsibility to the House of Commons being limited to the appropriation audit above referred to. In connection with the exchequer branch of his department, the comptroller and auditor-general is required from time to time, upon the requisitions of the treasury, to grant credits upon the exchequer for consolidated fund and supply services, if he is satisfied that they are not in excess of the sums granted by the various acts of parliament, and all warrants for the preparation and issue of exchequer bills and bonds and treasury bills are countersigned by him.

Recently, the opinion has been very generally expressed that the manufacturing, shipbuilding, and other like accounts of the army and navy should be subjected to a more rigorous independent scrutiny than has hitherto been the case. Effect has been given to this opinion in the Army and Navy Audit Act, 1889 (52 and 53 Vict. c. 31), which imposes upon the comptroller and auditor-general the duty of examining accounts showing the distribution and cost of labour employed and the value of stores expended in the several government dockyards, ordnance factories, and other manufacturing establishments of the army and navy.

For the year 1887-88, 228 persons were employed in the service of the department, the cost, mainly for salaries, amounting to £52,216.

The duties of the audit office are set forth in detail in the act 29 and 30 Vict. c. 39, and the annual reports of the comptroller and auditor-general issued with the appropriation accounts for the army, navy, and civil services respectively may also be consulted. T. H. E.

AUDITOR OF THE COURT OF SESSION. Taxing-master.

AUGMENTATIONS, COURT OF. This was created in 1536 to collect and administer the property of the dissolved monasteries. It consisted of a chancellor-treasurer, an attorney, ten auditors, and seventeen receivers. A vast amount of wealth passed through the hands of this body during the next few years. In 1545 the property of colleges, chantries, hospitals, and guilds was also confiscated to the king, and its administration entrusted to the court of augmentations. But this enormous property was soon dissipated by the extravagance of Henry VIII. and of the council under Edward VI., and with its dispersal the functions of the court came to an end.

[Perry, *History of the English Church*, 1887, vol. ii.] R. L.

AUGUSTINIS, MATTEO DE (a Neapolitan, living in the first half of 19th century), the author of two elementary treatises of political economy; both are summaries of the leading doctrines of his time, mixed with criticisms from a moral and political point of view. He is of opinion that FREE TRADE ought somewhat to be restricted for moral and social considerations, and considers A. SMITH'S doctrines as leading sometimes to anarchy of both personal interest and human passions; nevertheless he thinks that liberty ought to be the rule, and government interference the exception. De Augustinis represents a singular intermixture of doctrines taken from J. B. SAY, DUNOYER, SENIOR, and other liberal economists, and of doctrines taken from SISMONDI and ROMAGNOSI favourable to state interference. He is an eclectic writer, somewhat like FLOREZ-ESTRADA. In the theory of value he tries to reconcile the doctrines based on the cost of production with those based on the principle of utility; but he does this in an infantine manner. This author, like CAGNAZZI and many other second-rate economists, would have been totally forgotten by this time if the modern historical school and the SOCIALISTS OF THE CHAIR had not picked up and collected every trace of opposition which in course of time had manifested itself against the so-called English school, and if they had not given a renewed importance to the intermixture of moral, or political, or social questions, with economic topics. De Augustinis's *Istituzioni di Economia Sociale* appeared in 1837, Naples (tipografia Porcelli), and his *Elementi di Economia Sociale* in 1843. His best work is a critical essay on Pellegrino Rossi's lectures on political economy: *Studii critici sopra il corso di Economia pol. di P. Rossi*, Napoli, 1844. He examines in it one by one the thirty-six lectures of ROSSI, making not seldom acute remarks in favour or against doctrines of Rossi. This work was originally published in a series of articles in a weekly review called *Lucifero*, and now forms a volume of 176 pages of small print in 8vo.

As statistician he is known by a series of letters on the economical condition of Naples: *Della condizione economica del Regno di Napoli*, Lettere, Napoli, 1833, Manzi. M. P.

AULNAGER. Under Richard I. it was ordered that "woollen cloths, wherever they are made, shall be of the same width, to wit, of two ells within the lists, and of the same goodness in the middle and sides." This rule was again asserted in Magna Charta, art. 35, and under Edward I. an official, called *aulnager*, was appointed to enforce it. It was his duty

to affix a stamp to all cloth as evidence that it was of the necessary size and quality. When the arbitrary regulations of Richard I. were abandoned in the 14th century, the aulnager's stamp was still used to certify the difference between any piece of cloth and the old requirements. The office continued to exist until the reign of William III., but it had ceased to be of much importance in securing customers against fraud and imposition.

[Ashley, *Economic History*, i. p. 180.] R. L.

AUNCEL, or HANDSAL weight, a kind of balance used in weighing wool. Forbidden by 25 Ed. III.

[Smith's *Memoirs of Wool*, 1747, vol. i. p. 38.] J. B.

AUSTRIAN SCHOOL OF ECONOMISTS, The. Among German-speaking nations the predominant school of economists has been, since the middle of the century, the historical, which seeks to reconstruct economics by the aid of history and sociology. Since 1871 its supremacy has been threatened in Austria (if not in Germany) by a group of writers who have returned to the deductive method. From their agreement in method and leading doctrines, as well as from their virtual collaboration with each other, these writers are justly regarded as a distinct school, which may (from the nationality of the chief members) be called the "Austrian" school of economists. Their method is, like Ricardo's, deductive; and, like Ricardo, they treat the doctrine of value as the cardinal point in economic theory. Their results, however, differ considerably from the Ricardian. Like Jevons, they find the key to the problem of value in the notion of final utility. Unlike Jevons, they regard economics as having nearer affinity with psychology than with mathematics, and they are sparing in the use of mathematical illustration. They have thus made the doctrine of Final Utility (*q.v.*) intelligible to a wider circle; and have influenced economists outside of their school (for example, M. Block in France, Professor Cossa in Italy, and Professors J. B. Clark, E. B. Andrews, and S. Patten in America). They have been opposed in Germany by L. Brentano, Schmoller, Neumann, and others. The chief authors and works are the following:

Carl Menger, *Grundsätze der Volkswirthschaftslehre*, Vienna, 1871; *Methode der Sozial-wissenschaften*, Vienna, 1883; *Irrthümer des Historismus in der deutschen Nationalökonomie*, Vienna, 1884. —Friedr. v. Wieser, *Ursprung und Hauptgesetze des wirthschaftlichen Werthes*, Vienna, 1884; *Der Natürliche Werth*, Vienna, 1889.—Emil Sax, *Wesen und Aufgaben der Nationalökonomik*, Vienna, 1884; *Grundlegung der theoretischen Staatswirthschaft*, Vienna, 1887.—Eugen v. Böhm-Bawerk, *Rechte und Verhältnisse vom Standpunkte der volkswirthsch. Güterlehre*, Innsbruck, 1881; *Kapital und Kapital-zins*, vol. i., Innsbruck, 1884; vol. ii., Innsbruck, 1889.—Robert Zuckerkandl, *Theorie des Preises*, Leipzig, 1889. —E. von Philippovich, *Aufgabe und Methode der politischen Oekonomie*, Freiburg, 1886.—Robert Meyer, *Principien der gerechten Besteuerung*, Vienna, 1884; *Das Wesen des Einkommens*, 1887. —Victor Mataja, *Der Unternehmergewinn*, Vienna, 1884; *Das Recht des Schadenersatzes*, Vienna, 1888.—Johann v. Komorzynski, *Werth in der isolirten Wirthschaft*, Vienna, 1889.—Dr. E. Seidler in *Jahrb. für Nat. Oek. und Statist.*, March 1890 applies the theory of value to doctrine of legal punishments; he gives a full bibliography.—Ugo Mazzola, *Finanza pubblica* (Rome, 1890).—C. A. Conigliani, *Effetti Economici delle Imposte* (Milan, 1890).—For a criticism from a Ricardian point of view, see A. Loria in the *Nuova Antologia*, April 1890.—Compare H. Dietzel in Conrad's *Jahrb. für Nat. Oek. und Statist.*, June 1890.—See also *Quarterly Journal of Economics* (Harvard), October 1888 and April 1889. Cf. articles below on Value; Historical Method, etc. J. B.

AUTHORITIES, Economic. See Political Economy, Authorities on.

AUTUMNAL DRAIN. A movement of coin in the autumn throughout the country, taking its origin from the season, which stimulates employment in agriculture, and sets great part of the population free for an autumnal holiday.

Statement showing autumnal movements of gold and silver coin held by Bank of England for 1881-1900—beginning of September to about the middle of November (000's omitted), thus £1772 reads £1,772,000.

Year.	Gold Coin.							Silver Coin.	
	Received from or taken for abroad on balance.		Taken for Scotland on balance.	Taken for Ireland on balance.	Received from or taken for Home Circulation on balance.		Total decrease.	Increase.	Decrease.
	£	£	£	£	£	£	£	£	£
1881	..	1772	811	430	..	788	3801	..	60
1882	..	417	838	610	..	880	2745	..	19
1883	..	413	795	180	..	873	2261	..	92
1884	..	1460	765	270	..	935	3430	..	67
1885	..	754	660	1110	..	252	2776	..	13
1886	259	..	717	330	..	391	1179	28	..
1887	353	..	575	25	..	383	630	..	57
1888	..	2513	445	420	..	689	4067	.	141
1889	..	2431	612	300	..	640	3983	..	414
1890	..	2009	616	480	..	1215	4320	..	174
1891	..	1471	478	320	..	288	2559	..	77
1892	..	1856	533	235	..	720	3344	153	..
1893	65	..	800	440	724	..	451	145	..
1894	74	..	584	300	..	730	1540	..	40
1895	..	3329	964	178	..	1213	5684	..	104
1896	..	1453	539	108	..	348	2448	27	..
1897	..	928	685	300	..	137	2050	..	4
1898	..	773	829	345	..	1523	3470	..	131
1899	..	4905	515	357	..	1149	6920	..	132
1900	..	1052	926	330	163	..	2145	..	49

There is a corresponding influx in the months of May and June of 2 to 3 millions.

The effect of this autumnal pressure was described, 1857, by the late Mr. William Langton to the Statistical Society of Manchester (*Transactions*, Session 1857-58), and the investi-

gation was carried on, with his accustomed ingenuity and research, by Prof. W. S. Jevons, 1866 (*Statistical Society of London Journal*, vol. xxix.) The pressure appears to be enhanced somewhat by the requirements of the Bank Act of 1844, in consequence of the movements in the Scotch and Irish issues. On average, for the years 1846-1900, the rate of discount charged by the Bank of England was higher during the autumn months, and particularly in November, in connection with this movement. A somewhat similar influence is traceable in the returns of the banks of France and Germany.

[Jevons, *Investigations in Currency and Finance*, London, 1884.—R. H. Inglis Palgrave, *Bank Rate in England, France, and Germany, 1844-78*, London, 1880.—See also R. H. Inglis Palgrave, *Evidence before Select Committee of House of Commons, Banks of Issue*, 1875.—*Notes on Banking*, R. H. Inglis Palgrave, London, 1873.]

AUXIRON, Claude François Joseph d' (*b.* 1728, *d.* 1778), an engineer and physiocratic economist; was author of the anonymously published—

Principes de tout Gouvernement, ou Examen des causes de la faiblesse ou de la splendeur de tout état considéré en lui-même et indépendamment des mœurs, 1766. F. Y. E.

AVERAGE. In the most familiar application of the term the average of a given set of quantities denotes their sum divided by their number, their arithmetic mean. More generally an average may be defined as an intermediate value derived from a given set of quantities by a process such that, if all the quantities were equal, the derivative quantity would coincide with the given ones. For example, if a, b, c, etc., are given quantities in number n, then the expression $\sqrt{\frac{a^2+b^2+c^2+, \text{ etc.}}{n}}$ is an average. Of the forms included under this definition the number is infinite. The following four appear to be most important: (1) the arithmetic mean above defined;—(2) the geometric mean, formed by multiplying n quantities together and extracting the nth root;—(3) the median, which is such that, if the given quantities be arranged in the order of their magnitude, there shall be as many of them above as below the median;—(4) the mean value distinguished by Fechner as "dichteste werth," and by De Venn as the "maximum ordinate average," which is such that in its neighbourhood the given quantities cluster most densely.—Varieties of these species arise when, instead of allowing to each of the given quantities an equal part in forming the average, we assign more importance to some of the data than to others.

In choosing among these different species and varieties, attention must be paid to two rather subtle distinctions. First, in taking an average we may have in view some special purpose as distinguished from the general objects of art and science. Suppose, for instance, our object in finding the average variation of prices is to ascertain how much the monetary value of a specified set of articles, say the necessaries of a labouring man, has varied. This specific object is evidently correlated with a qualified or weighted arithmetic mean. But, if the average stature for each of several districts were required, in order to investigate whether there is any connection between height and food (or other attribute), there is no longer the same presumption in favour of the arithmetic mean. Possibly the third or fourth species of average might be better. Again, the average may or may not be designed to represent something outside and behind the given numbers. Thus in taking the average of several independent estimates of the number of coins in a country, our *quæsitum* is an objective thing, the real amount of coin. Less substantive, but still extraneous to the given statistics, is a species of *quæsitum* more common in social science, which may be described as that mean value towards which tends the average of the *complete series*, of which the given statistics are only samples. Thus, in taking the average of a given set of price-variations, we may aim at ascertaining, as far as possible, what would be the mean variation of prices, if we could complete the whole series of statistics out of which we have only selections.

The general result of these considerations is, on the one hand, in many cases to add some reasons in favour of the arithmetic mean besides the obvious grounds of familiarity and convenience, and, on the other hand, in certain cases to show that one of the other species of average is preferable (see Adjustment, Average; Average, Maritime).

[Bertillon, "Moyenne," *Dictionnaire Encyclopédique des Sciences Médicales.*—Edgeworth, "Observations and Statistics," *Transactions of the Cambridge Philosophical Society*, 1885.—"The Choice of Means," *London Philosophical Magazine*, 1887.—"Some New Methods of Measuring Variation of Prices," *Journal of the Royal Statistical Society*, 1888.—Galton and Macalister, "Law of the Geometric Mean," *Proceedings of the Royal Society*, 1879.—Lexis, *Massenerscheinungen.*—Messedaglia, "Calcul des Valeurs Moyennes," *Annales de Démographie Internationale*, 1880 (translated from *Archivio di Statistica*).—Venn, *Logic of Chance*, 3d ed., chaps. xviii. and xix. See also the older authorities, Laplace, Quetelet, and others, referred to by the above-named writers.] F. Y. E.

AVERAGE (Maritime), is the custom that all parties concerned in the adventure of a vessel at sea are liable in equitable proportion to contribute their shares of losses (particularly those arising from "jettison" or the throwing overboard of cargo to lighten the vessel) and of expenses, when such losses and expenses are incurred for the common good by one or more of the adventurers. Although this custom is

not expressly set forth in the most ancient sea-laws, owing perhaps to the then infrequency of joint-stock adventures at sea, it came at length to be so fully and clearly adopted in the laws of Rhodes as to commend itself in its integrity to the founders of the Roman civil law, and afterwards, with occasional modifications of no very great importance, by all commercial countries, from the date of the Pandects down to the present time. The chapter of the digest *De Lege Rhodia de Jactu* (xiv. 2) gives full details. The following is the illustrative example it contains: "Wherefore, if two men should each of them own a hundred parts in the cargo, and Caius, the owner of the goods thrown overboard, shall own two hundred, Caius, on a loss of the cargo, should receive fifty from each of them: losing his other hundred by shipwreck, because he had just as large a share in the wares lost as they together had in the wares preserved. Hence, as the share of Caius, which represented two hundred, was in excess of the share of each of them which represented one hundred each, in the same proportion after the disaster, the share of Caius, representing one hundred, will be in excess of the share of each representing fifty, just as both before and after the disaster the share of Caius exceeded by a half the share of each of the others. On the other hand, if Caius should throw overboard wares to the value of fifty, but each of the other men shall have kept his own, estimated at one hundred each, Caius shall suffer a loss of ten, but these other two shall contribute double each, namely twenty; so that just as his fifty answered to the one hundred of each of his partners, in like manner his forty may answer to the eighty apiece that each of them retains."

It would certainly have conduced to clearness if this example had set out that the total cargo was made up of 400 parts, and that the loss of Caius's goods, 200 parts, entailed an average contribution of one-half on each of the adventurers' shares. Similarly, in the second case, the total value of the cargo was 250, and the loss of Caius's goods, worth fifty, entailed an average contribution of one-fifth on each of their shares in the total value. F. H.

AWARD. The decision of the arbitrators or of the umpire to whom parties, wishing to avoid recurrence to a legal tribunal, have referred their dispute. A submission to arbitration may be made a rule of court on the application of either party, and if this has been done, the award may be enforced with the court's assistance; otherwise the only means of compelling the party, against whom the award has been given, to satisfy its directions, is to bring an action and to obtain judgment on the basis of the award (see ARBITRATION). E. S.

AZUNI, DOMENICO ALBERTO, born at Sassari (Sardinia) in 1760, died 1827 at Cagliari in Sardinia. A famous commercial lawyer and president of the Court of Appeal of Genoa, he became a member of the French *corps legislatif*, and was appointed by Napoleon I. one of the members of the commission which drew up the *Code de Commerce*. He was the principal author of the *Livre deuxième du Commerce maritime*. Maritime commerce, is also the subject of his principal works which are written in French, or in French and Italian.

Sistema universale dei principii del diritto marittimo dell' Europa; the French edition has the title *Droit maritime de l'Europe;—Essai sur l'histoire géographique, politique et morale de la Sardaigne;—Sull' origine della bussola; Dizionario di giurisprudenza mercantile;—Mémoires pour servir à l'histoire des marins navigateurs de Marseille.* M. P.

BABBAGE, CHARLES, born near Teignmouth 1792, studied at Trinity College, Cambridge, graduating (without honours) 1814. In 1816 he was made fellow of the Royal Society. He was also an active member of the Astronomical Society. Feeling the defects of the Royal Society as then organised, he helped to found the British Association (1831), the statistical section of which (1833) was due to him, as well as the Statistical Society (1834). Between 1822 and 1843 his time and money were almost wholly devoted to the building of his two great calculating engines, one of which (partially complete) is preserved in the South Kensington Museum. In 1828 he was chosen Lucasian professor of mathematics at Cambridge. He wrote not only on mathematical subjects, but on geology, the diving bell, lighthouses, metal-planing, life insurance, infant mortality, taxation, and last (but to economists not least), on machinery and manufactures. His last public efforts were to repress the barrel-organ, an unhappy application of mechanical invention to the fine arts. He gave the world a retrospect of his own career in *Passages from the Life of a Philosopher* (1864). He died in 1871.

Though Babbage himself has done comparatively little for economic theory, he has certainly aided it indirectly, by his full and faithful descriptions of some of the most characteristic phenomena of modern industry. If he is content to take most of his economical doctrines at second hand, he at least holds them intelligently, and states them with a vigour of his own, dwelling chiefly on the aspect which strikes him most. Political economy, he says, proceeds on the assumption of certain principles which are no more than general,—not compelling universal obedience like the principles of mathematical science, but no less than general, being much more frequently obeyed than violated. Such is, *e.g.*, the principle that

men are governed by their imagined interest, and that each individual is the best judge of this for himself. The proper method of economic (as of other) inquiries is "to divide the subject into as many different questions as it will admit of, and then to examine each separately, or in other words, to suppose that each single cause successively varies, whilst all the others remain constant." It is hopeless for those who cannot master the separate questions in their simplicity to make a successful investigation of their united action (*Exposition of 1851*, pp. 1-4). Babbage has a clear view of the distinction between economics and the exact sciences, and, though a mathematician and a contemporary of COURNOT, WHEWELL, and Tozer, he makes no attempt to treat political economy by mathematical methods. He lays down with great clearness the distinction of fine arts from industrial arts, a technical distinction that involves an economical one. He makes it plain that economical inquiries must deal mainly with industrial arts. In the fine arts, "each example is an individual, the production of individual taste, and executed by individual hands," and therefore costly. In the industrial, "each example is but one of a multitude generated according to the same law, by tools or machines, and moved with unerring precision by the application of physical force," and therefore cheap (*Exposition of 1851*, pp. 48, 49). The social and economical effects of cheapness are brought out by Babbage with useful reiteration in support of free trade, and more especially in connection with the invention and application of tools and machinery. In fact, his chief direct contribution to theoretical economics has been his clear analysis of the DIVISION OF LABOUR (*q.v.*), and of the economical function of Machinery in the modern industrial system. In regard to division of labour, the merits of his discussion of the subject are generally admitted. He pointed out that the advantages mentioned by Adam SMITH in the *Wealth of Nations* (bk. i. ch. i.), would not explain the cheapness of manufactured articles, unless, to that author's list we add the following (*Economy of Machinery and Manufactures*, ch. xviii. p. 137). "That the master manufacturer, by dividing the work into different processes, each requiring different degrees of skill and force, can purchase exactly that precise quantity of both which is necessary for each process,—whereas, if the whole work were executed by one workman, that person must possess sufficient skill to perform the most difficult, and sufficient strength to execute the most laborious, of the operations into which the art is divided." In other words, advantage must be taken of the several individual capabilities of the workmen, intellectual and physical, and the work must be so organised that workmen be only called upon to do that which they can do best of all. In the statement of this principle he has, as he allows, been anticipated by GIOJA, the Italian economist (*Nuovo Prospetto delle Scienze Economiche*, vol. i. ch. iv., Milan, 1815); but he was led to it independently by his own observation of the actual working of English and foreign factories. Without this organisation of labour (he says), full advantage cannot be taken of tools and machines, however ingenious. The nature of machinery, as distinguished from mere tools, is thus described: "When each process has been reduced to the use of some simple tool, the union of all these tools, actuated by one moving power, constitutes a machine" (*Economy of Machinery and Manufactures*, p. 136; cp. Marx, Kapital I. xiii. 389 note). The examples show that Babbage conceived, as MARX has done after him, that so long as the moving power is simply the human muscles, we have to do, not with a machine, but only with a tool. It is on subjects like these, at once of technical and of economical importance, that Babbage is at his best. In his views on taxation and currency, he accepts substantially the ordinary doctrines of the dominant school of economists. His criticisms of the defects in the exhibition of 1851 remind us in many places of COBDEN'S views (*e.g.* in *England, Ireland, and America*) on the blessings of cheap goods and large advertising. But in his *Economy of Machinery and Manufactures* (1832), Babbage not only showed the range and accuracy of his own personal observation and inquiry, but displayed a better comprehension of the economical bearings of the factory system of production than any previous economical writer. The book is a storehouse of illustrations from actual business; the writer never draws on his imagination for an example when his memory and his note-book will serve him. On the other hand, his book is not like BECKMANN'S *History of Inventions*, a mere collection and narrative of facts, without an interpretation of them by economical principles, nor is it, like Ure's *Philosophy of Manufactures*, a mere eulogy of the factory system of his own day. Though he lays, perhaps, undue stress on the capitalist, and his gains by the economy of materials and labour, he sees the need of improved industrial arrangements for the workmen, co-operative stores, and industrial profit-sharing, and is in favour of the abolition of the truck system, and all unfair restrictions on workmen's liberty of combination (*Economy of Machinery and Manufactures*, ch. xxi. p. 177, ch. xxviii. p. 253). He is no blind worshipper of Mammon; and he sneers at the vulgar notion that no calling is respectable which does not produce wealth. It is in the public interest rather than their own that he wishes scientific men to have a larger material reward than niggardly governments were then granting (*Exposition of 1851*, p. 147, etc.)

He wrote with feeling on this last subject because he was himself above everything an inventor. This is not the place to discuss the merits of his calculating engines, or the justice of his complaints against the successive governments with which he contended in his twenty years' endeavour to build his engines (see Appendix to *Exposition of 1851*). But we may note that his design in the invention of them was simply to convert into physical mechanism what had already become a mechanical process psychologically (*Mach. and Manuf.*, ch. xix. p. 157), and this is one of the brightest aspects of the work of a modern inventor. In the abstract, Babbage was far from magnifying an inventor's office. "The man who aspires to fortune or fame by new discoveries must," he says (*Mach. and Manuf.*, ch. xxv. p. 212), "be content to examine with care the knowledge of his contemporaries, or to exhaust his efforts in inventing again what he will most probably find has been better executed before; the power of making new mechanical combinations is a possession common to a multitude of minds, and by no means requires talents of a high order." It results, he believes, from the principle of the division of labour, which should be applied not only to industrial, but to mental labour, and has a great career still before it in the latter field. Under happier auspices, Babbage would no doubt have led the way in person still further than he did, in the directions thus indicated.

Those of his works which are directly and indirectly of most economical importance are the following:—*On the Economy of Machinery and Manufactures*, 1832, third edition, 1833.—*Thoughts on the Principles of Taxation with reference to a Property Tax and its Exceptions* [exemptions from it], 1848; second edition, 1851; third edition, 1852. An Italian translation of the first edition, with notes, was published in 1851 at Turin.—*Observations on the Decline of Science in England*, 1830 [largely an attack on the Royal Society].—*A Comparative View of the different Institutions for the Assurance of Life*, 1826.—*Essay on the General Principles which regulate the Application of Machinery* (from *Encyclop. Metropolitana*, 1829).—"Letter to T. P. Courtenay on the Proportion of Births of the two sexes amongst Legitimate and Illegitimate Children" (Brewster's *Edinr. Journal of Science*, vol. ii. p. 85, 1829).—"On the Principles of Tools for Turning and Planing Metals" (In Holtzapffel's *Turning and Mechanical Manipulation*, vol. ii. 1846).—*The Exposition of 1851, or Views of the Industry, the Science, and the Government of England*, 1851.—*Statistics of the Clearing House*, reprinted from *Transactions of the Statistical Society*, 1856.—*Passages from the Life of a Philosopher*, 1864. J. B.

BABEUF, François Noël, called *Caius Gracchus*, born at Saint Quentin 1764, died at Vendôme, 24th February 1797. Left to his own resources at the age of sixteen, his youth was stormy, and his whole life wild and irregular. From the commencement of the Revolution he wrote in the journal *Le correspondant Picard*, articles so violent in tone that he was brought to trial. His acquittal, 14th July 1790, did little to calm him. Appointed administrator of the Département of the Somme, he soon had to be dismissed from that office. This was the time at which he took the name of *Caius Gracchus*, posing as a *Tribun du peuple*. He gave the same name to a journal, which he had previously carried on under the sub-title of *Défenseur de la liberté de la presse*. All this took place shortly after the fall of Robespierre from power. This for a time had his approval; but he soon returned to his earlier views and appealed to those violent passions which, as a demagogue, he knew how to rouse. He gathered round him, under the name of the *Secte des Egaux*, all the old Montagnards who were dissatisfied with the régime of the Thermidorians. The object of this sect, which drew its inspiration from some of the sentimental ideas of J. J. Rousseau, was to destroy inequality of condition, with the object of attaining the general good. Sylvain Maréchal, author of a *Dictionnaire des Athées*, Buonarroti, who claimed to be descended from Michael Angelo, with Amand and Antonelle, who did not, it is true, remain associated long, and some others, formed the staff which recognised Babeuf as their chief. Working with feverish activity, they gathered round them a considerable number of adherents. The place where their club met was the Pantheon. At first orderly, their meetings became tumultuous and threatening and were prolonged far into the night. Attending armed, they prepared to resist by force the dissolution of the club which the authorities had determined on. General Bonaparte, acting with much tact, contrived to close the meetings of the club, but the members formed themselves forthwith into a secret society, and gradually, by winning over soldiers and police, became a formidable body, numbering nearly 17,000 able-bodied and armed men, without including the Faubourgs Saint-Antoine and Saint-Marceau, which were at their back. Addressing themselves to the masses, they published a manifesto written by Sylvain Maréchal in his most inflammatory style—"We desire," said they, "real equality or death. This is what we want. And we will have real equality, no matter what it costs. Woe to those who come between us and our wishes. Woe to him who resists a desire so resolutely insisted on. . . . If it is needful, let all civilisation perish, provided that we obtain real equality. . . . The common good, or the community of goods. No further private property in land; the land belongs to no private person. We claim, we require the enjoyment of the fruits of the land for all; the fruits belong to the whole world," etc.

Instructions in great detail as to the methods of raising insurrectionary movements were added.

"Those who hinder us shall be exterminated; . . . shall all alike be put to death: Those who oppose us or gather forces against us; strangers, of whatever nation they may be, who are found in the streets; all the presidents, secretaries, and officers of the royalist (*sic*) conspiracy of Vendémiaire, who may also dare to show themselves." If the lives of men were to be treated thus, one may guess what fate was reserved for their property. But, after massacres and spoliations, what was to come of it all? The public authorities were to organise employment; there was to be only one source of employment, the state, with subdivisions devised to meet the wants, somewhat rudimentary, of the community. Every one was to have a right to lodging, clothes, washing, warming, and lighting, to food, *médiocre mais frugale*, to medical attendance. This is much what Louis BLANC, who appears to have sought his inspiration among the decrees of the *République des Egaux*, enunciated in more methodical and sober language. "Every one is to work as he is able, and to consume according to his wants."

The secret was well kept; it was only a few hours before the moment fixed for the explosion of the conspiracy (May 1796) that a captain, named Grisel, revealed it to the directory. Decisive steps were taken at once; a vigorous watch was kept, while the public authorities seized the leaders and their papers.

Babeuf and Darthé, condemned to death the 23d of February 1797, stabbed themselves before the tribunal. Life still lingering on, they were guillotined the next day. Buonarroti and Sylvain Maréchal, condemned to exile (*deportation*), died, the first in 1837, the second in 1803.

It may be added that Babeuf seems to have had rather a disordered brain than an absolutely criminal disposition. He died with courage, leaving his wife a written paper declaring his conviction that he had always been a "perfectly virtuous man."

See BLANC, J. J. L.; BRISSOT DE WARVILLE; COMMUNISM; PROUDHON. A. C. f.

BACK-BOND (Scots law term). A declaration by one apparently an absolute owner that he is only a trustee or mortgagee.

BACKWARDATION. When a seller of stock "for the account" (*v.* ACCOUNT) on the stock exchange finds that he has not previously obtained the stock which he sold, he asks the dealer to whom he sold to allow him to prolong his bargain until the next settlement. If the security in question be unusually scarce, the buyer finds himself in a position to charge the seller for the accommodation, and the rate or fine which he imposes upon the person unable to deliver his stock or shares, according to the contract, is called a Backwardation. This fine, being paid again and again from settlement to settlement, at varying and sometimes very high rates, is the main source of profit in a CORNER (*q.v.*) in stocks and shares. The unlucky seller in blank, being unable either to deliver or borrow stock in satisfaction of the contract, is occasionally at the mercy of the buyer. The stocks of certain railways have, on some occasions, been made so scarce by such operations that speculative sellers have had to pay whatever "backwardation" the successful speculative buyers have been pleased to impose. A. E.

BACON, FRANCIS (VISCOUNT ST. ALBANS). Born 1560-61, died 1626. At the time when Bacon lived, economic questions had not taken any separate place among the studies to which a statesman gave special attention; but Bacon's mind, ingenious, fertile in resource, keen in research as it was, did not neglect the examination of those questions of policy which require economic treatment. Mr. Spedding (Bacon's *Works*, ed. Spedding, vol. iii. p. 515) considers that Bacon was "little before his age in his views with regard to usury, trade, etc." (See Essay xxxiv., "Of Riches"). By the time, however, when the essay on "Plantations" was written, COLONIES, as Mr. Reynolds observes, had been successfully founded. Bacon's remark, "Let there be freedom from custom till the plantation be of strength, and not only freedom from custom, but freedom to carry their commodities where they may make their best of them, except there be some special cause of caution," and those on the treatment and government of colonies generally, show perhaps his best judgments on these matters. Most of Bacon's writings deal with other subjects, but the reference to colonial possessions in his speech when lord chancellor on the election of Serjeant Richardson as Speaker (1620), describing this country's portion "in the New World, by the plantation of Virginia and the Summer Islands. . . . Sometimes a grain of mustard seed proves a great tree, who can tell?" (Bacon's *Works*, ed. Spedding, vol. xiv. p. 175), may also be quoted in this connection. The essay "Of the true greatness of Kingdoms and Estates," and the history of Henry VII., though these deal principally with politics, show that Bacon had taken the study of these branches of economics also "among his portion."

The editions of Bacon's *Works* are many. That edited by Spedding, Ellis, etc. (14 vols., London, 1857-74), and those of the *Essays* (London, 1881) and the *Advancement of Learning* by W. Aldis Wright, and of the *Essays* by S. H. Reynolds (both these Clarendon Press), may be specially mentioned. Mr. Reynolds remarks, and truly, that in Bacon's "views about trade he takes the mercantile theory as his guide."

BADGER. This name was formerly used to signify a small trader buying corn or victuals (fish, butter, or cheese, specially mentioned) in one place in order to sell them in another. The Act 5 & 6 Edw. VI. c. 14, § 7 exempts these men from the penalties enacted against FORE-

STALLERS and REGRATORS (*q.v.*), but requires them to be licensed by three justices of the peace of the county where they dwell. A subsequent act, 5 Eliz. c. 12, declares that the result of this legislation was that many persons "seeking only to live easily and to leave their honest labour" have taken up this trade, and enacts that licensees are to be householders having dwelt in the county for three years, and that the justices may require a badger to enter into recognisances not to forestall or engross. The rules as to licensing are made more stringent, and penalties assigned for a breach of them. The word is now obsolete except in certain dialects. It was used to denote the foreman of a GANG of agricultural labourers (Kebbel's *Agricultural Labourer*, 1870, p. 3).

[Tomlins' *Law Dictionary*, 1835.—Dr. Murray's *New English Dictionary*, *s.v.* 1884.] C. G. C.

BAGEHOT, WALTER. Born at Langport, Somersetshire, 1826, died at Langport, 1877. Bagehot was son of the managing partner of Stuckey's Bank who sent him to be educated at University College, London. After taking successively his B.A. and M.A. degrees at London University, with the highest honours, in 1846 and 1848, he read law, and was called to the Bar; but, after a visit to Paris, where he was living at the time of the *coup d'état*, in 1851, he decided to enter his father's bank. His stay in Paris gave occasion to a series of very brilliant letters on the political condition of France under the prince president (as Louis Napoleon was at that time entitled), which were published in the *Inquirer* newspaper. They were in effect an apology for the *coup d'état*. After Bagehot's death they were republished in an appendix to the *Studies on Literature*. These letters gave the first evidence of the rise of a new critic of high genius, a critic who will take his place far above Lord Jeffrey, and Lord BROUGHAM, and Sydney Smith—though in mere humour Bagehot, humorous as he was, would hardly compare with the last-mentioned—in relation both to political literature and belles-lettres. Indeed, in belles-lettres Bagehot will take rank with Matthew Arnold as one of the two most lucid as well as most discerning critics of that time. The essays which Bagehot contributed, first to the *Prospective Review* and then to the *National Review*, between 1853 and 1864, were not merely among the most brilliant, but among the most remarkable for wide intellectual survey and a detached literary judgment of any published in England during those years. In style they were remarkable equally for their gaiety, for the delicacy of their apprehensiveness, for the *savoir faire* of a man of the world, and for the impartiality of their personal estimates. It is difficult to say whether he wrote best on a theologian like Bishop Butler, on a sensitive poet like Hartley Coleridge, on a novelist like Sir Walter Scott, or on a great historian and essayist like Macaulay. Bagehot's style was buoyant, bright, and often eloquent, but there was always a certain dash of mockery in his eloquence, and a large infusion of seriousness in his mockery. In 1858 he married the eldest daughter of James WILSON, editor of the *Economist*, and two years afterwards succeeded his father-in-law in the editorship of that paper, retaining the post till his death in 1877. He was universally regarded as one of the best financiers of his day, and was consulted by successive chancellors of the exchequer on all critical occasions.

The special service which Bagehot sought to render to economics may be roughly described as the reconciliation of it with history. He was not himself able to perfect this work; but he has stated the needs of the case clearly, and has pointed the way to a solution of its difficulties. "The great want of our present political economy" (he says in the preface to *Universal Money*, 1869) "is that some one should do for it what Sir Henry Maine has done so well for ancient law. We want some one to connect our theoretical account of the origin of things with the real origin." Simple definitions come first in the text-books; but, as in physics, the actual commencements in history and experience have been much harder and odder. Banks, for example, are now part of a refined mechanism of credit, but they were first invented to supply a verified and trustworthy money for traders (*Universal Money*, p. xv. *seq.*)

No economical writer shows clearer consciousness of the enormous difference between the present conditions of European commerce and the conditions of life and industry among our rude forefathers; or, at the present day, among barbarous nations. He had always the twofold object before him—to perfect the abstract theory of political economy as applicable to the former, and to bring home to himself and his readers the existence of the latter. An abstract DEDUCTIVE METHOD seemed to him indispensable from the very complexity of the subject; but it was to be applied only to the study of the peculiarly modern "large commerce," which he loved to contrast with the simple industry of primitive men. Epigram, however, even more than antithesis, was his strength, if sometimes his snare. He was never at a loss for words, and he had a "gay wisdom," absent from economical writing since Perronet THOMPSON. He can hardly be taken quite seriously when he complains that MONTESQUIEU, HUME, and Adam SMITH would have written more profoundly if the public for whom they wrote had not been so intolerant of dulness (*Econ. Stud.* p. 131).

Political economy, as he understands it, is not "a questionable thing of unlimited extent,

but a most certain and useful thing of limited extent" (*Econ. Stud.* p. 21). It is "a convenient series of deductions from assumed axioms which are never quite true, which in many times and in many countries would be utterly untrue, but which are sufficiently near to the principal conditions of the modern world to make it useful to consider them by themselves" (*Econ. Stud.* p. 157). Bagehot considers himself the last man of the ante-Mill period (*ibid.* p. 215); he thinks that J. S. MILL "widened the old political economy either too much or not enough" (pp. 19, 20). If he meant to carry on what Adam Smith and RICARDO had begun, and to give a theory of modern large commerce only, he has given us too much; if he meant to give a theory applying to all societies, "advanced" or not, he has given us too little. Bagehot had almost unbounded admiration for Ricardo, with whom, as at once business man and abstract thinker, he had many points of affinity. "The true founder of abstract political economy is Ricardo" (p. 151). Adam Smith discovered the country but Ricardo made the first map (p. 18). Ricardo, it is true, dealt in abstractions without knowing them to be abstractions, and fancied them the real things (p. 157). But it is by the method of Ricardo that Bagehot would build up the science. Two rival methods he mentions only to reject. The first is the "All Case Method," recommended by some theorists of the historical school, who tell us that before we begin to reason we must have "a complete experience." We might as well (says Bagehot) demand a complete record of human conversation as demand a complete record of commercial facts (*Econ. Stud.* pp. 11-14). The second rival method is the "Single Case Method," the advocates of which recommend that each group of facts, *e.g.* a commercial panic, be analysed separately on the merits, without any preliminary theory. But you might as well (says Bagehot) attempt to explain the bursting of a boiler without knowing the theory of steam. On the other hand the mathematical method (*ibid.* p. 15) of Professor JEVONS and Professor WALRAS is too abstract for him (pp. 15, 16); he hints that it explains *obscurum per obscurius* (p. 77). He thinks (with the later rather than the earlier economists) that definitions must (very much, it may be added, as in Law) adapt themselves to the subject matter (p. 49).

His own definitions of wealth—(p. 81) and capital (pp. 49, 50) for example are on the whole on the old lines. Incidentally, in dealing with "Adam Smith and our modern political economy," he gives us his idea of what a treatise on political economy should contain. It should (he says) answer four questions—(1) What is the cause which makes one thing exchange for more or less of other things? (2) What are the laws under which that cause acts in producing these things (the laws, namely, of population and capital)? (3) If these things are produced by the co-operation of many people, what settles the share of each of those people in those things or in their proceeds (the laws, namely, of distribution)? (4) If this co-operation costs something, who is to pay that cost, and how is the payment to be levied (the theory of taxation)? (*Econ. Stud.* pp. 99, 100.)

In considering his own answers to these questions we have to make some allowance for the incomplete state of much of his published writings. He had begun in the *Fortnightly Review*, 1876, a series of essays ("The Postulates of Political Economy") which were to have developed into three distinct volumes on political economy (see prefatory note to *Economic Studies*). The first was apparently to include the abstract theory and the complementary comparison with primitive life, the second a criticism of the works of previous economists, and the third a biographical sketch of them. Though he never carried out the whole plan, he has left us specimens of his work in all its three sections. The biographies include "Adam Smith as a Person," which is in his best manner. The criticism of previous economical work is acute; but, in the case where it is most elaborate (DEMAND and SUPPLY, and COST OF PRODUCTION), it results (as he himself says of Adam Smith's reasonings) not in the "establishment of coherent truths," but in "a rough outline of sensible thoughts" (*Econ. Stud.* p. 119). His criticism (p. 138 *seq.*) of the theory of population is hardly consistent with his own general account of economical laws (*e.g.* p. 76). Like his father-in-law he was perhaps stronger in presenting the *axiomata media* than the first principles (*Literary Stud.* pp. 374, 375). He was one of the first economists in England to recognise the importance of the idea of development (which to him meant Darwinism) for social and economic theories; yet in most cases he is more careful to dwell on the contrast between the old and the new than to show how the one passed into the other or how the phenomena of the one shed light on the phenomena of the other. In one case, BARTER, where he has done the last very skilfully, his own results might have suggested to him the possibility of an abstract economical theory, even of exchange, by no means confined, as he has confined it, to the facts of the "great commerce" (*Econ. Stud.* p. 102). His conception of the process of mediating between the two extreme stages of culture, or in other words, passing from the "pre-economic" to the "economic age," is given in outline in his *Physics and Politics*, in which book (as even in the "Letters on the Coup d'État," and the pamphlet on "Parliamentary Reform") he shows the bent of his mind in his preference for economical illustrations, and his special note of the economical aspects of the subject in hand. Towards the

working classes and TRADES UNIONS he was never hostile; but he was not demonstratively sympathetic. His sympathies lay with the capitalist-employers;—the people who "spend their minds on little else than on thinking whether other people will pay their debts" (*Econ. Stud.* p. 45) have seldom found a more brilliant spokesman. The book by which he will always be best known to economical students is undoubtedly *Lombard Street, a History of the Money Market.* No more vivid picture of "what they do in the City,"—no more perfect description of a "Single Case," was ever given; the author is "in the secret," and can vouch for the facts at first hand. The wonderful clearness of Bagehot's power of statement, his exact knowledge of the subject treated on, together with his firm grasp of economic theory have caused this volume to exert an influence which few books on a subject naturally so dry have possessed. The first sentence gives the key-note, "I venture to call this Essay 'Lombard Street,' and not the 'Money Market,' or any such phrase, because I wish to deal, and to show that I mean to deal, with concrete realities." The promise of this opening is abundantly fulfilled. The character of thought in the "City," the ceaseless movement of men and business, the reasons which led to our money market being arranged and worked as it is, the relative position of the Bank of England to the other banks, the results of Government interference with banking, are all treated with the vividness of one who felt every vibration of these varied currents in every fibre of his own life. The reform Bagehot recommended in the government of the Bank of England has not yet been carried out, but a proposal so original as the appointment of a permanent head to an institution which, since its formation, some two centuries since, has always been managed on the principle that the head should never be permanent, could hardly be expected to win acceptance on its first suggestion. Events since Bagehot wrote have shown more distinctly even than in his time the prudence contained in a proposal apparently so revolutionary. "Lombard Street," perhaps more than any other of Bagehot's works, shows how greatly Economic Science gains when those who are "conversant with its abstractions" are in "true contact with" the facts with which it deals. On the advantage the knowledge hence arising gives the economist, Bagehot not only wrote but constantly spoke during his life, with a vigour and an insistence which those who knew him will continually remember, and which those who read him will be able in some measure to appreciate. The papers on the "Depreciation of Silver" and on "A Universal Money" were also on a congenial subject. In the latter he advocated the farthing plan, or the reckoning of 1000 farthings instead of 960 to the English sovereign, thus making the sovereign equal to five dollars and the half-penny equal to the cent. This, he thought, would at least provide the Anglo-Saxon races with a common money of account.

In the volume on the *Depreciation of Silver*, Bagehot discusses the position of England, France, India, and the United States, in view of the falling gold price of silver in 1876.

The cause of the fall, in his opinion, was not an actually increased supply of silver but the apprehension of an increased supply, together with the inconstant proceedings of the German and French governments (pp. 51, 52). He lays stress on the fact that Indian prices have not risen in response to the fall (p. 54, etc.) Yet he refuses all remedies but *laissez-faire*; we must simply give silver a free course, and in the end the prices will rise in India, and the previous condition of trade and finance there will be restored (*Depreciation*, pp. 40, 55, etc.) Changes in currency should never be introduced except when trade is in its normal condition (p. 113). In regard to BI-METALLISM he deals far too hastily with the arguments which tell in its favour as an abstract theory; he scouts it both as an abstract theory and as a practical measure (*Depreciation*, pp. 11, 12, 13, 37, 110 *seq.* to 118). So in the papers on "Universal Coinage" he says bluntly: "The French coinage is based on a double standard, which is absurd" (p. 23). "The French is a symmetrical embodiment of imperfect principles; the English, a confused embodiment of the best principles" (p. 27). From his attitude to these and not a few other questions, Bagehot might be fairly set down as one of the last economists of the ante-Jevons period.

Perhaps the most complete of Bagehot's works was the study of *The English Constitution*, which has been used as a text-book both at Oxford and in several of the universities of the United States, and translated into German, French, and Italian. He preferred very much the English constitution, with that complete fusion of the legislative and administrative powers which was effected by the relation of the cabinet to the House of Commons, to the American constitution with its careful separation of legislative and administrative powers, an arrangement which, in his opinion, resulted in making the people indifferent as to their choice of representatives who were so carefully restrained from exerting any dominant influence over the actual executive. Bagehot attached great importance to what he called the ornamental parts of the constitution, namely the throne and the House of Lords. Not that he regarded them as essential elements in the action of the state, but that he thought that without them the people of the United Kingdom would be far more restless, far more unwilling

to submit to political guidance, far more disposed to interfere mischievously in arrangements which they do not really understand. The "ornamental parts" of the constitution contributed, in his opinion, greatly to the safety of the whole, as they disposed the English people to defer to the opinions of the prosperous and wealthy classes, and to be on their guard against violent and needy adventurers. The whole discussion of the theory of the cabinet, as a constituent element in political philosophy, is of the highest value.

["Letters on the Coup d'État of 1851," written to the *Inquirer* (Unitarian organ), 1852, and reprinted in vol. i. of *Literary Studies.*—*Parliamentary Reform* (review of Newmarch on Electoral Statistics) reprinted, with additions, from *National Review* (Chapman and Hall, 1858).—*History of the Unreformed Parliament* (also from *National Review*).—*Estimates of some Englishmen and Scotchmen*, 1858, written for the *Prospective Review* and *National Review* and in great part reprinted in *Literary Studies* and *Biographical Studies.*—Many Articles in the *Economist*, 1860 to 1877.—*Physics and Politics, or Thoughts on the Application of the Principles of Natural Selection and Inheritance to Political Society*, 1872 (Internat. Scient. Series). (In the German translation (1874) this figures as *Ursprung der Nationen*).—*Lombard Street, a Description of the Money Market*, 1873.—Various Articles in the *Fortnightly Review, e.g.* "Postulates of Political Economy," Feb. and May 1876. See *Economic Studies.*—*The English Constitution*, 1867 (enlarged, 2d ed., 1872).—*International Coinage. A Practical Plan for Assimilating the English and American Money as a Step towards a Universal Money* (reprinted from the *Economist*) 1869, 2d ed. 1889.—*On the Depreciation of Silver* (from the *Economist*, 1876), 1877.—*Literary Studies* (with a biography of the author), ed. by R. H. Hutton, 2 vols., 1879.—*Economic Studies* (same editor), 1880.—*Biographical Studies* (same editor), 1881. (See also Ingram's *History of Political Economy* (1888) pp. 223 *seq.*; *Political Economy in England*, by L. L. Price, London, 1891, ch. vi., for remarks on Walter Bagehot's position as an economist.)]

BAILEE. A person to whom the goods of another are entrusted, either for custody or for other purposes. The most conspicuous class of bailees consists of the so-called common carriers of goods, viz. railway companies, steamship owners, and others whose business it is to carry goods from one place to another. They are subjected to a particularly stringent liability for the safety of the goods, but as a general rule bailees are liable for those losses only which occur in consequence of their negligence. A bailee who takes goods into his custody without being rewarded for doing so is called a gratuitous bailee.

BAILEY, SAMUEL, was born in 1791, the son of a Sheffield merchant, was elected a town trustee in 1828, and became known as the "Hallamshire Bentham." Failing to be elected as M.P., he applied himself to local affairs, and left, when he died, 18th January 1870, over £80,000 to Sheffield. Besides some political pieces, he wrote—

A Critical Dissertation on the Nature, Measures, and Causes of Value, London, 1825, 8vo (a remarkable little volume, pointing out the inconsistencies of RICARDO, J. S. MILL, and DE QUINCEY in their theories of value).—*Letter to a Political Economist*, London, 1826, 8vo (reply to a notice of the previous work in the *Westminster Review*).—*Money and its Vicissitudes in Value as they affect National Industry*, London, 1837, 8vo.—*Defence of Joint-Stock Banks and Country Issues*, London, 1840, 8vo. H. R. T.

BAILEY, SAMUEL, ON VALUE. Bailey's "dissertation" on the theory of value requires separate notice. Known in metaphysics by his attack on BERKELEY'S theory of vision, Bailey plays a similar part in economics, objecting to subtleties sanctioned by authority. Defining value as nothing positive or intrinsic, but merely the relation in which two objects stand to each other as exchangeable commodities, Bailey controverts through several chapters RICARDO'S theory of real value and its corollaries. Bailey refuses to admit the antithesis of real and nominal value (*Critical Dissertation*, ch. ii.), the possibility of comparing the value of commodities at different periods (ch. v.), the Ricardian formula that the value of A in relation to B "depends on the comparative quantities of labour necessary for the production of it and B, and not on the greater or less compensation which is paid for that labour" (*ib.*), the distinction between value and riches (ch. ix.), and any measure of value of the sort desiderated by MALTHUS (ch. vii. *et passim*). Malthus, severely criticising the *Critical Dissertation* (*Definitions*, ch. viii.), contends that the writer, by his too narrow definition of value as relating to some definite thing, has missed the essential idea of value in relation to things in general. Upon Bailey's principles, "we must on no account say that butter has been rising during the last month." The controversy is now of some practical importance, as it has a bearing upon recent proposals for determining the variation in the value of money (in relation to things in general) by a TABULAR STANDARD or INDEX NUMBER (*q.v.*) in particular that standard which is based on wages. Of more purely historical interest are other observations, new perhaps when made (1825). Criticising Ricardo, Bailey disentangles different senses of profits (ch. iv.) He classifies valuables much as J. S. MILL (*Pol. Econ.*, bk. iii. ch. ii.); and remarking on the class of commodity which "admits of being increased by industry and competition, but only at a greater cost," observes—"The extraordinary profit out of which rent arises is analogous to the extraordinary remuneration, which an artisan of more than common dexterity obtains beyond the wages given to work-

men of ordinary skill" (ch. xi. p. 197). He complains that the Ricardians "attempt to give the science an air of simplicity which it does not possess." "Why persist in calling quantity of labour the sole determining principle of value" (*ib.* p. 217); instead of "the more accurate proposition that it is the principle cause" (p. 232). "What should we think of an assertion that coats are to each other in value as the quantities of cloth contained in them" —with the addition "that due allowances must be made for the different qualities of the cloth?" (p. 211). DE QUINCEY (*q.v.*) in his *Logic of Political Economy* has replied to Bailey (see RENT). F. Y. E.

BAILY, FRANCIS, was born at Newbury in Berkshire, 28th April 1774, and went on the London Stock Exchange, 1799. He helped to found the Royal Astronomical Society, and retired from business in 1825 in order to devote himself entirely to astronomy. His revision of star catalogues ranks him among the greatest of modern benefactors to that science. He died 30th August 1844. Among other books he wrote—

The Doctrine of Interest and *Annuities*, London, 1808, 4to.—*The Doctrine of Life Annuities and Assurances*, London, 1810, large 8vo; again in 1813, 2 vols. 8vo, with Appendix, new edition, enlarged, by H. Filipowski, Liverpool, 1864, 8vo (the best work on the subject when first published, and still useful; French translation by A. de Courcy, 1836, 8vo).—*Account of the several Life Assurance Companies in London*, 2d ed., London, 1811, 8vo (reprinted from the foregoing).—*Tables for the Purchasing and Renewing of Leases*, London, 1802, 3d ed., 1812, 8vo. H. R. T.

BAINES, EDWARD, 1774-1848, descended from a family of Yorkshire yeomen, and at first apprenticed to the printing trade, became (1801) editor and proprietor of the *Leeds Mercury*, which became under him the leading Whig paper in Yorkshire. COBBETT (*Manchester Lectures*, 1832), calls him "the great oracle of the North." He was a zealous social reformer. In 1834 he succeeded Macaulay as one of the two members for Leeds, retiring in 1841. He wrote brief histories and gazetteers of the counties of York and Lancaster; his chief work being a standard *History of the County Palatine and Duchy of Lancaster* (Fisher, Son, and Jackson, London, 1836). He was also the author (aided very largely by his son Edward) of a *History of the Wars of the French Revolution* (2 vols. 4to, 1817), which was expanded after the close of the reign, by the addition of two volumes, into a *History of the Reign of George III.* (London, 1823). He visited OWEN at New Lanark in 1819 with OASTLER and Cawood, and helped to institute at Leeds a home colony on Owen's model. See *Life of Edward Baines*, by his son Edward Baines, London, 1851. J. B.

BAINES, SIR EDWARD, (1800-1890), second son of the preceding, is best known by his *History of the Cotton Manufacture* (1835), which was originally written for his father's history of Lancashire, but expanded and separately published on the suggestion of M'CULLOCH (*Edinburgh Review*, No. 117). He wrote in 1826 a letter *To the Unemployed Workmen of Yorkshire and Lancashire on the Present Distress, and on Machinery*, published first in the *Leeds Mercury*, and afterwards, by order of the magistrates, very largely circulated as a tract through the manufacturing districts, and which was held to have had the happy effect of settling the minds of many whose opinions had been wavering. In the year 1843 he published *Three Letters to the Right Hon. Lord John Russell*, entitled "Reasons in favour of Free Trade in Corn, and against a Fixed Duty." In the same year he wrote *Two Letters to Sir Robert Peel on the Social, Educational, and Religious State of the Manufacturing Districts* (1843)—a criticism of the school clauses in Sir James GRAHAM'S Factory Educational Bill, from the point of view of a Nonconformist, and as being too unreservedly in the interest of the employers. He succeeds in showing that the charges of depravity and ignorance made against the manufacturing districts of the north were largely exaggerated, and could in any case have been brought with equal justice against the agricultural districts of south England. In 1846 he wrote a series of twelve *Letters to the Right Hon. Lord John Russell* on the subject of the resolutions which resulted in the system of grants under the committee of the privy council on education, bearing on the analogy between "government protection to *industry* and government protection to *mind*,"—sifting the statistical evidences on which the proposals were based, both as to the actual position at home and the comparison with the conditions of the people. The results of various state systems of education on the Continent of Europe and in the United States. These and other letters were collected into a volume and published by a company in London for "cheap circulation" (1847). Again in 1871, as chairman of the educational department of the Social Science Association, at its annual meeting in Leeds, he delivered an address, subsequently published in London, *On the Position and Prospects of National Education.* In 1823 the first mechanics' institution in England was established; and in 1837, on the formation of the Yorkshire Union of Mechanics' Institutes, Baines was elected president, and for more than fifty years, in his annual addresses from the chair, he reviewed the position of scientific and technical education in this country (see Annual Reports of the Yorkshire Union of Mechanics' Institutes). In 1858, as president of the section of economic science and statistics at the annual meeting of the British Association for the Advancement of Science, at Leeds, his address was "On the Woollen Manufacture of

England, with Special Reference to the Leeds Clothing District," and it was published both in the report of the British Association and in the *Journal of the Statistical Society of London*, March 1859. He represented Leeds as a Liberal in the House of Commons from 1859-74, he took a leading part in modifying the proposals for taking the CENSUS for 1861, and notably against a census of religious opinions. He brought in a Borough Franchise Bill in 1861, and on moving the second reading (10th April), he traced the progress of the country, and notably of the working classes since 1831, in education, in providence, in temperance, and in morality; illustrating these, too, by the growth and the improved character of our periodical literature. The speech was said by Mr. Gladstone to have added a new chapter to the social history of the country. It was published in London under the title of *Progress and Reform*, 1831 and 1861.

BAINES, THOMAS, younger brother of Sir E. Baines (1806-1881), wrote on the *History of the Town and Commerce of Liverpool* (1852), On the *Agricultural Resources of Great Britain, Ireland, and the Colonies*, 1847, and on the *Present State of the Affairs of the River Plate*, 1845. J. B.

BAIRN'S PART OF GEAR. See LEGITIM.

BAKOUNIN, MICHAEL (1814-1876), the founder of anarchism, began life as a Russian artillery officer. Stationed in Poland, he conceived a disgust at the repressive measures he saw in force there, resigned his commission, and devoted himself to the study of philosophy at Moscow. He went to Germany about 1846, and became a Hegelian. In 1847 he was at Paris, and made the acquaintance of PROUDHON. Expelled from France, he returned to Germany and took a prominent part in the Dresden insurrection of 1849, for which he was condemned to imprisonment for life. He was handed over to the Russian authorities, and confined in the prison of SS. Peter and Paul at St. Petersburg for eight years. Then, in 1857, he was exiled to Siberia, whence he soon managed to escape to Japan. After passing through America and England he established himself in Switzerland. His subsequent history will be found under ANARCHISM (*q.v.*) He died at Berne 2d July 1876.

[É. de Laveleye, *Le Socialisme Contemporain*, 3me éd. 1885, pp. 227-239.] E. C.

BALANCE OF TRADE. "It often happens," says MILL, referring to the supposed mercantilist views on money, "that the universal belief of one age of mankind" "becomes to a subsequent age so palpable an absurdity that the only difficulty then is to imagine how such a thing can ever have appeared credible." It is generally found, however, on investigation that the "palpable absurdity" formed but a minor part of a system the rest of which is forgotten, but which, as a whole, was, in the historical conditions of the case, not unreasonable. This is true especially of the doctrine or policy of a "favourable balance of trade." From the modern point of view we take it as axiomatic that, apart from other international obligations such as tributes and the like, exports must over a term of years pay for imports. No nation, it is held, can go on receiving from other nations quantities of real wealth, actual consumable commodities, without giving something in return. But the store of precious metals, and even the power of incurring debt, or of paying by previous commutations, would soon be exhausted with a constantly adverse balance, and accordingly produce must pay for produce, taking the term in its most general sense (cp. H. Sidgwick, bk. i.), so as to include services, freights, etc. It is further argued that if a nation were to attempt to import more than its normal exports could pay for, there must soon be a drain on its money, and then directly or indirectly, by the QUANTITY THEORY (see MONEY), prices would fall. This fall would stimulate exports and place a check on imports until the balance was again restored. Under a system of approximately perfect competition it follows from the very nature of money that all EXCHANGE is ultimately BARTER, and that the flow of the precious metals from country to country is an effect and not a cause of the direction and extent of its foreign trade. A nation will always obtain under such a system enough of the precious metals to keep its prices at such a level that its exports will just pay for its imports; in other words, that the balance of trade will, if time is allowed for adjustment, be even. Accordingly nothing can seem more absurd, so far as trade is concerned, than for a government to attempt to get a permanent and constant excess of EXPORTS over IMPORTS in order that a balance may be due on the precious metals. For by a converse train of reasoning the effect of such an influx would soon be a rise in prices and a check on exports and a stimulus to imports until the natural rate of exchange was restored. Thus from the modern point of view the policy of attempting to obtain a favourable balance (or excess of exports) in order to obtain money seems not only palpably absurd, but on analysis quite impossible.

Yet in its origin this peculiar importance attached to the PRECIOUS METALS was by no means an absurdity, and the regulations intended to increase the amount of money in the country to a great extent achieved their object. In the Middle Ages we find the germ of the balance of trade system in what was very happily styled by JONES the balance of bargain system (Jones, *Political Economy*, edit. by WHEWELL). [Compare MERCANTILE SYSTEM; COMMERCIAL SYSTEM]. According to this primitive method the state, through its officials, attempted on every

bargain to obtain a balance in money (of silver or later on of gold). Thus, with certain material imports a certain amount of money must be brought in; the foreign merchant who came to the country to sell was obliged to "employ" the money he obtained in the purchase of English wares; the organisation of the STAPLE was used to the same end, and, in short, all kinds of devices by way of prohibition and encouragement were adopted so as to obtain a favourable balance in money. There can be little doubt (compare Schanz, *Englische Handels-Politik gegen Ende des Mittelalters*, etc.; Jacob's *History of the Precious Metals*; Jones, *op. cit.*) that this policy was at any rate partially successful, and that the country obtained more money than it otherwise would have done. But not only was this policy, to some extent at least, practicable, but under the historical conditions it appears to have been justifiable. In the Middle Ages CREDIT was almost unknown, and the rudimentary forms which appeared were strangled by the wide-reaching laws and adverse public opinion on interest. As a consequence there was often a real dearth of the precious metals, in a sense that to us is almost unintelligible. At the same time also it must be observed the whole economic progress of the mediæval period was bound up with the commutation of services and payments in kind into money payments (compare T. ROGERS on SCUTAGE in *Six Centuries of English Work and Wages*). Thus any scarcity of money was a real evil involving very real burdens, and it was good policy to obtain a favourable balance because money was a peculiarly important part of the fixed capital of the nation. In process of time the balance of bargain system gave place to the balance of trade, and nations took the place of individuals (see COMMERCIAL SYSTEM). Adam SMITH had no difficulty in showing that before his time this system had become antiquated and useless because the natural course of trade gave a sufficiency of money, and the accumulation of treasure was not desirable (even if possible) for furthering foreign policy. Money, in fact, had already lost its peculiar importance, and it was easy to show at any rate that if a favourable balance was desired, one country must be compared with the rest of the commercial world, and that the best policy was to buy in the cheapest and sell in the dearest markets, independently of the particular balance with individual countries.

Reverting to the modern position, it must be noticed that exports and imports form only a part (though with this country the most considerable part) of the international indebtedness (for a complete enumeration of items see Goschen's *Foreign Exchanges*, ch. iv.) There must also be taken into account "invisible" exports, such as freights, commissions, loans, expenses of government or individuals abroad, tributes, interest, etc. It must be noted also that so far as the influx or efflux of the precious metals is concerned, it is not the permanent indebtedness but the need of payment at a particular time which is of importance. Thus the balance of indebtedness may for the time being be in favour of a country that is hopelessly insolvent (compare COMMERCE).

In conclusion it may be observed that even under modern conditions sometimes it is of real importance to the nation as a whole to have a favourable balance, or at least to be able to brave an unfavourable one, in other words, to check a drain of gold. In normal conditions the existence of a favourable balance (or a state of indebtedness in which money is due to the country) would simply mean that importers of foreign goods can obtain exporters' bills at a cheaper rate than usual owing to their relative abundance, so that favourable is construed relatively to importers, the same state of things being adverse to exporters, and practically indifferent to the nation at large. But at certain times a foreign drain becomes sufficiently serious to threaten the stability of the banking system of the country, and in technical language the "exchanges must be corrected." This can only be done, as a rule, either by effectively raising the rate of discount or by affecting the trade balance through checking imports and increasing exports (see EXCHANGES, FOREIGN; DRAIN OF BULLION). Apart from this occasional effect of an adverse balance from the banking point of view, the principal point to observe is the rightful interpretation of the causes of a certain purely trade balance. Thus for many years the imports into England of commodities have exceeded the exports, whilst with India the converse is the case. The explanation is to be found in the other elements of international indebtedness. It is a great error to argue at once that because there is an excess of imports the nation is practically living on its capital, for the other items in the account, especially interest on foreign investments and payments of freights, must be considered (see Sir R. Giffen, essay on "The Use of Import and Export Statistics" in *Essays on Finance*).

[For the historical treatment of the question compare Schanz, *op. cit.*, and Adam Smith's *Wealth of Nations*, bk. iv.—List, *National System of Political Economy*. The theory is given in all the text-books, but special attention may be called to Prof. Bastable's *International Trade*.]

J. S. N.

BALANCE OF TRADE (HISTORY OF THE THEORY).—The views of the earliest popular economists of England on the best manner of enriching the nation agree with the measures taken by the legislature and with the balance-of-bargain system, as enforced by the statutes of employment. "The holl welthe of the reame is for all our riche commodites to gete

owt of all other reamys therfore redy money; and after the money is brought in to the holl reame, so shall all peple in the reame be made riche therwith." (Clement Armstrong, *A treatise concerninge the Staple and the Commodities of this Realme*, 1530, ed. Pauli, pp. 32, 61).

But when the English merchants had broken down the power of foreign COMPANIES and had formed companies of their own, they sought after a rule by which to ascertain what advantages the regulation of commerce afforded to the nation taken as a whole. Even during the prevalence of the balance-of-bargain system, a rough rule for the policy on which the coinage should be based had been given by an officer of the mint, Richard Aylesbury, who thought that "provided the merchandise exported from England was properly regulated, that is, if no more of foreign commodities were allowed to be imported than the value of the native commodities which should be taken out, the money in England would remain, and great plenty would come from beyond the seas." *Rolls of Parliament*, vol. iii. p. 126; in Ruding, *Annals of the Coinage*, vol. i. p. 241. These views, put forward in 1381 by Richard Aylesbury, contrary to the then prevalent opinion (Cunningham, *Growth of English Industry and Commerce, Early and Middle Ages*, 1890, p. 354), were formulated anew and with success by the anonymous author of "A Discourse of the City of London." He shows that the increase of prices, which followed the influx of the precious metals from the West Indies had induced the gentry to "play the fermours, grasiars, brewers, or such like." This mercantile spirit must be guided by the experience of the merchant's daily practice. England being in need of foreign commodities, and having no mines of its own, "it followeth necessarily, that if we follow the councel of that good old Husband Marcus Cato, saying, 'oportet patrem familias vendacem esse, non emacem' and do carrie more commodities in value over the seas, then wee bring hether from thence: that then the Realme shall receive that Overplus in Money" (*A Discourse of the Names and First Causes of the Institution of Cities, and peopled Towns; and of the Commodities that do grow by the same; and namely of the City of London*, etc. (about 1578), in Stow's *Survey of London*, 1598, p. 450). William STAFFORD accepted these principles, adding, that the imported commodities should be "most apte to be either carried for or kepte in store," and he praised the bailiff of Carmarthen, who had forbidden a ship freighted with oranges to sell them (*A Compendious and Brief Examination*, ed. 1581. New Shakspere Soc. Ed., pp. 50, 54, 57). This rule of commercial politics has been accepted by John WHEELER (*A Treatise of Commerce*, 1601, pp. 7, 8) and by Gerrard de MALYNES, who seems to have suggested the name of balance, saying that the prince should not suffer "an overbalancing of forreine commodities with his home commodities, or in buying more then he selleth." *A Treatise of the Canker of England's Commonwealth*, 1601, p. 2. The underbalance of trade and the consequent scarcity of money he ascribed to the "undervaluation of our Money in Exchange," effected by the practices of the bankers. His erroneous ideas and those of Thomas MILLES concerning "merchandising exchange" (*The Customer's Replie*, 1604) were attacked by Edward MISSELDEN, who hoped to remedy this undervaluation of the coin by "raising" it (*Free Trade or the meanes to make Trade florish*, 1622, pp. 103-105), similar views being expressed in the parliament (*Parl. Hist.* i. 1195); he calls, however, the balance of trade "an excellent and politique invention, to shew us the difference of waight in the commerce of one kingdome with another in the scale of commerce" (*The Circle of Commerce, or the Balance of Trade, in defence of Free Trade*, by E. M., 1623, pp. 116, 117). He considers poverty and prodigality as the causes of the present underbalance, the Dutch at once growing rich by manufactures and restraining the home consumption (pp. 132-135). These opinions were generally accepted even by Fras. BACON (*Letter of Advice to George Villiers*, 1616; *Letters and Life*, ed. Spedding, vol. vi. pp. 22-49, and *History of Henry VII.* Works, vol. vi. p. 223), and King James I. (*Parl. Hist.* vol. i. p. 1179). As stress was laid upon the profit of exportation of manufactures, the uselessness of the prohibitions of the exportation of money and bullion became more and more evident. Commercial states like Tuscany and Holland, allowing its free exportation, grew rich, while those forbidding it, like Spain, became impoverished. This point was clearly elucidated by Lewes ROBERTS, *The Treasure of Traffike*, 1641, p. 77, and the whole doctrine, including the views on exchange as a symptom, not as an agent of trade, as Malynes had maintained, was most systematically explained by Thomas MUN in his posthumous treatise *England's Treasure by Forraigne Trade; or the Balance of our Forraigne Trade is the Rule of our Treasure*, 1664, who in his *Discourse of Trade* (new ed. 1621) had still advocated the statutes of employment. To him therefore the honour of its invention has often been ascribed. The obstacles to trade were for the most part caused by fiscal motives, and the Commonwealth sought to stimulate the exportation of English commodities by the Act of Navigation. The balance of trade was thought to be advantageous: by fetching the commodities from the immediate places of their production and by sending them to their best market, where they yield the greatest price, but above all by the cheapness of the exported manufactures and the reduction

of the price of labour (*The Advocate: or a Narrative of the State and Condition of Things between the English and Dutch Nation*, ed. 1651.) This programme was supported by the greatest economists of the end of the 17th century like PETTY, TEMPLE, LOCKE, having all the tendency to overwhelm the Dutch power, Another body of practical men inquired into the advantage of some special trades, among which the French and East India trade was found ruinous, as absorbing money and bullion, and giving in its stead but wines or spices. To these at a later date acceded the fear of Irish competition in the matter of wool. This pessimistic series of writers begins with S. FORTREY'S *England's Interest and Improvement*, 1663 ; the author of *Britannia Languens*, 1680, and J. POLLEXFEN, *England and East India Inconsistent in Their Manufactures*, 1697, were its foremost champions. The commercial treaty with France in 1713 was a new matter of complaint. In the *British Merchant*, all the arguments against the underbalance are restated by Sir Theodore JANSSEN in his *General Maxims in Trade*, 1713, and by Joshua GEE, who afterwards put forward his views in *The Trade and Navigation of Great Britain consider'd*, 1729. "His writings," says HUME, "struck the nation with an universal panic, when they saw it plainly demonstrated that the balance was against them for so considerable a sum as must leave them without a single shilling in five or six years." Nevertheless, the creed of the balance of trade was shared not only by CANTILLON and Sir J. STEUART, bk. ii. ch. xv., but even by free-traders like Thomas Gordon, *The Nature and Weight of the Taxes of the Nation*, 1722, VANDERLINT, *Money answers All Things*, 1734, and the author of *An Essay on the Causes of the Decline of Foreign Trade*, 1743.

For some time, however, the belief in the doctrine had been shaken, partly by traders whose interest it was to refute its postulates, partly by the impossibility of giving the exact statistical statement of the balance, partly by the doubts raised by superior thinkers. One of the first, it seems, was the author of *Free Ports, the Nature and Necessitie of them Stated*, B. W., 1652. "All consultations whatsoever about trade, if free ports bee not opened and this wholesale or general trade bee not incouraged, do still but terminate in som advice or other about regulating our consumption ; and have no other good at farthest, but preventional, that our Ballance of Import exceed not our Export: which to confine ourselves to alone, is, on the other side a cours to short, as it will neither serv to rais the Strength of this Nation in shipping, or to Govern the Exchange abroad" (p. 8). But the first thorough refutation was given by Nicholas Barbon in 1690 and 1696 (see BARBON), and his influence is to be traced in the writings of Sir Dudley NORTH (*Discourses of Trade*, ed. 1691), who calls, evidently in reference to it, the balance of trade one of the current "politick conceits in trade ; most of which Time and better Judgment hath disbanded." The increase of manufactures had in opposition to the former opinion that "trade was the source of national riches" made way to the doctrine that the employment of population and labour was the primitive enriching power. "Land and labour," says therefore John BELLERS, "are the foundations of riches, and the fewer Idle Hands we have the faster we increase in value ; and spending less than we raise is a much greater certainty of growing Rich than any computations that can be made from our Exportation and Importation" (*Essays about the Poor*, 1699, p. 12). These views, though far more mingled with mercantilist beliefs, were upheld by the author of *The Advantages of the East India Trade to England consider'd* (1701 and 1720), who pointed out, that the only rule of foreign trade should be "to get a greater for a less value," and by DE FOE, who while refuting the authors of the *British Merchant*, declared himself to be "a profess'd opposer of all fortuitous calculations, making estimates by guess work of the Quantities and Value of any Trade or Exportation" (*A Plan of the English Commerce*, 1728 (2nd ed. 1737, p. 232). This confession and the doubts raised by Bishop BERKELEY in his *Querist* (1735), Queries 555, 556, whether the rule of the balance of trade held always true, and whether it admitted not of exceptions, were indeed nothing new. For even DAVENANT, originally much devoted to these estimates (*Of the use of Political Arithmetic*, 1698, Works, vol. i. pp. 146-148), declared himself afterwards convinced that they were inaccurate for many important trades (*A Report to the Commissioners*, 1712, Works, vol. v. p. 382). Sir Josiah CHILD also stated, as Berkeley did, that by means of smuggling, and furthermore in the case of countries whose income was consumed by absentees, like Ireland, exports could exceed imports without enriching the people (*A new Discourse of Trade*, 1690, ch. ix.) The doubts which all these expressions of opinion fostered, paved the way for the overthrow of the system. This was accelerated by the flourishing state of English trade, which continued to prosper through the 18th century notwithstanding all the predictions of evil expressed by the balance-of-trade theorists.

The successful onslaught on the system made by Hume in his *Essays* (1752) is now a matter of history. In these he restated Barbon's assertion that an equivalent must be paid in an export for every import received. Hume's refutation of the balance-of-trade theory had a considerable influence on the free trade doctrines of the PHYSIOCRATS and also upon Adam Smith. The latter, like Barbon, controverted the theory on this subject which was laid down by Mun

and by Locke. Adam Smith also, in the preference he gave to the home trade, and in his opposition to the mercantilist views, shows an inclination to incredulity in relation to the theory of foreign trade. The manner in which Adam Smith thus placed himself in opposition to the commonly-accepted opinions of his time explains the fact that his criticism of the theory of foreign trade obtained, when it first appeared, comparatively few adherents. Even PITT, while proving the success of his policy by the growth of exports, said, when the authority of Adam Smith was quoted against him, that he considered "that great author, though always ingenious, sometimes injudicious" (*Parl. Hist.* xxxiii. 562-3). The questioning, however, as to the complete applicability of the theory gradually extended as the 18th century waned. After the successful peace of Paris in 1763 the fear of a drain of specie began to spread in consequence of the growth of indebtedness to foreigners; and though the balance of trade seemed favourable, new doubts were expressed whether the values stated of the goods exported were accurate (*The Present State of the Nation*, 1769; by W. Knox, secretary to George Grenville, pp. 65-67). The observations of Burke on this occasion, though professedly designed to prove the balance to be favourable, are very acute. Though not allowing the statement as to the certificated goods for re-exportation to admit of error, he concedes the possibility for free goods, exported without drawback and bounty; he remembers that the costs of freight and the profits of the merchant are not taken into account, that in the balance of the Irish and West India trades import and export both refer to one nation, and he ridicules those who held that the foreign imports were a loss without even considering that part of it which enters into production. (*Observations on a late State of the Nation*, 1769, pp. 34-38. Also his *Letters on a Regicide Peace*, 1796, Works, vol. iv. p. 554). The refutation of the original theory of the balance of trade is justly ascribed to Adam Smith, and his predecessors in England, of whose principal works some notice has been given here. The work of Adam Smith was completed by Ricardo in his theory of international trade (see INTERNATIONAL TRADE; BURKE; ADAM SMITH; RICARDO) which has hitherto been the special domain of English economics.

[See Buckle's *History of Civilisation in England*, vol. i. pp. 210-212.—J. Janschull, *English Free Trade* (Russian) 1 part, Moscow 1876.—E. von Heyking, *Zur Geschichte der Handelsbilanztheorie*, Berlin, 1882.—W. Cunningham, *The Growth of English Industry and Commerce*, 1885, p. 362.—C. F. Bastable, *The Theory of International Trade*, Dublin, 1887, p. 164.—G. Schanz, *Englische Handelspolitik*, 1881.] S. D.

BALANCE-SHEET. The simplest form of balance-sheet which a trader can require is the following:—

BALANCE-SHEET of . 19 .

Assets.		*Liabilities.*	
Debtors on open account .	£4500	Creditors on open account .	£2750
Stock in Trade .	8250	Acceptances .	1250
Balance at Bankers	1250	Other Liabilities .	7000
Other Property	6000	Surplus or Capital	9000
	£20,000		£20,000

How much may depend, not only on the amount, but on the character of the various "assets" and "liabilities," is explained with great clearness in the *Country Banker* by Mr. George Rae, *Letter III.* on the "Testimony of a Balance-Sheet." Mr. Rae remarks on this: "A man's duly-certified balance-sheet is the one reliable voucher of his actual position; all other information that we can gain respecting him must be more or less at second hand and imperfect, and it may be delusive. But there is no mistaking the figures of an honest balance-sheet."

Mr. Rae writes especially from a banker's point of view, as a man in the habit of advancing money, sometimes in large sums, to traders, but the knowledge of what a man's own business position may be is often obscured even to himself by careless and slovenly book-keeping, and the habit of preparing an "honest" balance-sheet is essential to soundness of trade.

BALANCE-SHEET. (2nd statement.) A balance-sheet is a statement exhibiting the assets and liabilities of a concern, the capital invested in it, and the balance of profit and loss, or of income and expenditure, accrued to date of the account. If books of account are kept on a proper Double Entry System the debit and credit balances of the ledger will form respectively the credit (right hand) and debit (left hand) sides of the balance-sheet, and will agree in total. The capital of the concern will appear on the left-hand side, representing, subject to any balance of profit or loss, the excess of assets over liabilities. If the liabilities exceed the assets a balance of loss, which will more than absorb any capital, will appear on the right-hand side.

The term balance-sheet is sometimes erroneously applied to what are really statements of receipts and payments, as in the case of the accounts of charitable institutions; these last naturally and usefully take the form of a statement of income and expenditure for a period. No account covering a period of time, and not exhibiting the position of matters at a particular date, can properly be termed a balance-sheet.

A form of balance-sheet appended to the First Schedule of the Joint Stock Companies' Act of 1862 is a suitable one for such companies as have not special provisions with regard to the form of their accounts laid down in their articles of association. This form of account is as follows:—

Dr. BALANCE-SHEET of the Co. made up to 19 . Cr.

Capital and Liabilities.			£ s. d.	£ s. d.	Property and Assets.			£ s. d.	£ s. d.
I. CAPITAL.		*Showing:*			III. PROPERTY held by the Company.		*Showing:*		
	1.	*The Number of shares*				*7.*	*Immovable Property, distinguishing—*		
	2.	*The Amount paid per Share*					*(a) Freehold Land*		
	3.	*If any Arrears of Calls, the Nature of the Arrear, and the Names of the Defaulters*					*(b) ,, Buildings*		
	4.	*The Particulars of any forfeited Shares*					*(c) Leasehold ,,*		
						8.	*Movable Property, distinguishing—*		
II. DEBTS AND LIABILITIES of the Company.		*Showing:*					*(d) Stock in Trade*		
	5.	*The Amount of Loans on Mortgages or Debenture Bonds*					*(e) Plant*		
	6.	*The Amount of Debts owing by the Company, distinguishing—*					*The Cost to be stated with Deductions for Deterioration in Value as charged to the Reserve Fund or Profit and Loss*		
		(a) Debts for which Acceptances have been given			IV. DEBTS owing to the Company.		*Showing:*		
		(b) Debts to Tradesmen for supplies of Stock in Trade or other Articles				*9.*	*Debts considered good for which the Company hold Bills or other Securities*		
		(c) Debts for Law Expenses				*10.*	*Debts considered good for which the Company hold no Security*		
		(d) Debts for Interest on Debentures or other Loans				*11.*	*Debts considered doubtful and bad*		
		(e) Unclaimed Dividends					*Any Debt due from a Director or other Officer of the Company to be separately stated*		
		(f) Debts not enumerated above			V. CASH AND INVESTMENTS.		*Showing:*		
VI. RESERVE FUND.		*Showing: The Amount set aside from Profits to meet Contingencies*				*12.*	*The Nature of Investment and Rate of Interest*		
VII. PROFIT AND LOSS.		*Showing: The disposable Balance for Payment of Dividend, &c.*				*13.*	*The Amount of Cash, where lodged, and if bearing Interest*		
CONTINGENT LIABILITIES.		*Claims against the Company not acknowledged as Debts*							
		Monies for which the Company is contingently liable							

E. W.

BALBI, ADRIANO (an Italian Economist of the first half of the 19th century). Author of *Saggio di una statistica d'Italia*, published at Vienna in 1833. He was also the author of the following works :—

Bilancia politica del globo o quadro geografico-statistico della terra, Padova, *Zambeivari, coi tipi della Minerva* 1833.—*L'impero russo paragonato alle principali nazioni del mondo* (in French), Paris, 1829.—*La monarchia francese confrontata coi principali Stati del mondo* (in French), Paris, 1828.—*Quadro politico-statistico dell Europa, nel* 1820 (in French), Lisbon, 1820.—*Saggio statistico*

sul Regno di Portogallo, paragonato agli altri Stati di Europa (in French), Paris, 1822, 2 vols. in 8vo.—*Ragionamenti di statistica e geografia patria*, Milano, Civelli, 1845, in 8vo.—*Scritti geografici, statistici e vari, pubblicati da diversi giornali d' Italia, di Francia e di Germania, raccolti e ordinati per la prima volta*, Torino, 1841-42, 5 vols. in 8vo. M. P.

BALDWIN, Loammi, born in Massachusetts 1780; an eminent civil engineer; died 1838. In his *Thoughts on the study of political economy as connected with the population, industry, and paper currency of the United States* (Cambridge, Mass., 1809, pp. 75) Baldwin advocated, as a remedy for the evils of the irregular currency of the time, that the state banks be consolidated, and that the capital of the United States Bank be extended. He favoured internal improvements in his country, and displayed more than ordinary appreciation of the use of statistics; he also advised that the United States census of 1810 should include a record of births, deaths, and marriages. D. R. D.

BALSAMO, Paolo, born at Termini (Sicily) in 1763, died at Palermo in 1816. He was a priest who travelled for several years in Italy, France, and England. In England he became a friend of Arthur Young, from whom he learnt a great deal. Arthur Young published some of the writings of Balsamo in his *Annals of Agriculture*; Broussonnet translated some into French and enriched others with commentaries. When Balsamo returned from England he became professor of political economy in the university of Palermo, and his teaching is clearly based upon Young's doctrines; he divides his course into political, theoretical, and practical agriculture, considers agriculture as preeminent, opposes state regulation of prices and every other form of state interference with production and commerce, and declares state help for the poor a calamity. His lectures exerted a great and salutary influence on his countrymen, although it was some time before he triumphed over their prejudices. His lectures were not only technical, viz. concerning methods of agriculture, but also political, as he insisted strongly on the necessity of giving the proprietor of the soil absolute certainty of possession and personal security, and of putting down brigandage and robbery. As to the technical part of his lectures, Balsamo recast it in conformity with the new doctrines of chemistry which were being discovered in his days. Having received an abbey from the viceroy Caramanico, he entered parliament as one of the clergy, and succeeded in passing a plan of radical reform in the system of taxation. The basis of revenue consisted of rents from properties of the crown, and of an intricate list of taxes called donations, which parliament had granted, and which weighed very differently on the different classes, and had each a separate machinery for collection. Balsamo succeeded in substituting for all these taxes a proportional income-tax. He was rewarded by the government with a very rich abbey. A part of his writings is perhaps lost; a part was published in 1802 at Palermo, under the title *Memorie economiche ed agrarie riguardanti il regno di Sicilia*; another part was published after his death in a review called *Effemeridi scientifiche e letterarie per la Sicilia*, Nos. 8, 10, 11, 18, 24, 32. In 1804 he published a pamphlet on diseases of sheep, and in 1816 his *Principii di Agricoltura e di vegetazione per gli agricoltori di Sicilia*. Noteworthy is also his journal of a voyage through Sicily, published 1809, full of statistical information. In 1845 two volumes of economical writings were published at Palermo (tipogr. Muratori), under the title, *Memorie inedite di publica economia ed agricoltura*. M. P.

BAMFORD, Samuel (1788-1872), son of a weaver at Middleton, Lancashire, after being a warehouseman in Manchester, and then a sailor in the coasting trade, finally settled down as a weaver at Middleton. His book, *Passages in the Life of a Radical*, 2 vols. 1841, is a valuable authority for the history of the condition of the working classes, and their political movements in the years succeeding Waterloo. He was all his life a strong radical reformer; and was more than once imprisoned for his part in political movements; but his maxim was always "hold fast by the laws," and he braved the loss of popularity by a remonstrance with the Chartists (*To the Hand-loom Weavers of Lancashire, and the persons styled Chartists*, 1839). His poems, especially those in Lancashire dialect, had a wide circulation. J. B.

BAN. Roumanian coin equal to 1 centime (100 bans=1 lëu). F. E. A.

BANALITÉS. The name given to the exclusive right of the lord in France to erect a mill, bakehouse, or wine press, and to compel his tenants or serfs to make use of them. As he had a monopoly, he could make what charge he pleased. The only provinces exempt from *banalités* were Flanders, Artois, and Hainault. These petty oppressions were a great source of discontent in the agricultural districts of France. This right, with so many others, was abolished in the famous session of the national assembly on 4th August 1789.

[De Tocqueville, *France before the Revolution*, note lxxvii.] R. L.

BANCO. The addition of this word to the name of a coin implies that the coin designated is an imaginary one representing only bullion of a certain weight. Before the introduction of the present German monetary system all large payments in Hamburg were effected by transfers at the principal bank, the unit of which was the *mark-banco*, a coin which did not exist, but which was supposed to be containing silver of a certain weight and fineness, and worth

1s. 6d. The aggregate deposits were held by the BANK OF HAMBURG in bullion or foreign coins. A similar system of transfers was formerly used in Amsterdam, and existed to a certain degree in the practice of the mediæval deposit banks in Italy. It is not used anywhere at present.

BANDINI, SALUSTIO ANTONIO, born 1677, at Siena, brought up as a soldier, preferred retiring into the country and giving himself up to agriculture. In 1705 he took holy orders, and became an archdeacon in 1723. He was president of the Physiocratical Academy, a society intended to promote natural sciences rather than literature.

In 1737 he wrote his famous essay on the Sienese marshes, *Discorso Economico*, offered in manuscript to the grand-duke Francis in 1739; but not printed till 1775 (*Prima edizione di Firenze per Gaetano Cambiagi stampator granducale*), fifteen years after Bandini's death (1760). A second edition was issued by CUSTODI, *Scrittori classici italiani di ec. polit.*, Milano, 1803, *Parte moderna*, Tomo I. Bandini's essay contains the following leading principles of political economy. (1) "Human nature gives its best when it can act unfettered; consequently, the fewer and simpler the laws the better."—(2) As a corollary from the preceding principle, "abolition of all vexatious taxes and reduction of state officials to a minimum."—(3) Abolition of laws regulating prices; "if proprietors and peasants grow rich through high prices of agricultural produce, so much the better for the consumers, because more produce will be produced for them."—(4) "The want of commercial and industrial liberty causes famines."—(5) "Laws against monopolies (natural) and corners are based on prejudices."—(6) Rapidity and facility of exchange, not abundance of money, are the causes of wealth.—(7) A single tax is easier and cheaper for all parties concerned than a great many; it ought to be imposed on land and farmed out.

The Sienese marshes, which Bandini hoped to reclaim by the adoption of these maxims, constitute the lower part of the province of Siena and about two-fifths of the whole of Tuscany. His maxims, neglected by Francis, inspired the policy of the grand-duke Peter Leopold of Tuscany, but the Maremma benefited by it only after the granduke had charged the mathematician Leonardo Ximenes to investigate the hydrostatical problems of the case, and received a favourable report upon Bandini's suggestions.

[*Della fisica riduzione della Maremma Senese di L. Ximenes*, Firenze, 1769, nella stamperia di Fr. Moucke, in 4°. And, reply to a critic in 1775, *Esame dell' esame d'un libro sopra la Maremma Senese*, Firenze, 1775, G. Cambiagi.] M. P.

BANFIELD, THOMAS C. (first half 19th century). The most important of Banfield's writings is the *Organisation of Industry*. Having lived some years in Germany, he was led to study the works of continental economists, then little known in England, and his book owes special debt to HERMANN and ROSSI. By the *Organisation of Industry* he means a graduated scale of industries, corresponding to a graduated scale of human wants, and depending on the axiom that the satisfaction of a primary want at once gives rise to a secondary; *e.g.* "in proportion as food grows abundant, the other wants rise in importance, and a constantly expanding series of desires is awakened, which are classified according to their different grades of pressure" (Lecture III. p. 60). The cheapening of the means of satisfying the more urgent wants creates savings, which are necessarily spent in satisfying the second—an argument for free trade. His criticisms of other economists (*e.g.* RICARDO) are not always convincing, and his own definitions are not always precise. But his remarks on commercial history and on the economical features of his own time are often acute and suggestive.

Professor JEVONS, in his *Political Economy* (1871), has pointed out some passages where Banfield has, in some degree, anticipated the main theorems of that work.

Six Letters to Sir Robert Peel on the Dangerous Tendency of the Theory of Rent advocated by Ricardo, 1843.—*Four Lectures on the Organisation of Industry*, delivered at Cambridge, 1844, published 1845. Translated into French, by Émile Thomas, 1851.—*The Progress of the Prussian Nation*, since 1805 (from Dieterici), *Journal of Statistical Society*, 1848.—The *Statistical Companion* for 1848, 1850, etc. (T. C. Banfield and C. R. Weld).—*The Industry of the Rhine* in Knight's Weekly Volumes, 1846, 1848.—*A Letter to W. Brown, M.P.*, on his system of Decimal Coinage, 1855.—Articles in the *Mining Journal*. J. B.

BANKING

Bank of England, p. 92; *Banks*: England and Wales, p. 93; Scotland, p. 95; Ireland, p. 96; India and Australian Colonies, p. 97; Bank of France, p. 97; *Banks*: France, p. 98; Bank of Germany, p. 98; *Banks*; Germany, p. 98; Chartered Banks in Scotland, p. 100; Banks in Canada, p. 100; United States National Banks, p. 102; Early European Banks—Amsterdam, p. 104; Genoa, p. 104; Hamburgh, p. 105; Middelburgh, p. 106; Rotterdam, p. 106; Sweden, p. 104; Venice, p. 103; Land Banks, Germany, p. 106; Popular Banks, Germany, p. 109; Do., Italy, p. 109; Savings Banks, p. 110; *Bank Notes*, p. 111; Laws in different Countries, p. 112; National Banks U.S., p. 113.

BANKS, UNITED KINGDOM. The business of banking, generally speaking, consists in taking money on deposit, and also, in issuing notes and drafts, by which the transfer of loanable capital is facilitated. The funds thus obtained, together with those supplied by the capitals of the banks themselves, are employed in making advances, in the discount of bills, and in investments in first-class securities, such as the public funds; some part being kept in cash to meet current requirements. The

proportion to be employed in these methods depends on the circumstances of each individual bank. No absolute rule can be laid down. The judgment of the banker is shown in the use he makes of the capital intrusted to him. In a general way the maintenance of a reserve of resources immediately available, to the extent of a third of the liabilities, may be regarded as adequate. The assistance which a judiciously worked system of banking gives to the economic development of a country is enormous; it enables capital to be transferred from those persons by whom, and from those places where it is not required for active use to those requiring it. Both sides, the borrower and the lender, gain from the operation. The one obtains some interest for his money when placed on deposit—the spare cash which he does not need for immediate use. The other obtains the aid of an instrument of credit which enables him to carry on his business, and which would otherwise be out of his reach. The following observations apply to the principal countries in which methods of banking exist.

BANK OF ENGLAND. The Bank of England was founded in 1694 by act of parliament (Ways and Means Bill) of 1694, 5 William and Mary c. 20. It afforded an immediate and powerful support to the government, and also to the inland trade of the country. By its original constitution it was authorised to deal in bullion and bills, to issue notes, and to make advances on merchandise. At that period, and for a long time afterwards, the issue of notes formed a very large part of the business of banking. To trace the development of the Bank of England in detail here would extend beyond the limits to which these remarks must be confined. The Bank has rendered very important services to the government in times of war and difficulty, and also to the trade and commerce of the country.

The charter under which it was founded was periodically renewed till it was superseded in many respects by the Bank Act of 1844. In the interval between its foundation and that date the most important event which befell the bank was the suspension of specie payments 1797-1821 (see BULLION COMMITTEE, REPORT OF). At the present time the Bank of England forms the centre of banking operations in the United Kingdom. Three principal reasons have led to its holding this position. These are, that it is the issuer of the only note circulation which is legal tender, that it is the banker of the government, and also of the other bankers of the country. Owing to the last-named circumstance the reserve of the Bank of England is, practically, at the present time, the only unused money in the country available for any sudden demand, either of a domestic or a foreign character. The position which a bank so circumstanced holds is unique; and hence, though less distinctly now than in former years, the bank rate of discount is regarded as the authoritative guide to the current rate of discount. That it is less distinctly a guide now than formerly is due to the fact that modern arrangements have placed enormous sums, as deposits, in the hands of other banks; still the pre-eminence of the Bank of England is generally recognised, and in any time of difficulty or distrust its actions are watched with the most sedulous anxiety, and it is not too much to say that at such times the fate of the commercial prosperity of the community lies in its hands.

The constitution of the governing body of this powerful institution is very simple. The court of directors numbers twenty-six. This includes the governor and deputy-governor and twenty-four directors, chosen from the old-established firms in the city. Custom has excluded English bankers from this body, but members of the powerful firms employed in negotiating foreign loans and in foreign bill-broking are considered eligible. The directors are practically self-elected. The respect due to the high position they hold has been well maintained by the high standard of character observed. The Bank of England, acting as agent of the government, naturally becomes the holder of the bullion reserve of the country, as by law the bank is bound to receive all gold bullion offered to it of standard value, at the price of £3 : 17 : 9 an ounce, retaining the practical difference of 1½d. between this sum, and £3 : 17 : 10½ the mint price (see MINT), as a remuneration for its trouble. Importers may, if they prefer, take the BULLION direct to the mint and receive new coin at the rate of £3 : 17 : 10½ an ounce for it themselves. But the trouble of doing so, and the delay which always ensues, causes the bullion to be brought to the bank by preference. Here it makes its way to the issue department and forms the basis of the note circulation of the bank for the amount beyond that allowed to be issued on securities. For the connection between the bank note circulation and the other operations of the bank (see BANK NOTE). As a bank the Bank of England receives large amounts of deposits, on which it allows no interest whatever. Suggestions have often been made that it should do this, but, were the bank to compete with the other banks in this manner, it is hardly likely that the other banks would continue to keep the large balances they do with it. These balances are always large. No statement respecting them has, however, been published since 1877, but at times they have exceeded the reserve. The balances of the London bankers are held with the bank in connection with the clearing house transfers (see CLEARING HOUSE). As a discounter of commercial paper the business of the bank is largely exceeded at present by other financial institutions, but it is

still the ultimate resort of all who want to borrow and find other banks closed to them—at times a large section of the business community. The importance of this position will be readily understood.

The following table, from the *Banking Almanac* of 1901, shows the average minimum rate of discount of the Banks of England, France, and Germany for the years 1844-1900.

Year.	Bank of England.	Bank of France.	Bank of Prussia.
	Per cent. £ s. d.	Per cent. £ s. d.	Per cent. £ s. d.
1844	2 10 0	4 0 0	4 6 0
1845	2 13 8	4 0 0	4 7 0
1846	3 6 6	4 0 0	4 14 0
1847	5 3 6	4 19 0	4 17 0
1848	3 14 5	4 0 0	4 13 0
1849	2 18 7	4 0 0	4 1 0
1850	2 10 1	4 0 0	4 0 0
1851	3 0 0	4 0 0	4 0 0
1852	2 3 0	3 3 0	4 0 0
1853	3 13 10	3 5 0	4 5 0
1854	5 2 3	4 6 0	4 7 0
1855	4 17 10	4 9 0	4 2 0
1856	6 1 2	5 10 0	4 19 0
1857	6 13 3	6 3 0	5 15 0
1858	3 4 7	3 14 0	4 10 0
1859	2 14 7	3 9 0	4 4 0
1860	4 3 7	3 13 0	4 0 0
1861	5 5 4	5 10 0	4 0 0
1862	2 10 7	3 16 0	4 0 0
1863	4 8 2	4 13 0	4 2 0
1864	7 8 0	6 10 0	5 6 0
1865	4 15 4	3 14 4	4 19 0
1866	6 19 0	3 14 0	6 4 0
1867	2 10 9	2 14 0	4 0 0
1868	2 1 11	2 10 0	4 0 0
1869	3 4 2	2 10 0	4 2 0
1870	3 2 0	4 0 0	4 17 0
1871	2 17 8	5 14 0	4 3 0
1872	4 2 0	5 3 0	4 6 0
1873	4 15 10	5 3 0	5 1 0
1874	3 13 10	4 6 0	4 7 0
1875	3 4 8	4 0 0	4 14 0
1876	2 12 1	3 8 0	4 3 0[1]
1877	2 18 0	2 5 3	4 8 0
1878	3 15 8	2 4 2	4 6 9
1879	2 10 4	2 11 10	3 14 3
1880	2 15 4	2 16 10	4 4 10
1881	3 10 0	3 17 6	4 8 6
1882	4 2 8	3 15 4	4 10 3
1883	3 11 4	3 1 5	4 1 0
1884	2 19 1	3 0 0	4 0 0
1885	2 17 7	3 0 0	4 2 5
1886	3 1 0	3 0 0	3 5 8
1887	3 7 0	3 0 0	3 8 4
1888	3 5 11	3 1 11	3 6 6
1889	3 10 11	3 1 8	3 13 7
1890	4 10 5	3 0 0	4 10 5
1891	3 5 2	3 0 0	3 15 4
1892	2 10 7	2 13 11	3 4 1
1893	3 1 0	2 10 0	4 1 5
1894	2 2 3	2 10 0	3 2 6
1895	2 0 0	2 2 0	3 2 7
1896	2 9 8	2 0 0	3 13 3
1897	2 12 8	2 0 0	3 16 3
1898	3 4 10	2 4 0	4 5 1
1899	3 15 0	3 1 5	5 0 5
1900	3 19 3	3 4 8	5 6 6
Average from 1844-1900	3 10 10	3 11 11	4 5 2

When divided into periods of ten years the averages are as follows:

Average minimum rate of discount of the Bank of England, Bank of France, and Imperial Bank of Germany, 1844-1900.

Years.	Bank of England.	Bank of France.	Imperial Bank of Germany.
	£ s. d.	£ s. d.	£ s. d.
1844-1853	3 3 4	3 18 8	4 6 4
1854-1863	4 10 2	4 10 4	4 7 11
1864-1873	4 3 8	4 3 3	4 13 10
1874-1883	3 5 5	3 4 8	4 5 9
1884-1893	3 4 10	2 18 9	3 14 9
1894-1900	2 17 8	2 8 10	4 0 11

It appears hence that the English money market has, on the average of fifty-seven years, been cheaper than either the markets of Paris or Berlin. For the last thirty-seven years, however, the value of money in this country has, on average, been above that in France.

ENGLAND AND WALES. The origin of banking in Germany may be traced even further back than the habit of depositing money with the London goldsmiths, which was in full vigour by the end of the 17th century. Banking in the provinces was at the outset more dependent on the issue of notes than that of the metropolis, which naturally resulted from the difference of its field for operations. The history of the bank of Dundee may be taken as an illustration, for in this the habits of Scotch and of English provincial banks may be regarded as a good deal similar (see BANKS IN SCOTLAND). The early employment of credit in this manner led to results which govern, or at least largely influence, the banking system of this country to the present day. The value ascribed to the power of issuing notes led to the act of 1708, which restricted the number of partners in banks of issue, and virtually in all banks, to a number not exceeding six during the continuance of the Bank of England. This restriction lasted till the year 1826, when the establishment of joint-stock banks of issue was permitted; it was further modified by the act of 1862, which allowed private partnerships, not being banks of issue, to have ten members. The Act of 1833, however, prohibits any English joint-stock bank of issue from possessing a banking office in London. The act of 1844 restricts the privileges of issuing notes to those banks whether private or joint stock, which possessed the privilege at that date. The main object of the early legislation was to secure a monopoly of issue to the Bank of England. Incidentally it has served to prevent English banking from taking its proper development. In this the act of 1844, the latest of Sir Robert PEEL'S acts dealing with monetary questions, has also assisted. His object in this was to cause the note issue of the country to centralise on the Bank of England, and to provide that, with the exception of the notes allowed to be issued against securities, an equivalent value in the precious metals should be held against

[1] Since 1876 the Imperial Bank of Germany.

the amount in circulation in the case of the notes issued by that bank (see BANK NOTE). Through the restrictions imposed on dealing with the power of issuing notes by this act, the existence of a considerable number of comparatively small banks of issue was continued in England long after the time when, judging by the analogy of events in Scotland and Ireland, coalition into larger concerns would have been desirable. It is not necessary to refer here to the detail of our banking system. It may be sufficient to remark that in hardly any other country are the positions and circumstances of individual banks so widely different from each other as in our own. It is to be regretted that the attention of the legislature in England has been directed mainly to the note issue, with a view to centralise it, and that so little has been given to other points of more importance to the wellbeing of the banking system. Some provincial banks, both private and joint stock, possess the privilege of issuing their own notes, but this power can only be exercised by those who possessed it before the year 1844. The majority of the banks in England and Wales, including the largest and most important banks, do not issue their own notes. The act of 1844 fixed the maximum circulation of the country banks in England and Wales at

£5,153,417 (207) private banks,
3,478,230 (72) joint-stock banks,

but of this amount

£4,005,479 (173) private banks,
1,972,308 (46) joint-stock banks,

have since lapsed from various causes, voluntary and other, so that the limit of the provincial issues now (1901) stands at

£1,147,938 (30) private banks,
1,505,922 (26) joint-stock banks.

The banking business of England and Wales is now carried on by about 22 private and 104 joint-stock banks. The different banks vary much in size and importance. By the side of very large banks, wielding immense amounts of capital and deposits, very small concerns, possessing proportionally small resources, may be found carrying on business to advantage, and competing successfully with their more powerful rivals. One result, and it is a very peculiar one, of the manner in which our banking system has developed itself, employing the Bank of England as the pivot of its transactions, is that no bank in the country keeps any large stock of the precious metals in reserve—more, in fact, than habit has shown to be adequate for daily requirements, except the Bank of England. By this method economy in use of metallic money has been greatly promoted, with corresponding advantages to the community. The necessary drawback to this is that in times either of panic or of foreign demands for bullion, the strain on our banking system becomes extremely sharp, and the troubles of the time greatly intensified (see DRAIN OF BULLION and CRISIS). The reserve of the Bank of England appears to those outside the business to be "idle money," but no portion of our monetary resources really has so important a part to play, or is so entirely "employed" as the bankers' balances, which figure in that reserve, and sometimes exceed it in amount. Through the agency of our system "English capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level." The ramification of our banking system to every small town and village enables our monetary resources to be economised to the utmost, thus persons requiring advances, whose position justifies their being made to them, are enabled to obtain the advantages which the use of capital will afford, both in remote places and in our larger commercial and industrial centres. The extension of banking throughout the provinces of late years has been very marked. The total number of offices of banks in England and Wales which was 1927 in 1876, has now reached a total of 4741. The deposits in the banks of England and Wales are estimated at the same date as about £640,000,000. The aggregate number of banking offices in the country generally was over 6500 at the same date, while the deposits in the banks of the United Kingdom, which were estimated as being about £470,000 000 to £480,000,000 in 1879, were estimated in the *Bankers' Magazine* as being about £798,000,000 in 1900. This is exclusive of the deposits held by the Bank of England, which were about £34,000,000 in 1879 and £47,000,000 in 1900. The publication of accounts is still not universal though far more general than formerly. No official statistics of the aggregate exist. No doubt in some cases undue credit has been given to those who have not been deserving of it, with disastrous results (see CRISIS). In some, but fortunately much rarer instances, the fraudulent have been assisted, or the banks themselves been ruined, by bad trading. But on the whole these results have but seldom occurred, and the prosperity of the country has probably been promoted fully as much by the banking system it has possessed as by any modern adaptation of physical science to the comforts and conveniences of life.

Some banks in the provinces allow interest at a low rate on the daily balances of their customers in their hands; but the more general rule is to make an allowance of interest only on sums placed specially on deposit. This interest usually varies according to the "London" rate for the time being; but some banks allow a fixed and uniform rate. The practice varies in different localities.

SCOTLAND. Considered historically, the distinctive peculiarities of banking in Scotland arose from the fact that, unlike their neighbours in England, the people were allowed by the legislature absolute freedom to create whatever system of banking they found best suited to their wants. Thereupon, before the days of railways and steamboats, every district of the country, however remote, appears to have developed its banker by a process, as it were, of "natural selection." He was the trusted custodian of the savings of the thrifty. He was, on the whole, the discreet and sagacious supporter of the enterprising trader and adventurous man of commerce. His promises to pay gold on demand were readily accepted within his district as a convenient medium of exchange. There was no state bank, no corporation with exclusive privileges. In this way, from the end of the 17th century, there grew up throughout the country substantial private copartneries conducting the business of banking and serving the important purpose of promoting industry and thrift. At this time the currency doctor had not yet appeared, and the subtle suggestion had not yet been made that a one-pound note, convertible into gold on demand, might be of less value than the coin it represented and for which it could at any moment be exchanged.

The range, however, of banking credit enjoyed by these substantial copartneries was naturally limited to the districts in which they were known, and when facilities of communication and of transit were increased and the scale of commercial transactions became enlarged, it became obvious that banking institutions of more commanding importance and more widely recognised stability were required to take the place of the old local private banks. The three old banks in Edinburgh—the Bank of Scotland, Royal Bank of Scotland, and British Linen Company—had not yet seriously set themselves to serve the country districts. A new chapter was accordingly opened early in the 19th century when joint-stock banks were formed, having their headquarters in Edinburgh, Glasgow, and some of the other more important towns, with numerous branches throughout the provinces. This proved to be the knell of the private banks, for by degrees these ancient institutions, being free to transfer themselves in their integrity, were merged in the more powerful joint-stock banks, and the system of banking as a whole became adapted to the enlarged operations of commerce.

The movement thus described involved, among other consequences, a reduction in the number of banks in Scotland. In 1819 there were 36 ; in 1844, 24 ; in 1873, 11 ; in 1890 there are 10. All possess the power of circulation, the limit to each of authorised note issue is as follows :—

	Name of Bank.	Amount of authorised Circulation.
1	Bank of Scotland	£343,418
2	Royal Bank of Scotland	216,451
3	British Linen Company	438,024
4	Commercial Bank of Scotland	374,880
5	National Bank of Scotland	297,024
6	Union Bank of Scotland	454,346
7	Aberdeen Town & County Bank	70,133
8	North of Scotland Banking Co.	154,819
9	Clydesdale Banking Company	274,321
10	Caledonian Banking Company	53,434
	Total	£2,676,350

The average circulation of these banks, allowed by the Acts of 1844-45 to exceed the authorised limit (see BANK NOTE), was, collectively, £7,949,000 in 1900, and their deposits about £108,000,000.

The development of banking in Scotland was greatly assisted by the provisions of the law, which placed no limit on the number of partners, and allowed security to be taken on land, all being registered, as well as on other descriptions of a debtor's property, with great facility. The private fortune of every partner was also liable for all the debts of the bank except in the case of the Bank of Scotland and the two chartered banks. The effect of this last provision has been restricted by the application of the limited liability acts, but the system of banking thus established, assisted by the power of circulating small notes, has extended itself over Scotland with great completeness. Hardly any village is without the advantage of banking facilities, provided by numerous branch offices. The early history of the Bank of Dundee may be taken as typical of the growth of Scotch banking. Originally instituted, 1764, as a bank of issue, it was not till 1792 that deposits were received by it, and these were for some time hardly equal in amount to the note circulation. A similar system was no doubt the origin of banking in the United Kingdom generally. Though the branch offices of the Scotch banks are numerous, the banks themselves, as stated above, are few in number. Amalgamation for the most part, failure in some conspicuous and terrible instances, account for the diminution. The credit of the remaining banks has never been shaken. The deposits, 21 millions in 1826, were 30 millions in 1851. Since that date the growth has been most rapid. Including capital, the resources were 63 millions in 1866, 92 in 1872, and more than 130 millions in 1900. The old practice of the banks in Scotland of making advances on CASH CREDIT (*q.v.*), that is on the personal security of two bondsmen, tended to develop the energies of the country facilitated by the thriftiness of the people. The system of note circulation in Scotland (see BANK NOTE) has been of great assistance to the banks in many ways, and has provided the banks with "till money" free of

cost. Through its existence the early prosperity of the banking system of the country was developed and fostered; it has caused great economy in the use of specie, and also it has facilitated book-keeping by removing the necessity for the use of small cheques in many directions. The vast network of branch offices, the working of which, as previously mentioned, is facilitated by the use of small notes, is also of great service to the business. In those districts which are poor, and where deposits are scanty, the advances of capital required for the development of business are easily provided from the resources which the wealthier districts supply. The small number of banks in Scotland, however, is sometimes made the subject of complaints. The habits of the people, which lead them to prefer notes to specie in their daily transactions, coupled with the other advantages which the possession of a note circulation gives, have practically restricted banking in Scotland to banks of issue, and as no addition to the number of issuing banks has been possible since Peel's acts of 1844-45, the existing banks have such a hold of the field that no increase has been made since that time. The rates of discount for advances, and those for the allowance of interest on deposit are settled by agreement among the banks; hence they are practically uniform over the whole of the country. While complaints as to the monopoly of the existing banks are thus heard from time to time, it does not appear probable either that the rates of interest charged, or allowed, would differ much, if at all, from those which have been the rule in Scotland under existing circumstances, if the freest competition were established. Nor is it at all likely that any one to whom an advance may safely be made is prevented from obtaining such an advance through the limitation of the number of the banks. Hence the public may not gain wherever such competition is started; on the other hand competition, in the direction of making advances on insufficient security, or to those who employ them in rash speculation, is one of the most disastrous things which can happen.

Two bank failures in Scotland during recent years have been on a scale so large as to deserve special notice. The aggregate loss of the shareholders of the Western Bank of Scotland, failed 1857, was upwards of £2,800,000. The failure of the City of Glasgow Bank in 1878 involved its shareholders in a loss of about £6,000,000. In neither case were the general public losers (see BANKS, CHARTERED; CASH CREDIT).

BANKING IN IRELAND has been conducted generally on the same principles as in Scotland, and hence requires no detailed notice. One point, however, to the great credit of the Irish banks, deserves commemoration, namely, that at the present time of writing (1901) every bank of issue in Ireland which was in existence in 1844 is still carrying on business. The stability which this indicates has not occurred in either England or Scotland. The exceptions to the general prosperity were the stoppage of the Tipperary Joint-Stock Bank (1856), and of the Munster Bank (1885), since replaced by the Munster and Leinster Bank, Limited. This general soundness of recent banking in Ireland may well be contrasted with its laxity, frequently involving consequent failure, at an earlier date. At the commencement of this century, Ireland was overspread with a number of small and principally very ill-managed banks, each carrying on its affairs within a narrow circle, and in a most irregular and unsound manner. The appendix to a parliamentary report (Report of the House of Commons Committee on circulating Paper, Specie, and Current Coin in Ireland, 1804) contains a list of the names of fifty firms, all believed to be engaged in the business at that time. Others who issued notes for small amounts from 3½d. to 6s. each, who had really no pretensions to be called bankers at all, undertook similar responsibilities. By the year 1820, however, only six of the banks were left, the numbers having been reduced principally by failures. The over-issue of notes had led to great distress. The want of confidence resulting from the frequent failures was general, and even the notes of the Bank of Ireland were for a time unnegotiable. The act of 1820 which permitted the establishment of joint-stock banks, gradually led to the sounder state of affairs mentioned above, but it was not till the amending acts of 1824-25 allowed persons resident in any part of Great Britain or Ireland to become shareholders in these banks that their success became established, as the previous exclusion of English and Scotch capitalists had greatly retarded their welfare (see *History of Banking in Ireland* by Mr. Dillon). The experience of Ireland in banking matters has been very chequered, the injury caused by the earlier and unsound banks having been very considerable, while the assistance given in recent times by the existing banks to the general prosperity, has been equally marked. It only remains to mention the *Bank of Ireland*. This bank was originally projected 1695, but the plan was not carried out then; it was also rejected by the Irish House of Commons 1721, and it was more than half a century afterwards, 1783, that the bank was established. It has been prudently and successfully conducted to the present date. The SUSPENSION OF CASH PAYMENTS, 1797, extended to Ireland, and a very considerable expansion of the note circulation—over-issue it might more properly be termed—followed. This, however, was soon reduced after the return to cash payments.

Considerable privileges were granted to the Bank of Ireland—after 1820 no bank with more

than six partners was allowed to issue notes within a radius of fifty (Irish) miles from Dublin. After 1845 this restriction was removed, and the arrangements as to the circulation of notes practically assimilated to those in force in Scotland (see BANK NOTE). There are nine banks in Ireland, of these six possess the power of circulation.

NAME OF BANK.	Amount of authorised Circulation.
1 Bank of Ireland	£3,738,428
2 Provincial Bank of Ireland .	927,667
3 Belfast Bank . . .	281,611
4 Northern Bank . .	243,440
5 Ulster Bank . . .	311,079
6 The National Bank . .	852,269
Total . .	£6,354,494

The average circulation of these banks, allowed by the Acts of 1844-45 to exceed the authorised limit (see BANK NOTE), was, collectively, £6,864,000 in 1900. The Hibernian Bank, Limited, the Munster and Leinster, Limited, the Royal Bank of Ireland, Limited, have no issues. The total resources of the nine banks were about £67,000,000 in 1900.

INDIA AND THE AUSTRALIAN COLONIES. British India, our colonies generally, and the Australian colonies in particular, possess well-developed banking systems. These do not, however, possess features calling for special notice from an economic point of view, except that with other very similar associations the banks in the Australian Colonies, whose deposits collectively were, in 1899, £140,000,000, have been, to a large extent, the conduit pipes through which British capital has been diffused throughout the colonies. Their rapid development may be cited as one of the advantages hence resulting.

FRANCE. The Bank of France, the most important banking institution in the country, was founded in 1800 as a private company, and received the basis of its permanent constitution, which made it practically a state bank, through the law of 24 Germinal An. xi. of the First Republic (14th April 1803). The law of 22d April 1806 reconstituted the bank, which is now regulated by the law of 1897. The governor, who holds his office for life, and the two deputy-governors, are appointed by the state. The general council, consisting of fifteen regents, by whom the business is mainly directed, and three censors, who may be regarded as a permanent committee of audit, are elected by the general assembly, which consists of the 200 largest shareholders. Of the regents, five must be chosen from among the manufacturers, traders, and merchants (*manufacturiers, fabricants, ou commerçants*) who are shareholders in the bank, and three selected from amongst the *trésoriers-payeurs généraux*, the treasury agents in the provinces. Thus the government is strongly represented on the managing body. The governor has to watch that "the bank performs its duty to the state and towards the commerce and industry of the country" (evidence given by M. Rouland, then governor, before the *Enquête sur les principes et les faits généraux qui régissent la circulation monétaire et fiduciaire*, Paris, 1865, which see). The governor of the Bank of France has usually been a man who has held a high official position. Thus M. Rouland had been a senator, a minister, and president of the council of state; M. Denormandie, another governor, was a senator for life; and had M. Léon SAY, whose name was freely spoken of at a recent vacancy, and who has been minister of finance, besides serving in other high positions—for example, as ambassador in England—been appointed, it would not have been felt that this would have been a lowering of his official standing. The regents and censors represent the commerce and trade of the country, to which, as well as to the state, the bank has rendered great services. It has now 126 branches situated in the different departments of France; besides this about 265 places have, through auxiliary offices and other similar arrangements, banking facilities provided for them; 8 district offices in Paris also assist the operations. The rules of the bank with respect to its discounts are somewhat strict, three signatures being required, or a deposit of security to take the place of the third name, but the wisdom of the rules has been justified by the results. Thus, with a discount in round numbers of 17,000,000 bills in 1900 for an amount of nearly £490,000,000, only about £380,000 remained practically overdue, and of these the greater part was sound. The part the bank occupies in the general business of the country is shown by these figures, and as more than 2,300,000 of the bills taken at Paris alone were for sums below £4, retail trade as well as larger trade, shares in the advantage. Business in France is, however, not connected so intimately with banking as in England. Thus the note circulation of France, amounting to 160 or even 170 millions sterling, never now below 155 millions, represents a business turnover which would be conducted principally by cheques in England. The Bank of France, however, endeavours to extend the use of cheques among its customers. Through the *Bureau de Virements* it performs the functions of the CLEARING HOUSE (which see), and it likewise facilitates the transmission of money between the towns in which the branches are situated and the head office. The Bank of France endeavours to keep an even rate of discount with as few alterations as possible, as it considers a tolerable degree of certainty in the charge for the use of money to be, as is undoubtedly the case, of service to trade. Thus for about five years, between 1883 and

1888, its rate of discount remained at 3 per cent, while there were no fewer than 36 changes varying from 2 per cent to 5 per cent at the Bank of England during the same time. The rate charged is uniform at Paris and the branches, both for discounts and advances, the latter being from ½ to 1 per cent above the discount rate. These rates are invariable, and no addition is made by way of commission or otherwise. Of the total operations of the bank, which in 1900 were about 746 millions sterling, a large part originates at the branches. At some of these, particularly at Bordeaux, Lyons, Marseilles, Havre, and Lille, the transactions are large. Some of the smaller offices, however, occasionally do not pay their expenses, and the cost exceeded the profits at 11 in 1900. This fortunate position of affairs has not been completely maintained since, but the deficiencies have been comparatively small. The Bank of France is at liberty to pay its notes and discharge its obligations either in gold or in silver of legal tender, that is, in silver pieces of 5 francs. It is argued that this facility assists it to maintain a comparatively even rate of discount, even in the face of a movement in the foreign exchanges favourable to an export of gold, as it is absolutely at liberty to give or withhold gold so long as it has silver with which it can cash its notes. This argument can hardly be proved or disproved statistically. As a matter of fact the number of alterations in the rate of the Bank of France has been fewer since the year 1844 than at either the Bank of England or at the Bank of Germany. The rate of discount has been on average more even than at the Bank of England during the last fifty-seven years, taken as a whole (see Table, BANK OF ENGLAND), and it has recently tended to be lower. In making these observations, however, the great difference between the condition of circumstances in the countries concerned should be borne in mind. Besides assisting commerce and the general prosperity of France, the Bank of France has more than once in its history had to support the weight of very serious troubles, the proper handling of which exceeded in difficulty almost any ordinary financial crisis. Without going farther back than the last forty years, specie payments have been suspended twice owing to political disturbances—in 1848 and again in 1870. The earlier of these suspensions, which lasted only about a year and a half, does not appear to have had any marked effect on prices. The later one, which was accompanied by the devastation ensuing on the Franco-German War, lasted about five years, specie payments, suspended in 1870, having been partially resumed in 1874 and completely in 1875. A suspension of specie payments may naturally be expected to produce the ordinary result of inflation, shown in the foreign exchanges and in the price of commodities. But the course which the Bank of France took in regulating its issue of notes, which became the circulating medium and were inconvertible, was so prudent and cautious that few, if any, of the dangerous results of a forced circulation of paper followed. There was, during the course of this time, a slight, but not large variation from the normal rate of the foreign exchanges, exemplified in the rate between Paris and London on several occasions, but it was slight, and if any alteration in the prices of commodities followed it was only small in extent. Great caution and prudence must have been needed to carry on the monetary affairs of a large country under such trying circumstances without involving it in the risks which usually follow on a forced circulation.

The following figures will give some idea of the ordinary business transactions of the Bank of France :—

1900.	Aggregate of operations	£747,000,000
,,	Bullion held—Gold	£93,000,000
,,	,, ,, Silver	£44,000,000
,,	Bills discounted in Paris and branches	£490,000,000
,,	Maximum note circulation	£168,000,000
,,	,, current accounts	£25,000,000

Besides the Bank of France, there are many other large banks in the country, as the Comptoir d'Escompte, founded 1848, the Crédit Foncier, and Crédit Mobilier, 1852, the Crédit Lyonnais, 1863, the Société Générale, 1864, besides others, and many very wealthy and powerful private firms who carry on the practice of banking and the traditions of the *Haute Banque*, which rather corresponds to the business of wealthy merchants and high financial operators with us. The idea of banking, as carried on in this country, in the United States, and in several of our colonies, notably in the Australias, is, however, gradually gaining ground in France, and further developments in that direction may be expected.

GERMANY. Although the Imperial Bank of Germany does not occupy quite so commanding a position in that country relatively to the other banks as the Bank of France does within its own sphere of labours, it nevertheless stands pre-eminent among them in many respects. The present constitution of the bank of Germany is defined by the Bank Act of 1875, by which the Bank of Prussia was merged in the Imperial Bank, and by the acts of 1889 and 1899, which last gave the Treasury a much larger share of the profits. In arrangements for accounts, in number of offices,—331 in 1900, —in closeness of relations with the government, the working of the Bank of Germany corresponds very much with that of the Bank of France. There is, however, an important difference in respect of the note circulation (see BANK NOTE), to which, as the arrangements are dissimilar both from those in England and in France, it is desirable to refer. The Bank

of Germany is permitted to add to its circulation against securities the issue of any other issuing bank whose circulation drops. It is likewise permitted to exceed the legal limit, in 1875 £12,500,000, extended 1899 to £22,500,000, on payment of a tax of 5 per cent per annum on the total excess issue. The limit was exceeded twenty times during the year 1900, and for the greater part of that time the rate of discount was not raised above 5 per cent, nor was any extra pressure felt during the time. To those conversant with the effect experienced when the Bank Act of 1844 has had to be suspended in England, the smoothness with which this automatic arrangement acts is a sign of a corresponding absence of pressure on business of great advantage to the industry of Germany, and though the different circumstances of business there do not admit of an exact comparison with England, the question deserves more attention than has been given it. The Bank of Germany is, even more distinctly than the Bank of France, essentially a "state bank." The distribution of the profits (law of 1875, 1889, and 1899) is as follows: 3½ per cent to the shareholders, then 20 per cent of the balance to reserve, till it reaches £3,000,000. Of the surplus, three-quarters to the state, and one-quarter to the shareholders. The 3½ per cent, if need be, may be made up from the reserve. Under this arrangement the shareholders received in 1900 £657,625 being a dividend of 10·96 per cent, and the state £1,041,205 in addition to the Note Tax £125,883. The capital £6,000,000 in 1900 is to be raised to £9,000,000 in 1905. The German emperor appoints the president and council of the bank directory, whose office is for life, on the recommendation of the federal council, and the Government, through the Chancellor of the empire, exercises complete powers of control. The shareholders influence the management through a committee. As with the Bank of France, the arrangements as to rates of interest are uniform over the whole field of operation, and the facilities given by this, and by the action of the bank in the discount of commercial paper, as well as by the transmission of cash, etc., have given a great impetus to the prosperity of the empire. There are many other banks in Germany besides the Imperial Bank, some of which issue notes. This privilege has, however, been relinquished to a considerable extent, owing to the restrictions imposed on all banks of issue; they may not buy and sell securities for delivery, either for their own or for third account, nor may they accept any bills nor (1899) in some conditions discount below the Reichs-bank. The business of the non-issuing banks in Germany, besides ordinary account current transactions, consists in discounts, buying and selling securities, granting advances to customers and also in negotiating loans for governments as well as private undertakings, a business which in this country is more in the hands of private bankers and finance companies. The banks also hold large deposits; yet this branch does not attain the same proportionate dimensions as in Great Britain, the amount of uninvested capital being smaller; and as interest is allowed on almost all balances, even if repayable on demand, the profit from this source cannot compare with the results obtained in this country.

The limits of space forbid detailed reference to several other banking systems both in Europe and elsewhere, but among these the Swedish Enskilda Banks may specially be referred to as possessing a very skilfully planned note circulation, the usefulness of which compares favourably with the systems of circulation in Scotland and the United States. The system on which the national banks of the United States, established 1863, were originally based, was connected with the financial measures necessitated by the terrible struggle between "North" and "South" which inflicted such heavy losses on the Union. A safe circulating medium was urgently required, and Secretary Chase recommended an issue of bank notes, secured by deposit of United States bonds worked by local banks, in preference to the issue of notes by the Government itself (see BANK NOTE; BANKS, NATIONAL, UNITED STATES OF AMERICA).

[See Reports, *Committee of Secrecy on Bank of England Charter*, H. of C. 1832.—*Select Committee on Banks of Issue*, H. of C. 1840.—*First and Second Reports Select Committee on Banks of Issue*, H. of C. 1841.—*First and Second Reports Secret Committee on Commercial Distress*, H. of C. 1848.—*Report Select Committee on Bank Acts*, H. of C. 1857.—*Report Select Committee on Bank Acts*, H. of C. 1858.—*Report Select Committee on Banks of Issue*, H. of C. 1875.—*Report from Secret Committee of the House of Lords on the Causes of the Distress which has for some time prevailed among the Commercial Classes, and how far it had been affected by the Laws for regulating the Issue of Bank Notes payable on demand*, Session 1847-48. (The information contained in the evidence and report especially valuable.)—*Practical Treatise on Banking.—Logic of Banking*, J. W. Gilbart (title characteristic of the author).—*History and Principles of Banking*, J. W. Gilbart, London, 1866.—*The Country Banker*, George Rae, London, 1886, and later editions.—*Notes on Banking*, R. H. Inglis Palgrave, London, 1873.—*British Banking Statistics*, John Dun, London, 1876.—*Capital, Currency, and Banking*, James Wilson, London, 1847.—*Lombard Street*, Walter Bagehot, London, 1873.—*History of the Bank of England*, John Francis, London, 1847.—*The First Nine Years of the Bank of England*, J. E. Thorold Rogers, Oxford, 1887.—*The Scotch Banks and System of Issue*, Robert Somers, Edinburgh, 1873.—*History of Scotch Banking*, A. W. Kerr, 1884.—*History and Development of*

Banking in Ireland, Malcolm Dillon, London and Dublin, 1889.—*English Manual of Banking*, A. Crump, London, 1877.—*Principles of Banking*, Thomson Hankey, London, 1867.—*Practical Banking*. A. S. Bolles, New York, 1884.—*Bank Rate, England, France, and Germany*, R. H. Inglis Palgrave, London, 1880.—*History, Law, and Practice of Banking*, C. M. Collins, London, 1887.—*The Practice of Banking*, John Hutchison, London, 1883.—*Bankers' Magazine*, London.—*Journal Institute of Bankers*, London.—*American Bankers' Magazine*, New York.—*Dictionnaire des Finances*, Paris, 1889.—*Chapters on the Theory and History of Banking*, C. F. Dunbar, New York, 1891.]

BANKS, CHARTERED (SCOTLAND). 1. The Bank of Scotland; founded by Scots act of parliament 17th July 1695, not by charter, though frequently called one of the chartered banks; a monopoly of banking for twenty-one years from 1695; a capital of £100,000 sterling, since raised to £1,875,000 (£1,250,000 called up), with power to issue £2,625,000 additional stock. 2. The Royal Bank of Scotland; first charter 31st May 1727 in pursuance of the imperial statute, 5 Geo. I. c. 20; eighth, 30th December 1829; capital £2,000,000, fully paid up; it is questionable how far a provision in the original charter of 1727 that each share of £100 is liable in five farther calls of £10 each is applicable to present shareholders. 3. The British Linen Company; charter 6th July 1746 as linen traders and manufacturers; banking business developed; charter 1806 (5th June) as bankers, capital £200,000; last charter 19th March 1849, authorised capital £1,500,000, whereof £1,000,000 issued and fully paid up. The above three are known as the chartered banks; they claim limited liability (see COMPANY for purposes of charter). The National and the Commercial Banks have also charters; the former 1825, the latter 1831 (bank founded 1810); in both charters liability stated to be unlimited. See Mr. Fleming's "Memorandum as to Banking in Scotland," Select Committee on Banks of Issue, 1875, reprinted in Henry Robertson's *Handbook of Bankers' Law* (Scotch). The three oldest, Bank of Scotland, British Linen Company, and Royal Bank, have always had or claimed a strictly limited liability: the two named above, in common with the remaining five Scotch banks, the Caledonian, Clydesdale, North of Scotland, Aberdeen Town and County, and Union, have been recently registered as limited liability companies, and now use the word "Limited." A. D.

BANKS, CANADA. The history of currency and banking in Canada may be divided into four periods: (1) the French régime;—(2) from beginning of British government until establishment of first banks in 1817-18;—(3) from 1817-18 until confederation of provinces, 1867, banks being organised under provincial and royal charters;—(4) since 1867, the Dominion parliament having exclusive jurisdiction regarding banking.

A complete account of the first period, during part of which beaver and moose skins were recognised currency, wheat a legal tender, and the "card money" of the French governors formed the chief medium; and the second period when the coins of five other countries were legal tender, will be found in the writings of Mr. James Stevenson referred to below. During the second period unsuccessful attempts were made in 1792 and 1807-8 to establish banks, and in consequence during the war of 1812 government was obliged to create an army-bill office or temporary bank of issue.

From 1817 to 1825, however, two banks were established in Lower Canada (Quebec) and one each in Upper Canada (Ontario), New Brunswick, and Nova Scotia, all now doing business except one. During the rebellion of 1837-38 the banks in Upper and Lower Canada temporarily suspended specie payments under permission of an order in council.

Before dealing with the fourth period it is necessary to indicate the condition of banking and currency at time of confederation, 1867. There were thirty-nine charters, but only twenty-seven banks doing business. The charters expired at various dates from 1870 to 1892 and varied in accordance with views regarding banking in the different provinces. In Upper and Lower Canada (Old Canada) shareholders were liable for double amount of stock, except that there was one bank *en commandite*, the "principal partners" having unlimited personal liability. In most cases notes could be issued equal to paid-up capital *plus* specie, and government securities held. In New Brunswick charters had been granted without double liability but the principle was being insisted on in renewals, while in Nova Scotia in the opinion of some there was no double liability. In Old Canada and Nova Scotia as a rule total liabilities were restricted to three times, and in New Brunswick to twice the amount of capital. There was also one bank with a royal charter, head office in England, and shareholders not under double liability. The situation was further complicated by the "Free Banking Act," under which notes could be issued secured by deposit of government debentures, and by the legal tender issues of the governments of Old Canada and Nova Scotia. In 1866-67 two of the largest banks in Upper Canada failed, resulting in a very severe financial crisis.

Under these conditions, and after tentative legislation in 1867 and 1870, the first general bank act of the Dominion was passed in 1871 (34 Vict. c. v.) It confirmed the special features in the bank working under royal charter, and that with "principal partners" personally liable, and it will be understood in any statements hereafter regarding banks as a whole that these institutions are not referred to. As the charters of other banks expired they were renewed under the Dominion Act. The

first act extended all charters ten years, which practice has been followed thus far. There were various amendments during the first few years, but since then changes have been infrequent, except at the regular revisions in 1880 and 1890. The act hereafter referred to is that assented to May 1890, and to come in force July 1891 (53 Vict. c. xxxi.)

Constitution and Powers of Banks.—Banking in Canada is not absolutely *free* as in the United States. A charter must be obtained by application to parliament, and this of course could be refused. Practically, however, banking cannot well become a monopoly. The minimum subscribed capital permitted is $500,000 (say £100,000), of which $250,000 (£50,000), must be paid in, and the fact assured by the money being deposited temporarily in the finance department, after which, on compliance with other important requirements, the treasury board will issue permission to do business. Shares are held subject to what is known as double liability, *i.e.* in the event of the bank's assets being insufficient to pay its debts, a shareholder is liable for the deficiency to the extent of an amount equal to the par value of his shares, in addition to any amount unpaid on such shares. Shareholders do not escape the double liability by transfer, unless a period of sixty days has elapsed before suspension. There are elaborate regulations as to the constitution and duties of the board of directors, which cannot be fully explained here. Directors become personally responsible if dividends are declared impairing the capital, and no division of profits in any shape exceeding 8 per cent per annum is permitted, unless the reserve fund or rest equals 35 per cent of the paid-up capital. The act prescribes the form in which the directors' annual report to shareholders shall be made, and requires most comprehensive monthly returns to the finance department, which are printed and discussed in the leading newspapers. The finance minister may call for special returns from any bank at any time. A list of shareholders in all banks, with their holdings, is published by the government annually. A return of all dividends and balances unclaimed for five years is required annually, and in the event of a bank's insolvency such amounts must be paid over to government to be held for owners. The statute of limitations does not run as against depositors in favour of banks. There are numerous provisions as to a bank's power to take securities for loans. Banks may not lend upon security of real estate. The act abounds with heavy penalties for breach of its provisions.

Note Issues.—In the successive banking acts of the Dominion parliament banks have been empowered to issue circulating notes to the extent of the unimpaired paid-up capital. By the first act the noteholders had no greater security than other creditors. At the renewal of charters (1880) the circulating note was made a prior lien upon all assets; and at the last renewal the banks, at their own suggestion, are in addition required to create in two years a guarantee fund of 5 per cent upon their circulation, to be kept unimpaired, the annual contribution, however, if fund is depleted, to be limited to 1 per cent. The fund is to be used whenever the liquidator of a failed bank is unable to redeem note issues in full after a lapse of sixty days. Notes of insolvent banks are to bear 6 per cent interest from date of suspension, until liquidator announces his ability to redeem. Banks are also required to make arrangements for the redemption at par of their notes in every part of the dominion. The change in 1880 was caused by the failure of a small bank with a circulation of about $125,000 (say £25,000), paying all creditors only 57½ per cent. The change in the act about to come in force is due to the demand for a currency, which will pass over the entire dominion without discount under any circumstances. The history of banking in Canada since confederation shows no instance in which depletion of the guarantee fund would have occurred. Fines from $1000 (£200) to $100,000 (£20,000) may be imposed for over-issue of notes. The pledging of notes as security for a debt, or the fraudulent issue of notes in any shape, renders all parties participating liable to fine and imprisonment. As the crown prerogative to payment in priority to other creditors had been set up on behalf of both dominion and provincial governments, the act places the claims of the Dominion second to the note issues, and those of the provinces third. Notes of lesser denomination than $5 (£1) may not be issued, and all notes must be multiples of $5 (£1). Notes smaller than $5 are issued by the Dominion government. With power on 30th June 1894 to issue $61,559,473 (say £12,311,894), the banks had in circulation only $30,241,711 (say £6,048,344). The average of assets including double liability, to secure each dollar was $8·09 (say £1 : 15 : 0), the lowest individual average being $3·56 (say 14s. 2d.). The circulation expands and again contracts during three months in each year as much as 20 per cent, owing to the products of Canada being still mainly of the forest and field. This fact, and the necessity for till money without cost at the branches, have caused Canadian bankers to steadily oppose a currency secured by special deposit of securities. During the period since confederation the banks have provided a currency readily convertible into specie, the volume rising and falling with requirements of trade, and this, apart from legal tender notes of the Dominion, is almost the only class of money in constant use. The amount of legal tenders in circulation is about

$20,000,000 (say £4,000,000), of which over half is held by the banks, the balance representing change-making notes of denominations smaller than $5 (£1).

Reserves.—No reserves are actually required by law. The cash reserve in gold and legal tenders has averaged for some years about 10 per cent. Till money is almost entirely supplied by the note circulation. The smaller banks keep their available reserve in deposits with the leading banks in Montreal. The larger banks have their immediately available reserves largely in security loans in New York and Chicago. Forty per cent of whatever cash reserve a bank may choose to keep must be in Dominion legal tenders, a provision entirely in the interest of the government.

Branch System.—Perhaps because the first bankers in Canada were to a great extent English and Scotch, the branch system has become so firmly established that but six or seven banks have no branches. Altogether there are about four hundred bank offices, including fifteen city branches in Toronto, administered by thirty-eight banks, the largest number by any one bank being forty-four, two other banks having about thirty. One of these has branches from Halifax on the Atlantic, to Vancouver on the Pacific, a distance of about 3500 miles. Any town of 1000 or 1500 people may thus have a bank of deposit and discount of high standing, and administered by a trained bank officer. Slowgoing communities where deposits accumulate, thus provide the means of satisfying the wants of new and enterprising localities, where the demand for money is out of all proportion to local supply. As a result of this economy in the distribution of capital, and the advantages arising from till money without cost, and the profits of circulation, rates of interest in Canada are as low or lower than in any country except the three or four leading nations of the world, and Canadian banks cannot go to Great Britain for deposits as other colonial banks do, because they cannot afford the rates paid by other banks. The proportion of deposits to capital is still so small (only two to one) that branch banking could not have reached its present comparatively perfect development, but for the note issues not being specially secured. It has been argued that if this power was taken away or replaced by a specially secured issue, perhaps one-half of the branches would have to be closed.

The following figures indicate the growth of banking in Canada, 1856 and 1860 being for Old Canada alone (taking the dollar as 5 = £1).

Year.	Capital paid-up.
1856	$13,700,000, say £2,740,000
1860	24,400,000 ,, 4,880,000
1870	32,000,000 ,, 6,400,000
1880	60,500,000 ,, 12,100,000
1890	59,500,000 ,, 11,900,000
1894	62,000,000 ,, 12,400,000

Year.	Note Issues.
1856	$10,500,000, say £2,100,000
1860	9,700,000 ,, 1,940,000
1870	14,100,000 ,, 2,820,000
1880	20,100,000 ,, 4,020,000
1890	32,000,000 ,, 6,400,000
1894	30,000,000 ,, 6,000,000

Year.	Deposits.
1856	$8,600,000, say £1,720,000
1860	15,900,000 ,, 3,180,000
1870	50,700,000 ,, 10,140,000
1880	84,800,000 ,, 16,960,000
1890	136,200,000 ,, 27,240,000
1894	179,000,000 ,, 35,800,000

The total deposits in chartered banks, post office and government savings banks, Montreal and Quebec savings banks, and the real estate loan companies, was at 30th June 1887, $183,756,329 (say £36,751,266), and is now over $200,000,000 (say £40,000,000). The currency of Canada was declared by 34 Vict. c. iv., to be dollars, cents, and mills, similar to that of the United States. By same act the British sovereign is declared legal tender at $4.86 ⅔. The gold coins of the United States of $5 and upwards are a legal tender. It has been proposed to establish a branch of the Royal Mint in Canada.

[*Transactions Literary and Historical Society, Quebec,* Stevenson (1874-75, 1876-77).—Statutes, orders in council, and gazettes of provinces before confederation.—*Dominion of Canada Gazette,* and acts respecting Banks and Banking, Insolvent Banks, The Currency, Dominion Notes, Savings Banks in Province of Quebec, and Post Office Savings Banks.—*Statistical Record, Canada.*—*Banks, Bankers, and Banking in Canada,* Garland (1890).] B. E. W.

BANKS, NATIONAL (UNITED STATES OF AMERICA).—The national banking system of the United States was established by an act of 1863, revised in 1864, and amended by later legislation. Its essential features are the issue of bank notes by local banks under national supervision, the deposit of United States bonds as security for all notes issued, and the limitation of the right of issue to the banks organised under this system. The original act was adopted, after repeated recommendation by Secretary Chase, as one of the leading financial measures of the civil war of 1861-65, partly as affording a market for the considerable mass of bonds required by the banks for deposit under this plan, but chiefly as a provision for reforming the paper currency after the restoration of peace. The direct issue of legal tender notes by the treasury of the United States, which had begun early in 1862, was looked upon as a temporary expedient, and the withdrawal of the notes and restoration of specie payments after the close of the war appeared not improbable. The national banks would then supply a convertible currency, amply secured, of uniform value throughout the Union, and there could be no revival of the vicious systems of issue under local authority from which the country had suffered deeply. It was also an important

consideration that in every state the banks of issue, having their capital invested in United States bonds, would find their interests identified with those of the union. A part of these advantages were lost by the delay in returning to specie payments (1879), the final recognition of the legal tender notes as a permanent currency, and the temporary decline of the national bank circulation (see BANK NOTE, UNITED STATES OF AMERICA). The adoption of the system, however, has given the United States a large class of banks in high credit, which have been of the utmost service in the development of the country. They carry on their business under strict regulations, precluding advances on real estate or on the security of their own shares, and forbidding any bank to lend more than the tenth part of its capital to any single borrower. For the protection of their deposits the law requires a minimum reserve of "lawful money" (specie or legal tender notes) of twenty-five per cent for city banks, and fifteen per cent for country banks. In case of insolvency the shareholders are liable to an amount equal to the shares held by them respectively. The banks are also required to publish their accounts at dates selected by authority five times in the year, and are under official inspection; and finally, the whole system is under the charge of the Comptroller of the Currency, who has large discretionary powers for the enforcement of all regulations. These arrangements have made the national banks the strongest class of banks in the United States, and, in the language of an official report, has confined their business, with general success, "to the collection, the safe-keeping, and the employment in temporary loans of the floating capital of the country." Their growth has been rapid. In 1864 there were 139 in operation with a capital of $14,000,000 (£2,800,000); 30th June 1899 there were 3583, with capital and surplus $947,187,079 (£189,400,000), and total resources $4,709,000,000 (£942,000,000).

Other Banking Institutions.—Upon the establishment of the national banking system the greater part of the banks incorporated under the laws of the several states were reorganised as national banks. With others, however, the rights of issue did not outweigh some inconveniences of the national organisation, and there is now an important class of banks, and of loan and trust companies, organised under state legislation and carrying on a deposit and loan business. The regulations under which they work are necessarily diverse, and the amount of public supervision over them varies in different states. There is also a great number of private bankers receiving deposits and making loans, but ignored by legislation. The returns made by the incorporated banks and trust companies are not uniform enough to be accurate, and the number and business of the private bankers can only be conjectured since the repeal of the tax formerly laid upon deposits; but the approximate statement by a comptroller of the currency (report for 1899) excluding savings banks, gives 9732 national banks, state banks, and private banks, with resources of $9,905,000,000 (£1,981,000,000). The capitals of the banks aggregate $973,611,975 (£194,700,000), surplus, etc. $761,119,839 (£152,200,000), and deposits $6,768,658,361 (£1,353,700,000).

The limits of space forbid reference to other banking systems, etc.

[For a concise account of banking in the United States down to the Civil War, see Report of the Comptroller of the Currency for 1876, p. 6, with tables p. 83-123]. C. F. D.

BANKS, EARLY EUROPEAN. The banks founded in earlier times in Europe carried on, for the most part, a rather different business than that understood at the present time under the title of banking. The BANK OF VENICE has often been traced (see ANDERSON, *Origin of Commerce*, vol. i. p. 156) to the forced loans raised by the republic in 1156, 1480, and 1510, the transfer of stock and the payment of interest taking place at a public office, which was subsequently made a deposit bank. Lattes and Ferrara, however, have made it certain that, although the stock, by its transfer, may have become an important medium of exchange, deposit banking in Venice was thoroughly established by private bankers in the 14th century, and that the first public bank, the Banco di Rialto, was opened by decree of the senate in 1587, in consequence of the frequent insolvency of the private banks. In 1619 the Banco del Giro, long known as the Bank of Venice, was established by a decree of which the text is given by Lattes, *Libertà delle Banche a Venezia*, p. 183. This bank, like its predecessor, was established without a capital and purely as a bank of deposit, under the management of public officers. It received funds both for the state and for individuals, making a small charge for holding private deposits; transfers were made upon the books by the order of depositors; bills of exchange were paid by such transfers; and the tender of payment in bank for any sum not less than 100 ducats could not be refused. Upon this plan the bank became an important aid to commerce, and was long famous throughout Europe. As it was not properly a lender, the bank should never have had less bullion than the amount of its deposits; but loans to the government compelled it to suspend payment more than once, especially 1717-39, and with some loss of credit. For the greater part of its existence, however, it received cash or paid it out, according to offer or demand. It kept its accounts in ducats *banco*, which had no corresponding coin, but were credited or redeemed by the bank, as

might be required, at an advance of 20 per cent above the ducat *effetivo* of the mint. Whatever the origin of this difference or agio, it seems finally to have represented a mere difference of denomination, as if the Bank of England were now to keep its accounts in guineas, using the current coin in all receipts and payments. The Bank of Venice declined with the republic, and at last fell, after the invasion by the French in 1797. It is some indication of the financial skill with which this bank was managed that the managers were able in 1766 to reduce "the interest of their funds to 4 per cent, at the same time offering payment of their principal to those who were unwilling to accept that rate of interest" (Macpherson, *Annals of Commerce*, vol. iii. p. 444). Next in importance to the Bank of Venice was the BANK OF GENOA, Bank of St. George. Banking institutions are mentioned by CIBRARIO as having existed as early as the 12th century. The Bank of St. George, which dates in the form by which it is generally known from 1407, besides being a bank of circulation and deposit, was also the financial centre of the republic, at which all the transactions in the public funds of the state were carried on. ANDERSON (*Origin of Commerce*, vol. i. p. 319,) says (in 1345) that the republic of Genoa had "run so considerably into debt to her own citizens that in this year four of them were elected to make provision for those debts, and for the current service of the year." Anderson, who, however, gives 1407 as the date when the bank was definitely established, states that in order to pay the interest on the debts of the state the customs were assigned to it. The council of the bank were one hundred, and the governors eight in number, "managing their stock prudently, and having many rich men concerned with them, they afterwards supplied the further necessities of the republic; and, for that end, had at length most of the cities and territories of Genoa pawned, or rather sold to them," . . . and (p. 414) "In proportion as the wants of the republic increased, so did the credit of this house or bank, by having still more bonds, rents, and important dominions assigned to it." The power of the bank of St. George increased, so that, according to De Mailly, whom Anderson quotes, there is "seen in the same city two independent sovereignties." The appropriation of its property, first by the Austrians, 1740, and afterwards by the French during their occupation in 1800, destroyed its credit, which till then had remained unimpaired. The BANK OF SWEDEN claims, and we believe truly, to have been the first established on modern principles as a bank which issued notes payable to bearers at sight. This bank was founded, 1656, by a Swede named Palmstruck. The first bank-note was issued 1658. An "enquête" made by the French government in 1729, recognises the priority of Sweden in this matter, and declares the bank-note to be an admirable Swedish invention, designed to facilitate commerce (Palgrave, *Notes on Banking*, p. 87). This bank became the Riks bank (Bank of Sweden) 1688; it still carries on business in Stockholm, and has always been national property. The BANK OF AMSTERDAM, founded 1609, was established for a different purpose, namely to provide in these important commercial centres a common and permanently steady currency in which the foreign bills of exchange domiciled there might be paid, without that loss and inconvenience which a fluctuating currency caused. The establishment of the Bank of Amsterdam is described in some detail by A. SMITH (*Wealth of Nations*, bk. iv. ch. iii.) "Before 1609 the great quantity of clipt and worn foreign coin which the extensive trade of Amsterdam brought from all parts of Europe, reduced the value of its currency about 9 per cent below that of good money fresh from the mint. Such money no sooner appeared than it was melted down or carried away, as it always is in such circumstances. The merchants, with plenty of currency, could not always find a sufficient quantity of good money to pay their bills of exchange; and the value of those bills, in spite of general regulations which were made to prevent it, became in a great measure uncertain.

"In order to remedy these inconveniences, a bank was established in 1609 under the guarantee of the city. This bank received both foreign coin and the light and worn coin of the country at its real intrinsic value in the good standard money of the country, deducting only so much as was necessary for defraying the expense of coinage, and the other necessary expense of management. For the value which remained, after this small deduction was made, it gave a credit in its books. This credit was called bank money, which, as it represented money exactly according to the standard of the mint, was always of the same real value, and intrinsically worth more than current money." Payments were made in transfers of "bank money," which were equivalent to cheques. For the last century of its existence the bank adopted the method, also described by Smith, of making advances in bank money upon the pledge of coin or bullion deposited, the owner paying interest for the advance and receiving a *récépissé* to enable him to withdraw the pledged metal upon making repayment. This system, which has been much misunderstood (as by M'Culloch in his edition of the *Wealth of Nations*, p. 215), superseded the earlier practice of simple deposit, but appears to have equally answered the purpose for which the bank existed. The bank of Amsterdam rendered great services to commerce for more than two hundred years, but during the French occupation at the close of

the last century it was found that the bank had advanced very large amounts to the provinces of Holland and West Friesland, the Dutch East India Company, and the city of Amsterdam. The bank then became virtually insolvent, but the city finally paid the holders of bank money some time before 1802. Attempts were made to revive the bank, which languished until 1820, when it was at last closed.

The BANK OF HAMBURG was established 1619, for similar reasons to that of Amsterdam. To the prosperity of the trade of Hamburg, the most vigorous offshoot of the once powerful HANSEATIC LEAGUE (*q.v.*), the bank of that city largely contributed. It carried on its business under the protection of the state, and was a place of deposit, or warehouse of the precious metals—principally uncoined silver. Silver in bars was the true foundation of the bank's stock, coined silver, gold, and to a small extent copper were merely received as pledges with a margin. The "mark banco," or money of account, represented the 59⅓ part of a metrical pound of fine silver. Any quantity of fine silver was received by the bank, and credit given for it at the rate of 59⅓ mark banco for one pound of fine silver, 1 per mill (⅛ per cent) being charged to the person who sold the silver to the bank. Accounts could only be opened by a Hamburg citizen or corporation. In order to avoid any risk of loss, no silver was received under the fineness of $\frac{982}{1000}$, and every bar had to be assayed by a sworn assayer (*Wardein*) in the service of the bank. In this manner the payments to be made were merely transfers from one account to another by persons who kept an account at the bank. To transact their business they had either to appear personally or to be represented by an attorney. The person who appeared, whether the owner of the account or the attorney, had to hand over the check, which may more properly be described as the order for transfer, with a printed signature personally to the bank. One list for all the separate sums dealt with was handed in. Besides the business based on bar silver, the Hamburg bank also advanced bank money against silver coins, and in a more restricted way on gold, under careful regulations and for a limited time only. These loans, however, could be renewed. The pledge itself could only be taken out by the person who took money for it, or by another one to whom it was formally transferred (Palgrave, *Notes on Banking*, p. 116). The Bank of Hamburg continued to do business on these principles for many years. Modern methods of account, however, were gradually introduced. On 15th February 1873 the old system of a bank currency based on uncoined silver came to an end. The German currency was employed; the development of the Bank of Germany, and an establishment of a branch of that bank in Hamburg, together with the alteration in the currency of Germany from a silver to a gold basis, rendered the continuance of the Bank of Hamburg no longer necessary, and its business was merged in that of the Bank of Germany. The bank had accumulated a capital of about 1,000,000 marks, or £50,000 besides the value of its buildings. The latest reference to its separate existence is found in the transactions of the senate of Hamburg of the 13th October 1875. In these, following the ancient practice of the free city, the senate formally communicates to the burghers its resolution to sell the buildings of the "venerable institution which had performed such great services to German trade" to the Bank of Germany for 900,000 marks (£45,000). The actual transfer took place on 1st January 1876. An agreement was likewise made that the officers and staff of the bank should be transferred on a similar footing to that which they had previously held to the Bank of Germany—seven being retained while five were pensioned by the State, including the two *Wardeine* (assay officers); and thus the bank which had carried on business to a later date than any other of the banks, established on what may be termed mediæval principles in Europe, closed its honourable and useful career. Dr. A. SOETBEER published (*Volkwirthschaftliche Vierteljahrschrift*, 1866-1867), a very interesting account of the Bank of Hamburg (*Die Hamburger Bank*, 1619-1866), which narrates its remarkable history. The soundness of the course of business followed, at all events from 1770 onwards, was exemplified in the strongest manner on the 5th November 1813. When on this date the French took possession of the bank treasure, 7,506,956 mark 6 schilling in silver, the corresponding liabilities were found to be 7,489,343 mark 12½ schill. only. So unbroken was the confidence in the institution that its operations were hardly interrupted even by this shock; the removal of the treasure by the French continued till 18th April 1814. After a further period of disturbance the freedom of Hamburg was re-established 1st June 1814. The bank immediately resumed business and the value of the mark banco stood as before. The tardy reparation in the form of an inscription of French rente of 500,000 fr. (equal to 7 fr. rente for every 100 mark banco taken away), was not made till 1816.

This, though the most severe ordeal the Bank of Hamburg had to pass through, has not been by any means the only one. There was a severe crisis in 1763, another in 1799, caused by violent fluctuations in prices, another in 1857, arising out of speculative business, the last-named being only allayed by a loan from Vienna, first of ten million mark, then of five million more in current silver (say £1,125,000). As not unfrequently occurs in panics, the knowledge that the means to meet liabilities were at

hand sufficed to calm the crisis, the identical coins being, as Soetbeer informs us, returned to the national bank at Vienna in the selfsame boxes in which they had been despatched. This loan was guaranteed by the senate of Hamburg. The amount of indebtedness liquidated was very large, the total being 144,586,000 mark banco—(say £10,844,000 reckoning the mark banco at 1s. 6d.) This amount is made up by the commercial failures *m.b.* 98 millions (say £7,350,000), the sum, collectively *m.b.* 21 millions (say £1,575,000), dealt with by the three Committees to which the State delegated authority to grant loans on bills, merchandise, and other securities, (1) the *Belehnungs Kommission*, *m.b.* 8,153,000 (say £611,475), (2) the *Staats Disconts Casse*, *m.b.* 3,029,549 (say £227,215); (3) the *Vertrauens Commission* for the first Austrian loan, *m.b.* 10,000,000 (£750,000); and the portfolios of the two joint-stock banks (*Aktien Banken*), *m.b.* 25 millions (£1,875,000). The loss which resulted to the state was comparatively small, being about 187,000 mark banco (say £14,025), and to the two joint-stock banks 200,000 mark banco (say £15,000). That on the 98 millions was unknown although no doubt this figure included some of the engagements represented by the portfolios of the banks. The interposition of the state alone prevented a terrible catastrophe.

Nothing could be more sound than the business of such a bank as that of Hamburg, which consists under ordinary circumstances only in transferring "value" from one holder to another. The experience of the bank shows that when severe pressure comes on, as in the crisis of 1857, the support of the government may enable these limits to be safely exceeded for a time, with great advantage to the community. Dr. Soetbeer supplies statements which show the rapidity and the fluctuations in the operations of the bank. The amount held by the bank was turned over during each year from 1856 to 1866 as follows:

Year.	No. of Times.	Average rate of discount per cent.
1856	115	$6\frac{1}{4}$
1857	136	$6\frac{1}{2}$
1858	38	$1\frac{3}{4}$
1859	59	2
1860	68	$1\frac{1}{2}$
1861	88	$2\frac{9}{16}$
1862	111	3
1863	111	$3\frac{3}{16}$
1864	135	$4\frac{9}{16}$
1865	118	$3\frac{9}{16}$
1866	119	$4\frac{11}{16}$

The relation shown between rapidity of turnover and rate of interest is very remarkable. The fact that this is the case has been noticed by men of business, who would hardly have expected so exact a statistical confirmation of their individual observations.

Similar in many ways to the Bank of Hamburg was the BANK OF ROTTERDAM (established 1635); one difference in detail appears to have been that accounts were allowed to be kept, either in "bank money," to meet bills drawn foreign on Rotterdam, or in "current money" to meet bills drawn in Rotterdam on foreign countries. Anderson (*Annals of Commerce*, vol. iii. p. 384) mentions another point, namely, that "bills of exchange are paid in large money, and only 10 per cent in schellings." The BANK OF MIDDELBURG (established in 1616) appears to have practised lending upon securities (Mees, *Bankwezen in Nederland*, p. 231), and so far to have departed from the usual type of deposit bank; but with this exception the scope of the business of all these banks appears to have been much the same, the management, where necessary, as at Venice and Genoa, of the debts of the state, and, further, providing facilities for foreign commerce. Assistance to local industry in the way of discounts and making advances does not appear, at first, to have been, at all events prominently, their original occupation and intention.

BANKS, GERMAN LAND. There are two species of advances which an agriculturist who owns the land he cultivates may require: (1) to increase the working capital needed to carry on cultivation, such as wages, purchase of stock, seed, or manures: (2) for permanent improvements in his property, as drainage, irrigation, and farm buildings. The return for the first should take place within one, or, at most, a very few years; for the second it will be fully realised only after a long period.

Distinct institutions have long existed in Germany to meet the demands for these two species of advances.

The first kind are sufficiently supplied, in the cases of the larger proprietors, by ordinary banks. For smaller proprietors there are in Germany, besides ordinary banks, institutions on the basis of mutual assurance. Such are the RAIFFEISEN loan fund societies, specially for the rural districts, particularly for the small landowners, to protect them from the exactions of the local usurers. These render effectual aid to the cultivators, lending somewhat larger amounts for long periods. They have had marked success in the Rhine-province of Prussia, in Westphalia, and in Hesse-Darmstadt.

For permanent agricultural improvements large sums become necessary, and loans can only be repaid gradually during an extended term. Germany was the first country in which special systems of credit for long periods on the security of landed property were organised. The oldest institution of this kind originated in Silesia in 1769, some time after the seven years' war, under the auspices of Frederick the Great, who

gave it a subvention from the public purse of 300,000 thalers at 2 per cent. The plan was due to a Berlin merchant named Büring. The object was to relieve proprietors who were overwhelmed with debt, having suffered severely from the war, from the high rate of interest, and the low prices of agricultural produce. Similar establishments, known as *Landschaftliche Credit-vereine* or simply *Landschaften*, were afterwards founded in the other provinces of the Prussian monarchy, as well as in Würtemberg, Mecklenburg, Saxony, and most of the other German states. They not only continue to exist, but have increased in numbers, and the system has since extended to Austria, Denmark, and Russian Poland.

They are voluntary associations of landowners, resting on the principle of joint responsibility. Any proprietor who borrows from an association becomes *ipso facto* a member of it. The security for the advances they make to their members is, in addition to the movable property of the borrower, his land and the buildings on it. The position of the association is usually that of first mortgagees. The associations carry on their transactions within limited areas; and this enables them to adapt their operations to the wants of the district, and, in particular, secures that the valuation of lands pledged for advances shall be made by persons thoroughly acquainted with local conditions and possessing the confidence of the agricultural community. They lend commonly at 4 per cent, *plus* a small contribution (⅛ to ¼ per cent) towards expenses of management; besides the annual payment applied to the extinction of the loan.

The associations in general do not pay the loan in money, but issue obligations (*Pfandbriefe*) for the amount advanced. These are negotiable, and pass from hand to hand, bringing the holder an interest paid by the association, yearly or half-yearly, of from 3 to 4 per cent. Payment of the principal of obligations cannot, in general, be claimed by the holder, but the association may agree to accept offers of them, and can call them in, usually by drawings, on giving due notice by advertisement. Not merely the property specially represented by the *Pfandbrief*, but all the funds of the association are liable for the regular payment of the interest. Each of the coupons into which an obligation is subdivided usually represents a very moderate amount, and they are used as a medium of exchange in small transactions. They have maintained their value extremely well in comparison with other debentures. Thus, for example, during the shock to commercial confidence caused by the revolutions of 1848, whilst the 3½ per cent Prussian public funds were quoted at 69, and the shares of the bank of Prussia at 63 per cent, the 3½ per cent *Pfandbriefe* stood, in Silesia and Pomerania at 93, in west Prussia at 83, and in east Prussia at 96; and they have maintained their price well since. In some cases these obligations are issued direct to the borrowers, who themselves undertake their negotiation. In others the association charges itself with the negotiation and gives cash to the borrower, this being furnished by capitalists who invest in the obligations. No dividends are earned by the association. The receipts from the borrowers provide for the interest on the obligations, the maintenance of a reserve fund, the gradual redemption of the obligations, and the cost of management. In case the borrower fails to pay the interest on his loan, the association can first seize his produce and other movable effects, and if these are insufficient, can have a receiver appointed over the mortgaged estate, or can sell it by public auction. The debtor can, in general, pay off the debt at will, in full or by instalments of not less than a certain fixed amount.

The governments of the several German states commonly prescribe certain conditions (*Normativ-bedingungen*) under which these societies can be formed, and rules to which their operations must conform. The minister of the interior exercises a superintendence over their proceedings, usually through a commissioner who presides at the meetings of the members, and not unfrequently some of the directors are nominated, or their nomination is required to be approved, by the state.

Three conditions appear necessary for the safe and efficient working of such institutions. (1) There must be a public compulsory register of titles to, and charges on, land, so as to make the existing liabilities of an estate, or portion of an estate, easy to ascertain;—(2) ready and cheap legal methods for the recovery of debts and the sale of the borrower's property pledged for a loan;—(3) the obligations must be capable of easy and inexpensive transfer.—All these conditions are satisfied in the countries where such establishments have been successful. Further, there must be due care in the management of the institutions, and especially in valuation of mortgaged lands. When the *Landschaften* are under state control, it is generally provided by law that the loan shall be made only on first mortgage and to an amount not exceeding half, or at most two-thirds, of the value of the land. When application is made for a loan, if a previous mortgage on the land is found to exist, it is first, with the consent of the prior mortgager, paid off in obligations.

These institutions offer considerable advantages both to borrowers and lenders. To an agriculturist who has sunk borrowed capital in improvements, the liability to a sudden demand for repayment of the loan is particularly formidable; and that step may be necessitated by the condition of the creditor's affairs without any fault of the borrower. To the capitalist who lends, a more punctual payment of interest

is assured by the responsibility of the association than could in every case be expected of a private debtor. And he is saved the trouble of examining into the security of the borrower, all risk on that head being borne by the association.

All testimonies on the subject tend to show that the effect of these institutions has been socially beneficial. They have lightened the burdens of proprietors, have increased the market value of land, and have determined a more liberal expenditure on permanent agricultural improvements, thus tending to diminish the immigration from the country districts into the large towns. They have also opposed a useful counterpoise to the tendency towards excessive subdivision.

So far we have dealt only with institutions which may be described as *associations of borrowers*, who procure loans for themselves on the security of the whole or a part of their landed possessions, guaranteeing repayment of the loans by their collective responsibility. This was, as we have seen, the type of the early German *Vereine;* and these societies still exist and new ones have been founded on the same plan. But, besides these, other institutions have come into existence during the last half-century in Germany, as well as elsewhere, which may be distinguished as *associations of lenders*, for the purpose of making advances for long terms on the security of immovable property, land, houses, factories or workshops, woods, mines, etc. They have been created by capitalists as modes of investment. The establishments of this kind are more properly than the former called land-banks ; they are known in Germany as *Hypotheken-Banken.* They possess a subscribed capital, and pay dividends to their shareholders. The bank is responsible, to the extent of its entire resources, to the capitalist who purchases its obligations. The subscribed capital bears but a small proportion to the amount of the obligations in circulation, so that the security to the holders of the latter rests essentially on the value of the mortgaged properties. The annuity paid by the borrower consists, as in the case of the *Landschaften*, (1) of the interest on the loan, with (2) a commission, and (3) the sum required for the extinction of the debt in the fixed term. The profit of the bank depends on the difference between the interest it pays to holders of its obligations and that it receives from its debtors. The issue of the *Pfandbriefe* of these banks is, in general, limited by legislation, or by direct action of the public authorities ; the accounts of the banks are, in some states, required to be periodically submitted to the government

A special stimulus to the formation of land-banks in Germany, as elsewhere, was supplied by the success of the French CREDIT FONCIER (*q.v.*), founded 1852. Placed at first under the surveillance of the state, afterwards (in 1854) under the direction of high functionaries selected by the sovereign, that establishment had, after surmounting considerable difficulties in its early stages, obtained a position of stable credit, and had extended its operations over the whole of France. Foreign financiers and statesmen studied with care an organisation which had yielded such satisfactory results ; and a powerful impulse was given to the creation of land banks in the other continental countries. In Germany, in particular, a great number of them were founded ; five at Berlin between 1864-72, three at Frankfort-on-the-Main between 1862-71, three at Munich between 1869-71, and others at Brunswick, Königsberg, Gotha, Mannheim, Hamburg, and Bremen, and in Silesia, Pomerania, Würtemberg, Mecklenburg, Anhalt-Dessau, and Alsace-Lorraine. An establishment on the French model has also been created for the Austro-Hungarian monarchy. Some of those here named are also banks of ordinary discount. At the end of the year 1883 there were enumerated, as existing in the German empire, twenty-four *Hypotheken-Banken*, having in circulation more than 1700 millions of marks (£85,000,000) in *Pfandbriefe*, and holding over 1800 millions of marks (£90,000,000) in mortgage. Their share capital amounted to more than 250 millions of marks (£12,500,000).

Whilst the *Landschaften* were instituted and worked for the benefit of agricultural proprietors exclusively, it is said that the business of the *Hypotheken-Banken* has been principally in connection with town buildings.

Besides the voluntary associations of which we have spoken, the governments of some of the German states have from time to time founded land banks, entirely under their own management, for special objects. Thus in the parts of the country where feudal institutions continued longest in force, as for example in Hesse-Cassel and Hanover, they had been created (in 1832 and 1840 respectively) to furnish the proprietors of the "peasant lands" with the means of redeeming the seigniorial dues to which they were subject. And in recent times *Landescultur-Rentenbanken* have been founded by the governments of Saxony and Prussia, to assist landowners in draining and irrigating their estates.

[The bibliography of this subject is already very extensive. A long list of books on land credit will be found in C. Knies's *Geld und Credit*, 2te Abtheilung (1879), p. 395. The present writer has consulted, besides Knies's work, Theod. Frhr von der Goltz, *Landwirthschaft*, Theil 1, §§ 47, 48, in Schönberg's *Handbuch der Politischen Oekonomie* (2d ed. 1886).—V. Borie, *Études sur le crédit agricole et le crédit foncier en France et à l'étranger* (1877) and J. B. Josseau, *Traité du crédit foncier* (3d ed. 1885),—Titre vii., ch. 2, *Institutions de crédit foncier dans les divers états Européens.*] J. K. I.

BANKS, POPULAR (GERMANY). Banks on a co-operative principle, known as "Popular Banks" in England, have been established in several countries in Europe, the most prominent examples being in Germany and Italy. The popular banks of Germany, which owe their initiative to the indefatigable efforts of M. SCHULZE-DELITZSCH, commenced operations in the years 1858-59. The principle on which these banks are founded is strictly co-operative. No advance can be made to any one except to a member. Each bank is directed by an administrative council consisting of nine members, elected at the general meeting; a committee is also elected, which manages the detail. No one is admitted as a member unless he is accepted by the administrative council; the members have to pay an entrance fee, and to subscribe a certain share of the capital, no one being allowed to exceed a fixed maximum limit. The payments may be either by monthly instalments or in one sum. Each member has the right, as soon as elected, to ask for a loan, the shortest period for advances being a fortnight, the longest three months. This may be renewed, but not for more than nine months. Every member is required, before a loan can be granted him, to have 60 per cent at least of the amount paid in to his credit, or to be guaranteed by another member of the society. The banks receive amounts on deposit, on which interest averaging about $4\frac{1}{4}$ per cent is paid; for these sums both the capital and the members individually are liable. The dividends to the shareholders average from 6 to 7 per cent. The advances are made at about 8 per cent, but a part of this is returned to the borrower by way of dividend.

These banks take, to a certain extent, the place of savings banks, and have been of great service in promoting the prosperity of those districts in which they carry on operations. Besides the popular banks (*Vorschussvereine*), Herr Schulze-Delitzsch established industrial syndicates (*Genossenschaften in einzelnen Gewerbszweigen*); co-operative societies for articles of consumption (*Konsumvereine*); building societies (*Baugenossenschaften*).

Their numbers were as follows, 1881—

	1889
Popular Banks	898
Industrial Syndicates	660
Co-operative Societies	34
Building Societies	3481
Total number of Societies	

The Capital of these Societies was—

	1881 Converting the mark as 20=£1
Payments of members, and reserves	£9,500,000
Borrowed Capital	21,000,000
Total	£30,500,000

The following figures show the development of the Popular Banks, and their position 1859-1889.

Year.	Number of Banks which reported to the central officer.	Number of Members.	Advances made.	Funds belonging to the members, capitals, and reserves.
			£	£
1859	80	18,676	6,100,000	41,000
1882	905	461,153	75,000,000	6,073,000
1887	886	456,276	80,000,000	6,744,000

[Marks converted as 20=£1.]

The troubles which the revolution of 1848 brought on Germany gave the impulse to M. Schulze-Delitzsch which led him to devote his attention to this great work. He perceived, with the intuition of a statesman and of a first-rate financier, that state help and charity would never aid those who sought assistance of this description to make their way out of the grinding poverty, the lot of too many, not only of the working-classes, but of the small traders. Believing that "man has implanted in his nature, together with the wants which are bound up with his existence, the powers also, the right use of which leads to the satisfaction of those wants," he steadily persevered in his efforts to apply the principle of "self-help," to a business usually supposed to require a large fund of capital before it can be set satisfactorily to work. The rate of interest to the poor but hardworking borrower was reduced from a most usurious rate (60 per cent and even 730 per cent are mentioned as rates which had been given previously), while the lender received enough to make the effort of saving worth his while. It should be added that through careful management the losses on advances have been extremely small.

[See Paper on "People's Banks," by A. Egmont Hake, *Journal of the Institute of Bankers*, June 1889; who remarks on the opposition the system received at first from the police—an opposition which, if persevered in, must have caused the whole movement, so useful to the country, to collapse. *Vorschuss-und-Credit-Vereine als Volksbanken Praktische Anweisung zu deren Einrichtung und Gründung von Schulze-Delitzsch*, Leipzig, 5th ed., 1876. This volume contains complete information on the method of establishing the system, duties of directors, officials, arrangements for general meetings, amount of shares, etc., the act of 1868, with other documents, forms of account, etc. The pains taken with the detail, and the high standard of public spirit incidentally shown, are beyond praise.

A reference in the *Banker's Magazine*, October 1889, shows that a "People's Bank of Scotland" has been proposed; no further information has, however, been received.]

BANKS, POPULAR (ITALY). Co-operative banking was introduced into Italy by Signor Luigi Luzzatti, now (February 1891) Minister of the Italian Treasury, and "Presidente dell' Associazione fra le Banche Popolari Italiane,"

who, in 1864, adapted the method of organisation employed by SCHULZE-DELITZSCH for the use of his own country. The leading principle of the Italian popular banks, as of those of Germany, is that of co-operation, of mutual responsibility, and self-help. The system has now extended itself over nearly the whole of Italy. In 1887 the number of popular banks was 608. The method of organisation is, in the main, similar to that employed in Germany. The management rests entirely on the intelligence of the shareholders themselves, working through different committees which undertake separate portions of the administration. These officers—the president and committee men—are unpaid. To prevent undue power from being accumulated in the hands of any individual, the number of shares any single person may hold is limited; and at the general meetings of the society, no shareholder has more than one vote, whatever the number of his shares may be. The advantages obtainable from joining these institutions are greatly appreciated by the smaller shopkeepers and traders, who form the largest class among the shareholders; next in number are the small agricultural proprietors and farmers, working men proper being about 10 per cent of the whole. The transactions appear to be extremely minute, loans even of 1 franc (10d.) not being unknown; the largest number of loans being for sums less than 20 frs. (16s. 8d.) The deposits correspond, the largest number being below 50 frs. (£2). Before these banks had been introduced a most usurious rate had been charged for small advances to petty traders and artisans, 30 to even 60 per cent being paid, and even higher rates. The local business done in these small advances appears to have been generally sound. L. Luzzatti quotes, with a very justifiable satisfaction, the following figures of the total advances, and the amounts overdue and unpaid in his official publication of 1889.

Popular Banks of Italy.

Year.	Amount of Loans and Discounts.	Amounts overdue and unpaid.	Proportion per cent.
1880	£16,895,236	£47,940	·28
1881	20,632,560	68,121	·33
1882	24,390,725	64,788	·26
1886	45,902,837	104,278	·22

Though the individual amounts are small, the aggregate is considerable. The recent progress has been as follows:—

Year.	Number of Banks.	Capital.	Deposits.	Total.
1883	250	£2,566,880	£10,421,200	£12,988,080
1887	608	4,164,360	17,104,680	21,269,040

The franc converted as 25 = £1.

The number of shareholders is given as 318,979 in 1887, for 541 of the banks referred to above.

The practicability of the whole system turns on the fact that the management is local, hence the characters of all concerned, whether borrowers or other shareholders, are well known, and "as each shareholder mutually guarantees his fellow, every one has an interest in preventing the bank from being defrauded" (*Quarterly Review*, January 1887, p. 154).

[For further information see *Il credito Popolare in Italia*, Relazione di Luigi Luzzatti, Roma, 1882.—*Manuale per le Banche Popolari Co-operative Italiane*, Ettore Levi, Milano, 1883.—*Statute della Banca Mutua Popolare di Firenze; Società Anonima Co-operativa*, Firenze, 1883.—*Introduzione alla Statistica delle Banche Popolari* (anno 1887), *Con una Relazione*, di Luigi Luzzatti, Roma, 1889.]

BANKS, SAVINGS. Institutions to encourage savings amongst the poorer classes. Probably the earliest instance of a savings bank established in this country was the Charitable Bank at Tottenham, founded by Miss Priscilla Wakefield in 1804. Six gentlemen acted as trustees, and undertook to receive the moneys deposited, allowing 5 per cent interest on all sums of twenty shillings in their hands for one year. This involved loss to the trustees, and in 1808 a similar society, opened at Bath for the advantage of domestic servants, allowed 4 per cent. The Parish Bank Friendly Society of Ruthwell, started 1810, was a genuine savings bank efficiently organised. Its success being considerable, it soon had many imitators. Six years later there were nearly eighty savings banks established in England and Ireland, and in the year 1817 legislation was resorted to. Acts 57 Geo. III. c. 105 and c. 130 were passed to encourage and regulate banks for savings in England and Ireland. Trustees were prohibited from making any profit out of these banks. At the same time they were bound to remit all deposits when they exceeded £50 in the aggregate to the office for the reduction of the national debt, where "the fund for the banks of savings" was opened, and interest was allowed by that office of 3d. per cent per diem, or £4 : 11 : 3 per cent per annum, whereas the banks themselves mostly allowed their depositors 4 per cent. There were also restrictions as to the amount which could be deposited in any one year to £50, though in England a depositor was permitted to deposit £100 in the first year. In 1824 another act was passed limiting deposits to £50 in the first year and to £30 in any subsequent year, and when the deposits of any person exceeded £200 no interest was allowed on the excess. In 1828 Act 9 Geo. IV. c. 92 was passed to consolidate and amend the laws relating to savings banks, and this provided that the rules and regulations of each such bank

should be approved by the commissioners for the reduction of the national debt; that the interest allowed by that office should be only 2½d. per cent per diem (£3 : 16 : 0½ per cent per annum); that only 2¼d. should be allowed by such banks to depositors (say £3 : 8 : 5¼ per cent per annum); and that no depositor should be permitted to deposit more than £150, although the interest might be permitted to accumulate until the deposit reached £200. There were (20th November 1833) amongst 385 savings banks, 414,014 depositors in England, their total deposits being £13,973,243; in Wales there were 23 banks, 11,269 depositors, and £361,150 deposits; and in Ireland 76 banks, 49,872 depositors, and £1,380,718 deposits; making in all 484 banks, 475,155 depositors, and £15,715,111 deposits. A further act was passed in 1833 (3 Will. IV. c. 14).

In 1835 Act 5 & 6 Will. IV. c. 57 was passed, extending the provisions of these acts to Scotland, and military or regimental savings banks were established in 1843. In 1844 another act was passed (7 & 8 Vict. c. 83), reducing the interest allowed by the national debt commissioners to 3¼ per cent, and the maximum interest to depositors to £3 : 0 : 10 per cent. The recent reduction in the rate of interest paid on consols must lead to further modifications in this. Arrangements were also made for the summary distribution of deposits of deceased persons, and other regulations were made in regard to the purchase of annuities, etc. On 20th November 1844 there were 577 savings banks in the United Kingdom, their deposits being £29,504,861 by 1,012,047 persons, averaging £29 per head. It may be gathered from the successive reductions in the rate of interest allowed by the commissioners that the government had not found the custody of the savings banks' funds directly profitable. In fact, as they had to invest the money in consols and other home government stocks, there was found to be an accumulated loss of some millions. Various partial provisions were from time to time made to cover this; so late, however, as 1881 there was a deficiency of £2,144,562, which was finally extinguished by the creation of an annuity of £83,673, expiring in 1908. In the year previous (1880) the interest allowed by the commissioners was lowered from 3¼ to 3 per cent, at which it now remains, while the interest to depositors is mostly 2½ per cent per annum.

But in 1861 a great development of the savings banks principle was effected. Post office savings banks (promoted greatly by the efforts of the late Sir C. W. Sikes of Huddersfield) were established by Act 24 Vict. c. 18, and at once became popular in England and Ireland. The post office savings banks, however, have been less progressive in Scotland, where, though the trustee banks were of later creation, they have taken a firm hold. The rate of interest provided under this act was 2½ per cent.

It is evident that since the establishment of the post office savings banks thoughout the kingdom the security they can offer has greatly influenced depositors, especially as the advantage to be gained in a higher rate of interest by depositing in the trustee savings banks is but small. The following figures will show the growth of these deposits:—

Savings Banks.		United Kingdom.
1833	Trustees	£15,715,111
1844	,,	29,504,861
1860	,,	41,258,368
1870	Trustees	37,958,549
	Post Office	15,099,104
1880	Trustees	43,976,447
	Post Office	33,744,637
1890	Trustees	43,650,000
	Post Office	67,634,000
1900	Trustees	50,622,000
	Post Office	131,916,000
1901	Trustees	51,224,000
	Post Office	137,788,000

The purchase of government stock through the post office dates from 22nd November 1880. The amounts remaining to the credit of stockholders at the end of each year were, 1880 about £128,000; 1899, £8,400,000.

In British colonies the savings banks have also become a considerable power both in the form of general and post office banks. In Australia in 1899-1900 nearly 25 per cent of the population were depositors, their deposits, aggregating £34,000,000, reaching £30 : 11 : 9 per head. The interest allowed being (1897) 3 per cent up to £200, and 2½ per cent on sums from £200 to £500. In Canada, on 30th June 1888 the deposits in the savings banks of the dominion reached $41,371,058 (say £8,481,066). The total amount, 1895, in all the savings banks was $57,500,000 (£11,500,000), $11·11 (£2 : 4 : 6) per head of population.

In many foreign countries also savings banks are well established, and large sums are deposited in them. In France the rate of interest has lately been reduced from 4 to 3½ per cent by the Caisse des Dépôts et Consignations, which is stated in the *Nouveau Dictionnaire d'Économie Politique*, p. 924, article Caisses d'Épargne, to have received in fifty years (1837-1887) about £224,000,000 from the Caisses d'Épargne, to have repaid £96,000,000, and to have invested about £20,500,000 in the purchase of governmente *Rente*. The *Caisse Nationale d'Épargne*, established 1881, is further stated in the same work, p. 926, to have collected during the first seven years it had been in operation about £12,000,000 belonging to more than 1,167,000 depositors. The French Savings Banks (*Bulletin de Statistique et de Législation Comparée*), to give another example of thrift in France, held £170,000,000, 31st December 1897.

BANK NOTE. REGULATIONS IN DIFFERENT

COUNTRIES. The arrangements respecting bank note circulation are very different in different countries.

(1) In the United Kingdom the note circulation is regulated by the Bank Acts of 1844-45. Sir R. PEEL, in conformity "with the principles of the currency theory" (see Tooke's *History of Prices*, vol. iv. pp. 373, 374), stated, in his speech in the House of Commons, 24th June 1844, that one of the objects he had in view was "that the paper circulation should conform itself to gold, that it should fluctuate like gold." To attain this the accounts of the Bank of England were henceforth to be divided into two parts, issue and banking departments.

The method adopted is shown in the return which follows:—

THE BANK OF ENGLAND.

An account pursuant to the Act 7 & 8 Vict. c. 32, for the week ending on Wednesday, May 2, 1901:

Issue Department.

Notes Issued	£51,256,845	Government Debt . .	£11,015,100
		Other Securities . .	6,759,900
		Gold Coin and Bullion .	33,481,845
	£51,256,845		£51,256,845

Banking Department.

Proprietors' Capital .	£14,553,000	Government Securities	£13,757,471
Rest . .	3,170,208	Other Securities	30,769,179
Public Deposits[1]	9,835,641	Notes . .	21,510,185
Other Deposits	40,258,223	Gold and Silver Coin . .	1,957,974
Seven-day and other Bills	177,737		
	£67,994,809		67,994,809

May 2, 1901. H. G. BOWEN, *Chief Cashier.*

The banking department of the Bank of England, though as entirely separated from the note circulation as if it were under different management, yet is most intimately connected with it in one sense, for the amount of notes held in the banking department represents the available reserve of gold. The Issue Department is concerned with the note issue, which after 1844 was separated from the other business of the Bank, and rigidly controlled so far as the amount of notes allowed to be issued is limited by the influx and outflow of bullion. The Bank of England, while allowed to issue part of its note circulation against securities, either government or of an analogous description of a fixed character (£14,000,000, 1844; £17,775,000, 1901), was compelled to hold bullion, a fourth of the whole permissibly in silver, against the remainder. The circulation of notes was thus automatically linked to the supply of bullion, and since the Bank has ceased to hold silver bullion since 1853, to the supply of gold bullion brought to it. "The action of the public (said Sir R. Peel, 6th May 1844) will regulate the amount of that portion of the note circulation which is issued upon bullion." This arrangement has since been carried out. The limit to the note circulation of the Bank of England is thus the amount of bullion it may hold. Three times since 1844—in 1847, 1857, and 1866—circumstances have compelled a relaxation of the Bank Act, but in 1847 and in 1866 the note circulation did not exceed the ordinary legal limit allowed. In 1857 an addition of £2,000,000 was made to the "other securities" held in the issue Department by authority of a letter addressed by the First Lord of the Treasury (Lord Palmerston) and the Chancellor of the Exchequer (Sir G. C. LEWIS) to the Governors of the Bank, dated 12th November 1857. Under the relaxation of the act thus permitted, the note circulation exceeded the statutory limit by £928,000 on the 20th November 1857 (*Proceedings of the Select Committee on the Bank Acts*, House of Commons, 1858, p. xli). In 1847 and 1866, though permission was given, the letter of the act was not actually infringed. To continue the history of the act of 1844: the existing issuing banks in England and Wales were allowed to continue their issues, under conditions intended to bring about the gradual extinction of their note circulations, no security whatever being required to be held against their issues. To the note-issuing banks in Scotland and Ireland more favourable terms were allowed, but under condition that for every £1 in paper issued beyond the limit fixed by the acts of 1845, £1 in gold should be held, not as security, but as representing the addition to the currency circulating in the country.

(2) In France an entirely different system prevails. A limit is fixed to the note circulation of the Bank of France (£96,000,000, raised to £112,000,000, 1871; to £128,000,000, 1872; to £160,000,000, 1893); but provided these limits are not exceeded, the bank is not compelled by law to hold any special proportion of bullion whatever. The bullion held is very large in amount, thus it was, 31st Dec. 1900, £93,000,000 gold, £44,000,000 silver; the average note circulation (1900) £161,000,000.

(3) In Germany a modification, with very essential differences, of Peel's act is in force. The German Bank Act of 1875 allows an amount of issue against securities (£12,500,000, 1875; £22,500,000, 1899). Against the remainder cash defined as follows is to be held:—"current German money, Reichskassenscheine (legal tender notes of the empire), notes of other German banks, and gold bars and foreign gold coin calculated at the rate of 1392 marks (say £69 : 12s.) for a pound weight (German) of gold." Further, the Imperial Bank is obliged "to have in its coffers at least one-third of the

[1] Including Exchequer, Savings Banks, Commissioners of National Debt, and Dividend Accounts.

amount of notes in circulation, in German currency, as defined above. "The rest of the amount of notes in circulation must be represented by discounted bills, due at latest in three months, and for which generally three, but *at least* two persons known to be solvent are responsible." Should the note issue exceed the limits assigned, a tax of 5 per cent on the excess issue is charged (see "The German Bank Act of 1875," R. H. Inglis Palgrave, *Journal of the Institute of Bankers*, vol. vii. 1886). The note circulation exceeded the statutory limit on twenty occasions in the year 1900.

(4) In the United States the note circulation of the national banks, which provides a large part of the circulating medium of the country, is arranged on different principles from those existing in any of the countries previously mentioned. For a fuller description of this system see BANK NOTE (United States of America). By way of comparison with the arrangements respecting bank note circulation in other countries it is sufficient to state here that bonds of the United States are required to be deposited against the note circulation which was not originally allowed to exceed 90 per cent of the full value of the bonds, but was permitted up to the amount of the capital stock of the banks. The proportion to the bonds was afterwards diminished to 80 per cent, raised to 90 per cent (1898), with a possible maximum of 90 per cent of each bank's capital. The redemption of all the notes presented at the place of business of the bank is required by law during business hours, in "lawful money of the United States," towards which a reserve of 5 per cent in lawful money on the extent of the note circulation is required to be constantly kept on deposit with the treasurer of the United States. The triple safeguard thus provided, (1) by the security of government bonds being 10 per cent in excess of the circulation;—(2) that the circulation is limited to 90 per cent of the paid-up capital;—(3) that a reserve of 5 per cent on the circulation in lawful money should always be forthcoming,—has furnished the United States with a system of note circulation which for many years after the establishment of the national banks "was its most important feature:" (Report of the Comptroller of the Currency, 1888). Its decrease was partly attributable to the heavy taxation imposed on it, partly to the diminishing return obtainable from the bonds on which it was founded, partly also to the movement of business which economises circulation as banking facilities extend. It has increased greatly, 1899 (see BANK NOTE, United States of America).

(5) In Sweden the notes of the "Enskilda Banks" are protected by provisions which, while permitting the use of securities more in correspondence with those allowed by the Bank of Germany, provide, practically, for the redemption of the circulation in an effectual manner.

The instances given are examples of the different methods on which circulation may be based. In the case of the Bank of England it is assumed that a certain proportion of the total issue cannot be presented for payment in specie; fixed securities are held against that part, while bullion has to be held against the remainder. The two departments, note circulation and banking, are entirely separate from each other. The Bank of France is allowed greater freedom within the limit as to maximum issue prescribed by the law. The Bank of Germany, with a fixed proportion allowed to be issued against securities, is compelled to hold good commercial bills against the remainder, these securities "turning themselves into money," in business phrase, at fixed and not remote dates. The national banks of the United States possess a circulation as rigidly secured as that of the Bank of England against bonds of the Government, but applicable, through the working of local banks, to the wants of each district. A maximum limit is fixed.

There are two schools of opinion with respect to a bank note issue. The first, headed by A. SMITH and RICARDO, holds "that immediate convertibility into coin is all that is requisite to prevent the excessive issue of paper" (speech of Sir R. Peel, 6th May 1844); the second, led by PEEL himself, assumes that unless issuers of notes "vigilantly observe the causes which influence the influx or efflux of coin, and regulate their issues of paper accordingly, there is danger that the value of the paper will not correspond with the value of coin." Hence the principle of Peel's measure "was to make the currency, consisting of a certain proportion of paper and gold, fluctuate precisely as if the currency were entirely metallic" (speech 13th June 1844, of Mr. Goulburn, who was chancellor of the exchequer in the administration of Sir R. Peel). It will be observed that neither in the case of the Bank of France nor of the Bank of Germany nor of the national banks of the United States is this rule enjoined. It is enforced as to the extra note issue of the Scotch and Irish banks (Bank Acts of 1844-45), but in their case the coin compulsorily held is not security for the circulation (see BULLION COMMITTEE, REPORT OF; CIRCULATING MEDIUM; CONVERTIBILITY OF BANK NOTES; CURRENCY DOCTRINE).

BANK NOTE (UNITED STATES OF AMERICA). —In the United States the note circulation of the national banks, which alone are authorised to issue bank notes, is regulated in the main by the provisions of the act of 1863, bearing the significant title, "An Act to provide a national currency, secured by a pledge of United States bonds, and to provide for the circulation and redemption thereof." All notes issued must be secured by United States bonds deposited in the treasury, the notes being limited to ninety per

cent of the market value, not exceeding ninety per cent of the par value, of the bonds deposited, and no bank being allowed an issue exceeding its capital. The aggregate circulation of all the banks was also limited originally to $300,000,000 (£60,000,000); and in 1870 this limit was raised to $354,000,000 (£70,800,000); but all limit upon the aggregate was removed in 1875, by the act for resuming specie payments. The notes must be redeemed by the issuing bank in "lawful money" (specie or legal tender notes) upon presentation, and since 1874 are also redeemable at the treasury, every bank being required to maintain a reserve of lawful money, amounting to five per cent of its circulation, in the hands of the treasurer of the United States. The notes are not a legal tender between individuals, but are by law received and paid out by the government in all payments except for custom duties and interest on the public debt; and every national bank is required to receive in payments the notes of any other. The ample margin of security afforded by the deposit of bonds, the systematic redemption at the treasury, and the ability to use any note in any part of the union where a national bank is to be found, have given the notes complete credit and an entirely unimpeded circulation, which made the system for many years "important to the banks, still more important to the public." At the close of 1873 the bank circulation stood at $341,320,256 (£68,264,051), nearly reaching the maximum allowed by law. It fell, however, during the long commercial depression which followed, and of late years has declined rapidly, owing to the diminished return now obtained from an investment in bonds, and to the tax of one per cent on circulation imposed by the national government. At the resumption of specie payments in 1879, after the limit to the aggregate circulation had been removed, the bank notes outstanding were $303,500,000 (£60,700,000); January 1885 they had fallen to $280,000,000 (£56,000,000); and in May 1890 to $125,900,000 (£25,180,000). This discouragement of note circulation is of little importance to city banks, but is a serious matter for those in the country. C. F. D.

(The circulation of the National Banks had, however, increased to $243,066,624 (£48,600,000) on 31st October 1899.)

BANKRUPTCY IN SCOTLAND. In early days the insolvent debtor in Scotland was treated practically as a criminal and was subject to the penalties of rebellion against a command from the crown enjoining him to pay his creditor. From the Roman law there was, however, borrowed, a process of relief—the *cessio bonorum*—under which he gave up all his property and thus secured liberation and immunity from imprisonment on the ground of his debt, but was not discharged. Consequently it was precarious for him to try to resume business, and the tendency was for him to conceal some property before creditors could take steps against him. In 1621 an act of the Scots parliament was passed directed against gratuitous alienations to "conjunct or confident persons" on the eve of insolvency. In 1696 another act checked the giving one creditor any unjust preference over others; and it did so by providing, in substance, that where a person became notoriously insolvent or "notour bankrupt"—the evidence of which was to be that proceedings had been taken against him for debt, and that in consequence he had been imprisoned (or, afterwards, something legally equivalent), or had absconded or resisted arrest or retired into sanctuary—all unjust preferences granted by him within sixty days prior to the notour bankruptcy were to be annulled. It is here to be observed that the effect of the notour "bankruptcy" was not to bring about a distribution of his estate; it only limited his status; he might still continue in business, but thenceforth—and indeed at common law from the moment of actual insolvency—he must act as steward (or rather *negotiorum gestor*) for the whole of his creditors and he must use his best endeavour to treat them equally. But the creditors might be impatient; they might press their individual claims, and all the more so since the law still allowed certain privileges to the creditor first in the race for "diligence" or execution; whence too often ensued the ruin of the debtor, to the actual disadvantage of the general body of creditors. In all this every creditor fought for his own hand; the debtor must, so far as he could, treat them all equally; but the law did not provide any means of putting all the creditors on an equal footing until 1772, when the first Sequestration Act was passed, to endure experimentally for ten years. Sequestration at common law (French *mission en séquestre*) was a well-known proceeding in Scotland, analogous to appointing a receiver on an estate in chancery; a judicial factor was appointed by the Court of Session who managed an estate for the benefit of those interested until it was judicially ascertained who were the parties entitled, or until the occasion for taking the estate out of the hands of the administrator had passed over. On this analogy, the personalty (but curiously not the realty, for it was abhorrent to the ideas of the conveyancers of the time that realty should pass withou feudal conveyances) became vested either in a judicial factor proposed by the creditors, or else, alternatively, in a trustee to be appointed by the creditors as if under a voluntary settlement. The judicial factor distributed the estate under the direction of the court; the trustee did so extra-judicially. In 1783 the experiment was felt, especially on the trustee system, to have been a success; a new experimental act was

passed in which SEQUESTRATION was confined to the estates of merchants and manufacturers, the whole estate, real as well as personal, became subject to division, the trustee reported to and acted under the control of the Court of Session, and those creditors who had acquired preferences by taking proceedings against the bankrupt within a certain time before the sequestration were put on an equal footing. By successive statutes this act was renewed with improvements; a permanent act was passed in 1839, which introduced the sequestration of the estates of deceased debtors; and the present leading statute is one of the year 1856 (19 & 20 Vict. c. 79) in which the same guiding principles are applied in detail, with these outstanding alterations, that sequestration is not confined to persons in trade, and that the procedure may be (and in practice is) carried through before the sheriff courts; while the Court of Session retains control of the whole bankruptcy administration after sequestration has been granted, through an officer of court called the Accountant in Bankruptcy,—now the Accountant of Court,—whose diligent supervision of the reports and accounts of trustees has been the key-stone of the Scottish system.

Sequestration proceedings are initiated either by a petition by the insolvent himself with concurrence of creditors to a certain amount, or by creditors to the same amount alleging notour bankruptcy and Scottish jurisdiction. On special application, or for special reasons, the court may appoint an interim judicial factor, or may in any case seal books, close premises, and keep the key until a trustee is elected and confirmed. Sequestration may be opposed by the debtor himself, or by any creditor who has a special interest; and it may be recalled on producing before the Court of Session a private deed of arrangement agreed to by a majority of the creditors in number and four-fifths in value (rare in practice) or by showing the Court of Session within three months that the bankruptcy procedure ought to be carried through in England or Ireland.

Suppose the court grants sequestration; a meeting of creditors is appointed, six to twelve days ahead, which is advertised in the *Edinburgh Gazette*. At that meeting the creditors elect a trustee (or trustees in succession), who must not be the bankrupt or any relative or confidential friend of his, or any creature of such, or one whose interests are opposed to those of the general body of creditors; otherwise, the court will not interfere with the creditors' choice. The sheriff presides at this meeting if two creditors call upon him to attend. Voting power in the election is according to amount of unsecured debt. The sheriff decides within four days whether any candidate for trusteeship is ineligible, and confirms the appointment of the trustee on his finding security either for his whole dealings or for a sum limited by the creditors at their first meeting. The trustee at once reports himself to the accountant in bankruptcy. The trustee is assisted or supervised by three "commissioners"—a committee of inspection chosen at the first meeting of creditors; they concur with him in compromises and references to arbitration, they declare the dividends, and they may report independently to the creditors.

The trustee cannot resign, but may be removed without cause assigned by a majority of creditors. His first duty is to make up an inventory and valuation of the whole estate and to send that to the accountant. The bankrupt is bound to afford him every assistance in preparing this; if he does not, or if he obstructs the administration by refusing to execute any necessary deed, he may be imprisoned; but he is paid for his assistance. After confirmation the trustee applies to the sheriff to fix a day for public examination of the bankrupt; at that examination the bankrupt may, if need be, be committed to prison till he shall make full and satisfactory answers to the questions put; and his relatives and friends (wife, etc.) may be brought before the sheriff and examined as to disposal of property.

The bankrupt may be discharged (1) on acceptance of a composition by his creditors (four-fifths in value on a first offer, or nine-tenths in value on a subsequent offer) at their first or second meeting being reported to the court; or (2) without composition if the creditors are unanimous, or if a majority in number and four-fifths in value concur after six months or a majority in number and value after eighteen months or without any consent after two years; but in no case can he get discharge without showing the court, either that he has paid or secured to the creditors a dividend of 5s. in the £, or that his not having done so was owing to circumstances for which he could not justly be held responsible; and discharge may be withheld for misconduct on his part.

Cessio bonorum has recently (1880 and 1881) been so far assimilated to sequestration that it is now in substance merely a cheaper form of procedure for small estates. The trustee is appointed by the sheriff; and there are no commissioners, but proof of debts takes place, and discharge is granted or withheld as in sequestration.

The principal changes in the law since 1856 have been directed towards enabling discharge to be withheld for misconduct (1860), towards extending the preference of clerks and workmen (1875), towards the abolition of imprisonment for debt (1880 and 1882), towards the amendment of procedure in cessio (1880), and granting discharge in cessio (1881), towards dealing with fraudulent debtors and those who fail to keep accounts (1881), and towards rendering

undischarged bankrupts incapable of holding certain offices of trust and bringing them under the criminal law if they take credit for more than £20 without disclosing their condition (1884).

With regard to liquidation by private arrangement: the method is—(1) Conveyance by debtor to trustee ("trust-deed for behoof of creditors"); (2) mutual contract by all the creditors to act in common according to definite scheme ("deed of accession"). The main point of weakness in this is the inadequacy of means to keep the trustee up to his duty; the contract should provide machinery for this. If this be done the method is regarded with favour. Extrajudicial composition contracts between insolvent debtors and their creditors are also not uncommon in practice.

[Bell's *Commentaries on the Law of Scotland*, 1870.—Mr. Henry Goudy's *Law of Bankruptcy in Scotland*, 1886.] A. D.

BANKRUPTCY LAW AND ADMINISTRATION (ENGLAND). A good bankruptcy law must aim at the attainment of three distinct and sometimes conflicting objects; first, the speedy and economical distribution of the debtor's property amongst his creditors; secondly, the release of the debtor from his load of debt, so far as this may be justified by his conduct; and thirdly, the punishment of fraud, reckless trading, and personal extravagance. The policy of the bankruptcy laws has varied considerably. Sometimes one, sometimes another of the above-mentioned objects has been the guiding principle of the enactment, and various machineries have been devised for giving effect to them. During the present century some forty-six acts relating to bankruptcy have been passed. Roughly, their effect may be described as follows: Before 1831 the full control of the administration of bankrupt estates was in the hands of the creditors, the result being wholesale mismanagement and general dissatisfaction. In 1831 an act, known as Lord Brougham's Act, introduced a system of official administration. Official assignees were appointed to the London Bankruptcy Court, but not in the country districts. After some years' trial of the system of official assignees in London, and after a favourable report from a royal commission, the system was extended in 1842 to the country generally. The official assignees were again favourably reported on by Select Committees in 1847 and 1849. In 1861 opinion had begun to turn against them, and an act was passed considerably limiting their functions. In 1864 a select committee, on what seems inconclusive evidence, wholly condemned the system of official assignees. These officers were abolished by the act of 1869, and once more a system of voluntaryism was inaugurated, with the wonted result. Creditors were supine, and estates were wrecked and plundered by the rapacity of the lower class of trustees. Every facility was offered to fraudulent debtors, and they were not slow to avail themselves of their opportunities. A few years' trial of the act resulted in its general condemnation, but it was not till 1883 that any legislative change was effected. In that year Mr. Chamberlain, then president of the Board of Trade, succeeded in carrying the act which introduced the system now in operation. The Bankruptcy Act 1883 (46 & 47 Vict. c. 52), which is amended in some details by the act of 1890 (53 & 54 Vict. c. 71), makes a fresh departure in bankruptcy legislation. In the first place it severs judicial from administrative functions. Judicial functions are necessarily left to the courts, but administrative supervision and control are intrusted to an executive department of the state, namely the BOARD OF TRADE. Creditors still retain the general control over the debtor's estate, but his conduct is subject to an independent investigation with a view to his punishment if his insolvency has been caused by culpable recklessness or fraud. Trustees are subjected to the supervision of the Board of Trade, who require security from them, audit their accounts, and exercise a general superintendence over their dealings. The act of 1869 proceeded on the theory that the debtor and his creditors were the only parties concerned in a bankruptcy. The present measure recognises the principle that bankruptcy is a matter of public concern affecting the community at large. Speaking broadly, the act establishes one entrance into, and two exits from, the state of statutory insolvency. The receiving order, as it is called, is the entrance gate. By the receiving order the debtor's property is put under the charge of an official of the Board of Trade, until the creditors, with the leave of the court, have determined whether the debtor shall be allowed to terminate his insolvency by a composition or scheme of arrangement, or whether he shall be adjudicated a bankrupt and his affairs be wound up in bankruptcy proper. In either case there is a turnstile through which the debtor must pass, namely, the public examination at which his conduct and financial dealings are investigated in open court.

The courts which exercise bankruptcy jurisdiction are the High Court and the county courts. For bankruptcy purposes England and Wales have been mapped out into 135 districts. The bankruptcy business of the London district is allocated to the High Court, while in the country districts the county courts are the courts of original jurisdiction. To secure uniformity of practice, one of the High Court judges is specially appointed by the lord chancellor to take bankruptcy business, and it is provided that he shall always be a member of the divisional court to which bankruptcy appeals from the county courts are brought.

The bankruptcy department of the Board of Trade consists first of local officers called official receivers, and secondly of a central staff under the inspector-general, who audit trustees' accounts, and supervise the conduct and dealings both of trustees and of the local officers. Each bankruptcy district has its official receiver, but the same officer may be appointed official receiver for two or more districts, or on the other hand, two or more receivers may be appointed to one district according to local requirements. An OFFICIAL RECEIVER, besides being an officer of the Board of Trade, is made an officer of the court, having jurisdiction over his district. The object of the latter provision is to give him free access to court documents, and to enable him to consult the judge without the formality of a motion in open court. His reports are made *prima facie* evidence of the matters contained in them. His duties are declared by the act to "have relation both to the conduct of the debtor and the administration of his estate" (§ 68). As regards the debtor, it is the duty of the official receiver to investigate his conduct and to report to the court thereon, to take such part as the Board of Trade may direct in his public examination, and also to assist when requisite in his prosecution. As regards the estate, it is the official receiver's duty to act as interim receiver pending the appointment of a trustee, and as manager when a special manager is not appointed; to summon and preside at the first meeting of the creditors, to issue proxies, to report to the creditors on any proposal by the debtor for a scheme or composition, to advertise the proceedings, and to act as trustee during any vacancy in that office. In cases where the estate does not exceed £300, the official receiver becomes the trustee unless the creditors expressly supersede him. In short, this office is made the keystone of the present system, and the success or failure of the act must mainly depend on the efficiency or non-efficiency of the official receivers.

Bankruptcy proceedings may be commenced either by the debtor himself or by a creditor whose debt amounts at least to £50. If the petition is presented by a creditor it must be founded on one of the overt acts of insolvency, called acts of bankruptcy, which are specified in § 4. To prevent an influx of paupers a £5 stamp is charged on bankruptcy petitions, and a deposit of £5 is also required to cover preliminary expenses. The first result of a bankruptcy petition, properly substantiated, is the making of a receiving order by the court. This order does not divest the debtor of his property, but puts the official receiver in charge of his property, and stays proceedings by unsecured creditors. As soon as the receiving order is made the debtor is bound to give the official receiver full information as to his affairs and failure, and to make out a formal statement of his assets and liabilities for submission to the first meeting of creditors. The first meeting should be held within fourteen days of the receiving order. Proxies must be on an official form. A creditor can only give a general proxy to a person in his regular employment or holding a general power of attorney from him, or to the official receiver. At the first meeting the debtor may propose to his creditors that his insolvency should be terminated by a composition or scheme, thereby avoiding the disabilities of bankruptcy proper (§ 3 of act of 1890). If this proposal be not assented to, the debtor must be adjudged bankrupt. If it be assented to, the assent is provisional. The debtor must still go through his public examination. At the meeting the proposal for a composition or scheme must be accepted by a majority in number representing three-fourths in value of all the creditors who have proved. When the public examination is concluded the matter then goes before the court for its approval. The court, before sanctioning the composition or scheme, hears the report of the official receiver, and has to consider whether it is calculated to benefit the general body of creditors, and also whether the debtor's conduct has been such as to justify his escape from the consequences of bankruptcy. When the composition or scheme is approved by the court it is binding on any dissentient minority of creditors, the receiving order is rescinded, and the debtor is remitted to the full control over his affairs. If, however, the provisions of the composition are not carried out, the debtor is still liable to be adjudged bankrupt. Section 23 of the act further provides that a debtor who has been adjudged bankrupt may propose a composition or scheme under the like terms and conditions as before bankruptcy. If the composition or scheme is sanctioned by the court, the adjudication of bankruptcy is annulled.

When it has been decided that a debtor's estate shall be administered in bankruptcy proper, the first business of the creditors is to elect a trustee. The trustee cannot, however, act till he has received the certificate of the Board of Trade. Before he gets his certificate he must give security for the due performance of his duties to the Board; and the Board have further the right to object to his appointment if he is an unfit person, or if his interests appear to clash with the interests of the creditors generally. In the interim the official receiver acts as trustee. As soon as a debtor is adjudged bankrupt the whole of his property vests in his trustee, and any further property which he may acquire before he gets his discharge also vests in his trustee. This rule does not apply to the debtor's personal earnings, though, if he has anything in the nature of a fixed income, the court may make an order charging a portion of

it for a specified time. It is to be noted further that the trustee's title relates back to the earliest act of bankruptcy committed by the debtor within three months of the petition, and express provision is made for avoiding fraudulent settlements and conveyances made by the debtor on the eve of his bankruptcy (§§ 47, 48). The main duty of the trustee is to realise the debtor's estate with all convenient speed, and to distribute it rateably among the creditors. The bankruptcy laws, however, recognise certain exceptions to the rule of equal distribution. Priority is given within certain limits to rates and taxes and to claims for wages or salary by workmen, servants, and clerks (§§ 40, 51 & 52 Vict. c. 62). On the other hand, certain debts are postponed; for instance, a partner is not allowed to prove against his co-partner's estate in competition with the creditors of his firm. The landlord's right to distrain for six months' rent is preserved. The rights of creditors holding security are also saved. A secured creditor may either give up his security and prove for his whole debt, or, subject to the trustee's right to redeem under certain conditions, retain his security and prove for the balance of his claim. The trustee, as a rule, exercises his functions under the guidance of a committee of inspection appointed by the creditors, but if no such committee be appointed, their duties are performed by the Board of Trade (§ 22).

As soon as a bankrupt's public examination is concluded he may apply for his discharge. Notice of this application must be given by the official receiver to every creditor who has proved. At the hearing the court receives from the official receiver a report on the debtor's conduct and the causes of his failure. The official receiver, the trustee, and any creditor who appears are entitled to be heard on the matter. If it appears that the debtor has been guilty of any conduct amounting to a misdemeanour under Part II. of the Debtor's Act 1869, the court must ordinarily refuse the discharge. The debtor then can only escape from bankruptcy and its consequent civil disqualifications (§§ 32-34) by payment of his debts in full with costs and interest (§ 36). If the debtor has not committed a misdemeanour, but has been guilty of minor misconduct, the court has a discretion either to refuse the discharge, or to suspend it or make it conditional. A common condition is to order judgment for a specified sum to be entered up against the debtor. This judgment can only be enforced by leave of the court. Section 8 of the act of 1890 specifies twelve classes of facts involving minor misconduct which prevent the court from granting an unconditional and immediate discharge; for instance, not keeping proper business books (see BOOK-KEEPING), trading with knowledge of insolvency, rash speculation, previous bankruptcy, fraud, or fraudulent breach of trust, or not being able to pay 10s. in the £. Under previous acts it was found that an undischarged bankrupt frequently began to trade again and to incur fresh liabilities with no means of meeting them. To meet this evil § 31 of the present act makes it a criminal offence for an undischarged bankrupt to obtain credit to the extent of £20 or upwards from any person without informing such person that he is an undischarged bankrupt. If the debtor's financial conduct has been blameless he is entitled to an unconditional discharge. The order of discharge releases the debtor from all debts and liabilities provable in the bankruptcy, with the exception of certain crown debts and debts incurred through his personal fraud or fraudulent breach of trust, and claims arising out of seduction or divorce court proceedings.

Such, in brief outline, is the general system of bankruptcy established by the act of 1883. Special provision, however, is made by § 121 for the more summary administration of small estates when the estimated assets do not exceed £300. In such cases the official receiver acts as trustee, unless superseded by the creditors, and discharges the duties of the committee of inspection. Only one meeting is required to approve a composition or scheme, and when possible the estate is to be distributed in a single dividend, *i.e.* in a payment made to each of those concerned, at the same time. A reduced scale of costs and charges is also provided.

The act further attempts, in § 122, to deal with the case of quasi-pauper debtors whose total liabilities do not exceed £50. In such cases the county courts are empowered to make what is called an administration order, under which the debtor pays his debts, either in full or in part, by specified instalments out of his earnings. The order, though called an administration order, is really an unsecured composition arbitrarily imposed by the court upon the creditors. In 1887 a departmental committee appointed by the lord chancellor and board of trade reported that the system was a total failure, and that the only way of dealing with the matter was by a bold handling of the subject of imprisonment for debt.

The administrative working of the Bankruptcy Act is the subject of an annual report by the Board of Trade to both houses of parliament. For the law on the subject, reference may be made to the treatises of Baldwin, Chalmers and Hough, Robson, Vaughan Williams, and Yate Lee, all of which are kept approximately up to date. M. D. C.

BANVIN, DROIT DE. An oppressive seigniorial right in France under the old *régime*. By it a certain interval, generally a month or forty days, was fixed after the vintage during which the lord's wine alone could be sold, and a

peasant had to pay large sums for leave to sell his wine before the expiration of the period.

[De Tocqueville, *France before the Revolution*, note lxxvii.] R. L.

BARBARY COMPANY, The. See Turkey Company.

BARBON, Nicholas, M.D. (1640 ?-1698), probably the son of Praisegod Barebone, was born in London, studied medicine at Leyden, graduated M.D. at Utrecht in 1661, and was admitted an honorary fellow of the College of Physicians in December 1664. After the great fire of 1666 he was instrumental in establishing the first fire insurance office in London (1681); he was one of the most considerable re-builders of the city. He was M.P. for Bramber in 1690 and 1695, founded a land bank, which was united with that of Briscoe in 1696 and is reported to have been successful, and was among the projectors of the short-lived National Land Bank. He died in 1698, having appointed John Asgill, the economist, to be the executor of his will, and directed that none of his debts should be paid.

Barbon's works were numerous and deserve some extended notice, as his views were, though with some failings which we shall have to notice, remarkably in advance of his time, and even approaching to modern views on value, interest, rent, and foreign trade. He published in 1684 *A Letter to a Gentleman in the Country giving an Account of the Two Insurance-Offices; the Fire-Office and Friendly Society*, setting forth the advantages of his own institution and the disadvantages of its rival. In 1685 appeared (anonymously) his *Apology for the Builder; or a Discourse showing the Cause and Effects of the Increase of Building*. He opposed the opinion then prevalent that London was growing too large, and that the building new houses there drained the inhabitants from the country. He discussed in this pamphlet the theory of "rent." Its origin he explains in the following passage: "When mankind is civilised, instructed with arts, and under good government . . . the rich are fed, clothed, and housed by the labours of other men, but the poor by their own, and the goods made by this labour are the rents of the rich men's land (for to be well fed, well clothed, and well lodged without labour either of body or mind, is the true definition of a rich man)." (Reprinted in *A Select Collection of Scarce and Valuable Economical Miscellaneous Tracts*. Reprinted for Lord Overstone, 1859, pp. 1-26 of that volume; see M'Culloch, *Literature*, pp. 350, 351). In 1690 Barbon published *A Discourse of Trade. By N.B., M.D., London. Printed by Tho. Milbourn, for the Author*, 1690. In this treatise (92 pp. 12°), which hitherto has been scarcely noticed by those who have written on the history of economics, he displays as much ingenuity as any one of his greatest contemporaries. In the preface he attributes the importance which is ascribed to trade to the invention of gunpowder, foreign trade being considered necessary on account of its furnishing the supplies required by the country. But he thinks that trade has been considered from a too narrow point of view, especially by merchants like Thos. Mun, who "apply their thoughts to particular parts of trade, wherein they are chiefly concerned in interest." The first chapter treats "of trade and the stock, or wares of trade." Trade, according to him (Barbon), consists in "the making and selling of goods for another;" its parts are handy-craft trade and merchandising. Its aim is to make a bargain; in every bargain the wares to be sold, their quantity and quality, their value or price, the money or credit by which they are bought, and "the interest that relates to the time of performing the bargain" are to be considered. "The Stock and Wares of all Trade are the Animals, Vegitables, and Minerals of the whole Universe, whatsoever the Land or Sea produceth" (p. 3). They are either natural or artificial wares. Both are called staple commodities of the countries where they abound, either native or foreign. The native staple of each country consists of its actual and unexhausted riches; this shows the error of Mr. Mun, who thinks that nations can get rich by parsimony like individuals (p. 6). This native staple is the basis of foreign trade, which is an exchange of commodities (p. 7). Foreign staples, even if carried on by monopoly, are uncertain wealth; this he illustrates by the changes brought about by the possession of the East India trade. The second chapter deals with "the Quantity and Quality of Wares." The third chapter, "of the Value and Price of Wares" is one of the most remarkable in this work. "The Value of all Wares arises from their Use; Things of no Use have no Value, as the English Phrase is, *they are good for nothing*." Thus he approached more closely than any one of his contemporaries to modern views on value and price. "The Price of Wares," he says, "is the present Value; And ariseth by Computing the occasions or use for them with the Quantity to serve that Occasion; for the Value of things depending on the use of them, the *Over-plus* of Those Wares, which are more than can be used, become worth nothing; So that Plenty in respect of the occasion, makes things cheap, and Scarcity, dear" (p. 18). These elements being variable as well as the Wants of the Mind, and most things being useful through supplying the latter, "there is no fixt Price or Value of anything for the Wares of Trade" (p. 18). But, "There are two ways by which the value of things are a little guessed at; by the Price of the Merchant, and the Price of the Artificer; the Price that the Merchant sets upon his Wares is by reckoning Prime Cost, Charges, and Interest, the Artificer's Price includes the Cost of the Materials and the time of working them. The Price of the Artificer is according to the Value of the Art" and his skill (p. 19). "But the Market is the best Judge of Value; for by the Concourse of Buyers and Sellers, the Quantity of Wares, and the Occasion for them, are best known" (p. 20). The next chapter, "of Money, Credit, and Interest," begins with the following definition: "Mony is a Value made by a Law; and the Difference of its Value is known by the Stamp and Size of the Piece" (p. 20). It has two principal uses: "It is the Measure of Value, By which the Value of all other things are reckoned," and "It is a Change

or Pawn for the Value of all other Things. For both reasons, "the value of mony must be made certain by Law." Having "its sole Value from the Law," its Metal, whether Brass (like in Spain), or Copper (Sweden), or Tin (English farthings), is not material (p. 21), "6d. in Farthings will buy the same thing as 6d. in Silver." Foreign coins, upon which their country's law has no force, go therefore by weight and are of no certain value (p. 22). The chief advantage of gold and silver money is to prevent counterfeiting, besides its other uses for plate, etc., and its easy exportation, which the example of Spain shows it is impossible to prohibit (p. 23). It has no intrinsic value, but two values; one certain, because of the law, another variable like the value of gold and silver or other metals (p. 25). It is only time and place gives a difference to the value of all things, "Nothing in itself hath a certain Value." Credit is "a Value raised by Opinion" (p. 27); Barbon distinguishes two sorts of credit, the one grounded upon the ability of the buyer, a short credit mostly; the other upon his honesty, a long one. He defends the necessity of erecting a public bank in London (pp. 28-31). Interest is, according to him, "the Rent of Stock, and is the same as the Rent of Land: the First is the Rent of the Wrought or Artificial Stock; the Latter, of the Unwrought or Natural Stock" (p. 31). Barbon notes that "Interest is commonly reckoned for Mony, . . . but this is a mistake: for the Interest is paid for Stock. . . . No Man takes up Mony at Interest to lay it by him, and lose the Interest by it" (pp. 31, 32). The clear exposition of this doctrine places Barbon, as an economist, above both PETTY and LOCKE, and it was not till sixty years later that Joseph MASSIE (1750) and HUME rediscovered the correct theory of interest. The uses of interest are to measure, 1st, profit and loss in trade, 2nd, the value of the rent of land; the value of the last being reckoned "by adding three years' Interest more than is in the Principle (*sic*)." Therefore interest must be fixed. The praise which Barbon bestows on trade (foll. chapter "of the use and benefit of trade,") forecasts the celebrated passages on the consequences of the division of labour in the *Wealth of Nations*, especially his denying of the importance of Increasing money. "It is the Natural Stock that is the Real Value, and Rent of the Land" (p. 37). In a very interesting digression Barbon describes the civilising influence of trade, and maintains the chief causes which promote trade to be "industry in the poor and liberality in the rich" (p. 61). Against the mercantilist views of "sparing for exportation" he maintains, that "by not consuming the Goods that are provided for Man's Use, there ariseth a dead Stock, called Plenty, and the value of those Goods fall. . . A Conspiracy of the Rich Men to be Covetous and not spend, would be as dangerous to a Trading State as a foreign War" (p. 63). Clothing and building employ a great variety of trades, and the luxury of town-life increases the revenues (p. 70). In the last chapter Barbon declares that "the Two Chief Causes of the Decay of Trade are the many Prohibitions and high Interest" (p. 71), his argument being "that the Prohibiting of any foreign Commodity doth hinder the Making and Exportation of so much of the Native as used to be Made and Exchanged for it. . . . The Native Stock for want of such Exportation Falls in Value, and the Rent of the Land must fall with the Value of the Stock" (p. 72). This work of Barbon's contains the ablest refutation of the theory of the balance of trade previous to Hume and Adam Smith (see BALANCE OF TRADE). Barbon refutes the common argument for prohibition that the consumption of foreign commodities hinders the production and consumption of the native; for the consumption of foreign wares arising from the wants of the mind, the setting up obstacles to it will not encourage the consumption of native wares. A general prohibition would be the ruin of all trading nations; if the rare case should occur that the use of foreign goods checked the consumption of native goods, duties may be imposed to differentiate their consumption (pp. 75-78). The rate of interest being higher in England than in Holland, is a second obstacle to trade, for through this the Dutch traders are enabled to undersell the English (pp. 78-87). Any injury to those persons who live upon the interest derived from Money would be remedied through the rise of land, the interests derived from which would be hereby better secured. "For the Land is the Fund that must support and preserve the Government; and the Taxes will be lesser and easier payd" (p. 91). Its support is the more important "because it doth not Disturb, Lessen, nor Alter the Value of any Thing else" (p. 92). The *Discourse of Trade* was attacked by an anonymous author *E. H., Reasons against Reducing Interest to Four per Cent*, 1694. Barbon answered in *An Answer to Paper Entituled Reasons against Reducing Interest to Four per Cent*, (2 sh. fol.,) without, however, giving any further proof for his proposal. In 1695, it seems, was written *An Account of the Land Bank, showing the Design and Manner of the Settlement*, etc. (2 sh. fol.) "Mostly collected out of my writings," says John Briscoe, referring to it in *An Account of the National Land Bank*. Brit. Mus. 816 m. 10; with John Asgill he drafted the rules of the National Land Bank; *The Settlement of the Land Bank* (Lord Somer's Tracts, vol. xi.), 10th August 1695. The last work of Barbon is *A Discourse Concerning Coining the New Money Lighter. In Answer to Mr. Lock's Considerations about Raising the Value of Money*. By Nicholas Barbon, Esq., 1696. Referring to the definition of money in his former work he advocates the well-known project of W. LOWNDES of "raising the coin." He thinks that a recoinage according to the old standard would effect a want of specie, and that the steady rise of bullion made a proportional raising of the value of coin necessary. For "the Balance of Trade (if there be one) is not the cause of sending away the Money out of a Nation: but that proceeds from the difference of the Value of Bullion in several Countries, and from the Profit that the Merchant makes by sending it away, more than by the Bills of Exchange" (p. 59). This passage, it has been remarked by M'CULLOCH, anticipates the "currency principle" as expounded by RICARDO in his

pamphlet on *The High Price of Bullion*, 1811 (Works, 1886, p. 267-8). In order to prove the expediency of his proposal, Barbon repeats his doctrine of money as given in the *Discourse of Trade* (p. 20), laying stress upon the maxim, that its value is not given by the quantity of silver in each piece, but by the authority of government. He supports this opinion by most incredible sophisms. He ascribes the affluence of gold to inadequate rating of the value of silver money (p. 77), and he advocates his position by the history of English and foreign monetary policy and legislation (pp. 74-94). Though in this point the opinions of Barbon are erroneous he, however, attacks very ably Locke's theory that the value of money was the result of common assent (p. 9). Barbon distinguishes, with great ingenuity, between the value and the "vertue" of a thing, the latter being the same at all places, the former varying according to its plenty or scarcity (p. 7). His refutation, in this work, of the doctrine of the balance of trade, his remarks on the preference given to gold and silver, which he compares with the fable of Midas, on the restraint on consumption, and in consequence on prohibition of foreign goods (pp. 35-49), are developments of opinions expressed in his former writings. There is, according to him, but one infallible symptom to know when Trading Nations grow rich: by the increase of population manifesting itself by the enlargement of towns and also of the naval strength (p. 52).

[The *Discourse of Trade* is quoted by E. H., *Reasons for the Abatement of Interest to four in the Hundred*, 1692, p. 6.—E. H. wrote: *Decus et Tutamen*; *or our New Money as now coined in full Weight proved to be for the Honour, Safety, and Advantage of England—written by Way of Answer to Sir Richard Temple and Dr. Barbon*, 1696. On the latter cp. M'Culloch, *Literature*, p. 157.—M'Leod, *Dictionary of Political Economy*, pp. 232, 233.—K. Marx, *Capital*, vol. i. pp. 2-4.—Cunningham, *The Growth of English Industry and Commerce*, p. 351, 368, ed. 1882.—C. Walford, *Insurance Cyclopædia*, vol. i. p. 251, vol. iii. p. 459, and the present writer on Nicholas Barbon, in "Ein Beitrag zur Vorgeschichte der Klassischen Oekonomik," Conrad's *Jahrbücher für Nationalökonomie und Statistik*, xxi. Bd. N.F. p. 561-590 (1890).] S. B.

BARING, Sir Francis, Bart., was born in 1740, of German extraction, the founder of the famous financial house of Baring Brothers and Co. Erskine styled him "the first merchant in Europe." He died 11th September 1810.

He wrote—

The Principle of the Commutation Act Established by Facts, London, 1786, 8vo (two editions; supports the reduction of duties on tea and other commodities).—*Observations on the Establishment of the Bank of England, and on the Paper Circulation of the Country*, London, 1797, 8vo.—*Further Observations*, London, 1797, 8vo (describes the panic of 1793, and supports the policy of restriction).—*Observations on the Publication of W. Boyd* [entitled *Letter on the Influence of the Stoppage of Issues in Specie*], London 1801, 8vo. H. R. T.

BARNARD, Sir John, was born at Reading, of Quaker parents, in 1685, and died at Clapham, 1764. He entered the London wine trade, was M.P. for London from 1728-1761, and was knighted in 1732. He was chosen lord mayor in 1737, and opposed Walpole; ultimately he became one of the foremost financial authorities in England, and helped to abate the run on the Bank of England in 1745. He wrote—

Reasons for the Representatives of the People of England to take advantage of the Present Rate of Interest for the more Speedy Lessening the National Debt, London, 1737, folio (detailing an unsuccessful proposal made by Barnard in parliament to reduce the rate to 3 per cent).—*A Defence of Several Proposals for Raising of Three Millions for the Service of the Government, with a Postscript on Publick Credit*, London, 1746, 8vo.—*Letter to an M.P. on the Rejection of the Scheme*, London, 1746, 8vo.—*Considerations on the Proposal for Reducing the Interest on the National Debt*, London, 1750, 8vo (recommending Pelham's project).—*Some thoughts on the Scarcity of Silver Coin, with a Proposal for Remedy*, London, 1759, folio (single sheet). H. R. T.

BARRATOR. One who incites to litigation or quarrels. A person who is found to be a common (habitual) barrator is guilty of the offence of barratry, which is punishable by imprisonment and fine; and if the offender's profession be in any way connected with the law, he may also be forbidden to practise for the future. The word barrator in a now obsolete sense also implied a deceitful person, and from the word in this sense the expression barratry as used in maritime law is probably derived. In this application the word means a wilful or grossly negligent act of the master of a ship by which the owner is damaged. Barratry is one of the risks generally excepted in bills of lading, and it is one of the perils insured against on ordinary marine insurance policies. E. S.

BARRINGTON, Shute (1734-1826), successively Bishop of Llandaff, Salisbury, and Durham. He established in 1795 one of the earliest co-operative stores at Mongewell (Oxfordshire). He was president of the Society for Bettering the Condition and Increasing the Comforts of the Poor (1796).

[Bishop Barrington's practical work is fully described in G. J. Holyoake's *Self-help a Hundred Years ago*, chs. i. iv. viii. xiv. xv. xxviii. 1888 (see Bernard, Sir Thomas).—*Dictionary of National Biography*, vol. iii. p. 294.] S. B.

BARTER. In primitive states of society exchange of commodities is effected directly, and without the intervention of money; such a method of exchange is called barter. It is highly probable that loan preceded exchange, at least as regards scarce articles, the more plentiful commodities being distributed amongst individuals in joint or separate ownership. In the case of a loan to a stranger, an owner would not have the same guarantee for the return of the article as if the loan were made

to a member of his tribe, and hence he would require some equivalent in return. Thus we reach exchange in the form of barter.

JEVONS has pointed out the inconveniences of barter: (1) want of coincidence; (2) want of a measure of value; and (3) want of means of subdivision. (*Money, and the Mechanism of Exchange*, London, 1882.) These inconveniences are avoided by the introduction of money (see MONEY), which serves as a medium of exchange. The metals prove to be the most convenient commodities for effecting exchanges, and amongst metals, gold and silver specially possess the qualities essential in money.

But metallic money in bulk is weighty; it can be transmitted to a distance only at considerable expense and risk; whilst its use involves loss by wear and tear. To avoid these disadvantages representative moneys in the form of promises to pay have been introduced.

When promises to pay came to be accepted in return for commodities, it was seen that wherever mutual dealings existed between two persons, equivalent quantities of goods estimated in money could be set off, so as to pay for each other. The origin of this modern system of set off may be traced to the Roman Law (Hunter's *Roman Law*, London, 1885, p. 832). But the system was perfected by the introduction of BILLS OF EXCHANGE and CHEQUES, and the development of the modern clearing system (see CLEARING HOUSE). In foreign trade where two countries are constantly buying the one from the other, bills of exchange enable the goods passing in one direction to pay for those going in the opposite direction, and even where two countries do not have mutual dealings, they will be able to obtain payment for their exports by imports from other countries with which both are accustomed to trade (see Goschen's *Foreign Exchanges*, London, 1888).

In the home trade cheques are used as well as bills. By means of cheques traders are able to transfer portions of their book credit at their banks to third parties in exchange for commodities, and the institution called the Clearing House balances the mutual indebtedness for the traders (Jevons's *Money*). Such a method of exchange is really barter: metallic money being used to compare the values of commodities, and ceasing to effect exchanges, except where a balance of indebtedness can be discharged in no other way.

Barter underlies the distribution of the annual produce of a nation amongst the various classes who assist in production. Though the landlord, the employer, the capitalist, and the labourer, receive their respective shares in money, yet to the economist such money represents only produce or its equivalent in other commodities. For instance, the articles that the labourer buys with his wages are the real return he receives for his services, and his services may be regarded as bartered for such articles (see Sidgwick's *Political Economy*, bk. ii. ch. i.; Marshall's *Principles of Economics*, p. 395). See TRUCK ACT. J. E. C. M.

BARTER AND EXCHANGE. Barter, as distinct from exchange, is defined by the absence of money both as a medium of exchange and a measure of value. In the absence of a measure of value, complicated transactions between several dealers are hardly possible; and accordingly barter is generally characterised by the absence of competition. In the absence of competition bargains are not *determinate* in the same sense as in a perfect market. In the former, unlike the latter, case you might suppose the dispositions of the parties, their demand curves or "schedules" (Marshall) known, and yet even theoretically be unable to predict what would be the terms of the bargain (see COMPETITION AND REGULATION; VALUE). As JEVONS says of such a case,—with, in the context, unnecessary emphasis on the *indivisibility* of the commodity exchanged,—"The equations of exchange will fail. . . . I conceive that such a transaction must be settled upon other than strictly economical grounds. The result of the bargain will greatly depend upon the comparative amount of knowledge of each other's positions and needs which either bargainer may possess or manage to obtain in the course of the transaction" (*Theory of Political Economy*, pp. 130-134, 2d ed.) To which Mr. Price adds, "Nor indeed, did they possess the gift of clairvoyance, would the problem be necessarily solved" (*Industrial Peace*, p. 54). It is important to study this property of barter not so much on account of the rudimentary transactions to which the term is properly confined as for the sake of their analogy to the dealings of monopolists and combinations in advanced societies.

[The subject in question is discussed in the following passages. Auspitz and Lieben, *Theorie des Preises*, p. 381.—Edgeworth, *Mathematical Psychics*, pp. 20-56.—"Observations on the Mathematical Theory of Economics," *Giornale degli Economisti*, March 1891.—Marshall, *Principles of Economics*, "Note on Barter,"—Menger, *Grundsätze*, ch. iv.—Price, *Industrial Peace*, pp. 14 and 54.—Sidgwick, *Political Economy*, bk. ii. ch. x.

The formation of appropriate conceptions on the subject is aided by those economists who, improving on the ordinary "Robinsonnade," introduce a *second* primitive economic man. Good examples occur in Courcelle Seneuil's *Traité théorique et pratique*, and Mr. Gonner's textbook of *Political Economy*.] F. Y. E.

BARTON, JOHN, of Stoughton, the author of several clever but somewhat unsound pamphlets.

Observations on the Circumstances which influence the Condition of the Working Classes, London, 1817, 8vo (see M'Culloch's *Principles of Political Economy*).—*Inquiry into the Causes of the Progressive Depreciation of Agricultural Labour in*

Modern Times, London, 1820, 8vo (stated to be owing to the depreciation of the value of corn). —*Inquiry into the Expediency of the Existing Restrictions on the Importation of Foreign Corn*, London, 1833, 8vo. H. R. T.

BASTIAT, FRÉDÉRIC. This well-known French economist, a friend of COBDEN, born 1801 at Mugron, near Bayonne, died 1850 at Rome. But for a few casual circumstances which drew out his literary powers, Bastiat would have died comparatively unknown, his first book only appearing in 1845, five years before his death. He had lived up to that date in retirement, working hard, but producing little. The son of a merchant in the Spanish trade, he was left an orphan when nine years old. As a man, he tried his hand, without great success, first in business, in the establishment of his uncle, then in farming at Mugron on the estate which he inherited at the death of his grandfather, 1825. Appointed after the revolution of 1830 *juge de paix* of his canton, he seemed destined to die in the little town where he had been born, limiting his ambition to the direction of a small scientific society whose discussions appear to have been *de omni re scibili et quibusdam aliis*. His first pamphlets were little memoirs on local matters, the interest of which, notwithstanding the high qualities of style and form they possessed, was necessarily limited to a narrow circle; their titles are *Aux Electeurs du département des Landes* (1830); *Réflexions sur les pétitions de Bordeaux concernant les douanes* (1834); *Le Fisc et la Vigne* (1841); *La question vinicole* (1843); *La Répartition de la contribution foncière dans les Landes* (1844).

To England belongs the honour of having lighted up in Bastiat the sacred fire of thought. An English journal to which he subscribed almost by accident, the *Globe*, informed him of the foundation and progress of the ANTI-CORN LAW LEAGUE, the existence of which was barely known in France. The examples of Cobden, BRIGHT, Thompson, Moore, and Fox roused Bastiat, who resolved to imitate them. A few weeks later and the *Journal des Economistes* received from the farthest end of the district of the Landes a manuscript signed with an unknown name, *De l'influence des tarifs français et anglais sur l'avenir des deux peuples*. The article appeared October 1844, and excited a good deal of attention. The author was asked for more; and the file of *Sophismes Economiques* commenced, to the joy of the opponents, and the confusion of the defenders, of privilege. Nothing is more brilliant, nothing more *French*, in the best sense of the word, than these amusing pamphlets, in which the most delicate irony and the most pitiless logic are combined, as in the famous *Pétition des fabricants de chandelles, bougies, lampes, chandeliers, reverbères, mouchettes, éteignoirs, et des producteurs de suif, huile résine, alcool, et généralement de tout ce qui concerne l'éclairage*. This petition of the candle makers is a humorous complaint against the sun for spoiling their trade, a petition based on protectionist lines. "We demand," say the petitioners at the close of their arguments,

"Qu'il vous plaise de faire une loi qui ordonne la fermeture de toutes fenêtres, lucarnes, abat-jour, contre-vents, volets, rideaux, vasistas, œils-de-bœuf, stores, en un mot, de toutes ouvertures, trous, fentes et fissures par lesquelles la lumière du soleil a coutume de pénétrer dans les maisons, au préjudice des belles industries dont nous nous flattons d'avoir doté le pays, qui ne saurait sans ingratitude nous abandonner aujourd'hui à une lutte si inégale."

From a purely literary point of view several of these satires are first-rate. At this time Bastiat also wrote his first book, *Cobden et la Ligue ou l'agitation anglaise pour la liberté des échanges*, and finally left Mugron for Paris.

He soon became the most active and dreaded antagonist of the protectionist policy. The war tariffs of the first empire had been continued after the restoration by the monarchy of July (Louis Philippe). The first *Association pour la liberté des échanges* was formed at Bordeaux, February 1846; another was established at Paris the same year with Bastiat as general secretary, and *le Libre Échange* as its journal. This free-trade campaign was roughly interrupted by the revolution of 1848; and the French economists, and Bastiat among them, found themselves compelled to direct their efforts and their forces against the spread of socialism. Bastiat harassed those who followed Louis BLANC, Considérant, P. LEROUX, PROUDHON, with epigrams and refutations, and thus assisted in enlightening the country as to the perils with which the revolutionary UTOPIA threatened it, see *Propriété et Loi, Propriété et Spoliation, Justice et Fraternité*, etc. His conflict with PROUDHON (*q.v.*) on *La gratuité du crédit*, will always be considered one of the most brilliant passages of arms of French economic science at this critical epoch.

At the elections of August 1848, the department of the Landes returned Bastiat to the *Assemblée Constituante*, and May 1849 to the *Assemblée Législative*. Here he rarely spoke. He did not possess the physical qualifications of an orator, and the extraordinary exertions he had imposed on himself since he moved to Paris completed the ruin of his health, previously much shattered. After having victoriously refuted the errors of protection and socialism, he thought it was time for him to formulate what he considered the true economic doctrine, and commenced the publication of his *Harmonies*. In this brilliant work, unhappily never finished, Bastiat shows the contrast between the internal weakness of the artificial organisations which are founded on constraint, and the prosperity spontaneously arising in an economic condition

in which the equilibrium of individual and collective forces results from their free and reciprocal balance. This is the fundamental thought (*idée mère*) on which the *Harmonies Economiques* are based, and granted this as a philosophic basis, it could not have been developed with more skill. Some of Bastiat's opinions have been criticised—notably his theory of value—and he may also be complained of as being too much of an optimist. But for all that no one has succeeded better in making his readers admire the science which he himself loved so well. Political economy has been indebted to him, both during his short life and after it, for some of its worthiest followers. The first volume only of his *Harmonies* had been published when Bastiat, wearied and worn out, sought rest in Italy. He died in Rome 24th December 1850, as a Christian; his last words were *la vérité*.

[For life of Bastiat, see speech on the occasion of the inauguration of monument at Mugron by M. Léon Say, 1878. Notices by MM. R. de Fontenay,—F. Passy,—Paillottet,—De Molinari,—Paul Gardelle,—Baunard,—De Foville,—A. Courtois fils. Madame Cheuvreux published, 1870, part of the correspondence of Bastiat, *Lettres d'un habitant des Landes.*] A. de F.

BASTIAT AS A THEORIST. The *Harmonies* of Bastiat have not been re-echoed by economists with one accord. According to CAIRNES (*Fortnightly Review*, 1870), "all that is peculiar to his scheme of speculation" rests on his doctrine of *service*; "and, this failing, the entire fabric inevitably collapses." By "the shifting uses of an ambiguous term" Bastiat confounds what RICARDO and others had distinguished: cases where value is, and is not, proportioned to efforts and sacrifices (see DIFFICULTY OF ATTAINMENT). Value in all cases, according to Bastiat, represents service. "Such a generalisation," says Cairnes, "is no generalisation in the scientific sense of the term; it is a mere confounding of unanalysed phenomena under an ambiguous word." Describing all commercial transactions as a reciprocity of services, Bastiat attempted not only to explain, but to justify the existing *régime*, and failed in both attempts, which he never ought to have combined (*Fortnightly Review*, vol. viii. p. 426, *et seq.*) Dr. Sidgwick in the third book of his *Principles of Political Economy*, has afforded the most complete refutation of the economic optimists, "of whom Bastiat may be taken as a type" (*ibid.* ch. ii. § 1). Professor Marshall says of Bastiat; "the lucidity of his style caused him to have great vogue; but he really understood economic science, in the name of which he professed to write, hardly better than did the socialists themselves" (*Principles of Economics*, bk. i. ch. iv. § 6, n. 2). COURNOT also should be referred to among the profound and unbiassed thinkers who have exposed the unscientific character of economic optimism (*Principes de la théorie des Richesses*, 1863, livre iv. *l'optimisme economique*, Cp. *Revue Sommaire*, 1874). A less temperate criticism of Bastiat's theories may be read with amusement in LASSALLE'S *Herr Bastiat-Schulze von Delitzsch . . . oder Capital und Arbeit* (1864); addressed to SCHULZE-DELITZSCH, but striking through him at Bastiat. Lassalle fastens on the weak point, the theory of services, and, with much humour and more insolence, proves it to be "no economic category" (p. 132, *et seq.*) but rather an "economic enormity without parallel"—"Yet this is the only new thing which that clever windbag (*geistreiche blageur*) has said in his primer (*fibel*)."

Severe as are these judgments, and in one case at least exaggerated, they cannot be wholly set aside. But the opinion that Bastiat did not make any considerable contribution to abstract theory is not inconsistent with gratitude to him for having popularised (in the best sense of the term) the discoveries of his predecessors. It is admitted that in the exposure of economic fallacies Bastiat is unrivalled. The same Cairnes who judges the *Harmonies* so severely calls Bastiat to his aid when he is combating economic sophisms (*Leading Principles*, pt. ii. ch. ii.)

[See, in addition to the authors who have been mentioned as critics of Bastiat, Böhm Bawerk, *Geschichte und Kritik der Zinsentheorien* (1884).] F.Y.E.

BATBIE, ANSELME POLYCARPE, born at Seyssan (Gers) 1828, died at Paris 1887. He entered the *Conseil d'état* in 1849, but left it at the *coup d'état* of 2d December 1851, to give himself up to teaching. It was not long before he became first supplementary professor 1857, then full professor, 1862, at the École de Droit at Paris, in "Droit administratif" and "Économie Politique." Elected deputy to the *Assemblée Nationale* in 1871, he found his place among the monarchists, and was one of the foremost opponents of the republican form of government. It was he who invented the phrase the *Gouvernement de combat*, a *mot* which had a great success. In 1875 he was elected a permanent senator. The delicacy of his mode of thought would always have held him back from becoming the champion of the reactionary party.

Besides his works on law, of which the most important is his *Traité théorique et pratique de droit public et administratif* (7 vols. in 8vo, 1862-66), we may mention his economic works, *Le crédit populaire* (1864, 1 vol. in 18mo)—*Turgot, Philosophe, Economiste, et Administrateur* (1 vol. in 8vo, 1866) (couronné by the Institut),—*Nouveau cours d'économie politique*, 1866 (2 vols. in 8vo),—and finally *Mélanges d'économie politique* (*Mémoire sur le prêt à intérêt*, couronné by the Institut, and *Mémoire sur l'impôt avant et après*, 1789-1861, 1 vol. in 8vo). A. C. f.

BATE'S CASE, OR THE CASE OF IMPOSITIONS. The right of the crown to levy customs duties without the consent of parliament had been abolished—at all events in the case of wool—by a statute of 1362, and had not been revived until the 16th century. Mary and Elizabeth had both imposed small duties on articles of commerce, but this had been done with the consent of the merchants, and had attracted no attention. It was reserved for James I., relying upon the subservience of the judges, to make arbitrary customs an important source of revenue. TONNAGE and POUNDAGE, which had been granted for life to every king since Henry V., included a duty of 2s. 6d. per cwt. of currants. James by his own authority imposed another 5s., and thus trebled the duty. John Bate, a merchant of the LEVANT Co., refused to pay, on the ground that the tax could only lawfully be imposed by parliament. The case was brought before the exchequer court, and the decision of the judges is an important illustration of the legal theories of the Stuart period. They declared that the king's power is of two kinds, ordinary and absolute. His ordinary power is exercised in the interest of individuals, and is limited by common and statute law. His absolute power, on the other hand, is exercised for the welfare of the whole state, and is not so limited. Customs are the effect of commerce; but commerce and all foreign relations, such as war and peace, belong to the king's absolute power. He who has power over the cause has power also over the effect. The seaports are the king's gates, which he can open or shut as he pleases. Hence the customs are subject to the king's absolute power, and can be levied or increased at his will. This decision was acquiesced in at the moment, and enabled James to issue a BOOK OF RATES in 1608. In 1610 parliament took the matter up, and protested against the claim to levy impositions without consent. But they failed to carry their bill on the subject, and the decision in Bate's case continued to be legally valid until all arbitrary taxation was swept away by the Long Parliament.

[*State Trials*, vol. ii.—Gardiner, *History of England*, vol. ii.—Hallam, *Constitutional History*, vol. i.] R. L.

BAUDEAU, NICOLAS, Abbé, born at Amboise in 1730, died, out of his mind, it is believed, about 1792. He gave up his ecclesiastic status to establish, at the end of 1765, the *Ephémérides du citoyen ou chronique de l'esprit national*, a periodical opposed at first to the party of the Economists; but which, by a conversion most honourable to Baudeau, became, after 1766, the most accredited organ of the PHYSIOCRATS. For example, the cause of humanity, and the abolition of negro slavery, were pleaded by him with great warmth. He even invented, to keep these all together, the word HUMANISME. It was not long before he altered the sub-title of his journal to that of *Bibliothèque raisonnée des sciences morales et politiques*. On accepting a canonry in Poland, he handed over, May 1768, to DU PONT (De Nemours) the chief editorship of his review, which was suppressed by order in 1772 (69 vols. in 12mo had appeared). Returning to France, he brought his review out under the title of *Ephémérides économiques ou Bibliothèque raisonnée de l'histoire, de la morale et de la politique* (19 numbers in 12mo, from December 1773 to June 1776). His principal work, was the *Première introduction à la philosophie économique ou analyse des états policés*, in which he refuted brilliantly the Abbé GALIANI (1771, in 8vo, inserted in the collection of the principal economists published by Guillaumin). This secured him a high place among the economists of the school of the Physiocrats. His restless spirit, his changeable disposition, and the want of financial order in his private affairs, brought on him criticisms sometimes not undeserved.

A. C. f.

BAUDI, CARLO, di Vesme, was the author of one of the best books on the history of landed property in Italy from the fall of the Roman empire up to the establishment of feudalism. (*Vicende della proprietà in Italia dalla caduta dell' impero romano allo stabilimento dei feudi*, 1836, Torino). The academy of Turin honoured this work by a prize. Baudi di Vesme also gained a prize from the Académie des Inscriptions et Belles Lettres for a book on the question of taxation in France under the first two dynasties: *Tributi nelle Gallie durante le due prime dinastie*. He edited the *Laws of the Longobards*, and wrote a book on the political and economical condition of Sardinia: *Considerazioni politiche ed economiche sulla Sardegna*.

Baudi was born at Cuneo 1809, and died 1877. He was educated by the Jesuits, and became famous as a Latin and Greek scholar. In 1837 he was made a member of the Academy of Turin, and in 1850 a senator. M. P.

BAUMSTARK, EDWARD (1807-1889), an eminent German economist, born at Sinzheim, became privat-docent in cameral science at Heidelberg in 1823, was appointed professor at Greifswald in 1843, and the same year was made director of the economic academy at Eldena. He was Geheimer Regierungsrath, and sat in the Prussian Herrenhaus, acting in politics with the national liberal party. He died 8th April 1889. The earlier of his two principal economic writings, *Staatswissenschaftliche Versüche über Staatskredit, Staatsschulden, und Staatspapiere*, 1833, is founded mainly on the *Oeffentliche Credit* of NEBENIUS, but contains some independent investigations. His most valuable work was his excellent translation of RICARDO'S *Principles—David Ricardo's Grund-*

gesetze der Volkswirthschaft und Besteuerung übersetzt und erläutert, 1838, which first made that writer's doctrines generally known in Germany. Though strongly influenced by the abstract method of his English master, he recognised his inferiority to Adam SMITH, and saw the importance of the historical direction in economic studies. He gave explanations on profit, rent, price, taxes, paper money, and public debts, which contributed to the right understanding of Ricardo; improved the language in which his doctrines had been stated, and corrected the exaggerations of his followers. In 1835 he published a *Cameralistiche Encyclopädie*, which took rank as an instructive work for the use of German officials. He was also author of a treatise *Zur Einkommensteuerfrage*, 1860.

[Roscher, *Nat. Oek. in Deutschland*, p. 909.]

J. K. I.

BAXTER, ROBERT DUDLEY, an eminent statistician, was born in Doncaster 1827, and died at Hampstead 1875. He belonged to the well-known legal firm of Baxters & Co. He combined in a remarkable degree the pursuits of business and literature, the character of a man of science and a love of poetry. His energy in obtaining and classifying information was unbounded, as well as the goodwill with which he imparted it to others.

Baxter's statistical work may be divided into two classes (*a*) economical, and (*b*) political.

(*a*) To the first class belong—(1) *The Budget and the Income Tax*, 1860. (2) *Railway Extension and its results*, 1866—read before the Statistical Society, Dec. 1866, and afterwards published separately; it contains statistics of the growth and distribution of railways, a statement of their cost and estimate of their benefit, both for the United Kingdom and other countries. (3) *The National Income*, 1868—the income of the United Kingdom is estimated as £814,119,000; divided by "the equatorial line of British income," £100 in two nearly equal portions, accruing respectively to those who have more or less than that annual sum. Baxter's estimate of the amount of income which is derived from capital is approved by Sir R. Giffen with some reservation (*Essay in Finance*, series 1; Essay on *Recent Accumulation*, pp. 166-170). The distinction which Baxter makes between productive and unproductive (ch. viii.), "the income that is an original and fresh contribution to the common stock from that which is merely derived from the first," requires consideration (cp. Leone LEVI, *Wages and Earnings of the Working Classes, Reports of the British Association*, 1881, p. 275, and 1882, p. 299). (4) *The Foreign Cattle Market Bill*, 1869. (5) *The Taxation of the United Kingdom*. After a clear statement of the amount of taxation, the writer estimates its distribution and pressure. He pronounces on many delicate economic questions, *e.g.* "Railways and public carriages are obliged to a great extent themselves to bear the contributions levied from them, from the existence of maximum charges limited by law or by the public capacity of paying." He maintains that taxes on property do *not* become rent charges, and disputes MILL's principle of taxing unearned increment of rent. He settles what proportion of the rates on land and houses are borne by landlord and tenant respectively. He finds that the pressure of taxation on the manual labour classes (eight and a half per cent of workmen's earnings) is heavy in proportion to the taxation of the larger industrial incomes of the upper and middle classes (eight per cent). To estimate the pressure of taxation on the working classes he collected budgets of family expenditure (see WORKMEN'S BUDGETS). Attention should also be called to his estimate of the property of the United Kingdom (in 1869) £6,000,000,000. (6) *National Debts of the World*, 1871. Measured in four ways by: (1) nominal capital; (2) interest actually paid; (3) annual charge per head of population; (4) proportion of annual charge to gross income. The last, which is the most correct method, makes the burden in 1870 hardly greater than in 1700, and less than in 1712. The progress of the indebtedness of the world as compared with the United Kingdom is shown by the statement that, while in 1848 our debt was nearly half, in 1870 it is just a fifth of the total debt of the world. Absolutely, the debt of the United Kingdom was reduced slightly between 1848 and 1870. In respect of the burden of debt there appears a remarkable equality between the United Kingdom and several of her great contemporaries.

The subject is brought down to a later date in (7) "Recent Progress of National Debts," 1874 (*Journal of the Statistical Society*). (8) *Local Government and Taxation*, 1874; containing a criticism of Mr. Goschen's report on the increase of local taxation.

(*b*) The rest of Baxter's statistical writings are rather political than economical.

(1) *The Volunteer Movement*, 1860. (2) *The New Reform Bill; the Franchise Returns*, etc., 1866. (3) *The Redistribution of Seats and the Counties*, 1866 [with which should be read letters to the *Times* on cognate subjects in the same and the following year]. (4) *Results of the General Election of* 1868, 1869. (5) *History of English Parties and Conservatism*, 1870. (6) *The Political Progress of the Working Classes*, 1871.

[A beautiful picture of Baxter's simple life and a useful analysis of his elaborate works are given in *In Memoriam R. D. Baxter*, by his widow.]

F. Y. E.

BAZAAR. A Persian word meaning a market. In this sense it is employed in India, Turkey, and other eastern countries. In Great Britain the signification of the word has been

corrupted, implying either a collection of shops for the retailing of fancy goods or the temporary opening by amateurs of some place for the sale of such goods and for amusement, mostly for the benefit of a charity. We need only consider the term in the sense in which it is used in the East. There every town of magnitude is possessed of its bazaar, which is the centre of mercantile life, where business both wholesale and retail is transacted, and where news is circulated. The bazaar quarter of the town, is often a collection of streets with shops entirely distinct which constitute the bazaar, while in other cases a square is devoted to the use of the merchants and dealers. A very large amount of business is carried on through the medium of bazaars; and they are a recognised institution of oriental life.

BAZARD, SAINT-AMAND, born at Paris 1791, died at Courtry near Montfermeil, 1832. He was one of the three founders of the society of the CARBONARI (*q.v.*) in France (1821), and joined in the active work of the Saint-Simonians after the death of SAINT SIMON, whom he had never seen. He held an important position as editor of the *Producteur* (1825-26), of the *Organisateur* (second of that name, 1828-30), and of the *Globe* (1831). With ENFANTIN he became the centre of the Saint-Simonian religion; but before long the opinions of Enfantin, particularly on the state of "Woman in the Family," caused him to leave it (January 1832). To explain why he did this he published a pamphlet called *Discussions morales, politiques et religieuses*, January 1832. A. C. f.

BEAR. Under BACKWARDATION the position of a seller who is unable to deliver according to contract has been shown. A Bear is a seller in blank, and from settlement to settlement he must borrow stock on the best terms which he can make in order to arrange the CONTINUATION (*q.v.*) of his contract. The word, no doubt, arose from the belief that one who sells in anticipation of lower prices is a desponding, pessimistic, and misanthropic person, but it has been so long in use that there is no certain knowledge of its derivation. In America one who sells as a Bear of stock is said to be "selling short." The simple adjective "bare" may be the origin of the expression, as, when the time of settlement comes, the Bear seller is bare or short of the security which he has contracted to deliver. When he has "bought back," he is said to have "closed" his "bear." A. E.

BEARER. *Bonds to bearer*, and sometimes shares, are those which are negotiable instruments on their face. Bearer securities are distinguished, on the stock exchange, from registered securities inasmuch as the title of the former passes from holder to holder, while there is no legal title to a registered share until the owner has had his name placed on the register of the company in which he has acquired a share or shares (see COMMERCIAL INSTRUMENTS). A. E.

BECCARIA, CESARE BONESANA (Marquis) born 1735, at Milan, was brought up in a Jesuit college at Parma. Through his interest in different sciences and the circumstances of his life he was led to try his hand at very different subjects, and succeeded marvellously in every one of them. An able mathematician, he wrote a noteworthy treatise on the "nature of style," being an analysis of the principles of æsthetics applied to one of the branches of fine arts (Milan, 1770 vol. i.; the second volume never appeared). He belonged for twenty-five years to the highest magistracy, publishing for the Austrian government excellent reports on corn stores, on the reform of coinage, on measures and weights (proposing a METRIC SYSTEM based on astronomical magnitudes and physical properties, 1780) on demographical questions, etc., marked by great lucidity and precision and full of ideas ahead of his times. His famous little pamphlet, *Dei delitti e delle pene*, published in 1764, has been translated into twenty-two languages. In 1768 a chair of political economy was founded for him by the Austrian government in Milan (the second chair for this science founded in Italy; the first was founded in 1755 in Naples by Bartholomes INTIERI for GENOVESI), and he occupied it for two years. He died in 1793 without having published his lectures, which were first published in 1804 by CUSTODI, and certainly are very remarkable considering they were written before A. SMITH'S *Wealth of Nations*. Beccaria treats political economy as an art to maximise the value of the produce of work, regarding labourers as engines whose *duty* has to be maximised. From this principle he deduces the necessity of a division of labour, a determination of the value of a labourer, and the nature and function of capital. His lectures are also remarkable for an exposition of the laws of growth of population in relation to subsistence, now known as MALTHUS'S theory. Beccaria, however, is not correct, according to our present standard, in sundry other questions, allowing himself to be misled by the prevailing French school, and is in this respect inferior to his friend VERRI. A special mention must be made of a quite small pamphlet Beccaria wrote in a newspaper (*il Caffè*) in 1764 or 1765, under the title, *Algebraical Essay on Smuggling*, in which he solves analytically the problem, "How much of a given quantity of merchandise must merchants smuggle, so as not to be winners or losers, although the remaining portion of the merchandise be confiscated?"

The expression, popularised through Beccaria's influence, "the greatest happiness of the greatest number" (*la massima felicita divisa nel maggior numero*, Preface of treatise, *Dei delitti et delle pene*) is one of those phrases which have penetrated so

deep into the mind of civilised man that some further observations on its origin are advisable. Beccaria says, § 2 of his treatise *Dei delitti et delle pene* (1764), that coldly (rigidly) examining human nature we see that every man is absolutely *egoistic*, and that on this basis alone legislation can be established, *if it is not to be knocked over constantly*. That nobody cares anything for the universal happiness, or for the good of others, and that "ogni uomo si fa centro di tutte le combinazioni del globo," every man makes himself the centre of all the things that happen in the world. The principle which Beccaria announces may have been suggested to him by his friend Verri, who had written a special treatise on the *Nature of Pleasure and Pain*. Italian economists, contemporary with Verri, were apparently led to give great attention to this subject through the book of De Maupertuis on *Le principe de la moindre action*. They were also greatly influenced by HELVETIUS, who says, *Traité de l'esprit* (1759), vol. i. div. ii. ch. ii. "that the principle of *interest* is for the moral world, what the principle of *gravitation* is for the physical one." The general idea is found earlier than the writers cited (*e.g.* in Fr. HUTCHESON'S *Inquiry* (1738), but it is of interest to trace the channel through which it reached English economists (see BENTHAM). M. P.

BECHER, JOHANN JOACHIM (1625 ?-1685), was the principal representative of Austrian political economy under Leopold I. He was born at Speyer, probably in 1625; he was son of a Protestant minister, but, whilst still young, became a Roman Catholic. He was medical professor and court physician at Mainz. He afterwards removed to Würzburg and Munich, and in 1666 to Vienna, where he was employed in the newly established Commerz-Collegium. He was much busied in the foundation of East and West Indian trading companies, the introduction of foreign branches of industry, and the negotiation of Austrian loans in Holland. Overwhelmed with debt, he fled in 1678 to Holland, whence he passed in 1680 to England, where he died in 1685, having probably again become a Protestant. LEIBNITZ describes him as "un esprit excellent," "Vir summo ingenio," but as morally worthless, insolent, vain, and mendacious. There was in him a large element of the charlatan, but he had great ingenuity, activity of mind, and fertility of invention. He was the originator of potato cultivation in Germany. His *Physica Subterranea* contains the fundamental ideas of the phlogistic system of chemistry; Stahl admitted his obligations to it, and pronounced it to be "opus sine pari, primum hactenus et princeps." His principal economic work was his *Politischer Discurs von den eigentlichen Ursachen des Auf und Abnehmen der Reiche, Städte und Republiken*, in specie *wie ein Land nahrhaft und folkreich zu machen und in eine rechte* Societatem civilem *zu bringen*, 1668. It is written in the spirit of the mercantile system, but avoids some of the exaggerations of that system, and shows occasional insight into juster principles. As ROSCHER remarks, most of the German economists who preceded him had been theologians, philologists, or jurists; he was a student of natural philosophy, and this gives to his writings a special freshness, a freedom from pedantry, and a practical character, which, with his lively and striking style, fitted them to exercise a popular influence, as they in fact did, both directly and still more through his disciple HÖRNECK.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 270.] J. K. I.

BECKMANN, JOHANN (1739-1811). Beckmann, a native of Hoya in Hanover, became professor of philosophy 1766, and then (from 1770 till his death) of national economy at Göttingen, in his native country. Under Beckmann, SCHLÖZER, and others, Göttingen became the leading university at that date for the social and political sciences. Beckmann has claims to be regarded as the founder of scientific technology, and he had a wide knowledge of the industries, arts, and sciences. Linnæus was among his friends. He wrote on commerce, agriculture, botany, finance, bookkeeping, technology, etc., but the work which has been of most use to economists is his history of inventions, *Beiträge zur Geschichte der Erfindungen* (in five volumes) (1780-1805), part of a series of "Beiträge zur Oekonomie, Technologie, Polizei — und Kameralwissenschaften." The *History of Inventions* has been translated into English, and is included in Bohn's Standard Library; prefixed to that translation there is a good biography.

[For a general list of works, see Professor Elster's article "Beckmann" in the new *Handwörterbuch der Staatswissenschaften*. For criticism, see Roscher, *Geschichte der National-Oekonomik in Deutschland* (1874), p. 912 and note; cp. 582 note.] J. B.

BEDE (see MANOR). A German term for certain exactions paid to the feudal lord by those of his tenants who did not hold by military tenure, or who were not ecclesiastics. Originally payable in kind and determined only by the will of the lord, in most parts of Germany by the 13th century the Bede had become a fixed money payment. This quit rent continued in existence for a long period, and in some parts of Germany was not disused even in the present century. In some cases the rent was paid to another person than the owner of the land, forming thus a kind of rent-charge.

The Bede seems to be analogous to the "redditus assisus" or fixed quit rents formerly paid by manorial tenants in England. But it differs from this in the fact that it could not be exacted from military tenants, and in other ways. It is also analogous to the French TAILLE but has no connection with any system of taxation. As its name implies,—*bede*, a request, a prayer—it is a BENEVOLENCE extracted from the tenants by their feudal chief. Compare the old

English words "bederipe," a day's reaping due from the tenants at the lord's request, boonerth, a day's ploughing, boon-days, a day's labour, and the Latin phrases "preces," PRECARIUM. Conrad, *Handwörterbuch der Staatswissenschaften*, s.v. 1889. C. G. C.

BEEKE, REV. HENRY, born at Kingsteignton, Devonshire, 6th January 1751, educated at Cambridge, where he proceeded M.A. 1776; D.D. 1800. He was professor of modern history in 1801, Dean of Bristol, 1814; and died 1837 (see ARITHMETIC, POLITICAL. HISTORY OF).

Observations on the Produce of the Income Tax, pt. i., London, 1799, 8vo; new and corrected edition, with additions, London, 1800, 8vo (an able defence of the tax, showing the economic state of Great Britain at the time. An appreciative account of Beeke's work is given by Mr. Giffen in his *Growth of Capital*, 1890). H. R. T.

BELDAM, reputed author of *Considerations on Money, Bullion, and Foreign Exchanges; being an Inquiry into the present state of the British Coinage, particularly with regard to the scarcity of Silver Money, with a view to point out the most probable means of making it plentiful* (London, 1772).

[*Monthly Review*, 1772, vol. xlvi. p. 243. See also Jevons's *Currency and Finance*, p. 368.] F. Y. E.

BELL, WILLIAM (1731-1816), prebendary of Westminster and treasurer of St. Paul's, was a fellow of Magdalene College (Cambridge); here he obtained one of Lord Townshend's prizes by the work which entitles him to be considered as an economist—A dissertation on the following subject: *What Causes principally contribute to render a Nation Populous? And what Effect has the Populousness of a Nation on its Trade?* 1756. In 1751 HUME had maintained, in opposition to MONTESQUIEU (*Lettres Persanes*, cxii.-cxxiii. and *Esprit des loix*, l. XXIII. chs. 17-29), the superior populousness of the modern world (see Hume's *Essay on the Populousness of Ancient Nations, and Philosophical Works*, vol. iii. p. 56, ed. Greene and Grose). In this Hume had been criticised by R. WALLACE (1753), who asserted that modern arts and institutions tended to diminish population. Bell has probably been inspired by this writer. Commerce and the arts have, according to him, a tendency to diminish population, for there are not "any bounds originally prescribed to humane nature" (p. 2). They divert production from being employed upon the necessaries of life; make, through the influx of money, the prices of provisions high, and render the support of families difficult; whereas agriculture and the more useful arts, by lowering prices, must cause a fall of wages, but in what proportion the author holds to be "an idle and useless curiosity" (p. 19). To secure agriculture and the more necessary employments, Bell thinks that "of all political institutions none seems more immediately requisite . . . than an equal division of lands" (p. 24). He proposes, therefore, that the right of PRIMOGENITURE should be abolished and a more equal division established between all the children of a family" (p. 28). He recommends a republican form of government, as most favourable to the increase of population (p. 29). Only after a considerable increase thereof should commerce be introduced. This dissertation has been assailed by William TEMPLE, a clothier of Trowbridge, in *A Vindication of Commerce and the Arts*, by J—— B——, M.D., London, 1758. It was translated into German under the title: *Wilhelm Bells, M.A. zu Cambridge, gekrönte Preisschrift von den Quellen und Folgen einer Starken Bevölkerung*, 1762, and Vienna, 1768.

[M'Culloch's *Literature*, pp. 51, 52.—*Dictionary of National Biography*, vol. iv. pp. 176, 177.—Macleod's *Dictionary of Political Economy*, p. 260. The *Vindication* is erroneously ascribed to Bell.] S. B.

BELLERS, JOHN, member of the Society of Friends, born about 1654, became joint-lord of the manor of Coln St. Aldwyn's, Gloucestershire, and devoted himself to philanthropic projects, in some of which he anticipated John HOWARD. Died in London, 8th February 1725. Among his numerous pamphlets are—

Proposals for Raising a Colledge of Industry, London, 1695 and 1696, 4to (the rich are to provide the capital and derive profit from the college, in which destitute men and women are to find work, and a resort in old age or illness; reprinted in R. Owen's *New View of Society*, 1818; see also Eden's *State of the Poor*, i. p. 264 etc.; K. Marx's *Das Capital*, and H. M. Hyndman's *Socialism in England*, 1888, p. 65 etc.)—*Essays about the Poor, Manufactures, Trade, etc.*, London, 1699, 4to.—*An Essay for Employing the Poor to Profit*, London, 1723, 4to. H. R. T.

BELLITTI, GIACINTO, author of *Considerazioni sulla libertà dell' annona e sull' abolizione della assisa del pesce*, Napoli, 1791, strenuously defends free trade, much in the same way as CANTALUPO (*q.v.*) ("Domenico di Gennaro, duca di Cantalupo") had done in 1785 in his *Annona*. M. P.

BELLONI, GIROLAMO, was a Roman banker who wrote, in 1750, an *Essay on Commerce* (*Dissertazione sopra il Commercio*) which had an extraordinary success. It was translated into several languages (including English, London, 1752), and the pope Benedict XIV. (Lambertini) made the author a marquis for it. In 1757 a second Italian edition appeared, and in the same year a *Letter on Imaginary Money*. In the *Essay on Commerce* Belloni does not show himself possessed of any superiority over economists who were his predecessors, like LOCKE, MELON, BROGGIA and GALIANI, and his great success is the more difficult to understand as his book is not free from some very gross errors, which even in his time ought to have been avoided by an acute and learned writer.

An example of such errors is his approval of measures tending to prohibit the exportation of coin. His writings have been collected by CUSTODI in his *Raccolta degli Economisti classici italiani.* M. P.

BENEFICE (1). This term was applied during the Early Middle Ages to lands held of a person who retained the ownership by a tenant who enjoyed the usufruct. A tenure of this kind, revocable at the will of the owner, and known as a *precarium*, was occasionally to be found in the Roman republic. Under the empire it appears more frequently; and, where the conditions of the grant are light, it is naturally described as a *beneficium*. Under the Merovingian kings the tenure became still more common; partly owing to the action of the great ecclesiastical proprietors, who by grants of this kind to dependant tenants secured the cultivation of their estates; partly owing to the surrender of their lands by the weak to the more powerful on condition of being allowed to retain the usufruct. The usual condition of a *beneficium* was a periodical payment in money or in kind; it was not associated with military service until the 8th century. At first revocable at will, and then granted only for a short term of years, by the middle of the 9th century *beneficia* had come to be regarded as hereditary. By that time, also, the beneficiary tenure had become the almost universal form of land-holding by persons above the rank of VILLEIN; a change which was largely due to the action of Charles Martel and the early Carlovingian princes, who forced the ecclesiastical proprietors to give up large portions of their estates to secular hands, while allowing them to retain the nominal ownership. The conjunction of the beneficial system with the vassal relation—with which originally it had nothing to do—ultimately created feudal tenure, such as it was to be found in the greater part of western Europe.

[The clearest account of the early history of *precaria* and *beneficia* is by Fustel de Coulanges, "Les Origines du Régime Féodal" in *Revue des Deux Mondes* for 15th May 1873. On the Merovingian and Carlovingian *beneficium*, the standard works are those of Georg Waitz, *Deutsche Verfassungsgeschichte*, vol. ii. (2d ed. 1870), vol. iv. (2d ed. 1885), and Paul Roth, *Geschichte des Beneficialwesens* (1850), and *Feudalität und Unterthanenverband* (1863), who, however, differ in important points. For brief summaries, see Stubbs, *Const. Hist. Engl.*, vol. ch. ix.; and Felix Dahn, *Deutsche Geschichte* (1888), bk. v. ch. vi.] W. J. A.

BENEFICE (2). An ecclesiastical living or promotion. The word *beneficium* was applied to portions of land granted by a feudal lord to his followers (see BENEFICE No. 1), but afterwards it came to be restricted in a general sense to church preferments and dignities, and in a narrower sense to rectories, vicarages, and perpetual curacies, which were endowed with lands and tithes. The perpetual right of presentation to a benefice is called an advowson and is regarded as a hereditament of an incorporeal nature. The right of next presentation is only personal property. No one but a priest can hold a benefice, and benefices to which the cure of souls is attached cannot be charged with payments to other persons.

[*The Ecclesiastical Law of the Church of England*, by Sir R. Phillimore, London, 1873.] J. E. C. M.

BENEFICIUM CEDENDARUM ACTIONUM (Scots law term). Right of co-surety to sue for contribution.

BENEFICIUM COMPETENTIÆ. A privilege given by the Roman law to defendants in actions brought by plaintiffs standing in certain relations to them (*e.g.* to fathers in actions brought by their children, to former masters in actions brought by freedmen, etc.) If a defendant availed himself of this privilege, judgment was not given for the amount of the claim, but for such sum as the defendant might be able to pay without depriving himself of the necessaries of life. E. S.

BENEFICIUM DIVISIONIS (Scots law). An implied right of a surety to be sued in the first place only for his share.

BENEFICIUM EXCUSSIONIS. A privilege given to sureties in the later Roman law, which enabled them to postpone the payment of the guaranteed debt until the principal debtor had been sued for the amount. E. S.

BENEFICIUM INVENTARII. By the civil law, the property of a deceased person goes to one or more persons who have to pay all legacies and debts, and who, after once having accepted the inheritance, cannot plead insufficient assets, but are personally liable for everything. A person taking an inheritance in this way is called an heir (*heres*) (but it must be remembered that the word "heir" in English law has a totally different meaning). Justinian introduced the *beneficium inventarii* which enables the heir to have an official inventory of the estate made before he accepts the inheritance; when this is done the inheritance is said to be accepted "with benefit of inventory," and the heir is answerable to the extent of the assets only. The rules of law here described are still in force in the countries whose laws are based on the civil law (see for instance the French *Code Civil*, art. 793). E. S.

BENEVOLENCES. Voluntary grants made to the king on application by him personally, or by letter, or through commissioners. They were first exacted by Edward IV. Though they were declared illegal by 1 Ric. III. c. 2, Henry VII. resorted to them in 1491 and obtained an act (2 Henry VII. c. 10) for the recovery of all sums promised but not paid.

Henry VIII. demanded benevolences in 1528 and 1545, and many sums were given to Elizabeth. During the struggle between the Stuarts and parliament, the crown more than once resorted to this method of raising money. The Petition of Right (1627) expressly declared that no man should be liable to any benevolence or forced loan. J. E. C. M.

[Dowell's *History of Taxation and Taxes in England* (London, 1889).—*Constitutional Law*, by H. Broom, p. 398 (London, 1885).—2 *State Trials*, 899.—12 Coke, *Reports*, 119.]

BENTHAM, JEREMY, philosopher, reformer, and economist, born at Houndsditch, London, 1748, was trained for the bar, but soon abandoned it for a life of study and travel, which a considerable private fortune made possible. Most of his voluminous works were first published in French by his friend and admirer Dumont. Bentham died at Westminster 1832, in his eighty-fifth year.

Bentham deserves a place in the history of political economy, partly from his writings on that subject, perhaps even more from the influence of his philosophy on his friends James MILL and David RICARDO. His first important economical work, the *Defence of Usury*, is a series of lively letters (written from Russia in 1787), in which he appeals to Adam Smith to apply his principles consistently, and withdraw his sanction from "legal restraints on pecuniary bargains." He contends that no man should be forbidden to make his own terms in a bargain relating to money, any more than in any other bargains. He tries to prove, by closely reasoned arguments, that, when the legislature fixes a maximum rate of interest, it does not benefit the right persons, while it corrupts the public by multiplying temptations to law-breaking. He proceeds on the general principle that every man is the best judge of his own interest, and it is for the public good that he should be left free to seek it. Bentham was one of the first economical writers who were completely emancipated from the old prejudices against lending of money at interest; and he combats not only the old arguments against usury, but Adam Smith's special plea that, without a legal maximum, money would pass from the sober people to the prodigals and projectors. The prodigals, said Bentham, would not get it, and the projectors ought to get it. As Adam Smith himself has frequently remarked, all industrial progress depends on the formation of new industrial schemes, or in other words, on the work of projectors. In hindering projectors, therefore, we are hindering the public good. So argued Bentham; and Adam Smith is said to have confessed (before his death, in 1790) that in this point the disciple had bettered the instruction of his master. Both in style and in matter this is one of the most masterly of Bentham's economical writings. The praise, however, must be shared with the *Protest against Law Taxes* (1795), and the *Observations on the Poor Bill of Mr. Pitt*. In the latter, written 1797, he marshals a list of objections expressed in his happiest manner, and acknowledged by PITT to be (in conjunction with the *Essay* of MALTHUS) completely fatal to the success of his bill. The relief of the poor became an object of his thorough and dispassionate investigation, and as a result he submitted to government an elaborate poor-law scheme which anticipated many features of the law of 1834, and was within an ace of being accepted. Bentham was quick to see the affinity of the new economical doctrines of Adam SMITH with his own political philosophy. Even in his economical writings he is evidently more guided by his utilitarian conception of law and government than by purely economical reasons; but he finds the two in harmony with each other; and, in those important cases where political economy is inseparable from politics and legislation, he is original only in the sense of being a very intelligent disciple. His own constructive (as opposed to his critical) work in political economy is most fully presented in the *Manual of Political Economy*. Dumont gave part of this to the world in the Geneva *Bibliothèque Britannique* as early as 1798, and rightly remarks (in his introductory letter there) that, unlike Adam Smith, Bentham is never the historian but always the legislator, and that he laid special stress on the limitation of labour by capital. Whether much or little labour is to be employed in any industry must depend on whether much or little capital is devoted to that industry. This was not a new idea, but it was made more prominent than in the *Wealth of Nations*, from which otherwise the *Manual* differs more in method than in doctrine. Political economy is treated as a science whereby much can be known, rather than as an art whereby government can do much for its citizens. The part of government is, as a rule, to "be quiet" and let self-interest have its perfect work, so that, out of the three classes of measures, the *sponte acta* by the citizens, the *agenda* by the state, and the *non agenda* by the state, the first, in economical matters, must play the largest part. In the *Manual*, indeed, the *non agenda* cover the greatest number of pages; the various forms of mischievous interference by government are described at length, and treated very much as by Adam Smith. They are, however, more plainly declared by Bentham (as later by COBDEN) to be not simply unwise, but unjust. Colonisation is regarded as a loss to the mother country and a gain to the world, a view which led Bentham, in his capacity of French citizen, to advise the French (in 1793) to emancipate their colonies. DRAWBACKS and BOUNTIES are condemned; but the granting of a patent to inventors is strongly commended, and the expense of procuring one is denounced as unjust.

In a passage, which does not appear in the *Bibliothèque Britannique*, and may have been written after Malthus's *Essay*, premiums on large families and similar encouragements of population are condemned: "As well make institutions to punish men for not eating, or pay them for eating, with premiums for them who eat most and oftenest." In regard to finance, Bentham considers that the best tax is the extension of escheats on failure of near relations (which is also the subject of a separate pamphlet), and the worst taxes are those on law proceedings. "In law a tax is a prohibition to every man who cannot pay the tax; this is understood in trade, but seems not to be understood in anything else," he says in his *Conversations*. He thinks well of the redemption of the national debt by an (inviolable) sinking fund, considering that the money employed in reducing the debt is, at the time of repayment, a positive addition to the productive capital of the country. This may be doubtful doctrine; but no exception can be taken to the main reason given for repayment, namely, that "sum for sum the enjoyment produced by gain is not equal to the suffering produced by loss. In this difference, traced through all its consequences, lies the mischief, and the sole mischief, of bankruptcy, or of theft." In dealing with special economical doctrines Bentham is not, on the whole, in advance of his master, while we miss, throughout, his master's continual illustrations from life and history. His distinctions are often expressed in philosophical terms, without thereby becoming either more subtle or more profound. National wealth, as the total of the means of subsistence or enjoyment, is distinguished from national opulence or "relative wealth," which varies inversely with population. He describes the "final cause" of wealth as well-being, and the "material cause" as "the matter of wealth considered in respect of its possessing or being capable of possessing *value, namely, subservience to well-being*, the final cause." (We may compare with this the casual remark in his *Conversations*, "the value of money is its quantity multiplied by the felicity it produces.") In regard to machinery, he seems to have arrived at a conclusion similar to Ricardo's in its final form. After an invention (he says in a passage which is not given in the *Bibliothèque Britannique*, and may be later than 1798): "Without an addition to the mass of pecuniary capital, which is a circumstance accidental and not belonging to the case, the retaining of the same number of hands would in no instance be possible, for the production and keeping up of the machinery or other auxiliary means would always require a considerable quantity of labour, the payment of which would be attended with a proportionable mass of expense, by which a proportionable part of the capital would be absorbed;" and therefore the introduction of machinery may certainly (he thinks) be an immediate evil to the labouring classes. Bentham can hardly, in this case, be said to give us both sides of the question. But there are other economical problems on which he barely touches at all. RENT is not discussed, and the distinction of cost from value is the subject only of passing allusion (in the *Conversations*). The assertion of Karl MARX that Bentham was the author of the theory of a wages fund rests on no stronger evidence than the passage above quoted about machinery. The statement that labour is limited by capital does not by itself imply so much. It is difficult to be certain how much of the *Manual* is of the 18th century and how much of later date; and we cannot give its author the credit of every novelty that distinguishes his treatise from the *Wealth of Nations*. But it is clear that Bentham, if not an economist of the first rank, was at least well abreast of the times.

But Bentham's political philosophy has exerted a much greater influence on political economy than his own directly economical writings. Through James Mill and Ricardo political economy came to be identified (not merely with utilitarianism, with which in some degree it had already been identified by Malthus), but with Bentham's peculiar form of utilitarianism. How closely the two were associated in the popular mind we may see from CARLYLE'S early writings, in which the monster "Utilitaria" and the "dismal science" are constantly presented as different phases of one and the same deadly error. "The greatest happiness of the greatest number," a neat democratic formula used by Beccaria in his *Treatise on Crimes and Punishments* (1764), and by Dr. Priestley[1] in the *Essay on Government* (1768), was announced by Bentham (in his *Fragment on Government*) in 1776 to be the ruling principle and chief end of the legislator; and the unhampered working of commercial ambition and competition was very easily translated into terms of this formula (see BECCARIA). Whatever distress free competition might inflict on individuals, it tended to the greatest happiness of the greatest number. This was of course substantially the doctrine of Adam Smith himself. The difference between the two philosophers is, that the latter applied the principle to economics alone, and is not rightly described as being, in philosophy, a utilitarian at all. In economics he thinks he can show that individual men left to follow their separate self-interest without let or hindrance from the state will unintentionally accomplish results that are for the public good,

[1] "Priestley was the first (unless it was Beccaria) who taught my lips to pronounce this sacred truth; that the greatest happiness of the greatest number is the foundation of morals and legislation" (*Commonplace Book*, 1781-85; *Works*, x. 142, cp. 567 note). The phrase occurs in Hutcheson's *Inquiry into Beauty and Virtue*, etc., 1738, p. 181. Comp. Mr. C. F. Montague's edition of the *Fragment on Government*, introduction, pages 33, 34 (Clarendon Press, 1891)

namely, the greatest wealth and commercial prosperity possible to their community. Adam Smith, in short, abstracts, not very rigidly, and in one class of actions only, from all motives but self-interest. Bentham, on the other hand, makes use of the same abstraction, not in one class, but in the whole range of actions falling under consideration of political philosophy. Not only in economical matters but in politics and general life, "there is no true interest but individual interest." Man is under two masters, pleasure and pain, and his action results from a calculation of the balance of consequences in favour of greater pleasure or less pain to himself individually. On the other hand, the same Bentham considers that the aim and intention of all legislation (as distinguished from the unintended result of actions let alone by the law) must be "the greatest happiness of the greatest number," which is a general and not an individual interest. It is hard to reconcile this regard to the general interest with Bentham's extreme individualism. He tries to do so, when he says it is imperative that the individual interest of the ruler should be one with the general interest of the ruled; but he does not explain how Bentham the legislator, being a mere man, can rise to a view in which his individual interest is certainly lost in the general. This is not the place to discuss the philosophical question; and it must be granted that, once Bentham has made his logical leap from the individual to the general happiness, he guides himself strictly by regard to the latter even in matters of trade, and has no faith in an absolute "harmony" of unregulated interests. He was an advanced free-trader; but we can see, from such proposals as those for the extension of escheats and for the taxation of bankers and stockbrokers, that his maxim of "greatest happiness" had lifted him above the extreme form of *laissez-faire*. The same maxim, when interpreted as a claim for equality of treatment for all members of the state ("every one to count as one and no one as more than one"), had much to do with the influence of the followers of Bentham ("the Philosophical Radicals"), represented by the early *Westminster Review*; and the close association of Bentham's politics with Ricardo's economics may therefore have helped in many quarters to secure a hearing for the latter during the crusade against the corn laws.

The philosophy of Bentham has influenced political economy in another and very different direction. The idea of a calculus of pains and pleasures which is used by JEVONS and others in building up the economic theory of value is founded (especially in the case of Jevons) very largely upon the suggestions of Bentham; and, even if the theory of final utility can be stated quite apart from any utilitarian psychology, it was certainly in the language of this psychology that it was first formally expounded by English writers.

It should be added that, like all the great modern economists, Bentham was devoted to the cause of education, especially the education of the labouring classes, whom he regards as the most valuable part of the community. He took shares in Robert Owen's factory in New Lanark, when (in 1813) OWEN bought out the old partners. His writings on education are hardly less numerous than those on legislation.

[His works and life, edited by Bowring, with an introduction by Hill Burton, fill eleven volumes, of which the tenth and eleventh contain the Life (Tait, Edinburgh, 1838 *seq.*) His chief economical works are: (vol. ii.) *Protest against Law Taxes, Supply without Burden, Tax with Monopoly* (*i.e.* a tax on bankers and stockbrokers); (vol. iii.) *Defence of Usury and of Projects in Arts, Manual of Political Economy, Conversion of Stock into Note Annuities, Invention and Discovery;* (vol. iv.) *Hard Labour Bill, Emancipate your Colonies;* (vol. viii.) *Tracts on Poor Laws and Pauper Management, Observations on the Poor Bill of Right Hon. William Pitt.* The treatises on *Rewards and Punishments* (vols. i. and ii.) have frequent economical references, though those of greatest length in the original edition have, in the collected works, been transferred to the *Manual*.

The *Manual*, together with the *Principles of Legislation*, has been in great part reproduced in the volume on "Bentham" (ed. Raffalovich) in the *Petite Bibliothèque Économique* (Guillaumin, 1888).

Critical estimates of Bentham's general work will be found in J. S. Mill's *Dissert. and Discuss.*, i. 330 *seq.* (from *Westminster Review*, August 1838), and in Adolf Held's *Sociale Geschichte Englands*, article "Bentham" (1881), and in an article by Prof. H. Sidgwick on "Bentham" in the *Fortnightly Review*, 1877 (comp. also account of Bentham's first principle in Prof. H. Sidgwick's *History of Ethics*). J. S. Mill's *Autobiography* brings out the influence of Bentham on Mill and Austin and the philosophical radicals in general. See also Bain's *Life of James Mill*, 1882.] J. B.

BEQUEST, POWER OF. The power of bequeathing property on death has descended to modern nations from the Roman law, which permitted three-fourths of the inheritance to be willed away from the next-of-kin. The Koran recognises a similar principle as regards two-thirds of a man's property, and the Mishna recognises gifts of property to take effect on death; but it is probable that these provisions are traceable to the influence of Roman law.

Under the feudal system a vassal was not permitted to substitute a stranger in his place without his lord's consent (2 Coke, *Inst.* 7), and the early English will was restricted to personal property. At common law, a man if he left a widow and children could bequeath one-third of his personalty; if he left only a widow or only children he could bequeath one-half; and if he left neither widow nor children he

could dispose of the whole (2 Blackstone's *Commentaries*). Some writers think that the above rules only prevailed when supported by special custom (Williams on *Executors*). By imperceptible degrees full power of bequest was introduced, except in the province of York, Wales, and the city of London, but by the 4 & 5 W. & M. c. 2, explained by the 2 & 3 Anne, c. 5 for York; 7 & 8 Will. III. c. 38 for Wales, and the 2 Geo. I. c. 18 for London, the special customs prevailing in these places were abolished.

As regards real property, the refusal of the common law to permit bequests led to the invention of uses and trusts by means of which land was devised indirectly. After the attempted abolition of uses by Henry VIII. the inconveniences arising from the want of testamentary power resulted in the 32 Hen. VIII. c. 1, which permitted a will to be made of all land held by SOCAGE and two-thirds of land held by knights' service tenure. The 12 Car. II. c. 24 abolished tenure by KNIGHT'S SERVICE, and the 55 Geo. III. c. 192 made COPYHOLDS devisable.

The practice of entailing land by settling it upon a number of life tenants in succession has greatly curtailed the freedom of bequest, as the estate of a life tenant must end with his death (see SETTLEMENT). In the United States and in Canada, Australia, and other English colonies, freedom of bequest is the general rule, as their legal systems are based on English law. In Scotland and on the continent of Europe the principle of the Roman law,—reserving a certain portion of the inheritance (*legitima portio*) for the heir has been followed. The law of Scotland gives the widow one-half the movable property if there are no children, one-third if there are children; one-third if there be a widow, one-half if there be no widow is reserved for the children; what remains may be bequeathed.

The portion of the property that may be bequeathed in the chief European countries is as follows:—

In AUSTRIA: one-half if there are descendants, two-thirds if ascendants only, the whole if neither ascendants or descendants. *Aust. Civ. Code*, par. 765, 766, 951.

In BAVARIA: one-half if there are five or more children, two-thirds if there are four or fewer children. *Bav. Civ. Code*, § 15.

In DENMARK: one-third if there are descendants, the whole if no descendants. *Dan. Civ. Code*, 262, 263. Special provisions regulate the bequest of a Soedegaard or "family seat," of a Böndergaard or "estate let to peasants." New entails are prohibited.

In FRANCE, BELGIUM, and HOLLAND: one-half if there is one child, one-third if there are two children, one-fourth if there are three children, and so on.

In GERMANY: various regulations prevail, but there is a universal rule that a proportion, varying in the different states, cannot be bequeathed away from the nearest relatives

In GREECE: a share equal to that which on an equal division would descend to each of his direct heirs.

In ITALY: one-half if there are descendants, two-thirds if there are ascendants only, the whole if neither descendants or ascendants. *It. Civ. Code*, 805.

In NORWAY: one-half if there are descendants, the whole if no descendants.

In PORTUGAL: one-third if there are ascendants or descendants.

In PRUSSIA: all the property, but this power is greatly limited by the existence of settlements, hereditary estates, and by the customs of particular localities.

In RUSSIA: (1) all acquired property; (2) all patrimonial property if there are no descendants. By the Emancipation Act of 1861 the descent of property of the peasants is to be governed by local usage. The communal organisation still prevails in Russia.

In SPAIN: one-fifth if there are descendants, one-third if there are ascendants only, the whole if there are neither ascendants nor descendants.

In SWEDEN: in towns one-sixth of the property if there are children, one-half if there are relatives only in the country, the whole if there are no relatives living.

In SWITZERLAND: each canton has its own regulations, see *Les Législations Civiles des Cantons Suisses*, par C. Lardy, Paris, 1877.

[See *Reports on the Tenure of Land in Europe*, 1869 c. 66; 1870 c. 75.—*Succession Laws of Christian Countries*, by E. Lloyd (London, 1877).

Mill in his *Political Economy*, bk. ii. c. ii., and bk. v. c. ix., discusses the extent to which freedom of bequest should be permitted.] J. E. C. M.

BERKELEY, GEORGE, Bishop of Cloyne, Ireland, born 1685, died 1753. Bishop Berkeley's principal contributions to economic thought are contained in the *Querist;* of which the first edition appeared, in three successive parts, 1735-37. A second edition, increased by a few queries, and diminished by many, was issued in 1750. The portions of the first edition which did not reappear in the second are printed by Professor Fraser as an appendix to the third vol. of his edition of Berkeley's works.

Berkeley anticipates Adam SMITH in conceiving wealth and welfare philosophically; and is free from the errors of the mercantile system (*Queries* 556-561, and *passim*). He rightly states several technical points, as that "interest measures the true value of land" (1st ed. part i. 244), and that the worse currency expels the better (27, 464, 2d ed., 1st ed. part i. 246). Among many eternal verities stand out two or three doctrines which may appear to our generation less certain, or less important, than Berkeley held.

(1) Like CANTILLON, Berkeley ascribes paramount importance to the direction which unproductive consumption takes. "Whether the industry of the lower part of our people doth not much depend on the expense of the upper" (395)? Whether, by housebuilding and similar

expenditures, "much of that sustenance and wealth of this nation which now goes to foreigners would not be kept at home, and nourish and circulate among our own people" (402)? "Whether an Irish lady, set out with French silks and Flanders lace may not be said to consume more beef and butter than a hundred of our labouring peasants" (144)? "of how great consequences are fashions to the public" (99)? "Whether it may not concern the wisdom of the legislature to interpose in the making of fashions" (13)?

(2) The wisdom of the legislature is also to be employed in creating a national bank. The scheme is explained more fully in the first than in the second edition. Berkeley asks "Whether the sure way to supply people with tools and materials, and to get them at work, be not a free circulation of money" (239)? He regards the "promoting of industry" as "the true and sole end, the rule and measure, of a national bank" (314). It may appear to us more doubtful "Whether there be any difficulty in comprehending that the whole wealth of the nation is in truth the stock of a national bank" (438)? And it savours now of heterodoxy to ask "Whether the true idea of money as such be not altogether that of a ticket or counter" (23, 441)?

(3) A less prominent, but still cardinal, part of Berkeley's teaching is that the multitude as well as the quality of population is an element of well-being. "Whether the main point be not to multiply and employ our people" (352)? "Whether it would not be delightful to live in a country swarming, like China, with busy people" (359)?

Some of the suggestions made in the *Querist* are found in the *Essay towards preventing the Ruin of Great Britain* (1721), where, besides inculcating moral reforms, Berkeley proposes to encourage population and manufactures.

[*The Works of George Berkeley, formerly Bishop of Cloyne*, edited by Professor A. C. Fraser, Oxford, Clarendon Press, 4 vols. 1871. The *Querist*, with notes, 1829.] F. Y. E.

BERLIN DECREES. See CONTINENTAL SYSTEM.

BERNARD, SIR THOMAS, BART. (1750-1818), was one of the originators of the co-operative movement in England. He was employed by his father, Francis Bernard, the Governor of the province of New Jersey, as his secretary, and was called to the bar in 1780, but early devoted himself to philanthropical pursuits. Assisted by Count Rumford, Eliot, Wilberforce, and especially by the Bishop Shute Barrington of Durham, he founded in 1796 the "Society for Bettering the Condition and Increasing the Comforts of the Poor," the reports of which are for the most part his personal work. The same benevolent tendencies inspired him to publish *The Case of the Salt Duties, with Proofs and Illustrations*, 1817, in order to bring about their repeal. Besides the above-mentioned works his "Observations on the different Proposals which have been made respecting the Poor during the two preceding Centuries," are very important, through their wealth of information. They are joined by way of an appendix to: *The Life of Sir Thomas Bernard, Baronet.* By the Rev. James Baker, his nephew and executor, 1819.

[*Dictionary of National Biography*, vol. iv. pp. 387, 388.—G. J. Holyoake, *Self-help a Hundred Years ago*, 1888, ch. iii. ch. iv. ch. vi.] S. B.

BERNHARDI, THEODOR VON, economist, historian, and diplomatist, born at Berlin 1802, died 1887. His youth was spent in Russia. In 1820-23 he studied at Heidelberg, and then, after travelling abroad, settled in Silesia. He was appointed a Prussian "Legationsrath" in 1865, and for some years was actively employed in diplomatic work in Italy, Spain, and Portugal. He is known as an economist by his *Versuch einer Kritik der Gründe welche für grosses und kleines Grundeigenthum angeführt werden*, 1848. "Under this modest title," says ROSCHER, "is concealed a series of thorough-going investigations on the questions which are most important from a general point of view. The whole belongs to the best of what has been written against whatever is one-sided in the doctrines of SMITH, and still more of RICARDO. Were Bernhardi writing in our day, he would without doubt be spoken of as following the same direction as the SOCIALISTS OF THE CHAIR." The point Roscher finds most characteristic in him is the *historical* spirit of his work, seeking, as it does, to explain what are the views of human affairs out of which the opposite doctrines on large and small properties have respectively taken their rise, and with which they must stand or fall. Bernhardi is also author of several valuable works on political and military history. (Roscher, *Geschichte der Nat. Oekon. in Deutschland*, p. 1041). J. K. I.

BESOLD, CHRISTOPH (1577-1638), the greatest German master of political science in the first half of the 17th century, was born at Tübingen in 1577. After the battle of Nördlingen he announced his conversion to Roman Catholicism, entered the Austrian service, and was for a time privy-councillor. So renowned was he in his own day that the emperor wished him to fill a chair in Vienna, the pope one at Bologna, and the court of Denmark one in that country. He died in 1638 at Ingolstadt, where he was professor. He was characterised by a many-sidedness which, says ROSCHER, reminds us of GROTIUS and SALMASIUS. He was a most voluminous writer on theology and philosophy, law, history, and politics. In his *De Aerario* (2d ed. 1620) he gives a full enumeration of the questions to which statistics should furnish a reply. His economic doctrines are stated in

his *Synopsis politicæ doctrinæ*, and his *Vitæ et mortis consideratio politica*, 1623. His views on usury are remarkable, especially when we remember that they long preceded the arguments of Salmasius on the same subject. He denies the Aristotelian doctrine of the unfruitfulness of money, makes loans on INTEREST a case of legitimate *locatio*, disputes the common interpretation of the Jewish prohibition of interest, and only asks for a legal limitation of the rate. He agrees with the mercantile school as to the necessity of preventing the exportation of money and regulating the corn trade, and as to the propriety of sumptuary legislation. His great defect is the unsystematic character of his writings, which often consist merely of *collectanea* from various sources, loosely connected and interspersed with frequent digressions. THOMASIUS attributes to him "multa diligentia, magnum ingenium," but "exiguum judicium."

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 195.] J. K. I.

BETTERMENT. A word imported from the United States of America, and denoting an improvement of property. It has recently become familiar in England as the name for a principle of taxation, the adoption of which, for the purposes of local taxation is recommended by some politicians—the principle being that persons benefited by public expenditure should contribute to such expenditure to the extent of the increased value of their property, and this not only if the improvement effected by the public authority was carried out for the purpose of conferring a benefit on such property, but also if the resulting benefit was purely accidental, the expenditure having been undertaken for a totally different purpose. The advocates of the principle assert that it has been recognised by previous legislation both in the United States and in England, and that in extending its application they are introducing no new system of taxation.

As regards England the following instances are given:

(1) Various Sewers Acts, beginning with a statute of Henry VI., by which Commissioners were appointed for the purpose of constructing sewers, drains, seawalls, and other works for the prevention of floods, and for the purpose of apportioning the cost of such works among the owners of property within their respective areas. The Commissioners were to ascertain by whose fault any damage had previously been caused, who was specially injured by the previous state of things, and who would be specially benefited by the new works. These facts were to be considered in the apportionment (see the words of the Commission as set out in 6 Henry VI. c. 5, and 23 Henry VIII. c. 5).

(2) § 159 of the Metropolis Management Act (18 & 19 Vict. c. 120), which enables any vestry and any district board to impose special rates on any part of the parish or district, or to exempt any part of the parish or district from rates, with respect to expenditure which has been incurred for the benefit of any particular part, or has not been incurred for the benefit of the whole of any parish or district.

(3) § 8 (8) of the Artisans' Dwellings Act (45 & 46 Vict. c. 54—now reproduced by § 38 (8) of the Housing of the Working Classes Act, 1890—53 & 54 Vict. c. 70), according to which the arbitrator appointed under that Act has power, in the case of the compulsory demolition of an obstructive building, to impose a special rate on the owner of a building previously obstructed, to the extent of any increase in the value of such building resulting from such demolition. Other statutory provisions have also been relied upon, but they are either exactly analogous to those mentioned or obviously irrelevant.

It is not difficult to show that the principle brought out in the first two instances is not even superficially analogous to the principle of betterment as defined above. Landowners belonging to a district threatened by floods must take common measures for their protection, and as some individuals are more careless or more selfish than others, public officers are appointed to ensure efficient measures and a just apportionment of the expense. There is here no public expenditure in the proper sense, nor is there any apportionment, based on the increase in the value of property. The Metropolis Management Act, in authorising the sub division of parishes and districts for rating purposes, only recognises a principle which underlies all local government and taxation; viz. that expenditure incurred for the exclusive benefit of a particular area ought to be borne by the inhabitants of that area. As it often happens that a metropolitan parish or district comprises parts widely separated from each other, and public works undertaken for the benefit of one part may be useless or even hurtful to another part, it would be manifestly unjust to recognise no other area for local taxation except the arbitrary and frequently fanciful area of the parish or district. The Housing of the Working Classes Act seems, at first sight, to come nearer to the principle of betterment than the other statutes mentioned, inasmuch as it expressly declares that the increase in the value of improved premises is to be considered for the purpose of the apportionment of the contributions payable in respect of the compensation to the owners of obstructive buildings, and inasmuch as it introduces special rates upon individuals as distinguished from local areas; but here the analogy ceases. The demolition of an obstructive building is ordered on the ground of its being injurious to an adjoining house, and the primary object of the demolition is, therefore, the benefit of that

particular house. The special rate to be imposed in such a case is to be levied like a private improvement rate under the Public Health Acts; and, like a private improvement rate, it is not a tax in the usual sense of the word, but the repayment of a sum spent by the local authority for the special benefit of the party from whom it is to be collected.

In all these cases the expenditure is to be incurred with the special object of conferring benefits on a particular area or particular persons, and it is from that area or from those persons that the rate is to be collected. As Mr. Pember tersely says in his speech against the Strand Improvement Bill (p. 2): the principle hitherto not departed from is "that the incidence of taxation should be determined by the motive of the expenditure, and not by its accidental results."

The American legislation on the subject has been summarised by Mr. John Rae (*Contemporary Review*, May 1890, p. 644 *seq.*) He defines a betterment tax as "the special assessment of the expense (or part of the expense) of a local improvement on the adjoining property which is specially benefited by the improvement." This definition is somewhat ambiguous, as it is not clear whether such an assessment is to take place irrespectively of the object of the expenditure; and the ambiguity is not removed by the instances which are given of the imposition of a betterment tax, many of which seem explainable in the same way as the English statutes to which reference has been made. It is, however, quite clear that the principle of betterment, even in a more restricted sense, is not recognised in all the States of the Union, and that where it is recognised, the manner of applying it is by no means uniform.

The argument from precedent does not, under these circumstances, seem well founded, and the question as to the advisability of introducing the principle of betterment must be decided on the merits only. Before considering whether the proposed new method of taxation is just or expedient, it will be useful to ascertain how it can be carried out in practice. For this purpose the evidence taken by the Select Committee on the London Streets (Strand Improvement) Bill —a bill promoted by the London County Council and withdrawn after the rejection of its principal provisions—is highly instructive. The object of the bill was the widening of the Strand for the purpose of facilitating metropolitan traffic. This clearly appears from the preamble, which begins: "Whereas obstruction and delay to traffic is caused by the narrowness of the thoroughfare known as the Strand near the Churches of St. Mary-le-Strand and St. Clement Danes, and having regard to the extent and character of the traffic using the said thoroughfare, it is expedient that it should be widened and improved," etc., but as it was believed that the improvement was likely to cause an increase in the value of the adjoining property, it was proposed to raise part of the expenditure (not exceeding one-half) by contributions from the owners or occupiers of such improved property, which were to assume the form of yearly rent-charges. The bill created a betterment area, and provided that an arbitrator was to determine whether and to what extent the improvement rent-charge was to be imposed on each separate plot within that area. The award was to state (*a*) the amount of the increased value which would accrue to each plot; (*b*) the amount of the rent-charge to be apportioned to such plot; (*c*) the name of the person or persons by whom such rent-charge should be payable (being the owner of, occupier, or person otherwise interested in such plot).

The following are some of the practical difficulties disclosed by the evidence before the Select Committee.

1. The area of betterment was settled beforehand, and the arbitrator had no power to make an assessment on any property outside the area. At the same time the limits of the area were not fixed on any intelligible principle. The surveyor who made the plan almost admits this in his evidence. To the question (p. 101) "Why have you taken one side of Devereux Court and not the other?" he replies: "I am obliged to draw the line somewhere." Later on when asked (p. 103) "Why have you put it [New Court] in the betterment area?" he says: "You cannot always tell the reason why;" and similar answers are frequent. It may be objected that these facts are damaging to the proposed scheme, but not to the principle of betterment, but it is easy to see that the difficulty is not due to the accidents of this particular case. It is quite impossible to fix an area beforehand which is not more or less arbitrary; and if it is left to the arbitrator to find betterment wherever it exists without regard to any area, the difficulty of his task becomes insurmountable.

2. Even within a limited area the arbitrator's work may be so arduous as to become practically impossible. If no time be fixed for the making of the final award, great inconvenience must result; and if a time be fixed, the pressure of time must interfere with the completeness of the inquiry. Mr. R. C. Driver, one of the best known estate agents in London, being asked: "Now, apart from any machinery in this particular bill, do you think from your experience as a surveyor you could deal with this question of betterment?" replies: "I do not know the surveyor at the present moment amongst the whole range of them who is competent to deal with it" (p. 229). It might be said that the difficulty of the inquiry in the particular case was due to the large extent of the area, but it

would never be feasible to apply the principle of betterment to a small area, as no appreciable part of the total expenditure could be recovered in such a case.

3. The arbitrator, before making his award with regard to any particular plot, would have to hear the evidence concerning the whole area (see Mr. Tewson's evidence, on p. 273). There would, therefore, be a period of uncertainty extending over several years, concerning every piece of ground within the area, and as no one would purchase land subject to an uncertain contingent rent-charge, the whole property would become unsaleable during the period of suspense.

4. The arbitrator might find that only a very small part of the area derived any benefit. It would therefore be impossible to estimate beforehand what proportion of the cost would eventually become chargeable to the Metropolis.

5. The metropolitan ratepayers are now paying interest on sums borrowed for other metropolitan improvements which probably have conferred benefits on particular localities. If some inhabitants of the Strand district were made to pay for part of the expenditure by which they were specially benefited, they would be justified in asking for a readjustment of metropolitan taxation, so as to be relieved of part of the burden borne by them for the benefit of other localities.

Apart from these practical difficulties there are serious objections to the proposed adoption of the principle of betterment on grounds of justice and expediency. These may be shortly stated as follows:

1. There is hardly any public expenditure which does not benefit somebody, and it would be obviously unfair to give away these benefits in some cases and sell them in other cases. The erection of the New Law Courts has increased the value of property in the neighbourhood to an enormous extent, yet the cost has been paid entirely from imperial funds.

2. If public bodies may ask for contribution from persons benefited by their expenditure, irrespectively of the objects of the expenditure, private corporations or individuals ought to have the same right. A landowner who rebuilds a particular plot of houses, or plants trees or gardens for the benefit of his own property, may thereby increase the value of property within a whole district. A railway company may open a new area for building purposes; yet the persons benefited are not required to contribute to the outlay.

3. It is dangerous to establish a principle of taxation, the incidence of which, instead of being determined by definite general rules, depends on the discretion of one or more individuals whose fitness cannot be ascertained beforehand, and upon a calculation of probabilities which may and frequently will be erroneous.

4. If the effect of public expenditure on private property is to be considered at all, irrespectively of the object of the expenditure, the loss ought to be considered as well as the gain. If those who benefit ought to contribute, those who lose ought to be compensated. Some of the advocates of betterment recognise this consequence. Mr. James Beal, one of the witnesses called on behalf of the London County Council, in reply to the question (p. 199): "If you adopt that principle without regard to distance, would you also admit that to any distance people might claim, on the other hand, from the Council, for what you call an improvement doing damage to their property?" answers "Certainly." "Can you give any idea to the committee of what the pecuniary ultimate result would be, what your balance-sheet would look like?" "No." "It might turn out to be a very bad principle for you?" "When you assert a principle follow it to the death; do not trouble about results." It should be remembered in reference to the last remark that in this case the persons who asserted the principle were not the persons whom the result would have affected.

The metropolitan authorities have hitherto adopted a plan for obtaining the benefit of a rise in the value of property, occurring in consequence of improvements effected at the general expense, which has produced satisfactory results, and is free from the inconvenience of the betterment tax. This plan is known as the method of recoupment, and is applied in the following manner. The public authority acquires compulsory powers to purchase land beyond the immediate necessities of the contemplated improvement, at a valuation which does not include the prospective increase in value which will be due to improvement. Such land is resold when the improvement is completed, and by the profit on the re-sale a part of the cost of the improvement is repaid. The principal objection urged against this plan is that the price of the compulsory purchase includes trade interests which are destroyed, and that this loss takes away the profit which would otherwise have been obtained on a re-sale. There is not much force in this objection, inasmuch as most of the houses occupied for trade purposes are held by the tenants on short leases, and the public authority can therefore buy the freehold without paying for any trade interests, and allow the leases to run out before re-selling. The duty to re-sell may be postponed for a number of years, so as to allow for time for longer leases to run off. This plan, which is just and fair to everybody concerned, is free from most of the objections against the betterment scheme, and answers every legitimate purpose for which that scheme has been devised.

E. S.

BETTERNESS. A term used in bullion

transactions. It is usual in the older methods of reporting the results of assays, which are still retained side by side with the decimal system of reporting, to refer the proportion of gold or silver in ingots or bars to "standards" for the respective metals. Standard gold contains 22 parts of gold and 2 of baser metal in 24 parts; these parts are called *carats*, the gold carat containing 4 grains, the grain being subdivided into 8 parts. The standard for silver coin and plate consists of 11 ounces 2 dwts. of silver and 18 dwts. of copper in the pound of 12 ounces troy. *Betterness*, and *worseness*, are merely conventional terms which have been adopted for centuries to show how much gold in "carats" and "grains" and "eighths," and how much silver in ounces and pennyweights, the mass of metal contains in addition to, or in defect of, the legal standard, which standard affords the basis for calculating the money value of the metal. C. R-A.

BEZANTS. A name given to gold and silver coins which were struck at Byzantium (Constantinople), the capital of the Eastern empire, and which circulated throughout Europe from the 6th to the 15th or 16th centuries. The gold coins were current in England in Anglo-Saxon and Norman times, and may be said to have been used as international money.

Of the original bezants the chief gold coin was called the "SOLIDUS" and the silver coin the "miliarision." They were struck about the year 500 A.D., in the time of Emperor Anastasius, and were made of fine metal. They were, however, gradually debased, and by the 15th century, when the Eastern empire fell, they had become greatly reduced in fineness. Their weight also did not remain constant, and it is impossible therefore to say what was their exact value. A gold coin, however, which was probably the largest to which the title bezant could correctly be applied, was issued in the reign of Heraclius (615 A.D.) under the title of "hexagram." The weight of this coin was 105 grains (probably fine gold) and its value in sterling therefore would be 18s. 7d.

The current rate at which gold bezants were received throughout Europe has been estimated at a ducat (9s. 4d.), so that they may be taken as roughly equivalent to a HALF-SOVEREIGN; and this estimate would appear to be confirmed by the fact that 200,000 bezants, paid for the ransom of St. Louis of France (1250), were taken as equal to 100,000 LIVRES (pounds). Bezants, however, which were distributed at the coronation of Henry II. of France (1547), three centuries later, were equal in value to two DUCATS. As, however, it is certain that in the course of time the word bezant came to be applied to any gold coin in common use, quite apart from any consideration of its value or of its place of origin, such discrepancies in their estimated value cannot but be expected to occur. F. E. A.

BIANCHINI, LUDOVICO, born at Naples 1803, died 1871, was an economist, statesman, and historian of merit. Though much occupied in the highest official positions of the kingdom of Naples, he found time to write many excellent works on economical, administrative, and historical subjects.

His principal economical writings are the following:—*Principii del credito pubblico*, viz. *Principles of Public Credit*, published in Naples in 1827 and 1831.—*Della influenza dell' amministrazione pubblica sulla industria nazionale e sulla circolazione delle richezze*, viz. *On the Influence of the State on Industry and Circulation of Wealth*, Naples, 1828.—*Della storia delle finanze del Regno di Napoli*, viz. *History of Neapolitan Finance*, 3 vols., Naples, 1834 and 1839.—*Sullo stato delle ferriere nel Regno di Napoli*, Napoli, 1835.—*Sulla conversione delle rendite inscritte nel gran libro del debito pubblico*, viz. *On the Conversion of the Public Debt*, Naples, 1836.—*Principii della Scienza del ben vivere sociale e della economia pubblica e degli Stati*, viz. *Principles of the Science of Social Welfare;* the first volume, containing the history of political economy, was published in Naples in 1845; the second volume, containing the principles, was published in Italian in 1855, and in French in 1857.—*Storia economica di Sicilia*, viz. *Economical History of Sicily*, Naples, 1841. M. P.

BIBLIA, FABRIZIO, of whose life nothing is known except that he was born at Catanzaro, and wrote in 1621, by order of the Viceroy Zapatta, during one of the most serious monetary crises of the time, a pamphlet having the title, *Discorso sopra l'aggiustamento della moneta e cambii nel Regno di Napoli*, in Napoli, 1621. He proves himself to be much inferior to Antonio Serra, who wrote in 1613 (see A. SERRA). M. P.

BIDDLE, NICHOLAS, born 1786, died 1844; president of the Second Bank of the United States. A graduate of Princeton College, and later a student of law, he first became connected with the bank as a government director; was its president from 1823 to 1836, and a prominent figure through the eventful years of its unequal struggle with President Jackson. Biddle managed, on the whole with success, the affairs of this great institution, ramifying with its twenty-five branches through the United States. Most of his theories of banking were sound; but his theory as to bank-note issues was mischievous. Following the principle that guided the conduct of the Bank of England during the restriction, he believed there could be no excess of issues so long as the bank's advances were confined to good commercial paper, arising out of real transactions. He failed to distinguish between a bank-note proper, redeemable on demand at any branch in coin, and a draft, redeemable only at the branch on which it was drawn, and therefore practically irredeemable. Nearly all the difficulties of the bank can be traced to the vicious effects of this

principle. Biddle's theories on banking are to be found in the record of the actual operations of the bank under his management.

N. Biddle's writings are few; his best work was *Two letters to the Hon. J. Q. Adams; embodying History of the recharter of the Bank of the United States, and a view of the Present Condition of the Currency* (London, 1837). A. C. M.

BIEL, GABRIEL (1430?-1495), sometimes called the last of the scholastics, was born at Speyer about 1430. He enjoyed the esteem of the well-known Duke Eberhard of Würtemberg, and was one of his chief agents in founding (1477) the university of Tübingen, in which he became professor of theology. He was afterwards a member of the order of the Brothers of the Common Life. His principal work is entitled *Collectorium Sententiarum*, published in 1501. He belongs to the history of political economy by the portion of this work in which he treats of money from the moral or casuistic point of view. Though inferior to ORESME, the other distinguished scholastic economist, in penetration and clearness of thought, he shows a sound understanding of the fundamental principles of the theory of money. This part of the work was published separately by John Virdung at Mainz in 1541 under the title, *De monetarum potestate simul et utilitate tractatus.* It is also appended to the treatise of Marquard Freher, *De re monetaria veterum Romanorum et hodierni apud Germanos imperii*, 1605. (Roscher, *Gesch. der Nat. Oekon. in Deutschland*, p. 21 *seq.*; and H. Contzen, *Gesch. der Volkswirthschaftlichen Lit. im Mittelalter*, p. 161).

J. K. I.

BIGELOW, ERASTUS BRIGHAM, LL.D., born 1814, died 1879, was an active and successful man of affairs, the inventor of many improvements in textile machinery, especially of the power-loom for weaving carpets. As an advocate of protection, and prominent woollen manufacturer, he had much influence in shaping the complicated system of duties on wool and woollens adopted by the United States in 1867. His writings on tariff subjects show force and ability. He wrote also pamphlets and review articles on the currency and on general economic questions.

Among his pamphlets may be mentioned *Remarks on the Depressed Condition of Manufactures in Massachusetts*, Boston, 1859, and *Address on the Wool Industry of the United States*, New York, 1869. F. W. T.

Bigelow was noted as a manufacturer in the textile arts. He early gave attention to industrial subjects, and in particular to the tariff question. His first printed treatise on the depressed state of American manufactures appeared in 1858. This was followed in 1862 by his best work, *The Tariff Question considered in regard to the Policy of England, and the interests of the United States. With Statistical and Comparative Tables*, Boston, 1862, pp. 103. Appendix, pp. 242, quarto. The descriptive portion is largely historical, and is an attempt to show that the growth of English commerce was not due to free trade, but to other general causes, and that the removal of duties by England was no sacrifice. The statistical tables are valuable, and show a desire to bring together a great mass of data in a scientific way. The foregoing work is condensed and treated in a more popular form in *The Tariff Policy of England and of the United States contrasted*, Boston, 1877, pp. 61. Mr. Bigelow also published an *Address on the Wool Industry of the United States*, 1869; *Relations of Labour and Capital* (*Atlantic Monthly*, 1878). He was the first president of the National Association of Wool Manufacturers, organised in 1864; and had much to do in framing the tariff of 1867.

[See sketch of his life in *Bulletin of Nat. Assoc. of Wool Manuf.*, vol. ix. No. 4, 1879; also a brief memoir by Delano A. Goddard in *Proc. of Mass. Hist. Soc.*, Oct. 1882.] D. R. D.

BILL BROKING. Names do not always change with the things they describe. This is true of what is called "bill broking." When the business began early in this century the bill broker was really a broker—an agent between buyer and seller, procuring bills for the buyer, receiving a small commission for his trouble, but incurring no liability in respect of the transaction. The so-called "bill broker" is not now really a broker at all. Such business is still transacted, and on a considerable scale, but those known as bill brokers are really a sort of bankers, receiving from bankers and others large deposits which they invest for the most part in bills of exchange, agreeing to repay on demand or on short notice. They do also sell bills, but, as they guarantee the bills sold to the buyer, their liability remains intact just as much as if they held them till maturity. The bills are their own, and they do not get rid of the risk of holding them by selling them. Thus the character of the business has entirely changed. That change was no doubt gradual, and arose probably from the fact that bankers wanted to employ surplus money without the trouble and risk of selecting bills, and without the danger involved in locking up their funds in a security which could not at all times be readily turned into cash. Here a distinction must be made. So far we have referred to what is popularly called bill broking. But there is another large branch of the bill business which consists in the negotiation of bills drawn by British houses on firms abroad in payment for goods exported from these islands. In dealing with such bills, questions of EXCHANGE (*q.v.*) are all-important. The bills are drawn in the money of the country where payable, and they have to be turned into English money for

the convenience of the merchant who sells them. The bill broker makes his calculation as to the currency of the bill, the rate of exchange, and the contingencies of an exchange often altering, and names a price at which he buys the bill and takes all risks except that of non-payment. The amount of bills thus dealt in must be very large. But the bill broker proper has nothing to do with such bills. He is completely ignorant on all questions of exchange. The firms who deal in such bills are known as "foreign brokers," not as bill brokers. Leaving aside at present this special department of business in bills, there is really nothing peculiar in bill broking proper to distinguish it from banking on a great scale, except that a far larger proportion of the investments made by the bill broker must be made in bills of exchange for two reasons: (1) That he requires a large supply of bills of all dates to supply his customers who desire to purchase them, or to lend money on the deposit of bills as security, and (2) that, as he holds such large amounts payable at call or short notice, he requires a security which is perpetually revolving and coming to maturity as cash, and no known security answers this description so well as bills of exchange. He takes them daily of all dates, from a few days or weeks to run to six months, and they are perpetually falling in and supplying him with money.

It is a common observation that in banking no reserve is so good as a store of bills of exchange, and there is a constant demand for them on the part of banks, both in town and country, who cannot procure from their own customers a sufficient supply. It is one great part of the business of the bill broker to supply banks with this necessary aliment. The profit made on thus selling bills out and out is generally very small, but when once sold there is no further thought about the bill, if it is good; and the seller has the money in hand with which to make a fresh investment of the same kind. In this way a bill broker may turn over his "money" many times in a year, and in the aggregate obtain a fair return, though his liabilities on bills will be apparently enormous, but really very small, as the proportion of unpaid bills in a well-managed business is extremely slight. The history of the business seems, at first sight, to imply that the risks run are peculiarly heavy, so many of the old firms having disappeared through failure. As a bill depends entirely on names, and not on property, except occasionally where "document bills" are negotiated, it is obvious that much knowledge and experience are required in the choice of such paper. And even where there is a certainty of the ultimate payment of bills, there may be a great risk of having to wait long for payment, and in the meantime of a heavy lock-up of capital, a contingency which has often caused much anxiety and embarrassment. So have passed away the great house of Overend, Gurney & Co., the house of Sanderson, Sandeman & Co., Bruce, Buxton & Co., and divers houses of smaller repute. Such cases illustrate the peculiar dangers of the business, but that it can be maintained with safety and success is abundantly proved by the history of some of the companies who have conducted it during the past thirty years, and of private concerns of old standing still remaining vigorous notwithstanding the severe competition which has arisen, to say nothing of smaller houses which have sprung up and flourished since 1866. Probably it may safely be said that, since that famous date, banking and bill broking have been conducted as a rule with more caution than during previous periods, and that the abuse of credit generally has been less rampant, so that mere adventurers have had far more difficulty than formerly in negotiating made-up (*i.e.* fictitious) bills.

In this connection it may be proper to note the prevailing impression that out of a given amount of business far less is done on bills, and far more by cash payments than was done, say thirty years ago. As to the fact, there seems no doubt when the figures as to inland bill stamps are considered. From these it is evident that with an enlarged business fewer bills are created.[1] Again it is said that the custom of obtaining loans from banks instead of accepting bills has much developed—that a man who owes money, instead of accepting for the amount, takes a loan from his bankers and pays cash. In this case there is credit, only in another and less visible form. A bill drawn and negotiated may pass into many hands, but the loan cannot be transferred, and remains a private affair between the banker and his customer.

In most cases there is an important advantage to the debtor in paying cash, and banks prefer loans within certain limits, because they can generally charge a higher rate on a loan than on the discount of a bill. Probably both creditor and debtor prefer this mode of settlement to the creation of bills, because not only are stamps saved, but the nature of their relations in business is not in any way divulged beyond the banker's room. Another important cause of the diminution of foreign bills, that is of bills drawn on London by traders residing in foreign countries, is the development of the system of TELEGRAPHIC TRANSFERS, by which very large sums are now paid without the creation

[1] It is not so easy to account for this change as to prove its existence. One cause, no doubt, is a great increase of the actual wealth of those engaged in the larger transactions of the country. Men who used to accept bills now pay cash, and procure important advantages thereby. This is observed in all parts of the country, and means of course that such traders have largely increased their cash resources, and so are enabled to dispense with CREDIT.

of a bill. Formerly, for instance, almost the whole of the enormous produce and credit business between America and England was effected by sixty days bills. Now, it is said that the amount of bills of this description is not one-third of what it formerly was. This alone would mean a great reduction in the aggregate of bills, and the same process is going on, more or less, as to the trade with the East, etc. So, from various causes, the creation of bills no longer keeps pace with the extension of business; and complaints are frequent that "bills are scarce," that "it is impossible to find bills enough for the demand," and so on, the result being that holders of bills often have the discount market under control; hence the bank minimum rate no longer guides the market during considerable periods, and the machinery of the money market is dislocated, the bank being compelled to have recourse to unusual and extraordinary means of reducing the supply of loanable capital in the market. It is perhaps worth noting here that while thirty years ago, the Bank of England was one of the largest holders of bills of exchange, it is now believed to be one of the smallest amongst the larger holders. This change arises from the enormous growth of the deposits of other banks, which deposits are largely invested in bills, and as these fall due, are re-invested in the same security, so that there arises a continual demand for bills, and a tendency to depression of rates of discount. It is difficult for the bank to counteract this tendency. The amounts in question are too large, and as deposits seem ever on the increase and bills are not increasing in proportion, we have seen in recent years longer periods of "cheap money" than have ever before been known in the history of our commerce.

Other interesting observations arise in reference to the comparison of our own practice as to bills and that of other countries of commercial importance.

Take the case of France. It is said that there is no trade in Paris in bills as there is in London. The Bank of France holds always a large amount of bills which she has discounted for customers, but of course they are held till maturity and are not dealt in. She, having branches all over France, is the great French collector of money. Moreover credit is not developed in France as with us, so that bills are not created in sufficient quantity to support a great trade in them. Bills are of necessity drawn from Paris on all parts of France, and they are said to be mostly held by the Bank of France, but the bill is not, as with us, the most important of all banking securities (see BANK OF FRANCE; CLEARING HOUSE).

Take again the United States. In Chicago, for instance, the great distributing houses do not generally draw on local centres for the amounts due to them by smaller traders. They hold these as book debts which they collect as they can, in the meantime borrowing from banks for what they may themselves require. In England, on the contrary, such houses draw bills even for very small amounts which they discount in the market, thus avoiding a lock-up of capital. It cannot be said that credit is not fully developed in America, but in form it differs materially from our system. In some of the great eastern cities the custom is said to be different, and to resemble more that with which we are familiar, and in New York there is a limited market in bills, but not at all on the London scale. Banks buy bills and hold them, but there do not appear to be great houses collecting and dealing in bills after our fashion. Bill broking in fact may be said to be one of those British institutions which are peculiar to our country and arise from the peculiar nature of our commercial operations. It is a growth of that great expansion of credit which has so long distinguished our country, and to which we owe so much of our prosperity. The system is liable to much abuse, and has at times been grieviously abused, but it is not, therefore, to be set down as mischievous and useless. It is one of those means of economising the use of loanable capital which are intrinsically valuable and important, and are therefore certain to survive criticism, however severe. W. F.

BILL OF EXCHANGE. The word bill, meaning generally a statement in writing, is derived from *bulla* (Lat.) Bills of exchange, which may be divided generally between "inland" and "foreign," those which take their origin in transactions in one country only, and those which arise from transactions beyond the limits of that country in which they are payable, are among the most important of COMMERCIAL INSTRUMENTS (*q.v.*) Bills, properly speaking, represent debts, they may be used, by negotiation, to transfer these debts from one person to another, and first-class bills form one of the best securities which a banker can hold (see BILL BROKING). They sometimes, however, are drawn without being based on any genuine transactions; in this case their standing is more doubtful (see ACCOMMODATION BILL; CROSS DRAWING; KITE). Foreign bills sometimes originate in exchange operations, and are hence often employed in connection with the financial liabilities of governments. The amount of the bills of exchange in existence at one time in the United Kingdom is very large. It was estimated by W. Leatham (*Letters to Sir C. Wood*, 2d ed. p. 13), as being £135,000,000 in 1841, by W. Newmarch as not much less than £180,000,000 or probably £200,000,000 in 1856 (TOOKE and NEWMARCH, *History of Prices*, vol. vi. p. 588), by R. H. Inglis Palgrave, as being from £300,000,000 to £350,000,000 in 1872 (*Notes on Banking*, p. 36). The amount is probably not larger now (1891).

There are some varieties in form according as bills are drawn in England on persons residing in foreign countries or otherwise. A very usual one is as follows:

Due 3d March 1891.

£500.

LIVERPOOL, 31*st* Jan. 1891.

One month after date pay to us, or order, Five Hundred Pounds value received in goods, as per invoice dated 25.1.91. A. B. & Co.

Messrs. C. D & Co.
415 Mincing Lane,
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[For further details see books named above, and Goschen's *Foreign Exchanges*, in which foreign bills especially are treated of.]

BILL OF EXCHANGE, LAW OF. The law relating to bills, notes, and cheques, differs from other branches of our mercantile law in two respects. First, it has been codified by the Bills of Exchange Act 1882 (45 & 46 Vict. c. 61), and secondly, the act in question applies to the whole of the United Kingdom; so that with the exception of two Scotch rules which are specially preserved, there is now a practically uniform body of rules for England, Scotland, and Ireland.

By § 3 of the act a bill of exchange is defined as "an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to, or to the order of, a specified person or to bearer." The person who gives the order is called the DRAWER, the person thereby ordered to pay is called the drawee, and if he signifies his assent to the order in due form he is then called the ACCEPTOR. An acceptance must be in writing on the bill and be signed by the drawee (§ 17). When a bill is payable to a person named or to his order, it may be transferred by his endorsement. The person to whom it is so transferred is called the endorsee. The term "holder" includes alike the bearer of a bill payable to bearer, an original payee, and an endorsee.

Bills of exchange are said to have originated with the Florentines in the 12th century. From Italy their use spread to France, and from thence to England, and throughout the commercial world generally. A bill of exchange in its origin was an instrument by which a trade debt due in one place was transferred in another, thereby avoiding the necessity of transmitting cash from place to place. But in England mercantile usage adopted into law by judicial decisions has enlarged the original idea, and has created, by means of bills and notes, a perfectly flexible paper currency. Perhaps the full force of the English definition cited above is best brought out by contrasting it with some foreign system. French law, which adheres rigidly to the original theory of the uses of bills, offers the best contrast. In France a bill represents a trade transaction, in England it is merely an instrument of credit. English law gives full play to the system of accommodation paper (see ACCOMMODATION BILL); French law endeavours to stamp it out. Thus in England it is not necessary to express on the face of a bill that value has been given, for the law raises a presumption to that effect. In France the nature of the value given must be expressed, and a false statement of value voids the bill in the hands of all parties with notice. In England a bill may be drawn and payable in the same place. According to French law, though the rule is said of recent years to be disregarded in practice, the place where a bill is drawn must be so far distant from the place where it is payable that there may be a possible rate of exchange between the two. A false statement of places so as to evade this rule voids the bill in the hands of parties with notice. As the French lawyers put it, a bill of exchange necessarily presupposes a contract of exchange. In England a bill may be drawn payable to bearer. In France it must be drawn payable to order; if it were not so the rule requiring the consideration to be expressed would be a nullity. In England a bill payable to order becomes payable to bearer when endorsed in blank. In France an endorsement in blank merely operates as a procuration. In England if a bill be refused acceptance, a right of action against the drawer and endorsers at once accrues to the holder. This is the logical consequence of the currency theory. In France no cause of action arises unless the bill is again dishonoured at maturity; the holder in the meantime is only entitled to demand security from the drawer and endorsers. In England a sharp distinction is drawn between current and overdue bills. A person who becomes the holder of a bill after its maturity, acquires and can give no better title to it than the person from whom he took it had. In France no such distinction appears to be drawn (see Chalmers on *Bills of Exchange*, ed 3, Introd., pp. xlv.-xlvii.)

In some foreign countries any creditor is entitled to draw on his debtor for the amount of his debt, but in England the right to draw arises only from special agreement. A reason for the English rule may perhaps be found in the fact that at common law, apart from special agreement, it is the duty of the debtor to seek out his creditor, as soon as the debt is due, and to tender the money to him.

Bills of exchange payable on demand may be stamped with either impressed or adhesive stamps, the stamp duty being one penny. Foreign notes and bills must of course be stamped with adhesive stamps. Inland notes of all kinds, and inland bills payable otherwise

than on demand, must be drawn on impressed stamps. All notes and bills, other than bills payable on demand, are subject to an *ad valorem* stamp duty (Stamp Act 1870, §§ 45-55 and Schedule). Section 72 of the Bills of Exchange Act provides that when a bill or note is issued out of the United Kingdom it is not to be impeached because it is not stamped in accordance with the law of the place of issue. This affirms a general rule that the courts of one country take no cognisance of the revenue laws of another country. The enactment is clearly a fair one, as the present stamp act requires bills issued abroad to be stamped here, and makes no allowance for the foreign stamp.

The acceptor is the party primarily liable on a bill. By accepting it he "engages that he will pay it according to the tenor of his acceptance" (§ 54). The holder is entitled to require an absolute acceptance, but if the drawee will only give a qualified or conditional acceptance, the holder may either treat this as a refusal to accept, or at his peril take the qualified acceptance (§§ 19, 44).

The drawer of a bill is in the nature of a surety for the acceptor. He "engages that on due presentment it shall be accepted and paid according to its tenor, and that if it be dishonoured he will compensate the holder or any endorser who is compelled to pay it, provided that the requisite proceedings on dishonour be duly taken" (§ 55). The endorser of a bill is in the nature of a new drawer, and his obligations to subsequent parties resemble those of the drawer. When a bill is dishonoured the holder must, subject to certain specified exceptions (§ 50), give notice of dishonour to the drawer and endorsers he wishes to charge, and if the bill be a foreign bill he must also protest it. An inland bill may be noted, but no legal consequences attach to this proceeding, except the right to recover the noting expenses. When the liabilities of the drawer and endorsers are fixed by taking the proper proceedings on dishonour, the holder may either sue all the parties to the bill concurrently, or he may sue them in succession until he has recovered the amount of the bill with his damages and costs.

Sometimes, when it is doubtful whether the drawee will accept or whether he will be in a position to pay when the bill matures, the bill specifies some other person to whom the holder may resort in case of need. This person is called the "besoin" or "case of need." If he accepts the bill he is called an "acceptor for honour," and if he pays it he is called a "payer for honour." He must not pay the bill till it has been duly noted or protested for non-payment by the original drawee. On payment he becomes entitled to exercise the rights of the holder as against the party for whose honour he paid and all parties antecedent to him (§§ 65-68).

Comparing bills of exchange with other contracts, it will appear that the majority of the peculiar rules relating to them are deducible from the fact of their negotiability. A contract or chose in action is not assignable at common law, though in equity the benefit of it might be assigned subject to all equities between the parties. But a bill of exchange is part of the mercantile currency of the country, and its primary object is that it should circulate freely from hand to hand and that every honest holder should be able to deal with it like cash. A bill payable to order may be negotiated by the endorsement of the holder, completed by delivery. A bill payable to bearer, or endorsed in blank, may be negotiated by mere delivery. The consideration for its issue, acceptance, and negotiation is presumed until the contrary is shown or a *prima facie* case of fraud is made out, in which case the onus of proof is shifted (§ 30). If a bill gets into the hands of a "holder in due course" (§ 29), he gets an absolute title, and no antecedent fraud other than forgery affects him (§ 38). So strong is this rule in English law that if a person puts a blank signature on stamp paper, it is treated as an authority to any person to whom the paper is delivered to fill it up as a bill for any amount the stamp will cover, and if the bill, when complete, gets into the hands of a holder for value without notice, no objection that the paper was improperly dealt with is allowed to prevail (§ 20). The laws of all countries agree in the rule that no title can be made to a bill through a forged signature, but English law is peculiarly severe on the party who pays the bill (§ 24). Except in the case of a demand draft drawn on a banker (§ 60) the person who pays a bill pays it at his peril if the party presenting it claims under a forged endorsement. Thus if the drawee of a bill accepts it, payable at his bankers, after a forged endorsement has been placed on it, the bankers cannot debit his account with the amount of such payment. Under the continental codes, a banker who paid such a bill without any notice of the fraud would be protected.

A further peculiarity of English law is the compulsory allowance of three days of grace on all bills payable otherwise than on demand (§ 14). It is believed that all the continental codes now agree in abolishing this fictitious maturity for bills, but the holder is generally entitled to wait one or two days before the bill is protested.

From the references to foreign law already made, it appears that the practice of the mercantile world, with reference to bills of exchange, is by no means uniform. Rules, therefore, are required for regulating this conflict of laws, and they are provided by § 72 of the act, their guiding principle being the maxim "locus regit actum."

A PROMISSORY NOTE is defined by § 83 of the Act to be "an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay on demand or at a fixed or determinable future time a sum certain in money to, or to the order of, a specified person or to bearer." There are various statutory restrictions on the issue of promissory notes payable to bearer on demand for less than £5, and there are further restrictions on the issue by bankers of either bills or notes for any amount payable to bearer on demand. When a promissory note is made by two or three makers, they are liable, either jointly or jointly and severally, according to the tenor of the instrument (§ 85). In this a note differs from a bill, because if a bill be accepted by two or more drawees, they are only liable jointly and not jointly and severally. But for the most part the provisions of the act with reference to bills of exchange apply, with the necessary modifications, to promissory notes. In applying those provisions, the maker of a note is deemed to correspond with the acceptor of a bill, and the first indorser of a note is deemed to correspond with the drawer of an accepted bill payable to drawer's order (§ 89). The provisions of the act relating to presentment for acceptance, acceptance, acceptance *supra* protest, and bills in a set have no application to notes. Moreover, protest of a foreign note is unnecessary for English purposes (*ibid.*)

As to the economic operation of bills and notes as instruments of credit, see articles on BILL OF EXCHANGE, CREDIT, CROSS DRAWING, Goschen's *Foreign Exchanges* and Mill's *Political Economy*, bk. ii. c. xi. and xii. As to the English law on the subject, see Byles on *Bills of Exchange*, Chalmers on *Bills of Exchange*, and Chitty on *Bills of Exchange*. As to American law, see Story on *Bills of Exchange*, Parson's *Law of Notes and Bills*, and Daniell on *Negotiable Instruments*. The French law on the subject is fully treated of in M. Nouguier's *Lettres de Change et Effets de Commerce*, ed. 4 (1875), which also summarises the provisions of the various continental codes. The Indian law on the subject is contained in the Indian Negotiable Instruments Act 1881, as amended by Act II. of 1885, and it may be noted that Canada and some of the Australian colonies have recently adopted the English Bills of Exchange Act. M. D. C.

BILL OF LADING. A document by which the master or some other agent of the shipowner on his behalf acknowledges the receipt of certain goods, and undertakes to deliver them to the consignee at the port of destination, against the payment of freight and subject to certain contingencies releasing him from liability. The consignee is either named in the bill of lading, or it is simply stated that the goods are to be delivered to the order of the shipper, in which case the goods are delivered to the person to whom the document is indorsed, or to a subsequent indorsee. If the bill of lading is made out to the consignee or his order, the goods are delivered either to the consignee or an indorsee, but if the consignee is named without any additional words he is the only person who has a legal right to the delivery of the goods. As a general rule an indorsee acquires the property in the goods as soon as a properly indorsed bill of lading is handed over to him with that intention, but this rule is subject to several exceptions, the most important one being the so-called right of stoppage *in transitu*, which enables an unpaid seller to stop the delivery of the goods if the buyer has become insolvent before they came into his power. If, however, the buyer has in the meantime transferred the bill of lading to a *bona fide* holder for valuable consideration, the right is no longer available. It must also be mentioned that a bill of lading is not negotiable in the same sense as a cheque or a properly indorsed bill of exchange. A person who in good faith gives value for a stolen current bill of exchange indorsed in blank, or for a cheque to bearer, acquires a good title, though the thief from whom he bought it had none. This is not the case with regard to a bill of lading, as a subsequent holder of a document of this nature cannot (except in so far as he is not affected by the right of stoppage *in transitu*) acquire a better title than a previous holder had. In former times the contractual rights and liabilities arising from a bill of lading (*e.g.* the right to sue in case of loss) remained with the original parties, notwithstanding the transfer of the property in the goods, but the statute 18 & 19 Vict. c. 111 enacts that "every consignee of goods named in a bill of lading and every indorsee of a bill of lading to whom the property in the goods therein mentioned shall pass upon or by reason of such consignment or indorsement, shall have transferred to and vested in him all rights of suit, and be subject to the same liabilities in respect of such goods as if the contract contained in the bill of lading had been made with himself." Bills of lading are generally made out in sets of several identical copies, which are forwarded by different mails, so that one may serve in case of the loss of another. The system is not free from danger, as a fraudulent holder may negotiate each copy separately. Occurrences of this sort have happened on more than one occasion, and have caused a considerable amount of litigation.

E. S.

BILL OF SALE. A document purporting to assign the property in personal chattels remaining in the possession of the assignor. Assignments of this nature as a general rule are not made for the purpose of a regular sale, but merely by way of security for a loan. A bill of sale is void as against execution creditors, if it is not drawn up in the statutory form and

registered in the central office of the High Court within seven days of the date of issue; it must also be renewed every five years. A charge of personal chattels in a debenture need not be registered as a bill of sale. The acts of parliament now regulating the law of bills of sale are those of 1878 and 1882 (41 & 42 Vict. c. 31; 45 & 46 Vict. c. 43). A bill of sale given by way of security for the payment of a sum under £30 is void. E. S.

BILLON. This conventional term, French rather than English, is derived from a corruption of the low-Latin word *billio*, or *bullio*, from which springs the English word bullion. In French mint language it has certainly, from the 13th century, if not before, signified the degeneracy of the pure contents of a coin through an alloy, generally silver in the gold pieces, or copper or lead in the silver pieces, giving them a particular degree of impurity, and thus debasing their intrinsic value. In the old French coinage, down to the monetary reform in the first revolution, the silver marc of a given weight was imagined as divided into twelve parts called *deniers d'alloi*, eleven of them pure silver and one alloy. This mixture was silver of $\frac{11}{12}$, or, in decimals, of ·916$\dot{6}$ fine, and was the old standard. This was altered to $\frac{9}{10}$, or, in decimals, to ·900 fine, from 1804 to the present time. All degrees of fineness below it, or below the standard at the time being, were considered as changing the coin to billon.

That designation is also largely applied by numismatists to ancient silver coins, and notably to those of the Roman and Greek series, when these are materially below what ought to be the average standard fineness of the metal, according to the scales laid down at the best periods for purity of the silver coinage, and it is even extended by them to what are really false coins (although struck by state or other ruling authority) of copper, or of brass, plated or washed over with silver, and passed with forced currency as silver coins. Thus the term is made to cover a wide range of meaning, varying from a comparatively small degree of degradation in fineness down to the merest pretence of having any actual intrinsic value of precious metal in the composition of such coins.

It is noticeable that the term billon has not been applied in France without some exceptions in the case of gold below the standard. It was so applied in the Middle Ages, but, in the time of Louis XIV., when under twelve carats out of the twenty-four carats were of pure gold, the alloy was called "silver holding gold," or, if the proportion of copper to gold was of like amount, the alloy was called "copper holding gold." The term billon has also been generally used in France for all copper or bronze money, even when it is of full weight according to mint indentures. In some points of view this appears contradictory, but the use of the word is probably intended to convey the meaning of a token coinage, the intrinsic value being so largely below the nominal one. Whilst the full-weighted five-franc silver pieces of France, Italy, Belgium, Switzerland, and other states which are allies in the now subsisting Latin monetary union, continue to be coined $\frac{9}{10}$ or ·900 fine, their 2 franc, 1 franc, and $\frac{1}{2}$ franc pieces are still coined ·835 fine, or just on the borderland which divided silver of the old standard from billon. But in England our coinage of crowns, four shillings, half-crowns, florins, shillings, sixpences, and threepences, is struck of a higher degree of fineness, namely, ·925. In the general result it would seem that, as standards vary in different countries, what is locally billon in any one of them need not necessarily be so in others, and that such a variation prevents any precise general international agreement as to what the word exactly signifies at different places or times (see BULLION). F. H.

BI-METALLISM. This compound word is used to describe the employment of two metals, to form at the same time, in combination with each other, the standard of value. The final report of the Royal Commission on Gold and Silver describes bi-metallism as follows: "A bi-metallic system of currency to be completely effective must, in the view of those who advocate it, include two essential features: (*a*) An open mint ready to coin any quantity of either gold or silver which may be brought to it. (*b*) The right on the part of a debtor to discharge his liabilities, at his option, in either of the two metals, at a ratio fixed by law." It is usually understood now to mean that the two metals are used thus at a fixed proportion to each other, as in the countries forming the LATIN UNION (*q.v.*), in which the ratio of 1 gold to $15\frac{1}{2}$ silver by weight forms the legal basis, or in the United States in which the ratio is 1 to 16. Few economic subjects have of recent years been discussed with more heat, owing partly to the fact that some on the one hand have considered that the adoption, or the retention, of bi-metallism would confer certain advantages on particular classes, and that some on the other hand think that MONO-METALLISM profits other classes.

The main requisite in a standard is, that it should be, as nearly as possible, constant in its purchasing power. The selection, or the construction, of a stable standard of value is, however, even more difficult than that of an undeviating standard of time. In this connection it is advisable, while considering here the possible employment of two metals for this purpose, to quote the words of John LOCKE on the advantage of employing one metal only,—as this quotation sets forth the drawbacks to bi-metallism without any reference to recent controversy,—bearing in mind the circumstance that at the date when Locke wrote international bi-metal-

lism had never been thought of. "Two metals, as gold and silver, cannot be the measure of commerce both together in any country; because the measure of commerce must be perpetually the same, invariable, and keeping the same proportion of value in all its parts" (*Further Considerations concerning raising the Value of Money*, John Locke). On the principle thus expressed the STANDARD OF VALUE, understood in the sense of the measure provided by the government, through their engagement to coin at a fixed rate the metal brought to them for the purpose, has been based in this country by legal enactment since 1798, in practice nearly since the commencement of the 18th century, though a double standard remained legal till the date mentioned. Gold became the general medium of circulation in this country either through choice or, what seems the more probable, through the differing ratio of value in foreign countries which made silver the best export. In 1798, shortly after the suspension of cash payments (1797), the government suspended the coinage of silver. Up to 1783 every man might make his payments in silver or gold at his option; though after 1774 he could only pay in silver up to £25 "by tale," but "by weight" up to any amount. There was no restriction as to payments in gold. The general practice of the country before the restriction was confirmed by the distinct adoption of a gold mono-metallic basis on the resumption of specie payments in 1816. Silver was, however, allowed to be held as part of the reserve of the precious metals against which the notes of the Bank of England are allowed to be issued by the 3d clause of the act of 1844 (see BANK NOTE, BANK OF ENGLAND), which permits the bank to retain in the issue department silver bullion to an amount not "exceeding one-fourth part of the gold coin and bullion at such time held by the Bank of England in the issue department." Silver bullion was accordingly held by the issue department up to large amounts (the average for the year 1846 was £2,169,000; see *Bank Rate in England, France, and Germany*, 1844-78, Palgrave), but the practice was discontinued in 1853, and has never since been resumed. While this country became mono-metallic, in France a standard fixed at the rate of 1 mark of gold to 15½ of silver was definitely established in 1785, and continued by the law of 1803, gold and silver, in 5-franc pieces, being equally legal tender for any amount. The Latin Union, as the coinage treaty of 1865 was called, which included France, Belgium, Switzerland, Italy, Greece, and Roumania, carried on its mintage operations on the same basis as in France till 1874, after which date the coinage of silver was restricted and practically suspended. A considerable drop in the market price of silver followed. From having been 4s. 11½d. an oz. in 1844 it sank to 3s. 6d. both in 1886 and in 1889, and a further drop has taken place since. The results of this alteration have been widespread, the effect being particularly seen on the rate of exchange between countries with a gold and those maintaining a silver standard; and less distinctly on prices of commodities in general within the countries concerned. Much discussion has hence ensued. It may, however, be observed that a real mono-metallism had not existed in Europe till 1873, as the existence of the Latin Union countervailed its effects both in gold and silver using countries. The question has been treated with great scientific power by Professor JEVONS, who explains in his book on *Money* "that a *compensatory*, or as I should prefer to call it, *equilibratory action*, goes on under the French currency law, and tends to maintain both gold and silver more steady in value than they would otherwise be." He points out that when one metal becomes more sought for than the other there is an inevitable tendency to import the cheaper and export the dearer, and continues: "At any moment the standard of value is doubtless one metal or the other, and not both; yet the fact that there is an alternation tends to make each vary much less than it would otherwise do. It cannot prevent both metals from falling or rising in value compared with other commodities, but it can throw variations of supply and demand over a larger area, instead of leaving each metal to be affected merely by its own accidents. Imagine two reservoirs of water, each subject to independent variations of supply and demand. In the absence of any connecting pipe, the level of the water in each reservoir will be subject to its own fluctuations only. But if we open a connection, the water in both will assume a certain level, and the effects of any excessive supply or demand will be distributed over the whole area of both reservoirs. The mass of the metals, gold and silver, circulating in Western Europe in late years, is exactly represented by the water in these reservoirs, and the connecting pipe is the law of the 7th Germinal, An. xi. (1803) which enables one metal to take the place of the other as an unlimited legal tender." The theory on which bi-metallism rests is completely explained in these observations of Jevons. With respect, however, to the advisability of a nation adopting a single or a double standard, Jevons expresses himself in cautious terms, adding (*Money*, p. 141), "The question seems to be entirely one of degree, and in the absence of precise information is quite indeterminate."

The final report of the Royal Commission on Gold and Silver, 1888, expresses a decided opinion that the bi-metallic system of the Latin Union exerted a material influence upon the relative value of the two metals (par. 193): "So long as that system was in force we think that, notwithstanding the changes in the pro-

duction and use of the precious metals, it kept the market-price of silver approximately steady at the ratio fixed by law between them, namely, $15\frac{1}{2}$ to 1." With respect to the position of the metals in two countries, in one of which silver, while in the other gold, is employed, we may quote from an article in the *Economist* of 2d February 1878, which observes that the "relative value, the proportions in which the two metals will exchange for each other, are continually fluctuating, and they must inevitably do so unless it were possible to fetter the supply in such a manner that only the right proportions of each metal should be brought to market at the same time. Two articles, of course, cannot remain always at the same relative value to each other unless the production of both is maintained at the same proportion, and no excess or diminution of the supply exists. Nor can they do so unless they are of identical utility, and are capable of performing identical services to man. When two commodities perform exactly the same functions, and are equally capable of doing so, being equally desirable in every respect, they will continually tend to exchange for other things in the same proportions. But this cannot be said to describe the exact relations of gold and silver to each other." The results of the export of the one and the import of the other metal are then referred to: "The loss arising from these causes may not come home to the inhabitants of the country where it occurs in a clear and obvious way. The inhabitants may, if silver is cheap and gold is wanted for export, retain silver for their own domestic use and employ it in their circulation till a fluctuation in the exchanges renders it possible for the gold to return. The banks which make the remittances will, in this case, obtain a profit from the transaction, while the people who employ the money will hold over the currency they receive in the ordinary way of trade till the tide sets in the contrary direction. Thus the loss which the country really experiences from employing a currency which is depreciated, as compared with the currency of other countries employing a more valuable standard, will be veiled from view, though it really exists." One metal out of the two is taken in this case for export because it is profitable to the exporter to send it rather than the other, but it would not be sent unless its export were advantageous. As the risks to any single country which employs bi-metallism are obvious, the advocates of the system recommend that all countries should employ it, as this would, they consider, prevent a preferential movement of either metal from one country to another. Thus the work recently published by Sir D. Barbour, *The Theory of Bi-metallism*, recommends "the adoption of universal bi-metallism at a fixed ratio to be determined by mutual consent." "Failing universal bi-metallism," Sir D. Barbour continues, it would be desirable that bi-metallism should be adopted by a group of countries sufficiently strong to maintain the fixed ratio," Sir D. Barbour's contention being "that the existence of this fixed ratio for the purposes of the currency will control and regulate the market price of the two metals so as to prevent it from varying in any material degree from the fixed legal ratio of the currency."

Rochussen is of the same opinion. Quoting the words of a Belgian writer in the *Revue Générale*, October 1887, p. 653, "'Si le kilogramme d'or vaut actuellement sur le marché vingt kilogrammes d'argent, c'est apparemment que le kilogramme d'or, pour être extrait de la terre, coûte autant qu'il en coûte d'extraire vingt kilogrammes d'argent,'" he comments on them thus—"'Apparemment'! No explanation of the market price can be more in conflict than this is with all the facts of mining industry, and all the principles of money. In the first twenty years of this century the production of gold stood in comparison to that of silver (valued at 1 to $15\frac{1}{2}$) as $2\frac{2}{3}$ to 8. In the following period of twenty years, nearly as 4 to 8; thereafter from 1841 to 1850 as 8 to 8; from 1851 to 1860, very nearly 28 to 8; in the following five years, as 23 to 8; and from that time onwards to 1870 the proportion fell to 18 to 8, showing even at that rate an increase of some 675 per cent in the proportion. Yet in all this time there was no greater change in the market price, now of one metal, now of the other, than about 2 per cent.

"Or if we choose to look rather at the facts which concern the demand, than at those which concern the supply (*aanbod*), we shall see that the steadiness of price was not affected, though the demand for gold was greatest when the supply was least, and the demand for silver was greatest when the supply of that metal was least." (Rochussen, *Geld- en Muntwezen*, p. 287.)[1]

The statement given above shows the main features of the working of a bi-metallic system. Jevons remarks (see Letter from Jevons to M. Wolowski, printed in Jevons's *Investigations in Currency and Finance*, p. 304) that the French currency law has "no doubt assisted to keep gold and silver at a nearly invariable price as compared one with the other." As mentioned previously, the Gold and Silver Commission unanimously concurred in supporting the same opinion. Jevons also observes that "it is indispensable to remember the fact, too much overlooked by disputants, that the values of gold and silver are ultimately governed, like

[1] M. Rochussen held the position of minister for foreign affairs in Holland 1879 and 1880, and is at the present time (1890) a member of the council of state. His father, it may be mentioned, was minister for the colonies,—also for seven years governor-general of Dutch India, and twice minister of finance. The circumstances of Holland give those engaged in its administrations very considerable opportunities for watching the fluctuations of the standard of value.

those of all other commodities, by the cost of production. Unless clear reasons, then, can be shown why silver should be more constant in its circumstances of production than gold, there is no ground for thinking that a bi-metallic gold and silver money will afford a more steady standard of value than gold alone" (Jevons, *Investigations in Currency and Finance*, p. 318). "Ultimately" is the governing word in this quotation, and is frequently overlooked; it may mean an almost indefinite period. The reader must be referred to the works of Jevons here cited for the whole of his arguments; it is hardly possible to express them fully by any selection.

As a matter of history it appears that the value of silver relatively to gold has tended to diminish as ages have passed by. Meanwhile France and the Latin Union, after trying the experiment of an international bi-metallism on a very considerable scale, have abandoned, or at least suspended the free coinage of both metals at a fixed ratio. The United States, after employing a bi-metallic ratio of 1:15·25 in 1786, changed to 1:15 in 1792, to 1·16002 in 1834, to 1:15·988 in 1837, and adopted the gold dollar only as the UNIT OF VALUE in 1873. A limited coinage of silver dollars was directed in 1878 (by the Allison or Bland Act), which possess "full paying power, except in cases where it is strictly stipulated otherwise in the contract." A somewhat limited system of bi-metallism was thus in force in the United States from 1878 to 1890. In 1890 an act authorising a great extension of the coinage of silver was passed by the legislature (see BLAND ACT; SILVER LEGISLATION IN THE UNITED STATES). The question of the advisability of adopting a bi-metallic standard has been discussed by many writers recently, but by none in so dispassionate a manner as by Jevons, who observes, "It may be safely said that the question of bi-metallism is one which does not admit of any precise and simple answer. It is essentially an indeterminate problem. It involves several variable quantities and many constant quantities, the latter being either inaccurately known or, in many cases, altogether unknown. The present annual supplies of gold and silver are ascertained with fair approach to certainty, but the future supplies are matter of doubt. This demand for the metals again involves wholly unknown quantities, depending partly upon the course of trade, but partly also upon the action of foreign peoples and governments, about which we can only form surmises" (Jevons, *Investigations in Currency and Finance*, p. 317). The use of both gold and silver as standards of value is obviously most important, and it equally cannot be doubted that the disuse of either must lead, as the disuse of silver has recently done, to considerable fluctuations in the prices of commodities. To recommend, however, a country which is now mono-metallic to become bi-metallic, or a corresponding change on the part of a bi-metallic country, requires a far more complete inquiry than has yet been made. The theory may be explained in comparatively few words, but for any adequate statement of the practical results the reader must be referred to the following works, which are far, however, from exhausting the subject.

[*Bibliography.*—The following list is derived in part from the one at the end of Prof. W. S. Jevons's *Investigations in Currency and Finance*, and that in Appendix to *Proceedings, etc., of the International Monetary Conference of 1878*, drawn up by Mr. Dana Horton. The reader is referred to these lists for fuller information. The literature on the subject is very extensive, to a great extent in articles and letters in newspapers and other periodicals. The arguments on the subject will be found stated in Jevons, *Investigations in Currency and Finance*, London, 1884.—*Money and the Mechanism of Exchange*, 1875, also by Jevons.—*Reports of Committee of House of Commons on Depreciation of Silver*, 1878.—*Report of Commission on Trade and Industry*, 1886, and Appendix B to 3d *Report*, by R. H. Inglis Palgrave.—*Report of Commission on Gold and Silver*, 1887.—Sir D. Barbour, *Theory of Bi-metallism*, London, 1885.—S. Dana Horton, *Silver as an International Question* (an address to Congress); also much information in *Proceedings of the International Monetary Conference of 1878*, and other writings.—*Conférence Monétaire International*, 1867.—*Procès Verbaux*, Paris, 1867. See also Prof. H. Sidgwick's observations that "a double standard with a fixed ratio will be stable against minor variations of supply," *Principles of Political Economy*, bk. ii. ch. v. ed. 1883. —Prof. J. S. Nicholson, *Money and Monetary Problems*, 1888, in which the arguments in favour of bi-metallism are stated with great clearness and force.—*The Silver Question* (paper published by the Bi-metallic League, whose other publications are numerous).—H. R. Grenfell and H. H. Gibbs, *The Bi-metallic Controversy*, London, 1886, and other works by these two writers.—Prof. Leon Walras, *Théorie de la Monnaie*, Lausanne, 1886. —*Théorie Mathématique du Bi-métallisme*, Paris, 1881.—Prof. Adolph Soetbeer, *Materialien zur Erläuterung und Beurtheilung der wirthschaftlichen Edelmetalverhältnisse und der Währungsfrage*, Berlin, 1886. This is translated in the Appendix *Final Report Gold and Silver Commission.*—Also see *American Reports from Consuls of the United States*, No. 87, Dec. 1887.—Ernest Seyd, *Bi-metallism in 1886*, London, 1886. —R. Giffen, *Essays in Finance*, 1880, and other dates, Paper on "Some Bi-metallic Fallacies," *Journal Institute of Bankers*, June 1886, and other works.—Prof. Emile de Laveleye, "The Economic Crisis and its Causes," *Contemporary Review*, May 1886, and other papers,—Samuel Smith, *The Bi-metallic Question*, London 1887.—Rt. Hon. G. J. Goschen, "On the Profitable Results of an Increase in the Purchasing Power of Gold," *Journal of Institute of Bankers*, May 1883.—E. de Parieu, "Situation de la Question Monétaire International" (*Journal des Économistes*, April 1868), etc.—Henri

Cernuschi, *M. Michael Chevalier et le Bi-métallisme, Silver Vindicated, The Bland Bill, Bi-metallism in England and Abroad, Bi-metallism at 15½ a Necessity, The Monetary Conference, The Bi-metallic Par*, London, various dates, etc. *Mémoire sur le Bi-métallisme International et le moyen juste de la réaliser*, W. F. Rochussen, La Haye, 1891.—*Le Problème Monétaire et sa solution par G. M. Boissevain*, Paris and Amsterdam, 1891, translated by G. T. Warner, *The Monetary Question*, London, 1891.—Also *Journals of Statistical Society*, London, *Institute of Bankers*, London, *Economist*, London, *Économiste Français*, Paris, *passim*; many detached articles and pamphlets by W. Bagehot, P. Leroy Beaulieu, O. Haupt, Prof. H. Sidgwick, Mr. R. Giffen, etc. The number of writings on this subject has, in general, restricted the reference given above to one of the works of the authors named.]

BIRTH-RATE means generally the ratio which the number of births per annum bears to the number of persons in the population under consideration. The rate thus defined depends largely on another rate which has been called *fecundity*, and has been defined as the ratio which the number of births per annum bears to the number of persons of reproductive age, or of women of reproductive age (say 15-45); or of married persons, or wives only, of that age (see Bertillon, "Mouvement de la Population" in *Annales de Démographie*, vol. i.; also Quetelet, *Physique Sociale*, bk. ii. § 6). Some of these relations are illustrated by the accompanying table which shows the average annual births per 1000 in the kingdom of Bavaria (1871-1872). It is taken from Mayr's *Die Gesetzmässigkeit in Gesellschaftsleben*, p. 244. (Decimals have been omitted.)

Legitimate births per 1000 wives between ages 15-45.	Illegitimate births per 1000 unmarried women between ages 15-45.	Legitimate and illegitimate births per 1000 women between ages 15-45.	Legitimate and illegitimate births per 1000 of the general population, men and women of all ages.
368	45	182	41

Fixing attention on legitimate births, we may regard the birth-rate as depending chiefly on two factors: (*a*) the ratio which the number of married persons of reproductive age bears to the general population, and (*b*) the ratio which the number of births per annum bears to the number of married persons of reproductive age. The first factor (*a*) varies with the number of newly married persons; this varies with prosperity, which (in many countries) varies with the price of bread. Accordingly it has often been observed that bad harvests are followed by a decline in the birth-rate and *vice versâ*. Thus the year 1817, in which the price of corn in Belgium rose to twice the average of the neighbouring years, was followed by a great decrease of births. Other instances are referred to by Quetelet (*Physique Sociale*, bk. ii. § 6) and Haushofer (*Lehr- und Handbuch der Statistik*). The Swedish statistics, extending over more than a century, have been arranged in such a way as to bring out the connection between good or bad harvests with many or few marriages and births (see *Journal of the Statistical Society*, 1862, vol. xxv., p. 140, "Vital Statistics of Sweden," by Mr. Hendriks' Table A; *ib.* 1885, opening address of Sir Rawson Rawson, p. 586). When several good or several bad harvests come together the effect is conspicuous in the case of Sweden. But this law is not universal. It cannot be traced in the case of the United Kingdom of late years (see *Journ. Stat. Soc.*, 1890, p. 257 *et seq.*) and in other cases where the price wheat is not the main factor of prosperity. (*b*) The fecundity of marriages depends partly on the age of the parties. This subject has been discussed by Dr. Ogle (*Journ. Stat. Soc.*, 1890, p. 275), who shows that, to cause a sensible alteration in the birth-rate, a very considerable displacement of ages would be required. That other causes beside age are operative is evidenced by the fact that in France and New England the age of marriage is not remarkably late, while the fecundity is remarkably small (see the table at the end of this article). Among causes which may affect the fecundity of marriages are *climate* and *food*. These and other causes are discussed by many of the authorities cited here.

As to the consequences of variations in the birth-rate the most obvious is the tendency of population to increase more rapidly when the birth-rate is high (and *vice versâ*). But this tendency may be counteracted by a high death-rate. That a high birth-rate is not a consequence of a high death-rate, though to some extent causally connected therewith, is maintained by Dr. Noel Humphreys in the *Journal of the Statistical Society*, 1874. The two phenomena frequently co-exist. Thus the statistics of the Austrian empire compiled by Hain (*Statistik des Österreichischen Kaiserstaats*, 1852-3) exhibit birth-rates, marriage-rates, and death-rates varying concurrently. Moving through the provinces along a line in a south-easterly direction you would find the three factors constantly increasing together. The increase of the population (the natural increment, abstracting the effects of emigration and immigration), is therefore not in general proportionate to the birth-rate. Thus the birth-rate of Russia for the period 1865-1883, viz. 4·94 per 100 living, was much greater than the birth-rate for England and Wales, viz. 3·51; yet the annual excess of births over deaths per cent of the whole population was the same for the two countries, viz. 1·37 (see table subjoined). The natural increment for England

and Wales for 1871-1881 was greater than that of the previous decade by about 10 per cent (of the natural increment); while the birth-rate increased very slightly, by about ·3 per cent (census for 1881 general report). There is reason to think that the state of a country in which a high birth-rate is matched by a high death-rate is not satisfactory.

See in addition to the authorities cited Prof. Marshall, *Principles of Economics*, bk. iv. ch. iv. Some examples of the statistics quoted by him are here subjoined.

Averages for the years 1865 *to* 1883.
(*With a few exceptions.*)

Countries.	Births per 100 living.	Births number to a marriage.	Annual excess of births over deaths, percentage to whole population.
Europe .	3·87	4·7	1·06
England & Wales.	3·51	4·3	1·37
France .	2·54	3·3	0·16
Russia .	4·94	5·3	1·37
Massachusetts .	2·57	2·7	0·65

F. Y. E.

BIUNDI, G. Known as the author of a treatise on political economy; *La economia esposta nei suoi principii ragionati e dedotti*, Milano, Maisner and comp., 1864.

Author besides of the following works and articles:—"Dell' influenza che esercitano le privative nell' industria," published in the review *Empedocle*, Palermo, 1853, vol. iv. fasc. 7-10, p. 324.—"Sul credito agricolo e sull' istituzione d' una banca territoriale in Sicilia," Palermo, 1854, *Empedocle*, vol. iv.—"Studii sulla pubblica beneficenza," Palermo, 1855, *Empedocle*, vol. v. p. 187.—*I Porti franchi, riflessioni economiche*, 1 vol., Palermo, 1857, Grimaldi.—"Della proprieta intelletuale, e del diritto di copia," Palermo, 1859, *Empedocle*, nuova serie, vol. i.—"Popolazione e miseria," Palermo, 1859, *Empedocle*, nuova serie, vol. i. p. 299.—"Monti di Pietà," Palermo, 1859, *Empedocle*, nuova serie, vol. i.—*Sugli asili infantili e sul modo di istituirli e regolarli in Sicilia; discorso*, Palermo, 1860, Lo Bianco.—*Statistica del pubblico insegnamento in Sicilia*, Palermo, 1861, in 8vo.—*Sulla scienza statistica e sue applicazioni alle forze morali e materiali dei varii Stati d'Europa e specialmente del regno d'Italia*, Firenze, 1867, in 8vo.

M. P.

BLACK, David (about 1700), a Scotch writer, was the author of *An Essay upon Industry and Trade, shewing the Necessity of the One, The Conveniency and Usefulness of the Other, and The Advantages of Both*, Edinburgh, 1706. This treatise shows very clearly the state of economic opinion in Scotland before Hume and Smith. The author repeats all the traditional dogmas concerning the balance of trade and the necessity of increasing the quantity of money. He opposes, however, the schemes of "credit upon a land security," by maintaining that "the nation's industry is the best fund of credit to support it" (p. 3). After all his mercantilist views it is very remarkable to find him saying; "I do confess it is my private Opinion that all Imposition whatsoever should be taken off Trade, and that there should be no Taxes upon it. . . . For it's Evident, when heavy Duties are upon Goods, some Merchants run these Goods without paying any Duty, and then they Undersel their Neighbours who pay it. . . . Whereas, by an Exemption of all Duty and a freedom of Trade, (with this Caution alwise, That what is superfluous may be Prohibit), then every Merchant will be on equal footing; and he who is most Capable to manage a Trade, will have the most Advantage, and all will redound to the Merchant's Interest" (p. 27). Black proposes to remedy the deficiency in the public revenue by an imposition upon "probative writs, except Bills of Exchange," or if this should not suffice "the Land tax should be thought the surest Fond." He seeks to convince the landed interest that the merchants, though advancing the amount of the duty in the price of the goods, shift the charge upon the buyers, and that the landed men bear indirectly, through this course, a heavier burden than by the way he proposes. Black illustrates the advantages of a free trade by the examples of the Grisons and Holland (pp. 29, 30), the first of which had been suggested to him by Bishop Gilbert Burnet.

[See Bishop Burnet's work: *Some Letters Containing an Account of what seemed most remarkable in Travelling through Switzerland, Italy, some parts of Germany*, etc. Rotterdam, 1687, p. 306.] S. B.

BLACK DEATH, The. The pestilence or series of pestilences known by this name took place in the middle of the 14th century, and was a partial if not the chief cause of very vast economic changes in England. So far as can be ascertained, the disease first manifested itself in central China in 1333, and thence spread in a westward direction towards Europe, where its force was first felt in the southern countries. Taking a northward course, it reached England where, "about the 1st of August 1348, it began in the seaport towns on the coast of Dorsetshire, Devonshire, and Somersetshire, whence it drew up to Bristol. . . . whence it came to Oxford, and about the 1st of November it reached London, and finally spread itself all over England" (Barnes, *History of Edward III.*, pp. 435, 436). There were three great attacks of the pestilence, of which the

first was much the most destructive—August 1348 to summer 1349; August 1361 to May 1362; July 1368 to Michaelmas 1369. The period during which Europe was devastated by this plague was remarkable for the occurrence of great natural convulsions such as earthquakes, with which contemporary opinion attempted to connect it causally, and for other pestilences, attacks of which took place in 1370, 1381-82, 1396. Of its nature many descriptions remain (Hecker, *Epidemics of the Middle Ages*). Whilst the name it bore in England was derived from one of its symptoms, its terrible destructiveness won it its Italian title of *La mortalaga grande* (Hecker, p. 2).

It is of some importance when examining its economic effects to attempt to ascertain the extent of the mortality which it occasioned. This is very differently estimated. The loss of life in Europe has been roughly reckoned at 25,000,000 (Hecker). While, with regard to England, accounts nearly contemporary give estimates which cannot but be regarded as exaggerations, *e.g.* Adam of Usk reckons the survivors as but one-tenth of the previous population. In more recent times attempts have been made to found conclusions on such statistical data as may be still extant. Arguing from the clergy lists, Mr. Seebohm places the number of deaths as at least one-half. He assumes that the rate of mortality among the clergy was not exceptional. Taking then an estimate of the population living in 1377, drawn from the receipts of the poll tax in that year, he concludes that those who died numbered some two millions and a half (*Fortnightly Review*, vol. ii. pp. 149, 268). On the other hand Professor Rogers, having regard to the quantity of wheat consumed, considers that the loss of life was by no means so great. It is possible, however, that this conclusion does not allow sufficiently for the other cereals which entered into the consumption of the great body of the people; and the data on which it rests seem less certain than those by which Mr. Seebohm was guided (*Fortnightly Review*, vol. iii. p. 191). But whether the one or the other estimate be accepted, there can be no doubt that a very great loss of life was the consequence of the Black Death. Equally there is no doubt as to the magnitude and critical importance of the economic change which it was instrumental in producing.

For some time there had been in operation two processes of widely differing tendency. By slow but certain degrees fixed money payments were being substituted for the labour rents or services originally due from the tenants to the lord of the manor. Disproportion between the money payment and the services had been manifesting itself. It was to ensure the continuance of the former substitution that the tenants began to form those "alliances" and "congregations" to which we find allusion in later statutes (*e.g.* 1 Rich. II. c. 6). To a people thus placed the loss of a *very* large portion of the working population could not but be of the utmost gravity. The force of the economic laws of supply and demand in relation to wages began to make itself felt. There was a demand for much higher wages and an inclination to enforce this demand by combination on the part of the labourers, while the landowners on their side found themselves in need of labour as before, but unable to obtain it at the old rates. The payments which they received in lieu of labour services were insufficient for the hire of the labourers who might perform these services. As a matter of fact, this had naturally tended to be the case even before, but if it had been so before how much more was it the case now. In one instance the tenant paid in commutation ½d. while the labourer who performed the work received 3d. (*Archæologia* xi.)

But now legislation intervened. Hitherto rates of wage, when determined, had been settled in the manorial courts, or by Corporations and Gilds, but wages form the subject of the royal ordinance of 1349 (23 Edward III.) enacting "that all able-bodied servants should serve their lords, or if not required by them, any one so requiring them at the same wages as were usual before the plague." There seems little room for doubt as to the immediate connection in which this ordinance stands towards the Black Death. But legislation was ineffectual. Wages did not diminish; even before the pestilence they had been gradually increasing, and the landowners were driven to seek a new remedy. They made the endeavour to revert to the old system of labour rents. Commuted service on the land was to be done away with, and the practice of earlier centuries was once more to be followed, but now to be followed by those who regarded its introduction as an innovation. In some instances indeed it would appear that attempts were made at illegal exaction, for we find the customary tenants appealing as against their landlords to the record of Domesday. The whole country was thrown into a condition of economic disorder, for the tendency toward resistance was fanned by the efforts of the friars who carried the news from shire to shire, playing the part of the newsagents of discontent. So matters stood just before the rising in 1381. Demands were made with increasing persistence for the reduction of the money payments; the landowners on their side, finding even these payments insufficient, were striving to return to the system under which the various classes of tenants had to perform service in person or by substitute; while in the third place the long French wars had increased the burden of taxation under which the nation was groaning. The universality with which these three causes

were felt, and the part which the friars played in enabling the inhabitants of the various districts to enter into communication with one another, explain the PEASANT'S REVOLT, 1381. The incidents of the rebellion and the mode in which it was met and the means by which it was suppressed are matters of political history. What were the consequences of the rising? During the struggle the rebels had destroyed many of the manor rolls, showing most clearly their desire of blotting out all record of the service which might be exacted from them; and despite the revocation of the royal grants made to them, their demand in this direction was substantially conceded. The practice of commutation was adhered to. In addition it is probable that the money payments, which even before the Black Death had been diminished, on many estates underwent reduction. Thus the second means of dealing with the economic consequences occasioned chiefly by the mortality owing to the pestilence had failed, and economic laws asserted their strength. There were, however, results consequent on the failure of these two attempts at interference. The system of cultivation had depended for its profit on the existence of a large body of cheap labour. The value of labour had been enhanced by no cause more effectually than the diminution in the supply. From this time we may date the change from arable to pasture which assumed such great proportions in the 16th century. The last stage of the mediæval system of cultivation was beginning.

It is somewhat difficult to determine the *exact* importance of the Black Death in bringing about the change. As we have seen, causes were already in operation which tended toward change; but that change was undoubtedly precipitated by the great and sudden loss of life endured by the nation in the middle of the 14th century. This then is the reason why the Black Death deserves so much attention on the part of the economic student. The causes of the events clustering around it display the strength of economic forces; the attempts at regulation, the uselessness of ignorant interference; and in its consequences we find the causes of the peculiar development of AGRICULTURE IN ENGLAND in the Tudor period.

[Rogers, *History of Agriculture and Prices.*—Nasse, *Ueber die mittelalterliche Feldgemeinschaft und die Einhegungen des 16 Jahrhundert in England.*—Denton, W., *England in the Fifteenth Century.*—W. von Ochenkowski, *Englands wirthschaftliche Entwickelung im Ausgange des Mittelalters.*—*Fortnightly Review*, vols. ii. iii. iv. (1865-66).—Hecker, *Epidemics of the Middle Ages.*—Barnes, *History of Edward III.*] E. C. K. G.

BLACKLEG. (1) A card-sharper or forger; (2) a person who works for an employer whose regular workmen are out on strike. These persons are often exposed to great annoyance from the strikers, but they are somewhat protected by § 8 of the Conspiracy and Protection of Property Act 1875 (38 & 39 Vict. c. 86), which enacts that a person who for the purpose of preventing a lawful act (1) uses violence or intimidation; (2) persistently follows the person concerned from place to place; (3) hides his tools or other property; (4) watches his house or the place in which he works; (5) follows him in the company of others in a disorderly manner through a street, is liable to a fine of £20 or to imprisonment for three months with or without hard labour (see STRIKES). E. S.

BLAIRIE, DROIT DE. A right of the French lords to exact payment for leave to graze on open or waste lands within their territories. This right only existed in provinces regulated by *droit coutumier*.

[De Tocqueville, *France before the Revolution* (London, 1873), note lxxvii.] R. L.

BLAKE, WILLIAM, F.R.S.; author of—

Observations on the Principles which regulate the Course of Exchange, and on the Present Depreciated State of the Currency (London, 1810); *Observations on the Effects produced by the Expenditure of Government during the Restriction of Cash Payments* (London, 1823); and of *Observations in reply to a Pamphlet by the Rev. Richard Jones, on the Assessment of Tithes to the Poors' Rate* (London, 1839). F. Y. E.

BLANC, JEAN JOSEPH LOUIS, born at Madrid, 1813, died at Cannes, 1882. His first work for some years after the Revolution of 1830 was in journalism; he wrote in *Le Progrès du Pas-de-Calais* and in *La Revue démocratique*, then in *La Nouvelle Minerve*, all republican journals. Afterwards he became chief editor of *Le Bon Sens*, and then founded *La Revue du progrès social*, in which appeared, in the year 1839, the articles which, collected and extended, formed the volume entitled *L'Organisation du travail*, which made the reputation of Louis Blanc as leader of the socialist school. He afterwards employed his unquestioned talent as a writer on two works, the one, *Histoire de dix ans*, a pamphlet in five volumes, assuming a historic form, and directed against the monarchy of July; the other, *Histoire de la révolution française*, three volumes of which had appeared when the Revolution of February 1848 broke out. Elected a member of the provisional government, as he could not obtain the formation of a "ministère du progrès," he was appointed president of a "Commission de gouvernement pour les travailleurs," which he established in the palace of the Luxembourg in the Chamber of Peers. This commission was composed of delegates from the working classes, supported from outside by 100,000 bayonets. In its discussions he put forward with a too feverish eloquence, considering what the character of his audience, and of the unsettled period then passing, was, the most revolutionary and socialistic ideas. This did not hinder

Wolowski from having the courage to oppose him face to face in debate. Did Louis Blanc contribute to the formation of the *ateliers nationaux* of unhappy memory, the dissolution of which brought on the insurrection of June 1848? This has never been proved. Louis Blanc denied it vigorously. His powers expiring with the opening of the National Constituent Assembly, he became only an ordinary "representative of the people;" but he had to pay for the rashness of his language during the discussions at the Luxembourg, the consequences of which he could not escape, and suffered in reputation more from his speeches when president of the "Commission des travailleurs" than on account of his acts after he ceased to hold that office. When the invasion of the chamber of the 15th May 1848 occurred, he had to take refuge in England, whence he did not return till 1870. Before doing this he had founded a journal, *Le Nouveau Monde*, which had only a very limited success (1849-51). He then wrote in the French journal *Le Temps* (the second of that name) letters on London, which were much remarked on at the time. On his return to France he was returned a member for Paris to the National Assembly, and subsequently of the Chamber of Deputies. He was a rhetorician and a philanthropist rolled into one. "C'était un rhéteur doublé d'un philanthrope," said M. G. de Molinari, of him. With a warm heart and a bad judgment, Louis Blanc was not a man for action; he dreamed of the absorption by the state of factories and shops in which work was suspended at the time. He proposed to make use of these by handing them over to the working men, under the direction of the state, in order that they might ruin by their rivalry the factories and shops which still held on, so that, some day or other, the state should become the sole mainspring of industry. The division of profits (no one imagined that losses could occur) was to be made in the following manner. There were to be no more any wages—wage-receiving being abolished—but every one was to receive "according to his wants." This very simple method of division was the first proposed by Louis Blanc. When he became president of the "Commission de gouvernement pour les travailleurs," he modified this method and replaced it by another more simple still; an equal division per head. Honour was in his eyes a sufficient inducement to labour, and more efficacious than self-interest. He had less knowledge of technical details than his brethren in socialism, and his proposals were always surrounded by a mist of vague uncertainty which renders a critical appreciation of them both difficult and at the same time little conclusive. The collectivists in our days, though on the wrong path, have gone more to the bottom of their subject.

[While in England he wrote, in English, his book entitled,—*1848. Historical Revelations, inscribed to Lord Normanby.* By Louis Blanc. Chapman and Hall, 1858.] A. C. F.

BLAND ACT. A law of the United States passed 28th February 1878, which restored the silver Dollar of 412½ grs., $\frac{9}{10}$ fine, to the list of coins of the United States, and directed the secretary of the treasury to purchase silver bullion, and coin into such dollars not less than two million dollars' worth (say £400,000), and not more than four million dollars' worth (say £800,000) per month continually. By the Coinage Revision Act of 12th February 1873 the gold dollar of 25$\frac{8}{10}$ grs., $\frac{9}{10}$ fine, was declared the Unit of Value in the United States, and the silver dollar was omitted from the list of coins authorised to be struck at the mint. This act did not make mention of any dollar, with the exception of the *trade dollar* of 420 grs., $\frac{9}{10}$ fine, manufactured for the trade with China; it ordained that the gold coins should have unlimited paying power, and that the silver coins should have paying power up to the amount of five dollars. That portion of the act of 1873 which made the gold dollar the unit of value was not altered by the act of 1878, but under it the silver dollar became legal tender to an unlimited amount, "except in cases where it is strictly stipulated otherwise in the contract." The act of 1878 likewise authorised the issue by the treasury, on the deposit of coined silver, of silver certificates of deposit in denominations of ten, twenty, fifty dollars, etc. Under this act $299,708,790 (say £60,000,000) had been coined in silver dollars up to 30th June 1888, but of these $243,879,487 (say £48,700,000) remained in the treasury on that date. Against this stock of coined silver certificates to the value of $229,491,772 (say £45,800,000) had been granted, but of these $29,104,396 (say £5,820,000) were in the treasury (see *Report of the Director of the United States Mint*, 1888, pp. 74, 203). The effect of the Bland Act has been to cause a large portion of the legal tender of the United States to be held in silver; the total metallic stock being estimated on 1st November 1888 approximately as:—

	Cost Value.	
Gold	$711,705,050	say £142,300,000
Silver	$396,970,484	,, £79,400,000
	$1,108,675,534	,, £221,700,000

The Bland Act is sometimes termed the "Allison Act."

By an act of Congress passed 14th July 1890 the provisions of the Bland Act, which required the monthly purchase and coinage into silver dollars of not less than $2,000,000, and not more than $4,000,000 worth of silver, were repealed, and the secretary of the treasury was directed to purchase silver bullion to the extent of 4,500,000 oz. monthly at a price not exceeding $1 per 371$\frac{25}{100}$ grs. of pure silver, against

which silver treasury notes were to be issued. It was left to the secretary of the treasury, at his discretion, to redeem these notes in gold or silver coin, it being, the act continues, "the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law." This legislation has led to a decrease of the gold and an increase of the silver coin and bullion held in the United States, the amounts being approximately estimated in the *Report of the Director of the United States Mint*, 1900, p. 37, as follows:—

Total Metallic Stock, 1 July 1900.

Gold	$1,034,439,264	say	£206,887,852
Silver	647,371,030	„	129,474,206
	$1,681,810,294		£336,362,058

[The lowest prices of silver in bars for the years 1873 to 1889 inclusive, and for 1889 were:

1873-89.

3*d to* 6*th August* 1886 .....42d.

(The highest price during the whole month of August 1886 was 42⅝d.)

18*th May* 1888 (*the one day only*) .....41¼d.

(For the whole of May to August 1888 the price did not rise above 42⅛d., and at several different dates in May, June, and July, stood at 42d).

1889.

31*st May to* 28*th July* .....42d.

1900.

Average price .....27⅜d.]

[See *Report on International Monetary Conference*, Paris, 1878 (Washington Government Printing Press, 1879).—*Reports of the Director of the United States Mint.*—*Reports of the Comptroller of the Currency of the United States.* Article by F. W. Taussig, *Quarterly Journal of Economics*, April 1890.]

BLANK CREDIT. Credit given by a banker on the personal security of his client. One form of blank credit which is frequently granted by continental banks and foreign banks established in London consists in the acceptance of drafts issued by the customers or for their account on the understanding that they will cover the same before maturity. The drawer of such bills can discount them on the strength of the banker's acceptance, and the banker can give credit without any cash outlay. The system of granting and using blank credits is liable to great abuses, but on the whole it may be considered a useful if not indispensable element in the machinery of trade.

BLANK ENDORSEMENT. A bill of exchange endorsed in blank, the meaning of which is that a bill on which the endorser has only signed his name becomes payable to bearer, and is negotiable by mere delivery (see BILL OF EXCHANGE). See also for further particulars *The Practice of Banking*, by John Hutchison.

BLANK TRANSFER. A deed purporting to assign the property in shares or other registered securities in which the transferee's name is left in blank. A document of this nature is frequently used in cases of sale or pledge, and, if accompanied by the certificate relating to the security to which it refers, generally authorises the holder to fill in his own name, and to have himself registered as owner of the security. Difficulties may occur when the transferer fraudulently executes several transfers relating to the same security, and in other cases, and the holder of the transfer ought to exercise great care (see Lindley, *Company Law*, p. 471 *seq.*) E. S.

BLANQUI, JÉRÔME ADOLPHE, born 1798, died in Paris 1854. The economist Blanqui, who must not be mixed up with his brother L. A. Blanqui, the revolutionist, was, from 1830 to his death, the head of the École de Commerce of Paris, and in 1833 replaced J. B. SAY as professor of political (and especially of industrial) economy at the Conservatoire des Arts et Métiers. He was elected, 1838, a member of the Académie des Sciences morales et politiques, and represented the department of the Gironde in the Chamber of deputies. Marshal Bugeaud, with whom he was very intimate, thought of making him the civil administrator of Algeria. Blanqui had travelled nearly over all Europe, and only left off travelling when his health compelled him to remain at home. It may be said that the whole of his life was spent in one long and laborious inquiry, principally directed to the solution of those questions relating to the working classes, the importance of which he had realised more clearly than most of his contemporaries. The brilliancy and vigour of his language added an additional attraction to his teaching.

Parts of the course of lectures delivered by Blanqui were published by MM. Blaise and J. GARNIER. Blanqui also was the author of several works. Of these the most important are: *Résumé de l'histoire du commerce et de l'industrie*, Paris, 1826, in 18mo.—*Précis élémentaire d'économie politique*, Paris, 1826 and 1842, in 32mo.—*Histoire de l'économie politique en Europe, depuis les anciens jusqu'à nos jours, suivie d'une bibliographie raisonnée des principaux ouvrages d'économie politique*, Paris, 1838, 1842, and 1845. This last work has been translated into several languages. We may also mention the notices written by Blanqui of the French exhibition of 1827, and particularly that on the great exhibition of London 1851. His researches on the position of French workmen have been continued by M. Baudrillart. Blanqui left behind him several manuscript fragments and studies which it is hoped that his son-in-law, M. Maze, will publish. A. de F.

BLENCH (Scots law term). Lands held

blench are held subject to payment of merely a trifling duty, which is exigible only if asked within the year. Analogous to PETIT SERGEANTY.

BLOCKADE. A blockade may be defined as the prevention of commercial intercourse between a port or a portion of the coast in an enemy's country and neutrals, by means of vessels of war sufficient in number to render any neutral vessel attempting to reach such port or coast liable to capture. A blockade being a belligerent act, must be instituted by sovereign authority, and a naval force must be present to maintain it. The extent of a blockade is determined by the efficiency of the blockading squadron. Some continental writers, such as Heffter (*Das Europaïsche Völkerrecht der Gegenwart*, § 155), and Ortolan (*Règles internationales et Diplomatie de la Mer*, ii. 328) maintain that the blockading force should be anchored, a view that has not been accepted by the prize courts of England and the United States. A blockade is violated by any attempt at ingress or egress, but whilst English and American prize courts hold that the bare act of sailing for a blockaded port is an act of violation, provided there is reason to believe the captain knows of the existence of the blockade, the French practice is to warn the captain on approaching the coast, and only to seize the vessel if a subsequent attempt is made to enter. The penalty for a breach of blockade is the confiscation of the ship, but the cargo is liable to be condemned if its owners are in any way privy to the breach.

The prohibition of commerce with neutrals involved in a blockade is based by Hautefeuille (*Des droits et des devoirs des nations neutres en temps de guerre maritime*, 3d ed. ii. 178, 181) on a supposed conquest of the enemy's territorial waters; by Ortolan (*Diplomatie de la mer*, 2d ed. ii. 293) on an "occupation" of the sea, which gives to the occupier "sovereign rights." Historically the rules of blockade are a modification of the old principle that war was "omnium in omnia et in omnibus," and therefore he who was a neutral was an enemy. All intercourse with an enemy was unlawful. In process of time neutral states made good their claim to a distinct status, and it is now recognised that in time of war the trade of neutral individuals should be as free as in time of peace. This principle, however, comes in conflict with the long established right of a belligerent to cut off commercial communications with the enemy, and the modern rules of blockade are a compromise between belligerent and neutral rights. The right of the neutral subject to trade is recognised in the fact that, by violating a blockade he does not violate the neutrality of his state, and if the vessel escapes he suffers no punishment. The belligerent right is recognised by permitting the blockade to be established, and by authorising the belligerent to confiscate any vessel that may be caught in the act of violation.

A blockade, if on an extended scale, may inflict great injury on neutral states. During the four years that the blockade of the Southern States was maintained by the North American States, the export of cotton to England ceased, and those engaged in the cotton industry suffered great privation, and the exportation of wine from France to the United States became impracticable. Hence the prohibition of commercial blockades, and of the capture of all private property at sea, has been advocated. From an economic point of view it is certainly desirable that the capture of private property should be abolished, but as Fauchille points out (*Du Blocus Maritime*), every act of war affects neutrals, and the arguments for the protection of private property are arguments against the practice of war itself (see INTERNATIONAL LAW).

[See Calvo's *Droit International*, Paris, 1881; *Du Blocus Maritime*, par Paul Fauchille, Paris, 1882.—Hall's *International Law*, Oxford, 1889.]

J. E. C. M.

BOARD. A body of persons officially constituted for the transaction of some particular business, so called from the "board" or table round which meetings were held. Some government departments are designated by this title, *e.g.* board of trade, board of inland revenue, local government board, poor law board. The term is also applied to the directors or persons charged with the management of a company.

J. E. C. M.

(*Economic Opinion on Boards.*) "Boards," said BENTHAM, "are screens," a phrase which describes very well the extreme position of economists who distrust governmental control in industry. The term is applied to particular departments of the administration of the central government, *e.g.* the board of trade, the board of agriculture; to similar divisions of local government, *e.g.* board of guardians, school board; and also to various permanent committees charged with the supervision of particular industries, *e.g.* the Scottish fishery board. It was one of the main principles of Adam SMITH, that, if governmental control were proved to be desirable, it was better to throw the responsibility on the persons and localities directly interested. The constitution of boards of various kinds is the logical outcome of this principle, the central authority only laying down general rules for guidance.

J. S. N.

BOARD OF AGRICULTURE (1793). Seven years after the reconstitution of the board of trade, the House of Commons, on the motion of Sir John SINCLAIR, voted £3000 a year towards the expenses of a board of agriculture (17th May 1793). The board was duly chartered; it was to consist of certain specified government

officials and lay coadjutors, the latter including Sinclair himself, who became the first president, and Arthur Young, who became secretary. Though the minority in the House regarded the board as simply a new refuge for place-hunters, the enthusiasm of president and secretary carried it into good work at once, and, for a time at least, falsified fears. On its first meeting (4th September 1793) it drew up a plan of inquiry on a large scale. Intelligent farmers throughout the kingdom were to be provided with a list of queries relating to their business which they were to be invited to answer and send to the board, for the general benefit of the agricultural interest. In the second place, in every county some competent person was to be chosen to draw up a survey of the state of agriculture in that county, to be remitted to the board for publication. This plan was duly carried out, and the result was given to the world in sixty or seventy separate publications, of various degrees of merit. The survey of Sussex was by the son of Arthur Young, and the survey of Suffolk by Young himself, who contributed also to the 3d and 6th volumes of *Communications* published by the board between 1802 and 1806. These *Communications* include also papers, letters, or speeches by George Washington, Dr. Priestley, Sir Joseph Banks, Sir Humphry Davy, Morris Birkbeck, Watson, bishop of Llandaff, and Sir John Sinclair, with others of lesser note, English and foreign. One of the objects of the board was to keep England alive to foreign improvements. Another of course was to encourage improvements at home; and, as a matter of fact, the lectures of Sir Humphry Davy, given before the board in 1802, made an epoch in agricultural chemistry. Prizes were given for agricultural essays and experiments. Another object of the board was more general,—to provide accurate statistics of lands, produce, stock, and even population; there is, for example, in vol. ii. of the *Communications*, an "abstract of baptisms and burials" for four of the parishes in each of fifty counties, drawn up in 1800. Both in the *Communications* and in the several Reports for the counties, there is a mass of information, observations, and opinions, not only in regard to the technical points of agriculture and pasture, but in regard to the poor law, the condition of the poor labourer and the farmer, the incidence and amount of rent, rates, and tithes, the progress and effects of enclosures, the movements of population, and the working of such experiments as the system of small allotments. Accordingly these volumes contain materials for the social and industrial history of the country districts of the kingdom, which are of undoubted value though they have been little utilised.

A general view of the work of the board for its first three years is given in the first volume of the *Communications*, which contains also the text of the Charter of Foundation, dated 23d August 1793. The grant of £3000 was withdrawn in 1817, a year of distress when the government was much pressed to reduce expenditure. No doubt the Smithfield Club, the Highland Society, the Bath and West of England Agricultural Society and other private bodies were doing its work equally well; but it is not just to describe the board as simply "the pet scheme of King George" with no life of its own (Martineau, *Thirty Years' Peace*, iv. 448). In the present year (1889) it has been re-established by Lord Salisbury's administration.

[*Reports to Board of Agriculture from the several counties* (var. dates).—*Communications to the Board of Agriculture*, 1802-6, 6 vols.—*History of the Progress of Great Britain*, R. K. Philp, 1859 (specimens are given of the queries to farmers, p. 117).—M'Culloch's *Literature of Political Economy*, 1845 (a list of surveyors is given, but not in a useful or accurate form, p. 215)—*Correspondence of Sir John Sinclair*, vol. i. 406-407, etc.—*Life of Sir John Sinclair*, i. 253, etc.—*Annual Register*, 1793, p. 118.—R. E. Prothero's *English Farming*, 1888, p. 69.] J. B.

BOARD OF AGRICULTURE (1889). By a recent act—Board of Agriculture Act, 1889 (52 & 53 Vict. c. 30)—a board of agriculture for Great Britain was re-established 12th August 1889. The board consists of the lord president of the council, her majesty's principal secretaries of state, the first commissioner of her majesty's treasury, the chancellor of her majesty's exchequer, the chancellor of the duchy of Lancaster, and the secretary for Scotland, and such other persons (if any) as her majesty the queen may from time to time think fit to appoint during her majesty's pleasure.

Any member of the privy council may be president of the board.

There are transferred to this board the duties of the privy council under the Destructive Insects and Contagious Diseases (Animals) Acts, the duties of the land commissioners for England under the Tithe commutation acts, the Copyhold acts, the acts for inclosure, exchange and improvement of land, and the duties vested in the commissioners of her majesty's works and public buildings under the Survey Act, 1870. The board is also to "undertake the collection and preparation of statistics relating to agriculture and forestry, and may also undertake the inspection of, and reporting on, any schools which are not public elementary schools, and in which technical instruction, practical or scientific, is given in any matter connected with agriculture or forestry, and the aiding of any school which admits such inspection, and in the judgment of the board is qualified to receive such aid, and the aiding of any system of lectures or instruction connected with agriculture or forestry, and the inspection

of and reporting on any examinations in agriculture or forestry," it may also make or aid in making such inquiries, experiments, and research, and collect or aid in collecting such information as they may think important for the purpose of promoting agriculture or forestry. "The muzzling of dogs, and the keeping of dogs under control," are among the duties of the board with the Contagious Diseases Animals) Acts, and it is also stated that in the act establishing it, the expression "agriculture" includes horticulture.

The president of the board may have a seat in parliament. The operations of the board may, under the powers mentioned above, become very extensive and important. The re-establishment of this department is, however, too recent to allow of any further details of its working to be given.

[*Board of Agriculture Act*, 1889 (52 & 53 Vict. c. 30).]

BOARD OF TRADE. Great Britain possesses no ministry of commerce nor any department specially charged with the superintendence of industry. The home office has some supervision over factories and workshops, mainly as to hours of labour of women and children, fencing of dangerous machinery, and sanitary condition of buildings. It publishes returns of the principal textile industries, but with no details of quantities or values of what is produced, and superintends coal and other mines in regard to safety, and it is not concerned with other matters as important to them—namely, the rates charged for conveying minerals by railway and royalties payable to original owners. In connection with manufacturing industries the science and art department gives some assistance through the South Kensington and other museums, and technical schools. With these exceptions there is little supervision over commerce and industry, except by what was originally the committee of privy council for trade and is now known as the "board of trade." Temporary councils had advised parliament concerning trade matters since the 14th century, but no permanent department was established until Cromwell instituted such a department to foster trade and navigation, and check the monopoly of the Dutch. This policy was continued after the Restoration, a committee of the privy council being appointed, 1660, to ascertain particulars of imports and exports and to improve trade. Another committee was appointed a few years later to assist the crown in forming and managing "foreign plantations," *i.e.* colonies. The Earl of Sandwich was president and John EVELYN one of the ten members of this second committee. In 1672 these two committees were united as a standing council of trade and plantations under the presidency of the Earl of Shaftesbury, and, in 1673, John LOCKE became secretary. The joint commission lasted, however, only two years, and was not revived till 1696. Locke then returned to office, though unwillingly, as one of six unofficial paid members of the board, eight principal officers of state being unpaid members. The questions referred to the establishment included inquiries into hindrances to trade, employment of the poor, and the silver currency, the great recoinage of which, 1695, was supported by Locke's writings. The new board were hardly settled in their rooms at Whitehall, altered for them by Wren, when the fire of 1697 drove them to take refuge in the building known as the Cockpit, on the site of the present council office. In 1700 Locke was compelled to resign through ill-health (*Life of Locke*, by Fox Bourne). Locke's successor was Matthew Prior, well known in his literary capacity.

The navigation acts and the mercantile system were at this time the keystones of our commercial policy. Raw materials might be imported free of duty, and with a bounty in some cases, but heavy penalties usually prohibited their exportation. In the case of wool, even movement from village to village within a few miles of the coast was prohibited. British colonies were favoured by DISCRIMINATING DUTIES, but when conflicts arose between the interests of home manufacturers and colonists, the latter usually went to the wall. A secretary of state for the colonies to undertake the control of the plantations was appointed 1760. This control passed, 1782, to the home secretary, 1801 to the war department, 1854 to the present colonial office. ADDISON was for a few years one of the lords commissioners of trade previous to his appointment in 1717 as secretary of state to George I. Gibbon, the historian, was made one of the eight lords commissioners in 1779 at a salary of £1000 a year, but was ousted three years after, mainly through BURKE'S attack on the public offices 1780. (COBBETT'S *Parliamentary History*, vol. xxi. p. 232.) The contest between Burke and the ministry was, as regards the board of trade, whether unpaid commissioners of trade, chosen from time to time, would not be preferable to a permanent highly-paid council, which Burke described as "a sort of gently-ripening hot-house, where eight members of parliament receive salaries of a thousand a year in order to mature at a proper season to a claim for two thousand." Burke's motion for the abolition of the board of trade and the colonial and other offices was carried in the House of Commons by a majority of eight. Reductions resulted of between £200,000 and £300,000 a year, including £11,000 for the board of trade. Another *permanent* committee of the privy council was formed in 1786, by order in council which still mainly regulates the legal constitution of the office. The duties of the revived board were chiefly as a century

before, with questions relating to food supply and restrictions on the exportation and importation of corn.

Experience of difficulties in administering any SLIDING SCALE of corn duties had much to do with disposing the board towards a free-trade policy. Mr. HUSKISSON's efforts in removing restrictions on foreign trade, followed by Mr. Gladstone's (1842) carrying out PEEL's tariff reforms were ably seconded by the permanent staff, including Mr. G. R. PORTER and Mr. MACGREGOR. Porter was the founder of official statistics, the accounts published by government before he became chief of the statistical department, 1832, having been merely crude and undigested masses of figures. The *Progress of the Nation* made him famous as an economist and he was promoted secretary of the board of trade 1847. Mr. R. Giffen, C.B., now an assistant secretary, became chief of the statistical and commercial department 1876. Meanwhile, as state supervision over food supply and general trade became obsolete, joint-stock companies, railways, and shipping required supervision, and further changes were made, the president being practically secretary of state for trade. The vice-president became, 1867, a parliamentary secretary with similar duties to those of a parliamentary under secretary of state. Efforts have been made to change the title of the office into "Ministry of Commerce" presided over by a titular secretary of state, but a more obvious improvement would be to incorporate with the board some consultative members of technical knowledge and trade experience, such as eminent shipowners, merchants, and manufacturers, who could be called in to advise the president.

The departments must be described somewhat in detail.

1. *The Commercial Department* deals with commercial questions generally. It also provides the statistical abstracts for the United Kingdom, the colonies, and foreign countries: trade, shipping, railway, emigration, and fishery statistics, including a record of price of corn, foreign and colonial customs, tariffs, and trade regulations. Labour statistics have now special attention. A *Monthly Journal* gives commercial information principally from official sources.

A separate bankruptcy department has been organised since the Bankruptcy Act of 1883. The principle of this act is administration of bankrupts' property by or under a department amenable to parliamentary control (see BANKRUPTCY LAW; DEEDS OF ARRANGEMENT).

2. *The Railway Department*, established 1840, inspects railways before opened, reports on proposed railways, accidents, bye-laws, arbitrators, and other duties under various railway acts. The Railway and Canal Traffic Act (1888) in regard to rates for conveying goods; tramways, their bye-laws, and "provisional orders," *i.e.* omnibus bills approved by some public department before being submitted to parliament, come under this department, with gas and water schemes, electric lighting, and copyright. The patent office, a subordinate department, has charge of PATENTS, designs, and TRADE-MARKS. It is possible that some of these powers may be transferred to the new county councils.

3. *The Marine Department*, established 1850, regulates the survey of passenger steamers, compulsory examination of masters and mates, shipping offices for engagement and discharge of seamen, and generally all questions relating to ships and their crews, including the detention of unseaworthy ships and inquiries into wrecks.

4. *The Harbour Department* has charge of foreshores belonging to the crown, and protects navigable harbours and channels, lighthouse funds, Holyhead and Ramsgate harbours and Dover pier. Wreckage and quarantine are also under the charge of this department, and standards for weights and measures, and hall marks.

5. *The Finance Department* deals with the accounts of all branches of the board of trade, of harbours, lighthouses, and mercantile marine offices, merchant seamen's fund, consuls' accounts for disabled seamen abroad; marine savings banks and seamen's money orders, life insurance companies' accounts and bankruptcy estate accounts.

6. *The Fisheries Department* deals with all questions respecting sea fisheries. International arrangements connected with the North Sea and other fisheries, and generally all matters relating to fishing vessels and their crews, besides salmon, oyster, and lobster fisheries and shore fishings, now come to this department.

BOARDING-OUT SYSTEM. The boarding-out system is one of several attempts to solve the problem of training pauper children, and is practised in the United Kingdom, in France, Germany, Russia, Switzerland, Canada, and the United States. In relieving adult paupers the main object may be said to be, to make the condition of the pauper as little enviable as possible; in the case of pauper children there is a further aim, viz. to prevent the permanence of a state of pauperism, and to train good citizens. Various methods have been suggested to attain these ends. It was at one time the custom to keep children in workhouses, in a separate part of the building from aged and adult paupers, under instruction and discipline. The evils of this system, which are possibly exaggerated, lie in the danger lest a child should acquire the so-called "pauper taint"—that is, a predisposition to relapse into pauperism. To this must be added a total ignorance of the world, due to artificial surroundings, which not only unfits a child for any walk in life, but makes him an easy prey to temptation. These evils are now, as a general rule, modified by the practice of sending children to the ordinary parish schools. The first real reform in the system was the establishment of district schools in which the children of one or more unions are boarded and educated. The results of the training given in such schools are very favourable, a comparatively small percentage of the children becoming paupers in later life. Against

them it is urged that individuality is lost, that the training given is too mechanical, that the little incidents of daily life are wanting, so that no sense of property is acquired, that they are favourable to the development of certain diseases, *e.g.* ophthalmia, and that the diet lacks variety. A further modification is seen in the building of villages, consisting of cottage-homes, in each of which a small number of children form an artificial family, but an objection to this system lies in the cost. It is claimed for the boarding-out system that, whilst avoiding the above-mentioned evils, it has great advantages of its own. Thus children are placed in ordinary families, are adopted by foster-parents carefully selected, who lodge, board, and clothe them in return for a weekly payment by the guardians, and who are under close supervision. Thus the "pauper taint" is wholly absent, and the advantages of home life are secured to the child; the relations between the foster-parents and the children often develop into real affection, and the tie between them is as strong or stronger than that in ordinary families: the surroundings are precisely those in which a child will find itself in later life, for which therefore it receives an appropriate training. Lastly, it is far cheaper than any other system. Thus, the cost of maintenance of a child in a workhouse may be set at 4s. 10d. weekly, exclusive of the cost of buildings, etc., the weekly cost in a district school at 8s. 6d., in a cottage-home at 9s. 5d., on the boarding-out system at 4s. 3d. Two kinds of difficulty suggest themselves. First, the practical difficulty of securing adequate supervision. The supervision is partly in the hands of volunteers, partly of union officials, subject to inspection by an official of the local government board. The reports of this last, Miss Mason, though on the whole encouraging, show that lamentable shortcomings are not uncommon, for instances are quoted of neglect and even cruelty on the part of foster-parents. To this may probably be attributed the small extent to which the system has been adopted, and its unpopularity among the poorer classes. The second objection is one of principle. Under this system the children of paupers are placed in a better position than the children of independent labourers, the amount expended upon them being larger than these last can possibly afford. Hence the motive to support his own family is weakened on the part of the ordinary man by the sight of the superior provision made for the family of his improvident neighbour, and a direct incentive is given to an increase of population by recklessly early marriages.

The boarding-out system is regulated by two orders of the Local Government Board, issued in 1889, which superseded the orders issued in 1870 and 1877. Under these orders orphan and deserted children, or the children of permanent inmates of a workhouse, and others who are practically orphans, may be boarded out: (1) outside the union to which they are chargeable, in which case they are under the supervision of a certified committee; or (2) inside the union, when the responsibility is shared by a committee and the officers of the union. The total number of children boarded out in England and Wales on 1st January 1890 was 4366.

[The Association for promoting the Boarding-out of Pauper Children has published numerous reports, etc., on the system. Discussions upon it are to be found in almost every annual report of the Poor-Law Conferences, and the history of the movement may be traced in the annual reports of the Local Government Board.] L. R. P.

BOCCHI, Romeo, who came from Bologna, published in 1621, at Venice, a book on money, in two volumes, dedicated to the pope Gregory XV. *Della giusta universal misura e suo typo.* The first volume has the sub-title *Anima della moneta*, and the second *Corpo della moneta.* Although very primitive in his views, this author is not uninteresting. M. P.

BÖCKH, August (1785-1867), the eminent philologist, was author of the classical work on the political economy of ancient Athens, *Staatshaushaltung der Athener*, 1817. This book was translated into English by Sir G. Cornewall Lewis (1828, 2d ed. 1842). Another of Böckh's treatises is useful for the study of the economics of antiquity, namely *Metrologische Untersuchungen über Gewicht, Münzfüsse und Maasse des Alterthums*, 1838. J. K. I.

BOCLAND. After the land of England had been distributed among the original German invaders, a considerable surplus remained undistributed, which was regarded as the property of the tribe, and was known as *folkland.* From this private estates were in subsequent times given to individuals, as a reward for eminent services, especially in war. Such grants were made by *boc* or charter, issued by the king and his *witenagemot* or council of wise men: and land so granted was called *bocland.* Bocland could be freely alienated either during lifetime or by will; and we learn from a law of Alfred that it could also be entailed, *i.e.* limited in descent to a single family.

[Stubbs, *Constitutional History*, vol. i. ch. v.—*Essays in Anglo-Saxon Law* (Boston and London, 1876), pp. 55 *seq.*] R. L.

BODIN, Jean, who was a rival of Machiavelli and a precursor of Montesquieu, was born at Angers, 1520, and died of the plague, at Laon, 1596. His principal work, *De la République* (1577), published originally in French, then translated into Latin by the author himself, has not for its object, as its title might lead the reader to suppose, a panegyric on the republican form of government. While deriving everything from the sovereignty of the people, Bodin

admits that the only practical method is the perpetual alienation of this sovereignty in favour of a monarch and his heirs. He fixes no limits to this alienation, but he desires a "Gouvernement tempéré sans être démocratique." States-General like those at Blois (1576), in the deliberations of which he had shared, with more courage and ability than success, are, in his eyes, the proper remedy for an excess of absolute power. This was, in some respects, the representative monarchy of our days. He also supported the idea, developed later by Montesquieu, that climate has a dominant influence on the form of government; theocratic in the south and east, military in the north, free in the countries lying between these. Maintaining resolutely, through conviction, liberty of conscience, he was also a declared opponent of slavery. In political economy he supported principles universally admitted in our days against a *sieur de Malestroit*, who, had it not been for two pamphlets by Bodin, would be perfectly unknown at the present time (*Réponse aux paradoxes de M. de Malestroit touchant l'enchérissement de toutes les choses et des monnaies*, Paris, 1568, in 4to, and *Discours sur le rehaussement et diminution des monnaies, pour réponse aux paradoxes du sieur de Malestroit*, Paris, 1578, in 8vo). He also published *La Demonomanie* (1587), and other similar works; for, strange as the fact is, this man, of such powerful intellect, was nevertheless a believer in sorcery and witchcraft.

[M. Ad. Franck, in his *Réformateurs et publicistes de l'Europe* (Paris, 1864, in 8vo), has written on Bodin in eloquent terms; but the work through which both he and his books will be best known is the volume of M. H. Baudrillart (*Jean Bodin et son temps*, Paris, 1853, in 8vo).]

A. C. f.

BODY CORPORATE or CORPORATION is an artificial or juristic person which preserves its identity and the rights conferred on it through a perpetual succession of natural persons. Corporations are either *sole* where composed of one person, or *aggregate* where composed of two or more persons. They are also divided into *ecclesiastical* corporations, and *lay* corporations. Of lay corporations the most important are municipal corporations and trading companies. Corporations are created either by charter or by act of parliament, but some base their existence on prescription. Their powers of acquiring, holding, or disposing of property depend partly upon the instrument calling them into existence, and partly upon the objects for which they were created (see CORPORATION, MUNICIPAL; and COMPANIES).

[As to the extent to which a corporation can enter into contracts, see *The Principles of Contracts*, by Sir F. Pollock, London, 1888.] J. E. C. M.

BŒCLER, JOHANN HEINRICH (1611-1672), a German writer, born at Cronheim in Bavaria, was professor of history, philosophy, and politics at Upsala and Strasburg. In his posthumous *Institutiones politicae: accesserunt Dissertationes Politicae ad Selecta Veterum loca et libellus memorialis ethicus*, Argentorati, 1674, Bœcler assails the opinions of GROTIUS on the original community (p. 61), and those of ALTHUSIUS (p. 104) concerning the original sovereignty of the people. His economical opinions on money, taxation, and population are for the most part founded upon BOTERO, BESOLD, BORNITZ, and Gryphiander. The first-named may have suggested his distinction between the arts which assist or hinder the increase of population, trade, schools, and courts belonging to the former, false promises and robberies to the latter (l. iv. c. v. p. 209). Bœcler's dissertation "on the science and study of politics" (p. 503 ff.), in which he deprecates the study of PLATO and recommends ARISTOTLE, gives a curious example of what was the state of the science in Germany in his time.

[See *Allgemeine Deutsche Biographie*, ii. bd. pp. 792, 793.—Roscher, *Geschichte der National-Oekonomik in Deutschland*, 1874, pp. 209, 262, 263.] S. B.

BOILEAU (or BOYLEAU) ÉTIENNE (born about 1200, died about 1272), is said to have been of Angevin origin. He joined the Crusades under Louis IX. (St. Louis), was captured, and ransomed by that monarch at a high price. At one time provost of Orleans; he subsequently became (1258-1270) provost of Paris, by special appointment of Louis IX. who sought a man of sufficient strength and integrity to maintain social and industrial order in Paris. Up to that date the post of provost had practically been farmed out to speculators, who recouped themselves by exactions and the receipt of bribes. Boileau, a man of noble birth and incorruptible character, suppressed venality, meted out vigorous justice, established the police of Paris, and hanged his godson for theft, and a friend for dishonesty. St. Louis, as a mark of confidence and approval, sometimes sat beside him at the Châtelet, where he administered justice. But the great work of Boileau was his compilation, about 1268, of the *Livre des Métiers*, a code of the regulations affecting the various industries of Paris. The exordium states the intention of the compiler, to treat of (1) the trades of Paris, their ordinances and the breaches thereof, with the appropriate fines; (2) fees, tolls, taxes, and dues; (3) justice and jurisdictions in Paris and the neighbourhood. The third part either was not written or has been lost.

The ill-defined privileges claimed by the numerous industrial corporations of Paris had become, in many cases, oppressive and encroaching. Boileau cited before his tribunal representatives of the separate crafts in turn, inquired into the grounds of their privileges,

and reduced their customs to writing in consistent order. The *Registres* so formed constitute a highly valuable record of the condition of industrial society at the time, and exhibit the whole organisation of its hierarchy—trade privileges, masters, apprentices, their number, conduct, terms of service, holidays, quality of work and of goods, prices, middlemen, fines, dues, etc. This compilation has been regarded as a landmark in the history of economics. BLANQUI devoted to it a chapter of his *Histoire de l'Economie Politique* (t. i., ch. xix., 3me ed. 1845), in which, however, he exaggerates the practical influence exercised by Boileau's book. As a repertory of economic police regulations it had, no doubt, great administrative utility. But its place is rather in the economics of history than in the history of economics.

The text of the *Livre des Métiers* was published at Paris in 1837 under the title of *Registres des Métiers et Merchandises de la ville de Paris*, 4to, edited by G.-B. Depping, in the series of *Documents inédits sur l'Histoire de France*. The best edition is that of MM. Lespinasse and Bonnardot, forming part of the *Histoire générale de Paris*, of Baron Haussman (pub. 1886).

[See also article *Boyleau*, by Isambert in the *Nouvelle Biographie Générale*, Paris, 1855, vii. 194.] H. H.

BOISGUILLEBERT, *alias* BOISGUILBERT, PIERRE LE PESANT DE, born at Rouen, 1646, died in the same city, 1714. Few details of his life are known. He purchased, in 1690, a judicial office in the city where he was born. An economist and precursor of the PHYSIOCRATS, extremely energetic and persevering by nature, he laid bare, with courage and much practical good sense, the economic defects in the system which prevailed up to 1789. He attacked COLBERT with warmth, and not without reason, for having put agriculture on one side, and shackled the trade of corn. He proposed to Pontchartrain, CHAMILLART, and DESMARETS in succession reforms which are recognised as useful in our days, but he was not listened to, and was even exiled to Auvergne for his publications. His two principal works, *Le Détail de la France* (1695 or 1697), and *Le Factum de la France* (1707), are valuable from the evidence they supply as to the real economic condition of France during the most fatal part, the last thirty years, of the reign of Louis XIV. His complete works, omitting those of a purely literary character, appeared in 1707 (2 vols. in 12mo), under the generic title of *Détail de la France;* in the same year another edition, which appears to have appeared without the author's consent, was published in 2 vols. in 12mo, described as the *Testament politique de M. de Vauban*. Both of these are without the name of the author. These same works, omitting the *Traité du mérite et des lumières des grands financiers*, form part of the Collection Guillaumin (*Economistes financiers du XVIII. Siècle*), with a preface and notes by M. Eug. DAIRE. All these works deserve to be read even in our days. A. C. f.

BOLLES, JOHN A., lawyer (born in Connecticut, 1809; died in Washington, 1878); he wrote *A Treatise on Usury and Usury Laws*, Boston, 1837, pp. 75, to show the mischief of the usury laws which generally prevailed in the United States at that time. The treatise contains a history and discussion of principles; the author expresses the fear that his argument will be regarded with prejudice and ill-will.

D. R. D.

BOLLMAN, JUSTUS ERICK, M.D. (born in Hanover, 1764). He took part in the French Revolution; was imprisoned in Austria, and became noted for his attempt to liberate Lafayette, also in prison in the same country. He afterwards emigrated to the United States, and became implicated in Aaron Burr's conspiracy. He remained in the United States for some years, then went to London, and died in the West Indies in 1821. While in the United States, in 1810, he wrote *Paragraphs on Banks and Banking*, Philadelphia, (pp. 122; 2d ed., 1881). In this he defended the United States Bank as a powerful agent for strengthening the government, cementing the union, and useful in diminishing and augmenting the circulating medium according to public necessities. The pamphlet is typical as illustrating the acrimony of the bank discussion. In 1816 he wrote *Plan of an Improved System of the Money Concerns of the Union*, Philadelphia (pp. 52); in which he again demonstrates the superiority of bank money to treasury notes; also *Strictures on the Theories of Mr. Ricardo*. The history of the greater portion of his life is narrated in *Justus Erick Bollman; Ein Lebensbild aus zwei Welttheilen*, by Friedrich Kapp, Berlin, 1880 (pp. 439).

D. R. D.

BON. A French word signifying a written authority to pay a certain sum of money, or to deliver a certain object or a certain quantity of goods for account of the person signing the authority. This is implied by the use of the words "*Bon pour*"—(*e.g. Bon pour* frs. 1000; *bon pour pain*, etc.) Such authorities, when issued by government officials on the national treasury, are called "*Bons sur le Trésor.*" E. S.

BONÂ FIDE. Literally in good faith; the words are frequently used in connection with a substantive when their proper meaning is "genuine." A "bonâ fide traveller" is a man who is a genuine traveller; a "bonâ fide purchaser" is a genuine purchaser—not a person to whom a gift has been made in the form of a sale. The phrase "bonâ fide holder for value without notice" is used in connection with negotiable instruments. The Bill of Exchange Act has by § 29 substituted the shorter form "holder in due course." E. S.

BONA NOTABILIA. Formerly, if a deceased person at the time of his death left effects of such an amount as to be considered "notable goods" (fixed by the 93d canon of 1603 at £5), within a diocese other than that in which he died, the will was required to be proved or letters of administration taken out before the metropolitan of the province, and not before the ordinary of the diocese. The transfer of jurisdiction over wills to the court of probate by the 20 & 21 Vict. c. 77 has abolished the legal importance of *bona notabilia*.

[*The Law of Executors and Administrators*, by R. L. V. Williams and W. V. V. Williams, p. 292, 8th ed., London, 1879.—*Bona Notabilia*, by G. Lawton, London, 1825.] J. E. C. M.

BONA VACANTIA. The term applied in Roman law to the property of a deceased person which, if not claimed by the legal or equitable heir, went to the state, or in some cases to the municipality, or to the curia, or to the corporation of which the deceased was a member (see Hunter's *Roman Law*, p. 865). In English law the term is sometimes applied to things found without an apparent owner.

[Stephen's *Commentaries*, bk. iv. ch. vii.] J. E. C. M.

BONCERF, Pierre-François, a French publicist, born about 1745 at Chasaulx, was employed by Turgot, and published with his consent, under the assumed name of "Francaleu" a pamphlet: *Les inconvénients des droits féodaux*, 1776. In this he insists upon the freedom of landed property from any feudal impositions, and hopes the king will abolish them. But the author was discovered; the pamphlet was condemned by the parliament to be publicly burnt 23rd February 1776, and Boncerf himself was saved only by the king's intervention from being prosecuted. After the downfall of Turgot, Boncerf retired to Normandy and devoted himself to agricultural pursuits. He was secretary to the Duke of Orleans when the Revolution began; he was appointed a judge in 1790, but his sincerity led to his being brought before the revolutionary tribunal, and he escaped being condemned to death only by one vote. In consequence of these persecutions he died in 1794. In 1789 he had written *De la Nécessité et des Moyens d'occuper avantageusement tous les gros ouvriers*. The first creditors of the nation, he says, are the hands, which demand work and the soil that waits for the labour of the hands (p. 14). Boncerf proposes to give work to the labourers, for "everybody has a right to subsist, but this right supposes a duty—labour" (p. 59).

Boncerf's other writings are enumerated in the *Nouvelle Biographie*, t. vi. p. 554.—see L. de Lavergne, *Les Economistes français du 18e siècle*, 1870, p. 195. S. B.

BOND. Legal term for a deed by which a person (called the "obligor") declares himself bound to another (called the "obligee") to pay a certain sum unless he performs an obligation specified in the same instrument by a clause called "the condition of the bond." Bonds are generally used when security is to be given to a public authority (bail bonds, security to keep the peace, security for costs in actions, etc.), and Contracts of Guarantee are frequently made out in that form, but instruments embodying mercantile contracts do not, as a general rule, assume the form of bonds. The word is also used for certain stock exchange securities, and in that sense is equivalent to "debenture" or "obligation," meaning a promise to repay a sum borrowed by the public authority or company who issues the security (with or without an additional premium), on a fixed date or on a date depending on the operation of a sinking fund (*i.e.* an annual sum to be applied in the purchase of bonds or in the compulsory redemption of some particular bonds, to be determined by ballot), and to pay interest at a certain rate on certain dates up to the time of repayment. Bonds are sometimes secured by a charge on special property (see also Lloyd's Bonds). E. S.

BOND OF CAUTION (Scots law term). See Caution.

BOND OF CORROBORATION (Scots law). Bond given as further security.

BOND AND DISPOSITION IN SECURITY. Scotch equivalent to mortgage.

BOND OF RELIEF (Scots law term). Bond of indemnity given to a surety.

BONDED WAREHOUSES. Warehouses in which articles are lodged under bond for the payment of any revenue duties chargeable thereon.

The payment of duties on taxable commodities at the time of importation or manufacture tends to increase the price paid for them by the consumer over and above that which the importer or manufacturer can afford to take, if the payment be deferred until the commodities are about to be taken into consumption. Interest on the money advanced must be charged, and the quantities on which the duty is paid will usually be in excess of those available for consumption, when allowance has been made for the waste arising from natural causes, and the various operations which the commodities undergo. Inasmuch also as a drawback of duty is ordinarily allowed on exportation, the payment of duty before the ultimate destination of the taxed commodities is known, involves an unnecessary expenditure of time and money in the case of goods intended for a foreign market, or of goods received for transhipment merely. To prevent these disadvantages, and at the same time to safeguard the revenue effectually, Sir R. Walpole, Turgot, and Adam Smith proposed at various times that warehouses should be established, either directly by the state, or

by private enterprise under state sanction, in which taxed commodities might be stored until required for delivery for home consumption, in which case the duty would then be paid, or until the goods were exported and transhipped, in which case they would be delivered free of duty. It was not, however, until 1848, when spirits intended for home consumption were allowed to be warehoused throughout the United Kingdom, that the system can be said to have been established in this country on a basis sufficiently wide to meet the legitimate requirements of trade. Between the years 1848 and 1880 the number of bonded warehouses was permitted to increase at a very rapid rate, and in the latter year it became evident that the cost of the supervising staff was in excess of the expenditure requisite for the benefit of the community as a whole. A committee of inquiry was accordingly appointed by Mr. Gladstone, the result of which has been to effect a considerable economy under this head, whilst at the same time the substantial advantages of the system are fully maintained.

In order to prevent the payment of duty on quantities in excess of the actual deliveries for consumption, certain specific allowances from the quantities warehoused are granted in respect of the natural waste arising from leakage or evaporation, and for the loss arising from processes to which the commodities are allowed to be subjected whilst still in warehouse. Amongst these processes are comprised the repacking and mixing of tea, the racking, vatting, mixing, and bottling of wines and spirits, the roasting of coffee, and the manufacture of certain descriptions of tobacco, and of certain preparations of that article for farm and horticultural purposes.

The following table shows the quantities of the principal articles remaining in bonded warehouses in the United Kingdom on the 31st March 1888 and 1890.

	1888.	1890.
Chicory .	2,223,872 lb	2,316,944 lb
Cocoa . .	13,795,056 ,,	13,305,220 ,,
Coffee . .	40,314,064 ,,	34,449,520 ,,
Dried Fruits	46,561,200 ,,	54,187,440 ,,
Spirits .	89,753,770 prf. galls.	96,570,374 prf. galls.
Tea . .	108,652,597 lb	120,446,511 lb
Tobacco .	127,204,706 ,,	127,249,164 ,,
Wine . .	7,683,525 galls.	7,588,722 galls.

T. H. E.

BONNET, Victor, born 1814, died 1889. A financial publicist, he became a counsellor of state and a member of the Institute. He wrote in the *Revue des Deux Mondes* from 1860 to 1884, in favour of the monopoly of a bank of circulation, a single standard (gold), indirect taxation, and a reduction of the expenses of the budget. His numerous articles in reviews and similar works have been the basis of the following publications. *Questions économiques et financières à propos des crises*, Paris, 1859, in 8vo. —*La liberté des banques d'émission et le taux de l'intérêt*, Paris, 1864, in 8vo.—*Le crédit et les finances*, Paris, 1865, in 8vo.—*Études d'économie politique et financière*, Paris, 1868, in 8vo.—*Études sur la monnaie*, Paris, 1870, in 8vo.—*Le crédit et les banques d'émission*, Paris, 1875.—*La question des impôts*, Paris, 1879.

A. C. f.

BONORUM POSSESSIO. The Roman law of inheritance, as derived from the xii. tables, was full of hardships and technicalities, and frequently caused inheritances to be forfeited to the state. To mitigate these evils the prætors introduced the "*bonorum possessio*," which conferred on the persons designated by them all the practical advantages of heirship, though they were not heirs in the strict sense. As, after the lapse of a year, the *bonorum possessor* acquired an indefeasible title, and in the meantime was protected by the equitable jurisdiction of the prætors, the difference was not important. The practical result of this procedure was that the formalities of testaments were relaxed, the law of intestate succession was made more humane and just, and various other reforms were introduced. The prætorian system of intestate succession was in its main principles embodied in the rules laid down by Justinian, which, with slight modifications, have been introduced in most European countries.

E. S.

BONUS. A bonus on shares is sometimes paid to proprietors as supplementary to the regular dividend, and is generally derived from undivided profits of former years, or from profits derived from exceptional transactions. It is often a difficult question to decide whether a bonus on shares belongs to a person having a life-interest, or whether it ought to be paid to the person ultimately entitled to the shares. Elaborate rules on this subject are laid down by the House of Lords. Bouch *v.* Sproule, *Law Reports*, 12 Appeal Cases, 385. The word bonus is also used by insurance companies to denote the additions made to the amounts of life policies at stated periods from accumulated profits reserved for the policy-holders.

A. E.

BOOK ACCOUNT CREDIT. As nearly all the large transactions of business in most civilised countries, and an increasing proportion of the smaller ones, are now settled through payment by cheque, the circulation consists to a great extent of entries in the books of bankers and traders, and the importance of these transactions is proportionally great. Credit is usually afforded through book-entry, the privilege of employing the capital of others being thus given in the manner most convenient to those who require the use of it.

BOOK-KEEPING, or the art of keeping accounts, has for its object a systematic record of transactions in money or in money's worth, designed to show the financial position of individuals (included in this term "individuals"

are all mercantile and other associations), both as regards themselves, and also in relation to others.

This object is carried into practice in all thorough systems of book-keeping on the lines of an unvarying principle called book-keeping by double entry, and which may be described as follows: There are two aspects in every transaction, as regards the person recording, which must be taken account of—its *origin* and *destination*; in some cases the terms cause and effect would be more applicable. This "taking account of" involves keeping an account in these two aspects. Now an account may be affected in two ways, there is the *debit* side and the *credit* side; a transaction may be chargeable against an account, *i.e.* be placed on the *debit* side, or it may be to the credit of an account, *i.e.* be placed on the *credit* side; for example, money received must be placed to the credit of an account in respect of its origin—the source from which it comes; and it must also be placed to the debit of an account in respect of its destination—the till, the cash-box, the bank, as the case may be, of the receiver. It will be seen that these two accounts are affected by this transaction in opposite directions. This rule invariably holds in every transaction. If in the one aspect it has to be placed to the credit of an account, in the other aspect it will have to be placed to the debit, and *vice versa*. Thus, in the record of any number of transactions the sum of the aggregate of the entries to the debit of the various accounts will equal the sum of the aggregate of the entries to the credit of the various accounts; and again, if only the balance between the debit and credit entries on each account be dealt with, the sum of the balances to the debit will equal the sum of the balances to the credit; but, as these balances are the combined outcome of the cause and effect of each and every transaction, they will represent the net result of the whole of the transactions recorded, and may be arranged so as to show not only the altered financial position brought about by these transactions, but also the various causes by means of which this result was obtained.

The methods used to carry out this principle vary with the nature and circumstances of the transactions, with questions of convenience, of detail, and with many other considerations.

The primary record of transactions is made in a book called the *Day Book* or journal.

The accounts of those transactions which are derived from this record are kept in a book called the *Ledger*.

A simple record of transactions as they occur seriatim would give a *Day Book* in its crude form. Applying method to such a record, the entries at once fall into natural groups; those relating to money received or paid may form a Day Book by themselves; such a Day Book is called the Cash Book. Those relating to sales of goods may form a Sold or Sales Day Book; and again, records of purchases may form a Bought or Purchases Day Book, others, a Bill Book, and so on, with any variety of subdivisions desirable, but all springing from, and forming part of, the original *Day Book*.

In the same manner, the *Ledger* may be subdivided to suit convenience, such subdivisions being called by explanatory names, such as Sold Ledger, Bought Ledger, Loan Ledger, Private Ledger, etc.

Thus it will be seen that the *Day Book*, with its subdivisions, contains the materials from which the edifice, the *Ledger*, is built up.

The best systems of book-keeping are based on the application of the principle of double entry. Book-keeping by single entry would be better described as incomplete double entry; there is no practical system to which the term of single entry could be rightly applied. If a person takes stock of his assets and liabilities, and compares it with the stock taken at some previous date, he arrives at what may be termed a single entry balance sheet. He has before him the result at two different dates, and, by inference, can argue that, as his property has increased or decreased, such an alteration must have been caused by his having made so much profit or loss; but should he have made an error in taking stock of his property, such inference would be in error also; whereas by double entry, the steps by which such increase or decrease in his property was arrived at would be shown, and the result would be open to demonstration and proof.

Skill in book-keeping consists, not in forcing the record of transaction through any particular system, but in devising and selecting the methods best adapted to the general nature of the transactions to be recorded.

The omission of the keeping of proper business account books is regarded as misconduct under the bankruptcy law of this country (see BANKRUPTCY LAW). It is also punishable under the French commercial code. Though good book-keeping will not save an unsound business from ruin, it may be regarded as one of the principal corner stones in the edifice of commercial prosperity (see BALANCE SHEET).

[Among many books on this subject may be mentioned, *Book-keeping*, Hamilton & Ball, 1882. —*Double Entry Elucidated*, B. F. Foster, 1881.]

J. P.

A new method of book-keeping now used in Italy, whence many improvements in this art have already proceeded, is *Logismography* (from λογισμός and γράφειν) a system of keeping accounts, based on double entry, for which it is claimed that it is capable of a far more general application than any other as yet known, and can be applied equally to the domestic and commercial affairs of private individuals, to

the business of commercial and industrial societies, or to the budget and the accounts of the state. Logismography, invented by Giuseppe Cerboni, director of the department for government accounts in Italy, is taught in all the technical schools of the kingdom and in the three superior schools of commerce in Venice, Genoa, and Bari. It is applied in all the central departments of the state; besides a number of local departments (*e.g.* the provincial administration of Parma and the municipality of Reggio-Emilia) and of private societies (*e.g.* the popular bank of Parma and the "Omnibus" company of Florence). Logismography claims to be superior to any other method in the exactness and celerity of registration of the transactions recorded, and shows nearly *automatically* any error which may have taken place. It consists of four instruments called—

The Day-Book.	The Table of Accounts.
The Developments.	The First Draught.

The day-book is an account book kept on two pages: on the first are three columns, of which the first serves for the progressive *number* every transaction receives, the second one for the *description* of every transaction, the third one for the amount of every transaction in double entry; on the second (opposite) page there are two accounts in simple columns, as in the day-ledger book in the American system (see Fig. I.) The first of these accounts has the heading, *Owner of the business*, and has the cypher A; the second one has the heading, *Consignees and Correspondents*, and has the cypher B. At the end of these two accounts (to the right) is situated a column headed *Compensations and Permutations.*

The two accounts A and B must always balance each other, because the debit and credit of the one must always be equal for every single transaction, and their total sum must be equal to the debit and credit of the other one. On the credit side of A are inserted the sums representing the capital of the owner, and every increment it receives (gains, profits): on the debit side of B are registered the diminutions of the capital (losses, expenses, consumption). Sums indicating transactions giving no loss or gain,—buying or selling for ready money, exchanges, paying of bills of exchange,—are inscribed in the last column headed compensations and permutations, and are then transferred to the book described as developments (of B). The accounts of the day-book show at every moment the net capital of the owner; for this purpose the amounts have only to be totalled, and the debit subtracted from the credit in each account.

The second instrument, called *Developments*, consists of columns for the division and classification of the sums registered in the day-book. The first *Development* has the cypher A, and is called *Account of the Owner*. It consists (1) of a column for the progressive number of every transaction; (2) of two columns called *Equivalence Columns*, because they are the reproduction of the account A of the day-book and contain the same sums it contains; (3) of a column called *Permutations*, and, lastly, of a number of accounts—generally ten or twelve—in simple columns, which *analyse* the account A (see Fig. II.) The sums inscribed in the credit column of the account of equivalences A must be retranscribed *in one*, or *in several* columns —after due subdivision—of the *Analytical Accounts*, viz. the series of accounts in simple columns following (to the right) upon the equivalence columns. The sums registered in the column of *Permutations* must be registered on *both* the credit and the debit side of the *Analytical Accounts.*

The second *Development* has the cypher B, and is called, "Account of the Consignees and Correspondents," and is disposed of in the same manner as the former development (see Fig. III.)

These developments (first and second) are called developments of *first degree.* Developments can be added of second, third, etc., degree. For example, in the B development (Fig. III.) there are the accounts for cash, for storehouse or magazine, for debtors, etc., which can be sub-developed. Supposing the account "storehouse" to be sub-developed, it would have the cypher B1, which would be repeated on a sub-development for storehouse, and might contain, say, the accounts cloth, cotton, silk; and if "cloth" were to be subdivided again, it would have the cypher B1a, and so on.

The completion of all the developments is the ledger.

The account which is sub-developed must always be repeated at the beginning of the sub-development, so that all the accounts are closely connected with each other. The ledger can be divided in two volumes: Developments A and Developments B.

The *Table of Accounts* is a statement which contains the index of all the accounts, disposed in such a fashion as to show how they are placed in the accounts of the single developments, and how a development of a certain degree depends on the development of superior degree (see Fig. IV.) The *Table* is the instrument by which an account is opened and headed, and the first draught is shaped, and shows the ramification of all the transactions. A *First Draught* is a paper on which a transaction is described with an indication of the developments, and the columns in which it has to be received.

Every transaction has its first draught (see Fig. V.)

Logismography renders a minute *division of labour* possible in the formation of first draughts, or in the registration in the day-book, and in

the different volumes of developments. Every registration runs in a horizontal line. By the first draught the capital is registered in the day-book, and credit or debit modifications in the developments.

The ascertaining the correctness of accounts is simple and rapid; the sums must be added in all the accounts, and the balance is registered in the usual way. In every development, therefore, the addition of all the debit balances and all the credit balances must be made, and the smaller of these sums is written down in the column of compensations, whilst the difference is registered in the first account (of equivalences) of the development. To close the accounts one must begin by the developments of highest degree and go back to those of first degree, and last to the day-book. The day-book for the accounts of the State is more complicated, and has more accounts in it than the one described; but the form of the developments and their arrangement is the same. In accounts concerning the finances of the State, logismography receives an extension, and has an importance which can only be estimated by financiers, and could not be explained in so brief a description as this must necessarily be.

Fig. III.—*Developments B. Accounts of Consignees and Correspondents.*

Draughts.	B.		Permutat. and Compens.	Cashier.		Storehouse.		Debtors.		Creditors.	
	Debit.	Credit.		Debit.	Credit.	Debit.	Credit.	Debit.	Credit.	Debit.	Credit.
1	2	3	4	5	6	7	8	9	10	11	12
1	10	.	30	15	..	..	..	25	..	..	30
2	.	..	50	..	10	50	..	..	..	..	40
3	8	.	..	..	..	8	..	..	..	..	..
4	..	4	..	..	..	..	4	..	..	..	..
	18	4	..	15	10	58	4	25	..	..	70
5	..	14	70	..	5	..	54	..	25	70	..
	18	18	150	15	15	58	58	25	25	70	70

Fig. IV.—*Table of Accounts.*

Day Book.	First Draughts Column	1	
	Transactions	2	
	Amounts	3	
	Owner — debit	4	A
	Owner — credit	5	A
	Consignees — debit	6	B
	Consignees — credit	7	B
	Permutations	8	
Developments. A.	First Draughts Column	1	
	Equivalence Account — debit	2	
	Equivalence Account — credit	3	
	Permutations	4	
	Capital — debit	5	
	Capital — credit	6	
	Profits — debit	7	
	Profits — credit	8	
	Losses — debit	9	
	Losses — credit	10	

Logismography: Type or Form of Registrations, with an Example.

Fig. I.—*Logismographic Day-Book.*

Draughts.	Transactions.	Amount.	Owner. A.		Consignees and Correspondents. B.		Permutations and Compensations.
			Debit.	Credit.	Debit.	Credit.	
1	2	3	4	5	6	7	8
1	Capital .	40	..	10	10	..	30 B
2	Purchase	50	..	..	..	..	50 B
3	Profits .	8	..	8	8	..	..
4	Losses .	4	4	..	..	4	..
			4	18	18	4	80
5	Saldo .	92	14	..	..	14	18
		194	18	18	18	18	158

Fig. V.—*First Draught No. 2.*

Bought merchandise for £50, of which 10 paid and 40 still owed.				
Day Book.	Column	3	£	50
	,,	8	,,	50
Developments. B.	Column	4	£	50
	,,	6	,,	10
	,,	7	,,	50
	,,	12	,,	40

Fig. II.—*Developments A. Accounts of Owner.*

Draughts.	A.		Permutat. and Compens.	Capital.		Profits.		Losses.			
	Debit.	Credit.		Debit.	Credit.	Debit.	Credit.	Debit.	Credit.		
1	2	3	4	5	6	7	8	9	10	11	12
1	..	10	..	..	10	..	..	..	..		
3	..	8	..	..	..	..	8	..	..		
4	4	..	..	..	..	..	..	4	..		
	4	18	..	..	10	..	8	4	..		
5	14	..	8	14	4	8	..	..	4		
	18	18	8	14	14	8	8	4	4		

[*Bankers' Magazine*, June 1890.—For description of method, No. xvi. of the *Manuali Hoepli Logismografia, Teorica ed Applicazioni*, by Celestino Chiesa, Ulrico Hoepli, Milan. For large works, *Trattato di Ragionieria*, by Gitti e Massa, Milan, *Trattato di Contabilita*, by Marchesini.] G. R.

BOOK OF RATES. Up to 1558 Poundage was levied on the value

of the goods as sworn by the merchant. But in the year mentioned a book of rates was published that specified the values at which goods of different sorts were to be valued for custom duties. A new "book" was issued by Queen Elizabeth, 1586, in which the various commodities were stated in alphabetical order, with their values, and valued according to the real price. James I., after the decision in BATES'S CASE, issued a "book of rates" with the object not merely of rectifying values, but of increasing the impost. A new book was subsequently issued by Charles I. with the object "of better balancing of trade in relation to the impositions in foreign parts upon the native commodities of the kingdom." J. E. C. M.

[See Dowell's *History of Taxation and Taxes in England*, 1889, vol. i.]

BOOM. A slang word, which originated in the United States, where it is used to describe a rise of prices in any speculative market, accompanied by excitement often running to excess. A. E.

BOOTY. Moveables taken from the enemy on the field of battle or in storming a town. All booty belongs to the state in whose name and by whose authority it is made, the title becoming complete twenty-four hours after capture. Modern states have adopted regulations by which the whole or part of captured goods or their proceeds are distributed amongst those concerned in the capture. By the 3 & 4 Vict. c. 65, § 22, the sovereign may refer questions of booty to the judge of the prize court, now the court of admiralty. In the United States the president has, in the absence of any directions given by Congress, discretionary power. [*International Law*, by W. E. Hall, Oxford, 1889.] J. E. C. M.

BORNITZ, JACOB, was born (late in 16th century) at Torgau in Saxony, and lived afterwards at Schweidnitz in Silesia as imperial councillor. He appears to have possessed considerable influence with the Emperors Rudolf II. (1576-1612) and Matthias (1612-1619). He suffered much in the Thirty Years' War from the violence of the soldiery, who robbed him of his library. His economic writings are—(1) *De nummis in republica percutiendis et conservandis*, 1608; (2) *Aerariium, seu Tractatus politicus de aerario sacro, civili, militari, communi et sacratiori . . . conficiendo*, 1612; (3) *Tractatus politicus de rerum sufficientia in republica et civitate procuranda*, 1625. In the last of these he professes to give the results of observation and intercourse with artificers in his journeys through Holland, England, France, Italy, and Germany, treating his materials, however, not from the technical, but from the economic point of view. He was the first who did for Germany what MONTCHRÉTIEN de Watteville had done a few years earlier (1615) for France, namely, attempted to set forth with systematic completeness the economic knowledge of his time, which he illustrated with much learning, though of a somewhat pedantic and uncritical kind, and with many facts derived from his own experience. He takes, says ROSCHER, in his half-barbarous period, a similar position to that of RAU in the later German economics. On the theory of money he has much that is sound and instructive; he strongly opposes any debasement of the currency. In the spirit of the MERCANTILE SYSTEM he favours extensive and even minute interference with private industry. He would prohibit the exportation of money, and would prevent, by means of SUMPTUARY LAWS, the introduction of costly foreign wares, whilst he would encourage the importation of raw materials (Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 184). J. K. I.

BOROUGH. Originally a fortified place, now (1) a town having municipal institutions (see CORPORATIONS, MUNICIPAL), (2) a town sending representatives to parliament. As a general rule a municipal borough is at the same time also a parliamentary borough, but the area of the one does not always coincide with the area of the other. E. S.

BOROUGH ENGLISH. A local custom prevailing in some boroughs according to which lands within the borough descend to the youngest son. E. S.

BOSANQUET, CHARLES, governor of the South Sea Company and an eminent London merchant, was born in 1769 and died in 1850. He was the author of the following publications: (1) A *Letter on the proposition submitted to Government for taking the duty on muscovado sugar ad valorem*," probably written in 1806. (2) A *Letter to W. Manning, Esq., M.P., on the depreciation of West Indian property*, probably written in 1807. It considers more especially the trade in sugar and rum, as affected by the Navigation Act and other of our commercial regulations. (3) *Thoughts on the value to Great Britain of Commerce in general, and of the Colonial Trade in particular* (1807). This pamphlet was answered by William SPENCE in his *Radical cause of the present distress of the West India planters pointed out* (1807). (4) *Practical Observations on the Report of the Bullion Committee* (1810).

The last is by far the most important of Bosanquet's writings. The author uses the term "practical" because (he tells us) it is his belief that RICARDO'S pamphlet (on *The High Price of Gold Bullion*), which had led the way in the bullion controversy, was "wholly theoretical"; and the report of the bullion committee itself was expressly brought under the same condemnation (see CANNING). Bosanquet contends that the bullion committee had laid two distinct and opposing views before parliament, the one "theoretical" and embodied in

their own report, the other "practical" and embodied in the evidence of the "practical" witnesses as given in the appendix to their report. Proceeding to details, he sums up the committee's views in the following six propositions: (1) The variations in exchange cannot for any length of time exceed the cost of transporting and insuring the precious metals; (2) the market price of gold bullion can never exceed the mint price unless the currency is depreciated below the value of gold; (3) so far as the custom-house returns of exports and imports go, the state of the exchanges ought at this time (1810) to be favourable and not unfavourable; (4) the bank, during the restriction, possesses the exclusive power of limiting the circulation of notes; (5) the circulation of country bank notes depends on the issues of the Bank of England; and (6) the paper currency of England is now (1810) depreciated in comparison with gold, and the high price of bullion and low rate of exchange are at once consequence and sign of the depreciation.

All these propositions are disputed by Bosanquet. He adduces, against the first, the state of the exchanges and the cost of transmission of specie in 1797, also between 1764 and 1768, 1775 and 1777, 1781 and 1783, and in 1804 and 1805. He considers that the facts show that there is no "natural limit" of any kind to the variations of exchange, and points to the Swedish exchanges which were then favourable, and to the premium on English paper which then prevailed in the United States of America. He attacks the other five propositions in a similar manner, though, in giving his views of the relation of the bank to the paper currency, he is fain to use "theoretical" reasonings from first principles, and even to appeal to the authority of Adam Smith (*Wealth of Nations*, II. ii. 145, 1; M'Culloch's ed.) The "obvious and practical causes" of high prices are (he says) the recent vicissitudes of the corn trade and the increase in our taxation; to reach any other, the bullion committee have had to adopt wrong principles and then mis-state their facts. In "Supplementary Observations" annexed to the 2d ed. of his pamphlet, Bosanquet gives the committee some riddles to explain by their theory if they can, *e.g.* the fact that the exchanges, after being 6 per cent in our favour from 1790 to 1795, fell to 3 per cent below par in the next two years, though there had been no change in the bank's circulation and no suspension of cash payments. Ricardo deals with these *cruces* and with the rest of Bosanquet's case in his own *Reply to Mr. Bosanquet's Observations*, with appendix, 1811. Bosanquet has an idea that the standard value of a pound note is the interest of £33 : 6 : 8 three per cent stock. This is an illustration of the danger experienced by those who, being conversant with details, believe that they thereby understand principles.

[M'Culloch's *Literature of Political Economy*, 1845, p. 174.—*Gentleman's Magazine*, 1850, new series, xxxiv. 325.—*Dictionary of National Biography*, art. "Bosanquet (Chas.)"—See Bullion Committee, Horner, Huskisson, Ricardo.]

J. B.

BOSELLINI, Carlo (born at Modena, 1765, died 1823), published in 1813 in Modena a treatise on political economy in two volumes. Although the title of the book is *New Examination of the Sources of Private and Public Wealth*, it contains nothing which was new for its times, and does not seem to have had any particular success. M. P.

BOSTON PORT BILL. Among the events leading to the revolt of the American colonies none is more famous than the attack upon the tea ships in Boston harbour (16th December 1773). This caused great indignation in England, where the parliament resolved to resort to coercive measures. A bill was introduced and carried in 1774 by which, after 1st June, the port of Boston was to be closed to all trade. No vessels might be loaded or unloaded in the harbour, and English men-of-war were sent to enforce the act, which was to remain in force until the East India Company had been compensated for the destroyed tea and until the king in council was satisfied that peace and order was restored in Boston. This measure was bitterly resented in America, where the assembly of Virginia decreed that 1st June should be observed as a day of fasting and humiliation. The general sympathy with Boston was one of the prominent causes of the Congress at Philadelphia (September 1774), which marks the beginning of combined resistance to England.

[Mahon, *History of England*, vol. vi.—Lecky, *History of England*, vol. iii.] R. L.

BOTERO, Giovanni, born 1540 at Bene in Piedmont, died 1617 at Turin. A powerful thinker, he opposed energetically the mercantilist theories, and enunciated the law of increase of population later known as Malthus's law. He occupied some of the highest official positions in his country.

His work, *Della ragione di Stato*, published for the first time in Venice in 1589, again there in 1619, and in Turin in 1596, has been translated into all the principal modern languages, and also into Latin. It was translated twice into French, once in 1599 by Choppins, *Raison et Gouvernement d'État*, and once in 1606 by Pierre de Deymier, *Maximes d'État militaires et politiques*. Not less remarkable is his book on the causes of the greatness of cities, *Delle cause della grandezza delle città*, published 1598 in Rome. Botero was an opponent of Macchiavelli. Having travelled a great deal, he published his so-called *Universal Reports*, a treatise on "The Strength of all the Powers of Europe and Asia," Rome, 1592 and 1595. M. P.

BOTTOMRY, Loan on. A contract in writing in which the borrower recites the in-

tended voyage by a ship therein described, and the receipt of a loan upon condition that if the ship escape disasters at sea, or from enemies, or pirates, the lender is to receive back his advance with a stated sum for interest on completion of the voyage, but that the borrower is to be released from his obligation if the ship be lost or fall into the hands of enemies or pirates. The form of contract used is of time-honoured antiquity. It still closely resembles in its outlines those of a specimen extant in the speeches of Demosthenes. Traces of the loan on bottomry are also found in some of the most ancient codes of eastern nations. It finds a large place in the early sea laws and ordinances of the commercial nations and communities of Europe as well as in their legal literature. Down to very recent times it was the sole method by which the master of a vessel damaged by storms, or other hazards at sea, in some distant port removed from the ordinary channels of commerce and from any possible speedy means of communication with the owner of the vessel, could raise funds for the necessary repairs of his ship and the resumption of her voyage. All this, however, has been much changed of late years. The most distant corners of the globe have been knit as it were into one country by the economical revolution which science, and particularly telegraphy, have brought about, now enabling funds to be laid down almost immediately from and to the most widely separated places through the electric wire. This is fast rendering the loan on bottomry bill or bond obsolete in practice. The bottomry loan differed only from the ordinary loan on nautical interest of the Greeks and Romans in its good faith, as it required a pecuniary insurable interest to exist as the foundation of the contract, which the FŒNUS NAUTICUM did not, the latter being resorted to as a gambling or speculative wager by persons frequently not interested in the ship whose loss or safety was betted upon, a description of amateur underwriting by means of which the elder Cato and other wealthy Romans increased their fortunes. The loan on bottomry would seem to have furnished the ancient merchant and shipowner with an effectual form of marine insurance. In reality it supplied to the borrower not only a trading capital but also what was tantamount to a marine policy of insurance, with this peculiarity about it that he needed to be under no doubt about the solidity of the UNDERWRITER, as in this form of contract the policy money was already in the borrower's hands at the very inception of the transaction, and applicable to make good any losses from the perils of the sea in the event of a fair claim arising therefrom. On the other hand, to the lender and underwriter such contracts, so long as the special interest or premium was fixed at a high enough rate, afforded a profitable investment of funds on average, as there has always existed a well-defined mercantile usage respecting such loans, generally including proper control by public registry, power to appoint a supercargo, and strict enforcement of other regulations in his favour. Neither did the pecuniary terms of such contracts present an obstacle to their habitual use. The net premium for sea-risk payable by the borrower, the shipowner, or merchant, was conditional on the vessel coming safely to port. It was only the difference between the extra rate allowed as nautical interest and the ordinary rate of interest on loan. The more modern system of marine insurance, in which the premium paid is merely the *pretium periculi* without being mixed up with a loan as in the case of the bottomry bill or bond contract, could scarcely in ancient days have been so conveniently circumstanced, as in the event of the disaster at sea, the underwriter might or might not be found equal to bear the burden of his bond. And the resources of ancient commerce were even equal to those instances in which the taking up of funds in this form was resorted to by those who had capital enough of their own. For these funds might be, and doubtless were, used for the relief of the borrower, who, when he did not require the whole advance for the ship's immediate purposes, could reinvest the balance in a temporary way with an *argentarius*, or banker, who allowed interest on its deposit at the common rate, and thus diminished the merchant's or shipowner's outlay to the bare differential rate of interest between what he borrowed and what he lent at. The balance thus resulting would be neither more nor less than the net premium of marine insurance, the whole system of which was inaugurated many centuries subsequently by a kind of commercial evolution (see INSURANCE, MARINE). F. H.

BOULAINVILLIERS, HENRI DE, a French writer, was born at Saint-Saire in Normandy in 1658, served some time in the army, but retired soon to his country seat, where he died in 1722. He was an admirer of FEUDALISM, and would have liked to restore "feudal liberty," the decay of which seemed to him the cause of the miseries of the people; but his chief merit lay in the frankness with which he laid bare the causes of the financial distress of France. His works on finance were not published till after his death. They were prohibited in France.

Boulainvilliers's works are as follows: *État de la France*, published in 1727-28, 3 vols. fol. This contains historical and descriptive accounts of all the provinces of France, extracts from the memoirs of the Intendants, and his own financial projects. The latter have been published separately under the title of *Mémoires présentés à Monseigneur le Duc D'Orléans, contenant les moyens de rendre ce Royaume très-puissant, et d'augmenter considérablement les revenus du Roy et du Peuple.* Par le Comte de Boulainvilliers.

2 vols. À La Haye et à Amsterdam, 1727. Among these the second memoir, directed against the "financiers" and proposing a state-treasurer's office, the third against arbitrary taxation, the fifth against the excessive salt-tax, the sixth against disorderly financial administration in general, are still of especial interest. His economic ideas (see pp. 215-225, vol. ii. of the last named work) are on the level of the ordinary mercantilism of the day.

[*Nouvelle Biographie*, t. vi. p. 937; Montesquieu, *Esprit des Lois*, liv. xxx. ch. xi., Alphonse Calléry, *Les réformateurs de l'ancienne France, Boulainvilliers*, 1883. Charles Smith ascribes to him *Les intérêts de la France mal entendus*, 1756. But this work is written by Ange de Goudar (see *Three Tracts on the Corn Laws*, 1766, p. 161), Levasseur, *La Population Française*, 1889, p. 202, and Dr. Stephen Bauer in an article, "Zur Entstehung der Physiokratie," *Conrad's Jahrbücher für Nationalökonomie und Statistik*, N.F. bd. xxi. p. 151]. S. B.

BOUNTIES. A bounty is, in principle, something received by producers in addition to the price received from consumers through the ordinary operation of the market. In political economy the term is usually confined to such additions as are given by governments. We may distinguish (1) intentional bounties, designed to encourage export or to stimulate production; (2) unintentional bounties, begun unconsciously but afterwards recognised to be such, *e.g.* the sugar bounties of to-day; (3) virtual or disguised bounties, neither intended nor recognised, but actually operating as such; *e.g.* Great Britain's subsidies to the continental powers last century—which really stimulated her exports at her own expense, but were not designed to do so; endowments which enable learning and teaching to be obtained at less than actual cost price, prizes for inventions, and premiums of many kinds.

Adam Smith criticises them severely, and, after his usual manner, adduces detailed instances of their failure. Ricardo joins in the condemnation, but on somewhat different theoretical grounds; and he goes on to point out that Adam Smith failed to go far enough through confining himself to the case of supply not being affected in amount. The effect upon supply is, however, most important, and Ricardo shows that the increased supply necessitates, in the case of corn, recourse to less advantageous employment of capital, and so to increased prices and to a rise in the rent of land. Since the change in British industry from agricultural to manufacturing, it is necessary to dwell upon the working in manufactures of diminution of cost as amount of supply increases, and an important school of protectionists follow List, in recommending bounties as stimulants to this class of production only (List, *National Political Economy*, trans. S. S. Lloyd, London, 1885). Ricardo condemns bounties as the worst kind of taxation, because they not only raise a tax but divert capital perniciously. Against this have to be set the considerations that a bounty is not lost to the nation which pays it; and it is often advocated in cases where there is an amount of capital or labour, or both, which cannot find employment otherwise. All petitions for bounties on the part of trades contain the assumption that capital and labour will be rendered inoperative unless assisted.

Many free-traders find justifications for bounties in order to obtain other objects than strictly economic ones, *e.g.* J. B. Say, who inculcates free principles as the rule, justifies Louis XIV.'s bounties on shipping, their purpose being to raise a body of sailors, and the English bounties on refined sugar. He also declines to follow Adam Smith in his general rejection, so long as custom and legal restrictions interfere with the free investment of capital, and so long as artisans require training; and specifically commends "les sages encouragements" of Colbert as having issued in the French silk industry. Sismondi allows them for "sûreté" or "santé," and Roscher agrees that they may be useful in a transitional stage. J. S. Mill's remark (bk. v. ch. x.) that the bribing of customers is going beyond what any shopkeeper ever did, is neither accurate, as it is often done, nor profound, as a nation is shopkeeper, farmer, and manufacturer in one.

One advantage claimed specifically for bounties is that the amount drawn from the national purse is known, and it can be definitely accepted as a definite subsidy, as one of the expenses of national life for an end deemed desirable. Against this it is urged that the amount so raised does not measure the change caused. In the complications of modern industry there are no isolated changes; production and trade are disturbed, and it is because of the complication of effects that economic theory is not able to establish convincingly the limits of the effects produced. Again, the manifest simplicity of aiding industry by a dip into the national purse must be regarded as a disadvantage. The facility is a fatal one, until governments are found both honest enough and wise enough to resist the solicitations of particular industries. A special advantage is claimed for bounties on production, that there is nothing invidious in them as against foreign nations: they are free from the charges to which bounties on export and prohibitory duties are liable, in that they are purely domestic in intention; and, however justly a foreign nation may resent having our exports thrust upon it or its own produce kept off, it can hardly protest against our taking what measures we please to develop our power of supplying ourselves.

Recent history shows many examples in which the whole subject of bounties may be effectively studied. Adam Smith's caustic account of the *herring fishery bounties* (bk. iv. ch. v.) is

well followed up by M'Culloch (*Dict. of Commerce*), and their nugatory character appears to be demonstrated. The *linen bounty* affords another good example; Chambers of Commerce pleaded in vain for its continuance, and the event showed that on its suspension in 1834 export paused for a little while, but resumed its former volume in three years, and went on steadily increasing until 1848, after which it rushed forward under the impetus of the new industrial policy (see *Linen Trade, Ancient and Modern*, London, 1864, pp. 663-670). The *corn bounties* are thoroughly discussed by the English economists; their interest might again become actual if any foreign nations or colonies should choose to stimulate their corn exports; and a virtual bounty is claimed to be in operation in favour of the Indian producer through the fall in the value of silver in gold-using countries. An instance of a temporary bounty effecting its purpose in a way difficult to deprecate is found in a bounty on the export of engravings given soon after the founding of the Royal Academy (1769); of which it is said that it called a number of talents into action, *e.g.* Woollett, and attracted to London a crowd of foreigners, Cipriani, Kaufmann, Pastel, Moser, and Bartolozzi, and secured for English engraving a permanent place among the arts. (Cassell's *History of Engraving*, London, p. 236). Bounties on *shipbuilding and shipowning* have been in high favour with maritime countries for reasons of state. France at this time gives 1½ francs a ton for every thousand miles run by ships both built and owned in France, and half that premium for ships owned at home but built outside (see Fawcett, *Free Trade and Protection*, ch. ii.) The *bounties on sugar* have a complicated history—begun without this intention, their result has been to revolutionise the production of sugar by giving beetroot an advantage against cane which has issued in the former being now the larger source of supply (see Bounties on Sugar). The bounty-giving countries expressed themselves unanimously in favour of abolition at the recent conference, provided that united action can be secured. Resistance is made by some English free-traders who regard the cheapness in England as the primary advantage; and an obstacle is interposed by the refusal of the United States to enter into any undertaking not to begin a bounty system. The foreign office (see statement by under-secretary in parliament) knows of only the following "considerable" bounties in operation in 1889: on shipping, on sugar, and on the Newfoundland fisheries (French).

The employment of a bounty by the state may be justified as a measure of equity when industries are affected by the action of state. When, for example, a treaty of commerce or a general change of state policy alters suddenly the industrial situation, there may be some claim on the part of the owners of fixed capital and the persons in whom there is fixed skill, for some supplement to the lowered market-price which will allow their industry to diminish or die away gradually. But bounties are artificial interferences with production, in the same sense that protective duties are, from an opposite point of view. A bounty has been happily called a negative tax (see Bounties, Abstract Theory of).

The question is discussed more or less in all the standard works on political economy, and the history of various bounties is given in the commercial histories and parliamentary papers relating to the different trades. A. C.

BOUNTIES, Abstract theory of. The theoretical inquiry whether a country can possibly benefit itself by a bounty, may be subdivided according as the arrangement considered is only temporary or more enduring. (1) The arguments, by which Mill, in a well-known passage (*Pol. Econ.*, bk. v. ch. x. § 1), defends temporary protection of nascent industries seem applicable, *mutatis mutandis*, to bounties as well as to duties. The same may be said of the considerations in favour of temporary protection, adduced by Dr. Sidgwick in his *Political Economy* (bk. iii. ch. v. § 1), and his *Method and Scope of Political Economy* (pp. 1-20). (2) The arguments on the side of a less transitory bounty are more abstract. Cournot argues that a bounty to a monopolist might possibly cause greater gain to consumers than loss to the treasury (*Recherches . . . 1838*; ch. vi.) In this reasoning Cournot takes no account of those consumers, who are induced by the fall of price to increase their purchases. But of course, when this circumstance is taken into account, the argument in favour of a bounty becomes *a fortiori*. The omission, however, seems fatal to the arguments, which, in the case of free competition, Cournot has urged in favour of protecting duties and bounties (*Ibid.*, chs. x.-xii. and see M. Bertrand's criticisms in the *Journal des Savans* for 1883). Some presumption is perhaps derivable from Cournot's principle that a "bounty is in algebraic language a negative tax, so that the same formulæ should apply to a tax and bounty"; taken in connection with the proposition admitted by many economists that it is possible for a country to benefit itself at the expense of foreigners, by a duty on imports or exports, in certain cases. Such a case is stated by Mill (*Pol. Econ.*, bk. v. ch. iv. § 6, beginning), and more simply by Dr. Sidgwick in the following passage: "Suppose that a 5 per cent duty is imposed on foreign silks, and that in consequence, after a certain interval, half the silks consumed are the product of native industry, and that the price of the whole has risen 2½ per cent. It is obvious that, under these circumstances, the other half which comes from abroad yields the state 5 per cent, while the tax levied from the con-

sumers on the whole is only 2½ per cent; so that the nation in the aggregate is at this time losing nothing by protection, except the cost of collecting the tax, while a loss equivalent to the whole tax falls on the foreign producers" (*Pol. Econ.*, bk. iii. ch. v. § 2, and context). It seems possible to imagine a converse case, in which a bounty would not be detrimental to "the nation in the aggregate." Professor Marshall argues (*Principles of Economics*, bk. v. ch. vii.) "that it might even be for the advantage of the community that the government should levy taxes on commodities which obey the law of diminishing return, and spend part of the proceeds on bounties to commodities which obey the law of increasing return."

Such speculative considerations are not inconsistent with a firm adherence to the practical principle of free trade. Thus Dr. Sidgwick, while he regards it as "erroneous to maintain, on the ordinary economic grounds, that temporary protection must always be detrimental to the protecting country," does not therefore accept the practical conclusion which that remark seems to favour. A decisive consideration against it is that no government is wise enough to discern in what cases protection would not be detrimental, or strong enough to confine itself to those cases (*Method and Scope*, p. 19). It may be added that refined arguments on the side of protection are useful as correctives to exaggerations of the case on the other side. It behoves not to accept even right conclusions with more confidence than they deserve. It is dangerous to exaggerate the preponderance of evidence in favour of what we believe. The balance of judgment may suffer a strain which will be felt on some other occasion where nice estimation is required. Thus Adam Smith's contention that a bounty on corn cannot be beneficial, because "the nature of things has stamped upon corn a real value" (*Wealth of Nations*, bk. iv. ch. v.), is of little moment as an addition to the weighty practical considerations in favour of free trade; while it is apt to distort the judgment on the delicate questions connected with a Measure of Value. F. Y. E.

BOUNTIES ON SUGAR. The operation of bounties is best illustrated by a practical example, such as the sugar bounties give. France, Austria, and Germany supply collectively rather more than two-thirds of the total sugar production of Europe, at the present date (1890). Each of these countries grants bounties on export; Austria openly, limiting, however, the amount to be spent under this head; Germany and France (who have long had bounties) in a more indirect but quite as effective way. These two, Germany for half a century and France since 1884, have adopted the system of levying duties on home-produced sugar on the weight of the beetroot when delivered for manufacture. Even if established with a purely fiscal object, this system is open to the objection that it is only based on the probable average saccharine richness of the root, making no allowance for increased or reduced yield caused by varying meteorological and agricultural circumstances.

It had been admitted in Germany in 1840 that 20 centners of roots would give 1 centner of raw sugar. Thirty years later the proportions of 12·5 to 1 had been reached. Notwithstanding the more stringent fiscal legislation which ensued, the factories continued to spread wonderfully, and the production of sugar trebled between 1877 and 1884. From 1875 to 1884 the annual exports had increased in an almost fabulous proportion.

About this time, although protected by a *Surtaxe* on foreign sugar, the French manufacture rather declined; the annual production had remained stationary, but on foreign markets France was beaten by German competition, and the exports had fallen from 327,000 to 184,000 tons.

Assailed by clamours of distress, the French ministry resolved in 1884 to apply the system which, as German economists boasted, had in their country performed an "educational mission" (*eine erziehende Mission* as it is called in Schönberg's *Handbuch der Politischen Oekonomie*, article "Zuckersteuer"). The French minister of finance declared that the proposed law would act as a law of progress, stimulating the improvement of agriculture, the adoption of improved machinery, and consequently ensuring a considerable increase of the quantities of sugar extracted. Up to 1st September 1887 the factories were allowed an option between the old and the new system, but, after that date the duty was to be uniform, imposed on the basis of a legal yield of 6 kil. 250 of refined sugar for 100 kil. of roots, and this percentage was to be gradually increased, so as to reach 7 kil. in the present year (1890).

It cannot be denied that what had been stated to be the principal object of the law of 1887 has been fully realised. Everywhere the "fabricants" have abandoned the antiquated process of extraction by presses for the more exhaustive system of *diffusion*. To reconcile their own interests with those of the farmers, they have supplied the latter with seeds of richer and less bulky varieties of beetroot, and have agreed to pay higher prices for higher saccharine degree. More land (about 200,000 instead of 120,000 hectares) is now employed for this cultivation, and as beetroot affords the opportunity of a better rotation of crops, it promotes the growing of wheat, that favourite of French farmers and landowners.

In Germany the task of the revenue officers ends with registering the weight of the roots. In France they are instructed to keep a strict control over the whole fabrication and an account of the sugar, raw or refined, which

leaves the factory. Government is thus enabled to ascertain if a surplus is obtained which remains "duty free" at the disposal of the manufacturer. It has thus been found that during the three years since the law was passed the *real* extraction has amounted to 7·27, 8·12 and 8·87 per cent, and that the quantities of duty free sugar have amounted respectively to 22·56, 31·21 and 36·44 per cent of the whole French production. The treasury had been a loser by 25, 43, and 92 million francs (say £1,000,000, £1,720,000, and £3,680,000 sterling) in bounties to manufacturers and refiners (*Bulletin de Statistique*, January 1888). To counteract this drain the legal yield was raised so as now to reach 7 kil. 750; moreover a special duty of 30 fr. (say £1 : 4s.)—the ordinary duty being 60 fr. (say £2 : 8s.)—is imposed on the surplus sugar. In Germany the legal yield had already been increased in 1883, and the drawback has since been lowered by about 5 per cent.

Although the joint production of France and Germany is double that of ten years ago, there has only been a temporary reduction of price for the French consumer of loaf sugar (96 and 98 frs., say £3 : 16 : 9 and £3 : 18 : 4, per 100 kil. in 1886 and 1887); at present, as in 1884, it again costs him 104 frs. (say £4 : 3 : 2). The foreign purchaser alone has beyond question gained, and the staunchest supporters of the factories confess that England obtains French sugar 6 frs. (say 5s.) per 100 kil. cheaper than it can be purchased in France. Only they shift the responsibility on the bounties enjoyed by the French refiners, these rival brothers of the "fabricants" (Poullin, *L'Impôt sur les Raffineurs*, Paris, 1890). As the refiners will, however, henceforward be subject to the constant supervision of the officers (*exercice*) and have to pay the duties on the manufactured produce, there will not be much left of disguised bounties for them. In fact the system of the *impôt à la consommation* or *Fabrikatsteuer*, already adopted in Austria and Russia, alone gives all parties concerned a clear insight in this maze of conflicting interests. Bounties might still exist, as in Austria, but it would be known to what extent. With the actual French and German system, it is impossible to determine beforehand the amount of bounty which will be awarded; this varies almost in every case, according to the soil, the accidents of the season, and the skill and industry of the manufacturer.

[The *Liste Générale des Fabricants de Sucre*, Paris, gives a compendium of the legislation in France and other countries. No special book, up to date, on the subject can well be named, which can only be studied in the files of special papers, as *Le Journal des Fabricants de Sucre*, *La Sucrerie Indigène*, Licht's German Reports; all these, however, are written with a strong bias. See also Sir T. H. Farrer, *Free Trade versus Fair Trade*, 2d ed., chapter on sugar.] E. ca.

The German Reichstag has recently (May 1891) voted a law doing away with the system of taxation according to the weight of the beet roots. In future the duty will be levied on the quantities of sugar produced. Direct premiums of 1·25 to 2 marks (say 1s. 3d. to 2s.) will be allowed during 5 years on every 100 kil. exported, the duty being 18 marks (say 18s.) per 100 kil.

BOURGEOIS (Fr.) was no doubt originally citizen of a town in the wide sense, but (unlike *citoyen*) it has been constantly narrowed into a term of disparagement. So it means commoner as opposed to noble ("Bourgeois Gentilhomme," in Molière's comedy of 1670, is really a playful union of opposites), civilian as opposed to military, rude as opposed to refined. At present in the language of social agitation it means employer (patron) as opposed to workman (ouvrier); and the title Citizen King, on which Louis Philippe prided himself, would now be no compliment, simply king of the middle classes. So in the discussions of the Miners' Congress at Paris, 1891, in regard to the proposed general strike: "la bourgeoisie vous pousse à la faire, parce qu'elle est préparée à ce moment" (report in *Le Temps*, 3d April 1891). J. B.

BOURSE. A French word for—(1) The meetings of bankers and merchants for the transaction of business; (2) the place where such meetings are held. The French Code de Commerce defines the Bourse de Commerce as the meeting of merchants, masters of vessels, stock and bill brokers (agents de change), and merchandise brokers (courtiers), which is held under the authority of the government (Code de Commerce, § 71). The same definition may be given to this word and its etymological equivalents (borse, borsa, bolsa, etc.) in most countries if we omit the government authority, which is generally unnecessary. The word used in the sense referred to is in all cases also used for the place of meeting. As to England, see CHANGE. E. S.

BOURSE DU TRAVAIL, a labour exchange, or registry, for the use of persons offering or seeking employment. There is at present a workmen's movement in France and Belgium for the extensive establishment and intercommunication of such institutions, which have long been advocated by M. de Molinari. The muncipal council of Paris voted 1,200,000 francs (£48,000) to found a *bourse du travail*, which was installed on 20th June 1887, at 35 Rue Jean-Jacques Rousseau, Paris, pending the transformation of the old corn market. The administration consists of workmen chosen by different trade-unions. Employers are not represented. Some irritation exists as to the exclusion of several workmen's associations. The bourse, it is alleged, is confined to a clique. But it is too soon as yet to pronounce upon its working. *Bourses du travail* have been formed at Nimes, St. Etienne, Marseilles, and a few other places in the provinces of France. H. H.

BOWEN, FRANCIS, born 1811, died 1890; he graduated from Harvard College in 1833; was instructor there from 1833 to 1847, and professor in Harvard University from 1853 to 1889. Professor Bowen's interests and attainments were great and varied. He wrote not only on economic topics, but on history, politics, the classics, and most of all on the subject connected with his professorship — philosophy. He was editor of the *North American Review* from 1843 to 1854, and in that capacity, as well as in independent publications, gave the fruits of a vigorous intellect and a remarkable industry. His economic writings in the main are in the nature of text-books, stating and illustrating the doctrines of the classic economists. But on the subject of international trade he diverged, and reasoned in favour of the doctrine of protection. He laid stress on the need of national independence, and of aiding young industries; and he made application also of MILL'S reasoning as to the possible effects of duties on the play of international demand. On this subject, as on all he touched, he was clear, positive, and effective, and his reasoning is much above the level of that usually adduced against the principle of free trade.

The larger writings of F. Bowen on economics were: *Principles of Political Economy*, Boston, 1856; *American Political Economy*, New York, 1870. F. W. T.

BOXHORN, MARCUS ZUERIUS, born 1602 (or 1612) at Bergen-op-Zoom (North Brabant), was professor of rhetoric at the university of Leyden, 1632; professor of history there, 1648; and died 1653. He wrote no books exclusively on economics, but dealt with economic subjects in the following works:—

1st, *Institutiones politicæ*, Lipsiæ, 1650; following editions (Hagæ Comitis, 1668, Ultrajecti 1702).—*Cum Commentariis eiusdem et observationibus Georgii Hornii* (his successor at the university).—2d, *Disquisitiones politicæ, i.e.* 60 *casus politici ex omni historia selecti* (Hagæ Comitis, 1650).—3d, *Commentariolus de Statu confœderatarum provinciarum Belgii* (2d. ed. 1650), and an extract of it: *Reipublicæ Batavicæ brevis et accurata descriptio.*—In a special work, *Dissertatio de Trapezitis, vulgo Longobardis, qui in fœderato Belgio Mensas fœnebres exercent* (Lugd. Bat. 1640), Boxhorn treated the question of interest. According to him a principal duty of government is the promoting of industry, not only by indirect ways (*privilegiis, itinerum securitate*, etc.), but by direct ones too, guilds preventing merchandise from deteriorating, and therefore trade from declining. A well-regulated currency is also of extreme importance. His ideas on taxes are, considering his date, remarkable. Taxes should be levied conveniently, ought to be proportionate to the wealth of the contributors, and may be used as a means even to promote morality. They should never be imposed on articles of export except on those nowhere else obtainable. A. F. V. L.

BOYCOTTING, an expression of recent origin, and derived from the name of Captain Boycott, who was the first known person subjected to the treatment indicated by it. Captain Boycott (the name is sometimes written Boycatt) was, in 1880, living at Lough Mask House, County Mayo, as land agent to Lord Erne, an Irish nobleman. The circumstances which gave rise to the term occurred during the land agitation of 1880-1881. A boycotted person is cut off from all intercourse with his neighbours; nobody is allowed to take his land, to work for him, to supply him with goods, or to help or assist him in any way. This treatment has in many districts of Ireland been applied to landlords, who, in the opinion of the agrarian association by which it is directed, have been harsh to their tenants; or to persons who have taken farms the former tenants of which had been evicted; or generally to persons who in their dealings with landlords have not conformed to the instructions laid down by the association to the power of which the tenant farmers of the district submit. Persons who combine to compel or induce any one to take part in the process of boycotting may under the general criminal law be subject to a prosecution for conspiracy, and, in so far as this is the case, they may in a district proclaimed under the Criminal Law and Procedure (Ireland) Act, 1887, be tried by a court of summary jurisdiction (50 & 51 Vict. c. 20 § 2 [1]).

[The word boycotting is now frequently used in a wider sense, meaning simply avoiding, holding aloof from, and in that sense it has also been introduced into foreign languages (German, *boykottiren*; French, *boycottier*). For the boycott in America see article, *Economic Journal*, vol. i. No. 1. *The Boycott as an Element in Trade Disputes*, by John Burnett.] E. S.

BRADLAUGH, CHARLES (born 1833, died 1891). Bradlaugh was best known as a radical reformer, secularist, and neo-Malthusian. But towards the end of his life, when he was allowed to take his seat in the House of Commons for Northampton, and his force of intellect received fair scope, he confined himself mainly to political work, and especially to questions affecting labour, finance, and Indian government. Though he never read for the bar, he had a wide and accurate knowledge of law; and, throughout his whole career as an agitator, he always (like COBBETT) strove to keep every movement in which he was concerned within the bounds of strict legality. He was a staunch free-trader and individualist; and his latest published writing was in opposition to the proposal for a legal restriction of the hours of adult labour. J. B.

BRANDS AND OTHER CERTIFICATES OF QUALITY, GOVERNMENT. The most important case in which the British government gives a guarantee of the quality of an article of

commerce is that of the crown brand on barrels of herrings cured in Scotland. Till 1830 a bounty was paid on barrels which were branded as coming up to a certain standard of quality, and after the bounty was abolished the practice of branding barrels which reached the standard continued. In 1856 Messrs. Bonamy PRICE and F. St. John, and Capt. B. J. Sulivan, were commissioned to inquire whether it would be better to abolish the brand or charge a fee for it, as the Treasury was no longer willing to pay for the inspection which it involved. Messrs. Price and St. John (Captain Sulivan dissenting) recommended that it should be maintained and 4d. a barrel charged for it. This plan was adopted. In 1881 a committee of the House of Commons made an exhaustive inquiry as to its effects, and by a large majority reported in favour of maintaining it. Opponents of the brand say that it is inimical to improvements in curing, that it encourages speculation, and that, though it affords no real guarantee, curers are obliged to apply for it by the unfounded prejudices of their continental customers, which would necessarily disappear with its abolition. Its supporters maintain that it enables small and little-known curers to compete with great houses, and prevents frauds, and they add that as application for the brand is purely voluntary, branding would fall into disuse if it were really of no value.

The arrangements of the Cork butter market necessitate the testing and branding of butter by an official inspector, a system condemned by the royal commission on agriculture in 1881. Under acts of parliament passed in 1864, 1871, and 1874, all chain-cables and anchors sold for British ships have to undergo an official test and obtain the official stamp. Gun barrels are subject to similar regulations, and many gold and silver articles cannot legally be sold without the hall mark. In all ordinary cases the buyers are obviously the best judges of the kind of commodity they want, and their demand suffices to cause its production and in many cases its progressive improvement in quality. "CAVEAT EMPTOR (*q.v.*) is the sound general rule economically and socially as well as legally" (Farrer, *State in Relation to Trade*, p. 150). A government certificate is likely to be of value only when it certifies to quite definite facts which are not easily ascertainable by the buyers. It is admitted by nearly every one to be useful in the case of coins, which are pieces of metal certified by a government stamp to be of a certain weight and quality.

(See ADMINISTRATION ; CONDITIONING ; LAISSEZ FAIRE.)

[Report on the Fishery Board of Scotland, Parl. Papers, 1857 (65 Sess. 1), xv. 39.—Report on Herring Brand (Scotland), Parl. Papers, 1881, 293, ix. 1.—T. H. Farrer, *The State in Relation to Trade*, pp. 145 to 151.—J. S. Mill, *Principles of Political Economy*, bk. v. ch. xi. §§ 7 and 8.]

E. C.

BRASSAGE. A charge made for coining, sometimes called a seigneuriage. The word means "strictly the stirring in the furnace of the molten metals, and next the allowance made to the individual by whom the operations of coining were farmed" (Paper by J. B. Martin "Seigneuriage and Mint Charges" (*Journal, Institute of Bankers*, April, 1884). No charges of this description are made at the royal mint in England, though they are made at the branches of the mint at Sydney and Melbourne (see MINT). In England the Bank of England, by arrangement with the government, buys gold at £3 : 17 : 9 per standard ounce, and sells again at £3 : 17 : 10½. In France, a charge exists of 6·70 frs. per kilo (= ·0025) equivalent to about ½d. per £ sterling, the corresponding expense in England, covered by the arrangement made with the bank named above, being estimated at $\frac{3}{10}$d. per £. The advisability, or otherwise, of making such a charge appears to be an open question which can best be decided by those immediately concerned.

["Seigneuriage and Mint Charges," by J. B. Martin, *Journal of the Institute of Bankers*, April 1884.—*Seigniorage and Charge for Coining*, Ernest Seyd, 1868.—*Arbitrages et Parités*, Ott. Haupt, 1883.—*Report, International Coinage Commission*, 1868.—*Mint Reports*, etc.]

BRASSEY, THOMAS (1805-1870), born in Cheshire, where his family had flourished for six centuries, illustrated an ancient house by his distinguished success in the new calling of railway contractor. In his dealings with labourers in different parts of the world—employing the English navvy at 3s. 6d., the Indian coolie at 6d. a day—Brassey had an unrivalled opportunity of verifying the truth that the cost of labour to the employer is not proportioned to the amount of daily wages. He is even said to have found "that for the same sum of money the same amount of work was everywhere performed" (*Work and Wages*, by Mr. Thomas (now Lord) Brassey, ch. iii. ; *Life and Labours of Mr. Brassey*, by Sir Arthur Helps, ch. v., end). But this proposition, understood exactly, is not only, as CAIRNES points out (*Leading Principles*, pt. ii. ch. iii. § 7) *a priori* improbable, but inconsistent with several of Brassey's experiences. With respect to many other questions, the comparative efficiency of labour in different countries, the effect of short hours on efficiency, the alleged deterioration of the labourer—the experiences of Brassey recorded by his son in the work referred to are valuable to the economist. Mr. Frederick Harrison's interpretation of the facts stated by Lord Brassey is remarkable (Review of *Work and Wages* in the *Fortnightly Review* for 1872).

[For the particulars of Brassey's noble and beneficent life, see Sir Arthur Helps's *Life and Labours of Mr. Brassey*.]

F. Y. E.

BRAY, CHARLES (1811-1884) born at Coventry, was a ribbon manufacturer in that city, but

retired from that business in 1856. From his youth upwards Bray had been active in social and educational reforms; and in his principal work he proceeded on the lines of OWEN and CARLYLE, advocating CO-OPERATION and organisation of labour against COMPETITION.

See the 2d vol. of *The Philosophy of Necessity; or, The Law of Consequences, as applicable to Mental, Moral, and Social Science*, by Charles Bray, London, 1841, pp. 301-389, 2d ed. 1863, 3d, 1889. The appendix to this work has been published separately in 1844 (*An Outline of the various Social Systems and Communities which have been founded on the Principle of Co-operation*); this was written by his sister-in-law, Mary Hennell (*d.* 1843), and gives valuable information on socialistic doctrines in England. Bray's other works concerning social economy are: *Address to the Working Classes on the Education of the Body*, 1837 (see his autobiography, *Phases of Opinion and Experience during a Long Life*, 1884, ch. vi. and vii.) *An Essay upon the Union of Agriculture and Manufactures, and upon the Organisation of Industry*, 1844, and two papers read before the British Association for the Advancement of Social Science, October 1857: *The Industrial Employment of Women*, and *The Income of the Kingdom, and the Mode of its Distribution*, in which he computes that one-seventh of the population possess two-thirds of the annual income.

[Holyoake, *The History of Co-operation in England*, 1875, vol. i. p. 17, 329n.—A. Menger, *Das Recht auf den vollen Arbeitsertrag*, 1886, p. 58.] S. B.

BRAY, J. F., early in 19th century, is the author of *Labour's Wrongs and Labour's Remedy; or, the Age of Might and the Age of Right*, Leeds, 1839. He was a follower of OWEN and Thomson; his book tries to prove "that all those who perform equality of labour ought likewise to receive equality of reward" (p. 30), and though he admits that even this does not involve perfect justice, that "such equality is infinitely more just than the mode of rewarding labour under the present system" (p. 206). Impressed by the modern growth of joint-stock companies, Bray proposes a "joint-stock modification of society, admitting of individual property in productions in connection with a common property in productive powers" (p. 194), and proposes a paper and pottery currency, whose foundation is labour, in order "to secure the public against any other variations in the value of the currency than those to which the standard itself is subject" (pp. 143, 198). This book is, notwithstanding all illusions, written in a remarkably lively style.

[Holyoake, *The History of Co-operation in England*, 1875, vol. i. p. 224.—A. Menger, *Das Recht auf den vollen Arbeitsertrag*, 1886, pp. 58, 94 (corrects the statements given in K. Marx, *La misère de la Philosophie*, 1847, p. 62).] S. B.

In Bray's work, mentioned above, *Labour's Wrongs and Labour's Remedy, or the Age of Might and the Age of Right* (Leeds, 1839), the current economical doctrines were examined with acuteness and force, and were said to involve "that under the present system there is no hope for the working man." At present (Bray considers) no political or fiscal reforms, and no TRADES UNIONS or SAVINGS BANKS, will permanently lessen poverty. So long as property, whether in land or in the instruments of production, remains as it is, one man's gain is another man's loss; the only way to be rich is to seize the fruits of another man's labour; and the only permanent remedy is a complete overturning of the present system and an organising of production by the community itself. In place of individual employers would come groups of joint-stock companies under general and local boards of trade. All men would be workers, and would receive "the whole fruits of their labour." The labour necessary to life would gradually fall from 8 or 10 hours a day to 5 hours, production being immensely increased by the new system, and being likely to keep ahead of population "for thousands of years." Among writers of his school Bray deserves more recognition than he usually obtains. His errors of theory (such as the confusion of value with cost) are not peculiar to him, but are shared by Karl MARX and (generally speaking) the Ricardian school of socialists. J. B.

BREACH OF TRUST (Scots criminal law term). Fraudulent appropriation by trustee, or failure in duty by official, etc.

BREACH OF TRUST. Any act or omission on the part of a trustee violating the conditions of the trust or the rules of law concerning the investment or administration of trust property. The liability of trustees for breach of trust is a very stringent one, but the Trustee Act 1888 (51 & 52 Vict. c. 59) has relaxed it to a certain extent. It is, for instance, the rule that advances on mortgage of freehold property must not exceed two-thirds of the value of the mortgaged property. According to the former law trustees having once gone beyond the limit were liable for whatever loss might subsequently have been incurred; since the date of the new act they cannot be called upon to replace more than the difference between the amount which they would have been authorised to advance and the amount actually lent. The trustees are also placed in a more favourable position with regard to unauthorised investments made at the request or with the consent of a beneficiary. In the case of express trusts the trustees were not authorised to plead any statute of LIMITATIONS, but they may now, in the absence of fraud or misappropriation, rely on the statute. E. S.

BRECK, SAMUEL, was born in 1771 in Boston and afterwards settled in Philadelphia. He wrote in 1843 a small pamphlet, *Historical Sketch*

of Continental Paper Money, Philadelphia, pp. 40. In this he attempts to demonstrate that the non-redemption of the paper money after the revolution acted as a moderate tax by reason of its gradual depreciation, and that the issue was not so unfortunate as is generally claimed. Throughout his life—in congress and in private—he took a decided stand in favour of internal improvements. For details see *Memoir* by J. Francis Fisher, Philadelphia, 1863, pp. 45.

D. R. D.

BREHON LAW. The Brehons were a hereditary class of judges in Ireland, to whom disputes were referred for arbitration, and whose decisions were regarded as binding, though there was no sanction to enforce them. It is probable, though by no means certain, that the Brehons were descended from the earlier Druids, who lost their priestly functions on the introduction of Christianity, but retained their judicial power. The decisions of the Brehons formed a vast mass of customary law, a knowledge of which was the exclusive property of the class. Gradually this law was reduced to writing, and has been preserved to us in the *Senchus Mor* and the *Book of Aicill*, which have been published in the Irish Rolls Series.

The Brehon law throws great light on the important part played by consanguinity in the formation of society. The unit of the social system in Ireland was the *tuath* or tribe, consisting of the real or supposed descendants of a common ancestor. The tribe owned a district of land, which was unequally distributed for occupation among its free members. Rank, originally a matter of birth, had come to depend mainly upon wealth, and wealth was estimated not in land but in cattle. The authority of the tribal chief belonged to him, not as lord of the land, but because he supplied cattle to the poorer occupiers of tribal land. For this grant the recipient had to pay a rent either in kind or in service. The more cattle belonged to a *flaith*, or noble, the larger number of retainers could he possess, and the higher was his social position. The lowest freeman was the *oc-aire*, who possessed a cottage, and a right over the common pasture. If he could acquire ten cows he rose to the rank of *bo-aire*, or cow possessor. As time went on the nobles gradually seized the unoccupied portions of the tribal land, and the idea of private property supplanted the earlier theory of joint ownership.

But a clear trace of the latter survived in the rule of succession, known as GAVELKIND (*q.v.*) On the death of the occupant of land, the estate passed neither to his eldest son nor to the joint or separate occupation of his children. On the contrary the land fell back into the common property of the tribe, and the chief made a redistribution of all the lands among the members. This custom is unquestionably due to the original idea that a tribe constituted a family, and that the whole kindred were joint-heirs of any individual member. But gavelkind did not apply to the succession to the lands of nobles, which was regulated, like the succession to the office of chief, by the custom of TANISTRY. By this custom a successor or *tanist* was elected by the members of the sept or tribe during the lifetime of the chief or noble. The object was to secure the succession of the fittest member of a family instead of merely the nearest blood relation.

Both gavelkind and tanistry were disliked by the English rulers, as being less definite and orderly than the rule of PRIMOGENITURE. Under James I. they were abolished as "lewd and damnable customs." From this time the Brehon law was jealously suppressed, and the English legal system, which had hitherto been enforced only in the counties of the PALE was now applied to the whole of Ireland.

[*Ancient Laws of Ireland* (Irish Rolls Series).—O'Curry, *Manners and Customs of the Ancient Irish.*—Maine, *Early History of Institutions.*—Richey, *A Short History of the Irish People.*]

R. L.

BREVI MANU TRADITIO. An expression used by mediæval writers on Roman law to express the fictitious delivery which takes place, when a person who is in physical possession of another person's property acquires the ownership of the same by purchase or otherwise.

BREWSTER, SIR FRANCIS (fl. 1674-1702), was in 1674 lord mayor of Dublin, and in 1698 appointed commissioner to inquire into the forfeited estates in Ireland. He wrote *Essays on Trade and Navigation. In Five Parts—The First Part*, London, 1695. They seem to be written with the design of supporting the Dutch against the growing commercial power of the French. He proposes a council of trades, a national bank, hospitals, working schools, and the naturalisation of foreign protestants, especially in Ireland; he makes objections to the projects of erecting free ports and recommends sumptuary laws. His statement that England upon an average of six years gained by Ireland two millions sterling per annum, and his denunciation of the oppressive treatment to which that country was subjected (p. 15 ff.) were strongly controverted by DAVENANT (see his Works, edited by Ch. Whitworth, vol. i. p. 377). His *New Essay-s* (sic) *on Trade*, 1702, make him rank among those pessimistic authors who constantly foresee the decline of trade (p. 2). Nevertheless he insists upon the necessity of allowing the exportation of wool, England being not able to work up two-thirds of its own, and forced "either to Burn or Export it" (p. 9). He recommends manufactures as a means of employing the poor (p. 124). "I think him a great Man that employs Twenty Men at his Looms, and Five Hundred Spinners, and wonder

we have no more such in Parliament" (p. 11). He recognises the dangers of the money projects (p. 20), and of the stock-jobbing mania of his age (p. 30). In all other respects his mercantilist views are the same as in his first essays (see *e.g.* p. 41), and only his considerations on the advantage of a union between England and Ireland (pp. 66-115), with many statistical abstracts, may be considered as valuable.

[Macleod, *Dictionary of Pol. Econ.*, p. 284.]

S. B.

BRIGANTI, FILIPPO, born at Gallipoli 1725, died 1804. In 1780 he published, in two volumes, his *Esame economico del sistema civile* (viz. Economical Analysis of Society), which is really a refutation of the social doctrines of MABLY, ROUSSEAU, and LINGUET, particularly of their paradoxes concerning the obnoxiousness of commerce, industry, and intellectual progress. Briganti was a profound thinker, and had a vast fund of information. Discussing the advantages of exchange and commerce, he anticipates many of the views which are now advanced in this connection concerning sensations of pleasure and pain, and, in general the hedonistical calculus, as the basis of economical activity. In tracing the history of human progress and following it up in the history of agriculture, commerce, navigation, population, and intellectual and moral development, he shows himself to be possessed of a great store of information. His book, however, has lost its interest, because its principal object, viz. the refutation of Rousseau's theories, has likewise ceased to interest.

M. P.

BRIGHT, JOHN (*b.* 1811, *d.* 1889) M.P., president of the board of trade (1868-1870), eminent orator and statesman. The creation of a numerous proprietary in Ireland was eloquently advocated by Bright. The clauses in the Irish Land Bill of 1870, which facilitate the sale of land to tenants, are ascribed to his influence and associated with his name. The part which Bright played in the abolition of the corn laws is also memorable. But there are limits to the application of the idea of non-intervention which did not occur to him. He carried the principle of LAISSEZ-FAIRE so far as to oppose factory legislation; concerning which he thus defines his position—"I was opposed to all legislation restricting the work of adult men and women. I was in favour of legislation restricting the labour and guarding the health of children."

[*Speeches on Questions of Public Policy*, edited by J. E. Thorold Rogers, 1868; Hansard, lxxiii. p. 1132, lxxxix. p. 1136, cxciv. p. 731, *et passim*; *Public Letters*, edited by J. Leech, 1885.]

F. Y. E.

BRINDLEY, JAMES (born 1716, died 1772), an eminent engineer, celebrated for the construction of canals, of which the earliest and most famous, connecting Manchester with Worsley and Liverpool, was executed under the auspices of the Duke of Bridgewater (1759-1773), and called after his name. Almost totally uneducated, Brindley owed his success to the sheer force of genius. In thinking out his mechanical designs he sought no aid from books or models; and would even, for the purpose of greater abstraction, retire to bed for two or three days. The saying that "the natural use of rivers was to feed navigable canals," is characteristically attributed to Brindley.

[*Bibliotheca Britannica.—Lives of the Engineers*, by Smiles.]

F. Y. E.

BRISCOE, JOHN (17th century), ranks second to H. Chamberlin among the projectors of land banks who flourished in the latter part of the 17th century. Briscoe's project is set forth in his *Discourse on the Late Funds* . . . (1694, third ed. 1696). An *Abstract* of this discourse, and also a *Dialogue* (between Freeholder and Philanglus) "explanatory" thereof followed soon (1694) from Briscoe's pen. He continued in a series of broadsheets to repeat with variations his proposals for setting up a land bank. A proposal which he made for regulation of the coin (1695) is not unconnected with his darling project. He accuses J. ASGILL (*q.v.*) of having appropriated his ideas, see *Mr. John Asgill, his Plagiarism detected*, . . . 1696. Briscoe himself is accused of plagiarising from Chamberlin, by the author of *A Rod for the Fool's Back, or Dr. Chamberlin and his Proposals Vindicated*, 1694, attributed to Chamberlin. However, Briscoe appears as the "literary advocate of Chamberlin's land bank" (Thorold Rogers) in a letter to the doctor dated 1693, published in 1696 by Chamberlin. In some remarks prefixed to this letter Chamberlin speaks of the "great reputation Mr. Briscoe hath among some of our senators." Chamberlin adds (at the end of the letter), "As a stronger confirmation of the good opinion Mr. B. had of the doctor's 100 years proposal, he subscribed £200 per *annum*." Briscoe shares with Chamberlin, in proportions which it is not easy to assign, the responsibility of having originated the *land bank*, which proved such a complete failure in 1696 (see HUGH CHAMBERLEN or CHAMBERLIN).

[Macaulay, *History of England*, ch. xx. and xxii. (vol. iv. pp. 496 and 701, large 8vo ed.)—Thorold Rogers, *First Nine Years of Bank of England*, pp. 15 and 50.—*Quarterly Journal of Economics*, vol. ii. p. 490.—Macleod's *Dictionary*, *sub voce* "Briscoe."]

F. Y. E.

BRISSOT DE WARVILLE, JEAN-PIERRE, was born 1754, at Ouarville near Chartres. He was executed in Paris in 1793. After having been imprisoned in the Bastille, he went to England and to the United States, and returned to Paris at the outbreak of the Revolution, in which he played a remarkable part, being accused of federalism by Robespierre. After the revolu-

tion of 31st May 1793, he was proscribed; he tried in vain to escape, but was arrested, and died on the scaffold, 31st October 1793. In his writings, Brissot de Warville advocated the reform of the penal laws and attacked the slave-holders in the colonies.

His works are collected under the title: *Bibliothèque philosophique du Législateur du politique et du jurisconsulte* (10 vols., Berlin, 1782-1785). One of these works is remarkable on account of its influence on later socialists: *Recherches philosophiques, sur le droit de propriété et sur le vol considérés dans la nature et dans la société*, 1780 (Bibliothèque, etc. vol. vi. p. 260 ff.) The defence of the right of property by the PHYSIOCRATS as being founded in nature, and the ridicule bestowed upon this axiom by VOLTAIRE in his *Homme à quarante écus*, induced Brissot de Warville to inquire into the justifiability of this doctrine in the natural and actual state of society. He reasons thus: the natural title of property being the human wants of self-preservation and freedom of locomotion (p. 274), there is no property beyond these limits founded in nature. But civil property reaches farther. "In the state of nature everybody has a right to all; in the social state a man who has nothing left by his parents has a right to nothing. The thief in the natural state is the rich man, who possesses superfluities; in the social state he is called a thief who steals them from the rich. What an upturn of ideas!" (p. 332). The object of this work was to mitigate the rigour of the penal laws against theft. In this direction its effect was not inconsiderable, but its influence upon the formation of the creed of Babeuf and Proudhon has incidentally been distinctly greater (see BABEUF; COMMUNISM; PROUDHON).

[Villegardelle, *Histoire des idées sociales*, etc. 1846, pp. 124-129.—J. J. Thonissen, *Le Socialisme*, 1852, vol. i. pp. 286-291.—A. Menger, *Das Recht auf den vollen Arbeitsertrag*, 1886, pp. 8, 40, 71.]

S. B.

BROGGIA, ANTONIO, a learned Neapolitan merchant, also a politician and author of two treatises, one on taxation (*Trattato dei tributi*, 1743), which was translated into German, and the other on money (*Trattato delle monete considerate nei rapporti di legittima riduzione, di circolazione e di deposito*, 1743). Both treatises are still interesting to read, as they contain a great deal of what at the present time is still taught and thought correct concerning these subjects. As is natural for a writer living when he did, Broggia is not free from physiocratic prejudices. In his treatise on taxation he says the aim of the theory is the wealth of the state; wealth reposes on the development of agriculture, industry, and commerce; industry in general ought to be left free and not hampered by vexatious taxes; the working classes, and especially peasants, ought to have their interests particularly considered, as on their welfare depends much of the prosperity of the state; tithes are the least oppressive taxes and the surest; taxes ought not to be personal; care must be taken that taxes do not crush out trades; agricultural animals and machinery and tools ought not to be taxed. State monopolies are unadvisable. Excise and custom duties ought not to be leased out by the government. The direct land tax, if necessary, ought to be increased rather than custom duties imposed. Notwithstanding his predilection for taxes on rent, Broggia is not in favour of one single tax. He shows the advantages of indirect taxes as complementary; he only insists strongly on custom duties being moderate, so as not to molest trade. In his treatise on money, a cardinal point is that the wealth of a country does not depend upon the quantity of money existing in it or in circulation, but upon the amount of the turnover in business. In 1754 Broggia was exiled from Palermo for having written a pamphlet against the ministers. This pamphlet (a volume in 4to of 136 pages) was a criticism on their acts. He wrote also a treatise on public hygiene (*Trattato politico della sanità*). This treatise and the two other ones before mentioned constitute one single volume in the original and only edition, which was published before Custodi took up classifying, correcting, and publishing Broggia's writings. The title of the first edition is: *Trattato dei tributi, delle monete e del governo politico della Sanità*. In Napoli, presso Pietro Palombo, 1743. As a complement of his monetary doctrines must be considered a pamphlet he wrote in defence of them under the extraordinary title which follows: *Risposte alle objezioni state fatte da varj Soggetti, intorno al sistema del prezzo corrente, che assolutamente dee tenersi per la ricompensa degli arrendamenti, e similmente a quelle state anche fatte intorno alla rinnovazione della moneta di rame, che dee anch' essa avere tutto quel valore intrinseco che di giustizia gli spetta; e tanta farsene che non ecceda il puro bisogno degli scambj minuti*, Napoli, a dì 14 Novembre 1755. Of his life no particulars are known, not even when he was born and when he died. It is commonly maintained that he was born in 1683, and that he died in 1767, but the dates are contested. His works are included in the Collezione CUSTODI.

M. P.

BROKER, GENERAL. A broker may be generally described as a go-between, who brings buyers and sellers together; not exactly face to face, but acting as an intermediary who introduces their bargains rather than their persons. The position is a responsible one, inasmuch as the principals who employ a broker very often keep a running account and trust him, in goods or money, to large amounts. As a rule, brokers are under the rules of a syndicate or corporate body of which they become members, and to whose rules they are usually amenable on pain of expulsion. There are tea brokers, coffee brokers, sugar brokers, and so on without end in almost every wholesale trade, and their practice

varies with their standing, some brokers being virtually factors or warehousemen, others being simply agents, paid by fee, instead of by a varying salary. A. E.

BROKER, STOCK. A stock-broker may be either a member of the stock exchange of London, Dublin, Manchester, Liverpool, Glasgow, or elsewhere; or only what is known as an outside broker. His duty is to buy or sell for a "principal." On the London stock exchange, nobody who is not a recognised member is permitted to deal. A broker, having received an order to buy say £500 stock, goes to any member of the stock exchange, known indifferently as a jobber or dealer, and asks for a quotation. The dealer quotes two prices, say 80¼ to 80½, meaning that he will sell to the broker at the higher price and buy at the lower quotation. If the broker consider this fair he will say, "I buy £500 at 80½," and the contract is binding between these two members of the stock exchange. Members, their admitted clerks, or officials only are permitted to enter the London stock exchange, therefore brokers must be employed by all outsiders desirous to do business there. A. E.

BROKERAGE. A charge made by a broker on the purchase or sale of securities or other property.

BROUGHAM, HENRY (born 1778, died 1868), Baron Brougham and Vaux, lord chancellor, touched nearly all subjects and adorned some by his eloquence and dialectical skill. The contact seems least superficial, the ornament particularly solid, in the case of political economy. Brougham's first considerable work was *An Inquiry into the Colonial Policy of European Powers*, 1803. Criticising Adam SMITH, he maintains that the monopoly of the colonial trade did not produce all the detrimental effects ascribed to it (bk. i. § 2, part ii.) Referring to the slave colonies, Brougham not only denounces the slave trade as iniquitous—"not a trade, but a crime"—but also argues that it is unprofitable. The argument is renewed in *A Concise Statement of the Question regarding the Abolition of Slave Trade* (1804). Slavery, as well as slave trade, was assailed by Brougham's oratory (*Speeches*, published in 1838, vol. ii.)

Free trade owes something to Brougham's advocacy. He exposed the folly of retaliation, as counsel (1808) for the merchants who petitioned parliament against the orders in council directed against Napoleon's continental system. After Brougham's masterly speech in 1812, the obnoxious orders were withdrawn (*Speeches*, vol. i.) In the speech on manufacturing distress (1817) Brougham strikes at the complicated taxes which fettered trade (*ibid.*) But in the equally able speech on agricultural distress (1816) there is a good word for the corn law (*ibid.* p. 533).

Other economic topics handled by Brougham are: (1) depreciation of money, with reference to Sir E. Shuckburgh's standard (article on "Currency and Commerce," *Contributions to Edinburgh Review*, published 1856, vol. iii. p. 22; *E. R.*, Oct. 1803); (2) usury (*Contributions*, vol. iii. p. 52; *E. R.*, Dec. 1816); (3) overpopulation (speech on the poor laws, 1834, *Speeches*, vol. iii.); (4) combinations (*Transactions of the Society for promoting Social Science* for 1860, p. 51). Brougham is also to be mentioned as a promoter of education and educational institutions—the London University, the Society for the Diffusion of Useful Knowledge, Mechanics' Institutes, and the Society for promoting Social Science.

In addition to the works which have been cited may be noticed: (1) *A Manual for Mechanics' Institutions*, 1839 (by B. F. Duppa, with outlines of lectures on political economy by Brougham); (2) *Political Philosophy*, 1842; (3) *Works*, 1st ed. 1855-61, 2d ed. 1873. In the 11th vol. of the 2d ed. there is a list of Brougham's publications, numbering 133. F. Y. E.

BROWN, JOHN (1715-1766), was vicar of St. Nicholas, Newcastle. He maintained that "commerce in its first and middle stages is beneficent, in its last dangerous and fatal"; that it is answerable for selfishness, luxury, and want of religion; and that by causing a drain of money and by the invention of machines it diminishes the population. He asserts that the country parish registers prove that from 1710 to his time the population was at least stationary. See his book *An Estimate of the Manners and Principles of the Times*. By the author of *Essays on the Characteristics*, etc., London, 1757, pp. 151, 185, 188.

[For a contemporary reference see: *A Vindication of Commerce and the Arts*. By J.-B., M.D., 1758, p. xvi., and Wallace, *Characteristics of the Present State*, 1758, p. 193.—Brown's own book *Essays on the Characteristics*, etc. is of no economic value.] S. B.

BRYDGES, SIR EGERTON, Bart. (*b.* 1762, *d.* 1837). To any one disposed to make a psychological study of a defunct antiquary, topographer, essayist, bibliographer, poet, novelist, and critic, and who added to these occupations the study of political economy and occasional authorship in that science, Sir E. Brydges would afford an excellent subject. On the good side may be placed his industry and power of research, considerable originality, and a deep acquaintance with the ancient literature of England and of foreign countries. On the bad side should be ranged his excessively morbid temperament, a craze about an assumed right to an ancient barony, an intense suspicion of the motives of those who differed from him, and an unfounded notion that he was not sufficiently rewarded for his services in the cause of learning. Much

material bearing on all this exists in his *Autobiography* and *Letters from the Continent*, as well as in his voluminous published and privately printed works, which in the course of his long life extended to no less than one hundred and forty volumes. We find in a quantity of his letters, which have never been printed, addressed, from 1818 to 1832, to Mr. James S. Brooks, member of a firm of solicitors who acted for him, and with whom, in a characteristic manner, he often fell out, many striking examples of Sir Egerton Brydges' talent as a political economist. It is a curious fact that in his most desponding and brooding moments he would fly to political economy as a relaxation of thought and as a favourite study, just as many of our first-class English statesmen have relieved tension of mind and the excitement of political conflict by Homeric studies or the composition of Greek and Latin verses.

His published works touching on economics are: (1) *Tests of the National Wealth*, 1799, 8vo.—(2) *Letters on the Poor Laws*, 1814, 8vo.—(3) *Arguments for the Employment of the Poor*, 1817, 8vo.—(4) *Three Tracts on "Copyright,"* 1817-18, 8vo.—(5) *The Population and Riches of Nations considered*, Geneva, 1819, 8vo. A second edition of this was afterwards printed at the author's private Lee Press.—(6) *What are Riches?* Geneva, 1821, 8vo.—(7) *Letter on the Corn Question*, 1822, folio.—(8) *Letter on the Proposed Plan for reducing the National Debt*, Florence, 1820, 4to. Although Sir Egerton Brydges' works, above cited, contain flashes of insight into correct deductions, practical as well as theoretical, they are a good deal disfigured by his want of study of the statistics and practice of commerce, and his ignorance of business generally. F. H.

BUBBLE ACT. Popular name for an act passed in the reign of George I. with the intention of preventing the creation of joint stock companies. The name is derived from the fact that one of its objects was to protect the privileges of the SOUTH SEA COMPANY. It had no practical effect, and was repealed in 1825. E. S.

The phenomenon of bubbles (or joint-stock undertakings the shares of which were "blown up by the air of great words") first showed itself prominently in England at the end of the 17th century (see Anderson, *Hist. of Commerce*, esp. under dates 1695, 1697), when the Royal Exchange became so crowded with projectors and stock-jobbers that they were provided with an exchange of their own, first in Exchange Alley and later in Capel Court. An act was passed in 1696 "for restraining the practices of brokers and stockjobbers." It limited the number of licensed brokers to one hundred, and put difficulties in the way of their dealing with government stock and TALLIES (*q.v.*) The outburst of speculation a quarter of a century later was associated with the South Sea Company. It led to more ambitious legislation. The act specially known as the Bubble Act was passed in 1720, principally to define the privileges of the companies that were afterwards known as the London Assurance and the Royal Exchange Assurance Companies, but also to punish bubble companies for trading (*a*) under obsolete or forfeited charters, or (*b*) for purposes not allowed in their charters, or (*c*) with no charters at all. This act was not to apply to undertakings established before 1718. The South Sea Company had promoted it in the belief that the bubble companies were rivals, whereas they were really allies; money was gained in them to be invested in the greater company. As the act and subsequent royal proclamation proved ineffectual, the South Sea Company procured a writ of *scire facias* against "those airy projects called bubbles;" but the effect was to bring down the credit of small and great together (Anderson, *ib.* under date 1720, esp. p. 101 *seq.*), and to cause the ruin of multitudes of rich and poor subscribers. To relieve the sufferers acts were passed (1721) to attach the estates of the South Sea Company's directors, to relieve subscribers from part of their obligations, and (1722) to enable the company to improve its position by an arrangement with the Bank of England. The act (1722) to punish fraudulent transfers of stock may perhaps be counted the last of the series, though the affairs of the South Sea Company were a frequent subject of legislation for some years afterwards. J. B.

BUBBLES (HISTORY OF). The term bubble has been commonly applied since the 17th century to any unsound commercial undertaking accompanied by a high degree of speculation. The first bubble of historical importance was connected with the growth of varieties of tulips in Holland. It reached its height in 1636 in Amsterdam, and in the most of the Dutch cities regular markets were established for speculation in the roots. In the end tulips were bought and sold like shares in a gold mine, for purely speculative purposes, without any idea of actually growing the flowers. Fabulous prices were paid for single bulbs, *e.g.* 2500 florins for a "viceroy," a "semper augustus" 5500 florins, etc. The mania spread to some extent to London and Paris, and tulips were dealt in by the stock-jobbers of both cities.

In 1719 and 1720 occurred the greatest speculative mania on record, arising from the Mississippi scheme of JOHN LAW (*q.v.*) The rage for speculation in Paris was incredible, and affected all classes of society. John Law's schemes were not in themselves, according to most modern writers, unreasonable, and in many respects he only anticipated the natural development of banking and credit, but his whole system was ruined by the extravagant speculation with which it at once became associated. The extent of the mania may be

indicated by the fact that for a time John Law became the most powerful man in France.

In England, however, the word bubble is generally associated with the South Sea Bubble which burst in 1720, and was the English counterpart of the Mississippi scheme. The South Sea Company was originated by Harley, Earl of Oxford, in the year 1711. The original idea was to found a company which should take over the floating debt of nearly ten millions, arising from the expenses of the army and navy. The company was to receive interest from the government at the rate of six per cent, and for this purpose certain duties were allocated. In addition the monopoly of trade to the South Seas was granted, and the company became known by that name; as a matter of fact, owing partly to the opposition of Spain, the trade with the South Seas, or rather South America, produced very little revenue at any time. But the directors of the company thought that they might imitate the success of John Law by other operations in finance, and they competed with the Bank of England in offers to undertake the reduction of the national debt, which amounted to about £30,000,000. After a debate in the House of Commons the proposals of the South Sea Company were accepted in preference to those of the Bank of England! Sir Robert WALPOLE was almost the only prominent statesman who spoke against it, and warned the House of the dangers of stock-jobbing as carried on in France. During the time the bill was being passed through the House of Commons the most extravagant rumours were set afloat, especially by the chairman, Sir John Blunt, as to the trading possibilities of the company, with the view of forcing up the price of the shares. Before the bill reached the Lords the price of the stock had reached 400. It was opposed by several peers of good standing, but was hurried through with unexampled rapidity. By this time, 7th April 1720, the whole nation had begun to be infected with the stock-jobbing mania. Exchange Alley and Cornhill were almost impassable with the crowds. The South Sea stock, which curiously enough suffered a momentary fall on the passing of the bill in favour of the company, was soon subjected to all kinds of adroit manipulation. In consequence the directors were enabled in a few days to issue a million of stock at £300 for the nominal £100, and a little later another million was issued at £400, for which "in a few hours, a million and a half was subscribed."

In the meantime, numberless other joint-stock companies were started, which soon began to be called bubbles. The highest persons in the state, including the Prince of Wales, were interested in one or more of those companies. Some of them only lasted a few days, and the infatuation was at length carried to such a pitch that one project was advertised in the newspapers as follows: "For subscribing two millions to a certain promising or profitable design, which will hereafter be promulgated." It is hardly credible that the bold projector of this scheme, in a few hours, sold 1000 shares on which he received, by way of deposit, £2 per share, and was able to decamp with £2000.

The South Sea stock continued to rise for nearly two months, and at the end of May reached about 550. At this time it took a tremendous leap of 340 per cent, and was quoted on the 3d of June at 890. On this day, however, it fell as rapidly, but was again bolstered up by the directors getting their agents to buy. The speculation continued during the summer, the stock at one time reaching 1000; but by the beginning of September a serious fall had commenced, and the directors became alarmed. Negotiations were attempted with the Bank of England, but a panic had set in which nothing could check. Thus the bubble burst after a run of eight months. The greatest popular indignation was aroused against the directors, and found expression in parliament. An inquiry was instituted and pushed on rapidly. In the sequel upwards of two millions was taken, in the shape of fines, from the estates of the directors, and they were allowed to retain only a small residue.

[Full details of these bubbles are given in Macpherson's *Annals of Commerce*, under the years named. Popular accounts are given in Mackay's *Memoirs of Extraordinary Popular Delusions*, London, 1852, and Francis's *Chronicles and Characters of the Stock Exchange*, London, 1849. See also TAVEREEL.] J. S. N.

BUCHANAN, DAVID (1779-1848). A journalist and economist, was a son of David Buchanan, a printer, and was born at Montrose in 1779. At an early period of his life he commenced his career as an economist by a contribution to COBBETT'S *Political Register*. He contributed articles to the *Edinburgh Review*, published a pamphlet on PITT'S volunteer system (1807), contributed to the seventh edition of the *Encyclopædia Britannica*, and edited the *Edinburgh Gazetteer*. As a journalist, his experience was varied, since he was editor successively of the *Weekly Register* (1808-1809), the *Caledonian Mercury* (1810-1827), the *Edinburgh Courant* (1827-1848). As an economist, in 1814 he edited an edition of Adam Smith's *Inquiry into the Causes of the Wealth of Nations* in four volumes, the last volume consisting of additional matter supplied by himself by way of illustration and correction (this edition of Adam SMITH was translated into French in 1843). In 1844 he published a work entitled *Inquiry into the Taxation and Commercial Policy of Great Britain, with Observations on the Principles of Currency and Exchangeable Value*. To a large extent this latter work is a mature reproduc-

tion of the matter contained in his additional volume of comments of 1814. While he goes beyond the theories laid down by Adam Smith, his final treatise does not indicate any development due to the study of those economic works which had been published since he began to write in 1814. He displays a considerable understanding of the causes which determine prices, and brings out with great lucidity the effect of the interaction of supply and demand. Thus he performed no little service to economic theory by disentangling the many important elements underlying the work of Adam Smith. On the other hand he failed altogether to understand the main basis of the Ricardian theory, recognising no distinction between an "increase in *wealth*" and an "increase in *value*." In consequence he is unable to comprehend the technical use by RICARDO of the term "profits," and will not allow that that author was right in asserting that a fall or rise in *profits* depended on a rise or fall in *wages*. This was owing to his misunderstanding the interpretation applied to these terms by Ricardo. Of a somewhat similar nature is his attack on the theory of rent. He confuses the theory with its practical application; while he further failed to understand the treatment by Ricardo of the case of a country where all the soil is under cultivation, but where the difference of quality as to return to respective "doses" renders the law of rent like to that obtaining where cultivation has not yet covered the whole surface. He does not give Ricardo sufficient attention in this instance, while in another he accuses him—again no doubt through misconception—of having thought and said that the high price of corn was the *effect* of the higher expense of cultivation, urging on his part that this high price it was which caused people to be willing to encounter the high expense. Again he asserts that *in theory* the tithes are paid out of the rent.

For these and other reasons it is impossible to attribute to his treatises any great value on the side of theory. On the other hand his treatment of taxation is sensible and very practical.

[*Dictionary of National Biography.—Montrose Standard*, 18th August 1848; works as cited in text.] E. C. K. G.

BUCHEZ, PHILIPPE JOSEPH BENJAMIN, born 1796 at Mattaigne (Belgium, at that time a department of the Ardennes), died 1865 at Rodez. Left dependent on his own resources at twenty, he commenced life with the study of natural science. In 1821 he established, in conjunction with BAZARD and Flottard, the society of the CARBONARI (*q.v.*) in France. Devoting himself to the service of this secret society with the fury of youth, he barely escaped, 1822, being sentenced to death. Altering then the scope of his operations, he worked after the death of St. SIMON, whom he never had known, on the *Producteur* (1825-26). About this date he began to be detached from the followers of St. Simon, with whom, however, he did not definitely part company till 1829. He then published several works on medical science, and, during the revolution of 1830 attended, with great courage, the wounded under fire. Taking his pen up again, he published his *Introduction à la Science de l'Histoire* (1833, reprinted 1842), and afterwards, in conjunction with Roux Lavergne, the work by which he is best known (*Histoire parlementaire de la Révolution Française*, 1833-38, 40 vols., reprinted—the first seven alone 1846). In this work, without approving the violence and bloodshed, he rehabilitated the principal personages of the first revolution. This was followed by his *Essai d'un traité complet de Philosophie au point de vue du Catholicisme et du Progrès* (1838-40, 3 vols.), in which he sought, in harmony with his St. Simonian views, to reconcile philosophy with Catholicism. He had founded (May 1847 to July 1848) the *Revue Nationale* when the Revolution of 1848 broke out. Appointed *Maire-adjoint* of Paris, he took great part in the suppression of the disturbances in the streets, particularly of the socialist manifestation of 16th April. Elected by 135,000 votes a representative of the people, he was chosen, 4th May, president, on the opening of the *Assemblée Constituante*, and was in the chair, 15th May, when the chamber was invaded by the revolutionary socialists. The firmness and dignity of his conduct brought him respect from all. He continued actively to fulfil the duties of his post, but was not elected a member of the *Assemblée Législative*. He was arrested at the *Coup d'état*, December 1851, but was soon set at liberty, and occupied himself in writing, 1856, the *Histoire de la formation de la Nationalité Française*, 2 vols. in 32mo, reprinted 1859 under the title of *Les Mérovingiens et les Carlovingiens*. He was the first to speak in France in favour of *Associations Ouvrières*, which he desired to establish under a form approaching that of a religious order, not only to secure propriety of conduct, but perpetuity and increase of capital. His disciples and friends MM. L. Cerise and A. Ott published, in 1866, after his death, a posthumous work, *Traité de Politique et de Science Sociale*, preceded by a notice of his life and works by M. A. Ott. A. C. f.

BUCKLE, THOMAS HENRY, born 1821, led a student's recluse life, devoted to the great historic work which he left unfinished on his death in his forty-first year (1862). In the introduction to this work, the principle that human actions obey laws verifiable by statistics, was, as Mill says (*Logic*, bk. v. ch. ii. § 1), "most clearly and triumphantly brought out" by Buckle. MILL does not however agree

in the opinion that the moral qualities of mankind are little capable of being improved, and conduce little to the progress of society (*Ib.* § 2). Dr. Venn has protested more strongly against Buckle's fatalistic interpretation of statistics (*Logic of Chance*, 2d ed. pp. 235-241). An erroneous impression of the futility of human effort is conveyed by such statements as "suicide is merely a product of the general condition of society, and the individual felon only carries into effect what is a necessary consequence of preceding circumstances" (Venn, *Logic of Chance*, 2d ed. ch. xviii. § 14; Buckle, *History of Civilisation*, vol. i. ch. i.) The same disposition to underrate the force of human will appears in Buckle's theories as to the influence of physical conditions on wages and population: "There is a strong and constant tendency in hot countries for wages to be low, in cold countries for them to be high. The evil condition of Ireland was the natural result of cheap and abundant food" (*History of Civilisation*, ch. ii.) He here maintains that "potato philosophy of wages," which Prof. WALKER stigmatised (*Pol. Econ.*, bk. v. ch. iii.) Buckle's economical reflections are indeed not always sound, but they bear the impress of originality, enhanced by copious learning and recondite references. His account of the discoveries made by political economists is masterly (ch. iv.) The remarks on the leading economists, in particular Adam SMITH and HUME, are instructive, even when disputable. The description of Adam Smith's method as *deductive*, is a half-truth characteristic of Buckle.

History of Civilisation in England, vol. i. 1857, vol. ii. 1861.—New Edition (with index) 1869.—*Miscellaneous and Posthumous Works*, edited by Helen Taylor, 1872; with a biographical notice by the editor. (Among the posthumous works are fragments, some of which relate to economical topics: *e.g. History of Money*, p. 438; *Wages*, p. 459; *Statistics, and Political Economy*, pp. 526, 528). [*Life and Writings*, by A. H. Huth (1880).—*Pilgrim Memories*, by J. S. Glennie, 1875; 2d ed., with a preface, 1880.] F. Y. E.

BUDGET, THE,[1] is the statement of the nation's accounts, drawn up and presented once a year to parliament by the chancellor of the exchequer. In opening his budget, the finance minister first lays before the House the complete accounts of the past financial year, with its actual revenue and expenditure, and the realised surplus or deficiency. For this purpose, and to enable an accurate estimate of the revenue of the coming year to be made, the budget is never, except under peculiar circumstances, taken until a week or two after the close of the financial year, which now runs from 1st April to 31st March.[2] On the other hand, the budget is seldom postponed for more than a short time after that date, so that the period of disturbance to trade, due to the uncertainty of the financial proposals of the year, may be as far as possible curtailed.

The result of the finance of the past year having been stated, the chancellor of the exchequer proceeds to detail the expenditure of the coming year, as estimated by the different departments after review and criticism by cabinet and treasury. These estimates are divided into two parts—the CONSOLIDATED FUND (*q.v.*) and the SUPPLY services.[3]

The amount of the expenditure for the coming year is generally known before the budget is introduced, for the estimates of the supply services have as a rule already been presented to the House; and portions of them, or "votes on account," have probably already been taken.

Against the total of the estimated expenditure ("ordinary" or "extraordinary," the latter term being now usually applied to war expenditure of any kind) it becomes necessary to provide the "ways and means"; and this is the budget proper. The taxation in force during the year just come to a close is almost invariably assumed as the basis of the estimate of the revenue for the coming year, any variations which are likely to ensue being, especially since 1874, taken into account.[4]

On a comparison of the estimated revenue with the estimated expenditure, a surplus or a deficit, as the case may be, appears. Since Peel's time it has been the almost invariable custom, except under great stress of war charge, for the chancellor of the exchequer to take care that, in his final budget estimates of revenue and expenditure, an estimated surplus of three

[1] From the Old French "bougette," diminutive of "boulge," a purse. The term and method of a *Budget* are used in other countries, see R. Stourm, *Cours de Finances: le Budget*, 2d ed., Paris, 1891, 8vo.

[2] The financial year used, till 1832, to run from 1st January to 31st December. The budget is usually taken about the middle of April. In 1860, in consequence of the necessity of an early ratification of the French commercial treaty, the budget was introduced on 10th February. In 1859, in consequence of the change of government, it was not introduced until 18th July. In 1880 there were two budgets, one on 11th March (Northcote's) before the dissolution, the other on 10th June (Gladstone's) after the assembling of the new House.

[3] The CONSOLIDATED FUND—created by Pitt in 1787, for the greater security of the DEBT and other fixed charges, and the more certain maintenance of his SINKING FUND—includes the CIVIL LIST, debt charge, certain pensions, judicial and other salaries, constituting an annual charge fixed by statute, and only to be altered by statute.

The SUPPLY services include the rest of the ordinary expenditure of the country,—the army, the navy, the civil service and the revenue departments, which last include the post office and the cost of the collection of the revenue. These supply services are annually voted item by item in committee (the money being nowadays very strictly "appropriated"), and the amounts can be criticised and reduced, but not increased, by the House. The accounts are subsequently audited, and go before the Public Accounts Committee.

[4] This is almost invariably the case. In 1868 and in 1885, however, the special taxation imposed in the previous year was eliminated from the estimate, and in 1858 Mr. Disraeli took the income tax at 5d. in accordance with the arrangement of 1853, instead of at the 7d. of the previous year.

or four hundred thousand pounds shall be shown. This he does for the twofold object of providing for unforeseen contingencies to expenditure or diminution of revenue; so that, if possible, the year shall not end with an addition to the national debt, in other words a deficit, but rather that something shall remain in hand to go towards its further redemption. This policy has become especially essential since 1874, in which year the system of close estimates was finally adopted; for under the old system, in which practically no account was taken of the normal annual increase of revenue, a surplus was ready to hand if the revenue of the year exceeded that of its predecessor. Unforeseen circumstances may indeed, affect the surplus, but a surplus ought distinctly to be allowed for in the budget—a chancellor of the exchequer, according to Mr. Lowe's definition, being "an animal who ought to have a surplus."

The "ways and means" of the year include the whole of the sources of national revenue, and not only those derived from actual taxation —not only the so-called "tax revenue," but the gross receipts from the business departments (post office, etc.), the net revenue derived from the crown lands, and miscellaneous receipts of different sorts. The continuation of the annual taxes, together with any alteration that may be proposed in them or in the permanent taxes with the view of either distributing the surplus or filling up the deficit, are embodied in resolutions which, in order to obviate possible evasion, are almost always provisionally confirmed on the night of the introduction of the budget.

The resolutions agreed to, they are annually embodied in one bill—the customs and inland revenue bill—which goes through the House of Commons in the ordinary course, and is liable to amendment like any other bill. After passing the Lower House, the bill goes up to the Lords, who can, if they choose, reject, but are precluded from amending it.

The system of including all the WAYS and MEANS proposals of the year in one bill dates from 1861. In the previous year the government had proposed to repeal the paper duty, and this proposal had been embodied in a bill separate from the other budget proposals; and this bill the House of Lords rejected. To prevent the House of Lords from in future discriminating between the different budget proposals, it was decided that in future they should be all included in one bill.

Occasionally—especially under stress of war expenditure—it becomes necessary for the chancellor of the exchequer later in the year to introduce a supplementary budget, and to provide further ways and means to meet additional expenditure. This additional taxation is voted in the same way as the ordinary taxation of the year, though sometimes it is made retrospective, or a double amount is placed on the last half of the year.

During the last twenty years—since the system of more strict appropriation has come into force—supplementary civil service estimates have become a permanent institution, though additional money is seldom or never voted for them, and on balance they are (or ought to be) met by savings on other items of expenditure.

The nature of the sources of "supply" is detailed elsewhere (see TAXATION; CUSTOMS), but the policy that has more or less actuated successive chancellors of exchequer since the first quarter of the century, and its effect on the financial resources of the nation, may be briefly summarised. The modern era of fiscal and financial reform dates from the time of HUSKISSON, mainly between 1824-1828; intermittently followed by his immediate successors, his policy was zealously adopted and carried distinctly further by PEEL between 1842 and 1846. Taken up with vigour by GLADSTONE in 1853, and, as far as the principle was concerned, finally adopted in 1860, it has since in detail been carried ever farther and farther.

This policy, thus gradually and slowly brought to completion, has been as follows: first, the abolition of all petty, vexatious, and unremunerative duties; secondly, the repeal of all prohibitive, protective, differential, and discriminating duties, and the introduction of perfect equality and unrestricted competition between home, colonial, and foreign goods in regard to the rate of taxation; thirdly, the general reduction of the duties to a minimum, and the choice for taxation of those articles from which the necessary revenue can be raised most evenly, most easily, with the smallest cost and discomfort to the consumer and taxpayer, and in the manner least burdensome to trade. And, in the case of the duties still retained, for the most part to carry out the seeming paradox, as Pitt once called it, "increase by reduction"—to increase the yield of the tax by decreasing the duty, and thus at the same time encouraging consumption and minimising fraud and evasion. In the case, however, of one branch of revenue, that namely derived from intoxicants, these principles only partially prevail; such taxation being governed by politico-moral even more than by fiscal considerations. The practical result of this policy has been to reduce the articles or subdivisions of articles on which import or export duties were charged, from 1046 in 1841 to less than half that number in 1846, to 400 in 1859, and to 143 in 1860. They now number but 47, and even of these only 12 yield an appreciable revenue, the rest being duties retained either in order to countervail excise duties, or levied on articles which bear such a resemblance to those charged with duty that evasion and fraud would take place

if they were not also taxed. Staple articles of commerce such as timber, sugar, cotton-wool, silk, woollen goods, "fancy" goods, corn, and other articles of food, which in early days were either prohibited or heavily charged with duty, now go free. Similarly, a great deliverance has come to many important articles of home production formerly hampered and injured by heavy and vexatious excise duties, such as those on glass, paper, soap, candles, printed calicoes, and cottons. Indeed practically every article of home production is now free except those connected with the manufacture of intoxicants.[1]

No one nowadays would probably venture to assert that the general adoption of free trade in fiscal matters, and the abolition of all small, vexatious, or unremunerative duties has not been of infinite advantage to the country; but it may well be argued that the policy of concentration has been carried somewhat too far in the relinquishment of considerable taxation on articles of general consumption, raised with ease and producing considerable revenue,—such taxes, for instance, as the "nominal" duty on corn abolished in 1869; the duty on sugar abolished in 1874, though the uneconomical reduction of 1873 made final abolition inevitable[2]; and the horse duty abolished in the same year.

But the fact was that these three duties, probably the only duties about which any question of expediency can arise, were relinquished at a time when the expenditure was almost stationary, while the revenue was so buoyant that the difficulty of the chancellor of the exchequer was not, as now, to make both ends meet, but to know what to do "with all the money that persisted in pouring in upon him." Perhaps our chancellors of the exchequer, in the heyday of their financial prosperity between fifteen to twenty years ago, ought to have realised, on the one hand, that the national expenditure would increase and could not be diminished; and, on the other, that the "ravages of temperance" would play havoc with one of the principal branches of the revenue. But this they did not foresee, and hence they lightly relinquished the many millions of revenue that the aforementioned three taxes would probably now be producing—taxes, two of which at least could never be with advantage re-imposed.

One chief result of this policy of abolition has been, no doubt, that the income tax, introduced forty-six years ago for a temporary purpose, and now finally a permanent tax, is ever more and more looked to as a source of revenue to make up a deficiency. But, after all, the INCOME TAX has the advantage of being a direct tax, and the additional advantage of being more or less a tax on wealth. Moreover, in consequence of the relinquishment of so many indirect taxes (to the advantage of trade and the taxpayer), though the total gross receipt from the income tax stands at a figure which would have astounded our fathers, the pressure on each individual taxpayer is less than in the old days.

A word or two may be said in reference to the most famous of English budgets of the last hundred years. Pitt's great budget of 1798, wherein he unfolded his scheme for financing the life and death struggle with France, is memorable for the first imposition of the income tax, and the Huskisson-Robinson budgets of 1823-26, for the first beginning of fiscal reform. Althorp's first budget, that of 1831, was remarkable in that it attempted so much and accomplished so little. The Whigs in their abortive budget of 1841—the first budget professedly based on free-trade principles—proposed, in addition to dealing with the corn laws, greatly to reduce the protective and differential duties on the two most important articles of general consumption—sugar and timber. Then followed Peel's budgets,[3] each more progressive than its predecessor. Beginning with that of 1842, which involved the re-imposition of the income tax (swept away in 1816), and ending with that of 1846, the proposals they contained, together with the repeal of the corn laws, made the practical adoption of free trade only a question of years.

The Whig budget of 1851, like Althorp's of twenty years before, and that of Lowe twenty years later, is chiefly remembered for its failures. In that year the House, for the first time since the re-imposition of the income tax, refused to renew it for a term of years, and voted it for a single year only; a precedent which (except during the Crimean War) has ever since been followed.

The free-trade budget of December 1852—

[1] In 1840, according to the Report of the celebrated Import Duties Committee, import customs duties were, in 1838, charged on 868 articles (exclusive of subheads), the yield from which could be divided as follows:—

17	articles produced	95	per cent	£21,700,000
29	,,	4	,,	899,000
144	,,	1	,,	363,000
531	,,	..	,,	80,000
				£23,042,000
147	,, loss, deduct			5,000
868				£23,037,000

In 1888.

3	articles produced	90	per cent	£18,100,000
3	,,	9	,,	1,800,000
47	,,	1	,,	200,000
53				£20,100,000

The 47 are principally nominal.

[2] The duties on sugar were reduced in 1873 to the moiety of what they had been in 1870. In that year also there had been a reduction, so that they were in 1870 but the quarter, speaking generally, of what they stood at in 1867.

[3] As a matter of fact, Goulburn was chancellor of the exchequer, but the budgets were those of Peel; and he himself (as prime minister) introduced those of 1842 and 1845, as well as the bill for the repeal of the corn laws in 1846.

brought forward by Mr. Disraeli as chancellor of the exchequer in Lord Derby's protectionist ministry—marked the total collapse of the protectionist party, while it brought about the defeat and resignation of the Government. The following year saw Mr. Gladstone's famous budget of 1853 which, together with those of 1842-46, and that of 1860, formed a series of fiscal measures which resulted in the complete emancipation of trade from prohibitive, protective, and differential duties. The budget of 1853 dealt also with the income tax, the chancellor of the exchequer proposing gradually to extinguish it in seven years. The Crimean War frustrated the plan; and the income tax also surviving the subsequent attempts to extinguish it, made by the same hand, under the scheme of 1864 and again in 1874, is now unquestionably a permanent institution. The budget of 1860—also Mr. Gladstone's—was additionally marked by the fact that it was contingent on the negotiation of the French commercial treaty, a treaty which was adopted, and, to the great benefit of England and France, remained in force for twenty years. The budget of 1860 was followed by a succession of Gladstonian budgets, marked by much financial ability. Mr. LOWE's budgets of 1869-73 were chiefly remarkable for the extraordinary leaps and bounds of the revenue, which enabled him greatly to reduce taxation, as well as considerably to reduce the national debt. The budget of 1874—the "six millions surplus" budget—was not so far-reaching or satisfactory as it probably would have been if the chancellor of the exchequer, Sir Stafford NORTHCOTE, could have had a longer time in which to consider and develop his financial schemes. Sir Stafford Northcote's three last budgets, 1878-80, were chiefly memorable from the fact that no real effort was made to provide a surplus of revenue over expenditure.

The budget of 1880 (Mr. Gladstone again) was marked by the commutation of the malt tax into a beer duty. Under that of 1883 (Mr. Childers) an arrangement was made for preventing any break or diminution in the annual sum applied to the redemption of the debt, by replacing on a sound and satisfactory basis the large amount of TERMINABLE ANNUITIES that otherwise would have lapsed in 1885. Under this scheme, without any addition to the debt charge, some 123 millions of debt were to be redeemed in twenty years. The Liberal budget of 1885, under which it was proposed to meet a deficit of 14 millions by the imposition of 7 millions of additional taxation and the temporary suspension of the sinking fund, was rejected; and, for the second time in the century, a defeat on a budget was followed by the resignation of the Government. By Mr. Goschen's budget of 1888 the sinking fund was invaded, and the annual amount applied to the redemption of the debt was permanently reduced by 2 millions; and this, under no stress of special expenditure, with a surplus in hand, in order that the income tax might be reduced by a penny.

The year 1888 was also noticeable for the reduction of all the 3 per cent stocks to $2\frac{3}{4}$ per cent, a rate which was to fall to $2\frac{1}{2}$ per cent in fourteen years (see CONVERSION OF NATIONAL DEBT).

These are the most famous budgets of the century; the most important of all being those of the years 1798, 1842, 1846, 1853, and 1860.

[The authorities that could be quoted for this article are innumerable, for the study of finance involves historical as well as fiscal and financial works. Of financial works may be named Dowell's *History of Taxes and Taxation.*—M'Culloch's writings.—Porter's *Progress of the Nation.*—Levi, *History of Commerce.*—Tayler's *History of Taxation.*—Northcote's *Twenty Years' Financial Policy.*—and Buxton's *Finance and Politics, an Historical Study, 1786-1885.*

In addition, there are the speeches of the chancellors of the exchequer as reported by Hansard; parliamentary blue-books, innumerable reports of committees and commissions, the annual "finance accounts" and "statistical abstracts," and last, but by no means least, the large blue-book published in 1868, entitled the *Public Income and Expenditure Return.*—and the *Report of the Import Duties Committee of 1840.*] S. C. B.

BUILDING SOCIETIES. Building societies are societies formed "for the purpose of raising by the subscription of the members a stock or fund for making advances to members out of the funds of the society, upon security of freehold, copyhold, or leasehold estate by way of mortgage" (37 & 38 Vict. c. 42, § 13). Societies of this nature existed for some time before they became the subject of legislation. "There were certain persons who had saved or were saving money and were desirous of investing it at a higher rate of interest than the usury laws enabled them to obtain at the time, and other persons who were desirous of either building or buying houses for their own habitation. These two classes came together: the persons who had saved money or were saving money paid it into the society, and it was lent to persons who were desirous of building or buying houses on the security of the houses, and on terms which compelled the borrowers to pay a larger sum by way of interest than 5 per cent per annum . . . Under these circumstances the act 6 & 7 William IV. c. 32, for the regulation of building societies, was passed" (Sir George Jessel, *in re* Guardian Benefit Building Society, *Law Reports*, 23 Ch. Div. p. 457). The Act of William IV. provided for the registration of building societies and gave them certain privileges, but the liability of the members remained unlimited, and no corporate rights were given to such societies (whose

property was therefore required to be vested in trustees, a circumstance causing much practical inconvenience). The act of William IV. was repealed by the Building Societies Act, 1874 (37 & 38 Vict. c. 42), which, together with several amending acts, now regulates the law on the subject. There are *terminating* and *permanent* building societies, the latter being of more recent growth than the former. A *terminating* society is one which by its rules is to terminate at a fixed date, or when a result specified in the same is attained; while a *permanent* society is one which has not, by its rules, any such fixed date or specified result at which it shall terminate. The amount of the shares in either case is raised by periodical (generally by monthly) subscriptions; any member may, on the security of freehold, copyhold, or leasehold property, obtain loans from the society, in which case the amount of the subscriptions is raised so as to provide for interest and repayment of capital. It is a common practice for persons to become members for the sole purpose of borrowing. The liability of investing members is limited to the amount actually paid, or in arrear, on their respective shares, while the liability of borrowing members extends to the total amount of the subscriptions payable by them under the particular mortgage deed, or under the rules of the society. Members may generally withdraw their shares on terms specified in the rules. The societies called *Bowkett* societies are terminating societies, making advances to their members which are repayable within a fixed time without any interest. The rotation of the members is determined by ballot. It is obvious that this system gives an undue advantage to those members who obtain advances in an early stage of the society's progress, and this inequality has been modified by the *Starr-Bowkett* societies. Every building society is regulated by rules which must contain certain particulars enumerated in the act of 1874. These rules must be examined by the registrar of friendly societies, who, after being satisfied that they are in accordance with the requirements of the law, grants a certificate of incorporation. The act authorises building societies to take deposits and generally to obtain loans within certain limits, it requires that every deposit-book or acknowledgment, or security of any kind given for a deposit, or a loan by a society, shall have printed or written therein or thereon the sections of the act relating to the liability of the members, and the regulation of the borrowing powers. Building societies may hold land as far as it is necessary for their purposes; summary remedies in the county court are given against defaulting officers, and there are special facilities offered for the criminal prosecution of persons defrauding such societies. On the repayment of a loan by a member no formal reconveyance of the mortgaged property is necessary. Building societies are, when necessary, wound up by the county court of the district in a manner similar to that directed by the Companies Acts for joint-stock COMPANIES. Building societies registered under the act of 1836 were authorised to take out certificates of incorporation under the new act, and most of them have availed themselves of this privilege, but some unincorporated societies are still in existence. Besides these there are also co-operative building societies, which are not essentially different from other co-operative societies. The difference between building societies and joint-stock companies is pointed out in a very lucid manner by the royal commissioners (whose report, published in 1872, preceded the passing of the act of 1874). They point out that, while in a joint-stock company the leading idea is *capital*, *membership* is the essential principle of a building society. "In the building society the capital is never fixed. The number of shares is always indefinite, and the share has no permanence. The capital is constantly increasing by the addition of new shares, or decreasing by the withdrawal of existing ones. . . . Its membership remaining always open, it knows no share jobbing, fattens no brokers, and needs no settling day on the Stock Exchange. . . . The two forms of undertaking, we venture therefore to think, have an equal right to subsist, the one for the use of them who seek to make capital, the others for those who, having made it, seek to use it." The antithesis of the last sentence is not quite accurate from the economical point of view; it might be more correct to say that the building society gives an opportunity to invest savings which are gradually accumulating, while the joint-stock company as a general rule does not offer the same facilities for that purpose; but the main point is that the building societies absorb the savings of a class of investors who, as a rule, could not invest in the shares of joint-stock companies. It is right that societies established for this purpose should enjoy certain facilities not accorded to ordinary joint-stock companies, but special care should be taken, on the other hand, that the funds so provided should be managed by competent, prudent, and honest persons, and that the safety of the capital should be considered of greater importance than a high return of interest. Recent judicial decisions have established the principle that the directors of building societies have, in the absence of any special rules, the same freedom of action as the directors of financial companies. This principle, though it may be in accordance with the words of the statute, does not harmonise with the ideas expressed by the commissioners, which the Building Societies Act was intended to

embody, and the interference of the legislature would be clearly desirable. The following figures illustrate the growth of building societies. Those under the year 1870 are derived from the commissioners' second report, and are partly based on estimate, those under the year 1888 are derived from the last parliamentary return, dated 23d July 1889. Some societies do not make returns, or only return certain items, but it may be taken for granted that the bulk of the societies not making any return are either insolvent or have no business. The number of societies making returns on each particular item are added in square brackets:

		Number of Societies.	Members.	Annual Receipts.
England	1870	2000	800,000	£11,000,000
	1888	2444	582,866 [1940]	19,480,489 [2146]
Scotland	1870	88	20,635	1,000,000
	1888	50	8968 [37]	403,617 [44]
Ireland	1870	17	3,836	no estimate
	1888	51	12,310 [44]	531,751 [44]

		Due to investing Members.	Liabilities on Loans and Deposits.	Total Assets.
Eng.	1870	£9,000,000	£6,000,000	£17,000,000
	1888	34,705,963 [2157]	14,734,511 [2157]	51,218,823 [2157]
Scot.	1870	823,282	474,916	1,500,000
	1888	729,970 [45]	242,198 [45]	1,011,961 [45]
Irel.	1870	419,984	147,139	no estimate
	1888	680,816 [4]	248,314 [4]	991,514 [4]

TABLE showing number of Societies whose returns show amounts exceeding £100,000 under any of the heads named [this table is confined to England].

	Annual Receipts.	Due to investing Members.	Liabilities on Loans and Deposits.	Total Assets.
1870	10	8	8	13
1888	26	44	17	64

It will be seen that in England the number of members has actually decreased, while the increase in the number of societies is very small in comparison with the increase of business done. The figures seem to point to the fact that a much wealthier class of shareholders have come in since the passing of the act. In Scotland there is a marked decrease, in all the figures in Ireland there is a steady increase.

E. S.

BÜLAU, FRIEDRICH VON (1805-1859), a German economist of note, was born at Freiberg, he studied at Leipsic, where he became, in 1833, professor of philosophy, and in 1840 of political science, filling the latter chair till his death. He held from 1837 the censorship of the periodical press. He took a prominent part in the propagation of the doctrines of Adam SMITH in Germany. His principal economic writings are —*Encyclopedie der Staatswissenschaften*, 1832; *Der Staat und der Landbau*, 1834; *Der Staat und die Industrie*, 1834; *Handbuch der Staatswirthschaftslehre*, 1835; *Die Behörden in Staat und Gemeinde*, 1836. He was a writer of no mean ability, though taking only a second rank among the economists of his time. "He has not," says ROSCHER, "the keen analysis of HERMANN, the learned thoroughness of RAU, nor the exact observation and creative fancy of Von THÜNEN. Even such of his books as were intended as manuals for instruction have the tone of essays or good leading articles; and he devotes himself rather to the discussion of the practical questions of the day than to the examination of fundamental principles." He advocated the most unlimited freedom of the individual in the economic sphere, and insisted that the state must not interfere with competition, or prescribe to citizens the way in which they should pursue their own interest. He thought the most important office of political economy was to reverse the mistaken policy of the past, which impeded the operation of natural laws. He was, in particular, strongly in favour of removing the legal fetters which, in his time, in Germany restricted the alienation of land. (Roscher, *Nat. Oekon. in Deutschland*, p. 902).

J. K. I.

BULL. A term usually applied to a buyer on borrowed money. The term on the stock exchange distinguishes the speculator for the rise from the pure investor. The latter buys a stock, pays at the date of settlement; the bull pays a rate of interest in order to "continue" his bargain till the next settlement. "Bull" is the opposite to a "Bear" (see BEAR and CONTANGO).

A. E.

BULL OF BORGIA. A bull issued in 1493 by Pope Alexander VI. professing to grant to the crown of Castile and Aragon all lands discovered, or to be discovered, beyond a line drawn from pole to pole, 100 miles west from the Azores—the crown of Portugal to have all lands eastward of such line. All lands previously occupied by any Christian king were excepted. The object of the bull was to confer a monopoly

of trade with the new world on Spain and Portugal. J. E. C. M.

[For copy of the bull, see *Bullarium Magnum Romanum* (Luxembourg, 1727).]

BULLION. The precious metals GOLD and SILVER (*q.v.*) are generally spoken of as bullion when at or near the standard fineness accepted at the mints of the different countries of the world (see STANDARD). The term is sometimes applied, with some qualifying epithet, to ores containing only a very small portion of the precious metals, which are called "doré bullion" or "base bullion," etc. A statement in the report of Mr. J. P. Turnbull, director of the U.S. mint, on the production of the precious metals in the United States, pp. 14-15 (1887), will explain this. The reference in it is to certain ores found in Mexico more or less argentiferous, the value of which "has been generally estimated in Mexico by the assay of the precious metals, or of silver to the exclusion of the minute proportion of gold" contained in the ore; the base metals not entering into the estimated value. The report then refers to "the small tenor of gold extracted from doré bullion." The metallic compound is then termed "doré bullion" or "base bullion" according to the proportion of the metals of which it is composed—mainly silver or lead, but the term bullion is properly applicable to the precious metals alone (see BILLON).

[See Reports of the Deputy Master of the Mint, London.—Reports of the Director of the Mint, United States, Washington.—Reports on the Production of the Precious Metals in the United States, Washington, etc.]

BULLION COMMITTEE, REPORT OF. The Report of the Select Committee of the House of Commons on the High Price of Gold Bullion, ordered to be printed 8th June 1810, deserves notice from (1) the circumstances which led to the appointment of the committee; (2) the information and opinions expressed in the Report; (3) the controversy which the publication of the Report called forth; and (4) the influence which resulted on the financial policy of the country. (1) The note circulation of the Bank of England had expanded from an average of about 10 to 11 millions in 1795 to nearly 20 millions in 1809. Specie payments having been suspended 1797, and the paper circulation having been increased, the foreign EXCHANGES became unfavourable to this country, and the paper circulation was depreciated in comparison with gold (average depreciation of value of currency 13·5 per cent 1810.—Mushet); gold in bars being at the price of from £4 : 10s. to £4 : 12s. per oz. in the early months of 1810, at that date about 15½ per cent above the mint price of £3 : 17 : 10½ per oz. (2) The Report expressed the opinion that the divergence then observable between the gold and the paper was caused by an over-issue of the latter, and that it was "difficult to resist the inference that a portion at least of the great fall which the exchanges lately suffered must have resulted, not from the state of trade, but from a change in the relative value of our domestic currency." The remedy then suggested was "That the system of the circulating medium of this Country ought to be brought back, with as much speed as is compatible with a wise and necessary caution, to the original principle of Cash payments at the option of the holder of Bank paper." (3) A sharp controversy was excited by these resolutions of the committee. The directors of the Bank of England had stated to the committee "a doctrine, of the truth of which they professed themselves to be most thoroughly convinced, that there can be no possible excess in the issue of Bank of England paper so long as the advances in which it is issued are made upon the principles which at present guide the conduct of the Directors, that is, so long as the discount of mercantile Bills is confined to paper of undoubted solidity, arising out of real commercial transactions, and payable at short and fixed periods" (Report, High Price of Gold Bullion, § 3). The Report of the Bullion Committee was printed 20th June 1810, the day before the prorogation, hence it was not considered till the next session, when it "was made the ground for a set of sixteen resolutions, moved in the House of Commons 6th May 1811, by Mr. HORNER, the chairman of that committee; the last of these resolutions being in pursuance of the recommendation in the Report, to make it imperative on the Bank to resume cash payments at the end of two years. A counter set of resolutions was moved by Mr. VANSITTART; the third of them being the memorable one 'That the promissory notes of the Bank of England have hitherto been and are at this time held to be equivalent to the legal coin of the realm.' The rival resolutions of Mr. Vansittart, including this last, which has been a standing topic of ridicule ever since, were carried on the 9th of May, by a majority of 151 to 75" (Tooke, *History of Prices*, vol. iv. p. 99). The vote on this occasion was doubtless influenced far more by a belief that it was inexpedient to bind the Bank to resume cash payments in so short a period, irrespective of the question whether peace were restored at the end of that time or not, than by any conviction as to the truth of the opinion which Mr. Vansittart maintained, contrary to the evidence given before the committee. (4) The influence of these proceedings on the financial policy of the United Kingdom was considerable, as they had great weight with Sir R. PEEL in 1844, when introducing the Bank Act of that year. He referred to the appointment of this committee in his speech, 6th May 1844, as follows—"In 1810 men of sagacity observed that the exchanges had been, for a considerable

period, unfavourable to this country, more unfavourable than could be accounted for by the balance of trade or the monetary transactions of this country." Sir R. Peel, after defining the pound sterling and the standard, continued his observations on the MEASURE OF VALUE and the coinage, stating "that in using the word money, I mean to designate by that word the coin of the Realm and promissory notes, payable to bearer on demand," adding, "I think experience shows that the paper currency, that is, the promissory notes payable to bearer on demand, stands in a certain relation to the gold coin and the foreign exchange in which other forms of paper credit do not stand. There are striking examples of this adduced in the Report of the Bullion Committee of 1810." Sir R. Peel proceeded to argue, basing his theory on facts shown to exist during a period of suspension of specie payments, contrary, as he admitted, to "the high authority of Adam SMITH and of RICARDO," that "convertibility into coin at the will of the holder" was "not an adequate security against the excessive issue of promissory notes." Hence we may trace the theory on which Sir R. Peel based the act of 1844, to the interpretation he put on the Report of the Bullion Committee (see BANK NOTE, BANK OF ENGLAND, CURRENCY DOCTRINE, etc.)

[Report, together with minutes of evidence and accounts, from the Select Committee on the High Price of Gold Bullion (ordered by the House of Commons to be printed, 8th June 1810). For the history of the controversy mentioned see *The High Price of Bullion a Proof of the Depreciation of Bank Notes*, D. Ricardo, London, 4th ed., 1811, with Appendix, the most complete edition. In this pamphlet Ricardo showed conclusively that the value of the note was depreciated from excess of issue.—*Practical Observations on the Report of the Bullion Committee*, Chas. Bosanquet, London, 1810; the ablest of the pamphlets in opposition to the Report.—*Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee*, D. Ricardo, London, 1811; a complete answer, based on a knowledge both of the theory and the practice of the subject.—*The Question respecting the Depreciation of the Currency Stated and Examined*, by William Huskisson, M.P., London, 1810, and included in *Private Reprints*, by Lord Overstone, 1857, with other "Select Tracts on Paper Currency."—*History of Prices*, 1792-1856, Tooke and Newmarch, London, *v.d.*, see particularly vols. i. and iv., specially interesting as contemporary history.—*Thoughts and Details on the High and Low Prices of the Thirty Years from 1793 to 1822*, London, Thomas Tooke, 2d ed., 1824; to a great extent incorporated with the preceding, but also interesting.—*A Series of Tables Exhibiting the Gain and Loss to the Fundholder arising from the Fluctuations in the Value of the Currency from 1800 to 1821*, Robert Mushet, London, 1821; the standard work of reference on this subject.]

BUONARROTI, PHILIPPE (1761-1837), communist conspirator and writer, was born at Pisa. He became a student of literature, and was for a time in high favour at the Tuscan court. His enthusiasm for the French Revolution led, however, to his banishment. He retired to Corsica, and served French interests so well there that when he came to France the Convention created him a Frenchman by decree. He associated himself with the Jacobins, and became one of the chief leaders of the conspiracy of BABEUF (*q.v.*). For this he was condemned to transportation, but the sentence was never carried out, and, after imprisonment and detention in several places, he was allowed in 1806 to leave France. He established himself first at Geneva, and afterwards in Belgium, where he supported himself by composing and teaching music. In 1828 he published at Brussels his *Conspiration pour l'égalité dite de Babeuf, suivie du procès auquel elle donna lieu et des pièces justificatives, etc.*, which contains the most complete scheme for the actual establishment of communism, as distinguished from the description of a mere ideal state, that has ever been put forward. The author ascribes the whole scheme to Babeuf, but there can be little doubt that this is to a great extent a literary fiction, and that the scheme is mostly his own (see COMMUNISM). He returned to Paris in 1830.

A letter from him to J. Bronterre O'Brien comparing the schemes of Babeuf and Owen is quoted in Holyoake's *History of Co-operation*, vol. i. p. 258. A translation of his *Conspiration* was published by O'Brien in 1836, and had some circulation among the Chartists (Holyoake, *Hist. of Co-operation*, vol. i. p. 44). E. C.

BUQUOY, GEORG FRANZ, Count, was born at Brussels 1781, and died at Prague 1851. Proficient in several sciences, Buquoy endeavoured to apply mathematics to political economy in his—

Theorie der Nationalwirthschaft, 1815; supplemented by *Das national-wirthshaftliche Princip*, 1816.—*Erläuterung einiger eignen Ansichten*, 1817.—*Begründung des Begriffs von reellem Werth*, 1819.—(The author's ethical and political principles are set forth in *Skizze*, 1819.—His views on currency, in *Ein auf echten National-credit fundirtes Geld*, 1819).—See Wurzbach, *Biographisches Lexicon des Kaiserthums Österreichs*. F. Y. E.

BUREAU OF LABOUR. In large industrial communities the establishment of a department of government dealing specially with the numbers, movements, and condition of the working classes has been recommended for two reasons: (1) in the interest of the state itself, to furnish information which may guide the legislature; (2) in the direct interest of the working classes, that employers and employed may be brought together, and workers may go where they are most wanted and best paid (see BOURSE DU TRAVAIL). The existing bureaux

confine themselves to the first object. The second seems better secured by well-organised trades societies than by a bureau of labour, which might be used against them in labour disputes. Even a purely statistical bureau, if its figures are to be full and trustworthy, must be above suspicion of collusion with employers; and this requisite seems best fulfilled by the appointment of a representative of the working classes on the staff of officials. England since 1886 has had a "labour correspondent," under the board of trade; and the present holder of the office was a well-known trades unionist. Switzerland has not only a bureau of labour, but a labour secretary of state, in close connection with the trades societies of the republic. Germany has no separate labour bureau, but the collection of labour statistics is carried on by the general statistical bureau with great carefulness, in view of the administration of the workmen's insurance acts. The experiment is being tried on a large scale in the United States, where there is a national bureau at Washington (established 1884), and more than twenty of the states have also established bureaux, the earliest being Massachusetts (1869) and Pennsylvania (1872). (See BUREAU OF LABOUR IN THE UNITED STATES.) The formation of an International Bureau of Labour was suggested in connection with the Labour Conference held at Berlin in March 1890; but the project remains as yet unrealised.

[See Report, Board of Trade, *Relation of Wages in certain Industries to the Cost of Production* (T. H. Elliott), 1891.] J. B.

BUREAU OF LABOUR IN THE UNITED STATES. *History.*—In 1869 the state of Massachusetts established a bureau of statistics of labour. In 1872 Pennsylvania organised a bureau of industrial statistics. Neither of them seems to have been owing to any demand on the part of labour organisation. But after the great railroad strikes of 1877, bureaus were established in rapid succession in Ohio (1877), in New Jersey (1878), in Illinois, Indiana, and Missouri (1879). A little later the powerful organisation known as the KNIGHTS OF LABOUR made the establishment of such bureaus one of their "demands," and they were organised in New York, California, Michigan, and Wisconsin (1883); Iowa and Maryland (1884); Kansas and Connecticut (1885); Maine, Minnesota, Colorado, North Carolina, Rhode Island, and Nebraska (1887). A national bureau of labour was established 18th January 1885, which became the department of labour in 1887. Its head (commissioner of labour) is not, however, a cabinet officer.

The main *object* of all these bureaus is to investigate the condition of the labouring class. The Massachusetts statute, which has been followed in most of the other states, reads as follows:

"The bureau shall collect, assort, arrange, and present in annual reports . . . statistical details relating to all departments of labour in the Commonwealth, especially in relation to the commercial, industrial, social, educational, and sanitary condition of the labouring classes," etc.

In many of the states (*e.g.* N.J., Penn., Ind., Ill., Wis., Ia., Kan., and Neb.) the bureau is also a bureau of industrial statistics, and is expected to collect and publish information relating to the chief industries of the state.

In Wisconsin and Missouri the commissioner of labour is also the chief factory inspector, and in Illinois the board of labour commissioners appoint the inspectors of mines.

The *financial resources* of most of the bureaus are extremely meagre; the officers consist of a chief and one or two clerks; and only a few hundred, or at most a few thousand, dollars are allowed for the work of gathering statistics.

The *legal powers* are not extensive; for although in many states penalties are prescribed for refusal to give the information demanded by the bureau, yet these penalties are seldom enforced. Most of the bureaus simply send out circular schedules to employers of labour, a large proportion of which are never answered.

The *scientific value* of the reports of the state bureaus is very unequal. Those of Massachusetts (twenty-three in number) form an extremely valuable series, and contain the best information we possess in regard to the condition of American labour. The New Jersey and Illinois reports also contain valuable information. The others are of little consequence.

The national bureau (department) of labour is better equipped than any of the state bureaus. It undertakes special investigations and has published reports on The Depression of Trade (1886); Strikes and Lockouts (1887); Convict Labour (1888); Marriage and Divorce (1889); Working-women in Great Cities (1889); Cost of Production (1890); and Condition of Railroad employés (1890).

[Reports of the various bureaus (generally annual, in some cases biennial).—Proceedings of convention of the chiefs of labour bureaus (annually since 1883).—*Political Science Quarterly*, vol. i. 1886, pp. 45 *seq.* and 438 *seq.*] R. M.-S.

BUREAUCRACY. The administration of many branches of business, public and private, by functionaries centralised in *bureaux* (whence the name is derived), is the rule in most of the important countries of Europe. It is less the case in Great Britain and Ireland than on the continent,—but the complex character of the requirements of modern life, and especially the aggregation of large masses of the population in cities, have called, in recent times, for increased superintendence in matters of health, police, education, etc. W. BAGEHOT, in his work on *The English Constitution*, describes the advan-

tages and the defects of a highly organised bureaucracy very clearly. The necessity for organisation requires no explanation—on the other hand, as Bagehot remarks, the defects of bureaucracy are well known: "It is an inevitable defect, that bureaucrats will care more for routine than for results; or, as Burke put it, that they will think the substance of business not to be much more important than the forms of it." Their whole education and all the habit of their lives make them do so. Men so trained must come to think the routine of business not a means but an end; to imagine the elaborate machinery of which they form a part, and from which they derive their dignity, to be a grand and achieved result, not a working and changeable instrument.

An over-organised "bureaucracy tends to under-government, in point of quality; it tends to over-government in point of quantity." The risk is that it comes to be considered that "the functionaries are not there for the benefit of the people, but the people for the benefit of the functionaries." Yet, though this risk is well known—the weakness of separate individuals when dealing with the organised forces of powerful companies and corporations, has been felt to be so dangerous and the necessity for providing for the health, the protection, and the instruction of the masses, the feeble, and the young, to be so great, that the tendency of the day is towards increasing the power of official superintendence and inspection. In the words of JEVONS (*The State in Relation to Labour*, p. 166), "there can be no royal road to legislation in such matters. We must consent to advance cautiously step by step, feeling our way, adopting no foregone conclusions, trusting no single science, expecting no infallible guide. We must neither maximise the functions of government at the back of quasi-military officials, nor minimise them according to the theories of the very best philosophers. We must learn to judge each case upon its merits, interpreting with painful care all experience which can be brought to bear upon the matter." The gradual growth of this opinion is characteristic of modern thought. H. Sidgwick (bk. iii. of his *Principles of Political Economy*, ch. ii. "The system of Natural Liberty considered in relation to Production"), while weighing carefully the advantages and disadvantages of governmental interference, observes "first, that these disadvantages are largely such as moral and political progress may be expected to diminish; so that even where we do not regard the intervention of government as at present desirable, we may yet look forward to it, and perhaps prepare the way for it. And, secondly, even where we reject governmental interference, we may yet recognise the expediency of supplementing or limiting in some way or other the results of private enterprise." Again, on the cognate subject of LAISSEZ-FAIRE, we find CAIRNES, in his essay on "Political Economy and Laissez-faire," *Essays in Political Economy, Theoretical and Applied*, saying, "the maxim of *laissez-faire* has no scientific basis whatever, but is at best a handy rule of practice, useful perhaps as a reminder to statesmen on which side the presumption lies in questions of industrial legislation, but totally destitute of all scientific authority." Compare with this the sterner teaching of J. S. MILL (*Principles of Political Economy*, bk. v. ch. xi., "Limits of the Province of Government")—"Even if the government could comprehend within itself, in each department, all the more eminent intellectual capacity and active talent of the nation, it would not be the less desirable that the conduct of a large portion of the affairs of society should be left in the hands of the persons immediately interested in them. The business of life is an essential part of the practical education of a people, without which book and school instruction, though more necessary and salutary, does not suffice to qualify them for conduct, and for the adaptation of means to ends" (see LAISSEZ-FAIRE).

BURET, ANTOINE EUGÈNE, born at Troyes 1810, died at Paris 1842. He wrote in the *Courrier français*, and the *Journal des économistes*. But what, during his short career, won for him chiefly the esteem of the economic world, is, notwithstanding the manifest tendencies the book contains towards the opinions of the then rising socialist school, his work, *De la Misère des classes laborieuses en Angleterre et en France* (2 vols. in 8vo). This book is the expansion of an essay which obtained for the author the sum of £100—the half of the quinquennial prize (Félix de Beaujour), in 1840 awarded by the *Académie des Sciences morales et politiques*; it is written with vigour, and in a conscientious spirit, and is attractive to read, though the author, by representing exceptional cases as the general rule, has drawn too gloomy a picture. Buret also revised, in conjunction with J. A. BLANQUI, the translation of Smith's *Wealth of Nations* by G. GARNIER, in the "Collection Guillaumin." A. C. f.

BURGH, a word used in Scotland for the same purposes as the word BOROUGH (*q.v.*) in England. E. S.

BURGHER. See CITIZEN.

BURIDAN, JEAN, rector of the university of Paris in 1327, alive in 1358, a celebrated philosopher, discusses the "commutation of moneys" and interest in his—

Quæstiones super decem libros ethicorum Aristotelis. F. Y. E.

BURKE, EDMUND, born 1728 or 1729, died 1797. A rich vein of economic wisdom, mixed with other precious materials, runs through the whole vast tract of Burke's political writings. The mine is deepest, or

at least the ore purest, in the *Thoughts on Scarcity*, dated 1795. Here Burke enunciates general principles worthy of the *Wealth of Nations*, though perhaps not derived from that source, if it be true, as Prior relates, that Adam SMITH described Burke as "the only man he had met with who thought as he did on the chief topics of political economy without previous communication." Burke says, "Labour is a commodity like every other, and rises or falls according to the demand." The rate of wages thus determined "has no *direct* relation" to the price of provisions. "The balance between consumption and production makes price. . The market settles, and alone can settle, that price. . . . Nobody, I believe, has observed with any reflection what market is without being astonished at the truth, the correctness, the celerity, the general equity, with which the balance of wants is settled." Burke extols "the laws of commerce which are the laws of nature, and consequently the laws of God." He condemns the "political canting language" of those who speak compassionately of the "labouring poor." Similar reflections occur in the third letter on a *Regicide Peace*. There Burke says "to force any market is of all things the most dangerous." And again, "the love of lucre is the grand cause of prosperity to all states." Just views as to the nature of foreign trade are to be found in several places. *Two Letters to Gentlemen in the City of Bristol* denounce the restrictions on Irish trade. In a letter on a proposed Irish ABSENTEE Tax, Burke says, "No man living loves restrictive regulations of any kind less than I; at best, nine times in ten, they are little better than laborious and vexatious follies." The fallacies of the mercantile theory did not ensnare Burke. "To state the whole of the foreign import as loss is exceedingly absurd." Wealth "consists in the stock of useful commodities as much as in gold and silver" (*Observations on a Late State of the Nation*). However, Burke seems not altogether to disapprove of the laws restricting the commerce of America. "I am sure they are still, in many ways, of great use to us; and in former times they have been of the greatest" (*Speech on Conciliation with America*). Indeed he appears to treat the BALANCE OF TRADE as not absurd (Third Letter on a *Regicide Peace*). He is no bigoted preacher of *laissez-faire*. He says:—"It is one of the finest problems in legislation . . . what the state ought to take upon itself to direct by the public wisdom, and what it ought to leave, with as little interference as possible to individual discretion. Nothing, certainly, can be laid down on the subject that will not admit of exceptions, many permanent, some occasional" (*Thoughts on Scarcity*). In fine, Burke never forgets that wealth is but one element of well-being, and not to be separated from "the great contexture of the mysterious whole."

The *Thoughts and Details on Scarcity* were published posthumously in 1800, with an interesting preface by the editors. The groundwork of the *Thoughts and Details* consists of a memorial addressed to PITT in 1795; with which the editors in 1800 have incorporated fragments of a letter addressed to Arthur YOUNG concerning "rural economics." The *Thoughts and Details* are to be found, along with the other writings referred to above, in the collective editions of Burke's works; of which there are several, the best perhaps being that of 1852, "Works and Correspondence" in eight volumes. F. Y. E.

BURLAMAQUI, JEAN JACQUES (*b.* 1694, *d.* 1748), professor of law at Geneva, has some striking remarks about the dependence of price on rarity and utility in his *Élémens du droit Naturel*, 1775 (part iii. ch. xi.) The substance of this work appeared in another form under the title *Principes du droit de la Nature et des Gens*, with matter added by the editor, Prof. de Felice, 1766; new edition, 1820. The remarks of Burlamaqui on value have been quoted by WALRAS, *Éléments de l'Économie Politique*, 2d éd. Leçon xvi. F. Y. E.

BURTON, J. HILL. See HILL BURTON, J.

BÜSCH, JOHANN GEORG (1728-1800), was, as ROSCHER says, the best representative of liberal tendencies among the German eclectic economists in the last thirty years of the 18th century. Materials for the history of his life are supplied by his autobiography (*Ueber den Gang meines Geistes und meiner Thätigkeit*). He was born in the territory of Lüneburg, and accompanied his father in 1731 to Hamburg, where he resided, except during his student-years at Göttingen and occasional absences, till his death. He is described as an excellent man, disinterested, independent, frank, modest, and industrious, and a good citizen, devoted to the interests of his adopted city. He was professor of mathematics in the local gymnasium, and conducted a trade academy at Hamburg which celebrated its centenary in 1867. He had a very high reputation in Germany; LÜDER speaks of him as "our greatest political writer," but this is a somewhat exaggerated estimate. Roscher characterises him as "a cultivated, experienced, and right-minded man, disinclined to all doctrinaire one-sidedness and practical extravagance." He is an original writer, but has not the art of orderly arrangement and clear exposition. His views were formed rather by experience and observation than by the study of books. The economic theorist whom he most valued was STEUART; he shows a certain captiousness and even bitterness towards Adam SMITH, whom he considered to be popularly over-rated. He is, however, more favourable to FREE-TRADE than most of his German predecessors, and protests against the "hot-bed cultivation" of certain branches of production at the

cost of the community. He unfortunately fell into the mistake (indicated by the title of his principal work, *Abhandlung von Geldumlauf*, 1780) of regarding economic phenomena with reference not to wants and their satisfaction, but to the circulation of money, a view which dominates the whole circle of his ideas. This confuses much of his reasoning, obscures the deeper and more essential facts of economic life, and tends to lead him back into the errors of mercantilism, from which, accordingly, he is only partially free. His most permanently valuable writings are probably his treatise on universal commerce (*Entwurf einer Geschichte der merkwürdigsten Welthändel neuerer Zeit*, 1781) and his history of the trade of Hamburg (*Gesch. der Hamburgischen Handlung*, 1797), in which he shows a thorough familiarity with the course of trade and the commercial relations of different countries (Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 559). J. K. I.

BÜSCHING, ANTON FRIEDRICH (1724-1793), was one of the two most distinguished German statisticians of the 18th century, ACHENWALL being the other. Like the latter, he belongs, as regards his economic opinions, to the more liberal branch of the mercantilist school. The work on which his reputation chiefly rests is his *Vorbereitung zur Europäischen Länder- und Staatskunde*, 1759. He rendered an important service by initiating in his *Neue Erdbeschreibung* the new "politico-statistical" method in geography, which supplies full information on the natural resources and capabilities, the industry and trade, the political system and general culture of each of the countries described. J. K. I.

BUTEL-DUMONT, GEORGE MARIE, was born at Paris in 1725, and died towards the end of the 18th century. By profession he was an advocate, and was appointed secretary to the French embassy at St. Petersburg. His works are chiefly concerned with colonial and commercial history. He is said to have assisted GOURNAY in translating CHILD'S *New Discourse of Trade* (1754). He translated and enlarged the *Discourse on Trade* of John CARY (*Essai sur l'État du Commerce d'Angleterre*, 2 vols. 1755). The best known of his works is the *Théorie du Luxe, ou traité dans lequel on entreprend d'établir que le Luxe est un ressort non-seulement utile, mais même indispensablement nécessaire à la prospérité des États*, two parts, 1771. This does not, however, merit the praise sometimes bestowed upon it; it is a superficial apology for luxury without any originality, attacking the "Tableau hiéroglyphique" of the economists, and their theory of the detrimental influence of luxury (pt. ii. p. 36), ridiculing the definite sense they give to it, though confessing their merits in other respects (p. 39).

His other works are: *Mémoires historiques sur la Louisiane*, 1753.—*Histoire et Commerce des Colonies Angloises dans l'Amérique Septentrionale*, 1755.—*Histoire et Commerce des Antilles Angloises*, 1758.—*Acte du Parlement d'Angleterre, connu sous le nom Acte de Navigation*, traduit de l'Anglois, 1760.—*Conduite des Français par rapport à la Nouvelle-Écosse* traduit de l'anglois (of Jeffreys), 1765.—And *Recherches sur l'administration des terres chez les Romains*, Paris, 1779. (See M'Culloch, *Literature*, pp. 34, 46, 223.) A *Traité de la circulation et du crédit*, is sometimes ascribed to Butel-Dumont, Amsterdam, 1771. But the author of this tract is Isaac de PINTO, who, like Butel-Dumont, had written an *Essai sur le luxe*. S. B.

BUTLERAGE. A commuted toll or tax, paid in specie, from about the year 1302 onwards, at a fixed rate upon every cask of wine imported into England by alien traders—part of the additional duties termed the new or small customs, as opposed to the ancient or great customs granted in 1275—*nova sive parva custuma*—as opposed to *antiqua sive magna custuma*. This duty, as such, ceased to be levied 5th July 1809, by the Customs Consolidation Act, 49 Geo. III. c. 98, § 36. The duty was in commutation of the rights of the king's butler (see PRISAGE).

[Dowell, *History of Taxation*, 2d. ed. vol. i. p. 80; vol. ii. p. 237.—H. Hall, *The Customs Revenue of England*, ed. 1885, vol. ii. p. 92.]

BUYING IN. A transaction known only to the stock exchange, where, if a member has sold stock, shares, or other securities, which he fails to deliver on a stipulated date, the buyer is at liberty to purchase from any other member of the stock exchange, and to claim against the original seller the difference between the two prices, supposing the latter to be higher than the original contract price. This is the process: the buyer who claims stock, employs the official broker of the stock exchange to "buy in" against the member failing to deliver. That is, open tenders of stock are invited; and he who sells must be prepared to deliver immediately. A. E.

BY-LAW, BYELAW. A regulation of a municipal or other local authority, or of any corporation, for the management of its internal affairs. The word is also, but much less frequently, used in the sense of additional or secondary law. It is probably derived in the same manner as the archaic word byr-law, which is still to be found in some dialects in the original sense of law or custom of a TOWNSHIP or MANOR, "byr" (Swedish and Danish = by) being the old Norse word for dwelling-place, township, etc. The power of municipal corporations to make by-laws is now regulated by the Municipal Corporations Act, 1882, § 23, and that of local authorities under the Public Health Act, 1875, by §§ 182-188 of that act; those made by the former bodies may be disallowed by order in council; those made by the latter must be confirmed by the local government board.

The Local Government Act of 1888 gives county councils the same power of making by-laws in relation to their county as borough councils have in relation to their borough (§ 16). There are several statutes dealing with the power of railway companies to make by-laws, among which the Railway Regulation Act, 1840 (§§ 7-9) and the Companies' Clauses Act, 1845 (§§ 124-127) are the most important. The by-laws made by railway companies may be disallowed by the board of trade. E. S.

BY-PRODUCT. A by-product is one which is obtained incidentally, together with the product which it is the main object of a particular process to secure. Such products are met with in almost every industry; those connected with metallurgy will alone be considered, as they will serve for the purpose of general illustration. It is, however, often difficult to separate the results of a particular operation or process into the *main* and the *by*-products. For instance, in the conversion of coal into coke by certain modern methods, the tar, ammonia, benzol, and other organic substances are collected as by-products, but their value is very great when considered in relation to that of the coke which is the main product of the coke ovens. In the case of the metallurgical treatment of certain kinds of iron pyrites, or sulphide of iron, the mineral, which contains small quantities of copper, silver, and gold, is treated mainly with a view to the conversion of the sulphur it contains into sulphuric acid. The residue may then be considered to be a poor ore of copper, gold, and silver, but it is rich in iron, and is useful for certain metallurgical purposes. The iron can, however, only be considered to be a by-product, as it certainly would not have been possible to treat profitably the iron pyrites with a view to extract the iron it contained.

In the metallurgy of copper, gold, silver, lead, nickel, and cobalt, the associated metals are extracted as by-products, and during the extraction of silver from certain ores of lead and copper, small quantities of gold pass into the silver, and conversely a small quantity of silver is always associated with gold. The separation of a small amount of one precious metal from a large mass of another in which it is hidden may be effected very cheaply, and both the gold and the silver, in the respective cases, must be considered to be by-products. It has been estimated that no less than 500,000 ounces of silver are annually extracted from gold, the silver being entirely a by-product, but, on the other hand, it would be a very difficult question to determine how far the 30,000,000 ounces of silver obtained by the desilverisation of lead ores, and the 7,000,000 ounces obtained during the treatment of copper ores, are by-products. The whole question of by-products is so extensive that it is not possible to do more than indicate its general nature.

[The special importance of the subject in reference to the production of the precious metals, and in particular of silver, is shown in great fulness of detail in the Memorandum by Professor Roberts Austen, F.R.S., Chemist to the Royal Mint, on the Cost of Production of Silver, laid by him before the Gold and Silver Commission, 1886.]

W. R.-A.

BY-PRODUCTS, THEORY OF VALUE OF. By-products may be considered as a special case of JOINT-PRODUCTS (*q.v.*); that in which one of the joint-products is of relatively small value. This incident does not invalidate the general theory that the prices of joint-products are such that (1) the supply of each commodity just meets the demand; (2) the net advantages of the producer are equal to those of any other occupation between which and the occupation under consideration there exists Industrial Competition. It is conceivable indeed that the gains incident to the by-product may be so small as not to exercise any influence in determining the flow of capital and labour to the occupation. Since the mobility of labour is subject to considerable friction, a very small motive which is not sufficient to overcome friction may produce not so much a small effect as none at all. Upon this view the prices of by-products would be determined only by the *first* of the conditions above stated. Their value would be altogether market as distinguished from normal value. This hypothesis hardly admits of verification. The "equation of net advantages" in different occupations (Marshall, *Economics of Industry*) is not in general fulfilled so exactly that it is possible to determine whether small items are, or are not, taken account of. It is at least safe to say that it is even more difficult to predict price in the case of a by-product as here defined than it is (Sidgwick, *Pol. Econ.* bk. ii. ch. ii. § 10) in the case of joint-products generally. F. Y. E.

CABET, ETIENNE, born at Dijon 1788, died at Saint Louis (Missouri), 8th November 1856. The son of a working man, he received in his first youth an education to correspond with his position in life. He soon, however, broke through these early trammels, and at the age of twelve attended the lectures of his fellow townsman, Jacotot, well known for his method of instruction, his own invention, which at the time was greatly in vogue. Here Cabet made such progress that he was able at fourteen to enter, as a teacher, the Lycée of Dijon. Public instruction appeared at that time to be the occupation he was likely to follow; but changing his course, he turned first to medicine, then to the study of the law, passed, 1812, as doctor *en droit*, and

took a distinguished position among the bar of the department of the Cote d'or. He became, 1815, founder and director of the *Fédération Bourguignonne* for the defence of the national territory, and mixed himself up with the party of the CARBONARI (*q.v.*) He appears to have derived his republican convictions from his father, who was a fiery patriot. About 1820-22 he fixed himself at Paris, and was specially appointed director of the *Vente Suprême*—the name given by the Carbonari to their political meetings. The Revolution of 1830 naturally found him in the first line of its adherents, and urging strongly, but in vain, the convocation of the *Assemblée Constituante*. Abandoning this cry, he consented, 1st August 1830, to be appointed general secretary to the ministry of justice, then, a few weeks later, *Procureur-général* in Corsica. Having offered himself as a candidate at the election for the legislature, he published a statement of his opinions which the government looked on as an attack on established institutions. His old comrade in carbonarism, M. Barthe, then minister of justice, dismissed him from his office. Two months later he was elected deputy for Dijon, and immediately made himself conspicuous among the democratic opposition. He published, among other things, a *Histoire de la révolution de 1830;* for this he was tried before a jury which acquitted him. After escaping a second time, when tried before another judge, he was less fortunate on a third occasion; and, in 1834, was condemned to two years' imprisonment for an article in which he accused the government of July of watching with anxiety for the moment when it could cannonade Paris. After a moment's delay he fled, first to Brussels, then to London, whence he did not return till 1839, when the period of his penalty had expired. He composed, in the last-named city, several historical compilations more or less revolutionary in tone, such as his *Histoire de la révolution française*, in which the most advanced adherents of the "mountain" were glorified, and their acts excused if not approved. Up to this date politics had absorbed him; he was converted to communism by reading the UTOPIA of Sir T. MORE; and he shortly became the most accredited high priest of that school of SOCIALISM, though his communism was not so thorough-going as might have been logically inferred from his principles.

He proposed, in the first place, a transitional period of fifty years between the actual *régime* and that which he dreamed of. The acts of the administration and the laws especially were to be framed so as to permit the definitive establishment of communism at the end of a half century. Successions to property, gifts, and transfers were to be severely scrutinised. Taxation was no longer to be levied on the poor, nor on objects of primary necessity, nor on labour. Wealth and superfluity, on the other hand, were to be subject to PROGRESSIVE TAXATION. The pay of working people was to be fixed by law, and in a sense favourable to them. An amount of 500 millions frs. (20 millions sterling) was to be employed in supplying occupation to the working classes and dwellings for the poor. The army was to be suppressed as far as possible —the men dismissed from the ranks being indemnified and employed on public works till the whole of the force could be disbanded. Marriages among the working classes, the instruction and education of the rising generation, were to be encouraged and aided by an annual charge of 100 millions frs. (4 millions sterling) on the budget.

When the half century mentioned above had gone by every one of the age of sixty-five was to be exempt from work, and provided with a retiring allowance. At this date also complete communism was to begin—at least Cabet's communism. As it would be impossible to attain direct government on account of the extent of the country, resort was to be had to representative government, liberty of the press was to be absolutely suppressed, one single official journal being allowed to appear.

Work, according to his plan, is obligatory, according to strength and capacity, for all—for men from eighteen to sixty-five—for women from seventeen to fifty. Work is, besides, so agreeable in Icaria, as this fortunate country is named, that no one is ever lazy there. All working people are separated according to professions, and then employed in common workshops. Hence beyond question an abundance of products would result, marvellously diversified, and necessarily adapted to the various wants of the community,—made with the minimum of effort, rather only with pleasure, for such is the nature of work in the communism of Icaria,—and divided equally, regard being had to age and sex, among all the citizens, at least up to the point first of what was necessary, then of what was useful, finally of what was agreeable. What is the necessary, the useful, the agreeable? Cabet forgot to define all this.

But the family? Our communist is not able to suppress that, he maintains it. Less logical than PLATO, he thought he might abolish property and respect the rights of the family. Children were to know who was their father and their mother; to the mother the education of her child was absolutely entrusted up to five years old. It was only after this age that the state took charge of it to make of it a complete communist. Concubinage was forbidden, voluntary celibacy was branded as an act of ingratitude worthy of suspicion. All these attractive things and many more are to be found in a stout volume of from 500 to 600 pages called the *Voyage en Icarie*, which Cabet wrote in London, and published in Paris first in 1840. This ran through many editions.

The *Voyage en Icarie* is a romance into the web of which the whole of Cabet's peculiar system is interwoven. Everything is mixed up in it—political reflections, administrative decisions, the cleansing of the streets side by side with the laws concerning the organisation of labour. Municipal reforms come side by side with the solution of social problems. The city of Icaria is described with the utmost detail, and is, as may be supposed, a model city such as is not beheld in this individualistic world. Everything in it is polished, clean, and dusted. It is perfect down to the minutest detail; "the very dogs (p. 44) cause no scandal." The deputies who are late are to come in through a door specially set apart for them, and provided with a bell so that their entrance should be marked to their more exact colleagues. All these charming arrangements inflamed the imaginations of those unhappy wretches who trusted their lives to Cabet's system. For after having disseminated, ever since 1841, through the journal the *Populaire*, his dangerous doctrines, Cabet, to whose good faith we desire to do full justice, convinced in his own mind of the advantages to be derived from his system, bought a million acres of land in Texas, and sent forward sixty-nine trusty followers to carry out the Icarian doctrines in this domain. This first exodus took place 3d February 1848. The colonists reached New Orleans the end of March, and hearing there the news of the revolution of 24th February at Paris, hesitated for a moment to go forward, but finally resolved to make their way to the appointed rendezvous. This first attempt turned out most disastrously, and the disciples of Cabet, decimated by disease, made up their minds to return to the capital of Louisiana, marking their way with the corpses of many of their number, who sank victims of fatigue and disease. On reaching New Orleans they met Cabet, who had quitted Paris December 1848 to join them. The interview was stormy; bitter reproaches were addressed to the high priest of communism, who, however, was not disconcerted. In March 1849 the Icarians, numbering two hundred and eighty, including the new-comers, and having this time Cabet at their head, turned their steps to Nauvoo in Illinois, where they met with fewer trials than in Texas.

Meanwhile Cabet had been condemned to two years' imprisonment on a charge of fraud. There was obvious exaggeration in this charge. Cabet was a fanatic, not a rogue. He was indignant at the accusation; returned for a short time to France; appealed against the sentence, and had the good fortune to see it reversed by the court of appeal in Paris, 26th July 1851. On his return to Nauvoo he found his colony making progress; the numbers mounted up to five hundred in 1855.

Divisions, however, existed in this population, which had few bonds of coherence. Many times a separation was thought of. At last it came; Cabet left Nauvoo at the head of some two hundred of his partisans, and soon after died at St. Louis. The cause of the split appears to have been that Cabet desired to induce the population to submit to an over-severe discipline, analogous to that of some convents of the Middle Ages. The colony of Nauvoo continued to exist, surrounded by difficulties of many kinds, up to 1880, after which date we have lost sight of it.

With respect to Cabet himself we may add, to complete what has been said as to his opinions on matters of a social character, that he is distinguished from communists of other schools in that he gives a quite peculiar religious form to his opinions. He connected his communistic convictions with the earlier ages of the church, and wrote on this subject several books, of which the most important has for its title the words, *Le vrai christianisme suivant Jésus-Christ* (1846), and for its conclusion, "Le communisme c'est le christianisme" (see COMMUNISM). A. C. F.

[For a fuller account of the Icarian colony in America, see Dr. Shaw's *Icaria* (1874) and Nordhoff's *Communistic Societies of the United States* (1875), pp. 333 *et seq.*]

CABLE TRANSFER. A telegraphic order from one banker to another to make a payment to a person or firm indicated in the cablegram. Cable transfers are most frequently used in the commercial intercourse between England and the United States of North America. Those bankers who are in the habit of transacting this class of business take very elaborate precautions, by means of codes and keywords, to avoid fraud. An ingenious chancellor of the exchequer a few years ago remarked that the revenue from bill stamps had fallen off on account of the frequent use of cable transfers, but this can hardly be borne out by the facts, as the bills which were formerly remitted by the persons who now make their payments by means of cable transfers are now used by the bankers to cover their friends for the payments they effect on their telegraphic order. E. S.

CADASTRAL SURVEY. A survey made for the purpose of compiling a public register of the quantity, value, condition, and ownership of the real property of a country. But the term is loosely applied to every official survey of the surface of a country. Thus DOMESDAY BOOK and the Ordnance Survey have alike been referred to as, in a sense, cadastral surveys. The purposes served by such surveys include the determination of the sums to be contributed to the revenue, or to any other common fund, by individual owners and occupiers of property, or by the community resident within any prescribed area; the registration of boundaries and of changes of ownership; the division and subdivision of a country into administrative and representative areas; and the arrangement of

schemes for public works, or drainage and other local improvements.

In the United Kingdom the general survey known as the ordnance survey was intended at first for purely military purposes, and, in particular, to provide plans for purely military purposes (hence the name the ordnance department); but as the real value of the work and the various uses which it might serve were perceived, the scheme expanded, and in England and Wales it is now proceeding on the following scale: Towns having 4000 or more inhabitants are surveyed on a scale of 1·500 of the linear measurement, which is equivalent to 126·72 inches to a mile, or 41⅔ feet to an inch; parishes (in cultivated districts) 1·2500 of the linear measurement, equal to 25·344 inches to a mile, or 1 square inch to an acre; counties on a scale of 6 inches to a mile; kingdom, a general map 1 inch to a mile. The maps issued by the survey are largely used for evidencing the particular properties referred to in legal and other documents, for planning public and private works, and for the delimitation of boundaries. But the absence of any information as to the value of the property delineated—an essential element in a true cadastral survey—makes the ordnance survey inapplicable to purposes of taxation, and the system of land registration and transfer which such a survey renders possible has not yet been fully organised in the United Kingdom.

In France, cadastral survey has, since 1790, been a matter of great importance owing to the prominent position of the *contribution foncière* in the financial system of that country. The French literature of the subject is proportionately extensive. In Germany a fairly accurate cadastral survey has (1861-1864) been completed.

Adam Smith (*Wealth of Nations*, bk. v. chap. ii. art. i.) gives some examples of cadastral surveys, and appears to think that the labour and expense they entail is out of proportion to their value. The point of view from which he is considering the subject is, however, that of taxation alone. The labour and delay incident to an adequate cadastral survey in England have been regarded as a fatal practical objection to schemes like J. S. Mill's for appropriating the Unearned Increment of rent.

[See report of the progress of the ordnance survey to the 31st December 1886 (*Parliamentary Paper* [c. 5005]).—*Dictionnaire de l'Administration Française*, par M. M. Block (2d ed., 1881).—*Recueil Méthodique des lois, décrets, règlements &c. sur le Cadastre de France* (Paris, 1811).—*Du Cadastre et de la Limitation des Héritages, par F. H. V. Noizet* (Paris, 1861).—*Denkschrift über die Ausführung des Gesetzes vom 21st May 1861, betreffend die anderweitige Regelung der Grundsteuer* (Berlin, 1865).] T. H. E.

CADET, Félix, born at Paris 1827, died at Viroflay near Paris 1888. After brilliant progress in his university studies, he commenced his career as a professor, lecturing first on history, then on philosophy. He gave, 1866-67, with great success, a course of lectures on political economy, before the *Société Industrielle*, of Reims; and divided with Horn, in 1866, the *Léon Faucher* prize, given by the *Académie des Sciences morales et politiques* (*Pierre de Boisguilbert, précurseur des Économistes*, 1870, in 8vo). He then undertook a series of *conférences* (discussions) at Rheims, also under the wing of the Société Industrielle of that city, the object of these being to examine curiously the lives and criticise the works of Boisguilbert, Vauban, Quesnay, Turgot, Smith, and Franklin. After 1870 he gave himself up principally to teaching, a career which he pursued with great success, and died honorary inspector-general of public instruction. A. C. f.

CAGNAZZI, Luca Samuele, born at Altamura, in the province of Bari, 1764, died 1852. By profession originally a teacher of mathematics, he was appointed, 1806, to a professorship in this study in the university of Naples. His life was full of trouble; having been concerned in political intrigues, he had to flee from Naples and, after wandering, nearly always on foot, through Italy and Switzerland, and after being imprisoned more than once, he had to seek refuge in Florence. He returned to Naples under Murat's government. After the change of government, he was elected deputy for Bari, and was President of the chamber on the 15th May 1848, when it was dissolved by the troops. To escape capture he fled again and returned to Florence, where he fell ill. Feeling his end at hand, and wishing not to die in exile, he obtained his pardon from the King of Naples, through the intervention of the Grand Duke of Tuscany. He deserves mention for having written on parallel Curves, in a time when this method of demonstration had some novelty. As an economist he wrote, besides an *Essay on the population of the Realm of Naples*, *Saggio sulla popolazione del regno di Puglia ne' passati tempi e nel presente* (Napoli, stamperia Trani, 1820 and 1839, 2 vols. in 8vo), what was perhaps his most important work, in 1813, a little manual of political economy, *Elementi di Economia politica* (Napoli, stamperia S. Giacomo), and, 1827, a pamphlet on *La Scienza della economia politica* (Venice). Some years earlier he had published a manual of statistics: *Elementi dell' arte statistica*, Napoli, stamperia Flautina, 1808, 2 vols. In 1839 he published his latest statistical work: *Sullo stato della Statistica nel Reame di Napoli al cadere del secolo XVIII. e cominciare del XIX.* Napoli. He desires government interference whenever practicable, and wrote, in particular, a book on ancient and modern economical principles (*Analisi dell' economia privata e pubblica degli antichi, relativamente a quella dei moderni,*

Napoli, stamperia della soc. Filomatica, 1830) to point out that modern principles are preferable! M. P.

CAIRNES, JOHN ELLIOT (1823-1875), was born at Castle-Bellingham, County Louth. His childhood was spent at Drogheda, whither his father, who was a large brewer, moved two years later. He was educated first at Kingstown and afterwards at Chester; and, as his teachers did not consider that his abilities fitted him for college life, he was, on leaving school, placed in his father's counting-house. Here he remained three years, developing a taste for study, and gradually finding business grow more and more irksome. Eventually his father made him a small allowance, upon which he lived at Trinity College, Dublin. He took the degree of B.A. in 1848, and that of M.A. in 1854. He subsequently studied law, and was called to the Irish bar in 1857, but he does not appear to have ever practised. During this period he also studied chemistry, engineering, and political economy, and engaged in journalistic work, his favourite topics being social and economic questions affecting Ireland. In 1856 he competed successfully for the WHATELY professorship of political economy in the university of Dublin, and from this time political economy became the study of his life. He held the professorship for five years, the full period during which it was tenable. It was a condition of the tenure that the professor should publish annually at least one lecture; and accordingly in 1857 he published the whole of his first course of lectures under the title of *The Character and Logical Method of Political Economy*. (A second edition appeared in 1875, shortly before the author's death.) In 1859, while still holding the Whately professorship, he was appointed by Mr. Cardwell, then Irish secretary, professor of political economy and jurisprudence at Queen's College, Galway. In 1859-60 he published in *Fraser's Magazine* and the *Edinburgh Review* three papers on the effects of the Australian and Californian gold discoveries. In 1862 appeared *The Slave Power*, a work that grew out of his last course of Dublin lectures. This book, which was dedicated to J. S. MILL, contained a philosophical analysis of the characteristics of slave labour, and of the social and economic effects of slavery, and was at the same time a defence of the cause of the Northern States in the American Civil War. It was an immediate success, and exerted a powerful influence upon English opinion. A second edition was called for in the following year.

From this time Prof. Cairnes enjoyed a high reputation as an economist. The period in question was one when political economy, and the Ricardo-Mill school in particular, was in the ascendant. In many departments of the science the doctrines taught by Mill were generally accepted as complete and final. It was to this dominant school that Cairnes belonged, and amongst contemporary English economists he came to be ranked second only to Mill himself. In 1860 he married Eliza Charlotte Alexander, sister-in-law of his great friend Prof. Nesbitt. In 1865 he moved to the neighbourhood of London, and in the following year he was appointed professor of political economy at University College, London. He did not, however, resign the Galway professorship till 1870, it being allowed him to appoint a deputy to lecture in his place during the last three years of his tenure. He was, at the time of his moving to London, a confirmed invalid, subject to attacks of rheumatic gout of constantly increasing severity. Gradually he was reduced to a state of complete physical helplessness, and his sufferings were great. His intellectual vigour was, however, in no way impaired, and he retained to an extraordinary degree his accustomed energy and cheerfulness. He is spoken of by those who knew him as possessing great conversational gifts and admirable humour; and whilst himself cut off from active political life, he continued to take the strongest interest in current politics. He was an intimate friend of J. S. Mill, and also of Prof. FAWCETT and Mr. L. H. Courtney. Through them and others his political influence was considerable, especially on Irish questions. Prof. Fawcett has himself put on record the great reliance that he placed on Cairnes's political judgment, and the frequency with which they discussed current political questions together. Cairnes had always been a strong advocate of united education in Ireland (see his *Letter to J. S. Mill on "University Education in Ireland,"* 1866), and it is said on the best authority that he was the unseen centre of the operations that led to the defeat of Mr. Gladstone's Irish University Bill in 1873. The state of his health compelled him in 1872 to resign his post at University College, and on his retirement the honorary title of Emeritus Professor was conferred upon him. In the following year he received from the university of Dublin the honorary degree of LL.D. In 1873 he published a volume of *Political Essays*, about half of which is taken up with Irish questions, and also a volume of *Essays in Political Economy, Theoretical and Applied*. The latter volume contained the "Essays on the Gold Question" already referred to, and other essays that he had written for various periodicals in the course of the preceding fourteen years. In 1874 appeared *Some Leading Principles of Political Economy newly Expounded*, a work which is usually regarded as his most important contribution to economic literature. He died on 8th July 1875, after great suffering, borne, for many years, with extraordinary fortitude. He left a widow and three children.

After Mill's death in 1873, Cairnes occupied in general estimation the foremost place

amongst English economists, though it may be doubted whether his subsequent influence upon the development of the science has been as great as that of his contemporary JEVONS. His work in economics belongs to three departments of economic inquiry broadly distinguishable from one another, namely (1) the logic of political economy, (2) the investigation and interpretation of contemporary economic facts, (3) economic theory.

(1) The *Logical Method of Political Economy* is an admirably precise and clear exposition of the province and method of economics from the point of view of the Ricardo-Mill school, and it has long been regarded as the authoritative text-book of English political economy so far as its logic is concerned. Cairnes urges with great force that political economy is properly concerned with what is, not with what ought to be, and that its principles are therefore theorems of fact, not rules of conduct. It falls into line accordingly with theoretical sciences such as astronomy and physiology, not with practical arts such as the art of medicine or the art of legislation. The method of study appropriate to the science is held to be the DEDUCTIVE METHOD, and the ultimate premises of political economy are found to consist in a few simple facts of human nature taken in connection with certain physical properties of the soil and man's physiological constitution. The body of doctrine thus established is in itself abstract and hypothetical, since the forces taken into account are not the sole, although they are by far the most important, forces determining the phenomena of wealth. Hence in the application of economic laws a constant appeal to facts is necessary, in order to discover and allow for the effects of disturbing causes, that is, for the modifications that happen to be introduced in particular instances by the minor influences affecting economic phenomena. Cairnes's whole treatment of the subject is conservative in tone, and he has no sympathy either with those who, like Cliffe LESLIE, advocate the use of the historical method in political economy, or with those who, like Jevons, regard the science as essentially mathematical in character.

(2) The best examples of Cairnes's method of dealing with contemporary economic problems of a concrete kind are to be found in the economic chapters of the *Slave Power*, and in the *Essays on the Gold Question*. In both these cases he was fortunate in selecting topics of peculiar interest at the time when he wrote, and he discussed them with such originality, lucidity, and force, as necessarily to command attention. His treatment of the problems is, however, of more than merely temporary value; and in particular his conclusions in regard to the general economic characteristics of slave labour, and the conditions essential in order that such labour may be temporarily profitable, are exceptionally good instances of established economic doctrines, resting mainly on an INDUCTIVE basis. The *Essays on the Gold Question*, though open to criticism in certain respects, may, in regard to style, be taken as models of clear and well-arranged exposition. They deal with the effects of the Australian and Californian gold discoveries, and the most striking of them is perhaps that which treats of the "course of depreciation." Cairnes's theory is that whilst an increased supply of gold will raise the prices of different classes of commodities and services with unequal rapidity, there is in the apparent irregularity nothing capricious or abnormal. He holds, on the other hand, that the movement is governed throughout its course by economic laws, and that it is possible broadly to determine the order in which different kinds of things will be affected. The working out of this theory is exceedingly acute and suggestive; and the statistical verification that Cairnes offers of his theoretical anticipations may be taken as an example of his work as a statistician.

(3) The improvement of economic theory in general accordance with the doctrines of Mill and his predecessors is given as the main purpose of the *Leading Principles of Political Economy newly Expounded*. This work was not intended to constitute an exhaustive treatise on economic science. It may rather be regarded as a critical commentary on Mill's *Principles of Political Economy*. The chief topics discussed are SUPPLY AND DEMAND, the analysis of COST OF PRODUCTION, the WAGES-FUND theory, TRADES UNIONS, INTERNATIONAL TRADE and INTERNATIONAL VALUES. It is impossible in the space at our disposal to give even the briefest outline of Cairnes's views on the above questions. His method of treating them is nearly always ingenious and subtle. The wages fund theory, for instance, as resuscitated by him, is a far more complex and ingenious doctrine than that which Mill first formulated in his *Political Economy* and afterwards repudiated. Cairnes's theory is that wages are paid out of capital, and that, given the nature of the prevailing industries, the whole amount expended in wages necessarily bears a definite relation to a nation's total capital. In further working out the theory, he lays great stress upon the law of the tendency of profits to a minimum, and, in fact, assumes that profits are already at or within a hand's breadth of the minimum. Little note is taken of the distinction between profits and interest. The laws regulating wages are therefore made to depend ultimately on the laws regulating the accumulation of capital.

Cairnes is emphatic in his recognition of the existence of non-competing industrial groups. "No doubt," he says, "the various ranks and classes fade into each other by imperceptible gradations, and individuals from all classes are constantly passing up or dropping down; but

while this is so, it is nevertheless true that the average workman, from whatever rank he be taken, finds his power of competition limited for practical purposes to a certain range of occupations, so that, however high the rates of remuneration in those which lie beyond may rise, he is excluded from sharing them." This is in itself not much more than a restatement of a passage in Mill's chapter on the differences of wages in different employments. Much more prominence is, however, given to the doctrine by Cairnes, especially in its bearing on the theory of normal value; and it has hence come to be particularly associated with his name.

While the *Leading Principles* exercised a very stimulating influence upon economic discussion in England, the doctrines laid down in it cannot be said to have met with anything like general acceptance, even amongst those economists who belong, broadly speaking, to the same school as Cairnes himself. On the whole, the effect of the book was more destructive than constructive, for it helped to shake faith in the finality of the Ricardo-Mill doctrines. Cairnes tended to exaggerate the degree of divergence between Mill and himself, and the net result of his criticism was to impair Mill's authority to a much greater extent than he can himself have anticipated.

It has been said that as a controversialist Cairnes was deficient in intellectual sympathy, and the charge must be allowed. With the best intentions, he often fails to convey to his readers a fair idea of the real meaning of the doctrines he is combating. A striking instance of this is to be found in his treatment of Jevons's theory of the relation of value to utility. The theory in question is based entirely upon the distinction between total utility and final degree of utility, and yet, while criticising Jevons's views somewhat severely, Cairnes never once refers to this distinction. He confesses himself unversed in mathematics, and to this may perhaps be attributed both his misunderstanding of Jevons, and also a certain characteristic looseness of thought in several cases where quantitative notions are involved. He analyses cost of production, for instance, into effort and ABSTINENCE, which are in themselves incommensurable quantities, without ever seeming adequately to realise the necessity of reducing these incommensurables to terms of some common unit. True to the views expressed in his earliest work, he always showed great confidence in the validity of deductive reasoning in economics, and he was never afraid of pushing his theories to their logical conclusions. We have a remarkable instance of this in his working out of the wages fund theory, where he does not shrink from the paradox that an increase in the supply of labour will *cæteris paribus* diminish not merely the average rate of wages, but actually the whole amount expended in wages.

Cairnes will always be remembered as at once one of Mill's most distinguished disciples, and one of his most vigorous critics; and his works are likely to retain on their own account an important place in the history of economic literature. All that he wrote has a striking individuality, and he expounds his views with a literary skill and a persuasive force that it would be difficult to surpass.

[See Articles in the *Times* for 9th July 1875, by Mr. L. H. Courtney.—In the *Fortnightly Review* for August 1875, by Professor Fawcett.—In the *Encyclopædia Britannica*, by Professor Adamson.—In the *Dictionary of National Biography*, by Mr. Leslie Stephen.—Cliffe Leslie, *Essays* IV. and VI., pp. 41 and 60.] J. N. K.

CAISSE. French word for (1) a chest where money is kept; (2) the cashier's office or desk in a commercial or banking establishment; (3) the money in hand; (4) the cash book or the cash account; (5) an establishment where money is administered, *e.g. Caisse de dépôts, Caisse d'amortisation.* E. S.

CALL. This is an OPTION (*q.v.*) and an option is usually worth something. On the stock exchange there are dealers in puts and calls (see PUTS AND CALLS); a call meaning the privilege of calling for a specified amount of stock bonds or shares at an arranged price at a specified date in advance. Calls extend from one day to three months and even longer. Thus, the agreement may be that a buyer of a call, in January, gives to the seller 1 per cent on £10,000 Egyptian unified bonds for the privilege of calling for the delivery of these bonds at the end of February. The price usually taken is the actual quotation plus interest, or (to use the stock exchange phrase) continuation, rates which may accrue in the interval. We will say the specified stock is worth 80 in the middle of January, and to this price is added three fortnights' rates of continuation or interest at $\frac{1}{4}$ per cent per fortnight, so bringing up the call price to $80\frac{3}{4}$. If, in the meanwhile, the buyer of the call has been able to sell this amount of the stock at anything above $80\frac{3}{4}$, the difference represents his profit on the operation against which has to be set his first outlay of 1 per cent.

CALL is also used in connection with joint-stock companies and loans which are not fully paid up at the time of issue. For the convenience of subscribers it is usually arranged that the amounts paid shall be, on application, say 5 per cent of the amount, on allotment, 10 per cent, and the remainder is paid by degrees according to the dates of the "calls." Often, also, it is arranged that only part of the nominal capital shall be paid up, the remainder not to be called up without the sanction of the shareholders. In the case of the City of Glasgow Bank, in which the liability of shareholders and trustees of shareholders was "unlimited," the

calls continued until many contributors had paid up to the utmost farthing of what they possessed. Limited and reserved liability acts have put some limit to this terrible, because indefinite, risk. A. E.

CALONNE, CHARLES ALEXANDRE DE, born at Douai 1734, died in Paris 1802. Originally a magistrate, he became, 9th November 1783, comptroller-general of the finances, which office he held till 8th April 1787, and in which he proved himself singularly incompetent. The commencement of his official career, however, at least in those points which were concerned with the chamber of discount, *la caisse d'escompte*, was successful enough; but before long the treasury, under his direction, became an institution only kept going by expedients. The fertility of his pen dazzled him; he considered difficulties as solved the solution of which was only deferred. Under his ministry the first assembly of Notables was convened. Having emigrated to England when the Revolution broke out, he returned to France in 1802, and died there a few months afterwards.

He successively published: *Correspondance de Necker et de Calonne* (1787, in 4to).—*Requête au Roi* (London, 1787, in 8vo).—*Réponse de Calonne à l'écrit de Necker* (London, 1788, in 4to).—*Lettres de Calonne au Roi*, 9 février et 3 avril, 1789.—*Note sur le mémoire remis par Necker au comité de subsistance* (London, 1789).—*De l'état de la France tel qu'il peut et tel qu'il doit être* (London, 1790).—*Observations sur les finances* (London, 1790, in 4to).—*Esquisse de l'état de la France* (1791, in 8vo).—*Tableau de l'Europe* (1795, in 8vo).—*Des finances publiques de la France* (London, 1797, in 8vo). A. C. F.

CALVIN, JEAN (1509-1564). The name of this illustrious theologian rightly finds a place in an economic dictionary. His writings stand in the same relation to the Reformation as those of AQUINAS to the Middle Ages. The clearest and wisest thoughts of the Reformers on political, social, and economical questions are to be found in his works. He was qualified in no common measure to form just conclusions on these subjects. A profound lawyer, conversant with ancient and modern history, familiar with the state of society in different countries, engaged habitually in the discussion and settlement of questions of government, administration, law, and police, he combined theoretical with practical knowledge in an unusual degree. Added to these qualifications were a sagacity, a historical insight, and an expository and dialectical power rarely equalled.

Calvin's writings consist of his *Institutes*, the greatest theological product of the Reformation, his Commentaries on Scripture, his letters, and some polemical and theological tracts. These, coupled with information furnished by the records of Geneva, are the authorities for his views on economical questions. His opinions may be best discussed under the following heads (1) church and state, (2) property and related questions, and (3) usury.

1. Calvin regards church and state as two separate and independent institutions. The state exists for man's temporal, the church for his eternal welfare. Each has its own officers and organisation. Neither should intrude into the sphere of the other: each should assist the other. All citizens are subject to both. The clergy are not exempt from the jurisdiction of the state. The church inflicts spiritual penalties only. Calvin was the first to distinguish the church from the state in such a way that both became independent powers, possessing an inherent jurisdiction. Up to his time the state had been subordinated to the church, or the church merged in the state. This view of the separateness and autonomy of the church and state has been of immense indirect effect on political economy. It has fostered the spirit of freedom: it has done justice to man's secular interests: it forms the foundation for the modern movement in favour of the separation of church and state. Such a separation was, however, far from Calvin's thoughts: on the contrary, he instituted the closest alliance between church and state. Magistrates perform sacred and legitimate functions. They must vindicate both tables of the law. Tyrannical magistrates are to be endured, but no obedience is due to commands at variance with God's will. Tributes and taxes are the legitimate income of princes: but their revenues are not so much private as public, the "blood of the people which it is inhuman not to spare." Alike in church and state the one supreme ruler is God (*Instit.* iv. 20).

2. Calvin saw clearly that the existence of PROPERTY was morally necessary. If there were no such thing as property there would be no test of justice and integrity (on Numb. xxxi. 28). The Libertines of his age advocated a community of goods, drawing their favourite argument from the practice of the primitive church recorded in Acts ii. 44; iv. 32. Calvin wrongly denies that such a community of goods ever existed. He contends that the community which prevailed had reference exclusively to the wants of the poor: that the surrender of their property was not made by all: that it did not embrace all their possessions, and that all did not receive equal shares. He is as opposed to the exaltation of voluntary poverty as he is to a community of goods. It is an ordinance of God that some should be richer than others. All men are not commanded to sell all. The rich young man of the Gospel was covetous and was bidden to sell all for his soul's sake. But the farmer sins who, forced by no necessity, sells the farm by which he supports his children (on Matt. xix. 16). Experience and observation had taught Calvin the importance of TRADE and COMMERCE,

and he was not slow to defend their lawfulness and value. He knew that POVERTY arose when trade fell off, and hence at a memorable conjuncture in the social history of Geneva he proposed to set up the weaving of cloth and velvet as a means of preventing poverty. His advice was taken, and for many years Geneva was famous for its manufactures of cloth and velvet. It has been too hastily inferred from this circumstance that Calvin was favourable to the "industrial ideal" of society. No passages can be quoted which prove that such was the case. It is unquestionable that he was ready to do all he could to augment the prosperity of Geneva, but his ideal was moral rather than industrial. LUXURY he condemned as sinful. He was a strenuous upholder of SUMPTUARY LAWS. (For particulars see *Stähelin*, i. 342.) But his legislation regarding the colour and shape of clothes, adornment, and so forth, was not conceived in an illiberal temper. He was equally opposed to those who would limit men's use of earthly goods to the bare necessaries of life, as to those who would allow them to live as they pleased (*Instit.*, iii. 10). Calvin put down idleness and begging as immoral, but for those in real poverty he made admirable provision. To care for the poor was in his view the duty of the church. A special grade of officers had been formed for this purpose in apostolic times (on Acts vi.), and this grade he revived. He distinguishes between two classes of deacons: those who administer the affairs of the poor, and those who tend the sick poor, the former being specially deacons (*Instit.* iv. 3, 9; iv. 5, 15). His famous Ecclesiastical Ordinances provide for the yearly election of both classes of deacons. The first class took charge of the poor funds, the poor throughout the city, and the management of the hospital. The deacons tending the sick lived in the hospital (Kampschulte, p. 466). Ecclesiastical property he held it unlawful to alienate. What has once been devoted to Christ and the church is not the property of the magistrate. The magistrates should have the power of supervising and the deacons of administering this property (letter to Viret, 1542; on Acts iv. 32). It is clear that Calvin was as anxious as Knox himself to preserve ecclesiastical property for ecclesiastical uses, and that he did not wish the church to draw its revenues direct from the state. TITHES were public burdens and should be paid.

3. Calvin was the first theologian who rejected the current opinions regarding the sinfulness of USURY. His views on this subject are to be found in his commentaries on Ex. xxii. 25; Lev. xxv. 35; Deut. xxiii. 19; Ps. xv. 5; Ezek. xviii.; Luke vi. 35, and in the famous letter (Works, vol. viii. 223, ed. Amst.) Usury is not condemned by Scripture. Scripture forbids the exaction of usury from the poor, but allows it in the case of the rich. The laws of the Jews which prohibited the taking of interest by Jews from Jews are political not moral laws: these very laws permitted Jews to receive interest from Gentiles. Usury is repeatedly condemned in the Old Testament, but never on grounds which are valid for all Christians. The prohibition of interest in the Old Testament is a provision in the interests of the poor. The exaction of interest from the poor has often produced tumults, as in Rome. Calvin rejects with proper scorn the substitution of "usura" for "the detested word fœnus," holding that there is no description of "fœnus" to which the name "usura" may not be given. He exposes the evasions by which usury was exacted without being mentioned by name, a poor man requiring to repay the loan of six measures of wheat by a return of seven. The question is one not of words but of things. ARISTOTLE'S argument, accepted by Ambrose and Augustine, that usury is unnatural because money is barren, is worthless. May not a cheat make much profit by trading with another man's money? A man purchases a farm. Is not the produce convertible into money? Usury is not unlawful unless it contravenes equity. Usury therefore (1) must not be exacted from the needy; (2) the lender must not forget to be charitable; (3) regard must always be had to natural equity; (4) the borrower must be as much enriched by the transaction as the lender; (5) our conception of justice must be drawn from the Word of God and not from prevailing usage; (6) the interests of the state as well as the individuals concerned must be considered; and (7) the limit of interest fixed in each state must not be exceeded. But usury should not be made a means of livelihood. It is plain from this passage that Calvin rejected the two chief arguments against usury—its condemnation by Scripture, and the barrenness of money; but that he felt rather than saw the distinction between usury and INTEREST. Whether he discerned the principle on which the payment of interest rests is doubtful. He says, indeed, that no creditor can ever lend money without loss to himself, and that usury ought to be paid to the creditor in addition to the original sum to compensate him for loss, but it is uncertain whether he saw that this principle applies in all cases. (On Ex. xxii. 25 and related passages.)

The best edition of Calvin's writings is that under the charge of Baum, Cunitz, and Reuss, the publication of which began in 1863 and is still incomplete. The Amsterdam edition of 1667-71 in 9 vols. folio is that commonly quoted. The principal lives are by Henry, *Das Leben Calvin's*, Hamburg, 1835-44.—Stähelin, *Johannes Calvin Leben und ausgewählte Schriften*, Elberfeld, 1863.—Kampschulte, *Johann Calvin, Seine Kirche und Sein Staat in Genf*, Leipzig, 1869.—Dyer, *The Life of John Calvin*, London, 1850.—See

also Herzog, *Real-Ency.* "Wucher."—Böhm Bawerk's *Capital and Interest*, Mr. Smart's translation I. 28.—Wiskemann, *Darstellung der in Deutschland zur Zeit der Reformation herrschenden Nationalökonomischen Ansichten* (1861).—Elster, *Johann Calvin als Staatsmann*, etc.—*Jahrbücher für Nat. Ökonomie*, 1878, vol. xxxi. p. 163 *et seq.* Lecky, *Rationalism*, ii. 265, ed. 1878. W. P.

CAMBAGE, DROIT DE. This was a due payable in parts of mediæval Germany, France, and the Netherlands, by the tenants to their lord for the privilege of brewing ale. The term occurs in some chartularies during the first half of the 12th century, and about a hundred years later cambage with other dues was granted by Guy, count of Flanders, to the hospital of St. Bartholomew of Bethany. In England the seignorial revenues from ale appear to have been almost, if not entirely, derived from AMERCEMENTS in the manor courts for breaches of the assize of ale, and the term "cambage" was not used. The word was no doubt derived from the low Latin, *camba*, an aleshop, and *camum*. The latter was a kind of effervescent ale brewed from barley with ginger and other spices.

[Ducange, *Glossarium mediæ et infimæ Latinitatis*, 1733.] A. H.

CAMBIST. See EXCHANGE BROKER.

CAMBON, PIERRE JOSEPH (1756-1826), the greatest financier of the period of the French Revolution, was a native of Montpellier, where his father carried on a large business as a wholesale grocer. He was well educated, and, as he showed a great aptitude for business, was admitted, while still young, a partner in his father's firm. He was highly esteemed by his fellow-citizens, was elected in 1790 a municipal councillor of Montpellier, and in 1791 a deputy for the department of the Hérault to the Legislative Assembly. He was already well known in Paris, where he had resided for several months during 1789 and 1790 as a *député suppléant* to the Constituent Assembly, and was immediately appointed reporter of the committee of the national treasury. In this capacity he showed such complete mastery of financial detail that he was in 1792 chosen by the financial committee of the Assembly to be their ordinary reporter. The declaration of war with Austria made it imperative for the Assembly to raise large sums of money at once, and Cambon in three elaborate reports laid the financial state of France before his colleagues. A careful study of these reports, which were entitled *Tableau des besoins et des ressources de la Nation*, presented on 3d April 1792; *Rapport sur la situation des Finances*, on 17th, 18th, and 19th April; and *Rapport sur la situation générale des Finances*, on 15th May, is absolutely necessary for any one who would appreciate the financial condition of France when foreign war added to the complications of the Revolution. The ability of the reporter was generally recognised; Cambon was elected President of the Assembly in August 1792, and in the following month first deputy for the Hérault to the Convention. He was naturally elected to its financial committee, of which he became the ordinary reporter. The war with Austria had been followed by war with Prussia, and after the execution of Louis XVI. by war with Europe. The financial condition of France was desperate. All Cambon could do was to propose issues of ASSIGNATS, of which 400,000,000 of livres (£16,000,000) in nominal value were directed to be created 17th October 1792, and 800,000,000 (£32,000,000), 1st February 1793. Cambon was elected a member of the Committee of General Defence in January 1793, and of the first Committee of Public Safety in April 1793. This committee was replaced 14th July 1793 by what is known as the great Committee of Public Safety, to which Cambon was not elected. Thus freed from the cares and responsibilities of general administration, Cambon devoted himself wholly to the management of the finances of France. The two chief causes of the confusion which prevailed were the excessive amount of assignats in circulation and their consequent depreciation, and the ignorance prevailing as to the actual debt of the country. To remedy them Cambon proposed to prepare a GRAND LIVRE of the national debt. His aims are best indicated in the title of his report, presented to the Convention on 15th August 1793, *Rapport sur la dette publique, sur les moyens à employer pour l'enregistrer sur un grand livre; pour admettre la dette publique en payement des biens nationaux qui sont en vente; pour retirer et annuler les anciens titres de créance; pour accélérer la liquidation; pour régler le mode actuel de payement de la dette consolidée dans les chefs-lieux de district; et pour retirer les assignats de la circulation.* This is the great measure on which Cambon's fame as a financier rests. There is no need to examine his other reports; they all had the same intent, to realise the property of the nation and thus extinguish the assignats as far as possible. He was aided in his endeavours by other less known deputies, who worked in the Financial Committee, of whom the ablest were Ramel and Johannot, and by Robert Lindet, who had charge of the department of "national subsistences or resources" in the great Committee of Public Safety. Throughout the Reign of Terror, Cambon worked at the finances, and practically administered them. He had no sympathy with the views of Robespierre, and disliked the measure of the "maximum," which was forced on the Convention for political reasons, and was economically indefensible. This attitude made him most obnoxious to Robespierre, who attacked him by name in his last speech in the Convention on 8th Thermidor

year II. (26th July 1794), and would have proscribed him had not he himself been overthrown on 9th Thermidor. During the first months of the rule of the Thermidorians, Cambon maintained his position, but after the return of the proscribed Girondins, and the insurrections of Germinal and Prairial year III. (April, May 1795), he was attacked as a terrorist, because he had not opposed the Terror, and he was ordered to be arrested. He was, however, amnestied in the general amnesty of Brumaire year IV. (October 1795), and then retired from public life. In 1797, in a published *Lettre à ses concitoyens sur les Finances*, he promised to write a history of his administration of the finances with illustrative documents, but unfortunately he never fulfilled this promise. He returned to Montpellier a poorer man than when he became a deputy, and continued peacefully occupied in his business until 1815, when he gave in his adhesion to Napoleon on his return from Elba. This caused him to be exiled from France as a regicide in 1816, and he died at Brussels in 1826. Cambon was without doubt the greatest financier of the French Revolution; he shared MIRABEAU'S abhorrence of national bankruptcy; he strove to draw his country from the financial embarrassment caused by the depreciation of the assignats; he managed the treasury skilfully and with absolute honesty, and he possessed MONTESQUIEU'S power of making financial statements lucid and even interesting.

There exists no work devoted to Cambon and his measures; the best biographical sketch is in the *Biographie Rabbe* (1836); there are some interesting notices in *Montpellier sous la Révolution*, by Duval-Jouve, Montpellier, 1878; on his administration see *Les Finances de l'ancien Régime et de la Révolution*, by René Stourm. The following list of Cambon's most important financial speeches and reports is extracted from M. René Stourm's *Bibliographie des Finances au XVIIIième Siècle*, published in the *Annales de l'École Libre des Sciences Politiques*, for 15th October 1890.—Legislative Assembly, *Rapport sur la situation de la Trésorerie nationale* (10th October 1791).—*Rapport sur les états de prévisions de dépenses pour 1792 et les comptes à présenter par les ministres* (11th November 1791).—*Opinion sur le rapport du Comité de la caisse de l'extraordinaire et sur la dette publique* (24th November 1791).—*Tableau des besoins et des ressources de la nation* (3d April 1792).—*Aperçu des recettes et des dépenses de 1792* (6th April 1792).—*Rapport sur la situation des finances à la date du 1ier Avril 1793* (17th, 18th, 19th April 1792).—*Rapport sur la situation générale des finances* (15th May 1792).—Convention, *Rapport et projet de décret sur une nouvelle création de 400,000,000 d'assignats* (17th October 1792).—*Rapport et projet de décret concernant la suppression de la caisse de l'extraordinaire et sa réunion à la Trésorerie générale* (24th December 1792).—*Projet de décret pour une nouvelle création d'assignats de 800,000,000* (1st February 1793).—*Rapport sur la dette publique*, etc., quoted in text (15th August 1793).—*Projet de décret pour défendre la vente, cession, négociation, ou transport de titres actuels constatant les créances non viagères sur la nation* (11th September 1793).—*Rapport sur les domaines aliénés* (1st Frimaire year II., 21st November 1793).—*Projet de décret pour démonétiser les monnaies d'or et d'argent* (11th Frimaire year II., 1st December 1793).—*Projet de décret relatif aux assignats démonétisés* (24th Frimaire year II., 14th December 1793).—*Rapport sur le compte des recettes et des dépenses de la nation, depuis le 1ier Mai 1789 jusqu'au 1ier Septembre 1793* (3d Germinal year II., 23d March 1794).—*Rapport et projet de décret sur les mutations par décès des inscriptions au grand livre* (18th Fructidor year II., 4th September 1794).—*Rapport et projet de décret sur la liquidation des compagnies financières connues sous le nom de caisse d'escompte, assurances sur la vie, assurances contre les incendies* (25th Fructidor year II., 11th September 1794).—*Rapport sur les pensions dites ecclésiastiques* (2d Sansculottide year II., 18th September 1794).—*Discours au sujet du compte de l'argenterie des églises* (12th Brumaire year III., 2d November 1794).—*Rapport et projet de décret sur les taxes révolutionnaires* (6th Frimaire year III., 26th November 1794).—*Rapport sur les moyens à prendre pour retirer les assignats de la circulation et sur la création d'une loterie* (3d Pluviôse year III., 22d January 1795).—*Résumé des diverses opinions présentées à la Convention Nationale sur le projet du Comité des Finances pour accélérer le retirement des assignats* (7th Ventôse year III., 25th February 1795).—*Rapport sur la fixation de la contribution foncière à imposer sur les inscriptions consolidées et viagères* (16th Ventôse year III., 6th March 1795). (See ASSIGNATS; MAXIMUM.) H. M. S.

CAMBRELENG, CHURCHILL C., born in North Carolina 1786; died in Long Island 1862. He was engaged in business in New York; and became member of congress 1821-39. An ardent free trader, he published anonymously, in 1821, *An Examination of the New Tariff proposed by the Hon. Henry Baldwin, a Representative in Congress*, by one of the People, New York, pp. 268. In 1830, as chairman of committee on commerce, he made a *Report on Commerce and Navigation*, which was extensively circulated even in England; in this he strongly condemns the commercial policy of the preceding fifteen years; in 1838, from the Committee on Ways and Means, he made a *Report on the Currency, National Bank, Independent Treasury*, in which he argued for the separation of the banking and fiscal operations of the government. D. R. D.

CAMERALISTIC SCIENCE (*Kameralwissenschaft*). So called because in the progress of time the private chamber of the king became the treasury, and the *camerarius* assumed a new and fiscal importance. Strictly speaking, the science treats of the adaptation of means to ends, and the effects of expenditure on the fund of wealth from which revenue can be drawn. Thus

it is nearly equivalent to "Science of Finance." There can be no doubt that in the 18th century the term was applied to a subject which might have been perfectly described by the latter phrase. There are, however, two reasons for treating them as separate and distinct. While writers on FINANCE (*q.v.*) generally treat of the national revenue and expenditure from an isolated point of view, the cameralistic writers considered the financial as but a part of entire economic science. Thus we are entitled to speak of cameralistic as well as of financial *science*. In the second place *finance* is frequently used as almost if not quite synonymous with taxation. The distinctions thus drawn are not, however, unexceptionable. Many treatises on cameralistic science are in point of fact treatises on the art of taxation, while on the other hand such a work as RICARDO'S *Principles of Political Economy and Taxation*, despite its incomplete nature, belongs in great part to the department of cameralistic science. (Another branch of this subject may be studied under COMMERCIAL SCIENCE, *q.v.*)

[Good examples of treatises on *Kameralwissenschaft* in its early sense as related to other branches of *Volkswirthschaft* or more generally, *Wirthschaftlicheswissen* are furnished in Baumstark (Edward), *Kameral, etc.*, *Encyclopädie*, and Rau (C. D.), *Ueber die Kameralwissenschaft*; while for its more matured form the works of Rau, Wagner, and Leroy Beaulieu should be studied.] E. C. K. G.

CAMERARIUS, JOACHIM (born 1500, died 1574), an eminent scholar and "humanist," the friend of MELANCHTHON, the "glory of the German name" according to the learned Casaubon, deserves notice here as the author of a history of Greek and Roman money; and as having combated the mediæval prejudice against the payment of interest (see AQUINAS). "Why," he asks, "should you not pay for the use of money as well as for the use of a house?"

Historia rei Nummariæ sive De Numismatis Græcis et Latinis, in the ninth volume of Gronovius's *Thesaurus Græcarum Antiquitatum*. Another work on an economic subject was *Politicorum et Œconomicorum Aristotelis interpretationes et explicationes*, 1581. F. Y. E.

CAMPANELLA, TOMMASO (1568-1639), (a Dominican, born in Calabria), a much persecuted philosopher, wrote among many other works, *Civitas Solis*, an "idea of a philosophical republic," resembling the Platonic republic in the community of wives and goods, and in many other features, but not in slavery. In the city of the Sun "no one thinks it lowering to wait at table or to work in the kitchen or fields. While duty and work are distributed among all, each one has only to work about four hours a day." The remaining hours are spent in pleasant mental and bodily exercises. Commerce plays a small part in the simple economics of the Solarians. Money, given in exchange for foreign goods is not received.

[*Civitas Solis*, begun in 1602 (during the author's imprisonment), was published as part of *Realis Philosophiæ Epilogisticæ partes quatuor*, Frankfort, 1623.—*Fra Tommaso Campanella . . .* Luigi Amabile, 1887.—*Thomas Campanella . . .* Ernest Nys, 1889. Abstract in Jowett's *Republic*, Preface. An English translation in Morley's Universal Library, Routledge.] F. Y. E.

CAMPOMANES, PEDRO RODRIGUEZ, Count of (1723-1802), an eminent Spanish jurist, economist, and statesman. As a member of the group of enlightened ministers who gave lustre to the reign of Charles III., he laboured for the reform of taxation, the promotion of agriculture and manufactures, the diffusion of education, and the adaptation of Spanish institutions to the needs of the age. Eminently upright and disinterested, he was one of the foremost benefactors of his country. His theoretic views and practical efforts strikingly resemble those of his illustrious contemporary TURGOT.

The principal economic writings of Campomanes are:—*Respuesta fiscal sobre abolir la tasa y establecer el comercio de granos*, 1764.—*Discurso sobre el fomento de industria popolar*, 1774, and *Discurso sobre la educacion de los artesanos y su fomento*, 1775. Robertson eulogises the two latter works in his *History of America* (note 193), and justly says of Campomanes—"There are not many authors who have united more happily the calm researches of philosophy with the ardent zeal of a public-spirited citizen." J. K. I.

CANALS may be defined as artificial waterways constructed for the purpose of navigation or irrigation. Navigable canals may be divided into two classes: (1) those used for inland navigation, and (2) those used to shorten sea voyages. The former have been constructed to carry boats and barges limited on the smaller canals to a carrying capacity of 25 to 30 tons, and on the larger canals to a capacity of from 50 to 300 tons. In the Amsterdam and Manchester ship canals, a successful attempt has been and is being made to construct a waterway of sufficient size to permit of the passage of large sea-going vessels. The chief examples of the second class are the Suez Canal, the Languedoc Canal, and the Caledonian Canal. Though known in Egypt and China, and constructed in Holland in the 12th century, it was not until the invention of locks in Italy in the 14th century that inland navigation made any progress in Europe. The development of canals in Holland greatly extended that country's commerce, as by their means a large inland trade was carried on with Germany and France. Several important canals are found in France towards the end of the 17th century, but in England the first modern canal was not authorised until 1755. Five years later the Duke of Bridgwater obtained his first Canal Act, and the success attending the construction of the canal from Worsley to Manchester gave such an impulse to such undertakings that PORTER (*Progress of the Nation*, § iii. ch. i., 1836-1843)

pointed out that, owing to the construction of canals, there was no spot south of the county of Durham at a greater distance than fifteen miles from water conveyance. It was expected that canals would prove formidable rivals to railways, but in 1845 began the gradual transfer of canals to railway companies. This transfer was in some cases due to the dread that railways would secure all the traffic, and the withdrawal of opposition to the construction of the railway was secured by the purchase of the canal. In other cases the railways offered tempting terms so as to secure a monopoly of traffic. The result was that nearly one-half the inland navigable canals are controlled by railway companies (see *Evidence taken before select committee on canals*, 1883). Some canals have been closed or allowed to fall out of repair, on others heavy tolls called "bar tolls" have been imposed to prevent their use by traffic from neighbouring canals, whilst no adequate attempt has been made to establish through communication or speedy service (see *Report of committee on railways*, 1882). In 1872 a joint committee of the House of Lords and of the House of Commons recommended that no internal navigation in the hands of the public should be placed under a railway company, and in 1882 a select committee of the House of Commons on railways expressed the opinion that it was "impolitic that railway companies should have the control either directly or indirectly of canal navigation, and that where canals are already under the control of railway companies, parliament should endeavour to ensure their use to the fullest possible extent."

The advantages of canals over railways have been summed up by L. F. Harcourt in his treatise on *Rivers and Canals* (Oxford, 1882), as follows—"They are frequently less costly in construction, and their cost of maintenance and their working expenses are considerably smaller. Moreover, the proportion of dead weight to the load carried is much less in canal barges than in railway waggons; and the barges not only cost much less proportionately to their capacity than waggons, but are also far more easily repaired. The resistance also to traction is much smaller in water than on rails, amounting, according to M. Malézieux, to only one-fifth of the average resistance on railways. Barges on canals can be loaded or unloaded at any places they pass; whilst goods trains can only stop at stations." See also the *Evidence given before the Committees on the Manchester ship canal*, 1883, 1884, 1885, and *Canals* by M. Stevens (London, 1887).

[On the economic aspects of canals reference may be made to *Observations sur les tarifs de nos canaux*, F. Aulagnier, 1837.—*Observations on Canals and Navigable Rivers*, G. Beadon, 1848.—*Le Canal Indo-Européen et la navigation de l'Euphrate et du Tigre*, E. Ende, 1886.—*Kanale und Eisenbahnen in ihrer wirthschaftlichen Bedeutung*, C. Hauser, 1880.—*Des Canaux de Navigation*, M. La Lande, 1778.—*Die Canalisation des preussischen Staates nebst Beweis*, Z. Puttkammer, 1868.—*Canal und Eisenbahn*, Reimherr, 1884.—*Canals*, by M. Stevens, London, 1887.—*Eisenbahn oder Kanal*, E. Wiss, 1878.—*Ueber die Kanalbahn und deren Rentabilitat in der Eisenbahnzeit*, E. Wiss, 1866.—*Die selbstartende Eisenbahn Transporte und die Wasserstrassenfrage*, L. Zells, 1887.—*Ueber Wasserstrassen*, L. Zells, 1887.—*Waterways and Water Transport*, by J. S. Jeans, London, 1890.

The relative advantages of railways and waterways in Germany are discussed in the *Journal of the Royal Statistical Society*, vol. li. 1888. The reports and evidence of the select committee on railways, 1882, and on canals, 1883, contain valuable information. See also the report of the French commission appointed to inquire into railways and other means of communication, 1872. As regards the canal system of different countries, see as to English Canals, *History of Inland Navigation*, by J. Phillips, London, 1803.—*Historical Account of the Navigable Rivers, Canals, and Railways throughout Great Britain*, by J. Priestley, London, 1831.—*Appendix to the Report of the Select Committee of 1830, on the State of Ireland.* As to France: *Histoire de la Navigation intérieure de la France*, par M. Dutens.—*Les Voies navigables en France*, par P. Muller, 1866.—*Manuel des Voies navigables de la France*, par A. Larme, 1878. As to Germany and Austria: *Die Kanal-Verbindung des Rheines mit der Donau*, C. T. Kleinschrod.—*Deutschlands Wasserstrassen in deren Verwendung in ihrem jetzigen Zustande für den Export*, von W. J. Mulvany, 1881.—*Vienne port de mer, Traité de l'exploitation des Voies comprises d'Autriche et de l'Allemagne. Le Grand Danube*, par Saint Hubert, 1881. As to Holland: *Nederland als Polderland*, A. A. Beckman, Zutphen, 1888.—*Le Canal d'Amsterdam à la mer du Nord*, C. Boissay, 1871. As to United States: *Die Wasserstrassen in den Vereinigten Staaten von Amerika in ihrer commerziellen und industriellen Bedeutung*, C. Mosler, 1877.] J. E. C. M.

CANARD, Nicholas François, professor of mathematics at the Collège de Moulins (*b.* about 1750, *d.* 1833). He was the author of *Principes d'Économie Politique*, Paris, 1802, crowned by the French Academy. "Ces prétendus principes," says Cournot, "sont si radicalement faux, et l'application en est tellement erronée, que le suffrage d'un corps éminent n'a pu préserver l'ouvrage de l'oubli."

Canard also wrote *Mémoires sur les causes qui produisent la stagnation et le décroissement du commerce en France, et qui tendent à anéantir l'industrie commerciale; moyen simple de les faire cesser*, Paris, 1826.

[Canard is criticised by M. Bertrand, *Journal des Savants*, 1883, p. 499.] F. Y. E.

CANCEL, Cancellation. The discharge of a document, usually by marking across the operative signature, or signatures, either the word "cancelled" or some recognised mark. "The cancellation of a signature operates as a

discharge, unless proof can be given that the cancellation was done by mistake."

[Hutchison, *The Practice of Banking*, vol. i. p. 125.]

CANCRIN, GEORGE (1774-1845), an eminent Russian financier, son of Franz Ludwig Cancrin, the distinguished German mineralogist. Born at Hanau in Electoral Hesse, he studied law and political economy at the universities of Giessen and Marburg, and early showed a remarkable faculty for work and a spirit of restless activity. He filled successively several posts in the administration of Anhalt-Bernburg. He joined his father in Russia, 1796. In 1800 he was employed in the ministry of the interior, and, having attracted attention by writings on military economy, he was made, 1812, intendant-general of the army of the West, and in that capacity accompanied the Russian forces in their march through Germany. In 1813 he was appointed intendant-general of all the "active" armies. This office he resigned in 1820, and in 1823 became minister of finance, a position which he held till 1844. He possessed in a high degree the esteem and confidence of the Emperor Alexander, as well as of his successor. He was most diligent and energetic in discharging his ministerial duties, founded many useful establishments, and gave a great impulse to the national industries. He had special agents at Paris, at London, and in Germany, who kept him informed on the progress of the arts and the introduction of new processes. By his financial management he increased the revenue, and raised the credit of the empire, previously on the verge of bankruptcy. But his system, though successful in providing resources for the government, was founded on rigid prohibition and state-manufactures, and appears to have been burdensome to the community. His term of office, we are told, is now regarded by the Russian people as the most unfortunate period of their history. He died at St. Petersburg in 1845. ROSCHER thinks his general economics were injured by his pre-occupation with the question of military supply, immediate results being aimed at in the latter case, whilst in the conduct of national affairs as a whole permanent prosperity is the object to be achieved. He represented a reaction against Adam SMITH from the point of view of a man of the world who had to conduct the economic practice of a country much less advanced than England, in fact, as he himself calls it, "infra-European." Strictly conservative in his economics, he disliked new institutions, being thus sometimes led to paradoxical conclusions; he opposed, *e.g.* the establishment of banks and the extension of railways, at least in Russia. (Roscher, *Geschichte der Nat. Oek. in Deutschland*, p. 813.)

Cancrin was author, besides minor publications, of a treatise *Ueber die Militärökonomie im Frieden und im Kriege, und über ihr Wechselverhältniss zu den Operationen*, 1820-23, of *Weltreichthum, National-Reichthum und Staatswirthschaft, oder Versuch neuer Ansichten der politischen Oekonomie* (published anonymously), 1821, and *Die Oekonomie der menschlichen Gesellschaften und des Finanzwesen, von einem ehemaligen Finanzminister*, 1845.

J. K. I.

CANDAREEN. A denomination of the Chinese money of account, but not a coin. 10 cash = 1 candareen (see CASH). 10 candareens = 1 mace. 10 mace = 1 tael (the unit of value).

F. E. A.

CANNING, GEORGE, born in Marylebone, 1770, died at Chiswick, 1827, is most famous for the unique services which he rendered as foreign secretary, especially in the autumn of 1807, when he directed the capture of the Danish fleet, and in 1822 and 1826, when he stood firm against France and the Holy Alliance in the affairs of Spain and Portugal. His "Needy Knife Grinder" and other witty papers in the *Anti-Jacobin* have given him a place of his own in our minor literature. In economical history his place is subordinate. His first views of commercial policy inclined him to compromise. Though he was not a profound student of finance and political economy, his close alliance with HUSKISSON counteracted his own shortcomings, and justifies his inclusion among the pioneers of a free-trade policy. His utterances on the bullion controversy, the CORN LAWS, and the navigation acts, had a distinct influence on the public as well as on the House of Commons.

When the Report of the Bullion Committee came up for discussion, May 1811, Canning as a private member gave (in two speeches—8th May and 13th May) a general support to the resolutions of the committee, though he refused to vote for the sixteenth (or last) which pledged the bank to resume cash payments in two years' time. VANSITTART and PERCEVAL had urged that continued suspension of cash payments was necessary to the successful prosecution of the war with France. Canning answered that our best strength was to support the credit of the country, and the soundness of the currency. There must be no uncertainty in the public mind as to the real standard of the currency. The question of depreciation was a question not of the soundness of the bank itself but of the relation of the notes of the bank to the real standard, which Canning defined (as PEEL afterwards defined it) as a definite measurable quantity of the metal gold, of a certain ascertainable fineness. Vansittart had talked of the standard as being a "sense of value," or as "public estimation"; and Canning had no difficulty in showing the vagueness of these phrases, and, contrariwise, the clearness of the terms employed by the bullion committee, who had been slighted as "abstract theorists," only because in addition to practical knowledge they

had acquaintance with first principles. They were right in finding a sufficient proof of depreciation in the fact that there was a difference between the price of BULLION in bank notes, and the MINT PRICE of gold; and it was an important confirmation, to find the exchanges continuing for some time progressively unfavourable to this country. It seemed to Canning (as to COBBETT) that BURKE'S description (1791) of the contrast between English notes and French ASSIGNATS can fairly be applied to the contrast between English notes as they were in Burke's time, and English notes as they were in 1811. The resolutions, introduced by Vansittart, though not of Vansittart's own invention (see Canning's Speech on Bank Charter Act, 13th Feb. 1826), in opposition to those of the bullion committee, called forth all the resources of Canning's wit and sarcasm, especially the famous third resolution that the bank notes "have hitherto been and are at this time held in public estimation to be equivalent to the legal coin of the realm." He compares this to Bonaparte's proclamation that beet and maple sugar are infinitely better than cane sugar, and must, therefore, be used in place thereof, under penalties. These two speeches of 1811 are striking examples of Canning's power to master at second hand the principles of a subject to which he does not appear either then or afterwards to have given any special study. In the *Quarterly Review* (Nov. 1810 and Feb. 1811, dealing with two pamphlets of Sir John SINCLAIR) he treats the same subject (of the bullion committee) in his lighter vein (see BULLION COMMITTEE, REPORT OF; CURRENCY THEORY, etc.) He had to deal with a kindred topic (in his speech of 13th Feb. 1826) when the government were taking steps to stop the circulation in England of bank notes under five pounds; but except perhaps for a telling quotation from a private letter of Burke's ("If Pitt consents to the issue of one pound notes he will never see a guinea again") the speech is not of special importance.

In office along with Huskisson in 1823 and 1826, he gave willing and admiring support to the reforms in commercial policy introduced by his colleague. It was in the negotiations for a reciprocity treaty with Holland, in amendment of the navigation acts, that he sent (in 1826) in answer to Falck, the Dutch minister at the Hague, the well-known despatch in cipher:

"In matters of commerce the fault of the Dutch
Is giving too little and asking too much;
With equal advantage the French are content,
So we'll clap on Dutch bottoms just twenty per cent.
(Chorus.) Twenty per cent. Twenty per cent.
Nous frapperons Falck with twenty per cent."

In 1827 he helped Huskisson to frame a sliding scale of duties, in amendment of the corn laws of 1815 and 1822 (see CORN LAWS and SLIDING SCALE). His policy here, as well as in the case of West Indian slavery (see speeches of 1823, 1824, and 1826), was that of compromise and gradual reform. He admitted in 1827 (speech of 1st March) that the paternal power he had claimed, in 1826, for government, to relax the corn laws and open the ports on emergency, had not proved to work well in practice, and the confession was one sign amongst many that he was inclining towards a policy opposed to all interference of government with trade. His single budget speech, 1st June 1827 (when he was at once prime minister and chancellor of the exchequer), cannot fairly be taken as a measure of his financial ability, for the circumstances were exceptional, and the budget a makeshift. His conception of the relation of economics to politics may be gathered from his short speech in defence of Huskisson against the silk manufacturers (24th Feb. 1826): "We must deal with the affairs of men on abstract principles, modified, however, of course, according to time and circumstances;" we must soar to "the heights from which alone extended views of human nature can be taken." He was careful to point out that reform of commercial policy had been hitherto identified with neither political party; it was his master, PITT, who carried the treaty of commerce with France in 1786, when Fox opposed it.

[*The Speeches of the Right Hon. George Canning, with a Memoir of his Life*, by R. Therry, 6 vols., 1828.—*The Life of the Right Hon. George Canning*, by R. Bell, 1846.—*George Canning and his Times*, by A. G. Stapleton, 1859.—*Statesmen of the Time of George III.*, Henry, Lord Brougham, 1839-43.]

J.B.

CANON LAW. The canon law is a body of rules (*κανόνες*) laid down by the early and mediæval Christian church for the government of its members. It consists accordingly of citations from scripture, the fathers, and the popes, together with commentaries and glosses. The several compilations of this character, beginning at the end of the 3d century and carried down to his own day, were reduced to something like their present systematic shape (in the "corpus juris canonici") in the middle of the 12th century by Gratian, a monk of Bologna, the founder of the study of canon law. His successors appended to his collection (or "Decretum") the decretals of the popes in the next three centuries. It need hardly be said that only such of its topics as bear on economical theory or history will be considered here.

At the beginning of the book we are told that the human race is under two kinds of laws,—the law of nature and the law of custom (or positive institution) "naturali jure et moribus." Civil law and canon law are two

branches of the second species. By the law of nature there is no private property, but "all things are common to all men" ("jure naturali omnia sunt communia omnibus"), as they were among the first disciples. St. Augustine argues that, as "the earth is the *Lord's* and the fulness thereof," private property is not of divine but of purely human appointment. "Tolle jura imperatorum," and no one can say "this is my house," or "this is my slave," etc. It would seem natural after this to hear that private property is forbidden by canon law; but this is not so. It is forbidden to the *clergy*, who are to hold their property collectively for the good of the poor; they are not to marry; and they are to be "victu et vestitu contenti." But it is allowed, grudgingly, to the laity, who are to hold it in trust for the poor, and who are therefore to give liberally to the poor and to the clergy as the almoners of the poor. It is hinted that among Christians the ideal distribution is community of goods, and that only for the hardness of men's hearts is any compromise admitted. In the same way the ideal industry is agriculture; and the only right way of increasing wealth is to till the ground and breed cattle. These pursuits and the simple manufacturing industries of an agricultural people are allowed with reservations even to the clergy, who may thus work for their own livelihood, like the apostles. Labour within these limits is indeed commended by the canon law; and it is one of the glories of the early and mediæval church that it did its best to enfranchise the labourer. ROMAN LAW had more regard for property than for human beings; canon law erred on the safer side. In their aspirations after an idyllic life it is clear that the writers would have gone back to barter if they dared. As it was they followed ARISTOTLE in treating money as a "barren metal," and they gave literal effect to the words of the gospel: "Lend, hoping for nothing again" ("Mutuum date nihil inde sperantes"), by strictly forbidding usury and by giving every assistance to the debtor as presumably poorer than the creditor. At first (by the council of Nicæa, 325 A.D.) the prohibition of USURY applied only to the clergy; but a century later it was extended to the laity, and the "corpus juris canonici" abounds in emphatic assertions of it. "Etiam laicis usura damnabilis." "Usura" did not simply mean a high rate of INTEREST; it meant all and every interest whatever, and the notion was even stretched so as to embrace all and every gain beyond what was considered a just and proper price, in ordinary buying and selling. "Qui plus quam dederit accipit, usuras expetit," whether the "superabundantia" be money or wheat or wine. "Quidquid sorti accedit, usura est." "Turpe lucrum sequitur qui minus emit ut plus vendat." "Rapinam facit qui usuram accipit." As late as the 14th century (at the Council of Vienne, 1311) Clement V. declared the prohibition of usury to be absolute, all civil laws to the contrary notwithstanding. Dante puts the usurers in the lowest division of his seventh circle of Hell as doing violence to God and nature (*Inferno* XI., 46-50, cp. 95-111). Thomas AQUINAS (in 13th century) speaks of usury as "contra legem naturæ," as well as against the law of the church; and this unnaturalness had been one of the grounds of prohibition from the first. Usury might be practised only as a form of war, "Ubi jus belli, ibi etiam jus usuræ."

"If thou wilt lend this money, lend it not
As to thy friends,—for when did friendship take
A breed for barren metal of his friend?—
But lend it rather to thine enemy."

The arguments by which the unnaturalness of interest was maintained ran somewhat as follows: When money is lent, the lender parts with it, and the borrower has it to use; if there *were* any productiveness in it, the man who has used it, and not the man who has parted with it, would justly have the benefit. There is, however, no productiveness in it. The lender gives, say, ten pieces of silver; now these ten pieces are not like seeds in the earth, or trees in the orchard; they do not become anything else than ten pieces of silver, through however many hands they pass. Why then should they become eleven or twelve when delivered again to the lender?

Again, it was said, we must distinguish two kinds of loans. There are objects which, when we have borrowed (or hired), we use without destroying them in the use—*e.g.* a field, or a horse, or a spade. We return them not "in genere," but specifically, in their identity, with compensation to the lender for any deterioration we may have caused. This loan is the COMMODATUM of Roman law, as distinguished from MUTUUM. In the latter instance ("mutuum"), as in the case of fruit or wine, the borrowed objects are destroyed in the using, and are returned to the lender in kind. Now, money is of the latter sort; it has no "use" which is distinct from itself, and consistent with its retention by the possessor; to use it, he must part with it. But, if we allow usury, we are claiming that money *has* a use distinct from itself, and that, when the sum borrowed is returned, an additional sum should be added in payment of this supposed use,—in other words "id venditur quod non est." Of the other arguments used against usury by the canonists, it will be enough to cite perhaps the most famous one. To pay interest is to pay for time. Now time is the common property of all men; and, besides, time is like barren metal itself; it can of itself produce nothing; why then should anything be paid for it? Thomas Aquinas laid special stress on this argument, which he was

the first distinctly to formulate. It does not appear very explicitly in the canon law itself.

The motive for the prohibition is clearer than the arguments advanced for it. It is the same motive which led the church to forbid a man in any case to take advantage of his neighbour's need, and wring from him an exceptionally high price. Christian brotherliness required that my neighbour's extremity should never be my opportunity, and I should never charge him more than the fair price JUSTUM PRETIUM for my goods, the said price being the one assessed in money by the church or (it might be) by the civil authorities, and ratified as customary. The same principle would prevent me from exacting any recompense for a loan. Otherwise, in either case, I should be receiving what I had not earned by the sweat of my brow, and violating the law of God and nature.

The European world, with settled order and increasing commerce, chafed under this enforced unselfishness; and the church was forced to tolerate evasions of the prohibition of usury. These evasions will be more fully treated under the head of usury; but the chief instances may be mentioned here. The buyer on credit was allowed to pay more (in the final settlement) for his article than the buyer for cash, in all cases where, in the first instance, there had been a real uncertainty from ordinary causes about the future price of the article concerned. But it was to be clearly understood that the difference in time was to have nothing to do with the difference in the price (decretal of Alexander III. in 12th century, confirmed by Gregory IX. in 13th century).

This was a comparatively early concession made to the Genoese when Italian commerce was beginning to grow, after the first crusades. It was followed by others. It was found possible, for example, to exclude the BILL OF EXCHANGE from the category of usury by representing any DISCOUNT or INTEREST it involved as a payment for work done, namely, the work of transporting money (or at least the payment of money) from one place to another. Though money by itself was (to the canon law) unproductive, "money conjoined with human labour" ("pecunia juncta cum hominis operatione") could be productive. Accordingly, when companies were formed some of whose members contributed money and labour, others only their money, yet all shared in the gains, it was allowed (not without misgivings) that this conformity to the letter of the law was sufficient.

A third kind of exception was made in cases where loans were attended with unusual risks to repayment; the lenders were allowed to receive a sum over and above their principal as a compensation for the risk they had run. This concession was very grudgingly made; but (as Hallam has noticed) marine INSURANCE seems from the first to have passed unchallenged. Not unlike these cases was that of creditors whose debtors were behind their time; interest in such a case was counted a justifiable penalty for breach of contract ("usura punitoria").

Finally, the Jews were allowed to lend money at interest, because, not being Christians, they were not bound by canon law. There were always some canonists who (like Aquinas) objected to this toleration; but its practical convenience saved it; and, till the LOMBARD money-lenders became their competitors, the Jews had the monopoly of nearly all the credit transactions that could not be brought within the letter of the canon law. Communities of lax Christians, like the traders of Genoa and Cahors, seemed to have imperilled their orthodoxy to gain similar advantages.

The church itself, especially in the later centuries, found reason to relax its prohibition of usury where its own material interests were seriously involved. The sale of offices, for example, such as those of chamberlain and treasurer in the papal court, realised a higher price when purchasers were allowed to club together to bid for them; the result was, however, that many of those joint purchasers, who had no intention of holding the offices themselves, shared in the revenues in a way indistinguishable from the receiving of interest on capital invested. Again, the sale of land for a fixed yearly ground rent ("census consignatorius"), instead of a sum paid down once for all, was conceded, on the subterfuge that, not the yearly income, but the right to the yearly income was the subject matter of the sale. Pius V. (in the 16th century) decided that such arrangements were not unlawful, provided that they related to land only, and were strictly determined by the actual yearly produce of it. Had he decided otherwise, the revenues of large numbers of religious houses, especially in Germany, would have been seriously affected.

But in the toleration of the "montes pietatis" (which date from the 15th century), both the letter and the spirit of the older canon law were violated. These institutions were formed by the joint subscriptions and donations of philanthropic Christians; and they were simply banks which advanced money to the poor at interest. This interest was represented as simply a "recompense" for the trouble of managing the institutions that advanced the money, and thus the obnoxious name of usury was avoided, though the fact was certainly present. Besides, the "montes," to attract subscriptions, gave interest on the sums subscribed, and thus became simply an investment for capital. There were also "montes profani," secular banks, founded on their model, but without their charitable object, and dealing with ordinary men of business. But even the "montes pro-

fani" escaped condemnation; it was held that they were of service, if not to the poor, at least to the public, and the interest they gave on investments represented a LUCRUM CESSANS, or loss which the investors were presumed to have incurred by withdrawing their money from trade and putting it into these banks. When "usury" had been tolerated in the case of these societies, it could not be long before the like concession would be made in the case of individuals (see articles FATHERS; MONTS DE PIÉTÉ.)

[*Corpus Juris Canonic.*, ed. E. L. Richter, large 4to, Leipzig (Tauchnitz), 1839. The chief passages relating to usury begin on pp. 147 and 630. In the companion volume containing the decretals of Pope Gregory IX., etc., see especially pp. 782, 1017, 1101.—The edition of E. Friedberg is considered by some to have superseded Richter's.—*Die Nationalökonomische Grundsätze der canonistischen Lehre*, Dr. W. Endemann (Jena), 1863, the most complete monograph on this subject.—*Geschichte der National-Oekonomik in Deutschland* (see *Einleitung*), W. Roscher (München), 1874.—*Geschichte der volkswirthschaftlichen Literatur im Mittelalter*, Dr. H. Contzen (Leipzig), 1869. The same author has also published *Zur Würdigung des Mittelalters* (Cassel), 1870, and *De Thomae Aquinatis Sententiis ad Oecon. Politicam pertinentibus* (Basel), 1861.—*Das deutsche Genossenschaftsrecht*, vol. iii. *Staats- und Korporationslehre des Alterthums und des Mittelalters.* Dr. Otto Gierke (Berlin), 1881.—*Geschichte und Kritik der Kapitalzinstheorieen* (ch. ii.) Dr. Böhm Bawerk (Innsbruck) 1884.—*Neue Untersuchung der Nat. Oek. und der natürl. Volkswirthschaftsordnung*, J. Schön (Stuttgart), 1835.—*Economia politica del medio evo*, L. Cibrario, 1839.—*History and Future of Interest and Profit*, Cliffe Leslie (Fortnightly Review, November 1881). *History of Political Economy*, J. K. Ingram (London), 1888. *Introduction to English Economic History and Theory*, vol. i.—(*The Middle Ages*), W. J. Ashley (London and New York), 1888.] J. B.

CANTALUPO, DOMENICO, a Neapolitan, author of a very successful essay on the corn trade, published in 1783 at Palermo. The third edition was published in Nice and Genoa in 1795, and the fourth edition by CUSTODI in his *Economisti classici Italiani.* Cantalupo strenuously recommends free trade, full, sure, and equal liberty for all, and traces the history of corn laws from the times of King Ladislaus (1400) down to his own times to prove the bad effects which a restrictive system always produced. M. P.

CANTILLON, PHILIP, author of "*The Analysis of Trade, Commerce, Coin, Bullion, Banks, and Foreign Exchanges: . . .* Taken chiefly from a Manuscript of a very ingenious Gentleman deceas'd, and adapted to the present situation of our Trade and Commerce. By Philip Cantillon, late of the City of London, Merchant, London, 1759." 215 pp. 8vo. This Philip was the eldest son of James Cantillon of the city of Limerick, who was first cousin of Richard CANTILLON, author of the *Essai sur la Nature du Commerce.* Philip carried on a banking business with David Cantillon at Warnford Court, Throgmorton Street, London, at least as early as 1725. In 1738 he was a director of the Royal Exchange Assurance: in 1742 became bankrupt: in 1747 was trading alone as insurance agent and policy broker: in 1753 was partner with one Thomas Mannock in the same business: and in 1759 had retired. He married, 14th July 1733, Rebecca, daughter of William Newland of Gatton, Surrey, by whom he had two daughters. There is reason to think that he was engaged for a short time at Richard Cantillon's bank in Paris, but that his litigious character made him unamiable and brought about his speedy return. On the death of Richard, Philip intervened in the management of his estate, and thus obtained possession of several papers, including probably the English manuscript of the *Essay*, which professedly served as the groundwork of the *Analysis of Trade.* He must, however, have mutilated the manuscript almost beyond recognition. Much of the closely packed original is omitted, and much is replaced by vague and general summaries, most unskilfully made, with the result that little indeed of the *Analysis* fairly represents the views of Richard Cantillon. Philip added a preface on the history and importance of commerce, some strictures upon close corporations, new matter on inland and foreign trade, bankers and banks, and exchanges, interspersed with quotations from HUME's *Essays*, and from *The Universal Merchant*, etc. (see N. MAGENS), concluding with a criticism of the law relating to bills of exchange.

The book was reviewed in the *Monthly Review* or *Literary Journal* for April 1759, London, vol. xx. 309. Sir James STEUART (Works, ed. 1805, iii. 22) says, "Mr. Cantillon, in his *Analysis of Trade*, which I suppose he understood by practice as well as by theory, has the following passage," etc.

"A small treatise of Arithmetic," explaining the foreign exchanges "vulgarly and decimally" without "unintelligible jargon," was designed by the author of the *Analysis* (p. 85), but does not seem to have ever been published. H. H.

CANTILLON, RICHARD. The economic repute of Cantillon, for a time completely obscured by the glory of Adam SMITH, can never have rested upon the popularity of his little book, now one of the scarcest works in economic literature. For GOURNAY had to exercise his great personal influence to persuade his disciples not to neglect it as others were doing. And the elder MIRABEAU, himself an adept in the craft of popular writing, deplores, and accounts for, the failure of the book as due to the defects of its style and the aridity of its subject. The perverted *Analysis of Trade* (see PHILIP CANTILLON), sometimes confused with it, probably conduced to its disrepute. On the other hand it was thought worth while

to reprint it at least twice within a year of its publication. And the references to it in so widely-read a book as *L'Ami des Hommes* must have made known the name of Cantillon to many who never saw his *Essai*.

The influence of the book is evidenced not by the number but by the distinction of its students, including Gournay, Quesnay, Mirabeau, Turgot, and Adam Smith. It gave birth to Mirabeau's *L'Ami des Hommes* and apparently suggested much of the *Tableau Oeconomique* of Quesnay and parts of the *Wealth of Nations*. It was, however—perhaps because of its concise style—much misrepresented and misunderstood. Cantillon avoided, as Jevons has pointed out, the one-sidedness of the Physiocrats; and yet has been marked out as a Physiocrat. He was declared by Mirabeau to hold the doctrine that population is the source of riches, though, in Jevons's opinion again, he anticipated in condensed form the celebrated essay of Malthus. And Adam Smith loftily imputed to him an attempt to form exact estimates in matters where Cantillon expressly disclaimed any such pretension.

The importance of the book in the history of the development of economic science may be best indicated by a short analysis of its contents. It consists of three parts. Part I. opens by defining Wealth and resolving it into the elements Land and Labour, explains the "natural" formation of societies and social classes, villages, towns, cities, and capitals; the "natural" variations of Wages in different employments (due to time, expense and difficulty of learning, risk in work, capacity and trust required); the "natural" adjustment of Supply of labour to Demand; contrast between real or intrinsic (normal) value, and market value—the first depending upon cost of production, the second upon supply and demand; the equation between land and labour; the minimum wage for family maintenance: the diffusion of wealth through the agency of the landed classes; conduct of European commerce by employers at a venture (robbers, beggars, artists, lawyers, etc., employers of their own labour); wages certain, profits uncertain; changes of demand (Fashion); population adjusts itself to the means of subsistence; labour the "natural" riches of a state: gold and silver convenient for money because useful, beautiful, durable, portable, divisible, easily transported and guarded, cognoscible, indestructible by fire, of equal goodness, not too cheaply produced, etc.

Part II. treats of Barter; market prices; circulation of money in mass and rapidity; how much money does a country require? increased and decreased currency; effects of appreciation on fixed contracts and wages; Credit; Interest, its causes, rise and fall of rate, not dependent upon scarcity or abundance of money.

Part III. deals with foreign trade; Foreign Exchanges; variations in relative value of monetary metals; alterations of coinage; Banks; national banks; reserves; guarantees; banking and credit.

The lost supplement included a precise and comparative account of the economic condition of the workmen of Europe as reflected in their expenses—much, apparently, upon the lines of Le Play's great work exactly one hundred years later (*Les Ouvriers Européens*, 1855). It described the actual diffusion of a large income; minutely analysed the cost of production of certain articles through their several component elements, etc. etc.

The execution of this ample programme is no less remarkable than its conception. Jevons thought Cantillon wrote "with the scientific precision of a Cairnes or a Cournot," and Prof. Marshall refers to his "thoroughly scientific manner" of discussion (*Prin.* vol. i. p. 593 *n.*) At once terse and subtle, he united close observation of concrete fact with keen deductive power. To consumption and demand he assigned an importance not generally recognised till much later. And his beautiful examples of accurate reasoning were rendered tedious to his contemporaries by very reason of his careful limitations and guarded hypotheses. The indirect influence of the book is difficult to trace. In France the *Essai* has been pretty continuously read (see *e.g.* Ganilh, *Des Systèmes d'Économie Politique*, 2d ed. 1821, vol. i. pp. xv. 134; vol. ii. p. 107), and so stimulating and suggestive does it remain that its direct influence may be found to be not yet exhausted.

Essai sur la Nature du Commerce en général traduit de l'anglois. A Londres, chez Fletcher Gyles; dans Holborn, *M.DCC.LV.* (being reprinted for Harvard University, 1891). H. H.

Cantillon enunciates most of the leading principles of political economy relating to supply and demand, normal value, the rôle of the Entrepreneur, population, currency, banking, and other important subjects. But it will be found that the statements often involve ideas peculiar to the writer, or the age; in particular, his difficult definition of value as regulated by quantity of land as well as of labour. The similarities between Cantillon's views and those now received are not more instructive than the differences. A full analysis of Cantillon's work, and an extreme estimate of its importance, will be found in Jevons's article on "Richard Cantillon and the Nationality of Political Economy," in the *Contemporary Review*, 1881. In *Investigations in Currency and Finance*, Jevons discusses Cantillon's remarks with respect to the statement on the ratio between gold and silver made by Newton. F. Y. E.

It has been a matter of some difficulty to explain the connection of Richard Cantillon's

Essai with Paris, where it was published, and the influence it had on contemporary French economic thought. The following additional particulars respecting his life may assist in the elucidation of these points.

1. *The Life of Cantillon.*—One Richard Cantillon, probably a cousin of the economist, is described in some documents in the Archives Nationales, at Paris (E 804, p. 157; E 913, p. 253, and E 1948, fol. 98), under dates 1706, 1709, and 1718, as a merchant and banker at Paris, Rue de l'arbre sec. Among his customers were Irish Catholics, and he was "Receveur général de la lotterie accordée à la Princesse d'Angleterre en faveur des religieuses Irlandaises transferées à Ypres." In August 1717, the ticketholders in that lottery petitioned to have their claims settled, the deceased Richard Cantillon (E 913, No. 253), having left only 68,200 livres of assets, and 310,000 livres of liabilities. Another document (Y. 11080) states that after the decease of one Thomas Cantillon, an Irishman, officer in the regiment of Lally, in 1764, his brother Jean and his father Philippe Cantillon claimed to be his heirs.

The will of Richard Cantillon, of St. George's, Hanover Square (the economist) (Somerset House, dated the 12th July 1732, and proved the 21st May 1735), shows that he had bought a house in Paris through the intervention of Edmund Gough, and he names Francis Garvan and Lord Viscount Micklethwaite (died 1734) as his executors. Another point relating to Cantillon's position is mentioned by Horace Walpole, who writes 25th April 1743, to Sir H. Mann: "Lord Stafford is come over to marry Miss Cantillon, a vast fortune, of his own religion. She is daughter of the Cantillon who was robbed and murdered, and had his house burned by his cook a few years ago" [1734] (*The Letters of Horace Walpole, Earl of Orford*, ed. by Peter Cunningham, 1857, vol. i. pp. 241, 242, 298, and the works of *Jonathan Swift*, ed. by Sir W. Scott, 1824, vol. xvi. p. 262, 263).

2. *His Works.*—There are three editions of the *Essai sur la nature du commerce en général*; one of 1755, 430 pp. besides *table des chapitres*; one of 1756, 427 pp. and that of 1756 in the *Discours Politiques de Mr. David Hume*, traduits de l'Anglois par M. de M., Amsterdam, vol. iii. pp. 153-428, 1756. It is significant that Turgot's translation of Josiah Tucker's *Reflections on the Expediency of a Law for the Naturalisation of Foreign Protestants*, 1751-52 (*Questions importantes sur le Commerce à l'occasion des oppositions au dernier Bill de Naturalisation*, etc.), bears the name of the same publisher: A Londres, chez Fletcher Gyles, dans Holborn, 1755. That Gournay studied Cantillon is clear, for of Gournay it is said that "il fit surtout lire beaucoup *l'Essai sur le commerce en général*, par Cantillon, ouvrage excellent qu'on négligeait" (*Mémoires inédits de l'Abbé Morellet*, t. i. pp. 37, 38, 1823). The work was highly praised by Mably, *Entretiens de Phocion*, p. 239, 1763; and by Graslin, *Essai analytique sur la Richesse et sur l'impôt*, Londres, p. 365, 1767. The most detailed account of its origin has been given by the Marquis of Mirabeau in his *Ami des Hommes*, vol. i. 1756. He holds Cantillon to be a Protestant (p. 58), professes to have adopted all his principles (p. 78), and frequently quotes passages of the *Essai* (pp. 34, 108, 115, 116, 171, 206). The seventh chapter too opens with a quotation and is followed by some details concerning its author. "He was," says Mirabeau, "without contradiction, the most clever man in these matters who ever existed. This work, one of a crowd of similar productions of the description then in fashion, is but the hundredth part of the writings of that ingenious man, which perished with him by a catastrophe both singular and fatal. This work itself is mutilated, for the *supplement* to which he often refers, and in which he had established all his calculations, is wanting. Cantillon himself had translated the first part for the use of one of his friends, and it was printed from this manuscript more than twenty years after the author's death" (pp. 237-239). In 1767 Mirabeau, expounding to Rousseau the ideas of the economists upon the subject of population, and refuting his own former opinions, contained in the *Ami des Hommes*, says, he had borrowed them exclusively from Cantillon, "whose work I had had since sixteen years in manuscript" (*i.e.* 1740). See also his *Philosophie Rurale*, Amsterdam, 1764, t. ii. ch. ix. pp. 141, 142. Mirabeau was shaken in his belief by Quesnay, who denied population to be the source of riches, and said "that Cantillon, as a political instructor, was a fool" (see *Rousseau Ses amis et ses ennemis, correspondance publiée*, par M. G. Streckeisen-Moulton, t. ii. p. 358, 1865). A rough MS. abridgement of Cantillon's *Essai*, of Mirabeau's own making, is among the "Papiers Mirabeau," at the Archives Nationales at Paris (M 779, No. 1). It contains a dedication "A. M. l. D. D. N.," no doubt the Duke of Noailles, "under whose auspices he had studied that part of politics which is based on 'imagination' (obviously contrasting this with 'Science' *Calcul*), and who had charged him never to forget that other part of the subject which depends upon calculation, and is included in the general name of commerce; if these matters are not studied from the very bottom, if their basis is not well laid, they incur the risk of being as frivolous and useless as many other essays on commerce." The essay which follows bears all the marks of revision by Mirabeau; it begins with what is p. 56 of the printed copy, but contains some passages, especially the introductory ones of the chapters, in addition to those contained in the printed book.

Cantillon's opinions were based on the economics of the commercialist school, and of some of his English physiocratic predecessors. The "equation between land and labour," which he quotes from PETTY, is contained in the latter's *Political Anatomy of Ireland*, ch. ix. 1691 (see *Tracts, chiefly relating to Ireland*, p. 344, Dublin, 1769). Like Adam Smith at a later epoch Cantillon combined the theoretical reasoning of the English with the systematic turn of the French, thereby promoting the economics of both countries.

[With Cantillon's view of the theory of rents compare J. Arbuthnot, *An Inquiry into the Connection between the present Price of Provisions and the Size of Farms*, p. 34, 1773.—Arthur YOUNG, *Political Arithmetick*, 2d part, p. 29, 1779, and Alex. Wedderburn of St. Germains, *Essay upon the Question What Proportion of the Produce of Arable Land ought to be paid as Rent to the Landlord?* p. 4, Edinburgh, 1776. For Cantillon's part in economics see Dr. Bauer's remarks in *Quarterly Journal of Economics*, 1890, vol. v. No. 1, p. 102, and Dr. Bauer's article on the Physiocrats in Conrad's *Jahrbücher für Nationalökonomie und Statistik*, Bd. xxi. H. 2 N.F., p. 145. —F. von Sivers, *ibid.* Bd. xxii. 158.—Prof. Marshall, *Principles of Economics*, 1890, vol. i. p. 53n.—H. Higgs, *Economic Journal*, vol. i. No. 2, p. 262.] S. B.

CAPELLO, PIER ANDREA, author of a book having the title *Nuovo trattato del modo di regolare la moneta*, published 1752 at Venice, and containing an analysis of the terms "value" and "price," for which it is still noticed in books of dogmatic history. M. P.

CAPITAINERIE. A privilege granted in France by the king, down to the time of the Revolution, to princes of the blood, by which they obtained possession of the property of all game, even on lands not belonging to them; including manors granted before to individuals; so that the erecting of a district into a *capitainerie*, was an annihilation of all manorial rights to game within it. Arthur YOUNG, *Travels in France*, 2d ed. vol. i. p. 600, says "in speaking of the preservation of the game in these *capitaineries*, it must be observed, that by game must be understood whole droves of wild boars, and herds of deer not confined by any wall or pale, but wandering, at pleasure, over the whole country to the destruction of crops; and to the peopling of the gallies by the wretched peasants, who presumed to kill them, in order to save that food which was to support their helpless children." The *capitaineries* were only one form of the oppressions of the seigneurs, which will be found described in considerable detail by A. YOUNG.

CAPITAL. Definitions in political economy present great difficulties owing partly to the fact that the words employed are in general drawn from ordinary language, and partly because the fundamental ideas often overlap, and it is necessary to leave a debatable margin. There is probably no term in economics which has given rise to so much controversy as capital, and in the limits of this article it will only be possible to indicate the main points in dispute, and their bearing upon fundamental questions. As usual the historical aspect of the subject has been treated most fully by German writers (compare the masterly introduction of Knies to his work on *Money and Credit* (*Geld und Credit*); *Kapital und Kapital-Zins* by Böhm-Bawerk; and the article on "Capital" in Schönberg's *Handbuch*). The word capital is connected with *caput*, and in mediæval Latin we read constantly of the *capitalis pars debiti*, *i.e.* the principal sum as distinct from the interest. Thus originally the term seems to have been confined to loans of money. As the church forbade the lending of money for interest or usury (INTEREST AND USURY), and as this moral prohibition was generally given effect to by the law, all sorts of devices were resorted to in order to disguise the real nature of a loan (see CANON LAW). A thing was nominally bought by the borrower to be sold back after a time at a lower price to the lender (a dry bargain as it was termed), and gradually exceptions were admitted on the ground of wear and tear of the thing lent or indirect loss to the lender. In England before the time of the Tudors (compare Schanz, *op. cit. infra*) it had become generally recognised by merchants and legislators that it was impossible to distinguish between lending money itself and lending the things which had a money value. Thus in the natural course of historical development the term capital received a wider meaning. Accordingly later on we find TURGOT, as Knies points out, expressly saying that capital consists of accumulated values (*valeurs accumulées*), and that it makes no difference whether the accumulations consist of precious metals or of other things. Turgot states also that a man can live on capital, or rather the interest of capital, just as well as from personal labour or from funds derived from possession of lands. Thus capital is considered primarily as a source of profit. This historical usage of the term capital is still found implied in ordinary thought, and a Socratic inquiry on the modern mercantile mind would probably give as a first-fruit that capital is (1) *wealth which yields a revenue.*

It is quite obvious, however, as the writers on canon law were so fond of pointing out, that the precious metals are in themselves barren (*nummus nummum parere non potest*), and it is almost as obvious that any form of hoarded wealth is equally barren, that is to say unless it is actively employed so as to produce more wealth. In the earlier stages of agricultural development, for example, it is quite common to find that the stock is let with the land (and the custom still survives in the

métayer system), but unless the stock were used for productive purposes it could not possibly yield a revenue. It may further be noticed that although one private person may lend to another capital which may be used unproductively (*e.g.* money lent on mortgage) and the interest of which may still be paid punctually, it would be impossible for a whole nation (apart from lending to foreigners) to subsist on this barren use of capital. So much has this consideration impressed itself upon economists that many of them, especially English writers, have given as the root idea of capital (2) *that part of wealth set aside for future production* (see ABSTINENCE). This, for instance, is MILL'S view to the exclusion of the older notion of revenue simply. Mill indeed makes the idea of production fundamental even in the case of individuals, and would only include in a man's capital that part of his wealth intended to be used in producing more WEALTH.

A little reflection, however, will show that either the meaning of production must be strained, or else the definition of capital thus obtained will be much more narrow than in the popular acceptation. In estimating, for example, the accumulations of capital in the United Kingdom in recent years Mr. Giffen (*Essays on Finance*, vol. i.) takes into account the movables, furniture, pictures, etc., in private houses, and roughly surmises that they amount to about half the value of the houses themselves, and although in a certain sense the term "productive" might be stretched to cover houses, it could hardly be made to cover pictures and ornaments. As the result of this line of criticism some writers (notably Knies) have made the fundamental idea in capital to be "wealth intended directly or indirectly to satisfy future needs." If a fair allowance be made for Adam Smith's want of scientific and technical phraseology his views on the fundamental nature of capital (or stock as he prefers to call it) come very near to this exposition. For Adam Smith carefully distinguishes between the wealth that is immediately consumed and the stock that is reserved or set aside out of a possible surplus. It is instructive to note that Adam Smith, in order to emphasise the distinction between INCOME and its source, or, in other words, between immediate consumption and capital, gives a very wide and unusual meaning to the term immediate. "A stock of clothes may last several years; a stock of furniture half a century or a century; but a stock of houses, well built and properly taken care of, may last many centuries. Though the period of their total consumption, however, is more distant, they are still as really a stock reserved for immediate consumption as either clothes or household furniture." In spite of the authority of Adam SMITH, however, it may be questioned if it is advisable to give to the term immediate such a paradoxical interpretation, and to exclude houses and the like from the capital of a country. A man, it may be argued, might well choose between living up to his income and saving so much a year in order to build a house for himself, and when once the house was built it would appear to form a part of the capital not only of the individual but of the nation. In fact, on analysis it seems that we ought to distinguish between immediate (in the more usual sense of the term) and deferred CONSUMPTION. Even from this point of view, however, it is impossible to take the term "immediate" too strictly, and it seems best to construe it relatively to the kind of income. The immediate consumption of a labourer earning weekly wages might be embraced within the week, whilst in the case of a high-salaried official a year might be taken as the unit, and in the case of a great nation spending money on armaments, etc., the term might be extended for some years. But even in this last example there is still a plain difference between building forts or strategic railways which are supposed to last for centuries, and providing for present wants by the personal equipment of soldiers. Practically it is of course always difficult to know how much may be fairly charged to capital account, and how much ought to be reckoned as part of immediate consumption. Logically, however, the distinction seems clear enough, and it has given rise to that description of capital (3) called by the Germans especially *consumption capital*. The principal difficulty in this conception of capital is that, in the language of one of Mill's "four fundamental propositions on capital," all capital is consumed, which, in the sense that nothing lasts for ever, is obviously true. Yet, even the schoolboy who decides between a tin-whistle and a penny pie, knows that the rate of consumption in the latter case is infinitely quicker than in the former, and it may be said that if he eats the tart he is only an unproductive consumer, whilst if he buys the whistle he is a small owner of consumption capital. And, in fact, Mill's object in this proposition appears to have been rather to emphasise the distinction between hoarding (the wealth not being productively consumed) and saving (the wealth being used as productive capital), (see ABSTINENCE).

So far then the result of the investigation on the connotation of the term capital appears to be that there are three species of capital in each of which a different quality is emphasised, accordingly as we consider (1) the yield of a revenue, (2) the production of more wealth, (3) the reservation of means for future enjoyment. It remains then to consider whether there is not some root-idea from which these three branches spring. The line of thought suggested by Adam SMITH and developed by

Knies is found to lead to this result:—*Capital is wealth set aside for the satisfaction—directly or indirectly—of future needs.* This satisfaction may be obtained by the individual by lending his wealth at "usury"—"usury of money, usury of victuals, usury of anything that is lent upon usury"—or by reserving means for future production as in the case of the husbandman and his corn or cattle, or by laying up for himself a treasure which will be a delight for many days.

In the different departments of political economy the stress is laid in general on one of these three characteristics to the exclusion of the other two. In the department of production, for example, as the very name implies, capital is regarded almost entirely as one of the principal agents in production, as sustaining or auxiliary to labour. Logically, it is not necessary to consider at this stage how the product is divided, or even that it is intended for future or immediate consumption. But in the departments of distribution and exchange, the characteristic of yielding profit or revenue is fundamental, whilst in taxation several questions of importance spring from the distinction involved in consumption capital.

The principal points of fundamental importance in the qualitative definition have now been considered, but there are several minor questions which have given rise to much controversy. (1) *Is all capital the result of labour, and ought we to exclude the forces and free gifts of nature?* The answer, as in all questions of definition, must depend purely on the convenience of the classification for the subject or problem in hand. In the department of PRODUCTION it is often necessary to contrast capital in the sense of accumulations due to labour (*festgeronnene Arbeit-Zeit* as the German socialists phrase it) and "the natural and indestructible powers of the soil" of RICARDO, as, for example, that no exception may be taken to the language, advantages of situation. In the department of DISTRIBUTION, again, stress is often laid on analogies between the limitation of natural sources of supply (and the consequent UNEARNED INCREMENT) and the ordinary forms of capital, which with sufficient labour are capable of indefinite extension at an ordinary rate of profit. On the other hand, however, it is extremely difficult practically to draw the line between the gifts of nature and the results of labour, and between earned and unearned increments. Even sheep farms in mountain districts require a certain amount of surface drainage, fencing, etc., and once the necessary labour has been bestowed, it is hard to tell how much is due to man, and how much to nature. If we consider the question from the national point of view, and take, as is natural with a nation, long periods, the labour in the mere appropriation or first occupancy of the natural sources will be found to be considerable. Compare for example the condition of England before the invasion of the Romans and during the Roman occupation, or mediæval England with the England of to-day. Rivers have been diverted, extensive forests cleared, swamps and marshes drained, and natural harbours improved and protected. Thus even in production it would not seem unreasonable to include these so-called natural sources, in order to emphasise the fact that they can only be made available, as with other forms of capital, by the labour and ingenuity of man. And although this admission is made, it would still be possible to discuss Adam Smith's favourite position that in some things, notably agriculture, nature labours with man to a greater extent than in others, *e.g.* the manufacture of scientific instruments of great delicacy. It may be observed that in estimates of national capital, such as that made by Mr. Giffen, not only is land included, but it stands first on the list in order of importance. It is obvious also that the capital value of land would certainly include from the practical standpoint the minerals, etc. not yet extracted, as well as the value due merely to such a quality as situation. Logically, any difficulty may be technically overcome by speaking (with HELD) of the "labour of appropriation," especially if we take into account the contribution made by the state as such to the organisation and security of labour. (2) A second controversy has arisen on the question on which Mill lays such stress, namely:—"*Does the distinction between capital and non-capital depend on the intention of the capitalist, or in other words, the owner of the potential capital?*" If the answer be in the affirmative, we are confronted with the difficulty from the point of view of the individual, that the same thing would at one time—even on the same day—be considered capital, and at another non-capital. Thus Professor Marshall in the *Economics of Industry*, argues that a doctor's carriage when used on professional visits would be capital, but when used for pleasure merely would not be capital. (Compare, however, the later treatment by the same writer in the *Principles of Economics.*) This difficulty, however, would be overcome by admitting the species of consumption capital. Again, there are certain forms of wealth, machinery, tools, instruments, etc., which from their nature could only be considered as capital, whilst other forms, *e.g.* seed-corn in a famine, may or may not be immediately consumed according to the intention of the owners. After all, however, the difficulty is only one of degree, and, as in other cases, we may leave open a debatable margin in the case of the individual, whilst with a nation it would be easy to determine roughly by means of statistics

between the amount of goods or wares immediately consumed and the amount on the average reserved directly or indirectly for the future. On the whole it may be doubted if it is possible or desirable to arrive at the *intention* except by arguing from the accomplished fact, or from the nature of the things, and the only use of the discussion is to emphasise again the fundamental distinction between the satisfaction of immediate and future needs.

(3) A third question has been much debated, which is, however, more properly dealt with under WEALTH (*q.v.*), namely:—*Does capital include what are called immaterial as distinct from material utilities?* The answer is similar to that in question (1) as to the connection between LABOUR and capital, and must depend on the convenience of emphasising, or not certain points of analogy and contrast. On the one side the "fixed skill" of a workman is in many respects similar to the nice adjustment of the wheels of a machine, and resembles still more closely the trained qualities of the domestic animals. The objection that the skill is attached to the man may be answered, as by Mill, that a coal mine is also attached to a place, or, still better, by the analogy that in matters of contrast the technical skill may be considered as separated from the higher qualities of the personality of the individual. On the other hand, however, it is often necessary to contrast the worker with the work done, and the wealth produced with the people for whom it is produced. By some writers (*e.g.* LIST) the acquired skill of a people, the greater part of which has been inherited from the past, and is due to the labour, and saving, and self-restraint of past generations, is reckoned as the most important element in the national capital, and both in the department of production and in distribution the contribution of this "social capital" to the annual produce must be carefully considered. The principal reason why a civilised nation can so soon recover from the effects of a devastating war is to be found in the acquired skill of the inhabitants, and the same remark applies to the rapid development of new colonies. Thus Adam Smith might well include the skill of the workers in a nation in its fixed capital. But when, as is usual in questions of economic definition, we appeal to popular usage, we find that hitherto, at any rate, the contrast has overcome the analogy. No statistician has yet attempted to give, even roughly, a value to this "social capital," or to estimate the capital value of the skill of labourers, although in particular cases, such as compensation for injury or death, some such computation must be made. The distinction will be found to be of vital importance in discussing the connection between capital (in the narrower sense) and WAGES.

Besides the skill of the inhabitants of a country are other so-called immaterial utilities which have sometimes been included in capital, and sometimes excluded. PRECIOUS METALS which form the material money of a country have always been included under its capital, and the question arises whether, if an efficient substitute can be found, this substitute is not equally capital. There can be no doubt that without the banking organisation of the United Kingdom the business even of producing wealth could not be carried on, at least to the same extent. BANKING is an essential part of natural division of labour, and BANK NOTES and other forms of representative money are quite as efficient agents of production as the precious metals themselves. These questions are, however, discussed separately under CREDIT (*q.v.*) From the individual point of view such immaterial utilities as the GOOD-WILL of a business, COPYRIGHTS, PATENTS, and the like would fall under capital unless the material characteristic is considered essential.

Besides the three species of capital already discussed there are other divisions which have found a place in the text-books. The most important is the distinction between fixed and circulating capital. Adam Smith took the terms apparently in their literal sense and considered the essence of the difference to lie in the fact whether or not the capital changed hands (or circulated) in order to obtain a revenue. "If it (*i.e.* stock) is employed in procuring future profit (as distinct from present enjoyment) it must procure this profit either by staying with him or by going from him. In the one case it is a *fixed*, in the other it is a *circulating* capital." *Wealth of Nations*, bk. ii. ch. i. Mill, on the other hand, and most recent English economists, define circulating capital, as that which performs the whole of its functions in a single use, whilst fixed capital can be used more than once in the same way. Of course in particular cases it would be difficult to draw the line accurately, but the broad distinction is quite obvious. Compare and contrast, for example, machinery as the type of fixed, with food supplies and raw materials of manufacture as the types of circulating capital. Very often by English writers circulating is used as equivalent to wages capital. Thus, under the title of the conversion of circulating into fixed capital Mill really discusses the effects of the introduction of machinery upon the working classes (see WAGES, MACHINERY). This confusion between circulating and wage-capital has been one of the causes of the extreme and untenable form of statement of the wages-fund theory, and of the narrow views of the relations of industry and capital expressed in Mill's four fundamental propositions (*Political Economy*, bk. i. ch. v.) The terms sustaining and auxiliary capital seem to be more free from ambiguity or question begging. Other

divisions of capital are sufficiently described by the words used *e.g.* floating and sunk, specialised and non-specialised, etc.

It may here be observed that, considering the complicated controversies which have arisen in connection with the definition of capital, it is often useful to employ qualifying adjectives when the term is applied beyond the limits within which there is no dispute. We might, for example, speak of the skill of a workman as personal capital, and the various industrial organisations of a nation as social capital. It seems also worthy of remark that those writers who take the most narrow definition of capital, and confine it merely to material production-capital, really bring in the wider content of the idea, indirectly under different headings, *e.g.* the accumulation of capital, the efficiency of the industrial agents, organisation of industry, the influence of credit, etc. Thus it often happens that a writer imagines that he has made some important discovery on the nature of capital when he has simply made an alteration on the arrangement or classification of topics, a most useful operation if well carried out, but of subordinate importance to a positive addition to the materials of a science. The latest systematic work on *Capital* (*Kapital und Kapital-Zins* by E. von Böhm-Bawerk), which is full of excellent material from the historical standpoint, gives many examples that incur some part of this stricture.

In conclusion it must be allowed that it is impossible to thoroughly discuss such a comprehensive term as capital without travelling over every department of economics. Similarly a complete bibliography would involve a reference to almost every important economic work.

[Besides the works referred to in the text, special attention may be called to the following. On the historical side (that is of fact, not theory), as regards antiquity one of the most instructive works on the effects of capital is Mommsen's *History of Rome*. In the mediæval period the work of Schanz, *England's Wirthschaftliche Entwickelung*, etc., gives excellent material from the Saxon to the Tudor period; Thorold Rogers on *Six Centuries of English Work and Wages* and Brentano on *Gilds and Trade Unions* give the later development. On the history of the theory the principal works have already been noticed. On the theory in recent times, the reader may consult the chapter on "Capital" in the *Principles of Pol. Econ.*, by Prof. H. Sidgwick, for an excellent analysis of "common" and scientific English thought; and the various works of P. Leroy Beaulieu, *e.g. La Répartition des Richesses: La Science des Finances*. The work of Karl Marx (*Das Kapital*) which has been translated into English, must be read with caution as regards the deductions from the masses of adroit quotations from English sources, whilst the central theory has not been accepted by any economist of repute though still apparently the basis of German socialism. Compare A. Held on *Socialismus und Capitalismus* and Schäffle on the *Quintessence of Socialism* (translated into English). List on *National Systems of Political Economy* may be compared with the *Wealth of Nations*, bks. ii. and iv.] J. S. N.

History of the word.—The word "capital" in its economic sense, like the word "principal," and like the word "capital" itself in its geographical sense, is an adjective elliptically used as a substantive (Murray, *New English Dictionary*, s.v.) The full phrase is "capital stock." "Capital" was used for "capital stock," at least as early as 1635 (*e.g.* in Dafforne, *Merchant's Mirrour*, Ex. No. 96), but the fact that it was merely an adjective was by no means forgotten. The Act 8 & 9 W. and M. c. 20 (1697) "for enlarging the capital stock of the Bank of England," provides that before the enlargement is made, "the common, capital, and principal stock of the said governor and company shall be computed and estimated by the principal and interest owing to them by the king, or by any others, and by cash, or by any other effects whereof the said capital stock shall then really consist over and above the value of the debts which they shall owe at the same time for principal and interest to any other person or persons whatsoever." In Dyche and Pardon's Dictionary, 1735, the article on "Capital" begins, "Chief, head, or principal; it relates to several things, as the *capital stock* in trading companies is the fund or quantity of money they are by their charter allowed to employ in trade." Adam Smith frequently uses the full phrase. E. C.

Legal ruling that Capital need not be replaced from profits.—A trader's assets are in most cases wholly or partly of a perishable nature. Before ascertaining the profits derived from such assets in a given year provision ought to be made for the depreciation estimated to have taken place during that year. If, for instance, a person who invested £1000 in the purchase of a patent having five years to run, and producing an annual profit of £500, treats the whole of the annual £500 as the profit of the respective year, he will find, at the end of the five years, that his source of income has disappeared. If, on the other hand, at the end of each year a sum of £200 is carried to the credit of a sinking fund and the remaining £300 only are treated as income, the owner of the patent will at the end of the five years be able to invest his original £1000 in some other profitable manner. Where the facts are so very plain this seems almost a truism, but in many cases it is more difficult to distinguish between income in the proper sense and repayment of capital. The inquiry ought, however, always to be made and acted on. The importance of taking the depreciation of property into account in ascertaining the profits of a given year is even more obvious in the case of a company than in the case of a private individual. The gradual disappearance of wasting property must in the end

materially damnify PREFERENCE shareholders, DEBENTURE holders, and ordinary creditors, and must also cause great injustice as between the persons entitled to the income of shares for limited periods and the persons ultimately entitled to the property of the shares. It seems strange that although the integrity of the capital of limited companies is, in other directions, most jealously watched by our courts, the greatest laxity is allowed with reference to the valuation of assets of a wasting nature.

In the leading case of Lee *v.* Neuchatel Asphalte Company (Law Reports, 41 Chancery Division, p. 1) it was held by the Court of Appeal that "there is nothing in the Companies Acts to prohibit a company formed to work a wasting property, as *e.g.* a mine or a patent, from distributing, as dividend, the excess of the proceeds of working above the expenses of working, nor to impose on the company any obligation to set apart a SINKING FUND to meet the depreciation in the value of the wasting property."

The following observations of Lord Justice Lopes deserve special notice—"It is said by the appellant that a company is not at liberty to pay a dividend unless they can show that their available property at the time of declaring the dividend is equivalent to their nominal or share capital. In my opinion such a contention is untenable. Where nominal or share capital is diminished in value, not by means of any improper dealing with it by the company, but by reason of causes over which the company has no control, or by reason of its inherent nature, that diminution need not, in my opinion, be made good out of revenue."

The result of the doctrine so laid down may be illustrated by an example. A company having invested the whole of its capital in licensed premises at a price securing an excellent return during the continuance of the licence, divides the whole of the net revenue in each year among its shareholders. The licence is withdrawn before the dividend for the last year has been declared. This is a diminution of the value of the company's property "by reason of causes over which the company has no control," and the company may divide the whole of the last year's profit among the shareholders, although the value of the land and buildings since the withdrawal of the license is far below the amount of the debts owing by the company. We are bound to bow to the ruling of the Court of Appeal, and must therefore assume that this result is in accordance with the Companies Acts, but economically it cannot be considered sound; while, from the point of view of persons having dealings with limited companies, and relying on the correctness of their annual balance-sheets, it is highly inconvenient, and further it contradicts every sound principle of business and of bookkeeping. E. S.

Capital rarely permanent.—The constant need of renewal of capital is a point often not remembered. Capital, as Professor Sidgwick says (*Principles of Political Economy*, ch. v.), is "a semi-technical term, being habitually used not by men generally in their ordinary thought, but by men of business and others when discussing industrial matters," "In its original use by practical men," Professor Sidgwick continues, "capital" undoubtedly means "wealth employed so as to yield a profit." The distinctions which, as Professor Sidgwick shows, must be made as to the use of the term thus defined, are stated under the head of CAPITAL (*q.v.*), the remarks on the subject in this place are confined to the point—that the "wealth" thus "employed" stands constantly in need of renewal. Whether "capital" exists in the form of machinery or any other finished product of intelligent skill, or in the form of the floating capital or cash used in paying the labour employed in keeping that machinery in motion, or in purchasing the materials needed to maintain any product of intelligent skill—a mint for instance in working order—constant renewal is, in by far the greatest number of cases, needed to maintain not merely its efficiency, but its very existence. A railway, for example, needs not merely a continual repair but perpetual reconstruction, which has properly to be charged to the fund which is properly profit, but which in this technical sense is called "revenue." As traffic increases new rails have to be laid down, old stations enlarged and renewed, old bridges replaced by new ones capable of bearing the heavier weights of the more powerful locomotives and the larger trains which they draw. In cases like this "capital"—the word is used here in the technical sense described by Professor Sidgwick—has already been charged with the cost of construction of the stations and bridges which are now superseded, and hence have to be rebuilt. It is "revenue" therefore, the produce of "capital," not capital itself, which has to bear the cost of the renewal so far as this renewal merely replaces what is actually superseded. Thus, in the case of a station which cost originally £10,000, and owing to the increased traffic has become insufficient to meet the needs of the locality, and has to be replaced by one costing £50,000, in all well-managed railways the rule is that capital bears only the difference between the two sums, and revenue is charged with the replacement of the original outlay. This example is given as merely one instance of a process which has to be followed in every instance in which "capital" has to be perpetually maintained, however it is employed. It shows further, not only the proper method of apportioning the difference between gross and net "revenues," that is between gross and net profit, but the very heavy drafts which must con-

stantly be made on "revenue," that is on net "profit," to meet a class of expenditure which to many appears exceptional, but which is really a normal incident in the cost of production. When examined into thus, it is interesting to trace how little of what is ordinarily termed "fixed" capital is really permanent. The apparent permanence of "capital" is occasionally spoken of as something which may always be depended on, something which endures for ever. Because the payment of the interest on the "debt" of a nation, or the "stock" of a company is continued from year to year, it is assumed that the wealth represented by the original outlay continues in existence and that the "capital" remains—capital described as the "saved produce of past labour." The "capital considered either in the concrete as (mainly) the accumulated stock of instruments auxiliary to labour, or more abstractedly as the power of directing labour to the attainment of greater but remoter utilities through the control over the produce of labour possessed by the owners of accumulated wealth," is only maintained through a perpetual process of reproduction.

[See Mill, *Principles of Political Economy*, bk. i. ch. v. For connection between κεφάλαιον, *caput*, and capital, see Macleod, *Dictionary of Political Economy*, s.v. "Capital," pp. 324-67, and Roscher, *Volkswirthschaft*, p. 89, § 42.]

CAPITATION (IN FRANCE). The *capitation* was a graduated poll-tax, first imposed in 1695 during the war with the league of Augsburg; abolished in 1697, on the conclusion of the treaty of Ryswick, it was renewed when the war of the Spanish Succession broke out in 1701. From this time it became a regular source of income until the Revolution.

The imposition of the *capitation* is a proof of the immense power of the monarchy under Louis XIV. No consent was asked, and no regard was paid to class privileges. The tax was to press upon all classes including the nobles. The mendicant orders, and all whose contributions to the state did not exceed 40 (afterwards 20) sous were exempted. The rest were divided into twenty-two classes according to rank, with a diminishing scale of payment. The first class, which consisted of the dauphin alone, paid 2000 livres; the second, viz. the princes of the blood, paid 1500; and so on to the four lowest classes, which paid respectively 40, 30, 10, and 3 livres. In principle, at least, the tax was more equitable than any other in France.

The nobles and clergy had been powerless to prevent the imposition of the tax, but they soon succeeded in modifying its assessment in their own interests. The clergy, in fact, succeeded in escaping it from an early period. In 1695, and again in 1701, they agreed to pay 4,000,000 livres a year as long as the war lasted. In 1709, when the government was reduced to the greatest straits, they purchased permanent immunity from the *capitation* by an immediate payment of 24,000,000 livres, most of which they raised by loan. The *pays d'état* and many of the towns compounded for a fixed annual payment, as in the case of the *taille* (see TAILLE). The nobles obtained the appointment of special receivers for their own order, and succeeded in escaping great part of the burden.

But the most fatal change was the adoption (in those provinces where the *taille* was levied on personalty) of the assessment for the *taille* as the basis of that for the *capitation*. The division of the twenty-two classes was soon lost sight of, and the burden upon the lower classes was enormously increased. If the *taille* was increased, the *capitation* of the ROTURIER was *ipso facto* increased too. Thus the practice grew up of collecting the tax first from the non-privileged, and then, if there was a deficit, it was imposed upon the privileged classes. Thus it was reckoned that in 1788 a *roturier* paid about 12 sous per livre; and a noble only 2. The class which ought to have paid 3 livres by the original arrangement had come to pay 24; the class which ought to have paid 10 paid 60, and that which ought to have paid 30 paid 180. This enormous change was produced within a century, not by formal enactment, but by the steady pressure of the privileged classes upon the administration. The result was disastrous to the state, as the tax, according to NECKER, only produced 41,000,000 livres, whereas it was estimated to produce 54,000,000.

[Necker, *De l'Administration des Finances de la France* (1784).—Gasquet, *Précis des Institutions Politiques et Sociales de l'Ancienne France* (Paris, 1885).] R. L.

CAPITATION TAXES. Taxes directly imposed on each individual to be charged therewith, the amount payable being either a uniform sum or, as in later times, a sum regulated by reference to a prescribed scale varying with the rank and station, and, in some instances, with the supposed fortune of the person charged. Such taxes are frequently described as poll taxes.

The first capitation or poll tax was imposed in England in 1377 at the uniform rate of 4d. per head. It is stated in the Subsidy Roll printed in the *Archæologia*, vii. 37, that the sum produced was £22,607 paid by 1,376,442 persons, although, as Mr. Dowell remarks, the "sum raised does not correspond with the stated number of taxpayers." In 1379 and 1380 graduated poll taxes were imposed, the tax levied in the latter year leading to the movement in which Wat Tyler was the moving spirit. Thereafter, capitation taxes were levied at rare intervals, the principle of classification being present in all of them and on an increasingly elaborate basis. In 1692 a poll tax paid in each quarter of that year produced £580,000, and in 1698 a similar tax estimated to yield £800,000 pro-

duced no more than £321,397. "When a tax," said DAVENANT, "yields no more than half what in reason might be expected from it, we plainly see that it grates upon all sorts of people; and such ways and means of raising money should be rarely made use of by any government." Accordingly, the poll tax of 1698 was the last imposed in this country, although the system survives in several European countries.

Adam SMITH (*Wealth of Nations*, bk. v. chap. ii. art. iv.) condemns capitation taxes as altogether arbitrary and uncertain, to which he adds that "the greatest sum which they have ever afforded might always have been found in some other way much more convenient to the people." It may, however, be said, that it is in the inequality of capitation taxes, rather than in their uncertainty or arbitrary character, that the essential objection to them consists. They need not necessarily be uncertain, and their arbitrary character depends mainly upon the manner in which they are administered. If levied, however, without distinction of age, sex, or fortune, they are so manifestly unequal that they have been described as the taxation of men as if they were beasts, and as constituting "a mark of slavery." And even when attempts have been made to remedy this inequality by suitable gradations, sufficient care has seldom been taken in constructing them to avoid the imposition of a direct burden upon those above the condition of beggary but possessed of the means of a bare subsistence only. Graduated capitation or poll taxes may be described as rough and ready attempts to achieve that species of direct taxation which is more scientifically accomplished by a well-constructed income tax (see INCOME TAX), to which tax, as then known, many of the observations of the earlier economists on the subject of capitation taxes are indeed equally directed.

T. H. E.

[See Dowell's *History of Taxation and Taxes in England* (London, 1888).—Block's *Dictionnaire Général de la Politique* (Paris, 1873).]

CARACCIOLI, DOMENICO (marquis and viceroy of Sicily), born in Naples 1715, died 1789; published (1785) a pamphlet on corn laws, having seen their bad consequences during a great famine which devastated Sicily in 1784 and 1785. However, he is not a thorough free trader, and he is more of a political writer than an economist. CUSTODI published his pamphlet in his *Economisti classici Italiani*, Milano, 1804. M. P.

CARAFA, DIOMEDE, perhaps the first serious writer in Italy on public finance. When he was born is not known. He died in 1487. He was duke of Maddaloni and was invested with the highest political offices under Alfonso I. of Aragon, who only succeeded in taking Naples from Renato of Anjou through the bravery and ability of his captain Carafa.

Carafa's book consists only of eighty-eight pages, and its full title is: *De regis et boni Principis officio opusculum a Diomede Carafa, primo Magdalunensium Comite, compositum*, Neap. apud Castaldum, 1668 (edition now circulating). He wrote his book between 1469 and 1482 in Italian, and the Duchess Eleonora, daughter of Alfonso I., and wife of Ercole I., Duke of Ferrara, whose instructor Carafa had been, directed it to be translated into Latin. It is divided into four parts: (1) De imperio tuendo, (2) de jure dicendo et justitia servanda, (3) de re familiari et vectigalibus administrandis, (4) de subditorum civitatisque commodis procurandis.

In the third part, which is the financial one, of his treatise, Carafa makes some original remarks. He maintains that the revenue must be regulated in proportion to the expenditure, and that this has three principal divisions—expenses for the protection of the state; those necessary for the court of the prince; and lastly a category of varying importance relative to the general welfare of the state. As this last category is the variable and unforeseen one, whilst the two other ones are certain, the greatest possible margin should be left for it on the side of income, and the other expenditure should be reduced to a minimum. The revenue should be minutely accounted for and examined into every year by a special body of officers. Taxes should be stable and in every detail indisputable (Carafa says: taxes should be formulated so clearly that people need not go to law about them to know *what they have to pay*) and not oppressive; but taxes will be certain to be oppressive if the greatest economy does not prevail in the expenditure. Economy in the expenditure makes it possible for the prince to choose amongst the many possible taxes only the very best, and eliminate especially those which are iniquitous or unequal in their incidence. Moderation in the expenses will also have the good effect that the prince need not have recourse to forced loans, which he thus characterises, "Quid aliud existimari debet, quam *tutum quoddam rapinae aut furti genus?*" Such loans induce population and capital to emigrate, and it would be highly immoral for the prince to endeavour to search out where wealth was, by employing spies so as to plunder his subjects the better. He thinks the collecting of taxes ought to be farmed out, because the "publicans" act with greater zeal, intelligence, and activity than government officials. Carafa clearly recognises that the wealth of the subjects is the foundation of the whole state machinery, and must therefore be spared, "Subditorum facultates potentiæ regiæ fundamenta existimari oportet." Far bolder than S. THOMAS AQUINAS (*q.v.*), Carafa does not fear moral evils from a development of commerce, the first great source of the wealth of subjects;

therefore commerce must be left absolutely free. Carafa's powerful intellect discerned how beneficial for a country are foreign merchants who settle in it, and strongly opposed every sort of oppression tending to give foreigners a position inferior to that of native citizens. His formula of liberty is "Sicut indignum est a civibus officia Regentis invadi, *ita civium negotia occupari a Rege non decet.*" Nevertheless Carafa cannot yet quite free himself of the prejudice that state-help is of some good, and he advises the prince to lend money, to give prizes and aid industry in many other ways, since the prince, he says, is sure never to lose in the long run by doing so, because "princeps inops esse non potest, cujus imperio ditissimi homines subjiciuntur." Especially agriculture needs the indulgence of the prince, because peasants often need loans, and when the seasons have not favoured them, the tax collectors ought not to aggravate their situation, but give them a little time to pay their taxes and their debts. The labour of the subjects is the source of the wealth of a nation and the government must never crush them and *if it can*, must help them; "*nec tamen negaverim non posse hoc* (state-help) *ab omnibus et ubique praestari; sed ubi et facultatum copia, et locorum commoditas suppetit, ibi subditos a Principibus suis, et consilio, et re excitandos adjuvandosque esse assero.*"

Is it not remarkable to find a statesman and a warrior of those rough times speaking in such terms? M. P.

CARBONARI. This secret society (referred to in the notice of the life of Etienne CABET), claims a history of much antiquity, and Francis I. of France as founder. Its recent activity dates, however, mainly from the revolutionary period, at the close of the last century, when its principal sphere of action lay in Italy. The project formed by the society of a united Italy, under the name of the Ausonian Republic, proved abortive; but the fall of Murat was in great measure due to its influence. After the restoration of the Bourbons, however, to the kingdom of Naples, the Carbonari were thrown on one side, and the society was proscribed throughout Italy. Expelled thence, it began to take root in France, and Lafayette became its chief (*c.* 1820-1821). After many vicissitudes the society was revived about 1825, and some ten years later coalesced with the society named Young Italy. The course which the society of the Carbonari took marks "a transition period in the history of secret societies. From secret societies occupied with religion, philosophy, and politics in the abstract, it leads us to the secret societies whose objects are more immediately political. And thus in France, Italy, and other centres it gave rise to numerous and various sects, wherein we find the men of thought and those of action combining for one common object—the progress, as they understood it, of human society" (Heckethorn, vol. ii. p. 115).

[For literature, see *The Secret Societies of all Ages and Countries*, C. W. Heckethorn, 2 vols., London.]

CARDOZO, ISAAC N., born in 1786 in Georgia, U.S., settled in Charleston, S.C.; engaged in journalism, and died in 1850. In 1826 wrote *Notes on Political Economy*, Charleston, S.C., pp. 125. This was called forth by the publication of Professor M'Vickar's edition of M'CULLOCH'S article on "Political Economy," originally published in the *Encyclopædia Britannica*, a statement of the principles of political economy which Cardozo regarded as erroneous when applied to the United States. The Ricardian theory of rent was especially attacked; many critics at that time saw that the conditions of land tenure and cultivation were so different in the United States from those in England that they concluded that RICARDO'S theory was fundamentally erroneous. As editor of the *Southern Patriot*, 1816-45, and of the *Evening News*, 1845-50, Cardozo wrote in favour of free trade, and showed an unusual acquaintance with the subject of finance. He frequently contributed to the *Southern Quarterly Review*. D. R. D.

CAREY, HENRY CHARLES (born in Philadelphia, United States, 1793, died in that city 1879), was the son of Matthew Carey, an Irish exile, who had become a man of mark as a publisher, and as a writer on economic and political questions. The son succeeded his father as head of the publishing house, but retired with a competency in 1835, and from that time devoted his energies to economic science and related subjects. Thirteen octavo volumes and three thousand pages of pamphlets remain as the fruit of his activity, besides an amount of matter, supposed to be twice as great, contributed by him to the newspaper press. Of his more important works there are translations in French, Italian, Portuguese, German, Swedish, Russian, Magyar, and Japanese, attesting his remarkable power of commanding attention in spite of the difficulties created by great prolixity, eccentric style, and frequent obscurity of thought.

Carey began his scientific career at a juncture when the ENGLISH SCHOOL appeared to have exhausted its deductions from assumed premises, and to shrink from adjusting its conclusions to the conditions of actual life. His treatment of SOCIAL SCIENCE was original, and led him to a series of supposed discoveries, the order of which he has stated in the introduction to his most important work, *The Principles of Social Science*. His point of departure was a theory of VALUE which he defined as the "measure of the resistance to be overcome in obtaining things required for use, or the measure of nature's power over man"—in simpler terms

the cost of reproduction. This theory Carey applied to every case of value—to commodities, services, and land, and in some passages seemingly to man himself. Reasoning that every gift of nature is gratuitous, he found a universal tendency to a decline of value as the arts advance, and to a decrease in the value of accumulated capital, as compared with the results of present labour, with a resulting harmony of interests between capitalist and labourer. This theory Carey enunciated in his *Principles of Political Economy*, published in 1837-40, and its appearance in slightly modified terms in BASTIAT'S *Harmonies Économiques* in 1850, led to a sharp discussion between the two authors, in the *Journal des Économistes* for 1851. The attempts of Dühring in Germany to establish the claims of Carey as a reformer of economical doctrine, led to an equally sharp controversy between Dühring and LANGE, in which the latter had the best of the argument.

Ten years later, in his *Past, Present, and Future*, Carey announced a law of production from land the exact reverse of RICARDO'S With great wealth of illustration, he laid down the principle that, in the progress of society, men first till the easily worked and poorer soils, and descend upon the richer lands as capital and numbers increase, so that with the advance of the community the rate of return from land rises instead of falling. Closely connected with this supposed reversal of Ricardo's doctrine, and a natural deduction from the continually increasing ability to support increasing numbers, was the total rejection of the Malthusian law. Logical necessity, however, forced Carey to seek for some ultimate limiting principle, and this he found at last in Herbert Spencer's conjectured physiological law of the diminution of human fertility, and ultimate equilibrium between numbers and subsistence. It may be also noted in passing, that with the Ricardian and Malthusian doctrines Carey also abandoned his earlier belief in free trade, from a conviction that, in the present state of the world, the co-ordinating power of the government must be used, in order to preserve economic harmony and to arrive at ultimate freedom.

Finally, in the second chapter of his *Social Science*, Carey announced the crowning discovery of "the great law of molecular gravitation as the indispensable condition of the existence of the being known as man." The laws of being he declared to be the same in matter, man, and communities. As in the solar world attraction and motion are in the ratio of mass and proximity, so in the social world, association, individuality, responsibility, development and progress are proportionate to each other. This theory, not of analogy, but of absolute identity of law, in the physical and in the social world, is maintained with great vigour in the *Unity of Law*, published when Carey was in his seventy-ninth year.

The scientific importance of these theories has been maintained by Dühring, Ferrara, and Wirth, and has been questioned by HELD and Lange. However revolutionary the theories may be logically, they had, outside of the middle United States, little effect in establishing a school, even in the author's lifetime, and since his death, under the changed conditions of economic discussion, have ceased to attract much attention.

In his own country, Carey is probably best recollected as an advocate of the policy of protection. This policy he urged upon grounds so unusual, that it may be said that, in the discussion, he seldom pursued his opponents far upon their own lines of argument, nor has he often been followed by them upon his own. The central point of his social philosophy was the importance of association as the primary condition of progress. In mere trade, as between countries exchanging manufactured goods and raw products, he found an influence which centralises power and wealth on the one side and acts towards dispersion and decay on the other; but in the commerce of services and ideas carried on by men exchanging with each other directly, he found a tendency to closer association, increased economic efficiency, and general well-being. His treatment of INTERNATIONAL TRADE, then, turned chiefly upon the stimulus to be given to producers by the home market, a consequent rapid societary movement, an early diversification of pursuits, quickened thought, and a resulting gain in productive power. In this manner he developed many of the arguments for the protective system which have now become common, and perhaps helped in giving to those arguments a currency much wider than the acceptance, or even the knowledge, of his general system, among protectionists to-day. (See AMERICAN SCHOOL OF POLITICAL ECONOMY.)

Carey held no public office, but his mental and social qualities made him for many years a central figure among men of cultivation and influence in his own community. A brief memoir of him was published in Philadelphia (1880) by his friend, Dr. William ELDER, from which is taken the following list of his principal works, omitting the long catalogue of pamphlets:

Essay on the Rate of Wages, 1835.—*Harmony of Nature* (privately printed), 1836.—*Principles of Political Economy* (3 vols.), 1837 '38 '40.—*The Past, the Present, and the Future*, 1848.—*Harmony of Interests, Agricultural, Manufacturing, and Commercial*, 1850.—*Slave Trade, Domestic and Foreign*, 1853.—*Principles of Social Science* (3 vols.), 1858-59.—*Manual of Social Science* (edited by Miss M'Kean), 1864.—*The Unity of Law, as exhibited in the relations of Physical, Social, Mental, and Moral Science*, 1872.

Closely related to the above is the *Manual of Political Economy*, by E. Peshine SMITH, 1868. The Claims of Carey to a high place among modern economists have been maintained in Germany especially by Eugen Dühring (*Carey's Umwälzung der Volkswirthschaftslehre und Socialwissenschaft*, 1865) and in America especially by Mr. Carey-Baird. Readers who may wish to see a statement of the case rather from the side of his followers than from that of his critics are referred to the writings of these authors. C. F. D.

CAREY, MATTHEW (father of H. C. CAREY) born in Ireland in 1760, emigrated to United States in 1788 in consequence of political troubles. His career was varied and successful; editor of newspapers and magazines, pamphleteer, publisher, he was till his death in 1840 (at Philadelphia) a prominent figure. He wrote numerous pamphlets, partly political, partly economical. In 1820-40 he was the most active among the advocates of protection in the United States. Among his pamphlets (all published at Philadelphia) may be mentioned :—

Brief Examination of Lord Sheffield's Observations on Commerce of United States, 1791.—*Appeal to Common Sense and Common Justice*, 1822.—*Essays on Political Economy, or the most certain Means of promoting Wealth*, etc. (1822).—*The Crisis*, etc., 1823.—*Examination of the Boston Report*, etc., 1828. F. W. T.

CARLI, GIAN RINALDO, born at Capo d'Istria 1720, died at Milan 1795. In 1744 he became professor of astronomy at Padua. In 1753 he settled at Milan, where he was appointed president of the financial board by the Austrian government.

Between 1751 and 1760 he published his famous work on *Coins and Minting*. (A part of the first volume was published in 1751 in Venice under the title, *Della origine e del commercio della moneta, e della instituzione delle zecche d' Italia;* the whole of the first volume was published at the Hague in 1754 under the title, *Delle monete e dell' instituzione delle zecche d' Italia;* in 1757 he published the second volume at Pisa, and in 1759 the third volume, in two parts, at Lucca.) In 1766 he published at Milan a pamphlet on the deterioration of the coin in Milan, and the rules he gives for amelioration were, later on, the basis of the reform which was effected. Ten years later appeared his report on the "Census of the State of Milan," containing a critical history of methods for valuations of property. In 1770 he wrote a very able refutation of the mercantile theories concerning the wealth of nations as measured by exports and imports (*Breve ragionamento sopra i bilanci economici delle nazioni*), hence it is somewhat surprising to find him writing in 1771 a pamphlet on the corn trade (*Del commercio libero dei grani*) in support of GALIANI, combating his critics, and strongly in favour of governmental regulation of this branch of commerce. Most of his economical writings have been reprinted in CUSTODI's *Economisti Italiani*, Milan, 1804. Besides being an economist he was a good antiquarian and historical writer. He tarnished his character by his excessive hatred and jealousy of Pietro VERRI, the economist.

M. P.

CARLYLE, THOMAS, born 1795, died 1881. Carlyle conceived that a true political economy should be a political philosophy and tell us "what is meant by our country, and by what causes men are happy, moral, religious, or the contrary" (see *Life* by Froude, vol. ii. p. 78). Economics in a narrower sense was associated by him with BENTHAM and M'CULLOCH ("M'Croudy"), and nicknamed, through a misconception, pointed by the power which paradox sometimes exercised even over his happiest thoughts, the "dismal science." His praises of WORK and THRIFT (*Past and Present*, etc. etc.), his description (from FRANKLIN) of man as a tool-using animal (*Sart. Res.*), and his respect for pioneers who drain fens (see *Cromwell*) or make railroads, like "the rugged BRINDLEY" (*Past and Present*), or reclaim the moors and forests (*Latt. D. P.*, No. 1), even his cardinal principle "know what thou canst work at" (*Sart. Res.*), are the outcome of his character as moral teacher, and point to no special economical bent, though the last no doubt implies the economical principle of division of labour. He is courteous to "national economy" when identified with Old Frederick William (see *Frederick the Great*, bk. iv. ch. iii.), and he even allows that English political economy has had its lesson to teach us (*Latt. D. P.*, No. 1). Even "mammonism" itself "has seized some portion of the message of nature to man; and, seizing that and following it, will seize and appropriate more and more of nature's message" (*Past and Present*). The English people are the wisest in action, and their practical material work is the one thing they have to show for themselves that is true and solid (*Past and Present*). But he has done most service to economics by his criticisms. When *Past and Present* appeared (1843) the *Deutsch-Französische Jahrbücher* of MARX and Engels at once took note of it as the most important book of the day on social questions. Carlyle there showed that extreme LAISSEZ-FAIRE may mean disintegration of society and simple anarchy; it removes old bonds, and leaves men disjoined from each other, except for the "nexus of cash payments." The result is the "nomadic servitude" of the working classes and the destruction of all security and permanence in their conditions of life. In the *Nigger Question* (1849) he allows no advantage to the English labourer over the West Indian slave; the slaves were "hired for life," and the workman are hired by the job. He is on safer ground when he points to the common liability to disease as a wholesome

reminder to the rich of their common humanity with the poor (*Past and Present*), and when he impresses on economists the fact that their ECONOMIC MAN is an abstraction, and the universe is not one huge shop. He derides mere skill in selling cheap (*Bobus of Houndsditch*), and even industrial enterprise, so far as it aims at profit-making (Hudson, *Plugson of Undershot*, etc.) But he is firm against corn laws, and against the landowners who "refuse to take the market rate for their onions," and forget that *they* did not make the land of England. He goes farther than most economists in his estimate of "captains of INDUSTRY," and in his view that the relation of MASTER AND SERVANT is eternal (*Nigger Question*). He shows no appreciation of the power of workmen's combinations: and has no sympathy with nations and peoples as distinguished from individuals. On the whole economists have learned more from his protests against abstract Ricardian political economy and its tendency to reduce the state to "anarchy plus the constable" than from any of his positive teachings. His pleadings had their influence even with men like John MILL, who were perfectly aware of their defects of logic. It should be added that the "theory of dependence and protection" criticised by Mill in his chapter on the "Probable Futurity of the Labouring Classes" (*Pol. Econ.* iv. vii. § 1) is essentially that of Carlyle. J. B.

CAROLUS (English). Gold coin (Charles I.) rated at 20s. Also called a "unit" or "broad." Weight, 140·5 grains. Fineness, 916·6. Value at £3:17:10½ an ounce, £1:2:9½. F. E. A.

CAROLUS DOLLAR. A name sometimes given to the Spanish dollar which circulated for many years throughout America and in China and the East generally, and which bore the effigy of either Carolus III. or IV. of Spain. The coin was also known as a "pillar dollar," a name which it derived from the fact that part of the device on its reverse consisted of two pillars, intended to represent the Pillars of Hercules (the Straits of Gibraltar). Its Spanish name was "peso duro" (or hard dollar). It was also called an "eight piece" on account of its division into 8 reals. (For the dates of issue, weight, and fineness, see DOLLAR, HARD.) F. E. A.

CARRIER, COMMON. A common carrier is one who plies his trade between certain places and regularly undertakes for a pecuniary consideration to transport the goods of all who choose to employ him. At common law the principal duties of a common carrier are: (1) To carry all things belonging to the description of articles which he publicly professes to carry for any person who is ready to pay him his customary hire, provided he has room for the things in his cart or carriage, or other means of transport. (2) To take proper care of the goods he carries, and to make safe delivery to the consignee. He is responsible for loss from any cause except negligence of the owner, or from their nature, or from any occurrence independent of man. He is regarded as an insurer of the goods, and cannot by public notice limit his liability. (3) Every carrier of passengers for hire is answerable for the least want of forethought, skill, or care in himself or his servants, arising from the discoverable defectiveness of his conveyance, horses, or equipments. He is not an insurer like the carrier of goods, and is not therefore responsible for latent defects which no skill or care could have detected. The status of a common carrier at common law has been modified by the following statutes. By the Carriers Act 11 Geo. IV. and 1 Will. IV. c. 68 he is not to be liable for the loss of or injury to gold, silver, plated articles, precious stones, jewellery, watches, clocks, trinkets, bills, notes, securities, stamps, maps, writings, pictures, glass, china, silks, furs, or lace if the value exceeds £10, unless the value be declared and an increased charge be demanded and paid. The act does not apply to any loss or injury arising from his own misfeasance or the felonious acts of his servants. By the 29 & 30 Vict. c. 69 he is not bound to receive specially dangerous goods.

[Chitty on *Contracts*, London, 1881.—*Law of Carriers*, W. H. Macnamara, London, 1889.—Smith's *Mercantile Law.*] J. E. C. M.

CARRYING OVER. On all stock exchanges there are dates for settlements of bargains which it is not convenient for operators to negotiate for ready money. The largest settlements are those which are carried on in the middle and near the end of each month on the London stock exchange. Before the dates of settlement those who have bought securities which they are unwilling to pay for, and those who have sold what they cannot deliver, come to an agreement by which the bargains are "carried over." Carrying over, then, is the process of postponing, by agreement, the date of settlement. If the stock can be easily borrowed in the market, the buyer pays a rate of interest, sometimes called continuation, or CONTANGO, for the privilege of prolonging his bargain till the next settlement. If the stock is scarce, it sometimes happens that a seller, who cannot deliver or borrow his stock, must pay a fine called BACKWARDATION (*q.v.*) to the buyer. A. E.

CARRYING TRADE. "The carrying trade," says Adam SMITH, "is employed in transacting the commerce of foreign countries, or in carrying the surplus produce of one to another" (bk. ii. ch. 5). He remarks that the line of distinction is often not drawn with sufficient clearness between it and the foreign trade of consumption. In a celebrated passage he institutes a comparison between the encouragement and support given to the productive

labour of a country by the wholesale home trade, the foreign trade of consumption, and the carrying trade, greatly to the disadvantage of the last. "That part of the capital of any country which is employed in the carrying trade is altogether withdrawn from supporting the productive labour of that country to support that of some foreign country. Though it may replace by every operation two distinct capitals, yet neither of them belongs to that particular country." The carrier's profits are the only addition it makes to the wealth of the country, except in so far as the part of the capital employed in it, which pays the FREIGHT, puts into motion a certain number of productive labourers. The carrying trade, being carried on with the surplus remaining after the home and foreign trades are provided for, is, in his opinion, "the natural effect and symptom of great national wealth, but does not seem to be the natural cause of it." Holland had still, in his time, the largest share of the carrying trade of Europe, because it was, in proportion to its territory and population, by far the richest country in Europe; England, too, was held to have a large part, but much of it was really a "round-about foreign trade of consumption." Some of Adam Smith's successors have disputed his views respecting the economic nature of the carrying trade, and have maintained that it is a matter of indifference to a nation how a capital is employed so long as the ordinary rate of profit is obtained. But see Prof. Nicholson's Preface to his edition of the *Wealth of Nations*.

There is a tract entitled "Observations touching Trade and Commerce with the Hollanders and other Nations," which is commonly attributed to Sir Walter RALEIGH, and which appears at least to have been laid by him in manuscript before James I. In this a very interesting account is given of the carrying trade of Holland. The origin of it he represents as due to the mismanagement of the Portuguese. The "home-bred commodities" of the Hollanders he represents as insignificant in amount, and "not a timber tree," he says, "grows in their country"; yet "their traffick with the Hanstowns exceeds in shipping all Christendom." They transported the "merchandises of France, Portugal, Spain, Italy, Turkey, East and West Indies, into the east and north-east kingdoms of Pomerland, Spruceland, Poland, Denmark, Sweedland, Leifland and Germany, and the merchandises brought from the last-mentioned kingdoms . . . into the southern and western dominions." Their success he attributes mainly to their judicious and liberal regulations for the encouragement of commerce.

It is commonly believed that the first heavy blow to the Dutch carrying trade was dealt by the English NAVIGATION ACT of 1651, re-enacted, with some modifications, after the Restoration (12 Chas. II. ch. 18). Some have denied this, but, it would seem, on insufficient grounds. That the Dutch suffered by this legislation can scarcely be doubted, though it may well be questioned whether England gained by it in a commercial sense. Politically, that is to say, in relation to the strength and security of the state, Adam Smith pronounces the acts, though prompted in some degree by national animosity, to have been "as wise as if they had been dictated by the most deliberate wisdom."

J. K. I.

CARTEL. Cartel means, in international law, the terms of agreement between belligerents for the exchange or ransom of prisoners. The "cartel" of chivalry meant first of all the terms of a combat, and then simply the challenge; and the second is still its ordinary meaning on the Continent. By analogy, the word *Kartell* is now often used by German economists to denote a TRUST, *i.e.* an agreement between rival merchants to limit production or otherwise temper the extremity of competition; so in 1889 it was used of the suspension of hostilities between conservative and liberal parties in view of the common defence of the empire.

J. B.

CARTOGRAM. A cartogram is a representation "in which the geographical map shows the totals or the ratios of the different units by various inserted diagrams and hexagrams" (see GRAPHICAL METHOD).

[Paper by E. Levasseur, "La Statistique Graphique," *Jubilee Volume of the Statistical Society*, London 1885.—*Annals of the American Academy*, Supplement, May 1891, "The History, Theory, and Technique of Statistics," by A. Meitzen.]

CARUCAGE. A tax levied on the carucate, the amount of land cultivated by one full plough team of eight oxen. It has been asserted that the carucage was levied on the plough (caruca), and that a tax levied on the carucate of land was neither a carucage nor so termed by contemporary authorities. That the mention of the carucate was much earlier than that of the carucage can hardly be doubted. Equally surely may it be surmised that contemporaries recognised a tax levied on the carucate as a carucage (Leland, *Coll.* p. 223). The point is one of considerable importance. In the first place were the incidence of the carucage on the plough, not on the soil, valuable information would be furnished as to the steps in the transfer of taxation from "land" to "movables" (cp. SCUTAGE and KNIGHT'S FEE). In the second place the discussion as to carucage has included a close investigation of the circumstances of the tax levied by Richard I. in 1198 towards the payment of his ransom (*Eng. Hist. Rev.* iii. 501, 702; iv. 105). Though this levy has been customarily spoken of as a carucage, there is no doubt that it is not so referred to in documents of the time; there is equally no doubt that it was levied on the

carucate. Indeed, its chief importance in the history of taxation lies in the fact that it was levied after a new and careful survey of the country had been made, whereby the actual ploughland was to be substituted for the nominal HIDE "as the unit of taxation." In this aspect it marks an important stage. The carucate contained four bovates, and has been estimated from Fleta as comprising 160 acres in a two-course, and 180 in a three-course MANOR.

[*Eng. Hist. Rev., op. cit.;* Dowell, *History of Taxation*, vol. i. ch. v.; Madox, *Exchequer.*]

E. C. K. G.

CARY, JOHN (died soon after 1719), an influential Bristol merchant, author of *An Essay on the State of England in Relation to its Trade, its Poor, and its Taxes*, 1695, which LOCKE calls "the best discourse I ever read on that subject," and speaks of "the undoubted evidence of most of it" (Letter to Cary, *Brit. Mus. Addit. MS.* 5540, p. 70). This work was reissued several times, with alterations, and under different titles—*An Essay towards Regulating the Trade and employing the Poor in this Kingdom*, 1717 and 1719; *A Discourse on Trade*, 1745. It was translated into French, 1755, with additions said by M'CULLOCH to be improvements, and retranslated into Italian 1764. Some extracts from Cary's work were published separately, and some tracts originally separate have been bound up with the main work.

The most valuable part of Cary's work is perhaps that which relates to the employment of the poor, for which purpose he proposed a combination between parishes (Essay *sub finem*, appendix to *Discourse*). Correct views on the relation between the quality of coin and the exchanges are found in the tract *On the Coin and Credit of England*, 1696 (see Macleod, *Dictionary*; also *Banking*, vol. i. p. 403). In *An Essay towards Settling a National Credit*, 1696, a national bank is proposed. Other recommendations embody the doctrines of protection and the balance of trade in their most specious forms. BULLION imported "adds to the wealth of the nation" (*Essay*, pp. 2, 116), but not so much as raw material, "the subject matter of a great manufacture." The difficulty of applying these principles is illustrated by Cary's observations on different branches of British trade. He reckons that England loses by the East India trade (see CHILD), and wishes fashion would encourage native woollens rather than Oriental calicoes (*Essay*, pp. 52-65). He would discourage the Irish woollen manufacture in the interest of Ireland as well as England (*ibid.* p. 91). He would encourage the Irish linen manufacture (*Essay*, p. 109, appendix to the *Discourse*) and the export from Ireland both of raw wool and of cattle and other agricultural produce (*ibid.* p. 107). He would "open" the African trade in negroes, "being indeed the best traffick the kingdom hath, as it doth occasionally give so vast an employment to our people both by sea and land" (*ibid.* p. 75).

Some of these topics are discussed in letters to and from Cary, *Brit. Mus. Addit. MS.* 5540. F. Y. E.

CASAREGIS, JOSEPHUS LAURENTIUS MARIA DE, born 1670 at Genoa, died 1737 at Florence.

The author of the *Discursus legales de Commercio*, Flor. 1719-29, and of a treatise bearing the title; *Il cambista instruito per ogni modo di fallimenti*, Venezia, 1737. M. P.

CASE OF NEED. See BILL OF EXCHANGE.

CASH. MONEY: CIRCULATION: CURRENCY. All that may be reckoned as equivalent to money, or the owner can at option obtain possession of in money on demand. Thus coin, bank-notes, postal notes, bankers' balances on current account, and cheques to bearer, may all be reckoned as cash in the country where they are current, their instant convertibility into currency being alone requisite to bring under the designation "cash." It is evident from this that cash and money are words having a very different signification. The money in a country in coin is a determinable quantity; the cash resources of the community are in this country nearly as much greater than the actual money in circulation as the banking deposits are greater than the cash actually held by the banks holding those deposits. It may safely be assumed that all who are possessed of banking accounts hold the bulk of their cash in their bankers' hands, and there are estimates formed, or statistics available, of all these descriptions of cash in the hands of the public. If, therefore, bankers' current accounts, say, half their deposits are included among the "cash" resources of this country the whole may be briefly estimated as:—

Gold in circulation	£70,000,000
Silver ,,	20,000,000
Bronze ,,	1,000,000
Postal notes and orders	1,000,000
Banking accounts current	400,000,000
Bankers' notes and drafts at sight	50,000,000
Total cash resources U. K.	£542,000,000

This is a rough estimate for the year 1901, the coin in circulation excluding that in bankers' hands, and the banking accounts excluding money at notice. The coin in the banks is excluded from the gold in circulation because it is represented in the accounts current, and cheques outstanding are included in the same item. It is not intended here to enlarge upon the different forms of Cash, for which reference should be made to the articles BANKING; BANK-NOTE; CHEQUES, LAW OF.

CASH (or LI). The lowest denomination of the Chinese money of account; a brass coin; the only coin as yet issued by the Chinese government. Nominally 1000 cash = 1 TAEL (the unit

of value), but in consequence of successive reductions in their weight they are now only received in circulation at from one 1600th to one 1800th of a tael. By a proclamation of the 2d September 1889, however, cash issued from the new Canton mint are ordered to be received at their nominal value, one 1000th of a Tael. The Chinese mints now coin silver, but there is no regular test of assay and weight. F. E. A.

CASH ACCOUNT. A record of current cash receipts and payments, usually kept in a book termed the cash-book. Hence it follows that the difference between the one side of the account and the other exactly represents the cash balance to date, and available for all current purposes. This account is essential for purposes of book-keeping, and in important businesses its total should be made day by day to agree with, and in fact be the same as, the current account at the bank; as of course it will when all receipts are paid into the bank, and payments are made by cheque. The auditor, for instance, who thus has all the receipts and payments for a given period verified by the pass-book, together with the balances owing and receivable at the date of closing the accounts, is at once placed in a position to construct a revenue account for the period under consideration, and possesses a general voucher as to the accuracy of the cash transactions entered.

Some further description of the *cash-book*, however, is necessary. In its simplest form it is ruled for debtor and creditor entries—the first column for the entry of the date; the second for the entry of the description of the receipt on the one side, or payment on the other side; the third for the entry of the ledger folio; and the fourth for the pounds, shillings, and pence received or paid under that particular head. Many cash-books, however, are ruled with a considerable number of cash columns, so as to separate and classify the different items of receipt and payment. For instance, the cash-book of a gas company may contain on the receipt side four columns representing so many collecting districts, a fifth column for cash received for sales of coke, a sixth column for residual products and miscellaneous, and a seventh column for the weekly totals. On the other side there would be six columns recording different descriptions of wages and salaries, coal, buildings, implements, and repairs of mains, and the weekly total; the account thus arranged would be regularly examined by the board, and compared with the corresponding periods of previous years. The cash-book in this instance indicated much more than the simple receipts and payments of money: it indicated the progress made in each district and in all branches of their operations. This is but an illustration of what a properly constructed cash account is made to show.

CASH CREDIT. In Scotch banking, a mode of advancing money by permitting an account current to be regularly operated on and overdrawn up to a certain specified limit. The advances are secured to the bank by two cautioners or securities, and interest is paid on actual overdrafts. In earlier years this method of advancing served largely to develop commercial enterprise in Scotland, but during recent years the country has become richer and the Scotch banks have, since they set up branch offices in London, applied themselves to negotiating bills at current market rates rather than to employing money in cash credits. A. D.

CASH, SALE FOR. On the stock exchange bargains are sometimes done for cash as distinguished from payment and delivery on the succeeding settling day. That for CONSOLS is the only market on the London stock exchange in which a broker, asking for a price, would receive a quotation "for cash." This "consol market" includes Metropolitan Board of Works stocks, Indian sterling stocks, also Colonial inscribed stocks. In other stock markets the quotation would be for purchase or sale on the date of the next settlement. A. E.

CASHIER. In English banks and offices the clerk appointed to take charge of the cash is designated by this title, occasionally by that of "teller." For convenience sake the work is sometimes divided between receiving and paying cashiers. The duties of the office require intelligence, quickness, and firmness, with a pleasant manner of addressing people. The position differs in some banks. The chief officer, the general manager of a bank as he would more usually be termed, is sometimes spoken of as the cashier. In the United States the cashier is spoken of much in the same way. Horton, C. J., has remarked, "The cashier is the executive of the financial department of the bank, and whatever is to be done, either to receive or pass away the funds of the bank for banking purposes, is done by him or under his direction; he therefore directs and represents the bank in the reception and emission of money for banking objects" (Asher *v.* Sutton, 31 Kan. p. 289, quoted in American *Banker's Magazine*, July 1889). The care and management of the property of the bank, and the conduct of its business in the usual and ordinary way are in these circumstances among the duties of the cashier; their scope is in England restricted usually in the narrower sense.

[J. W. Gilbart's *Practical Treatise on Banking.*—G. Rae's *Country Banker.*—J. Hutchison's *The Practice of Banking.*—The English *Banker's Magazine*, and the American *Banker's Magazine*, *passim*, may be cited.]

CASTE. This word is derived from the Portuguese *casta* "white, pure;" and is used by Europeans as the name of an institution

which they believed themselves to have found in the East Indies. There is no native word exactly corresponding to the idea formed by Europeans; but *jāti* "birth," and *varna* "colour," supply its place. In the oldest records of the Aryan race in India, that is the oldest hymns contained in the Vedas, there is no mention of caste. It is in a celebrated hymn called the Perrusha Sūkta, which is in a later appendix to the older ones, that we first find a reference to the four principal divisions of Indian caste:—the Brahmins, the Kshakiyas or nobles, the Vaishyas or peasantry and traders, and the Shūdras or servants. But caste itself, as an institution, is neither mentioned nor even inferred in the actual words of the poem, which may be dated approximately at about 800 B.C. In a passage repeated in both recensions of the Gajur Veda we have a long list of seven hundred and sixty divisions into which the people of India were then divided. It is very interesting as containing many names (partly of trades, partly of tribes) which afterwards became caste-names. But that it is not a list of castes is clear from the fact that it includes also a number of such divisions as thief, back-biter, dwarf, leper, red-eyed man, barren woman, and so on—a classification quite independent of the idea of caste. From that time onwards each later Hindu book shows a marked growth of the development of caste feeling, until in the law book of the Mānavas, also called the Laws of Manu, which may have reached its present shape about a century before our era, we find the institution of caste, as at present understood, in full vitality. Important privileges are accorded to men of the higher castes; crimes are punished, not only according to the nature of the crime, but according to the caste of the criminal;—it may be inferred, though it is nowhere actually stated, that occupations are usually hereditary and dependent upon caste;—caste is lost by eating or drinking, and of course by sexual intercourse with the lower castes; marriage is restricted by the distinctions of caste; and to lose caste altogether, to become an "outcaste," has become almost the greatest of disasters. On looking more carefully, however, into the castes mentioned in Manu, sixty in number, we find them to be mostly different not only from the castes now actually existing, but also from the quasi-caste names in the early list of divisions of the people mentioned above, and in other similar lists found in the Milindu and in the Rāmāyana (which are somewhat later than Manu). This is to be explained by the fact that the caste divisions of the many peoples in the great continent of India have, from the first, been constantly though slowly changing. The institution has remained, and remained with similar restrictions. But the lines of the division have varied. The history of each caste requires, indeed, to be separately examined; and examined from each of its various sides—as a trade guild, as a racial division, as a circle within which marriage is permitted, as a community with legal powers over its own members, even as a religious sect. The commonly-received notion of "The immovable East" is due simply to the ignorance of Western writers. And there is no better example of the mistakes into which that idea may lead us than the conception of an iron system of caste whose bounds none may pass over. When the Dutch began cinnamon planting in Ceylon they were in need of labourers, "coolies" as they are called, "men working for hire." A peasant in India looks upon the labourer for hire as a disgrace. Those, of whatever caste, whose necessities drove them to accept the terms offered, were looked down upon. And so rapid was the effect of this feeling that in a couple of generations an entirely new caste was formed, that of the "cinnamon-pealers." For nearly a century the trade flourished, and their numbers increased. For the last seventy years the trade has steadily diminished. But the caste, the members of which are now engaged for the most part in other occupations, remained. Throughout its short but most instructive history it had never been (as the majority of the castes have been) identical with a division of race. For some generations it had fulfilled many of the functions of a trade guild and of a trades union, functions now only feebly surviving. But it is still in full vitality as a restriction on marriage, and as an index of social position. This instance has been chosen because all the facts are ascertainable from the official documents of European administrators. But a comparison of the lists referred to above, and of lists of the different castes now existing in different parts of India, show that it is only a sample of many changes that have occurred in the caste-system of that continent. There are about one hundred and fifty castes to-day in the Bombay Presidency. No one has yet attempted to write their history. It is probable that most of them are, as castes, of comparatively recent origin, and each one of the one hundred and fifty must be considered apart from the others in order to ascertain the vitality of its caste powers and feelings in respect of race, of religion, of trade, and of family ties. There are numerous instances in the books of transition of an individual from one caste to another. It is quite common for a man of one caste to follow the occupation usually assigned to another. And there are, on the other hand, trade guilds independent of caste; and castes within castes, so far as marriage is concerned. Even among the Brahmins, very few can trace their descent from pure Brahmins. They are split up into innumerable exogamous *gotras* or families, some of which are not Brahmins at all by descent.

And they follow every imaginable sort of occupation except only those assigned to certain of the lower castes. Certain Beldars, for instance, excavated as navvies the now sacred lake of Pushkara or Pokhar in Marwar. Their descendants rank as Brahmins, have raised the pick-axe into an object of worship, and are found to the number of twenty or thirty thousand, throughout Rajputana and Sind, as a special *gotra* called the Pokhar Brahmins. Each of the constantly recurring religious movements in India has had a profound influence on caste. Many of the greatest leaders, from Gotama the Buddha downwards, have commenced by protesting against caste distinctions, and entirely abolishing them within the inner circle of their more ardent followers. Caste among the laymen of the new communities was for the most part left undisturbed. But, though in different degrees, the new religious communities became themselves the source of new caste divisions, and people of the same caste, but of different religions, ceased to intermarry. It will be seen that the subject of caste in India is one of very great complexity. Dr. Wilson of Bombay had intended to undertake the gigantic task of bringing order into the chaos of our knowledge of the subject. He died when the work, though he had laboured at it for years, was really only begun. There were published, however, two volumes entitled *Indian Caste* (Blackwood and Sons, London and Edinburgh, 1877, pp. 450 and 228) in the first of which he has collected together all the references to caste he could find in Hindu literature from the Vedic times downwards; and in the second of which he attempts to trace in detail the history and the present occupations of one caste only, that of the Brahmins, in all its numerous details. Even that is confessedly imperfect; and there is no other work in which even an attempt has been made to explain either the past history or the present position of any of the other castes. Various details as to the numbers of the different castes, not in India as a whole, but in particular districts, can be found in the local Gazetteers and Census reports of the Indian Government. But they have not yet been properly summarised or analysed. It would be undesirable, in the present state of our ignorance of the subject, to attempt to form any estimate of the economic influence of the caste system. It is doubtful to the writer whether it has really had any practical effect in restraint of trade. But the few words here devoted to the subject may remove some misconceptions, and the numerous authorities quoted by Dr. Wilson will assist those who wish to investigate the problem further. T. W. R. D.

CASUEL. A general term in France for a revenue which was not fixed, but proportioned to the performance of work. It was specially applied to the fees charged by the clergy for baptism, marriage, burial, and the other sacraments of the Roman Catholic church. R. L.

CASUS. An expression used by Roman lawyers to express events which could not have been avoided by the strictest amount of diligence required by the law in ordinary cases. The expression does not quite correspond with the English "Act of God," which is the equivalent of the Roman *vis major*, and includes those events only which could not by any amount of care have been foreseen or controlled under the special circumstances. E. S.

CATALLACTICS, or the Science of Exchanges, is a name proposed by Archbishop WHATELY as conveying a much better idea of the nature of economic science than is conveyed by the name political economy. Other writers, *e.g.* Mr. H. D. Macleod, have also regarded the exchange of wealth as constituting *par excellence* the subject-matter of the science. More generally, however, it is held that while the laws of exchange occupy a fundamentally important place in economics, the science is equally concerned with the laws of the PRODUCTION, DISTRIBUTION, and CONSUMPTION of WEALTH.

A *Catallactic* community has been defined as one in which individuals freely exchange commodities one with another, each with a view to making the enjoyment he derives from his possessions a maximum.

[An anonymous treatise was published in London, 1842, entitled *Letters on the rudiments of a Science called Catallactics.*] J. N. K.

CATASTO. Taxation in mediæval Florence was an important political weapon, because it was based upon an arbitrary assessment of real and personal property. Thus the party in power could ruin its political opponents by excessive taxation. In 1427, when the oligarchical party had the upper hand under Rinaldo degli Albizzi and Nicolo da Uzzano, the opposition, headed by Giovanni de MEDICI, endeavoured to reform this abuse by securing the adoption of the *catasto*. The object of this reform was to obtain a careful and impartial registration of property, so that the incidence of taxation should depend upon wealth alone, and not upon political opinion. Every citizen was to make a return to the gonfalonier of his district of his whole income, from whatever source. His income from capital, whether fixed or circulating, was to be reckoned at 7 per cent. If a man concealed anything the penalty was confiscation. These returns were to be collected into four books, one for each quarter of the city. The assessment of taxes, which was to be strictly based upon the record of these books, was entrusted to a commission of ten, who were elected out of sixty citizens chosen by lot. A new *catasto* was to be made every three years.

This admirable reform was abrogated by

Cosimo de Medici, the son of Giovanni, to whom Machiavelli ascribes the chief credit of the change. Cosimo, who overthrew the oligarchy in 1434, and laid the foundation of the Medici dynasty, returned to the system of arbitrary assessment. It was said of him that he used the taxes as the northern despots used the dagger. His object, however, was not only to ruin his opponents, but also to conciliate the lower classes by diminishing the burden of taxation upon them and throwing it upon the rich.

[Machiavelli, *History of Florence*, bk. iv. ch. iii. Gino Capponi, *Storia della Republica di Firenze*, libro iv. cap. vii.] R. L.

CATTANEO, Carlo, born 1801 in Milan. He wrote frequently in the *Annali Universali di Statistica* and in the *Politecnico*. He distinguished himself in the defence of Milan in 1848, against the Austrians, but was a federalist, opposing the union of Lombardy with Piedmont. He was elected three times a deputy, but never sat in Parliament, because, as a republican, he refused to take the oath. He died in 1869 at Castagnola, close to Lugano. His works are as yet only partially published. His principal subject was land tenure. Besides his economical writings, in which he shows himself a decided opponent of List and his system, he wrote historical and literary compositions of value.

Among his writings are the following: *Notizie naturali della Lombardia*, Milano, 1844.—*Storia della rivoluzione del* 48, Lugano, tipogr. Svizzera, 1849.—*Ugo Foscolo e l'Italia*, Milano, 1861.—*Della pena di morte*, Milano, 1860.—*Alcuni scritti*, Milano, 1846-47, vol. iii.—*Borroni e Scotti.—L'Italia armata*, Milano, 1861. M. P.

CATTLE PLAGUE ORDERS. By the 41 & 42 Vict. c. 74, 47 & 48 Vict. cc. 13, 43, 47, and 49 & 50 Vict. c. 32, very extensive powers are given to the privy council for the prevention of contagious diseases amongst animals. These powers are exercised by means of "orders" issued when necessary. The privy council may declare what places are infected areas, and regulate the destruction or movement of animals in or out of such area: it may make orders relative to dairies, cowsheds, and milkshops; and may prohibit or regulate the importation, slaughter or quarantine of animals coming from foreign countries. J. E. C. M.

CAUTION (Scots Law Term). In Scotland the law has been very largely assimilated to that of England. No consideration need be proved, and the period of limitation is seven years from the date of the bond of caution, at the end of which time the surety, if known to the creditor to be a surety and not a principal, becomes free, unless the creditor shall then have begun execution proceedings against him. When sureties become bound by way of collateral security, each for the performance of the whole of an obligation, the Scottish rule is that the creditor can rank for the whole upon the estate of each, but not so as to do more than draw full payment of the debt.

[Bell's *Commentaries on the Law of Scotland*, ii. 416.] A. D.

CAUTION. Security given in the course of judicial proceedings. The word is not used in England except in the practice of the ecclesiastical courts; in Scotland it is a regular term of art used in acts of parliament and legal documents. In the French language the word caution is equivalent to the English Guarantee, and is used to express the security as well as the person acting as surety.

[*Fournir caution de payer les frais*, *Code de Procédure civile*, § 166.—*La solvabilité d'une caution*, *Code civil*, § 2019.] E. S.

CAVEAT. An expression used in the procedure of the probate, divorce, and admiralty Division of the High Court. A person wishing to dispute the validity of a will, by entering a "caveat" compels the executors to bring an action to obtain probate. In admiralty proceedings a person can prevent the arrest of his ship or cargo by entering a "caveat," if at the same time he undertakes to appear in the action and gives security in accordance with the rules of court. E. S.

CAVEAT EMPTOR. A maxim of the common law applicable to sales of personal property as regards the quality of the things sold. The buyer (in the absence of fraud) purchases at his own risk unless the seller has given an express warranty or unless a warranty be implied from the nature and circumstances of the sale. The rule does not, however, apply if the buyer has had no opportunity of inspecting the article bought. Hence, where a chattel is to be made or supplied to the order of the purchaser, or where it is sold by description or by sample, or for a particular purpose, the law implies a Warranty.

[*The Sale of Personal Property*, by J. P. Benjamin, Q.C. 4th ed. London, 1888.] J. E. C. M.

CAVOUR, Count Camillo Benso di (1810-1861), can be considered in this place only as an economist. His career as a statesman lies outside our boundaries. A few biographical remarks will, however, not be out of place. Cavour, like the sons of all the Piedmontese nobility, was placed in the military academy as soon as of age to be received there. He left this school at eighteen as a lieutenant in the Engineers, and was sent to work at the fortifications of Genoa. He had a particular talent for mathematics, and one of his teachers, the well-known Plana, desired him to devote himself to pure mathematics, telling him he would rival Lagrange. Cavour's answer, eminently characteristic of the man, is preserved in his correspondence: it is to the effect "that

mathematics are not the thing required just now, but economics." Much later (14th December 1849) Cavour wrote in the *Risorgimento*, "The greatest problems our time is called upon to solve are not political ones, but social ones; questions relative to the forms of governments are quite secondary, compared with those reflecting the economic position of society." Cavour left the army in 1831, after having been punished for speaking out too freely on political matters. This misadventure turned out to be his good fortune; it caused him to travel in Switzerland, France, and England, where he remained several years and formed himself as an economist. He is in this respect a disciple of CHERBULIEZ, of P. ROSSI, and of what is now called the CLASSICAL SCHOOL. His writings and his speeches abound with quotations from RICARDO, and he wrote an essay in defence of MALTHUS. In one of his first writings, *On the State of Ireland*, he speaks of England in the following terms: "From St. Petersburg to Madrid, in Germany and in Italy, the enemies of progress and the friends of revolution alike consider England as their greatest obstacle. The one set regards England as the hearth upon which all revolutionary flames are kindled, the refuge and citadel of all the subversionists. The other, perhaps more truly, considers the English aristocracy as the central pivot of the European social system and as the greatest obstacle their democratic tendencies meet with. This hatred which England meets with from all extreme parties ought to endear that country to the intermediate ones, to all men who wish for the moderate progress, and for the gradual and regular evolution of humanity, *i.e.* to all men who from principle are opposed alike to all violent tempests and to stagnation in social affairs. But this is not the case. The motives which might lead them to sympathise with England are counteracted by an enormous mass of prejudice, old tales, and old passions, whose force is nearly irresistible. Therefore there are but few men, scattered here and there and solitary, who feel for the English Nation that esteem and that regard which ought to be inspired by one of the greatest nations which has distinguished mankind,—a nation which has effectively co-operated in the moral and material development of the world, and whose mission of civilisation is very far from being at an end." Cavour's admiration for England and English thought was a subject for which he was often attacked. But he had been trained from his youth upwards to stand fearlessly isolated by his opinions from his countrymen and to face their opposition. His family circumstances were at first a formidable obstacle to his rising rapidly to the front. His father was what would now be called the chief of the police, and as such had many a disagreeable duty to perform. The nobility, to the very highest ranks of which Cavour belonged by birth, looked down upon him as the son of the councillor of an unpopular king, and of a man who exercised a somewhat despised calling; by the middle classes he was, if not hated, certainly received very coldly for the same reason. Besides this, his independence of thought, which led him not to agree either with the aristocratic or the democratic party, put him for a long time between two fires, with no friends to back him. And in parliament, when he first entered it, the fact that he did not stick to any party, and sometimes supported the government and sometimes the opposition, was at first harshly judged, and only appreciated when people came to understand that Cavour was a new leader, with a programme of his own. As a minister he continually showed unusual courage in expressing, without any regard for the prejudices of his audience, his scientific convictions on economic questions, he even ventured to explain in the chamber economic theories—rebuking those who affected to despise theory. As an example of the high tone of parliamentary discussions under his leadership, and of his sincere respect for science, not concealed from an assembly which, also in those times, often declared economical laws good for some other planet than our own, the following passage of a speech of his, made in defence of the treaty of commerce with France (8th April 1852), and in answer to Menabrea's attacks, may be quoted. Cavour spoke French on this occasion, as on several others, so as to be clearly understood by the Savoyards. The law would even now permit the use of French in the Italian parliament. The quotations from the speech which follows is therefore given in French; the reader will bear in mind that Savoyards, though fluent in that language, do not speak perfect French. "Et d'abord, messieurs, il est facile de démontrer mathématiquement, qu'une fois les principes du libre échange établis, si on veut procéder par degrés dans leur application, en suivant une marche rationelle et logique, on devrait les appliquer d'abord aux produits de l'agriculture avant de les appliquer à ce qui a rapport à l'industrie manufacturière. Malheureusement, pour faire cette démonstration, je serai obligé de recourir pendant quelques instants aux lumières de la théorie. J'en demande bien pardon à M. Menabrea, mais je ne puis m'empêcher de lui manifester l'étonnement que j'ai éprouvé, voyant un homme aussi savant que lui, un membre de l'Académie des Sciences, manifester un si superbe dédain pour les théories, et surtout pour la théorie de l'économie politique qui a tant d'affinité avec celles des sciences exactes, qu'il possède si bien et qu'il professe d'une manière si distinguée. Car, messieurs, le système protecteur a des conséquences bien plus funestes lorsqu'il est appliqué aux produits

du sol, que lorsqu'il est appliqué aux produits de l'industrie. Le système protecteur appliqué à l'industrie n'a qu'un seul effet fâcheux, celui de détourner les capitaux et le travail national des industries naturelles pour les pousser vers des industries factices, où les capitaux et le travail trouvent un emploi moins productif. C'est là un inconvénient grave sans doute, mais qui est restreint à cette quantité de capitaux et de travail qui par l'effet de la protection sont détournés de leur voie naturelle. Et encore cet effet est-il atténué par la concurrence intérieure qui, au bout d'un certain temps, ramène le taux des capitaux et celui de la main d'œuvre des industries privilégiées au niveau des profits et des salaires des industries qui ne le sont pas. Mais le système protecteur appliqué à la culture du sol a des effets bien plus étendus, et, je n'hésite pas à le dire, bien plus funestes. En effet, lorsque par la suite d'un droit protecteur, vous élevez le prix des produits du sol, le prix du vin et du blé, par exemple, qu'est-ce qu'il arrive ? Il arrive deux choses : en premier lieu certains terrains qui n'étaient pas assez fertiles pour produire du blé ou du vin dans les conditions antérieures du marché, sont mis en culture, ou bien encore, on consacre à la terre des capitaux et du travail qui n'aurait pas été productifs si le prix n'avait pas varié. Cette première conséquence du système protecteur appliqué à l'agriculture est analogue à celle que j'ai signalée lorsqu'il a pour objet l'industrie manufacturière. C'est-à-dire qu'il y a une certaine masse de capitaux et de travail, qui reçoivent une destination moins productive qu'ils n'auraient reçus si les choses avaient été abandonnées à leur courant naturel. C'est là un inconvénient grave qui cependant n'aurait pas une grande portée, si l'élévation des prix des produits du sol n'avait d'effet que sur les produits des terrains nouvellement mis en culture ou des capitaux et du travail additionnels consacrés à l'exploitation des terrains depuis longtemps défrichés. Mais l'élévation factice des prix s'étend aux produits de tous les terrains, à ceux d'ancienne aussi bien qu'à ceux de nouvelle culture. Qui est-ce qui profite de cette élévation ? Lorsqu'elle a lieu elle se partage entre les propriétaires et les fermiers, surtout si ceux-ci sont en possession de long baux : après quelque temps, le profit se concentre tout entier entre les mains des propriétaires. Ainsi donc, le système protecteur appliqué aux produits du sol a pour effet, d'une part, de pousser ainsi que le fait le système protecteur industriel des capitaux et du travail, dans une voie peu productive, et de l'autre d'augmenter la rente des terrains précédemment cultivés aux dépens des consommateurs. Ce qui en définitive constitue un véritable impôt supporté par les consommateurs au profit des propriétaires. . . ."

Cavour also ventured occasionally to give parliamentary discussions an academical tone, quoting economic authority, as in the following instance: "It is my opinion, in accordance with that of all the most enlightened people in England, and not alone with the men of the present generation, but with the economists who have preceded the present generation, with A. SMITH and Ricardo and his followers, that England has prospered, not in virtue of the protective system, but notwithstanding this system. . . . If you examine English industries you will see that those which have been least protected are precisely those which have succeeded best. . . . The progress of English industry has always been in an opposite ratio to the degree of protection it received. The silk industry (strongly protected) remained nearly stationary; the woollen industry progressed slowly, and the cotton industry, which was hardly at all protected, grew gigantically. I therefore maintain that protection in England not only has failed to aid the increase of wealth, but has even been a hindrance to it." Thus he explained to the chamber the economic principles as to the basis of wages:—"Le taux des salaires, selon les principes non contestés de la science, se règle par la masse des capitaux destinés à payer les salaires, c'est-à-dire par la quantité de denrées de première nécessité à l'usage des classes ouvrières que possède la nation, comparée avec le nombre des bras qui cherchent de l'emploi." He further argued that PROTECTION cannot augment capital, and therefore does not raise wages. All that Protection can do, he said, is to cause CAPITAL to "flow rather in one channel of industry than in another. . . . And it does this by driving them (capital and labour) into the less remunerative branches of industry." The best example, however, perhaps which can be given of his scientific spirit in discussing practical problems in parliament is his definition of the individualist and of the socialist policy. "For reaching this goal (the amelioration of the economic condition of the lower classes) two ways are open for us. All the systems supported in modern times by the wisest and by the boldest men can be classified under two heads. The one school relies on the principle of liberty, on the principle of competition, on the free development of the morals and intelligence of men. Those who hold this opinion think that the larger the application of this principle is, the greater will be the welfare of all, but particularly of the lower classes. This is the school of economists, these are the principles held by the men who are in office, in England. Another school professes principles diametrically opposed to these. It believes that human misery cannot be alleviated, and that the condition of the lower classes cannot be ameliorated, unless individual action is limited, and the central action of the whole social body, represented by a government which has still to be created, is made more powerful, and concentrates all individual forces into itself.

This is the socialist school. Now, no illusions must be indulged in: although this school reaches fatal and sometimes even atrocious conclusions, it cannot be denied that there is something in its principles which captivates many generous and elevated minds. And the only way to combat this school, which threatens to invade all Europe, is to oppose principles to principles. In economics as in politics, as in religion, ideas can only be fought by other ideas, and principles by other principles; forcible repression is useless. For a short time guns and bayonets may repress theories and maintain order; but if these theories find entrance with the intellectual class, you may be sure that they will thrive and triumph. Now, I say that the strongest ally of socialism is protection. Both start from the same base. . . . Given the protectionist system, logic will compel you to admit, if not all, a great many of the doctrines of SOCIALISM."

When Cavour defended FREE-TRADE he gave in just as little to absolute protectionists as to fair-traders; he explained on more than one occasion that if a foreign country commits the error of protecting its own industries, this is no reason for making the same error ourselves. Again, he argues with great acuteness "that if a nation has to undergo great sacrifices and to bear heavy taxation, it must be left the more unfettered in its commercial and industrial activity, so as to bear the weight easier." The best protection, he repeatedly declares, is the maximum of liberty. "It is my opinion that those elements of production and of prosperity which we possess, ought to be left to develop themselves unfettered; that neither agriculture, industry, nor commerce ought to be protected. I believe firmly that the greatest encouragement is to be had from the greatest possible amount of liberty: 'che il massimo degli incoraggiamenti sia il massimo della possibile libertà.'" This speech of his marks distinctly Cavour's position as an economist.

The success of Cavour's speeches in a parliament in which even men of the greatest merit ignored the most elementary truths of political economy, was due to his unmatched knowledge of commercial and technical details. This enabled him to give each man the right *argumentum ad hominem* which would bring home to him the theory under discussion. He was himself a practical agriculturist, and a very successful one into the bargain. This gave him a high authority with all those deputies who were also landlords and knew he could beat them in any practical question. And he liked to quote, on the right occasion, instances of personal experience in agricultural matters. To his mind, highly speculative as it was, sophistry and legal casuistry were completely alien; he would appeal to historical facts, recent and ancient, and generalise skilfully on them; he would show the interests of different parties, explain their actions by their motives; but he would not stoop to play with the sense of words and base political action on some legal nicety—a method of reasoning very frequent in Latin countries, in which parliaments are largely composed of lawyers. Naturally he was the object of much sarcasm. At one time he was called "Lord Camillo," and from the name of the journal which he had founded and was directing "My Lord Risorgimento," to ridicule his Anglomania. *Risorgimento* means resurrection, and is here used in the sense of political resurrection or revival. Cavour was no orator, he had always to win his way by the weight of the matter of his speeches. His voice was disagreeable, his tone harsh, and he had some difficulty in finding the proper words rapidly. But he was first-rate in reply and at making a good pun, and was seldom worsted in debate. When Cavour was not allowed to answer an opponent in the Chamber, because his turn to speak was past, he employed MIRABEAU'S system, publishing the same evening or the next morning his answer in the "Risorgimento." This journal is therefore one of the great sources of information concerning his economic and political views, together with the collection of his speeches (eleven volumes published by Botta at the expense of the government), his correspondence (five volumes edited by Chiala and published by Roux, Turin, 1881-86), and his *Ouvrages politiques et économiques* (published in 1885 by Galimberti, Coni). His best known economical pamphlets are:—the memoir already quoted, *Sur l'état actuel de l'Irlande et sur son avenir.—Des idées communistes et des moyens d'en combattre le développement.—Des chemins de fer en Italie.*—He wrote *Sur l'Influence de la politique commerciale de l'Angleterre dans le monde économique* (in the Review l'Antologia), and a pamphlet on Prof. Ferrara's inaugural address on Political Economy. As an economist Cavour contributed nothing to the theory of the science. He is rather one of those who are well acquainted with the state of science in their time, and utilise it for practical purposes. His opinions in economic matters may be summed up as those of the MANCHESTER SCHOOL, as the Germans qualify ORTHODOX political economy (*Manchesterthum*) when it is accompanied with an optimistic view of the effects of natural laws, and reduced to the basis of absolute LAISSEZ-FAIRE and LAISSEZ-PASSER. M. P.

CAYLEY, EDWARD, author of the tract, *Corn trade, Wages, and Rent*, 1826; a plea for protection backed by some curious statistics (see pp. 8, 16, 31). F. Y. E.

CEDULA. A Spanish word, used on the London stock exchange, chiefly to describe certain guaranteed bonds issued by Argentine banks, corresponding to loans made by these banks against land to proprietors in various Argentine provinces. The word originally meant something ceded, and has reference probably to the land or property which has been ceded as security for the advances made by the Argentine banks. A. E.

CENS. The French term for a QUIT-RENT; but it has a special meaning in the history of France. DE TOCQUEVILLE has shown the error

of supposing that SERFDOM survived in France until the Revolution. Most of the French peasants in the 18th century held their lands, either as proprietors or as METAYER tenants. In the former case, however, the lord still retained the *cens*, or quit-rent, as a symbol that he retained the ownership, though he had parted with the property of the soil. The *cens* was almost invariably a fixed sum, arranged at the time of the original bargain, and had become insignificant in the 18th century, owing to the decline in the value of money. For this the lord was, to some extent, compensated by the *droit de lods et ventes*, by which, every time the land changed hands, the lord was entitled to a share in the purchase-money, usually a twelfth, but sometimes as much as a fourth.

[De Tocqueville, *France before the Revolution* (London, 1873), note lxxvii.] R. L.

CENSUS may be defined as an enumeration of the persons in a country, and in each of its principal classes: such as those constituted by sex, age, occupation, and so forth. An enumeration of houses and other property is often included. The institution is very ancient. Its existence is evidenced by several passages in the Old Testament (Exodus xii. 37; Numbers i. xxvi.; and 2 Samuel xxiv.; 1 Chronicles xii. 23, xxi. 2-3, xxiii. 3-5; Esdras ii. viii.; Nehemiah vii. ix.) The ancient Egyptians and the ancient Persians were not without a sort of census (*Herodotus*, bk. ii. ch. cxix. clxxvii.; bk. iii. ch. lxxxix.-xc.) In Greece there were enumerations of the citizens for political purposes. In Rome the census was instituted in the age of the kings, and formed an important branch of administration down to the age of the emperors. It is recorded that Augustus wrote out with his own hand a *Breviarium totius imperii*, containing the number of citizens and allies in arms, the statistics of the fleets and provinces, and even the names of freedmen and slaves. The care of Augustus was imitated by his successors. In the ages which followed the fall of the Roman empire the most remarkable compilations of the nature of a census were the *Breviary* of Charlemagne and the DOOMSDAY BOOK of William the Conqueror.

A more detailed notice of the census in modern times may be arranged under the following three heads: (1) The United Kingdom; (2) The Continent of Europe; (3) The United States of America.

(1) The first census in England was in 1801. An abortive attempt to introduce a census had been made in 1753, when Thomas Potter introduced a bill for taking and registering an annual account of the total number of marriages, births, and deaths. The bill was violently opposed. Mr. Thornton, who spoke against it frequently, said: "I did not believe that there was any set of men, or indeed any individual of the human species, so presumptuous and so abandoned as to make the proposal which we have just heard." The bill, carried in the House of Commons, was thrown out by the Lords. In 1801 there was no opposition. The fear of exposing the paucity of our numbers had given place to a dread of over-population. Mr. C. ABBOT (*q.v.*), in introducing the Population Bill, said: "In times like these, when the subsistence of the people is in question, it is surely important to know the extent of the demand for which we are to supply."

It might have been expected that the new machinery would not work well the first time. But Mr. Rickman, one of the clerks of the House of Commons, the able superintendent of the operation, argues—in the reports accompanying the second and third censuses—that the return of the population is fairly accurate. The overseers of the poor, whose agency was employed, had good opportunities for ascertaining, and no motive for misrepresenting, the numbers. Errors in particular parishes would compensate each other in the aggregate. We may therefore accept a statement which, compared with the enumeration of 1881, shows that the population of England and Wales almost trebled itself during the first eighty years of this century. Equal success did not attend another department of the first census. It was attempted to group the population by occupations into three classes: agriculture, trade, etc., and a residual class of others. But it was left uncertain whether the householder should speak for himself or his family. The want of uniformity in this respect rendered these returns almost useless. The statistics of the present were not the only object of the first census. It was attempted to reason backwards to the numbers of the population in the preceding century by means of entries in the parish registers—an attempt which had been initiated by GRAUNT in his *Bills of Mortality*, 1661, and sanctioned by LAPLACE in his *Théorie des Probabilités* (bk. ii. ch. vii.) The baptisms, marriages, and burials were obtained for several years of last century. Then, as the number of entries in 1801 is to the (enumerated) population in 1801, so is the number of entries in any assigned year of the eighteenth century to the population of that year. Of the three kinds of record the marriages are the best for the purpose of this reasoning. Especially after the marriage act of 1754 there is reason to think that the registry of marriages is pretty complete. As Mr. Rickman puts it, "The solicitude of the female and her family, aided by the precision and severity of the marriage act" precluded omissions. Accordingly the reasoning may pretty safely be carried back as far as that date. As we go farther back there is danger that the reasoning may be falsified by a continual increase in the number of omitted entries. But Mr. Rickman's statistics

appear to establish that the danger is not fatal for recent periods (see Census 1821, Preliminary Observations, p. xxviii.) Altogether the retrospective census seems to establish certain broad statements, as that the population of England increased by about 45 per cent in the latter half of the eighteenth century, and that in the former half of the century the advance was much slower, and retarded by occasional retrogression (see Census 1821, Preliminary Observations, p. xxix. ; 1831, Preface, p. xlv. and 1851, Report, p. lxviii.)

The second census took place in 1811. The growth of the population during the decade 1801-11 was rather more than 14 per cent ; a rate of increase to which we have now returned, after exceeding it for one generation (1811-41) and falling short of it for another (1841-71). The mistake which had marred the first census was avoided in the second by counting the *families*, not the *persons*, in each of the three classes—agricultural, trade etc., and others. In 1821 questions as to age were first put. But it was left optional, both to the returning officer to ask the question and to the citizen to answer. The returns were fuller than might have been expected, eight-ninths of the total population enumerated. In 1831 the only return relating to age was the number of males aged twenty and upwards. In this year a more elaborate classification of occupations was introduced. One of the principal classes, trade, was subdivided into a hundred specifications. Into the compartments thus prepared the statistical matter did not flow very freely. Accordingly at the census of 1841 each individual was left free to declare his own occupation. The returns were made for the individual, not for the family, as previously. The inquiry as to age was again introduced in 1841 and made obligatory. This census had the benefit of the newly created registration office which supplanted the antiquated machinery of the parish registers. At the census of 1851 and on the two succeeding occasions, the advantage of Dr. FARR'S collaboration was felt. The reports embody many of his valuable contributions to vital statistics. His scientific work is enriched with a vein of philosophical speculation and a wealth of literature, which do not often adorn parliamentary papers. To Dr. Farr is due the sixfold classification of occupations which is perhaps destined to be permanent—the professional, domestic, commercial, agricultural, industrial, and the unoccupied class. The grounds of this division are set forth by Dr. Farr in a note appended to the report for 1861. A special feature in the census for 1851 was an attempt to ascertain the extent of church accommodation and the size of congregations for the different religious denominations. In the same year conjugal condition was first made an object of inquiry. In 1861 there was a return of the number of houses containing one, two, or any assigned number of inhabitants, for twenty-four selected districts. In 1871 the first imperial census was taken.

The history of the census for England and Wales is nearly coincident with that of Scotland down to 1861, when a separate census for Scotland was first taken. A peculiar difficulty attending the Scotch census is caused by the definition of a house which the imperial authorities have adopted : "a distinct building, separate from others by party walls." This definition has been far from "distinct" to the provincial mind. A whole block of buildings have often been returned as a house. The statistics of the number of rooms to a family are more valuable. There are many contrasts between the results of the census in North and South Britain—for instance, the much greater preponderance of the female sex in Scotland—which cannot be adequately treated here.

The history of the Irish census deserves a separate notice. From the age of PETTY to the beginning of the present century estimates of the population, based mostly on HEARTH-MONEY, were attempted. If this method may be trusted, there were in Ireland at the end of the 18th century from four to five million persons ; that is about half the contemporary population of England and Wales. A census was instituted in 1812. But it was not successful, having been taken in different years and for partial districts. The Irish census of 1821 was more satisfactory. Its result, in round numbers 6,802,000, compared with the contemporary population of England and Wales, 12,000,000, shows a relation very different from that which now prevails ; the proportion of the Irish population to that of England and Wales being in 1821 about a half, in 1891 about a sixth. In 1831 and 1841 returns as to occupations were obtained on much the same lines as in England. But the answers were worked up into different *summa genera*. Families are divided into those who live by (1) capital in wealth or in professional knowledge ; (2) the direction of labour ; (3) manual labour. The somewhat indefinite second class comprised 50 per cent of the families in 1841. The difficulties of obtaining occupational statistics are illustrated by the incident that in the whole of Dublin only five coffin-makers were returned, whereas in a single street it was ascertained that there were twelve persons so occupied. Only one person in the Irish capital designated himself as an author! Great difficulties attended the preparation of vital statistics in Ireland. The number of births in any year used to be inferred by adding the numbers alive at each year of age to the numbers whose ages at death proved them to have been born in the year under consideration (Report for 1841, p. xl.) There is a large deficiency due to EMIGRATION and imperfect returns of deaths. Still it is interesting to observe with what

accuracy the well-known proportion of male and female births comes out in the aggregates. The commissioners for 1841 claim to have made some contribution to the theory of that remarkable phenomenon. In the census of 1851 a gloomy feature was the decrease of population by almost 20 per cent, due to the famine of 1847. A decrease of 29 per cent is recorded for directors of labour, the second of the threefold division of occupations above mentioned. The decrease of population which set in at this period has continued ever since; the rate of decrease continually diminishing down to the last decade; when, as shown by the Preliminary Report for 1891, the decrease sprung from 4·4 per cent in the decade 1871-1881 to 9·1 per cent. Much the same distribution as in 1841 is presented by another classification of occupied persons as those ministering to food, clothing, and six other primary wants. In 1861 this classification is modified by the addition of some new categories, in all twelve. For example, out of 10,000 occupied persons 18 minister to religion, 5 to amusement, 1 to science and art, and 1816 to food. A feature of peculiar interest in the census of 1861 was the inquiry concerning the religious profession of the people. The proportions proved to be, Roman Catholics 77·69 per cent; Protestants 22·23 per cent; a small margin of not quite 1 per cent being left for the Jews and the unspecified. Of the Protestants a little more than half belonged to the Established Church. These proportions have been approximately maintained in succeeding enumerations. The latest returns give Roman Catholics 75·4 per cent, Protestants (Episcopalians, Presbyterians, and Methodists) 23·5 per cent; leaving for Jews and other persuasions, as before, about 1 per cent (census of Ireland for 1891: Preliminary Report). In 1871, as in 1861, the returns as to occupation are arranged both according to the English sixfold classification and the system grounded on the wants to which different occupations minister. The Irish commissioners defend the indigenous system with much warmth. The census of 1881 conforms to the English classification with more docility. The later censuses of Ireland deserve commendation for the completeness of the agricultural returns.

A general idea of the scope and purpose of a census may be obtained by noticing the salient points in a particular report; the latest completed for England and Wales, namely that for 1881; the returns for 1891 not been fully analysed at the time of writing. (1) The first heading is *Number of the population and rates of increase.* The number falls short of twenty-six million by only a few thousands. The rate of increase per cent is 14·36 per decade; greater by 1·17 than for the preceding decade. The increase, determined by actual enumeration, differs little from the "natural increment" determined by subtracting the number of deaths from the number of births. Hence two methods of forecasting the future increase of population. Either we may observe the natural increment for the year or two immediately adjacent to 1881, and assume that this rate will remain constant for the following decade; or we may assume that the actual rate of increase for the decade 1871-81 will continue to prevail for the next decade. A variant of the second method takes account of the fact that the decennial rate of increase is itself increasing. The average of the results obtained by these three methods gives, as the probable population in 1891, 29,843,898. This prophecy has not been fulfilled. The "preliminary report" for 1891 records 29,001,018 as the population of England and Wales in this year. Taking account of these circumstances, Dr. Longstaff made a more accurate prophecy: namely that the result of the enumeration in 1891 would be 29,012,776 (*Economic Journal*, No. 2). It is interesting to observe that the number prophesied in 1871, viz. 26,006,098, corresponds fairly well with the number enumerated in 1881, viz. 25,974,439. The increase of the town population is found to be more rapid than that of the country. (2) *Density of the population and habitations* is the second heading. The density, whether expressed as the mean distance between individuals, or in more familiar terms, is found to vary from place to place and to increase from age to age. The proportion between the number of persons and the number of habitations is less variable. (3) *Sexes.* The excess of females over males is more than 5 per cent, and is increasing. (4) *Ages.* At this stage we reach less solid ground, and "must proceed with much care and circumspection." The returns of age are falsified by various causes. Many are ignorant and put down a round number at random. Then there is the confusion between years of life and years completed, "the twenty-first year of life and twenty-one years old." The very old desire to appear still older. Very young women overstate their age with a view to obtaining employment; women not very young understate their age. From this double cause the category of female ages between fifteen and twenty-five is enormously exaggerated. All that can be done is to distribute the answers in periods of five years; and, assuming that these totals are correct, to determine by interpolation the numbers for each year. (5) *Condition as to marriage or civil condition.* The immense army of nearly four and a half million wives supplies an effective force of nearly three million "of reproductive age," between fifteen and forty-five. The number of single women and widows of this age-period almost exactly equals the number of wives. The proportion of married persons to the adult population is declining.

(6) "The most laborious, the most costly, and after all, perhaps, the least satisfactory part of the census" is that which is concerned with the *occupations* of the people. One difficulty is obscurity of the answers given. What sort of occupation is designated by an "all-rounder," or a "barker"? The same designation may have different meanings. Thus clothier means in some parts cloth-maker, in others cloth-dealer. There is also the difficulty of multiple occupations. In the census of 1881 the six-fold classification framed by Dr. Farr is adopted, with certain modifications. To reproduce the figures in detail would be out of place here. The following round numbers strike the imagination and impress the memory. The number of persons engaged in transport is a million. The number employed on textile fabrics is a million. The number employed on dress is a million. The number of labourers (agricultural and others) is a million and a half; of miners nearly half a million. The numbers of the professional classes and of those employed in preparing food are less round, each nearly 650,000. (7) Under the head *Birthplaces of the population* we learn what proportion of the inhabitants have filtered into England from other countries: about 1 per cent from Scotland, 2 per cent from Ireland, and from abroad only ·67 per cent. (8) *Infirmities* comprise blindness, deaf-mutism, and the various forms of mental unsoundness. It is gratifying to find the relative numbers of the blind (about 1 per 1000 of the population) diminishing. That men should become blind oftener than women is not surprising. That congenital defects both of body and mind should be commoner in the stronger sex is less in conformity with preconceptions. (9) The ninth section of the report summarises the results for *The United Kingdom*. (10) The last section relates to *The British Empire*. "The territory occupied by the 254,187,630 inhabitants of the British empire is estimated as consisting of slightly over eight millions of English square miles," a territory more than sixty-six times as extensive as the surface of the United Kingdom.

A more recent, but less complete, model of a census is presented by the preliminary report of the census of 1891, for England and Wales, which has just been issued. The Report begins by stating the total number of persons returned as living in England and Wales at 12 P.M. on 5th of April 1891: namely 29,001,018. The deficiency of this number, as compared with the estimate formed in 1881 (see above), is accounted for partly by a diminution in the natural increase partly by an increase in the net emigration from England and Wales during the decade. A deficiency of 288,782 is ascribed to the diminished natural increase, of 414,568 to the increased excess of emigrants. The decline in the natural increase was not due to increased mortality but a decrease in the birth-rate. The number of families, 6,146,901, has not increased in proportion to the population; the number of inhabited houses, 5,460,976, has increased in a rather larger proportion; but there is some uncertainty about both figures. The rate of increase of population varies in different areas; speaking generally, being highest in the counties adjacent to London and counties in which coal-mining is the predominant industry. Fourteen rural counties show an actual decrease. The general law that a district increases more rapidly the more decided its urban character is not overthrown by the figures which show a smaller percentage increase for districts with populations above 100,000 than for districts with populations between 20,000 and 100,000. For "probably, or at any rate possibly," the contradiction is only apparent, the newcomers in the larger towns having to settle outside the municipal or official boundary. Accordingly the decrease in Liverpool of 6·3 per cent, and the falling off of increase in other larger towns, need not imply a decline in prosperity. The population of London, "the London of the Registrar-General," has increased in a somewhat lower rate than the population of England and Wales as a whole—the first time that such a phenomenon has presented itself.

The report concludes with summary tables relating to the other parts of the United Kingdom and the islands in the British seas. The following table shows the figures for the United Kingdom at the last two censuses.

Enumerated population of the United Kingdom

	1891.	1901.
England and Wales	29,002,525	32,526,075
Scotland	4,025,647	4,471,957
Ireland	4,704,750	4,456,546
United Kingdom.....	37,732,922	41,454,578

The census of 1901 is so recent that we can only give the totals.

The rate of increase of the United Kingdom in the decade 1881-1891 was 8·2 per cent; lower than in either of the two preceding decennia, in the first of which, 1861-71, it had been 8·8; in the second, 1871-81, 10·8 per cent. The falling off in the rate of growth was shared by all the divisions of the kingdom, but unequally. The population of the islands in the British sea enumerated in 1891 was 147,870; showing an increase of 4·7 per cent as compared with the enumeration of 1881; and a considerable increase in the rate of growth, there having in fact been a decrease in the period 1881-1891.

Valuable as these results are, and though the British census may be described as a good article at the price (about 1d. per head counted in England and Wales, 1871), there is room for many improvements. The reform· most

loudly called for is that the census should be quinquennial. A committee of the Royal Statistical Society (*Journal*, 1888, p. 817) urged that the additional cost incurred by the reform would be small in comparison with the advantage of obtaining correct returns of population. They pointed out that the estimated population for certain districts was inaccurate to the extent of 11, and even 18 per cent. This argument has now become *a fortiori*, owing to the imperfections, disclosed by the census for 1891. Dr. Noel Humphreys, in his "Results of the Recent Census and Estimates of Population in the largest English Towns" (*Journal of the Statistical Society*, June 1891), gives instances of towns in which the hypothetically estimated death-rate differed from the true figure by as much as 20 and even 26 per cent. The estimates based on the decennial census were so worthless that they seemed to evidence a decline in the death-rate of Salford and Liverpool, while in reality there was an increase. The Statistical Society has also, through the mouth of various committees, advised that the character, as well as the number, of dwellings should be returned. As Mr. Palgrave shows (*Journal Statistical Society*, 1869, p. 411), information as to the house accommodation of the people is very deficient, and more complete returns would be very valuable. Another recommendation sanctioned by the Statistical Society is that the religious profession of each inhabitant should be obtained. Mr. Longstaff, in his "Suggestions for the Census of 1891" (*Journal of the Statistical Society*, 1889, p. 437), proposes that the number of rooms in dwelling-houses should be recorded. He would discontinue inquiries as to persons of unsound mind. Mr. Longstaff reinforces the arguments in favour of a quinquennial census. An annual census has been proposed by the late Sir Edwin CHADWICK (*Journal of the Statistical Society*, 1889, p. 468; *Internat. Stat. Congress*, The Hague, pt. ii. p. 164). Major Craigie demands more conformity between the census and the returns of the agricultural department. "There must be large omissions in the ranks of land occupiers in our census." (*Journal Statistical Society*, 1887, pp. 98, 149, and Jubilee vol.)

The glory of instituting the first census does not belong to England. While the Population Bill of 1753 was denounced in the House of Commons as subversive of liberty, Sweden was already enjoying a tolerably perfect census. Sweden had the advantage of very complete parish registers, recording not only births, deaths, and marriages, but also the number of persons migrating to or from each parish and residing in it. By the agency of the clergy these materials were embodied in a census in 1749 and subsequent years, first at intervals of three, subsequently of five years. The results of the early Swedish census, communicated to the scientific world by the celebrated Wargentin, were utilised by Dr. PRICE (*q.v.*) and MILNE (*q.v.*) (*Annuities*, ch. xii.-xiii.) MALTHUS (*q.v.*) builds upon these statistics (*Essay*, bk. ii. ch. ii.), noticing the correlation between the lean years and the diminution of marriages. In the recent publications of the Swedish Bureau the study of such correlations is facilitated by affixing to each year a numeral (from I. to X.) indicating the quality of the harvest (see *Journal of the Statistical Society*, xxv. p. 141). Looking at the whole series, "the gradual diminution of mortality since the middle of last century is very striking" now, even more than when Malthus made this observation. The increase of suicides is less gratifying. The unrivalled length of the Swedish records affords particularly striking instances of those uniform relations which constitute what has been called *physique sociale*. The proportion of male to female births was 1·043 to 1 in 1751-60, 1·050 to 1 in 1851-55.

Spain has some claims to priority. A tolerably complete census of the dominions of Castile was taken as early as 1594. There was a general census of Spain in 1787 and in 1797. But then occurred a pause down to the census of 1857. During the first half of the century Spain lagged behind the statistical movement which was general in Europe.

The age initiated by the French Revolution was truly called by BURKE the "age of statists." In France a census was ordered in 1791 and executed in 1801. In Prussia a statistical bureau was founded in 1805. The impulse was followed by other states, at different times and with varying pace—some with quinquennial, some with triennial intervals. The inquiries have become more fruitful by the addition of new questions, and the fruit has become more accessible through increasing uniformity of the questions in different countries. The branches of the European census, as they lengthen, become not only broader, but more parallel. The possibility of international comparison is partly due to the action of the International Statistical Congress during the quarter century which followed its first meeting in 1853. The extent to which its recommendations have been adopted may be expressed by the following statement. At the congress of St. Petersburg (1872) consolidating the results of discussions which had been carried on at several preceding congresses, twelve questions or rubrics (as to name, sex, age, etc.) are proposed as "essential," or obligatory. Of these recommendations the first seven are already adopted in twenty-five continental bureaus, with only one or two exceptions. The remaining five directions are carried out, roughly speaking, in about half of the continental states. Among the headings about which it is difficult to obtain uniformity may be instanced *conjugal condition*. At the Florence congress (1867) it was proposed to

ascertain the relationship of husband and wife. The question is put in Sweden and some other countries. *Population, de fait* and *de droit*—The Italian census grapples with the difficult questions connected with domicile by an elaborate arrangement distinguishing the birds of passage from the residents, and the temporary from the permanent absentees. *Age*—Considering the inaccuracy of returns under this head, is it worth while publishing them in full and without manipulation? Some European bureaus have decided in the affirmative. *Language spoken*—What does this heading mean? the language most used in good society, or in the family, or in the church? *Occupations* form a rubric which is the despair of the international statisticians. The diversity of employment in different countries is aggravated by the difficulties of language. What would a Frenchman understand by "clerk of the parish," even when translated (?) into "clerc de paroisse" (*sic*)? "Carvers," one of the designations in the St. Petersburg scheme, should not have been rendered in French as "agens des abattoirs." On these and other topics perfect unanimity is still only an ideal. Even when agreement has been obtained as to the questions to be asked, there still remains diversity in the arrangement of the answers. To smooth these remaining differences may, it is hoped, be a function of the International Statistical Institute, founded in 1885. As M. Korösi, one of the ablest advocates of uniformity, points out, the diverse practices mostly involve no question of principle; it would give no additional trouble to act in concert. It is needless to dwell on the advantages of increased uniformity. The census was used by ancient Rome as an engine of government; modern Europe should make it also an instrument of science.

[For the antiquities of the subject Gabaglio, *Storia . . . della Statistica* (2d ed., 1888), may be consulted. For the history and scope of the census in the United Kingdom, see the preface or report which is attached to every census except the first. Proposals for reform are expressed in the recommendations made by a committee of the Statistical Society before each census (see *Journal of the Statistical Society* for 1840, 1850, and subsequent decades). Mr. Palgrave's paper, *Journal of the Statistical Society*, 1869; and Dr. Longstaff's paper in *Ibid.* 1889 contain other proposals besides those which have been noticed. A general view of the earlier methods of taking the census on the continent is presented in the *Journal of the Statistical Society*, vol. iii. Mr. Hendriks' detailed accounts of the Spanish and the Swedish census, in the 23d and 25th volumes of the same journal, are very valuable. As to the history and scope of the census in the different European states, copious information will be found in the records of the International Statistical Congress, especially in the reports made by the members for each nation. In the same publication will be found repeated proposals for securing greater uniformity. A conspectus of these recommendations is presented by M. Korösi in his *Projet d'un Recensement du Monde* (Paris, 1881). Attention is due to his own recommendations offered in that work and in his address to the Jubilee meeting of the Royal Statistical Society (Jubilee volume, 1885), and in his contribution to the second *Bulletin of the International Statistical Institute*, p. 200. A comparison of the statistics obtained by the census in different countries is afforded by *Confronti Internazionali* (published by the Direzione Generale della Statistica), Roma, 1884. Many of the figures there compiled have been extracted by Sir Rawson Rawson, who has added explanatory comments (Presidential address to the Statistical Society, *Journal*, 1885). The most recent results for several European countries and for the Cape Colony and Victoria are presented together in the *Notes on the Preliminary Returns of the Censuses*, 1890-91, in the *Journal of the Statistical Society* for Sept. 1891. Less recent comparisons are *Movimento della Popolazione in Italia e in altri Stati d'Europa*, by M. Bodio; *Archivio di Statistica*, 1876; *Mouvements de la Population dans les divers états de l'Europe*, by M. Bertillon; *Annales de la Démographie Internationale*, vol. i.; and other articles in that series (extending from 1877 to 1883). See also Quetelet, *Physique Sociale*, 1869.]

F. Y. E.

CENSUS, UNITED STATES. The mode of conducting the census of the United States is so important as to demand special notice.

History of the Census.—The origin of the census system in the United States lay in the necessity of establishing some basis for the distribution of representatives and direct taxation among the different states. When the colonies associated themselves together to resist the mother country it was necessary to find some method of distributing the expenses of the war. The congress which assembled in 1775 had no power to assess and collect taxes through officers of its own. The draft of the articles of confederation (1776) provided that expenses should be distributed according to the population of the states, which should be ascertained triennially and transmitted to the assembly of the United States. The southern members objected to the slaves being counted with the whites, and in the articles of confederation finally adopted (1777-1781) it was provided that all expenses for war or the common welfare should be apportioned among the states "according to the value of all land within the state granted to or surveyed for any person, as such land, and the buildings and improvements thereon, shall be estimated according to such mode as the United States in congress assembled, shall from time to time direct and appoint" (art. 8). The land force, on the other hand, was to be furnished by the different states according to the number of white inhabitants in each (art. 9). Neither of these provisions ever led to a census; in fact in 1783 congress recommended

the levying of money in proportion to the population rather than according to land-value, and drew up a table of the estimated population in each state. In this estimate only three-fifths of the slaves were counted. This amendment did not prevail, but we see here the origin of the three-fifths rule which crept into the constitution of 1787 (art. 1, § 2), which is the legal basis of the census at the present time. That clause reads as follows:

"Representatives and direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct."

To carry out this provision of the constitution, congress passed the first census law, 1st March 1790. The law has since been so extended that from a mere enumeration, the census has become an elaborate description of the social and industrial condition of the people of the United States. This progress has in one sense been gradual, but the census of 1850 and that of 1880 stand out as marking epochs, setting the standard for those that followed.

The census of 1790 was a simple enumeration of the people under the following classification: free white males of 16 years and upwards, free white males under 16 years, free white females, all other free persons, and slaves. The census of 1800 was similar in scope except that the age classification was slightly more elaborate, namely: under 10 years, from 10 to 16, from 16 to 26, from 26 to 45, over 45, with distinction of sex. The same population schedule was used in 1810; in addition questions were asked in regard to manufactures, but the latter returns were so incomplete as to be of no value. They were equally incomplete in 1820, and in 1830 the inquiry was omitted. In 1820 the age classification was further elaborated; "foreigners not naturalised" distinguished; and the people divided, according to occupation, under agriculture, commerce, and manufactures. The census of 1830 adopted the age classification: under 5 years, from 5 to 10, from 10 to 15, from 15 to 20, from 20 to 30, and then by decennial periods. It also distinguished the blind, and deaf and dumb, by colour and certain ages. In 1840 the number of insane and idiotic, white illiterates, and statistics of schools were added. A manufacturers' schedule was again attempted, but without much success. The census of 1850 was more elaborate. It included the number of dwelling-houses, of families, of persons according to sex, age, colour, free or slave, profession or occupation, value of real estate, number of persons married within the year, attendance at school, illiteracy, the deaf and dumb, blind, insane, idiotic, pauper, and convicts, mortality statistics for the year, products of agriculture and industry, wages, capital, taxes, colleges and schools, newspapers and periodicals, and churches. Most of our comparisons at the present time go back to this census. In 1879 a new act was passed which resulted in the elaborate "tenth census of the United States," a description of which is given below.

Method of taking the Census.—The returns of 1790 were taken under the supervision of United States marshals and sent to the president of the United States. From 1800 to 1840 they were sent to the secretary of state and published by him. In 1850 the census office was created in the newly-established department of the interior; since then a superintendent of the census has been appointed for each census. The law of 1st March 1889, for the taking of the eleventh census (1890), provides for the appointment of (not more than) 175 supervisors who shall appoint enumerators, the latter to visit personally every family in their sub-divisions and by inquiry obtain all particulars required by the law, which also allows schedules to be distributed in advance, to be filled up by householders and others. The schedules to be employed will be (as in 1880) a population schedule, one for farms, for manufactures, for mortality and vital statistics, for social statistics, and for transportation companies. Where there is an official registration of deaths, the superintendent may withhold the mortality schedule from the ordinary enumerators and obtain the statistics through official records. The superintendent may withhold also the schedules for manufacturing, mining, and social statistics, and charge the collection of these statistics upon experts and special agents. He may also employ special agents to investigate the statistics of the manufacturing, railroad, fishing, mining, cattle, and other industries of the country, and of telegraph, express, transportation, and insurance companies as he may require. The census shall also take on a special schedule the names, organisations, and length of service of those who had served in the army, navy, or marine corps of the United States in the war of the rebellion, and who are survivors at the time of the inquiry, and widows of soldiers, sailors, or marines. The population schedule shall include an inquiry as to the number of negroes, mulattoes, quadroons, and octoroons. The superintendent shall also collect the statistics relating to the recorded indebtedness of corporations and individuals; also, information relating to animals not on farms. The cost of the census of 1890 is not to exceed

$6,400,000 (say £1,280,000), exclusive of printing, engraving, and binding. The cost of the census of 1880 was about $4,853,350 (say £970,000). One of the criticisms made on census methods in the United States has much weight, namely, that, the census office should be permanent. At present, as soon as the census is completed, the office is abolished, and the skilled force is disbanded. The result is that every census is taken by men who are often inexperienced, and all the benefit of previous practice in statistical work is lost. There should be a permanent statistical office to which the decennial census could be entrusted, and which during the intervening period could perform much of the work which is now crowded upon the decennial enumerations, such as investigations as to industries, public indebtedness, social statistics, etc.

The Scope of the Census.—This is best seen by a survey of the tenth census, an extraordinary undertaking, unlike anything that preceded it in the United States, and such as will probably never be attempted again. In the words of the superintendent,[1]—"It was intended to form a grand monumental exhibit of the resources, the industries, and the social state of the American people on the occasion of their tenth ten-year enumeration. In its nature much of the work done from 1880 to 1883 is definitive or else such as to require only slight additions or corrections from time to time."

The tenth census falls into two parts: the ordinary statistics of population, wealth, and industry; and the special investigations and reports of experts having only a semi-statistical character. It will be necessary to dismiss these latter with only a word.[2] They are not properly census work, and their value can be estimated only by scientific men. The "Forest trees of North America," for instance, is an elaborate description of the trees of the United States, their distribution, their value as lumber, the strength of different kinds of wood, etc. The volumes on "Cotton-growing" contain a similar elaborate description of the cotton-growing states of the south, soil and climate, strength of cotton fibres, methods of cultivation, etc. Other volumes do the same for tobacco, the cereals, petroleum, coke, building stones, precious metals, other metals, and the natural water power of the United States. Still others contain elaborate descriptions of machinery used in various industries, and the processes of production. Such, for instance, are the reports on flouring mills, on the ice industry, on pumps and steam engines. Still further removed from a statistical investigation is the volume containing the mining laws of the United States and of the several states and territories. Two volumes contain "Statistics of Cities," in which an attempt is made to give a history of each city and town in the United States and a description of its government, institutions, sewerage system, pavements, etc. All this is scientific work, not census work. "It is not to be expected that succeeding censuses will be of such colossal magnitude."

Real census work falls under the following heads: (1) population; (2) mortality and vital statistics; (3) agriculture and fisheries; (4) manufactures, mining and mechanical industries; (5) transportation; (6) taxation and public indebtedness.

Population.—There are some peculiarities of census work in the United States which explain the size of the publications, and which are of scientific interest as differentiating it from the ordinary census work of the countries of Europe.

(1) One is the size of population and the extent of country covered by the census. In 1880 the enumeration covered fifty million people, the next census covers not far from sixty-three millions. The country is divided into forty-eight states and territories. All the facts of the census are presented for each state and territory, for the purpose of satisfying local interest. Still further, the states and territories are divided into counties, sometimes more than a hundred in a state, and most of the tables carry the figures out for the counties. There are 2605 counties in the United States. The counties are divided into townships, wards, etc. The towns and cities are often different from these in their boundaries, and in many cases separate presentations are made for these minor civil divisions.

(2) An elaborate attempt was made to connect population with the facts of physical and political geography, such as climate, altitude, rainfall, eastern, western, and southern sections, etc. The immense territory of the United States offers such a variety of physical characteristics, and the history and colonisation of the several sections have been so different, that a wide field (it was hoped) would be opened for the use of statistics in sociological speculation.

(3) Two elements in the population of the United States are of very great interest. One is the coloured population, the other the foreign-born. In no other population do we find the opportunity to study such social questions as those presented by the presence of a race different in blood from the dominant race and just lately emancipated from servitude, and by the presence of a numerous body of foreigners. Ethnic questions have nowhere such a field for statistical determination. With this feeling the census has, in almost all its investigations, analysed the results with distinction of race and place of birth. Such are the characteristics of the census which make it of particular scientific

[1] *Quarterly Journal of Economics*, ii. 143, 145.

[2] See titles of volumes of the Tenth Census at end of this article.

importance. We will now examine some of the results:—

The total area of the United States is over 3,000,000 square miles, but of this only 1,569,570 square miles have a density of population of 2 to the square mile. This is called the settled area, and has steadily increased since the beginning of the occupation. The growth of population and of settlement at the successive census periods is seen in the following table:

Year.	Population.	Settled Area.	Density per sq. mile of settled area.	Increase per cent of Population in Decade.
1790	3,924,214	239,935	16·4	....
1800	5,308,483	305,708	17·4	35·10
1810	7,239,881	407,945	17·7	36·38
1820	9,633,822	508,717	18·9	33·06
1830	12,866,020	632,717	20·3	32·51
1840	17,069,453	807,292	21·1	33·52
1850	23,191,876	979,249	23·7	35·83
1860	31,443,321	1,194,754	26·3	35·11
1870	38,558,371	1,272,239	30·3	22·65
1880	50,155,783	1,569,570	32·0	30·08

This table shows the rapid growth of population and its slight increase in density on account of the constant extension of the area of settlement. For further illustration the census has adopted the following classification of density of population. Group 1, from 2 to 6 to a square mile, represents a very sparse population, supported perhaps by grazing (frontier); group 2, from 6 to 18 to a square mile, represents agriculture in early stages or on a rugged soil; group 3, from 18 to 45 to a square mile, represents, in the United States, well-developed agriculture; group 4, from 45 to 90 to a square mile, indicates the presence of manufacturing industry; group 5, over 90 to the square mile, represents advanced industry. A series of tables and coloured CARTOGRAMS presents the distribution of population according to these groups at each decade since 1790. It is a most interesting and unique study of the process of settlement in a new country, at first the tide of settlement being controlled by the course of navigable rivers and the removal of hostile Indians, and later by lines of railroads. The following table will show the area of settlement for the different groups in 1880:—

	Sq. miles.
Group 1, from 2 to 6 to a sq. m. .	384,820
,, 2 ,, 6 ,, 18 ,, ,, .	373,890
,, 3 ,, 18 ,, 45 ,, ,, .	554,300
,, 4 ,, 45 ,, 90 ,, ,, .	231,410
,, 5 ,, over 90 ,, ,, .	25,150

Outside of cities only a very small strip of territory along the Atlantic seaboard has acquired the density of population due to advanced industry.

In a similar way the distribution of population is shown according to latitude and longitude (the greater part of the population live between latitude 38° and 43°, one half to the north of 39° of latitude, and to the east of 83° of longitude; according to elevation above sea-level (nearly two-fifths live below 500 feet, and three-fourths below 1000 feet); according to drainage basins (the greater part of the population is in the Mississippi valley); according to mean annual temperature, to mean temperature in July, to mean temperature in January, to maximum temperature, to minimum temperature, to annual rainfall, and to spring and summer rainfall. The centre of population is said to be at 39° 4′ 1″ latitude, and 84° 39′ 7″ longitude, or at a point about 8 miles west by south of Cincinnati. All these calculations except the last are carried out for the foreign-born and the coloured as well as for the total population.

Turning now to the distinctions of colour and race, the population of the United States in 1880 was as follows:

Total	population .	50,155,783
White	,, .	43,402,970
Coloured	,, .	6,580,793
Native	,, .	43,475,840
Native white	,, .	36,843,291
Foreign-born	,, .	6,679,944

The coloured population is mostly in the southern states; in three of them (South Carolina, Mississippi, and Louisiana) the coloured are in excess of the whites. The foreign-born are principally in the north, and especially in the large cities. The coloured are almost all of them of native birth, and the foreign-born are almost all of them whites, so that the two elements are entirely separate in the statistics. It is to be borne in mind that the terms "native" and "foreign" refer always to place of birth, not to descent or alien condition. Children of immigrants born on the soil of the United States are classed as natives. This is unavoidable, but has led to many false conclusions in regard to the influence of the foreign element in the United States. We cannot say, for instance, how many of the people of the United States are descendants of the original settlers, and how many of immigrants since 1820. The census did inquire as to the birthplace of the parents, and by means of this inquiry discovered that nearly 15,000,000 inhabitants of the United States were either born abroad or children of parents born abroad. It is one of the most interesting points of the tenth census to follow out these foreign-born. They congregate largely in cities, 34·2 per cent of the total number being found in the largest 44 cities (of Irish 45·26 per cent, of Germans 38·73 per cent, and of Italians 60·80 per cent were in large cities). The census follows the foreign-born into different occupations. Of all the persons engaged in agriculture in the United States, 10·60 per cent were of foreign birth; of those engaged in professional and personal services, 24·48 per cent; of those in trade and transportation, 25·33 per cent; and

of those engaged in manufactures, mining, and mechanical industries, 31·95 per cent were of foreign birth. Other statistics show the proportion of foreign-born among illiterates, prisoners, convicts, paupers, deaf and dumb, insane, blind, etc. The figures must be used with caution, because the census was not altogether successful in the enumeration, and because no regard was paid to the age classification, although the abnormal proportion in some of these cases (insane, blind, etc.) is due to the abnormal proportion of adults among the foreign-born. This whole inquiry as to the foreign-born is a characteristic part of the American census.

The other population tables do not differ from those in use in Europe. The classification by sex shows a proportion of only 965 females to 1000 males, contrary to the usual case in Europe, but easily explained by immigration. In the eastern states there is an excess of females, owing to emigration of males westward, in the south also an excess of females, due apparently to the usual cause, namely, greater mortality among males. The age classification shows a large number of children, especially among natives, but this latter figure must be used with great care because children of immigrants born on this soil are classed as natives. The urban and rural classification shows 22·5 per cent of the population living in towns of 8000 inhabitants and over (in 1790 it was only 3·3 per cent), and 25·5 per cent living in towns of 4000 and over. Of the people of the United States engaged in gainful occupations, 44·1 per cent were engaged in agriculture, 23·4 per cent in personal and professional services, 10·4 per cent in trade and transportation, and 22·0 per cent in manufactures, mining and mechanical industries.

II. *Mortality and Vital Statistics.*—As there is no uniform registration of births and deaths for the whole of the United States, and in most of the states having registration it is very imperfect, American mortality and vital statistics are sadly deficient. The tenth census tried to collect the number of deaths during the census year and the ages of the deceased. By comparison with one or two states where there is registration, it was estimated that the census returns were thirty per cent short of the actual number of deaths. The office, in addition, by correspondence with nearly thirty thousand physicians, tried to make up this deficiency, and to ascertain with accuracy the cause of death. This inquiry was only partially successful. In large cities where there was already a registration of deaths, the census office simply copied the list. The births were obtained by adding to the number of children under one year of age the number of children reported as born and dying during the census year. The number was supposed to be 15 per cent short of the actual births. With such imperfect material, the birth- and death-rates, the proportion of deaths from different diseases according to age, sex, locality, race and nationality, the mortality tables, etc., must have a very uncertain value. The birth-rate is probably about 36 per 1000, the death-rate about 18 per 1000. The only excuse for the census undertaking this impossible task is that no one else will.

III. *Agriculture.*—These returns were made on a separate farm schedule filled by each farmer under the direction of the enumerator. The figures as to acreage rest on no official survey, but simply on the statements of the farmer. The statistics serve a double purpose: to display the condition of farming as a national industry, and to show the value of agricultural products as a contribution to national wealth. Under the first head, the number of farms was 4,008,997, comprising 536,081,835 acres, or 28·9 per cent of the total land area. But nearly one half (46·9 per cent) of the land in farms was unimproved, mostly woodland and forest. The average size of farms was 134 acres, but this varied greatly with localities. About 74 per cent of the farms were cultivated by owners, about 8 per cent by tenants paying a money rent, 18 per cent were cultivated by tenants paying a share of the product as rent. The value of farms including buildings was estimated as $10,197,096,776 (say £2,040,000,000). Under the second head the census gives detailed information as to number and value of live stock on farms, acreage devoted to different crops, amount and value of different products, such as wheat, corn, cotton, etc. for 1879, details which it would be useless to repeat here.

IV. *Manufactures.*—These statistics were collected with great care and comprise all factories and workshops producing to the value of $500 (say £100) per annum and over down to the village blacksmith or carpenter. The statistics of industry are regarded with great interest in the United States as indicative of the growth and material prosperity of the community. Especially is this true in the rivalry of state with state, and of city with city, and many bitter attacks were made on the census office because the results did not come up to local expectation. None of these was substantiated. The statistics have been collected since 1850 on the same plan, and give some interesting points of comparison, as shown in the following table (values for 1870 reduced to gold basis):

Year.	Value of gross product.	Value of raw materials.	Total amount of wages paid.	Capital.	Number of hands employed
	$	$	$	$	
1850	1,019,119,616	555,123,822	236,759,454	533,245,251	958,079
1860	1,885,861,676	1,031,605,094	378,878,966	1,099,855,715	1,311,246
1870	3,385,860,354	1,990,741,794	620,467,474	1,694,567,015	2,053,996
1880	5,369,579,191	3,396,823,549	947,953,795	2,790,272,606	2,732,595
	£	£	£	£	
1850	203,823,923	111,024,764	47,351,893	106,649,050	958,079
1860	377,172,335	206,321,018	75,775,793	219,971,143	1,311,246
1870	677,172,070	398,148,359	124,093,495	338,913,403	2,053,996
1880	1,073,915,838	679,364,710	189,590,759	558,055,521	2,732,535

(In £ sterling, $ converted as 5=£1.)

These figures seem to give a fair picture of the manufacturing industry of the United States. The return of total value has been criticised on the ground that the finished product of one industry is the raw material of another, and that thus the same material is valued several times in succession. But there seems to be no objection to this so long as value is added to the product at each stage. In another respect the census figures have been greatly abused. Persons have taken the cost of raw materials plus the total wages paid, and deducting it from the value of the finished product, treated the result as employer's profit. For the whole of the United States (1880) this figure would be $1,024,801,847 (say £200,000,000), or more than the total wages paid. On the basis of the capital returned, this represented a profit of 36·5 per cent in manufacturing industries. In some cases it was still greater, as for instance in the boot and shoe industry, there appeared to be a profit of nearly 50 per cent. The fallacy arose from considering wages and raw materials as representing total cost of production, and from the difficulty of determining the real amount of capital invested. The eleventh census will attempt to remedy the false impression, in part, by adding to the cost of production the amounts paid for rent, for taxes, for insurance, for commissions, for interest, for freight and transportation, and other expenses. It also proposes to follow the example of the Massachusetts census of 1885, and include under the head of capital, credit capital, *i.e.* money borrowed, bills receivable in excess of bills payable, etc. This will doubtless prevent any such excessive sum appearing as profits again; but the whole attempt to show the rate of profit by means of a census enumeration is fallacious, and destined to failure.

Wages.—The total sum paid for wages during the census year divided by the whole number of employees gave an average wage, $346·90 (say £70) per annum. This figure has no value because many of the persons were employed during only a part of the year, and because it averages the wages of men, women, and children. The average wage of employees in the principal industries is fallacious for the same reasons. The wage statistics of the United States are still incomplete. In 1890 it is proposed to attempt a classified wage, *i.e.* ascertain the number of men receiving $5 (£1) per week, between $5 and $6 (£1 and £1 : 4s.), etc.

V. *Transportation.*—The statistics for railroads were collected on special schedules filled out by the companies themselves (1017 companies working 87,781·97 miles of road), and covering financial statistics, such as income and expenditure, amount of stock, bonds, and general indebtedness, traffic statistics, rolling stock, employees, accidents, etc. There are similar reports for telegraphs, telephones, steam navigation, canals, etc.

VI. *Taxation and Public Indebtedness.*—This report (vol. vii.) deserves notice as our only source of information in respect to the amount of wealth, the burden of taxation, and the sum of public indebtedness for the whole of the United States. Each state has its own system of valuation and taxation, and its own statistics of local indebtedness, but these are not uniform and have never before been combined. The census office was able to accomplish this by extensive correspondence with state and local officers, and prominent bankers, and business men throughout the country. The results in regard to taxation were not entirely satisfactory. As regards wealth, the census office estimated the total wealth of the United States to be $43,642,000,000 (say £8,700,000,000). The statistics of indebtedness reveal for the first time the amount of state and local indebtedness, the cause for which it was contracted, rate of interest paid, amount of sinking funds for its extinction, etc. The report analyses also the public debt of the United States, number of holders, amount of their holdings, amount in the hands of banks and corporations, the section of country where held, etc. This may not be true census work, but the student of finance is to be congratulated that the census office was willing to do it.

State Censuses.—Some of the states take a census at the intermediary period between the national. Most of these are mere enumerations of the people for the purpose of readjusting the distribution of representatives. The census law of 1879 tried to encourage the states to prosecute such work by providing that if any state or territory should take such a census at the intermediary period and in accordance with the schedules of the United States census, the United States government would pay one half of the expense of supervisors and enumerators. The provision had no effect, and was quietly dropped out of the act of 1889. Sixteen states and territories have taken a census since 1880, viz.:—Michigan in 1884; Colorado, Florida, Iowa, Kansas, Massachusetts, Minnesota, Nebraska, New Jersey, Oregon, Rhode Island, Wisconsin, Dakota, District of Columbia, and New Mexico in 1885; and Texas in 1887. None of these is of particular importance except that of Massachusetts, which is probably the most perfect piece of statistical work ever done in the United States.

Census of 1890.—The eleventh census was taken as of date 1st June 1890. Its general scope is indicated above under "Method of taking the Census." New features are, in the population schedule, the attempt to distinguish negroes, mulattoes, quadroons, and octoroons. Hitherto they have all been classed as "coloured." Other new inquiries are: "Can the person enumerated

speak English? If not, indicate the language spoken. (To be asked concerning all persons ten years of age and upwards.)" Still further: "How many years have you been in the United States? Have you been naturalised? Have you taken out naturalisation papers. (These three questions to be asked concerning adult males of foreign birth only.) Mother of how many children, and number of those children living? (To be asked concerning all women who are or have been married.)"

In mortality and vital statistics, 80,000 registers have been distributed to physicians with request that they note all cases of death in their practice during the year. Special studies are to be made of birth- and death-rates, and of the principal causes of death in twenty-four of the largest cities; of the influence of race upon fecundity and mortality especially of mulattoes as distinguished from negroes and whites; and of the relations of occupation to death-rates and causes of death in manufacturing cities.

The investigation in regard to recorded indebtedness has special reference to farm mortgages and the condition of the farming class, and is to be conducted by special agents who will examine the records of mortgages in different parts of the country. The list of persons who served in the war of the rebellion will (it is estimated) fill eight 4to volumes of 1000 pages each.

The statistics are to be tabulated by electricity (Hollerith tabulating machine), thereby saving (as estimated) $579,000 (say £115,800) and doing the work with greater speed and accuracy.

The principal results of the eleventh census, published up to 1st October 1891, are as follows:

Total population, 1890, 62,622,250
Increase since 1880, 24·86 per cent.

Area of Settlement.

Total settled area 1,947,285 sq. miles.

Population.

From	2 to 6	to a sq. mile	592,037	sq. miles.
,,	6 ,, 18	,, ,,	393,943	,,
,,	18 ,, 45	,, ,,	701,845	,,
,,	45 ,, 90	,, ,,	235,148	,,
,,	90 and over	,,	24,312	,,

Urban population (in towns of 8000 inhabitants and over) was in 1890 29·12 per cent of total population.

Public Indebtedness.

	1890.	1880.
The U.S.	$915,962,112	$1,922,517,364
States	223,107,883	290,326,643
Counties	141,950,845	124,105,027
The U.S.	£183,192,422	£384,503,473
States	44,621,576	58,065,328
Counties	28,390,169	24,821,005

Converting the $ as 5 = £1.

Estimated total national wealth, $62,610,000,000 (£12,522,000,000), or nearly $1000 (£200) per capita.

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CENT, CENTESIMO or CENTAVO (words used as equivalent to each other—*Cent* in the United States of America, *Centesimo* in Peru and the Argentine Republic, *Centavo* in Chili, the United States of Columbia, the Philippines and Mexico). The 100th part of any DOLLAR, *e.g.* the dollar of the United States of America or equivalent coin (*e.g. Peso, Sol, Duro*, of Chili, Peru, etc.) Copper, nickel, or bronze token coins of various weights and dimensions.

CENT (Dutch). Bronze token coin weighing 59·34 grains; 2½ and ½ cents in proportion. 100 cents = 1 florin. F. E. A.

CENTESIMI (Italy); CENTIMES (France, Belgium, and Switzerland); CENTIMOS (Spain). Bronze token coins weighing 1 gramme (15·43235 grains) each. 100 = 1 franc (or its equivalent). F. E. A.

CENTRALISATION. A term applied to the concentration of the functions of government, more usually those of an administrative character, in the hands of a single directing authority.

It is obvious that the supreme authority existing in any community is able to exercise a paramount influence upon its wealth and economic position. On this account many of the leading writers on economics have discussed, in some detail, "the proper limits of the functions and agency of governments," and incidentally the organisation by which those functions and that agency should be exercised. The results arising from the regulation and control of individual action by public authority have been seen to be frequently determined by the manner in which the authority is brought into existence, and the nature of the responsibility attaching to its actions; and some at least of the economic objections which present themselves to the multiplication of the duties of government, disappear when these are placed in the hands of local and sectional, as distinguished from imperial and national, authorities. Thus MILL points out that the evil of entrusting too much business to the government is "felt in great magnitude under some of the governments of the Continent, where six or eight men living at the capital and known by the name of ministers, demand that the whole public business of the country shall pass, or be supposed to pass, under their individual eye." But he adds that "the inconvenience would be reduced to a very manageable compass in a country in which there was a proper distribution of functions between the central and local offices of government" (*Political Economy*, 6th ed., 1865, p. 567). Sir Arthur Helps, too, calls attention to the now well-recognised fact that a carefully devised system of LOCAL GOVERNMENT affords an opportunity of practising that "habit of spontaneous action for a collective interest" without which the education of a people, as Mill observes, "is defective in one of its most important branches."

The extent to which it is better that the functions of government should be entrusted to a minor authority and dissociated from the national executive is not capable of any exact definition. It will differ in different nations, and at different periods of their existence. It must depend upon the willingness of those upon whom authority is to devolve to exercise it for the common good, and to sink individual interests in the desire to advantage the general welfare; much too, will depend on the education and intelligence of the constituency within which administrative powers are to be exercised,

and of the class or classes which are to wield them. The decision as to whether any given function may more properly be entrusted to an authority under the direct control of the national government, or to an authority independent thereof, rests rather with the statesman than with the economist. If, however, it be true that "people can understand their own business and their own interests better, and care for them more than the government does, or can be expected to do," then it would appear that the *onus probandi* should always rest upon the advocates of the exercise of governmental power in any direction. It must be shown to be for the general advantage that individual action should be replaced by the action of a small section of the community, and similarly that the nation as a whole will perform any given function better than the section immediately concerned. In other words the endeavour should be to restrict the exercise of public authority to the smallest possible area, and above all to secure that all who either directly or indirectly are responsible for the administration of public business should have an actual interest in the success of their administration.

In thus limiting the executive area, and restricting the exercise of public authority, as far as other circumstances will admit, to those directly concerned, care must be taken to preserve for the general use the wider experience and clearer insight into principles which a central authority will usually possess, and it will frequently be necessary to reserve some power of review to be exercised in the interests of minorities or of other sections of the community.

The English poor-law system affords a good illustration of a system of independent local administration combined with centralised supervision and control within certain prescribed limits. The maintenance of the poor being a matter of national concern, and it being impossible to localise the effects of good or bad administration in such a matter, parliament has prescribed the principles upon which relief shall be afforded and its cost raised. A department under a responsible minister has also been established to see that these principles are observed, and to furnish the best advice and information available. But it rests with the local authority to adjudicate on applications for relief, and generally to make provision for the due administration of the law.

Much of the legislation by means of "private bills" would be more efficient if it were entrusted to a less important, but more interested, authority than the imperial parliament, and the establishment of COUNTY COUNCILS may eventually afford a means of relegating many of the functions at present performed by the national executive to a minor authority better able to discharge them to the advantage of the section of the community more immediately concerned.

In view perhaps of the fact that the British government is the least centralised in Europe, our own literature on the subject is much less ample than that of the Continent, and especially of France. John Stuart Mill's *Representative Government* and *Principles of Political Economy* (book v.), and Sir Arthur Helps's *Thoughts upon Government* may, however, be consulted. For the view of the MANCHESTER SCHOOL which is against Centralisation, see *e.g.* MALLET, *Free Exchange*, pp. 97, etc. Speech of COBDEN in ed. BRIGHT and ROGERS, vol. i. No. xx. pp. 362-3. ["Government will revert to something like the municipal system."]

T. H. E.

CERTAINTY. Certainty is an economic conception of great importance in several departments. The certainty of enjoying, partially at least, the fruits of one's own exertion is one of the principal elements in the efficiency of labour (contrast slave with free labour). In the accumulation of capital, and in the institution of private property, certainty is again fundamental. The essence of CAPITAL (*q.v.*) is held to be in the reservation of WEALTH for future consumption or the satisfaction of future needs, which implies that the fund reserved will be secured to a greater or less degree. The degree of certainty naturally operates upon the rate of interest when capital is lent. Certainty is also used in reference to taxation as regards the manner, time, and amount of payment, and as the basis of Adam SMITH'S second canon. He considers certainty to be of such importance that a very considerable degree of inequality is "from the experience of all nations, not near so great an evil as a very small degree of uncertainty." In insurance the certainty attaching to groups, relatively to the uncertainty in the case of individuals, is the fundamental conception.

[Uncertainty of employment, as an evil of the present industrial régime, is dealt with by Prof. Foxwell in *Claims of Labour* (Edinburgh, 1886)].

J. S. N.

CERTIFICATE, SHARE. A broker, when he has bought shares in a company for a client, has to deliver a document called a certificate, which is the only visible sign of the property in the share. It is signed by one or more officials of the company, and when the shares are sold must in most cases be given up. Several decisions in the courts have shown that a certificate, although registered in buyer's name, is worthless in the event of forgery of the seller's name on the transfer, and no claim can be upheld against a company, notwithstanding the registration of transfer and issue by it of the certificate in the buyer's name. The FORGED TRANSFER Act, 1891, gives a company power to compensate a holder so defrauded, but a certificate is not absolute security. American railroad share certificates are peculiar; as the certificate may be made in the name of another person, whereas

the owner of the document may have paid for it without his name appearing as the owner either on the certificate or on the company's books. The American share document usually carries a transfer, and this is almost as usually left blank when the seller has given up his interest in the share, not naming the buyer. These certificates therefore pass very much as bonds to bearer. Awkward legal cases have arisen out of this loose custom. A. E.

CESARE, Carlo de, born at Spinazzola (Bari) 1824, died at Rome 1882. First as a deputy, and later as a senator, he was employed in reporting on important laws and charged with delicate commissions, such as the inquiry into the condition of the navy after the battle of Lissa, and on the state of Sicily in 1875. He was Counsellor of the "cour des comptes"; having been, before reaching this dignity, inspector-general of the banks of issue. He was the author of a manual of political economy, putting forward principally the doctrines of Ricardo; this book is useful even now on account of a chapter it contains of historical notices concerning political economy in Italy. *Manuale di Economia pubblica*, 2 vols. Torino, 1862. De Cesare wrote also upon a great many economical problems of the day in his country, and earned thus a considerable reputation as politician and practical economist.

The following list of his publications will give an idea of his activity:

Intorno alla ricchezza pugliese, Bari, 1853; *Il mondo civile e industriale nel secolo* xix., Napoli 1857; *Dell' industria asiatica*, Napoli 1857; *Della protezione e del libero cambio*, Napoli 1858; *Della proprietà intellettuale*, Napoli 1858; *Delle condizioni economiche e morali delle classi agricole* (published by the Accademia Pontoniana), Napoli 1859; *Dell' educazione alle arti e mestieri*, Palermo 1859; *Progetto di perequazione dell' imposta fondiaria per tutto il regno d'Italia*, Torino 1863; *Il credito fondiario e agricolo*, Torino 1863; *La legge dell' affrancamento del Tavoliere di Puglia e gli interessi economici delle provincie meridionali*, Torino 1863; *Il Passato, Presente e l'Avvenire della pubblica amministrazione del regno d'Italia*, Firenze 1865; *Disarmonie economiche*, Firenze 1865; *La finanza italiana nel* 1867, Firenze 1867; *Relazione sullo stato del materiale e sull' amministrazione della r. marina*, Firenze 1867; *Le due scuole economiche*, Firenze 1875. M. P.

CESS. The land-tax of Scotland, permanently fixed at £47,954 per annum, subject to a power of redemption. It is payable partly from burghs, and partly from shires; the incidence of taxation is determined by the local authorities. A. D.

CESSIO BONORUM. See Bankruptcy in Scotland.

CESSIONARY (Scots law term). Assignee.

CEVA, Giovanni, born in the province of Milan in 1647 or 1648—is a remarkable author, and will probably attract a growing interest, as the first clear-sighted and decided mathematical economist. He has also the merit of clearly defining *hypothetical* economics and insisting on *pure* economics as being the only possible exact science of which the subject permits the construction. He was by profession a mathematician and hydraulic engineer, and as such was several times employed by the government of Mantua. His death took place during the siege of Mantua in 1734.

Ceva's economical work has the following long title—*De re nummaria, quoad fieri potuit geometrice tractata, ad illustrissimos et excellentissimos dominos Præsidem, Quæstoremque huius arciducalis Cæsarei Magistratus*, Mantuæ, 1711.

He divides the causes influencing the value of money into two groups: those which "extrinsecus adveniunt" and those which "ex nummo ipso procedunt." The "valor externus omnis rei nummariæ" varies in a direct ratio to the population and inverse ratio to the "quantitas rei." When "nummi ærosi" and "cupræi," are in excess of the quantity needed for small transactions true coin gets appreciated and *vice versâ* . . . "in eadem quantitate nummis aureis persistentibus eorum externi valores componuntur ex ratione quantitatum ærosæ monetæ et ex *reciproca quantitatum argenteæ*. As to the causes of variations in value classified as depending "ex ipso nummo," he enumerates the principal ones which can be called expenses of production, viz., the distance and nature of the mines, the expenses of coinage, etc.

Passages characterising his conception of economic science and his condemnation of inductive methods are the following: Magnum aliquid est commercium illud reconditum atque complexum, quo humana respublica, pecuniæ occulto gyro, florens atque incolumis perpetuo servatur; . . . sed huiusmodi naturam explorare difficillimum est, *nec aliter possumus, nisi quædam geometrarum modo ponantur*. Alias necesse est nos versari in quadam obscurissima nocte, nec de re huiusmodi posset quidquam constitui neque cognosci. . . . *Quibusdam petitionibus præfixis*, sic rem intellectui proponemus, ut si fieret, quod ratio admonet fieri debere, *geometrice ostendi possit, unde oriantur augmenta monetarum, et quot quibusque ex rationibus componantur valores ipsi nummorum*. Quamvis plura contingant, quæ *praxim minus exactam reddunt; regula tamen eiusque vis fixa atque immobilis perseverat*. M. P.

CHADWICK, Sir Edwin. This distinguished economist and statistician was born in 1800 and died at his residence at East Sheen, Surrey, on the 5th April 1890. He preserved his untiring energy and enthusiasm to the end of this long term of ninety years, and happily lived to see a vast degree of success resulting from the great social reforms he had instituted, fostered, and practically carried through to the advantage of the health, well-being, and general

improvement of his country. Born of a Lancashire family of the middle class, and with immediate ancestors gifted with little riches but with much earnestness of purpose, he had to work out his own way to fortune. Intended at first for the bar, Chadwick was soon forced to change his legal reading for the more immediately bread-winning occupations of reporting and review writing. A contribution of his to the *Westminster Review*, in 1828, on the subject of "Life Assurance," and another on "Preventive Police," gained him the acquaintance and support of Grote, the elder and younger MILL, and BENTHAM. Soon after the call to the bar of Chadwick, Bentham engaged him as an assistant to complete his own celebrated treatises on civil and penal legislation, and in this capacity Chadwick went to reside with the octogenarian philosopher until his death in 1832. Bentham left him a legacy and a small library, and would fain have wished Chadwick to have succeeded him in the propaganda of what may be called Benthamism. Fortunately Chadwick preferred a practical to a speculative career. National, social, and sanitary subjects, such as the condition of labour, the housing, living, and over-crowding of the population, and especially of the working classes, the improvement of the water supply of great cities, the interment of the dead in cemeteries removed from the immediate neighbourhood of the living, and other similar great questions, had become Chadwick's earnest study. His well-earned reputation for this soon led to his being offered and accepting official employment. In 1832, during the administration of Lord Grey, the first poor-law commission was appointed, and Chadwick's duty, in the post of assistant-commissioner to which he was promoted, demanded his personal visit to all parts of the country where investigation of facts seemed needful, and his collection of them led to such astounding revelations of the then condition of the labourer, of the poor, and of the evils to be remedied, that the government, impressed with the talent and genius displayed in his reports, appointed him a commissioner. The commission itself, of which Chadwick was the real heart and soul, carried out the most sweeping reform in the old English POOR-LAW system. Even this was not sufficient to satisfy his almost perfervid imagination of view of the advantages to be expected from a root-and-branch substitution of complete centralisation, in place of the excessive and costly decentralisation and its many abuses that were rampant when each of the 16,000 parishes of England looked to the wants of its own poor much in its own way. In 1833 Chadwick had the chief share in drawing up the report upon the condition of FACTORY children which led to the Ten Hours Act. In 1834 he was appointed secretary to the new poor-law board, and during his tenure of that office for about twelve years his exertions for the public good were unceasing. In 1838 he presented a report of the commissioners on a special inquiry into the local and preventible causes of disease, and the improvement of habitations in the metropolis. This report proposed a venous and arterial system of water supply and drainage for the improvement of towns, and works for the application of sewage to agricultural production. Similar inquiries were pursued throughout England and Wales under his guidance, and led to very substantial reforms. His report of 1843, on the results of a special inquiry into the practice of interments in towns, formed the basis of the legislation which substituted a better system. In the same year he read to the Royal Statistical Society of London a paper on the best mode of representing by returns the duration of life and causes of mortality. In 1844, Chadwick suggested to Sir Robert PEEL the appointment of a Commission to make a general investigation into the national health and the best means of improving it. Quarrels ensued between Chadwick and the other commissioners, and the new poor-law board was dissolved. It was not perhaps to be expected that a man of the enthusiastic and optimistic type of Chadwick could steer clear of conflict with his colleagues. Nor can it be said with truth that there existed no well-founded cause of complaint on their part, for Chadwick was egoistic and dogmatic even when not positively domineering, and was gifted with a readiness of pen and a volubility of tongue which often wearied out his opponents. But as great public benefits often accrued from his contentions, the private evil to his colleagues does not count for much. Socially, as we and many of his survivors can vouch, Chadwick was a most interesting and valued acquaintance. The fact is that the necessity for speedy action to remedy evils glaring and grievous was so obvious that the urging of them on in a nation wedded as we are to a long retention of old forms and ways and systems, was a positive public good; and, in the case of Chadwick, the man was fortunately equal to the work. Sometimes, indeed, on occasions when he had to stir up apathy or LAISSEZ-FAIRE into reform, he was in the habit of profusely spicing his statements with statistics which would not bear the test of strict actuarial investigation, and which were incorrect in respect of their collocation with results, or of their comparative percentages. The year after the poor-law board was dissolved Chadwick was appointed one of the commissioners to inquire into the health of London, and in the next following year (1848) one of the commissioners of the general board of health, for improving the supplies of water, and the sewage, drainage, and cleansing of great towns. In the same

year he was nominated to the Companionship of the Bath, although he was not promoted to the knighthood of the order until 1889, the year before his death. When the board of health was dissolved, Chadwick retired upon a pension of £1000 per annum. But there was no retirement by him from the active pursuit of his life-long researches and labours for the practical advancement of all that concerns the health and educational and social progress of the nation. On sanitation especially he continued to be its chief authority to consult. He had much influence in such matters, for example, in the sending out of commissioners to the Crimea for the relief of our soldiers there. This was followed up in 1858 by inquiries into the heavy mortality amongst the troops in India, a subject he fully explained in a paper, "On the application of Sanitary Science to the protection of the Indian Army," read before the Social Science Congress at Liverpool. In 1860 he was vice-president of the public health department of the meeting of the same congress at Glasgow, and delivered a remarkable address on sanitation. In 1861, he followed up the same subject, as president of the section of economic science and statistics, at the health association at Cambridge. It would be tedious to prolong the list of his contributions, from 1861 to 1890, to the journals of all the numerous scientific societies to which he belonged, and for whose researches and practical public objects he continued to labour to the end of life. A long career thus well spent deserves the gratitude alike of his contemporaries and of posterity. England certainly has erected statues and memorials of many men of far inferior worth to Chadwick. There remains, however, an ever-present memorial of him in the improvements that have taken place in this country in almost every direction that he laboured in, and which are briefly indicated in the present outline of the chief points in his biography.

See *The Health of Nations, a Review of the Works of Edwin Chadwick, with a Biographical Dissertation*, by B. W. Richardson, 2 vols., 8vo, London, 1887. Chadwick's papers, printed in the *Journal of the Royal Statistical Society*, extend over a period of thirty-six years. Their titles are—"On the best mode of representing by Returns the Duration of Life and Causes of Mortality," vol. vii. p. 1.—"On the Economical, Social, Educational, and Political Influences of Competitive Examinations, as Tests of Qualification for Admission to the Junior Appointments in the Public Service," vol. xxi. p. 18.—"On the Progress of the Principle of Competitive Examination for Admission into the Public Service, with Statistics of Actual Results and an Investigation of some of the Objections raised," vol. xxii. p. 44.—"Results of Different Principles of Legislation and Administration in Europe; of Competition for the Field as compared with Competition within the Field of Service," vol. xxii. p. 381.—"Post-Office Savings' Banks," vol. xxiv. p. 519.—Address as President of Section F. ("Economic Science and Statistics") of the British Association, October 1862, printed, vol. xxv. p. 502.—"On the Subject Matters and Methods of Competitive Examinations for the Public Service," vol. xxvi. p. 72.—"Poor-Law Administration, its Chief Principles and their Results in England and Ireland as compared with Scotland," vol. xxvii. p. 492.—Opening Address, as President of the Department of Economy and Trade, at the Meeting of the National Association for the Promotion of Social Science, York, 1864, printed, vol. xxviii. p. 1.—"Treatment of Pauper Children on a Larger Scale," table illustrative of school organisation for reducing expenses with increased efficiency, vol. xliii. p. 245. F. H.

CHAFFER, now a verb, was originally a noun, and meant a journey for the purpose of buying and selling, from the words *chap* (as in *kaufen*, *caupo*, κάπηλος), and *fare*, a journey. Chap appears in chapman or merchant, also in cheap, which was at first a noun, and meant simply market, as in Eastcheap, and Cheapside. Articles sold on terms favourable to the buyer were to him "good cheap" or good market (compare "bon marché"). The adjective was dropped and the substantival character forgotten; hence the adjective "cheap." Chaffer in popular language is a form of what Adam Smith calls Higgling of the Market, or the disputing of buyer and seller, which is the usual preliminary to the striking of a bargain; but it is used of retail dealers and their customers more often than of wholesale; and is associated rather with petty than with important interests. [See also Chapman.] J. B.

CHALMERS, George (1742-1825), Scotch antiquarian, historian, and economist, born at Fochabers in Moray, and educated there and at Aberdeen. He afterwards studied law at Edinburgh. He went to America, and practised as a lawyer at Baltimore. Returning home at the beginning of the civil difficulties in 1775, he settled in London. He was appointed, 1786, chief clerk of the committee of the privy council for trade and foreign plantations. His works were chiefly historical and antiquarian, including the well-known *Caledonia*.

His economic works, as their titles suggest, are chiefly statistical, and as such are of the very highest importance; the *Estimate* in particular furnishing the student with valuable information, which, bearing in mind Chalmers's official position, may be deemed more than usually trustworthy. In his *Considerations on Commerce* he deals with more theoretical matters, committing himself to the opinion that the high price of Bullion was owing to the state of the Foreign Exchanges. It cannot, however, be said that his arguments or facts tend to establish his position.

His economic works were as follows: *The Propriety of allowing a Qualified Export of Wool*

discussed historically, 1782.—*An Estimate of the Comparative Strength of Great Britain during the Present and Four Preceding Reigns*, 1782.—*Opinions on Interesting Subjects of Public Laws and Commercial Policy arising from American Independence*, 1784.—*Observations on the Strength of England in 1696, by Gregory King, with a Life of the Author*, 1804.—*A Chronological Account of Commerce and Coinage in Great Britain from the Restoration till 1810*, 1810.—*Considerations on Commerce, Bullion and Coin, Circulation and Exchanges, with a View to our Present Circumstances*, 1811 (3d ed. 1819).

There is also attributed to him, but on very slender grounds, a small anonymous pamphlet entitled *Useful Suggestions favourable to the Comfort of the Labouring People*, 1795. E. C. K. G.

CHALMERS, THOMAS (born at Anstruther in Fife 1780, died at Edinburgh 1847), the son of a prosperous merchant, and the sixth of a family of fourteen children, was educated at St. Andrews University, and became minister of Kilmany parish 1803. He was at first more attached to mathematics, physics, and political philosophy than to theology; and brought himself into notice by his scientific lectures given at St. Andrews, first for the university and then in competition with it. In 1808 he published *An Inquiry into the Extent and Stability of National Resources*, in connection with the continental BLOCKADE. The doctrines of this pamphlet were incorporated with his *Political Economy* (ch. vi. p. 221 of vol. xix. ed. Collins), under the heading "Limits of a Country's Foreign Trade, and its supposed power to furnish a people with Employment and Maintenance." In 1815, transferred to Glasgow, he carried out his famous voluntary organisation of charitable relief, to show (as he expressed it) the "sufficiency of the parochial system" and the needlessness of a Poor Law. The scheme worked successfully for more than twenty years. Chalmers was professor of moral philosophy and political economy in St. Andrews (1825–1828), and then of divinity in Edinburgh (1828–1843), holding the latter office till the Disruption of the Church of Scotland in 1843, and the formation of the Free Church, in whose service he laboured (both in its college and in its church courts) to the day of his death. It was no doubt a bitterness to him that by aiding this schism he helped to bring about the establishment of a POOR LAW in Scotland, which took place in 1845, two years before his death.

In his book on *Political Economy* (1832) his aim is not to develope a body of doctrines but to secure the moral and thereby the economic elevation of society. Political economy, in the sense in which he treats of it, is regarded as aiming at the "diffusion of sufficiency and comfort." Economists and ecclesiastics (he repeatedly says) have stood too much aloof from each other; and for his part he will write as an ecclesiastic who recognises the value of economics. He follows Adam SMITH and MALTHUS, rather than RICARDO, accepting the "Ricardian" theory of rent with the modifications of Malthus and Perronet THOMPSON, and the theory of population with less reserve than its author ("Population tends to double itself in *fifteen* years," *Pol. Econ.* ch. xiii. p. 382). Like J. S. MILL (see *Dissert.* ch. ii. p. 183, "Claims of Labour," written 1845) he saw that the theory of population, instead of closing the way to progress, had really for the first time opened it. He regards the theory of Malthus as the *vinculum* between moral character and economic comfort. "By the indefinite control which the collective mind and habit of society have over the element of population, the general standard of enjoyment in a country is capable of being indefinitely raised" (ch. i. p. 44); and, as a matter of fact it has been raised: "The labourers of our day work harder than before but live better than before." "The rate of wages depends on the proportion which the inclination of the people for marriage bears to their inclination for the comforts and decencies of life" (ch. ix. p. 279); and without a Christian education to give self-control progress cannot be assured. The philanthropy of the few cannot save the many from "that most overmastering of all oppressions, the oppression of their own numbers" (*ib.* p. 285). Neither home colonisation (on Dutch or other models), nor emigration, which is a worse alternative, nor a Poor Law, which is worst of all, can do more than cause multiplication and misery. Government can administer justice, but humanity is out of its province (*Chr. and Econ. Pol.*, pref. viii.) He speaks of the fallacy of "finding employment" for the poor. People forget that a manufacture is creative of nothing but its own products; the equivalents of these products must come from elsewhere. The benefit of a FOREIGN TRADE, too, lies simply in the article it brings us; the tea trade gives us tea, and if it were abolished we should lose tea, and nothing more (ch. ii. pp. 63, 67, etc.) Chalmers, therefore, thinks lightly of the loss of foreign markets. In his book on *Christian and Economic Polity* (ch. xxii.) he says quite truly "that the worth of that *by* which a thing is done is all derived from the worth of that *for* which the thing is done;" but from that and similar maxims (there and in the *Pol. Econ.*) he argues in a way that would logically lead to the conclusion that it is indifferent to a shopkeeper whether we deal with him or not (see Mill, *Unsettled Questions*, pp. 53 *seq.*) He saw that the importance of the home trade had been under-estimated by statesmen like PITT, who idolized foreign trade; but he went too far in asserting that it was the destruction of British trade that made Britain successful against Napoleon (see *Pol. Econ.*, ch.

viii. p. 264). His own idol is AGRICULTURE, as giving not merely "employment" but "maintenance"; as long as agriculture is unaffected, any stoppage of trade is "only a shift, not a subtraction" (*Chr. and Econ. Pol.*, ch. xxii.) In everything except agriculture there may be over-supply, over-population, and over-supply of capital—too many ploughmen and too many ploughs. If either the "appetite for present indulgence" or the "appetite for future wealth" were to become universal, society would lose its balance (*Pol. Econ.*, ch. iv. p. 127). As population follows food, capital follows openings in business; and, where they fail, *it* becomes *de trop*. Like the PHYSIOCRATS, Chalmers considers that all taxes fall eventually on the net RENT OF LAND, and should therefore be placed there directly, and the landowning class, as they bear all the burdens of the country, should have all the political power. He would maintain PRIMOGENITURE to prevent "infinite subdivision" of lands, and to secure that the ship of state shall not have more sail than ballast (*Pol. Econ.*, ch. xvi.) He assents to repeal of the CORN LAWS and commutation of TITHES; but he thinks the good effects will be transitory, the real causes of distress being over-speculation and over-population (ch. ix. p. 303). He is against the FUNDING SYSTEM, government loans being always, he says, paid twice over by the public, first in the form of high general prices caused by the withdrawal of the capital lent, and afterwards in repayment of the principal to the lenders (*Pol. Econ.*, Append.) Government should raise enough for the year's needs by taxation within the year. Finally, it may be noted that he stands by his order when he refuses to confine the term productive labour to labour that produces material objects, to the exclusion of professional labours like his own.

Perhaps Dr. Chalmers is better known to later economical readers by his phrases than by his doctrines. As he has made current in ethics "the expulsive power of a new affection," so he has given to economics "the margin of cultivation" (*Pol. Econ.*, ch. i. pp. 19, etc.)—"Disposable population" (or non-agricultural), "secondaries" (makers of secondary necessaries), "rotation" (or transfer as opposed to creation of wealth), were less happy; but, as John Mill says, Chalmers has always "the merit of studying phenomena at first hand and expressing them in a language of his own" (Mill, *Pol. Econ.*, i. v. § 7). Mill was specially referring to the explanation given by Chalmers of the rapidity with which a country recovers from a war in which it has been overrun by the enemy. The reason was not to be sought in any mystical *vis medicatrix naturæ*, but simply in the everyday fact that the greater part of CAPITAL, fixed as well as circulating, is being constantly renewed by human efforts year by year, and the stimulus of higher gains than usual will lead to an energetic direction both of the "immediate" and of the "antecedent" labour on the most urgently needed production. "By one revolution of the economic cycle the circulating capital would be nearly restored; and by a few revolutions more the fixed capital would be fully restored, not by the parsimony of successive generations, but by the privations of a few successive seasons" (*Pol. Econ.*, ch. iv. § 13, pp. 140-142). It may be added that our author anticipated Mill in maintaining, against the opinion of Adam Smith, that the STATIONARY STATE of wealth and population might be happier than the progressive (*Pol. Econ.*, vol. xx. ch. xv. § 12, p. 28).

(1) *An Inquiry into the Extent and Stability of National Resources*, 1808.—(2) Vol. vi. *Commercial Discourses* (in Works, published by Collins, Glasgow, twenty-five volumes, 1836-42).—(3) Vol. xiv. to xvi. *On the Christian and Economic Polity of a Nation, more especially with reference to its Large Towns* (an expansion of "*The Christian and Civic Economy of our Large Towns*," 1821).—(4) xvii. *Church and College Establishments* (a defence of endowments against Adam Smith and Turgot).—(5) xix., xx. *On Political Economy in Connection with the Moral State and Moral Prospects of Society*.—(6) xxi. *On the Sufficiency of the Parochial System*.—(7) *Ib. On the Application of Statistics to Moral and Economical Questions*.—(8) Sundry economical articles in *North British Review* ("Corn Laws," "Political Economy of the Bible," "Poor Laws of Scotland," "Savings Banks," "Stirling's Philosophy of Trade," "Political Economy of a Famine"). For criticism, see M'Culloch's *Literature of Political Economy* (1845), and his article on "Chalmers's Pol. Econ." in *Edinburgh Review*, October 1832. J. B.

CHAMBERLAYNE, EDWARD, LL.D. (1616-1703). His reputation rests on his statistical and descriptive work, *Angliæ Notitia*, which went through no fewer than twenty revised editions under his name, and was then (1704) continued by his son John Chamberlayne, the last edition being issued in 1755. It consists of three parts, the first relating to history and general conditions, the second to government, and the last to manners and customs. Chamberlayne's work was the Whitaker's Almanack of the period. Its information is varied and detailed, but only in certain cases are the statistics given available for use at the present time. Such statistics are more frequent in the later issues of the work, where reference is frequently made to the estimates of PETTY, DAVENANT, and KING, though even in the early editions the description of the trades and the economic condition of the people occupies a prominent place.

The Rise and Fall of the Late Favourite of Spain, the Count Olivares, 1632.—*The Present Warre Paralleled: or a Brief Relation of the Five Years' Civil Warres of Henry the Third*, 1647.—*England's wants, or General Propositions probably Beneficial for England, humbly offered to*

the Consideration of all good Patriots, etc., 1667. —*Angliæ Notitia, or the Present State of England*, 1669, also other works, educational and religious.

E. C. K. G.

CHAMBERLEN, HUGH. Hugh Chamberlain, Chamberlin, or Chamberlen (born 1664, died 1728), son of a court physician of the same name, was educated at Trinity College, Cambridge. He devoted himself, like his father, to obstetrics, and is said to have practised in France and Holland before finally building up a professional reputation in his own country. But as early as 1693 he took the field as a financial projector. In that year, after vainly approaching the Scottish parliament on the subject, he induced the English House of Commons (Dec. 1693) to submit his plan for a land bank to a committee, which reported in its favour. No effect, however, was given to its recommendations till 1696 (10th Feb.) when Foley and Harley procured an act in favour of the land bank. William was in need of money for his continental war; and the reform of the currency had brought the Bank of England into difficulties of which the goldsmiths and the country gentlemen were inclined to take full advantage. The Bank of England at its foundation in 1694 had lent to government £1,200,000 at 8 per cent; Chamberlain offered to find more than 2 millions at 7 per cent, the security to be a special salt tax, and the subscribers to be incorporated, in recognised rivalry with the Bank of England, for the lending of money on land securities, at 3 to 4 per cent interest, and with paper issues limited for each year to the total amount of the loan to government. The scheme was vigorously pushed, but the subscriptions were not completed within the date fixed by the act of foundation, and Chamberlain seems to have lost money as well as reputation. He retired to Holland in 1699; and after two fresh attempts, still unsuccessful, to recommend his project to the Scottish parliament (1700, 1705) he seems to have quietly resumed his professional work in England, where he died 1728.

Chamberlain's land bank was open to the general criticism that applies to all schemes for the issue of a paper currency based on land securities;—the securities are not speedily and certainly convertible, and they are not everywhere negotiable. But it had special defects of its own. The security proposed was lamentably inadequate. Its calculations were drawn up on its projector's curious idea that the value of an estate is in direct proportion to the length of time from which an income is derived from it. Chamberlain offered, for example, to give eighty years' purchase for a rent charge of £100 for 100 years, from property in land. The market value of the fee simple in those days would have been about twenty years' purchase, or one-fourth of Chamberlain's estimate.

[Macaulay, *History of England*, ch. xx., xxii.—Thor. Rogers, *First Nine Years of the Bank of England* (Clar. Press, 1887), ch. ii.—Anderson, *Hist. and Chron. Deduction of Commerce*, vol. ii. year 1696.—Macleod (H. D.), *Dictionary of Pol. Econ.*, gives a useful list of his pamphlets (art. "Chamberlain").]

J. B.

CHAMBERS OF AGRICULTURE are, in the United Kingdom, voluntary associations for collecting, maturing, and expressing the opinions of persons engaged in or familiar with agricultural pursuits on public questions concerning the well-being of the agricultural interest. All the chambers now in existence have been formed within the last quarter of a century. Their origin may be traced to the general recognition, in the period 1862-1865, of the want of any adequate machinery for ascertaining the balance of opinion among agriculturists, and, in particular, in the last named year, to the absence of official acquaintance with agricultural conditions, and the helplessness and isolation of the farming classes in the face of the disastrous invasion of cattle plague at that date. The functions of these chambers differ from those of the older farmers' clubs and agricultural societies by including discussions on matters of a distinctly political or economic character. By means of the central chamber in London and the intervention of a representative council, opportunity is given to concentrate and focus the separately expressed views of agriculturists, and, where anything like unanimity is found to prevail, for bringing pressure to bear on the legislature in cases of necessity.

The first formed chamber was the Scottish, in 1864. In organisation it differs somewhat from the English chambers by its membership being more closely restricted to actual tenant-farmers or owners farming their own land. While in corresponding association with the central chamber, its business is independently conducted by means of a board of directors in Edinburgh aided by county committees. The English central chamber was projected by Mr. Charles Clay of Wakefield in 1865, and, since its establishment in 1866, its chairmen, chosen as a rule alternately from different political parties, have been among the most prominent or characteristic leaders of agricultural opinion in parliament. The membership of the central chamber embraces leading agriculturists residing in all parts of England, and includes many peers and M.P.'s. The local chambers for the most part are formed for complete counties. In some instances branch chambers reporting to the county chamber are formed. In others an area less than that of a county is chosen as the district of the chamber where special local or market facilities have established an individuality of agricultural character. Recently, in an increasing number of cases, certain farmers' clubs or societies have

become chambers by adding the special debating functions of a chamber to their primary work, and by affiliating themselves with the central organisation. The membership of all the English chambers, which has been placed at over 12,000 persons, includes landowners, yeomen, and tenant-farmers, and other persons engaged in businesses dependent on agriculture. But the strength and activity of the several local bodies varies very greatly. Some are small, and in others, where the numbers are large, much of the work is left in the hands of standing committees of the more active and intelligent members, owing to the practical difficulty of obtaining largely attended meetings among a community so scattered as the farmers. No chamber possessing less than fifty members is recognised by the central association, and the representatives of some fifty-three active and fully accredited chambers now meet the representatives of the central chamber periodically in London in a body known as the Council of the Central and Associated Chambers of Agriculture. Its deliberations are generally accepted as affording a fair index of the drift of agricultural opinion; —and an enumeration of the more prominent subjects dealt with by this Council in the last twenty-five years, will afford the readiest means of appreciating the class of business—political, social, and economic—coming under discussion by the chambers of agriculture.

Partly from the circumstances above referred to in connection with the origin of the chambers, and partly from the events of recent years, no subject has had a greater prominence than that of the repression of cattle disease. Questions of the regulation of the home trade and traffic in animals, the restriction or stoppage of importation from countries infected with contagious diseases, and the treatment of outbreaks of cattle plague, pleuro-pneumonia, and foot-and-mouth disease have been under frequent consideration, and much of the existing successful legislation on this subject, and the policy adopted by successive governments, as well as the altered position of public opinion generally, has been admittedly due to the initiative and pressure of the agricultural chambers.

The incidence and distribution of taxation in rural districts have naturally furnished another important series of questions for the consideration of the chambers. The incidence of rating, the special burdens falling on land, the relief of localities from the entire cost of obligations imposed for national objects, the improvement of our systems of poor-law relief, of valuation and assessment, the management of highways and main roads, and the reform of local government, have all been largely discussed, and effect given in various instances to the views of the chambers. Questions also of imperial taxation, the adjustment and collection of the income tax, the malt tax, and the beer duties have led to frequent communication between the chambers and the executive government. More recently, and under the pressure of agricultural distress, it has been observed that a disposition exists among some of the local chambers, especially in wheat-growing districts, to raise discussions on the propriety of reverting, in some form, to import duties on competing foreign produce.

The methods for effectively compensating outgoing tenants for the unexhausted value of improvements effected on their farms have been the subject of prolonged inquiries set on foot by practical and experienced committees of the chambers of agriculture, and to these efforts must be ascribed a large share in securing the Agricultural Holdings Acts of 1875 and 1883.

In the last ten years the relations of the railway companies with the agricultural producers have been frequently debated, and legislation has been secured forbidding the preferential railway rates allowed to foreign produce. The chambers have lately been largely occupied in objecting to certain parts of the new schedules of maximum rates proposed by the companies under the revision required by the Act of 1888.

Among the earlier debates of the chambers, the question of amending the game laws was prominent. Legislation in the direction desired was effected in 1880. Various reforms of the existing land laws have furnished topics for debate, especially in the Scottish chambers, while a consolidation of the scattered functions of the government in relation to agriculture has always been a favourite recommendation, and one realised in the new BOARD OF AGRICULTURE (*q.v.*) Apart from the discussion of questions which are more or less matters of controversy, the machinery of the chambers has been used for spreading information on agricultural matters, and in some instances for the promotion of agricultural education and the conduct of practical experiments. P. G. C.

CHAMBERS OF COMMERCE, or at least bodies similarly named, flourished on the continent before their rise is noted in Great Britain. One at Marseilles is reported as existing in the 14th century. Chambers in several of the chief cities of France are mentioned early in the 18th century. It would appear that these bodies were suppressed in France in 1791, but restored by official decree in 1851. The foreign type of chamber has, in its quasi-official character, always differed from the purely voluntary form of association for promoting trade interests, recognised as a chamber in the United Kingdom. One of the earliest chambers here is that of Glasgow 1773. Edinburgh possessed a chamber in 1785, Manchester in 1820, and Hull in 1837. Originally chambers were formed with purely local objects, as the promotion or protection of particular businesses. A federation of individual chambers of commerce for concerted action on common sub-

jects of general interest was, however, suggested at a meeting of the Social Science Association in 1859; in the following year what is now known as the Association of Chambers of Commerce of the United Kingdom held its first annual gathering. The chambers of Belfast, Birmingham, Bradford, Glasgow, Gloucester, Hull, Kendal, Leeds, Liverpool, Norwich, Sheffield, Southampton, Staffordshire potteries, Wolverhampton, and Worcester, took part in this movement, Coventry and Dundee being also in communication with the central body. Some of the larger provincial chambers have not joined or have not continued their association with the central body. Manchester, Liverpool, Glasgow, and Edinburgh thus occupy at present wholly independent positions. But the formation of local chambers and their affiliation with the central association has proceeded rapidly; twenty-seven bodies being thus connected in 1865, forty-six in 1873, and sixty-seven at the present time.

The London chamber of commerce, although one of the most recently formed, and dating only from 1881, is naturally the largest existing chamber, with a membership of over 2800, individuals and firms, and an annual income of £6000. According to a table lately published the entire membership of the chambers of commerce numbered some 12,294 persons, with a disposable income of nearly £20,000. Their size and relative importance, however, vary very greatly. Only six recently possessed as many as 500 members, while eleven chambers had less than 50 members, that of Newark being credited with 18 only, Goole with 25, Birstall with 30. In the case of the larger bodies such as Manchester, Glasgow, and Liverpool, the work of each chamber embraces different interests and is divided into three or four trade sections; the smaller chambers usually exist in towns where there are but one or two prominent trades of which a single general committee can be made fairly representative.

In the case of the London chamber a more general sphere of duties is necessarily entered on than is attempted elsewhere. Besides possessing direct relations with seventeen separate affiliated associations, among which very important special bodies like the institute of bankers, the London corn trade, London timber trade, shipowners' societies, etc., are represented, there are here some twenty organised "trade sections." Separate provision is thus made for the East Indian, the Canadian, the Australian, and the African trades, the metal, textile, provision, and many other groups of businesses. To an extent unknown among the older chambers, the London chamber endeavours to collect and disseminate statistical and other information, and to promote, by the holding of public conferences and lectures by distinguished explorers and others, a knowledge of new openings for foreign trade. The services of the commercial chambers have been made practically useful in cases of mercantile arbitrations. Their advice has been frequently sought on specific points by the government, and at their suggestion much additional information is now obtained from consular representatives abroad and circulated widely.

It may be interesting, however, in further illustration of the range of business, to quote a few of the earliest and of the most recent topics of debate in the biennial meetings which take place of the delegates of these chambers in the central association. But when it is remembered that as many as sixty different topics have been occasionally disposed of, besides purely formal business, at a single three days' meeting of the central association, it will be seen that no enumeration of the functions of these bodies can pretend to be exhaustive. Among the subjects prominently recurring in the earlier years of the association's existence, and still in some form under discussion in 1886, 1887, and 1888, may be named the improvement of the laws of bankruptcy and of partnership, of legal and county court facilities, of the extension of postal and telegraphic facilities, and the bearing of foreign tariffs and consular arrangements on British trade, as well as a numerous group of questions of internal taxation, shipping dues, local tolls, and assessments. Discussion on patent-law reforms, on uniformity of weights and measures, and on tribunals of commerce were perhaps more notable in the earlier years, while debates and suggestions on the regulation of railway charges, on the constitution of a ministry of commerce, or on improvements in parliamentary and private bill procedure, come more frequently under notice in the later years. In the past quarter of a century, during which the machinery of these chambers has been more especially developed, many results of the action of their executive council and of the discussions at their local and central meetings may be traced in the various acts of parliament passed within recent years for the advancement and regulation of commercial interests.

To illustrate the class of subjects with which chambers of commerce actually deal, we may remark that a list of the business transacted under the auspices of the London chamber alone, in the past eight years, embraces the following numerous and varied items:—The Anglo-French Treaty negotiations, affairs in Burmah, Postal and Telegraphic Rates, Coffee Adulteration, Bills of Lading Reform, Bankruptcy Law Reform, the Suez Canal, the Anglo-Spanish Treaty negotiations, the Coal and Wine Dues, Arbitration and Codification of the Laws relating thereto, Dock Charges, the Congo Treaty, Thames Communication, Railway Communication and Extensions in India and the Colonies, Home Railway Rates and Fares, Indo-Chinese Railways as projected by Messrs. Colquhoun & Hallett, the development of South

Africa, the London Corn Dues, Commercial Treaties with Foreign Countries, Sixpenny Telegrams, Colonial and Imperial Federation, Emigration, the Merchant Shipping Bill of 1884, Trade Marks, the preparation of Average,Wages Tables, the questions of the Royal Commission on Depression of Trade (to which the Chamber replied), the organisation of the Congress of Chambers of Commerce of the British Empire (which was carried out by the Chamber), the Colonial and Indian Exhibition of 1886 (in which the West African Court was initiated by the Chamber), the State Guarantee of War Risks, Code Telegraphy, Technical and Commercial Education, Protection from Fire in London and Fire Insurance Rates, Codification of the Factors' Acts, Canadian Preference Claims, Commercial Museums, the Imperial Institute, the Silver Question, the Shop Hours' Regulation Bill, the Baku Petroleum Conference, Decimal Coinage, Post Office Investments, Colonial and International Exhibitions, Income tax, the Japan and Franco-Chinese Treaties, the Merchandise Marks Act, 1887, and the Submarine Telegraph Monopoly.

P. G. C.

CHAMBRE ARDENTE. This name, though most commonly used in relation to occasional tribunals erected in France for the examination of persons accused of heresy or poisoning, was applied to all extraordinary commissions, established outside of the ordinary course of law, for the trial of alleged criminals of whatever kind. Thus the student of the economic history of France will find the title given to the commissions appointed in the reign of Louis XIII., and under the regency, to inquire into the frauds of the farmers of the public revenues and to enforce restitution of their unlawful gains. Accordingly Littré, in his French Dictionary, gives as the more recent meaning of the term "commission nommée pour connaître des malversations de deniers publics, etc."

[See also *Dictionnaire de la Conversation et de la Lecture*, tome xiii., under the head "*Chambre*," and H. Martin's *Histoire de France*, Index, *s.v.*]

J. K. I.

CHAMILLART, Michel de (*b.* 1653, *d.* 1721). After filling several minor positions Chamillart, by favour of Madame de Maintenon, was set in 1695 over the school at Saint Cyr,—then a recognised stepping-stone to high office in the state. Appointed controller-general of finance in 1699, and minister of war in 1701, he combined for seven years the *rôles* which, taken singly, had taxed the respective energies of Colbert and of Louvois. Without aptitude for either office, he wore himself out to little purpose. According to Montyon (*Particularités sur les ministres des finances*, 1812, p. 87), the last argument always appeared to Chamillart the most convincing, so that his studies were filled with unexecuted draughts, referred alternately to their promoters and their critics. The popular songs of the day, probably influenced by the necessity of rhyming his name, represent him as the king's boon companion at billiards—"a hero at billiards, a zero in the ministry," etc. His want of administrative ability was well known to the public, and he frequently appealed to the king to be relieved from burdens which he felt unable to support. But the Grand Monarque, who had said *L'État, c'est moi!* had encouraged Chamillart to assume office by the promise "I will second you," and still flattered himself that he could train a minister or repair his deficiencies. Chamillart was, therefore, retained in office until, in 1708, he resigned the ministry of finance, and a year later, having given umbrage to Madame de Maintenon, was called upon to quit the ministry of war.

Historians are agreed as to the personal probity and amiability of Chamillart, no less than as to his ineptitude. His term of office, however, included a period of seven years' disastrous war, during which desperate expedients were almost forced upon a financier of less than the highest ability. The measures of Chamillart are examined by the judicious Forbonnais (*Recherches et considérations sur les finances de France*, 1758, ii. 104, 109-171), who gives him credit for establishing a special council of commerce to deal with state matters of industry and trade. It was by Chamillart that Boisguillebert was deprived and punished for publishing his *Factum de la France*, 1706.

[For some graphic touches descriptive of Chamillart see the *Mémoires* of his friend St. Simon.—Vuitry, *Le désordre des finances à la fin du règne de Louis XIV.*, 1885, pp. 138 *seq.*, emphasises the ruinous nature of his makeshift finance.]

H. H.

CHAMPART. The right of the feudal lord in many parts of France to receive a fixed share of the tenant's produce. It was collected after the ecclesiastical tithe, and the proportion varied in different districts according to custom or agreement. Sometimes it was a fourth or a fifth, but occasionally it was as little as a twentieth. The lord's share is known by the various names of *champart*, *agrier*, and *terrage*.

R. L.

CHAMPION AND SEVERALTY. The change from champion, or the system of common lands and common cultivation, to severalty was the first act in the history of enclosures, the second act in which took place in the reign of George III. The first period, during which the tendency to enclosure was denoted by the terms used above, consisted chiefly of the reigns of Henry VII., Henry VIII., and Edward VI., though it must not be supposed that it was rigidly confined within these boundaries. Two movements may be detected on a close examination. The first, the turning of arable into pasture land; the second, the "violent inclosure of commins without just recompence of them that have right to commen therein" (Stafford's *Brief Conceipt*, N.S.S., p. 41). But both these move-

ments were denoted by the term enclosure, and it was into their common action that a commission of inquiry was appointed in 2 Edward VI. By enclosure, said John Hales, is meant "when any man hath taken away and enclosed any other man's commons, or hath pulled down houses of husbandry and converted the lands from tillage to pasture" (Strype, *Eccl. Mem.* ii. pt. ii. p. 362, cf. *Brief Conceipt, ut supra*). The nature of the change is not hard to understand. The effect of the BLACK DEATH (*q.v.*) had been to materially accelerate the dissolution of old habits of cultivation and the introduction of a system of pecuniary payment in place of the interchange of dues and privileges. Leases had been granted, and the semi-feudal ties connecting landowners and labourers were snapped. There was another change in progress of importance equal to this. Though towns and hamlets dependent on husbandry were decaying (Strype, *ut supra*, p. 352; Stubbes, *Anatomie of Abuses*, p. 116), the more mercantile communities were rising in wealth. The era of trade and manufacture was opening. We begin to catch glimpses even of the system of concentrated industries (or those organised in large establishments). The effect of this system was, however, felt forcibly only towards the close of the Tudor period. During the earlier reigns, though trade was developing, its progress was not evident enough to be recognised as mitigating the suffering consequent on so great a change as that described. Other causes served to heighten the discontent, while it intensified the real suffering. There was continual debasement of the coinage. Prices were changing, and all prices, *e.g.* the prices of labour and commodities, did not change at the same time, or in the same rate (*v. The Brief Conceipt*). Again, the dissolution of the monasteries left the poor without their most common source of relief. Thus it came about that the change from champion into severalty, while necessarily a source of distress, was but one, though by far the greatest, of several changes leading to social disorganisation. Such is the position to be assigned to it as an influential event of the 16th century.

Viewed in its relation to the after history of England, in connection with the later repetition of the policy of enclosure, its results are important indeed. They may be summarised as follows:—(1) Large ownerships in land encouraged, small ones discouraged; (2) the yeoman class deprived of its importance; (3) consequent tendency on the part of those with small fortunes to occupy themselves in trade rather than in agriculture.

[Harrison, *Description of England.*—Stafford, *Brief Conceipt of English Policy.*—Starkey, *England in the reign of Henry the Eighth.*—Latimer's *Sermons.*—Tusser, *Five hundred points of Husbandry.*—Stubbes, *Anatomie of Abuses.*—Strype, *Ecclesiastical Memorials.*—Nasse, *Ueber die Feldgemeinschaft in England.*—*Report of Select Committee of the House of Commons*, 1844, vol. v.—For a description of the system of common cultivation *v.* Seebohm, *English Village Community.*]

E. C. K. G.

CHANGE. Abbreviation for EXCHANGE (*q.v.*)—(1) The meeting of bankers and merchants for the transaction of business; (2) the place where they meet. In London there are separate exchanges for the various classes of business. The Royal Exchange is used alternately for transactions in foreign bills and for business in drugs and chemicals, and there are, besides the stock exchange, the corn exchange, the metal exchange, the hop exchange, the wool exchange, the coal exchange, etc. The "Commercial Sale Rooms" in Mincing Lane and the "Baltic," though not called exchanges, are used for similar purposes.

This word is also used for small coins, etc., given in exchange for one, or perhaps more, coins or notes, and in the aggregate of similar value: the balance returned in cash when goods of one value are purchased with money of a greater value. One of the advantages of the cheque over coins or notes of specific amounts is that it can have assigned to it any required amount, and that *change* is rendered unnecessary.

E. S.

CHANGE (AGENTS DE)—the official name of the licensed brokers who possess in France the exclusive privilege of negotiating the purchase and sale of public securities. As early as the 16th century the State exercised a control over the business of *courtier* or broker for the exchange of money or merchandise by requiring agents to obtain letters of license. The next step was to limit the number, to exact payment for the monopoly, and to fix the rates of brokerage. At one time the exercise of the office was hereditary. In 1720 the two branches of the profession were separated, the name of *courtier* being reserved for brokers in merchandise, while that of *agent de change* was created for intermediaries in letters of exchange and moneys. A great number of decrees and ordinances regulating the privilege were issued down to the Revolution, when the business of agent de change was made free, but after the re-establishment of order the monopoly was revived, and the privilege was affirmed by art. 76 of the Code de Commerce promulgated in 1807. A law of 1816 fixed the number of *agents de change* in Paris at sixty, and conferred on them the right to nominate their successors, subject to the approval of the corporate body and the Minister of the Interior. As their number has since remained unchanged, the value of the office has increased with the immense expansion of business. The first transfer made was for a premium of £1200, but the purchase price has since risen as high

as £90,000, although it varies with the standing of the holder of the office transferred, the amount of business transacted by the different *agents de change* being very unequal. Sleeping partners generally supply the greater part of the capital, the nominal holder contributing the business qualifications, which are to have been employed not less than four years with an *agent de change*, a banker, or a public notary. Besides the various laws relating to *agents de change*, which were codified by a decree of 7th October 1890, in eighty-four articles, the discipline of the body is exercised by an elected council called the Syndical Chamber, in each town possessing a bourse. Members are forbidden to operate on their own account; they are bound to secrecy as to the parties for whom they are acting, unless with their consent, or the nature of the operation justifies a departure from the rule; they cannot refuse to execute orders, nor can they form associations with each other in the exercise of their profession; they are liable for the regularity of the securities they deliver; and they are bound, by a recent decree, to give receipts for the money or securities they receive. Although not legally obliged, *agents de change*, in Paris at least, guarantee in common the liabilities of their members in their professional engagements, and possess a fund for the purpose. They meet at the close of each market and draw up the official price current for the day. The syndical chamber decides, subject to the approval of the Minister of Finance, on the admission of new securities to official quotation. The number of *agents de change* in Paris, not having been increased since 1816, is quite insufficient for the present volume of business, and they have abandoned dealings in coin and bullion and bills of exchange, which they formerly transacted and which properly belong to them. The same cause has led to the rise of an outside market, unauthorised but tolerated, called the Coulisse (*q.v.*) T. L.

CHAPMAN. A person engaged in trade or commerce; a merchant. Up to the Tudor period it is impossible to discover any distinction in the use of the two words chapman and merchant. Chaucer, *e.g.* in the "Man of Lawe's Tale," and in the "Shipman's Tale," uses the two words indifferently. The returns for the poll-tax of 1379 in the West Riding of Yorkshire show that the chapman is on the whole a less important and wealthy person than the man described as a merchant or mercator, but there is nothing in the documents to show that the "marchand de bees," or cattle dealer of Pontefract, who pays a tax of 2s. is in any superior or different position to his fellow townsman who calls himself a "chapman de bees" and also pays 2s. It is not until the great expansion of commerce in the 15th and 16th centuries that the word chapman is definitely restricted to the small pedlar or retail dealer. The transition is markedly seen in the act 5 & 6 Edward VI. c. 21, in which one of the terms used for pedlar is "petty chapman." By the 17th century the distinction between the chapman or small trader or pedlar and the merchant was firmly established. In modern times chapman is only used as an antiquarian or romantic synonym for merchant, or in certain districts as the local name for pedlar.

Besides this signification of seller or merchant, the word was frequently used in the converse sense of purchaser, a usage still to be found in some dialects.

[*Poll-Tax Returns, West Riding Yorkshire*, Archæological and Topographical Association, 1882.—Chaucer (*c.* 1340-1400), *Canterbury Tales.* —Dr. Murray's *New English Dictionary*, 1890.]

C. G. C.

CHARGING ORDER. Where a judgment has been entered up in any of the superior courts against a person interested in any government stock, funds, annuities, or stock or shares in any public company, a "charging order" may be obtained from the court by the judgment creditor to the effect that such stock, funds, etc., shall be charged with the payment of the amount for which judgment was recovered. The effect of a charging order is to entitle the judgment creditor to all such remedies as he would have been entitled to if such charge had been made in his favour by the judgment debtor.

[Daniel's *Chancery Practice*, 6th ed. London, 1882.—Wilson's *Judicature Acts.*] J. E. C. M.

CHARITABLE FOUNDATIONS. These may be defined as "gifts to a general public use, which extend to the poor as well as to the rich" (Lord Camden). A charity is said to be constituted by "any legitimate dedication of property upon a trust, whether express or implied, capable of permanent duration for the benefit, whether they be rich or poor, of the public, or a class of the public as distinct from individuals" (29th Report of Charity Commissioners, 1882). To such foundations the state has always stood in a peculiar position. It has, in England, maintained that they required especial care, partly because, like infants and lunatics, they are *inopes consilii*, partly because, owing to their permanence, they are liable to every kind of vicissitude, and partly because those who administer them have not that inducement to good management which self-interest gives in private business. This attitude on the part of the state implies two things, *first*, the duty of protecting, *secondly*, the right of controlling. Both of these are necessary that the foundation may be administered and applied to promote the charitable intent of the founder, or as near as may be; which last proviso has given rise to the doctrine of *cy-près* which is set forth in the celebrated Campden case (Law Report, 18 Ch. Div. 310).

The Court of Appeal here laid it down that it is the duty of the state to review the means which the founder of a charity has prescribed for carrying out the general intention of his foundation, whenever those means, by reason of changes which may take place either in the value of the endowment, in the circumstances of the locality or the population for the benefit of which the charity is administered, in the times, in the habits of society, or in the ideas and practices of men, have become unfitted to secure the end which the founder had in view. This position is illustrated by—(1) trusts for apprenticeship, where the end is to give the objects of the charity such an education as will enable them to gain their livelihood in an honest and respectable manner; and (2) doles, a "practice," says Sir G. Jessel, "which should be more honoured in the breach than in the observance," which may be turned into permanent pensions or used for any method of promoting thrift. These objects were originally carried out by the courts of equity, a method of procedure which proved to be irregular, costly, dilatory, and to give great openings for fraud. The state of things became so little satisfactory that in 1818 a commission was appointed, commonly known as Lord Brougham's Commission, to inquire into the state of the charities of England, and sat, with various changes, until 1837. In 1835 and 1849 committees of the House of Commons were appointed to deal with the results of its labours. Ultimately, in 1853, a permanent charity commission was appointed with a twofold aim: viz. (1) to supplement the means provided by founders, where those means were inadequate, to give full effect to the purpose of the foundations; (2) to protect the property of charities against waste and loss, and so preserve it for the purpose to which it had been dedicated by the founders. These objects the commissioners have continued to discharge down to the present time. In the year 1870 the work of the endowed schools commissioners was transferred to the charity commissioners, and in 1883 under a special act of parliament (46 & 47 Vict. c. 36) a department was formed to supervise the administration of the city parochial charities. It was hardly to be expected that the powers of the commissioners could be exercised without a considerable amount of friction and of adverse public criticism. The friction has arisen between the central board and the trustees and other local administrators of charitable funds, but the line between the spheres of the two bodies is clearly marked. It is for the local body to administer the charity, *i.e.* its annual income, the duty of the commissioners is to secure its permanence; they and they only are the judges of all applications of its capital, and of the prescribed mode of giving effect to the objects of the charity. It is enough to say of the criticism that it is not uncommonly the result of ignorance, prejudice and disappointed self-interest, or of a strong local feeling which has for a time obscured the judgment. The total number of charities registered by the commissioners was on 31st December 1889, 31,350, and the funds invested in their name amounted to £14,497,836 in 15,511 accounts.

It is quite clear that whatever be their origin or their aim, charitable foundations will have considerable economical effects. (1) They will determine for long periods of time the employment of considerable amounts of property. In the case of real estate the accumulation in the hands of charitable trustees has been limited by the mortmain acts and by the statute 9 Geo. II. c. 36, but with regard to personal property there is no such limit. (2) The effect of foundations on the habits and character of a population may be very great, as will be best seen by some practical instances. In 1793 George Jarvis left a large property, £100,000 in all, for the benefit of the poor of three parishes in Herefordshire, the united population of which did not exceed 900. The consequences are thus sketched by Mr. Hare of the Charity Commission. "The pauper population increased in ten years upwards of 20 per cent; in twenty years almost 40 per cent; and in thirty years 60 per cent. The cottages became more and more crowded, houses not more than sufficient for one family were divided into two or more, other dwellings were built, some on waste, others on remote spots, with regard to little else than mere shelter. The inhabitants of the country round the parishes, who remember their state some years ago, are uniform in their testimony of the demoralisation of which the poor were by this means made the victims: their mode of existence resembled that alternation of want and repletion which is characteristic of the savage state. Idleness, discontent, and improvidence were found to be the fruits of this ill-conceived and ill-judged gift, to which must be added an immorality of life the results of which are yet distinctly felt." Of the endowed charities of Bristol it is said by the Education Commission of 1861, "these charities, by their operation, are teaching indolence, mendicancy, servility, and falsehood to the poor of Bristol." The judgment of the poor law commissioners of 1834 is thus stated. "In some cases, charitable foundations have a quality of evil peculiar to themselves. The majority of them are distributed among the poor inhabitants of particular parishes and towns. The places intended to be favoured by large charities attract therefore an undue proportion of the poorer classes, who, in the hope of trifling benefits to be obtained without labour, often linger on in spots most unfavourable to the exercise of their industry. Poverty is thus not only collected but created in the very neighbourhood where the benevolent

founders have manifestly expected to make it disappear." These reports, and others of the same nature, suggest the question:—How far it is for the good of a country that the characters of thousands should be at the mercy of one man's folly? By some the answer is made, that all endowments for specific purposes are bad, and that if foundations be recognised at all, they should be determined in their object and method wholly by the state. By others, again, a large increase of the power of interference on the part of a public body, a large discretion as to purpose, and a constant living control are urged. How far this last can be attained is at present very doubtful. In 1869, Mr. Mill wrote, "We have well-nigh seen the last of the superstition which allowed a man who owned a piece of land or sum of money 500 years ago, to make a binding disposition, determining what should be done with it as long as time or the British nation should last," but the anticipation must still be reckoned sanguine. (3) Special effects will be produced by foundations having an educational purpose. Adam Smith in a well-known passage has pointed out that endowments to assist those preparing for the clerical calling had attracted large numbers into it, and so damaged the position and prospects of all (*Wealth of Nations*, bk. i. ch. 10). Other writers have urged that teachers require the stimulus of competition, that students are more productive when their self-interest is involved, that scholarships, bursaries, and the like tend to stereotype lines of study long after they have ceased to be profitable, and give them a great advantage in competing with new and perhaps more valuable subjects. But, on the other hand, it is maintained that by endowments only can variety be ensured, that many subjects could not possibly be studied or taught as a means of gaining a livelihood, that education as a whole cannot be safely left to the action of competition.

[Lord Brougham's Commission, 1837.—H. C. Committee, 1835.—H. C. Committee, 1849.—Charity Commission 1854 onwards (especially 1882).—Endowed Schools Commission, 1861.—Lord Hobhouse, *The Dead Hand*, 1880.—Lord Sherbrooke, *Endowment and Free Trade* (answered in *Macmillan's Magazine*), April 1869.—J. S. Mill, "Endowments," *Fortnightly Review*, April 1869.—R. E. Mitcheson, *Charity Commission Acts*, 1887.—Anon., *On the Principles of Charitable Institutions*, 1834. See also Turgot's article "Fondation" in the French *Encyclopédie*.]

L. R. P.

CHARITABLE INSTITUTIONS. Charitable institutions may be classified in various ways. If distinguished according to their objects, they are designed to give (1) permanent help in old age, in almshouses or by pension; (2) permanent help to the incapacitated, in asylums for lunatics, imbeciles, incurables; (3) temporary relief in homes for convalescents, orphans, cripples, inebriates, hospitals for surgical and medical cases, nurseries for children; (4) educational advantages, in schools for the blind, the deaf, and dumb, for children of all classes and all creeds; (5) miscellaneous forms of help, aids to prisoners, homes to penitents, shelter, drugs, etc. The general supervision of all institutions supported by endowments is in the hands of the charity commissioners (see CHARITABLE FOUNDATIONS); the administration is sometimes carried on by trustees, sometimes by representatives of local councils, etc., sometimes by co-opting boards, sometimes, in the case of those supported by subscriptions, by representatives of the subscribers.

The general principle may be laid down that a charitable institution will be useful in proportion as it is an aid and not an obstacle to self-help. But provision for any one of the above mentioned objects on a large scale may check the spirit of provident foresight and thrift. Asylums for the aged may be multiplied to such an extent as to discourage provision for what is an inevitable contingency in life. Many such institutions, again, run the risk of destroying family life, or at least lessening its usefulness. Not only is it difficult to imagine any public institution for children which is not inferior to their home, but the fact is often forgotten that the aged and the young, even the cripple and the bedridden, have their place and use in family life. Parents and children are taught to undervalue their responsibilities when facilities are given for escaping them. Reckless living and early marriage are often encouraged. It is found almost impossible to establish a provident dispensary in the neighbourhood of a great hospital with its free out-patient system. The existence of institutions may also encourage imposture, for to secure their benefits is the aim of the artificial pauper who lives by writing begging letters. Case after case has come to light in recent years in which the benefits of institutions have been the prey of such impostors to the discouragement of every honest and independent man. Again, vice is often fostered by such institutions. The impression is easily created in men's minds that a certain degree of badness is sure to excite compassion, and so the care of children may be evaded or a retreat secured.

These evils can only be avoided by very careful administration, for which two things are needed.

First.—Watchfulness on the part of the managers. Too often boards and trustees are negligent of their business, leave everything to paid officials, and scandals ensue in the management and in allotting the benefits. In many institutions the regulations as to admission are framed with a view to exclusion rather than selection. In some cases admission is gained only by the votes of subscribers—a system which ensures success to those who have influ-

ential friends, and who are therefore in many cases the least in need of help. This system is defended on the ground that subscribers expect a *quid pro quo*, but the experience of institutions which have abandoned it does not justify the argument. Again, watchfulness is needed to avoid waste in salaries, general expenditure, and advertising, and the proportion of income devoted to working expenses often points to the absence of such care.

Secondly.—Elasticity. The objects of an institution may disappear under changed conditions. Almshouses, *e.g.*, which were once the solution of the problem of housing the poor, are now generally condemned. The class for whose benefit the institution was intended may have ceased to exist. Thus in many cities and boroughs are large endowments for the use of freemen, an entirely different class of persons to-day from those for whom they were originally intended. In all such cases careful reform is needed on the lines of attaining a kindred object to that originally proposed, and the wisest founders are those who leave a complete discretion to posterity.

In general terms it may be said that those institutions are the best which provide (1) for the result of temporary disaster — first-rate medical and surgical skill must always be beyond the reach of the poor, and no amount of foresight on their part can guarantee them such professional aid ; (2) for objects which are beyond attainment, owing to the scale on which they are needed, as for instance, large establishments for technical training, libraries, and museums ; (3) for those deplorable instances of breakdown in old age, due to no fault of the aged themselves, but to dishonesty of others, or a catastrophe beyond human control. But even in these cases it is difficult to overrate the importance of careful administration.

[For the charitable institutions of England, see Reports of Charity Commission.—*Charities Register and Digest*, by the London Charity Organisation Society (1890).—*Essays on the Principles of Charitable Institutions*, anonymous, 1836.—Reports of Charity Boards, etc., in America are published by the various States.] L. R. P.

CHARITY. "In the minds of all ordinary persons charity implies the relief of poverty." Lord Esher in Court of Appeal Q. B. Law Reports, 22 Q.B.D. 296. But how poverty may be relieved is a question beset with difficulties. *First*, it is almost impossible to avoid weakening the motive to exertion. If a thrifty man finds his thriftless neighbour placed by charity in as good a position as that which he has won for himself by his own industry and self-control, a great discouragement is given to thrift. It is easy to multiply instances of this. Towns with largely endowed charities are almost always full of paupers, and a connection may be traced between the two facts. The vagrant class is created and maintained by thoughtless charity ; the out-patient system in hospitals is fatal to medical clubs ; it is found almost impossible to establish a provident in the neighbourhood of a free dispensary. All experience goes to show that men will not make provision for themselves if they know that they can fall back on others. Charity is too often morally as well as economically harmful. *Secondly*, it is difficult to avoid weakening the family tie—parental and filial responsibility. Thus all provision made by charity for the aged will discourage children from doing their duty, the applicants for almshouses and still more for pensions are always in excess of the vacancies ; foundling hospitals increase the number of illegitimate births and of desertions, whilst their abolition is not found, as was feared, to increase child-murder ; facilities given to parents to get rid of their children, on whatever ground—cruelty, neglect, bad surroundings, etc.—will ensure an increasing number of such cases. *Thirdly*, charity, by lowering wages, often inflicts a serious blow on the independent wage-earning class. Persons who are in the receipt of charity are certain, when competing for work, to underbid those who have to live wholly by it ; provision by charity for old age will prevent wages from rising to a point which allows of securing it by the labourer's own efforts ; to transfer employment or to "make work" on charitable grounds is to tax the independent labourer for the benefit of his poorer competitor ; the provision of model-dwellings, etc., by charity at less than cost price attracts crowds of workmen competing for employment. *Lastly*, some miscellaneous evils may be added. Charity often leads to a congestion of population in a favoured district, with all the evil consequences of overcrowding. In country villages the fear of admitting strangers to share in the charities has before now led to intermarriage in a small circle, with disastrous results. Charitable endowments often keep alive useless and sometimes injurious occupations with a view to qualification for their enjoyment,—those which are confined by a religious test become in many cases a premium upon hypocrisy.

The first duty then of those who would relieve poverty without increasing it is that of inquiry into its causes. Poverty may be deserved—the result of non-production from laziness, or reckless consumption, self-indulgence, thriftlessness, etc. ;—or undeserved, being either from general causes—the result of commercial depression, failure of crops, hurricanes, inundations, etc., or from personal misfortune—the result of bodily or mental infirmity. Preliminary inquiry on these points will prevent many of the evils of thoughtless charity. It clears off impostors and prevents charity from being the prey of the idle and dissolute ; it shows that in many cases charity will do no good,

but rather harm, either because the power of recovery is wanting, or because repeated failures show that some such discipline as that of the workhouse is necessary; in other cases it brings to light elements of hopefulness, it shows grounds for thinking that with timely aid independence may be regained. But inquiry does more than this. It not only gives a thorough knowledge of the circumstances of those to be relieved (character, history, opportunities, etc.), but as a result of such knowledge it gives a clue to the best method of relieving. It is to the charitable what diagnosis is to the physician—it shows who can safely be helped and how they can be most helped.

Nothing is more difficult than to formulate methods of charity, *i.e.* of relieving poverty. It may be questioned whether experience has as yet yielded any but negative results, and the constant changes in the conditions of life forbid any hope of finality—thus though the housing of the aged poor has been a problem for centuries, the old solution, viz. the provision of almshouses, is at the present time generally condemned. The following general principles may be laid down—(1) that all charity, to be useful, must be adequate, that is to say it must be sufficient to secure some definite object, or to put the recipient beyond the need of charity. Inadequate charity is worse than useless. The old system of doles illustrated this. People got into debt up to the amount which they anticipated, or not uncommonly wasted the whole in excess. A small sum given to a beggar is just enough to make him go on begging and to give him and others an excuse for doing so. (2) Charity should never be directed to providing the necessaries of life. For those who lack them, viz. the destitute, provision is made by the poor law. Now the poor law embodies in its regulations, etc., the experience of some of the wisest and most skilled in the relief of the poor. It is very dangerous to attempt to relieve destitution without the safeguards which the poor law provides. It is almost as dangerous to attempt to remedy or deal with the ordinary ills of life. Thus sickness and old age are inevitable for all, and it is the duty of all to make provision for them. To relieve people from the responsibility is to weaken self-reliance and self-control, and so in the long run to increase poverty. Charity therefore, when it deals with individuals, should aim at helping those of whom there is good ground for hoping that they may be restored to independence, those whose poverty is inevitable, the blind, dumb, etc., or those who in old age have been defrauded of their savings, or those whose needs are on a scale which is beyond any power of provision—the result of accident or sickness of a kind requiring special knowledge and skill in treatment. (3) The wisest charity is that which does not wait till poverty is a *fait accompli* to relieve it, but aims at removing its causes. In individual cases this work is moral rather than economical, it aims at the formation of character by personal friendship, moral suasion, the creation of opportunities, friendly guidance. Material assistance will be best employed in improving the general conditions of life, and that form of charity is least open to objection, under present circumstances, which does not come into direct contact with individuals at all, but seeks to provide on a large scale the conditions of good living, open spaces, museums, picture galleries, etc., the requisites of culture, bodily and mental.

Any such scheme of charity is clearly beyond the power of the individual to realise; both for inquiry and administration some organisation is needed. The question arises whether this should be the work of the state or left to voluntary bodies. Precedents may be found for almost every possible combination of the two systems. In England the spheres of the state and private charity are distinct. The state undertakes the relief of destitution, leaving poverty to voluntary effort.

[Reports of Charity Commissioners (1833 *seq.*).—Publications of Charity Organisation Society, London.—Defoe, *Giving Alms ... no Charity.*—Walker, *The Original.*—For foreign countries: Twining's *Poor Relief in Foreign Countries*, also Senior, 1835, and blue book, 1875-77.—Schmoller's *Jahrbuch* (series of articles).]

L. R. P.

CHARITY ORGANISATION. Charity organisation is an application of the principle of division of labour to the relief of poverty, with the further object of giving the assistance required by the poor in the manner most beneficial to them, while leading the more prosperous to understand that it is their duty to join in meeting the wants of those in distress. With a limited area and a small population the problems of charity are, by comparison, simple, for the well-to-do know their poorer neighbours, and the conditions under which they live, and so can help them personally. All this is changed in a city with a dense population, a wide separation between rich and poor, a complex social system in which the causes of poverty and its remedies are hard to see; here some organisation among the charitable is needed to ensure greater knowledge, and greater efficiency as a result of knowledge. The knowledge requisite is of two kinds: first, to guarantee that charity is bestowed on fitting objects, and secondly, that it is given in the most useful form. Such knowledge is only to be gained by thorough inquiry, and its value may be shown by examples of the evils caused by ignorant almsgiving. (1) In every community in which charity abounds there will grow up a class of persons who live by it in preference to living by independent work. The

existence and growth of such a class is often the result of ignorance on the part of charitable persons who, whilst striving to mitigate the evils of poverty, increase them by fostering mendicancy, hypocrisy, idleness, and improvidence. In proportion as the charitable act together in some organisation they will avoid creating these mischiefs, for diligent inquiry will prevent the diversion of alms to such recipients. (2) Unless there is some common action among the charitable there is danger of overlapping. Some persons will be assisted by three or four institutions and half a dozen individuals at one and the same time. This danger is greatest when charity is distributed on several different principles, as in England, where we have municipal and parochial charities, charities for members of various religious bodies, trades, and professions, charities for persons suffering from various forms of mental and bodily disease, and the like. Here ignorance of what others are doing causes waste.

It was these evils, amongst others, which the late Edward Denison had in his mind when, in 1869, he gave the impetus which started the London Charity Organisation Society. He desired to establish a union of charities having a registration office in each parish and a central office auditing and controlling the parochial charities. It was to be an organisation of existing charities with a view of checking imposture and waste, and of teaching sound principles in almsgiving; it was not to add another to the sources of help, but to increase the efficiency of those already in existence by their co-ordination. As a result, we have now in London a central committee with district committees in every poor-law union. The central committee does not relieve directly, but aims at propagating sound views on the subject of charity by publication and discussion, promoting co-operation, suggesting new institutions on good principles, collecting information relating to individuals and of general import, and preventing misapplication. The district committees in London, and the sixty-eight affiliated societies in England and Scotland, not only organise, but also administer relief on certain principles. Those principles may be summed up as follows: (1) That all relief should aim at making the recipient independent of relief. (2) That no relief should be given without thorough inquiry and investigation. Quite apart from the detection of impostors mentioned above, inquiry is to the charitable worker what diagnosis is to the physician. Nothing short of thorough knowledge can ensure the discovery of the best means of helping; only thus can we see the germs of hopefulness which it is for charity to develop—the grounds for thinking that restoration to independence is possible. Knowledge of the past is necessary as a guide to the future. In the best societies the term "deserving," as implying that charity should be given on a test of merit in the past, has been dropped. (3) That existing institutions should be utilised as far as possible. Thus a person may be referred to medical or general institutions, to private persons co-operating with the society, to relations or friends; he may also be helped by finding employment, by loan, or a grant from the society's funds. (4) That all relief should be adequate to secure the object with which it is given. If on the one hand organisation prevents overlapping, on the other it secures co-operation—it can bring a number of persons together, and by joint effort do what individuals acting separately cannot. By putting these principles into practice the various societies train workers, promote discussion, and spread knowledge.

The administration of charity in England is bound up with the existence of a poor law (see POOR LAW), and one of the aims of charity organisation is to establish relations with the official forms of relief. It is the duty of the poor-law authorities to relieve destitution, and in administering relief to take into account the amount of destitution and that only. But even among the destitute there are many cases which can be treated far better by the assistance of the charitable than by the poor law,—all those cases, that is, which give ground for hope that independence may be restored. Charity can ensure more thorough inquiry and knowledge; it can induce relations and friends not legally liable to give substantial help; the help which it gives directly is far more elastic, determined by future possibilities rather than by existing needs. Above all, charity can give moral assistance. In many cases, *e.g.* widows left with large families, the poor require not so much material help, as the encouragement and support which sympathy brings (an American society takes as its motto "not alms, but a friend")—these, together with opportunities for work, openings for children, and the like, can be given by charitable volunteers working together, but they are beyond the scope of an official system. It may be said shortly that in many cases charity can restore independence more quickly, more cheaply, with a smaller risk to family affection and self-respect, than the poor law, whilst at the same time it enforces social duties and binds classes together.

The relations between voluntary and state help differ in different countries. In France, the right to relief is recognised only in the cases of lunatics and deserted children, all other relief may be described as organised charity distributed by public bodies. Institutions, such as *Hôpitaux* for the sick, hospices for the aged and infirm, are supported by endowments and voluntary contributions, and managed by unpaid bodies constituted and controlled by the state. The Bureaux de Bienfaisance, consist-

ing of elected and nominated members, the Maire presiding *ex officio*, distribute relief in the communes to the poor at their own homes. The funds which they administer are derived almost wholly from endowments and voluntary contributions, a small proportion only coming from taxation. Inquiry is conducted mainly by sisters of charity, and is very thorough. It is claimed for the French system that it combines the efficiency of voluntary effort with the regularity and consistency of official management; it is objected to it that in practice the relief given is rarely adequate. The value of inquiry is illustrated by the case of Elberfeld in North Germany. Here the prevalence of pauperism induced the authorities to enlist volunteer aid very largely. Relief is now administered by 18 overseers and 252 visitors, to each of whom is entrusted on the average 4 cases; as a result, pauperism of all kinds has largely diminished, able-bodied pauperism has disappeared, thrift and providence have greatly increased.

The difficulties in the way of extending organised charity in the United Kingdom lie first in the absence of strictly binding principles. The reports of the various societies show a great variety both of principle and practice. It is with the greatest difficulty that even the local government board, with its statutory limitations and its official machinery of inspection and audit, can secure even an approach to uniformity in administering poor relief; it would be far more difficult to do so with voluntary, uncontrolled, irresponsible bodies. Secondly, granting a general acceptance of principles, and loyalty to them, a difficulty arises from the scarcity of individuals with the skill and experience necessary to apply them. Charity organisation makes way but slowly in the United Kingdom. Charitable persons and the governors of institutions are unwilling to submit themselves to its discipline, and misinterpret its objects and methods; and yet the best hope for improving the relief of the poor lies in supplementing the poor law by voluntary and organised effort.

[Malthus, *Principle of Population*, bk. iv. ch. x.—Edward Denison, *Letters.*—Charity Organisation Society, Annual Reports and Publications.—Moggridge, *Handbook for Helpers.*—Emminghaus, *Das Armenwesen in Europäischen Staaten* (1870).—Eastwick, *Poor Relief in Different Parts of Europe* (1873).—Aschrott, *Das Armenwesen Englands* (Eng. trans. contains much information as to relations of Poor Law and Charity).—Twining, *Poor Relief in Foreign Countries and Out-door Relief in England* (1889).—C. S. Loch, *Charity Organisation.*—L. Béquet, *Régime et Législation de l'assistance publique et privée en France* (1885).

L. R. P.

CHARITY, STATE. A distinction may be drawn between the supply of the necessaries of life, of the minimum, *i.e.* of food, clothing, and shelter needful to support it, and the supply of sources of comfort over and above these, which technically fall under the head of luxuries, in short, between the relief of destitution and of poverty. The action of the state with regard to the former is determined in this country by the Poor Law (see POOR LAW), we are now concerned with proposals that the state should supply or guarantee certain of the latter. Such action on the part of the state may be conveniently summed up under the head of state charity. The growth of such a theory of the duty or functions of the state is not difficult to trace. The poor-law system guarantees to every citizen the necessaries of life, but the conception of these necessaries is constantly changing. As Ricardo has pointed out, it differs in different countries, and at different times in the same country. In popular parlance the term "necessaries of life" implies a great deal more in this country to-day than it did a hundred years ago. And, as the conception has grown, so, not unnaturally, the state has come to be regarded in some quarters as responsible for all the individual things which are contained in the new conception.

We must distinguish, *in limine*, two kinds of provision made by the state. There are, first, services common to the nation as a whole, which are open to all alike, and of which all avail themselves, of which it is difficult to say that any individual or any class is more benefited by them than any other; as, for instance, the administration of justice, the guarantee of security at home and abroad, the enforcement of contracts, the means of communication, the medium of exchange. There are, also, advantages accruing to certain individuals or certain classes only, which practically are given by one part of the community to another; such at the present time in England would be free education; it would be provided by one section or class for the use and enjoyment of another, whereas in the United States, it is said, the whole population, without distinction, send their children to the common schools. Free libraries might come under either head; picture-galleries under the first; and baths and wash-houses under the second only. Again, a distinction must be drawn between England, where there is a poor law, *i.e.* provision for the destitute, and countries where there is none. The poor-law system in England is practically the outcome of a drastic reform of a system of state charity which was working untold ill, and many of the proposals of modern times, *e.g.* free dinners, may be treated, and indeed would naturally be treated, as part of the poor-law system, and administered under the safeguards which are embodied in that system as the result of a bitter experience. On the other hand, the attitude of a country towards such a question as GOVERN-

MENT INSURANCE (*q.v.*) may be determined by the presence or absence of a poor law, the arguments pro and con will be of a different kind in the two cases, and even the same arguments will have very different weight.

A few instances will show the nature of state charity. I. *Allotments.* All through history we find pressure put upon the state to "find land" for the poorer citizens. At the present time proposals of this kind are common, as, by 50 & 51 Vict. c. 48, the local authority is empowered to purchase land, by compulsory sale if need be, for the purpose of allotments (see ALLOTMENT). Now when the powers granted by this act have been put in force, the question arises as to the terms on which such allotments shall be let, whether at the market value (*a*) as agricultural, or (*b*) as building land, or at any of the thousand-and-one varieties of "fair rent." If they are let at anything under the market rent they come at once under the head of state charity. For the rates then provide for certain citizens advantages which they cannot command for themselves, or, at least, the advantage secured to them from the rates is out of all proportion to their contribution. The question of right—how far, *e.g.*, in country parishes the allotments represent a repair of wrong done by enclosure acts—is outside the economical question which refers to the probable effect of a course of conduct. Now, if a piece of land be let to a labourer at less than its market value, he clearly is benefited to the extent of the difference, in other words, his wages are increased out of the rates. The results of such policy, on a large scale, may be seen in the well-known allowance system. In the long run wages will be lowered by almost exactly the amount of advantage given; in other words, the employer of labour will profit by the fact that a part of his wages bill is paid for him by the whole body of ratepayers. Again, if the experience of the past may be trusted, the results to the labourers themselves will be disastrous (see ALLOWANCE SYSTEM). A practical difficulty arises from the fact that it is almost impossible to ensure that the letting of allotments on easy terms shall not be an engine of political corruption. As it is, the promise to procure cheap allotments is fast becoming a favourite device to catch votes at a parliamentary election. In considering this question we must bear in mind that if an open space be acquired out of the rates and let in allotments at its market-value, no charity is involved. The advantage to the ratepayers of an open space may fairly be set off against the difference of value for agricultural and building purposes, and the opportunity given for open-air exercise, etc., is clear gain to the community. II. *Buildings.* A form of state charity which finds many supporters at the present day is the provision of houses, or sites of houses, for the working classes, by the state. The question involved here is twofold, viz.: (*a*) how far is such action on the whole for the good of the community, and (*b*) how far is it likely to achieve its immediate end. That end, it must be confessed, is most attractive. The moral and economical loss to the nation involved by the conditions under which the poor live—bad air, bad materials, confined space, want of sun, and the consequent habits of ill-health and intemperance—cannot well be overstated. But it must always be borne in mind (1) that an attempt to improve dwellings which is not the result of a rise in the standard of comfort on the part of the occupants is not likely to have a lasting success, though it may foster such a rise; (2) that a supply of houses at less than the market value will not only have the same results as a supply of allotments, but also will attract workmen from other districts, and even other countries, who will increase the pressure upon accommodation; (3) that it is very difficult to confine the benefits of such a system to the class for whom it is intended, with the result, if a different class enjoy them, of increased pressure in other quarters. All these considerations, coupled with the actual experience of success on the part of various joint-stock enterprises, point to the provision of dwellings as a matter which may well be left outside the sphere of state-action. III. Three forms of state charity are so closely connected that they may be considered together. (*a*) *Free Schools.*—Comparatively few writers have maintained that elementary education should be left to private enterprise, and it is probably undertaken or organised by the state in every civilised country. But much controversy has arisen on the point whether it should be given free of charge. On the one hand it is said that if the poor are deprived of their children's earnings by the compulsory system, it is right that at least they should have them taught for nothing; and again that educational endowments have been in very many cases monopolised by the rich, who may fairly make compensation by paying for the education of the poor. With these arguments the economist is not concerned. It is also said to be well worth while, inasmuch as education diminishes crime and pauperism—a statement vigorously denied by some writers, as by Mr. Herbert Spencer; or again, because it increases the efficiency of a nation's labour, by assuring the general education which is a necessary preliminary to a technical one, and, lastly, because it raises a nation's moral tone indirectly if not directly; in short that education is so necessary a condition of civic life, in any real sense, that it cannot be left to the option or power of a parent to provide it. All these arguments, it will be noted, presuppose that education cannot be general or compulsory unless it is free. (*b*) *Free Libraries.*

—Free schools carry with them free libraries, that is to say, if it be worth while to give elementary education, it is also worth while to give the necessary complement, without which the educated youth is turned loose with his mental appetite sharpened and nowhere to graze. No complaint is more common in the country districts than that the effects of elementary education disappear in a few years. It is also argued that the amount of good done is out of all proportion to the cost. It is a striking case, says Prof. Jevons, "of the principle of multiplication of utility." Thus the cost of each issue from the Birmingham Free Library is under twopence. Economically, too, there is a direct advantage. The supply of wholesome literature not only cheers and brightens a workman's life, making him a better producer, but it also helps him to special knowledge. At a free library he learns where his labour is in demand, and so the mobility of labour is increased. He learns also the lessons of history, gets a wider horizon of knowledge, and greater familiarity with the points at issue in trade disputes, etc. (*c*) *Free Dinners.*—Free schools are said also by some to carry free dinners with them. It is useless, and even cruel, it is urged, to force children into school who cannot profit by instruction for want of nourishment, and it is beyond question that in large towns numbers of children come in that condition every day. Now it is the duty of the state to provide the conditions of mental development, of which teaching is only one, and therefore in such cases as the above it is argued that it should provide dinners as in other cases it provides desks. The objections to the provision of education, libraries, and dinners by the state are up to a certain point common to all three. Thus we may say that so far as experience and history are any guide, the only motive which can be trusted to work generally and constantly in making men industrious is self-interest, *i.e.* the desire for necessaries and luxuries. Anything which weakens this motive by supplying the results of industry without its exercise helps to increase the idle class in the community—the least profitable and probably the least happy of all—and so to decrease the amount of production. Again, any measures which guarantee the means of supporting children will, in the long run, diminish providence in the matter of marriage and increase population; in other words, the evils it is sought to cure will grow greater and not less. Now both the training and feeding of children, it is argued, are matters for which persons should make provision, or should see their way to supplying before they marry; and it is unwise to enable them to dispense with such provision. The general contention that free schools weaken or diminish the sense of parental responsibility is met by two special arguments. First, by pointing out that the bulk of the expense of a child's schooling is already borne by other than its parents, and always must be. Subscribers, endowments, voluntary or compulsory rates contribute by far the larger part of the cost of carrying on a school. Consequently free schools present a question of degree rather than of kind. This argument applies only to the special circumstances of England. Secondly, by denying the truth of the statement. In such matters disproof is not easy. We may trace a connection between a motive and a fact, or *vice versâ*, as between the absence of outdoor relief and the strength of family affection in Ireland, but it is hardly possible to demonstrate more than this. It is said, however, that in the United States the strongest sense of responsibility goes hand in hand with free schools, the parents straining every nerve to provide for their children a secondary education, the primary being found for them by the state. Again it may be questioned whether educational endowments have had any such result as the weakening of responsibility on the part of middle-class parents, who, in the main, enjoy them. So again with regard to free libraries. The existence of these is not found to diminish men's zeal for the possession of books; on the contrary, the business of booksellers increases in towns where they are opened. The existence of a state-supported library in the British Museum, or endowed libraries as those of Oxford and Cambridge, is not found to have any bad effect on those who use them. There is no difference in principle between supplying at the public cost rare books and any other—rareness is wholly relative. Libraries stand on the same footing as picture galleries, the provision of which is a recognised function of the state. As to free dinners it may be said, whilst in all countries the provision of education is a state matter, and is never kept wholly to individual effort, etc., the provision of meals is a family or domestic matter. The difference between the two is one of principle, and the supply of food should never be undertaken by the state, except in cases of destitution, when it falls within the province of the poor law. Further, an inquiry conducted in 1889 by the Charity Organisation Society showed that the evil to be met by free dinners was of such small dimensions as to call for no exceptional measures, and that where exceptional measures had been adopted the evil had greatly increased.

The sphere of state action, including state charity, is rarely if ever determined by logical considerations: it is more often the result of historical events. When we ask ourselves the abstract question, how far will the state do more good than harm, or *vice versâ*, by the provision of necessaries or comforts, experience gives no certain answer. The conditions of the problem vary with each succeeding generation and in each country. The answer will depend largely

on a balance of probabilities. How far will industry and thrift be weakened, family life threatened, and human feeling deadened, by state charity? How far, again, is improvement made possible, a higher standard conceived, a progressive desire fostered, by the provision of certain conditions of realising an end in life? L. R. P.

CHARTER. A written document by which the crown, in virtue of its prerogative, confers special privileges on an individual, or group of individuals. The term was at one time applied to conveyances of land, and to measures adopted by the crown by way of legislation. In modern times, the crown's assent to the formation of a corporation, such as a university, a city, a bank, or a trading company, is frequently given by charter. Trading corporations are usually formed under the companies acts, but where these are not applicable, a charter of the crown has sometimes been obtained. The North Borneo Company was incorporated in this way in 1881 (see charter in *London Gazette*, 8th Nov. 1881, pp. 5448-5453). In the charter of this company, it is expressly declared that the grant is not to authorise the setting up of any monopoly of trade, and is to be subject only to customs duties imposed for revenue purposes, and to restrictions on importation similar to those existing in the United Kingdom. Formerly, it was thought that foreign trade could be best promoted by conferring a monopoly of trading with certain countries, and various companies were incorporated by charter with this object. The chief companies so formed were the East India Company, 1600; the South Sea Company, 1711; the African Company, 1618; the Russia Company, 1553; the Eastland Company, 1579, and the Turkey Company, 1593. (See AFRICAN COMPANIES, EARLY.)

[Chitty, in his *Commercial Law*, vol. i. p. 661, gives a concise account of these companies. Adam Smith in *Wealth of Nations*, bk. v. ch. i. discusses the economic effects of such monopolies. The right of the crown to grant a trading monopoly depends on the 21 Jac. I. c. 3, and is discussed in Broom's *Constitutional Law*, 1886, p. 239.] J. E. C. M.

CHARTER PARTY. A document embodying a contract by which a ship or part of a ship is let to a merchant for the conveyance of goods on a determined voyage to one or more places. The instrument expresses the freight to be paid, the tonnage, the nature of the cargo, and other particulars. The merchant usually covenants to load and unload within a specified time, or if he delay the ship for a longer time, to pay a fixed daily sum, which is called demurrage. It frequently happens that the option of a number of ports is given to the consignee (the person to whom the ship is addressed), a certain port or several ports being named in which the master of the ship is to call for orders. E. S.

CHARTISM. The chartist movement was in its origin and its aim economic. It arose out of the economic necessities of the time, and its leaders had before them, as their ultimate object, social and industrial amelioration. To understand fully this aspect of chartism we must study the movement in its two phases: (1) from 1836 to 1839; (2) from 1840 to 1848.

(1) 1836 to 1839. Three circumstances may be regarded as bringing about the chartist movement: the commercial and industrial distress immediately preceding it in time; the introduction of machinery with its effects; and the new poor law of 1834. Various men were of course variously affected by these causes; but their common action was secured by the predominant influence of one man, and the action of another, supported as he was by his colleagues. The influence referred to was that of Robert Owen, who had preached the gospel of optimism and social regeneration when all around seemed overshadowed with a gloomy present and a threatening future, and, further, urged on his followers and all with whom he came in contact, the need of education and moral elevation. It was, however, the action of Lord John Russell that brought into united action bodies so diverse in aim and constitution as the working men's association of London, the Birmingham political union, and the unions of the north, these latter being under the guidance of Feargus O'Connor. Briefly described, the first was educational and moderate, the second unstable, partly desirous of bringing about the adoption of Mr. Attwood's currency scheme, and partly anxious for general industrial amelioration, while the latter formed centres for violent denunciation of the rise of machinery, and of the application of the new poor laws. All, however, hoped to attain their ends by bringing pressure to bear on parliament, itself to be rendered more amenable by a further extension of the franchise; and hence Lord John Russell's declaration against all further reform united them together and led to the formation of the national convention. The task to which this body devoted itself was mainly political, and to attain its object recourse was had first to menaces and then to open revolt. The former were disregarded and the latter was suppressed. Meantime, however, in the northern unions an almost socialistic attitude had been taken by some of the leaders. Throughout the entire movement, indeed, there had been symptoms that many were thinking of and aiming at an entire social reconstruction.

(2) 1840 to 1848. The second phase of chartism differed essentially from the first. It was of smaller account in every way but one. Its strength was less, its adherents fewer, its organisation less stable; but the views of its leaders were much more advanced. In theory, Bronterre O'Brien stood far ahead of any other. He was

socialistic in his aims, but, unlike some of his associates, he did not confuse socialism and industrial retrogression. His schemes were, it is true, somewhat immature, but he may be described as feeling about for a new social organisation. Feargus O'Connor, on the other hand, was neither so consistent nor so advanced in his aims. Thus at one time he was advocating the claims of the "National Charter Association," for so the organisation of the chartists was called, while at another, in defiance of the advice of his associates, he advocated a new scheme for bringing the people into connection with the land. In opposing the Anti-Corn Law League, it should be noticed, however, that he based his antagonism on the need which he alleged to exist of general social reconstruction (see especially speech, 5th August 1844). But the direct effect of the agitation at this period was small. Discussions among the leaders and mutual accusations "of interested motives" diminished their following, and it was to little or no purpose that O'Connor sought to win them back by his apparent advocacy of their interests in a periodical called *Labour*, or by his national land scheme. The latter, as a matter of fact, was financially unsound. The movement failed. That the leaders were really in earnest in their agitation is probable from the circumstances which have been alluded to, as also from their decided refusal to form any alliance with the middle class, or capitalist, reformers of Birmingham.

In its two phases, then, chartism was of economic importance. During the earlier period it aimed at economic regeneration; during the second, it not only aimed at this, but assumed a socialistic character.

[*Historical Review*, October 1889.—Gammage, *History of the Chartist Movement*.—Place, *MSS.*—*Northern Star* and other papers.] E. C. K. G.

CHARTISM. THE POINTS OF THE CHARTER. The Charter itself was a document in the form of an act of parliament, drafted by Francis Place from materials supplied by William Lovett. Its proposals were always summed up under six heads or "points," viz. Universal, *i.e.* adult male, Suffrage, the Ballot, Annual Parliaments, Payment of Members, Equal Electoral Districts, and Abolition of Property Qualification. No one of these proposals was in any sense new, and the great majority of them had been continuously agitated for more than fifty years. The Duke of Richmond introduced a proposal for adult suffrage and equal electoral districts into the House of Lords in 1780. All or nearly all the charter "points" were adopted by the Society of the Friends of the People, and the Corresponding Society in the earlier years of the French Revolution, and by that Edinburgh Convention for taking part in which Muir and Palmer were sentenced in 1793. The "points" were generally spoken of as the Duke of Richmond's, or Sir Francis Burdett's, or Major Cartwright's "plan of radical reform," and were undisguisedly intended by all their working class supporters to be used for bringing about economic as well as political equality. During the ten years following the French war every period of high prices and low wages produced a fierce agitation for "radical reform" in the manufacturing districts and sometimes also in London. In 1830-32 the "plan" was for a time given up in favour of the Reform Bill, but in London amendments in favour of universal suffrage were carried at the public meetings held in support of Lord Grey's bill. These were generally moved by members of the "Rotunda Gang," or National Union of the Working Classes, many of whom had been personal disciples of Robert Owen. The reformers of 1790-1820 had advocated Tom Paine's proposal of a graduated income tax, or had been followers of "Spence's plan" of land municipalisation. These men went further, and were strongly though vaguely socialistic in tone. Place describes them as "filled with bitter notions of animosity against everybody who did not concur in the absurd notions they entertained, that everything which was produced belonged to those who by their labour produced it, and ought to be shared among them; that there ought to be no accumulation of capital in the hands of any one to enable him to employ others as labourers, and thus by becoming a *master* make slaves of others under the name of workmen, to take from them the produce of their labour, to maintain themselves in idleness and luxury while their slaves were ground down to the earth or left to starve. They denounced every one who dissented from these notions as a *political economist* under which appellation was included the notion of a bitter foe to the working classes — enemies who deserved no mercy at their hands."

Place also gives a good specimen of their teaching in a song published about this time—

"Wages should form the price of goods,
Yes, wages should be all;
Then we who work to make the goods
Should justly have them all.
But, if the price be made of rent,
Tithes, taxes, profits all,
Then we who work to make the goods
Shall have—just none at all."

From among these men came Lovett, Cleave, Hetherington, and others who were afterwards leaders of the Chartist movement. It is significant that their organisation was called successively the "British Association for Co-operative Knowledge" (*i.e.* of Robert Owen's principles) in 1829; "The Metropolitan Trades Union" in 1830, when one of their declared objects was to "enhance the value of labour by diminishing the hours of employment," and "The National Union of the Working Classes," for nominally political purposes, in 1831.

After the complete failure of the chartist movement in 1848, working-class reformers generally returned to the work of co-operation and trades-unionism, so that the economic side of the agitation which carried the Reform Bills of 1867 and 1884 was not so apparent as the political side. But the bill of 1867 was opposed on economic grounds by Robert Lowe (afterwards Lord Sherbrooke), Lord Shaftesbury, and others. Lord Shaftesbury on that occasion said:—"I am sure that a large proportion of the working classes have a deep and solemn conviction—and I have found it among working people of religious views—that property is not distributed as property ought to be; that some checks ought to be kept on the accumulation of property in single hands; that to take away, by a legislative enactment, that which is in excess, with a view to bestow it on those who have insufficient means, is not a breach of any law, human or divine."

[Authorities as above, and William Lovett's *Autobiography*.—Bamford's *Life of a Radical*.—*The Annual Register*, and Hansard's *Parliamentary Debates*.—Scribner's *Century Magazine*, January 1882.] G. W.

CHASTELLUX, François Jean, Marquis de, born at Paris 1734, died 1788. By profession a soldier, he was received, 1755, into the *Académie française*, a distinction which he owed to the success of his principal work, *De la félicité publique ou considérations sur le sort des hommes dans les différentes époques de l'histoire* (1st ed. 1772, 2 vols. in 8vo; 2d ed. 1776, 2 vols. in 8vo; 3d ed. 1822, 2 vols. in 8vo, with notes by Voltaire). This work, if out of date in form, is yet full of ideas which would do no discredit to a book of our own times. In particular he discussed the question of the population a quarter of a century earlier than Malthus, and from the same point of view as that distinguished economist. A. C. F.

CHATTEL or Chattel Personal. Any movable thing which can be part of a person's property. The expression "chattels real" is applied to interests in land granted for a fixed number of years, as, for instance, leasehold interests. Chattels real are thus classed with ordinary chattels (with which they have otherwise nothing in common), because after the death of an intestate owner the devolution is in both cases the same, while the descent of immovable freehold property is regulated in a different manner. This somewhat anomalous and artificial distinction may soon disappear and the expression "chattels real" will then, no doubt, become obsolete. E. S.

CHECKS on Population. According to the theory of Malthus (*q.v.*), population invariably increases when the means of subsistence increase unless prevented by some *powerful and obvious checks*. These checks, and the checks which repress the superior power of population and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice, and misery. These checks are classified as preventive and positive; by the former the birth-rate is diminished, by the latter the death-rate is increased. Personally Malthus was the strongest supporter of moral restraint as exemplified in late and provident marriages, and he makes no mention even of those physical checks with which, in the present day, his name is often associated (*e.g.* by the late Mr. Bradlaugh).

[Malthus, *Essay on Population*.—Doubleday's *True Theory of Population*, London, 1846.—Bonar, *Malthus and his Work*.] J. S. N.

CHEQUES, Law of. The law relating to cheques is now mainly contained in §§ 73 to 82 of the Bills of Exchange Act 1882 (45 & 46 Vict. c. 61), which codifies the law relating to bills, notes, and cheques. A cheque may be described as an order by a customer to his banker to pay on demand a given sum of money to, or to the order of, a specified person, or to bearer. Its strict legal definition is contained in § 73 of the act, and is as follows: "A cheque is a bill of exchange drawn on a banker payable on demand." The section then goes on to enact that, subject to the special rules contained in §§ 74 to 82, the provisions of the act applicable to bills payable on demand shall apply to cheques. It follows from this enactment that the paying banker is not bound to verify the indorsements on a cheque (§ 60), though he pays at his own risk if the drawer's signature be forged; that a cheque is not entitled to days of grace (§ 14); that the expenses of noting a dishonoured cheque are recoverable (§ 57); and that notice of dishonour must be given to the drawer and indorsers unless excused under § 50 of the Act. A cheque should be stamped with a penny stamp in the same manner as any other bill payable on demand.

When a banker opens an account with a customer the relationship between them is that of debtor and creditor, with a superadded obligation on the part of the banker to honour his customer's cheques as long as there is sufficient money to his credit to meet them. The right to overdraw only arises from special agreement. A banker's authority to pay his customer's cheques may be determined by countermand of payment, by notice of the customer's death, or that he has committed an actual act of bankruptcy, or by the fact that a receiving order has been made against him. If a banker wrongfully dishonours his customer's cheque, he is liable to the customer in an action for damages, and it has been said that the smaller the cheque the greater the wrong, inasmuch as it implies a greater reflection on the customer's credit. The holder of a cheque which is wrongfully dishonoured has no remedy against the banker, for there is no privity of contract

between them, and a cheque, being a bill of exchange, does not, according to English law, operate as an assignment of the funds in the banker's hands, even though it be drawn for the exact amount of the customer's balance (see, however, § 53 as to Scotland).

Though a cheque is an instrument intended for prompt presentment, the drawer, in case of delay, is not relieved from his obligation to the holder unless he suffers actual damage through the delay, as, for instance, through the failure of the bank on which the cheque was drawn. In such case the drawer is discharged to the extent that he has been damnified, but the holder is allowed to take the drawer's place in proving against the bank (§ 74).

Crossed Cheques. The practice of crossing cheques first received legislative recognition by the statute 19 & 20 Vict. c. 25. This act was amended by the 21 & 22 Vict. c. 79, in consequence of a decision to the effect that the crossing was not an integral part of the cheque. In a case decided in 1875 it was held that if a crossed cheque was stolen and got into the hands of a *bona fide* holder, the true owner had no remedy, even though the cheque was paid in contravention of the crossing directions. To meet this defect the Crossed Cheques Act 1876 was passed, which introduced the "not negotiable" crossing. These enactments are now repealed, and §§ 75 to 82 of the Bills of Exchange Act take their place.

A cheque may be crossed either generally or specially. A general crossing makes it payable only when presented through a bank, but any bank will do. A special crossing names the bank by which the cheque must be presented. A cheque may be crossed either by the drawer or by the holder, and the holder may convert a general crossing into a special crossing. When a cheque is crossed specially the banker to whom it is crossed may again cross it specially to another banker for collection, but a cheque must not otherwise bear two crossings. A collecting banker is also allowed to cross to himself an uncrossed or generally crossed cheque. If a crossed cheque be paid contrary to the directions of the crossing, the paying banker is liable to the true owner for any loss he may sustain thereby. A cheque which is crossed either generally or specially may further be crossed with the words "not negotiable." These words are a little misleading. They do not mean that the cheque is no longer transferable. The cheque may be transferred as before, but the person who takes it with these words on it does not obtain, and is not capable of giving, any better title to the cheque than that which the person from whom he took it had. A cheque so crossed is very much on the same footing as an overdue bill of exchange. Suppose a cheque payable to bearer and crossed "not negotiable" is stolen. The thief gets a tradesman to cash it for him, and the tradesman passes the cheque through his bank and gets it paid. The paying and collecting banks would incur no liability if they obeyed the directions of the crossing, but the tradesman would be liable to refund the money to the true owner; or again, assuming payment of the cheque to have been stopped, he could not sue the drawer. For further information as to cheques, see the headings Bill of Exchange; Clearing System; Dividend Warrant.

M. D. C.

CHERBULIEZ, Antoine Élysée, born at Geneva 1797, died at Zurich 1869. Originally a barrister, then a magistrate, he replaced Rossi, 1833, at the academy of Geneva as professor of law (*droit*), and, 1835, as professor of political economy. His first works were political, as he was a member of the legislature of the canton from 1831 to 1846, then of the representative council, and finally of the general assembly and great council up to 1848. His political works are *Théorie des garanties constitutionnelles* (2 vols. in 8vo, 1839); *Études sur la loi électorale de 1831* (in 8vo, 1840); finally, *De la Démocratie en Suisse* (2 vols. in 8vo, 1845). But it was especially as an economist that he made his mark, and his works on this branch of study are much valued. By 1840 he published *Riche ou Pauvre, exposition succincte des causes et des effets de la distribution actuelle des richesses sociales* (in 8vo). Then after 1848, the date when he fixed himself in France, *Le socialisme c'est la barbarie*, an examination of the social questions raised by the revolution of 24th February 1848 (in 8vo, 1848). *Simples notions de l'ordre social*, for the use of every one (in 18mo, 1848). *Le potage à la tortue*, popular conversations on social questions (in 18mo, 1849). Finally *Étude sur les causes de la misère tant morale que physique*, and on the means of remedying them (1 vol. in 8vo, 1853). He was a very active member of the Political Economy Society. He returned to Switzerland at the time of the *coup d'état* of 1851, and was immediately appointed to the chair of political economy at Zurich at the polytechnic federal school of Switzerland. It was while thus engaged (in 1862) that Cherbuliez wrote his most important work—*Précis de la science économique et de ses principales applications* (2 vols. in 8vo); the value of which was recognised by the institute of France, and led to his election as a corresponding member. Cherbuliez also assisted in the preparation of the *Bibliothèque universelle de Genève* in which, and in the *Journal des Économistes*, he wrote numerous articles. A. C. f.

CHEVAGE. The use of this word in mediæval documents is a little vague, and in consequence the exact sense in which it is employed is not always clear. Bracton, at page 48 of vol. i., describes chevage as a fixed payment to the lord made at fixed times by "nativi" or

bondmen who are engaged in trade, or as soldiers, or who, from any other reason, have ceased to reside on the lord's manor ; this payment is "made as a sign of subjection," and "so long as the bondmen pay chevage they are said to be in the power of the lord, nor is his power destroyed," even though they cease to reside on the manor. Britton, bk. i. c. 32, gives a slightly different account but does not define chevage. He says "that in order that the lord may retain his power over his bondmen, it is only necessary that he be in possession of their services, so that he may take services from their holdings, and from those who hold no land in villenage may take a penny a year of 'chefage' and a day's work in harvest time, or other little or great service according to their ability." It is clear from this passage that chevage was a payment made by a man of villein status, who was for some reason not in the ordinary position of a villein, and that it was made either in return for the privilege of being allowed to reside off the manor, or merely as a recognition of the fact that, although he had no holding in the manor like other villeins, he was nevertheless one of the lord's bondmen. An instance of the first kind of chevage can be found in the account of the manor of Ansty for the year 2 & 3 Henry IV., which is printed at page 521 of Cunningham's *Growth of English History and Commerce*, ed. 1890. The amount paid for licence to leave the manor for a time is one shilling in one case, and sixpence in another. But in many manorial accounts an entry can be found of the chevage of a whole manor, and it is probable that if this meant a payment for leave to remain off the manor, the name of the person making the payment would have been given. It is not possible to speak definitely on the point. Britton clearly suggests the existence of a class of villeins outside the land organisation of the manor, and, from a comparison of his account with Bracton's, it would appear that the class of villeins not included in the manor as landholders grew up in the time which elapsed between the two writers.

In the court rolls of some manors the word occurs in yet another sense. Strictly speaking all the villein tenants of a manor were bound to appear at the manorial court to assist in the decision of the matters discussed there. But in some manors a kind of representative system was in use, under which each tithing or group of tenants was represented at the court by its chief man ; and for this privilege of attending the manor court by deputy a payment at the opening of each court was made to the lord ; to which the name of chevage is sometimes given.

For instance in the court roll of the manor of Hemingford printed at page 88 of Prof. Maitland's *Select Pleas of Manorial Courts*, the persons who attend the court give as chevage 13s. 4d. Other instances of this payment are given in the same book. The poll-tax paid by the Jews before their expulsion from England was sometimes also called chevage.

[Bracton, *De Legibus Angliæ* (Rolls Series, 1878).—Britton, edited by F. M. Nicholls, 1865. —*Select Pleas in Manorial Courts*, vol. i. edited by F. M. Maitland (Selden Society), 1888.—*Growth of English Industry and Commerce*, Cunningham, 1890.]

C. G. C.

CHEVALIER, MICHEL, born at Limoges 1806, died at the Château de Montplaisir near Lodève (Hérault) 1879. Having distinguished himself at the polytechnic school, he commenced life in the *département du nord* as a mining engineer, a post which he gave up in 1829 to join SAINT-SIMONISM (*q.v.*) His style, the brilliancy of which was early recognised, won for him the position of editor-in-chief of the *Globe*, the organ of that school of socialism of which he rapidly became one of the most active and influential members. Faithful, through the troubles which ensued, to the Saint-Simonian faith, he was condemned, 28th August 1832, to a year's imprisonment and one hundred francs (£4) fine, as the responsible agent of the *Globe*, in which articles appeared which were accused of being outrages on public morality. His intentions were worthy, and his habits of life more strict than appearances would have led the world to suppose ; hence the government itself, which discovered at this time M. Chevalier's abilities, remitted half the penalty, and also entrusted to him the mission of studying the railways of the United States. It is enough to say of the labours of our economist in this direction that in a memoir entitled the *Système de la Méditerranée* (1832, in 8vo), he foresaw with rare intelligence the future of these new methods of communication. He sent from America to the *Journal des Débats*, which had taken him on its staff even while he was in prison, articles which, published in two volumes, furnish a collection of the highest value, even after the lapse of fifty years — the *Lettres sur l'Amérique du nord* (2 vols. in 8vo, 1836). He commenced also at this date to write in the *Revue des Deux Mondes*. Soon after his return from America he published, as the result of his mission, the *Histoire et Description des voies de communication aux États-Unis et des Travaux qui en dépendent* (1840, 2 vols. in 4to), with an atlas in folio.

His pen, from this date, was able to render all the subjects which it treated interesting ; but his judgment, especially on its economic side, only formed itself into shape gradually. The successive stages through which he passed are all the more obvious in his writings, as with a rare sincerity, he never sought to cloak them from view. A volume in 18mo, *Des Intérêts matériels en France*,—on public works, roads, canals, railways,—appeared in 1838, bringing

into one series those articles of his which had appeared before on these different subjects. M. Chevalier intended to have completed this volume, which put forward a kind of economic programme, by adding to it two other parts; credit institutions and those which supply professional education. This idea, unfortunately, was never realised. Devoted to peace, he opposed, in a pamphlet addressed to M. Molé, the fortifications of Paris. He replaced, 1841, Rossi at the Collège de France in the chair of political economy. The lectures of the two first years, taken down in shorthand by one of his pupils, Michel Broët, form the material of two volumes in 8vo, which appeared in 1842 and 1844 (1st ed.), and in 1855 and 1856 (2d ed.) One can see, by reading each volume alternatively in the first and the second editions, what the modifications were which the judgment of the author passed through, gradually and almost unconsciously, as the years of his professional work went by.

Thus, to quote only one example, freedom of competition at first inspired him with alarm, and caused him to advocate reservations, the necessity of which he no longer felt in 1855 and 1856. We may add that in 1850 a third volume of his lectures appeared, of which a second edition was published in 1866. The subject was *La Monnaie;* the work is full of technical details of the highest interest, and written with a masterly hand. In 1845 he was elected a deputy by the department of l'Aveyron; but his resolute acceptance of the principle of free trade hindered him from being re-elected the next year.

The Revolution of 1848, which Chevalier submitted to rather than joined, found him none the less disposed to combat courageously, step by step, the socialistic errors which triumphed at the Luxembourg in the *Commission du gouvernement pour les travailleurs*, presided over by Louis Blanc. He wrote at that time in the *Journal des Débats* a series of letters called *Lettres sur l'organisation du travail*, which, collected under this title, form a stout volume in 18mo. This and the *Lettres sur l'Amérique du nord*, may be considered as the most characteristic and remarkable works of this author. The result of the appearance of these letters, written off-hand, and under the pressure of the events which were happening around him, was a decree from the government suspending him from lecturing at the Collège de France. The *Assemblée constituante* annulled this decree the December following, and Michel Chevalier was able to return to his chair.

The Institut (*Académie des Sciences morales et politiques*) opened its doors to him February 1851. At the end of that year he gave in his adhesion to the government of the *Coup d'état*, following in this rather his judgment than his inclination. He believed liberty to be more in peril under the class of parliamentary government of which he had seen the working, than under a personal government. Called to the council of state February 1852, he had to ask for a substitute to give in his stead his course of lectures at the Collège de France. It was M. Henri Baudrillart who undertook this duty for him. At the same date M. Chevalier published the *Examen du système commercial connu sous le nom de système protecteur* (in 8vo.), a work in which protectionism was demolished completely, and the advantage of commercial liberty shown.

Immediately after this he rendered the last-named cause a service of a very different character. Holding as he did the same opinions as Richard Cobden, whom he presented in 1859 to the emperor, he induced Napoleon III. to sign the famous commercial treaty with England of 23d January 1860, which was the precursor of the French treaty of 1861 with Belgium, of 1862 with the Zollverein, of 1863 with Italy, of 1864 with Switzerland, of 1865 with Sweden and Norway, the free cities of Bremen, Lubeck, and Hamburg, and the grand-duchies of Mecklenburg-Schwerin, Strelitz, and Holland, of 1866 with Portugal, then with Austria, and finally of 1866 with the pontifical states. These treaties introduced, so to say, free trade into the public international law of Europe. But this system is at the present time destroyed in France, where protectionism has struck its roots afresh, and causes all consumers to pay toll for the advantage of the privileged producers.

In 1859 Michel Chevalier published a new volume with the significant title, *De la baisse probable de l'or* (in 8vo). It was translated into English by Cobden in the same year. Facts, as is well known, have shown he was wrong in his opinion on this point.

He strove later against Louis Wolowski in favour of the single standard (gold, this time) against the system of a double standard combined with a fixed ratio. The question of the banks became also in his hands the occasion for a vigorous contest. Wolowski strove for the unity of banks, Michel Chevalier for their duality (1864). He resumed his duties as professor in 1866, and carried them on till 1878, when he took afresh a coadjutor, this time one of his sons-in-law, M. Paul Leroy-Beaulieu, who was destined, after his death, to become his successor.

A strong supporter of exhibitions, especially of universal exhibitions, he wrote a brilliant introduction, in 8vo, to the reports of several juries of the magnificent industrial and international *fête* which took place at Paris in 1867.

This economist, though his natural predilections for the less rigid side of economic science were too strongly marked, is justly reckoned,

on account of his strictly scientific exactness, his brilliant style, and the depth of his views, among the highest of his class in France. His pen was most fertile, but we have only thought it needful to enumerate above his chief works.

A. C. f.

CHICKERING, JESSE, M.D., born in New Hampshire 1797 ; entered the Unitarian ministry, then practised medicine, and died in West Roxbury, Massachusetts, 1855. He was interested in statistical inquiries and published *A Statistical View of the Population of Massachusetts, from 1765 to 1840*, Boston, 1846, pp. 160 ;—*Immigration into the United States*, Boston, 1848, pp. 94, in which he questions whether too much encouragement has not been given to immigration to the United States ; and also *Comparative View of the Population of Boston in 1850, with the Births, Marriages, and Deaths, in 1849 and 1850*, Boston, 1851, pp. 7-58.

D. R. D.

CHIEF RENT. See RENT CHARGE.

CHILD, SIR JOSIAH (born 1630, died 1699), the chairman, and virtually the ruler, of the East India Company for some years. He aimed at aggrandising the Company by extending its political power, and restraining competition with its trade. Several anonymous writings in defence of the Company are attributed to Child. Under the sobriquet *φιλοπάτρις* (*sic*) (1681) he maintains that "the clamours, aspersions, and objections made against the present East India Company are sinister, selfish, or groundless." While contending that "the trade of the East Indies cannot be carried on to a national advantage in any other way than by a joint stock," he enumerates many enlightened principles, as that "silver and gold, coined or uncoined, though they are used as a measure of all other things, are no less a commodity than wine, oil, tobacco, cloth, or stuff, and may in many cases be exported as much to national advantage as any other commodity. That no nation ever was or will be considerable in trade that prohibits the export of bullion." In the *Humble Answer of the Governor . . .* to a *Paper of Propositions for Regulation of the East India Company . . .* (Somers's *Collection of Tracts*, vol. iii.), "the great monopolist," as Macaulay says, "took his stand on the principle of free trade."

Similar antinomies, as they appear to our age, are noticeable in Child's principal work, the *Discourse upon Trade*. He asserts the principle of competition, the law of market, thus unequivocally: "They that can give the best price for a commodity shall never fail to have it, by one means or another, notwithstanding the opposition of any laws, or interposition of any power by sea or land ; of such force, subtlety, and violence is the general course of trade" (chap. viii.) Yet the panacea, the "unum magnum," which is recommended is a legalised rate of interest. Child admits, with regard to the navigation laws, that unrestricted commerce might be best "if the present profit of the generality be barely and singly considered" ; but holds that "profit and power ought joyntly to be considered" (chap. iv.) (This was also his contention.) He considers that the doctrine of the balance of trade does not apply to the trade with East India, "both in point of strength and warlike provisions, in regard of shipping and saltpetre, but [and] also in respect of the furtherance it gives to many other trades," by means of which England regains more specie than the company exports (chap. ix.) But the trade with Venice in "currance purchased with our ready money" is to be discouraged. "Concerning plantations" (chap. x.), Child argues, in a manner worthy of Malthus, that the colonies have not caused the depopulation of the kingdom. It is a more disputable proposition that "most nations in the civilised parts of the world are more or less rich or poor proportionable to the paucity or plenty of their people." Equally instructive is Child's scheme for the relief and employment of the poor (chap. ii.) There is a spirited criticism of this scheme in Eden's *State of the Poor*.

The first draft of this work was published in 1668. The original title appears to have been *Brief Observations Concerning Trade and Interest of Money* (British Museum Library $\frac{1029.b.1}{2}$). This tract was reissued in a later edition, together with a preface and ten additional chapters ; the whole work being designated by the title *The New Discourse of Trade*.

[Macaulay's *History of England*, vol. iv.—R. Grant's *Sketch of the History of the East India Company*.—Macpherson's *History of Commerce*, vol. ii.]

F. Y. E.

CHILDREN'S LABOUR (FACTORY ACTS). Few records exist anterior to the rise of the factory system which throw light upon the conditions attending the labour of children. Lord Macaulay (*History of England*, ch. iii.), states that in the 17th century, the practice of setting children to work prematurely existed "to an extent which, when compared with the extent of the manufacturing system, seems almost incredible. At Norwich, the chief seat of the clothing trade, a little creature of six years old was thought fit to labour." In 1677, a Worcestershire ironmaster, Andrew Yarranton, published a pamphlet entitled "England's Improvement by Land and Sea," in which the schools then existing "in all the towns of Germany," for the purpose of training girls in the art of spinning linen, are described. Children of six years old and upwards were, sometimes to the number of two hundred in a single room, systematically employed in this industry, producing large quantities of excellent yarn. The writer urged that efforts should be made to follow the German plan in England, especially in the counties of Warwick, Leicester,

Northampton and Oxford. His advice was, however, not adopted. About the beginning of the 17th century the manufacture of lace by machinery was introduced into this country by refugees from the Continent. In Bedfordshire and Buckinghamshire, schools were established for teaching the art to young children (Felkin's *History of Machine-Wrought Hosiery and Lace Manufactures*, 1867). But throughout the greater part of that century the manufacture of textile fabrics was mainly a domestic industry, and the children of the household were compelled to labour long and hard. Dr. Cooke Taylor (*Silk, Cotton, and Woollen Manufacture*) holds that the system of overworking children "was at its worst and greatest height long before anybody thought of a factory." Probably the most comprehensive account of the employment of juvenile labour in productive industry before the rise of the factory system is to be found in Mr. R. Whateley Cooke Taylor's *Introduction to a History of the Factory System.*

The latter half of the 18th century witnessed a number of remarkable inventions, each of which aided in the establishment and spread of that highly organised method of industry known as the factory system. The discovery of the spinning machine, of the mechanical loom, of the steam engine, of the cotton gin, of the calico-printing machine, and of coal gas for illuminating purposes, successively tended to the aggregation of workpeople in textile manufactories. They aided too in that separation of processes, known as the "division of labour," which opened the way for an extensive employment of children in the lighter and simpler processes calling rather for dexterity than strength. But it was not alone in the textile manufactures that this conversion of domestic into factory industry was going on. It gradually spread into other productive departments. Unquestionably, however, it was in the textile occupations that the growing employment of infantile labour, and the abuses accompanying it, first drew public attention to the necessity of factory legislation. In Lancashire and Derbyshire the rapid increase of the cotton manufacture created a great demand for labour, and the population grew faster than the means of decent habitation. There was consequently much overcrowding, and the mills themselves were unhealthy, whilst the labour was long and exhausting. Large numbers of pauper children were brought from southern parishes, where the local authorities were glad to get rid of them, and the accommodation provided for these young and overworked immigrants was very defective. The result was a serious epidemic disease, which at the close of last century wrought great havoc amongst the factory population, and especially amongst the children. In 1802, therefore, the first factory act (the Health and Morals Act) was passed. However, beyond ordaining some sanitary regulations of a general kind, the act did not apply to others besides the apprenticed children, drawn chiefly, as already stated, from distant portions of the country. Children of families living near the factories were still subject to oppressive treatment, their parents being as a rule regardless of their health. The need of further interference being demonstrated by an inquiry conducted by parliament in 1815-1816, a second act was passed in 1819, but its operation was confined to cotton mills. No child might begin to work under nine years old, and between that limit and sixteen years the hours of labour were not to exceed twelve per day, and night work was prohibited. The next act, that of 1825, restricted the labour of children to nine hours per day, and these were not to extend beyond five o'clock in the morning and half-past four in the afternoon. Still further, meal hours were carefully defined, and employers were, for the first time, compelled to keep a register of the children working for them. Then came the early days of the trade unions, which were marked by much violence, the issue of which was the Act of 1st and 2d William IV. c. 39, consolidating and improving previous factory acts, but without affecting very seriously the status of children. Later on, however, Lord Althorp's Act of 1833 defined the ages at which boys and girls might be allowed to work in factories as that of nine years. Between that age and thirteen years children were to work only nine hours, and were to attend school during two hours. Thus the "half time" system was introduced, which was improved in 1844 by Sir Robert Peel's act. That measure provided that children of eight (no longer nine) years of age and up to thirteen might be employed for six and a half hours only, and three days' attendance at school per week was required. Afterwards protective legislation for children was further improved and extended by the Factory Extension Act, and the Workshop Regulation Act. (1878 (Consolidation) Factory and Workshop Act.) Not only textile and other factories in which large numbers of workpeople are employed, but also small industrial establishments, were brought under governmental control. The regulations of the Workshops Act were placed under the control of local authorities. The intention was to ascertain by experiment how far local control might prove equal or superior to central administration. Practically the act was ignored by the local authorities, and further legislation was deemed necessary. This has tended rather in the direction of extending the protection of the law to children in various occupations not coming within the factory system, than of increasing the restrictions upon the employment of youthful labour. The act passed during the session of 1889 for the prevention of cruelty to children, gives to those employed in the-

atrical and other entertainments the benefit of the factory acts. Similar legislation has been gradually adopted in foreign countries. In France, the desire to protect young children from exhausting labour has taken practical shape in recent enactments. In the United States the regulation of labour is not a national concern, but is relegated to the several state legislatures. There has been in recent years a steady tendency in several states, stimulated by the reports of the various "bureaus of statistics of labour," to provide for the protection of children employed in industry. One of the most recent enactments in pursuance of this purpose is that passed by the legislature of New York in 1886, by which any person employing a child under the age of sixteen years as an acrobat, or in any athletic exhibition, or in begging, or in any kind of employment for the purpose of gaining money, is held to be guilty of a misdemeanour. E. H.

CHIMINAGE. Among the special revenues arising from the exceptional position of forest land was a toll on traffic known as chiminage (see FOREST LAWS). The law specifying the persons from whom such toll could be taken, and its amount, is to be found in the Charter of the Forest, 9 Henry III. § 14. The special mention of this toll suggests that it had been made an excuse for unreasonable exaction before the issue of the charter. Under the law so settled no forester is allowed to take chiminage unless he holds his office in fee by the payment of a rent for it; no persons but those who come into the forest to buy bushwood, timber, or charcoal to sell again are to be liable to pay the toll; and all other travellers and even those who came to fetch away brushwood on their own backs without the use of beasts or carts were to pass free. The amount of the toll was fixed at twopence for each cart for each half-year, and one halfpenny for each horse. The toll so limited seems to have formed no grievance, and its amount is usually unimportant. For instance in Sherwood forest in the 15th century the chiminage is farmed out at 6s. 8d. a year. The word is sometimes used for any toll paid for passing along a road.

[Manwood's *Forest Law* (4th ed.), 1717.—*Records of the Borough of Nottingham*, vol. ii., 1883.—Dr. Murray's *New English Dictionary*, *s.v.*, 1889.] C. G. C.

CHITTI, LUIGI, by birth an Italian, passed the greatest part of his life abroad; this explains how he came to write his books always in French. In 1833 he published a *Cours d'économie politique* and in 1839 at Brussels, a pamphlet—*Des crises financières et de la réforme du Système Monétaire*. He had occasion to observe a very severe monetary crisis in Belgium, the origin of which he assigns to excessive emissions of paper money. He proposes the gradual abolition of metallic money, substituting paper money for it, which, if only not superabundant, cannot become depreciated, a doctrine which is clearly taken from Ricardo's *Reply to Mr. Bosanquet*. Chitti proves himself to be well versed in questions of capital, credit, money, exchange, but is no original thinker.

M. P.

CHOROGRAM. "A chorogram is the result when different aggregates are indicated by surfaces, showing the size of each, and portions of the surface are coloured or shaded differently to indicate the result of the enumeration in each aggregate. It can be profitably employed to show the different degrees of the occurrence of a single phenomenon in different aggregates."

[*Annals of the American Academy*, Supplement May 1891, "The History, Theory, and Technique of Statistics," by A. Meitzen.]

(See GRAPHICAL METHOD.)

CHOSES IN ACTION. The term applied by early lawyers to rights of action.

Choses in action were not at common law assignable except in the case of bills of exchange and other negotiable instruments which by the custom of merchants were assignable by indorsement and delivery of the bills. In the reign of Henry VIII. it was held that a chose in action might be assigned as satisfaction for a debt, the assignee to sue if necessary in the assignor's name. Afterwards by various statutes promissory notes, bills of lading, and life and sea policies of assurance were made assignable, but it was not until the 36 & 37 Vict. c. 66, § 25 (6), that it was provided generally that a legal chose in action may be assigned. The assignment must be in writing, and notice of the assignment has to be given to the person liable to pay the debt.

A right of action conferred by a suit in equity was always assignable in equity.

[*Principles of the Law of Personal Property*, by J. Williams, London, 1887.] J. E. C. M.

CHOSES IN POSSESSION. Movable tangible property, as opposed to rights of action which are called *choses in action*. Property of this nature could not at common law be held by estates though settlements were always enforced in equity. As compared with real property, choses in possession descend to the administrator or executor, and not to the heir, but title deeds, heirlooms, fixtures and chattels vegetable are exceptions to the rule, as they partake of the nature of real property.

[Williams's *Personal Property*, London, 1887.] J. E. C. M.

CHREMATISTIC (or MONEY-MAKING). The *locus classicus* on chrematistic is in the *Politics* of Aristotle, bk. i. ch. viii.-xi. The passage is somewhat obscure, from the nice distinctions dwelt on; but the general purport is that there are two sorts of chrematistic—one natural and necessary, being the art of acquiring the material resources to be placed at the disposal of, and

used by, the higher art of economic, of which this kind of chrematistic is the handmaid, whilst the other sort is devoted to the unlimited pursuit of gain for its own sake, without relation to the real wants of the household or the community. The word is now usually applied to systems of theoretical or practical economy which overlook the higher ends of society, and exclude from consideration questions of moral obligation and political well-being (see ARISTOTLE).

J. K. I.

CHRISTIAN SOCIALISM is a name which properly belongs to the propagation of co-operative production or working men's associations by F. D. Maurice and his disciples in the years 1849 to 1853. For its use merely as a name for socialism inspired by Christian motives see SOCIALISM. Its origin is to be found in a letter from J. M. Ludlow to Maurice (March 1848) saying that the socialism of Paris workmen was a real power which would shake Christianity if it were not Christianised. After the publication of Henry Mayhew's letters on the London poor in the *Morning Chronicle*, in 1849, Maurice and his followers at Lincoln's Inn, who had already been trying to persuade the Chartists, in *Politics for the People* (6th May to 29th July 1848), and in discussions at the Cranbourne Tavern, that moral and sanitary reform were of much more importance than extension of the suffrage, turned their attention to economic questions. They were led to deny any beneficence to the operation of self-interest. "Free competition," said Ludlow, "mars everywhere, instead of making, the wisest distribution of labour" (*Christian Socialism*, p. 35). "We have protested," Maurice wrote to Dr. Jelf, 12th November 1851, "against the spirit of competition and rivalry precisely because we believe it is leading to anarchy, and must destroy at last the property of the rich as well as the existence of the poor" (*Life*, ch. ii. p. 83). As a remedy they proposed "Christian Socialism," or friendly association for productive purposes. They sometimes went so far as to imagine a state of things in which all producers might "combine regularly into one body which should, after mutual explanations and by mutual concert, fix the terms upon which each member should dispose of his wares to the others" (Ludlow, *Christian Socialism*, p. 35); but they suggested no principle of distribution on which this agreement should be based. They founded an association of tailors (February 1850) of which Walter Cooper, formerly a Chartist, was manager, and organised a society for promoting working men's associations under a council of promoters among whom were Maurice, Charles Kingsley, T. Hughes, E. V. Neale, and F. J. Furnivall. *Alton Locke*, which represents the ethical side of the Christian Socialist doctrine, was published early in 1850, and was followed by *Tracts on Christian Socialism*, *Tracts by Christian Socialists*, and the *Christian Socialist*, a weekly penny paper which lasted from 2d November 1850 to the end of 1851. Its place was then taken by the *Journal of Association*, which endured till 28th June 1852. The evidence of the "Promoters" before Slaney's Committee of the House of Commons on "Investments for the savings of the middle and working classes" in 1850, aided in bringing about the legalisation of co-operative societies by the "Industrial and Provident Partnerships Act" of 1852. After the passing of that Act the society for promoting associations was remodelled and the term "Christian Socialism," as employed in this connection, was abandoned. It was offensive alike to theologians, economists, and socialists. The hostility displayed towards the Christian Socialists in many quarters was more due to the name they assumed, and to the vehemence with which Kingsley denounced competition, than to dislike of their Associations, though these were doubtless looked on with some suspicion as copies from French models (see CO-OPERATION, etc.)

[F. Maurice, *Life of Frederick Denison Maurice*, 2 vols., 2d ed., 1884.—T. Hughes, Prefatory Memoir in the Eversley ed. of *Alton Locke*, 2 vols., 1881.—L. Brentano, *Die Christlich-soziale Bewegung in England*, 2 Aufl., Leipzig, 1883, which contains a full bibliography of Christian Socialism, pp. 75-78.—J. M. Ludlow, *Christian Socialism and its Opponents*, 1851 (chiefly a reply to an article by W. R. Greg in the *Edinburgh Review*, January 1851).]

E. C.

CHRISTIANITY AND ECONOMICS

Church, the Mediæval, Economic Influence of, p. 280; Roman Catholic School of Economics, p. 283; Influence of Protestant Thought on Economic Opinion and Practice, p. 285.

CHURCH, THE MEDIÆVAL, ECONOMIC INFLUENCE OF. The following article is not concerned with the origin of church property or the title by which it is held—subjects which belong rather to the historian or the jurist than to the economist;—it is limited to two points: the influence of the church upon social ranks, and the influence, chiefly in England, of churchmen and ecclesiastical bodies, as landowners, upon agriculture.

1. If it be true that the mediæval church was always the great leveller, that the clerical order was the one profession in which it was possible for a man of the humblest birth to attain to the highest position, this was less by virtue of express enactment than in consequence of the facts, (*a*) that the church remained free from the distinctions of classes that grew up in the civil state, and (*b*) that the churchman, as the rule of celibacy became universally accepted in Latin Christendom, could be raised to any rank without the drawback of his founding a family of nobles. The possibility of rising was, it is true, not confined to churchmen: but that

which was the exception among the laity was common among the clergy; and in one important point, with respect to slavery, the exemption of the clerical status from the classes of civil society produced a remarkable relaxation of class conditions.

It was not, however, for many centuries that it became the accepted doctrine that an ordained person was *ipso facto* a free man. At first the only question that arose was that, when a slave was ordained or received into a monastery, his lord was robbed of his service. Accordingly, by a number of ordinances contained in the civil law (*Cod.* i. tit. iii. 37; *Novell.* v. 2, cxxiii. 35), and reinforced by ecclesiastical decrees which became incorporated in the canon law, it was repeatedly laid down that no bishop should ordain a slave without the consent of his lord. The rule was not merely intended to protect the lord's rights: it was found also that slaves guilty of crime availed themselves of the refuge afforded by holy orders or admission to a monastery to escape punishment; and churchmen on their side—St. Leo the Great is a prominent instance—objected to the clerical profession being "defiled by the baseness of association" with slaves (*Can. apost.* lxxxi. (cp. *Conc. Chalced.* A.D. 451, can. iv.); Leo I. *Epist.* iv. 1).

If, however, in the fifth century it could be conceived as possible that a man might be a clergyman and yet a slave, this idea early gave way before another which presumed that if a slave were ordained with the knowledge of his lord, and without any objection raised by him, he was a free man, though not formally manumitted. It was still, however, conceded that supposing the lord were not aware of the act, he had a right to claim his slave within the space of a year: and that ordination did not for a long time involve of itself emancipation is shown by the enactments in the civil law, that, supposing an ordained slave returns to secular pursuits, his lord may claim him; and that it was lawful to ordain a bondman bound to the soil on his lord's land even without his lord's consent, so long as he continued to fulfil his servile duties (*Novell.* cxxiii. 17). This latter rule was soon modified by the provision that the ordained person might perform his services by a deputy (*Novell.*, l.c.; cp. gloss. in *Cod.* i. tit. iii. 37)—an arrangement which was accepted by ecclesiastical authority; but on this side it was maintained that in no case could a man in priest's orders be claimed back as a slave (Gelas. I., *epistt.* in *Decr. Grat.*, dist. liv. 9-11).

So far, therefore, it appears that it was the lord's assent, express or implicit, which made the clerk free; that, failing such assent, the lord was compensated by substituted service; and that a distinction made itself felt between priest's orders and the inferior degrees which admitted a very large and heterogeneous company of ordained persons to ecclesiastical privileges. It was unquestionably the admission of slaves to the lower orders which led to the gravest abuses; and the prohibition of the ordination of slaves without their lord's consent, which is repeated through Frankish times, (Karol. Magn. *Admon. gen.* (a. 789), cap. lvii. (cp. cap. xxiii.); Hludow. Pii, *Capit. eccl.* (a. 818-819), cap. vi.), and of which a famous instance occurs in the sixteenth constitution of Clarendon (*Const. Clar.* xvi., cp. Stubbs, *Sel. Charters* (ed. 5, 1884), p. 137; *Assis. Clar.* xx.[1]), was directed principally against this practice. Not merely were the lord's rights infringed, but persons of suspicious character were able to remove themselves from the ordinary jurisdiction of the country. In spite, however, of positive enactments, the view that a priest was necessarily free became extended to the diaconate and the inferior orders; and the petition of the commons in 1391 that the villeins might not be allowed to send their sons to school in order to raise them by holy orders (*qe null neif ou vileyn met ses enfantz de cy en avant a escoles pur eux avancer par clergie*) (*Rot. Parl.* iii. 294, cp. Rogers, *Hist. of Agric. and Prices* (1866), i. 78, 93) may be taken as proof that by that time the result was established.

With reference to the influence of the church upon slavery outside its own body, there can be little doubt that the humaner principles of jurisprudence by which, at least in England, it was guided were favourable to the bondman (cp. Theodor, *Penit.* xiii. 3; Egbert, *Penit.* Addit. 35). Alike in Francia and in England ordinances were passed moderating the abuses of the slave-trade (Freeman, *Norm. Conq.* i. (ed. 3, 1877) 335 *seq.*, 435), and in these the hand of the churchmen is hardly doubtful. Still more striking is the public action of St. Wulfstan, bishop of Worcester, to whose arguments and those of Lanfranc was attributed the express prohibition by William the Conqueror of the export of slaves (Stubbs, *Sel. Charters*, p. 85; Will. Malmesb. *Gestt. Regg.* iii. 269; cp. Freeman, iv. (ed. 2, 1876) 380 *seq.*), a prohibition which was extended by St. Anselm in 1102 to any sale into slavery whatever (Eadmer, *Hist. Nov.*, a. 1102; cp. Freeman, v. (1876) 223 *seq.*) The emancipation of slaves was from an early time recognised as a religious act, and the practice of including such a deed in testamentary dispositions was manifestly promoted by clerical persuasion. If religious corporations were not specially forward in manumitting their own bondmen, it was rather because the law of the church was precise against diminishing their property, than through any reluctance to increase the body of freemen. But the process by

[1] Garnier de Pont-Sainte-Maxence's attack upon the constitution (*St. Thomas le Martyr*, lines 2488-2490, ed. Hippeau, 1859) rests rather on *a priori* grounds.

which the bondman rose through the ambiguous rank of the villein to that of the copyholder is traceable to known economical causes and only in isolated cases to ecclesiastical influence.

2. Lands in the possession of a church were distinguished from other real property in so far as they were protected against alienation, and enjoyed certain immunities from the payment of taxes.

(*a*) According to the civil law, church lands could not as a rule be alienated, though they might be exchanged between two religious corporations or mortgaged up to a limited amount (*Novell.* cxx.) They could only be alienated by an act performed in the presence of the metropolitan and of two bishops of the vicinity (*Novell.* xlvi. 1, lxvii. 4). Except as subject to some such condition, alienation was totally forbidden by the early councils (*Cod. Canon. Eccl. Afric.* xxvi., xxxiii.), and by the later canon law it was not permitted *sine iusta causa*, that is without evident necessity or advantage (6 *Decr.* iii. tit. ix. 1). But the power which was reserved of granting leases of land not brought into cultivation made it possible to frustrate the intention of the accepted rule. Setting on one side the numerous cases of alleged unlawful appropriation of church lands by the civil ruler, cases in which there is often reason to suspect exaggeration in the record of the misdoing (cp. Freeman, ii. (ed. 3, 1877) 554-567), we find abundant instances in the Domesday Book and elsewhere, of church lands being granted not merely for life but for several—commonly three—lives (see examples, in Freeman, v. 778-785), at the expiration of which it was not always easy for the grantor to resume possession. By degrees it was attempted to restrict the practice, and the canon law as laid down by Clement V. prohibited all grants for life or even a term of years, allowing them only "ad modicum tempus" (*Clement.* iii. tit. iv. 1), an ambiguous phrase which was afterwards restricted by Paul II. to three years (*Extrav. comm.* iii. tit. iv.)

(*b*) Among the earliest grants of land to churches or monasteries, in England there are examples in which it appears that the lands in question were entirely freed from the common burthens of property (Bed. *Vit. S. Bened.* vi., *Epist. ad Ecgberct*, xii.); but soon, as such grants were multiplied, it became a matter of public policy to subject them to the *trinoda necessitas*. With regard, however, to the other payments to which land was liable, the usage varied; sometimes the land was wholly enfranchised, sometimes only in part; sometimes it bought its enfranchisement by payment at the time of the grant or by a surrender of lands in lieu of future obligations (Lingard, *Hist. and Antiq. of the Anglo-Saxon Church* (1845), i. 240-250). Gradually the rule was established that lands held by a church or religious house were held in "free alms" (*libera eleemosyna*), or FRANK-ALMOIGN (*q.v.*), a form of tenure which is found in Domesday as not exclusively ecclesiastical (Freeman, vol. v. p. 804, *seq.*), and which is legally understood to involve exemption from all temporal dues (Digby, *Introd. to the Hist. of the Law of Real Property* (ed. 3), p. 38; Bracton, iv. 28 f. 207; Ellis, *Gen. Introd. to Domesday* (1833), vol. i. p. 258 *seq.*) On the other hand the liberty thus implied in the possession of lands by the church did not extend to all lands held by the church, nor was it at first admitted by all statesmen. The latter point is sufficiently illustrated by the notorious policy of Randolph Flambard; and as to the former, it is clear that the recognised obligation of the *trinoda necessitas* might naturally be construed in the light of feudal ideas as carrying with it the obligation to feudal military service. That this was in fact the case is shown by the way in which Archbishop Lanfranc—to name no other instance—compounded for the services due from the convent of Christ Church, Canterbury, by maintaining a certain number of knights (*Epistt. Cantuar.* ccxliii.; cp. Freeman, v. p. 372); and when in 1159 the imposition of SCUTAGE (*q.v.*) was carried out, it was levied also upon church lands (cp. Joh. Saresb. epist. cxlv.) But from the reign of Henry II. onwards, the payment of taxes directly levied on church lands was repeatedly resisted as an infringement of ecclesiastical immunities (cp. Stubbs, *Const. Hist. of Engl.* (ed. 1880), i. 647 *seq.*, ii. 187 *seqq.*, etc.); and it was to prevent a fraudulent multiplication of lands for which such immunities could be claimed that Edward I., in 1279, enacted the statute of Mortmain (*Stat. de Vir. Relig.*, ap. Stubbs, *Sel. Charters*, p. 458 *seq.*]

The lands held by a religious house, at least those in its immediate vicinity, were as a rule cultivated by the brotherhood itself, and the personal interest thus devoted to the work produced better results than the enforced labour of bondmen. The evidence of the Domesday survey goes to show that the church lands were in a higher state of cultivation than other property. The monks also employed themselves in clearing forests, draining marshes, and making roads and bridges (cp. Lingard, i. 267 *seq.*; Cunningham, *Growth of Engl. Industry and Commerce in the Early and Middle Ages*, p. 64 *seq.*, 1890); and the Cistercian order, through the activity which it displayed in sheep farming, promoted in a singular degree the production of the staple commodity of England. Through the immense extent of their property, variously estimated in the 13th and 14th centuries from a quarter to a half of the total landed property of England (Wycliffe, *de Eccl.* xv. p. 338; cp. Pearson, *Hist. of Engl.* ii. 497 (1867)), the churches and religious houses came to take an important share in the industrial development

of the country; and it is acknowledged that the clergy were mild landlords (see generally Stubbs, *Const. Hist.* iii. 562). The attacks of the Lollards upon the landed property of the church were inspired rather by *a priori* objections to the system itself than by any actual abuses to which it led; and the considerations which Bishop Pecock, writing in the middle of the 15th century, alleged on the opposite side are probably in the main just. "The treuthe is," he says, "that the tenementis and alle the possessiouns with her purtenauncis, which the clergie (religiose or not religiose) holden and hauen, is better meintened and susteyned and reparid and kept fro falling into nou3t and into wildirness, than if tho same tenementis and possessiouns with her purtenauncis weren in the hondis of grete lordis, or of kny3tis, or of squyeris. . . . The tenauntis, occupiyng tho tenementis and possessiouns with purtenauncis vndir the clergie, ben esilier tretid, lasse disesid, and not greeued bi extorcioun, as thei schoulden be, if thei helden the same tenementis and possessiouns of temporal lordis or of kny3tis and squyers." Among other points in favour of those who held of the church, Pecock notices that their tenure was less liable to be disturbed than that of those who held under lay lords (*Repressor of overmuch blaming of the Clergy*, vol. ii. p. 370 *seq.* (ed. Babington, 1860)). It has been noticed by critics least friendly to the mediæval church that it was such causes—the known advantage to the tenant—that did much to reconcile public opinion to the enormous estates held by the church (Pearson, *Hist. of Engl.* vol. ii. p. 502; Rogers, vol. i. p. 160). That at the close of the Middle Ages the state of things was somewhat altered, and the abuses which had arisen with respect to the management of church property called forth well-founded complaints (cp. *Dyaloge betwene a Gentillman and a Husbandman*, 1530 ed. Arber, 1871, p. 134 *seqq.*, *Ballads from Manuscripts*, ed. Furnivall (1869), vol. i.), need not be denied; but the question, which is a very debatable one, lies beyond the province of the present article. R. L. P.

THE ROMAN CATHOLIC SCHOOL (as the economic school of thought which has developed itself within the Roman Catholic Church has been termed).—The "Roman Catholic School" is of comparatively recent origin. Though the period of its birth cannot be fixed with absolute exactness, it certainly goes as far back as September 1869, at which date a conference of bishops which gave special attention to social questions met at Fulda in Germany.

No doubt the Catholic church, through the fathers in the first ages of Christianity, and through its doctors in the Middle Ages, had always occupied itself with the social question from certain points of view, especially with regard to the relations between the rich and the poor. Through its agency, indeed, lending at interest had been forbidden by the civil law (see AQUINAS; CANON LAW; CHURCH, MEDIÆVAL). But it was not till quite recently that it published a programme of economic reforms, and turned its activity particularly to labour questions. Without imputing any interested motive, it may be supposed that this action of the Roman Catholic church has been not uninfluenced by the desire to regain the power over the labouring classes which socialism threatened to wrench from its hands. Up to the present time, however, this object does not appear to have been attained. In spite of the armies of workmen which the church leads as pilgrims to the feet of the Pope, in spite of the "workmen's clubs" (*Cercles ouvriers*) which the church strives to multiply in France, no profound impression seems yet to have been made on the masses of the labouring population; and it is from the ranks of the higher clergy and the aristocracy that it has almost exclusively drawn its leaders and even its adherents.

In England the late Cardinal Manning was prominent in labour questions. In the United States, Cardinal Gibbons has undertaken the defence of the Knights of Labour. In France Cardinal Langénieux, Comte Albert de Mun—an ex-cavalry officer and one of the most eloquent speakers in the French legislature, M. Harmel—a large manufacturer,—all three are organisers of workmen's pilgrimages. In Switzerland, M. Decurtins, deputy of the canton of the Grisons, has taken an active part in the labour laws passed in Switzerland of late years. In Germany, the Bishop of Mayence, Monsignor von Ketteler, now dead, was one of the initiators of the movement; at present there is the Bishop of Breslau, Monsignor Kopp, who played an important part at the International Conference of Berlin on the regulation of labour. In Austria, there have been Baron de Vogelsang, now dead, the Prince of Liechstentein, and others. Pope Leo XIII. has placed himself at the head of the movement. On several occasions he has shown great interest in social questions, especially by his famous encyclical of 15th May 1891 and his addresses to the workmen pilgrims.

By the vehemence of its criticisms of the economic organisation of the day, more particularly by opposing itself to individualism, self-help, competition, and the inordinate search for gain, also by the sombre picture which it paints of the condition of the working classes, the "Roman Catholic school" makes common cause with democratic socialism. Like it, in deed, it protests against *Manchesterthum*, against the body of teaching which regards personal interest as the only motive force of human activity, and the law of supply and demand as the sole regulator of wages. Hence

the appellation of "Catholic socialism" which it sometimes receives. However, it always refuses to accept this title. Indeed, it stands really at the opposite pole to the socialist school, for its objects are not only to *conserve* but also to *restore* the fundamental institutions of society, *id est*—religion,—family,—property, —employer system. It sees the solution of the social question, first of all, in the fulfilment of the laws of morality and religion, then in that *corporative system* which, in the words of Leo XIII., "comprises in itself almost all other works." This corporative system must not be confused with the co-operative system, so much extolled by some of the Protestant schools of socialism, or even with trade-unionism. The "Roman Catholic school" understands by this phrase associations of trades, composed *at one and the same time of masters and of men*, regulating in sovereign fashion, and by decrees fitted to each particular industry, the number of hours of labour, the rate of wages, and so forth; and invested with the rights of property in consequence of their status as corporate bodies, and with political power through their ability to elect their representatives in the chamber. The works of M. Harmel in the Val des Bois near Rheims are usually given as a type of the industrial organisation which is the ideal of this school.

In France and in the countries which have felt the influence of the French Revolution and of the movement of ideas which thence took its rise, the "Roman Catholic school" violently attacks the Principles of '89, holding them responsible for the state of agitation and unrest through which the nations of Europe are struggling. Thus the law of equal division of estates between all the children is regarded by the "Roman Catholic school" as the chief cause of the disorganisation of the family, whilst from the abolition of the corporative system the misery of the working classes is held to have mainly arisen.

The question of state interference has caused the division of the "Roman Catholic school" into two clearly-marked sections. The interventionist school, the names of whose representatives have been given above, labours steadily for state interference to regulate the length of the day's labour, for the enforcement of Sunday rest, for the abolition of usury, for the prevention of monopoly and speculation; in fact, for all measures which seem likely to raise the condition of the poorer classes. On the other hand, the "Liberal" section of the "Roman Catholic school" entertains a distrust of state interference in a coercive shape, which is no whit less than that felt by the economic school of Adam Smith. It sanctions the application of state interference only in cases of clearly-proved necessity, and upholds liberty of labour and freedom of contract. It is also less bitter in its criticisms of the economic organisation of the day and confines its programme of social reform to the restoration of the authority of the church in society, of the father in the family, of the employer in the workshop, and to the exercise of social duties. Further, its characteristics are more of a lay nature; it refuses to be called "Catholic" in the narrow sense of the word, and opens its arms to all who desire to apply the historical method to the study of social facts. M. Le Play (*q.v.*), who died in 1883, is usually regarded as the chief of this school, which includes among its members several distinguished professors, for instance M. Claudio Jannet, professor at the Catholic university of Paris; Charles Périn, formerly professor at the university of Louvain, and his successor in the same chair, M. Victor Brants. It was believed that the Pope would give his opinion on the delicate point involved in these discussions in such a way as to decide the question. But the holy father, in his encyclical of May 1891 *de Conditione Opificum*, expressed himself in such general formulæ and made use of such diplomatic and guarded language, that each of the two sections of the school has been able to claim his high approval. Thus the encyclical declares "that the force and authority of laws are necessary to save the unhappy workman from those speculators who treat men as if they were machines,—who use them up in order to glut their own insatiable cupidity." Nevertheless, it also condemns state socialism "which aims at substituting state control for paternal care." Moreover, in his address to the workmen pilgrims on 19th September 1891, in which he commented on his encyclical, the Pope declared "that it must be taken as certain that no true and practical solution of the labour and the social question would ever be found in purely civil laws, however good they might be." It is therefore probable that these two main lines of thought —the one seeking a remedy for all human ills by methods closely allied to those of socialism, the other by strictly religious influences,—will continue to divide the "Economic school" now existing in the Roman Catholic church.

[Francesco Nitti, *Il socialismo cattolico*, 2d ed., Roux, Turin, 1891.—"The Catholic Church and Economics," J. J. Keane, *Quarterly Journal of Economics*, Oct. 1891.—C. S. Devas, *Political Economy*, London, 1892. Stonyhurst Series.—Von Ketteler, *Die Arbeiterfrage und das Christenthum*, Mayence, Kirchheim, 1866.—*Liberalismus, Socialismus, und Christenthum*, Mayence, Kirchheim, 1871, by the same author.—Rudolph Meyer, *Der Emancipationskampf des vierten Standes*, Berlin, 1882, 2d ed., 2 vols.—Charles Périn, *Le Socialisme chrétien*, Paris, Lecoffre, 1879. —Decurtins, *La question de la protection ouvrière internationale*, Berne, 1889.—De Mun, *Discours*, Paris, Poussielgue, 3 vols.—Harmel, *Catéchisme du patron*, Paris, 1889,—also *Manuel d'une corpora-*

tion chrétienne, Tours, 1879.—Manning, *The Rights and Dignity of Labour*, London, 1887.—

The Journals and Reviews which are the organs of the "Roman Catholic school" are very numerous. The following are the most important in France; *l'Association Catholique*, a monthly review (organ of the school of the Comte de Mun).—*La Réforme Sociale* (organ of the school of Le Play).—In Germany: *Arbeiterwohl*, conducted by Abbé Hitze.—*Historisch-politische Blätter*;—*Christlich-sociale Blätter*.—In Austria: *Oesterreichische Monatsschrift für christliche Social Reform*, formerly conducted by Baron de Vogelsang; *Das Vaterland*.] C. G.

THE INFLUENCE OF PROTESTANT THOUGHT ON ECONOMIC OPINION AND PRACTICE.

The intention of this article is to trace the influence of Protestant thought, mainly on the continent of Europe, both in its original tendencies and in its historical development on economics. The outcome of these influences may be generalised under four heads, viz.: I. the principle of *Individualism* encouraging individual enterprise, the stability of private property, and the development of industrial progress; II. the principle of *libre examen* (the expression is that of Guizot), which in freeing the mind led indirectly to the liberation of trade, free competition, and the doctrine of *laissez-faire* as further developed by the French revolution; III. the Protestant *idea of the state* during the transition period, which helped in establishing the mercantile theory in Holland and England, and the cameralistic conception of political economy in Germany, since economic science was then regarded merely as a method of action, the object of which was the furnishing the state or its head with ways and means to carry on the government; IV. Protestant *ethics* in relation to the modern economic method, introducing the *Caritative* element of Christianity (*i.e.* that not only the selfish principle of supply and demand but Christian love and duty should be the guiding laws in economic action—the doctrine of Adolph Wagner) as a corrective of the purely egoistic theory.

I. INDIVIDUALISM.—Friends and enemies, Guizot, Seebohm, K. Marx, and E. de Laveleye, declare alike that the "history of capital and the supremacy of private interest," *i.e.* commerce in its modern aspect, commenced contemporaneously with the period of the reformation, accompanied as that movement was by many discoveries and inventions, and the recovered sense of personal freedom and responsibility. In *Protestantism and Catholicism in their bearing upon the Liberty and Prosperity of Nations*, by Emile de Laveleye (1875), the progress of economic enterprise is attributed to the superior education and enlightenment fostered by Protestantism, De Tocqueville ascribing to the Puritan discipline of the first settlers the same result in the commercial expansion of the United States. From Luther to Protestant divines of the present day the moral force of the dignity of labour and the duty of cheerful exertion in the subduing the earth by economic effort, have been held up to admiration, and have given an impulse to the economic life of Protestant countries. The *Wealth of Nations* appeared in 1775-76, and marks a revolution of thought in Protestantism in the author's mind, and a revolution of industry then commencing. "The machine is somewhat in the nature of Protestantism," says Dean Uhlhorn in his brochure on *Katholicismus und Protestantismus gegenüber der socialen Frage* (1887). Private property is encouraged by Protestantism. Luther, in his *Sermon on Usury* (1579), speaks of three grades "of dealing well and worthily with temporal goods." The highest is to allow ourselves to be despoiled of it without offering opposition, the lowest is to take neither profit nor interest, though he sees objections to this ideal being realised. Whilst Erasmus complained of the "rage of ownership," Protestantism endeavoured to make a compromise, maintaining the ideal in theory and encouraging what Fr. A. Lange calls a "moderate egoism," or "ethical materialism," in practice (see *Geschichte des Materialismus*, i. 254, 294. Cp. J. E. Thorold Rogers on *The Economic Interpretation of History* (1888), p. 83). Besold in the 17th century speaks of private property as of human origin, yet approved of in Holy Scripture. H. Grotius, at the head of the classical school of political economy in Holland, defends it. Pufendorff adopts it from him, and the theory dominated the old-fashioned economics in Prussia, until the new school of economists, with Ad. Wagner at their head, pointed out the importance of correcting the rigid theory of private rights as to porperty by the recognition of what is due to the community, and thus reconciling the principle of private interest with that of public advantage. This naturally followed on the growth of altruistic ideas affecting alike Protestant and economic thought. II. LIBERATION OF INDUSTRY follows logically from that of liberty of thought, developing the five points of industrial independence: freedom of labour, free trade in land, free movement of capital, freedom of industrial enterprise, and a free market regulated by demand and supply,—it further implies the removal of all governmental and trade restrictions. But between the original conception of these principles in the 16th century, and their realisation in the 18th, lies the intermediate economic period of III. MERCANTILISM, the reign of the "regal theory" of political economy as then held in Germany. It means that the object of all economic effort, and legislation directing it, is for the benefit of the state and its head. This view of directing the economics of the nation by royal mandate is encouraged by the Protestant idea of the state. With the

break-up of the old feudal and ecclesiastical systems of social organisation a fusion is effected of all private and corporate economics in one *political* or *national* economy. The whole community assumes the character of an economic society, while it is directed by the central power,—absolute monarchy (*Geschichte der Nationalökonomie* von H. Eisenhart, 1881, pp. 6, 7; also *Bau und Leben des socialen Körpers*, von A. E. Fr. Schäffle, vol. i. p. 17, 1875). Thus Luther favoured state magazines for providing the people with food. In England the secularisation of church property became a measure of state policy, and, in turning public into private property in land, had very important results to the rural economy of the country (see T. E. Cliffe Leslie's *Land Systems*, p. 213 *seq.* and *passim*). Measures affecting commercial tariffs for the encouragement of native industry, even the proposal of graduated taxation for the purposes of mitigating the evil effects of a debased currency, and the rapid growth of pauperism, which K. Marx attributes to the contemporaneous rise of Protestantism and commercial industry (see *Das Kapital, Kritik der Politischen Oekonomie*, 2d ed., 1872, p. 750 *seq.*, and cp. p. 128 *ib.* on the progress of capitalism in Protestant lands), all these affected the development of economic science at this time. It simply became a method for increasing the resources of the country. Roscher shows how closely connected such questions were with the doctrine of mercantilism (see MERCANTILISM). Bornitz, Besold, Klock are the German representatives in the earlier part of the 17th century of this stage of economics as a science of state finance. Petty, Locke, North represent the same tendency in a more advanced state in England. Cromwell's Navigation Act (1651) is a practical illustration of it. They show the influence of Protestantism, encouraging *national* egoism as a national duty. In more recent times the various forms of state-legislation, favoured by Prince Bismarck under the name of "practical Christianity," or of government interference with factory labour, as promoted by Lord Shaftesbury in the name of Christian philanthropy, as well as the previous liberation of the Prussian peasantry by Von Stein, and the "organised benevolence" of Wichern and Huber, the pioneer of German co-operation, are all the outcome of Protestant Christianity and patriotism combined, with a view to give effect to the theory of "freedom of person and property under a simple and strong government."

IV. The ETHICS of Protestantism, as modified by the philosophy of Fichte and Hegel, have exercised a profound influence on the principal writers belonging to the modern "historical school" of political economy in Germany. The state now comes to be regarded as the *ethos* or representative of what is best morally in the community, and the church in alliance with it as the upholder of a higher ideal of the economic man. Thus in the *Handbuch der Politischen Oekonomie* (1st ed., 1882; 3d ed., 1890), among whose contributors we mention, as members of the historical school, L. Brentano, H. von Scheel, and Ad. Wagner, who lay stress on the importance of Protestant Christianity, we are told that ethics teach "social man the duty of not only following egotistically his own interest, but also the welfare of others, and unselfishly to provide, according to his ability, the community with the requisites for the material and spiritual elevation of his fellows" (p. 49, 1st ed.) The state is defined as the grandest moral institution, bound to use its force in the pursuit of all economic interests, and by rational state-intervention to supplement the deficiencies of self-help (*ib.* pp. 52-54). Wagener, the privy councillor (to be distinguished from Ad. Wagner the professor, several times mentioned in this article), as a leading Protestant layman in Prussia, and Bishop Martensen, as a Danish churchman, both look up to the state as the power which should bring about "a just distribution of the common social product of all for all." Sismondi, representing Genevan Protestantism, was one of the first to discard on religious grounds the supreme rule of *laissez-faire*, and calls on the state "to regulate the progress of wealth," defining political economy as *la plus sublime Science de la bienfaisance*. Schäffle, as the representative of South German Protestantism, is the most cautious, as well as, next to Roscher, the most erudite advocate of this theory, which makes man, not money, the object of all economic exertion, and in which humanistic Protestantism and economic humanism may be said to be mixed and merged. By humanistic Protestantism we mean the modern form of it, which lays stress on the humanities taught in Christianity, and by economic humanism we mean the more recent efforts to treat political economy as a science which has for its object the improved condition of humanity as a whole. The question is no longer, says Roscher, "what are the laws of political economy, but what ought they to be,—not an inquiry into the principles which govern the accumulation of wealth, but as to what is man in his economic relations, what he does, what he wants, what he is to be" (*Geschichte der National-ökonomik in Deutschland*, 1874, pp. 1033-34). To conclude, from the days of Luther to those of Leibnitz, and down to our own times, Protestantism, faithful at heart to its original aim, the liberation of the mind —though for a time diverted from this object by yielding to the opposing opinion—submission to dogmatic assertion,—again accepting the simpler doctrines of earlier Christianity,—has continually exercised a weighty influence on

the evolution of economic thought. Political economy itself is regarded by one school of the present day as having gone through somewhat similar successive stages, establishing at one time as its foundation the principle of sturdy self-dependence, accepting at another the silken fetters of state tutelage, then passing on to the absolutism of scientific dogmatism during the era of "liberal mammonism," and rising at last to an ethical conception of its mission as the science of a free yet harmonious organisation of industry, destined to attain the highest economic interests of mankind, the highest developments of human culture.

[Frederick Seebohm, *The Era of the Protestant Revolution*, 1874.—M. Guizot, *De la Civilisation en Europe*, sixième ed., 1861, Douzième Leçon.—W. Hohoff, *Protestantismus und Socialismus:—Historisch-politische Studien*, Paderborn, 1881. The chief value of this work consists in its quotations from Comte, L. Blanc, and German authorities on the economic influences of the Reformation from a Roman Catholic standpoint, see especially pp. 83-116, 162-168.—Alexis de Tocqueville, *De la Démocratie en Amérique*, 16ème ed., 1874, tome 3ème, pp. 8-10, 42, 213-215, 226-227.—Friedrich von Baerenbach, *Die Socialwissenschaften* (1882), pp. 241, 244, 278.—T. E. Cliffe Leslie, *Essays on Political and Moral Philosophy*, p. 167 *seq.*, this passage having been originally published in the *Fortnightly Review*, July 1875.—A. E. Fr. Schäffle, *Das gesellschaftliche System der menschlichen Wirthschaft* (1873), i. p. 41; ii. 15, 527-528.—*Bau und Leben* (as *loc. cit. supra*), i. 691-693.—C. Kantsky, *Thomas Morus.*] M. K.

CHRONOGRAM AND HEXOGRAM. Chronograms and hexograms are diagrams "showing the intensity of a phenomenon at various periods of time, by the rise and fall of a curve within a system of co-ordinates expressing a measure and time. If this occurs in an automatic register, observation and representation take place simultaneously. But the hexogram may also be constructed later" (see GRAPHICAL METHOD).

[*Annals of the American Academy*, Supplement, May 1891, "The History, Theory, and Technique of Statistics," by A. Meitzen.]

CHURCH-SEED (*cherchesed, chercheomer, chercheambre*). "A certain measure of threshed wheat that every man was bound to bring to the church, in the time of the Britons and Angles, on St. Martin's Day. But, since the coming of the Northmen, many lordships took it to their use and gave it according to the ancient law of Moses by the name of "first fruits," as you will find in the letters of King Knut that he sent to Rome, and is called church-seed *quasi semen ecclesiae.*" The above definition is given in the *Expositio vocabulorum* in MSS. St. Paul's, Liber Pilosus, Red Book of Exchequer, and other Anglo-French glossaries of the 13th century. In the Saxon laws, however, under the head of *De primitiis seminum* we read "And church-scot at Martinmas; and whosoever holds it over that day let him pay it to the bishop and indemnify him xj fold and to the king 120s." (Cnut, *Eccles. Dooms*, 8). From this it would seem that the word is a corruption of church-scot (cherchescaet)—the "c" becoming mute—and in the Norwich MS. of the glossary the termination is given as "soht."

H. Ha.

CIBRARIO, GIOVANNI ANTONIO LUIGI, Count, was born 1802, in Turin. He entered the service of the Sardinian government 1824, was entrusted in 1832 with diplomatic missions in Switzerland and France, and in 1833 with Austria, and took possession of Venice on the 7th of August 1848 in the name of King Charles Albert of Sardinia. In 1852 he was appointed minister of finance in the cabinet of D'Azeglio, and in the same year became minister of public instruction. In 1855 he was appointed minister of foreign affairs. He died at Salo (Brescia) in 1870. This distinguished statesman has written an amazing quantity of historical studies, principally concerning the house of Savoy. As an economist he owes his fame to two books, the *Storia dell' economia politica nel medio evo* (2 vols., Turin, 1839), translated into French, with a preface by Wolowski (in 1859, Guillaumin, Paris), and the historical treatise *Della Schiavitù e del Servaggio e specialmente dei Servi agricoltori* (2 vols., Milan, 1868-69). Besides these larger works, some financial essays, reprinted in his *Opuscoli* (Turin, 1841), should be mentioned. M. P.

CINQUE PORTS. The name applied to the five towns of Hastings, Sandwich, Dover, Romney, and Hythe, which were incorporated for the defence of the realm and other purposes probably by Edward the Confessor. The "ancient towns" of Winchelsea and Rye, and several other places, corporate and non-corporate, were afterwards added as members. Some writers have tried to identify the five leading ports with the five Roman fortresses, which, under the *comes littoris saxonici*, guarded the south-eastern shore, but the better opinion seems to be that they were of Teutonic origin. It is probable that the trading interests of the ports first brought them into prominence. The inhabitants were fishermen, and they were accustomed to resort northwards a considerable distance to the banks at the mouth of the Yare to dry their nets and pack their fish. This practice developed into an important annual fair at Great Yarmouth, which was attended by fishermen and traders from various parts of the Continent. The maintenance of order, and the exercise of jurisdiction at this fair belonged to the portsmen from the earliest period of their history. Professor Montagu Burrows (*Cinque Ports*, London, 1888) traces the origin of all their distinctive institutions to their connection with this fair.

Jurisdiction was exercised in the "Court of Shepway," a body composed of the bailiff, and a certain number of freemen from each port, but the assemblies known as the "Brodhull" and the "Gestling," usurped its administrative powers, and the Lord Warden and his courts of admiralty, chancery, and pilotage, gradually encroached on its judicial powers.

The chief duties of the assembly were as follows: (1) to exercise jurisdiction at Yarmouth fair; (2) to fix the number and size of ships to be furnished for the defence of the realm; and (3) to safeguard the franchise of the ports.

The ports were at the height of their power during the reigns of John, Henry III., and Edward I., when their ships constituted the only existing English navy. During the 15th and 16th centuries they gradually declined owing to the filling up of their harbours, the necessity of a state naval organisation, and the growth of other commercial seaports. The assemblies still continue in name, and the Lord Warden may exercise certain minor judicial functions.

[*Charters of the Cinque Ports*, by Samuel Jeakes, London, 1728.—*Cinque Ports*, by Montagu Burrows, London, 1888.—Art. on "Cinque Ports" in *Encyclopædia Britannica*.] J. E. C. M.

CIOMPI (name supposed to be derived from the Fr. *compère*, used by the French soldiery of the Duke of Athens). The sudden uprising of the Ciompi in Florence, 1378, was one of those movements in Europe which took place during the half-century subsequent to the Black Death, and may possibly be regarded as due to the dislocation of industrial conditions brought about by the diminution in the numbers of the people. Immediately, however, the movement in Florence was due to (*a*) the rising of the lower guilds against the upper, especially against the great wool guild; (*b*) reaction against Guelfic tyranny; (*c*) political restlessness of the populace. Regarded from the standpoint of history, the rising of the Ciompi may be said to have been successful in bringing about a relaxation of the excessive domination of the greater guilds, but its effects at the time were somewhat various. At first it was entirely successful, the inferior guilds obtaining a much greater power, and the guild of the *popolo minuto* being established, but in 1382 the force of reaction led to the abolition of this latter, and to a considerable restriction of the advantages attained. The ground gained was, however, not entirely lost.

[*Gino Capponi*, (Muratori, *Ital. Script.*, p. 1104, etc.).—Machiavelli, *Storia di Firenze*.]

E. C. K. G.

CIRCULATING MEDIUM. The circulating medium in all civilised countries consists at the present time to a very large extent of orders to pay sums of money in the form of bills and cheques. At the present time "Bank notes are no more than the mere small change of the ledger" (Newmarch, *Address as President of the Section of Economic Science, British Association*, Manchester, 1861). Coin plays a large part in retail trade, but its share in the more important transactions is now comparatively small. The circulating medium at the present time in this country may be said to consist of cheques, bills of exchange, notes, and coin; to these book transfers, where the accounts are under the same administration, may be added (see BANKING; CASH; CLEARING SYSTEM; CURRENCY.)

[For details "Paper on the Proportional Use of Credit Documents and Metallic Money in English Banks." G. H. Pownall, *Journal, Institute of Bankers*, October 1881;—other papers in same journal, and those of the Statistical Societies of London and Manchester, etc.]

CITATION. See JURISDICTION, SCOTCH.

CITATION. A document issued by the High Court in probate and divorce matters. Probate actions, which were formerly begun by the service of a citation on the defendant, are now opened by the issue of an ordinary writ of summons, but "citations to see proceedings" may be served on third parties who may possibly be interested in the matter, so as to bind them by the result. In divorce proceedings a citation is "extracted" and served on the respondent and the co-respondents immediately after the filing of the petition. E. S.

CITÉ OUVRIÈRE. This term is applied by French economists in a general sense to blocks of buildings rented to working-class families on such conditions that they may by payment of fixed instalments become the owners of their houses. The best known instance on the Continent is that at Mülhausen, where there is a settlement of 7000 persons, mostly employed in the industries of the town. Used in this sense, it is equally applicable to groups of workmen's dwellings in England and America which have been purchased by the occupiers through the medium of building societies or co-operative banks. But the term is used in a narrower sense to describe the famous *Familistère* founded at Guise by M. Godin. The *cité ouvrière* may be roughly described as an attempt to reconcile the capitalistic enterprise of the modern world with the craft association of the mediæval world. It is not a municipality established to provide for certain common wants out of revenues levied on individual inhabitants, but it is a manufactory so managed that its surplus profits are appropriated to develop human nature in all its mental, moral, and physical relations. The supervision of the municipality may be said to be superseded by the organisation of industry. Sanitation, education, and poor relief are all provided by a voluntary apportionment of the net rewards of common work, and public opinion takes the place of police. Perfect freedom of voluntary

association has eliminated the force of compulsory association. The city is dead but the citizen is alive, and the church based on labour has overcome the state, whose basis is taxation. The settlement at Guise, where this form of city life has been developed to the highest point (see the *Co-operative Traveller*, by E. O. Greening, Labour Association, 1 Norfolk Street, Strand, 1888), comprises about 86 acres, of which 11½ acres are covered by the iron works, 25 by public gardens, and the rest by the social palace, schools, institutes, and surrounding grounds. The iron works were opened by M. GODIN (*q.v.*) in 1846, and from that date up to 1852 he was gradually building up the business. An ardent disciple of the school of Fourier, he was determined to use his business as a means of elevating his employés, and he began to carry out his ideas by reducing the hours of labour, abolishing fortnightly payment of wages, altering the pay day from Saturdays to Thursdays and Fridays, and establishing a sick club governed by a committee of workmen. In 1859 he bought 15 acres of ground and began to build the first wing of the FAMILISTÈRE (*q.v.*) or social palace for his workpeople to live in. Building after building, institution after institution, have been added to the original plan, and now the settlement not only includes a co-operative store with departments for grocery, bakery, confectionery, drapery, boots and shoes, coals, butchery, and every article of prime necessity, but it provides its members with employment in a gigantic iron work, houses them in palatial buildings, nurses their babies as far as their mothers' desire it, educates their children, provides library, news room, billiard room, refreshment saloon, theatre, music master, doctors and dispensary, assists them to wash and dry their clothes by machinery, assures them against the needs of old age, the accidents and ailments of life, and the loss by death of the wage-earner, and furnishes them with all the luxuries of life, including a co-operative garden filled with fruit and flowers. How has all this been done? The answer is, by the capitalist sharing the profits of the iron foundry among the workers, instead of keeping them all to himself. In 1877 M. Godin commenced the plan of sharing profits by giving a bonus on wages and accumulating the sum for the wage-earners. In 1880 he formed the works, social palace, etc. etc., into one great co-operative society with certain provisions for the whole becoming the property of the workers. The accumulated bonuses of the workers then amounted to £10,490, and the share capital held by M. Godin to £150,000. The division and appropriation of profits for the future were fixed as follows:—after payment of material and wages at market prices, a preferential 5 per cent of the gross profits goes to interest on capital and the remainder is divided in certain proportions between capital, labour, the latter including mental as well as manual labour, and social and benevolent institutions. There were, in 1884, 1452 persons employed in the foundry, and they were divided into five classes: (1) the director—M. Godin was director for life, and after his death he was succeeded, in 1888, by M. Dequenne, one of the workers; (2) a committee of nine; (3) 64 associates, persons of not less than 25 years' age, of 5 years' employment on the works, with capital of £20; (3) 148 sociétaires or special members who had worked 3 years; (4) 574 participants or ordinary members of 1 year's work and not less than 21 years' age; (5) 656 auxiliaries of less than 1 year's work. Besides these there were 209 outside shareholders who had been workers but had gone elsewhere or were on military service. Classes (1) and (2) receive special remuneration for management, (3) and (4) receive proportionate bonuses on wages accumulated as share capital, while class (5) only enjoys the benefits of a medical provident fund. From 1880 to 1884 over £115,000 of profits had been appropriated to the workers, partly in share capital about £100,000, partly in cash, about £10,000, and about £5000 in education, and since that date the share of the workers in the business has been steadily increasing. At M. Godin's death it amounted to about one half of the whole capital. A. K. C.

[A. Raffalovich, *Logement de l'Ouvrier et du pauvre* (1887), pp. 448, *seq.*—E. O. Greening, *Co-operative Traveller Abroad* (1888), pp. 60-173. —A. Perrot, *Les cités ouvrières de Mulhouse* (1889)].

CITIZEN. The term citizen ought logically to be exactly correlative with the term city; but in actual usage this correlation is not observed. The term citizen is used to express three distinct shades of meaning; sometimes as equivalent to "member of a sovereign state" sometimes as equivalent to "member of a body of townsmen invested with municipal rights," sometimes as equivalent to "dweller in a town" as distinct from "dweller in the country." The title of a well-known series, the "English Citizen series," exemplifies the first of these uses; the second is exemplified in such a phrase as "the mayor, aldermen, and citizens of Liverpool"; and there would be no gross impropriety in speaking of the "citizens of Constantinople" although Constantinople is neither a state nor a municipality. When used in the first sense, the term "citizen" connotes more especially the rights and privileges, as the term "subject" connotes more especially the duties and burthens, of membership in a body politic. For this use of the term citizen is derived from ancient usage. The fully qualified citizen of an ancient city was member of a sovereign state, and within its bounds was a highly privileged person as

compared either with the slave, with the serf, or with the alien. The associations of the term "subject," on the other hand, are derived from the imperial and feudal phases of political society. The political changes of the last hundred years have lessened the interval between ancient and modern conceptions of political society, and have made the use of the term "citizen" in the above sense increasingly common. In the second sense referred to, as expressing membership of a body of townsmen invested with self-government, the term "citizen" has had a more continuous use. The establishment of the Roman Empire reduced the free cities of antiquity from sovereign states to municipalities. It was only as burgesses of one or other of these municipal towns that the inhabitants of the rural districts had any rights of self-government. In the Middle Ages self-government attained its full growth only in the towns, being restricted in the country by the power of feudalism. In some mediæval cities—in those of Flanders, of Germany, and above all of Italy,—municipal self-government expanded into something like the sovereignty of the Greek city. It is only in modern times that town and country have been generally assimilated in point of self-government. In the third of the above senses, as expressing no more than the fact of dwelling in a town, the term "citizen" is of comparatively little import for politics or economics (see CITY: ANCIENT; MEDIÆVAL; MODERN). F. C. M.

CITY

Ancient, p. 290; Mediæval, p. 292; Modern, p. 295.

CITY, ANCIENT. The city with its correlative ideas of citizen and citizenship is the special feature of the stage of political development reached by the ancient civilisation of Europe. Cities are to be found in the history of oriental civilisation along the river valleys of the Nile, Tigris, and Euphrates; but they were hardly more than gigantic collections of walled-in populations depending for their existence on the conquest of some monarch or the cult of some god, and destitute of any inherent life of their own. The inhabitants were slaves and serfs rather than citizens. It is ancient Greece and Italy that gave birth to true city life, the life of self-governing freemen; and the political history of these countries is the history of a number of cities, their growth, their revolutions, their wars and their alliances, their conquests and their defeats. This preponderance of city life is reflected in Greek and Latin literature. To the ancient Greek city, society and state seemed identical terms, and Roman statesmanship knew no other method of conciliating the conquered than that of enrolling them on the civic registers of Rome. The history of the conquest of the European world by Rome is in fact the history of the conquest and foundation of a multitude of cities, and of their connection by a system of roads. The Roman empire was mainly a confederation of cities under an emperor or chief magistrate elected by the citizens or soldiers of the conquering city, and, when it fell, the cities that were its members survived as units of government, and the roads that connected them as channels of commerce for modern civilisation.

The *origin* of the Greek or Italian city is lost in the legendary past, but in all probability it grew out of the union of some great leaders of patriarchal clans or families, who, after subduing the aborigines, seized on and settled round some commanding position, safeguarded their new settlement with walls, and sanctified it with religious worship. The city-state thus began as a military, but soon became a commercial colony. Around the original dominant families, supporting themselves by the produce of the surrounding fields, cultivated by the help of the conquered natives, and submitting, for all the purposes of mutual protection, to the combined government of the heads of the families or clans, there would be gradually collected a mixed population of settlers, traders, and refugees. The latter contributed to the wealth and importance of the settlement, but had no voice in its management. As these outsiders grew in numbers—and this was especially the case in maritime settlements—and were called on to assist in protecting it, they naturally claimed a voice in deciding questions of peace and war, in dividing the spoils, and in making laws. The internal history of these ancient cities is largely taken up with the struggles between the bodies of old and new settlers for political power. In some cities the old families held their own, and then the government was called an *aristocracy*, in others the wealthier classes belonging to the old or new families secured power, and then it was called an *oligarchy*, in others the mass of independent inhabitants gained power, and then it was called a *democracy*. Often these various forms of government alternated with each other according to external or internal changes of conditions, and sometimes a single individual, relying on the support of the excluded classes, seized the reins of government, and then it was called a *tyranny*. Except in cities like Athens, Sparta, and Rome, where conditions were, for a long time, especially favourable to one form of government, the political equilibrium remained very unstable.

The *political power* for which the inhabitants of an ancient city contended was something unknown in the mediæval and modern world. (1) each city with the country dependent on it, was originally no part of a larger state or system to whose authority it had more or less to bow, but was an independent sovereign power, waging war and making peace on its own account, like the governments of large

European kingdoms in the present day. The chief officers of the city had not merely to preserve peace at home, they had to defend it from foreign foes, they had to play the part of generals and diplomatists as well as of magistrates and councillors, and each citizen had to be ready to fight as well as to vote, to run the risks as well as reap the rewards of war. (2) the city was, in the eyes of the ancient citizen, his church, and the city magistrates were *ex officio* priests. He might continue to take part in the ancestral worship of the family, the clan, and the tribe, but the gods and temples and ceremonies of the city overshadowed the divinities and altars and festivities of the hearth; and where, as at Athens, the state religion gave rise to the state drama, the city wielded the power of the pulpit and the stage. Everywhere the secular arm of the state was supported and consecrated by its spiritual authority, and patriotism and piety became indissoluble sentiments. Exile carried with it all the terrors of excommunication, and the cityless man became a social outcast without gods and without duties.

One consequence inevitably followed from the supreme position of the city-state. The individual liberty of the citizen was greatly curtailed, and against the demands of the state he had no rights. In such a small community the tax upon person and property was universal and practically unlimited, and private life was never free from state interference. There were state regulations about dress, food, marriage, exposure of deformed children, education, religious observances, political services, succession to property, and indeed very few matters were left to individual choice and conscience. Civil liberty, as we understand it, did not exist. The liberty of the ancient citizen was twofold—political and personal. He was free from the dictation of any person outside the city, and he was free from the dominion of any person inside the city. He was neither the subject of a king nor the slave of a master, but he was the servant of the constitution. Whether the constitution was aristocratic, oligarchic, or democratic, the essence of citizenship was everywhere much the same. It consisted in the privilege to own land, to serve in the ranks of the heavily armed soldiery, to vote at the civic assembly, to elect and be elected to office, deliberative or judicial.

The government of the city-state always turned on the general assemblage of the body of citizens, whether the title to citizenship rested on birth, wealth, or personal freedom; but subject to this principle, the functions of government were distributed, and the control of government exercised very differently under an aristocratic, oligarchic, or democratic system. Under the latter system, as developed at Athens, the public assembly was practically omnipotent. It supervised all the chief functions of government, it voted taxation, it debated on and passed laws, it appointed subcommittees to act as courts of justice and financial and administrative commissioners, it elected its executive officers, it exacted an account from every official at the end of his term of office, it received ambassadors, and decided questions of peace and war. The distinction of judicial, legislative, and executive powers was recognised, but the division rejected. In an aristocratic or oligarchic constitution a large portion of the functions of government was invested in irresponsible officers, or in a small council of state, elected possibly by the whole body of citizens, but rendering no account to it. There were also mixed forms of government to be found, such as that of ancient Rome, where the popular assemblies were large, but had little practical control over state policy, which was directed by the senate, consisting of all those who held or had held the chief executive and judicial offices of the state. Below the citizens, occupied chiefly with war and politics, are to be found in most city-states a body of inhabitants not possessing political rights, but enjoying a large amount of civil privileges in return for special taxation. These aliens consisted either of conquered "natives," cultivating the soil in a serf-like dependence on the citizen owners, or immigrants carrying on commerce in a more independent condition. Many of the latter might have been citizens of some other city, and were from time to time, under a democratic *régime* admitted to the full privileges of citizenship in their adopted place of residence. At the bottom of the social structure in every city-state came the slaves. No form of constitution in the ancient world made any difference in this respect, and a democracy of freemen was at bottom an aristocracy of slave-owners. Thus at Athens and in the dependent country, there were at one time over 400,000 slaves, as against 10,000 resident aliens and 21,000 male citizens of full age; and at Rome the increase of slaves was prodigious as conquests extended. These slaves were not only employed in domestic service, but in mining, manufacture, and agriculture. Much of the commercial and clerical, and even the professional work was done by them, so that free labour found itself hemmed in on every side by servile labour. Slaves formed, in fact, the bulk of what may be called the working classes; and as slaves multiplied, manual labour naturally became despised by the free citizen. Two gigantic evils ensued. First, there was always danger of servile revolts; these when they broke out, as was often the case, had to be put down with relentless cruelty, especially in small states where the body of citizens formed a minority of the inhabitants. Second, class antagonism was engendered

within the civic circle. Finding very few openings for his energy, enterprise, or intelligence; forced into no intimate social relations with the rich by common industrial work; feeling the contrast between the real inequality of fortune and the nominal equality of political power,—the poorer citizen was filled with envy and hatred against the rich. He began to look to the state as a means of re-adjusting the distribution of wealth. Civil war became the order of the day. If the poor got the upper hand, then confiscation and banishment, if not massacre, followed; if the rich maintained their position, it was only by means of doles and bribes. The state was either paralysed by internal conflict or demoralised by corruption. A period of disturbance destroyed the delicate organism of the city polity; loss of civic independence and absorption into the Roman empire were welcomed as the only refuge from the weary round of revolution. The city-state lost its local sovereignty, and became an organ of imperial administration. Slavery, however, which was the curse of the city-states, was equally the curse of the Roman empire. It spread from the towns to the country. It had poisoned the life-blood of citizens by corrupting the artisan; it destroyed the nurseries of soldiers by supplanting the peasant.

[See *La Cité Antique*, by Fustel de Coulanges, Strasburg, 1864.—*History of Civilisation in Europe*, by Guizot (trans.), ch. ii.—*Aristotle's Politics*, by Newman, Oxford, 1887.—*Historical Essays*, by Freeman, 2d series.—*Public Economy of Athens*, by Böckh.—*History of Greece*, by Grote.—*History of Rome*, by Mommsen.] A. K. C.

CITY, MEDIÆVAL. After the downfall of the Roman empire and the recolonisation of Europe by the various bands of invading tribes it was the cities planted or fostered by Rome that safeguarded the political heirloom of ancient civilisation. But when their inhabitants found breathing space to look round, they found the world completely changed. The centre of political power had drifted from the town to the country, and in the towns themselves the secular traditions of Rome, which had found support in civic aristocracies, resting on the sovereignty of Cæsar, were overshadowed by the spiritual influence of the Christian clergy looking more and more to the supremacy of the Pope. On the one hand the status of citizen with his urban dependents had given way before that of the chieftain with his rural retainers, and the citadel was being eclipsed by the castle; on the other hand the prestige of the curia and the magistrate was paling before that of the church and the bishop. In many a town through the dark ages the buckler of religion was the only weapon of defence against the arm of worldly power, and the altar the only asylum for the victims of oppression. But as the two great powers of the Middle Ages became organised into feudalism and clericalism, municipalism was left to fight for itself. With the re-settlement of Europe and the revival of the demand for manufactures the cities naturally became the centres of industry and exchange. They found themselves, however, no longer independent states like the cities of ancient Greece and Italy, nor units of an imperial *régime*, but the fragments of an old system or the factors of a new, surrounded on all sides by a fierce military aristocracy looking with greedy eyes on their growing wealth. Increase of resources naturally inspired the townsfolk with the spirit of resistance, and about the 12th century there was a general movement among them for securing a distinct status in the mediæval world. Where the feudal *régime* was weak, and where municipal traditions were strong, as in the south of France, north Italy, and the eastern portion of Spain, or where natural conditions were favourable, as on the northern coast of Europe, on the Rhine, or on the Adriatic, there the townsfolk easily succeeded in winning quasi-sovereign powers, waging wars and making peace, forming alliances and embarking on conquests like the cities of old. But in the north of France, in England, Flanders, and Germany, where the feudal *régime* was strong, or where civic life was not deeply rooted in the soil, but was a plant of recent growth, there the cities, whether Roman or Teutonic in origin, had to engage in a tough struggle with their feudal lords, whether barons, bishops, or abbots, to secure some measure of self-government. Although fighting separately, they found a centre of support in the power of the rising monarchies of France and England and in the prestige of German imperialism, and by the tacit acquiescence or active assistance of their respective allies the communes of France, the towns of England, and the free imperial cities of Germany, won valuable privileges.

The revival of civic life in the cities of western Europe is therefore the common feature of the 11th and 12th centuries, but the development of that life varied greatly with surrounding conditions. The reception of a fierce feudal nobility into the bosom of the Italian republics, the commercial enterprise of the HANSEATIC LEAGUE (*q.v.*), coupled with the weakness of the central power in Germany, the natural advantages of the Flemish towns, the frequent appeals of the French communes for the intervention of the Crown, the closer touch of town and country in England, necessarily reacted on the civic politics of each country. But, in spite of the differentiation of structure by environment, certain features were general in most of the mediæval cities. They were based on work, not on war, and they flourished rather by commerce than by conquest. Whether, like most English, German, and Flemish cities, the mediæval city gradually grew out of the new rural colonisation;

or whether, like the French, Italian, and Spanish towns, it was a revival of old urban life, still the mainspring of its existence was the demand of the country-folk for the industrial products of the townsfolk. The shopkeeper and the merchant were in most cases the founders and restorers of civic life in the Middle Ages, and its humble origin explains the timidity that often characterised its action. Even when the cities rebelled against their feudal lords, they did so in self-defence, and were eager to purchase terms of peace. It was only the Italian cities with their feudal nobles that developed the haughty and aggressive spirit of the ancient republics, and made a business of bloodshed rather than of barter. The close of the period of conflict between the cities and their lords was in most cases marked by articles of peace called charters, and even in those parts of Europe, where no actual conflict broke out, the granting of charters became the fashion. Though differing in style and substance, these charters conferred much the same public liberties everywhere — exemption from arbitrary taxation, right to local jurisdiction, the privilege of enfranchising the villein who had been received for a year or a year and a half within the city's walls, and the power of electing officers and raising militia. To these public liberties private liberties were generally added, such as the right of citizens to marriage without the consent of their lord, the right of leaving their property to their children, and the like. But such privileges were not granted without fixed payments to the feudal lord on the part of the community in lieu of the uncertain exactions that had been previously levied in the shape of poll taxes and transit dues from individual traders. One important result followed from such fixed payments, namely, freedom of trade within the area belonging to the feudal lord, an area which gradually extended with the extension of the domain of the feudal over-lord or king. As the wealth of the cities increased under these favourable conditions, the fixed payments, which had taken the place of the old services and taxes, were supplemented by demands for extraordinary subsidies, and in settling these extra payments the cities came to be represented in the council of the nation, like the other feudal tenants, and an urban commonalty was eventually formed by the bond of common interests. When once the status of the city was more or less secure, its civic constitution underwent a change. The democratic equality of an age of confusion, based on individual strength and courage, gave way to the oligarchical inequality of a more settled state of society, based on wealth and intelligence. The meeting of all the inhabitants of the city to resist feudal aggression was superseded by the meeting of the chief owners of houses and shops to promote commercial enterprise. Trade being more and more the great interest of the city, the great merchants grew in prestige, and in their associations or guilds gained political power.

The origin of the civic GUILDS (*q.v.*) is to be sought in remote antiquity. The simple idea (see Stubbs) of a confraternity united for the discharge of common or mutual good offices, supported by contributions of money from each member, and celebrating its meetings by a periodical festival, may find parallels in any civilised nation at any age of the world. The ancient guild is simply the club or association of modern life. It was formed on the analogy of the family group, and was in many cases consecrated by religious ceremonies. The ends it subserved were very various—relief in poverty, sickness, old age, or in temporary difficulties, in loss of property, in making pilgrimages, dowry on marriage, repair of roads and bridges, and churches. The tendency to unite in frith guilds or clubs for mutual protection became general throughout Europe in the 9th and 10th centuries. In parts of the continent these guilds were roughly repressed, but in England and in the more independent towns of the continent they formed more and more the basis of urban life, and as trade and commerce became the chief interests of the towns, merchants and traders naturally formed their guilds or associations on the analogy of those already existing. As the maintenance of the privileges and immunities of towns became more and more a matter of money payment, the wealthy part of the commercial community that made itself responsible for this payment, and thereby protected the town and its trade from feudal encroachment, absorbed civic power. In many cases charters of incorporation were granted or confirmed to the chief guilds or guild. In fact these corporations were invested with an urban lordship, ranking side by side with the smaller rural lordships, exercising jurisdiction, enacting bye-laws, levying taxation, organising the militia, repairing the city walls, in short, carrying on all the functions of government within a limited area. The membership of a guild then became recognised as the passport to civic privileges, and so long as the membership in some guild was open to every inhabitant with a stake in the city, the constitution remained more or less democratic. But the enhancement of the commercial privileges secured by the cities made the merchant guilds more and more reluctant to admit new members. Below the merchant guilds, and outside the constitution, there were formed trade or craft guilds of the small manufacturers or artisans, weavers, shoemakers, carpenters, and the like. The greater folk of the large capitalists stood over against the lesser folk of the small capitalists, and as the numbers of the latter increased with the growth of manufactures, and the influx

of countrymen into the towns, a struggle for power ensued between the two classes of guilds, and in some of the continental cities, especially in the Rhine valley, took the form of civil war.

The result of this struggle was in many instances the enlargement of the civic constitution by the admission of the craft guilds, but these in turn became exclusive, and largely directed towards securing markets for their goods, while with the growth of capitalist manufacturers and the separation of masters and men in various industries, the artisan population of modern times began to grow up and form a fresh urban community. With the spread of the Reformation a strong tide of feeling set in against guilds in general, and we find in England a succession of laws passed in restraint of their authority. Although shorn of some of their powers and privileges, the merchant and trade guilds managed to survive in a less exclusive form, and proved valuable sources of revenue in times of emergency. Henry VIII., Elizabeth, the Stuarts, and Cromwell alike received money out of their coffers, and in return were content to leave them the real centres of civic power.

In spite, however, of the prevalence of the oligarchical form of civic government, the mediæval cities were the nurseries of modern freedom, of civil and religious rights. Within their walls there grew up the professional classes—lawyers, doctors, teachers, writers, and the like, who gradually formed the intellectual leaders of the commonalty. The separation of municipal and ecclesiastical authority in the persons of the magistrate and town council and the bishops and clergy, tended to create a liberty of thought and action such as had been unknown in the ancient world with its identification of church and state, and prepared the way for the Reformation movement. At the bottom of the social scale the influence of civic life was equally beneficial. Although the mass of the townsfolk were in a very degraded condition, yet they were freemen and not slaves, like the artisans of ancient Greece and Rome, or serfs, like the rural population outside the city walls. The town labourers, too, enjoyed some portion of civil liberty and knew how to combine against oppression, and, while struggling to raise themselves in the town, found a response from their brothers on the land. The barriers between the rich and the poor were regarded as fixed, not as in the past by a supposed law of nature, but by a contrivance of man. The church had from early times set its face against slavery; the city bred the spirit that eventually killed serfdom. While the growth of the capitalistic classes, the rise of the professional classes, and the increase of the wage-earning masses were gradually modifying the life of the cities from within, their external relations to the monarchical *régime* which was being consolidated in most parts of Europe during the 14th, 15th, and 16th centuries, were slowly but surely modifying civic life from without. In France, Spain, Holland, and England, if not in Germany and Italy, the cities began to lose their local independence and quasi-sovereign powers, and to take their place in a more centralised system of national government. In Germany, owing to the weakness of the central authority, and in Italy, owing to the absence of any centre of national authority and the standing conflict between the adherents of the imperial and papal principle, the great Hanseatic cities and the republics of Lombardy, were able for a longer time to maintain their independence, but the outbreak of the Thirty Years' War in Germany and the invasion of Italy by Spain and France undermined their sovereign strength, and in those countries, too, the cities began to sigh for the strong hand of central control visible in western Europe. The signs of central control were to be seen in the limitation of local administration of justice, in the extension of national taxation, in the formation of a national army and navy, and, in some countries, in the nomination of civic magistrates by the central government. The ideas of self-government nurtured in the seedplots of cities were being transplanted to the national soil, and what the citizens lost in local privileges they regained in national rights. The conception of national free trade, national freedom of thought, national freedom of action, took the place of that of local liberties and immunities. In a country like France, with a strongly centralised government, and with an undeveloped system of national representation, the decay of local independence was too rapid for national well-being, but in England the spirit of local independence took full possession of the central government. With the growth of industry in the 17th and 18th centuries and the spread of democratic ideas that found their most emphatic expression in the French Revolution, the system of commercial monopolies and privileges was shaken to the centre. With the improvement of communications by road, river, and canal the demand for national free trade and the destruction of remaining barriers between town and country or districts and provinces became louder and louder, and with the fall of the old commercial system civic constitutions cried out for reform.

Ghent may supply an example of the mediæval city on a very large scale. Favoured by natural conditions, it was one of the earliest places of the north-west part of continental Europe to become the centre of trade and industry; and to develop the power of defending its growing wealth. Towards the close of the 12th century it purchased commercial and political privileges from its feudal lord, the Count of Flanders, and secured some increase of municipal self-government. Civic jurisdiction took the place of manorial, and

although at first, as in other cities, the local magistrates were appointed by the feudal lord, yet in time the power of election was granted to the citizens. A later charter gave the power of fortifying the city and of raising a militia. By the beginning of the 15th century the external circuit measured 9 miles, the city area was broken up into easily defensible districts by the arms of the river, the banks being connected by drawbridges, and at the sound of the famous bell Roland, 20,000 armed men prepared to fight for their liberties. The constitution of the city was originally democratic though controlled by the feudal authority above it, but, when municipal charters had conferred complete self-government, the power of the merchant guilds gradually transformed it into an oligarchy. In the 14th century the city was torn asunder by the internal factions of the merchant and craft guilds. The latter, especially those of the wool-weavers, had been established very early in Flanders owing to the wealth of the manufacturing industries and the necessity of defending them against the merchants, and it was only after a fierce and bloody struggle that political power was redistributed on a broader principle by the absorption of the merchants' guilds into the trade guilds. The final shape the constitution assumed in the 15th century was as follows:—The population was divided into fifty-two guilds of manufacturers and into thirty-two tribes of weavers, each fraternity electing annually or biennially its own deans and subordinate officers. The senate, which exercised functions legislative, judicial, and administrative, subject to the feudal court of appeal sitting at Mechlin and to the sovereign authority, consisted of twenty-six members. These were appointed partly from the upper class or the men who lived upon their means, partly from the manufacturers in general, and partly from the weavers. They were chosen by a college of eight electors who were appointed by the sovereign on nomination by the electors. The whole city in its collective capacity formed one of the four estates of the province of Flanders. The quarrels of Ghent with its liege lord generally arose from the demands of the latter for extraordinary subsidies to raise a mercenary force. If the subsidy was refused, war as often as not ensued, and though the burghers might be defeated on the open field, yet they were unassailable behind their walls against the armed force of feudalism. It was only when standing armies took the place of feudal militia and political passions divided the city, that Ghent had to submit to the loss of its liberties.

[Motley, *History of the Dutch Republic.*—Froissart.—Philippe de Comines.—Hallam's *Middle Ages.*—Guizot, *Civilisation in Europe and France.*—Sismondi, *Histoire de la chute de l'Empire Romain et du Déclin de la Civilisation—Histoire des Républiques Italiennes du Moyen Age.*—Stubbs, *Constitutional History.*—Hallam's *Constitutional History of Europe during the Middle Ages.*—Freeman's *Essays*, 2d series.—Gneist's *Self-Government in England* and *History of English Constitution.*—*English Guilds*, by Toulmin Smith.—*Guilds*, by C. Walford.—*Wealth of Nations*, by Adam Smith, bk. iii. ch. iii. and iv.—*Hanse Towns*, by H. Zimmern.—*Histoire des Français* by Lavallée, vol. i.—Maurer's *Geschichte der Stadt-verfassung in Deutschland.*—Bryce's *Holy Roman Empire.*] A. K. C.

CITY, MODERN. The *modern city* is in some respects a revival of the ancient city of the Roman empire. It is a unit of administration in a larger state, and its powers and privileges are strictly dependent on the central authority, whatever be the nature of the latter. It differs from its prototype: *first*, because the principle of its government is democratic, not aristocratic; *second*, because the scope of its governmental authority is strictly defined by statute law, and not by custom or conquest. Residence or payment of rates in a certain area are the modern titles to urban citizenship; popular election or selection by an elected body is the general method of appointing the municipal administrator; bye-laws form the extreme limit of the city council's legislative power; and rates raised in a certain manner are the main sources of civic revenue. The time of residence, the amount of the rates, the method of election, the qualifications requisite for municipal honours, the extent of administrative functions and of the by-laws, the incidence and assessment of rates, may vary enormously in the different countries of Europe, in America, in the British colonies and Indian empire; but in all parts of the world of modern civilisation, with the exception perhaps of Russia, the above features characterise the modern city. Any man, and in the most advanced countries any woman, is at liberty, by taking a certain course of action which is open to all, to exercise the rights of citizenship in an urban community. He can be only prevented from exercising such rights by his own choice, fault, or misfortune. Physical, mental, or moral obstacles, that is to say personal impediments, may still exist, but there are no insurmountable barriers of law or custom.

The subordination of the modern city to a central authority shows itself chiefly in the sharper line which is drawn in modern times between local and national affairs, only those affairs being local which are by their very nature rooted in a clearly defined area. The mediæval city in the time of its strength had, as we have seen, within its boundaries almost complete self-government. It administered its own justice, largely based on customary precedents, it assessed its own rates and taxes, and handed over a lump sum to the central government, it preserved its own peace and order, and it raised

its own militia. The only sovereign power it did not possess after the rise of national government was the right of making peace and war. The modern city has almost entirely lost the right of local jurisdiction, it raises its own rates but has its taxes collected for it by national officials, it is in many cases responsible for its own peace and order, but it has no control over an armed force, and has to ask for its help if it requires it. On the other hand it exercises many local functions which in the Middle Ages were either left to the church or to private enterprise or to compulsory service, or were disregarded. Poor relief and education are now supplied or supervised by the chief civic body or by co-ordinate bodies. Sanitation is a matter of public concern not of private caprice, roads and bridges are constructed and repaired at the public expense not by means of private tolls, and lighting and water supply, in old times left to nature, are controlled if not provided by the municipality. The line drawn between local and national affairs varies in certain points in different countries, but, speaking generally, local affairs are those matters that touch on interests which are more immediately connected with the city's welfare, which the ordinary self-interest of the citizens is supposed to be capable of managing, and which do not admit of uniform regulation, *e.g.* roads, bridges, markets, harbours, lighting and watering; while national affairs are those in which the nation as a whole is more immediately concerned, which would not be provided for by civic self-interest, and which require uniformity of treatment. Such are civil and criminal justice, based on general principles of legal rights and penalties, national defence, postal communications, commercial regulations, and the provision of revenues required for effecting such purposes. Between the two fairly distinct classes of local and national affairs come those that are local in their application, and yet national in their interest—such as sanitation, police, poor relief, and education.

In the case of sanitation, the administration, though generally left in the hands of the city, tends more and more, with the spread of sanitary science, to be supervised by the central government. This at least is the principle on which local government in Great Britain is now conducted under various sanitary acts, and other countries are beginning to follow its example. In the case of police there is great diversity of practice in modern cities. From one point of view nothing is more distinctly a local affair than the preservation of peace and order within a given area, but from another point of view, namely, the grave danger to the nation as a whole of any local outbreak in a large centre of industry, it becomes a national affair. In all European countries as well as in America the police in the capital is under national not municipal control, but in the provincial cities practice varies according as the more or less direction is left to the central government. But in no country is the city left responsible to its own citizens alone for the efficiency of its police force, and in some cases, as in France and Belgium, there is a national or state police acting side by side with the local police. In the administration of poor relief there is also much divergence of practice. Sometimes the local body that administers relief is a committee appointed by the municipal council—this is the case in Germany and in some American cities; sometimes it is the municipal council itself, as in France; sometimes it is a separate local body for the most part locally elected but supplemented by justices of the peace, as in England; but in all countries there is a tendency towards central control of local bodies in the matter of poor relief, and in this respect the local government board of England has led the way. Lastly, popular education is locally administered, but as a rule by bodies elected *ad hoc*, if not by a committee of the municipal council. The local body as a rule acts under state laws and sometimes by help of state subsidies, but it raises a local rate where schools are civic and not voluntary establishments.

But however much the scope of local affairs and the methods of administering them may vary in different countries, yet in all there is a large and on the whole an increasing amount of central control, financial and administrative. This control is exercised in England chiefly through the central departments, in America through the state, in France and Germany through the national executive, which has a voice in the appointment of the mayor and burgomaster, but in each case it is vital and vigilant. The local bodies are no longer independent organisms self-acting; they are the appendages of a larger organism. Local *self*-government has given way to local government.

Manchester may be taken as a typical example of the modern English city. Although a flourishing town in the Middle Ages, and possessed of certain limited rights of self-government exercised through the court-leet, yet it did not become a municipality proper until the passing of the Municipal Reform Bill of 1835; with a population of 505,343, 1891; it is now the fourth (if Salford is included, population 1891, 198,136, the second) largest town in Great Britain. Its municipal business is administered by a mayor and town council of 64 members, 48 being councillors elected by the ratepayers in 15 wards, and 16 aldermen co-opted by the councillors. The mayor is elected by the council for a year and is paid; the rest of the town council is unpaid. The council has to administer the various sanitary acts passed by parliament, to maintain

an efficient police force, to make and repair urban roads, to control building operations, and to work the Free Libraries Act, if adopted by the ratepayers. It has also, in virtue of special acts, undertaken to supply the town with water and gas. There is a separate body called the school board elected by popular vote to carry out the education acts, and another body called the guardians of the poor, composed partly of popular representatives elected by plural voting, and partly of local justices of the peace, to provide relief to the destitute. Justice is administered by officers of the crown, a stipendiary police magistrate, assisted by lay assessors who are justices of the peace (the mayor and ex-mayor being *ex officio* justices for petty crimes), a recorder for more important criminal cases, a county court judge for small civil suits, and finally the assize judges as the highest criminal and civil court.

The town council's legislative power only extends to that of passing by-laws; the reasonableness of by-laws can be disputed in a court of law, and they are not binding like acts of parliament. The corporation and town council can sue and be sued like an individual. It must meet four times a year at least, it must appoint a finance and police committee, it must send in its accounts to the local government board, it cannot borrow money except with the consent of the local government board or some other central department, and it cannot raise money except in certain specified ways, chiefly by a rate on occupied houses, and for certain specified purposes. If it wants to have its powers in any way enlarged it must apply to parliament, whose creature it is.

[*Local Government and Taxation in the United Kingdom*, Cobden Club Series.—*Local Government*, Chalmers (English Citizen Series).—*Democracy in America*, De Tocqueville (tr. Henry Reeve).—*American Commonwealth*, Bryce.—*Stein's Life*, by Seeley.—Maurer's *Geschichte der Stadt-Verfassung in Deutschland.*] A. K. C.

CITY OF LONDON, COMPANIES OF. See COMPANIES, CITY OF LONDON.

CIVIL LAW, in the widest sense of the term, denotes the law of the state, as distinguished from the law Christian or CANON LAW (*q.v.*) In a narrower sense the term is used to denote the Roman law, the great storehouse of rules and principles from which the institutions of modern states have been in great part derived. The history of Roman law begins with the unwritten customary rules observed by the *gentes* and *curiæ* which made up the ancient city-state, and with the *leges* or written laws in which the sovereign people declared its will. When the plebeians made good their claim to political rights, the most important rules of the early law were roughly codified in the Twelve Tables (450 B.C.), and in process of time new laws came to be made by the assembly of the plebeian tribes; a *plebiscitum* had the authority of a *lex*. As the trade of the city increased, it was found necessary to supplement the old civil law by rules of a less formal and more rational character, such as might be applied to traders and others who were not Romans; these rules formed the so called law of nations, *i.e.* the law administered by Roman magistrates to men of all civilised nations. This wider law was afterwards identified with the law of nature, a conception borrowed from Greek philosophy. Nature implants in man the instincts which lead him to form societies and states, and nature endows man with reason, the power which enables him to improve legal rules, and to administer the law in a spirit of equity. With these philosophic notions the Romans combined great practical skill; their forms of conveyancing, their system of accounts, and the procedure of their courts have exercised and still continue to exercise an important influence on all the commercial transactions of the modern world. The success of their imperial policy gave them a wide field for legislation and administration; but empire brought with it a change in the character of the civil law. The public law of the ancient city was subverted in the interest of a centralised despotism; the private law, *i.e.* the law relating to property, contracts, family relations, etc., was greatly developed and improved; the emperors began by using the senate as their instrument of legislation; then they dispensed with formalities and assumed the right to make constitutions or new laws by their own authority. In applying the Roman law throughout the provinces, magistrates were much embarrassed by the number and complexity of legal rules and text-books. Several attempts were made to codify the whole law; and Justinian finally gave his sanction to a code of imperial constitutions, a digest of the works of the best jurists, and a book called the *Institutes*, which was to form the basis of legal education. These three works form the Corpus Juris, the authoritative exposition of the civil law.

In the history of Roman law we may study the origin of those commercial conceptions of property and contract which modern economists make the basis of their science. According to the old customary law, property belonged to family groups; the *paterfamilias* had no very extensive rights of alienation; things necessary to the family existence, such as land and slaves, were alienated with the cumbrous form called mancipation, other things only with the forms of a fictitious lawsuit. By the later law, the *dominus* or owner had extensive and well-defined rights of use and abuse; he could alienate *inter vivos*, and, within certain limits, by will, at his own discretion. The full rights of *dominium* were conceded to persons not recognised as owners by the formal customary

law; possession of land allotted by the state came to be equivalent to ownership; and equitable ownership came to be as safe, under the protection of the prætor, as the *dominium* of the Quiritarian or ancient Roman law. A thing which could legally be owned was said to be *in commercio*, a thing to be disposed of; such things were corporeal or tangible (land, goods, money, etc.) or incorporeal (debts and valuable rights). Immovable things (land and house property) are distinguished from movable things (goods, etc.) It is to be observed that the Roman law does not attach any special importance to property in land; the *dominus* of land came to have very much the same freedom of alienation as the owner of goods; a person not the owner of land acquired rights over it only by virtue of some definite contract or transfer of property rights on the part of the owner. The complication and difficulty of property law arise from the various arrangements by which the rights constituting full ownership may be separated from one another and vested in different persons. The custody and use of a thing which belongs to A may be transferred by agreement to B; A may be restricted in the use and alienation of his property by reason of rights vested in B: in other words, B may enjoy a servitude over the property of A. B may have a right-of-way over the land of A, a right to use the land for his own convenience, and this we may call a positive servitude. Or he may have a right to forbid the erection of a building on A's land which would obstruct the passage of light to a neighbouring house, and this we may call a negative servitude. Rights of way and rights to light are prædial servitudes; they cannot be claimed unless by the owners or occupiers of neighbouring property. There are also personal servitudes, rights over the property of another enjoyed by an individual without regard to his ownership or occupation of property. Of these the most important is usufruct, the right to use and take the fruits or profits of property belonging to another. Where money and goods are treated as capital, one person may have the usufruct or quasi-usufruct, the capital stock being preserved intact for the persons interested in the corpus.

The law of contract exhibits the same gradual extension of individual liberty as we observe in the law of property. Primitive custom hardly permits a person to alter his rights by his own act, or by private agreement with another. But in time reasons are found for enforcing certain kinds of agreement. These are (*a*) *real* contracts, *i.e.* those which are concluded by transfer of a thing. If *e.g.* a person actually receives a thing by way of loan or deposit, he is compelled to restore the thing or its equivalent. Barter is a real contract; it becomes binding when one party has actually performed his part of the bargain, *do ut des*. In the case of (*b*) *formal* contracts, where the agreement is binding because the parties have used some solemn form; they have exchanged the words of question and answer known as a stipulation (verbal obligation), or they have joined in making an entry of the debt in the creditor's ledger (literal obligation). Further, the law recognises *consensual* contracts, which owe their binding force to the agreement of the parties. In an action on a formal contract, claim and defence must be founded on the strict letter of the law; in an action on a consensual contract, plaintiff and defendant might be ordered to do what was fair and right. To the class of consensual contracts belong the most important commercial transactions—sale, letting and hiring, partnership, and mandate. Such were the lines on which the Roman lawyers constructed their system of proprietary and contractual rights. To give effect to the rights recognised by law is the office of courts and magistrates. At Rome and elsewhere the reign of force precedes the reign of law; self-redress is the rule of all early communities; it is only by degrees that the state assumes authority to decide private disputes. First we have customary rules by which money payments might be made in atonement for wrongful acts; there are also customs and forms by which private transactions are placed under public protection—a sale, a will, or a contract is made in presence of the people, or of witnesses representing the people, and the community is thus bound to see that the parties perform their duty. Finally, disputes when they arise are referred to arbitration, and forms of process are prescribed by the magistrates. Of the forms of action known to the oldest Roman law, one was a request that the magistrate would appoint an arbitrator; another took the form of a solemn wager, each party depositing a stake which was forfeited if he failed to prove his case. On the analogy of this action by wager was framed the *condictio*, a remedy which seems to have been introduced in the interest of creditors and the money-lending class. There were also forms of execution, by which a creditor could seize his debtor's property and hold it as a pledge, or lay hands on the debtor himself and bring him before the prætor. If the debtor did not discharge or formally contest his liability, the creditor might take him away and detain him in custody; after the lapse of a prescribed time the debtor might be sold into slavery or put to death. These early forms of process were superseded by an improved system, under which cases were sent by a magistrate to a private arbitrator, each case being reduced to a *formula*, in which the issue to be tried was exactly set forth. Cases not suited for arbitration were tried by the magistrate himself; by the imperial legislation arbitrators were almost altogether dispensed with, and all questions of law and fact were decided by the judges.

When the Roman empire was broken up, the nations of Europe framed for themselves those laws which are generally described as the feudal system. Feudalism, as Sir H. Maine points out, combines the surviving forms of Roman law with the customs of the barbaric tribes which overran the empire, and with the Christian sentiment which bound men together by the tie of mutual service. The object of the whole system was to fix the social order by defining each man's duties, and by connecting these duties as far as possible with the tenure of land. The defects of the system were that it left too little room for individual enterprise, and that, by making each man look only to his immediate superior, it strengthened small local powers at the expense of national governments. With the revival of learning and the Reformation there came a demand for greater liberty, and about the same time the renewed study of Roman law directly and powerfully influenced the laws of continental nations; but the feudal customs held their ground until, in the 18th century, political writers began to speculate on the possibility of framing laws of a more simple and rational character, based on general notions of justice and humanity. It was almost taken for granted that social inequalities and abuses were due to bad laws; philosophers drew up ideal codes, and sovereigns, like Frederick the Great, Joseph II., and Catherine of Russia, busied themselves with large schemes of legislation. In France, the Revolution swept away old institutions; the Convention began, and Napoleon carried through the work of providing the people with a new system of laws. There are, of course, infinite differences of detail in the laws of modern states, but in all of them we find the distinctions, classifications, and expedients of the Roman law, adapted to the existing condition of society. It is, therefore, not surprising that socialist writers should endeavour to break down the rigid legal ideas which the modern world has derived from the Corpus Juris. To the socialist, property does not seem to fall into the domain of private rights; he regards it as forming part of a common social stock; he will not permit contracts to be rigidly enforced, for to him a contract is only an arrangement between individuals, to be revised or set aside if the general interest seems to require it.

The history of our own law possesses a peculiar importance. Though deeply indebted to the Roman jurists, English lawyers never accepted the Corpus Juris as an authoritative text-book; they worked out a system of their own on the basis of the common law, *i.e.* of the custom common to the whole kingdom. English customary law was never codified, in whole or in part; it was handed down in the form of an unwritten tradition, of which the freemen themselves, assembled in their local courts, were the interpreters and the guardians. When the king's judges began to go circuit, administering justice in every part of the country, their decisions were accepted as the most complete expression of the common law. In applying legal rules to land, the judges began by expounding the feudal tenures with a subtlety which savours of the logic of the schoolmen; but their bias was in favour of free alienation; they invented or permitted devices by which entails were barred, and settlements brought within strict limits. The tendency towards freedom of disposition was also apparent even in our early legislation, and the chancellor, in the exercise of his equitable jurisdiction, did much to enlarge the power of an owner to deal with land in the way of commerce. Feudal restraints have now been almost entirely removed; the modern law gives to an owner in fee simple all the rights enjoyed by the *dominus* of Roman law. But the transfer of land is beset with difficulties; legislation has removed many of the subtleties of the old law, but the statute-law is so voluminous and complicated that conveyancing is still an art reverenced by practitioners and little understood by the general public. The acts passed in England and Ireland for the benefit of tenants and labourers, represent the result of efforts to combine some of the ideas of social democracy with the rigid notions of individual ownership which commended themselves to the judgment of legal experts. Of those who are most active in promoting changes in the land laws, some would be content with "free trade in land"; others again would nationalise or municipalise the land, with a view to having it managed for the general good, on principles inconsistent with individual ownership and freedom of disposition. Political discussion is much embarrassed by the obscurity of the subject; the economist or the legislator who resorts to legal treatises for information is bewildered and sometimes misled by the technical character of the language employed.

English law has always professed to favour trade; but the trade of old time was carried on under the narrow regulations which were rendered necessary by the privileges of corporations and companies. Even in the 18th century mercantile law was almost undeveloped; in the early editions of Blackstone's *Commentaries* only a few pages here and there are given to the subject. Lord Mansfield was then beginning the long series of his decisions, applying the principles which he derived from his study of Roman and English law to the business of a great and rapidly advancing commercial nation. Since his time, every species of contract and security has been made the subject of prolonged and repeated legal discussion; it would almost be possible to write a history of English commerce from the law

reports alone. Freedom of contract has been the avowed policy of the courts; the law leaves men free to dispose of their property and services at their own discretion, and compels them to carry out the bargains which they choose to make. But all private bargains are controlled by public policy; the law will not permit, for example, a wager to be made in the guise of a contract of insurance; and agents have often been forbidden to plead mercantile usages which would enable them to make profit of their agency without the knowledge of their principals. The policy of the common law would not permit partners in a concern to limit their liability; but this principle has been departed from in modern legislation relating to joint stock companies. In studying these and other topics belonging to mercantile law, we perceive that rules of law are not the arbitrary invention of legislators or judges; they arise naturally out of the usages and transactions of ordinary life. Some difficult problems are suggested to the jurist by the conditions of modern commerce. Free trade and open competition lower the standard of profit, and capitalists form trusts and syndicates with a view to obtaining the control of great markets: is it necessary or desirable that the law should limit their freedom of action? Trade unions claim to dictate terms to employers and labourers: where shall we draw the line between lawful and unlawful combination? These are legal questions, but they are not to be solved by the application of any legal formula: the law merely gives an authoritative form to the notions of justice and expediency which prevail in the community at large.

[The history of law may be studied in *Ancient Law* and other works of Sir H. Maine; for the legal analysis of the ideas of property, contract, etc., see Holland's *Jurisprudence*, and works of Austin and others there cited. Roman law is set forth in the *Corpus Juris Civilis* and in the numerous commentaries thereon; a compendious view is given in Colquhoun's *Summary of the Civil Law*. For the laws of modern European nations, reference may be made to Roger et Sorel, *Codes et Lois Usuelles*.—Stobbe, *Handbuch des Deutschen Privatrechts*, etc. English law is expounded in Blackstone's *Commentaries*,—Smith's *Mercantile Law*; for the rules relating to bills of exchange, sale of goods, and bankruptcy, the works of Judge Chalmers may be consulted with advantage. The Anglo-Indian Codes (edited by Mr. Whitley Stokes) contains a compendious statement of the chief rules of English law relating to contracts, etc.; these rules apply to the natives of India if, and in so far as, their occupations bring them within the circle of British civilisation. A native merchant at Calcutta frames his contracts according to British law, while the peasant cultivator's rights are determined by the custom of his village. Lord Mansfield's most famous judgments may be found in Smith's *Leading Cases*; see especially Carter *v.* Boehm (insurance), and Miller *v.* Race (property in bank-notes), and observe the use made by an English judge of the maxims of the civil law. Lassalle's *System der Erworbenen Rechte* is an interesting study of Roman law by a jurist who became one of the leaders of socialism.] T. R.

CIVIL LIST. The arrangement by which an amount was set apart under this head for the ordinary service of the establishments of the royal household and other expenses of the crown dates from the Restoration (1660). The hereditary revenues arising from the crown lands, and certain minor taxes, were appropriated for this purpose, the amount being about £680,000 a year (temp. Will. III.). From this the incomes of the lord chancellor, the judges, ambassadors at foreign courts were defrayed, together with the pensions granted by the monarch as well as his personal expenses. This arrangement, which was open to many abuses, lasted to the end of the reign of Geo. IV. When William IV. ascended the throne, a select committee of the House of Commons was appointed to inquire into the matter, and resolved that it was expedient that the civil list should be applied only to such expenses as affect the dignity and state of the crown and the proper maintenance of the royal household, and that many expenses which up to that date had been included in it, and had no immediate connection with these objects—which were really part of the expenses of the civil government of the state, ought to be removed from the civil list and placed under the cognisance and constant control of parliament. These charges were therefore transferred to the CONSOLIDATED FUND (*q.v.*) and the civil list established mainly on its present footing; some pensions, however, were included in it.

According to Parliamentary Paper 22, Session 1837,—being the report from the select committee of the House of Commons, appointed to inquire into the accounts of income and expenditure of the civil list, from 1st January 1831 to 31st December 1836; with an estimate of the probable future charge of the civil list of Her Majesty,—the civil list of Will. IV. was apportioned for the following purposes:

1st Class	Privy Purse . .	£110,000
2d Class	Salaries of the several Departments of the Royal Household, and Superannuation and Retired Allowances . . .	130,300
3d Class	Tradesmen's Bills .	171,500
4th Class	Royal Bounty, Special and Secret Service .	23,200
5th Class	Pensions . . .	75,000
		£510,000

The report proceeds to state that, in considering an estimate for the future civil list of the sovereign, the committee had been guided,

to a considerable extent, by the expenditure during the late reign. The payments proposed were divided under five heads described as below.

Class I

The privy purse of the sovereign has been for upwards of half a century (now more than a century), fixed at £60,000. During the late reign (Will. IV.), there being a queen consort, a further sum of £50,000 was allotted to this class. Under existing circumstances, your committee recommend that an annual sum of £60,000 be provided for this branch of the royal expenditure.

Class II

The second class comprehends the salaries of the great officers of state, those of the officers and menial servants of the royal household, and the superannuation and retired allowances payable to persons of the latter class. The committee, concurring in the opinion expressed in the report of 1831, "that it was not consistent with the respect due to her Majesty to scrutinise the details of her domestic household," have not undertaken any minute investigation into that branch of the subject; but they have received, as already stated, a very full analysis of the whole of this branch of expenditure.

The principal officers of state in attendance on the sovereign were the lord steward, lord chamberlain, master of the horse, and groom of the stole. It was not proposed to fill up the office of groom of the stole, or to create any analogous office in the household of Her Majesty. It was also proposed to reduce the number of lords-in-waiting from twelve to eight, and of grooms-in-waiting to eight from thirteen. The consolidation, when a vacancy should arise, of certain other offices was recommended. In considering the amount to be recommended for this class, your committee feel it their duty to call the attention of the house to the fact that no application is now made to parliament for the grant of pensions for the servants of the late king. With these explanations, your committee recommend the estimate of £131,260 for the second class of the civil list.

Class III

Considering the disbursements which have taken place in the late reign under the head of bills of tradesmen, your committee recommend the proposed estimate of £172,500 for this branch of the royal expenditure.

Class IV

The fourth class of the civil list of his late Majesty included the following heads:—

Royal Bounty . . .	£9,000
Home Secret Service . .	10,000
Alms and Charity . . .	4,200
	£23,200

After much consideration, your committee have determined to recommend that the sum of £10,000, now charged on the civil list for secret service, may be transferred to the consolidated fund by act of parliament, to be applied to the same purposes, and under the same authority, as heretofore.

The provision for this class will consequently be reduced, as a charge on the civil list, to £13,200.

Class V

The committee approached the consideration of the pensions charged on the fifth class of the civil list with a full sense of the attention which the subject has exacted. Your committee refer to the following passage in the report of 1831:—"The house must recollect, that the principle on which the sum is allotted by parliament for the purpose of the civil list is as a payment for the personal advantage of the sovereign, and for the support of the dignity of the crown, in lieu of the hereditary revenue which at the commencement of each reign the sovereign sacrifices for the benefit of the public: some provision ought in all cases to be made for such payments, as it might be presumed the sovereign would have been desirous of making had he remained in possession of the hereditary revenue. That one class of such payments would be pensions to those of his subjects whom he wished to favour cannot be doubted." In conformity with this opinion, your committee recommend that the provision for the grant of pensions should continue to form a part of the civil list of Her Majesty.

But in order to guard against the supposition that an enactment founded on this principle should in any degree interfere with the inquiry into pensions, of which notice has been given in the House of Commons (if it appears fitting that such inquiry should be instituted), it is the opinion of your committee that, in place of granting a sum of £75,000 for civil list pensions, Her Majesty should be empowered to grant in every year new pensions on the civil list to the amount of £1200; these pensions to be granted in strict conformity with the following resolution of the House of Commons, passed on the 18th of February 1834:

"That it is the bounden duty of the responsible advisers of the crown to recommend to His Majesty for grants of pensions on the civil list, such persons only as have just claims on the royal beneficence, or who, by their personal services to the crown, by the performance of duties to the public, or by their useful discoveries in science, and attainments in literature and the arts, have merited the gracious consideration of their sovereign, and the gratitude of their country."

Your committee recommend that this resolution should be engrafted in the Civil List Act, and that annual returns of the pensions granted, and the names of the several parties,

should be laid before parliament. The civil list of Queen Victoria was fixed accordingly at the following amount:

Class I	Privy Purse . .	£60,000
Class II	Retired Allowances, Salaries, and Wages	131,260
Class III	Expenses of Household	172,500
Class IV	Royal Bounty, Alms, and Special Services	13,200
Class V	Pensions (Her Majesty to be empowered to grant pensions in every year to the extent of £1200 per annum) . .	
	Unappropriated Monies	8,040
		385,000

This arrangement continued unaltered till 1889, when it was desired that a provision should be made for the support of the Queen's grandson Prince Albert Victor, and her granddaughter Princess Louise Victoria, on the occasion of her marriage with the Earl of Fife. An act was therefore passed (Prince of Wales Children's Act, 1889) the following clauses of which explain its object. (1) "It shall be lawful for Her Majesty the Queen, by letters patent under the Great Seal of the United Kingdom, to grant to the Prince of Wales's trustees, hereinafter mentioned, the annual sum of £36,000, which shall determine on the expiration of six months after the death of Her Majesty." (2) "The persons who are for the time being the first commissioner of Her Majesty's treasury, the chancellor of the exchequer, and the comptroller of the household and treasurer of His Royal Highness the Prince of Wales shall be the Prince of Wales's trustees, and shall be a body corporate by that name, and any act of the trustees may be signified under the hands and seals of the persons who are the trustees for the time being."

CIVILISATION. Ricardo pointed out (*Principles*, ch. v.) that the natural price of labour varies greatly, and "essentially depends on the habits and customs of the people." The closer political and industrial communication established between civilised, half-civilised, and uncivilised peoples since Ricardo's time has confirmed the truth of this observation and shown the difficulty of applying many economic maxims universally when local conditions vary greatly. The industrial life of each people harmonises with its environment of political structure, customary morality, and current intelligence. Any observed type of industrial organism is greatly determined by the conditions of civilisation existing there and then, both in regard to the wealth of the community as a whole and the economic relationships between its parts. The family, in its various forms, is the one constant social element, and offers the best basis for economic observations (F. Le Play, *Les Ouvriers Européens*, I.)

1. It is at first sight natural to ascribe the poverty of any tribe to the physical conditions under which they live, such as the barrenness of the soil, or the rigour of the climate. Such hindrances set definite limits to progress at any given time, but every increase in intelligence or social improvement removes them farther back; they form a relative, not an absolute check to the increase of prosperity. The success of the Dutch in forming a rich community despite disadvantages of every kind, shows how skill and energy may overcome nature and overpass limits that would otherwise prove insuperable barriers. The example of Sweden may likewise be cited. The use to which the wealth of a people is put depends on the current view of utility or enjoyment; it may be spent in warfare, embellishment, or extravagance; it may be devoted to improving the country and the condition of the people. Unless some portion is carefully devoted to these latter purposes, a civilisation will be short-lived, however brilliant it may be. The rapid decline of some Eastern empires and of the glories of Athens may be thus explained; the Romans, on the other hand, devoted much energy to developing the resources of their empire, and gave it more stability.

2. Though the chief economic activity of societies of men has always had the same object of securing sustenance, clothing, and shelter, they have been, and are, grouped for these purposes in different ways. We may distinguish four types: (i) In the early village community (Maine's *Village Community*, Laveleye, *Primitive Property*, see AGRICULTURAL COMMUNITY) the work is undertaken collectively, and wealth forms a common fund. Unwritten custom, administered by patriarchal or elected authority is supreme; and individual energy is devoted to the common good of a small self-dependent group. (ii) In municipal societies, like the mediæval cities, the inhabitants are organised according to their callings in separate guilds; the status in life of each inhabitant, generally speaking, is determined by the standing of the guild, on the regulations of which the conditions for labour and rate of pay depend. The individual cannot rise out of his sphere in life, and to hold a good position in his own guild is the chief object of ambition (see GUILD). (iii) By national organisation the central government may direct the economic energies of a whole nation, so that each village and each town shall contribute as much as possible to the maintenance of national power. Colbert may be specified in this connection, and the various economic systems which were criticised so effectively by Adam Smith (*Wealth of Nations*, iv., see COMMERCIAL SYSTEM). (iv) In modern society each individual is left free, so far as possible, to pursue his own greatest ad-

vantage, and, for this purpose, employs his labour or his capital in any direction which seems likely to be profitable, without being hampered by family ties and local regulations; or he unites in voluntary associations where it appears that he can reap a greater measure of personal advantage (see CO-OPERATION; COMPANIES).

It may be noticed in regard to the distinct types of economic organisation found under different civilisations, that the higher forms are extended over very large areas and give much free play for individual energy. Working on a large scale, while they are very complicated in their details, they are far more effective for the purposes of providing food, clothing, and shelter than the simpler machinery found in less developed societies. Again, the history of any one great civilisation shows how the industrial organisms of the simpler type have been in turn displaced by more effective institutions; though fragments of the old may remain, cramped probably by regulations that have become unwise since they are out of date. Hence we may find in an old society some arrangements which appear to be wholly at variance with modern modes of thought, which only become intelligible when understood to be survivals of institutions once really important, though now mere anachronisms. While much interest attaches to the study and working of any economic system, the higher civilisations with their more effective arrangements for organisation offer the best field for investigating the causes which affect the growth and maintenance of national wealth. W. C.

CLARKSON, THOMAS (born 1760, died 1846), a leader in the crusade against the slave-trade, the evils of which he first realised when competing at Cambridge, 1785, for a prize to be given for the best essay on the subject *Anne liceat invitos in servitutem dare.* Clarkson won the prize, and published his essay, translated and enlarged, 1786 (2d ed. 1788). In a subsequent essay *On the impolicy of the African slave trade*, 1788, he argued that the traffic which he had proved to be iniquitous was also unprofitable. Among many publications on the same subject may be noticed *History of . . . the Abolition of the African Slave Trade . . .*, 1808. In a new edition of this work, 1839, there is a preface describing Clarkson's later labours in the cause of the slave. To the second series of his philanthropic efforts belong *Thoughts on the Necessity of Improving the Condition of the Slaves in the British Colonies with a View to their Ultimate Emancipation . . .*, 1823; and *The cries of Africa to the Inhabitants of Europe . . .* (?1822). Clarkson also wrote, *Not a labourer wanted for Jamaica*, to which is added an account of the newly erected villages by the peasantry and their beneficial results, 1842; and *The Grievances of our Mercantile Seamen a National and Crying Evil*, 1845 (see ABOLITIONIST).

[*Biographical Sketch of Thomas Clarkson*, by Thomas Taylor, 1839.—*Sketch of the Life of Thomas Clarkson*, 1876.—Clarkson, William, author of *An Inquiry into the Cause of the Increase of Pauperism and Poor Rates, with a remedy for the same and a Proposition for Equalizing the Rates throughout England and Wales* (1815)]. F. Y. E.

CLASSICAL ECONOMISTS. This name has been applied to Adam Smith and his immediate successors, Malthus, Ricardo, James Mill, M'Culloch, and Senior, and, less often, to the French physiocrats.

In keeping with the Latin derivation of "classical," and with the use of the term "classical authors," the name might simply denote economic writers of the first rank who have left models which all others must follow. A less complimentary interpretation is given by Professor Brentano, who compares classical economics to classical sculpture, where, he says, personal peculiarities are ignored in favour of broad general human characteristics, and of an "abstract man" without scars or wrinkles. Economists, he says, belong to the classical school when they reason deductively from the assumption of an "abstract (economic) man." The justice of this description need not be discussed here. See DEDUCTIVE METHOD; HISTORICAL SCHOOL; M'CULLOCH; MALTHUS; MILL, JAMES; PHYSIOCRATS; RICARDO.

[Brentano (Prof. L.), *Die classische Nationalökonomie*, Leipzig, 1888.—Böhm-Bawerk (Prof. E.), "Review of Brentano's Class. Nationalökonomie." —*Göttingische Gelehrte Anzeigen*, June 1889.—Dietzel (Prof. H.) "Die classische Werth-theorie," *Jahrb. für Nat. ök. und Statistik*, 21st June 1890 cp. paper by the same writer, *ibid.* May 1891.—Gide (Prof. Ch.) *Principles of Political Economy*, pp. 16-20, Eng. Transl., Heath & Co., New York, and Isbister, London, 1891.] J. B.

CLASSIFICATION is described by Mill (*Logic*, vol. ii. p. 258, 4th ed., bk. iv. c. vii.) as "a contrivance for the best possible ordering of the ideas of objects in our minds; for causing the ideas to accompany or succeed one another in such a way as shall give us the greatest command over our knowledge already acquired, and lead most directly to the acquisition of more." From this description we may conclude that classification is more than a matter of neatness or convenience. We can classify things correctly only in so far as we can see them in their true relations, and to see them in their true relations is nothing less than to know their true nature. "The value of classification," says Jevons (*Principles of Science*, vol. ii. p. 345), "is co-extensive with the value of science and general reasoning." Or, as the same writer puts it elsewhere, "Science can extend only so far as the power of accurate classification extends," p. 421. It is not, therefore, surprising

that the theory of classification should have been discussed at length by the most eminent writers upon scientific method, or that success in classification should be one of the distinguishing marks of scientific genius.

Classifications have frequently been distinguished as natural and artificial, or as they might better be termed, scientific and arbitrary. In artificial classifications "some characters arbitrarily chosen serve to determine the place of each object; we abstract all other characters, and the objects are thus found to be brought near to or to be separated from each other often in the most bizarre manner. In natural systems of classification, on the contrary, we employ concurrently all the characters essential to the objects with which we are occupied, discussing the importance of each of them; and the results of this labour are not adopted unless the objects which present the closest analogy are brought most near together" (Ampère quoted by Jevons, *Principles of Science*, vol. ii. p. 351). Or, as Mill puts it in his *Logic* (bk. i. ch. vii., vol. i. p. 137 *et seq.*), some objects are separated from each other by differences of kind, that is to say, by an indefinite and inexhaustible number of particular differences; other classes of objects are separated only by certain specific differences which are not indices of any others.

But too much must not be made of these distinctions. The difference between an artificial and a natural classification is only one of degree. Any classification, however subordinate the differences upon which it is based, tells us something about the nature of the objects classified. The classification which is useless for the purposes of one science may be all-important for the purposes of another science. Thus crystals will be classified by the chemist with reference to their chemical composition, and by the crystallographer with reference to their peculiar crystalline form, and the two classifications will be altogether discrepant with each other. Again, the progress of knowledge has shown that hardly any distinctions of kind are absolute, that indefinite variation, not orderly grouping, is the way of nature, and that scientific precision is to be found not in drawing distinctions between classes, but in tracing the laws of development. Even before the idea of evolution had attained to its present distinctness, it was remarked that in the sciences known *par excellence* as classificatory, the sciences of botany and zoology, classification was based not on definition but on types. In other words it was found that the individual forms of animal or vegetable life clustered themselves around certain types to which few if any conformed with exactness, whilst all were closely akin. But since a type in this sense is but the compendious symbol of a number of nearly related classes, it is clear that a classification by types is either an inaccurate classification or else a classification which has not been fully carried out.

In the moral and political sciences, including political economy, classification is beset with peculiar difficulties and dangers. The most obvious of these lies in the fact that none of these sciences possesses, or is ever likely to possess, a complete scientific vocabulary, the terms of which have the same precise sense for every student, whilst they remain undefaced by loose popular use. Classification is at every step dependent upon nomenclature; and it is only in sciences which, like botany, possess a complete and precise technical nomenclature that classification can be carried out to the utmost extent. But a more serious hindrance to classification is to be found in the nature of the subject-matter of moral and political science. Their subject-matter is far more complex than the subject-matter of botany or zoology. If it be true that practically every individual in the vegetable or animal kingdom embodies a more or less considerable variation from a type, how much more is this true of every human being and of every human institution. Anybody who compares with the classifications of natural science the classifications, say, of feelings or motives in a treatise of psychology, will feel how much less adequate is the latter to the object aimed at by the writer. And in the study of society Mr. Herbert Spencer's *Descriptive Sociology* affords a striking example of the difficulties which beset classification and of the limited advantages to be derived from it. When we look closely into ideas or institutions which at first sight appear very similar, we usually find differences of a momentous nature. This may be exemplified by the well-known hazard in predicting from some instance in the past the working of a new institution which seems to resemble it. It may almost be said that in the sphere of moral and social science the only true kinds are individuals. The most sagacious and suggestive writers upon these topics have shunned elaborate classification as they have shunned the use of highly technical language.

[J. S. Mill, *Logic*.—W. S. Jevons, *Principles of Science*.—J. N. Keynes, *Scope and Method of Political Economy*, pp. 166-8.—K. Menger, *Methode der Socialwissenschaften* (1883), especially Appendix IV. (classification of economic sciences).—K. Menger, *Grundzüge einer Klassifikation der Wirtschaftswissenschaften* (1889).—H. Spencer, *Classification of the Sciences*.—P. Geddes, *Classification of the Sciences*.] F. C. M.

CLAY, HENRY, born in Virginia 2d April 1777. After receiving but a poor and elementary education; he became a lawyer and removed to Kentucky, where he entered on a political career of national importance, and three times in his life—in 1824, 1832, and 1844—was a candidate for

the presidency. Although not an author, Clay is noteworthy in economics as intimately associated with the development of the so-called "American system" in the United States, or the policy of protection to manufactures by means of tariff duties, and the liberal encouragement of internal improvements under national authority. In 1806, he became a member of the U.S. Senate, and for nearly forty years, with the exception of brief periods, was a member of this body or of the House of Representatives. His most important speeches bearing upon the subjects of protection and internal improvements are the following: *Manufactures*, 6th April 1810; *Internal Improvements*, 13th March 1818; *Protection to Home Industries*, 26th April 1820; *Internal Improvements*, 16th Jan. 1824; *American Industry*, 30th and 31st March 1824; *Influence of the American System*, 2d, 3d, and 6th Feb. 1832; *Introducing the Compromise Bill*, 12th Feb. 1833; *Support of the Compromise Act*, 25th Feb. 1833; and *On the Tariff*, 1st March 1842. In favour of protection he argued that it was necessary to establish a home market for agriculture, as American power of production was increasing in a ratio four times greater than foreign powers of consumption; that the United States should not permit itself to be a commercial slave; that a well-established system of manufactures promoted political peace with foreign countries; that manufactures would bind the various interests of the country into a closer union. Clay repeatedly insisted in 1820, 1824, and 1832, that the question of protection must be decided in face of the fact that European nations maintained similar systems. "I, too, am a friend to free trade," he said in 1820, "but it must be a free trade of perfect reciprocity." It will be noticed that the arguments referred to are mostly of a political nature; by 1832, Clay advanced more prominently reasons of a more strictly economic character; and then argued that through the tariff of 1824, the commodities which had been protected were cheaper, and that products of agriculture commanded a higher price owing to the creation of a home market. Little was said about the mercantile theory of balance of trade. The advocacy of internal improvements undertaken by the national government in the first third of this century, was due to reasons which would not be appreciated at the present time. Settlements west of the seaboard were scattered, and it was difficult, and in many cases perilous to reach the advance guard of western emigrants. Improvements were urged not only on political but on economic grounds. The agricultural products of Ohio were of little value as long as the only commercial outlet was the Mississippi, reached by the Ohio river. Even Jefferson, who in general with the Republican party favoured the strict construction of the powers of the constitution, yielded to the general demand that the national government should actively assist in building roads and canals and improving rivers. In judging then the position of many public men of the United States at this time in regard to a wide interference of the state in industrial affairs, one must bear in mind the political exigencies due to the fact that it was impossible to secure from the several states harmonious and wise action, necessary for an inter-state route. Clay was one of the founders of the Whig party, and in general acted in harmony with it on political questions. For his speeches on the United States Bank, see the following: *A National Bank*, 1811; *The Bank Charter*, 3d June 1816 (delivered at Lexington, Kentucky); *Veto of the Bank*, 12th June 1832; and for his speeches on the sub-treasury system in which he urged the necessity of convertible paper money, and argued against relying upon the precious metals as the sole currency, see speeches delivered 25th Sept. 1837; 19th Feb. 1838; 20th Jan. 1840. From 1842 till 1849 Clay retired from active political life, although retaining the position of adviser of the Whig party. He died in 1852. For life and works see *Works of Henry Clay*, edited by Calvin Colton, 6 vols., New York, 1863. The last two volumes contain the speeches.

D. R. D.

CLAYTON, DAVID, author of *A Short System of Trade, or an account of what in trade must necessarily be advantageous to the nation, and what must of consequence be detrimental*, London, 1719. "Multitudes of people fully employed in beneficial trades" being advantageous, the importation of foreign manufactured goods is "of consequence detrimental." The writer alludes to "a pamphlet published about two years since, entitled 'A short but thorough search, etc.', which is now again reprinted with some alterations and large additions."

F. Y. E.

CLEARING SYSTEM

Clearing Houses, p. 305; London Bankers' Clearing House, p. 306; Provincial Clearing Houses, p. 307; Foreign Clearing Houses, p. 307; Statistics, p. 309; Other Classes of Clearings, p. 310; Stock Exchange Clearing, p. 310; Beetroot Sugar Association, p. 310; London Produce Clearing, p. 311; Railway Clearing, p. 311; Cotton Clearing, p. 311.

CLEARING HOUSES. The circulation of a bill of exchange, draft, or cheque through several hands accomplishes something more than the settlement of the original transaction out of which it arose. It completes many intermediate business operations by the delivery perhaps of a single document instead of by telling over a quantity of currency several times. It thus effects important economies of currency and of labour. But for the final liquidation of the document there is still required the trouble of presentation, the provision of currency, and the labour of counting this, besides the risk of storing and of carrying it.

In some or all of these points a clearing system carries economy yet further. The principle of the clearing system is payment by "set-off," or the "clearing" off certain claims by counter-presentation of other claims, leaving only a single balance to be settled by actual payment. Economy to this extent may be obtained by the least developed system of clearing, as existing in many towns, where each bank presents to the other banks all drafts which it holds on them without requiring payment at the time, settlement being made subsequently by paying the balances between the cross deliveries. The next advance is the establishment of a clearing house or common place of meeting. By this means presentation may be made to many different members within the compass of a single room, and each of those members will have but the labour of a single journey. A further economy is secured in the settlement by book entry of the final balances resulting from the claims mutually admitted. With this arrangement the use of currency is eliminated from the whole chain of transactions, from the first drawing of a bill or draft to its final payment. The system is effective entirely in proportion to the economy obtained, and our estimate of its value must depend upon (*a*) the completeness of the chain of adjustment; (*b*) the magnitude of amounts discharged; (*c*) the number of drafts presented; (*d*) the number of parties making and receiving presentation; and (*e*) the difficulties of separate presentation, otherwise necessary. Great diversity may exist in the arrangements. It will therefore be desirable to describe the methods adopted at some of the chief clearing houses of the world.

The LONDON BANKERS' CLEARING HOUSE, established between 1750 and 1770, now includes (1891) twenty-six members, all being bankers, doing cash deposit business in the city. The clearing-room is a large apartment of irregular shape, lighted from the roof. Around the walls and in a double row in the centre are placed desks allotted to each bank, according to the extent of its business. The banks are placed in alphabetical order, so that the clerks can pass around the room and deliver the "charges" without confusion or risk of error. In describing the operations it is necessary to use technical terms and to remember that the "out" and the "in" clearing comprise the same items, having regard to their presentation by one bank and their reception for payment by another. Thus the "out" clearing of each bank, *i.e.* the cheques, etc., for which each bank has to receive payment, becomes part of the "in" clearing of every other bank, *i.e.* the cheques, etc., which every other bank has to pay. The "out" clearing is taken down at the bank offices in sheets or books in separate "charges," according to the bankers drawn upon, whilst the "in" clearing is taken down in the same way at the clearing house by clerks who go there for the purpose.

The first "clearing" is held from 10.30 A.M. till 12.0 noon, all drafts having to be delivered at the desks by 11. The clerks receiving the "charges" enter the items in their "in" clearing-books, and cast them, agreeing the totals with amounts placed on the back of the last cheque. When this is completed the clerks leave the house, taking the drafts to their respective offices. No balances are struck for this clearing, the total of each "charge" being carried forward to the beginning of the second clearing. This opens at 2.30 P.M., and continues until 4, when the last delivery must be made. The arrangements differ from those of the morning clearing only in the fact that the deliveries are continuous and frequent throughout the afternoon. At 4 the doors of the house are closed, and no more drafts can be presented. As soon as the last drafts have been despatched from the banks, the "out" books are cast close and sent down to the house to be agreed with the "in" books of the other banks. Differences in adding the figures together are rectified by the bank in error, but differences in items are altered by the "out" clearers to agree with the "in" clearers. Subsequently the difference may be reclaimed by production of the draft. Drafts refused payment are returned at any time during the afternoon by inclusion in the "out" charges to the banks by whom they were presented. "Returns" are also received at the house after the close of the clearing, and up to 5.0 P.M. The totals having been agreed, the balance between the "out" and "in" amounts is struck by each bank with every other one, and the last "returns" are charged and allowed on either side. All these balances then form items in a general balance-sheet, which is prepared by the head clearer of each bank, and shows at foot the final balance which his bank has either to pay or receive. This balance is settled with the clearing house by means of transfers made at the Bank of England between the clearing house account and those of the various banks. Of course, if the final balance-sheets are all correctly made out, the total of the transfers to the credit of the clearing house will exactly equal the total of the amounts transferred from that account to those of the creditor banks. Errors are charged or credited to the banks in the next day's clearing.

Country Cheque Clearing.—Besides the clearing between the city bankers, a clearing for drafts drawn upon banks throughout England and Wales is held daily at the London clearing house. In economy of labour this is the most complete example of the advantages of the system, its net result being, shortly, this—that every country banker can make presentation of any number of cheques, drawn on any of about 2100 country banking offices, by sending one

letter to his London agent; he can receive payment therefor by one line in his London banking account, and can in the same manner make due payment for any number of cheques drawn upon himself. The clearing is limited to cheques or drafts on demand, and by the boundaries of England and Wales, being one day's post from London. With only the most insignificant exceptions it embraces every bank outside the metropolis, from Land's End to the Tweed.

The particulars of the arrangement are as follows. Every country bank has as London agent one of the London clearing bankers, who conducts on his behalf the clearing now referred to, as well as other business that he may require to do in London. Each country banker makes up daily all the cheques drawn on other country banks which he has received, and forwards them by the evening mail to his London agent, accompanying the parcel with a detailed list of the items. The London banker, receiving them on the following morning, after examination of the parcel, sorts the cheques according to order of the various clearing bankers, as agents of the banks drawn upon, charging them in "out" clearing books, and delivering them at the clearing house. The meeting for this purpose is held daily from 12.0 noon till 2.15 P.M., the cheques being entered at the house in "in" clearing books, and the totals agreed in the same manner as in the town clearing. No balances are struck until the day next but one, when the head clearer of each bank prepares a balance-sheet, composed of the various balances he has to pay or to receive, on account of the cheques exchanged two days before. The final balance shown between his own bank and the clearing house is carried forward as an item in the general balance-sheet prepared at the close of the day's town clearing. On the first day, when the exchanges are made, the cheques received by each bank as "in" clearing are taken to the office and sorted afresh in order of the country banks on which they are drawn. They are then entered in books, and sent down by the evening's post, accompanied by lists. The country bankers, receiving them the next morning, have the whole day for examination, and then, in the daily letter to their London agents, advise them to debit their account with the total. On receipt of this advice the London bankers are able to make payment at the clearing house as already described. Unpaid cheques are returned through the post by the banker refusing them, direct to the banker whose name is stamped across them, and the particulars are communicated (technically advised) to the London agents, who claim the amounts from the agents of the bankers to whom they have been returned.

No official figures are available to show either the number, or the total amount, of the cheques included in the country cheque clearing. Calculations appear to show that the number of cheques passing thus through London has probably reached 20,000,000 in a single year, with a total value of about £450,000,000. In this case the economy of currency is considerable, but the economy of labour is even greater, and still more important is the expansion in the business of the country bankers rendered possible by it, as it has enabled them to offer to their customers facilities, in respect of the negotiability of their cheques, almost equal to those enjoyed by customers of London banks.

PROVINCIAL CLEARING HOUSES. There are clearing houses or clearing systems at Manchester, Liverpool, Birmingham, Newcastle-on-Tyne, Leeds, Sheffield, and Bradford. In some cases the arrangements have not gone as far as the establishment of a clearing house, but the members obtain facilities in other ways. In several instances the clearing includes cheques drawn not only on the members actually presenting, but also on their branches within a specified distance of the centre. At Sheffield the local clearing circle has a radius of some twenty-five miles. There are also various degrees of economy and convenience in the manner of paying the balances due. Sometimes they are settled by bank notes, sometimes by transfers between their accounts at the Branch Bank of England, or by payments made and received through the London agents. In Scotland there are clearing houses at Edinburgh, Glasgow, Aberdeen, Dundee, Greenock, Inverness, Leith, and Paisley. The arrangements generally include note exchanges, and also a highly organised system of clearing for drafts on any or all of the numerous branches. In Ireland the only clearing house is at Dublin. In Canada there are clearings at Montreal, Toronto, and Halifax; in Australia, at Melbourne and Sydney. As all the Australian banks have many branches their internal transactions do much to diminish the necessity for clearing houses.

FOREIGN CLEARING HOUSES. In the United States great use has been made of the clearing system. Although not introduced there till 1853, when the New York Clearing House was established, the number of such institutions, and the extent of their transactions, already exceed those of Great Britain. This is due not only to the general readiness with which the Americans avail themselves of every economic arrangement, but more particularly to the peculiarity of their banking system. None of the banks in the United States have any branches, nor is there any considerable number of large banks. Even in New York there are only two banks whose net deposits amount to four millions sterling, whilst the whole banking deposits of the country, which may be put at about 500 millions sterling, are divided among about 6900 banks. Each bank being

an entirely separate institution, there is little of that internal clearing performed in every large bank by the cancellation of drafts appearing on both sides of the books. In these circumstances the clearing house becomes a necessity, even where the total amount of banking business is comparatively small. In 1890 there were 60 clearing houses operating in the United States, comprising about 700 members. All these institutions have arrangements much alike, conforming generally to those of the New York Clearing House, where the method of transacting business differs entirely from that adopted in London. The New York Clearing House includes 65 members, whose representatives meet once a day only, at 10 A.M. Each bank sends two representatives, a clerk and a messenger, who arrive before the hour named, at which time every clerk is required to be at his appointed desk, with his messenger standing outside it. At a signal from the manager, who is stationed in an elevated desk overlooking the room, every messenger moves forward to the desk next his own and presents to the clerk there a sealed envelope containing the cheques drawn on the bank for which that clerk acts, with a slip pasted outside showing the particulars of the items and their total amount. He presents also a list printed with the names of all the banks, and having the amount presented entered against each of them. The clerk receiving the envelope signs for the amount and returns the list to the messenger, who goes to the next desk in the same manner, and so on until he has made the circuit of the room, and delivered all his envelopes. The whole operation of exchange is thus performed in about ten minutes. The clerks receiving the envelopes, without opening them, enter the amounts on printed lists, and make up the total, which, compared with the total of the list of envelopes delivered by their own messengers, gives a balance to be paid to, or received from, the clearing house. The messengers then take back to their respective offices the envelopes received, and the clerks remain behind to report their amounts to the managers, and to agree on the balance due. This done, the clerks leave the house; the whole clearing having occupied probably less than one hour. The debtor banks have then to pay over to the clearing house, by 1.30 P.M., the balances due from them, after which the creditor banks can receive, at the same place, the balances in their favour. Neither in New York nor in any city in the Union is there any bank occupying a position similar to that of the Bank of England, and therefore the balances cannot be paid by transfer. Formerly they were paid in legal-tender notes, or in gold coin, but this entailed a vast amount of labour. On one day, in 1879, the value of coin passing through the clearing house was £1,660,000, and its weight was about 15½ tons. Besides cost of time and labour involved in handling the coin, much loss was suffered by abrasion. Subsequently the clearing banks made a deposit of gold in the vaults belonging to one of their number, and certificates were issued against it for $1000, $5000, and $10,000 each, which were passed in payment of balances. Recently this plan has been abandoned, and payment is made, as to the chief amounts, in certificates issued by the United States Treasury for gold coin deposited there, and as to lesser amounts, in legal-tender notes and minor coins.

There is not at present any system similar to that of our country cheque clearing, and the inconveniences suffered by the banks in the United States for want of such a system afford a good illustration of the advantages derived from it here. In the absence of due facilities the banks have a custom of forwarding cheques drawn on one town to any town in its vicinity to which they may be making remittance, on the chance of the bank there having to remit to the town on which the cheque is drawn. Frequently, however, this turns out not to be the case, and the cheque is sent backwards and forwards between one town and another, sometimes remaining out for many days before finally presented, and, if unpaid, taking as many days more in return. The enormous distances comprised within the limits of the Union would render it difficult, if not impossible, to arrange for a general system of clearing through a single centre. The course of development will therefore probably be in the direction of the establishment of local clearing circles.

On the continent of Europe, the entirely different degree in which banking has progressed has tended greatly to restrict the use of clearing-houses. Although the earliest system of clearing of which anything is known was that which existed for some centuries at Lyons, France has even now made but little progress towards adopting this economy. The Paris Chamber of Compensation, established 1872, is the only one in the country, and its transactions are very small. Several causes have led to this, chief among which is the small extent to which the daily transactions of trade are carried out through banks. Cheques were quite unknown before 1859, and their use has not even now become general. Business is chiefly carried on by means of notes, coin, and small bills, the latter being generally payable at the offices or residences of the drawees. On one day, 31st Jan. 1891, the Bank of France collected in Paris 235,669 bills, payable at 75,455 dwellings, the total value being £6,169,640. The Bank of France itself through which by far the greater part of the banking operations of the country are carried on, had, in 1891, only 4992 current accounts open at Paris, and 9229 among its 94 branches. The need for a clearing house is still further lessened by the fact that the greater

part of such business is carried on through three banks only, namely the Bank of France, the Société Générale, and the Crédit Lyonnais. As these establishments have between them some 400 branches, they are able to settle a large proportion of their transactions within their own offices. The Bank of France has special arrangements for this purpose, and the amount annually "cleared" within its walls is seven or eight times as large as the total passing through the Chambre de Compensation. A still greater amount is probably that which is affected by the arrangement under which the operations of the Bourse, not only in Paris, but in the other chief cities, are liquidated within the Bourse itself by means of the "Compagnie des Agents de Change de Paris." These remarks apply with little variation to the banking arrangements in the other countries of Europe. Where there is no general use of cheques there is no great necessity for a clearing house, and throughout the continent a "bank" exists more as an establishment of credit than as a medium of currency. In Berlin, the clearing was established by the Reichsbank so recently as 1884, as part of a general movement to extend the use of cheques. There, also, the transactions of the stock exchange are, and have been since 1871, liquidated by "set-off" in a separate institution, the Bank des Berliner Cassen-Vereines. A clearing house exists at Hamburg, continuing arrangements long carried on by the Bank of Hamburg; and there are similar institutions conducted by the branches of the Reichsbank at Frankfort, Cologne, Bremen, Leipsic, Stuttgardt, Breslau, and Dresden. At Vienna, arrangements which previously existed among several banks, were consolidated, in 1872, into a regular clearing house. Its operations have not been very considerable, nor have they shown any tendency to increase. The operations of the Bourse are liquidated separately by the Wiener Giro- und Cassen-Vereine. In 1881 the amounts so liquidated were fourteen times as great as those passed through the clearing house. In Italy, thirteen clearing houses were established by royal decree in 1881, to assist the resumption of specie payments, but the development of banking there did not require their continuance, and only those of Rome, Milan, Florence, Genoa, Catania, and Bologna still exist, besides that at Leghorn, established long previously.

STATISTICS. Full tables of the amounts passing through the various clearing houses of the world cannot be given here, but a few of the most important figures will show the extent to which currency at least is economised by the system. Some considerations should always be borne in mind in connection with tables of clearings which are otherwise likely to mislead. The amounts cleared at one time or place, as compared with other times or places, do not directly indicate the relative extent of trade or of banking development. They may vary with (1) the number of separate members included in the clearing; (2) the proportion they bear to the whole banking system of the place; (3) the existence there of other institutions having similar objects; (4) the manner in which returns are made. In connection with point 1, it is evident that the greater the number of banks in the clearing the greater will be the proportion of their whole transactions passing through the house. The larger any individual business is, the larger will be the proportion of its transactions cancelled in its own office. The same applies to point 2, because banks outside the clearing, though they may clear through members of it, have still a large number of transactions settled internally, and thus removed from view. This also applies with still greater force to banks with many branches. Point 3, the extent to which arrangements are in existence for liquidating separately any particular class of financial engagements, must obviously materially affect the amounts cleared. The remarks already made on this subject as to the clearings at Paris, Vienna, and Berlin sufficiently show its importance. On the other hand, the absence of special settling days for bargains between members of the Stock Board in New York tends to increase the amounts passing through the bankers' clearing. Point 4, the totals of one side only are usually quoted, but in the earlier returns of some American clearings, and in some continental clearings at the present time, both cheques brought in and those taken away are included, thus doubling the figures.

CLEARINGS.		Millions.
London—Annual average	1868-1877	£4941
,, ,, ,,	1878-1887	5747
,, ,, ,,	1888-1890	7454
,, . . . year	1891 .	6848
Manchester . . . ,,	1891 .	160
Melbourne . . . ,,	1891 .	288
New York . . . ,,	1891 .	6750
58 other clearing houses, U.S.A.	1891 .	4642
Paris . . . . year	1890	206
,, Bank of France . ,,	1890 .	1700
Berlin and 8 other cities ,,	1890 .	900
,, Stock clearing . ,,	1890 .	281
Vienna . . . ,,	1885 .	41
,, Stock clearing . ,,	1885 .	346

With regard to the proportion between amounts cleared and balances paid over in settlement, their relation will depend generally upon the number of members in the "clearing," but it may also be affected by other circumstances. Thus the balances paid in the London Clearing House are very largely increased by the Bank of England clearing on one side only, the debtor balances of all the other banks being thus increased to the extent of the whole of their claims upon the Bank, which are by the present arrangement paid in as "credits" at the Bank

counter. In point of economy of currency, however, this is immaterial as the final settlement is made by book entry.

Other Classes of Clearings. The principles of clearing have been applied, with more or less completeness and success, to the settlement of transactions in commodities other than money, and some examples of those arrangements must now be briefly referred to. Whilst the clearing houses described above have differed only in the degree of their organisation, institutions for dealing with commodities are capable of variation in another direction. They may deal with either or both of two terms instead of with the single term, money. A number of bargains in any movable property may be settled by the principle of "set-off," either as to delivery of the property or as to payment of its value, or as to both of these points. One feature, however, is common to all clearings, and that is uniformity of the article dealt in. A clearing can only be held under these circumstances, as it is the essence of the principle that the last buyer or receiver is equally satisfied by delivery from the first seller as he would be by delivery from the person of whom he actually bought.

These conditions are present in bargains in stocks and shares, and it is in connection with stock transactions that the most extended application of the clearing system to dealings other than those in money has been made.

The Stock Exchange Clearing has been in operation in London since 1874, and though its use is neither obligatory nor universal among the members of the stock exchange, it has undoubtedly effected a very material saving of labour. Nothing whatever is known of the amounts settled by its means, although, no doubt, they are already very considerable, but it cannot be said to effect any economy in currency, as the transactions liquidated there would otherwise be settled by cheques. Still, those amounts, whatever they may be, are so much withdrawn from the returns of the Bankers' Clearing House.

The clearing is held within the precincts of the stock exchange, and is under the sanction and control of the committee. It is not applied to the settlement of general business, but only to bargains in certain stocks, and those such as are the subject of frequent speculative transactions. These comprise most classes of foreign government bonds and some particular English railway stocks. As it is not in universal use among the members of the exchange, any dealer who desires to settle his bargains through the clearing is able to do so only with regard to certain stocks, and even in those is limited to his bargains with such other members as also clear. The clearing is carried on entirely by means of balance-sheets and tickets; neither stock nor money in any form being received at the clearing house. On the settling day each member forwards to the clearing house a balance-sheet for each particular stock, giving on the one side the amounts of the stock purchased and to be received by him, and on the other the amounts he has sold and has to deliver, together with, in each case, the name of the seller or buyer. At foot is shown the net balance which he has to receive or to deliver. At the clearing house each item in this list is ticked off or cancelled against the corresponding item in the sheet furnished by the other party, until the balances only remain outstanding. The total of the balances of stock deliverable will then exactly equal the total of the balances of stock receivable, although the items making up each total will be different. Those who have to deliver stock are then furnished with tickets giving the separate amounts into which their balance has to be divided and the parties to whom they are to be delivered; whilst those who have to take in stock receive tickets showing by whom it will be delivered. The receiver pays to the party delivering the stock its value at a fixed price, which is settled on the account day, and is called the "making-up price." All differences between this price and those at which the various bargains were made are settled directly between the dealer and those with whom he has dealt. No particulars are obtainable of the transactions which are settled in this manner, but as the clearing is chiefly used by those dealers and brokers who transact speculative business, and the stocks which clear are only the most speculative and "active" classes, it is probable that the bargains "cleared" are among the heaviest in each "account." The existence of this arrangement is therefore a consideration of some importance in any comparison of the returns of the London Bankers' Clearing House before and after 1874. The liquidation of transactions on the Bourse at Paris is much more complete in its organisation, and applies to all the operations of the Agents de Change. In Vienna and Berlin the compensations effected by the institutions already mentioned also cover the greater part of the Bourse transactions.

The Beetroot Sugar Association of London established (in 1888) some arrangements for clearing bargains in beetroot sugar upon the following basis. The bargains to be cleared must always have reference to sugar of a certain range of quality, and to lots of 500 bags, each containing a certain weight. A broker having sold a quantity of sugar, starts a *filière* for each 500 bags, describing thereon the ship or warehouse marks, and all other necessary particulars. The *filière* is a sheet of paper printed at the head with the conditions of sale, and with spaces for insertion of the particulars referred to. It contains also a series of transfer forms which are filled up and signed by each successive holder, transferring the property to a new

purchaser. At the same time the purchaser signs a coupon form which is printed at the side of the transfer, quoting the date and hour of the sale. This is detached, and retained by the seller as evidence to determine any liability consequent on delay in passing on the *filière*. Any purchaser requiring delivery of the sugar can send the *filière* to the clearing house, instead of passing it on, and his name is then communicated by the officials to the first seller who tenders him the warrant direct. The *filières* may pass from hand to hand within a limit of six days, at each transfer a stamp being affixed for the clearing fee. The differences between each of the successive bargains are calculated to the profit or loss of the seller. In the former case, the clearing house issues a cheque in his favour; in the latter case notice is sent of the amount due, which he is required to pay immediately to the bankers of the association. All the intermediate parties being struck out, any difference in the quality or weight of the sugar ultimately delivered concerns only the first and last parties, who settle it between themselves. The arrangement appears to be very complete, and as the advantages are considerable, it is already largely used. It must therefore make a great difference in the amounts of money passing in the trade. It is not unusual for *filières* to pass through twenty hands before delivery of the sugar, and as a lot of 500 bags is worth, roughly, about £600, the transactions represented in such a case would amount to £11,400, of which eighteen transfers amounting to £10,800, would be struck out, leaving only one amount of £600, and sundry small differences to be settled by actual payment. Besides this economy, there is the saving in clerical work, the avoidance of risk in delivering warrants from hand to hand, and of delay in tendering warrants, with a consequent saving of much expense in demurrage.

LONDON PRODUCE CLEARING. An institution under this name was started in 1888, to regulate and adjust bargains in colonial and foreign produce. At first its operations were confined to coffee and sugar, but they have since been extended to wheat and silver. The chief object of the company is to guarantee both to buyer and seller the fulfilment of bargains for future delivery. This it does upon payment by the contracting party of a margin sufficient to secure the company from loss. Indirectly, a certain amount of economy by clearing is effected, because transactions accumulate on either side during the month, and are settled at the end by payment of balances only. In this case also bargains are for commodities of a certain quality, and in specified quantities, or multiples thereof. If the clearing came to be extensively used, there would be a great saving in the amounts of cheques drawn. Other institutions upon the same lines are the "Caisse de Liquidation" at Havre, and the "Waaren Liquidations Casse" at Hamburg. For the "Cotton Brokers' Bank" in Liverpool, *v.* COTTON CLEARING. In the tea-trade, the Tea Clearing House is only for economy of labour, by providing a central office for the lodgment and delivery at the various docks and warehouses of warrants, and orders for various purposes. Further, it is to be observed that by the extension of the warehouse system, a species of clearing is effected as regards the handling of goods, by warrants, which are used for intermediate transfer, whilst delivery is only made to the last buyer. Among the most important examples are the warrants of Connal's Stores at Glasgow, for pig-iron; and, in the United States, the certificates of the United Pipe Line for petroleum, and the system of grading and storing wheat as adopted at Chicago.

Finally, the RAILWAY CLEARING HOUSE requires some notice, although it has other objects than settlement by "set-off." Its main purpose is to settle all the balances that arise out of through-booking, and to split up into different proportions the sums that are received for transport of goods or passengers, where they pass over different lines. For this purpose the railways send to the clearing house daily reports of all compound tickets issued at each station, and of all amounts charged for through carriage of goods. All spent tickets collected are also sent up to be compared with the accounts rendered. From these particulars the various companies are debited with the amounts received by them, and credited with their proportion of the work done according to the mileage of their line covered, the haulage, and the ownership of coaches, trucks, or tarpaulins used. Of course the principle of clearing is brought into play in effecting the settlement of all these claims. A regular debit and credit account is kept with every railway, and it is only called on to make payment when a considerable sum is owing, or when the set of the balances is all one way.

[For full details and statistics see *Our Clearing System and Clearing Houses* (Howarth).—*Clearing Houses et Chambres de Compensation* (François); and also various papers in *Journal, Institute of Bankers*, vol. iii. 1881-82, and subsequent years. As to amounts settled outside of clearing houses, see "Proportionate use of Credit Documents and Metallic Money in English Banks" (Pownall), *Journal, Inst. Bankers*, vol. ii. 1880-81.] R. W. B.

COTTON CLEARING (COTTON BROKERS' BANK). The principle of payment by "set-off" of differences has been applied to the very heavy monetary transactions arising from dealings in cotton at Liverpool. The system employed is fully described in the *Bankers' Magazine* for July 1887. No fewer than forty-six different forms for contract, orders for delivery, etc., may have to be employed in the process, and eleven

more connect the "Cotton Brokers' Bank, Limited," as the association through which the business passes is termed, with the clearing conducted by the branch Bank of England at Liverpool. The numerous forms mentioned are required to meet the various requirements arising out of the re-sale of the bales of cotton dealt with. These may pass through many hands after being in the possession of the original purchaser, before being finally disposed of. Insurance against risk by fire, the possibility of need for arbitration, in case of dispute and of appeal against an award, the different methods of dealing according to the special rules in force, whether the cotton comes from America or India, all the various incidents which may arise in the conduct of a very complicated business, are provided for through these arrangements, as well as the ultimate disposal of the money arising therefrom. The result has been a vast economy in labour, as well as in the use of the circulating medium. "Formerly all cotton was paid for in cash. Now all the effects, whether cash, cheques, bankers' drafts, or transfers (both by post and telegraph) are lodged with the Bank of England for the credit of the Liverpool Cotton Bank, Limited, clearing account. The members of the cotton bank then transfer the amounts required from one to another at the cotton bank, and at the end of the day the cotton bank sends the completed pay list to the Bank of England, and the ultimate receivers have cheques for their amounts. The object of the clearing house of the Cotton Association is to settle the very numerous sales and re-sales of an individual parcel of cotton by collecting and distributing the 'differences' due by, or to, the respective buyers and sellers. Formerly each transaction was settled, as any ordinary purchase or sale is, by the parties concerned; a very great economy in the labour of the process, as well as in the use of the circulating medium, is obviously effected by means of the 'cotton bank' and its connection with the Bank of England" (*Bankers' Magazine*, 1887, p. 591). The arrangements, though apparently simple, must have required an immense amount of technical knowledge and intelligence to put into shape.

CLÉMENT, AMBROISE, born at Paris 1805, died there 1886. From 1838 to 1848 and from 1850 to 1860 A. Clément was secretary to the mayoralty of Saint Étienne, and, in this capacity, rendered important services to that city, for example, successfully opposing, the establishment of store houses for grain (GRENIERS D'ABONDANCE, *q.v.*) desired by the imperial prefect of the Loire. He was one of the organisers and workers from the beginning in the *Dictionnaire de l'économie politique*, and wrote many articles in the *Journal des économistes*. His works are noteworthy on account of the firmness of their principles and their logical accuracy. He was faithful all his life to the principles of his master, J. B. Say, as his following works show; *Recherches sur les causes de l'indigence* (1846 in 8vo).—*Des nouvelles idées de réforme industrielle*, referring in particular to the project for the Organisation of labour by M. Louis Blanc (1848 in 18mo); *Essai sur la science sociale* (1867, 2 vols. in 8vo).—*Le bon sens dans les doctrines morales et politiques*, or the application of the experimental method to philosophy, moral sciences, and political economy (2 vols. in 8vo); finally, *La crise économique et sociale en France en 1886* (large 8vo), his last work. A. C. f.

CLÉMENT, PIERRE, born at Dragulignan 1809, died 8th November 1870. He held a high official post in the ministry of finance, and entered the Institute (*Académie des Sciences morales et politiques*) through the imperial decree of 14th April 1855—All Pierre Clément's works consist of historical investigations conscientiously written, laboriously treated, and touching on financial questions, approached on the economic side. The following is a list of his principal works in order of publication: *Histoire de la vie et de l'administration de Colbert précédée d'une étude sur Nicolas Fouquet*, 1846 in 8vo (his best work, which obtained a prize from the *Académie Française* in 1848); *Le Gouvernement de Louis XIV.* (1683 to 1689), a continuation of the preceding (honoured with the second Gobert prize by the *Académie des Inscriptions et Belles-lettres* in 1848).—*Jacques Cœur et Charles VII.* (1853 in 18mo, prize from the *Académie Française*).—*Histoire du système protecteur en France de Colbert à 1848* (1854 in 8vo), a work written in the spirit of free trade; *Portraits historiques* (1855 in 18mo).—*Trois drames historiques* (in 18mo).—*Enguerrand de Marigny, Beaune de Semblançay et le Chevalier de Rohan* (in 8vo and in 18mo); lastly *M. de Silhouette, Bouret et les derniers fermiers généraux* (1872 in 18mo), this work was completed by Alfred Lemoine and published after the death of P. Clément. It was due to the labours of Pierre Clément that an important publication, *Les Lettres, Instructions, et Mémoires de Colbert* (1861-73, 7 vols. large 8vo), undertaken by the imperial government was successfully completed. The *Académie Française* voted its highest honours to this collection. A. C. f.

CLEMENT, SIMON (fl. 1695-1720), merchant of London. In 1696 he was concerned, along with other merchants, in an infringement of the NAVIGATION ACT (*q.v.*) by allowing a ship to be worked with a crew less than three-fourths of whom were English sailors. A plan which he proposed in 1708, for the importation of pitch and tar, was favourably considered by the government. From 1712-1714 he appears to have resided at Vienna; and in 1720 we find him presenting a memorial on behalf of the widow of William Penn, whose will was

disputed. He published *A Discourse of the General Notions of Money, Trade, and Exchanges as they stand in relation each to other, attempted by way of Aphorism*, etc., by a Merchant, London, 1695 ; and *The interest of England as it stands with relation to the trade of Ireland considered*, etc., London, 1698, 4to. Clement's pamphlets are well worth studying. Though not free from mercantilist errors, he anticipated in some respects the conclusion of later writers. He pointed out that "silver and gold . . . are to be considered but as a finer sort of commodities ; and as such are capable of rising and falling in price, and may be said to be of more or less value in divers places, according to their plenty or scarcity. Bullion then may there be reckoned to be of the higher value, where the smaller weight will purchase the greater quantity of the product of manufacture of the county." In an appendix, "offering some further reasons against raising the value of our coin," he opposed the views expressed by WILLIAM LOWNDES (*q.v.*) in his *Essay for the Amendment of the Silver Coins* (1695). Davenant quotes with approval Clement's "judicious observation," in his pamphlet on the trade of Ireland, "that if any one offers his goods cheaper than the usual price, that will then become the market price ; and every one else must sell at the same, or keep his goods."

[*Cal. of Treasury Papers*, xxxviii. 56 ; cvii. 40 ; cix. 22 ; clxxxii. 37 ; ccxxviii. 18.—Davenant, *Essay, etc. on the Balance of Trade* (1699), 123 ; *Brit. Mus. Catalogue ; Cat. Bibl. Bodl.*] W. A. S. H.

CLERGY, BENEFIT OF. "Originally consisted in the privilege allowed to a clerk in orders, when prosecuted in the temporal court, of being discharged from thence and handed over to the Court Christian, in order to make canonical purgation." —(Stephen's *Commentaries on the Laws of England*, vol. iv. bk. vi. ch. xix.)

CLIENT. This word is derived through the French from the Latin *cliens* (*cluens* from *cluere*, to hear), which in one of its derivative senses signified a person who employed a *patronus* or *advocatus* to assist him in his cause (see Smith's *Dict. of Antiquities*, s. v. *cliens*).

A client is a person who engages a barrister or solicitor for the purpose of obtaining their professional advice or assistance. It is a rule of professional etiquette that a barrister should be engaged through the agency of a solicitor. Hence the solicitor is called the client of the barrister he briefs. The person whose cause is in question is also said to be the client of the barrister. The relation between barrister and client is not, like that of solicitor and client, a contractual one, a barrister not having a right like a solicitor to sue his client for his fees. This rule, that only an honorarium is due to a barrister, is derived from Roman law. E. A. W.

CLIENT, STOCKBROKER'S. The stockbroker regards his principal very much as a solicitor regards his client. In most cases a novice has to be advised as carefully about his investments as a litigator is advised by his solicitor. A. E.

CLIFFE LESLIE. See LESLIE, J. E. CLIFFE.

CLIPPED MONEY. Until 1663, English coins were not marked or milled on the edges, and the practice arose of clipping small pieces off the coins. By 3 Henry V. c. 6, clipping washing, or filing the coin of the realm was declared high treason. This act was repealed by 1 Mary, sess. 1, c. 1, but its provisions were re-enacted and extended by 5 Eliz. c. 11, and 18 Eliz. c. 1. The introduction of milling tended to prevent clipping, but during the 17th century clipping was a common offence owing to the large gains resulting. Notwithstanding the re-coinage of Elizabeth and the issue of new coins in subsequent years, the amount of clipped coins steadily increased, the new coin being melted down or exported. It was estimated that the coinage had lost one-third its weight. In 1695, provision was made for restoring the coinage to its full weight: the cost, amounting to £2,703,164, being met from the hearth-tax.

[Lowndes' *Essay for the Amendment of the Silver Coins*, 1695.—Macaulay's *History of England*, vol. iv.—*First Nine Years of the Bank of England*, by J. E. T. Rogers, Oxford, 1887.] J. E. C. M.

CLOFF OR CLOUGH. An allowance of 2 lb. in every cwt. after tare and tret have been deducted. It is given to cover small losses in retailing. J. E. C. M.

COALITIONS. See TRADES' UNIONS.

COASTING TRADE. Coasting trade is trade carried on by sea between the various ports of the same country or state, and therefore in the case of this country includes the intercourse between Great Britain and Ireland (39 & 40 Vict. cap. 36, § 140). From the time of Elizabeth, if not before, the coasting trade was reserved to British subjects by various acts of parliament including the navigation acts of 1651 and 1660 ; but by the act of 17 Vict. cap. 5, this restriction was swept away, and all nations have since participated in our coasting trade. As, however, only 121,000 tons of *foreign* shipping were entered in 1888 in the coasting trade, compared with the 27,000,000 tons of *British* shipping, the effect of this free trade measure may be regarded as more moral than material. Many foreign countries have followed our example in this respect, allowing ships of other nations to share in their coasting trade, but there are still several notable exceptions, such as France, Russia, Spain, Greece, and the United States, where this trade is still reserved to the national flag. If the policy of allowing the utmost competition in carrying goods to and from our shores is a right one, it is difficult to maintain that the same competition is undesirable in trade between the various ports. The great bulk of the articles so

carried are raw materials, such as coals, bricks, timber, and the like, for which the cheaper carriage of the sea compared with that of the railway is a necessity, and we do not wish to endanger this cheap carriage by excluding competition. The regulations imposed on ships and cargoes in coasting trade are much less stringent than those on foreign-going ships. The following are the principal regulations prescribed by the act 39 & 40 Vict. c. 36. Foreign ships are subject to the same regulations as British as to stores, etc., and may not be subjected to higher local dues (§ 141). Under the following section (142) no goods are to be carried coastwise except those laden at some port or place in the United Kingdom, but under recent regulations in pursuance of the Revenue Act of 1884, a ship arriving from abroad is allowed to ship non-dutiable goods for coasting after discharging part of her cargo, and conversely a vessel which has been conveying goods coastwise is allowed to retain part of the cargo on board for exportation abroad. The master of the coasting ship has to keep a cargo book in which he enters particulars of the goods taken on board and discharged at the various ports, for the correctness of which he is liable under a penalty of £20 (Customs and Inland Revenue Act 1879, § 9). Before leaving any port, a document called a *transire* has to be signed by the collector of customs, and is the authority to the master to clear for the next port (39 & 40 Vict. c. 36, § 145). Fishing boats are exempt from even the light regulations of the ordinary coasting trade, and are entitled to carry from one part of the coast to another, besides their own fish and fishing appliances, a variety of bulky goods, such as ashes, bavins for bakers, bricks, stones, slates, clay, sand and gravel, lime, tiles, timber, and hay and straw. Fishing boats, however, exceeding 15 tons burthen must be registered under the Merchant Shipping Act of 1854.

The following table shows the growth of the coasting trade of the United Kingdom since 1850, at intervals of ten years.

	1850.[1]	1860.[2]
	Tons.	Tons.
Tonnage employed in the general coasting trade—		
British	10,979,574	11,342,532
Foreign	..	82,443
Intercourse between Great Britain and Ireland—		
British	1,585,057	5,558,656
Foreign	..	19,780
Total—		
British	12,564,631	16,901,188
Foreign	..	102,223
TOTAL	12,564,631	17,003,411

[1] Foreign vessels not admitted to the coasting trade previous to 1854.

[2] Before 1856, vessels employed between Great Britain and Ireland were returned as entered at ports in Great Britain only. From 1856, entries at Irish ports are included.

	1870.	1880.[3]	1888.
	Tons.	Tons.	Tons.
Tonnage employed in the general coasting trade—			
British	11,357,651	16,045,071	17,955,119
Foreign	74,079	88,212	103,024
Intercourse between Great Britain and Ireland—			
British	6,852,868	9,878,950	9,049,090
Foreign	15,677	10,316	18,436
Total—			
British	18,210,519	25,924,021	27,004,209
Foreign	89,756	98,528	121,460
TOTAL	18,300,275	26,022,549	27,125,669

In France the tonnage of vessels cleared with cargoes in coasting trade has been as follows, all the vessels being of French nationality:

1847-56 Average.	2,678,572	1884	3,914,127
1857-66 Average.	3,063,896	1885	4,158,064
1867-76 Average.	2,934,659	1886	4,443,486
1882	3,633,039	1887	4,856,585
1883	3,822,929		

(Tableau général du Commerce de la France.)

A. E. B.

COBBETT, WILLIAM, born at Farnham, Surrey, 1762, passed his early years in farm-labour, and, after a few unhappy months in a lawyer's office in London, enlisted (1784) in the 54th regiment of the line, and served with it seven years in Nova Scotia. Retiring as sergeant-major, in 1792 he began his literary career as well as his married life. He settled in Philadelphia, but he was too stout a champion of England against France to be left in peace, and in 1800 he found himself again in England. He was at first well received by Pitt and his supporters, but soon broke off connection with all political parties, becoming convinced that corruption, and place-hunting, and waste of public money prevailed with little difference among Whigs and Tories. He was thus a radical reformer; but neither republican nor revolutionist. His ideals lay as much in the past as in the future. He deplores the Protestant Reformation, but, since there is now no hope of return to monastic charity, he lauds the old poor law, as being with Magna Charta the foundation of English liberties (see *Manchester Lectures*). He talked not of abstract rights of man, but of rights of Englishmen, founded on the old laws of England; his desire was to make the poor labourers as comfortable as in his father's time. This was his strain in the *Political Register*, which he issued week by week for over thirty years (1803-1835). There was only one serious break, from 1810 to 1812, when the editor lay in Newgate, under punishment for a severe article on flogging in the

[3] Before 1873, vessels employed in conveying ashes, bavins, bricks, tiles, clay, lime, gravel, iron ore, fresh meat and fish, hay and straw, timber and wood, and various other raw materials were omitted in the returns of tonnage.

army. In prison, besides studying Tull's *Husbandry*, he wrote his letters to the people of Salisbury, best known by the title *Paper against Gold*.

On his release he continued from his Hampshire farm to edit the *Register*. Embittered in spirit and reduced in fortunes, he was never more full of vigour in mind and body. The "White Terror" under Lord Sidmouth drove him in 1817 again to America, but he kept up his *Register* from his farm in Long Island, and returned in 1819 to his native country, with the bones of Paine as proof positive of his political conversion. Bankrupt through lawsuits in 1820, he quitted Hampshire for Kensington, still keeping tight hold of his pen. In the reformed parliament of 1832 he sat as member for Oldham till his death in June 1835.

His work in parliament was far surpassed in brilliancy and originality by his earlier achievements as a journalist. He was right in thinking that he was "of most weight as a spectator and commentator." As an agitator or man of action he showed little tact, taste, or knowledge of men; he was not a man of the world any more than he was a worldly man. The great obstacles to social reform seemed to him to be political, and it was because of what he thought to be their evil political influence, that he disliked the growth of the stock-jobbing commercial aristocracy of his day. He was in his eccentric way a labourer in the cause of popular education; he was an agricultural improver, importing the "locust tree,"[1] and trying to induce English farmers to grow Indian corn; he tried to revive cottage industries, especially straw-plaiting. He was intensely national, and yet his writings did more than most men's to make the American nation, and in a less degree the French, better understood by his countrymen. His strength lay in his clear logic and wonderful command of good homely English, as well as in his happy epithets. His chief failing was his vanity, pardonable in one who owed all his success to his own pertinacity, and all his education to his own diligence.

The discussion of economics apart from politics had no interest for him. Even his favourite subject, taxation, is treated simply with the sturdy common-sense of one whose views are limited, but whose powers of expression are boundless. Like Swift, he made excursions into economical regions, not because he was at all anxious to find truth there for its own sake, but because some prevalent economic error or other seemed to be hindering some project of reform which was dear to him. His antipathy to the economists of his time was not due to any general economic theories of his own fundamentally different from theirs. He denounced Malthus, and he denounced Ricardo, because he saw their doctrines afforded too easy a handle to his political enemies, the "boroughmongers." But, in his diatribes against a potato-diet, he uses arguments identical with those of Malthus; and, in protesting against the new corn law of 1815, he states the case as Ricardo or any free-trader would have stated it. "There are few articles" (he says in his letter "To the Journeymen and Labourers of England, Wales, Scotland, and Ireland") "which you use, in the purchase of which you do not pay a tax. On your shoes, salt, beer, malt, hops, tea, sugar, candles, soap, paper, coffee, spirits, glass of your windows, bricks and tiles, tobacco. On all these and many other articles you pay a tax, and even on your loaf you pay a tax, because everything is taxed from which the loaf proceeds. In several cases the tax amounts to more than one-half of what you pay for the article itself; these taxes go, in part to support sinecure placemen and pensioners; and the ruffians of the hired press call you the scum of society." For the most part, when Cobbett has hold of an economical truth, he can put it more clearly than another man, and there is little fault to find except the exaggeration which seems to be inseparable from all political writing. The "Letter to the Luddites" (30th November 1816, *Weekly Political Register*) is not only one of Cobbett's most characteristic and ingenious papers, but it contains one of the clearest popular descriptions ever penned of the economical benefits of the invention of tools and machinery. If he treats taxation as if it were the only cause of distress, we must remember that in his days, and indeed till the repeal of the corn laws, it was probably the most potent cause. Even during the course of the French War, when there was more apparent reason for high taxes than in 1816, he was never tired of declaiming against excessive expenditure and over-taxation; and his letters on *Paper against Gold* are simply one skirmish in his general attack on these evils. The letters in question are a lively, and in the main an accurate history of the suspension of cash payments by the Bank of England in 1797, and the effects of it on the currency. He gets his principles not directly from the economists, but from Paine's *Decline and Fall of the English System of Finance* (1796); he compares the English inconvertible notes to the French assignats; and is not careful to avoid the exaggerations of the "Ultra-bullionists," who explained all the high and low prices of those times by the state of the currency. His assertion that the bank neither would nor could ever return to cash payments was not confirmed by facts. But, with all its defects, the book is valuable for its pictures of the opinions and conduct of average Englishmen at a momentous

[1] The acacia, which was then better known under its American name of "locust tree."

period in the economical history of the country. In the same way we owe much to the *Register* for its glimpses of English working men, and their views in the darkest years of this century.

Of Cobbett's numerous works the following are of most importance economically :—

The Weekly Political Register, 1803 to 1835.—*Paper against Gold*, 1810, 1811, reprinted 1817.—*Rural Rides* (reprinted from the *Register*), 1830.—*Two-penny Trash*, 1831.—*Tour in Scotland and in the four northern Counties of England*, 1833.—*A Year's Residence in the United States of America*, 1818.—*Cottage Economy*, 1821.—*Manchester Lectures*, 1832.—*Surplus Population and Poor Law Bill*, 1835.—*Legacy to Labourers*, 1835.—*Legacy to Peel*, 1835.—*Legacy to Parsons*, 1835.

[His biography is given by himself incidentally throughout his works (for example, in *Advice to Young Men*, 1830, and in the *Year's Residence in America*).—See also *William Cobbett, a Biography*, by Edward Smith, 2 vols. (Sampson Low, 1878).—George Gilfillan, (second) *Gallery of Literary Portraits*, 1849.—Adolf Held, *Soziale Geschichte Englands*, 1881.] J. B.

COBDEN, Richard, born 1804, died 1865. In 1841, being already a well-known and vigorous writer on public questions as well as an active advocate of free trade, he entered parliament, having contested Stockport, the borough which first returned him, in 1837. In 1857 he was not returned. In 1859 he was returned, while absent in America, for Rochdale, and sat for this constituency till his death. In these pages it is impossible to enter into the details of his public life.

Cobden was supposed, especially by those who did not know him, to be a mere advocate of *laissez faire* ; and the school which he was reputed to have founded was nicknamed the Manchester school, chiefly by Germans, and especially by German socialists. He might have been excused if he set great store on the liberation of industry from fiscal absurdities and shackles, and thought that the best service government could do to society was to let it alone, for he had abundant experience of the mischief which the meddlesomeness of government does. But he was far too wise and experienced a man to be satisfied with mere negations, and there were few persons who interpreted the constructive side of politics with more acuteness and more perseverance. Perhaps one of the most obvious illustrations of this statement, made by the writer who probably knew him more intimately than any other person, was his negotiation of the commercial treaty with France. A commercial treaty is in direct antagonism to *laissez faire*, and at the time was criticised on this ground. Similar to this was his attitude on national education, on which he entertained opinions which have not yet been accepted, though the country is manifestly bent on accepting them in the end. His views on foreign politics too, and especially the politics of trade, are gaining ground among the most thoughtful and intelligent public men. Cobden always refused public office, mainly owing to his antipathy to a statesman who was then in the ascendant. J. T. K.

[In this reference the notice of Cobden's sensitiveness preserved by Bagehot is interesting. Bagehot remarks in his vivid sketch of Cobden and his work : "He said at Drury Lane Theatre, in tones of feeling, almost of passion, curiously contrasting with the ordinary coolness of his nature, 'I could not serve with Sir Robert Peel.'" Bagehot's *Biographical Studies*, 1881, p. 336.]

Cobden's early life was in many ways a fit training for his later career ; he passed from his father's farm at Dunford near Midhurst in Sussex to a London warehouse, and became traveller for his firm ; in 1832 he began business in Manchester on his own account, and his cotton printing works at Manchester and Salden brought him the wealth which enabled him to conduct the long campaign against the corn laws.

Cobden is associated with three great political movements, the first for the repeal of protective duties, especially the repeal of the corn laws, the second against wars and military expenditure, and the third in favour of commercial treaties. The two first of these were parts of a comprehensive but simple political programme, which he held consistently through life. Like his friend Bright, he looked at political questions with the eyes of a man of business, and without much (if any) respect for tradition. In two early pamphlets, *England, Ireland, and America* (1835), and *Russia* (1836), he gave his ideas to the world substantially in the shape which they ever afterwards retained in his mind, though the necessity of negotiating commercial treaties seems to have been recognised by him only after the force of England's example had proved evidently insufficient to convert other nations to free trade. The general spirit of his whole policy is well expressed in the motto quoted by himself (in *England, Ireland, and America*) from George Washington :—"The great rule of conduct in regard to foreign nations is, in extending our *commercial* relations, to have, with them, as little *political* connection as possible." We, he contends, have no commission to administer justice to the whole world ; and our interference will do more harm than good. We must set our own house in order and provide for our own people first. Further, if we are to pay our great national debt we must have a larger population and a larger trade ; and, if we are to have these we must throw off our feudal traditions and our habits of excessive military and civil expenditure, and above all our protective duties. After the repeal of the corn laws, Cobden's opposition to all indirect taxation became more, and not less, pronounced ; and his failure to prevent the war with Russia (1854), and the war with

China (1857) only increased his ardour in preaching a policy of what has been, not very happily, called non-intervention, or, not truly, peace at any price. His efforts to secure commercial treaties have been sometimes supposed inconsistent with his general principles (see Mallet's *Free Exchange*, 1891, where this objection is well rebutted). The "Manchester School" of politicians has ceased to play a distinct part in our parliamentary life, partly no doubt because its programme was inadequate to the problems of the new era, and largely also because many of its most important principles from being paradoxes have become truisms.

Besides the "Cobden Club," the Financial Reform Association, advocating direct taxation and the abolition of all taxation of goods, may be considered to represent his disciples. In matters of economic theory he drew his inspiration from Adam Smith; and, though he added little or nothing of his own, he had a remarkable power of making clear to a popular audience the several steps of an economical argument. As Bagehot said of him, Cobden "was not the discoverer of the free-trade principle. He did not first find out that the corn laws were bad laws. But he was the most effectual of those who discovered how the corn laws were to be repealed, how free trade was to change from a doctrine of the 'Wealth of Nations' into a principle of tariffs and a fact of real life" (Bagehot's *Biographical Studies*, 1881, p. 337). His association with Bastiat was of first-rate importance for the cause of repeal, but it has induced too many of his followers to adopt the economics of Bastiat as a whole (see *e.g.* Mallet's *Free Exchange*, p. 23, "without Bastiat, Cobden's policy would not have been elaborated into a system"). The economical writings of Perronet Thompson had an influence on Cobden of which he gave practical recognition by editing them for the League.

[*The political writings of Richard Cobden, with an introduction by Sir Louis Mallet, C.B.* (1878). This includes the pamphlets of 1835 and 1836 above mentioned, the four later pamphlets (1) "1793 and 1853" (2) "How wars are got up in India" (3) "What next, and next?" (4) "The Three Panics," and letter on "Rights of Belligerents."—*Speeches on Questions of Public Policy* (ed. John Bright and J. E. Thorold Rogers), new ed. 1878.—Translation of the treatise of M. Chevalier on the *Probable Fall in the Value of Gold* with a Preface (1859).—*Financial Reform Tracts*, No. 6. (on the Budget of 1849).—Life of Cobden by John Morley (1882).

See also Bastiat's *Cobden et la Ligue* (1854).—H. Ashworth's *Recollections of R. Cobden and the Anti-Corn Law League* (1876).—J. E. Thorold Rogers's *Cobden and Modern Political Opinion* (1875).—Bagehot's *Biographical Studies* (1881).—"The Policy of Commercial Treaties," John Morley, *Fortnightly Review*, June 1881.] J. B.

COCHUT, PIERRE ANDRÉ, who was born at Paris 1807, and died there 1890, was from 1836 to 1869 one of the most laborious and valued contributors to the *Revue des deux Mondes*. His style was brilliant, his mind firm and independent. His articles were much valued, particularly those on Algeria. The *Rapport général sur l'Algérie*, which was altogether his work, was about to be distributed officially to the chambers at the time when the revolution of 1848 broke out. It was then that he published *Les associations ouvrières* (1 vol. in 8vo, 1851), a work which is still not out of date. Soon after appeared, *Law, son système et son époque* (1 vol. in 18mo, 1853) which, while brilliant in style, shows itself to be the work of an economist and a financier of the best school. Long a contributor to the *National*, he wrote afterwards in *Le Temps*. Questions of price and money occupied his attention much, and his opinion in these matters carried great authority. From 1870 to 1885 he was a director of the *Mont de Piété* at Paris, a post which had been offered him as far back as 1848. He was president of the *Société de Statistique de Paris*, 1888, and also vice-president from 1881 of the *Société d'économie politique*. A. C. f.

CODE NAPOLÉON. Before the French Revolution there were two kinds of law in France, the *droit écrit* or written law, and the *droit coutumier* or customary law; and the latter varied so much from place to place that Voltaire said a traveller changed his law as often as he changed his post-horses. Consolidation was attempted from time to time; the most successful effort in that direction was Colbert's Ordonnance; but practically the chaos remained until, on 4th August 1789, the Constituent Assembly ordered a code common to the whole kingdom to be drawn up; but Cambacérès failed for various reasons to accomplish the task then set him. Napoléon ordered the work to be taken up; he appointed a commission, consisting of Tronchet, Bigot de Préameneu, Malleville, and Portalis to prepare a code. They did so, basing their labours largely on the then existing French legal traditions, together with the Institutes, the Pandects, the Codex, and the Epitome Juliani. The successive portions were subjected to public criticism; the suggestions of the various tribunals and *tribunaux de commerce* were invited; the *Tribunat* of the year X. then discussed the clauses, but when they had got as far as the end of part iii. of the civil code, Napoléon found them troublesome and withdrew the code, expelled the opposition, and broke up the remainder into committees which were to discuss the clauses with the *Conseil d'État*. This was done; and the various portions, as they successively passed the *Corps Législatif*, were separately promulgated between the years 1804 and 1810. These portions, independent of one another, are (1) the *code civil*, (2) the *code de procédure civile*, (3) the *code de com-*

merce, (4) the *code d'instruction criminelle*, and (5) the *code pénal*. This code superseded all previous legislation, and where it does not provide for every case, much is left to the equity and good sense of the judge. This, with the multiplicity of co-ordinate jurisdictions in France, has brought about considerable conflict of decisions, and as precedents have there but little binding force, there is some considerable uncertainty as to what in a doubtful case the decision may be. The brevity of the code is condemned by Savigny and Austin, the latter of whom points out that there is an absence of definition of terms and of statement of guiding principles. The result of this has been the growth of a very full literature of the commentary order. On the civil code, which treats of civil rights under the three main heads of persons, property and its modifications, and the modes of acquisition of property, the commentaries of Duranton, Troplong, Toullier, Demolombe, Sirey and Gilbert, and (German) Zachariä may be consulted. The *code de commerce* treats of commercial law under the following heads :—(1) commerce in general: traders, traders' books, partnership and companies, partition of property, stock exchanges, stockbrokers and brokers, pledges, agents and common carriers, sales and purchases, bills of exchange, promissory notes and limitation; (2) maritime commerce: ships and other vessels, seizure and sale of ships, shipowners, the captain, hiring and wages of crews, charter parties and freight, bills of lading, the freight, bottomry, insurance, average, jettison and contribution, limitations of actions, exceptions or bars to actions; (3) bankruptcies and fraudulent bankruptcies: dealing with bankruptcy, fraudulent bankruptcy, reinstatement; and (4) jurisdiction in commercial cases: the organisation of the *tribunaux de commerce*, their jurisdiction, their procedure, and the procedure in courts of appeal. With reference to the *code de commerce*, the following works may be consulted:

Napoleon Argles, *French Mercantile Law*, 1882, and references therein, pp. xvii-xxiv; Mayer's *French Code of Commerce*, 1887.—Alauzet, *Commentaires*;—and with regard to the development of French law and legal tradition, Laferrière, *Histoire du droit français*. A. D.

CODICIL. A document executed for the purpose of modifying the directions of a will, and subject to the same requirements as to form as the will itself (*see* WILL). E. S.

COINAGE, THE RIGHT OF. "In constitutional law the right of coining has always been held to be one of the peculiar prerogatives of the Crown, and it is a maxim of the civil law that *monetandi jus principum ossibus inhaeret*" (Jevons, *Money*, p. 65). A hard use has often been made of this prerogative. A. Smith says (*Wealth of Nations*, book i. ch. iv.) "In every country of the world, I believe, the avarice and injustice of princes and sovereign states, abusing the confidence of their subjects, have by degrees diminished the real quantity of metal which had been originally contained in their coins." J. S. Mill has expressed himself much to the same effect (*Principles of Political Economy*, book iii. ch. vii. § 2). Governments found it their interest "to interdict all coining by private persons; indeed their guarantee was often the only one which would have been relied on, a reliance, however, which very often it ill deserved." The English standard for the gold coin has remained unchanged in fineness since 1600, and the number of grains of fine gold in the pound sterling since 1717, when Sir Isaac Newton was master of the mint. The *process* of coining requires to be carried on with great scientific care. See ALLOY; ASSAY; BETTERNESS; BRASSAGE; BULLION; MINT.

[W. S. Jevons, *Money*.—Lord Liverpool, *Letter to the King on the Coinage*.—F. A. Walker, *Money*.—E. Seyd, *Bullion and Foreign Exchanges*.—W. Bagehot, *A Universal Money*,—*Select Tracts on Money*, printed for the Political Economy Club, etc.]

COINAGE, DECIMAL. See DECIMAL SYSTEM.

COKE, ROGER (fl. 1643-1696) was the third son of Henry Coke of Thorington, by his wife Margaret, daughter and heiress of Sir Richard Lovelace of Kingsdown, Kent, and grandson of Sir Edward Coke. He was educated at the University of Cambridge, where "he became well-vers'd in several parts of learning, and wrote a treatise against Hobbes' *Leviathan*." His principal study for some time was mathematics, but he also took great delight in commercial questions. "Tho' in his day he had good speculative notions in trade, he was not so successful in the practice of it." He fell into distress, and the "best support he had" was an annuity of £100, which was settled upon him by his nephew. "He lived for some years within the rules of the Fleet, and died a bachelor about the 77th year of his age." In his writings Coke, erroneously assuming the accuracy of SAMUEL FORTREY'S (*q.v.*) statistics, maintained that English trade and commerce were decaying; but he made many sound suggestions for their improvement. He denounced the trading corporations, which had "the artificers at their mercy," and suggested that they should be made free to all English citizens. The Statute of Apprenticeship (see APPRENTICESHIP, STATUTE OF) in his view prepared materials for the Poor Law to work upon. He advocated the repeal of the laws of naturalisation and of the acts restraining the importation of Irish and Scotch cattle. The exclusive privileges of the trading companies (see FOREIGN TRADE, REGULATION OF), which restrained English foreign trade within narrow limits, should be abolished. The NAVIGATION ACT (*q.v.*) had, in his opinion, secured the monopoly

of the foreign trade of the country to a few merchants, to the detriment of the producing classes. Similar laws had been found by experience to be mischievous in their operation, and, in support of his objections, he quoted the evidence laid before the committee on trade in 1668 (*v.* FREE TRADE). He maintained that the free importation of raw material and of foreign manufactures should be permitted. This would lead to "plenty and cheapness" of all things needed by "the poor artificers," and to the increase of trade and commerce.

Amongst Roger Coke's works may be mentioned —1. *A Detection of the Court and State of England during the four last reigns and the interregnum, consisting of private Memoirs, etc. . . . Also an Appendix discovering the present state of the Nation*, 2 vols., London, 1694, 8vo.—2. *A Discourse of Trade, in Two Parts. The first part treats of the reason of the decay of the strength, wealth, and Trade of England. The latter of the growth and increase of the Dutch trade above the English*, London, 1670, 4to.—3. *England's Improvement. In two parts: in the former is discoursed how the Kingdom of England may be improved in strength, employment, wealth, and trade: in the latter is discoursed how the navigation of England may be increased*, London, 1675, 4to.—4. *A Treatise wherein is demonstrated that the Church and State of England are in equal danger with the trade of it: Treatise 1. Reasons of the increase of the Dutch trade: Treatise 2*, London, 1671, 4to.—5. *Reflections upon the East Indy and Royal African Companies: with animadversions concerning the naturalisation of foreigners*, London, 1695, 4to.

[Coke's *Detection*, etc., 4th ed. (1719), i. xiii.—MacCulloch's *Literature of Political Economy* (1845), 4to.—Adam Smith's *Wealth of Nations*, ed. MacCulloch, 4th ed. (1853), xxxvii. 536.—Carthew's *Hundred of Launditch*, iii. 109.—*Brit. Mus. Catalogue.*] W. A. S. H.

COLBERT, JEAN BAPTISTE, born at Rheims 1619, died at Paris 1683. The son of a woolmerchant, Colbert became one of the greatest ministers France has ever seen; he formed part of the establishment of Cardinal Mazarin from 1649 to the death (9th March 1661) of that statesman, who on his deathbed recommended him to Louis XIV. Appointed immediately, 16th March 1661, intendant of the finances, he succeeded, on the day of the arrest of Nicolas Fouquet,—5th September 1661,—to him as superintendent, directing the finances from that date, originally under cover of a financial council, afterwards, from 1666, as comptroller-general. His first step was to reduce the TAILLE (*q.v.*), a direct property tax; he then established a departmental office (*chambre de justice*), which carried on its operations from 1662 to 1665, and was only definitely closed in 1669, after having brought in 110 millions (say £4,400,000) to the state. After some trifling reforms, he promulgated the customs tariff of September 1664, which, establishing a more complete unity of plan, was certainly an improvement on the preceding order of things. It might even have produced real progress had Colbert, supported as he was by Louis XIV., been more confident in his own strength, and had he abolished, as the *États généraux* of 1614 desired, all internal customs restrictions, and removed the fiscal barriers to the frontier. But beyond this there remained still to be carried out the settling of the rate of duties. Colbert's regulations, certainly severe, though preferable to those of his predecessors, were rendered more strict, first in 1667, then again in 1672, when they even were the cause of the war with Holland.

Colbert, we must admit, while he put down with laudable strictness, and even severity sometimes, financial dishonesty, was carried away by his love of system and of making regulations for the control of commerce and industry. Thus he established, 1664, the two commercial companies of the East Indies (Hindustan), and of the West Indies (America). Notwithstanding his support, and in spite of the liberality of Louis XIV., these two associations, based on monopoly, gradually sank. The first vegetated on even to the times of Law (1719), but the second died in 1674. The ordinance of 1666 on manufactures and corporations was a new manifestation, and a more regrettable one, of his tendency towards regulation. To organise an industrial movement, to sustain it by custom-house regulations, always protectionist, at times prohibitive, to create model manufactures—or at least manufactures having those pretensions, sometimes through the intervention of the state and with the money of the taxpayer (Beauvais, 1664, the Gobelins, 1667), at other times (St. Gobain, 1665) through a privileged concession; this is the whole of the economic method which goes by the name of the system of Colbert. This great minister was not, after all, systematic enough to have deserved to give the name of Colbertism to his system. His methodical mind only occupied itself with overcoming difficulties, with adopting reforms one by one, after having maturely studied the consequences, particularly the immediate consequences. Though a hard worker, energetic in character, supplying the deficiencies of ignorance through supremely good sense, Colbert was never able to rise to the level of a general idea.

His activity gradually extended itself to the shipping interest, the care of which was added, 1669, to his duties; and to the arts, which he encouraged both in France and even in other countries by presents, pensions, or payments, considerable in amount, especially when the date is considered. He founded, 1663, under the title of the *Petite Académie*, the Academy of Inscriptions and Belles-Lettres; then, 1668, the academy of the sciences. He encouraged the taste and the expenses of luxury, particularly in the way of building, in Louis XIV., and

even spent large sums on festivities in the furtherance of that economic error, *faire aller le commerce*, to "make trade go." He founded the opera in 1667. He presented Riquet—and this was more useful—with the concession of the canal to join the two seas, constructed between 1665 and 1681, by means of the subsidy voted by the states of Languedoc. The canal of Orleans (1679) was also undertaken about the same time, and the canal of Burgundy projected.

Colbert thought it his duty also to give encouragement to the growth of the population by pensions to large families—but all that he did by this was to supply misery with fresh victims. Unfortunately all this activity turned capital aside from employment in agriculture, which suffered the more under the administration of Colbert because he put hindrances on the circulation of corn by regulating both the inland and foreign trade in it.

Besides this, the passion for extravagant expense took, with Louis XIV., a development which ended by making Colbert uneasy. A more serious consequence followed. The taste for war seized the king, and Louvois, secretary of state for the war department, 1662-1691, overweighed the influence of Colbert in the mind of the king, and contributed powerfully to develop this taste, to the misery of France. A few hard words addressed by the king to Colbert completely overwhelmed him and resulted in the illness which brought him to the tomb. An honest soul, deeply attached to his country, he sought its prosperity by purely practical means. He loved his king, and favoured peace. When the condition of affairs which surrounded him is considered—the difficulties he had to overcome—the indomitable energy with which he endeavoured to institute reforms, and the perseverance he displayed in bringing them about, no doubt can exist that posterity has been right in giving him the title of the *Great Colbert*.

[The "*Lettres, instructions, et mémoires de Colbert*" were collected and published by M. Pierre Clément (1861-1873 in 7 vols. gr. in 8vo). Besides this, among other works on this great minister, there may be read: *Histoire de la vie et de l'administration de Colbert, par* Pierre Clément (1 vol. in 8vo, 1846).—*Etudes sur Colbert, par* Félix Joubleau, *ouvrage couronné par l'Académie des sciences morales et politiques* (2 vols. in 8vo, 1856).—*Colbert et son temps, par* M. Alfred Neymarck (2 vols. in 8vo, 1877). We may quote among biographies of Colbert those of Forbonnais, Bailly, Montyon, Necker, Lemontey, Ad. Seviez, and Jean Reynaud.] A. C. f.

COLLATERAL SECURITY. See CAUTION.

COLLATION. See SUCCESSION, SCOTLAND.

COLLECT. To obtain payment of a bill of exchange or cheque as agent for another person. An indorsement "for collection" does not transfer the property to the indorsee; it is merely an authority to encash the amount at maturity. If the indorser becomes insolvent before maturity, the indorsee has to account for the proceeds to the estate, and cannot set them off against a debt due to him from the indorser. E. S.

COLLECTIVE GOODS include all those desirable things which are not appropriated by particular individuals to the exclusion of others, but are available to all members of the community, *e.g.* turnpike roads, great rivers such as the Thames, public museums, free libraries, the right to a free education. Such goods constitute a very important element of national wealth. Compare Marshall, *Principles of Economics* (2d ed.), bk. ii. ch. ii. § 4. J. N. K.

COLLECTIVISM is the theory which teaches that land and capital, or the means of production, should be the property of the whole community in order to secure effective production and equitable distribution. It is thus not a different doctrine from that which is now usually meant when the word socialism is used. "The word is new, but the idea is found in every system of radical socialism" (É. de Laveleye, *Le Socialisme Contemporain*, 3me éd., 1885, p. 285). M. Paul Leroy Beaulieu, in his book *Le Collectivisme* (1884, 2me éd., 1885), which is in large measure a criticism of Schäffle's *Die Quintessenz des Socialismus*, defends the neologism on the ground that it is more definite than *Socialisme*, which he understands in a large and vague sense as nearly equivalent to what is in England called state interference. The name "collectivist" was at one time appropriated by the socialists who opposed what they called the authoritative communism of Marx. BAKOUNIN (*q.v.*) declared himself "a collectivist and not a communist" at the fourth general meeting of the INTERNATIONAL (*q.v.*) in 1869 (J. Garin, *L'Anarchie et les Anarchistes*, 1885, p. 79). The whole subject will be found fully treated under SOCIALISM and ANARCHISM.

[Authorities quoted in the text.] E. C.

COLLEGIUM. This term in ancient Rome signified a corporate body composed of individuals in partnership for the pursuit of some common end. *Collegia* existed at different times for the pursuit of the most various ends, religious, social, and political, but the collegia of most interest to the economist were the *Collegia Artificum* and the *Collegium Mercatorum*. The free workmen in Rome from very early times were organised according to their respective trades into collegia. The foundation of the system is variously ascribed to Numa Pompilius and to Servius Tullius. Authorities agree, however, in fixing the original number at nine, and the extreme antiquity of the system is vouched for by the fact that among the nine was a collegium of workers in bronze, but none of workers in iron. Early in the 4th century B.C., a collegium of merchants was added to the number, and in later times the

publicani appear to have formed a collegium. There is, unfortunately, very little positive evidence as to the precise constitution and importance of these collegia. Like the mediæval craft-guilds they appear to have combined a social and religious with an industrial side. It cannot be ascertained to what extent their organisation applied to the provinces; but they apparently resembled the craft-guilds in being local organisations. The collegium of the sailors, however, resembled the COMPAGNONNAGES (*q.v.*) in possessing local branches in the provinces. The original nine collegia of craftsmen were always exempt from the repressive legislation which was from time to time promulgated against other collegia, and they continued to exist in Italy until the Middle Ages, when the compagnonnages and craft-guilds were developed from them. Owing no doubt to the preponderance of slave over free labour in Rome, the collegia of workmen had little direct influence on history. They never appear to have attained an importance at all comparable with that of a Trade Union in modern times.

[Smith, *Dictionary of Roman Antiquities*, 1891. —Mommsen, *History of Rome.*—Mommsen, *De Collegiis et Sodaliciis*, Kiel, 1843.] A. H.

COLONIES.

Colonies, description of, p. 321; Colonial Policy, p. 322; Colonial Lands, p. 323; Public Debts of Colonies, p. 324; Methods of Government, p. 326; Currency in British Colonies, p. 326; Denominational Currency in, p. 328; Government of, by Companies, p. 329; Colonisation, Systems of, p. 333.

COLONIES. The definition of the term "colony" is elastic, and its use is much governed by accidental circumstances, *e.g.* Ceylon is styled a "colony," and Burmah not, because they are directed by different departments of state at home.

Modern colonies, which are those treated of here, have been founded by the nations of western Europe since the time when their energy sent them one after another in quest of profit and adventure away from the Mediterranean lands which had fallen into the power of the Mohammedans. They fall into four economic types:—(1) *Factories*, those established for trade with natives; (2) *Provinces*, for exploiting, more or less explicitly, the countries taken possession of; (3) *Plantations*, for industrial occupation through employment of capital; and (4) *Colonies proper*, for complete industrial occupation. Other than economic motives have influenced the origination of modern colonies: religious liberty sent out the Jews of Portugal to Brazil; the Puritans to New England; religious enterprise the Jesuits to Paraguay; political disaffection sent cavaliers to Barbados; social offences supplied Australia with her first colonists.

1. The *Factory* system was the earliest, and was prosecuted with great vigour by the Portuguese, who, in rivalry with Venice and Genoa, drew a chain of factories from Madeira to Japan. When Portugal fell (1580) for a time into the clutches of Spain, the Dutch stepped in and secured many of their positions; in time the French and British followed up the Dutch. The Portuguese factories were royal enterprises nominally, but were farmed out; the Dutch were purely commercial undertakings, governed by the approved methods of trade found successful in Holland, and adopting a method known in present days as limitation of output, where thought necessary. The concentration of aim upon profit proved eventually their weakness. The yielding of heavy dividends promptly and regularly can hardly be an adequate basis for great human movements such as colonisation, and a clear example of the failure of such an attempt is to be found in the brief duration of the Dutch power in Brazil, 1624-1654.

2. *Provinces.* In these the inhabitants already in possession are governed and, in most cases, made use of for industrial employment. The story of Spanish colonisation is found in the histories of Mexico and Peru. The Spaniards were misled by the idea that gold and silver were identical with wealth, and fanatical in their preference for ecclesiastical system over humanity. The end of their dominion was sudden. In thirty years the Spanish empire in the new world was gained; it lasted two hundred and fifty years; in another thirty years it fell, leaving behind but Cuba, Puerto Rico, and the Philippine Islands. Still, the Spaniard did a little for the economic development of those countries: he taught the use of horses, of ploughs, and of money. France has recently formed a new province in Africa, but its interest is mainly military, and the economical value of their rule in Tonquin and Cochin China, to either party, is at present obscure. The greatest example of the province in the history of the world is undoubtedly that agglomeration of peoples, nations, and languages called "India." The economic and the educational value of the relationship between Britain and India has continually become more and more important, as that relationship has gradually taken its legitimate form.

3. *Plantations.* This type of colony has furnished a varied and interesting chapter in the history of each of the colonising countries of western Europe. When regions entered upon were inhabited by races in primitive stages of industrial life, these were either brought into service, as in Brazil, Ceylon, and the mines of Mexico and Peru, or pushed aside, as in North America. The primary purpose of these plantations was the employment of capital, not the application of the planter's labour—which indeed the climate as a rule rendered impossible. Native labour was brought into subjection.

Gaols at home were emptied of their lawful inhabitants to furnish labourers for Virginia, and the sad history of the extermination of the natives of the West Indies by the Spaniards, and the crushing of the natives of Mexico, Peru, and Brazil by Spaniards and Portuguese was marked by the most disgraceful subordination of moral principle to industrial circumstances ever practised on such a scale and in so gross a manner —the deportation and enslavement of African negroes (see SLAVERY and SLAVE TRADE).

This extraneous supply was resorted to on the extermination of the inhabitants of the West Indies, the proof of ineffectiveness of those of Brazil, and of the inability to domesticate the Red Indians of North America; and it has resulted in the settlement of an important fraction of the Negro race in the western hemisphere. Recent years have witnessed the development of a system of regulated voluntary migration of tropical labourers from the east to the west under the name of Coolies (see COOLIE SYSTEM).

In spite of the mediæval character of the Virginia or Jamaica planter in many respects, he was more the prototype of the modern agriculturalist or manufacturer in England than was the New England or Pennsylvania farmer who owned his land, employed his own capital, and with his family supplied a considerable part of the labour. And as time went on plantation-owners were only represented by "attorneys" and managers, and yet their revenues, being derived from invested capital, were always regarded as profits, not rents. What has changed is the political and social status of the labourer; but he still remains economically dependent so long as he has no capital.

4. *Colonies Proper.* England only, of all European countries has been in a position to continue to put forth vigorous reproductions of herself throughout the 18th and the 19th centuries. Since the settlement of northern Europe and the formation of the German empire, Teutonic emigration has been very extensive; but it has come too late to found its own colonies, for the simple reason that the available territory is all appropriated (see EMIGRATION).

All that these nationalities can do is to contribute an element to the primarily English life of the United States, and the English colonies of North America, South Africa, and Australasia. The Dutch settlement in South Africa, and the French remnants in Canada and Mauritius, show a certain persistence. A conspectus of the present situation shows a varied spectacle. Relics of four empires, Spanish, Portuguese, Dutch, and French, strew the seas; but all of them are of the factory, province, or plantation type. Nations, once European colonies, occupy the western continent from the St. Lawrence to Cape Horn, British, Spanish, or Portuguese in origin and in economic character. The British empire stands out unique in magnitude, in variety, and in promise. It shows every type in full working order. Factories flourish, as Lagos, Hong-Kong, and Singapore; provinces, as India, Burmah, Fiji; plantations, as Ceylon, Mauritius, Guiana, and the West Indies; and reproductions of the British nationality in the dominion of Canada, and the seven colonies of Australasia. Besides these, are the military, naval, and commercial out-stations of Gibraltar, Malta, Cyprus, Aden, St. Helena, Bermuda, and the Falkland Islands.

[For full accounts of the present condition of European colonies, see the list of books at the end of this article, and also "British and Foreign Colonies," Sir R. Rawson, address to Statistical Society, London, 1884.—For a continuous history, see E. J. Payne, *European Colonies*, Macmillan, London, 1877.]

COLONIAL POLICY. The economic policies which have prevailed have been applications in new fields of policies already in vogue in the home countries. To reap the advantages of the new territories either by direct acquisition of their products or by exchange at enormous profit, and to appropriate these advantages as against other European nations, was the chief aim of the attention devoted to colonies throughout, and is to some extent in active operation at this day. Holland still derives a substantial revenue from her remaining possessions, and the reiteration of the question "of what use are the colonies to us?" shows that in England economic advantage is still a prominent factor in the Englishman's care for the "empire." The chief differences in policy lay in the exact relationship of the home government to the new communities; some reserved full control, as Spain and Portugal; some reserved only partial control, and delegated considerable power to the original companies, and afterwards to the colonial governments; but all agreed in regarding them as fresh sources of supply, or fresh markets for home products. It seemed to contemporary statesmen plain common sense to provide that the colonies should be content to supply what their territory was able at once to produce, to buy and sell in the markets of the home-country alone, and not to compete with her in foreign markets. The aggregate of these restrictions, monopolies, and privileges constitutes what is usually set forth as the "colonial system," which prevailed for some three hundred years. But this system must not be considered as consisting only in these restrictions. A brief consideration of it as designed by Colbert, for example, or as nursing the young colonies of North America, shows that at its early stages the advantage was not all on

one side. If Great Britain monopolised the products of her colonies, and restricted them to herself for their purchases, this was in some important respects only confining them to their best customer and their cheapest market. And besides this, the imperial army, navy, and credit were behind them, and left them free to their industrial pursuits. But as the colonies grew stronger the necessity for fostering lessened, and the situation began to be disadvantageous. Practical protests in the way of smuggling began to shake the legal position, and the eventful year 1776 saw both the declaration of independence of the thirteen British colonies in North America, and the reasoned demonstration that restrictions were operating perniciously, in Adam Smith's criticism of the whole system. It may be said that his condemnation is based on the cessation of the idea that the colonies were property, and the substitution for this of the economic idea that we and they were concerned in the production of as much material wealth as possible, and that it was not to the advantage of either that restrictions based on "artificial" (or non-economic) relations should continue.

In the general movement towards free trade as British economic policy, the Navigation Act was modified, and eventually abolished (see FREE TRADE). The differential duties in favour of her colonies were relinquished, and the country which was the latest to apply the restrictive method strictly was the first to abandon it. The issue has been a complete dissolution of the old relationship, relaxation of control has proceeded to the bitter end, and the spectacle is now seen of colonies, not only not tied to the mother country, but setting up tariffs which put her on the same footing as every other nation—in some cases even carefully excluding her products as much as theirs. Some, indeed, are only accidentally protectionist, raising their customs duties for revenue, as South Africa and New Zealand, but two at least, Canada and Victoria, are avowedly prohibitive in their intentions. This situation has given rise to many proposals for a resumption of economic relationship by means of a commercial union of the empire, a British "Zollverein," and this constitutes the most burning question of economic colonial policy at this day. It should be noted that the various members of the United States of America form a compact union with free intercourse within, and protection against outsiders; that neither Holland nor Spain have allowed their colonies commercial independence, while France is moving towards restriction again for hers; and that the German political economist List in urging Germany to begin colonies, did so on the supposition that the old system of union rather than the new system of absolute freedom would be the basis of relationship. The effects on the economic growth of a community of its being a "colony," depend largely upon the relative force of the national and cosmopolitan feelings. In early days of rivalry and hostility between nations, the connection was of vital importance, because people would not incur expatriation, nor would capital venture itself beyond the nation's protection.

But now what colonies secure is only some advantage in the movement of capital, not an exclusive advantage. The feeling that the Government of the empire is, somehow, behind them, that they are in some ways still under a department of state, operates with considerable effect in their favour, and is preparing the public mind for the extension of the investments of trust funds to colonial government securities. As to advantage in the movement of labour, the colonial relationship cannot be said to count for very much in the face of the preponderance of emigration from Britain and Germany and Sweden to the United States; but probably less skilled and professional labour would go to Australia were it not a part of the Empire. Looked at broadly, it may be seen that to the ex-colonies of North America, and the present colonies in Australia, there has been a movement of capital and labour which has enabled Chicago, Melbourne, and Montreal, to attain their population and opulence with a rapidity far outstripping anything known in the old world with all its inheritance of endowments and equipments for industrial development.

The effect on the home countries of having colonies was more important under the old system than now. Then they were direct sources of revenue, or monopolised spheres of trade. The increase of intercommunication through facilities in travelling, the settling down of the new free trade policy, and the rise of competitors in manufacturing industry on the continent, have brought into full view what the outer empire means for British industry to-day. We can see clearly how it has been a field for emigration, and so has assisted in the rise of wages; an outlet for capital, and so has helped to check the fall of interest and of profits; a market for manufactures, and so has called into action the law of increasing returns, and effected a cheapening of commodities in spite of the rise of wages; and a source of agricultural supply which has checked the operation of the law of diminishing returns. It has contributed largely to the development of our manufacturing powers, and has thus helped to pay back the debt which List says it owes when he bases the British empire on the capacity of Great Britain for becoming a predominantly manufacturing nation.

Some individual topics remain to be noticed.

COLONIAL LANDS. The tenure of land has

in the main been on the simple basis that the crown was possessor, and could grant lands *in perpetuum* or on leases, and in colonies which acquired responsible governments these governments have taken over the rights of the crown. The raising of revenue by the sale of land has been common, especially in order to allure immigration. Gradually a more far-sighted policy is being adopted; the colonies are ceasing to live on capital in this way. Victoria now carries the proceeds of public sale of lands to a reserve fund; New Zealand, since 1879, has reserved the whole, Tasmania about one half. An important question of policy is raised by the supposition that the colonists at any given time are, corporately, the possessors of the lands of their territory—a supposition which, on its face, is barely reasonable for Victoria with a population of a million in a region larger than England and Wales, and incongruously absurd when the 50,000 people at present in Western Australia lay claim to a third of the Australian continent. The importance of this to the mother-country lies in the consequent claim of the colonists to restrict farther emigration at their discretion.

THE PUBLIC DEBTS OF THE COLONIES. The colonies have borrowed capital, as corporations, to the extent of something like 250 millions at present outstanding. But exception is taken, and with justice, to this being regarded as analogous to the national debts of European countries rather than to the debts of traders who have legitimately borrowed for use as capital. The chief portions of the national debts of the continental nations, of Britain, and even of the United States, have been borrowed for the expenses of war; the chief portions of these colonial government debts have been borrowed for public works, especially railways. The interest on the debts is largely provided by the receipts from these public works, and from this source much of the debts themselves will gradually be paid off. It is maintained by some, but denied by others, that New Zealand colony has been too sanguine, and has drawn somewhat in excess of what is easily repaid, but only because it has constructed more public works than the colony has yet proved able to make remunerative.

[See papers by Sir F. Dillon Bell, "Indebtedness of the Australian Colonies in relation to their Resources," with discussion, *Roy. Col. Inst. Proceedings*, vol. xiv. thereon; and by H. F. Billinghurst, "Colonial Indebtedness," *Journal of Inst. of Bankers*, March 1889, and discussion.—W. Westgarth, "Australasian Public Finance," *Colonies and India*, March 27, and discussion, April 3, 1889. The first principles of this subject are well discussed by Dr. Sidgwick in the third book of his *Political Economy*.]

The rate of interest in the colonies has proved a clear index of their growth, of the increase of confidence in their stability and future, and of the security of their commercial connection with the home country whether the political continues or not. Loans to private borrowers used to range at fancy rates until the formation of joint-stock companies in England with boards of directors composed, partly at least, of well-known Englishmen. Thirty years ago government loans were at 6 per cent, and even then taken only at a discount, but now the 3½ per cent of some colonies are at a premium, and Canada has a 3 per cent loan, while the Australian colonies are being advised severally to consolidate their loans at that figure. The "inscribing" of stock, permitting the amount to stand in the names of individuals, has attracted investors to whom changes of investment are objectionable, who yet wish not to tie up their savings rigidly; the lengthening of the periods for which the loans are issued has operated in the same direction. The recent conversion of the 3 per cents in England, the tendency towards 3 per cents of municipal corporations in the United Kingdom, supervening on a distaste for foreign investments, all tend to facilitate the flow of capital to the colonies and to bring the rate of 3 per cent almost within sight of most of them for their government borrowings.

[See paper in *Proceedings of Roy. Col. Inst.*, vol. ix., by Dr. J. Forbes Watson, "Character of England's Colonial and Indian Trade contrasted with her Foreign Trade."]

TRADE AND THE FLAG.—This is a figurative expression for the connection between commercial intercourse and political union. Much argument is used and masses of statistics have been compiled on both sides of the question, which is, indeed, of very great interest and importance.

To those who regard the political connection as effective in the commercial sphere, it is of extreme importance that the political connection should be retained, and strengthened, if need be, by judicious improvements; this is the primary consideration with many of those engaged in the Imperial Federation propaganda, though not a plank in their official platform.

Those who think that purely economic considerations are now—perhaps ought to be always—adequately powerful to guide peoples in the pursuit of material well-being, regard lightly the continuance of political ties, especially when so attenuated as those between the English-speaking countries and the mother country have become. They hold that natural propensities are self-acting, and will operate in keeping up a close commercial relationship, and that government relations are either worthless because quite unnecessary, or pernicious because distorting the natural procedure.

It is evident that the influence of statistics upon this discussion is limited; but the federationists can certainly at present point out some striking figures, such as Great Britain's exports to

France being 16s. a head of French population, when those to Australia are 196s.; and U.S.A., English-speaking but outside the flag, 15s., to Canada's 45s. But the opponent replies, (1) that this trade is due to the large loan operations: and the question then resolves itself, so far, into the fundamental question of the mobility of capital and labour, is this helped or hindered by the political connection? and (2) that the Canadian tariff is not so hostile,—but this may be one consequence of the flag.

[See Forster, Art. in *Nineteenth Century*, Feb. 1885, and the publications of the Imp. Fed. League generally, and on the other side Sir T. Farrer, *Free Trade versus Fair Trade*, 4th edition, 1887, and the publications of the Cobden Club. The subject, however, is not to be discussed as between protectionists and free-traders, as the chief men on both sides claim to be the latter. The imperial unionists are reinforced, however, by the fair-traders and by the supporters of national economics; see S. S. Lloyd's translation of List.]

A problem of growing interest is the claim of the colonists to consider themselves as owing no effective allegiance to the mother country. The elaborate tariffs, already mentioned, form the backbone of the problem. There are also the questions of the right of the colonists at any given time to stop farther immigration from Britain or elsewhere into lands which British policy has secured from possession by other nations, and the British navy has secured from physical aggression; and the right of the colonists of the day to throw possible embarrassment on the future development of the colonies, and their utility to the mother country by injudicious allotments of the land of the colony, and in disregard of the fact that the inhabitants of Great Britain and Ireland pay interest on a vast debt partly acquired in maintaining the sovereignty of the seas which has kept France and Germany out of Australia, while the colonists are under no liability for this debt. New effects of economic conditions upon social and political organisation will present themselves in some of our colonies. For example, Victoria is a state in which labour more or less skilled, and guided by higher average of intelligence than in Europe, is the prime political power; fixed property and even movable capital being secondary in influence. The interest that depends on uncertainty will not be wanting to political economy in view of these new phenomena.

Colonial policy as regards this country is far from having arrived at the stable position which seemed promised by the steady displacement of the old system during the first three-quarters of this century. The removal one by one of the restrictions on colonial trade by Mr. Huskisson between 1814 and 1825, the abandonment of differential duties, and of the Navigation Act, 1850, seemed to point to an era of complete freedom. But the gradual adoption of protectionist policy by several important colonies has reversed the position by placing barriers, which oppose Great Britain most, because in freedom it is her trade which would naturally be the largest. And so the colonies are drawn into the vortex of the great protection *versus* free-trade agitation. Two parties aim at a new colonial policy: one bases its recommendations on the conception of national economics in preference to cosmopolitan; the other, on the greater amount of real "freedom" which, under present circumstances, would result from freedom within this vast empire of 300 million people, though combined with protection against outside protectionist nations. The means of reaching their goal is the same for both parties, a commercial union of the empire. The opposition has also two parties—the free-traders who prefer the amount of free trade at present in force, with hope that it will by its own virtue continually increase, and so break down barriers both colonial and foreign; and the colonists who severally place their own colonies in the front of their schemes, and are content to be protectionist for their own reasons. On each side, therefore, there is a band of free-traders and a band of protectionists—Mr. W. E. Forster and Mr. Goschen have taken a place side by side with the disciples of List; Sir Thomas Farrer and the Cobden Club are the allies of the protectionists of Victoria and Canada. Meanwhile the bounty of nature, the extension of industrial ideas as determinants of national ambitions and national policies, and the continuous development of science and civilisation, combine to cause a rapidity of industrial progress in British colonies which exceeds all known elsewhere, except in our own ex-colonies, the United States. And in spite of obstructions, and while waiting for general agreement as to the next steps to be taken, the mother-country largely benefits by the industrial prosperity of the outer empire.

For systems on which colonies have been founded, see COLONISATION, SYSTEMS OF.

[The library of the Royal Colonial Institute contains books of reference, statistical publications, and histories, both general and special, to the number of 9500 volumes (catalogue price 2s. 6d., office of the institute), and 219 colonial journals and newspapers are regularly taken, filed for a year, and then deposited in the British Museum. *Statistical Abstracts* for the colonies are published annually by the Board of Trade, and *Returns of Trade and Navigation* monthly. For British colonies see *Historical Geography of the British Colonies*, Introduction, vols. i. ii. (others following), C. P. Lucas, Oxford.—*Official Reports on Colonial Products* (1887).—The *Colonial Office List*, published annually.—*British and Foreign Colonies*, Sir R. Rawson, Statistical Society, 1884.—*Synopsis of Tariffs and Trade of the British Empire* 1888, and *Sequel*, Sir R. Rawson, London, 1889. Articles in the *Proceedings of the Roy. Col. Inst.*, 1874 onwards.—*The Colonies and India*, a weekly journal, London. For HISTORY: Adam Smith's ch. viii. in bk. iv.—Smith's polemic

against the colonial system is criticised by Lord Brougham in *An Inquiry into the Colonial Policy of European Powers*, 1803 (see BROUGHAM, Lord). —Merivale, *Lectures on Colonies and Colonisation, delivered 1839-40-41*, corrected edition, London, 1862.—Payne, *European Colonies*, London, 1877, and Seeley, *Expansion of England*, London, 1882. —Dilke, *Problems of Greater Britain*, London, 1890.—Caldecott, *English Colonisation and Empire*, London, 1891.—These form an adequate library for the preliminary study of colonial history. The *Statistical Abstracts of the Board of Trade* and the *Statesman's Year-Books* supply some economic statistics for foreign countries, revised annually.

FOREIGN WORKS.

FRENCH: Leroy-Beaulieu, *De la colonisation chez les peuples modernes.*—Louis Vignon, *Les colonies françaises.*—Jules Duval, *L'Algérie et les colonies françaises* (all, Librairie Guillaumin, Paris). —J. Rambosson, *Les colonies françaises* (Paris, 1868).—L. Deschamps, *Histoire de la question Coloniale*, 1891.—*Notices statistiques sur les colonies françaises* (Berger Levrault, Paris, 1883). —*Annuaires publiés par chaque colonie.*—*Tableaux annuaires.*—*Revue maritime et coloniale.*—Also *French Colonies and their Resources*, J. Bonwick (London, 1886).

GERMAN: Roscher, *Kolonien, Kolonial politik, und Auswanderung* (Leipzig and Heidelberg, 1856).—K. E. Tung, *Deutsche Kolonien*, 1884.—*Deutsche Kolonial Zeitung, organ der D. Kolonialgesellschaft*, Berlin, every Saturday.

DUTCH.—*Bijdragen tot de Taal-Land-en Volkenkunde der Nederlandsch-Indie*, began to appear 1886, 'Sgravenhage.—A copious bibliography of works on Dutch colonies is prefixed to *Catalogue of Amsterdam Exhibition*, Colonial Section (Leyden, 1883).—Information respecting the system of Dutch administration and colonisation in the East Indies and the Cape to the French Huguenot emigration from Europe to South Africa towards end of 17th century is given in *The Voyage of François Leguat, of Bresse, to Rodriguez, Mauritius, Java, and the Cape of Good Hope.* London: printed for the Hakluyt Society.

PORTUGUESE.—Bulhoës, *Les Colonies Portugaises*, 1878.—Martius, *O Brazil e as Colonias Portuguezas*, 3d ed. 1888.—Corvo, *Estudos sobre as Provincias Ultramarinas*, 4 vols. 1883-87.—*Annuario Estatistico de Portugal* (official by the ministry of public works, Lisbon), *As Colonias Portuguezas*, fortnightly; *Boletim da Sociedade de Geographia de Lisbôa*, monthly; *Boletim official da Angola*, ditto, *da Moçambique.*

ITALIAN.—*Bolletino della Società Africana D'Italia* (Napoli, fortnightly).

A *Revue Coloniale Internationale* was issued at Amsterdam with French, English, and German articles in 1885, but lasted only three years; it is of interest as showing readily different points of view.] A. C.

METHODS OF GOVERNMENT. A colony (Lat. *Colonia; colere* to till, to cultivate) may be defined as distant possessions or dependencies of a country; more particularly the word signifies communities of settlers in a new or a foreign country politically dependent on a parent state. Colonies are lawfully acquired by a country in respect of other states either by title of occupancy, or of cession, or of prescription. As to the rules of international law relating to the acquisition of colonies and the disputes which have arisen on the subject, see Hall's *Int. Law*, pt. ii. ch. 2.

According to our municipal law English subjects who occupy a new country carry our common law with them, as far as it is applicable to their circumstances; and the crown, apart from parliament, has no legislative power over them. On the other hand countries acquired by conquest or cession, called crown colonies, retain their own laws till they are altered, and are subject to the absolute legislative control of the crown, except in so far as parliament interferes with the prerogative of the crown in this respect, for over all our colonies and dependencies, however acquired, parliament has supreme legislative authority (cp. Dicey, *Law of the Constitution*, Lecture II.; Todd, *Parliamentary Government in the British Colonies*). Conquered and ceded countries cease to be subject to the legislation of the crown if the crown has granted them a representative legislature.

The government of each colony is carried on in the name of the crown under a governor who is appointed by the crown, and who, in our self-governing colonies is advised by ministers responsible to the legislature, like our cabinet (as to the veto of the governor in respect of colonial legislation, and other restrictions on such legislation, see Dicey, *op. cit.* Lecture III.) The legal supremacy of the imperial parliament over the colonies is only exercised in cases which do not involve any encroachment on the province of colonial self-government.

British dependencies may be either directly under the government of the crown or they may be under the immediate government of a chartered company, such as the old East India Company and Hudson Bay Company, or the present South African Company. When the East India Company was abolished, and India was brought under the direct control of the crown, the control of the government was not assigned to the colonial secretary, but to a special secretary of state for India. Hence India is not styled a colony. E. A. W.

CURRENCY IN BRITISH COLONIES. In theory British currency followed the British flag to the New World "plantations," which were the beginning of our colonial empire. In practice, however, it was only the denomination of sterling, and not the sterling coin, which followed the first settlers. With new countries to develop, they required from the mother country not coin, but commodities in exchange for the produce they shipped home. Barter was the common mode of conducting the internal exchanges,—tobacco,

sugar, rum, indigo, wampum, skins, and timber, forming the more usual media. It was not until, with increased production, trade sprang up between some of the British colonies and the Spanish Islands and the Spanish Main, that metallic money began to flow in. This money was Spanish silver (the real and its multiples up to the "piece of eight" reals, see DOLLAR), which the colonists rated in denomination of sterling at arbitrary prices, the dominant rating of the first half of the 17th century being 4s. for the piece of eight, based on the popular currency (Barbados, Bermudas, Jamaica) of the real as a "Spanish sixpence." Clipping and competitive raisings of the local ratings of Spanish silver in the several colonies led, soon after 1650, as a rule, to the 5s.-rating of the piece of eight, which was familiar in England before that date, and which is preserved to the present day as the basis of "Halifax currency"; whilst, by the close of the 17th century a 6s.-rating was partially established both on the mainland and in some of the West India Islands. Meantime, other colonies had adopted the accepted silver-parity of 4s. 6d. for the piece of eight, and in 1652 New England had struck the silver "pine-tree coinage" (1s., 6d., 3d., 2d.) for its own use. Shortly after 1700 complaints of the evils of colonial currency began to pour in on the Board of Trade and Plantations, and in 1704 a royal proclamation was issued fixing the maximum rating of a piece of eight at 6s.-"currency" with other *silver* coins proportionately rated for concurrent circulation. Thus arose "proclamation money," *i.e.* the colonial rating of silver coins at a third above their accepted sterling value. As this proclamation was generally disobeyed ("owing to the liberty that trading men will always take in their own bargains"), the act 6 Anne, cap. 30 was passed, making it felony to pay or receive the specified silver coins above proclamation rates. The result was entirely unexpected, for (1) the West Indian colonies evaded the act by conventionally overrating the *gold* coins of Spain (see DOUBLOON), and so passing in practice to a gold standard; whilst (2) the mainland colonies (now the United States) issued inconvertible and unsecured paper money in profligate profusion. The gold standard persisted in the West Indies into the present century; but on the mainland the standard coin continued to be the silver Spanish dollar. In 1739 and 1740, it should be added, the question of colonial currency engaged the attention of parliament, but no practical results followed.

In the years round 1800 the colonial empire of Great Britain, whilst it was diminished by the loss of the United States, was increased by the settlement of Australia, by the gain of the Cape, Ceylon, and British Guiana from the Dutch, and by the capture of Mauritius, Malta, and some additional West Indian Islands from the French. And, further, the decade from 1810 to 1820 witnessed two important changes in the Spanish and British monetary systems. For (1) Spain lost the American colonies from which came the supplies of bullion which had made the Spanish dollar the universal coin for some three centuries; and (2) in 1816 the United Kingdom adopted gold as the sole measure of value, reducing silver coins to the subsidiary position of mere tokens. The now bewildering complexities of the colonial currency systems, the stoppage of the supply of the Spanish dollar, and the novel experience of retaining silver in circulation at home, led the imperial government, after striking rix-dollars (worth 1s. 6d.) for Ceylon, guilders (worth about 1s.) for British Guiana, and "anchor money" equivalent to $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{16}$ of a Spanish dollar for Mauritius and the West Indies, to pass an order in council and proclamation on 23d March 1825, for the purpose of introducing British silver and copper coins into general circulation throughout the colonies. Apart from the fact that tokens representing the standard *gold* sovereign were wholly unsuited to silver-using colonies such as Ceylon and Mauritius, there was the fundamental error in the legislation of 1825 that the Spanish dollar, then worth 4s. 2d. sterling, was rated at 4s. 4d. for concurrent circulation with sterling coins. And, further, no account was taken of the fact that, following the monetary system of Spain, most of the colonies regarded the gold doubloon (sterling value 64s.) as the equivalent of sixteen silver dollars. Consequently British silver was undervalued some 3 per cent as against the dollar, and a further 5 per cent as against the doubloon, with the natural result that the scheme of 1825 was abortive. Taught by experience, the imperial government in 1838 revoked the legislation of 1825, so far as respected the colonies "in America and in the West Indies," and ordained that throughout the West Indies the dollar and doubloon should be rated at 4s. 2d. and 64s. respectively, for concurrent circulation with sterling coins. No limit was placed on the tender of the doubloon, the dollar, or British silver. Consequently, though in the following years the several West Indian Islands formally passed acts assimilating their currency to that of the United Kingdom, the gold sovereign has been unable to circulate in competition with the shilling, and the doubloon has been driven out. The history of currency in the West Indies may here be completed by stating that, when in 1876 the gold-price of silver made it profitable to re-introduce the then practically unknown dollar, acts were forthwith passed demonetising that coin, and leaving the field to British silver coin, and the notes of the Colonial Bank. The exceptions

are (1) the Bahamas, where, by a popular—but not legal—over-valuation of the gold U.S. dollar at 4s. 2d., the practical standard is the gold currency of the United States, with British silver in subsidiary circulation, and (2) British Honduras, where in 1886 the silver dollar of Honduras was made the legal standard. At various times endeavours have been made to induce the West Indies to impose a limit on the legal tender of token silver; but local opinion is not ripe for this reform.

In other colonies the history of currency has no unity except in the principle that, since 1838, "currency areas" have been recognised, *e.g.* Ceylon and Mauritius have been allowed to adopt as their standard the Indian rupee, which dominates the "currency area" in which they are included by virtue of trade-relations, etc.; the currency of Spain has been adopted for Gibraltar; in Hong Kong and the Straits Settlements the Mexican dollar (see DOLLAR) has been established as the proper standard for colonies trading with silver-using China, which recognises no *coin* but the Mexican dollar; and, lastly and chiefly, Canada has adopted the *gold* currency of the neighbouring United States, a weight of fine gold, which is the exact equivalent of the U.S. gold dollar, being the standard of value. Newfoundland stands alone in having a standard (gold) coin peculiar to itself, viz. the two-dollar pieces struck at the British mint. But numerous colonies (Canada, Ceylon, Mauritius, Hong Kong, the Straits, etc.) possess *tokens* of their own. In concluding this brief survey of the history of metallic currency in the British colonies, the most important matter of all remains to be noted, viz. the discovery of gold in Australia in 1850, and the subsequent establishment of the Sydney and Melbourne branches of the Royal Mint in 1853 and 1866 respectively, for the coinage of sovereigns and half-sovereigns (only), which are now legal tender equally with the coins struck at the London mint.

As regards paper currency, space forbids more than the brief mention that, except in the American colonies, there was practically no paper money in circulation in the British colonies before this century; that at the Cape and in Ceylon and British Guiana we inherited a *damnosa hereditas* of inconvertible paper, which under British mismanagement increased in volume, and drove out coin in the first forty years of this century; that during the same period Jamaica and Prince Edward Island debased their currency in a similar fashion; that in Ceylon and Mauritius government note-issues have been established, which are fully secured, and have at least one-third of the reserve in coin; that the modern policy appears to be to ensure (always in the case of new issues, and as far as possible in the case of existing issues) the two essentials of security and convertibility, leaving it open whether the issue shall be by the government or by a bank. But much of the paper which circulates in the British colonies is not adequately secured.

The following is a classified list of the colonies as regards currency:—

I. STERLING STANDARD.

(*a*) With 40s. limit on silver:
Australasia, the Cape, Natal, British Bechuanaland, Fiji, St. Helena.

(*b*) With a £5 limit:
Malta.

(*c*) With no limit:
West India Islands, British Guiana, West African Colonies, Falkland Islands.

II. NON-STERLING STANDARD.

Gold.
(*a*) U.S. gold dollar:
The dominion of Canada (sovereign legal tender at $4·66).

(*b*) Newfoundland gold dollar:
Newfoundland (eagle and sovereign legal tender).

(*c*) Spanish (Latin Union) "bimetallic" standard:
Gibraltar.

Silver.
(*d*) Mexican silver dollar:
Hong Kong, the Straits Settlements, Labuan, British North Borneo.

(*e*) Indian rupee:
India, Mauritius and Ceylon.

(*f*) Honduras dollar:
British Honduras.

[*The Currency of the British Colonies*, anon., London, 1848.—*Early Coins of America*, Crosby, Boston, 1878.—*Conference Monétaire Internationale de 1878*, Paris, 1878.—*The Money of the British Empire*, by Mr. A. Leslie Probyn in *Vol. XXI. of the Proceedings of the Royal Colonial Institute*, 1890.—*Coins of British Possessions and Colonies*, Atkins, London, 1889.—The acts of the several colonies, colonial histories, and pamphlets of the last and present century, dealing with currency in individual colonies, and, particularly, the valuable MSS. in the record office.] R. C.

DENOMINATIONAL CURRENCY. In connection with colonial currency the term DENOMINATIONAL CURRENCY requires explanation. It has been used by writers of repute; but it is illogical and unscientific, and it would be desirable to get rid of it. In transactions with many of the English colonies, especially the North American and West Indian colonies, even as late as the middle of the present century, the term "currency," as opposed to "sterling," was well known; and perhaps "currency," in a strictly limited and almost local sense, without a defining, or rather a confusing, epithet, is the simplest name to adopt for the state of facts which we proceed to explain.

"Currency," it will be found, implied the current use, in account, of the denominations of a standard coinage to represent values widely

varying from the standard, produced by the mis-rating of coins foreign to the standard.

The original colonists of the Americas naturally adopted in their new home the denomination of money with which they were familiar, and made it their money of account. At first their transactions were almost entirely in commodities. When coins became in request, those which came to them were foreign coins, chiefly Spanish and Portuguese (*v.* CURRENCY IN BRITISH COLONIES). They consequently attempted to adapt these coins to their familiar denominations of account, in other words, to rate them to the pound. This rating was incorrect; it varied in different colonies, and was often made worse by further attempts to correct it. Hence a pound's worth of dollars, according to local rating, was a very different thing from the number of dollars equivalent in intrinsic value to the pound sterling; and it usually fell considerably short of that equivalent, as was shown by the high rates of exchange which prevailed against the American and West Indian colonies for many years. The £ s. d. in which the colonists reckoned did not correspond in value either with those denominations in the sterling of the mother country or with similar denominations in neighbouring colonies. There thus existed a number of differing pounds of account, each of which came to be known locally as a "currency pound."

The same state of facts is not likely to be repeated except in the dependencies of a dominant country. In Ireland, during a good part of the 18th century, the moidore was the prevalent coin apart from debased half-pence and farthings, and Irish "currency" was in the same position as that of the Plantations.

C. A. H.

GOVERNMENT OF COLONIES BY COMPANIES. Adam Smith, in a passage which has been quoted with approval by at least one modern writer of authority, states that "the government of an exclusive company of merchants is perhaps the worst of all governments for any country whatever." The statement, if it were unchallenged, would stand for ever as a condemnation of all past or present projects conferring territorial sovereignty on a company. But this dictum of Adam Smith's is somewhat too sweeping and somewhat out of accord with the facts. So far as it is good, it needs elucidation.

The possession of territorial sovereignty by private individuals or companies, the subjects of some supreme government, is apparently associated with a special set of conditions. It has rarely been found except at those times and in those parts of the world in which rival nations have been actively competing for new trade or settlements. In the 17th century, when the power of Spain was broken, and English, Dutch, French, and Danes were rushing in to share the spoil, the method which national caution dictated to the new comers was that of the chartered company; and the early history of North America, the West Indies, and Guiana is virtually the history of many such companies; the rest of South and all Central America was too secure in the hands of Spaniards and Portuguese to offer a field for rivalry. The struggle for the trade of the East was a struggle of companies. The latter half of the 18th century was a time of continual fighting; the present century has been a time of recovery and development on the lines settled by that fighting; there was no room for that rivalry in new fields which produced the privileged companies; Australia was the great addition to the world in this period, and there was no question who should colonise it. In our generation a fresh example of the theorem has arisen; Africa has been suddenly presented to us as the great prize open to all nations, and the recent efflorescence of chartered companies is the result.

The encouragement of such companies springs from the timidity or caution of governments. Companies rush in where the messenger of government fears to tread. If they succeed, the government of their country gladly supports them, and may ultimately reap the fruits of their labours; if they fail, no blame is taken by the government. If their actions prove premature or inconvenient they can be disavowed, the company being made a buffer to ease off friction or conceal the reality of some blow at a rival.

Not that acquisition of territory or the government of a new domain has been the original aim of any of these companies. In ancient and modern instances alike the profits of trade have been the guiding motive in their formation. Certain arrangements for the preservation of order have been included in the charter, and formed the germs of any government which afterwards grew up. It will be found that in their essence there is no difference between the chartered company of the 17th century and that of 1890. All through the document on which they base their rights the prominent idea is the security of their business; all through the history of their operations their real anxiety is the development of their trade. The real difference between ancient and modern companies is to be found in the extent of their commercial privileges and the influence of modern conscientiousness or timidity.

It will be useful for reference, and will illustrate the activity of enterprise in the 16th and 17th centuries, to give a list, which is at least approximately complete, of the numerous companies which obtained charters for exclusive trade in nearly all the known quarters of the globe previous to the 19th century.

The Merchant Adventurers' Company appear to have been the first body of men from any

nation who obtained a charter (dated in 1564) for foreign trade. The Muscovy Company was probably next, and its charter is quoted as a precedent for others, *e.g.* for the Company of Cathay, which received its charter in 1576. The Turkey Company was formed about the same time: the Company of Adventurers for Guinea and Benin, followed ten years later. The East India Company of London was incorporated in 1600, and thus preceded by three years the great Dutch Universal East India Company, which was destined to drive it into difficulties out of which arose the only company (commonly known as the British East India Company), which became a mighty territorial sovereign. The governor and company of Merchants of London for the discovery of the North-West Passage were incorporated at this period. And the first half of the seventeenth century was rich in companies, the majority turning their eyes towards America. The Virginia Company, the Bermuda Company, the Newfoundland Company, the first African Company (which was reconstituted four times), the Dutch West India Company, an Amazon Company, a Guiana Company which never did anything, the New England Company, the Providence Company, the Canada Company, the Massachusetts Bay Company, the Nova Scotia Company, rapidly succeeded one another. There were also the French East and West India Companies—the latter known as the Company of the Islands of America, and Canada Company formed during the same period; an English West India Company was projected but never became a reality. Most of the charters granted after 1650 are reconstitutions of old companies on a new basis, as in the case of the New Royal African Company. Charles II.'s reign teems with such new grants. The Hudson's Bay Company's first charter was granted in 1670.

An alternative method of encouraging colonisation, which must be noticed here, was the grant to a body of lords proprietors, or sometimes to a single lord. All the British Caribee Islands were so granted in 1627; Maryland in 1669; the Bahamas and Carolina in 1670. In the case of these grants there seems to have been a clear understanding that the sovereignty rested with the crown; whereas the companies merely reserved a fixed nominal tribute to the sovereign in case he should come into their dominions; and when, as in the case of Virginia, the Bermudas, or more recently India, the Crown was required to intervene, a suspension or complete alteration of the charter was necessary.

It is well to mention the notorious South Sea Company, early in the 18th century. And the list of older companies is closed towards the end of that century by a new departure in economical history, a politico-philanthropic settlement, namely the Sierra Leone Company.

The old charters and grants which conceded their rights to the above-named companies or to lords proprietors were very much on the same lines and often almost in identical terms. Apart from arrays of names and verbiage, they were simpler documents than any recent charters. The monopoly, their *raison d'être*, the "sole privilege to pass and trade" to certain places is the leading provision in all. The necessary powers for securing the enjoyment of that privilege of trade and of the assigned territory are given, and this carried a right to exact customs duties from traders not members of the company. A governor and court of directors were usually instituted, and empowered to make laws, levy fines, and imprison. In some cases full jurisdiction of life and death is conferred, together with the power to declare martial law; in others power to make peace or war with heathen natives is also delegated; in one case (the Amazon Company) we find mention of "all customary privileges for sending ships, men, ammunition, armour, and other things." Provisions regulating the admission of members are usual, and the term of duration is commonly limited to a moderate period, though in the case of the Royal African Company it was for 1000 years. Briefly, the old charters regarded two things: 1st, the monopoly of trade; 2d, security against intruders or foreign foes. They were somewhat vague in language, and left each company to work out its own development according to circumstances. No kind of supervision by the supreme government was suggested; but in some cases a right of interference was preserved by the curious legal fiction of making the area of the grant a part of an English borough.

It was a part of the policy of the companies to induce settlers to go out to their lands, and to keep these settlers in a kind of tutelage; if this was necessary to their first success, it was also essentially the cause of their troubles. The government of a few individuals who while attracting free settlers directed everything avowedly for their own profit, and denied the right of those settlers to enjoy the fruit of their own industry, was clearly indefensible. The operations of all the companies which made something of a permanent start, such as those of Virginia and Bermuda, were very early disturbed by complaints of their monopoly. Deprivation of profits bred discontent; discontent proved difficult to handle. The domain of the company often became a scene of confusion; and discredit was cast not only on its monopoly, but upon its power to govern. It was this condition of affairs which Adam Smith reprobated; but the real root of the evil here was the exclusive privilege operating injuriously to others of the same race and ambition.

Government in the proper sense did not greatly enter into the schemes of any companies.

In most cases the disputes just referred to began so early in their history, and became so serious, that all future responsibility for the government really rested with the crown, which gradually absorbed the area of its own grant. Such was the case of the Virginia Company in 1624, some eight years after it was incorporated; the question of reform was mooted by the proposal to renew the charter for trade only, "but not for the government of the country, of which the king will himself take care." In 1631 this plan took final shape, the protests of the "adventurers" delayed it, but they could not stifle the voices of dissatisfied Englishmen; the administration of the company's territory fell in to the crown, and the company paid the charges.

In one notable instance, under a special set of circumstances, a government of remarkable power and energy grew up almost against the will of the administrators. The British East India Company started with no ambitious scheme of government; they were content to have established their factories on the coasts of the Carnatic and Bengal, provided they could oust their foreign European rivals from the trade. The intrigues of the French forced them to fight, first for their existence, afterwards for quiet possession; the flame of war once lighted was not easily quenched; the brand had fallen amongst a restless and inflammable people; the small band of the company's servants had to choose between conquest and death. The man for the hour was at hand; success followed Clive's arms, and a British company became the lords of a vast empire. In this case the climate and distance had confined the numbers of adventurers of British race to but few besides the company's own servants or licensees; the directors were hardly hampered by internal discontent, and the objects of their earlier administration were a people who expected to be ruled.

It would have been a strain on any nation to support the continued wars which for nearly half a century taxed the resources of the great East India Company; it was natural that support from the government should be asked for, and that its enjoyment should be accompanied with some measure of control. Nevertheless the government of India, even after the institution of the Board of Control in 1784, was in reality the government of the company; and that it was enlightened and careful, that it gradually handled with success the most difficult problems which confronted it, that it swept away great national evils such as child-murder and thuggism; in short, that it was conducted by a peculiarly able set of Englishmen on the lines most approved at home, will hardly be denied. The rule of the company came abruptly to an end in 1858, not so much because it was proved a failure, as because a greater crisis than ever had arisen, and the interests of all classes in this country had become bound up with the possession of India, so that the sense of national responsibility was stronger than before.

What the East India Company did in the old world the Hudson's Bay Company partly accomplished under quieter conditions in North America, laying the foundations of two great provinces of the Canadian dominion. The same thing might have been done by many of the old companies had conditions been equal. Indeed, as Mr. Merivale suggests of the Dutch India companies, the government of a company in those days was likely to be more generally beneficial than that of a nation. There was greater regularity and economy of administration; a sharp check was kept over employés; if the court of directors itself wished to tyrannise or squeeze, it at least kept its subordinates in order. It is true that Adam Smith draws an exactly opposite picture; but it will be admitted by all who read history fairly that this great man was blinded by his hatred of monopolies of all kinds, and failed to give credit even where credit was due.

The weak point of a company's government was apt to be in its external relations. On the one hand was the fear of embroiling itself and its nation; on the other the reluctance to throw away money. This is excellently illustrated by the later history of the Dutch West India Company in Demerara and Essequibo. The Spaniards were constantly encroaching without warrant on the limits of the Dutch colony; the Dutch governors were eager to drive them off once for all; but the company, partly actuated by its anxiety not to cause a national breach, partly avowing the need of economy, declined to take a step which might have saved endless trouble afterwards.

The fact is that to govern with capacity a company must first be rich. It is chiefly this which Mr. Merivale has in mind when he states that the prosperity of companies declined as soon as they substituted empire for trade. Sovereignty brought large establishments and lavish expenditure. Because the means failed it is not a fair inference that the administration of trading companies is inherently rotten. The monopoly of the old companies produced factitious prosperity; this led them on to extravagance; and in but few cases could they withstand the simultaneous undermining of their monopoly and the unexpected strain of their own engagements.

The Sierra Leone Company at the beginning of this century is hardly a fair example of the trading company. Its operations were mixed up with philanthropic interference, which is proverbially unbusiness-like. And after all, its government was hardly less successful than that of the West African colonies under the British crown.

The Sierra Leone Company was the last of the

older attempts to make a trading company self-administering. The charter of the Falkland Islands Company was purely a trading charter. A colonial government had been established before Mr. Lafone obtained his grant. No positive monopoly was granted by the charter; the company was empowered to carry on operations for taming wild cattle and breeding stock, for establishing whale and seal fisheries, to enter into any sort of trade with the islands generally, and to contract for the performance of any services either to the government or individuals. These objects were not such as to demand a charter, the only practical aim of which appears to have been to give prestige; the effect, however, has been to create a monopoly in that distant colony which is bitterly assailed by the few independent islanders.

It would not be right to omit all mention of the Sombrero Phosphates Company, holding the island of Sombrero in the West Indies under a lease which makes the lessees responsible for the maintenance of order amongst their employés and any other inhabitants, and so far creates a small dependent government.

But broadly speaking, except that the East India Company lived on, ever approximating to state government, it may be said that colonisation by chartered companies dropped into abeyance in the 18th century, and that after a lapse of nearly a hundred years the system suddenly burst again into life in the charter of the British North Borneo Company.

This charter was the first, and the example, of the modern grants. It was the result of a number of concessions in the same district coming into the hands of one man and forming a responsibility which he could not bear alone. The revival of the idea of a chartered company was not unnatural, in view of the extent and delicacy of the interests concerned. But the precise stipulations of the new charter gave it a stamp widely different from that of the old grants.

The German New Guinea Company was the next in the field. And the Royal Niger Company, the Imperial British East Africa Company, and the British South Africa Company, all received charters on the new British model within the space of three and a half years; all three absorbing individual and competing interests which the government of Great Britain was disinclined to support. The German East African Company followed in the steps of the British Company of similar title.

Modern philanthropy and respect of human life, the natural timidity of governments, and the special caution which characterises that of Great Britain, have laid an indelible mark on the new British charters. There is, of course, no exclusive enjoyment of trade; on the contrary, monopolies are carefully prohibited; but there is the exclusive right to grant concessions within the territory assigned, and to deal with it for the company's advantage; power is also taken for the establishment of any kind of business. At every point the control of the crown, through one of the principal secretaries of state, is jealously reserved; without reference to him no transfer of territory can be made, no dealings with native or foreign powers are final. The discouragement of all slavery and of the liquor traffic is specially enjoined; interference with native religions is forbidden; consideration of the customs of natives is required in the administration of justice.

As already suggested, it is in these precautions that the real difference between the older and modern grants lies. It is nothing more than the difference of the spirit of their age. Both contemplate the necessity of administration, and make some sort of provision for it. But in the older cases a free hand is left to the directors; in the modern every precaution is taken against collision with foreign states or oppression of native races. There is no foundation for any attempt to differentiate ancient and modern chartered companies by the extent of their administrative purpose. This has always been the creature of circumstance, and it may be that when the history of existing companies some day comes to be written, one or more may be found to have rivalled the success of the British East India Company.

A real difference in regard to method of government is found between the British and Dutch companies on one side, and the French and German companies on the other. The distinction applies alike to old and modern charters. The Britons and the Dutch are above all things traders, and traders who rely on their own resources; their charters are for trade, and the companies are left to stand or fall by themselves; intervention of the national government closes the company's rule. The French and Germans carry with them their fatherland; the imperial power must be close behind them; the sovereignty of their companies is the delegated sovereignty of the supreme government; the administration of justice and certain executive functions rest directly with the government; and all foreign relations are controlled by it. The German New Guinea Company and the German East African Company are veiled forms of the German government, hence the warships and bombardments which mark their operations.

The obvious result is that the progress of the aided companies is at first more obtrusive; avowed dominion by the national government must come more rapidly; and, in the case of nations like the Germans and French whose policy is exclusive, this involves restrictions affecting the world. On the other hand the real grip of a district, which is the foundation of good administration, may never come by this

method. By the British plan the ground is carefully prepared for empire first; if the project is successful, there is little question that colonial government will take firm root, when its time comes at last.

If we have dealt chiefly with British companies it is that in British hands the chartered company has been most widely and successfully used. . In its present form the British chartered company is shorn of every objectionable feature. It may be a great pioneer of trade and confer lasting blessing on unopened districts. It may keep open tracts of land which would otherwise be closed by a selfish policy. But the government which encourages fresh companies must be prepared eventually to administer a new territory; and the real question of policy is brought down to this—whether, while there is yet room for expansion, a living empire must be a growing empire.

[The *locus classicus* on the subject of government by companies is Adam Smith's excellent chapter bk. iv. ch. vii. and esp. pt. ii., where his distinction between "regulated" and "joint-stock" companies is worth noting. See also Sir G. C. Lewis's essay on *The Government of Dependencies*, circa p. 143.—Merivale's *Colonisation and Colonies*, pp. 50-60 (ed. 1861).—*The Calendars of State Papers* (*Colonial*) (1574-1674, 3 vols.) are a mine of history, and Mr. Sainsbury's prefaces are useful. —Sir W. Kaye's *History of the East India Company* is one amongst many works on that subject. A sketch of the Dutch West India Company is found in Motley's *United Netherlands*. References to other special companies are scattered; but for the Hudson's Bay Company consult Parl. Paper 547 of 1842; and for recent charters the *London Gazette* of 8th November 1881 (British N. Borneo), 13th July 1886 (Royal Niger), 7th September 1888 (Imp. Brit. E. African Co.), 20th December 1889 (Brit. S. African Co.)]

[See AFRICAN COMPANIES, EARLY; AFRICAN COMPANIES, RECENT; EAST INDIA COMPANIES, BRITISH.] C. A. H.

SYSTEMS OF COLONISATION. In its economic or industrial aspect, colonisation must be deemed the outcome of modern necessities and the offspring of modern instincts. The settlement of colonies took place, indeed, in early times, but it proceeded usually in ways and from causes other than those recognised by modern systems. With the Phœnicians, colonies were little else than trading stations; to the Greeks they represented more, being founded oftentimes in response to political exigencies; the Roman colonies, united to the mother state by a common bond of citizenship, while at times little more than military settlements, were at times again a means of relieving distress or discontent. Nor was there any sign of conscious colonisation even at the close of the Middle Ages, when the discovery of America threw open a new world to Europe. About that time two chief motives led to settlements beyond the borders of the country or city whose citizens formed the new inhabitants. 1. The desire to form trading stations, as, for instance, in the cases of Venice and Genoa in the Mediterranean, of Spain and Portugal in the new world, and afterwards in the case of companies, such as the East India Companies. 2. The desire for adventure resulting at times in settlement. During the 16th and 17th centuries, the first of these objects met with encouragement from the new school of statesmen as Lord Burghley and Oliver Cromwell in England, Richelieu and Colbert in France. In the case of the former country, too, political conditions and love of adventure combined to add the notion of settlement to that of trade. There was, however, no conscious regulation of the new settlements with a view to their rapid industrial development. *Colonisation*, in its true sense, was unknown, whether the system adopted was proprietary or more immediately dependent on the crown. The growth of a system of colonisation may be best traced in the history of the British colonies. Here, indeed, relations of the colony to the mother country were fully recognised, especially by such a measure as the NAVIGATION ACT 1652 (*q.v.*) The system thus inaugurated was that of political freedom, but commercial restraint for the advantage of the mother country. An attempt to interfere with the former led to the loss of the American colonies, and in consequence to a change of policy. The colonies were governed more from home, but every encouragement was offered to their commercial development, as the effect of the trade restrictions (differential) imposed on both sides was to confine colonial products to the most important market in the world, though this might have the effect of limiting the sources from which England might derive her supplies of raw material. Thus matters stood at the beginning of the 19th century. In reality there were four points on which a decision had to be arrived at:—1. The position of the colony as an outlet for the rapidly increasing home population. 2. The settlement of this population so as to promote best the development of the colony. 3. In consequence, the political relations of the two countries. 4. The commercial relations of the two countries.

The first two of these are those which relate most closely to the subject of colonisation, the others being in part their consequence, and from their nature involving a consideration of general administrative and commercial policy.

The colonies were supplied with immigrants from home, but these being in general either convicts or paupers (cp. Wakefield, *Art of Colonisation*, Letter xxi.) were of doubtful advantage. In the next place, the new population, enticed by the offer of free grants of land, spread themselves over a larger surface than they had capital to cultivate. In 1829 the

system of free grants was opposed by Edward Gibbon Wakefield (*Letter from Sydney*, by R. Gouger) and in 1830 the Colonisation Society was formed. Its members attacked the system of transportation, and their accusations were confirmed by the report of the select committee in 1838, soon followed by the cessation of transportation.

Meantime the efforts of Wakefield were concentrated on the second of the two questions. Labour was needed on the land. It must be restrained from undue diffusion. When the need of labour had been felt at a much earlier date in the American colonies it had been met, in the southern states at least, by the employment of slaves. This remedy was out of the question. Now Wakefield proposed to cope with the matter by a reconstruction of the system according to which the public lands were disposed of. Free grants were to be abolished and the land to be sold at a price determined according to the circumstances of the case. It was further proposed to apply the proceeds to the promotion of immigration, and also to the improvement of the means of communication (cp. *Reign of Victoria*, vol. ii. pp. 405-408). The important principle was that of the sale of land at a *sufficient* price. So far as the substitution of "sale" for "free grant" was concerned, it was adopted by the instruction of 1831, with reference to Australia (Grey, *Colonial Policy*, letter vii.), advocated in the Durham report and given full effect to by the Australian Land Act of 1842. But when it was attempted to put the plan more fully into practice, a difficulty occurred in the interpretation of the term "sufficient." This was shown in the history of the efforts of the South Australian Company (cp. Wakefield, *Art of Colonisation*, letter ix. and also despatch by Sir George Gipps, *Parl. Papers*, 1843, No. 323).

The efforts of Wakefield were in fact directed to the discovery of means whereby capital and labour might be introduced into the colony in such a manner and in such proportions as to lead to its more stable development. For the fullest accounts of his system, see *The Art of Colonisation*, by E. G. Wakefield; *Lectures on Colonisation*, by Herman Merivale; *Colonisation avec les peuples modernes*, par P. Leroy Beaulieu. The two latter works are extremely critical in nature, though perhaps the most searching criticism of all is to be found in the above-quoted despatch from Sir George Gipps.

It remains to consider the effect of colonisation on the home country. Its condition may be affected directly or indirectly—directly by the loss it sustains of population and capital, indirectly by the consequences involved in the development of a colonial trade. The question of emigration has attracted and continues still to attract a considerable amount of attention. While there must be considerable difference of opinion as to the benefit it confers, the three following propositions may be regarded as established. 1. It cannot be a *permanent* safeguard against over-population. 2. Unless concurrent with an increase of prudence in marriage and a rise in the standard of comfort, it can ameliorate but little the condition of the working classes from whose number the emigrants are theoretically drawn. 3. It is highly beneficial in relieving the congestion which from many incidental causes has taken place in particular districts.

The exportation of capital, implying as it does the employment of such capital in circumstances more favourable than would have been the case at home, prevents the rate of interest, from falling. (For this and for its other effects see Merivale, *Colonisation*, Lecture vi.)

The development of the colonial trade which involves the same better distribution of energy, has in consequence a beneficial effect on the condition of the people in the home country (see COLONIAL POLICY).

[Works cited in text, and more particularly, H. Merivale, *Lectures on Colonisation*. — P. Leroy Beaulieu, *Colonisation chez les peuples modernes*; Roscher, *Kolonien, Kolonialpolitik und Auswanderung*.—Colonel Torrens, *Colonisation of South Australia*.] E. C. K. G.

COLQUHOUN, PATRICK (born 1745, died 1820), lord provost of Glasgow, police magistrate in London, in the course of an active life contributed to social science some thirty publications; among which may be distinguished: (1) *Treatise on the Police of the Metropolis*, 1795; (2) *Treatise on Indigence*, 1806; (3) *Treatise on the Population, Wealth, Power, and Resources of the British Empire . . .*, 1814. Mr. Giffen, in his *Growth of Capital* (p. 101), utilises Colquhoun's estimates of national wealth; and, while admitting that "many of his details are fanciful," considers that "he was most unjustly decried by M'Culloch" (*Ibid.* p. 50). Colquhoun himself confesses that his statistics are not accurate: "all that is attainable is approximating facts," he pleads. His general remarks are often sound; for instance, advocating savings banks, "The great desideratum in political economy is to lead the poor by gentle and practicable means into the way of bettering themselves." He has just views on the education of the poor (*Indigence*, ch. v.), and on the growth of the population (*Wealth, Power, and Resources*, ch. i.) On currency he is less happy (Letters to Dr. Boase, *Brit. Mus. Addit. MS.*, 29,281).

[In a *Biographical Sketch . . .* by 'Ιατρός (Colquhoun's son-in-law, Dr. Yeats) there is a catalogue of Colquhoun's publications. It does not include *Considerations on the means of affording profitable employment to the redundant population of Great Britain and Ireland*, published anonymously 1818 (Lowndes).] F. Y. E.

COLTON, Rev. Calvin, born in Massachusetts 1789, died in Georgia 1857. At first a Presbyterian clergyman, he soon entered the ministry of the Protestant Episcopal Church. This he relinquished for journalism, and in 1852 became professor of political economy at Trinity College, Hartford, Conn. He advocated very strongly the policy of protection to home industries, and was a devoted follower of Henry Clay. He wrote works on travel, and on religious and political subjects. Among his economic works are *The Crisis of the Country*, 1840.—*The Junius Tracts*, 1843-44.—*The Rights of Labour*, New York, 1846, pp. 96; and a more extensive work, *Public Economy for the United States*, New York, 1848, pp. 536. He edited the works of Henry Clay, and in all his economic writings dwells principally upon the theme of protection. D. R. D.

COLWELL, Stephen, born in Virginia 1800; entered on the practice of law in his native state; early removed to Pittsburg, and relinquished his profession to become an iron merchant in Philadelphia, where he lived the remainder of his life; died 1872. He devoted much time to the study of political economy, wrote largely for the periodicals of the day, and associated himself with the protective party. Among his more extended writings may be mentioned *The Relative Position in our Industry of Foreign Commerce, Domestic Production, and Internal Trade*, Philadelphia, 1850, 8vo, pp. 50; and an American edition of Frederick List's *National System of Political Economy*, Philadelphia, 1856, pp. 497, for which he wrote a preliminary essay, pp. lxxxiv. His best known work is *The Ways and Means of Commercial Payment*, Philadelphia, 1858, in which he attempts a full analysis of the credit system, with its various modes of adjustment; he argues that a mistake has been made in previous analyses in not making a radical distinction between money of the precious metals and forms of credit; the historical inquiry into the growth of the credit system is of considerable value, and the whole work exhibits independence of thought; he did not accept the view that the quantity of money is the controlling factor in determining prices. His other writings of economic interest are, *The Claims of Labour, and their Precedence to the Claims of Free Trade*, pp. 52, 1861.—*Gold, Banks, and Taxation*, pp. 68, 1864; and *State and National Systems of Banks, Expansion of the Currency, the Advance of Gold, and the Defects of the Internal Revenue Bill of June 1864*, 8vo, 1864. At the close of the civil war in 1865 he was appointed a member of the revenue commission, and in 1866 made a valuable report on taxation. In this document Colwell's special reports are upon *The Influence of Duplication of Taxes upon American Industry*; upon *Relations of Foreign Trade to Domestic Industry and Internal Revenue*; upon *Iron and Steel*; and upon *Wool and Woollens*. He also elsewhere made reports upon *High Prices and their Relations with Currency and Taxation*, 1866.—*Over-Importations and Relief*, 1866.—*Financial Suggestions and Remarks*, 1867, pp. 19. See *Memoir* by Henry C. Carey, Philadelphia, 1871, pp. 35, in which (p. 32) will be found a list of writings, thirty-two in number. D. R. D.

COMBINATION. Combinations for the purpose of controlling the production, exchange, and distribution of wealth, have assumed so many forms that it is only possible here to give an outline of the subject—the reader being referred to other pages for a detailed examination of each class.

I. Production. Some forms of wealth can only be produced by the assistance of large capital, and in some industries production on a large scale is distinctly economical (Mill's *Polit. Econ.*, bk. i. ch. ix.) Hence capitalists have united in various combinations recognised by law:—

(1) *Partnership.* Where two or more persons agree to combine property, labour, or skill in business, and to share the profits between them.

(2) *Company.* Where a number of persons are incorporated into a company either under act of parliament or by charter from the crown, the liability of members being either limited or unlimited (see Companies).

Combinations of producers have also been formed with the object of controlling the production of some one or more commodities so as to secure if possible a monopoly of production. The following types of this method may be mentioned:—

(1) *Pools.* Where a joint committee of delegates from several producing establishments control the production (see Pools).

(2) *Syndicates.* Where one firm or company agrees to take all the produce of other firms in the same business at fixed prices: the amount of the produce being often limited by agreement. The copper syndicate formed by the *Société Industrielle et Commerciale des Métaux de Paris* is the most famous of this class.

(3) *Trusts.* Where the stockholders in several corporations transfer their shares to trustees, who become registered in their places as owners of the stock and so obtain complete control of the management. Usually the shareholders receive trust certificates in exchange for their shares. The complete legality of such a proceeding has been maintained (*Polit. Sci. Quarterly*, Dec. 1888), but in at least one American case it has been held that a corporation whose members enter into such a trust forfeits its corporate character (see Trusts).

Companies are sometimes formed with the object of establishing a monopoly of production, by buying up the business of all persons engaged in the trade. The Salt Union which

has purchased many of the salt properties in England and Ireland is an example of this class.

Various forms of combinations are found to exist between sellers and buyers :—

(1) Wholesale firms are frequently bound by agreement with their customers (retail dealers) not to sell except to retail firms.

(2) Distributors or intermediate dealers, often combine to buy at a low price from producers and to sell at a high price to consumers. The milk exchange of New York bought milk at two to three and a half cents per quart and sold it as high as seven or ten cents.

(3) Combinations or agreements between seller and buyer that the latter will sell again only at a certain price are very numerous in America, though such agreements have been declared illegal.

In a separate class may be placed the combinations entered into by carrying companies either to secure if possible a monopoly of traffic or to prevent competition by agreeing on a scale of rates and charges.

[For examples of these various forms of combinations see *Report of Committee of State of New York upon Trusts*, 1888.—*Report of Committee of Canadian House of Commons on Combinations regarding manufacture or sale of Products*, 1888.—*Quarterly Journal of Economics*, 1889, Boston, vol. iii. No. 2.—*Political Science Quarterly*, 1888, New York, vol. iii. Nos. 2, 3.—Sidgwick, *Polit. Econ.*, bk. iii. ch. *x.*, and Marshall, *Principles of Economics*, bk. v. ch. viii., discuss the theoretic aspects of monopolies.—Cournot's treatment of the abstract theory of monopoly (*Recherches*, ch. v. *Du Monopole*) has influenced most subsequent writers. Much light is thrown both on the theory and facts of the subject by the following: Hadley, *Railway Transportation.*—C. W. Baker, *Monopolies and the People.*]

II. Distribution. In all the leading industries the employers and the employed have formed their respective associations for the protection of their own interests. The terms upon which the labourer is to give his services are not arranged by him and his employer individually, but by the respective associations to which they belong. Mill, regarding wages as paid out of capital, did not think that combinations of working men could raise wages without adding to capital; but more recent economists look on wages as a share of the produce, and admit that by combination wages may be raised (Sidgwick's *Polit. Econ.*, bk. ii. ch. x.; Marshall's *Economics of Industry*, London, 1879; and *The Principles of Economics*, 1891; Walker on *Wages*. See Trades Unions).

Combinations on the part of labourers to obtain higher wages or shorter hours of labour are not illegal, but it seems that a combination of tenants to obtain a reduction of rent may, under certain circumstances, amount to an illegal conspiracy.

III. Production and Distribution. In order to avoid the conflicts that arise between employers and employed different forms of "profit sharing" have been tried with varying success, the employer agreeing to hand over to the workers, in addition to their wages, a share of the profits (see Profit Sharing).

IV. Distribution and Consumption. In order to secure to consumers the profits made by producers, various forms of co-operation have been introduced in which the capital is subscribed by the consumers. This idea has been specially successful in saving to the consumer the profits of the retail dealer by the establishment of co-operative stores, and there is a growing tendency to apply the same principle to actual production (see Co-operation). J. E. C. M.

COMBINATION LAWS. The object of the series of statutes known as the combination laws was to enforce the provisions of the statutes of labourers of Edw. III. and of Elizabeth which authorised the justices in quarter sessions to fix wages. One of the first acts, 3 Hen. VI. c. 1, after reciting that the yearly confederacies of the masons tended to destroy the force of the statutes of labourers, enacted that such meetings should not be held under pain of imprisonment. In 1548 a more general statute was passed (2 & 3 Ed. VI. c. 15) which prohibited all conspiracies and covenants not to make or do their work but at a certain price, under penalty, on a third conviction, of the pillory and loss of an ear. In subsequent years the following acts relating to particular trades were passed prohibiting combinations for raising wages or reducing the hours of labour in the trade, viz. 7 Geo. I. c. 13 (journeymen tailors); 12 Geo. I. c. 34 (wool trade); 22 Geo. II. c. 27 (hatters); 17 Geo. III. c. 55 (silk weavers); and 36 Geo. III. c. 111 (paper trade).

In 1799 a general act was passed, but it was repealed and replaced in the following year by 40 Geo. III. c. 60, which prohibited all combinations for obtaining an advance in wages or lessening the hours of work. This act, says Mr. Justice Stephen (*History of the Criminal Law of England*, London, 1883, vol. iii. p. 208), "applies in the most detailed, specific, uncompromising way the principle upon which all the earlier legislation had depended. . . . I should not describe it as a system specially adapted and designed to protect freedom of trade. The only freedom for which it seems to me to have been specially solicitous is the freedom of the employers from coercion by their men."

The first attempt to modify this system of legislation was the 5 Geo. IV. c. 95, which repealed all the previous statutes so far as they related to combinations of workmen, and declared that persons joining combinations of workmen for obtaining an advance in wages or lessening the hours of labour, or for other specified purposes, should not be liable to any prosecution for

conspiracy. The act was considered to have encouraged combinations for objectionable purposes, and in the following year (1825) it was repealed and replaced by the 6 Geo. IV. c. 129. This new act, whilst it repealed the previous statutes, did not in express terms legalise combinations of workmen—the legality of such combinations was left to be dealt with by the common law—it simply rendered men liable to punishment for the use of threats, intimidation, molestation, and obstruction directed towards the attainment of the objects of trade unions. A few alterations in the act were made by 22 Vict. c. 34. The recommendations of the royal commission of 1867 on trade unions led to the repeal of the 6 Geo. IV. c. 129, and the 22 Vict. c. 34, by the 38 & 39 Vict. c. 31, and the 38 & 39 Vict. c. 32, which declared that the purposes of a trade union were not to be deemed unlawful by reason merely that they were in restraint of trade, and carefully defined what acts should be deemed criminal offences. The protection afforded by these acts was greatly diminished by the gradual extension of the common law doctrine of conspiracy, and at length, in 1875, the act was repealed and replaced by the Conspiracy and Protection Act, 38 & 39 Vict. c. 86 (see CONSPIRACY, LAW OF).

[The following writings set forth the sequence and import of these laws: G. Howell, *Handbook of the Labour Laws.*—Jevons, *State in Relation to Labour.*—J. E. Davis, *Labour and Labour Laws.*—Report on Strikes and Lockouts of 1888 by the Labour Correspondent of the Board of Trade, Parliamentary Papers, 1889, C 5809.]

J. E. C. M.

COMFORT, STANDARD OF. This expression, together with the synonymous "standard of living," has been generally employed by economists in connection with the question of POPULATION (*q.v.*) Among the "preventive remedies" of over-population described by MALTHUS (*q.v.*) in his essay is included "moral restraint," and this is defined (ch. ii.) as a "restraint from marriage from prudential motives." By this is meant the fear of losing, as the consequence of entering upon the responsibilities of the married state, the command of adequate means of subsistence. The means, which will be regarded as adequate, will vary according to the conception formed by the individual, or the class to which he or she belongs, of the elements which make up subsistence; and it is this conception which is implied in the term "standard of comfort," or "standard of living." It may, therefore, vary from age to age, from country to country, from class to class, and even from individual to individual. The term may be analysed in different ways. We may regard the constituent elements of subsistence as consisting of (1) food, (2) clothes, (3) shelter, etc.; or we may, using a cross-division, consider with Senior (*Political Economy*, p. 36) that the range of man's desires rises in an ascending scale from (1) necessaries to (2) decencies and (3) luxuries. And hence the term has sometimes been employed in a narrower, and sometimes in a wider sense. In an earlier and less advanced stage of civilisation the proportion assigned to the element of necessaries in the conception formed by classes and by individuals of their standard of comfort is greater than it is at a later stage, and among these necessaries the supply of food is accorded the most prominent place. And therefore the question of population has very generally been considered either solely or chiefly with reference to food, and it has also been argued by McCulloch and others that the habitual use of a cheap staple article of food by a nation may lead to inconvenience and danger, because in the event of a scarcity or famine of that food, there would be no cheaper food on which to fall back, and the standard of comfort would not permit of temporary contraction. It has been said that "you may take from an Englishman, but you cannot take from an Irishman." If a famine of wheat should occur, the Englishman could fall back on some cheaper food; but experience has shown more than once that the Irishman has nothing on which to fall back if the potato fails. But General Walker has pointed out (*Wages Question*, ch. vii.) that, so far as regards the temporary contraction of the standard of comfort, this argument does not appear to take sufficient account of the fact that there are other constituent elements of the standard besides food, and that therefore the habitual use of a cheap food may allow of greater expenditure in other directions, which may be curtailed, should food become scarce, and its price advance. A similar failure to realise the elastic comprehensiveness of the term "standard of comfort" has been shown (cp. Sidgwick's *Principles of Political Economy*, bk. i. ch. vi. § 3) to attach to another line of reasoning in which it has been introduced. Modern socialist writers (see SOCIALISM), such as Rodbertus and Lassalle, have spoken of an "iron and cruel law" of wages, which is always forcing wages down to the level of a bare subsistence. For, if they rise above this level, there is a tendency to an increase of population, and the greater competition for employment, which is consequent upon this, tends in its turn to occasion a decline of wages. This law is undoubtedly based on the conception of a standard of living or comfort, which will be maintained in such a way that, if the earnings of man and woman rise above the amount sufficient to secure this standard, population will increase, and, if they fall below, it will decrease. But the conception is often, though it is not always, interpreted by socialist writers in a narrow sense as referring to the bare necessaries of life, and not more widely as

including its decencies and luxuries. It is used as if the standard of comfort were limited to physical needs, and did not comprehend moral requirements. As a matter of fact it consists of the necessaries, decencies, and luxuries of life; and the desire to retain command over the possession of the two last may become more powerful even than the want of the first as a restraint on the increase of population. The nature of all three may undergo considerable change and exhibit great variety. The house, which would now be a decency in England, would have been thought a luxury two or three centuries ago. The clothes, which would be deemed extravagant to-day, except in theatrical performances, would then have been considered necessary articles of apparel. The tobacco, which is regarded as a decency in Turkey, is still perhaps a luxury in England, and the wine, which is a decency in England, is a prohibited luxury in Turkey. And so the standard of comfort varies in different ages, countries, and classes; and in the case of the lower as of the higher ranks of society it may advance from time to time. The origin of the socialist law of wages has been ascribed to RICARDO'S (*q.v.*) theory of the natural price of labour, but Ricardo's own language is sufficiently elastic and comprehensive. "It is not to be understood," he says (ch. v.) "that the natural price of labour, estimated even in food and necessaries, is absolutely fixed and constant. It varies at different times in the same country, and very materially differs in different countries. It essentially depends on the habits and customs of the people." And again he remarks, "The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them." The effects of the standard of comfort on the movement of population are of course not immediate; and the consequences of an alteration in it take some time to make their influence felt. And hence J. S. Mill has argued (bk. ii. ch. xiii. § 4) that, "when the object is to raise the permanent condition of a people, small means do not merely produce small effects, they produce no effect at all. Unless comfort can be made as habitual to a whole generation as indigence is now, nothing is accomplished." In a similar way General Walker has shown (*Wages Question*, ch. iv.) that, if through some sudden mischance wages sustain a serious fall, a positive "degradation" of labour may follow, and the labourer may have no power or strength to maintain his old standard of comfort without external assistance.

It should be noted that some ambiguity may arise regarding the unit selected for consideration in connection with the standard of comfort. The term may sometimes refer to a single individual, whether male or female, and sometimes to a family as a whole. In the discussion of questions of population the conditions, which are necessary in order to maintain the requisite supply of labour, are generally present to the mind of the writer; and then the standard of comfort must be understood as referring to the family as the unit rather than the individual, for the wages of the labourers must be such as to enable them to live themselves, and to maintain their wives, and bring up their children, according to the standard of comfort, which they consider necessary for a family in their rank of life. But the earnings possibly of the wife, and possibly also of the children, may be called in to assist those of the man, and so from the point of view both of income and expenditure the family is treated as the unit. There are however, other cases in which shorter periods of time are in view than those sufficient to allow of the standard of comfort producing its full influence on the movement of population, and then the term is often employed with reference to the individual rather than the family. An example of this may be found in the comparison made between the earnings of men and of women (cp. FEMALES AND CHILDREN, EARNINGS OF; see also DAVIES, D.)

In addition to the books mentioned above, some typical budgets of working men, showing the chief items of their expenditure, and the proportionate amounts spent on the different items, have been compiled abroad, especially by Dr. Engel and M. Le Play, and more recently in our own country by the Board of Trade.

L. L. P.

COMMANDITE, SOCIÉTÉ EN. Form of joint stock company, *Code de Commerce*, liv. i. tit. iii. §§ 23-28. The managing partners are liable without limit; the investing partners are regarded as simple lenders to the undertaking, and their liability is limited to their investment. Something equivalent (joint-stock company limited, the liability of whose directors is unlimited) is legalised by the Companies Act 1867, §§ 4-8; and it would appear desirable in the interests of careful management that investors should encourage the adoption of this form of joint-stock company. A. D.

COMMERCE. Trade in its most extended form. "Commerce" and "trade" are words which are used almost synonymously. But commerce may be regarded as national, that is as covering commercial dealings between nations; and trade refers more distinctly to special industries and to internal mercantile intercourse. It will therefore be proper, keeping to the limits thus set down, to furnish under the head of commerce a summary of the external commercial relations of Great Britain and Ireland, of her colonies, and finally of the world. The figures, as we shall see, are not only interesting

in themselves, but will serve to illustrate some economic truths as an appeal to actual fact alone is able to do. It is marvellous how the commerce of the world may almost be said to be the creation of the past seventy-five years. The close of the twenty-five years of war that followed the French Revolution found the external commerce of the world mainly confined to luxuries, wines and spirits, tobacco, tea, and so on—the rigidly protective policy of the leading nations of the earth, added to their hostility, keeping down the national interchanges to high-priced goods only.

In 1820, five years after the overthrow of the first Napoleon, the imports and exports combined (they were then "official values," not "declared values" as we have them now) (see OFFICIAL and DECLARED VALUES) of the United Kingdom were only £79,500,000, or only about £3 : 15s. per head of the population then existing, whereas in 1890 they reached £749,000,000, or £18 : 6s. per head. During the same period the commercial intercourse between Great Britain and her colonies has been almost wholly created, and amongst foreign countries the movement is upon the average very considerable. Steam carriage, the freedom from protracted wars, the growth of population, colonisation, and electricity have been the main elements in that development of commerce. In 1854 the "official values" were discarded in the imports for *computed* values and in the exports for *declared* values, and from 1871 the values of the imports have also been *declared*. The following figures give the imports and exports at intervals since 1854 :—

United Kingdom.	Imports.	Exports.		
		United Kingdom Produce.	Foreign, etc., Produce.	Total Exports.
1855	*£143,542,850*	£95,688,085	£21,003,215	£116,691,300
1860	*210,530,873*	135,891,227	28,630,124	164,521,351
1870	*303,257,493*	199,586,822	44,493,755	244,134,738
1880	*411,229,565*	223,060,446	63,354,020	286,414,466
1885	*370,967,955*	213,044,500	58,359,194	271,403,694
1887	*362,227,564*	221,414,186	59,348,975	280,763,161
1890	*420,885,695*	263,531,585	64,349,091	327,880,676

The highest cash value of the imports was 1891, when they reached £435,691,279, and the highest value of the exports was 1890, when the total was £327,880,676, the latter but little in excess of the exports for 1872. Indeed, the vast increase indicated up to 1872 has since in a great measure been wanting, and total values have, with minor fluctuations, remained much upon the level of fifteen or twenty years back. But it is well worthy of remark that these are values only, and in nowise show the volume of merchandise moved. Now there have latterly been compiled many statistics to show that the prices of commodities have largely fallen since 1872, when measured by a gold standard; and the tabular statistics supplied by Mr. R. H. Inglis Palgrave to the Royal Commission on the Depression in Trade in 1886 are conclusive on this point. It was therein shown that, as compared with 1865-69, prices in 1885 had fallen on the average 20 per cent, and as compared with 1872 the drop was as much as 30 per cent. From which it may be taken for granted—indeed it is capable of proof—that this country's foreign commerce is in bulk upwards of 30 per cent larger than it was in 1872. Indirectly the shipping tonnage entered and cleared with cargoes at the ports of the United Kingdom is an illustration of this expansion.

Ports of United Kingdom.	Entered.	Cleared.
	Tons.	Tons.
In 1872	17,905,940	19,248,352
In 1890	28,980,100	33,857,083

Thus it is right to assume that notwithstanding values are, as already stated, not higher than those of 1872, owing to an exceptional depreciation in prices, the actual commercial intercourse of the United Kingdom has largely increased.

In 1890, 41 per cent of the imports consisted of food and drink, 30 per cent of raw materials (of which 21 per cent was for textile manufacture), 15 per cent of manufactured goods, 6 per cent of metals and minerals, 2 per cent of chemicals and dyeing materials, and 1½ per cent of oils, leaving 3½ per cent to be accounted for by a number of miscellaneous substances imported, including tobacco. In the same year, of the United Kingdom exports as much as 43 per cent consisted of textiles, including yarns, 23 per cent of metals and machinery, 7 per cent of coal, 4½ per cent of apparel, 4½ per cent of food and drink, 3 per cent of chemicals, etc., 1½ per cent of earthenware, china, and glass, 1 per cent of paper, 1 per cent of leather, and nearly 1 per cent of arms, ammunition, etc., leaving 10½ per cent made up of miscellaneous manufactures. These are the returns of merchandise imported and exported in 1890, but the precious metals are not included. In the same year the imports of gold reached £23,568,049, and the exports £14,306,688, while the imports of silver were £10,385,659, and the exports £10,890,384. Combined with the former the following contrast is presented :—

United Kingdom, 1890.	Imports.	Exports.
Merchandise	£420,885,695	£327,880,676
Precious metals	33,953,708	25,197,072
	£454,839,403	£353,077,748
Excess of imports	..	101,761,655
		£454,839,403

This excess of imports is a very striking feature, and it is constant. In 1887 the excess was over £82,000,000 ; in 1885. £100,000,000 ; in

1880, £121,000,000; in 1870, £69,000,000. How can this constant influx, averaging over £90,000,000 annually since 1880, be accounted for? The figures furnished officially are admittedly defective on some points. The imports of precious stones are to a large extent wanting; the exports of ships, largely manufactured for and sold to foreigners, are wholly absent, and it is probable that if we added £5,000,000 on each side for missing items, we should be within the mark. But this does not help us to an answer to the question—How is the discrepancy between our imports and exports to be accounted for? In the first place, these imports are valued *plus* the charges for shipment to our ports, while the exports are returned *minus* those charges. Let us take 9 per cent as this addition to the exports (the reason of this percentage will appear later) as representing the earnings of British shipping engaged in this commerce; and add another 4 per cent for the earnings of British shipping carrying goods wholly for foreign countries or our colonies, and a total of some £47,000,000 results, which may fairly be set towards filling up this discrepancy. There still remains much to be accounted for. The interest remitted home for investments abroad supplies in great measure the solution. An estimate in the *Banker's Magazine* of 1880 of the amount of interest accruing annually upon British investments abroad, reached a total of £70,000,000 sterling. It is probable that this annual payment to Great Britain upon her external investments has since been increased, for though some foreign holdings may be smaller, colonial are certainly larger. The following rough balance-sheet may, therefore, be made respecting the commercial relations of the United Kingdom in 1890:—

LIABILITIES.

Imports (as stated)	£455,000,000
,, (not stated)	5,000,000
Difference may, between the foregoing amount and that stated *per contra*, possibly be an increase in foreign investments	20,000,000
	£480,000,000

ASSETS.

Exports (as stated)	£353,000,000
,, (not stated)	5,000,000
Earnings of British shipping	47,000,000
Interest on foreign investments	75,000,000
	£480,000,000

This is to be understood only as a rough approximation; it shows, however, that but for a further investment of capital abroad the country would have had the call of a still larger volume of imports.

The commerce of the British Empire may thus be stated, the figures including the precious metals, which in some colonies may to a large extent be ranked as merchandise.

	Imports. 1889-90.	Exports. 1889-90.
United Kingdom (1890)	£454,839,403	£353,077,748
Asiatic Possessions	104,368,172	112,991,945
Australasian ,,	68,014,098	65,041,552
African ,,	19,053,794	16,192,503
N. American ,,	26,366,209	21,150,730
S. American ,,	1,954,300	2,277,657
W. Indian ,,	7,436,771	7,023,763
European ,,	3,000,000	....
	£685,032,747	£577,755,898

If to this total be added the return of the remaining countries of the world, we obtain the following grand total:—

	Imports.	Exports.
British Empire	£685,032,747	£577,755,898
Europe	831,579,237	748,405,632
Russia and Turkey	92,507,579	92,872,479
Asia	47,344,250	48,182,070
America	213,517,042	233,268,360
Africa	14,182,414	16,017,537
World's Commerce	£1,884,163,269	£1,716,501,976

These figures are the latest returns available, though not all for the same year, and it will be seen that the exports grew to the extent of £167,661,293 in value by the time they became imports. This difference was equal to over 9 per cent on the exports, or to 4½ per cent upon the combined total of imports and exports. In this way we arrive at some notion of the earnings and profitableness of commerce, and the worth and value of the world's shipping industry. Thus the world invariably appears to import more than it exports, and it is far from indicating any loss of purchasing power that there should be this discrepancy between imports and exports. Taking the population concerned as 1,250,000,000, this trade represents imports per head to the extent of £1 : 10s., and exports to the extent of £1 : 7 : 6 per annum. These averages, however, are reduced by the vast populations of Asiatic countries like China, where the imports are but little over 1s. per head and the exports under 1s. In Europe (apart from Russia and Turkey, which are partly Asiatic) the imports average about £4 per head, and the exports about £3 : 10s.; and in America (North and South combined) both imports and exports are over £2 per head. Australia is the largest import and export centre of the British Empire, in proportion to the number of inhabitants, the exports from that Continent to Great Britain averaging some £16 per head of the present population.

[The theory of excess of imports is well stated by Mr. Giffen in *Essays on Finance*. There is a full enumeration of the exports other than commodities, "invisible exports," by which imports are balanced in Bastable's *International Trade*; the heads of British commerce are given by Sir Rawson Rawson. His statement of the growth of tonnage and the conclusions built on it are striking (see also Goschen, *Foreign Exchanges*). For further details

see the Statistical Abstract and the Parliamentary Papers relating to trade and commerce, *passim.*]

COMMERCE, BRITISH (HISTORY OF). The earliest trade of the British Isles consisted in the exchange of tin with the Gauls, and perhaps also with Phœnician traders.

Under Roman rule the agricultural and mineral resources of Britain were more fully developed. Corn was exported in large quantities. Tin, copper, lead, and iron were extracted, but there is little evidence that these articles were exported. London, as a centre of commerce, dates at least from Roman times (Tac. *Ann.* xiv. 33). It was certainly the principal port for trading with Gaul.

The English conquest which swept away the remains of the system established by Roman administrators, broke off active commercial relations with the continent; even the materials for any notice of commerce during the early Anglo-Saxon period are wanting. Towards the end of the 8th century traces of a revival appear—due to the influence of the Christian Church. The letter of protection for English pilgrims given to Offa of Mercia by Charlemagne (796), which refers to trade carried on by them, has even been called "the first English commercial treaty." There is no evidence as to the commodities exported, but it may be inferred that raw wool had now become a leading article of trade to the Netherlands. Commerce was mainly in the hands of foreigners. The settlement of German merchants, which afterwards became the London HANSE (see ADVENTURERS, MERCHANT), existed *temp.* Ethelred II. (979-1016), and some aliens were probably resident before that reign. The often-quoted law of Athelstane (925-40), that a merchant who had made three sea-voyages should be of right a thane, is a proof of the small number as well as of the importance of such native traders. There is evidence that Bristol was the seat of a considerable trade in slaves with the Danish settlements in Ireland. The constant intercourse between England and Normandy also restored in some degree the older trade with northern France.

The "Colloquies" of Ælfric (11th century) tell us what the commodities imported were. A merchant being asked what he brings, replies, "skins, silks, costly gems and gold, various garments, pigments, wine, oil, ivory, orichalcum (brass), copper, tin, silver, glass, and such like," hence it appears that articles of luxury were the principal imports. During the whole Old English period commerce was little developed (see CITY, MEDIÆVAL). The so-called Anglo-Saxon "laws" bear the impress of this state of things. Beyond a few trite rules no commercial policy is discernible. The customs of a town regulate trade in it. There is no general commercial law. Any settled and definite policy as "mercantilism" or "protection" is not to be expected. At most, the rules bearing on the subject reflect the economic prejudices current among the classes who had the framing of law and usage in their hands.

The commercial position of England in the 12th century is better known. The communication with Normandy increased by the Conquest (1066). In the middle of the century mention is made of the import of silver in exchange for meat, fish, cattle, and wool, all being sent to the manufacturing districts of the low countries. The vigorous rule of Henry II. (1154-1189) assisted the revival of trade. His possession of Guienne gave new opportunities for traffic in import of wine and salt thence. Rouen was particularly favoured, being granted a monopoly of trade with Ireland, and freedom of commerce in London. The foundations of the future prosperity of many English towns were now laid. London was the seat of trade in such Eastern luxuries as were then becoming known through the influence of the Crusades (see CRUSADES, ECONOMIC EFFECT OF). Bristol and Chester had whatever Irish trade existed, and both these towns imported French wines. Hull was one of the ports whence wool went abroad, and the trade with Norway was carried on through Grimsby. Exeter exported the tin of Cornwall, obtaining wine and salt in return. A further proof of the growth of the English towns is found in the establishment, in most of them, of Merchant Guilds (see GUILDS). Corn was sometimes exported, but not without a royal licence (as in 1181, see CORN LAWS). A particular import—woad used for dyeing—seems to show that a native woollen manufacture existed, though all finer cloth came from Flanders.

The development of commerce from the reign of Henry III. (1216) can be traced by the attempts at legislation scattered through the early parts of the statute-book. The increased number of foreign merchants in England is a good indication of larger trade relations. The provisions of the great Charter, securing them liberty in time of peace and reciprocity of treatment in war, must have been called forth by the importance of their interests. Many cases of special privileges occur; as those granted to Venetian merchants and to German cities; first, to Cologne, the principal town of western Germany, later to Lübeck, chief city of the eastern Hanse. French cities (*e.g.* Amiens, 1237) also obtained special favours, mainly consisting in relaxation of restraints on trade imposed by customs and ordinances of English towns. All legislation was not so generous in character. The export of wool and import of cloth were prohibited 1261; "prohibitions repeated 1271." In 1275 foreigners were ordered to sell their goods and depart within forty days, probably to prevent FORESTALLING (*q.v.*) Much indeed of mediæval legislation was in the

interest of the consumer rather than, as in later times, of the producer.

Besides the general effect on commerce produced by the policy and constitutional legislation of Edward I., he dealt in some cases directly with matters affecting trade. The Statute of Merchants (1283) gave greater security to foreign as well as native traders for recovery of debts, while the *Charta Mercatoria* (1303),—which by its enumeration of the various nationalities affected shows the extent of the body of foreign traders, confirmed and extended privileges which aliens had gradually obtained. Full security was given to all foreigners to come and go free from any personal duty; they were allowed to sell by wholesale to any native or alien, and to retail spices and mercery; any article might be exported, on paying the duty (except wine, for which a licence was required), to countries at peace with England. All restrictions on residence were removed, the export of wool on which duty had once been paid was legalised. It might also be moved from one part of the country to another (see BOARD OF TRADE). In this period there is a close connection between politics and commerce. Edward I. used the English supply of superior kinds of wool as a means of securing aid from the Flemings. According to the requirements of the moment its export was either forbidden, heavily taxed, or freely permitted. The first prohibition of the export of gold is found 1307; soon afterwards the STAPLE (*q.v.*) comes into notice. We cannot trace here the various changes of the system, but it tended directly to limit trade to the staple towns, and by enabling the course of every transaction to be more easily watched, made it possible to enforce the statutes which forbade foreigners to take their money out of the kingdom, or, in a milder form, required one half of it to be expended on native commodities.

The exports during the 13th and 14th centuries included wool, sent largely to Flanders, hides, tin, and fish. Coal was exported to France from Newcastle in the 14th century. Lead and iron were also at times exported, and in good seasons corn. The imports comprised iron from Spain, linen and fine cloth from Flanders, wine and salt from Gascony, silks, fruits, spices, and Greek wines brought by the Italian fleets, which, after 1317, regularly visited England. Furs, pitch, and timber came from the north of Europe through the traders of the Hanse towns; in times of scarcity corn was imported. The trade with Bordeaux was very active, and mainly carried on by English ships from London, Bristol, Dover, and Hull; they took out wool, herrings, lead, copper, and tin, and pilgrims as passengers; they returned laden with wine and wheat. In 1350, 141 ships carried 13,429 tuns of wine from Bordeaux to England.

The difficulty of getting precise amounts of the commodities traded in during the earlier periods has led historians to quote gladly the exports and imports as given in the custom accounts for 1354. The former comprise 31,651½ sacks and 3036 cwt. of wool, sheepskins, hides, 4774½ pieces of coarse cloth, and 8061½ pieces of worsted, representing a total value of £212,338 : 5s., of which nearly £82,000 went in duties. The imports were 1831 pieces of fine cloth, 397¾ cwt. of wax, 1829½ tuns of wine, with linen, mercery, and grocery, the whole valued at £38,383 : 16 : 10, paying nearly £600 duty. These figures, however, though instructive as showing the amounts of commerce in certain articles, and illustrating the great predominance of export duties in early times, are yet very incomplete, *e.g.* there is no account of the large export of minerals. More detailed returns of the customs of the port of London during the 14th century show extraordinary fluctuations from year to year.

The mechanism of commercial transactions became much more refined during the period under consideration. Though the earliest dealers in money and exchange, the Jews, were expelled by Edward I. (1290), their place was speedily taken by Italians, who supplied the funds needed by the English kings for their French wars, and developed the employment of the BILL OF EXCHANGE (*q.v.*) Even in the absence of direct evidence it is probable that the stringent regulations as to export of money were evaded by the use of these instruments, supplemented by smuggling, which the small size of all the vessels employed in trade rendered very easy.

The trade of Ireland and Scotland, up to the end of the 14th century, was not important. Bristol received the raw produce of Ireland, principally corn and skins; there was also some direct trade with Bordeaux. Scottish wool was exported from Berwick, and the produce of the fisheries found its way both to England and the Continent.

At the opening of the 15th century British trade, in its mediæval form, had attained a high development, and was increasing in volume. Italian merchants were accorded full privileges by Henry IV. (1409), and even allowed to engage in the carrying trade contrary to the policy of the early Navigation Laws *e.g.* that of Richard II. (1381). The remarkable poem called a *Libel of English Policy* (1436) gives a full account of commodities exchanged between the countries of western Europe. Spanish goods—fruit, oil, soap, wax, and iron—reached England by way of Bruges. The Portuguese trade, a direct one, supplied similar wares with the addition of hides and salt. Of Italian traders the Genoese brought alum, spices, and gold to meet the balance due by them for the export of wool and

cloth from England. The Venetians supplied articles of luxury and were regarded with disfavour as leading the nation to engage in "unproductive" consumption. Wine and salt came from France, as formerly, but, in consequence of the continual wars, through Brittany, then practically independent. Trade with Flanders consisted in the exchange of raw materials for manufactures, but the growth of a feeling in favour of native industry is shown by the writer, who advocates a decided national policy, holding that England by her power over the supply of raw wool, and by her possession of Calais, which gave her command of the Channel, could compel Spain and the Netherlands to support her against France.

One of the best indications of the growth of commerce is the increasing number of wealthy native merchants. Though some are mentioned in the 13th century, and the names of De la Pole and Whittington were remarkable in the 14th, it is not till the 15th century that they become numerous,—at London, Cotton, Smith, and Bullayn; at Hull Taverner is noticed as trading with Italy and enjoying special freedom by royal licence; Thornton at Newcastle; the Jays, Sturmy, and notably the Cannynges at Bristol. William Cannynge the younger is said to have had one ship of 900 tons, and to have employed 800 men and ten ships with an aggregate tonnage of 2853 tons.

In the 15th century the society of ADVENTURERS, MERCHANT (*q.v.*) was first chartered (1406), though a greater antiquity is claimed for it. This body, trading with the Netherlands, Germany, and the Baltic coast, interfered with the previous monopoly of the Teutonic Hanse, which, however, still retained its privileges and factory at London. The fact that the Hanse trade supplied much needed and desired commodities—timber for ships and bows, iron, flax, and hemp, besides furs and Rhenish wine —undoubtedly led to this favour.

Another noteworthy feature is the increased number of COMMERCIAL TREATIES (*q.v.*) stipulating for reciprocal concessions to subjects of the contracting parties. Engagements of this kind were formed with Venice, the Hanse towns, Brittany, Castile, the Netherlands, and Denmark, the most remarkable being those of Utrecht with the Hanse in 1474, and the *Intercursus Magnus* (1496) which reopened the Netherlands trade after a suspension of two years.

The prejudice against foreign traders became very strong during the latter part of this century, and was still more intense in the next. English commerce had reached a turning-point; instead of simply supplying other countries with raw materials and taking in exchange finished articles, it was sought to preserve the home market for native produce and to place the carrying trade, so far as English imports and exports were concerned, in the hands of English merchants. The woollen manufacture, which had always existed in a rude form and had been improved by Flemish immigrants in the 12th and 14th centuries, was now in a position to export the coarser kinds of cloth. The commercial history of the time is powerfully affected by a movement towards what would now be called "protection." Not to mention many minor acts dealing with special cases, there is the well-known statute of 1463 (3 Ed. IV. c. iv.) prohibiting, by enumeration, the import of almost all wrought goods, "that the English artificers may have employment"; and though the statute was limited to the king's reign, it was in fact re-enacted in that of Richard III., and regarded so late as the 18th century as "the wisest piece of commercial legislation." The ideas of aiding the defence of the kingdom, as in the laws of 1408 and 1483, requiring the import of bowstaves by the Venetian traders, and of securing an abundance of commodities specially needed for the welfare of the people, were still prominent in the minds of statesmen.

These tendencies of English commercial policy were supported by changes in the outside world. The fall of the Greek empire (1453) and the later conquest of Egypt (1517), involving the decline of Italian commerce, altered the balance of commercial as of political power. The consolidation of the French and Spanish monarchies changed the older lines of English trade with those countries, and the opening up of the New World of America and India had a still greater effect. The trade with the Mediterranean, formerly in the hands of the Italians, was now so important as to lead to the appointment of a consul at Pisa, 1485 (confirmed 1490), and after the discovery of the Cape passage to India (1497), English trade with Portugal rapidly increased. The Guinea traffic was opened 1530, the North Sea voyage to Russia discovered 1553. The Levant commerce commenced 1550, the first LEVANT or TURKEY COMPANY (*q.v.*) was chartered 1581. Ten years later the first voyage to India was made, and 1600 the foundation of the EAST INDIA COMPANIES (*q.v.*) was laid.

The movement of English commerce is shown by the average amounts of imports and exports during the reign of Henry VIII., which fairly represent the first half of the 16th century; as estimated by Schanz, they are as follows:—Imports, 10,060 tuns of wine; 3028 cwt. wax, making with other imports a total real value of £402,092, but officially estimated at £284,360. Exports, 98,132 pieces of cloth; 5785 sacks of wool; 14,056 hides; 4387 pieces of worsted; 8931 cwt. of tin, with other exports giving a total estimated value of £427,830, officially stated at £293,287. Comparing these figures with the returns for 1354 given above, the growth of the woollen industry is evident—in-

stead of unwrought wool it is cloth that is exported. Even in Flemish markets English competition was beginning to be felt during the 15th century, while the wider field that the Italian and Levant trade offered proved a further encouragement. The development of English export trade was aided by the monetary revolution of the 16th century. For a thousand years there had been no considerable addition to the amount of money in circulation, which at times had been even reduced. England had kept up its stock of money by trade with Flanders and the Italian cities, but the discovery of the mines of Mexico and Peru led to a continuous flow of bullion through Spain to the commercial centres of the Low Countries, where the rapid rise in prices stimulated the already-growing import of English products, since there was no rise of prices in England till 1570. The revolt of the Netherlands gave a further opportunity to English traders. The capture of Antwerp (1585) was a severe blow to its trade, most of which passed to Amsterdam and London, which during the preceding eighty years had been gradually gaining at the expense of other English ports. A large body of Flemish weavers emigrated to the eastern counties and increased the power of that district to produce for export. The closing of the London settlement of the Hanse (decreed 1552, finally carried out 1598), removing as it did the last trace of a time when the commerce of England was conducted by foreigners, is a significant mark of the opening of a new period.

The 17th century is pre-eminently the period of the MERCANTILE SYSTEM (*q.v.*) The tendencies which had been shown under the Tudors, and even earlier, to advance native industries by excluding foreign rivalry, now took the direction of encouraging exports, more especially of imitating the commercial development of Holland by securing markets and the CARRYING TRADE (*q.v.*) The commerce of this period was mainly carried on by companies, either joint stock or regulated, possessing in some cases monopolies of commerce with particular countries—the East India Companies of eastern traffic, the Merchant Adventurers of the German trade. There was a steady advance in business transacted, as the following short table proves.

Year.	Imports.	Exports.	Total.
1613	£2,141,151	£2,487,435	*£4,628,586*
1622	2,619,315	2,320,436	*4,939,751*
1662	4,016,019	2,022,812	*6,038,831*
1669	4,196,139	2,063,274	*6,259,413*
1699	5,640,506	6,788,166	*12,428,672*
1703	4,526,579	6,644,103	*11,170,682*

Making due allowance for errors in the returns for each year, taken as they are from different sources, the general fact of increasing commercial relations is plain. In addition to older lines of traffic, all still open, there was the East India trade at the commencement of the century, and later the important trade to the American "Plantations." At first the energy and superior resources of the Dutch enabled them to secure the greater part of the additional commerce of Europe. The pamphlet writers of the period are agreed on the point, and they are probably correct. Notwithstanding this relative inferiority, the commerce of England was certainly prospering. The woollen industry, now established as the leading manufacture, was increasing its export. Indian trade replaced the older commerce with Italy in supplying Eastern products, but the trade with the Mediterranean, now carried on by the Levant Company, retained much of its importance. Sugar, tobacco, and such rude products as timber and hides, were imported from the American colonies in large quantities. In spite of national jealousy and wars, the direct trade with Holland was large; English goods being stored at Amsterdam to be reshipped in the cheaper Dutch vessels. The Navigation Laws (see NAVIGATION ACTS), sought to destroy the advantage of these rivals, and are generally held to have so far succeeded. A further instance of the same spirit is found in the complete prohibition of French goods (1678); and, though the measure expired at the death of Charles II., it was practically re-enacted after the Revolution. In other respects the policy of protection was developed, the export duty on wool replaced by a prohibition, and various foreign products, which might compete with English goods were either excluded or heavily taxed. Trade with Ireland and the colonies was subjected to restrictions with the double object of securing a market for home manufactures and a cheap supply of raw materials for native workers. In another direction, however, commerce was freed from restraint. The privileges of the companies were closely questioned and the monopoly of the Merchant Adventurers was removed. The old "Statutes of Employment," prescribing the expenditure of money within the country, became obsolete, and the export of bullion was legalised (1663), a reform in which the advocates of the East India Company took a prominent part, since this trade was carried on by the export of silver to the East, where it was specially prized.

By the end of the century the exports to Holland had probably reached their highest point. In 1703 they amounted to £2,417,890 (*i.e.* over 36 per cent of the total), more than half (£1,339,526) being woollen goods. Trade with France was only possible by means of smuggling; the Methuen treaty with Portugal (1703) being expressly designed to give the wines of that country an advantage over competitors, of which the chief was France. The attempt to negotiate an Anglo-French commercial treaty (1714) was a failure, and the privileges given to England by the treaty, of

Utrecht (1713) caused a development of the South Sea trade, ending in the terrible crisis of 1720-21. During the first half of the 18th century the most noteworthy feature of commerce was the growth of colonial trade. In 1704 the combined imports and exports in the "colony" trade were less than £1,300,000, or about one-ninth of the whole. Between 1760 and 1770 the colonial trade was one-third of a traffic which had doubled in amount; in the export trade the increased proportion was still greater.

Among new articles of export may be noticed hardware from Birmingham and Sheffield, and cotton; the latter, though steadily growing, only amounted in value to about £200,000 in 1764, while the export of woollen goods was about £4,000,000.

The period 1750-70 fitly covers the commencement of the economic movement which has been happily called the INDUSTRIAL REVOLUTION (*q.v.*) A series of inventions altered the whole method of production, and the improvement in transport made exchange easier. As a consequence foreign trade, in spite of the political hindrances arising from protracted war, increased at a greater speed. The official values of imports and exports are not too inaccurate to bring this out clearly.

Imports and Exports at intervals of ten years 1770-1810.

Year.	Imports.	Exports.	Total.
1770	£11,002,000	£12,142,000	*£23,144,000*
1780	9,956,000	11,363,000	*21,319,000*
1790	16,398,000	17,636,000	*34,034,000*
1800	28,258,000	34,382,000	*62,640,000*
1810	39,302,000	48,439,000	*87,741,000*

The cotton industry shows the largest increase. In 1790 the value exported was £1,662,369; 1800 it reached £5,406,501; 1810, £18,951,994. The woollen export advanced from about £6,000,000 in 1800 to over £9,000,000 in 1815. There was also an increase in exports of hardware, earthenware, and silks.

During this remarkable development there was no relaxation of the Protective System. An exception must, however, be made for the early administration of the second Pitt (1784-92), when the customs laws were consolidated and the Eden treaty negotiated with France (see COMMERCIAL TREATIES). The break-down of the colonial system by the establishment of the independence of the United States did not reduce the American demand for English goods. On the contrary the exports thither increased from about £2,000,000 in 1772 to £3,500,000 in 1793 and £7,000,000 in 1798.

The peace of 1815 may be regarded as closing the period of English commerce which opened with the 17th century; since then the modern system of foreign trade has arisen (see COMMERCE).

The great commercial development of England has naturally led to the formation of theories as to the causes which have produced it. The principal are: (1) The mercantile theory, predominant in the writers of the 17th and first half of the 18th centuries, which explains the growth of English commerce by reference to the wise regulations and restrictions imposed by the state. (2) The view of Adam Smith and the English economists which ascribes the supremacy of England to its *comparative* freedom from restraints. (3) The doctrine of List who regards the present greatness of English industry and commerce as largely due to the advantages given by the earlier system of regulation and restraint. The influence of this theory may be traced in most recent works on economic history.

[Anderson, *Historical and Chronological Deduction of the Origin of Commerce*, 2 vols. fol., London, 1764.—Macpherson, *Annals of Commerce*, 4 vols. 4to, London, 1805. Based on Anderson for the period 1492-1760; the earlier part and the conclusion to 1800 by Macpherson solely.—G. L. Craik, *The History of British Commerce*, 3 vols. 12mo, London, 1844. Compiled from preceding.—W. S. Lindsay, *History of Merchant Shipping and Ancient Commerce*, 4 vols. 8vo, London, 1874-76. Notices of Commerce in vols. i. and ii.—W. Cunningham, *Growth of English Industry and Commerce*, 2d ed. 8vo, vol. i., Cambridge, 1890.—For the mediæval period, W. Von Ochenkowski, *Englands Wirthschaftliche Entwickelung im Ausgange des Mittelalters*, pp. 168-253, 8vo, Jena, 1879, and W. J. Ashley, *English Economic History and Theory*, vol. i. pp. 102 *seq.* are useful.—G. Schanz, *Englische Handelspolitik*, 2 vols. 8vo, Leipzig, 1881, is a thorough study of the later mediæval period of English commerce and specially of the earlier Tudors.—J. E. T. Rogers, *History of Agriculture and Prices*, 6 vols. 8vo, Oxford, 1866-88, devotes special chapters to foreign trade (vol. i. ch. viii., vol. iv. ch. iv., vol. v. ch. v.)—Leone Levi, *History of British Commerce*, 1763-1878, 2d ed. 1880, has collected evidence on the growth of commerce in the 18th century.—Hubert Hall, *A History of the Custom Revenue of England*, 2 vols. 8vo, 1885, illustrates the course and methods of the mediæval trade of England.—H. de B. Gibbins, *History of Commerce in Europe*, cr. 8vo, London, 1891, bk. ii. ch. vii., bk. iii. chs. iii. and vi., and *Industrial History of England*, cr. 8vo, London, 1890, period iv. ch. ii., gives a good brief account of the growth of foreign trade. For legislation, charters, and diplomatic documents, the sources are: *The Statutes of the Realm*, 9 vols. folio, London, 1810-22, and Rymer, *Foedera*, 17 vols. fol. London, 1704-1717.

Among the innumerable pamphlets on the different aspects of English commerce, the following give a view of its state at different times.—Sir W. Raleigh, *Observations touching Trade and Commerce with the Hollanders*, Works, vol. ii. London, 1751.—J. R., *The Trade's Increase*, 1615.—L. Roberts, *The Merchant's Map of Commerce*, 1638.—Sir J. Child, *A New Discourse of Trade*, 2d ed. 1690.—Davenant, *Discourses on the Revenues*

and the Trade of England, part ii. Works, vol. i. ed. 1771.—De Foe, *A Plan of the English Commerce*, 1728.] C. F. B.

COMMERCIAL INSTRUMENT. An instrument embodying a contract the benefit of which passes to every owner of the instrument. Where such an instrument is by custom transferable by delivery, with or without indorsement, and is also capable of being sued upon by the person holding it for the time being, there it is entitled to the name of a negotiable instrument and the property in it passes to a *bonâ fide* transferee for value, notwithstanding any defect in the title of the transferor. Bills of exchange, cheques, and promissory notes, are generally negotiable, but if they are payable to order an endorsement is required as well as delivery, if they are payable to bearer mere delivery is sufficient. A *bonâ fide* owner for value can claim payment of such an instrument if the chain of indorsements is complete, though one of the indorsers was not entitled to negotiate. A forged indorsement interrupts the chain, and a banker paying a bill having a forged indorsement cannot, as a general rule, debit the acceptor or the drawer with the amount of the bill. It is, however, provided, by way of exception to the rule just stated, that, where a cheque, payable to order, has been paid in good faith and in the ordinary course of business, the banker is deemed to have paid it in due course, notwithstanding any forgery in the indorsement (Bill of Exchange Act, § 60). A bill of exchange, promissory note, or cheque is not negotiable if it contains words indicating an intention that it should not be transferable (*Ibid.* § 8, sub-§ 1), and it ceases to be negotiable if its further negotiation is prohibited by a restrictive indorsement (*Ibid.* §§ 37 and 36). Over-due bills are not negotiable (*Ibid.* § 36, sub-§ 2). If a *cheque* is crossed with the words "not negotiable" it ceases to be a negotiable instrument, but it remains transferable. A person taking such a cheque, though payable to bearer, cannot claim payment if any of the holders through whose hands it has passed took it without a sufficient title.

A debenture, though expressed to be payable to bearer, is not necessarily a negotiable instrument (Crouch *v.* Crédit Foncier, Law Reports, 8 Queen's Bench, 374), but bonds or debentures may be made negotiable by statute—for instance, a statute of George III. made East India Bonds negotiable like promissory notes—and as promissory notes can now be issued under seal, debentures must be considered negotiable if they have otherwise the characteristics of promissory notes.

Foreign government bonds payable to bearer are generally considered negotiable by the law of the country in which they are issued, and are treated as such by the custom of bankers, brokers, and dealers; if this is the case negotiability is also recognised in English courts (Gorgier *v.* Mieville, 3 Barnewall, and Cresswell, 45; Goodwin *v.* Robarts, 1 Appeal Cases, 476). The same may be said with regard to share-certificates issued to bearer and other similar securities, but where share-certificates are not issued to bearer they will, as a general rule, not be negotiable; thus American railway shares are generally transferred by an indorsement appointing the indorsee attorney to effect the transfer in the company's books. It has become the custom for registered shareholders of such shares who wish to sell them to indorse the same in blank, and, according to the custom of the London stock exchange, shares thus indorsed in blank pass from hand to hand, until a buyer wishes to become registered as owner of the shares. Shares indorsed in blank in this manner are not negotiable, and a *bonâ fide* purchaser for value taking them from a thief acquires no title (Williams *v.* Colonial Bank, Law Reports, 38 Chancery Division, 388, affirmed by House of Lords 15 Appeal Cases, 267).

Documents of title relating to goods such as bills of lading and dock warrants are commercial instruments, without being negotiable in the strict sense; if a document of this nature is stolen, a *bonâ fide* holder for value taking from the thief acquires no right to the goods; he is, however, protected against vendor's lien and stoppage *in transitu*. The Factors' Act, 1889, provides that if a mercantile agent is, with the consent of the owner, in possession of documents of title to goods, any sale or pledge of the goods made by him is valid, unless the person taking under the sale or pledge had notice that it was unauthorised; in the absence of evidence to the contrary the consent is to be presumed. No such simple rule exists in the case of negotiable instruments. Bankers frequently make advances to customers on the security of such instruments, knowing that they may not be the borrower's property, but assuming that he has authority to pledge them. Where a money dealer obtained such an advance, the House of Lords held that the banker ought to have made special inquiries as to the extent of the authority (Earl Sheffield *v.* London Joint Stock Bank, Law Reports, 13 Appeal Cases, 333), but a similar decision of the Court of Appeal in the case of a stockbroker (Law Reports [91] 1 Chancery, 270) was overruled by the House of Lords (*Times* newspaper, 5th April 1892). The question depends on the particular facts of each case. E. S.

COMMERCIAL LAW. The body of legal rules that fall under the phrase "commercial law" may be divided into four classes. (1) International rules that govern the commercial intercourse of states. A very considerable portion of international law is concerned with

commerce, *e.g.* the rights of aliens, the position of consuls, freedom of navigation, carriage of contraband of war, breaking blockades, and the seizure of private property by belligerents. (2) Municipal laws of a political nature affecting the commerce of a state, such as laws imposing restraints on or encouraging foreign trade, laws relating to conveniences for navigation, laws regulating carriage by sea or land, laws encouraging particular trades, and laws preventing monopolies. (3) Municipal laws relating to the private interests of trade such as the law of contracts generally, and of special mercantile contracts in particular, including the law relating to the instruments of commerce. (4) The remedies to be pursued for injuries to commercial rights.

No attempt has as yet been made by the state in England to separate commercial law from the general body of the law, and only one text writer has endeavoured to do so on any adequate scale (see *Treatise on the Laws of Commerce and Manufactures and the Contracts relating thereto*, by J. Chitty, London, 1820). Several continental states, on the other hand, (*e.g.* France), have also a special commercial code administered usually by special commercial tribunals.[1]

[The sources of commercial law may be classified as follows :—

a. Roman law, which furnished to the early English judges many rules which they applied to personal property.

b. The maritime codes of the commercial communities of Europe. The most important of these codes were the Consolato del Mare, the Ordinance of Wisby, the laws of Oleron, and the Ordinance of Louis XIV. See Pardessus, *Collections des lois maritimes antérieures au xviiie. siecle*, Paris, 1828-1845. —Warnkönig, *Flandrische staats-und Recht-geschichte*, vol. 1.—*Capitula et ordinationes maritimæ civitatis Amalfitanæ*, Vienna, 1844.

c. The customs of merchants which came to be enforced if implied in contracts between merchants.

d. Statutory enactments. The great charter protected foreign traders ; bankruptcy laws were passed under Elizabeth ; monopolies were prohibited and the law relating thereto was settled in the time of James I.

e. The decisions of the courts. To Lord Chief Justices Holt and Mansfield, and to Lord Stowell is mainly due the development of the principles of commercial law.

Treatises relating to early commercial law : *Consuetudo vel Lex Mercatoria*, by Gerard Malynes, London, 1622.—*Lex Mercatoria*, by G. Jacobs, London, 1718.—*Lex Mercatoria Rediviva*, by W. Beawes, London, 1751.

Modern treatises : Smith's *Mercantile Law*, London, 1890.—O. Tudor, *Leading Cases on Mercantile and Maritime Law*, London, 1884.]

J. E. C. M.

COMMERCIAL ROUTES, History of.

A. *Ancient History.*—Ancient commerce is remarkable for concentration ; it affected a comparatively small portion of the earth's surface. The earliest peoples who rose to prominence and prosperity, the Chinese, the Egyptians, and the Aryan inhabitants of India, were mainly occupied in agriculture and domestic manufactures. None of them possessed the enterprising spirit which leads to external trade. The Chinese especially displayed that aversion to intercourse with foreigners which has characterised them to the present day. What trade existed in early days was conducted overland. The Arabs with their camels are the earliest known merchants. Their caravans conveyed the most valued commodities between Egypt and the populous districts of Central Asia and Hindostan.

The Phœnicians, the advanced outpost of the Semitic race on the Mediterranean, whose forests gave a plentiful supply of timber for the construction of ships, made the first attempt to conduct commercial enterprise by sea. Under the successive headships of Sidon and Tyre, the Phœnicians undertook the trade between east and west. Their colonies, originally commercial factories for the collection of goods, gradually spread over all the coasts of the Mediterranean, while Cyprus, Malta, and Sardinia furnished them with convenient harbours in the middle of that sea. For more than four centuries they monopolised the maritime commerce of the world. They collected and exchanged gold and precious stones from Asia, corn and linen from Egypt, frankincense and other spices from Arabia, wines from Italy and Greece, and the slaves of Africa. Gradually bolder traders overstepped the limits of the Mediterranean. Instead of merely receiving eastern goods from Arab caravans, they crossed the isthmus of Suez and voyaged from the Red Sea to the Persian Gulf and the coast of India. Westward they passed the Pillars of Hercules and founded a colony at Cadiz, whence they journeyed round the African coast as far as the Canaries, and sought the highly-valued tin from the Tin-Islands, identified by some with the Scilly Isles.

Few geographical discoveries of first-rate importance were made in ancient times after the Phœnicians. Their most notable rivals were the Greeks ; first Miletus and the Ionian cities of Asia Minor, and, after the Persian conquest, Athens and Corinth. But the Greeks did little more than compete with the Phœnicians on the old routes. Their colonies extended from the Ægean to Italy, Sicily, and the coasts of Africa and Gaul. Their greatest traveller, Pytheas, perhaps penetrated further westward than Phœnician merchants had been before. The

[1] The commercial code in France has been considered to have exercised a great influence on traders by compelling attention to the mode in which they are conducting their business. Recent modifications may endanger this. See Code Napoléon.

most notable achievements of Greek commerce were the opening up of the Black Sea trade and the improved intercourse with Central Asia and India, which followed the conquests of Alexander. The Greeks succeeded, however, in distancing their older rivals; the political annihilation of Tyre left the maintenance of Phœnician reputation and interests to its greatest colony, Carthage. But the Carthaginians, though they checked the advance of Greek colonisation, and almost monopolised the trade with Spain, were unable to recover the eastern trade of the mother city. Their maritime ascendency was almost wholly confined to the western part of the Mediterranean.

Carthage and Greece succumbed in turn to Rome. But the Romans never were a mercantile people. Their original occupations were agriculture and war, and they learned no new ones. Trade they always left to foreigners, as in their decline they entrusted the defence of the empire to the barbarians. Roman colonies, in contrast to those of the Greeks and Phœnicians, were military strongholds. The extension of the Roman empire increased geographical knowledge, and facilitated commercial intercourse. The growing population and wealth of the capital made the supply of its wants a lucrative and necessary business. But Rome lived on the spoils of the provinces. It could never be a great mart; it had hardly any products of its own to exchange for the imports which it received. The chief commercial cities in the Roman period were Palmyra, Ephesus, Alexandria, in the east, Marseilles and Cadiz in the west. Maritime enterprise was checked rather than encouraged in the Roman period. It was no longer necessary to pass the straits of Gibraltar when intercourse with Britain could be conducted through Gaul and across the Channel. The Romans were great makers of roads, and overland trade became more usual and important than in the days of Phœnician and Greek ascendency. The gradual disruption of the empire by German invaders proved a direct blow to commerce, the extent and security of which had been seriously diminished by the 5th century A.D.

B. *The Middle Ages.*—The fall of Rome led to a separation between east and west unknown in earlier times. Western Europe was occupied for centuries with almost incessant wars. The invasion of the Germans was followed by the advance of the Slavs, who spread over the whole of northern Germany, and of the Huns, whose attack was still more destructive, though ultimately less successful. The Germans, who succeeded in keeping the upper hand in the west, were not a town-loving people. Like the early Romans, they devoted themselves to arms and agriculture. The social system they developed in contact with Roman influences was FEUDALISM (*q.v.*), by which the occupants of the soil were bound to render military or agricultural services. Nations were non-existent; international trade unknown. Maritime enterprise partook of the prevalent military character. The sailors of the early Middle Ages were the hardy Northmen, whose aims were plunder and conquest, not a peaceful exchange of commodities. The temporary union of western Christendom under Charles the Great promised to revive commercial intercourse, but his empire broke up under his sons. Trade relapsed again into insignificance.

Meanwhile the East had a separate life of its own. Roman law and traditions were preserved at Constantinople, which for a time took the place of Rome as the great receptacle of imported commodities. Greek merchants brought thither the products of Asia and Africa from Syria and Egypt, and those of eastern Europe from the shores of the Black Sea. But the trade of Constantinople suffered from the short-sighted regulations of an arbitrary government, and was soon seriously curtailed by Arab conquests. Under the mighty impulse given by the teaching of Mohammed, the Arabs reduced in rapid succession the interior of Asia, the northern shores of Africa, and distant Spain. Everywhere they carried with them their Koran and their trade. The Arabs, the earliest, became in the early Middle Ages the greatest merchants in the then world. The chief centres of their trade were Mecca, Bagdad, Damascus, and Alexandria. There they collected and exchanged the products of China, of India, and of northern Africa. Arab ships traversed the Red Sea and the Persian Gulf, where their most notable ports were Yemen, Aden, and Basra. But maritime enterprise had been prohibited by Omar; it was never regarded with favour by the caliphs. The chief routes of Arab commerce were overland; their caravans journeyed through Central Asia and the north of Africa. At Trebizond they collected the products of the Black Sea and eastern Europe, and thus diverted much of the trade which would otherwise have gone to Constantinople. Spain alone of the Arab conquests was compelled, from its position, to use the sea as a means of transit. For some time Spanish Arabs and Moors monopolised the trade of the western Mediterranean. Their most important harbours were Cadiz, Malaga, and Almeria.

The *Crusades* (v. CRUSADES, *Economic effect of*) —the most important event in mediæval history —had the effect of reuniting the east and west, which had been severed since the irruption of the Germans, and of reviving the supreme maritime importance of the Mediterranean. Constantinople declined; the great Italian republics, —Venice, Pisa, and Genoa,—founded factories in Greece, on the coasts of Syria, and the Black Sea. There they collected oriental products brought by Arab caravans, and thence conveyed them to western Europe. From Italy the chief

commercial routes ran overland to southern Germany. From Venice the most frequented road proceeded by Verona and across the Brenner to Ulm, Augsburg, and Ratisbon. From Genoa and Pisa merchants travelled to Lake Como and across the St. Gothard to Lucerne and Strasburg. All the goods not retained by the south German towns passed on to Bruges, the great emporium of the Middle Ages, where the products of the north were exchanged for those of the south and east. The only serious competitors of the Italian towns for the Levant trade were the bold sailors of Catalonia, but their market was limited to the Spanish kingdoms and the south of France.

The chief carriers of goods in Europe at this date were the Germans. While trade between Italy and Flanders founded the prosperity and political importance of the great towns of southern Germany, their fellow-countrymen in the north found another means of acquiring wealth. The famous HANSEATIC LEAGUE (*q.v.*), formed 13th century, undertook the task of conducting commerce between the east and west of northern Europe. Their leading towns, Lübeck and Hamburg, commanded the land route connecting the Baltic with the North Sea. The task of defending their trade against the aggressions of the Scandinavian peoples, who could block the maritime entrances to the Baltic, forced on the north German towns a unity and an organisation to which the less threatened cities of the south never attained. The chief depots of the Hanse towns were at Novgorod, Wisby, Bergen, London, and Bruges. At Bruges they met the southern merchants, and received from them the products of their native industry and those which they brought from Italy. The nations who in later times won maritime supremacy had not yet turned their attention to mercantile adventure. England was mainly an agricultural country; its chief product, wool, was exported to be made up by Flemish looms. The people of Holland and the adjacent provinces procured a scanty subsistence by fishing and cultivating the soil. France, not yet emerged from the condition of feudalism, found its energies absorbed in internal struggles and the great war with England. Its oldest port, Marseilles, had lost the importance it had once possessed, and did not recover any notable share in the Mediterranean trade till the 15th century.

C. *Modern History.*—It is no arbitrary choice which has fixed on the fall of Constantinople as the dividing line between mediæval and modern times. The Turkish conquests threatened to bring about the same result as had been achieved by the German migrations of the 5th century—to break off once more the connection between Asia and western Europe. One after another the Italian factories in Greece and Asia Minor were taken and destroyed. The closing of the Levant was not completed until the conquest of Egypt by Selim I. in 1519, but, for seventy years before, eastern trade had gradually been becoming more difficult and precarious. The great problem created by these conditions was the discovery of another route to the east. It is true that the chief instrument of maritime discovery, the compass, had been invented some time before, and the Portuguese had already commenced their famous voyages along the western coast of Africa. They had discovered Madeira 1419, they found the first of the Azores 1447, they reached the Cape de Verd islands 1455. But it was the Turkish conquests which gave the great impulse to maritime enterprise outside the Mediterranean. Bartholomew Diaz commanded, 1486, an exploring expedition, which had passed the mouth of the Congo when a storm blew the ships out to sea. When calms returned they steered westwards; at last, suspecting that they had missed the southern point of the continent, they turned northwards and found themselves in Algoa Bay. Compelled to return by his sailors, Diaz left the completion of his work to Vasco da Gama, who, starting July 1497, found his way round the Cape of Good Hope to India. The Portuguese were not slow to profit by his great discovery; for nearly a century they monopolised the trade between India and Europe. The great Albuquerque made himself master of the Red Sea and the Persian Gulf, and thus closed the ancient routes to the Mediterranean. He also gave a capital to the Portuguese settlements by the capture of Goa on the Malabar coast. The trade of Portugal soon extended to the islands of the eastern Archipelago, and even to China and Japan.

Meanwhile, the Spaniards had also attempted to solve the great problem of the age. Christopher Columbus, a Genoese by birth, had conceived the scheme of reaching India by sailing westwards. Under the patronage of Isabella of Castile he set out on his great expedition of 1492, which resulted in the discovery of America. Ignorant of the existence of this intervening continent, his contemporaries, believing he had really reached India, gave the islands where he first landed the name of the West Indies, which they have kept ever since. Columbus himself believed that the islands connected with Asia "stretched out so far to the eastward that their distance from Europe could not be great." The exact position of America was not appreciated until 1513, when Balboa crossed the Isthmus of Darien and discovered the Pacific, of which he took formal possession in the name of the Spanish crown.

There is no need to speak of the further progress of discovery, of the conquest of Mexico and Peru, of the famous papal bull which divided the world between Spain and Portugal, and which enabled the latter to claim possession of Brazil (BULL OF BORGIA, *q.v.*) It is sufficient

to point out here that these discoveries revolutionised the commercial routes of the world. The Mediterranean lost its importance, the Italian cities were ruined. Trade lost its old unity and concentration, and fell into the hands of new peoples. The Portuguese and Spaniards preserved the ascendency which their precedence in the work of discovery assured them. The great routes of commerce ran to the west and to the east. But the central point to which trade converged was still the Netherlands. Antwerp, at that time a possession of the Spanish king, took the place which Bruges had lost owing to the silting up of its canal and the increased size of vessels necessary for oceanic trade. The overland routes in southern Germany ceased to be employed for anything beyond local exchange. The Baltic was no longer a great commercial highway, and the Hanse Towns steadily declined until their league perished in the turmoil of the Thirty Years' War (see HANSEATIC LEAGUE).

But the later part of the 16th century witnessed another great mercantile revolution. Antwerp was ruined by the reckless oppression of Alva and the long war which followed the revolt of the Netherlands. Two countries, England and Holland, hitherto unknown in the history of commerce, began to pose as the maritime rivals of Spain and Portugal. The trade which Antwerp lost was gradually diverted to London and Amsterdam. Philip II. annexed, 1580, Portugal and its dependencies to the Spanish crown. The defeat of the Spanish Armada, 1588, annihilated the maritime ascendency of Spain. These events led to the collapse of the monopoly of the eastern trade so long preserved by Lisbon. The Dutch were the first to seize the opportunity thus offered. Dutch vessels first reached an Indian port 1595; within a few years Dutch settlements were formed in Java and Sumatra. The great Dutch East India Company was formed 1602; it founded a capital for its vast possessions at Batavia 1618. England was not slow to follow in the footsteps of the Dutch, and in 1600 the first of the English EAST INDIA COMPANIES (*q.v.*), received its charter. Though the massacre of Amboyna excluded them from the spice trade, the English succeeded in establishing a lucrative commerce with Hindostan. From this time the eastern trade was open to every European country; France, Sweden, Denmark, endeavoured to obtain a share in it. But these countries each entrusted the trade to an exclusive company, and thus checked the progress which private enterprise might have effected.

Meanwhile the decline of Spain led to a similar extension of western commerce. John Cabot had discovered, 1496, Newfoundland for Henry VII.; Jacques Cartier sailed, 1534, up the St. Lawrence and gave the name of New France to what is now the province of Quebec. But it was not till the 17th century that the Spanish ascendency in America was seriously threatened. Quebec was founded, 1603, as the capital of the great French colony of Canada; by the end of the century the French had also established themselves in Louisiana at the mouth of the Mississippi. Between Canada and the Spanish settlement in Florida the whole of the western coast was successively occupied by the English, who absorbed the Dutch province of the New Netherlands, and the Swedish colony on the Delaware. At the same time France, England, and Spain shared the West Indian islands among them, and their incessant rivalry proved the cause of numerous wars. The Dutch for a time took Brazil from the Portuguese, but they abandoned it, 1661, and from this time confined their attention mainly to the eastern trade, their control over which was strengthened by the establishment of a colony at the Cape of Good Hope. The loss of their position in America was fatal to the commercial greatness of the Dutch. The eastern trade, trammelled by the system of exclusive companies, made comparatively little progress, while the commerce with America, where the European settlements were real colonies instead of mere mercantile depots, became every year more important and lucrative. In America, too, unlike the East Indies, trade was open to any subject of the colonising countries.

It is impossible and unnecessary to trace here the history of European colonies in the 18th century. Its main characteristic is the steady growth of the colonial power of England at the expense of France and Spain. In the history of commercial routes it is only important to remember that each country set itself to monopolise the trade with its own colonies. It was the age of the MERCANTILE SYSTEM (*q.v.*), and colonies were regarded as one of the chief means by which a country could secure for itself a favourable balance of trade. Thus the intercolonial trade was of small proportions, and was of the character of a smuggling trade, carried on in defiance of restrictive laws. The attempt to enforce these laws, which regarded colonies as existing merely for the benefit of the mother-country, led, quite as much as the stamp act or the tea duty, to the revolt of the American colonies.

From the 15th to the 18th centuries, therefore, an enormous extension of European commerce was effected by the opening up of the Atlantic and Pacific. The old routes of the Middle Ages were abandoned, the Italian and German cities lost their mercantile importance, trade followed a vast number of complicated routes across the ocean. But of this trade the Atlantic coasts of Europe were still the centre, and as long as the system of monopoly was upheld, this condition of things would be maintained. But in the later part of the 18th

century a fatal blow was dealt to the old colonial system by the American revolt and the French Revolution. From this time it became impossible to treat colonies merely as markets for the goods of the mother country. Former restrictions were disregarded or abolished, a new era of colonial independence and self-government set in, completed when England, raised through the results of the revolutionary wars to being beyond all question the greatest of colonial powers, adopted a policy of free trade. From this time the trade of the world has lost even the semblance of unity which was preserved as long as the routes from the colonies led of necessity to the mother country in Europe.

Two great commercial changes have taken place in our own century which must be briefly alluded to. The first, the rapid and almost unparalleled development of Australia and New Zealand. In the 18th century Australia was only known as a convict settlement, whereas Sydney and Melbourne are now among the greatest ports of the world. The second, the opening of the Suez Canal, effected primarily by French enterprise and capital, but of which the chief benefit has hitherto been reaped by England. It is not too much to say that the Suez Canal has revolutionised the commercial routes to the east. It has restored much of their old importance to the Mediterranean and the Red Sea. It has effected at least a partial revival of the commercial prosperity of Italy and Egypt. The overland route to Brindisi has taken the place of the old roads through southern Germany to Venice and Genoa. The return of eastern trade to its mediæval direction has been one of the most notable events of 19th century history. Its political consequences have been still more far-reaching, and it is yet too early to appreciate them. Whether equally important results may be achieved by the Canadian Pacific Railway or by the opening of a naval passage through the Isthmus of Panama, are questions which belong to the domain rather of the future than of history.

[Adolf Beer, *Allgemeine Geschichte des Welthandels* (Vienna, 1860, 2 vols.)—Movers, *Das phönizische Alterthum*, Bd. iii. (Berlin, 1856).—Grote, *History of Greece*.—Mommsen, *Römische Geschichte*.—Sartorius, *Geschichte des hanseatischen Bundes*.—Ritter, *Geschichte der Erdkunde und der Entdeckungen* (Berlin, 1861).—Peschel, *Geschichte des Zeitalters der Entdeckungen* (1858).—Macpherson, *Annals of Commerce* (4 vols., London, 1805).—E. J. Payne, *History of European Colonies* (London, 1877).]

R. L.

COMMERCIAL SCIENCE (*Handelswissenschaft*). Strictly speaking the term commercial science should be applied to that branch of political economy which treats of the increase of wealth and the economy of labour by the operations of commerce, it being assumed that the state does not interfere, and that every individual is instigated by economic motives, and by economic motives alone. In this way a distinction may be clearly drawn between *Staatswissenschaft* and *Handelswissenschaft*. But in practice this subject of commerce has been treated much more from the view of an *art* than of a *science* (*e.g.* cp. *Traité théorique et pratique des opérations commerciales et financières*, by N. Merten; *Handelswissenschaft*, by C. F. Findeisen. In the former of these two works the theoretical treatment is really confined to that part of the subject concerned with banking and exchange operations, while the latter is practical in nearly every sense). Viewed in this way commerce is treated with reference to the facts of business, and thus affords a continued series of illustrations of many points in ordinary economic theory. Thus exchange is viewed with a special regard to the various classes of middlemen and the services rendered by each to the rapid circulation of the commodities. Again, instead of speaking of a producer or a seller without explanation, an attempt is made to classify producers or sellers in their various actual forms, whether as individual operators, as partners in a firm, or as members of a company. The function of each is described. As there is considerable approximation to the character of a handbook of commerce, a certain attention is of necessity paid to the legal standing and obligations of the various parties involved. The intensely practical nature of this treatment is, however, relieved when we come to questions of money and exchange, for here the theoretical principles are clearly and definitely laid down. This latter branch of the subject it is which has attracted most attention of recent years both on the Continent and in England, as we may see from the labours of such writers, for instance, as Jevons (*Investigations in Currency and Finance*), Giffen, Goschen, R. H. Inglis Palgrave, Ellis, Bagehot, J. G. Courcelle-Seneuil, and others.

E. C. K. G.

COMMERCIAL SYSTEM. The fourth book of the *Wealth of Nations* is devoted to an examination of "systems of political economy," considered, as Adam Smith explains, as a branch of the science of a statesman or legislator. With his accustomed sense of the due proportion of theory to historical facts, the writer devotes almost the whole of the book to an examination of the commercial or mercantile system which had reached its full maturity as part of the policy of Europe, whilst the agricultural system of his friend Quesnay is dismissed in a single chapter on the ground that it "at present exists only in the speculations of a few men of great learning and ingenuity in France." Any account of the commercial system by a modern writer must be in the main a repetition of Adam Smith with indications of the principal criticisms to which his work has been subjected. The chief fault to be found with Adam Smith's treatment, as a whole, is that he was so much

concerned to destroy the system as part of the practical policy of the day and as altogether unfitted for the stage of industrial development already attained, that he sometimes overlooks and sometimes mistakes the conditions under which the system arose, and under which it answered the wants of the time. Subsequent writers (in Germany, *e.g.* List, Schanz, Roscher, and in this country W. Cunningham) have shown that the mercantilists at any rate as represented by their chief writers, were not guilty of the childish sophism that money only was wealth and that the only thing at which the commercial legislator should aim was the acquisition by the country of the greatest possible sum of money by its foreign trades. In many respects they regarded a favourable balance of trade merely as a good symptom of other more important national interests, such as the full employment of labour and capital at home, a point on which Adam Smith himself lays much stress in his second book. In other aspects of their system, the political power of the nation was considered as fundamental, as in the navigation laws, of which again, including the motives at their basis, Adam Smith strongly approves (compare Seeley's *Expansion of England*). At the same time, however, it must be admitted that before the last quarter of the 18th century the system had ripened to decay, the ideas which had given it vitality at an earlier stage had been lost sight of, and the mere symptom, *i.e.* the favourable balance, had come to be considered as itself the essence of well-being.

The following is a brief critical summary of Adam Smith's treatment as given in book iv. of the *Wealth of Nations*. He begins by an explanation of the true functions of money in trade, and its relation to other forms of wealth, and shows that no particular political attention should be directed towards the accumulation of money, either on account of its durability or because it is thought to be useful in foreign wars. The argument is decisive against the case as it is represented; but it may be objected that if we substitute for durability the idea of a store of value, and if we remember that at the end of the 17th century Pope's father, on retiring from business, carried his wealth in actual guineas, and recall the graphic account of Pepys hiding his money, we may arrive at a juster view of this mercantilist point. And the further we go back towards the mediæval period, this peculiar importance of money as a store of value becomes more prominent. Again, as regards the foreign wars, there was a close connection between the balance of trade and the balance of power, and even in our own day we find Bismarck and other foreign statesmen attaching importance to a full supply of gold in their "war chests." The ostensible object of the mercantilists being to obtain a favourable balance (see BALANCE OF TRADE, HISTORY OF) we have next to consider the methods by which this end was promoted. Speaking generally, the aim of their policy was to diminish as much as possible the importation of foreign goods for home consumption and to increase as much as possible the exportation of the produce of domestic industry. The restraints on importation were of two kinds: (1) restraints on any foreign goods which could be produced at home from whatever country they were imported; and (2) special restraints on imports from countries with which the balance of trade was generally unfavourable. As regards (1) Adam Smith gives the most general arguments in favour of free trade as against prohibition (see FREE TRADE). The principal point to observe is that Adam Smith was not in a position to state the free trade theory with the dogmatic simplicity of some modern writers, as he was obliged to take into account the opinions expressed in book ii., on the comparative advantages of employing capital in different ways, *e.g.* the superiority of home to foreign trade and of agriculture to manufactures, especially as regards the labour of a country. If from this point of view his case is not so strongly put as at present, on the other hand logically we must take into account his optimistic views on nature and his references to the "invisible hand," which directs private interest so as to increase the public good. The dangers of prophecy are incidentally illustrated in the assertion that even the free importation of foreign corn could very little affect the interest of the farmers of Great Britain, and the free importation of cattle or meat still less. The chapter is also noteworthy for the famous exceptions to free trade, admitted by Adam Smith as generally advantageous or at least worthy of deliberation, and in which the older and more rational mercantilists would recognise much of their own teaching. Thus on the ground that defence is of much more importance than opulence, "the act of navigation" is described as "perhaps the wisest of all the commercial regulations of England." The taxation of foreign commodities which come into competition with those which are produced and taxed at home is approved, though the possible extension of the doctrine to substitutes, and to the general as distinct from the special taxes of the foreigner, so far as it is taken account of, is repudiated. The cases worthy of deliberation are retaliation with the view of obtaining better terms for our exports and the regard for vested interests on the ground of humanity. (2) The restraints upon imports from countries with which we have an unfavourable balance are much more strongly condemned. It was easy to show that even on mercantilist principles, that is, taking the favourable balance as fundamental, the rest of the world should be considered simply as one

great market, and that we should buy in the cheapest and sell in the dearest country, independently of the particular balance. Simple, however, as this doctrine seems, it is still often lost sight of, and forgetful of the indirect settlement of international debts, so-called fair trade writers compare the exports and imports between two particular countries, *e.g.* France and England. Adam Smith at this stage shows clearly that it is for the interest of a nation to have rich neighbours, and that anything which injures a foreign nation indirectly injures the home country. He points out also that the "favourable balance of the annual produce and the consumption" is very different from the balance of trade and "necessarily occasions the prosperity or decay of every nation," to which the mercantilists might rejoin that the one balance properly understood, *i.e.* as referring to a growing export trade compared with consumption of foreign luxuries, is one of the best signs of the other balance.

Passing now to encouragements given to exports, we notice first of all (1) *drawbacks*. These, as the name suggests, are duties drawn back on exportation or re-exportation, and as they tend to restore the natural course of trade, they are strongly approved of by Adam Smith. The chief dangers of drawbacks are that the commodity may be re-imported and the revenue suffer from smuggling, and that, as abundant proof has been given lately, the drawback may really be a bounty in disguise (see DRAWBACKS; BOUNTIES). (2) *Bounties* are next examined, and receive the strongest condemnation of any expedient of the mercantile system (see BOUNTIES). Incidentally the whole subject of the Corn Laws is examined and it will be seen from the different species of laws discussed that the commercial system as a whole was much more varied in its aims than is generally supposed. The laws, for example, against engrossing and forestalling were plainly drawn up in the interests of the consumer, and the same object was apparent in the attempt to abolish the middlemen and, to quote a favourite position of Adam Smith, to bring the produce as near as possible to the consumer. (3) The next expedient of the system to encourage exports was the negotiation of treaties of commerce giving special advantages to those countries with which we had or were supposed to have a favourable balance. Again it may be said that Adam Smith takes a rather narrow view of the real objects of many of these treaties. The reader may compare List's account, in *National Systems of Political Economy*, of the celebrated Methuen treaty with Portugal. In recent times much controversy has taken place on the advantages and disadvantages of commercial treaties; they were approved of by Cobden, and have been adopted to a large extent practically even by this country, but they are objected to by extreme free traders (see COMMERCIAL TREATIES). (4) The last device of the system to encourage exportation was the monopoly, total or partial, of the colonial trade. This question is discussed by Adam Smith at great length, as was only natural, since his work appeared in the same year as the declaration of American independence. The argument, however, of the chapter is involved and rather obscure. The principal difficulty is caused by the constant reference to the writer's peculiar views on the relative advantages of employing capital in different ways—such as that the near trade is more advantageous than the distant. It is noteworthy also that one of the cardinal objections of Adam Smith to this monopoly is that thereby the general rate of profits in the country is *raised*, and that this element in the cost of production being increased, we are undersold in other commodities, thus sacrificing an absolute for a relative advantage. If a country is so wealthy that it is naturally exporting capital, this argument falls to the ground. Another objection to Adam Smith's line of treatment is that perhaps he does not pay sufficient attention to the idea of political power historically involved in the acquisition or colonisation of new territory. Although the East India Company was never a commercial success, it laid the foundation of our Indian empire. At the same time, however, he was the first to propose a wide-reaching scheme of what would now be called imperial federation.

There remain to be noticed two other expedients of the mercantile system. As regards raw materials and the instruments of manufactures, the usual policy, described above, was apparently reversed and importation was encouraged and exportation discouraged or prohibited. The explanation is to be found in the idea that if raw material were worked up before being exported it would be more valuable, and that a nation should keep for its own benefit any peculiar advantages of production. The history of the woollen trade is most instructive on this point. Wool in the early Middle Ages was the principal export and source of England's supply of money, whilst later on the export was forbidden and the prohibition was extended to sheep. As regards "instruments" of production, the living instrument—the artisan, was placed under the same restrictions as dead capital. The idea that the exportation of raw material and instruments shall be discouraged has recently been revived in this country as regards our coal supplies, and one of the favourite modern protectionist arguments is that for the higher forms of work a nation should rely on its own members and not let them become mere "hewers of wood and drawers of water."

[The principal interest of the mercantile system is historical, though many of its expedients are still advocated under the name of fair trade. Besides

the works alluded to, the reader may consult the books mentioned under the particular articles referred to, *e.g.* FREE TRADE, BOUNTIES, etc.]

J. S. N.

COMMERCIAL TREATIES. Treaties of commerce seem to have been of very early origin. Sir H. Maine (*Village Communities* p. 192) has pointed out the close connection in the most rudimentary societies between neutrality and markets; and in times when the same word (*e.g. hostis*) was often used both for enemy and stranger, it is plain that commerce was hardly possible without some more or less formal agreement. The earliest commercial treaty extant was that made between Rome and Carthage, B.C. 508 (cp. Macpherson's *Annals of Commerce*, vol. i. p. 60). [iii. 22, 23 Polybius.] The earliest treaty that occurs in the history of England is that between Charlemagne and Offa, A.D. 796. Throughout the mediæval period the foreigner was regarded as a highly suspicious character. In Saxon times foreign traders were only allowed to come to the country on the occasion of four great fairs, and were obliged to leave the kingdom within forty days. Attempts were made to keep in force this forty-days regulation down to the time of the Tudors (cp. Schanz, *op. cit. inf.* vol. i. p. 380). For a considerable period aliens were liable for the debts contracted by members of the same town or country, and even for crimes the same mutual obligation prevailed. One of the clauses of Magna Charta (§ 41) refers to the protection given to foreign merchants. More than a hundred years later (1325) it was stipulated by Edward II. that the merchants of Venice should have power to come to England for ten years with liberty to sell their merchandise and to return home in safety "without having either their persons or goods stopped on account of other people's crimes or debts." It may be said generally that the principal object of commercial treaties for many centuries was simply to afford security to traders. In process of time, however, as the mercantile system (see BALANCE OF TRADE; COMMERCIAL SYSTEM) was developed and this rudimentary security had been attained, commercial treaties became the great agents by which a nation tried to secure for itself the advantages supposed to follow from this system. Treaties of this kind were severely attacked by Adam Smith (*Wealth of Nations*, bk. iv. ch. vi.), who takes as his principal example the famous Methuen Treaty concluded with Portugal in 1703. The reader, however, should compare with Adam Smith's remarks the account of the benefits conferred by this treaty upon English traders as stated by List (*National System of Political Economy*, p. 62, Eng. trans.) The root idea of modern commercial treaties is reciprocity. A list of the treaties of commerce and navigation still in force between the United Kingdom and foreign countries is to be found in Leone Levi's *History of British Commerce*, 2d ed. p. 565. The treaty which has excited most controversy is that negotiated with France by Richard Cobden in 1860 (cp. *Finance and Politics*, by Mr. Sydney Buxton, vol. i. ch. xi.; and Mr. John Morley's *Life of Cobden*, vol. ii. ch. xi.) In the negotiation of the treaty the emperor of the French, by whom alone the matter on the French side was practically settled, was influenced largely by purely political considerations. It was, however, in this treaty that the notion of the reciprocal advantages rather than the balance of losses by mutual concessions first found due prominence. The principal provisions were as follows: On the side of France prohibitive duties were to give way to protective duties of moderate amount. On all the staples and material articles of British manufacture—woollen, cotton, silk, flax, jute, hemp, hair, and manufactures of iron and other metals, tools and machinery, manufactures of leather, wood, glass and earthenware, as well as on yarns, coal and coke, and other raw materials, etc.—the duties were to be so much reduced that the maximum *ad valorem* charge was not to exceed 30 per cent, which was to be reduced within three years to 25 per cent, and the duties, when practicable, were to be changed into specific duties. Thirty per cent was to be the maximum, but the actual amount of duty to be paid on each article was left to separate negotiation, and in the result in most cases it was fixed much below the maximum. According to Cobden the average did not actually exceed 15 per cent. (Buxton, *Finance and Politics*, vol. i. p. 230.) England, on her part, engaged to abolish at once all the remaining import duties on manufactured goods. She agreed not to levy a duty on, or prohibit the export of, coal; and—the most important practical concession to France—she agreed to make great reductions on wine and brandy; other nations, however, being of course placed on the same footing. Both parties engaged to insert in the treaty a "most favoured nation clause." The treaty was to remain in force for ten years and then to continue from year to year unless "denounced" by either party, in which case, unless definitely renewed, it would lapse in twelve months. In 1872 the treaty was "denounced" by France at the instance of Thiers, the government being in great financial difficulties at the time owing to the German indemnity. The treaty was, however, renewed next year. After a series of attempts for a definite renewal on an improved basis from the free trade point of view, the treaty was practically abandoned in 1882, when as a substitute the French government passed a law, giving to England the benefits of the "most favoured nation" treatment. France was thus left free to raise the duties on any article at once, and by simple repeal of the law to treat England less advantageously than other nations.

The French treaty of 1860 has been described at some length, because in connection with it the whole question of the principles of commercial treaties has been raised and discussed. The principal arguments for and against may be enumerated under five headings.

(1) The opponents of commercial treaties appeal to their failure in the past to secure the advantages for which they were ostensibly negotiated. So long as the Navigation Acts remained in force, they naturally gave rise to retaliation by other nations, and the retaliation was met by reciprocity treaties with various countries on various conditions. The complications which ensued were so great that they had much to do with the ultimate repeal of the acts. This is only one example of the alleged failure of treaties in the past, but it is maintained that on the whole they have produced more harm than good. To this it is replied by the advocates of the system that the old ideas on which such treaties were based were economically unsound, being survivals of the mercantile system; but that the French treaty and others drawn on similar lines have proved beneficial in recent times, and that the appeal to the past can only be fairly made when all the circumstances of the case are considered.

(2) It is objected to commercial treaties that, in appearance at least, if not in reality, they are opposed to the principles of free trade. Even although no differential duties are imposed, and all nations are ostensibly treated with equal favour, still it is said that if a free trade nation arranges its tariff out of consideration to the revenue of another country, so far that nation is "favoured" relatively to others, and that this amounts to an infringement of free-trade principles. To this it is replied that commercial treaties afford a middle way between protection and free trade, and that if other nations, by means of a treaty, are brought to see the advantages of a reduction of tariffs, they may ultimately follow the example of England (see FAVOURED NATION CLAUSE) and repeal many of these duties altogether, and eventually adopt free trade. Such was the opinion of Cobden, and it is supported by Mr. John Morley, Cliffe Leslie, and many other free-traders.

(3) It is alleged that it may prove inconvenient to a government to have its hands tied for a definite term of years on fiscal matters, as England was bound, for example, not to increase the wine duties nor to impose an export duty on coal. To this it is replied that the fixity of a tariff is advantageous for the stability of trade.

(4) This reply leads to the further objection that, as the time of the treaty approaches fulfilment, there will be a great disturbance in trade whilst the new negotiations are in progress, and again an appeal is made to the experience with France after the first ten years had been completed. The obvious answer is that the disturbance is only temporary, and in any case that a treaty subject to the possible failure of renewal is better than none at all, so far as the convenience of traders is concerned.

(5) The objection made by the extreme advocates of free trade, which, if valid, would be the strongest possible, is that there is really no use in such treaties; that a nation should rely simply upon free imports to fight foreign tariffs, and that the exports can be left to take care of themselves. Suppose, it is said, that England of her own accord, and without any equivalent treaty, reduces the duties on French wines and silks, and thus encourages importation; still these imports must in the end, directly or indirectly, be paid for by exports; if France excludes our goods directly, then she must accept payment from other nations which do accept our goods. The best answer to this argument is perhaps that given by Mr. John Morley (*Life of Cobden*, vol. ii. p. 343). "The decisive consideration is that we can only procure imports from other countries on the cheapest possible terms on condition that the producers in those countries are able to receive our exports on the cheapest possible terms." This opinion may also be supported by the authority of Adam Smith, who always maintained that the near trade was more advantageous than the remote, and the direct than the roundabout trade.

[The following books may be consulted: Schanz, *Englische Handels-Politik*, Leipzig, 1881.—Adam Smith, M'Culloch's edition (1872), Note on Commercial Treaties.—Cliffe Leslie, *Essays on Financial Reform*, Cobden Club, 1872.—List, *National System of Political Economy*.—Morley's *Life of Cobden*.—Sir Thomas Farrer, *Free Trade versus Fair Trade*.—*Four Letters on Commercial Treaties* (Cobden Club), 1870.—Mallet's *Free Exchange*, 1891.] J. S. N.

COMMISSARY. See SUCCESSION, SCOTLAND.

COMMISSION AGENT. A person entrusted by a principal with the sale or purchase of goods and receiving a commission for his remuneration. Commission agents generally sell or buy in their own name, and therefore deal as principals with the buyers or sellers; but, as regards the mutual relations between them and their principals, they are bound by the ordinary rules of the law of agency. E. S.

COMMISSIONS OF ENQUIRY. It has long been the practice in the United Kingdom to appoint, under a royal warrant, commissions to institute enquiries, to collect information, and to report concerning matters of special public interest as to which it is felt to be necessary to obtain the assistance of well-informed persons whose services are not ordinarily at the disposal of the government. The scope of such enquiries is carefully defined in the warrant constituting the commission, usually described as the

"reference," and the commission is invested with power to summon witnesses and to call for such records, books, and papers as in its judgment may serve to throw light on the subject of the enquiry. The first person named in the reference is usually considered to be nominated as the chairman of the committee, and a secretary, not himself a member of the commission, is also appointed. The commission itself decides the course which its proceedings shall take. It frequently arranges, in the first instance, for the issue of such circular letters as may appear calculated to elicit general information, and it then proceeds to hear oral evidence. The first witnesses called are ordinarily those government officers who, from the position they occupy, may be presumed to have a special knowledge of the subject in hand. The examination in chief is conducted by the chairman, each member of the commission in turn having an opportunity of questioning the witness. In some cases, additional or assistant commissioners are appointed to prosecute subordinate enquiries in distant places and even in foreign countries. These usually receive payment for their services, as does also the secretary, unless he be in the permanent employment of the government, in which case it is customary to award him a bonus when the work of the commission is at an end. The commissioners themselves are ordinarily unpaid. When the commission has obtained all the evidence it considers necessary, it prepares and presents its report, which, with an exact transcript of the evidence and the documents forthcoming in the course of the enquiry, are then laid before both houses of parliament and sold to the public. Commissions of enquiry obtain and arrange in a convenient form a vast amount of information of great value, and in this their main utility exists. Parliamentary and political reasons frequently prevent the carrying out of the recommendations of commissions, it being impossible to dissociate from the government of the day the final responsibility for any action taken on the basis of their reports.

The following are the principal commissions of enquiry which have been appointed since 1830, to consider subjects of economic interest:—

1832. Poor Laws.
1833. Employment of Children in Factories.
1836. Irish Railways.
1840. Employment of Children in Mines.
1843. Scotch Poor Laws.
1843. Irish Land Laws.
1853. Shipping Dues.
1855. Decimal Coinage.
1863. Fisheries.
1866. Duration of Coal Supply.
1867. Trades Unions.
1868. International Coinage.
1875. Labour Laws.
1876. Factory and Workshops Acts.
1881. Agricultural Interests.
1885. Housing of the Working Classes.
1886. Depression of Trade and Industry.
1887. Gold and Silver.
1889. Mining Royalties.
1891. Labour.

T. H. E.

COMMISSIONS, JUDICIAL. The general tendency of English legislation has been to reserve all judicial business for the courts of justice. But in modern times certain important functions of a judicial character have been entrusted to commissions differing in many respects from the ordinary courts. The motives for establishing such commissions instead of increasing the regular judicial staff have been various. A particular class of cases may demand such a technical knowledge of subjects not legal as cannot reasonably be expected from a professional judge. Thus the class of cases which comes before the Railway Commission requires an exceptional acquaintance with the principles of railway organisation and management. Or again, the judicial function to be performed may be one which the law has never contemplated, and for which the principles of jurisprudence afford no guidance. Thus the principal function of the Irish Land Commission and the Scotch Crofters' Commission is to set aside existing contracts of land-tenure and to determine what is called a "fair rent." In these cases the function of the commissions is rather political than legal; it is to reduce that resistance to the fulfilment of legal obligations which is never recognised by a jurist, although it may sometimes be troublesome to a statesman.

Commissions such as these differ from normal courts of justice principally in three respects—(*a*) jurisdiction; (*b*) composition; (*c*) procedure.

(*a*) *Jurisdiction.*—Whilst an ordinary court of justice has usually jurisdiction to deal with many kinds of cases, a judicial commission is commonly confined to dealing with cases of a particular class. Thus the main function of the Railway Commission is to ensure impartial treatment of all persons or corporations using a railway, and to arbitrate in disputes between railway companies or canal companies. The main function of the Irish Land Commission and of the analogous commission in Scotland is to deal with disputes between landlord and tenant.

(*b*) *Composition.*—In the United Kingdom, at all events, it is the uniform practice to select the judges exclusively from the legal profession. But judicial commissions usually include other persons as well as professional lawyers. Thus the Railway Commission, as originally constituted (Regulation of Railways Act, 1873, 36 & 37 Vict. c. 48), consisted of three commissioners, of whom one was to be of experience in law, another of experience in railway business. As recently remodelled (Railway and Canal Traffic Act, 1888, 51 & 52 Vict. c. 25), the

Railway Commission consists of two appointed commissioners, including one of railway experience and three *ex-officio* commissioners, namely, a judge of a superior court in England, in Scotland, and in Ireland respectively. The Irish Land Commission (Land Law Ireland Act, 1881, 44 & 45 Vict. c. 49) consists of three commissioners, one of whom must be a barrister of ten years' standing, and holds office for life, whilst the other two need not be lawyers, and are appointed for a term of seven years. This commission, however, delegates most of its work to sub-commissions. Barristers, solicitors, and persons possessing a practical acquaintance with the value of land in Ireland are competent to be appointed to the office of assistant-commissioner. The Crofters' Commission consists of three persons, of whom one must be an advocate of ten years' standing.

(*c*) *Procedure.*—The procedure of such a judicial commission as above described is wholly determined either by the statutes under which it acts or by rules drawn up by itself. There is no implied adoption of any system of procedure followed in any of the regular courts. At least such adoption is limited to one or two equitable principles, such as that of hearing both parties to a dispute, which we hardly regard as technical. Appeals to a superior court on questions of fact are not allowed, since this would defeat the purpose of instituting such commissions; but appeals on questions of law are in some cases permitted. Such commissions as above described are for some purposes a necessity of the body politic. But their unnecessary multiplication would be a great evil. A tribunal established to deal with a special class of cases is often the readiest instrument of injustice or oppression. Everybody is interested in the impartiality of a court before which he may appear as defendant. But many unfortunately will applaud partiality in a court where defendants belong exclusively to an unpopular class like landlords or railway companies. As compared with judges who are also jurists, judges who have had no legal discipline are less likely to deal with causes in a severely judicial spirit, to consider sufficiently the consequences of making a precedent, or to uphold that stringency of procedure which, tedious as it may seem, is the best safeguard against passion or carelessness. Hitherto the predominance of the regular courts of justice has protected us from most of the evils which might have been feared from commissions armed with judicial power. But the multiplication of extraordinary tribunals and of special procedures would break down this predominance, and with it the old English principle of submitting to a regular court for adjudication in the regular way every question which can be formulated in terms of law—a principle always precious and always difficult to maintain, but in an age of popular government especially invaluable and yet especially liable to be overthrown.

[For further particulars respecting the Railway Commission see the Acts 36 & 37 Vict. c. 48, and 51 & 52 Vict. c. 25, and the Acts therein referred to; also the report of the joint-committee of Lords and Commons on railway amalgamation, 1872; and the text-books on the law relating to railways.

Respecting the Irish Land Commission, see the Act 44 & 45 Vict. c. 49 and the amending Acts. See also the rules issued by the Irish Land Commission, especially those of October 1881.

Respecting the Crofters' Commission see the Act 49 & 50 Vict. c. 29 and the amending Act.]

F. C. M.

COMMISSIONER. See FACTOR.

COMMISSIONERS OF SEQUESTRATED ESTATE. See BANKRUPTCY, SCOTLAND.

COMMITTEE (with reference to cases of lunacy). A person charged to represent the interests of a lunatic, either as committee of his person or as committee of his estate. Committees are appointed for those lunatics only whose mental incapacity has been established by the inquisition of one of the masters in lunacy, either with or without the assistance of a jury. The same person is frequently appointed in both capacities, *i.e.* as committee of the person and of the estate of a lunatic. The administration of the property of a lunatic so found by inquisition is to a great extent under the control of the lunacy authorities.

E. S.

COMMITTEE OF INSPECTION (bankruptcy). A committee consisting of not less than three and not more than five persons, selected from the creditors of an insolvent debtor at the first or any subsequent meeting of creditors, for the purpose of superintending the administration of the bankrupt's property by the trustee. The trustee cannot exercise certain powers without the permission of the committee of inspection, and the committee can take the initiative in certain other proceedings. The appointment of a committee of inspection is not compulsory, and the act provides that in the absence of such a committee the Board of Trade is to exercise its functions. [See Bankruptcy Act, 1883, 46 & 47 Vict. c. 52, specially §§ 22, 57, 58 (2), 64, 74 (4), 89 (1), also Bankruptcy Act, 1890, 53 & 54 Vict. c. 71, § 5.]

E. S.

COMMODATUM. A term of Roman law used to express the loan of a thing which had to be returned in specie.

COMMODITY. The idea of something commodious in the way of usefulness is never absent from the use of this word in an economic sense, but to this meaning a very wide interpretation is given by some economic writers, while others are disposed to restrict its application much

more closely. A. Smith (*Wealth of Nations*, bk. iii. ch. iii.) defines the difference between productive and unproductive labour as that which does or "does not fix and realise itself in any permanent subject or vendible commodity which endures after that labour is past, and for which an equal amount of labour could afterwards be procured." Ricardo (ch. i. § 1) uses the word in a somewhat different manner. "If a commodity were in no way useful, in other words, if it could in no way contribute to our gratification, it would be destitute of exchangeable value," and includes among "the mass of commodities," "rare statues and pictures, scarce books and coins, wines of a peculiar quality." With J. S. Mill (*Principles of Political Economy*, bk. iii. ch. ii. § 3), while other considerations come in, the word is employed mainly in the same sense as by Ricardo. Mill speaks of the product of labour as "utilities," among which he would class not only the labour of the physician and the teacher, but that of the musical performer and the actor. This idea is further developed by H. Sidgwick (*Principles of Political Economy*, bk. i. ch. iv.) who proposes to extend the terms "produce" and "commodities" so as to include "consumable services," such as the utilities developed by "literary, artistic, and scientific culture." In this view E. Cannan (*Elementary Political Economy*, pt. ii. § 2) includes "services which do not involve the production of a useful material object" among "commodities." The difficulty of exact definition of "productive" and "unproductive" labour has led to this extension of the use of the term "commodity." The examples from the authors cited above sufficiently explain this gradual development. The original use was wide, *e.g.* "Tickling commodity, the bias of the world" (*King John*), and elsewhere in Shakespeare frequently (*Twelfth Night, Henry IV.*, etc.)

COMMON ASSURANCE. The legal evidences of the transfer of real property. These have been called "common" assurances as opposed to special methods of transfer such as fines or recoveries.

[Stephen's *Commentaries*, bk. ii. pt. i. c. xv.]

J. E. C. M.

COMMON EMPLOYMENT, Doctrine of. "A servant, when he engages to serve a master, undertakes, as between himself and his master, to run all the ordinary risks of the service, including the risk of negligence upon the part of a fellow-servant when he is acting in the discharge of his duty as servant of him who is the common master of both." This extract from the judgment of Earle, C.-J., in Tunney *v.* Midland Railway Co. (L.R. 1 C.P. at p. 290) may be taken as a judicial statement of the doctrine of common employment first suggested in 1837 in Priestley *v.* Fowler (3 M. & W. 1), and afterwards adopted by the House of Lords. In the earlier cases various reasons were given in support of the doctrine, but in the later cases the tendency is to base the rule upon an implied contract entered into by the servant with his master that the latter should not be under any necessity to indemnify him from the negligence of a fellow-servant. In order to establish common employment it is not necessary that the servants should be employed about the same kind of work; it is sufficient that they are engaged under the same employer for the purposes of the same business, however different in detail those purposes may be. The relative rank of the servants is immaterial, and a stranger who voluntarily gives help is for the time regarded as a servant.

The legal effects of the doctrine have been to some extent modified by the 43 & 44 Vict. c. 42. Under that act a workman is entitled to compensation for injuries resulting from the negligence of a fellow-servant acting as a superintendent or under orders issued by the master. Special provision is made for railway servants, who may claim damages from their employer for the negligence of their fellow-servants in charge of any signal, points, locomotive engine, or train upon a railway. An employer is also made liable to his servants for any defect in the condition of the ways, works, machinery, or plant connected with his business. The right to claim compensation is, however, burdened with numerous onerous conditions.

[*Addison on Torts*, by H. Smith, London, 1887.—*Treatise on the Principles of Obligations arising from Civil Wrongs in the Common Law*, by F. Pollock, London, 1887. As to liability of employers in foreign countries, see *Parl. Pap. Commercial*, 1886, No. 21.—*Harvard Law Review*, December 1888. On the subject generally, see *Essays in Jurisprudence*, by F. Pollock, London, 1882.—*Parliamentary Papers*, H. C., 1876, No. 372; 1877, No. 285.—*Report of Select Committee*, 1886, No. 192.]

J. E. C. M.

COMMON GOOD (Scotland). Property belonging to a municipal corporation, administered by the magistrates.

A. D.

COMMONS. Upon the origin of rights of common there are two main theories. The *legal* theory, in its crudest form, traces the primitive form of property to individual ownership, and regards rights of common as being based upon the grant or the sufferance of an individual owner. The *historical* theory traces the natural or original form of property to common ownership, and sees in rights of common the survivals of an era before the evolution of individual ownership. So far as the soil of England is concerned, the balance of probability appears to be in favour of the view that the legal theory, with certain modifications, approximates most closely to the truth. The question may have more than antiquarian importance, because it has a direct bearing upon that theory of the nationalisation

of the land which assumes as its basis the original common ownership of the soil. If the historical theory is correct, rights of common represent all that the encroachments of individual owners failed to absorb; if the legal theory is correct, rights of common represent the encroachments of servile tenants upon the possessions of individual owners. The essence of the Mark system or Teutonic village community of freemen is that the territory of the mark, or the soil occupied by the agrarian association, was owned by the community by which it was cultivated, or by the tribe or nation of which the community formed a part. Community of occupation and co-tillage are characteristic features of the Anglo-Saxon system of farming in the dawn of agricultural history (see AGRICULTURE IN ENGLAND). Writers like Maurer, Kemble, Freeman, Nasse, and others, have therefore argued or assumed that the mark system existed in this country in its pure form, and their contentions are supported by the researches of Sir H. Maine into the village community (see Digby, *History of the Law of Real Property*, and Joshua Williams, *Rights of Commons*). If this historical view is correct, then the manorial system is an encroachment upon the mark system, the "land-law of the noble" superseded the "land-law of the people," the mark of independent freemen was degraded into the manor of serfs and semi-servile tenants, and commons are a survival of the primitive form of property which existed in this country. This view is taken by Elton (*Tenures of Kent*), who dates the encroachments of individual upon common ownership, and of the manor upon the mark, from the reign of Edward the Confessor. But it is doubtful whether the mark as a system of land ownership ever existed in this country. As a unit of local administration it is assumed by Stubbs (*Constitutional History*, vol. i. 83-86), but even this assumption is open to question (see Lodge's *Anglo-Saxon Law*, p. 82). Although, as a means of farming, the mark system indisputably prevailed and regulated the agriculture of the country till the present century, Seebohm (*Village Community*) has shown good reason to doubt whether the partners of the association were ever in this country the independent owners of the land they tilled, and whether they were not always tenants tilling soil over which they enjoyed regulated customary rights, but of which they were not the owners. He proves beyond all question that in many cases the land was in Anglo-Saxon times owned by individuals and cultivated by communities who held under their lords by semi-servile tenure. These estates readily adapted themselves with the slightest possible changes to the Norman system of manors. Thus modified, the legal theory is probably most near the truth. According to Blackstone (*Commentaries*, ii. 92) and Coke (*Complete Copyholder*, p. 8, etc.), rights of common existed subsequently to manors, and originated in the grant or the sufferance of the lord. And this is the legal basis upon which common rights rest. As a question of fact it may still be disputed whether rights of common over the wastes of a manor are exercised by the association of farmers in virtue of their former ownership of the soil, or by the grant or sufferance of the individual owner, whose tenants they are. But there can be no dispute that since the Norman Conquest such rights are legally of the nature of exceptional rights granted over land by its real owner to his tenants. They are of four kinds: (1) *Appendant*, *i.e.* attached or incident to the tenancies of freeholders; (2) *appurtenant*, *i.e.* enjoyed by strangers in respect of land not belonging to the manorial estate; (3) *in gross*, irrespective of land at all; (4) *customary*, *i.e.* enjoyed by copyholders. Such rights differ not only in origin but in kind. Thus there may be commons of pasture, of piscary (fishing), of turbary (turf-cutting), of estovers (cutting or taking wood).

The later history of commons is a history on the one side of attempts to extinguish the rights enjoyed, and on the other of efforts to resist such encroachments. At first no public rights were recognised; resistance was made if at all, in the interests only of the commoners. Opposition to the enclosure of commons entered upon a new phase in 1845 (Gen. Inclosure Act, 8 & 9 Vict. c. 148), when the necessity of preserving commons as places of recreation or as breathing spaces in crowded districts was recognised. Considering the untempered condemnation which has been passed on the Inclosure Acts by popular speakers and writers in recent years, it is amusing to contrast Bentham's opinion that "the tendency of the General Inclosure Bill seems alike favourable to the interests of the *rich* and *poor*." . . . "It effects the raising of the wages of labour" (Poor Bill introduced by Mr. Pitt, *Works*, vol. viii. p. 449). Miss Martineau in her illustrations of political economy is equally partial to enclosures. We may therefore distinguish between (A) *commoners' opposition up to 1845*, and (B) *public opposition after 1845*. (A) Legislation to limit and restrain the rights of lords of manors to enclose their wastes begins with the statute of Merton (1235) and the statute of Westminster (1285), which protected respectively commons *appendant* and commons *appurtenant*. Down to the year 1800 commons could only be enclosed by means of private acts of parliament. But under the pressure of increasing population it was necessary to utilise every available acre. In 1801, through the exertions of Young and Sir J. Sinclair, an Inclosure Act was passed (41 Geo. III. c. 109) which incorporated the provisions generally in-

cluded in the special acts, and regulated, and at the same time facilitated, the enclosure of land. The following statistics of enclosures illustrate the extent to which agriculture progressed in the latter half of the 18th century. Between 1700 and 1845 there were 3835 enclosure acts and 7,572,664 acres enclosed, the total area of Great Britain being 56,786,199 acres, and the cultivated area about 32,500,000. Of this total number 3209 acts were passed in the reign of George III. and 6,288,910 acres enclosed. (B) Signs of the change of policy which protects open spaces are previously seen in 18th century tracts (*e.g. Inquiry into the Influence of Enclosures on Population* (1786), or *Advantages and Disadvantages of Inclosing* (1772)), and in the debates upon the Inclosure Bill of 1836 (see Hansard 35, 1226 and 1271). But the new policy received full expression in 1845, when the General Inclosure Act was passed (8 & 9 Vict. c. 148). It was primarily passed to facilitate the enclosure of commons and wastes which impeded the productive employment of land, and for this object it appointed commissioners who were to decide whether or not enclosures were expedient. But it protects commons within a certain distance of London or large towns from enclosures, requires the appropriation of allotments for the exercise and recreation of the neighbourhood, and declares that no village greens shall be enclosed. But it was felt that the commissioners did not sufficiently protect the public. And in this direction legislation has since that time advanced. The public and not the landlord is now treated as the real owner. The Metropolitan Commons Act, 1866, was passed in this spirit. In 1869 a committee of the House of Commons reported on metropolitan commons, and suggested various alterations in the existing law of enclosures. Many of their suggestions were embodied in the Inclosure Act of 1876. The preamble of this act shows how completely the spirit of legislation was changed. It expressly forbids the commissioners to sanction any enclosures unless they are satisfied that such enclosures will benefit not only private interests but the neighbourhood. Clauses in the act also provide for the management, protection, and preservation of commons. Commons may now be enclosed in one of three ways—(i.) they may be appropriated by railway companies under the powers of their acts; (ii.) they may be enclosed under the Inclosure Act; (iii.) they may be enclosed by an individual owner who claims to be legally entitled to enclose.

[For works relating to the subject of enclosures see, in addition to those quoted in the text, Fitzherbert on *Surveying* (1523).—Tusser's *Comparison between Champion Country and Several* (E. E. Text Society).—Lee's *Regulated Inclosure* (1556).—Lawrence's *Duty of a Land Steward* (1727).—Young's *Enclosure of Wastes* (1801).—*Reports of the Board of Agriculture*, 1793-1813.—Elton's *Commons and Waste Lands.*—Woolrych's *Rights of Commons.*—Scrutton's *Commons and Common Fields.*] R. E. P.

COMMONTY (Scotch). Common or waste, over which there are rights of common. A. D.

COMMUNE. When a group of families forming a tribe cease to lead a wandering life and settle down in a fixed place of abode, the commune springs into being. At present, in India the *village communities* are considered as composed of families descended from a common ancestor.

The commune is society's primary organic cell. A collection of communes united under the rule of a sovereign power forms the state. Primitively in all countries the commune was a political body where autonomy reigned, and which itself regulated all the local interests of its inhabitants. We see this in the Anglo-Saxon *Tunscip*, in the *Township* of New England, in the Germanic *Gemeinde*, in the *Gemeente* of the Netherlands, in the *Communautés* of the Neo-latin peoples, in the Russian *Mir*, in the Javanese *Dessa*, in the Indies, and in Japan, China, and Arabia, or in other words, in all climates and amongst all races. As the families living on the communal land have common interests to be considered and provided and legislated for, it necessarily follows that the commune becomes a sort of institution of the economic order. This is clearly apparent in following the birth and development of the New England townships.

As soon as a *plantation* is formed, the heads of the different families meet together in the spring-time, every year, in a town-meeting, to consult respecting public interests, and to appoint the various functionaries to fulfil the same: *Churchwardens* for the supervision of matters connected with the church; *overseers of the poor* to distribute succour to the needy; *highway surveyors* to maintain the roads in good order; *fence viewers* to overlook the hedges, gates, and enclosures generally; *wardens* for the repression of drunkenness, cruelty to animals; *constables* or police for the maintenance of general order; and *school trustees* or school-board officers to attend to the schools and appoint competent masters and mistresses. Everywhere, too, at the commencement, as I have shown in my book *Primitive Property*, the commune reserved the greater portion of its land as common pasture ground (commons), where all the inhabitants had the right to send their cattle to graze, and the remainder was periodically divided up between all the families of the commune, with the exception of the little plot surrounding each dwelling, which was the private property of the owner. According to Cæsar and Tacitus, this was the agrarian system which existed among the Germanic races, and it may still be found at the present

day, with precisely the same distinctive characteristics, in the Russian *Mir* and in the Javanese *Dessa*. If one be desirous of studying the working and results of this system on a small scale, one may do so in the *allmends* of Switzerland and southern Germany. The level land lying along the shore of the lake of Brienz, between Interlaken and Bönigen, is the *allmend* of this latter village. It is divided into small plots where vegetables and fruit-trees are cultivated. Each of these plots is owned by the head of a family for his life. The communal *allmend* comprises forests, which supply the inhabitants with wood for firing and building purposes, pasturage where their cattle can graze in summer, and arable land whence they can procure a portion of their sustenance. The commune is thus a sort of hive which furnishes each family with supplies, and thus attaches it to the soil of the *Alma Mater*.

At the present day, owing to the growing exigencies of civilisation, the commune is step by step recovering the economic status it possessed at the outset. This is plainly observable in countries where civilisation is the most advanced, in the United States and Scotland, for instance. The city of Glasgow may be mentioned as an example. The city here not only opens schools for the entire population but also supplies the drinking water, the gas, lights at its own expense the common staircases of large lodging-houses, lets out heating apparatus, stoves, and fixtures, at a low rental; it considers tramways to be a part of the street, and allows them to be worked by a company only on the fixed condition that the price shall not exceed a penny a mile, and that morning and evening cars be run for workmen at half-price. The local sanitary legislation is also thoroughly perfected. There is complete municipalisation of markets and slaughter-houses; the city also entered upon a scheme of wholesale demolition of slums and overcrowded districts, in view of better housing of the poor, and now it is building houses on sites it has cleared, and will then enter upon the functions of house landlord; it has also opened a series of common lodging-houses, having accommodation for 2000 persons nightly, and has established a magnificent system of baths, swimming-baths, and wash-houses; it maintains a corps of lady inspectors who go about among poor families to inculcate domestic cleanliness; it has entered upon the general laundry business, and is serving families at the current prices. Museums of all sorts, parks, playgrounds, and public libraries have been opened to foster the progress of civilisation.

It may be seen, in fact, in all parts of the world that the old "commune" notion is gaining ground more or less rapidly, and the socialistic ideal of the state as a providential power doing its best to remedy the results of social inequality, is little by little forcing itself upon the world. Attention can only be drawn here to this fact. Its advantages and disadvantages must be elsewhere discussed. One thing, however, appears probable, that in the future organisation of society, communes will, as at its outset, play an important economic part.

[E. de Laveleye, *Primitive Property*, trans. 1878.] E. de L.

COMMUNE OF PARIS, 1871. It is widely believed in England that the Commune of 1871 was primarily a communist institution. In denying this the better informed are apt to merely explain the true meaning of the word COMMUNE (*q.v.*), and leave the impression that the establishment of the Commune was only an extreme application of the principle of local self-government (*e.g.* P. G. Hamerton, *French and English*, 1889, p. xii. n.) This is nearly as incorrect as the more common belief. It is quite true that adherents of the Commune are not properly called "communists," the French word being not *communistes* but *communeux* or *communards*, but it is not the case that the Commune movement was a purely political affair. Local and temporary circumstances made its short-lived success possible, but any real strength which it possessed was entirely contributed by the partisans of a social or economic revolution. About one-third of the members of the council of the Commune were connected with the INTERNATIONAL (*q.v.*) The chief economic measure, passed by it or recommended by its committee on labour and exchange, which was entirely composed of socialists, provided for the remission of house rents for the period covered by the siege, the gratuitous return of all articles under £1 in value pawned at the Mont de Piété, the establishment of a list fixing the wages of labourers in communal contracts, and the transference of workshops abandoned by their owners to associations of workmen (*v.* ANARCHISM).

[Lissagaray, *Histoire de la Commune de* 1871, Bruxelles, 1876.—J. Leighton, *Paris under the Commune*, 1871.—P. Délion, *Les membres de la commune et du comité central*, 1871.—G. de Molinari, *Les Clubs rouges pendant le Siège*, 1871.—É. de Laveleye, *Le Socialisme Contemporain*, Bruxelles, 1881, pp. 273, 279-282, 309, 310.—B. Malon, *Histoire du Socialisme*, 1883.] E. C.

COMMUNICATION, MEANS OF. Modern facilities for communication between one district and another are so complete generally that the fact that these facilities are comparatively recent is not unfrequently forgotten. Their economic value is so great that it is scarcely possible to over-estimate it. A reference to the condition of matters before present facilities existed in England will enable this to be better understood. Porter, in his *Progress of the Nation*, written 1842, makes the following observations on a part of Sussex now practically included among the suburban districts of the metropolis, and acces-

sible, when Porter wrote, within four hours of London. "An inhabitant of Horsham, in Sussex, lately living, remembers, when a boy, to have heard from a person whose father carried on the business of a butcher in that town, that in his time the only means of reaching the metropolis was either by going on foot or riding on horseback, the latter of which undertakings was not practicable at all periods of the year, nor in every state of the weather; that the roads were not at any time in such a condition as to admit of sheep or cattle being driven upon them to the London markets, and that for this reason the farmers were prevented sending thither the produce of their land, the immediate neighbourhood being, in fact, their only market. Under these circumstances, a quarter of a fat ox was commonly sold for about 15s., and the price of mutton throughout the year was only five farthings the pound." This illustration, as every one can supply the present condition of matters for himself, shows the effect of improved internal communication within a recent period and a restricted area. Mr. E. Atkinson has in his publications, *The Relative Strength and Weakness of Nations*, etc., recorded the corresponding but even greater effect of similar facilities in the United States of America—"The wages for one day's work of an average mechanic in the far East will pay for moving a year's subsistence of bread and meat a thousand miles or more from the distant West." These instances of results from improvements of means of communication illustrate comparatively recent changes, brought about by their means, in production, price, etc. Further development will, no doubt, be as active a factor in the future as it has been in the past. The main part of the comforts and conveniences of life, the whole work of commerce, to refer to no other points, depend on the power of ready communication, which, in its turn, depends almost as much on the absence of obstruction on the part of governments for fiscal and other purposes, as on the extension of mechanical facilities (see RAILWAYS; CANALS; TRANSPORT, COST OF.)

[Many economic problems presented by modern means of communication, including remarks on their utility to the community and the measurement in money of that utility, are discussed with great originality by Dupuit in the *Dictionnaire de l'Écon. Politique*, under the heads *Routes et Chemins*, *Voies de Communications*, abridged from certain longer memoirs to which reference will be found under DUPUIT.]

COMMUNIO. An expression of Roman law applied collectively to a number of persons jointly interested in some property or undertaking. If the joint interest arises by contract, the Roman writers speak of *societas* (partnership); if it is created by accident (as for instance in the case of joint heirs) the expression *communio incidens* is used by later writers. E. S.

COMMUNISM is the theory which teaches that the labour and the income of society should be distributed equally among all its members by some constituted authority. For an example of what communists mean by equal division of labour and income the following explanation may suffice:—"Here equality must be measured by the capacity of the worker and the need of the consumer, not by the intensity of the labour and the quantity of things consumed. A man endowed with a certain degree of strength, when he lifts a weight of ten pounds, labours as much as another man with five times the strength when he lifts fifty pounds. He who, to satisfy a burning thirst, swallows a pitcher of water, enjoys no more than his comrade who, but slightly thirsty, sips a cupful. The aim of the communism in question is equality of pains and pleasures, not of consumable things and workers' tasks" (Buonarroti, *Conspiration de Babeuf*, i. 297). (See BUONARROTI.)

As communism involves the conception of society as an industrial association for the production of wealth, it is of modern origin. That conception certainly played no part in the institutions attributed to Minos and Lycurgus, nor in those suggested by Plato in the *Republic*. The equal distribution of wealth among a governing class was then upheld as desirable wholly from a moral and political, not at all from an economic, point of view; equality of distribution, and, still more, equality of labour, among the whole population, would have been utterly abhorrent to the minds of Greek statesmen and philosophers, if they had been able to conceive the idea. The practice of the earliest Christians described in Acts ii. 44, 45; iv. 34, v. 8, has generally been considered as communistic, but all that is actually said is that a number of persons sold their property and gave the proceeds to be distributed among their poorer fellows, who doubtless treated what they received as income; in this there would have been no communism even if the gifts had been compulsory, and Peter's words to Ananias show that they were not. The first exposition of communism is to be found in Sir Thomas More's *Utopia* (see MORE, Sir T.) published at Louvain in 1516. Written in Latin, the Utopia was accessible to all the learned world of the time; at first in the original, and afterwards in translations, it has had an enormous number of readers. After a severe criticism of capital punishment for theft, of the habit of maintaining a multitude of idle followers, and of the extension of pasture at the expense of arable land, More enters on the description of a nation numbering apparently three or four million souls, living a simple life without private property, under elected officers who fix the duration of requisite labour and generally direct production. Distribution

is supposed to effect itself without difficulty, as the impossibility of ostentation and the general abundance prevent any one from demanding more than his fair share: "It is the fear of want that makes any of the whole race of animals either greedy or ravenous." Division of labour exists, but, agricultural labour being a "hard course of life," every one must take his turn in the fields. The institution of marriage is only slightly modified, but the adoption of children is largely practised in order to keep all the families nearly equal in size. Increase of population, if there is any, is dealt with by emigration. There is a small class of unenfranchised persons or slaves, consisting of convicts condemned to hard labour, prisoners taken in battle, and foreigners who have entered the service of the Utopians voluntarily. As a substitute for the stimulus to industry provided by self-interest when private property is established, the fact that "all men live in full view" is put forward.

It is highly improbable that More considered his book as anything more than a picture of an entirely ideal state of society, towards which some approximation might possibly be made in certain particulars. Not until the era of the French Revolution did a communist organisation of society come to be thought of as something to be actively striven for, and completely realised at no distant date. The *Civitas Solis* (1620) of CAMPANELLA (*q.v.*), a work of small merit and importance (for a translation, see *Ideal Commonwealths*, in Morley's Universal Library), is far less practical than the *Utopia*. The immediate precursors of the communism of the Revolution were Morelly and Mably, writers who, in accordance with the fashion of their day, placed their utopias in "the state of nature." MORELLY (*q.v.*), in his *Code de la Nature* (1755), taught that man naturally possesses every virtue, and is only depraved by bad institutions, the chief of which is private property. Every one would be industrious, he thought, if it were not that some are deterred from labour by the enervation of riches, and others by the desperation of poverty. He declared, therefore, that it would be "in conformity with the intentions of nature," if every citizen contributed to the resources of the state, in accordance with his strength, talents, and age, and in return were wholly maintained at the public expense. Every one was to engage in agriculture between the ages of 20 and 25. Celibacy was not to be allowed. MABLY (*q.v.*), who was a brother of CONDILLAC (*q.v.*), in Letters I. and II. of *Doutes proposés aux philosophes économistes sur l'ordre naturel et essentiel des sociétés politiques* (1768), endeavoured to show, in opposition to MERCIER DE LA RIVIÈRE (*q.v.*), that private property in land is not the natural and necessary basis of society. On the contrary, he said, society could exist, without property, as is proved by the cases of Sparta, the Jesuits in Paraguay, and the monastic orders; while the establishment of property in land and inequality of condition, has been the great source of avarice, ambition, and vanity. In his *Traité de la Legislation* (1776), Book I., he maintained the same views, and incidentally described the communist arrangements which nature, as he thought, dictated to primitive man; he imagines "the citizens distributed into different classes, the more robust are appointed to cultivate the earth, the rest work at the rough handicrafts with which society cannot dispense." "To exclude idleness, all that was necessary was to encourage labour by passing laws which should awaken in the citizens the natural instinct which induces us to seek the esteem of our fellows, and to fear their contempt." But it was undesirable, he admitted frankly, to try to restore the lost condition of natural equality. The rich would resist any such attempt, and it is doubtful if the poor would support it, and still more doubtful if they "could adopt the feelings which would be in harmony with their new position," if the attempt were successful.

The Revolution in France was economic as well as political. It made the people far more equal in wealth than before. But a mere redistribution of property, even when it makes wealth more equal, is not a communist measure, and need not tend in a communist direction. The creation of a great number of small freeholders, which was greatly promoted by the Revolution, is considered to have strengthened the institution of separate property. Though there was a large class which desired to reduce or destroy the inequality between rich and poor, there were but few who saw that the only way to create and maintain equality in wealth was to establish complete communism, and were at the same time convinced of the practicability of such a change. BABEUF (*q.v.*) and his fellow-conspirators of 1796, who called themselves the "Equals," were the most remarkable representatives of this small party. How far the Equals had actually thought out a scheme of communism is not very easy to decide, since the history of their conspiracy, written by their ablest member, Philippe Buonarroti, was not published till 1828. Buonarroti admits that he describes their economic plans almost entirely from memory; he has probably added many ideas which belong in reality to a later date than 1796. In the Babouvist Utopia, as described by Buonarroti, every one is allotted two different occupations, the one light and the other hard. To give variety and change of scene, all are employed by turns in the transport and postal services. Those who will not work are treated as thieves are treated under the system of private property. Education, carried on in vast boarding-schools, subordinates

family affection to patriotism. The increase of population is stimulated to the utmost. Distribution is ruled by the principle of strict equality of pains and pleasures. The transition to this state of things was to be effected by establishing at once the skeleton of a great national community, which would rapidly acquire all property by means of free gifts and escheats, bequest and inheritance being totally abolished. For the existing generation adhesion to the community would be voluntary. Whether the heads of the Babouvist conspiracy desired to carry out some such scheme as this or not, their immediate object was to overthrow the Directory, and for this purpose appeals to the love of plunder, in which they dealt very freely, were likely to be more useful than elaborate schemes of orderly communism. After the discovery and defeat of the plot, and the execution of Babeuf (May 1797), the revolutionary spirit slumbered for a time, and communism, which was as yet nothing more than an incidental outcome of the desire for destruction, slumbered also. The schemes of SAINT-SIMON (*q.v.*) and FOURIER (*q.v.*), which soon began to occupy the attention of those who were inclined to wish for social reorganisation, though they involve distribution by constituted authority, cannot properly be considered communistic, as they lack the essential characteristic of communism in not being founded on the principle of equality. Buonarroti's book, printed at Brussels in 1828, but not much read in France till some time afterwards, revived to some extent the idea of communist equality, and led to the publication (1837-40) of the *Moniteur républicain*, the *Homme libre*, and a number of other short-lived and bloodthirsty communist newspapers. The insignificance of the Babouvist party was shown in the futile insurrection of 12th May 1839, when the followers of Armand Barbès, Martin Bernard, and Louis Auguste Blanqui, to the number of three or four hundred, obtained possession of the Hôtel de Ville for a few hours. In the next year merely destructive communism was practically superseded in France by "Icarianism," the creation of CABET (*q.v.*), thought out in England, where ROBERT OWEN (*q.v.*) was the chief teacher of communism.

Owen's communism was very different from that of Babeuf, Buonarroti, and their followers. It had its origin not in politics and a worship of the abstract principle of equality, but in practical philanthropy. The primary object of Owen was not to destroy the existing state of society, but to substitute for it a new state, the superiority of which he considered he had proved. Assistant master in an elementary school at the age of seven, draper's apprentice at ten, mule machine maker at eighteen, manager of an important cotton spinning factory at nineteen, and successful in each capacity, he had every claim to be considered "a practical man," and it was entirely through his own experience that he arrived at his schemes of social regeneration. The good effects of his treatment of the factory hands when manager and part-proprietor of mills in Manchester (1790-97) and New Lanark (1797-1828) established in his mind a theory that heredity is of very small importance as regards character, and that "it is impossible that any human being can form his own qualities or character," which are really formed by education and surroundings. This theory, if admitted, is obviously an excellent basis for communism. By its denial of moral responsibility it overthrows the common argument that poverty is generally "deserved," and that private property is therefore just. Further, it avoids the error of confounding wealth or material welfare with happiness, and it was suitable to a time when the desirability of making elementary education more general was beginning to dawn on the public mind. So Owen developed from the philanthropist manufacturer into the communist projector. In March 1817 he submitted to the House of Commons' committee, then considering the poor law, a report which he had drawn up for the "Association for the relief of the manufacturing and labouring poor." In this he proposed that the unemployed poor should be formed into communities of about one thousand persons, who should be provided with land and other requisites of production by the state, and support themselves by agriculture and manufactures. He says nothing in the report itself about the principle on which distribution within the communities should be effected, but in a letter to the newspapers of 30th July 1817, he argues that men will be as industrious "in a community of mutual and combined interests as when employed for their individual gain. . . . Wherever the experiment has been tried, the labour of each has been exerted cheerfully." When working by the day, he adds, the worker has no interest in his work, and when he works by the piece he is apt to overwork himself. "When employed with others in a community of interests both these extremes are avoided; the labour becomes temperate but effective, and may be easily regulated and superintended. Besides, the principles and practices are now quite obvious by which any inclinations from the most indolent to the most industrious may be given to the rising generation." The scheme was wonderfully well received; the *Morning Post* of 9th August 1817 declared that the "appeal, founded as it is upon genuine reason, virtue, and humanity, cannot possibly fail of success." But Owen, over-elated with approbation, went out of his way to declare at a public meeting on 21st August that the only reason his plans had not been adopted centuries ago was the errors of religion, which had

created enough bigotry and fanaticism to wreck not only a community but Paradise itself. This incident, which Owen grotesquely persisted in believing to be the most important event in the history of mankind, alienated much sympathy. Nevertheless in 1819 a committee (appointed by public meeting), of which the Duke of Kent, Ricardo, Torrens, and Sir R. Peel the elder were members, recommended the establishment of an experimental community by means of capital to be provided by a joint-stock company and on the principles of private property, communist distribution being strictly excluded. Nothing came of this, as subscriptions could not be obtained. In 1825 Abram Combe, a tanner of Edinburgh and disciple of Owen, in conjunction with Mr. A. J. Hamilton of Dalzell, obtained 300 acres of land and built a common dwelling-house for 100 families at Orbiston near Glasgow. About 300 persons willing to form a community were easily collected. Till a new generation fit for equality had grown up, it was proposed to distribute the income of the community according to the estimated value of the produce of each individual's labour. Combe died in August 1827, and the whole undertaking immediately collapsed. Meanwhile Owen was trying to establish a similar community in America. He bought, in 1825, the village of Harmony, Indiana, from the Harmony Society or Rappists, who wished to remove. He called the place New Harmony, and invited the "industrious and well disposed" of all nations and creeds to come and form a "preliminary society." Eight or nine hundred persons came, and the preliminary society, in which members were remunerated according to the amount of their services, was soon superseded (January 1826) by the definitive "community of equality," in which equality (modified by differences of need) was alone to regulate distribution. But the miscellaneous collection of individuals who had assembled in answer to Owen's comprehensive invitation never became united by any feeling of common interest, so that by November 1826 the official newspaper of New Harmony, edited by Owen's sons, had to admit that "New Harmony is not now a community." Attempts were made to form several smaller communities out of the ruins, but these all failed, and very soon scarcely a trace of Owen's scheme remained in America. In England from 1827 to 1832 the Owenites founded several hundred "co-operative societies." These consisted of persons who collected a small common capital by subscriptions and opened a shop, in the hope of accumulating from the profits of the business an amount sufficient for the establishment of a communist village. The system of sharing profits with customers which made co-operative societies successful at a later date had not yet been discovered, and the Owenite societies failed, and were soon almost entirely forgotten. Owen himself continued a firm believer in the speedy advent of "a new system of society." His Labour Exchange of 1833 (see LABOUR EXCHANGE) was intended to be in some way an intermediate step. "The Association of all Classes of all Nations" and "The National Community Friendly Society" were founded in 1835, the first to propagate his principles, and the second to promote the establishment of communities founded upon them. The two organisations were amalgamated in 1839 under the title of "The Universal Society of Rational Religionists." The chief product of the labours of these bodies was the "Queenwood community," a communist farm at Tytherley in Hampshire, of which Owen was persuaded to take charge in 1841. The experiment attracted much attention, and its failure, which occurred a few months after Owen's arrival, seems to have been the death-blow of Owenism.

ÉTIENNE CABET (*q.v.*), French advocate and deputy was condemned in 1834 to five years' exile in consequence of his violent opposition to Louis Philippe's government. He spent the five years in England, and after studying More's *Utopia*, and no doubt submitting to some extent to Owenite influence, began to doubt whether the political revolution for which he had hitherto been striving was all that was required for his country. He returned to France in 1839 a thorough communist, and in 1840 published his *Voyage en Icarie*. Though provided with a hero and heroine, and a somewhat thin thread of romance, in order if possible to attract the frivolous as well as the serious reader, this work, like the *Utopia*, consists chiefly of a description of an imaginary state where communism is established. But while More's ideal state is totally detached from ordinary life, Cabet's is described as having grown, in less than half a century, out of a state in which all the evils of private property were rampant. Icaria is France in 1890, as Cabet thought it should and might be. Unlike the Babouvists, however, he saw that the change could only be carried out by pacific measures. "Communism," he says, "intended for the happiness of all men, must not begin by throwing a large party into despair" (*Voyage*, p. 562, ed. 1845). "Communism cannot be established and consolidated except by the power of almost unanimous public opinion (*Ibid.* p. 515)." It has been objected that the transition to communism in Icaria is made to begin with a bloody revolution, but this revolution is apparently considered necessary in order to overthrow a very odious political tyranny. Democracy once established, the change to communism is carried out peaceably enough, it being an indispensable condition that the rich and the owners of property, great and small, should not have their habits and prejudices wounded (*Ibid.* p. 343). In his account

of the details of the transitory *régime*, Cabet adopts much of the scheme propounded by Buonarroti. In the completed Icaria, the distribution of wealth is regulated by the principle of equality interpreted to mean an extraordinary, and most people would think a very oppressive, uniformity. Every one is allowed, so far as possible, to choose his occupation, and the stimulus to industry is provided by regarding the idle man as a thief. Marriage, and family life are strictly maintained. Great importance is attached to education. The increase of population is not thought to require any checks.

For some of the French communists of the time, Icarianism was far too moderate a doctrine. They objected to the condemnation of violence and to the maintenance of marriage and the family. But the protests of Théodore Dézamy and others were of no avail against the wide circulation of Cabet's writings, and the Icarian school was soon supposed to number its adherents among working men by the hundred thousand. Warned no doubt by Owen's numerous failures, Cabet at first advocated only attempts to convert whole nations to communism, and deprecated the foundation of small communist societies, which "would do but little good if they succeeded, and much harm if they failed, as they were nearly sure to do" (*Voyage*, p. 564). Yet, urged on to some kind of action both by friends and enemies, he became himself the founder of such a society. After a consultation with Owen, he bought some delusive rights over a million acres in the north-east of Texas. On 3d February 1848, eighty-nine chosen men were despatched from Havre as the "first advance guard" of the multitudes who were expected to follow and establish an Icaria in America. Three weeks later Louis Philippe fell, and great numbers who had before been willing to emigrate now desired to remain in France and promote Icarianism in the new Republic, so that only about four hundred persons followed the "advance guard." When they arrived at New Orleans the advance guard had already abandoned the land in Texas, which was altogether unsuitable. Eventually about 280 of the colonists established themselves as a communist society at Nauvoo, Illinois, a settlement from which the Mormons had just retired. This community prospered fairly for some time, and increased, under Cabet's leadership, till it numbered some 600 members. On Cabet's expulsion in 1856, 180 of the members left with him and established a community at Cheltenham, near St. Louis, which lasted till 1864. The original community removed from Nauvoo to Icaria, Adams County, Iowa, in 1860. Its expulsion of Cabet had alienated sympathy in France, and it became surrounded by various difficulties. After the war its position gradually improved, but in 1877 there was another schism; the conservatives or old party became "the New Icarian Community," and the young party "the Icarian Community," each numbering thirty or forty persons. The old domain was divided between the two new communities, but in 1883 the "Icarian Community" decided to remove to Icaria-Speranza, near Cloverdale in California. (Albert Shaw, *Icaria; a Chapter in the History of Communism*, 1884.)

The Icarian communities may be regarded as relics of a movement the history of which is nearly confined to the first half of the nineteenth century. From 1848 socialism, of which the fundamental principle is that the whole income of society should be received by labour, not that it should be divided equally, has taken the place of communism. "The proposal to organise society on a communistic plan . . . is one of which the serious interest has now passed away" (Sidgwick, *Pol. Econ.*, III. vii. § 3). But wholly apart from the history of the advocacy of that proposal, there have been innumerable cases where the principles of equal labour and equal distribution have been recognised and acted on (for a considerable list, see Roscher, *Pol. Econ.*, § lxxxi. notes). Religious societies, such as the Essenes, Anabaptists, Dunkers, Moravians or United Brethren, the monastic orders, and the six societies described in Nordhoff's *Communistic Societies of the United States* (1875), have always been prone to adopt a communist organisation, whether from asceticism, or unselfishness, or a desire to minimise communication with the world. Of these bodies the American societies are far the most important from an economic point of view, as their industrial character is not by any means wholly subordinate to their religion. In 1874 they consisted of about seventy communities, with a total population of 5258. The Shakers (58 communities or "families," population 2415, founded in 1792) and the Rappists or Harmonists of Economy (pop. 110, founded 1805) were celibate, the Separatists of Zoar (pop. 300, founded 1842) and the Aurora and Bethel communes (pop. 600, founded 1844) maintained the institutions of marriage and the family, while the Perfectionists of Oneida and Wallingford, followers of Mr. J. H. Noyes (pop. 283, founded 1849), practised an elaborate system of polygamy and polyandry. This was abandoned in 1879, and the society was converted into a joint-stock company in 1880. Most of the communities were well off, and all were able to secure efficient but not exhausting labour from their members. The population in general was declining, chiefly in consequence of the superior attractions presented to the young people, native and adopted, by the more exciting existence of the outside world. All the societies except the Shakers and the Perfectionists had German founders.

Communist elements, the importance of which seems to be growing, are present in the state provision of such things as roads, drains, lamps, parks, schools, and libraries, which are maintained by taxes and rates levied in the main according to the ability of the contributor to pay, and are used in common, or equally, or according to need. The English poor law is communistic as regards the contributions levied under it, but the comparison which used to be frequently made between the workhouse and a communist society is misleading, as the paupers have not the direction of their collective industry, and are not in the least affected by the increase or diminution of its produce.

The criticism of communism by economists begins (not to include Hume's *Essays*, II. p. 270) with Malthus's remarks on the schemes of Owen and SPENCE (*q.v.*) in the 5th edition of his *Essay on Population* (1817). He gives "two decisive arguments against communism: (1) the absence of "those stimulants to exertion which can alone overcome the natural indolence of man"; and (2) the absence of checks to the increase of population which would be brought about by the removal of "the laws of private property and the moral obligation imposed on every man by the commands of God and nature to support his own children" (ii. 276, 277). These two arguments have been very generally repeated by later writers down to the present time (*e.g.* Sidgwick, *Pol. Econ.*, III. vii. § 3), and very little has been added to them. J. S. Mill (*Pol. Econ.*, II. i. § 3) rejected them both, urging that both supervision and individual self-interest in the efficiency of labour would be more complete in a communist society than is at present the case as regards the great mass of labour, and that excessive increase of population would be more likely to be repressed by public opinion in a communist society, where it would cause "immediate and unmistakable inconvenience to every individual in the association." Mill's position as to the stimulus to industry has been strengthened by the support which many economists have given to co-operative production, in which the stimulus is collective and not individual, since each man's labour is supposed to be made more efficient than under the ordinary system by the desire of each that the product of the labour of all may be great. No one need look to political economy to prove or disprove the advantage of communism in the abstract. It is generally recognised that a society is likely to be happier the more equally the produce of its labour is divided (Sidgwick, *Pol. Econ.*, III. vii. § 1; cp. Jevons's *Theory*, ch. iii.), but the remaining economic question, "Can any kind of government organise labour and production so as to supply the wants of society (given the admitted advantage of equality) as well, on the whole, as they can be supplied by the system of private property and competition?" is one as to which opinions may legitimately differ, and to which the true answer is probably different at different times and places.

For the "communists" of Paris in 1871, see COMMUNE OF PARIS. (See also ANARCHISM; BABEUF; BRISSOT DE WARVILLE; CHRISTIAN SOCIALISM; CO-OPERATION; PROPERTY; PROUDHON; SOCIALISM.)

[A. Sudré, *Histoire du Communisme*, 3me éd. 1850.—B. Malon, *Histoire du Socialisme*, 1883.—E. Fleury, *Babeuf et le Socialisme en* 1796, 2me éd. 1851.—L. von Stein, *Geschichte der Socialen Bewegung im Frankreich*, 1850.—R. Owen, *Life written by Himself*, vol. i. 1857; vol. i. A. (continuation of appendices) 1858.—R. Dale Owen, *Threading my Way*, 1874.—A. J. Booth, *Robert Owen*, 1869.—M. Hennell, *Outline of the various social Systems and Communities which have been founded on the Principle of Co-operation*, 1844.—G. J. Holyoake, *History of Co-operation in England*, vol. i. 1875; vol. ii. 1879.—J. H. Noyes, *History of American Socialisms*, 1870.—A. Shaw, *Icaria*, 1884.—*Encyclopædia Britannica*, 9th ed. Art. "Oneida," by W. A. Hinds (a member of the community), 1884.—Nordhoff, *Communistic Societies of the United States*, 1875.] E. C.

[Among English economic writers J. S. Mill (*Principles of Political Economy*, bk. ii. ch. ii. § 2) makes the characteristic of communism "absolute equality in the distribution of the physical means of life and employment." H. Sidgwick again (*Principles of Political Economy*, bk. iii. ch. vii. § 3) restricts Communism and Socialism to systems which involve either the almost entire abolition of private property, or its restrictions to consumers' wealth.]

COMPAGNONNAGES. These were associations of itinerant workmen in Italy, France, and England, formed with the purpose of providing members with food, lodging, and employment; differing from the craft-guilds in that the latter were local, while the compagnonnage was a widespread organisation with local branches. A house of refuge, presided over by an officer called the "mother" of the lodge, was maintained in every town. Here board and lodging were provided for members of the society. Membership was tested by secret signs and passwords. Such employment as was to be found in the place was distributed to members in rotation, the last comers having a prior claim to those who had already had work in the town. The origin of the compagnonnages is involved in legend, but they appear to have started in Italy, and to have spread thence through France during the 12th century into England. In France they were closely connected with the order of the Knights of the Temple. They were divided into three main branches under the names of "Enfants de Salomon," "Enfants de maître Jacques," and "Enfants du père Soubise." The two former

divisions contained men of various trades, but the last was composed of thatchers and plasterers only. The rivalry which existed between these divisions gave rise to sanguinary conflicts, and the compagnonnages, originally useful in protecting workmen against seignorial oppression, tended to assume the character of secret societies, and to become sources of riot and disorder. They were the object of much repressive legislation from the 16th to the 18th century, and in France were finally abolished in 1791.

[Block, *Dictionnaire général de la Politique*, 1873.—*Dictionnaire de l'Économie Politique*, 1852.—*Nouveau Dictionnaire d'Économie Politique*, 1890.] A. H.

COMPANIES.

Companies, English and Scotch Law, p. 368; Increase of, p. 369; Influence on Business, p. 370; Companies, City of London, p. 371; Companies, Staple, p. 373; Companies, Trading, p. 375 (see Foreign Trade, Regulation of).

COMPANIES. ENGLISH AND SCOTCH LAW. The primary idea of partnership is the association of persons, mutually acquainted, for the purpose of commercial enterprise, that is, to gain something. Mutual acquaintance and mutual choice and confidence result in personal relations between the partners; one can bind his fellows in the way of the partnership business; when one dies or when his circumstances undergo a material change, the remaining partners can withdraw their confidence or resist the introduction of his representatives or assignees whom they may not know, and the continuance of the partnership then becomes impossible. As the outside world looks to the partners themselves, when they are known, or even when only some of them are known, credit is given to them and they are all either directly or ultimately liable to the creditors of the firm. Joint-stock companies as usually formed are built up by stated contributions from those who form them; the element of mutual personal choice disappears; the shares are transferable; the management is carried on by the officials of the company to the exclusion of the individual shareholders as such. The transition from simple partnership to joint-stock companies was hampered in England by the persistent application by the courts, to all forms of association, of those principles which are applicable in fact only to simple partnerships founded on mutual personal choice. In Scotland the transition was at first rendered easy by a different set of principles borrowed from Continental and Roman law. The Scottish common law recognises even in simple partnership a separate quasi-personality, in virtue of which it can sue and be sued by even its own partners, can enter as a partner into other partnerships, and is primarily liable for all the debts of the joint undertaking. Primarily only, however; ultimately the partners are liable for all the debts of the firm. A natural outcome of this doctrine of separate quasi-personality, which was at the beginning of last century more broadly stated as a doctrine of separate personality, was that where a joint-stock company took care not to introduce the names of its partners into its collective name, but used a descriptive name of its own (compare the French *Société anonyme*), the creditors of the concern were held to have given credit not to any individual partners, but to the separate entity which had been created by their joint contributions. Accordingly it was decided in 1727 that the partners of the Arran Fishing Company were not personally liable beyond their shares in the company. Thus the Scottish law was at that early date within easy reach of the principle of joint-stock companies with limited liability.

The Scottish lawyers of the day appear to have considered that to obtain a royal charter was a superfluous though dignified measure; they explain that such a charter needed no legislative sanction, such as is necessary where monopolies are to be conferred, because the powers conferred were already in accord with the common law; there might, however, be an advantage in the explicit limitation of liability which was set forth in the charter. In England the current idea of the time was that limited liability companies were, generally, contrary to public policy; and English ideas began to affect the Scotch legal mind. In Scotch legal procedure it became customary and then necessary to add to the name of a company the names of at least three of its partners as such; confusion was introduced by the Scotch use of the word "company" to mean simple personal partnership as well as joint-stock company. In the leading case (1778) of the banking firm Douglas, Heron, and Co., generally known as the Douglas Bank or the Ayr Bank, it was decided that the liability of the partners was not limited, apparently because of the semi-personal name of the firm; this shook the confidence of Scotch investors in all joint-stock companies; next the Bubble Act, passed in 1719 after the South Sea crash, prohibiting companies from acting as corporate bodies with transferable shares, was unearthed and then believed to apply to Scotland; and the Act 7 Geo. IV. c. 67, empowering private banking companies to sue and be sued in the name of their principal officer on certain conditions, was believed to confirm by implication the view that joint-stock companies were no more than simple partnerships, and that consequently liability could only be limited by special and separate contracts with creditors. But even in Scotland, and even at that time, there was a doubt as to how things stood when the partners of a joint-stock company were known; and in extensive undertakings above the rank of ordinary commercial partnerships a favourite expedient was to obtain a royal

charter which placed the question beyond doubt by the creation of a mercantile corporation. Such a corporation was a distinct individual, with its own estate and liabilities, a corporate name, and its own seal; it could sue and be sued, and was managed by its own officials to the exclusion of the shareholders; it could hold lands without the intervention of trustees; it had perpetual succession and transferable shares, could make bye-laws, and could not be dissolved except by surrendering its charter; and when its property was exhausted, its creditors had no other funds to look to for payment of its liabilities.

Even with regard to chartered companies in Scotland the legislature (6 Geo. IV. c. 91, 1825) empowered the crown to insert in charters a condition of unlimited liability; and in the charters of the National (1825) and Commercial (1831) Banks the liability is stated not to be limited by the charters. An act of 1837 repealed this; and from that date, before which the circumstances in England and in Scotland had, so far as regards the powers of joint-stock companies and the liabilities of their shareholders, become practically the same, a long course of legislation has step by step evolved for the whole United Kingdom the principle of registered joint-stock companies either with or without limited liability (see COMPANIES, INCREASE OF); the governing statute now being the Companies Act 1862, upon which attend a number of supplementary statutes bearing the same name in successive years: the whole now forming a mass of legislation sorely in need of consolidation.

Where a proposed company tends to invade the privileges of the public, legislative sanction is necessary for its formation with the desired powers; for example, companies having monopolies such as the Bank of England and the Bank of Scotland, upon which a monopoly of Scottish banking was conferred for twenty-one years, both of which have charters following upon statutes. Railway companies and others having aggressive powers are formed directly by private acts of parliament; and for companies of this order a considerable measure of uniformity in administration is secured through the operation of the various general Clauses Consolidation Acts of 1845, and amending statutes. A. D.

COMPANIES, INCREASE OF. The marvellous expansion of joint-stock enterprise during recent years may be clearly seen from the following figures, which show the respective numbers of limited companies registered in each successive year since 1863. They are taken from the last return issued by the Registrar of Joint-Stock Companies, and do not include companies incorporated under special Acts of Parliament—as, for instance, Railway and Canal Companies—but only such companies as were incorporated under the Companies' Acts.

	England.	Scotland.	Ireland.		England.	Scotland.	Ireland.
1863	689	24	20	*1877*	808	83	47
1864	893	17	34	*1878*	726	61	28
1865	902	29	42	*1879*	876	58	34
1866	656	33	37	*1880*	1074	65	31
1867	412	14	14	*1881*	1394	72	29
1868	892	20	13	*1882*	1393	95	38
1869	417	18	11	*1883*	1416	108	106
1870	518	12	15	*1884*	1282	107	54
1871	668	42	31	*1885*	1257	73	52
1872	912	81	27	*1886*	1647	87	51
1873	1061	62	42	*1887*	1808	91	46
1874	1076	63	18	*1888*	2278	120	67
1875	1035	45	24	*1889*	2455	133	70
1876	831	64	29	*1890*	2769	145	91

The figures for 1891 will no doubt show a large falling off, and the movement may be further delayed for a few years by the continued effects of the financial difficulties in South America and the Baring crisis; but there can be no doubt that these are merely temporary hindrances, and that a tendency so marked must continue to exist and will even increase in intensity. It cannot be disputed that the expansion of joint-stock enterprise will produce considerable economic changes; these changes depend on certain characteristics of joint-stock as distinguished from private undertakings, the most important of which are the following: (1) A company is an artificial unit created by law, inaccessible to several of the motives and independent of several of the incidents to which a single trader or a private partnership is subject. The failure of a company does not in itself affect the mercantile standing of any person, and there may be therefore more temptation to enter on risky enterprises; on the other hand, the freedom from any ties of personal friendship or moral obligation makes it easier to conduct business on strict rules (*e.g.* in the granting of credits). A private trading concern generally depends on the continuation of one or more lives, and also on the continued wish of a limited number of individuals to carry it on; a company is generally formed for an indefinite time, and has a much greater chance of continued existence. No one would enter into a transaction with a private firm, involving the continuance of its solvency for a long number of years as, for instance, when a life policy is taken out which may not become payable for eighty years or more. (2) The persons engaged in the management of a company are not so directly interested in its success as the partners of a private firm. It may happen, and has happened, that directors or managers have actually had interests hostile to the company over which they were placed, through being more largely benefited by the success of competing undertakings, or through having sold shares in the hope of repurchasing them at a cheaper price. They may also for various

reasons be desirous of creating a momentary advance in the price of the shares, and with that view enter into transactions showing large profits on paper, but seriously compromising the continued prosperity of the undertaking. (3) Joint-stock enterprise favours the creation of businesses carried on on a large scale, and renders the existence of smaller establishments more difficult. (4) The greater publicity of business transactions and of their results is another of the leading characteristics of joint-stock companies.

The expansion of joint-stock enterprise, and the gradual absorption of private trading concerns, will probably produce the following results: (1) The profits of private traders will be diminished—because the expenses of management must necessarily be much smaller in proportion in the larger establishments, the existence of which will be facilitated by joint-stock enterprise, than in the smaller undertakings carried on by individuals, and because the former class will therefore be able to outbid the latter class until their own level of minimum profits has been reached. (2) Numerous opportunities will be created for employment with a fixed income. The small tradesman who now has some chance of acquiring wealth, but who runs a constant risk of being deserted by his customers, will become a clerk in a large establishment and thus acquire a more modest, but much less precarious source of income. (3) The man of real talent will have a better opportunity of acquiring a proper position, because he will not disappear in the crowd, but rise from step to step in the establishment in which he works. (4) The expansion of joint-stock enterprise will facilitate the introduction of improvements and inventions, as the probability of the presence of inventive persons is much greater in large than in small establishments, and as large establishments are in a better position to try experiments which may prove costly and unsuccessful. (5) As regards the relations between employers and workmen, the further development of joint-stock enterprise will probably prove beneficial. The decrease in the number and the increase in the size of industrial establishments will facilitate combinations between employers as well as between workmen; but this fact will also facilitate negotiations, and the contest will lose much of its bitterness when the workmen are no longer opposed to private individuals whose wealth and manner of living is conspicuously before their eyes, but on receiving their wages from impersonal companies, the profits of which are ascertainable by everybody. The publicity of profits will also facilitate profit-sharing arrangements.

It will thus be seen that the gradual substitution of joint-stock in the place of private enterprise will in all probability lead to a general levelling of profits and incomes, and will at the same time in many ways facilitate the general production of wealth; but some of the above mentioned facts will, on the other hand, tend to increase the motives and opportunities for unsound trading. It is clearly within the province of legislation to counteract these motives and opportunities, but it is difficult to devise efficient means for that purpose. It has been proposed to introduce a system of registration requiring—in imitation of the provisions on that subject which are in force in some continental countries—an investigation of the circumstances attending the formation of a company and the subscription of a certain part of its capital, previously to the issue of the final certificate of incorporation; and the existing law has some stringent provisions with regard to the liabilities of the promoters and directors of companies for statements or omissions in prospectuses; but the object of provisions of that sort is more the protection of investors than the prevention of unsound trading; they may, in fact, even increase unsound trading by preventing prudent and solvent persons from joining the boards of new companies. Unsound trading—that is, trading without a chance of profit, or with overwhelming chances of loss—cannot be entirely prevented, but the legislature might, by insuring its detection, or by removing its inducements, succeed in restricting it as much as possible. Compulsory yearly balance sheets, and a compulsory yearly valuation of the assets by independent professional auditors would do much in that direction. A more active participation of the shareholders in the meetings of the company would also act as an efficient check on directors and managers; but legislation is powerless in that respect. If the principle of reserve liability (the liability to pay an additional amount on each share in the case of a winding up) was made compulsory generally, shareholders would possibly become more watchful; and, as in any case stock exchange gambling in the shares of companies would become impossible if such a measure were adopted, as it would take away the possibility of obtaining loans on the shares, one of the chief motives of unsound management would in this way be removed. There are many other means by which the dangers pointed out above may be counteracted in a certain measure, and the attention of legislators may be usefully directed to a subject the importance of which will, if the present tendency continues, become more conspicuous every year. E. S.

COMPANIES. THEIR INFLUENCE ON BUSINESS. In the marvellous industrial development of the past half century, joint-stock companies have played a most important part. Their influence is not to be measured merely by

the magnitude of the capital that has been embarked in them, enormous although that has been. As to the amount of that capital, unfortunately no exact statistics are available. From parliamentary returns it appears that from the commencement of the Companies Act, 1862, to the 31st December 1890, there had been registered in the United Kingdom, companies with an aggregate nominal share capital of about £3,970,000,000. Of these companies, however, a multitude never got beyond the registration stage, which is only the preliminary to an appeal to the public for capital. Others again, which it was attempted to float, failed to meet with support; while many that were constituted had to be content with a smaller capital than was at first intended. Besides, in the great majority of cases the nominal capital is greatly in excess of the paid-up or working capital. The amount of proposed capital thus affords no guide to the amount of capital actually invested and used in business. According, however, to the calculations of the registrar of joint-stock companies, the paid-up share capital of the registered joint-stock companies of the United Kingdom carrying on business on the 30th of April last was £775,000,000; if to that be added the capital raised by debentures, mortgages, etc., it is probably not over the mark to estimate that the capital embarked by our joint-stock companies thus exceeded £1,000,000,000. But, as has been said, it is not so much the magnitude of the capital of the joint-stock companies as the way in which it has been employed that has influenced business. Joint-stock capital is essentially more venturesome than that of individual traders. The limitation of liability has enabled risks to be run and experiments to be made which would never have been ventured upon had it been necessary for those by whom they were undertaken to stake their whole fortune upon the result. Hence it is that the companies have to a large extent acted as the pioneers and promoters of private enterprise. They have exploited all manner of new inventions, that otherwise might have fallen still-born, they have opened up new territories, have developed transit facilities all over the world, and girded the earth with the meshes of the electric telegraph. Thus they have not only opened up new fields for trade, they have also afforded the physical means by which these may be exploited; and further to some extent, by means of banks, finance houses, and similar institutions, provided traders with the requisite capital. In these ways they have given an impulse to business far beyond the extent of their own operations. To them also another feature of recent times, the now decided tendency to a lower level of the prices of commodities in general, is in no small measure due. Supplies of commodities have been increased by the enlargement of the area of production; cost of transit has been reduced: and, by steam and telegraph, markets have been brought into such close contact that the former need for large stocks of goods has been reduced to a minimum. Further, a lower standard of profits has been established. Shareholders whose surplus capital is invested in an undertaking are naturally content with a smaller return than the individual trader who derives his whole income from a similar business; while the publication of their accounts by trading companies, and the great mobility of capital under the joint-stock system, ensure that whenever on any business a high rate of profit is being earned new capital will flow into it, and, by creating keener competition cause profits to be curtailed. The flow of money into business too has been made somewhat more direct. In the collection and distribution of the surplus capital of the country the banks do not play quite so great a part as they previously did. Some portion of what would formerly have been deposited with them, and by them lent out to traders, now goes direct into the hands of the companies, and this no doubt is one amongst other causes that have in recent years led to a continuous decrease in the amount of bills negotiated, notwithstanding the enormous increase in the volume of business. Such are some of the influences which joint-stock companies have exercised upon business. That their influence has not been altogether for good is notorious. Through them hundreds of millions have been wasted on chimerical enterprises, or gone into the pockets of fraudulent promoters; and shareholders have suffered grievously through the ineptitude or extravagance of the management. The question of comparative losses and gains, however, lies beyond the scope of these remarks.

[Compare Adam Smith, *Wealth of Nations*, bk. v. ch. i.—J. S. Mill, *Pol. Econ.*, bk. i. ch. ix. §§ 1, 2.] E. J.

COMPANIES (City of London). The city companies formerly constituted the administrative machinery by means of which the municipality of London exercised a minute supervision over trade and manufacture; while, on the other hand, freedom of one of the companies was a necessary qualification for the civic franchise. Though their trade functions have with very few exceptions (vide *infra*) long since become obsolete, they still form an integral part of the London municipality, and they administer great revenues. The companies, therefore, are the most important survival of the industrial and municipal system of the Middle Ages. It has been argued that some of the guilds, which became later the chartered companies, must have existed in Anglo-Saxon times, but there is no documentary evidence in support of this contention. The Pepperers, the Goldsmiths, and others, were amongst the adulterine

guilds amerced in the reign of Henry II., and the Guildhall is mentioned *circa* 1212. During the 13th century the influence of the city guilds increased, and gradually freedom of a guild and the civic franchise became practically convertible terms. Edward III. incorporated many of the trading fraternities, and himself became a member of the Linen-Armourers. In 1377 there were no less than forty-eight of these fraternities. In the same year the right of election of the city officers was transferred from the wards to the companies, but this arrangement led to tumults and discontent amongst the citizens, and "the approved and established practice of ancient and praiseworthy usage" was restored (*Liber Albus*, 37). The Grocers, originally founded by twenty-two pepperers of Soper Lane (now Queen Street), were apparently the most powerful of the companies at this time. There were complaints of their monopolising tendencies in 1363, but in 1385 and the two following years they were able to return Sir Nicholas Brembre to the mayoralty "be strong hand of certayne craftes" (Heath, *Account of the Grocers*, 443; Aungier, *Croniques de London*, xvii.; *Rot. Parl.*, II. 278; Herbert, *Livery Companies*, i., 38). The companies' charters were inquired into by the commission of Richard II. (1389), but they were confirmed and extended in subsequent reigns. It is evident that in the 16th century trade and industry had outgrown the regulations of the Middle Ages, and the exclusive privileges of the companies demanded some relaxation. But new companies continued to be incorporated till the reign of Charles II. At the Reformation their trust estates, which were charged with the support of chantries, obits, and lamps, were vested in the Crown (37 Henry VIII. c. 4; 1 Edward VI. c. 14, § 6). They were afterwards allowed to purchase these confiscated lands in the reigns of Edward VI. and James I. The terms of the grants then made have since been held by the court of Chancery to have vested in the companies the same absolute property in these lands which the act of Edward VI. vested in the crown. "They have thus been, since the Reformation, in the eye of the law, the corporate property of the companies, free from any trust. But these crown grants may be reasonably taken to have been made in the expectation that the income would continue to be in great part applied to charitable uses" (*Liv. Comp. Com.*, i. 40, and *infra*).

The seizure of the chauntry estates was followed by a statute (2 & 3 Edward VI.) which licensed all manner of workmen connected with the building of houses, etc., to exercise their occupations in cities and towns corporate, though they were not free of the corporations. This act was afterwards repealed, and the position of the companies was strengthened by subsequent legislation (*v.* APPRENTICESHIP, STATUTE OF). The charters of James I. constituted "courts of assistants," the first legal appointment of which was made by Mary on the formation of the Stationers' Company (Herbert, *Liv. Comp.*, i. 118), for the government of the companies. The system of forced loans from the companies, which was extensively practised by Henry VIII., was continued in the following reigns by *precepts* from the lord mayor, and during the civil wars there were periodical payments of large sums of money. In 1652, a committee was appointed to ascertain the validity of the charters of different existing corporations, when the Grocers' charter was called for. But Cromwell granted them a new charter, enabling them to make bye-laws for their own government, and conferring on them the power of levying a fine of £30 on each member at his admission. At the Great Fire (1666) many of the companies' halls were destroyed, and important documents and deeds were burnt. When Charles II. made himself Master of the Corporations in 1684 by action of *quo warranto*, the companies surrendered their charters, but they were restored at the Revolution (1688).

The city companies have several times in this century been made the subject of public inquiry (*v.* Municipal Corporations Commission, 1833; Charity Commissioners' Reports; Educational Endowments Committee of the London School Board, 1876-79; Livery Companies Commission, 1880-84), and their present position may be thus briefly summarised. The extensive powers which they formerly enjoyed, in the control of the London trades, have long since been repealed by statute or fallen into disuse. But some of the companies still enjoy exclusive trade privileges (*v.* Apothecaries' Act, 1815; Apothecaries' Act Amendment Act 1874, 41 Geo. III. c. 69, § 13; and the Copyright Act, 1842). There are at present twelve "great companies" and sixty minor companies. The civic precedence of the former, —mercers, grocers, drapers, fishmongers, goldsmiths, skinners, merchant taylors, haberdashers, salters, ironmongers, vintners, and clothworkers, dates from the reign of Edward III., and Sir R. Wilmot (1742) was the first lord mayor who did not belong to one of the twelve great companies. *Membership* was probably never confined to the craft or the trade which the company represented. It is obtained by apprenticeship, real or colourable, patrimony, redemption, or election *honoris causâ*. Though there are now few freewomen of the companies, *sisters* were formerly admitted on the same terms as men, and attended the banquets and entertainments. There are three grades of membership: the court, or governing body, self-elective; the "livery," limited in

numbers; and the simple freemen. The courts, consisting of the master, wardens, and assistants, have the entire control of the companies' affairs, the appointment of the staff, the management of corporate property, the administration of charitable trusts, the admission to freedom, livery, and court, etc. Members of the companies are entitled, in case of poverty, to admission to almshouses, pensions, or other charitable reliefs. Till 1835 the freedom of the city could be obtained only through a livery company, but in that year the municipality decided to confer it irrespective of the companies on certain terms through the city chamberlain. But the "common hall," in conjunction with the court of aldermen, still chooses the lord mayor. The companies' estates lie in the city of London, in various parts of England, and in Ulster, where they were compelled to purchase and colonise certain lands in 1609. The capital value of their property was estimated at not less than £15,000,000, and the total income thence arising, in 1879 or 1880, at from £750,000 to £800,000. The accuracy, however, of these figures was disputed. Their income falls into two divisions: (1) *Corporate Income, i.e.* income which is at the absolute disposal of the companies, estimated at £550,000 to £600,000 per annum (1879 or 1880); and (2) *Trust Income, i.e.* income which the companies or their courts are bound to apply in accordance with (*a*) the wills of founders, (*b*) acts of parliament, (*c*) the decrees of the Court of Chancery, and (*d*) schemes framed by the charity commissioners, and by the commissioners of endowed schools. The companies' corporate income is expended in maintenance, entertainments, and benevolent objects: such as the relief of poor members; education, exhibitions at Oxford and Cambridge, University and King's Colleges, London, the companies' schools, the London school board, Girton and Newnham Colleges, etc.; technical education, the Yorkshire College, Leeds, the technical schools at Huddersfield, Bradford, etc, in connection with the City and Guilds of London Institute, the Technical College in Finsbury, and the Central Institution in South Kensington; and in the support of some of the London hospitals. The Companies' trust income is expended in the relief of poor members, almshouses, etc., education, and on charitable objects of a general kind. It appeared (1884) that about half of the total income of the companies was devoted, either under the terms of benefactions or voluntarily, to public or benevolent objects. But "the majority of the commissioners were of opinion that the law of trusts in its application to the increment of the companies' city house-property had promoted the increase of the companies' corporate estate at the expense of their trust estate" (*Liv. Comp. Com.*, i. 42). The commissioners proposed various measures of reform, the most important of which were the restraint of alienation, by the application to the companies of § 94 of the Municipal Corporations Act, 1835 (5 & 6 Will. IV. c. 76), the publication of accounts, and the appointment of a commission to undertake (i) the allocation of a portion of the corporate incomes of the companies to objects of acknowledged public utility; (ii) the better application of the trust incomes of the companies; and (iii), should it prove practicable, the reorganisation of the companies. It may be pointed out that the companies were formerly bound to contribute to various public works. Amongst these may be mentioned the employment of the poor, military and naval armaments, the provision of coal and corn, and the protection of the city.

[The materials for the history of the city companies are extensive; see especially Riley, *Munimenta Gildhallæ Londoniensis.* — Riley, *Memorials.*—*Croniques dè London*, ed. Aungier (Camd. Soc.)—*Liber de Antiquis Legibus* (ed. Stapleton (Camd. Soc.) — Herbert, *Hist. of the Twelve Great Livery Companies.*—Heath, *Account of the Grocers.* — Norton, *Commentaries on the Hist. of Lond.*—C. M. Clode, *Memorials of the Merchant Taylors*, 1875. — Gross, *Gild Merchant.*—Cunningham, *Growth of English Industry and Commerce.* — Loftie, *Hist. of Lond.* — *Rot. Parl.*, *Municipal Corporations Commission* (1835-37):—*Livery Companies Commission* (1884).]

W. A. S. H.

COMPANIES, STAPLE. It is by no means difficult to understand the cause which led merchants trading independently to form themselves into companies for certain purposes. The dangers of travel, the difficulties arising in the places where they desired to trade, made combination almost a matter of necessity. To satisfy those needs leagues such as the HANSEATIC LEAGUE (*q.v.*) were formed; but when formed, other reasons led to the introduction of an organisation much closer and more complete than was necessary for the two foregoing ends. In the first place, combinations were more natural to the time than competition, and, as in the case of industry the GUILD (*q.v.*), so in the case of commerce, the company, became the central feature. Further than this, the formation of the company, following closely one of the primary causes of the guild, was answerable for its members. The sovereign made certain concessions to foreign merchants trading in his country, and they combined to accept these concessions and to regulate their conduct and their members by them. Of such organisations the institutions of the Hanse furnish many examples, the STEELYARD (*q.v.*) in London being one of the most prominent among them. But in the case of our own country, not only did the king order the comings and goings of the merchant strangers,

as to his own dominions, but it was only by his permission and under his direction that the English merchant could trade abroad with any certain hope of government support should he suffer wrong from foreign powers. In this connection it is that we are forced to consider the institution of the *Staple*. Individuals had traded and formed bands for the occasion, but the organisation of the staple first secured to the English trader a firm and steady footing.

The Staple was an organisation whereby all or the chief articles of export were ordered to be sent for foreign sale to certain fixed places on the continent (Schanz, vol. i. p. 329). Different staple towns might be assigned for the sale of different commodities. There is a variety of testimony as to the first introduction of this system ; it is traced back by some to 1248, but while there is no certain authority for assigning it to so early a date, there is no doubt that the system of the staple was fully recognised in the reign of Edward I. In the reign of Edward III. it becomes of the highest political importance. To a large extent indeed it must be viewed as a political institution. It was introduced by the government and used by it for certain ends of its own. In the first place the institution of the staple in any town was a bribe to the sovereign within whose domains that town lay. In the second place, it provided an easy means for the collection of the export duties levied on commodities sent out of the kingdom. It may well be asked how far it aided English trade. Foreign traders indeed were permitted to enter into the staple organisation on equal terms with English. But though this was the case, the exceptional rights of jurisdiction and privileges granted to the company of the staple encouraged the English exporter to send his commodities abroad now that that could be done with every security and under favourable conditions. It may have assisted the development of trade among foreigners, but it certainly increased the traffic of the English on the continent. Each concession promised to the English king by foreign princes to induce him to establish the staple within their particular boundaries meant a corresponding advantage to the traders who were included in the staple, and most of these were English. The organisation of the staple was effective. The merchants of the staple elected their mayor, who exercised great power. He dealt speedy justice according to the LAW MERCHANT (*q.v.*); he regulated prices ; and it was his function to arrange the various dues which had to be paid, and to see that there was necessary accommodation provided for storing goods, etc.

But while the staple was the institution on the maintenance of which the well-being of the English trade of the 13th and 14th centuries chiefly depended, the commercial necessities of later years brought into prominence traders whose main purpose it was to exercise their functions outside the staple towns. The staple had been useful, but it neither directly supported the interests of the English trader as distinct from the foreigner nor did it provide means whereby the trade might be extended into new countries. This was the work of other and chiefly of one other organisation. Already in the 14th century there were separate bands of merchants trading outside the staple. These were the merchant venturers of different cities. But though they were termed companies of merchant venturers, it must not be supposed that they were in any kind of partnership, or that the bond existing between them was of any very stringent nature. There were companies of merchant venturers in York, Newcastle, Bristol, etc., and they were engaged in the most different directions. Some were adventurers to Iceland, some to Prussia, others into the southern countries. But the importance of these various bodies trading to various parts was thrown into the shade by the pre-eminence accorded to those engaged in the trade between England and the Netherlands. It was to them that the name of merchant adventurer particularly attaches (*v.* ADVENTURERS, MERCHANT). There is considerable doubt as to their origin. Most probably their history may be traced back (Wheeler, *Treatise of Commerce*) to the grant of privileges made by the Duke of Brabant to the English merchants trading in his domain. Thereby they became entitled to appear on equal terms before the tribunals of the land in the case of quarrel with natives, while special rights of jurisdiction were granted to them for settling disputes among themselves. This particular jurisdiction, according to Schanz, was the bond of union ultimately developed. It is probable also that prominent among the English traders was the brotherhood of St. Thomas of Canterbury, and that grants made in common to the English were appropriated gradually by this society. But as yet there was no sign of any close union.

At this time the connection of the merchant venturers in Flanders and the Netherlands with the organisation of the staple was very close indeed—so close that the mayor of the staple exercised a supervision over the traders in towns other than the staple. But when the staple was fixed at Calais, and when the cloth trade with Antwerp grew into sudden importance, as in the beginning of the 15th century, such relations were impossible. In 1407 the right was granted to the traders in the Netherlands to assemble and elect a governor who might regulate such matters as were common to them all. This was the second stage in the history of the merchant adventurers. The first marked their origin, the second their separation from the staple. But of any formal incorporation there was no mention. That such was as yet the case is contradicted, Schanz thinks, by the fact that

the various members belonged in England to various companies. But this continued in after times, when the merchant adventurers had long won the grants they sought. The third period in their history was under the Tudors.

Henry VII. was well aware of the importance of trade between the Netherlands and England. The conduct of that trade was chiefly in the hands of the London merchants, who did all they could to exclude others from participating with them in its benefits. This they hoped to effect by demanding from each newcomer a certain and not insignificant sum to pay for the costs of the governors or consuls, and to serve as insurance or surety money. That such an attempt could be made marks, of course, the growth which had taken place in the corporate direction. Hitherto nothing had been done to recognise the legality of such growth, but it was recognised at length when Henry VII., to set at rest all doubt and to prevent all extortion, decreed that every merchant should be free to trade to the Netherlands undisturbed on payment of a certain sum, much less than that which had been demanded, to the body of the merchant adventurers. From this moment their energies, both in the cause of trade and of monopoly, were redoubled. On the whole they met with support from Henry VII. and Henry VIII., who could not fail to understand their importance. In their great struggle with the staplers, though no definite grant gave victory to either side, they were enabled to snatch the substantial fruits of victory by gradual encroachment. As a matter of fact the organisation of the staple had become antiquated. The new trade was not such that it could be directed in regular channels and restricted to particular places; thus, when the staple lost its rights over the country beyond the towns of the staple, assert them though it might within these towns, it had lost far more than it retained. The traders of the staple had to pay their dues to the merchant adventurers when they traded outside the particular towns assigned to them.

The encouragement given to the younger corporation was wise; by it trade was taken out of the hands of the foreigners and placed in those of the English. Thus, indeed, it is that the policy of this society was a part of that great policy of adventure which marked the end of the 15th and the whole of the 16th century. And as the organisation of the merchant adventurers grew more rigid it lost its mobility, and in its turn it had to see much trade fall into the hands of new companies. The company of the merchant adventurers consisted of traders engaged in individual enterprises but united for purposes of jurisdiction and having rights of monopoly. But now new countries were about to be opened up, and new bands of traders appear, having common interest in the ventures they were undertaking. They grew into importance during the reign of Elizabeth, from whom, by the wise advice of Lord Burghley, they met with support. The queen and her minister themselves were often sharers in the ventures. There was something else done for them besides this. The originators of the expeditions, and thus the principal venturers therein, in return for their toil and their risk were granted rights of monopolising the trade in the region to which they were setting sail. They did not form company partnerships in the ordinary sense of the words, they had monopoly rights, and each expedition was separate and distinct in which the original grantees and their friends made venture; but gradually these expeditions became regular, and in like manner it would appear the amount of each man's venture became fixed by custom. This process may be traced in the history of the EAST INDIA COMPANY (*q.v.*), founded 1599, in its development from the LEVANT COMPANY (*q.v.*), founded 1592. Among other companies may be mentioned, Company of Merchants trading to Spain, Russia Company, African Companies, Eastland Company, Company of Cathay, Turkey Company, Hamburg Company.

In due time the policy of granting monopolies both to these companies as also to the merchant adventurers became a matter of much debate (*v.* pamphlets by Lewis, Roberts, Brent, and Parker), and in 1672 the rights granted and hitherto continued were curtailed by act of parliament (14 C. II. c. 7).

[Schanz, *Englische Handelspolitik.*—Ochenkowski, *Engl. wirthsch. Entwickelung.*—Wheeler, *Treatise of Commerce.*—Pamphlets by Misselden and Malynes. There is a spirited but insufficient description of the growth and importance of these companies, both Staple and Merchant Adventurers, in Richard Jones's works, edited by Whewell.]

E. C. K. G.

COMPANIES, TRADING. See FOREIGN TRADE, REGULATION OF.

COMPENSATION. 1. *For land taken compulsorily.*—Where land is taken under the authority of the state for public undertakings the amount of compensation to be paid to the owner is, if the parties cannot agree, determined by justices, arbitrators, a jury, or a surveyor appointed by the justices, under the Lands Clauses Consolidation Act of 1845 (8 & 9 Vict. c. 18). The act does not prescribe the measure of compensation, though it directs that regard must be had to damage sustained by reason of the severance of lands or other injury done to other lands not taken. In the case of freeholds thirty to thirty-three years' purchase is usually allowed, and in the case of leaseholds such a sum as would at the expiration of the term repay a purchaser his original outlay and compound interest thereon. Other items that enter into

the amount payable are injury to severed lands, value of fixtures, loss on sale of stock, costs of removal, and value of goodwill. Ten per cent is added to the value of the land for compulsory sale. Probable increase in value may be taken into account, but no deduction is made in respect of the probable increased value of the lands not taken arising from the work in question. In the case of land taken under the Artisans' and Labourers' Dwelling Improvement Acts, 1875-82, the compensation is to be based on the principles laid down in the acts, and no additional allowance is to be made for compulsory purchase (see COMPULSORY TAKING OF LAND).

[*Law of Compensation*, by E. Lloyd, London, 1882.]

2. *For Tenants' Improvement.* At common law a landlord was not bound on the termination of a tenancy to compensate a tenant for improvements, but in particular localities "customs of the country" arose under which the landlord compensates an outgoing tenant for certain improvements, such as building, draining, manuring, or preparing land for crops. These "customs of the country," though most variable and based on no uniform principle, came to be enforced as part of the contract of tenancy. For lists of improvements for which allowances are made, see Woodfall's *Landlord and Tenant*, 1889. In 1875 an act (38 & 39 Vict. c. 92), was passed with the object of introducing a general law of compensation for England and Wales. Though based on the Report of the Central Chambers of Agriculture, 1875, its permissive character rendered the act largely inoperative. The royal commission on agriculture in 1882 reported in favour of making the principles of the act compulsory. In 1883 a new act (46 & 47 Vict. c. 61) was passed, under which an outgoing tenant can claim compensation equivalent to the value of the following improvements to an incoming tenant:—(1) for buildings, ensilage, pasture, osier-beds, water meadows, irrigation works, gardens, roads, bridges, water-courses, fencing, hop-planting, fruit-planting, warping, and embankments, provided the improvement is made with the consent of the landlord; (2) for drainage, provided notice of the improvement be given to the landlord; (3) for boning, chalking, clay-burning, claying, liming, marling, artificial manure, and consumption of feeding stuff not produced on the holding. The act only applies to agricultural holdings, and affords no protection to a tenant against the practical confiscation of his improvements by additions to his rent. As to compensation for tenants' improvements, or for disturbance, in Ireland, see 33 & 34 Vict. c. 46, 44 & 45 Vict. c. 49.

[The economic aspects of such compensation are discussed in Sidgwick's *Political Economy*, bk. iii. ch. 4.—*English Land and English Landlords*, G. B. Brodrick, London, 1881.—*Tenant's Gain not Landlord's Loss*, J. H. Nicholson, Edinburgh, 1883.]

3. *Land Nationalisation.* Some writers admit that if land were nationalised landlords should receive compensation; others deny this on the ground either that the land is the property of the people, or that private property is injurious to the state. But property is the creation of law, and in no sense can it be said that the land "belongs to the people." Even assuming that it would be expedient to abolish private property, such form of ownership being injurious to the state, it does not follow that compensation ought not to be given.

[See *Land Nationalisation*, by A. R. Wallace, London, 1882.—*Progress and Poverty*, by H. George, London, 1881.—*Social Statics*, by H. Spencer, London.] J. E. C. M.

COMPETITION AND CUSTOM. Wealth having been produced, is forthwith—or even in the act of production—distributed amongst those who have been concerned in its production, and the share of the product which falls to the lot of each of these is determined in the absence of disturbing causes by competition. Competition has been defined as the free action of individual self-interest—that is to say, supposing a given amount of wealth to be divided amongst four persons, the proportion of it which each gets will depend on the extent to which he is superior to the others in the qualities necessary to the struggle, the strongest for this purpose getting most and the weakest least. But competition is more clearly seen in its results. 1. Granting that every man seeks to increase his pleasures and reduce his pains, *i.e.* to secure an increase of pleasure for a given amount of exertion, or a given amount of pleasure for a smaller amount of exertion, we see that every man will set himself to procure the necessaries and comforts of life at a minimum of sacrifice; no one will work harder for a given result than he need. The same holds good when division of labour and exchange appear. Every man will now strive to exchange the products of his labour for as much as possible of the products of the labour of others, for by so doing he will increase the amount of necessaries and comforts which his labour commands. When this process has become general the result will be that similar exchanges will take place on similar terms. This is commonly expressed by saying that there can only be one price at one time for the same unit of the same quality of the same article in the same market (see MARKET). Thus a quartern loaf of household bread may be assumed to be at the same price on the same day all over Oxford, but may be at a different price in Bristol, Norwich, and Durham; a quarter of wheat of the same quality to sell for the same sum all over England; an ounce of silver all over the civilised world. These are the results of "commercial" competition.

2. Granting that all are striving for a maximum return to their exertions, producers will betake themselves to those forms of production which offer such a return, whether immediately or by means of exchange. Labourers will go where wages are highest; manufacturers will embark in those industries which give the largest profits; capitalists will lend their savings to those who can be trusted to pay the highest interest. But in time all these inequalities will vanish. If occupation A, for example, is crowded because of the high return which exertion commands in it, occupation B will be comparatively deserted, with the result that the products of B will rise in value as compared with those of A, and the rewards of those engaged will rise and fall proportionately. Ultimately an equality will be arrived at—that is to say, that whether by wages, profits, or interest, equal efforts and sacrifices will secure an equal real reward, however dissimilar the services by which they are represented, or the money-payment in which their reward is given. This is popularly expressed by saying that "in the long run wages and profits tend to an equality," and is the result of "industrial" competition.

Thus far the working and results of competition have been described in an "economic" world, among a people, that is, who were actuated by economic motives and no other. It is commonly brought into relation with the facts of life by saying that it is a "tendency." This may mean one of two things—(1) In the economic world, as we see, competition is complete and its results are patent. The possibility, the vision, of a greater reward for his exertions will make a man shift his wares from one market to another, and the same prospect will lead him to shift himself and his capital from one undertaking or calling to another so soon as may be; with him no other motive can or does interfere. Competition in actual life is a tendency in so far as men in the absence of any counterbalancing motive are swayed by self-interest. The expression does not imply that self-interest is more than one motive out of many, but it is the motive to which alone economists attend. (2) It is sometimes assumed that competition is a tendency in the sense that it is a force of gradually increasing strength in determining distribution. How far competition is a tendency in this latter sense is a matter of considerable dispute. It would be quite impossible to discuss the relative strength at any moment of the various motives which influence human action, as, *e.g.* to show the comparative force of patriotism and self-interest in the average man in two successive generations. But taking the material world and the distribution of wealth in it, we may have definite forces at work which are, so to say, rivals of competition in this field.

1. Early in the century it was taken for granted that the only serious hindrance in the way of perfect competition was custom. Custom, *i.e.* the doing a thing because others have done it, has at all times been a powerful influence in the world. It is seen in both the spheres of competition. Custom may fix prices year after year; custom determines a man's walk in life, the employment of labour and capital, often to the exclusion of any other motive. "Heralds in Sparta," says Herodotus (vi. 60), "are not so made on account of any special clearness of voice, but son succeeds father." The younger sons of the peasant owner in Auvergne leave their native mountains to work in Paris and elsewhere, not because wages are higher, but because it is the tradition to do so in order to avoid breaking up the family estate. It may be strongly argued that custom is losing strength. It is still powerful in the East, more powerful in Asia than in Europe, in Europe than in America; it was stronger and extended over a wider area a century ago than now; the professions, etc. in which it still lingers among ourselves are gradually shaking it off; its disappearance as a factor in exchange would be an additional illustration of the transition from status to contract, which is said to characterise the modern as distinguished from the ancient or mediæval world.

2. Combination is commonly said to be an obstacle or interruption to competition, and if competition be defined as the action of individual self-interest, it is, at first sight, inconsistent with combination. Thus, *e.g.* if competition in the above sense is thorough-going, every workman will make his own terms with his master, will compete against his fellow-workmen for employment, will stand or fall by his own individual strength. The labour market will exhibit the spectacle of a threefold struggle, viz. of master against master for workmen, of workman against workman for employment, and of master against workman to settle the rate of wages. Remove either of these by combination of workmen in trades-unions or of masters in associations, and competition is *pro tanto* diminished. So, too, in exchange; here it is the struggle to sell and the struggle to buy, and the struggle between buyers and sellers which settles the price. A combination of buyers or sellers, a "ring" of any kind, diminishes the competition. In Michigan, *e.g.* the sellers of salt, by an agreement to sell through a joint agent only and at uniform rates, put an end to all competition amongst themselves. On the other hand it may be urged (*a*) that although in both of these cases competition is in one direction weakened, in another it is strengthened. The competition among sellers in the labour or the salt market is suspended only to increase their strength in competing with buyers, to enable their self-interest to act with greater force; the struggle is more severe as being between organised

bodies rather than between isolated individuals; (*b*) that all combination is really in the end dictated by self-interest, and that no one who joins a combination does so with the idea that his own interest will suffer, but rather that the interests of the individuals are bound up with the interest of the body to which they belong.

3. A third rival of competition is socialism. In competition, as we have seen, every man is left to secure for himself what he can of the wealth which he has helped to produce. Socialism would substitute for this "scramble" an orderly distribution by the state. So far as we are concerned with it here, socialism would not directly affect production, but taking wealth when produced, the state would distribute it by some one of its organs. The principle of distribution is immaterial to our subject; whether the state proceed on some real or supposed ground of equity, distribute according to deserts or according to needs, it will equally put an end to competition.

For Adam Smith the end of the statesman is to secure that all distribution proceeds on competitive principles; the removal of all hindrances and obstacles to the free play of individual self-interest is the general lesson of the *Wealth of Nations;* whilst at the same time the writer shows that the results of competition are but seldom seen in their fulness. For Ricardo competition is a postulate; his conclusions uniformly depend on the assumption that all men know and seek their own interest without let or hindrance. Mill assumes competition in part, and in part treats it as a growing force; much of his reasoning, like that of Ricardo, starts from the hypothesis that competition is universal; much again of his treatise is devoted to showing its limitations in practice. Cairnes has pointed out that these limitations are far more effective than was supposed in his theory of mutually exclusive, or, as he calls them, "non-competing," groups of producers, but his conclusions have perhaps no claim to finality. Cliffe Leslie again showed, by some remarkable instances, *first*, how much more lasting is custom than was once thought, and how much a man's actions are determined by his surroundings, rather than by simple motives such as self-interest; and *secondly*, that the areas over which anything like equality in prices can be traced are very small, and that so far the tendency has been for fresh inequalities to arise as fast as the old are obliterated.

[See Adam Smith, *Wealth of Nations*, bk. i. ch. x.; pt. ii. bk. iv. ch. i.-viii.—Mill, *Principles of Political Economy*, bk. ii. ch. iv.—Cairnes, *Some Leading Principles of Political Economy newly Expounded.*—Cliffe Leslie, *Essays in Political and Moral Philosophy*, xv. xvii. xxi.—Sidgwick, *The Principles of Political Economy*, Introd. i. iii.—F. Walker, *Political Economy*, bk. iii. ch. i.] L. R. P.

COMPETITION AND REGULATION. Where one man vies with another for the advantage of dealing with a third party, there is competition. Simple examples are: the public at an auction bidding against each other; a shopkeeper lowering his prices to attract custom. The action of a competitor is less simple when, changing his occupation, he enters the trade of those with whom he competes. "The operation of competition . . . by which the terms of *similar* exchanges are kept approximately similar should be carefully distinguished from that other action of competition by which certain inequalities in the remuneration of *dissimilar* services tend to be continually removed" (Sidgwick's *Political Economy*, Introd. ch. iii. § 3). These varieties of competition are distinguished by Cairnes as "commercial" and "industrial" competition (*Leading Principles*, part i. ch. iii.) The simpler process may be illustrated by the action of physical forces tending to equilibrium. Jevons compares the equations of "final utility" which determine market prices to the differential equations which determine the equilibrium of a mechanical system (*Theory of Political Economy*, ch. iv.) The analogies of exact science, the formulæ of Jevons and Walras, are less helpful when we regard competitors as balancing the *total utilities* of different occupations. The equation of "net advantages," to use Prof. Marshall's phrase (see *Principles of Economics*) in different trades is not very analogous to any theorem in mathematical physics.

Competition is contrasted with monopoly and combination; with governmental regulation, charity, and custom. The preferability of competition to these *régimes* is debated on grounds which may be distinguished as transcendental and utilitarian.

(1) Competition is advocated as natural in an optimistic sense; as consonant with justice and abstract right. But (*a*) those who with Burke maintain that the "laws of commerce are the laws of nature, and therefore the laws of God," employ an argument from design which few now accept. And (*b*) the other metaphysical reasons presuppose an unreal freedom of competition. Actually, competitors do not start fair; inheritance and other causes favour some; want of capital, education, opportunity, handicap many (Wagner, *Lehrbuch der Pol. Oekon.*, § 100 *et seq.*) Society is stratified in "non-competing groups" (Cairnes, *Leading Principles*, ch. iii.; Mill, bk. ii. ch. xiv. § 2). Where mobility of labour from one group to another does not exist, there is no presumption that competition, thus hampered, effects an equitable distribution. Even if perfect equality of opportunity were attainable, natural ability would still constitute a non-competing group. Is it clear then that competition between workmen is "the only way to equity, and that any

interference with it must involve injustice?" (Danson, *Wealth of Households*, par. 811). Rather the coincidence of competition with justice is "a perfectly *a priori* assumption, an unproved supposition" (Wagner, *loc. cit.*)

(2) Rejecting the "metaphysical incubus" of abstract principles and rights (Jevons, *State in Relation to Labour*, ch. i.), let us weigh the utility of competition. Its tendency to equal distribution of wealth deserves place under this head (cp. Bentham, *Principles of the Civil Code*, pt. i. ch. vi.; J. S. Mill, *Utilitarianism*, p. 93). Also, in this *régime*, more than any other, each individual is stimulated by self-interest to do his best for the supply of others' wants. "The difficulty of finding any adequate substitute for it (the motive of self-interest) is an almost invincible obstacle in the way of reconstructing society on any but its present individualistic basis" (Sidgwick). However, "trusts" and other modern forms of monopoly are less blamed for inefficiency than for immoderate charges and gains (C. W. Baker, *Monopolies and the People*, 1889).

Competition is an almost ineradicable growth of self-interested human nature. "Expellas furcâ, tamen usque recurret." Combinations resisting the tendency of this force are liable to disruption. Professor Marshall says arbitrators "must not set up arrangements widely different from those which would have been brought about by competition." They should follow the example of Rennie, who, when he had to construct a breakwater, first ascertained "the slope at which the natural action of the waves would arrange a bank," and then "let stones into the water so as to form such a slope" (*Economics of Industry*, bk. iii. ch. viii. § 2).

Again, competition has the advantage of tending to a definite determinate adjustment; affording a simple intelligible rule, *laissez-faire*. Whereas the bargain between combinations is indeterminate; or only determinable by some extra-economic principle not commanding general assent (Sidgwick, *Political Economy*, bk. ii. ch. x. § 2; Menger, *Grundsätze*, ch. iv.; Edgeworth, *Mathematical Psychics*, pp. 20-56). Jevons says (*Scientific Primer*, ch. vii.), "there is no way of deciding what is a fair day's wages" outside competition. It is difficult even to imagine upon what other principle certain complicated transactions of modern trade and industry could be regulated.

Again, competition is a struggle for life which results in the survival of the fittest. However, the "selection" is not "natural," but artificial; so far as the competitors do not start fair (Wagner, *Lehrbuch*, § 135; above (1, *b*)). Nor is the "fitness" which economical competition tests of the highest order. Success may be due to cleverness in attracting business, or to a lower standard of comfort. That a degraded standard may result from unrestricted competition is evidenced by Booth's *Life and Labour in East London*. Mere survival, adaptation to "being" rather than "well-being," is not an ideal (Sidgwick, *Theory of Evolution*, "Mind," vol. i.).

Against the advantages of the "struggle for life" should also be set the allegation of trades-unionists that in unregulated competition men injure themselves by over-exertion (Report of Trades-Union Commission, 1867), the infantile mortality, and other evils ascribed to the unrestricted employment of mothers (Jevons's *State in Relation to Labour*, ch. iii.).

Further objections to competition are that it defeats itself when the successful competitor, having crushed out his rivals, becomes a monopolist (see Hadley, *Railway Transportation*; Foxwell, "Des Monopoles," *Revue d'Économie Politique*, 1889). Again competition involves much waste of effort in advertising and search for employment;—much waste of capital, as when two railways are made where one would be sufficient. Again there are many arrangements which it is the interest of all combined to adopt, but of each acting in competition to violate; *e.g.* Sunday rest, or early closing of shops. Other disadvantages are stated by Professor Sidgwick with special reference to governmental regulation (*Political Economy*, bk. iii. ch. ii.)

The case for interference is *primâ facie* stronger with respect to foreign trade; where the object of government is not the interest of all parties concerned, but only of their own country. List maintains that the freedom of trade advocated by Adam Smith is best for the world as a whole; but that for particular countries it is better to develop their own manufactures by protection (*Das nationale System der Polit. Oekon.*)

So far, on the supposition that all parties are intelligent enough to know their own interest, and free to make their own terms. The case for interference is stronger where those conditions are wanting. The plea of ignorance is urged "in those special cases where it is impossible, or at least difficult, for the buyer of goods to verify their character for himself" (Jevons, *op. cit.*; Say, *Cours*, 4me *Partie*, ch. x.) Want of freedom is more difficult to define scientifically. Absolutely free competition nowhere exists (above (1, *b*)). Suppose as much mobility of labour to exist as in the case of Irish cottier-tenants before 1881, or the "sweated" workers in East London; if the terms established by the play of supply and demand are not favourable to those classes, shall we say that they are not free, or only not fortunate?

The general presumption in favour of competition may be outweighed in particular cases by the disadvantages which have been noticed. The balance of contemporary opinion seems inclining to the position thus indicated by Professor Sidgwick. "It does not appear to

me that the answer . . . in concrete cases can reasonably be decided by any broad general formula; but rather that every case must be dealt with on its own merits, after carefully weighing the advantages and drawbacks of intervention. The expediency of such interference in any particular case can only be decided by the light of experience after a careful balance of conflicting considerations."

[The authorities on this subject are innumerable. Prof. Marshall's *Principles of Economics* may be specially mentioned as showing (1) how deeply ingrained in our nature is the principle of competition, which makes itself felt even in institutions which seem to be only regulated by custom (2) how far from ideally perfect is the system of *laissez-faire*, since it is theoretically possible that governmental interposition should effect an increase of wealth (bk. v. *Doctrine of Maximum Satisfaction*).—The views of the older authorities are considered, and some new lights are imparted in Prof. Marshall's Address *On some aspects of Competition* to section F of the British Association, 1890.] F. Y. E.

COMPLEMENTARY GOODS. This expression is used by the Austrian economist Menger (*Volkswirthschaft*, 1871, pp. 11, etc.) who describes goods as of first, second, or higher rank in order of production. In the production of bread, for example, the bread itself would be of the first rank, flour, salt, yeast, the services of a baker and his bakery, etc., would be goods of the second rank; grain, mill, and miller's work would be goods of the third rank, and so on. In such cases the separate goods of each remoter rank must be combined, if they are to produce the goods of the rank nearer the actual consumption; they are complementary parts of a total. This conception becomes of special interest when the value of the complementary goods is considered for each separately; and this question has been carefully treated by Wieser (*der Natürliche Werth*, 1889, p. 101, etc.) and Böhm-Bawerk (*Positive Theorie des Kapitales*, 1889, p. 179, etc., English translation (1891), pp. 165, etc.) The discussion in J. S. Mill (*Political Economy*, iii. xvi.) of some peculiar cases of value (joint cost of production) followed up by Jevons (*Political Economy*, 3d ed. p. 197) is in many ways closely analogous. (See also *Quart. Journal, of Economics*, April 1889, p. 338.) (See Consumers' Goods.)

J. B.

COMPOSITION. See Bankruptcy.

COMPOUND INTEREST. Interest that arises from adding to the principal the interest as it becomes due and then considering the sum that accrues at the end of each stated time as a new principal. For short periods of time the compound interest of any sum differs but little from its simple interest, but if compound interest is allowed to accumulate for a number of years, the increase is very great. Any sum placed out at 5 per cent compound interest will double itself in 14¼ years. Hence at 5 per cent compound interest £1 would in 14¼ years amount to £2; in 28½ years to £4; and in 213¾ years to £32,768. At simple interest the £1 in 213¾ years would increase to £11 : 13 : 9 only.

J. E. C. M.

COMPROMISE (Scots law). An actual adjustment of disputed claims by mutual concession. A. D.

COMPTES, Chambre des. In the reign of Philip IV., the *Cour du Roy*, the chief organ of the central administration in mediæval France was subdivided into three bodies, for the separate functions of administration, justice, and finance. These bodies were the *conseil du roy*, corresponding to the *concilium ordinarium* in England; the *parlement de Paris*, corresponding to our courts of king's bench and common pleas; and the *chambre des comptes*, corresponding to our Exchequer. The *chambre des comptes* originally followed the king, but was fixed at Paris by an edict of 1319. Its chief functions were to audit the accounts of the local *baillis* and *seneschaux*, to receive payments from the royal domain and direct taxes, and to decide judicial questions arising from these payments. Originally it had some voice in settling the amount and incidence of taxation, but its administrative functions were gradually curtailed by the growing omnipotence of the controller-general and the royal council. In the 14th century the *chambre des comptes* was a more important body than the parliament of Paris, and in 1339, when Philip VI. went to Flanders, he left the chief authority in its hands. But by the 18th century it had sunk into comparative insignificance, and is rarely heard of. The audit of accounts, which remained its chief function, had become a mere formality, and was often fifty years behindhand. But it must still have possessed some means of enriching its members, for its seats sold for a higher price than those in the other *cours souveraines*. The office of *conseiller* in the *chambre des comptes* was sold under Louis XV. for 150,000 livres; whereas the highest price in this century for a seat in the parliament was 60,000 livres, and in the *cour des aides* 45,000. The *chambre des comptes* was suppressed by a law of 7th September 1790, at which time it contained 289 officers.

[Gasquet, *Précis des Institutions Politiques et Sociales de l'Ancienne France*, Paris, 1885; Cheruel, *Dictionnaire Historique des Institutions de la France*, Paris, 1884.] R. L.

COMPULSORY PILOTAGE. By the Merchant Shipping Act of 1854 (17 & 18 Vict. c. 104), the master of a vessel, when entering or leaving certain harbours and districts, such as the ports of London, of Liverpool, and of Kingston-upon-Hull, the Trinity House outport districts, or the Tyne or Falmouth district, is required to take on board a qualified pilot, and

to hand over to him the navigation of the vessel. So long as the master and crew obey the orders of such pilot, the owners are not liable for any damage occasioned by the fault or incapacity of the pilot. Compulsory pilotage is based on the principle that the state is justified in interfering to protect ships and their cargoes from injury by other vessels owing to an inadequate knowledge of the dangers of navigation in specified ports and harbours and districts. The object aimed at is not so much to secure the safety of the vessel that is compelled to take the pilot on board as to prevent such vessel from damaging other vessels. The risk of collision is reduced and property at sea is rendered more secure.

[Maude and Pollock's *Merchant Shipping*, London, 1886.] J. E. C. M.

COMPULSORY PREFERENCE or "Preferential Payments." In the distribution of the property of a bankrupt and of the assets of a company being wound up the following debts are to be paid before all others, except funeral and testamentary expenses, viz. one year's rates and taxes; four months' salaries of clerks up to £50, and two months' wages of labourers or workmen up to £25. These debts rank equally between themselves (51 & 52 Vict. c. 62; 52 & 53 Vict. c. 60). J. E. C. M.

COMPULSORY TAKING OF LAND. The right of the state to take land for public purposes, subject to the obligation of making compensation, has been recognised by all modern legal systems. This right, which is sometimes called *dominium eminens* or *eminent domain*, may be exercised by the state itself or by individuals acting under the authority of the state. The object for which land may be taken compulsorily is stated to be "public utility." Government would be impossible if the state had not power to take land for the buildings and fortifications necessary to its existence, whilst the production of wealth would be greatly retarded if land was not obtainable for the construction of works of transportation and communication. Public utility is apparent in such cases. There is, however, great difficulty in defining "public utility," as it must vary in different countries owing to variations in material surroundings. Randolph suggests (*Law Quarterly Review*, vol. iii. p. 320) that undertakings should only be held to be of a public nature where they are such as the state itself or its subordinate political corporations might properly engage in, and he condemns the acts passed in the New England states to authorise the taking of land for the erection and maintenance of water power. In the United States a corporation taking land compulsorily *ipso facto* becomes liable to make compensation, since the written constitution recognises the right to compensation; in other countries provision for compensation is made by statute. The Code Napoléon by art 545 declares, "that no one is obliged to transfer his property unless it be for the public utility and in consideration of a just and previous indemnity." In the colonies, *e.g.* in New South Wales, provision has been made for resuming land for certain specified public purposes, and the land grants usually contain a clause relating to resumption. But in England, though the Lands Clauses Consolidation Acts provide machinery for determining the amount of compensation to be paid where land is taken, no general law has ever been passed to define when land may be taken. Each taking of land must be authorised by special act of parliament. The Crofters Act, however, gives under certain conditions power to the crofter commissioners to enlarge crofter holdings.

English statutes on the compulsory taking of land fall into three classes: (1) Where compulsory powers have been conferred on public bodies for specified purposes, subject to a scheme being approved by a government department and to confirmation by statute. The Artisan Dwellings Acts, 1868-1882; 33 & 34 Vict. c. 75 (school sites); 44 & 45 Vict. c. 20 (post-office sites); and various statutes relating to improvements in London came under this class. (2) Where the statute gives a particular corporation, such as a railway company, power to take land. (3) The Crofters Act 1886, enabling a commission to enlarge crofters' holdings.

[*Principles of the Law of Compensation*, C. A. Cripps, London, 1884.—*Law of Compensation*, by Lloyd, London, 1882.] J. E. C. M.

COMTE, Auguste, the founder of *Positivisme*, was born at Montpellier 1798, and died at Paris, 1857. After studying hard, especially mathematics, he was received, the fourth on the list, at the École Polytechnique. Insubordination led to his expulsion from the school, and he found himself without position or means. After some fruitless efforts he attached himself, 1818, to Saint-Simon, whose secretary he became, succeeding in this office to the historian Augustin Thierry; but, in 1824, in connection with the bringing out of the *Catéchisme des industriels*, in which the *Système de politique positive*, due entirely to the pen of Comte, appeared, there arose a disagreement between the master and the scholar, and Comte could no longer content himself with the position of disciple; he desired to be master in his turn. The idiosyncrasies of these two personalities, to neither of which energy can be denied, were certain, sooner or later, to lead to a separation. Comte married soon after, but overwork and the burden of worries which his disposition magnified to a remarkable degree, brought on a serious derangement of the brain. This attack was successfully overcome by care and nursing, but it would perhaps be rash to affirm that the cure was complete.

On his return to ordinary life, after a treatment for this serious malady which lasted nine months,

A. Comte found himself afresh in face of the most pressing monetary difficulties. However, he obtained in time the position of assistant to one of the professors at the École Polytechnique, and the post of examiner to the same school. He joined to this a place as usher in a private institution, and, thanks to the moderation of his requirements, was able to employ himself quietly with his favourite occupations. It was at this date that he composed the great work we shall speak of later on, and which, as we shall proceed to show, deals rather with philosophy than with economics.

With a little prudence and care he would have been able, in this manner, to continue the labours which he had most at heart. Unfortunately, a professorship of algebraical analysis which he sought for was given to Sturm. He made an enemy of Arago, who had been the cause of this appointment. His temper set the backs of the whole council of the school up against him, and he was removed from his post of examiner, and in consequence from that of assistant lecturer. It should be stated that he had fulfilled both these duties in the most complete and conscientious manner, besides having, from 1830 to 1848, given to the *Association Polytechnique* gratuitously, and without a single omission, a course of lectures on astronomy.

Deprived of his regular resources, separated by mutual consent from his wife, he had to depend for the means of existence on the purses of his friends and disciples. It is to be regretted that he, we may almost say, demanded this help, with some persistence and even with *hauteur*. He held that he had a right to these subsidies in return for the services which, as a philosopher, he rendered to civilisation.—It was a debt the repayment of which he claimed rather than assistance which he solicited (see his *Lettres à J. S. Mill*).

His great work, on which he had laboured for twenty years, his *Cours de Philosophie Positive* (6 vols. in 8vo) appeared 1839-42.

The fundamental idea to which Comte has given the name of positivism is, that "we know nothing but *phenomena*, and that the knowledge we have of these is relative and not absolute. We know neither the essence nor the real mode by which any fact is produced; we only know the relations of the succession or the similarity of facts one to another. These relations are constant, that is to say, always the same under the same circumstances. The constant resemblances which bind phenomena together, and the constant successions which unite them under the titles of antecedents and consequences, are what are termed their laws. The laws of phenomena are all that we can know of them. Their essential natures and their causes are unknown to us, and remain impenetrable."

He supported this doctrine by a historic theory which he called the Three Stages (*Théorie des trois états*)—the theological stage, including fetichism, polytheism, and monotheism; the metaphysical stage; finally, the positive or scientific stage. It will be seen that in all this we are rather at a distance from the domain of economics. Hence we must pause here in our exposition of the doctrines of Auguste Comte, contenting ourselves with reminding our readers that, after 1845, his mind underwent a transformation at which many of his disciples were justly astonished, and in which the majority of them declined to follow him. He, who previously had refused adherence to any form of worship, instituted one of which he made himself the high priest, and which, in its philosophy, borrows from pantheism, if not from fetichism. In his eyes, to quote only one example, it is due "to pay honour to the planets, especially to the sun and moon." He rearranged, rather let us say he reconstructed, his *Système de politique positive*, adding, as a sub-title, *ou Traité de Sociologie instituant la Religion de l'Humanité* (1851 in 8vo), he then composed a *Catéchisme Positiviste*, and finally a *Calendrier Positiviste*, in which he instituted saints and sub-saints, supplementary ones, selected from all countries and from all periods of time. He even went further than this; he established sacraments, and under his title of *pontifex* proceeded to administer them—the last wanderings of a mind elevated in some respects, but ill-balanced and driven out of its right course by many freaks of temperament, particularly by pride. Apart from his theosophy A. Comte has had and still has many distinguished disciples in France and abroad. He may be said even to have founded a school. We may quote among his disciples who are dead Littré, John Stuart Mill, and Grote the historian.

A. C. f.

COMTE, AUG., AND ENGLISH POLITICAL ECONOMY. Comte's importance for the history of English political economy is due first, and chiefly, to his influence on John Stuart Mill. About 1830 Mill, dissatisfied with the views of his father and Bentham, was reading eagerly the tracts of the St. Simonians, including, at that time, one by Comte, which promulgated the law of the three stages of the evolution of science. In 1839, when Mill was planning his *Logic*, he took up the study of the *Philosophie Positive*. The conception of the inverse deductive method, described afterwards in the *Logic* as the proper method of historical and statistical inquiries (bk. vi. ch. ix., x.), was (he tells us, *Autob.*, 210) derived wholly from Comte. The two men corresponded with each other on cordial terms (1841-46), though they never met. This correspondence, so far as published (*Lettres d'Auguste Comte à John Stuart Mill*, Paris 1877), shows that Mill had substantially accepted the law of the three stages, and had been strongly impressed with Comte's

idea of a master-science of sociology, dealing both with the present order, or statics, of society and with its evolution, or dynamics. The idea was not new. It may be traced to Aristotle, and among economists Comte allowed that Adam Smith possessed it, while J. B. Say had discussed it with Comte himself (*Lettres*, p. 255). But Comte's exposition of it was original and striking. He gave Mill also a wider conception of what was meant by the general interests of humanity, embracing past, present, and future human beings as members of one body (*Aug. Comte and Positivism*, 1865, p. 135). Comte, too, first drew Mill's attention to the importance of the working classes as an element in all social movements; Comte had thought at one time of writing a special book on industrial life. He brought Mill to admit that in the universal *consensus* or solidarity of the phenomena of society no parts could be called independent of the others, and that the way to study the whole body of them was *not* (as Mill had said in 1830 in *Unsettled Questions*, publ. 1844, *e.g.* p. 146) Bentham's *a priori* method of deduction from known principles, but Comte's own method of first generalising from history and then verifying by deduction from known principles. We must learn to "predict the past" before we can know the present. The "limited and temporary value of the old political economy" (*Autob.*, p. 166) Mill learned not from Comte but from the St. Simonians. Comte soon found Mill was going on a way of his own, and had no intention of making his projected book on political economy a mere stalking horse for positivism (*Lettres*, p. 254). Mill still upheld the need of studying political economy by the *a priori*, as distinguished from the *inverse deductive* method, though he thought himself bound to show the modifications of *a priori* results in actual societies. Political economy must, provisionally, be a separate study. In the details of Mill's *Principles of Political Economy* (publ. 1848) Comte's influence is therefore not marked, though it was working, with other causes, to change Mill's views on the possibilities of human nature and the final constitution of society. After their correspondence, Mill recoiled from the object of his first attraction, though, for the sake of the public, he refrained from open criticism (*Aug. Comte and Pos.*, p. 3). He found in Comte too little heed for individuality and liberty. He agreed with Comte in appreciating the proletariat, deploring the existence of an idle class, and of labourers degraded by minute division of labour; he admired his idea that possessors of wealth should regard themselves as public functionaries. But he refused to place the supreme government in the hands of the wealthiest capitalists, or to trust to the moral influence of a body of philosopher priests, for the securing of a fair and generous distribution of wealth. Though he regarded distribution as being, unlike production, under no "necessities of nature" (*Autob.*, p. 247) but under laws of arbitrary human institution only, Mill sought for progress by associations and by democratic government and legislation as well as by moral and intellectual improvement among people and rulers. Comte's social statics seem to Mill his weakest point. On the position of women, for example, the two authors are irreconcilable. Finally, Comte was nothing if not systematic; Mill was essentially eclectic. Otherwise the influence of Comte might have had the same effect on him as on Harriet Martineau, who abandoned all distinctly economical work when she gave up the particular economic doctrines she had herself helped to popularize.

If in England the application of the "historical method" to economics was (as is sometimes said) suggested by Comte rather than by English or by German writers, it was not, at least, through Mill's precept or Mill's example. Cliffe Leslie's indebtedness to Comte is not clearly acknowledged by the former (*Essays*, 1879, pp. 241, 411). Sir Henry Maine and Professor Thorold Rogers seem free of all debt to him. The controversy between Cairnes and Mr. Frederick Harrison on "Comte and Political Economy" (see *Fortnightly Review*, May and July 1870, Cairnes, *Essays in Political Economy*, etc.), served to make the issue clearer: Can there be a political economy as a study distinct from general sociology? But it was after Prof. J. K. Ingram's address to the British Association (in 1878), which put the Comtian criticisms in a broadly intelligible form, that the historical economists obtained recognition in this country as a distinct school. Prof. Ingram has since followed up the attack by a *History of Political Economy* (1888). Hitherto, both in this country and in America, the tendency of this movement has rather been to attract the attention of historians to the importance of the economic element in history, than to draw away any considerable number of economists from the study of economic theory (see HISTORICAL METHOD, POSITIVISM, etc.) J. B.

COMTE, CHARLES, born at Sainte Eminie (Lozère), 1782, died at Paris, 1837. His father, a warm partizan of the Revolution, gave Comte a rigid training which influenced him all his life. To this may be ascribed his vote in 1804 against the establishment of the empire, and the vote was *nominative* and signed with his name. Comte had to pay the penalty of his courage. As a consequence he devoted himself to the study of law, and founded, June 1814, a periodical *Le Censeur* (7 vols. in 8vo). Charles Dunoyer joined him in this. The two edited this organ, established in support of law and liberty, and hence as hostile to the legitimist reaction as to the pretended liberal empire. A

pamphlet on the subject of the day, energetically written and frankly brisk in style, *De l'impossibilité d'établir une monarchie constitutionnelle sous un chef militaire et particulièrement sous Napoléon*, brought on them a prosecution which did great honour to their spirit. The *terreur blanche* obliged them, towards the end of the year 1815, to suspend their journal, which they did not resume till 1817, under the title of *Le Censeur Européen* (12 vols. in 8vo), with the motto *Paix et liberté*. In the interval (1815-17) Comte, probably incited by Dunoyer, took up the study of political economy, associating himself in this with J. B. Say, whose son-in-law he shortly became. Notwithstanding private and public persecution and prosecution, the *Censeur Européen* was able to hold on its existence to the date of the assassination of the Duc de Berry (13th February 1820). This sad event rendered the maintenance of the contest impossible, and the editors were compelled, in face of a sentence which condemned them to imprisonment and a heavy fine, to abandon their straightforward and courageous publication.

Comte preferred exile to prison. He went first to Geneva and then to Lausanne, where he was appointed professor in natural law (*la morale*). The *Sainte-Alliance* was alarmed at this series of lectures given by so able a professor, and demanded his expulsion. The Canton de Vaud desired to resist, but Comte, in order to avoid bringing anxiety, perhaps even worse, on the territory which had befriended him, retreated to England while waiting the reversal of his sentence. He was, however, unable to defend his case, as the government refused to allow the registration of his notice of appeal. He then pursued his economic studies, and published, May 1826, his *Traité de législation* or exposition of the general laws by following which states prosper, perish, or remain stationary (4 vols. in 8vo), a work as much economic as judicial in tone, but which approaches in character closer to the *Esprit des Lois* than to a treatise on political economy. The author shows himself throughout a worthy disciple of the master whose daughter he had married. We may add that the *Académie Française*, in 1828 (under the *Restauration*) awarded Comte the *grand prix Montyon* as the author of the work of the greatest service to morals.

Less even than Dunoyer did he know how to lend himself to half measures, to accept compromises. Thus in 1830, being named *procureur du roi* for the tribunal of the Seine, after having been elected *Député de la Sarthe*, Comte could not remain long in possession of this office, and returned to the labour of his choice—scientific study. The *Académie des Sciences morales et politiques* was re-established by royal ordinance 26th October 1832; he joined it and became himself the first perpetual secretary. In this capacity he delivered the *éloge* on Garat, and composed that on Malthus which death hindered him from reading. In 1834 he published his *Traité de la propriété* (2 vols. 8vo), a work, this time, exclusively economic, and the scientific importance of which is in no way behind his *Traité de législation*. The following year a second edition of the work last named appeared. Although Comte had experienced a disappointment in seeing Rossi preferred to him for the chair of political economy at the *Collège de France*, vacant through the death of his father-in-law, the nobleness of his nature kept him from bearing any grudge against his successful competitor, and, though he had been ill for four months, he caused himself to be carried into the Institute the 17th December 1836 to vote in his favour as a candidate for election to the *Académie des Sciences morales et politiques*. Some months after he expired. Mignet, the second perpetual secretary of that academy, read, 30th May 1846, at a solemn meeting of that body, a notice of Charles Comte in which full justice was done to the lofty character of this illustrious thinker.

A. C. f.

CONCESSION. A term not used in English law, but the word, or some similar word, is used in many foreign countries to denote the permission given by the government to the undertaking of certain works, or to the formation of certain societies or companies, in the cases in which such permission is necessary. This term has been current in France especially for the last three centuries or so in the sense of a right of property, privilege, or monopoly granted by government—to individuals or groups of individuals,—in land, mines, public works, performance of stage-plays, and generally speaking in anything that can be monopolised. At present it is used most often of mines, as in the case of the ruby mines of Upper Burmah; tramways *passim*; railways, as in France, where the "concession" is terminable, and rights revert to the state; trading privileges including especially exemption from duties, as in the Russian "concession" to the Anglo-Siberian Company; and banks, as in the case of the Imperial Bank of Persia. "Concessions" of the nature of patents or monopolies have been recently (1889-90) granted by the Boer government in the Transvaal so lavishly and at such inadequate fees as to cause great public discontent; they include cordage, paper, paints, ropes, furniture, matches, electric lighting, and jam. The expediency of raising revenue in such a way will be discussed under MONOPOLIES; PATENTS.

J. B.

CONCILIATION, BOARDS OF. These boards are established in different industries with the object of preventing and adjusting industrial disputes between employers and employed. They consist of representatives of masters and of men engaged in the industries, with which they are concerned, who meet

together to endeavour to settle by discussion and mutual agreement any disputes which may arise. A typical illustration of their constitution and working may be found in the board established in 1869 in the manufactured iron trade of the north of England. Here the men belonging to the different works select in each case by ballot a delegate, and the employers belonging to a single firm are similarly represented by a single delegate. The members of the board thus constituted elect a president, together with one secretary, from among the delegates of the masters, and a vice-president, together with a second secretary, from among the delegates of the men. They also elect a standing committee, as it is called, consisting of five representatives of the men, and ten representatives of the masters (five of whom alone are able to discuss or vote on any question); and of this committee the president and vice-president are *ex officio* members, without enjoying any power of voting. The standing committee meets every month or, if occasion demands, more frequently, and the board itself meets twice a year and at other times when summoned by the committee. In the first instance all questions are laid before the committee. They are submitted in writing to the secretaries seven days before the meeting; the written reply of the other side is usually placed before the same meeting, and an agreement of submission signed by the parties concerned. If the standing committee cannot arrive at an agreement, the referee, who is a permanent official, is called in and can take evidence; and in this way all questions may be settled, except a general advance or reduction in wages, or the appointment of an arbitrator (see ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED). These questions the board alone can decide, and it also determines matters referred to it from the standing committee, selecting an arbitrator if it cannot itself arrive at an agreement. The necessary expenses of the board are defrayed by the subtraction of a penny every fortnight from the wages of every workman earning upwards of half-a-crown a day, and by requiring each firm to pay an amount equal to that thus subtracted from the wages of their employees. Up to the 1st September 1889 the standing committee had held 318 meetings and adjusted 850 disputes, and the board itself had met 109 times. Similar boards have been established in other trades, and notably in the Nottingham hosiery trade through the instrumentality of Mr. Mundella, and in the coal trade in connection with the sliding scales which have been adopted in that industry in different districts (see SLIDING SCALE). But the constitution of these other boards is, with some slight differences of detail, similar to that which has been described, and is, like that, based on the model of the French conseils de prud'hommes (see CONSEILS DE PRUD'HOMMES). The advantages of this method of adjusting industrial disputes over that of arbitration (see ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED) lie chiefly in the fact that the decision is attained by friendly and informal discussion and mutual concession, and that therefore it is more likely to be faithfully observed, and is less calculated to leave behind a feeling of irritation. Mr. Mundella indeed has urged that with this object there should be only discussion and no actual voting at the meetings of the boards and committees. But it must be remembered that it seems to be necessary to have provision at least in the background for final reference to the decision of a single individual, be he called arbitrator or umpire or referee, if there is to be any means of escape from a deadlock.

[For an account of these boards reference should be made to the books mentioned at the end of the article on ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED.] L. L. P.

CONCOURSE (Scots law). Concurrence or consent, *e.g.* concourse of the lord advocate to criminal prosecutions by private persons. A. D.

CONCURRENCE (Scotland). Backing a warrant by a J.P. A. D.

CONDILLAC, ÉTIENNE BONNOT DE (1714-1780), Abbé of Mureaux, younger brother of Mably, born at Grenoble, died at Flux near Beaugency. As a philosopher he belonged to the school of the sensationalists, and published powerful and much valued works based on that system. As an economist he published one book, described by Jevons as "original and profound," entitled *Le Commerce et le Gouvernement considérés relativement l'un à l'autre.* The first edition of it appeared in 1776. In it he supports the doctrines of the physiocrats, except in regard to industry, which he considers as productive. This work has been reproduced in the first volume of *Mélanges d'économie politique* in the *Collection des principaux économistes*, published by Guillaumin 1847. A. C. f.

CONDITIONING. In textile industries, mainly in the silk trade, "conditioning" covers the process of determining the quality and net weight, as well as the description of the raw material, or of yarns, etc.; and a *conditioning-house* is an establishment where at fixed charges such material may be prepared and arranged, and an official warranty as to condition can be obtained. Conditioning-houses and boards are met with in most of the textile manufacturing districts on the continent. In some places, such as Lyons, they are public establishments, that at Lyons dating from 1779; while in others they are houses provided by committees of the merchants themselves, and their verdict as to weight and quality is accepted as conclusive; but they are, as yet, scarcely known in the United

Kingdom, and the advantages they offer have not been properly recognised. The only conditioning-house in London of which there is record—it is possibly the only house of this nature in the United Kingdom—is the Trade Silk Condition Company, Limited, of Worship Street, E.C., which publishes a scale of charges arranged under the following heads:—Conditioning; Weighing; Boiling-off and Washing; Assay of Size; Assay of Spin and Throw, or Elasticity and Tenacity; directions being given under each head. This house has been in operation for many years, and not only furnishes the weight of the raw silk when freed from moisture and the numerous impurities to be found in the bales, but tests it in various ways, and by so doing places upon the tested article an unbiassed official stamp, which interested vendors and purchasers themselves could hardly do. It also carries its operations further, as the raw material is duly prepared for manufacture. In the same establishment wool can by arrangement be conditioned. It will be gathered from this that conditioning partakes of the nature of SAMPLING and GRADING, terms employed in various other trades, operations which will be found dealt with under those heads.

Some few years ago a small establishment for conditioning silk was started in Manchester, but it has either ceased to exist or to carry on operations as a separate undertaking. The Bradford chamber of commerce, amongst others, has for a considerable time past advocated the establishment of a conditioning-house in connection with the wool trade of that district, such an undertaking to be conducted by the corporation of Bradford. Parliamentary powers were duly obtained some years ago, but this conditioning-house is not yet established, although there are some prospects of a start being made in respect to it. Such an official undertaking might well become a decided success, and the Bradford standard be recognised throughout the entire Yorkshire woollen and worsted districts. It is evident that such establishments are to the advantage of the manufacturers of high quality goods, and enable them the better to draw the line between genuine and counterfeit materials. In this way, French, Italian, and other continental silk manufacturing districts have long recognised the advantages afforded, and it remains to be seen whether, if the Bradford corporation take the affair up in earnest, the conditioning-house will not soon become a recognised necessity of the textile industries in this country.

[See for conditioning at Lyons article on "Condition" in the *Nouveau Dictionnaire d'Économie Politique* and *Monographie de la Condition des soies de Lyon*, par Adrien Perret, Lyon, 1878.]

CONDORCET, MARIE CARITAT, Marquis de (1743-1794), born at Ribémond near Saint Quentin, died at Bourg-la-Reine. He won his first laurels as a mathematician, and showed in this study qualities which astonished the most distinguished *savants* of his time. When he was twenty the Académie des Sciences considered an *Essai sur le Calcul Intégral*, from his pen, worthy to appear in the collection of their memoirs, and, in 1769, the same learned body received him into their number, appointing him, in 1773, their perpetual secretary. He soon won the friendship of Turgot, by whom his attention was turned towards political economy. Under the inspiration of Turgot he wrote various articles or works, among others *Les Réflexions d'un Laboureur de Picardie à M. N. . . . auteur prohibitif, à Paris*, 1775; and *Les Réflexions sur le commerce des bleds*, 1776, two writings directed against M. Necker, that *auteur prohibitif* who had brought out, May 1775, his work *Sur la législation et le commerce des grains*. The Académie Française admitted him, 1782, among its members. Condorcet's activity did not slacken up to the first days of the Revolution; in 1781 he published the *Réflexions sur l'esclavage des nègres* (there is no need to say that he was an abolitionist), then, in 1785, his *Essais sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* (in 8vo); in 1786, *La vie de Turgot* (in 8vo); about 1787, *De l'influence de la Révolution d'Amérique sur l'Europe*, dedicated to Lafayette, which indicates the course of events at that time; in 1788, *Essai sur la constitution et les fonctions des assemblées provinciales*; in 1789, *Banque Nationale* (in 4to); and in 1790, *La fixation de l'impôt* (in 8vo). He did not belong to the Assemblée constituante but was member of the Assemblée législative and of the Convention which succeeded it. We shall not attempt to sketch out his career, which was frankly that of a republican, but a friend of law and liberty during the Revolution. It may suffice to say that his pen was never inactive and was vigorously supported by his eloquent words. Proscribed as a Girondin, he was sheltered for eight months by a devoted woman. It was then that he wrote his *Esquisse d'un tableau historique des progrès de l'esprit humain*, 1794, an eloquent tribute to the doctrine of the indefinite perfectibility of man.

Learning that the penalty of death had been pronounced against those who received the Girondins into their houses, he departed, not heeding the prayers of his courageous hostess, and wandered for several days. Entering a tavern at Clamart to appease his hunger, he was arrested by order of a member of the revolutionary committee, and thrown into a prison, where he was found dead the next day when sought for to be brought before his accusers. He had, it was believed, taken his life with a poison which he carried on him. Quick in

intelligence, vigorous in mind, passionately loving what was right, his was one of the worthiest and purest natures concerned in the first French Revolution. A. C. f.

[For a criticism of the *Esquisse*, see Malthus, *Essay on Population*, bk. iii. ch. i. (Bonar, *Malthus and His Work*, bk. i. chs. i. and ii.) Condorcet's application of the theory of probabilities to the estimation of evidence in his *Essais sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* . . . above noticed, claims the attention of the statistician. A very unfavourable verdict is pronounced on this part of Condorcet's work by Todhunter in his *Theory of Probability*.]

CONDUITT, JOHN (1688-1737), married Newton's niece, and succeeded Newton as master of the mint. His principal work, *Observations upon the Present State of our Gold and Silver Coins*, 1730 (published 1774), is supposed to represent Newton's views. It contains a luminous statement of the principle, that in order to keep silver in circulation, the "rate at which gold shall be current" should be the same as in neighbouring countries. Conduitt is referred to in Boulter's letters in connection with the Irish coinage. He was a member of parliament, and a fellow of the Royal Society, to which, in 1718, he contributed a learned paper on "The Situation of the Ancient Carteia."

[Brewster, *Memoirs of Sir Isaac Newton*.—Jevons, *Investigations in Currency and Finance*.—De Morgan, *Newton, his friend and his niece*.]

F. Y. E.

CONFIDENT PERSON. See BANKRUPTCY, SCOTLAND.

CONFIRMATION OF EXECUTOR (Scots law). Proving a will as executor. A. D.

CONFLICT OF LAWS. One of the numerous titles applied to the principles that are followed, or which theorists think ought to be followed, in determining whether a domestic or a foreign law ought to be applied to a given set of circumstances. It is a well-settled principle that within its own territory a state is entitled to enforce its own laws. But in many cases it would be inexpedient or unjust to do so. The property in question may be situated abroad, the contract to be enforced may have been entered into in one country by persons of different domiciles with reference to performance in another country, or the document to be interpreted may be expressed in the technical language of foreign law. Hence every state finds it necessary to apply in certain cases the legal rules of other states. Though each state decides for itself when and how a foreign law shall be applied, there is a tendency to adopt a common practice. The law of the place where real property is situated governs all questions as to the tenure, title, and descent of such property, but in some countries it is held that a deed or will relating to real property is sufficient if in accordance with the law of the place where it was made. On the other hand, movable property is, as regards succession or transfer on death or marriage, governed by the *lex domicilii*, the *lex situs* only applying in the case of title to a particular chattel. Contracts valid by the law of the place where made are valid everywhere, but everything that relates to their execution is subject to the law of the place where the contract is to be carried out. Proceedings in courts of justice are regulated by the *lex fori*.

[*Private International Law*, by J. Westlake, Q.C., London, 1880.—See also Holland's *Jurisprudence* for the different principles recommended by theorists, and for a list of the chief writers on the subject, and art. in *Law Quarterly Review*, vol. vi. No. 21, by A. V. Dicey on "Private International Law as a Branch of the Law of England."] J. E. C. M.

It frequently happens in the course of judicial proceedings, that the court has to decide whether its own ordinary law has to be applied to the matter coming before it, or whether some other system of law has to be applied; this may happen when the parties reside in different localities, when the subject matter of the action is situated in a place where another system of law is administered, or when the events or acts which form the foundation of the proceedings have taken place in a locality governed by another system of law. The rules of law which determine questions of this sort are generally classed under the head of conflict of laws; and the branch of law to which they belong is called Private International Law (see INTERNATIONAL LAW, PRIVATE); but these rules, though based on the same principles in most countries, always form part of the municipal law, and are not, strictly speaking, international rules. E. S.

CONFUSIO. A term of Roman law meaning—(1) the intermingling of things in such a manner as to render the separation of one of the component parts impossible (*e.g.* the pouring together of two separate quantities of liquid); (2) the extinction of a smaller right by being merged into a larger right (*e.g.* a pawnee acquires the absolute property in the pawned object). E. S.

CONJUNCTUR. Recent German economists use this word to denote the conditions and opportunities of success which a man does not owe to his own efforts, but receives as a gift of fortune. For example, inherited wealth, influential parentage, and even nationality and education, give a good start in life which would be described as due to *Conjunctur*. It is perhaps most often used of the happy concurrence of circumstances by which the speculator is enabled to realise a fortune without labour but at the same time without breach of the rules of competition. Modern socialists, even of the

moderate schools, contend that in modern society *Conjunctur* and not skill or industry is the maker of fortunes; and they would restrict the influence of *Conjunctur* by alterations in the tenure of property and the conduct of business (see SOCIALISM).

[For a discussion of the "Wesen und Wirkung der Conjunctur," see A. Wagner, *Volkswirthschaftslehre*, Leipzig, 1879 (*Grundlegung*, p. 98, *seq.*)—See also Marshall, *Principles of Economics* (1890), pp. 656, 692 n.] J. B.

CONQUEST. The appropriation of the property in and of the sovereignty over a part or the whole of an enemy's country by force of arms. Though the title is usually regulated by the terms of a treaty of peace, the conquest is complete from the time the conqueror proves his ability to maintain, and his intention to retain, the territory as part of his own state. As a rule, the inhabitants retain their rights, except in so far as they are necessarily altered by the fact of conquest. Allegiance to the former sovereign is dissolved, but consent is necessary before allegiance is acquired by the new sovereign. Usually a limited time is given within which the inhabitants must transfer their allegiance or leave the territory. In return for allegiance the rights of citizenship are acquired. Municipal laws, including the rights of property, remain unchanged, except in so far as they are necessarily altered by the political institutions, or are in conflict with the laws of the new state. A country conquered by England becomes a dominion of the crown, and the crown may determine the form of government.

[Hall's *International Law*, Oxford, 1890.—Max Wirth, *Grundzüge der Nat. Oekon.*, considers "Conquest" as a form of "highly skilled labour."] J. E. C. M.

CONRING, HERMANN (1606-1681), was one of the most eminent of the polyhistors of the 17th century. The estimation in which he was held in his own time is sufficiently proved by his epitaph, written by Meibomius—"Juris naturalis gentium publici doctor, philosophiæ omnis peritissimus practicæ et theoreticæ, philologus insignis, orator, poeta, medicus, theologus. Multos putas hic conditos. Unus est, Herm. Conringius, saeculi miraculum." He was born in East Friesland, and studied medicine at Helmstädt, where he was afterwards professor in that faculty; he was also for some time court physician to Christina of Sweden. He early accepted and zealously propagated the Harveian doctrine of the circulation of the blood. His principal field of distinction lay, however, in politics and jurisprudence. He was among the first who formed a comprehensive conception of a science of political economy; he explains his ideal of it in his dedication of a new edition of the principal writings of Bodin, adding that such a body of doctrine, "Eam artem [Chrematisticam] in justam aliquam et integram methodum redactam non esse," though many scattered contributions to it might be found in various writers. He himself hoped to realise this scheme; he produced, however, only a number of separate writings on special heads: *De re nummaria*, 1662; *De Vectigalibus* and *De Aerario*, 1663; *De importandis et exportandis* and *De commercio et mercatura*, 1665; *De contributionibus*, 1669. His historical importance lies not so much in the complete treatment of economic questions as in the awakening and stimulating influence which he exercised both by his books and his personal teaching. In his great statistical work, *Examen rerum publicarum totius orbis*, he gives but little numerical detail, as was natural at his period, but has many just historical and political views (Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 254). J. K. I.

CONSCRIPTION. Compulsory military service. In modern times introduced by Napoleon I., followed by Prussia, and since 1870 adopted by all the great continental powers. On the continent every male citizen capable of bearing arms becomes liable to military service on completing his twentieth or twenty-first year, but in some countries service can be avoided by a money payment or by passing an examination. The period of active service varies from one to four years. The liability to serve is universal, *e.g.* in Prussia and in France; but in some countries, *e.g.* in Russia, the number from whom full service is required is fixed every year. After completing the period of active service the men pass into the reserve, and are liable to be called upon in the event of an outbreak of hostilities. In Holland and Belgium, though the army is based on conscription, the greater part of the forces is formed of volunteers. Switzerland maintains no standing army, but every citizen is liable to serve, and the troops are called out for a few weeks' training in the year.

The social and economic effects of the military systems of Europe have been discussed by Cliffe Leslie (*Essays in Political and Moral Philosophy*, Dublin, 1879). Whilst admitting that the training of a soldier tends to make the workman more efficient, he points out that even a three years' system postpones to a late period the productive use of a part of the productive power of the country, whilst a longer period unfits the greater number of men for industrial pursuits. Adam Smith (*Wealth of Nations*, bk. v. ch. i.) thought that the progress of manufactures and improvement in the art of war would tend to make the soldier's a separate trade, but the tendency has been in recent years to make the army a national one. Whilst therefore a war between two states in which all the citizens are soldiers implies that the industrial population are fighting in the ranks, it must not be forgotten that wars are of much shorter duration now than in former times. It is very difficult

to make any comparison between the relative cost of armies. The most recent information will be found in Major-General Brackenbury's *Evidence before the Select Committee on Army and Navy Estimates*, 1887, Appendix to First Report, and in the *Journal* of the Statistical Society, March 1891, "Statistics of the Defence Expenditure of the chief Military and Naval Powers," by Sir Charles Dilke. Germany, with compulsory service and an expenditure of £21,000,000, can put eighteen army corps in the field; England, with voluntary enlistment and an expenditure of £18,000,000, can put scarcely two. The difference of cost arises from the increased expense of living in England, the higher rate of pay, and the great number of foreign dependencies to be garrisoned (see DEFENCE, COST OF). J. E. C. M.

CONSEILS DE PRUD'HOMMES. These councils are found on the continent in France and in Belgium, and have for their object the adjustment of industrial disputes by a rapid and inexpensive method. They are said to have originated in the experts or *prud'hommes* selected by the mediæval guilds to settle disputes between manufacturers and merchants at the different markets and fairs about the genuineness of goods and other such matters. They were abolished before or during the Revolution, but were re-established at Lyons some ten years later, and subsequently in other French towns. They consist of representatives elected in equal numbers by masters and men, and the election is conducted by the *maire* and *préfet* of the particular town or district. In Paris there are four such *conseils* to deal with the many trades and industries there found. The *conseil* thus elected lasts for three years, and is divided into two *bureaux* or committees. The *bureau particulier*, consisting of one master and one man, sits daily, and the *bureau général*, consisting of at least five members, meets weekly. Disputants are first *invited* to come before the *bureau particulier* and to explain their differences, and arrive, if possible, at an amicable settlement. Should this attempt fail, they are formally *summoned* before the *bureau général*, which disposes authoritatively of the matter in the same way as an English arbitrator (see ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED). Appeal from the decision of the *bureau général* lies, however, to the tribunals of commerce and the ordinary civil courts, but such appeals are apparently seldom made. Petitions for the establishment of the *conseils* are addressed to the minister of commerce. Statistics of these French *conseils* show that previously to the Franco-German war the number of cases brought before them had grown to a maximum of some 45,000 in the year 1868, and that after experiencing a temporary decrease during the war until they had fallen to some 30,000 in 1873, in 1880 they had risen again to some 40,000. Of these some 60 per cent related to wages—but not to their regulation for the future, simply to the determination of disputes as to the past; some 13 per cent arose about dismissals; some 10 per cent were concerned with alleged misbehaviour; some 5 per cent with questions of apprenticeship; and some 13 per cent with various other matters. The majority of cases were settled by the *bureau particulier*, but a large proportion were adjusted outside the *conseils* altogether. In Belgium there are similar *conseils* to those in France, and a proposal has more than once been made to establish something after their pattern in England. An act, which has proved inoperative, was passed with this object in 1867 (30 & 31 Vict. c. 105).

[For an account of these councils see Price's *Industrial Peace*, ch. iii.—Jevons's *State in Relation to Labour*, ch. vii.—an article on "Conseils de Prud'hommes," by W. H. S. Aubrey in the *Contemporary Review*, April 1883—and a paper on "The Strikes of the past Ten Years" by G. P. Bevan in the *Statistical Journal* for March 1880, vol. xliii. pp. 35 to 64.—Parly. Papers, c. 5896-17 and c. 6206-18.] L. L. P.

CONSIDERATION. A consideration in "value" is not necessary to a contract in Scotland either by deed or not by deed. A. D.

CONSIGNEE. A person to whom goods are shipped. A person whose orders the master of a vessel is to follow, by virtue of the clauses of a charter party, is called the consignee of the vessel.

CONSOLIDATED FUND. The division of the British revenue between the *Consolidated Fund* and *Annual Supply* will be best understood from the following official statement derived from Public Income and Expenditure, Returns ordered House of Commons 24th July 1866, pt. ii. p. 511.

"From the period of the establishment of a systematic parliamentary control over the expenditure of the public moneys, that portion of the total issues from the exchequer during the financial year, which is more strictly called the public expenditure, has always been divided into two separate and distinct general heads. The first of these is composed of the more permanent charges which have been authorised by parliament to be paid from time to time when due, the mode and period of payment being under the directions of the treasury. The second head consists of the charges annually granted by parliament, and thus brought periodically under its immediate cognisance and control. Since the establishment of the consolidated fund in 1786, these two heads of public expenditure have been known as the consolidated fund charges and the annual supply charges, so designated from the funds out of which they are respectively payable.

The consolidated fund charges have been usually subdivided into—

The annual charges of public debt.
Civil list.
Annuities and pensions.
Salaries and allowances of certain independent offices.
Courts of justice.
At this date [1866] diplomatic salaries and pensions (now included among annual supply charges).
Miscellaneous charges.

The general heads of the supply charges are—
The classified miscellaneous civil services.
Payments out of gross revenue; or, since 1854, the charges of collection and management of revenue.
Army, navy, and ordnance services.

The other issues from the exchequer, consisting of—
Advances by way of loan.
Sinking fund and other payments for the reduction of the national debt have formed part of the consolidated fund charges, or the annual supply charges, according to the parliamentary enactments by which these issues have been authorised" (Public Income and Expenditure, or Return ordered 24th July 1866, pt. ii. p. 511).

In explanation of this arrangement, A. Todd remarks—

"'Formerly,' that is after 'the old system of retaining public money at the exchequer itself' was 'abolished,' 'the proceeds of parliamentary taxes constituted separate and distinct funds'; but by the Act 27 Geo. III. c. 13, § 47, it was directed that the various duties and taxes should be carried to and constitute a fund, to be called 'The Consolidated Fund.'" (These permanent grants out of the consolidated fund are recapitulated above in the extract given from the Report on Public Moneys.) Todd continues: "These charges are made payable out of the consolidated fund by permanent statutes, from year to year, without any renewal of parliamentary authority. The principle of not subjecting to the uncertainty of an annual vote the provision for the security of the public creditor, the dignity of the crown, annuities and pensions to royal and distinguished persons, the salaries of judges and other officers in whose official character independence is an essential element, compensation for rights surrendered, and like charges, is one the soundness of which is generally admitted."

(Alpheus Todd, *On Parliamentary Government in England*, vol. i. pp. 733, 737, 2nd edition.)

Todd further raises a question whether in certain cases amounts may not have been carried to the consolidated fund which should have been voted as part of annual supply, but those who are conversant with the practice of the House of Commons in the discussion of the annual votes will agree that little would be gained in the way of real economy by this course being pursued.

CONSOLIDATIO. In Roman law this expression was used for the extinction of a usufruct in consequence of the usufructuary becoming the owner of the property to which it referred. It is also a technical term used by writers on feudal law, and is by them applied to the termination of a vassal's right by surrender, escheat, or some other cause which restored the beneficial rights of ownership to the lord. E. S.

CONSOLS. A stock exchange abbreviation for "consolidated annuities," originally applied to the 3 per cent consolidated annuities of 1751 (25 Geo. II. c. 27) which bore interest payable on 6th January and 6th July. These 3 per cents were converted in 1888 into stock bearing interest at $2\frac{3}{4}$ per cent till 1903, and after that date at $2\frac{1}{2}$ per cent till 1923. The amount of these consols when first issued in exchange for pre-existing securities was £9,137,812, but they were afterwards increased to about £400,000,000: by 1888 they had been reduced by purchase in the market and by conversions into terminable annuities to £322,681,000. In 1889 Mr. Goschen completed the redemption of this enormous amount of stock, and these 3 per cents, which for upwards of a century were reckoned as the standard security of the London market, will soon be unknown there. They are now only a matter of history. The 3 per cent reduced annuities, although a similar, and at first a larger, issue, were never designated consols.

But the familiar term "consols" has recently been applied to a number of other investments. There are New Zealand 5 per cent consols, Cape of Good Hope 4 per cent consols, and other government securities, which are currently designated consols by dealers upon the exchange simply because the word is more readily spoken and written than consolidated stock. It is also at times applied to other consolidated stocks than those issued by governments (see CONVERSION OF BRITISH NATIONAL DEBT).

CONSPIRACY, COMMON-LAW DOCTRINE OF. Though there were some dicta to the effect that a combination for the purpose of raising wages would be unlawful, no case of a conviction for such an offence occurred until the year 1825. Mr. Justice Stephen is therefore led to conclude that up to that year an agreement to combine to raise or depress the rate of wages was not an indictable offence apart from statute. The opposite view was entertained by many persons and was enforced by the courts. "Reading Sir W. Erle's summing-up in this case (R. *v.* Rowlands, 2 Den. Cr. Ca. 364) and his memorandum on trade unions together, it seems that his view of the subject of conspiracies in restraint of trade was this—at common law all combinations of workmen to affect the rate of wages were illegal. A limited exception was introduced by the 6 Geo. IV. c. 129. But the

ordinary operations of a strike which do not fall definitely within those narrow exceptions are still illegal conspiracies." This view was enforced in subsequent cases, but by the 22 Vict. c. 34, workmen were not to be considered guilty of "molestation" or "obstruction" under the act of 1825 by reason of entering into agreements for the purpose of fixing wages or the hours of labour. A commission, issued in 1867, recommended a relaxation of the law, and the 38 & 39 Vict. c. 31 legalised trade unions, whilst the 38 & 39 Vict. c. 32 amended the law relating to "molestation." The decision in 1872 in the gas stokers' case to the effect that a strike might, under certain circumstances, amount to a conspiracy at common law to molest, injure, or impoverish an individual, or to prevent him carrying on his business, led to the passing of 38 & 39 Vict. c. 86, which enacted that an agreement by two or more persons to do any act in furtherance of a trade dispute should not be indictable as a conspiracy if such act committed by one person should not be punishable as a crime.

[Sir W. Erle, *The Law relating to Trade Unions*, London, 1869.—R. S. Wright, *The Law of Criminal Conspiracies*, London, 1873.—Roscoe's *Digest of the Law of Evidence in Criminal Cases*, titles "Conspiracy" and "Conspiracy in Restraint of Trade," London, 1884.—Sir J. F. Stephen, *History of the Criminal Law*, London, 1883.] J. E. C. M.

CONSTITUTUM DEBITI. An informal promise to pay. Such a promise gave a right of action in Roman law, by virtue of the prætorian edict, quite independently of the cause of the promise. It was frequently used, in the place of a regular contract of suretyship, for the purpose of guaranteeing another person's debt (*constitutum debiti alieni*). E. S.

CONSTITUTUM POSSESSORIUM. An expression used by mediæval writers on Roman law to express the fictitious delivery which takes place when the owner of a thing transfers the property to another, and contracts to retain the possession as bailee for the new owner. E. S.

CONSUL. Consuls are commercial agents appointed to reside in foreign countries for the purpose of protecting the individual interests of traders, travellers, and mariners belonging to the state which appoints them. A consul is not a diplomatic agent, and he is not therefore authorised, except in special cases, to make any representations to the government of the state in which he acts. He is not entitled to exemption from local jurisdiction, but enjoys certain specific privileges essential to the discharge of his duties, such as exemption from personal taxes and the inviolability of the papers of the consulate. The most important duties of consuls will be found in Hall's *International Law* (Oxford, 1880), and in the authorities there quoted. In eastern countries such as Turkey, China, and Japan, the subjects of western states are not liable to the local courts, and jurisdiction is by treaty exercised by consular courts. (See also CONSULAR REPORTS.)

[Phillimore's *International Law*, ii. § 272.—Calvo's *Droit International*, §§ 495-99.—*Handbuch des Völkerrechts herausgegeben von Dr. Franz von Holtzendorff*, vol. iii., Berlin, 1887.]

J. E. C. M.

CONSULAR REPORTS. The ability of the various representatives of the United Kingdom in foreign countries to supply information of great value to the trading community at home has long been recognised, and every secretary of embassy or legation, and every paid consular officer is therefore required to furnish an annual report on the trade, commerce, and navigation of the country or district, as the case may be, in which he is stationed. Secretaries of embassies or legations are also required to report annually on the finances of the countries in which they act. Reports on special subjects are occasionally called for, and information on commercial or industrial topics of special interest is frequently sent home by diplomatic and consular officers on their own motion. These reports are published by the foreign office, and sold in three regular and several minor series.

1. The general series entitled "Reports on Subjects of Commercial and General Interest by Her Majesty's Representatives in Foreign Countries."

2. The diplomatic trade series, being "Reports by the Secretaries of Embassy or Legation on the Manufactures, Commerce, etc., of the Countries in which they Reside."

3. The consular trade series, being "Reports by Her Majesty's Consuls on the Trade of the Countries in which they Reside."

Reports from China, Japan, and Siam appear in three minor and separate series, each headed by the name of the country.

In the course of the year 1886 some attention was given to the possibility of rendering these reports of greater practical value to the commercial classes, it being the opinion of many that foreign traders were better served in this respect than those of the United Kingdom. Some evidence to this effect was given before the royal commission on the depression of trade and industry, who referred to the subject in their report. It cannot be said that this contention was established, but the result of the investigation made by that commission and the foreign office was to effect some substantial improvements. It was arranged that the reports should be more promptly published, that the importance of procuring full information regarding the industry and the condition of the working classes should not be lost sight of, and that samples of the manufactured goods chiefly in demand in the countries in which consuls resided should be sent home with the reports. The reports are now utilised by the *Board of Trade Journal*.

[The *General Consular Instructions* and the *Correspondence respecting the Question of Diplomatic and Consular Assistance to British Trade Abroad*, published in 1886 (c. 4779), contain much information on this subject. An Index to the Reports published from 1886 to 1890 is also available (c. 6374).] T. H. E.

CONSUMABLES. See CONSUMPTIBLES.

CONSUMERS' GOODS (or CONSUMPTION GOODS) include all those desirable things which directly satisfy human needs and desires, *e.g.* food and clothing. Those desirable things which are only useful indirectly as a means towards the production of consumers' goods—as, for example, machines and the raw materials of manufacture—are by contrast spoken of as *Producers' Goods* (or *Production Goods*). This distinction has been carried further by Professor Menger and the Austrian school of economists, who divide goods into successive orders: *goods of the first order*, consisting of consumption goods as above defined; *goods of the second order*, of those things which contribute immediately towards the production of goods of the first order, *e.g.* sewing machines; *goods of the third order*, of those things which contribute similarly towards the production of goods of the second order, *e.g.* machinery used in the manufacture of sewing machines; and so on. In many cases it is impossible to draw a hard and fast line between goods of different orders, or even between consumers' goods and producers' goods; but this does not destroy the importance of the distinctions indicated. It may be observed that while some things are in their very nature consumers' goods or producers' goods as the case may be, *e.g.* ball dresses and sewing machines, others cannot be classified until the use to which they are put is known. For example, a horse may be used as a pleasure horse or for work on a farm; or, indeed, sometimes for the one purpose and sometimes for the other. A thing may even belong to several orders of goods at the same time; as, for example, a furnace which, while working machinery of various kinds, also serves to warm a neighbouring club-room or workmen's common room.

[Marshall, *Principles of Economics* (2nd ed.), bk. ii. ch. iii. § 1; and Sidgwick, *Principles of Political Economy*, bk. i. ch. iii. § 4 (see COMPLEMENTARY GOODS).] J. N. K.

CONSUMERS' RENT. A term introduced into the nomenclature of political economy by Professor Marshall, to designate the difference between the price that a purchaser actually pays for a given commodity and the price that he would be willing to pay rather than go without it. While the former can never exceed the latter, it is clear that, as regards a large portion of each individual's expenditure, the latter must exceed the former. This is proved by the fact that although a rise in the price of a commodity may lead a purchaser to buy less of it, he will not usually give up buying it altogether unless the rise in price is very considerable. Consumers' rent thus measures the surplus satisfaction that a consumer derives from the purchase of a commodity over and above the satisfaction that he sacrifices in paying away its price. In illustration, we may suppose the case of a man who, if the price of coals were £10 a ton, would just be induced to buy one ton annually; who would just be induced to buy two tons if the price were £7, three tons if it were £5, four tons if were £3, five tons if it were £2, six tons if it were £1 : 10s.; and who—the price being actually £1—does as a matter of fact buy seven tons. The fact that for one ton he would be willing to give £10 shows that the satisfaction he derives from that one ton is economically measured by £10. Hence the purchase of it for £1 yields a surplus satisfaction that is measured by £9; it yields, in other words, a consumers' rent of £9. Similarly the surplus satisfaction yielded by the whole amount of coal that he buys is measured by the difference between his actual expenditure on coal (£7) and the sum of the prices that he would just be willing to give for each successive ton, *i.e.* £29 : 10s. In other words, the whole consumers' rent that he derives from buying coal at £1 a ton is £22 : 10s.

The term *Consumers' Rent* is seen to be employed analogically: agricultural rent is the excess of the value of the total produce obtained from a given piece of land over what is required to remunerate the farmer for the outlay involved in raising the produce; consumers' rent is the excess of the money equivalent of the satisfaction derived by an individual from the total amount of a commodity that he purchases, as measured by the total price that he would, if necessary, be willing to give for it, over the outlay actually incurred.

Since the amount of satisfaction yielded to different purchasers by the same expenditure may be very different, it follows that a given consumers' rent may represent varying amounts of surplus satisfaction. In particular, the utilities of two commodities cannot be regarded as even approximately represented by their money measures, when one of the commodities is consumed chiefly by the rich and the other chiefly by the poor. Professor Marshall points out accordingly that the practical usefulness of estimates of consumers' rents is limited to those cases in which the prices taken into consideration are those paid in markets where the average wealth of the purchasers is equal.

The working out of problems that relate to consumers' rent is much facilitated by the employment of diagrammatic methods. The use of diagrams also indicates clearly the analogy between consumers' rent and rent in the ordinary sense.

[The above account of consumers' rent is taken

from a paper by Professor Marshall, on the *Pure Theory of (Domestic) Values*, printed for private circulation in 1879, and from the same author's *Principles of Economics*. For further explanation and for illustration of the uses to which the conception of consumers' rent may be put in economic discussions, and the limitations with which they must be received, see the last-named work, bk. iii. ch. iv., and bk. v. chs. vii. and viii.]

J. N. K.

CONSUMPTIBLES. A TERM EMPLOYED BY THE SCHOOLMEN. The schoolmen based a theory of interest on the distinction between "consumable" and "durable" goods. In the case of the former, the use of which is inseparable from and transferred with the article itself, interest was in their eyes wrong. The transfer of a consumptible, *e.g.* corn and wine, carries with it the right to consume. So to require the thing back, and also something for its use, is to charge two prices for it, one, a fair and proper equivalent, the other an extortion (see FUNGIBLES).

[Aquinas, *Summa Theologiæ*, II. ii. Q. 78, Art. 1.—Böhm-Bawerk, *Capital and Interest* (Eng. trans.), vol. i. ch. i. p. 22.]

L. R. P.

CONSUMPTIBLES. The end of all production is consumption, and consumptibles are the individual material objects destined for, or capable of, consumption. This may follow after and extend over a longer or shorter period. The loaf which is eaten on the day of baking, the Suez Canal which will last, it is hoped, for centuries, are both consumptibles; they have this in common that they are destined to be consumed, and their destination is proved by the fact. But it is not necessary that the process even of consumption should begin at once on the completion of production. Consumptibles may be in stock an unlimited period before consumption begins without forfeiting the title. Thus the term covers the whole range of production, and includes all the products of industry. But it includes also a large number of other things. The gifts of nature, fruits, metals, animals, and also the forces of nature are all to be classed under the head of consumptibles. In some such cases the process even of consumption may not begin for centuries, and may continue for centuries more.

Consumptible and kindred terms would be by some restricted to articles that are desired for their own sake which are ends in themselves; goods of the *first* order, in Menger's phrase. In this sense a loaf is consumed, but not a machine. "Used up" has been proposed as a more general term than consumed. Another distinction is between commodities which in order to be useful must be used up, and those which, though in fact they do wear away, do not confer utility by being used up. A loaf belongs to the former class, the Suez Canal to the latter.

CONSUMPTION. Some economists have proposed to place consumption on the same footing as production, distribution, and exchange as a special department of economics. Since in England, however, this has not been attempted in the standard text-books, it seems best to indicate the various problems in the accepted divisions of the subject which would naturally fall under a department of consumption. It will be found that to a great extent the problems of the new department have been already investigated under other names.

(1) First of all come questions of definition and the explanation of the fundamental ideas at the basis of consumption, generally treated by English writers in connection with production. "Consumption," says Adam Smith, "is the sole end and purpose of all production, and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer." Later criticism has thrown doubt on the possibility of making such a sharp distinction between the interests of producers and consumers. Apart from women who are largely employed in domestic duties, and old men, invalids, and children, the number of those returned in the census of any civilised country as "unoccupied" is extremely small and thus the great majority of the adult males are both producers and consumers. Accordingly the conditions as regards health, variety, moral and intellectual effects on the worker of the work done, etc., are of co-ordinate importance with the amount and quality of the definite commodities consumed. These questions are often discussed under the "disadvantages" of DIVISION OF LABOUR (*q.v.*), and sometimes under the effects of machinery.

The principal idea in consumption is utility, taken in the wide sense in which the term is used in ethics (utilitarianism); the characteristics of which were first analysed by Bentham. From the consumer's point of view the chief attribute of wealth is simply its utility—"its power or capacity," in Mill's language, "to satisfy a desire or serve a purpose." From this standpoint the fact that wealth requires land, labour, and capital for its production, that it may be distributed in different ways according to the laws of the state or so-called natural economic laws, and that it may be exchanged, are of secondary importance. The consumer looks primarily to utility. Thus if by some discovery of natural sources any commodity became so abundant as to lose altogether its exchange value, this would to the consumer be the best thing possible. Professor Jevons was the first to give full importance to utility as the foundation of consumption, and in this way the basis of economic science in general (*Theory of Political Economy*). Previous writers, as Mill, had been content with indicating broadly that utility was one requisite of exchange value. By the distinction between final and total utility (see UTILITY), Jevons threw a new light on the

whole subject. The utility obtained by the consumption of successive portions of any commodity is beyond a certain point subject to a species of diminishing return. The total utility of the things necessary to preserve life is very great, but the final utility of the last mouthful of bread and butter eaten by a well-fed labourer may be very small. The art of consumption, even without considering the limited powers of acquisition by an individual, consists in knowing when to leave off in one thing and to begin another. The ideal is reached when the final utilities of all the articles consumed are just equal. If everything were to be had in perfect abundance consumption would in each case be carried on until the zero point was reached, and further consumption would involve harmful excess or negative utility.

(2) The relation of consumption to production may next be noticed. The object of consumption is to obtain utility, but in general this can only be done by the destruction, at a more or less rapid rate, of the thing used. To replace this destruction, when the natural supplies are limited, is the object of production. This leads to the distinction between productive and unproductive consumption. The former may be defined strictly as that part of the producer's consumption which is necessary to keep up or increase his efficiency, whilst the remainder is unproductive. Thus it is impossible to separate the individuals who compose an industrial society into distinct classes of productive and unproductive consumers, for the great majority are both, though in different degrees.

Apart from this most general relation of consumption to production, we may consider the former as a stimulus to the latter. This is the principal point overlooked in Mill's unfortunately-worded proposition that demand for commodities is not demand for labour. It is the growth in the intensity and variety of the demands of consumers which is the mainspring of the increase of production, and thus of the employment of labour. This point has been forcibly illustrated by Adam Smith in his historical survey of the way in which the commerce of the towns contributed to the improvement of the country (*Wealth of Nations*, bk. iii. ch. iv.) Mill himself also observes (*Political Economy*, bk. i. ch. xiv.) that amongst the means of increasing the industrial activity of oriental nations must be reckoned "the growth of mental activity making the people alive to new objects of desire."

(3) Although in one way consumption through demand determines production, in another way production through the conditions of supply determines consumption. For the means at the disposal of any individual are limited, and in many cases give little surplus above what is required for the barest necessaries, and it follows that the price of the article is as important as its utility in determining the quantity consumed. The fundamental law of demand is that with every fall in price per unit, other things remaining the same, the number of units demanded increases. The consumer will aim at obtaining the maximum utility from the expenditure of the money at his command, and, to put the matter in the simplest form, a peck of apples may be of more use than a single pineapple. But the price of any article, not actually subject to natural or artificial scarcity or monopoly, depends normally upon COST OF PRODUCTION (*q.v.*) Thus cost of production has an equal reciprocal influence on consumption. This is well illustrated in the case of food. The introduction of a cheaper means of subsistence often leads to the partial, or even total abandonment of a more costly, though in other respects superior national food, as, for example, was the case with the potato in Ireland. Again in the matter of clothing, the cheapness of the commodities produced on a large scale has driven out of use various home-made articles, *e.g.* stockings. The total result of this substitution of cheap and inferior articles may contribute towards lowering the standard of comfort of the mass of the people, and in this way the effect of production upon consumption may be most important.

(4) The connection between the distribution and the consumption of wealth is obviously of the closest kind, for the kind of articles selected by the consumer will depend upon the amount of his income. If all incomes were at the same level of moderate competence there would be no scope for the higher forms of luxuries, which require exclusive use for their enjoyment. Accordingly we find that socialists who aim at comparative equality of incomes lay great stress on all forms of social enjoyment, *e.g.* theatres, picture-galleries, music, etc. Again, historically, we find that the forms of wealth at different times have been largely determined by its distribution. The production of works of art in mediæval Italy, and game preserving in England, are examples of the mode in which consumption varies with the interests of dominant classes.

(5) The question of consumption may next be considered from the point of view of governmental control or *laissez-faire*. In former times almost every government thought it a most important part of its duty to lay down what various classes, or even individuals, might or might not consume, and we find sumptuary laws of the most detailed kind. In mediæval England, for example, both clothing and food were subject to the strictest regulations. A person must be of a certain social standing to be entitled to wear silk, or to eat more than three courses at a meal. In oriental countries this idea has reached its full development in

the caste system. In modern times in progressive societies the tendency has been in consumption, as in production, to rely more and more upon *laissez-faire*, although public opinion, distributed through different social orders, still exercises considerable influence, especially in matters of dress, houses, furniture, etc. In some respects, however, the government still exercises a direct or indirect control over consumption, and it is held to be justified in doing so in cases where the consumer is not the best judge of his own real interests, or of the real value of the article consumed. Thus in most countries the sale of intoxicants and the prescription of medicines have been placed under legal restraint. At the same time also laws with detailed provisions have been enacted against various forms of adulteration and fraud. The interests of consumers who are considered unfit to judge for themselves, *e.g.* children, have been specially considered. Indirectly government influences consumption mainly by taxation, and some taxes are advocated principally for their social effects (see TAXATION).

If the department of consumption ever assumes in the text-books a position of coordinate importance with the other departments, it might well be made to embrace various other topics at present scattered through different parts of economics.

Such, for example, is the question of the poor and poor-laws (see CHARITY, STATE), the advisability of protecting the limited natural resources of a nation, the necessity of considering the ultimate social effect of certain forms of trade which, for the time being, may be profitable (see FREE TRADE), and various questions on the distribution and inheritance of wealth, *e.g.* the effects on national consumption of a system of peasant proprietary.

(6) Lastly, the light thrown by the study of consumption upon social progress may be considered. Consumption being largely determined by distribution, is itself in turn one of the best signs of the way in which the national wealth is distributed. Statistics as to the consumption per head of various articles in different nations, or in the same nation at different times, often give the best evidence available on the wealth of various classes. In making such comparisons, however, regard must always be paid to a possible change or difference in tastes and habits, and also to the cost of the various articles considered, whether influenced by natural or governmental causes, and to the use of substitutes. A relative falling-off in the rate of the consumption of coffee may be due to an increase in the use of cocoa, and a decrease in the use of intoxicants may be ascribed, not to diminished consuming power, but to higher moral development. But when proper precautions are taken, statistics of consumption furnish a good outline of the material life of the mass of the people. The mere fact, for example, that so many articles are continuously produced on a larger scale shows, not only that they are consumed in increasing quantities, but also that larger numbers of people are able to purchase them, and thus the contention of the socialists that, through production on a large scale, wealth is being concentrated in a few hands, is shown to be an error, because the articles produced can only be consumed when spread over a wide area. In making comparisons of national progress from the consumer's standpoint, it would be most useful if index numbers based on the average consuming power of various classes were constructed (see INDEX NUMBERS).

[The subject of consumption is specially treated in Roscher's *Political Economy*, and in Schönberg's *Handbook*, by Professor Lexis. A useful development of Jevons's theory is given in Mr. Wicksteed's *Alphabet of Economic Science*; and in Mr. J. N. Keynes' *Scope and Method of Political Economy*, at p. 101 *et seq.*, there is an interesting discussion of the question whether the consumption of wealth should or should not be regarded as constituting a distinct department of political economy; with notices of numerous economists who have adopted this arrangement.] J. S. N.

CONSUMPTION, TAXES ON. The provision of an adequate revenue for the purposes of government has from the earliest times been effected, in part, by means of taxes on consumable articles. Adam Smith (*Wealth of Nations*, bk. v. ch. ii. art. iv.) ascribes the invention of such taxes to "the impossibility of taxing the people in proportion to their revenue by any capitation," but it would appear that the failure of direct imposts in mediæval times resulted in an increase and extension of a previously existing method of raising revenue, rather than in the institution of a system which is, in its essence, that of contribution in kind. Taxes on consumable commodities have been commended by economists on the ground of their convenience, it having been found possible by means of such taxes "to raise a considerable revenue . . . the payments of which by consumers are made in insensible portions, where it would have been impossible to collect the same amount by direct taxation at comparatively long intervals. Taxation is in this respect like bleeding" (Professor Nicholson, *Encyclopædia Britannica*, 9th ed., art. "Taxation"). It has also been urged in favour of this system of taxation that it may be assessed so as to leave no doubt concerning what ought to be paid, or when it ought to be paid, and Montesquieu (*Esprit des Lois*, liv. xii. cap. vii.) says in favour of taxes on commodities that they "are felt the least by the people because no formal demand is made for them. They can be so wisely contrived that the people shall scarcely know that they pay them." On the other

hand, while Ricardo affirms that a tax on necessaries will not be borne by the working classes (*Principles of Political Economy*, ch. xvi.), Adam Smith distinguishes between the effect of taxes on necessaries and on luxuries, observing (*Wealth of Nations*, bk. v. ch. ii. art. iv.) that in the former case the tax will eventually be shifted to other shoulders than those of the immediate consumer. M'Culloch adds that the process by which this is brought about is slow and difficult, and that "there is in most cases a great risk in imposing or increasing taxes on necessaries, lest the wages of labour should not sustain a corresponding rise, and the condition of the labourers be in consequence depressed." Professor Sidgwick emphasises the fact that the taxation of commodities is "incompatible with any very exact equalisation of the burden of taxation," but he adds that the system has "the merit of avoiding the worst inequalities which taxation proportioned to income would cause . . . since it enables those persons whose needs are greatest to diminish their share of taxation by abstinence from customary luxuries" (*Principles of Political Economy*, 1883, pp. 565, 566).

It is generally believed, with Adam Smith, that taxes on commodities take out or keep out of the pockets of the people more than almost any other taxes, in proportion to what they bring in to the state, although it may be doubted whether, under a well-ordered tariff and modern administration, any serious objection arises under this head (see COST OF COLLECTION OF TAXES).

Taxes on commodities have also been resorted to for other purposes than the provision of revenue, *e.g.* the discouragement of the consumption of intoxicating liquors, and the protection or encouragement of home industries by means of the imposition of duties either on imported foreign manufactures or on raw materials sent abroad (see PROTECTION). Such taxes may be levied either by the collection of a duty from the importer, producer, or manufacturer, in which case it is usual where the duty is at all heavy to permit the dutiable articles to be warehoused under the supervision of the revenue officers until such time as delivery for consumption takes place, or by the collection of an annual licence duty from the person using the article, as in the case of carriages and guns. The imposition of a licence duty in respect of the manufacture of or dealing in certain articles has practically the same effect as a duty on the articles themselves.

As to the incidence of duties on commodities, the summary of opinion given by Professor Nicholson in the article above referred to may be cited: "Where production takes place under free competition, the tax will, owing to the tendency of profits to equality, be transferred to the consumer, but when the article is practically monopolised, a tax must fall on the monopolist." For a more minute discussion of these cases, see Pantaleoni, *Theoria della pressione tributaria*, and Cournot, *Recherches*, ch. vi.

The majority of the leading treatises on political economy specifically deal with this subject (see also CUSTOM, CUSTOMS DUTIES; EXCISE). T. H. E.

CONTINUATION OR CONTANGO. Under the word BACKWARDATION (*q.v.*) the process by which a person who, being unable to deliver stock which he has sold, borrows it, has been already described. In the same way, one who has bought stock or shares which he cannot pay for is obliged to borrow the money, and this he can often do from the person who has sold the stock or securities in question. But the seller charges him a "contango." Under normal circumstances the contango, or rate of continuation, somewhat exceeds the ordinary rate of interest at which money can be borrowed from the banks, for the banks do not lend to the full market-value of the securities lodged with them, whereas one who "contangoes" retains securities to the bare amount of his loan, and has no claim until the next settling day against the person whom he trusted to fulfil the bargain. A great deal of business is done by money-dealers, who borrow at a low rate and re-lend on the stock exchange in this way. A. E.

CONTINENTAL SYSTEM. The great war from 1803 to 1814 was primarily a duel between France and England, in which the other powers of Europe were engaged, sometimes on one side, sometimes on the other. But the war had this peculiar characteristic, that neither of the two chief belligerents could attack each other directly. The battle of Austerlitz annihilated the coalition which Pitt had formed, and secured the supremacy of Napoleon on the mainland. Almost at the same time Nelson's victory at Trafalgar destroyed the naval power of France, and put an end to all ideas of invading England. Thus the two states were forced to fall back upon indirect modes of warfare, and each sought to cripple the other's commerce. The measures adopted by Napoleon for this purpose in his famous decrees from Berlin and Milan have received the name of the "continental system." England retaliated by a series of orders in council, of which the two most important were issued in 1807.

There was no novelty in the questions raised or the means adopted in this war, except the vast scale on which mercantile hostilities were carried on. In all the wars of the 18th century England had sought to cut off France from commerce with its colonies. The result had been to throw this trade into the hands of neutral powers. To prevent this, England had laid down the rule of 1756, that a neutral had no right to relieve a belligerent by carrying on a trade in time of war, from which it would be

excluded during peace. The harshness with which England employed its maritime ascendency to enforce this rule induced the states of northern Europe to conclude an ARMED NEUTRALITY (*q.v.*) in 1780, and again in 1800. The principles which they asserted were that "free ships make free goods," that a neutral may carry any commodities, except such as are contraband of war, and that a blockade can only be respected when it is effectual.

The essential difficulty of measures against the commerce of an enemy was that they must necessarily affect the interests of neutral states. This difficulty became very prominent in the war with Napoleon. On 16th May 1806, the Whig ministry in England notified to the ministers of neutral powers that the whole coast from the Elbe to Brest was blockaded against the introduction of contraband of war or of goods belonging to the enemies of England. while the coast from Ostend to the Seine was subject to a rigorous blockade. This measure gave Napoleon a pretext for issuing the Berlin decree on 21st November 1806. The preamble asserted that England had violated the law of nations: (1) by extending to private property on sea a right of capture which on land only applies to property of the state; (2) by extending to unfortified towns and ports a right of blockade which is only applicable to fortified places; (3) by declaring blockaded places before which there is not a single vessel, and "places which all the united forces would be incapable of blockading, such as entire coasts and a whole empire." On these grounds he decrees that—(1) the British Islands are in a state of blockade; (2) all commerce with them is prohibited; (3) every English subject in countries occupied by French troops, or those of their allies, will be made prisoners of war; (4) all property of an English subject is lawful prize; (5) all merchandise belonging to England, or obtained from her manufactories or colonies, is lawful prize; (6) no ship coming direct from England or English colonies shall be received in any port.

This measure went far beyond anything which England had ever attempted, and was the more preposterous as France had no naval power by which it could be enforced. Probably the wisest course for England would have been to leave France to meet the discontent of her subjects and allies, and the hostility of neutral states, of which the United States were the most important. In that case the Berlin decree would almost certainly have been a dead letter. But if the continental system owed its origin to the action of France, it owed its efficiency to the action of England. Without waiting to see what attitude would be assumed by neutrals, the Whig government issued an order in council on 7th January 1807. After reciting the purport of the Berlin decree, it ordered that no vessel should be allowed to trade between one port and another belonging to France or her allies; that neutral vessels attempting such a voyage should be warned by English men-of-war and privateers; and that if they disregarded the warning, they should be captured as lawful prize. This order failed in its avowed object of compelling France to withdraw the decree, or inducing neutral states to insist on its withdrawal. On the contrary English goods in the north of Europe were rigorously confiscated by French troops. Meanwhile the Whig ministry fell, and the Tories, who succeeded to office under the duke of Portland, issued a second and far more stringent order in council, on 11th November 1807. This decreed that all ports belonging to France or her allies, or to any country from which the British flag was excluded, should be regarded as in a state of blockade; that all trade in articles produced in such countries should be condemned as unlawful; and that every vessel trading from or to such countries, or carrying their produce, should be captured as lawful prize.

Napoleon promptly answered this order by the Milan decree, 17th December 1807. Its chief provisions were as follows:—Every ship of any nation which submits to the order of 11th November is declared denationalised, and considered as British property; (2) the British Isles are declared in a state of blockade "by sea as well as by land." Every ship going to or from a port of England or English colonies is declared to be good prize; (3) these measures shall "continue to be in force until the British government returns to the principles of the law of nations, which regulates the relations of civilised states in time of war."

Thus the continental system, carried to its logical extreme by both the two great belligerents, threatened to put a stop to the commerce of the whole world. It was of course impossible to enforce with absolute strictness the provisions either of Napoleon's decrees or of the English orders. A vast system of smuggling was the inevitable result, and goods were carried to the blockaded ports, though their price was necessarily enhanced by the comparative scantiness of the supply, and by the risks run in conducting the trade. Perhaps the most curious thing is that this smuggling was connived at, and made a source of revenue, by the two states who were responsible for the prohibitions. Both England and France issued licenses for the evasion of their respective decrees. Napoleon is said to have amassed by their sale the sum of 400,000,000 francs; while in England the number of commercial licenses mounted from 791 in 1805 to 18,356 in 1810.

Although thus limited by licensed and unlicensed evasions, the results of the continental

system can hardly be over-estimated. It was a principal cause of the ultimate fall of Napoleon. To render the system efficient and complete he must make himself master of the whole of Europe. This impelled him to those enterprises in Portugal and Spain, and especially to the great expedition to Russia, which contributed essentially to ruin his power. And again the sufferings caused among the peoples of Europe by the scarcity and dearness of commodities which they had learnt to regard as necessaries excited a discontent against French domination which had not existed at the beginning of the revolutionary conquests. The French had always professed to be the enemies of dynasties but the friends of the people, and their professions had long been believed. The continental system destroyed that belief, and the Napoleonic empire fell before the popular hostility which his measures against England had excited.

With regard to England, the policy or impolicy of the orders in council was hotly debated at the time, and can hardly yet be regarded as a matter on which opinion is absolutely formed. That they did in the end serve their purpose as measures of hostility against Napoleon is absolutely demonstrable. But they did this at considerable cost. In the first place they inflicted enormous hardships upon English manufacturers, who were to a great extent deprived of the market for their produce. No doubt these hardships were lessened by the system of licenses, but this in itself is indefensible on any principles of commercial morality. The almost unanimous petitions from the chief manufacturing towns prove that they had undoubted grievances to complain of, and that these were, to a great extent, due to the policy of the government.

But the most harmful result to England was undoubtedly the quarrel with the United States. It was inevitable that the enmity of neutrals should be directed less against the state which originated the continental system than against that which had the power to enforce it. In 1808 Congress passed an act of embargo, prohibiting all intercourse with England and France as long as the two countries maintained their decrees. In the hope of conciliating the last great power which was not hostile, England modified the orders in council in April 1809, by opening to American vessels the Baltic, the North Sea, part of Italy, and the foreign possessions of the Dutch. But the quarrel was not healed, and it was further aggravated by disputes arising from the English claim to search American vessels for deserters from the navy. To make matters worse, Napoleon offered to withdraw his decrees, on condition that England should revoke the orders in council and abandon "the new principles of blockade which they had laid down." To this the English ministers would not agree, and at the end of 1810 the American ambassador quitted England.

The loss of the American market, and the prospect of a quarrel with the United States, increased the ill-feeling in England against the orders. The Whigs, who were responsible for the policy in its origin, now turned round and denounced it. At last, in 1812, Brougham carried a motion in the Commons for an inquiry before a committee of the whole house. The evidence was almost conclusive, and after a one-sided debate, the government avoided a division by announcing that the orders would be abandoned. They were repealed by an order of 23rd June 1812. But it was too late to avoid the war with America, which lasted for two years with little credit to either country, and was terminated by the treaty of Ghent in 1814. (See BLOCKADE; INTERNATIONAL LAW, PUBLIC; PAPER BLOCKADE.)

[The Berlin and Milan decrees will be found in the *Moniteur*: the orders in council in the *London Gazette*. They are quoted *in extenso* by Leone Levi, *History of British Commerce*, part ii. ch. iv., Appendix. — See also Alison, *History of Europe*, vol. viii. ch. l.—*Life and Times of Lord Brougham*, by himself, vol. ii. ch. x., and *Speeches*, vol. i.—Spencer Walpole, *Life of the Right Hon. Spencer Perceval*, vol. ii. ch. viii.—For the fullest criticism of the policy of the orders in council, see Hansard, *Parliamentary Debates, sub. ann.*, 1812.] R. L.

CONTRABAND. A term used to denote articles in which trade is carried on contrary to the provisions of (*a*) international law and comity, (*b*) the revenue laws of a nation.

(*a*) It has been generally admitted amongst civilised nations that the subjects of a neutral power are entitled to continue to trade with those of powers at war with each other without rendering their goods liable to capture and forfeiture. In order to enable this right to be exercised without detriment to the position of the belligerents, international jurists have endeavoured, with some limited success, to lay down the rules which should be observed in trade so carried on, and those rules have frequently been embodied in treaties. It is now well established that the carriage and sale to a belligerent of instruments and materials which are, by their own nature, fit to be used in war, are inconsistent with neutrality. "If," says Lord Grenville (*Letters of Sulpicius*, p. 26), "I have wrested my enemy's sword from his hands, the bystander who furnishes him with a fresh weapon can have no pretence to be considered as a neutral in the contest." All such instruments or materials are therefore regarded as contraband, or *merces banno interdicta*, and they are liable to seizure and forfeiture if captured in course of conveyance to a belligerent. Another class of articles is said to be *ancipitis usus*, *i.e.* of variable application, being of such

a character that it cannot be exactly determined whether they are intended for belligerent or for ordinary commercial purposes. Amongst these articles are coal, naval stores, timber, and tar. The decision whether articles of this class are to be deemed contraband will rest with the court before which the goods are brought, when regard should be had to the destination of the ship, the purposes for which the goods are intended, the position and character of the war, and the regulations and treaty obligations laid down or accepted by the belligerent. Even, however, if articles of this class are held to be contraband, they are not ordinarily subject to seizure, but merely to the right of pre-emption, under which their full value, with, in some cases, the ordinary mercantile profit, is paid for the articles if the belligerent desires to retain them. This right is described by Sir Robert Phillimore as "a fair compromise between the right of the belligerent to seize, and the claim of the neutral to export his native commodities, though immediately subservient to the purposes of hostility" (*Commentaries upon International Law*, vol. iii. 2nd edition, p. 451). Within these limitations as to commodities, and subject to absolute prohibition of commerce with besieged and blockaded places, "it cannot be too emphatically declared that it is the unquestionable right of the neutral to carry on a general trade with the belligerents" (*ibid.* p. 387).

(*b*) The term "contraband" is also applied to goods in respect of which the requirements of the revenue laws of a country have not been complied with, and which are liable to seizure hereunder. Section 177 of the Customs Laws Consolidation Act, 1886 (39 & 40 Vict. c. 36), provides that goods unshipped without payment of duty, prohibited goods (whether imported or shipped for exportation), goods illegally removed from a warehouse, goods concealed on board a ship or boat, and goods packed therewith for the purpose of concealing them—are all liable to forfeiture, and a similar provision is enacted (§ 179) in respect of prohibited goods found on board or attached to any vessel or boat found on arriving within the United Kingdom, or within three leagues thereof. The seizures may be disposed of as the commissioners of customs direct. The excise acts contain similar enactments with respect to excisable commodities.

In 1887 the customs officers made 2860 seizures, amounting in the aggregate to 20,185 lb of tobacco and cigars, and 467 gallons of spirits. The produce of these seizures is, as a general rule, sold, if a price over and above the duty can be obtained, and the articles are legally saleable.

[Phillimore's *Commentaries on International Law.*—Wheaton's *Elements of International Law.*—Hall's *International Law*, 2nd ed., 1884, pp. 598-637.—As to offences against the revenue laws see the annual reports of the commissioners of customs and inland revenue.] T. H. E.

CONTRACT. The origin of contracts must be co-eval with the first commencement of economic relations among mankind. The simplest actions of daily life, even amongst the least civilised communities, are really forms of contract. Exchange and barter, the earliest and crudest outcome of the law of supply and demand, is essentially a contract. The man who can make a rude plough finds himself, by the possession of that faculty, independent of the necessity of engaging directly in agricultural pursuits to obtain a share of the fruits of the earth. This elementary example will suffice to demonstrate the primary bearing of the doctrine of contracts on economic questions. For even in this there is traceable one of the great and fundamental principles of contract in its relation to political economy, namely, the power it bestows of obtaining at once a personal benefit, through entering into an engagement ultimately to discharge the original obligation. In more advanced conditions of society, the principle assumes more extended development; landowners lease land to farmers possessing skill and capacity requisite to till that land to advantage, capitalists advance money to merchants to be employed in trade to produce profits exceeding the rate of interest demanded, but the principle is still the same. It is obvious that to induce a man to entrust his property to another, to part with his present enjoyment and use of it for the sake of future advantage, the certainty of that future advantage must be secured to him, he must have a hold over the person to whom he has entrusted it, he must, to carry on his business and arrange fresh combinations, be able to reckon with confidence upon the return to him of his capital, together with the increment which is the result of its temporary alienation. It is the establishment of this confidence, the basis of any system of credit, which is the aim and object of the law of contracts. The methods by which the law seeks to attain this security are various. For two objects, apt to clash, have to be borne in mind. On the one hand, that of ensuring performance of, inspiring confidence in, the fulfilment of the contract; on the other, that of encouraging the freedom of contract by attaching thereto such safeguards that persons may readily bind themselves, knowing that the law will protect them, and that precautionary measures exist which will prevent undue advantage being taken of ignorance, necessity, inadvertence, want of proper advice, or lapse of time; and that fraud, if it exists, will invalidate any contract, however formal and solemn. To turn to concrete examples. Among the first class, or what may be termed the promisee's safeguards, may be enumerated the rules by which money due or liquidated demands under a contract can be recovered by speedy and economical process, such as that provided by Order XIV. of the

rules of the Supreme Court, which practically casts the onus of proving non-liability on the defendant, and the procedure which amerces damages, assumed to be commensurate with the injury directly or reasonably referable to the breach of the contract, or where such damages afford no sufficient reparation, specific performance of the contract itself. The other class, which may be termed the promisor's protection, comprises enactments, such as the statute of limitations, which requires that actions on contracts should be brought within such period as to render it probable that witnesses who can speak to what really took place may be still available; the statute of Frauds, rendering writing necessary for proof of contracts attaining a certain degree of importance or extending over a specified period; the whole doctrine of the limitation of the contractual powers of infants and married women, the equitable rules which will in fitting cases set aside or modify unconscionable bargains with reversioners or persons whose immediate and pressing needs impair their liberty of action, and finally the great principle that fraud invalidates everything.

In certain exceptional cases the legislature goes even further than this, and adopts a course which must always be open to criticism and discussion. It passes an act to benefit a particular class, such for instance as the Agricultural Holdings Act of 1883, or the Ground Game Act of 1880, and then provides that it shall not be competent for any member of the class intended to be benefited to contract himself out of the act. How far this interference with freedom of contract is justified must always be an open question. It is never permissible save in the interest of a class admittedly improvident or prone to sacrifice future advantage for immediate gratification, such for example as sailors. But even in such cases, members of the class intended to be benefited must occasionally lose good opportunities by reason of the fetters so imposed on their contracting powers. Take the case of a farmer willing to take a farm at a lower rent if he could renounce the benefit of the Ground Game Act, having no inclination to avail himself of the sporting reservation it ensures him, and possessing a well-founded confidence that his landlord, from his own tastes and interests, to say nothing of his regard for an obligation assumed, would never permit ground game to increase to the prejudice of the tenant's occupation of the farm. It certainly seems hard that the parties should not be permitted to regulate their relations in accordance with their own wishes and their mutual interests. But the justification of such measures is to be found, if at all, in the general interest of the community and the welfare of the class specially concerned, and for one case where the rule might probably be relaxed with advantage, there would be many where the deviation would produce ultimate disadvantage to one party. Some instances of legislative interference with freedom of contract seem, however, to be entirely beneficial, such for instance as the Truck Acts, and the legislation respecting the employment of women and children in mines and factories. (see CHILDREN'S LABOUR, and FACTORY ACTS.) An interference with contracts, frequently unjustifiable, is that of *ex post facto* legislation, enactments which set aside or modify existing contracts, not on the ground of any inherent disability or irregularity existing at the time the contract was entered into, not on any suggestion that the parties were not of competent and freely consenting mind when they contracted, or that the contract was in any way tainted with fraud, but on the plea that since that date circumstances have altered, that something has supervened which renders it equitable or desirable that its terms should be reconsidered or readjusted without the consent of at least one of the parties thereto. Whether such circumstances exist or not in any particular case, or whatever estimate may be made of the justice or the policy of such a measure, appears altogether outside the economic questions involved. If good is done in any particular case, the benefit is immeasurably outweighed by the danger of the precedent, by the general sense of insecurity induced, and the shock to confidence in the sanctity of contract occasioned thereby. Instances are not far to seek. Irish rents in recent times, and commercial obligations in France during the stress of the Franco-German war, have been the subject of this sort of *ex post facto* legislation, and however widely opinions may differ as to the degree of justification afforded in each case by the exigencies of the situation, the precedent cannot from an economic point of view be regarded as otherwise than dangerous. Such legislation has been likened to a convulsion of nature which by destroying the subject matter of a contract renders the fulfilment thereof impossible and takes away in ordinary cases any right to damages for the breach; and the simile indicates the legal attitude towards exceptional measures of this nature. A question of mixed economics and law in relation to contract which is at present taking definite and practical form is how far the law will intervene to limit combinations which, having as their objects the attainment of complete or partial monopolies and the elimination of healthy competition, may tend to enhance the price of articles of daily necessity, to the benefit of the few and the prejudice of the many. Contracts made with a view to such an end may be declared void as between the parties both in this country and in America, but community of interest secures adherence to the terms of such contracts and the remedy, if any, must be brought to bear from outside. As stated by Lord Coleridge in the recent case of the Mogul Steamship Company, Limited,

v. M'Gregor, Gow, and Co., 21, Q.B.D., 544, in a judgment affirmed by the H. of L. (92) Appeal Cases 25, the line which separates the reasonable selfishness of traders from wrong and malice is one difficult to draw in words. But the law of conspiracy is very untrammelled and general in its operation, embracing in its widest definition any combination of two or more persons for the accomplishment of anything which in the opinion of the court is detrimental to the public welfare, and it will probably come to be judicially settled before long how far salt unions, flour and coal unions, and the whole development of the ring system, fall within the scope of the criminal law under this head.

The intervention of bankruptcy law to preclude the full enforcement of contracts stands on a different footing (see BANKRUPTCY LAW). The possibility of bankruptcy is always a remote potential incident of every contract, from the inception of which it must be taken to have been in the contemplation of the parties and accepted by them; moreover, the obloquy and disabilities involved by becoming bankrupt, coupled with the necessary surrender of all existing, and until discharge, all accruing, property constitute a sufficient deterrent and punishment to warrant an interference which is after all more in the interest of the body of creditors than of the bankrupt.

Confidence in the fulfilment of contracts renders possible the replacement of a very large proportion of the circulating medium of a country by the employment of paper to represent the gold or silver which would otherwise be required. Bank-notes are merely contracts to pay, yet the firm belief in the validity of the contract supports a circulation adequate for the wants of the country, with the assistance only of coin representing a comparatively small proportion of the outstanding liability, and so with bills and promissory notes; though only contracts, yet, backed by the credit of the parties to them, they take, during their currency, the place of coin.

So again, the entire fabric of legitimate co-operation and combination, of partnerships, the utilisation of capital and organisation of labour, would be impossible were it not for the doctrine of contracts and its practical availability. A firm of contractors, themselves bound by contract to unite their energies and capital, or deriving that capital from others by means of contract, undertake under contract important works for a body of persons who again, as a company, combine their capital under the provisions of a contract of association, the contractors make subcontracts with managers, foremen, and workmen for their respective services, with producers, carriers, shipowners, and manufacturers for the supply and carriage of the requisite materials and plant, other contracts are entered into with landowners for the site to be occupied, and so by the intervention of a series of contracts, an enterprise is carried through which would be absolutely impossible without such machinery. Employment is found directly or indirectly for a large number of persons, and money is put into circulation through the most remunerative and beneficial channels.

As we have seen that the principle of contract helped to supply the simplest wants of early economic society, so it keeps pace and expands with the increasing needs of advancing civilisation. By an inherent power of development, without any moving cause other than men's recognition of its necessity and appreciation of its efficacy, it rises to every fresh occasion, and almost insensibly permeates daily life to the welfare and progress of society at large.[1]

[Addison on *Contracts*.—Chitty on *Contracts*.—Pollock's *Law of Contracts*.—Anson on *Contracts*.]

J. R. P.

CONTRACT, LAW OF. A contract is a legally binding promise made by one or more persons to another person or other persons, to do some act, to forbear from some act, or to suffer some act to be done, for the benefit of such other person or persons. Such a promise, whether legally binding or not, is called an agreement, and an agreement becomes a contract if the following requirements are complied with: (1) the promise must be intended to create a legal relation between the parties (*e.g.* a promise to dine at a friend's house is not a contract); (2) the parties must be capable of contracting (*e.g.* the agreements of infants and lunatics are mostly invalid, and a married woman having no separate estate is incapable of contracting); (3) the contents of the agreement must have been submitted by the one side to the other (offer), and must have been assented to by the latter in an unambiguous and unqualified manner (acceptance); (4) the agreement must not be entered into for an unlawful or immoral object (*e.g.* an agreement not to exercise a certain trade without any limit as to space is invalid, as being in general restraint of trade, and therefore against public policy; an agreement to commit an indictable offence is similarly void, and there are numerous other instances); (5) the contract must either be made by deed (*i.e.* signed, sealed, and delivered by the promising party or parties), or it must be supported by a "valuable consideration."

A contract made by deed is called a contract under seal or a specialty; contracts not made by deed are called simple contracts or parol contracts. A valuable consideration may consist in a benefit accruing to the promising party or in a sacrifice made by the party to whom the promise is made, in exchange for the promise.

[1] Montesquieu's story of the Troglodytes forcibly illustrates the dissolution of society through breach of contract.

If, for instance, A by contract under seal promises to B to pay him £500 on a given day by way of gift, B will succeed in an action against A if A fails to pay at such date. If, on the other hand, the same promise be made by writing without seal, B has no remedy in case of non-performance. If, however, A, by word of mouth, promises B to pay him £500 in two days in consideration of B lending him a book for two hours, there will be an enforceable contract, as the adequacy of the consideration is not inquired into except in so far as it might be evidence of fraud.

An agreement which satisfies the above-mentioned requirements is called a contract; if, on the other hand, any one of the requirements is not complied with, the transaction remains without any legal effect, and the agreement is called "void." Void agreements must be distinguished from unenforceable and voidable contracts.

Certain classes of contracts are not enforceable in the absence of written evidence as to their contents, the following being the most important:—

(1) Under § 4 of the Statute of Frauds (29 Car. II. c. 3).

(*a*) Contracts by which an executor or administrator assumes personal liability for debts owing to the estate administered by him. (*b*) Contracts of guarantee. (*c*) Contracts made in consideration of marriage. (*d*) Contracts for the sale or purchase of land or of any interest in land. (*e*) Contracts not to be performed within a year from the date on which they are made.

(2) Under § 17 of the same statute.

Contracts for the sale of goods at the price of £10 or at any higher price, unless the goods have been partly accepted and received by the buyer, or have been partly paid for by the same.

(3) Contracts arising on bills of exchange.

(4) Contracts of marine insurance, etc.

The requirement of writing in these cases does not affect the validity of the contract; only so long as no written evidence exists the contract cannot be proved in a court of law; but written evidence dated from a time subsequent to the date of the contract, if otherwise in order, is quite sufficient.

A "voidable" contract is one which may be rescinded by one of the parties, unless such party, after having become aware of the circumstances which make the continuance of the contract depend on his option, by his conduct or by express words shows that he intends to abide by the agreement. Thus, for instance, a contract induced by fraud or undue influence is voidable at the option of the defrauded or intimidated party.

The usual remedy for breach of contract is an action for damages; the party who suffers loss in consequence of such breach is entitled to receive compensation in money from the party who failed to perform the contract. He is "as far as money can do it to be placed in the same situation as if the contract had been performed." The causal connection between the non-performance and the loss must, however, not be too remote, and the loss must be of such a description as might reasonably have been contemplated by the parties when entering into the contract. Thus a person who sends some machinery for repair through a carrier who fails to deliver it in proper time cannot claim compensation for the loss of trade arising through the delay in the receipt of the repaired machinery. If, however, a carrier undertakes to carry goods which to his knowledge were meant to be sold at a particular time, he is liable for the damage done by loss of market arising from a delayed delivery. In actions for non-payment of a debt nothing more than the sum due could be recovered formerly, unless there was an express promise to pay interest; it is now provided by 3 & 4 William IV. c. 42, §§ 28, 29 that in the case of a debt payable by virtue of a written instrument interest at the current rate may be allowed by way of damages.

The practice of the Court of Chancery has provided a remedy, in cases where money is no adequate compensation for a breach of contract, in the shape of an order for specific performance. This remedy is, however, available only to a very limited extent, the most conspicuous instances being contracts for the sale of land, and even in the case of a contract which, according to the nature of its subject matter, might be specifically enforced, the court will not grant a decree unless certain requirements are complied with, one of the requirements being valuable consideration, which for the purpose of specific enforcement must exist in a contract under seal as well as in a simple contract. E. S.

CONTRACT NOTE. The writing on these documents is a short and formal announcement that a stockbroker has bought or sold for his principal a given amount of stock, bonds, or shares at specified prices, to which is added brokerage and a stamp, which Mr. Goschen raised to 6d., on each contract note for more than £100, but which, before 1888, used always to be 1d. Contracts do not pass between members of the stock exchange. It is a rule that every bargain between members should be checked by 11 A.M. on the following day; and the committee will not listen to any dispute if this be neglected. A. E.

CONTRACTORS. Persons who are parties to a contract. The name is more specially applied to persons who make it a regular business to undertake large works (*e.g.* the construction of railways, bridges, or buildings) for sums fixed beforehand. E. S.

CONTRACTUS TRINUS. See ECK, JOHANN.

CONTRIBUTION, CONTRIBUTORY. See COMPANY.

CONVENTION OF ROYAL BURGHS OF SCOTLAND. This municipal federation originated in the court or parliament of four burghs, which consisted of representatives from Edinburgh, Stirling, Berwick, and Roxburgh. In 1368 Lanark and Linlithgow were substituted for Berwick and Roxburgh. In the 13th and 14th centuries this court, with the chamberlain of Scotland as presiding officer, exercised a general supervision over the burghs of the kingdom, legislating for them, and acting as their high court of appeal. The transition from the old parliament or court of four burghs to the modern convention of royal burghs seems to have taken place gradually during the 15th century. Already, in 1405, the process of transformation is perceptible. In this year the court of four burghs enacted that two or three burgesses from each of the king's burghs, south of the Spey, should assemble annually to treat and ordain concerning all things that relate to the well-being, liberties, and court of the king's burghs. The name "convention" gradually superseded "court" and "parliament" in the first half of the 16th century.

The most important member of the league was Edinburgh, which sent two commissioners to the meetings of the convention, while the other royal burghs usually sent only one. Edinburgh was also generally selected as the seat of the convention. But the place and time of meeting varied. As a rule, the commissioners assembled annually. The presiding officer, elected at each session, was called the moderator. He was generally the commissioner of the town where the meeting was held, or, if there were two commissioners, the senior delegate. A committee of representatives of various burghs was often appointed to transact urgent business while the convention was not sitting.

The chief function of the convention was the supervision of trade, domestic and foreign. It made regulations concerning markets, tolls, fisheries, manufactures, customs-duties, shipping, imports and exports, etc. It negotiated commercial treaties with continental states and cities. It exercised control over Scotch merchants in France, Flanders, and other countries of Europe. The chief foreign trade of Scotland was carried on with the Netherlands, and was monopolised by the royal burghs. This trade was regulated through "the conservator of the Scotch privileges in the Netherlands." He was elected by the convention, though the king sometimes claimed and exercised the right of appointment. The conservator lived in the Scotch staple-town, usually Campvere (the modern Vere in the province of Zealand), where the royal burghs enjoyed important privileges. He had general charge of Scotch merchants and factors in the Netherlands, and was the judge of the conservatory court, which tried all civil and criminal cases concerning Scotsmen. The "lord" conservator was himself guided by the instructions and orders of the convention. At Campvere there was, moreover, a "consergerie," where the Scotch merchants lodged and took their meals. The master of the consergerie was expected to enforce many minute regulations, some of which were peculiar. In the staple-town we also find a Scotch school, kirk, and prison-house. The convention carefully regulated everything relating to these various institutions, including even the wearing apparel of merchants and the price of their meals.

Besides the supervision of commerce, this powerful organisation exercised important functions in connection with national taxation. It apportioned public taxes among the burghs. It also sometimes made loans and grants of money to the king.

A third important function of the convention was the oversight of the internal administration of royal burghs. It took cognisance of weights and measures; altered the "setts" or written constitutions of towns; decided controversies between burghs, or between burghs and their magistrates; and regulated the election of municipal officers, the qualifications of burgessship, the finances, etc., of towns. It also often appropriated money for the repair of harbours, and for the general improvement of particular burghs.

The federation is still in existence, but its most important functions have been absorbed by parliament. Its meetings are held annually at Edinburgh, which is represented by two commissioners and two assessors, while the other burghs send one commissioner and one assessor. The larger towns have cause for complaint owing to the inequality of representation. The convention now merely makes suggestions and recommendations concerning commerce and municipal affairs, for the purpose of influencing public opinion and parliamentary action. It used to exert great influence upon national legislation.

[This account is based upon the *Acts of the Parliament of Scotland* (12 vols., 1814-1875), and especially upon the *Records of the Convention of Royal Burghs*, edited by J. D. Marwick (6 vols., Edinburgh, 1866-90). These *Records* form a rich, unworked mine of information for historians and economists. There is no good history of the convention.—John Mackay's *Convention of the Royal Burghs of Scotland* to 1707 (Edinburgh, 1884) is a very brief and fragmentary account. The subject is worthy of more attention than it has thus far received.] C. Gr.

CONVENTIONAL TARIFF. This term is applicable to regulations, of a more or less arbitrary or empirical kind, giving a fixed value of conversion from one currency to another, in which the exact intrinsic value or

unit par of exchange is disregarded. Thus, the English sovereign in Portugal has a legal conventional tariff value of 53⅓ pence per milreis of her own gold coinage, although the pure gold value of the latter is only 53·284 pence. Then again, in international postal conventions between England and a great group of other countries, similar fractional differences are allowed to be, so to speak, glossed over. For example, ten centimes and one penny are to an enormous extent taken as identical. But one penny, as the two hundred and fortieth part of a gold sovereign, has about ·00417 of its value, whilst ten centimes have only about ·00396. This is tantamount to depreciating English currency to the extent of more than 5 per cent of its real value. In the practical result, the British public has been unduly generous and quixotically lavish in letting itself be mulcted in this way by conventional tariffs. The extent of this may best be understood if attention be given to the fact that hundreds of millions sterling, by way of loans to foreigners, have been advanced, in which a conventional tariff has been used, either of 25, instead of 25·2215, francs, to the sovereign, or of 48, instead of 49·316, pence to the dollar. F. H.

CONVENTIONAL VALUE. A term sometimes used as equivalent to Official or DECLARED VALUE (*q.v.*), for the Board of Trade and customs returns. The values of goods imported and exported were, down to 1870, computed at prices ascertained in 1694, as a conventional method of bringing them all together into money totals. Thus, *e.g.*, "eggs" were on importation calculated at a uniform value of 9d. a great hundred, though in the meantime the prices had risen to 6s.; and cottons on exportation at 1s. 6d. per yard, though they had fallen to 4½d. French values are re-adjusted every year, and those so obtained are conventionally used in all publications during the progress of the year, but corrected for the annual records. S. Bo.

CONVERSION OF BRITISH NATIONAL DEBT. The form in which the British National Debt has been held has frequently been modified. The improved condition of the public credit has from time to time enabled the government to make arrangements for the payment of a lower rate of interest, an object which is accomplished either by the issue to the holders of the stock to be converted of another stock bearing a different rate of interest, or by the repayment of the capital value of the stock out of moneys borrowed for the purpose. In the one case the stockholder remains unchanged, although the nominal amount of his holding, and the interest paid upon it may be varied. In the other, the place of the original stockholder is taken by one who is ready to accept less favourable terms for himself.

Operations of this character have not been infrequent. The first conversion of the British National Debt was carried into effect in 1711, when a mass of floating obligations was converted into £9,177,968 of South Sea Company's stock bearing 6 per cent interest. In 1750, Mr. Pelham converted £54,413,433, 4 per cent stock into the same amount of new stock eventually to bear 3 per cent interest only. In 1817 the Irish debt, of £103,033,750, was converted into the debt of the United Kingdom. In 1822, Mr. Vansittart converted £149,627,867, 5 per cent stock into £157,109,217, 4 per cent stock. In 1824, Mr. Robinson converted £70,098,935, 4 per cent stock into 3½ per cent stock of the same amount. In 1830, Mr. Goulburn converted £150,790,176, 4 per cent stock partly into 5 per cent stock at the price of 70, but almost wholly into 3½ per cent stock at par. In 1834, Lord Althorp converted £6,489,190, 4 per cent stock into an equal amount of 3½ per cents. In 1844, Mr. Goulburn succeeded in converting £248,757,311, 3½ per cent stock into a new stock to carry 3¼ per cent for ten years and 3 per cent for twenty years. In 1853, Mr. Gladstone arranged for the conversion of £3,063,906, 3 per cent stocks. In 1883 a sum of £70,241,908, 3 per cents was converted into terminable annuities, and in 1884, Mr. Childers converted £23,362,596, 3 per cent stocks into 2¾ per cents at 102, and 2½ per cents at 108.

For some time prior to 1888, the price of the leading marketable securities, including British government stocks not redeemable at any early period, had made it evident that the state of the public credit rendered it unnecessary that so much as 3 per cent interest on the funded debt should be paid. On the 9th March of that year Mr. Goschen submitted a scheme for the conversion of the three per cent stocks then existing—consols, reduced threes, and new threes—into a single stock to bear interest, payable quarterly, at the rate of 3 per cent for the year ending the 5th April 1889, 2¾ per cent for the following fourteen years ending the 5th April 1903, and 2½ per cent for the next succeeding twenty years ending the 5th April 1923, and thenceforward until it should be redeemed. The new stock was to be called "Two-and-three-quarters per cent consolidated stock" until the 5th April 1903, and "Two-and-a-half per cent consolidated stock" thereafter. An equivalent amount of the new stock was offered in exchange for the stock to be converted, and any increase in the nominal amount of the debt was thus avoided, but an important difference in the position of the three old stocks as respects redemption rendered a different *modus operandi* and some variation of terms essential. The new 3 per cent stocks had been redeemable at any time since the 5th January 1873, and Mr. Goschen proposed to assume consent to the

conversion unless the holders formally dissented, in which case they were to be paid off at par in one sum, or in such proportions and in such order and manner as the treasury might direct. The amount of stock to which this arrangement was applicable was £166,399,043.

The position of the holders of consols and reduced threes was a better one, for they possessed a right to twelve months' notice before their stock could be redeemed. In their case it was considered that assent to conversion could not properly be assumed in the absence of a formal acceptance of the altered terms, and in order therefore to encourage holders to give such assent and to forego their privilege of notice, a bonus of 5s. per cent was to be given to those who agreed to the conversion within certain specified periods. The amount of the stocks to which this arrangement applied was in the aggregate £391,593,466, of which £322,681,033 was in consols, and £68,912,433 in reduced threes. The former amount was subsequently increased by £34,625,778, created in lieu of the remaining sums to be paid in respect of a terminable annuity into which certain stocks belonging to suitors of the supreme court had been converted.

In order to compensate stockbrokers, bankers, solicitors, and other recognised agents for the trouble to which the offer made to holders of consols and reduced threes would put them, the treasury were to be empowered to pay a commission of 1s. 6d. per cent on the stock converted.

The proposals made by Mr. Goschen were favourably received both in parliament and in financial circles, and a bill embodying them received the royal assent on the 27th March 1888. It speedily became evident that the scheme would be successful. The simplicity of the terms proposed had undoubtedly much to do with the success of the operation, together with an impression current among business men that such a conversion was certain to be carried through. By the 29th March, the holders of new threes who had expressed dissent represented not more than some £400,000 out of £166,000,000, whilst assents on the part of the holders of consols and reduced threes to the extent of £297,406,173, or nearly 76 per cent of the whole, were received by the 26th April, an additional £70,861,170, or 18 per cent, being converted between that date and the 1st June. On the 5th November 1888, new stock to the extent of £549,094,011 had been accepted and £1,199,102 old stock had been paid off, leaving a balance of £42,325,173 still to be dealt with.

The operations undertaken for the conversion and failing this the redemption, of this remanet may be thus summarised:

Stock redeemed by the action of the ordinary Sinking Funds	£1,356,461
Paid off under discount	6,128,006
Stock acquired by National Debt Commissioners and converted	8,164,312
Stock temporarily converted into a 3 per cent Book Debt	6,376,143
Stock automatically converted	8,426,141
Paid away or claimed in cash	11,874,110
	£42,325,173

The final results of the whole series of operations were as follows:—

Stock dealt with.	Amount.	Per Cent.
Converted into new stock	£565,684,465	95·7
Paid off in money	19,354,253	3·3
Converted into a temporary "Book Debt"	5,785,689	1·0
Net amount of stock dealt with	£590,824,407	100·0

The cost of the operations was as follows:—

Bonus to redemptioners	£958,528
Commission to agents	234,073
Remuneration to Banks of England and Ireland	116,054
Dividend paid in advance	1,715,815
	£3,024,470

The saving in the interest payable on the National Debt exceeded a million in the years 1889-90; for each of the following thirteen years it will be about £1,400,000, an amount which will be doubled after 1903-4.

[Hansard's *Debates*, vol. cccxxiii. pp. 709 and 1813; vol. cccxxiv. p. 118.—The Acts 51 Vict. c. 2, 51 & 52 Vict. c. 15, & 52 Vict. c. 4.—*Parliamentary Papers*, Nos. c. 5584, 283 of 1889 and 153 of 1890.—Also, for a detailed account of the operations, *Conversion and Redemption*, by E. W. Hamilton, London, 1889.] T. H. E.

CONVERSION, COLONIAL AND FOREIGN STOCKS. In its financial aspect "conversion" is a term generally applied to consolidations and simplifications of securities or to reconstructions of a national currency, like that carried out by Germany in 1873. It is intended to confine these remarks to the most important conversions of colonial and foreign stocks. (For the conversion of the British National Debt see separate article.)

Colonial Stocks.

Canada.—In 1860 Canada effected an important conversion of her 6, 5, and 4½ per cent debentures into 5 per cent consols or bonds, redeemable in 1885, when the holders were offered 4 per cent inscribed stock, and most of them accepted the offer.

Cape of Good Hope.—This colony has effected various conversions of debt, that of 1872 con-

verting the securities of the Cape Railway into government 4½ per cent consolidated debentures and that of 1886, offering the holders of the entire debt bearing 6, 5, 4½, and 4 per cent, the option of converting into 4 per cent inscribed stock. This offer applied to £13,343,100 in bonds and was largely carried into effect.

India.—In 1874 there was a partial conversion of the old 10½ per cent stock of 1833. In 1880 India 5 per cent stock was converted into 4 per cent stock. In 1887 India 4 per cent stock was offered the option of converting into 3½ per cent stock, when £48,215,673 accepted the terms offered. Since then there have been some conversions into 3 per cent stock.

New Zealand.—This colony effected important conversions of debt, in 1868, when New Zealand 5 per cent consols were issued, and in 1885 and 1886, when loans of about £14,000,000 were allowed to convert into 4 per cent inscribed stock, the holders mostly availing themselves of the option.

Jamaica, Mauritius, and Natal have likewise effected conversions of debt.

Foreign Stocks.

In 1869 Austria compulsorily converted all her issues into internal 5 per cent rentes, whereupon the Council of Foreign Bondholders issued "Anglo-Austrian bondholders' certificates" to cover the loss entailed. These were redeemed at £5 each in 1871. In 1888 there was a partial conversion into 4 per cent gold rente, which will probably be carried further.

Egypt has also effected many consolidations of this nature, but the unification carried out in 1877 was by far the most important of them. All the then existing loans of Egypt, many of them carrying high rates of interest and sinking fund, were converted into 38½ per cent 5 per cent preference stock, and 61½ per cent unified stock, which was to bear up to 7 per cent interest. But in reality it has borne 4 per cent interest. At the same time the Khedive's private loans were converted into Daira Sanieh debt. These conversions were the result of Mr. Goschen's mission in 1876, which proved the financial salvation of Egypt.

French debt conversions have been numerous, one of the latest being in 1883 of the 5 per cent national loans into new 4½ per cent rente to the amount of £271,591,430. This stock may be again converted from 1893. In 1878 new 3 per cents were issued in conversion of some railway stocks; in 1883 this stock was added to by conversion of the savings banks' deposits. Altogether about £75,000,000 was so dealt with.

Mexico has made many conversions, with and without the consent of her creditors. The last, in 1886, whereby the entire foreign debts were exchanged for consolidated debt of 1886, bearing 1 per cent rising to 3 per cent interest, was the result of protracted negotiations following on the practical repudiation of 1866.

Peru, to go no farther back, effected partial conversions in 1852, 1862, 1865, and 1872, and it is evident, that before Peru ceases to be classed amongst the list of defaulters, a further consolidation and reduction of debt will have to be carried into effect.

Russia has carried out a number of conversions, partly of internal debt. But her latest conversion, that of 1889, is to exchange the 5 per cent railway loans of 1870, 1872, 1873, and 1884 into £49,120,783 of 4 per cent bonds.

Spain effected her first conversion of foreign debt in 1834, and from that time up to the consolidation and conversion of 1881-82 her arrangements with her creditors were numerous. By the last arrangement all her outstanding loans were exchanged for 4 per cent external and internal stock, with a large reduction in the nominal capital of the debt.

Turkey in 1865 converted her many internal debts into a general debt bearing 5 per cent interest. In 1882 all the loans upon which Turkey was in default were converted into four series of 1 per cent bonds amounting in all to £91,842,000.

The United States in 1871 and 1873 converted 6 per cents into a 5 per cent funded loan for $500,000,000. In 1876 a further $300,000,000 in 4½ per cents were issued for conversion purposes; and in 1877-78 another $739,000,000 were issued in exchange for 6 and 5 per cent bonds. In 1881 the 5 per cents of 1871-73 were renewed at 3½ per cent, and in 1882 they were converted into 3 per cents, which have since been entirely redeemed.

There is hardly a foreign country of any standing which has not carried out similar operations, the main object in all being to pay lower rates of interest upon their obligations. It is not too much to say that if all the government debts of the civilised world carried interest now at the rates originally contracted for, their burdens in interest would quite double what they now are. It is evident too, that many further conversions to lower rates of interest will be effected in the near future.

CONVERSION OF ARABLE LAND INTO PASTURE IN ENGLAND.—Historically, two epochs stand out in which tillage has been on a large scale converted to pasture in England: (1) 1400-1580; (2) 1878 to present time.

(1) So long as self-sufficing farming was practised or feudalism prevailed, little or no attention was paid to the nature of the soil or climate. Whatever corn was required for the support of isolated villages, organised as separate communities complete in themselves, was necessarily grown upon the spot, and land was valued less for the rents it produced than for the men it supported. Divisions into arable and pasture were therefore dictated by social exigencies

instead of natural advantages. At the end of the 14th century farming for profit was introduced, and gradually tillage was superseded as the staple agricultural industry; pasture became the rule, and wool the source of the farmer's wealth. This change was, in the first instance, due to social causes. The BLACK DEATH (*q.v.*) depopulated rural districts. Landlords were deprived of their quit-rents, and holdings thrown upon their hands. There was plenty of land, but few to work it; little money was forthcoming to pay for labour even when it was available. In this crisis landlords adopted one of three courses: (*a*) they offered stock and land leases (Rogers, *Agriculture and Prices*, i. p. 24); (*b*) they exacted the labour services, which had now become exceptionally valuable; (*c*) they laid down their land to pasture, and enclosed vast tracts as sheep-runs. From these courses followed important results. From (*a*) sprang the class of tenant farmers; from (*b*) the Peasants' Revolt of 1381 and the effort to destroy the manorial muniment rooms (Denton, *Fifteenth Century*); from (*c*) the acceleration in the break-up of the old manorial and common-farm system, as a more profitable method was discovered of employing land. If this last course was adopted upon lands depopulated by the Black Death, no social grievance was caused. If the change simply meant the conversion of common farms into enclosures on which corn and cattle could be conveniently raised, it constituted an advance in agricultural science, and displaced little or no labour. But, as a rule, the change meant that landlords withdrew their demesnes from the common farms, ceased to employ labour, enclosed an undue share of the wastes, deprived copyholders and tenants of the means of cultivating their own holdings, and threw the new enclosures into vast sheep-walks. Thus the change caused a large amount of agrarian distress and social discontent [*Libelle of English Polycye*; Denton, *Fifteenth Century*; More's *Utopia*, p. 41 (English Reprints, 1869); *Dialogue between Cardinal Pole and Thomas Lupset*, E. E. T. S.; *Supplication of Poor Commons*, E. E. T. S.; F. W. Russell, *Kett's Rebellion*, etc.] When once the tendency began, it was accelerated by the dissolution of the monasteries and the high profits of the rising wool trade, and continued to develop in spite of the prohibitions of the legislature (*e.g.* 6 Hen. VIII. c. 5; 7 Hen. VIII. c. 1; 25 Hen. VIII. c. 13; 27 Hen. VIII. c. 22). England in fact became a grass-growing, wool-producing, pasture country until the pressure of population at the close of the 18th century reversed the agricultural policy.

(2) War prices of corn (1797-1815) encouraged farmers to plough up land for corn. But the preponderance of pasture over arable land continued after the change had been long in progress. Of this fact two inquiries give sufficient proof. Mr. Comber (*Inquiry into the State of National Subsistence*, 1808) calculates the arable land *and gardens* of England and Wales at 11,588,000 acres, the lands depastured by cattle at 17,479,000 acres, and the commons and cultivated wastes at 6,473,000 acres. Mr. Couling (Select Committee on Emigration, 1827) calculated in that year the arable land *and gardens* of England and Wales at 11,143,370 acres, the meadows, pastures, and marshes at 17,605,630; the uncultivated improvable wastes at 3,984,000 acres. Temporarily checked from 1815 to 1850, the tide set subsequently in the direction of the conversion of pasture into arable land. In 1874 there were 13,900,000 acres of land in England and Wales under corn crops, green crops, or rotation grasses, as against 12,071,691 acres under permanent pasture. In 1875 there were 13,980,000 acres of land under corn crops, etc., against 12,202,596 acres of pasture. Thus, as compared with 1808 or 1827, the arable land exceeded the pasture by one and three quarter million acres, instead of the pasture exceeding the arable land and *gardens* by six and a half million acres. The preponderance of arable land over pasture ceased to increase after 1878. In 1879 and 1880 the area of arable land was 13,480,500 acres and 13,210,600 acres, and the area of pasture land was 13,007,400 and 13,267,600 acres. Thus, by 1880, the tide had commenced to turn. In 1888 and 1889, the area of pasture land exceeded the arable land. In 1888 the arable land was 12,715,800 acres, the permanent pasture, 14,554,500. In 1889 the arable land was 12,599,200 acres, the permanent pasture, 14,649,900 acres. R. E. P.

CONVERTIBILITY OF BANK NOTES. The convertibility of bank notes into specie on demand is an essential condition of a sound currency. It has been held, and it would appear difficult to controvert the statement, that immediate convertibility on demand is a complete safeguard against over-issue, for if a redundant note were in circulation the provision that it would be immediately paid on demand would appear sufficient to ensure that such a note, when redundant, should immediately be withdrawn. But, according to the currency principle supported by Sir R. Peel (see CURRENCY DOCTRINE), the question of convertibility might depend on other considerations. "The real question to be solved is, how to regulate the quantity of the paper circulation, so as to keep its value identical with what the value of the metallic currency should be" (speech of Sir R. Peel, House of Commons, May 20, 1844). "Convertibility alone will not ensure this. Convertibility provides, indeed, the means of taking out of circulation a quantity of paper already in excess; but it imposes a very imperfect check on putting too much paper into circulation." Sir R. Peel did not attempt

to reconcile the latter half of this sentence with the former, for it is difficult to understand how paper substituted for money can remain in excess of the wants of the country when the means of taking this excess out of circulation have been provided. Real convertibility, that is to say the means of obtaining specie for notes whenever required, appears an ample safeguard against over-issue of notes. Bank notes, however, play a very different part in the financial system of the country from what they did at the commencement of this century (see BANK NOTE ; CURRENCY DOCTRINE.)

[Tooke and Newmarch's *History of Prices* is a perfect mine of information on the subject.—Fullerton, *On the Regulation of Currencies.*—James Wilson, *On Capital, Currency, and Banking*, and the writings of Huskisson, Ricardo, Sir W. Clay, Colonel Torrens, Walker on *Money*.]

CONVEYANCE. (1) The transfer of the ownership of property. (2) The instrument by which the transfer is effected. A conveyance, to be effectual, must be embodied in a deed (which is a document signed, sealed, and delivered by the parties in the presence of a witness). The conveyance of property need not necessarily have the effect of transferring the beneficial rights of ownership ; in the case of a mortgage, for instance, the legal estate—*i.e.* the formal right of ownership—is vested in the mortgagee, but the mortgagor, as a general rule, remains in possession and in the full enjoyment of an owner's material right—excepting, however, the right of alienation. The methods of conveyancing have been considerably simplified within the last two generations, and even within the last decade. A modern conveyance begins with the date and the names of the parties ; then follow the recitals, which in the first place explain the title, and in the second place state the nature of the transaction which has caused the conveyance to be effected (each recital beginning with the word "whereas"); these being finished, the so-called "Testatum" ("Now this indenture witnesseth") introduces the effective part of the conveyance, beginning with the statement of the consideration and the acknowledgment of the same, then proceeding with the "operative words" (*e.g.* "the vendor conveys," etc.), and afterwards describing the "parcel"—*i.e.* the property which is the object of the conveyance ; by the "habendum" the nature of the estate which is conveyed is explained (whether in fee simple, for life, upon trust, etc.); and finally the "covenants" contain the mutual promises concerning the property or the adjoining property. Many of the alienating owner's covenants have been rendered unnecessary by the Conveyancing Act of 1881, the addition of certain expressions to the operative words implying a number of covenants which formerly had to be set out at great length. It is unnecessary to mention that the description of a conveyance as given here is liable to a great many variations according to the circumstances of the case. A conveyance *on sale* is liable to a stamp duty of 5s. for every £50. E.S.

COOLIE SYSTEM. By this system a migration of labourers from India, China, and the South Pacific, to other tropical countries under European government, is placed under state regulation. The movement began (1834) when the freed negroes largely declined plantation work. The management being at first in private hands, unpleasant rumours called for government intervention, and now the egress from India is strictly controlled (acts of 1864 and 1869), the terms of engagement are regulated, and the colonial governments held responsible for their execution. Commissions of inquiry were issued for Demerara (1870) and Mauritius (1875). The French government on their part undertake inspection in their colonies. The movement from China is regulated by a convention (1866) between the governments of China, Great Britain, and France.

The chief colonies employing coolie labour are Demerara (one-third of population), Trinidad (two thousand a year), Mauritius (five-sevenths of population), Natal (one-fifteenth), Queensland (chiefly from the Pacific Islands), and the Straits. Outside the British empire, Cuba, Peru, Tahiti, and the French sugar islands.

The system is interesting—(1) as showing the beginnings of a movement from the two great centres of population in Asia, the dimensions of which cannot be foreseen ; and (2) as an instance of non-economic considerations inducing state interference with private enterprise, for the protection of labour against the individual's ignorance of the value of his labour and his acceptance of a standard of living determined by the offers of competing capitalists.

[*Cornhill Magazine*, 1867.—Jenkins, *The Coolie*, London, 1871, an adverse report.—Histories of the colonies above mentioned.] A. C.

COOPER, THOMAS (1759-1840), was born in London and admitted to the bar, became a Radical, was involved in political troubles, and finally followed his friend Priestley to the United States, where again he took an active part in political affairs. In 1820 he became president of Columbia College in Columbia, South Carolina, and held that place till 1834.

In addition to pamphlets, he wrote *Lectures on the Elements of Political Economy*, Columbia, 1826, and a *Manual of Political Economy* (Washington, 1834), both good text-books in their day, expounding the doctrines of Adam Smith and Ricardo. F. W. T.

COOPER, THOMAS (1805-1892) imprisoned in early life as a chartist (see CHARTISM), was among the last survivors, as he had been one of the most sincere of the leaders in that movement.

CO-OPERATION

Co-operative Associations, p. 409; Co-operative Farming, p. 413; Co-operative Workshops, p. 415; Co-operation, Partial (Oldham Cotton Spinning Companies), p. 417; Co-operation, Social Aspects of, p. 418.

CO-OPERATIVE ASSOCIATIONS. The term co-operation has been employed by economists in two senses, (*a*) as indicating certain broadly marked phenomena connected with the automatic development of human communities, of which what is most widely known as division of labour is an instance; and (*b*) as indicating the deliberate association of individuals to form trading bodies on certain specific principles for their common advantage. The latter use of the term is the more common of the two, outside text books on economics.

(*a*) The simplest conceivable case of co-operation is when two men combine to move a weight too heavy for either to deal with singly. In this case two similar forces are *integrated*. Co-operation of this kind is only of limited application, for the number of men whose power can be brought to bear on even a large object at suitable points is comparatively small, unless some form of machinery is used. But the labour of men may also be combined by their performing different tasks simultaneously, in order to produce a joint result, and as soon as this is recognised the growth and organisation of the community become capable of much more rapid progress than before. A maker of bows can do his work without assistance, but his labour will be more efficient if he can send out some one to collect suitable pieces of wood for him. A skilful smith could, at a pinch, make a simple bit of ironwork by his own unaided exertions, but his trouble is enormously lightened if he has an assistant to blow his bellows. The case of the smith is typical of all operations which require two or more series of acts to be performed more or less simultaneously—in this case, blowing to keep the fire hot, and hammering. If the piece of ironwork to be executed is at all large, an assistant becomes indispensable. The thing could not be done at all without him. Supposing he gets a third man to sharpen or polish such articles as he and his companion have been making, the efficiency of the whole group is much increased. The constitution of this group of artificers illustrates the principle of division of labour, as Adam Smith called it. Modern economists have adopted the more accurate expression division of employment, but Smith's description of the principle as illustrated in pin-making is still the classical description in the English language (see *Wealth of Nations*, bk. i. ch. i.), though he left it to his successors, *e.g.* Babbage, to point out some of the most important advantages of the division of labour.

What is called civilised society has only become possible because this principle of division of employment has been carried out to the full extent admitted of by the progress of scientific knowledge. For an analysis of the reasons why it has so greatly increased the efficiency of labour, reference may be made to Mill, bk. i. ch. viii.; Sidgwick, bk. i. ch. iv.; Marshall's *Economics of Industry*, bk. i. ch. vii. viii. (see DIVISION OF LABOUR). Division of employment implies, however, specialisation of employment, a result which is not without disadvantages. When there exist large bodies of men who can only perform some special kind of skilled labour, portions of these bodies are from time to time in danger of becoming redundant, and consequently of losing their means of subsistence. This evil result may be produced by climatic influences, by a miscalculation as to the requirements of the community, or in modern times of the communities supplied, by changes of fashion, or by new inventions. The latter cause is much less injurious to the men than it used to be, as the process of improvement, though constant, is only gradual. The violent disturbance of the labour market which followed the first introduction of steam machinery and of the factory system is not likely to occur again. The other three causes are still active and produce serious effects. It is to be observed that specialisation of employment is, from the nature of the work to be done, much less extensively carried out in agriculture than in manufacturing.

The mode in which the co-operation of individuals in modern society occurs presents other aspects besides division or specialisation of employment. It is marked, as is well known, by the association of larger and larger bodies of men acting under a single firm or company. Provided the management is good a large business can be conducted more economically than a small one,—that is, the labour of those concerned is more efficient in the former than in the latter case. Of late years this tendency has taken the form of the amalgamation under one management of several works engaged in producing the same article. Another very important feature of the modern conditions of industrial life is the high degree of dependence of each industry for its prosperity on the prosperity of other industries. Any influence tending to increase the activity of one trade tends to make several other trades more active, and generally the efficiency of labour in all trades is increased to some extent. Conversely depression in one trade produces depression in others. A high degree of economic efficiency arising from a high degree of industrial organisation necessarily carries with it a liability to frequent derangement of that organisation, the parts forming the industrial organism becoming more mutually dependent in proportion as differentiation is carried further.

(*b*) Co-operation in the sense of an association of individuals for certain specific business purposes is of two kinds: associations of consumers, and associations of producers.

Associations of consumers arose from the desire of individuals in the possession of small incomes to obtain the commodities they require for daily use at wholesale prices. In 1844 twenty-eight workmen of Rochdale subscribed a fund to be used in the purchase of flour, sugar, and other articles, which were bought retail by the subscribers at the ordinary prices of the district, the excess realised being periodically divided among the members after all costs had been met. The experiment was thoroughly successful and has been widely imitated. Shops worked on this principle are now well known as co-operative stores. Those carried on by workmen, which are now very numerous, have in some cases adhered to the lines on which they were started, which included the division of part of the profits among the persons employed in the store, and the setting aside of another part for educational purposes, but in some cases these latter practices have been dropped, the whole surplus being divided among the members of the store. The encouragement to thrift has been very great. The profits being at the disposal of the members only at fixed intervals, and in appreciably large amounts, are less likely to be dissipated. The stores also afford direct facilities for investment. As a working man co-operator said, "We may almost eat and drink ourselves into a house." The enormous institutions started in London by members of the middle classes have been highly successful, but are not co-operative in the special sense in which the word is used by those to whom "co-operation" is a species of religion. These great stores sell their goods at the lowest price they can, which is, of course, an excellent thing, and just what is wanted by the classes for whose benefit these stores are intended, but the persons employed in them have no share in the profits. The consumers, as such, have no share in the profits. It is this feature in their organisation which leads "co-operators" in the more special sense of the term, to deny that these stores are truly co-operative. Useful as they are they are less interesting to the economist than the real co-operative associations, from the growth of which great and salutary changes in the structure of society are looked for by those who are best acquainted with the subject. For information as to the magnitude of these quasi-co-operative associations, reference may be made to an article in *The Statist*, 2nd April 1892, from which it will be seen that, taking the five principal London societies, their sales were, in 1890, £5,766,000, and, in 1891, £5,495,000.

Co-operative Societies.—The associations which are conducted in the United Kingdom, either theoretically or in fact, on true co-operative principles, are of two kinds, distributive, and manufacturing. The origin of distributive societies has already been referred to, and it is not necessary to go at length into the history of the movement which, from such small beginnings, has achieved the remarkable results now apparent. Subjoined are three tables which will furnish a general idea of the present magnitude and the progress since 1861 of this movement, from which so much is hoped by thoughtful students of sociology. The figures, of which these tables are a condensation, will be found in full in the appendices to the report of the Central Co-operative Board to the Lincoln Congress, 1891. The report and appendices, together with the papers read at the Congress, are printed by the Co-operative Printing Society, Limited, 92 Corporation Street, Manchester.

The following is a statement of the number of co-operative societies existing in the United Kingdom at the end of 1890, and of certain particulars regarding their business; arranged (A) with reference to geographical divisions; (B) according to the special functions they perform.

A

Sections.	No. of Societies.	No. of Members.	Share Capital.
Irish	25	1,480	£6,557
Midland	225	97,695	736,893
Northern	154	150,019	1,522,417
North-Western	470	496,465	7,198,822
Scottish	324	177,125	1,277,634
Southern	253	145,922	1,137,298
Western	103	48,349	382,331
Total	1554	1,117,055	12,261,952

Sections.	Investments.	Received for goods sold '90.	Net profit in '90.
Irish	£1,102	£61,451	£3,152
Midland	235,648	2,096,792	193,532
Northern	722,629	5,236,762	782,032
North-Western	3,961,726	22,242,694	2,067,467
Scottish	958,134	8,134,014	768,861
Southern	301,361	4,387,104	221,226
Western	116,364	1,056,893	133,768
Total	6,296,964	43,215,710	4,170,038

B

Sections.	No. of Societies.	No. of Members.	Share Capital.
			£
Distributive	1418	1,026,912	10,607,432
Productive	119	27,214	597,983
Supply	15	61,727	538,116
English Wholesale			
Distributive	1	941	306,151
Productive	..	..	127,866
Scottish Wholesale			
Distributive	1	261	87,330
Productive	..	..	47,124
Total	1554	1,117,055	12,261,952

Sections.	Investments.	Received for goods sold '90.	Net profit in '90.
	£	£	£
Distributive . . .	5,405,416	28,276,337	3,760,846
Productive	124,317	2,167,656	108,784
Supply	114,724	2,800,906	65,368
English Wholesale			
Distributive . . .	430,443	7,087,796	130,479
Productive . . .	..	341,277	15,056
Scottish Wholesale			
Distributive . . .	201,248	2,366,692	70,711
Productive . . .	..	108,646	9,703
Total	6,276,148	43,149,310	4,160,947

Statement showing the above items at the end of the undermentioned years.

Yrs.	Societies.	Members.	Share Capital.	Trade.	Profits.
			£	£	£
1861	..	48,184	333,290	1,512,117	..
1866	915	174,993	1,046,310	4,462,676	372,307
1871	746	262,188	2,305,951	9,437,471	670,721
1876	1165	507,857	5,304,019	19,909,699	1,741,238
1881	1230	642,783	6,937,284	24,926,005	1,979,576
1886	1296	835,200	9,297,506	31,253,757	2,966,343
1887	1291	896,910	9,817,787	32,697,253	3,069,268
1888	1369	943,949	10,383,882	36,005,235	3,304,843
1889	1438	1,014,086	11,187,409	39,089,087	3,628,608
1890	1554	1,117,085	12,261,952	43,215,710	4,170,038

It will be at once seen from a glance at the totals given in these tables that, taken as a whole, the societies to which they refer are in a highly satisfactory condition. The net profit of £4,170,000 shown at the end of 1890 is very large relatively to the share capital, and the investments amounted at that time to over £6,290,000. The value of stock, land, buildings, etc. was, we may observe, over £10,760,000, and with these substantial assets available as cover, it is not surprising that the societies should be in sufficiently good credit to have been able to borrow, to a moderate extent, the amount of their loan capital at the end of 1888, being over £2,800,000. This is a modest commencement of the process by which it is hoped that in the end "labour will hire capital," and not capital labour.

Table A shows plainly where the strength of the movement lies, namely in the northern and north-western districts of England and in Scotland. Manchester is, indeed, the headquarters of co-operation, for it is there that the English Wholesale Society, which is commonly called "The Wholesale," has its chief office; but the great societies of Rochdale, Leeds, Halifax, Huddersfield, Burnley, Accrington, Bolton, and Bradford each contribute a very large quota to the total business done. In the midland, southern, and western districts co-operation is very imperfectly developed, but great, and to a large extent successful, efforts are being made to improve matters in this respect, especially in London.

Turning to Table B, the fact which will attract most attention is the small volume of co-operative production,—meaning by co-operative production, in the full sense, a system in which the wage-earners, as such, share in the profits. This feature is a source of keen regret and disappointment to zealous co-operators. The report of the Committee on Production to the Ipswich Congress, 1889, was in many respects hopeful, and some progress has been made since then, but the obstacles to success in this department of co-operation are, and always have been, much greater than in the distributive department. The difficulty which impressed the Ipswich committee most was to get productive societies to abstain from competing with each other, as will be seen from the following extracts from their report: "As we have before stated in our reports, we have to admit that in the multiplication of these very small societies, each struggling for a separate life, there is the possibility of great difficulty in the future. We have to regret that our attempts to bring these societies into federation with each other have entirely failed, owing in a great measure to petty jealousies which seem inseparable from such associations. In the view of this committee it is a matter for serious consideration how far the formation of these small and isolated societies should be encouraged, unless there is some guarantee that they will act in co-operation with each other." And in concluding the report, the committee observe, "that there still exists among co-operative societies and their members a deplorable amount of disloyalty towards the efforts of those societies which are honestly striving to work out this difficult problem of co-operative production." These severe expressions are quoted partly in order to explain the comparative failure of productive co-operation up to the present time, and partly to show that the leaders of the co-operative movement are men who look facts in the face, and do not seek to disguise them under a cloud of words. This is an attitude of mind which is favourable to the ultimate success of the movement. It might almost be said that it is a guarantee of it, for the principle of productive co-operation is a sound one, though its practice requires the prevalence of a higher level of education, both moral and mental, than at present exists in the majority of co-operators. That a greater approximation towards the principle is possible may perhaps be inferred from the fact that, besides the Wholesale's boot and shoe works at Leicester, there are six corn-milling societies, each of which sold over £100,000 of goods in 1888, while one of these, the Sowerby Bridge Flour Mills, sold over £473,000 worth, and had £52,000 of investments at the end of 1890. It may be observed that the co-operative flour mills appear to be more successful than most other branches of co-operative industry. Co-operative farming has so far answered less well in the United

Kingdom (see CO-OPERATIVE FARMING), though something in this direction has been done in Scotland, and butter-making on the co-operative plan has been commenced in Ireland through the exertions of Canon Bagot and the Hon. H. C. Plunkett. As will be seen below, co-operative farming is far from being a failure on the continent.

It has already been said that co-operative manufacturing encounters much greater difficulties than co-operative distribution. The nature of the difficulties has been described as they present themselves practically to the able and energetic men who are trying year by year to overcome them. They can only be got rid of by degrees, for they are the result of the low state of general education. Professor Marshall has pointed out in *The Economics of Industry*, and also in his address to the Ipswich Congress (1889), that higher mental qualities are needed for carrying on a large manufacturing concern than in conducting a successful shop. At present workmen have not realised that good management must be paid for and is worth paying for (compare Walker, *The Wages Question*, ch. xv., *Co-operation: getting rid of the entrepreneur*). Their attitude in regard to this subject is well shown by the remark of a workman county councillor, that "he had never seen a man who was worth more than £500 a year." It is not suggested that managers of co-operative societies ought to be paid at this or any other specific rate in all cases, but until workmen generally realise that there are men whose worth for special purposes is, in the present state of society, £500, and even more than £5000 per annum, they will never understand why co-operative manufacturing fails to succeed in competing with its capitalist rivals. Still the obvious success of the Sowerby Bridge Flour Mills is evidence that in one branch of trade, at any rate, co-operators can adapt themselves to the industrial requirements of the time if they take the proper means.

The plain fact is that co-operative manufacturing is still in the experimental stage. A most interesting discussion on the question whether small productive societies should be encouraged to continue to work independently of the Wholesale, or whether the Wholesale should undertake the work itself, took place at the Ipswich Congress, and was reported fully in the *Co-operative News* of 22nd June 1889. The discussion ostensibly related to the best means of establishing PROFIT-SHARING (*q.v.*) in production, and the chief charge brought against the Wholesale was that it did not share profits with its workers, that, like some of the original societies, it had degenerated into "joint-stockism." The latter principle does not seem to be wholly approved even by the advocates of production by the Wholesale Society, but Mr. Benjamin Jones, of the Wholesale, in the course of a paper read to the congress, pointed out that at Oldham, where many mills are owned by workmen, "joint-stockism" had led to the same results as "profit-sharing" was intended to lead to by making workmen well off. The whole discussion, which ended in the approval by the congress of production carried on by societies independent of the Wholesale, but "federalised," was a very business-like one, and is likely to encourage those who hope that eventually co-operators will discover the right path towards "profit-sharing production," though at present differences of opinion exist on the subject, which were alluded to by Mr. A. H. D. Acland, M.P., in his Inaugural Address to the Lincoln Congress. Mr. Acland, it may be observed, seems to think that it is mainly to the two Wholesale Societies that co-operators must look for progress in this direction, although they have, so far, been rather slow in taking up the position which is expected of them. There are, of course, numerous differences of opinion on minor technical points in relation to distributive co-operation, the most important of which is the question how far credit should be allowed to members of stores. The balance of opinion is, it need hardly be said, against the giving of credit.

Co-operation abroad can only be briefly touched on here. A good deal of valuable information on the subject will be found in a paper by Mr. Vaughan Nash on "Co-operation in relation to International Commerce," read before the Ipswich Congress. Mr. Nash had a special object in writing this paper, namely, to urge on co-operators in different countries the advantage that would result from their working together more than at present, but it furnished a useful *résumé* of the position of co-operation in foreign countries in 1888, which, with slight changes, may be accepted as correctly describing the state of things now. In two important respects these countries are in a decidedly more advanced condition than the United Kingdom, namely, in regard to agriculture and banking. In France, Austria, Germany, Denmark, Italy, Switzerland, and Sweden, there exist powerful organisations of peasant proprietors for the joint purchase or hire of farming implements and other requirements, for acquiring and working dairies, for the joint sale of produce and for obtaining credit. Apparently Denmark possesses a most highly organised system of agricultural co-operation, and it is owing to this that the export of Danish butter has so much increased of late. Co-operative dairies seem to succeed in most countries, including the United States, where "creameries" are an important feature. There can be little doubt that the system of popular banks with which the name of Schulze-Delitsch is associated has been of great service to agricultural co-operation in Germany, and a modification of the same plan

devised by Signor Luzzati has been introduced into Italy with success (*v.* BANKS, POPULAR). These loan societies are closely connected with the farming societies, being in fact chiefly composed of the same individuals. They contract loans on the guarantee of all the members and make advances to members at a slightly higher rate than that at which they borrow, but still much below the terms at which the individual members could raise money themselves. As regards the joint sale of agricultural produce the system is less developed than in other respects, and, generally, distributive co-operation is too much neglected on the continent, except in Switzerland and Holland, and to some extent in Belgium. As is well known, there are some important co-operative workshops in France, the most famous being those with which the names of Godin at Guise and Leclaire at Paris are associated (*v.* CITÉ OUVRIÈRE; FAMILISTÈRE). These two experiments in profit-sharing have realised a remarkable degree of success in the past, and although they have both lately suffered the loss of their founders, there is every reason to expect that they will continue prosperous in the future. It had always been feared, even by friends of co-operation, that such institutions were dependent on the lives of the individuals who started them, but so far these unfavourable anticipations have been agreeably disappointed.

"Russia," says Mr. Nash, "is by far the most co-operative country in Europe, but its village communities, or *mirs*, are beginning to show signs of dissolution, and its *artels*, being nomadic and shifting, have but little bearing on the question of international co-operation." The ARTEL (*q.v.*) is a species of workmen's society which is found in all branches of industry in Russia, the members of which jointly execute pieces of work, especially buildings, railways, and bridges.

As regards the United States, we have already mentioned the existence of creameries as the most important feature from a co-operative point of view, but there are also some co-operative workshops. There were also many co-operative stores before the Civil War, but their progress since then has been very slow. In the British colonies there is very little co-operation of any kind. W. H.

CO-OPERATIVE FARMING. The application of co-operation to agriculture was one of the earliest aims of the founders of co-operation, and formed a part of almost all the plans of Robert Owen and his followers. The best known experiment in the pioneer period was that of Rathlahine (sometimes called Ralahine), in County Clare, Ireland, in 1831-33. Mr. E. T. Craig, a disciple of Robert Owen, was invited by Mr. J. Scott Vandeleur, an Irish landlord, to form a society based on the co-partnership of landlord and tenant. The farm was 618 acres in extent, half of it under tillage. The labourers at the outset numbered twenty-eight men, twelve women, and fifty-two children. Subsequent admissions to membership were by ballot. Mr. Vandeleur, the landlord, was president and reserved to himself a power of veto, as well as the right to discharge labourers during the first year. He also stipulated for the exclusion of intoxicants. The labourers elected a committee who met nightly to arrange the farm work. At the year's end the landlord received his rent of £900 in kind, taking the risks of variations in value. The rest of the produce, which was not consumed by the members and charged to them, was sold for common account. The first profits were appropriated to enhancing wages twenty and twenty-five per cent. The surplus beyond was devoted to a fund to pay out the landlord. The experiment was successful commercially. It also restored peace on the estate and established harmony in the relations of the landlord and his people. But it was brought to a sudden end in 1833 by the flight of Mr. Vandeleur, who had ruined himself by gambling (see *Co-operative Agriculture* by Wm. Pare, Longmans, 1870; and *History of Ralahine*, by E. T. Craig; Trübner and Co., 1882). About the same time, 1829, Mr. Wm. Gurdon leased a farm at Assington, Suffolk, to a body of his labourers who formed themselves into a voluntary co-operative society, based on a plan of dividing equally the produce of the farm. He lent them capital without interest. The experiment was very successful, the labourers repaying the loan capital and making large profits for themselves. This success led to the leasing of a second farm to labourers in 1853, to be worked on the same lines. This also was very successful, yielding a profit to the labourers of £3674 up to 1879. In 1883 the association had to ask for help from outside sympathisers, in consequence of continued agricultural depression. The land being stiff clay, almost all under tillage, is suitable for little else but wheat-growing, and the co-operative labourers were unable to make a profit on wheat-growing after 1879. In 1884 a co-operative society was formed to continue the farm, the labourers' capital being augmented by subscriptions of co-operative societies and friends. This new society, the Assington Agricultural Association, at present shows an annual loss of about £1 per acre. The No. 1 farm established in 1829 is still being worked by the labourers' society, but no accounts are published.

In 1829 Lord Wallscourt commenced an Irish experiment, and reported in 1846 that, after seventeen years' trial, the venture had answered beyond his hopes; he had been able to travel abroad a year at a time, and on his return always found the farm had prospered.

He divided profits with his labourers, reckoning every £5 of their wages as being equal to £100 of his own capital. (See Professor F. W. Newman's *Lectures on Political Economy*, p. 338, Chapman, 1851).

After the pioneer periods of Robert Owen and the Christian socialists, the co-operative movement, advancing on the line of least resistance, left farming experiments—as it left productive efforts—almost neglected, and attended almost exclusively to the development of the simple stores system. But from time to time, during the thirty years which followed the establishment of the Rochdale Pioneers Society in 1844, co-operative farming experiments were made by advanced co-operators. Mr. Walter Morrison, M.P., established a co-operative farm in the Midlands, giving the labourers a share in the profits and management. The experiment was partially successful, paying five per cent interest, but in other respects was not considered sufficiently hopeful to render it worth while to persevere. Lord George Manners adopted profit-sharing with his labourers upon a farm at Cheveley, Newmarket. He told the writer of this article that the experiment was so successful as to yield him ten per cent on his capital, and permit of £3 per worker being paid as dividend on labour. To stimulate thrift Lord G. Manners adopted the plan of paying the labourers' dividends into the post office savings bank, and "handing the pass-books to their wives"—a device which he said answered perfectly. It was his intention to form a more complete co-operative society to work the farm, but his death brought this interesting and successful effort to a close. More recently Mr. Bolton King established two co-operative farms at his residence near Leamington. The rules were very generous to the labourers, leaving them with full powers over both the land and the landlord's capital without the checks which in other cases have naturally been provided. The result was not successful. Equally unsuccessful was an attempt by Mr. William Lawson at Aspatria near Carlisle, described by him in a work called *Five Years of Gentleman Farming*, edited by G. J. Holyoake. Mr. William Lawson, a brother of Sir Wilfrid Lawson, gave time and money freely to his effort, but he adopted methods of farming which were condemned as impracticable by the Royal Agricultural Society's Commissioners on steam ploughing, and the failure can scarcely therefore be imputed to the co-operative arrangements (vide *Journal of the Royal Agricultural Society of England*).

Recently the opinion in favour of co-operative farming has received a great impetus, and many co-operative societies have taken farms to work as part of their enterprise. The report of the Central Co-operative Board for 1891 gives the following list of known co-operative farms:

Name of Society.	County.	Acreage.	Capital.	Rent.	Profit in 1890.	Loss in 1890.
			£	£	£	£
Derby	Derby	26		78		
Lincoln	Lincoln	11½	700		34	
Lye	Worcester	14		38	6	
Ripley	Derby	50	1000	100		5
Aspatria	Cumberland	64	850	154		71
Bedlington	Northumb'd.	74	927	116	92	
Cleator Moor	Cumberland	52½	250	150		
Consett	Durham	100	981	129	35	
Middlesborough	Yorks	28	75	95		39
Newbottle	Durham	50	180	116	45	
Newcastle-on-Tyne	Northumb'd.	122	7331			
West Stanley	Durham	188	2200	88	33	
Willington	"	10	15	27		
Bingley	Yorks	25		90		
Halifax	"	48	318	175	21	
Lancaster	Lancs	100	1500	190		
Manchester and Salford	"	370	4000	600		646
Mirfield	Yorks	15	80	45		
Pendleton	Lancs	86	250	73		18
Plymouth	Devon	103	1200	280		25
North Seaton	Northumb'd.	30	302		48	
Scottish Farming	Renfrew	282	3362		480	
Assington	Suffolk	223	3127	211		351

The three last on the list are farms worked by separate farming societies, all the others are farms attached to stores. The large amount of capital invested is due to the freeholds having been frequently bought by co-operative societies as investments for their surplus capital. The list is evidently incomplete. It omits entirely the market-garden farm of the Woolwich Arsenal Co-operative Society, near London, which has become a remarkable success in spite of the land having cost building price at the outset. This farm, of about fifty acres, has been arranged to grow a great variety of vegetables, fruit, and flowers, nearly the whole of which is sold through the stores to the workmen in the Arsenal who are the members of the store. A safe and sure market for the produce is thus secured. Five per cent interest is paid on capital, the customers receive an average drawback of 1s. 9d. in the £ on their purchases, and the labourers a similar dividend on their wages.

Of the separate societies, the Scottish Farming Society is the most successful. Since the annual report above quoted was issued this society has decided to take three additional farms in the neighbourhood of Hurlett in Renfrewshire. The first venture was a dairy farm in the neighbourhood of Glasgow, and the produce was sold through one of the stores.

Simultaneously with this development of farming enterprise inside the co-operative movement, a considerable number of profit-sharing and co-operative experiments are being set on foot by landowners and farmers, like Earl Spencer, Mr. Boyd Kinnear, and Lord Wantage. The latter is stated to have taken 20,000 acres of land into his own hands and adopted a plan of working it upon a system of association with

the labourers which last year paid him good interest and yielded them about £2 each of dividend on labour. The results were recently described in glowing terms by the *Daily News* commissioner, whose letters have been published in book form (see *Life in our Villages*, Cassell and Co., 1891). In part iv. of volume ii. 3rd series of the *Journal of the Royal Agricultural Society* (31st December 1891) Mr. Albert Grey reports a most successful effort at co-operative farming carried out by him in Northumberland, on the large scale of 3765 acres, of which 1290 are permanent pasture and 2475 arable. In 1886 he commenced on the Home Farm at Hawick, and in the next four years was able to pay the labourers three annual bonuses of 6d. in the £ on their wages. The same year he applied the profit-sharing plan to the East Learmonth farm of 821 acres, of which all is arable but 122 acres. In the case of this farm the outgoing tenant had refused to continue his tenancy unless he were allowed a reduction of 20 per cent in his rent. Mr. Grey has been able to earn the old rent under the profit-sharing arrangement and also interest on capital. In addition he has paid the labourers three annual bonuses, viz. one of 1s. in the £, one of 1s. 1½d., and one of 1s. 3d. Mr. Grey adopts the formula for division of profits carried out by M. Godin of Guise in his celebrated co-operative workshops (see CITÉ OUVRIÈRE). Interest on capital ranks as equivalent to wages of labour for a *pro rata* division of profits (see *Co-operative Traveller Abroad*, Labour Association, London, 1888). On the additional area of land which Mr. Grey placed under the profit-sharing system in 1888, he is sanguine of making a profit, and his whole paper is filled with interesting details of economies effected and improvements obtained by the reconciliation of interests of employer, managers, and labourers. It is evident that the time is ripe for the application of co-operation to farming, and it only requires the evidence of a few successes on a considerable scale to bring about a great extension of the movement. E. O. G.

CO-OPERATIVE WORKSHOPS. In the article on CO-OPERATIVE ASSOCIATIONS the general fact is stated that productive co-operation has developed much more slowly than distributive co-operation. A quarter of a century ago the failures of co-operative workshops were so numerous that many writers held that co-operation had been proved to be inapplicable to manufacturing. Professor Beesly, in a pamphlet on *The Social Future of the Working Class* (Reeves and Turner), 1868, stated: "I believe there is not in England at the present moment a single co-operative society in which workmen divide the profits irrespective of their being shareholders," and he concluded that "we must look for improvement not to this or that new-fangled industrial system, but to the creation of a moral and religious influence which may bend all in obedience to duty. When we have created such an influence we shall find that it will act more certainly and effectually on a small body of capitalists than it would on a loose multitudinous mob of co-operative shareholders." So far as this was a statement of facts it was too sweeping. Mr. J. S. Mill, Professor Fawcett, and other economists could see even then some favourable features in the struggling experimental attempts at workshop co-operation. Upon these and upon confidence in general principles they based very hopeful forecasts of the future, and the latest facts and figures seem to justify their views.

Comparing the returns issued by the Co-operative Union for 1890 with those issued for 1889, the following figures show that progress is becoming more rapid as the feeling grows that the initial difficulties have been overcome:—

	1889.	1890.
Number of Co-operative Workshops	106	111
Number of Members	25,728	26,925
Share Capital	£714,189	£766,425
Loan Capital	£274,784	£319,558
Reserve Funds	£28,469	£36,175
Total Funds	£1,017,442	£1,122,158
Sales	£2,308,028	£2,606,707
Profits	£118,355	£132,753
Losses	£5,581	£442
Net Gain	£112,774	£132,311

If a comparison is made between the latest figures for 1890 and those for 1888, it will be found that the percentages of increase in two years have been as follows—in number of workshops, 38·75 per cent; in members, 14·80 per cent; in share capital, 40·64 per cent; in business, 51·14 per cent; and in profits, 100·14 per cent. These figures show that whilst there has been a great increase of new societies (possessing of course fewer members than the older ones), the established societies have increased their capital, and have even more rapidly gained in trade and in the power to make profits. If a further comparison is made of the recent growth of the co-operative workshops as compared with the growth of the co-operative movement generally, it will be seen that it is the productive side of co-operation which is now growing most rapidly and is probably absorbing the most energetic and capable co-operators. The following were the percentages of increase of the co-operative movement in 1890 over 1888—in number of societies, 3·48 per cent; in members, 12·55 per cent; in share capital, 17·97 per cent; in business, 17·59 per cent; and in profits, 22·13 per cent.

Two kinds of workshops are included in the figures quoted above from the annual returns of the Co-operative Union, viz. workshops which divide their profits only between capital and custom, and workshops which admit labour also into partnership. Repeated resolutions have

been passed by large majorities of delegates at annual co-operative congresses affirming that the true principle of co-operation in production requires the co-partnership of labour. But the Central Co-operative Board, which is the executive of the movement, is reluctant to exclude from recognition the large workshops which belong to the Co-operative Wholesale Society, and those corn mills belonging to stores which violate the principle laid down by congress. The burning question of the movement is at present this one of whether the inclusion of the worker to share in profits and management is essential or not. As the promoters of industrial co-operation are generally agreed that nothing short of the partnership of labour with capital will finally reconcile the two interests and end conflict, public interest naturally centres most around the workshops in which co-partnership exists. According to the annual reports and other publications of the Labour Association (of No. 1 Norfolk Street, Strand, London) the co-operative workshops which recognise the principle of profit-sharing with labour now number seventy-six or seventy-seven, and are therefore in a majority. Eight or nine of them have been in existence over twenty years, but the majority having been established during the last six years, the average duration of all the self-governing workshops is about nine years. They are established in almost all parts of the kingdom and in about forty different trades. The number of workers employed is between four thousand and five thousand. The Labour Association, which devotes itself especially to the establishment and welfare of these profit-sharing societies, holds an annual exhibition of their productions at the Crystal Palace, and the goods shown are said to be very excellent and tasteful. The practicability of successful manufacturing on co-partnership lines may therefore be considered to be established. It remains to be considered how far these workshops answer other expectations formed of them by friendly political economists.

The absence of strikes seems to be satisfactorily assured. Where strikes have been made public in connection with "co-operative" workshops they have been in factories which exclude the workers from participation. Only one small conflict is known to have occurred at a profit-sharing workshop, and that was promptly settled.

The amelioration of the social position of the workers cannot be wholly stated in figures. The addition to the wages in the shape of "bonus" or "dividend on labour" varies very greatly, but appears to average 11¾d. in the £, or rather under 5 per cent on wages. But only a portion of the effect of profit-sharing can be seen in this item. It is stated by Mr. Joseph Greenwood, the manager of the Hebden Bridge Fustian Manufacturing Society in Yorkshire, that whilst profit-sharing with them adds only 9d. in the £ to wages, the average income of their workers (men, women, and children) has been increased in twenty years from about 12s. 6d. per week up to over 17s. per week, the chief increase being due to regularity of employment and saving of lost time. Fustian cutting was originally a sweated industry, but the society at Hebden Bridge now employs 272 workers, all of whom are shareholders. They own £5130 of the capital stock, which amounts in all to £22,332. That the condition of these workers must have been greatly improved beyond the amount of "bonus" distributed is evident from the fact that the latter has only totalled from £1500 to £2000, or about one-third of the sums invested by the workers in their society. The Labour Association, moreover, adds that the societies which have been formed during the six years it has been at work have almost all been induced to adopt rules which make provision for many excellent common funds. Thus the Leicester Co-operative Boot and Shoe Manufacturing Society when recently dividing £240 of surplus profits (for a quarter-year) apportioned the sum thus: to reserve £40; to the workers (10½d. in the £ on wages), £80; to the committee (who are nearly all workers in the factory), £24; to the educational fund, £10; to the provident fund, £20; to the special service fund for rewarding inventions and economies, £6; to capital (in addition to 5 per cent), £20; to customers (2¾d. in the £ on purchases), £40. In this case the 10½d. "dividend on wages" formed but a third portion of the whole benefits.

The increase in the productiveness of labour under co-partnership rules seems very clear. The Agricultural and Horticultural Association commenced three to four years ago to manufacture oilcake for cattle, putting down machinery calculated to produce 35 tons per week and subsequently adding other machinery calculated to produce 60 tons per week. At first the new employés, unfamiliar with the profit-sharing system of the Association, only produced 21 to 26 tons off the first machinery and about 48 tons off the second. But, under the stimulus of "bonus," the first set of machinery now produces 57 tons per week and the second set produces about 76 tons per week. The difference in output converted a loss into a profit for the Association, whilst the average remuneration of the workers (men and youths) has gone up from £1 : 0 : 7 per week to £1 : 6 : 8.

The result upon the position of capital in these workshops has been to substitute a safe and steady reasonable dividend for a higher but fluctuating one. As the societies attain success they decrease the dividends on capital instead of increasing them. Several leading workshops have recently done so, including the Hebden Bridge Fustian, Leicester Hosiery,

Manchester Printing, Edinburgh Printing, and Paisley Shawl Manufacturing. The majority of shareholders, being customers and workers, attach most importance to the dividends on custom and on wages, and decrease the dividend or interest on capital to increase these. But this does not appear to check the inflow of investments, as the dividend or interest on capital is a first charge on the whole profits. These being swelled by the stimulus given to custom and zeal of the workers, the dividend on capital assumes almost the safe position of a first mortgage, and 5 per cent is found amply sufficient to attract funds. E. O. G.

CO-OPERATION, PARTIAL (OLDHAM COTTON-SPINNING COMPANIES). The term "partial co-operation" is applied by Prof. Marshall (*Principles of Economics*, vol. i. p. 364, 2nd edition) to such partial applications of the co-operative principle to production as (*a*) profit- or profit-and-loss sharing (see PROFIT-SHARING), (*b*) the Leicester boot works and other similar productive establishments owned by the main body of co-operative stores through their agents the wholesale (see CO-OPERATION and CO-OPERATIVE WORKSHOPS), and (*c*) certain joint-stock cotton-spinning companies in Oldham and its neighbourhood. These last are owned by combinations of small capitalists, among whom are many workpeople with a special knowledge of the cotton industry, though few of the companies' employés can describe themselves as "their own masters." It is customary, but incorrect, to call these concerns "co-operative mills," and to say that many of them are owned by the working classes. It is, however, true that the foundation of a number of the Oldham "Limiteds" was due to an attempt by working men to apply the co-operative principle to production. The early history of the Sun Mill Company is typical of the whole movement in its initial stages, and throws much light on the difficulties attending even a partial application of such a principle to a highly organised industry.

The "Oldham Building and Manufacturing Society," the first of its kind registered under the Joint-Stock Companies Act, was founded in 1858: capital £1000 in £5 shares. The promoters were members of the Oldham Industrial Co-operative Society. Calls on shares were to be 3d. weekly, and the directors were paid 6d. a week for their services. Several months elapsed before all the shares were taken up, and a longer delay occurred before the society's business, weaving, could begin. At the end of the first quarter's working, a dividend of 7½ per cent was paid, but afterwards the looms were run at a loss. The difficulty of disposing of the manufactured goods, disputes among the directors, and between the shareholders and non-shareholders employed by the company, and above all the unsuitability of the climate for weaving led to this result. It became necessary to make a radical change in the scheme, and accordingly the promoters decided to increase the capital to £14,870, and build premises for cotton-carding and spinning. The engines were "christened" in 1863, and under the new name of the "Sun Mill Company," business was carried on through the period of the Cotton Famine (see COTTON FAMINE) eventually with considerable profit. But, in 1867, Mr. Gladstone, visiting Oldham, was officially informed that out of more than a thousand shareholders, only four were also the company's employés, and that it was difficult to persuade workpeople to buy shares. In 1868, in order to ensure loyalty to the company's interests on the part of its principal servants, their salaries were reduced, and instead a bonus—a percentage, —was given on all profits over 10 per cent on the capital. The directors at one time desired to extend this system of profit-sharing to the operatives, but were strenuously opposed by the principal servants, and eventually, as the bonus was found not to have the desired effect, the directors went back to the old arrangement of fixed salaries. Since then the history of the concern, which in its early years had shown "much experimental enterprise but a want of judgment as to consequences," chiefly deals with the struggles of a young business to extend its connection. During the twenty years 1858-1877 £8 : 10s. was paid in dividends on the £5 share.

[*The Sun Mill Company, Limited; its commercial and social history*, by William Marcroft, Oldham, 1877. The same writer, in a pamphlet entitled *A Co-operative Village*, and published at Oldham in 1878, propounds a scheme of partial co-operation by which a small settlement could attain a kind of "industrial independence."]

It was hoped that the Limited Liability Act (see LIMITED LIABILITY ACTS) would encourage the labouring classes to invest their savings in manufacturing ventures; in Oldham and its neighbourhood the example set by the promoters of the Sun Mill Company was in several cases followed by working men. But the movement soon passed out of their hands, and losing its co-operative aspect, degenerated into a system of company promoting by outside speculators. Owing to the presence of great machinery works in the town a factory could be built there and fitted up with the newest machinery at the smallest possible cost. As a rule the buildings were mere "shells," so arranged as to hold mules with a very large number of spindles. During the fifteen years after the passing of the above-mentioned act the total number of spindles in Oldham, then as now the headquarters of cotton-spinning, was nearly doubled. In 1886, according to the official list, seventy-seven mills (average age nine years) contained 5,166,922

spindles, whose balance-sheet value was over five million pounds; at present there are more than a hundred, whose shares are quoted in the official list. The majority have at one time or other paid very large dividends.

Of late the Oldham "Limiteds" (see Mr. Albert Simpson's "statement respecting the Cotton Mills of Oldham, and the working of the Limited Liability Act in connection with them," handed in to the Labour Commission, group C, 10th July 1891) have been charged with omitting to write off enough per annum for depreciation, so that their large dividends are, in part at least, paid out of capital. In many cases there is evidence to warrant such a criticism; out of a hundred and ten concerns the shares of sixty-seven, many of which pay large dividends, are at a discount. The appointment of government auditors under the Limited Liability Act has been suggested as a remedy.

Again, it is certain that "divi-hunting" has forced many of them into rash speculation, and led to a serious loss of financial vitality. During 1890, to defeat attempts to "corner" cotton at Liverpool, many of their "buyers" bought cotton "to arrive" throughout the year; and, as a consequence of the sharp fall in 1891, the legitimate profits of cotton-spinning were swallowed up by the losses due to cotton speculation. Workpeople are not disposed to risk their savings in this manner, and though, in the case of the older and more stable concerns, conducting their business on sound principles, and setting aside a yearly sum to pay for renewal of machinery, etc., a small percentage of the shareholders are retired workmen, and a few even employés of the company in which they hold shares, generally speaking, the Oldham "Limiteds" are not even "partially co-operative." E. B. O.

Social Aspects of Co-operation. The statistical information conveyed in the official reports of the Registrar of Friendly Societies and of the United Board of the Co-operative Union, whilst it furnishes very complete particulars as to the financial side of the co-operative movement, affords no sufficient criterion as to the social side. That provision is made for the social and educational development of co-operators may, however, be gleaned from those sources. Thus in the year 1889 the sum of £23,893 is stated to have been applied by co-operative societies to educational purposes, whilst the sum of £4824 : 17 : 3 was voted to the maintenance of the Co-operative Union, whose work is entirely of an educational character. The money spent upon education goes sometimes to lectures and classes, but more often to keep up reading-rooms and libraries, which in the northern counties are usually to be found in connection with the stores. Social gatherings and entertainments also come in for a share of the educational grants. In addition to supporting university extension lectures in several centres, co-operators have founded two scholarships at Oxford, the Hughes and the Neale, to commemorate the services rendered to the movement by Mr. Thomas Hughes and Mr. E. Vansittart Neale. The development of the social side of the co-operative movement is promoted by an effective system of district and sectional organisation. Delegates are periodically brought together by this means to discuss the welfare of their movement, and much propagandist work is done. Once a year the Co-operative Congress is held, at which co-operators meet from all parts of the United Kingdom. "The annual congress is composed of delegates from societies in union, each society being entitled to send one delegate for each annual subscription of 1000 d. or fractional part thereof. Business of the congress: There is first the inaugural address, then the report of the Central Co-operative Board, the election of scrutineers, of the voting for the new central board, and the discussion of papers and proposals bearing on co-operation" (Acland and Jones, *Working Men Co-operators*, p. 111). Co-operators recognise that their business system depends largely upon the progress of mutual improvement amongst their members, and they are constantly urging that more attention should be paid to the special training of co-operators. "We regret to find that educational grants do not keep pace with the general growth of the societies. Our opinion is that *it will pay every society* to devote at least 2½ per cent of its net profits to education, and that though societies may and do succeed without this, yet it is because the older generation still lives and guides them, but when the day arrives that they no longer take part in their management, the societies will run a great risk of suffering thereby" (*Co-operative Wholesale Societies' Almanac, 1883*, quoted in *Working Men Co-operators*). It is, however, by the daily routine of co-operative transactions that the social life of the movement is chiefly fostered. To regard the mechanism of the movement as simply an adaptation of "shopping" is to completely misapprehend its character. Equally erroneous is the superficial estimate of the store system as a form of "joint-stockism." The store, it is true, contains the stock-in-trade of the shop, but its social significance lies in its being the centre of a consumer's league, the organised expression of a social standard of requirements. As a domestic depôt or repository, the store has played an important part in the growth of neighbourly feeling. By affording opportunities for social thrift as well as consumption, it enters into the everyday economy of families connected with it, in many instances supplying the house itself, as well as the furniture, clothing, and food requirements of the inmates. The Women's

Guild recognises the influence of women in the co-operative movement, for though only established a few years, it has done much to educate them in the responsibilities of organised purchasing.

The constitution of the co-operative society is, after all, the best guarantee of its social character. If that constitution were of a merely joint-stock character, as is so commonly alleged by critics of co-operation, we should expect to find people going into the movement for the acquisition of shares, and using their position to enhance the value of, and increase the return upon, their holdings. This, however, does not happen. The shares in a store yield a stereotyped return of 5 per cent, sometimes less, and there is never a market, in the recognised sense of the term, for co-operative shares. When shares change hands they do so usually at par. The share list is never closed to new comers. "This open democracy of a million souls," to quote Miss Potter (*The Co-operative Movement in Great Britain*), is open to all comers. In its counsels the holder of the maximum allowed by law (£200) has just as much power as, and no more than the shareholder with two or three pounds. Thus we find none of the characteristics usually associated with the joint-stock system in co-operation. Instead of a trading concern in which the lion's share in the direction of the revenue goes to the large stockholder, the power is equally apportioned to all the members, and the dividend is proportioned to the use made of the store (dividend on Purchases).

Just as individuals have formed societies for distribution and saving on a mutual basis, so the societies themselves have united in order to perfect and consolidate the co-operative system.

The English Co-operative Wholesale Society, enrolled in 1863, has grown into an organisation of enormous power; the notable point in this connection, which is dealt with very fully in Miss Potter's book, being the social influence which this great federal institution, in common with its sister society in Scotland, has exerted. These federal institutions, while allowing free play to local activity, keep up a constant healthy circulation of ideas and commodities between the societies federated. Villagers and townsmen gather at the delegate meetings to transact the affairs of "the Wholesale." The best experience and information of the central institution is placed at the service of the most insignificant society. Just as the trade union and the friendly society have passed through the stages of scattered and isolated local effort into national associations, so has co-operation; and to the federal development of the movement may be ascribed much of the steady and uniform rise in the standard of requirements noticeable in the co-operative movement (see Miss Potter's book). Nowhere can this be more clearly perceived than in those districts where the stores have remained outside the federal body. The county of Forfar, for instance, has held aloof almost entirely from the Scottish Wholesale Society, and inquiries made throughout the district show that co-operation has stood still in consequence during the past thirty years, each society in its own rut, whilst the standard of demand is lower than within the federation. The federal principle has been largely applied to the business of corn-milling, the price of bread in districts where co-operation is strong being frequently set by the joint agency of the mill and the store. It happens also, frequently, that instead of the store taking the current prices of the neighbourhood for its goods, it has come to set them for the district. Productive departments have been established on a large scale in connection with the two wholesale societies, and production is now carried on in many directions for use direct and not for profit, none of the commodities of the wholesales being sold outside the circle of the stores.

It is frequently stated in detraction of the co-operative movement that so far from being a social organisation it is mainly composed of self-seeking persons, devoid of public spirit, and intent upon personal acquisition. The advocates of co-operation do not, however, claim that their system is regenerative, though they maintain, as it would seem with reason, that the advantage of the individual can only be secured by the welfare of those associated with him. Seeing that the co-operative body now numbers a million associates, it would appear that a considerable number of those enrolled must contribute their quota of public work. Otherwise instead of continually increasing prosperity we should find corrupt and self-centred societies partaking of the propensities of members whose only thought was for themselves. But little inquiry is necessary to show that in this movement a large and increasing body of enthusiastic and efficient persons are continually devoting themselves to the furtherance of its principles. In no other movement is there so much hard and thankless voluntary work done for the love of the thing as in co-operation.

Not much can be said as to the social effects of profit-sharing industrial partnership. The theoretical treatises upon the question are quite valueless. In so far as the test of experience has been applied, it goes to show that under the factory system the worker is very slightly affected actually or subjectively by any profit-sharing schemes that have been tried in this country. The field of productive co-operation, in which the workers share in the management and profits, and of profit-sharing in which a proportion of profits is conferred upon the workers is, however, very limited. Some theorists hold that profit-sharing may be extended to workmen without loss to employers.

They argue that the efforts of workers being stimulated by the prospects of gain, an increment will accrue to profits, which if it be shared back again amongst those who contributed it, will result in no net loss. This view of profit-sharing has not, however, up to the present commended itself to workmen who, in this country, prefer to leave to their trade unions the business of adjusting with employers the remuneration of labour.

[See Acland and Jones, *Working Men Co-operators.*—Beatrice Potter, *The Co-operative Movement in Great Britain.*—*Annual Report of the Co-operative Union.*—*Annual Report of the Registrar of Friendly Societies.*—Sedley Taylor, *Profit Sharing.*]

V. N.

COPARCENERS. Persons to whom lands of inheritance descend jointly. For instance at common law, when an ancestor dies seised of land in fee simple or in fee tail, and his next heirs are two or more females, they will take an equal interest in the land. Under the custom of GAVELKIND (*q.v.*), which prevails in Kent, lands descend to all the males in equal degree. Coparceners take a distinct share in the land and can compel partition.

[Stephen's *Commentaries*, bk. ii. pt. 1.]

J. E. C. M.

The real property of a person dying intestate generally goes to one heir; but in some cases several persons are coheirs, and are then said to take as coparceners. This occurs (1) at common law when the persons entitled by descent are females (the rule of primogeniture applying to males only); (2) in the case of lands held under the custom of gavelkind, the males of the same degree of relationship (in so far as they are otherwise entitled) take as coparceners. There is no right of survivorship between coparceners—a circumstance which distinguishes the tenancy of coparceners from joint-tenancy (cp. *Joint-Ownership*).

E. S.

COPERNICUS, NICOLAUS (1473-1543). This great man has a place in the history of political economy in virtue of his tract *Monetæ Cudendæ Ratio*, written in 1526 by desire of Sigismund I., king of Poland, as a re-statement of the principles previously explained by the author at the Prussian Landtag of 1522 as those on which the reform of the currency should be based. The conditions on which he insists are—strict integrity in the weight and quality of the coin, the charge of a seigniorage just sufficient to defray the cost of mintage, and a unity of the monetary system throughout the entire state. There is, with much that is sound, some admixture of error in the tract. It was first published by Benkowski in 1861 and afterwards, in conjunction with the treatise of Oresme, in 1864 by Wolowski (Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 111).

J. K. I.

COPLESTON, EDWARD (1776-1849), born at Offwell in Devonshire, educated at Oxford, he became provost of Oriel, 1814. He was the champion of Oxford University against the attacks made against it in the early numbers of the *Edinburgh Review*; and it was as "one of his constituents," that he wrote his chief economical treatise, his two "Letters to the Right Hon. Robert Peel, M.P. for University of Oxford, on the pernicious effects of a variable Standard of Value, especially as it regards the condition of the Lower Orders and the Poor Laws" (1819). He became Dean of Chester in 1826, and succeeded Sumner as Dean of St. Paul's and Bishop of Llandaff in 1827. He was an occasional writer for the *Quarterly Review* (see list of his works in *Memoir*, pp. 346-7). Though chiefly known as a theologian and ecclesiastic, he took part in the economical and political controversies of his day; his Oxford Prize Essay (1796) on "Agriculture" shows that his attention was early directed to the topics afterwards treated in his "Letters to Sir Robert Peel."

In the first of these Letters (which bears the motto "laissez-nous faire") he states the doctrine of currency which (he says), though "only a question of simple arithmetic," yet affects "all the most valuable interests of life." He gives illustrations, from English history, of what has happily been called by some later writers the "secular" depreciation of the currency (or its depreciation over a long period of time), and points out how very gradually and unequally prices adapt themselves to the change. As in retail dealings and in transactions between non-commercial people competition acts much less promptly and effectively than in dealings between merchants, so its efficacy is very imperfect in case of the agricultural labourers, as distinguished from the mechanics of the cities; they are quite unable to make their wages keep pace with any depreciation of money or rise in the price of food. "At no period of our history *till the present* was the condition of the labourer so bad as in the time of Elizabeth." Rather than raise the labourer's wages, the farmer will let him "come on the poor rates." Now the causes of depreciation may be the natural progress of trade and the discovery of mines; the distress is in that case unavoidable, and every civilised nation will at one time or other pass through the experience. But the depreciation may be due to artificial and preventible causes; and this is our own case, in 1819. We have ourselves to blame; and we ought to apply the cure. We should restore our currency to its old basis, and put an end to the suspension of cash payments. Copleston throughout follows the leading of Ricardo, Huskisson, and Canning against Bosanquet, Vansittart, and the opponents of the bullion committee.

In the second Letter he discusses what steps should be taken to secure that the

return to a more normal currency and low prices shall be as far as possible equable in its effects on all classes. The new corn law was meant to give to the agriculturists the supposed advantages secured to commercial men by restriction; but it would be better, he thinks, to dispense with both of them and return to our normal condition. Then he goes at some length into the question of the relief of the poor, discussing what government can and cannot do in this matter, what our own government had done, and, finally, what it ought to do. He considers that Malthus (whom he otherwise warmly praises) has not done full justice to the English Poor Law. Till lately, according to Copleston, this law was so well administered as to preserve life without encouraging the propagation of it. An historical review of the legislation in regard to the poor in England is made to support his view that depreciation of the currency has been a potent cause of distress to the poor, and unfair gain to their employers. His own recommendations are stricter than his criticisms of Malthus might have led his reader to expect. "Legal relief is necessarily of itself encroaching and unsatiable." He appeals to employers to raise wages without waiting till they are compelled; but (he believes) in any case the march of events will so lessen poverty that it will not be true of England as of India and China that its only source of wealth is its "redundant supply of human labour."

Copleston's article in the *Quarterly Review* (for April 1822), on the state of the currency, would lead him to be classed among the ultra-bullionists, who attributed more influence to the suspension of cash payments than the facts would justify. It is criticised by Tooke in his *Thoughts and Details on High and Low Prices*, (part i. pp. 19, 43, *seq.*, 1823); and Ricardo includes him among the adversaries who "put sentiments in my mouth that I never uttered" (letter to Malthus, 16th Dec. 1822). But, like many other of the minor economists, he did service by drawing attention to particular points that had been comparatively neglected by the more prominent writers.

[W. J. Copleston, *Memoir of E. Copleston, Bishop of Llandaff, with Selections from his Diary and Correspondence* (London 1851).—See also Mozley, *Reminiscences of Oriel College*, 1883.]

J. B.

COPPER MONEY (ENGLAND). This metal was first used for coinage in England in the reign of James I., when, under the authority of a patent granted by the king, Lord Harrington of Exton caused copper *Farthings* to be struck and put into circulation. These pieces, known as "Harrington tokens," weighed only six grains.

Copper Halfpence were first issued in the reign of Charles II., and

Copper Pence in that of George III. (1797).

Copper Twopences were issued at the same time as the first coinage of pence, but they were found to be inconveniently large and heavy (2 oz.), and their coinage was not continued.

Copper Half-farthings for circulation in England were first coined in the year 1843. The last issue of coins of this denomination bears the date 1856.

The following is a list of the denominations of copper coins issued for circulation in England since the reign of James I. :—

James I.	Farthing.
Charles I.	Farthing.
Cromwell.	Farthing.
Charles II.	Halfpenny, Farthing.
William & Mary.	Halfpenny, Farthing.
William III.	Halfpenny, Farthing.
Anne.	Farthing.
George I.	Halfpenny (125 grs.), Farthing (62·5 grs.)
George II.	Halfpenny (152 grs.), Farthing, (76 grs.)
George III.	(1770)—Halfpenny (152 grs.), Farthing (76 grs.) (1797)—Twopence (875 grs.), Penny (437·5 grs.) (1799)—Halfpenny (194·5 grs.), Farthing (97·2 grs.) (1806)—Penny (291·7 grs.), Halfpenny (145·8 grs.), Farthing (72·9 grs.)
George IV.	Penny (291·7 grs.), Halfpenny (145·8 grs.), Farthing (72·9 grs.)
William IV.	Penny (291·7 grs.), Halfpenny (145·8 grs.), Farthing (72·9 grs.)
Victoria.	Penny (291·7 grs.), Halfpenny (145·8 grs.), Farthing (72·9 grs.), Half-farthing (36·5 grs.)

In 1860 copper was superseded by bronze for the manufacture of pence, halfpence, and farthings; the old copper pieces being demonetised by royal proclamation of the 13th May 1869. They were, however, exchanged at the Mint for their full nominal value until the year 1873.

The weights of the bronze coins are as follows :—

Penny, 145·83 grs.
Halfpenny, 87·5 grs.
Farthing, 43·75 grs.

Farthings made of *tin* were struck in the reigns of Charles II., James II., and William & Mary; halfpence also were made of that metal in the two last-named reigns. F. E. A.

COPPER MONEY (SWEDEN). (*Copper plates or blocks used as money in Sweden.*) From 1644 to 1776 there was in Sweden a cumbersome form of copper currency. It consisted of thick square plates (plåtar) of pure copper of various dimensions and weights, the largest weighing as much as 17 kilogrammes (or 37½ lbs. av.) The nominal value in silver dalers, with the year of its issue, etc., was stamped in the corners and in the centre of each plate. The reason which led to the adoption of this form of currency was a desire to benefit the native copper mines, a feeling analogous to that which at the present date (1891) has greatly promoted the coinage of silver money in the United States.

By the law of 1644 one skeppund of copper (170 kilogrammes or 374⅜ lbs. av.) was coined into a number of plåtar equal in total nominal value to 69 silver dalers. In the hope, however, of adding to the wealth of the nation, laws were passed in 1674 and 1715 which directed that the stamps on the blocks should be altered so as to cause them to pass at a higher nominal value than before, the number of silver dalers represented by a skeppund of copper being increased in 1674 to 100, and in 1715 to 180. The latter rate was maintained until 1776, when, by a new coinage law, the plåtar were demonetised, and ceased to form any part of the Swedish currency.

After 1715 one plåt was reckoned as equal to two silver dalers, or ⅔ of a Rixdaler. This would be equivalent to 2⅔ crowns of the present gold standard, which are equal in sterling to 2s. 11¼d. The weight of one plåt at the valuation of 1715-1776 would therefore be (170 kilogrammes÷90) 1·88̄ kilogrammes or 4 lbs. 2 oz. av., while the nominal value of the largest plate, weighing 17 kilogrammes (37½ lbs. av.), would be eighteen silver dalers, equal to twenty-four of the present gold crowns, which amount in sterling to £1 : 6 : 5.

For a long time these blocks of copper formed the chief medium of exchange in Sweden (so far as metal was concerned), and as they were necessarily very unwieldy, merchants were often obliged to provide themselves with a wheelbarrow when they had to pay or receive any considerable sum of money. The inconvenience of employing this form of money appears to have led to its disuse.

In Italy, Mommsen says, "there seems from the first to have been a fixed ratio for the relative value of copper and silver (250·1)"—Mommsen, *History of Rome*, vol. i. p. 458, ed. 1864. F. E. A.

COPYHOLD. Land forming part of a manor and subject to certain burdens in favour of the lord. Among these the fine payable on alienation and the so-called "heriot" are the most prominent. The right of heriot, wherever it exists, entitles the lord to take the best beast, and in some cases the most valuable chattel on the holding, whenever the tenant dies. The tenants' rights are derived from "the custom of the manor," the lord being still looked upon as the feudal possessor of the land, hence he is entitled to all mines and minerals under the land, and to all timber growing on the surface. The transfer of copyhold lands is still effected in the mediæval forms. The new tenant is admitted in the lord's court—the court baron—and his admittance is entered on the court roll, the copy of which is evidence of his title—hence the expression "copyhold." A series of copyhold enfranchisement acts have been passed within the last fifty years, the last of which, enacted in 1887, is the most far-reaching one. Every facility is now given to enable both lord and tenant to put an end to their obsolete relation, and copyholds will, no doubt, disappear altogether in a short space of time. E. S.

COPYRIGHT. Copyright may be defined as the sole and exclusive privilege of multiplying copies of an original work of art or literary composition. It is a species of property partaking of the nature of a monopoly created by law. Though the existence of the right at common law has been denied, there is ample authority for saying that the author or owner of a literary composition or work of art had at common law a right, so long as it remained unpublished, to prevent the publication of any copy of it by any other person. After publication the protection of the common law ceased. Under the Tudors monopolies for printing special classes of books were often granted by the crown, but it was not until 8 Anne c. 19 that a general law was passed conferring copyright after publication. Copyright is now governed by 5 & 6 Vict. c. 45, and subsequent amendment acts.

(1) *Literary Copyright.* Original books, including pamphlets, sheets of letterpress, sheets of music, maps, charts, and plans or translations, are protected for forty-two years from the date of publication, or for the author's life and for seven years after, whichever period is the longer. No copyright can be had in a libellous or immoral publication. Newspapers under some circumstances may be within the acts. The first publication of the book must have been within the United Kingdom. An alien stands on the same footing as a citizen in this country, but in the United States until 1891 only domiciled aliens could obtain copyright, in that year a law was passed permitting aliens to obtain copyright, on condition that the book should be printed in the United States.

(2) *Dramatic Copyright.* Plays and musical compositions are protected for the same period as books, but the time runs from the publication or representation, whichever happens first. To dramatise a copyright book is an infringement.

(3) *Works of Art.* The period of copyright in the case of engravings, prints, and lithographs, sculpture, and busts, is fourteen years, and in the case of paintings, drawings, and photographs, the life of the author and seven years from his death.

(4) *Designs.* By the Patents, Designs, and Trade-Marks Act, 1883, any new or original design not previously published in the United Kingdom may be registered by the owner for particular classes of goods, and by such registration copyright will be secured for five years.

(5) *Copyright in Foreign Countries.* A summary of the law relating thereto will be found in Copinger's *Law of Copyright*, London, 1870.—Jerrold's *Handbook of English and Foreign Copyright in Literary and Dramatic Works*, London, 1881.

(6) *International Copyright.* Copyright, being conferred by the municipal law of a state, cannot be enforced in foreign states. Various attempts have been made to secure international copyright. By 7 & 8 Vict. c. 12, amended by 15 Vict. c. 12,

the crown can grant copyright to works published in another state, provided a similar convention securing reciprocal rights be concluded. Such conventions have been arranged with the German states, 1846 and 1847; France, 1852; Belgium, 1855; Spain, 1857; Sardinia and Hesse-Darmstadt, 1862; Spain, 1880, and with our leading colonies. An International Copyright Union was formed in 1886 (see *Law Quarterly Review*, 1887, p. 14).

(7) *Basis of Copyright.*—Blackstone (2 *Com.* p. 405), adopting Locke's view of occupancy, was inclined to base the right of an author to the exclusive use of works composed by him on occupancy founded on personal labour. Other writers have adopted this idea (Copinger on *Copyright*, p. 7). But it is difficult to see how, without great straining of language, a title which the Romans applied to material things can be made to embrace the right of an author to his ideas embodied in outward form. Judicial decisions appear to have adopted the economic view that a manuscript having value was a form of wealth, and ought therefore to be protected like other property, Millar *v.* Taylor (4 Burr, 2362), Donaldson *v.* Becket (4 Burr, 2408), Jeffries *v.* Boosy (4 H.L.C. 867). Spencer (*Social Statics*, c. xi. § 1) holds that "a man may claim the exclusive use of his original ideas without overstepping the boundaries of equal freedom, it follows that he has a right to claim them, or in other words, such ideas are his property."

On the other hand several able writers have argued against the expediency of recognising any right of property in books (M'Laurin's *Origin and Progress of Literary Property*, 1798), denying that there is any inherent right apart from legislation in an author to literary property (Dicey, *Fortnightly Review*, vol. xxv.), and it has been suggested that the republication of all books should be perfectly free, subject to the payment of a fixed royalty. A full discussion of these points will be found in the *Report of the Royal Commission on the Copyright Laws*, and the *Minutes of Evidence*, 1878.—See also *The Law of Copyright*, by T. E. Scrutton, London, 1891.—*The Law relating to works of Literature and Art*, by J. Shortt, London, 1884. J. E. C. M.

COQUELIN, Charles (1805-1852), born at Dunkirk, died at Paris. Beginning life in business (1839-44), he published a *Traité de la filature du lin* (Paris, 1845). Soon after, having joined the free traders in their campaign in favour of customs reforms, he wrote in the *Revue des deux mondes*, also in the *Journal des économistes*, to which he contributed many articles, much noticed and justly valued at the time, on banks, commercial companies, railways, canals, conversion of the *rente*, the corn laws, the circulating medium, liberty in commercial matters, etc. He superintended up to his death the publication of the *Dictionnaire de l'économie politique* of Guillaumin (1852-53). His principal work, *Du crédit et des banques* (Paris, 1848, 1st ed.; 1859, 2nd ed.), still remains, though some of the details are out of date, one of the ablest arguments in favour of freedom for institutions of credit and circulation. A. C. f.

CORBET, Thomas; wrote—

An Inquiry into the Causes and Modes of the Wealth of Individuals, or the Principles of Trade and Speculation Explained (London, 1841) sm. 8vo.

The author, claiming for himself only that degree of originality which Newton evinced when he explained the most ordinary transactions, such as plumbing and weighing, assigns as the "distinguishing principle of trade" though "not noticed by Adam Smith"—to *buy and sell always at the market price.* "Many other principles," as the author says, "will be found to be as novel." F. Y. E.

CORBETTA, Eugenio, author of *Conferenze popolari di economia pubblica e sociale*, Milano, 1872, Dumolard. M. P.

CORN LAWS. A corn law is an expedient adopted by the legislature, with the object of securing a higher price for the cultivator, and a higher rent for the landowner. It takes two forms. One, and the most familiar, is a tax or prohibition on importation. The other is a bounty on exportation. The first corn law of the former kind in the English statute book is one enacted 3 & 4 Edward IV. The only law of the latter kind is the famous Bounty Act of William and Mary, enacted in 1689 (1 W. and M., s. 1, c. 12). The act was extended to Scotland by 5 Anne c. 8, and was slightly modified by 13 Geo. III. c. 43.

Acts of the sovereign, probably by the advice of the council, prohibiting the export of corn, with the view of distressing the king's enemies or of preventing scarcity at home, are of early and frequent occurrence in English history. But they are temporary, the expedients of military policy, or of a feeling that it was the first duty of a sovereign to assist in procuring plenty at home, and were not intended to promote the interest of either cultivators or landlords. These restraints were constantly enforced by severe and even savage penalties.

The preamble of the petition on which the act of Edward IV. is founded (Rolls of Parliament, v. p. 504), asserts that "husbandmen and occupiers in husbandry are sore hurt by the bringing of corn out of other lands and partes when corns of the growing of the said realm have been of easy price." Imports of wheat, rye, and barley are prohibited, unless the prices of these three kinds of grain are at 6s. 8d., 4s., and 3s. respectively the quarter. The corn thus imported is to be forfeited, half to go to the king, half to the informer. Prize of war, however, apparently (for the language of the petition is not very clear), is exempt from these provisions.

The year in which this act was passed was one of very low prices, for wheat was only 3s. 10½d., rye 2s. 10d., barley 2s. 4½d. the quarter. During the period before 1542, when prices began to rise permanently, *i.e.* for eighty

years (1462-1542), prices for twenty-three years only were above the rates, sometimes only slightly, so that one could hardly say that the act was very effectual in promoting its avowed object. Besides, for a very long time, acts of parliament were very imperfectly obeyed, perhaps hardly known to exist; and governments, even in the most despotic times, were very much alarmed at any discontent which might arise in case the price of food was artificially heightened. There are numerous statutes prohibiting the exportation of corn in times of real or apprehended scarcity.

Imported corn, like every other foreign commodity, was made liable to the charges which were imposed by Cecil (*see* BOOK OF RATES)—the constant subject of quarrel between the early Stuarts and their parliaments. Here, however, the maximum price at which imported wheat was freed from customs duty was 48s. a quarter. The average price of wheat during the 17th century was 41s. and nearly the whole century was a period of exceeding suffering to the poorer or labouring classes.

The real commencement of the system of imposing a scale of charges on imported corn, with a view to heightening prices and thereafter rents, was the sliding scale of 22 Charles II. c. 13. Under this law a duty of 16s. a quarter was imposed on wheat as long as it was at and below 53s. 4d. and of 8s. when the price was between 53s. 4d. and 80s. Other kinds of grain were similarly treated, for 16s. was to be exacted when rye was below 40s. barley and malt when below 32s. and peas and beans below 40s. Oats, when at 16s. and under, were to pay 5s. 4d. There was as yet no malt, but only a beer duty. Now during the 17th century, the average price of wheat was 41s., of barley 21s. 11¾d., of malt 23s. 7¾d., of peas 23s. 2¾d., of beans 23s. 1½d., and of oats 14s. 7¾d. I have not found the price of rye in sufficient frequency to justify an average. But the above figures prove that the intention of the act was to put a prohibition on the importation of food. It is true that when scarcities came, as in the seven years' dearth at the end of the 17th century, in 1709-10, in 1756, and on some other occasions, the act was suspended for a period, and, as Adam Smith says, "the necessity for these temporary statutes sufficiently demonstrates the impropriety of this general one." The act remained in existence as the ordinary corn law for more than a century, for it was changed only by 13 Geo. III. c. 43.

The sliding scale act of Charles II. was, as far as the realisation of its objects are concerned, a total failure. The price of wheat was generally low to the end of the century, for during the forty years 1663-1702 inclusive the average is 38s. 10d., this period including the so-called seven dear years 1692-1698 inclusive. Besides, the act was suspended as soon as it really came into operation. With rare exceptions too the harvests were exceedingly abundant well into the third quarter of the 18th century, average prices being constantly less than half the average rate of the 17th century. For this result there were two dominant causes. The first was the extraordinary geniality of the seasons. The second was the gradual adoption of the new agriculture, the substitution to a great extent of the four-course for the three-course system of cultivation, the spread of turnip and artificial grass culture, and the great increase as a consequence of live stock. The development of English industry and manufactures was remarkable, and was due in great measure to the plenty which prevailed. We shall see presently what bounties did.

When prices occasionally rose to what, till recent years, we should call moderate rates, say 50s. a quarter, there were great discontents and occasionally serious bread riots. The act of Charles does not appear to have been blamed for these disagreeable experiences, for the calamity was generally assigned to the acts of the corn dealers, who were branded with the names of forestallers and regraters, and looked on generally as public enemies. (*See* FORESTALLERS AND REGRATERS.) The government were exceedingly alarmed at these symptoms, and did their best to keep the ports open for foreign food. At last by 13 Geo. III. foreign corn could be imported at nominal duties when wheat was over 48s., rye, beans, and peas 32s., barley, bere, and bigg 24s., and oats 16s., the rate on wheat being 6d. a quarter, on rye, etc. 3d., on barley, etc. and oats 2d., and the whole duty might be drawn back, if re-exported in six months. In 1791 the corn laws were consolidated but not materially changed. During the great continental wars prices were all that the farmers and landowners could desire.

But in 1813, after the retreat from Moscow, the domination of Napoleon came to an end, and with it his anti-commercial decrees. Large quantities of foreign corn came into England and prices fell. In 1815, therefore, another act was passed (55 Geo. III. c. 26). Under this act no foreign corn could be taken out of bond unless when the following prices were reached—wheat 80s., rye, peas, and beans 53s., barley, bere, and bigg 40s., and oats 26s., some favour being shown to the produce of Canada. It was supposed that this enactment would raise prices, but they continued provokingly low, and in consequence there occurred what was called agricultural distress. By 3 Geo. IV. c. 60, a new scale of maxima was adopted of 70s., 46s., 35s., and 25s. Certain modifications were made between this date and 1846, when the corn laws were abolished, the measure to take final effect in 1849. Only a

shilling duty was left, which was abolished twenty years later by Mr. Lowe.

The bounty on exported corn, as is stated above, was granted in 1689. The corn law of Charles II. had been a failure. It did no good in cheap years, it was dangerous in dear times, and had to be suspended. The bounty was far more plausible, and, at first sight, far more defensible. It stimulated corn growing, and to stimulate corn growing was to provide more abundant, perhaps cheaper food. The bounty too seemed so small, especially when compared with the duties on imports under the act of Charles. English agriculture was in a deplorable condition in 1689. It was affirmed by the closest and most intelligent observer of the time, Gregory King, that the average rate of corn production in England was, one kind with the other, not above fourteen bushels to the acre, and the bounty would mend this serious deficiency of enterprise. State-aided industry was a superstition of the time; the grant of the bounty by parliament seems to have excited—and I have read much that was written at the time—neither criticism nor opposition.

The bounty was not to be given when the price of wheat reached 48s., of rye 32s., of barley and malt 24s. a quarter. When the prices were below this amount, the payments on exportation were 5s. on wheat, 3s. 6d. on rye, 2s. 6d. on barley and malt. After the Scottish union oats were included and bere, and 2s. 6d. was to be paid on these, 15s. on oatmeal. By 13 Geo. III. c. 43 the maximum price of wheat was made 44s. and 5s., rye 28s. and 3s., barley, malt, and bere 22s. and 2s. 6d., oats 2s., oatmeal 2s. 6d. But after 1773 it was rarely that prices were low enough to admit a bounty, and very soon the bounty was practically suspended. The form, however, survived during the continental war.

The sliding scale of import duties had no effect on agriculture, and till the last thirty years of its existence only a fitful effect on prices. It did not encourage cultivation, because the best hopes of farmer and landlord seemed to lie in scarcity. Its effect was that it destroyed or weakened the foreign market, by rendering it uncertain, and that it prevented the exchange of British manufactures against foreign grain. It deluded the farmer by the excessive range of variation in prices which it caused, and it was a serious injury, for the same reason, to the mass of the people. Hence there were people who denounced the sliding scale, but thinking that British agriculture could not prosper without some assistance, advocated a fixed duty. This was the policy of the Whigs. The advocates of free trade answered that a fixed duty was a fixed wrong, and this criticism was accepted and endorsed by parliament.

But the operation of the bounty was very different. It cannot be doubted—the writer has, for the first time, collected the evidence—that the bounty stimulated corn-growing, enclosures, and to a very limited extent arable agriculture. But this advantage, such as it was, was countervailed by mischievous consequences. In the first place, it discouraged the spread of the new agriculture, *i.e.* in general terms, the substitution of the four-course for the three-course system, and the abandonment of bare fallows for turnip and artificial grass culture, and with this the increase and improvement of cattle and sheep raising. The legislature encouraged only one branch of agriculture, corn raising, and by implication discouraged the other branches. In the next place, men gambled for the bounty. It was reckoned that in average cheap years, only a thirty-third of the crop won the bounty, but it obviously affected the whole crop which was raised. In just the same way, in modern times, the beet-root crop, favoured by continental governments, is the most unsatisfactory and disappointing industry on the continent.

In the next place, for a long time, as no rule as to quality was established, the bounty was favourable on corn which was below the average quality. The contrast between minimum and maximum prices of grain on the London Corn Exchange is extraordinary, constantly being thirty to forty per cent, for so great an interest was created by the bounty that it has been possible to collect, from the days of the great famine of 1709-10, accurate accounts of weekly London prices from the newspapers. At last the legislature required the city of London to furnish a return of prices and quantities, and established a system of averages. But the most important action which parliament took was in 1770, when returns of corn prices were required from every county weekly, which were published in the *London Gazette*. These returns disclose the fact that, though by this time the effect of the bounty was much diminished, the price of corn in the inland counties, *i.e.* those who had no access or no easy access to the ports, was fully 5s. a quarter higher than it was in the maritime counties or from fifteen to twenty per cent dearer. The whole country paid the tax, and some parts of it had to pay all the more for food. The officials too, who made the returns, were constantly charged with stating that prices were far lower than experience justified.

There was considerable difference of opinion about the operation of the bounty. Arthur Young, who had only the interests of progressive agriculture at heart, believed that it and the sliding scale were important stimulants to agriculture. Smith, as might be expected, though he was not possessed of the facts which prices disclose, denied that the effect was any thing but mischievous. Tooke, perhaps the

last considerable economist who handled the question, declares that in the absence of accurate information on the effects of it, he is unable to determine whether the good was greater than the evil. On this, the evidence of facts, of which a summary has been given, is conclusive. J. T. R.

CORN RENTS. During the latter half of the 16th century rents were very slow to improve. In Stafford's famous pamphlet, at one time ascribed to Shakespeare, the complaints of the landlord are loud. Prices had trebled and rents were stationary. The explanation is, that everything needed for agriculture, except labour, had increased near threefold in price, and the margin from which rent could be paid was therefore not increased. The Oxford and Cambridge colleges, the schools of Winchester and Eton, were greatly impoverished, and apparently found it difficult to live. Their tenants too were all on customary rents.

In this crisis parliament, at the instance of Burleigh or Sir Thomas Smith, for the credit is divided, came to the rescue by the act of 1576, 18 Eliz. c. 6, under which the colleges and the two schools were empowered in the grant of fresh leases to reserve one-third of the old rent in produce or in money at the maximum prices of wheat and malt, in the markets of Oxford, Cambridge, Winchester, and Windsor. I have found that the produce rent, at fictitious prices, had been for some time customary at King's College, Cambridge, before the act was passed; and the hint probably came to Burleigh or Smith from this practice. Thus the college demanded that the lessee should supply so many quarters of wheat and malt at 6s. 8d. and 4s. though the market price might be treble these amounts, and sheep at 2s. when the lowest price was 6s. 8d. The Cambridge colleges clung to this system despite the act till the end of the century. The reason, I believe, was that domestic grinding and baking were customary at Cambridge, while at Oxford purchases were made from the common baker or brewer. The local custom was dropped at last, it appears, because these covenants did not secure high quality.

The act did not prejudice existing leases. Hence it is some time before the returns of corn prices appear. The earliest which I have found in Oxford is in 1582. The practice of Eton long continued to be that of King's College, and Winchester appears to have adopted the change slowly, for the accounts of this school have, it seems, been lost up to the time of the Long Parliament. The rent days at Oxford on which the market returns are given are rarely more than two, New College alone having occasionally a third. At King's College they were thirteen, but one seldom finds the whole. At St. John's they are six, and these are always found. At Winchester there were also six, at Eton seven, though at last Eton only has two. Winchester has occasionally oat rents.

These corn prices are of the greatest value in the history of agricultural prices, which indeed could not, since the Reformation, have easily been constructed without them. In the early part of the 18th century Fleetwood, afterwards bishop of St. Asaph, and previously fellow of Eton, extracted the Eton prices, and published them in his *Chronicon Preciosum*. This gave the hint to parliament, which, during the 18th and 19th centuries, occasionally called on the Eton authorities to return their corn prices. These were published in parliamentary papers. The writer of this article was the first to collect the Oxford, Cambridge, and Winchester prices, as well as those of Eton, from the original records. It is probable that no other country could supply such a series, but from casual and broken notices of French corn prices, it is plain that generally they are not very different in amount, money and measures being duly interpreted, from those which prevailed in Southern England. J. T. R.

CORN RETURNS. By the Corn Returns Act 1882 (45 & 46 Vict. c. 37) which consolidated and amended the 5 & 6 Vict. c. 14 and the 27 & 28 Vict. c. 87, the buyers of corn in certain towns named by order in council, are required to make to the inspectors of corn returns, weekly returns of the amount of each sort of British corn bought by them, and the weight and the price thereof. Such returns are to be made in not less than 150 and in not more than 200 towns. The inspectors are to forward to the Board of Trade weekly summaries of these returns, and from these summaries the Board of Trade computes the weekly, quarterly, and yearly average prices of each sort of corn. These averages are computed by dividing the total prices by the total quantities. On these averages depends the yearly amount payable to owners of tithe rent charges (see TITHE). J. E. C. M.

CORNAGE. A monetary payment called cornage was a frequent incident of the tenure of land in the counties of Cumberland, Durham, Northumberland, and Westmoreland. Littleton explains cornage tenure to be the tenure of land by the service of blowing a horn to give notice of the incursions of the Scotch; and this explanation has been often repeated, but is certainly incorrect. The true explanation is that in lands held by cornage tenure the tenant paid to the lord a small sum of money for every horned beast in his possession, or a fixed sum as a composition. The payment was an incident of both free and unfree tenures, and in the latter case was paid by all the tenants together. In the manor of Easington in Durham it was fixed at 30s. a year from a very early period, and in most cases the amount paid bears no

relation to the actual number of cattle on the land. But a charter of Henry I., in granting the cornage of Borton to the monks of Durham, estimates its amount as twopence from each animal. For similar payments in other countries than England see Ducange, *Glossarium*, *s.v.* In England cornage seems to be confined to the four counties named, where it is also known as "horngeld" or "hornbield." It perhaps points to an early payment of rent in cattle. Servile tenants owing cornage were often also bound to provide the lord with a milch-cow or its value.

[Littleton's *Tenures* 1481. *The Boldon Book*, edited for the Surtees Society by the Rev. William Greenwell (see esp. "Glossary," *s.v.*)] C. G. C.

CORNER ON STOCK EXCHANGE. A speculator is said to have got into a corner when he cannot deliver the securities or other articles which he has sold for delivery at a given date (*v.* BACKWARDATION and BEAR). A. E.

The word is an Americanism now acclimatised here, signifying a condition of a market in which speculators of one class are placed at the mercy of their opponents. It is a term even more extensively used in the produce markets, in the corn trade, and so forth, than upon the stock exchange. As a rule, the speculators "cornered" are those who have sold what they did not possess in the expectation of being able to buy upon lower terms. In many cases such sales have extended to a larger amount than there are goods of the class, or securities, upon the market or in existence, and if the buyers are strong enough to demand a delivery of what has been sold it is evident that the sellers must at last apply to those to whom they have sold to let them off their bargains. The result is that the buyers may then demand their own terms to cancel the transaction. In America, where gambling in produce is carried to enormous lengths, these "corners" are frequent. A "corner" may be said to differ from a "rig" in that the latter more often is applied to a transaction such as the recent French operation in copper. In that case an effort was made to secure the entire production of the world, amounting to upwards of 200,000 tons annually, and to sell it only at an advance of about 100 per cent, all consumers of copper being compelled to purchase from the syndicate. The result proved disastrous. The French *Société des Métaux* "rigged" the market for upwards of a year, but it may also be said that they "cornered" those who had speculatively sold copper for forward delivery in October 1887, the price advancing from under £40 per ton early in that month up to nearly £90 in January 1888 (*see* CARTEL; COMBINATION).

CORNIANI, GIAMBATTISTA (1742-1813) born at Orgi Nuovi, in the province of Brescia, wrote *Riflessione sulle Monete*, in 1796 (published in Verona for the first time, and republished in 1804 by Custodi) on the general effects depending on the quantity of coin which circulates in a country, and two other essays, entitled *Discorsi due della Legislazione relativamente all' Agricoltura*, read in 1777 before the academy of Brescia on rural legislation, and also published by Custodi, whose personal friend he was. Corniani, although an indifferent economist, was a distinguished man of letters. M. P.

CORPORATION, MUNICIPAL. A body of persons incorporated for the purpose of promoting the good government of a town.

By the Municipal Corporation Act 1835 (5 & 6 Will. IV. c. 76) the greater number of municipal corporations were reformed and their constitution placed upon a uniform basis. That act and subsequent acts have been consolidated by the Municipal Corporations Act 1882 (45 & 46 Vict. c. 50).

The government of a municipal corporation is entrusted to a mayor and a certain number of aldermen and councillors who constitute the "council." The council is elected by the burgesses; the aldermen and mayor by the council. The qualification of a burgess consists in (1) being of full age; (2) having occupied a building in the borough for twelve months; (3) being rated to relief of the poor and having paid his rate; (4) not having received parochial relief; and (5) residing within seven miles of the borough.

The rents, profits, and interest of all corporate property is paid into a borough fund, and out of such fund the expenditure is defrayed. Any deficiency is made up by a borough rate.

The consent of the Treasury is required to enable a corporation to acquire or dispose of land, but it may, subject to certain restrictions, make leases not exceeding thirty-one years.

The chief powers enjoyed by municipal corporations are: the administration of all town property; paving, lighting, and the cleansing and maintenance of thoroughfares; the making of sewers; the establishment of public buildings; appointment and supervision of the police; the administration of special trusts; and the superintendence of education where there is no school-board.

Special powers are enjoyed for the purpose of removing unhealthy areas and erecting workmen's dwellings.

By the Local Government Act 1888 boroughs are divided into four classes: (1) those under 10,000 inhabitants; (2) those over 10,000 but without quarter-sessions; (3) those over 10,000 but with quarter-sessions; and (4) sixty-one named boroughs each with a population of 50,000, on the 1st June 1888.

The first three classes form part of the county in which they are situate. Class 1 is practically incorporated with the county. In class 2 the right of the borough justices to grant licences is withdrawn. In class 3 the

boroughs are permitted to continue to manage minor business. Class 4 is invested with all the powers of a county council. A county borough is entitled to share in the local taxation account; the amount depending on an adjustment to be made between the county and the borough; and all boroughs are to receive from the county council grants in aid of the salaries of certain officers, and of county lunatics.

Any deficiency of income is met by borough or police rates. As a sanitary authority a borough may also levy general district rates and private improvement rates. Money may be borrowed with the assent of the local government board.

[C. Gross, *The Gild Merchant*, Oxford, 1890. —J. S. Vine, *English Municipal Institutions*, London, 1879.—C. N. Bazalgette and G. Humphreys, *Local and Municipal Government*, London, 1888.—J. M. Lely, *Municipal Corporations*, London, 1882.] J. E. C. M.

CORPORATION, AGGREGATE. An association of persons which the law regards as capable of possessing rights, and of being subject to duties. The existence of a corporation depends in English law on one of five things, viz. (1) common law, (2) prescription, (3) statute, (4) charter, or (5) implication (see Grant *On Corporations*); but practically all corporations may be traced to charters granted by the crown or to acts of parliament. The early corporations were generally ecclesiastical or municipal bodies, though some were formed for charitable or educational purposes. Trading corporations are more modern. At first they were, and sometimes are, incorporated by charter (see CHARTER) or by special act of parliament, but in 1844 persons were allowed to form a company by means of a certificate of incorporation. Each member of a company so incorporated was liable for the debts of the company, but in 1855 an act (18 & 19 Vict. c. 133) was passed which authorised the formation of companies in which the liability of each member is limited to the amount of shares held by him. This principle has been developed by subsequent legislation, and the "company" is to a large extent taking the place of the "partnership." Apart from the limitation of liability, a company possesses a great practical advantage over the partnership, inasmuch as the death of a partner usually dissolves the partnership, whereas the death of a member of a company does not affect its existence. A further important distinction between these two modes of conducting business is that one partner can as a rule withdraw his capital, whereas a shareholder cannot do so unless the company is wound up.

J. E. C. M.

CORPORATION, SOLE, is a name under which each successive holder of any public office is described in his capacity of owner of any property attached to such office (*e.g.* the rector of a parish as owner of the glebe). E. S.

CORPORATIONS OF ARTS AND TRADES.

England, p. 428: France, p. 430; Germany, p. 431.

The constitution of manufacturing industry in the Middle Ages was everywhere in Europe characterised by the system of Guilds, or corporations of arts and trades. These differed more or less in the different countries. In England, where the state was consolidated and a strong central power established at an earlier period than in France or Germany, trade was earlier and more completely controlled by the government, and the state regulations relating to it more energetically and systematically carried into effect. The guilds were not as widely diffused in England, nor had they as great a degree of autonomy, as elsewhere. But in their aims and operations, wherever they existed, there was a remarkable general similarity, so that a statement of these for England will apply in a great degree to the other countries which have been named. The same remark may be made respecting the history of these institutions. A survey of their rise, progress, and decline in England, France, and Germany respectively, will show that in their development and downfall identical social causes were everywhere in operation.

England.—Already, in the Anglo-Saxon times, religious and social guilds had existed for the performance of pious offices and for mutual help and solace, and frith-guilds for joint action in personal defence and for preservation of the peace. The latter rose naturally in a society where the state was not strong enough to provide adequately for the legal protection of its members. But the merchant guilds, which are found in the Norman period in many English towns, though they may have been suggested by these earlier associations, had quite different aims. The merchant guild (or "hanse" as it was sometimes called) was a society "formed primarily for the purpose of obtaining and maintaining the privilege of carrying on trade" in a town. This privilege implied the restriction of that trade to the guild brethren, who had also defined rights of traffic with other towns. Any one, not a member of the guild, trading in the town, was subject to fines. An entrance fee had to be paid on admission to the guild, and probably annual dues to the common fund, which were spent in festivities or religious offerings, or in relieving the poorer brethren. Rules for the conduct of buying and selling in the town, and for the enforcement of commercial morality, were framed by the guild, and binding on its members. Admission to the merchant guilds seems to have been open only to those inhabitants of the town who were full burgesses by virtue of holding land within the town boundaries. Each guild had for its head a president called an *alderman*, with two or more assistants

known as *wardens*; and there was a council of twelve or twenty-four.

The earliest distinct mention of a merchant guild is in the year 1093, but they may have existed before the Conquest. The charters granted by Henry II. to a number of the leading English towns recognise the existence in them of guilds merchant. The craft guilds appear somewhat later; they are found in some places early in the 12th century, and in the 13th we hear of them in most of the industrial towns. Their origin has been variously explained. Some have regarded them as the descendants of the *collegia* of the Roman artisans. But the latter organisations, at least under the later empire, were not free associations, but were imposed by the government on the working classes; and it is not likely that they had a continuous existence from the 5th to the 12th century. Others suppose the craft guilds to have arisen out of organisations, under seigniorial regulations, of artisan serfs on the lands of monasteries and great nobles. But this is a mere hypothesis, so far as England is concerned, and for France and Germany it has been made probable only in some special cases. Brentano, again, has put forward the view that the craft guilds were formed in consequence of the expulsion of the petty artisans from the merchant guilds, the craftsmen combining for mutual protection against the old burghers. An obstinate struggle does seem to have taken place in Germany and the Netherlands between a burgher oligarchy which had got possession of the municipal government and the members of the craft guilds; but there is no evidence of any such contest in England. These guilds seem to have everywhere arisen spontaneously out of the social conditions of the Middle Ages, and to have been at first simply private associations for the general advancement of the interests of the artisans, as the merchant guilds had been for promoting those of the traders.

The earliest English craft guilds that came into notice were those of weavers and fullers of woollen cloth. We hear of them in 1130 as making an annual payment to the king for the royal licence, without which they were treated as "adulterine" and fined. The royal charter forbade any one in the town to which it related to follow a craft unless he was a member of the corresponding guild, and conferred on the guild the right of exercising a certain supervision over its members. Of the powers thus bestowed the municipal authorities were often jealous, and we find those of London offering King John a money payment on condition of his abolishing the weavers' guild. The exclusive right to engage in trade which had belonged to the merchant guilds brought these last into collision with the craftsmen, who sometimes sold the wares they produced directly to their customers; and the craftsmen ultimately gained the rights of burgesses, though we cannot trace the history of the change. The monopoly of the burgesses was probably lost before the end of the 13th century; in any case the statute of 1335, establishing the freedom of buying and selling, must have abolished it. This amounted practically to a dissolution of the merchant guilds, which survived only as social and religious clubs, or as a machinery for the discharge of certain functions of the municipal government, especially for admission of apprentices to the freedom of the city. The bye-laws of the several craft-guilds made it a requisite for admission to a trade to have served an apprenticeship of a certain duration, the term being usually seven years. They also prescribed the proper treatment of apprentices by the master, and sometimes limited the number which a master was allowed to have. They fixed the conditions which must be satisfied before setting up as a master, and regulated the processes of manufacture with a view to the production of good and solid work. They exercised a general surveillance over the moral conduct of their members. Violations of the rules were punished by fines, and, in case of repeated offences, by expulsion from the trade. The guilds further performed in some degree the functions of friendly societies, and practised common festivities and religious observances.

These bodies have sometimes been represented as issuing the regulations and exercising the jurisdiction we have described quite independently of the city authorities, whilst others consider them to have been no more than the mechanism through which the municipality superintended manufacture, the officers of the guilds merely bringing offenders before the municipal courts. The truth seems to lie between these two views. The town magistrates *could* issue regulations binding on the crafts; but the guild rules were in fact generally drawn up by the craftsmen themselves and submitted to the magistrates, who usually sanctioned them as of course and, though sometimes taking causes into their own hands, commonly left the supervision of the manufacture and the decision of minor questions to the masters, bailiffs, or overseers of the trades. The extent of the jurisdiction of the guilds was probably different in different places. The kings, from Edward I. onward, favoured the craft guilds as a useful counterpoise to the urban magnates, and as a serviceable auxiliary for police purposes. And the municipal authorities themselves became friendly to them as subserving the latter object. Indeed before the end of the reign of Edward III., citizenship was bound up with the membership of one of the guilds, and it was natural that the jealousy between them and the town governments should disappear.

In the time of Edward III. there were as many as forty distinct companies or crafts in

London, and at the end of the century not fewer than sixty; in towns of the second rank their number increased more slowly. In the first half of the 14th century the guild system was at its maximum of efficiency. It continued to extend itself to new centres for two hundred years afterwards. But under the Tudors the direct control and superintendence of industry was more and more taken into the hands of the central government, and the regulations of crafts and trades were incorporated into the public law of the realm. The act 5 Eliz. c. 4 (1562), commonly called the Statute of Apprentices, adopting what had been the ordinary bye-law of the corporations, required a seven years' apprenticeship in all trades carried on in market towns. It provided that when there were, in certain specified trades, three apprentices in a workshop, at least one journeyman should be employed, and for every additional apprentice another journeyman. It also contained enactments respecting the hours of labour and the annual fixing of the rate of wages by the justices of the peace. This statute was held not to apply to trades established at a later period, or to places which only obtained corporate privileges after 1562; and thus some of the most important manufactures of England were never subject to it. In Scotland no such law existed, and Adam Smith says that "he knew of no country in Europe in which corporation rules were so little oppressive."

The increasing application of great capitals to industry, and the substitution of the factory for the workshop, tended to make the old trade rules obsolete; and the guild spirit became at the same time more narrow and selfish. In the 18th century any statutes which gave coercive power to the guilds, though not formally repealed, were in a great degree allowed to fall into desuetude, and the importance of these institutions practically disappeared. They were discredited in principle by the polemic directed against them in the *Wealth of Nations*. Adam Smith condemned "the exclusive privileges of corporations, statutes of apprenticeship, and all those which restrain in particular employments the competition to a smaller number than would otherwise go into them," as "encroachments on natural liberty," as raising the market prices of the wares produced above their natural price, and as obstructing the free circulation of labour from one employment to another. Smith held that a long, or indeed any fixed, term of apprenticeship was altogether unnecessary; but he certainly exaggerates the facility with which handicrafts can be thoroughly learned. He also thought it a mere pretence that corporations are required for the better government of trade. After several partial enactments of a liberal tendency, the apprentices' act of Elizabeth was repealed in 1814 (54 Geo. III. c. 96), and the trade privileges of the guilds formally abolished in 1835 (5 & 6 Will. IV. c. 76). Partly as a result of the legal destruction of the old system, a new legislation has been introduced for the protection of the working classes by provisions for the healthy conduct of manufacturing production, and the limitation and regulation of the labour of women and children.

France.—In France the name *jurande* was given to the office of those who were appointed to watch over the execution of the trade regulations and the conservation of the interests of the several crafts. These *jurés* corresponded pretty nearly to the English wardens. Those only who were admitted as *maîtres* could carry on a manufacture on their own account. The production of a *chef-d'œuvre* (masterpiece) was commonly required for admission to the *maîtrise*, and it was the business of the *jurés* to pass judgment on its execution. The journeymen (*compagnons*) had been apprentices to the trade, and expected in time to be themselves *maîtres*. The relations of the three classes were substantially the same as in England. Powerful corporations existed from early times in Paris. The Parisian *marchands de l'eau* (*nautæ Parisiaci*) dominated the commerce of Paris. The provost of this body was the head of the municipal magistracy. The corporations of goldsmiths and of money-changers were also very ancient. The documents relating to the trade corporations of the metropolis begin to be numerous in the time of Philip Augustus. The trade statutes and customs of the city of Paris in the 13th century are preserved in the collection made by Étienne Boyleau (see BOILEAU, E.), appointed provost of the city by Louis IX. about 1260. The kings, who at first were hostile to the claims of the corporations, from the beginning of the 15th century favoured them, both as useful instruments of police and as a source of fiscal aids. But they also sought, though often with but little success, to temper their exclusiveness, repress their exactions, and adapt their regulations from time to time to the development of new branches of industry and new methods of production, whilst on the other hand they insisted on their royal right of issuing letters of *maîtrise*, and of supervising the guilds. Louis XI. in 1467 armed the trades, forming them into banners and companies, bound by an oath of fidelity to the crown. An edict of Henry III. (1581) gave to the institution of corporations the extent of a national system, and placed all the trades of the kingdom under a general law. The edict at the same time corrected prevalent abuses. It mentions in particular the heavy expenses to which artisans were subjected in order to obtain the *maîtrise*, the masterpiece which they had to produce sometimes absorbing the work of more than a year, and candidates being expected to regale the *jurés* with banquets and

conciliate them by gifts. The crown, by this act, may be said to have taken possession of the police of manufacturing industry throughout the realm. But, owing to the opposition of the guilds and of the civic authorities, the provisions of the edict were very imperfectly carried into effect, and a law of Henry IV. (1597) was not much more successful.

In the last states-general (1614) the *tiers état* brought forward a strong protest against the prevailing evils, and prayed for the suppression of all guilds created since 1576, and the opening of crafts to all persons without exception, subject only to visitation by state inspectors. But the government did not respond to this appeal. The industrial policy of Colbert recognised the guilds, but only as organs of the state, subject to its control and direction; he revised the statutes of the existing bodies, and founded many new ones, and regulated their whole proceedings (1673-74). But though eminently successful in his own hands, his general system, as carried out by his unintelligent and feeble successors, tended rather to impede than to promote industry. While the guilds were not duly controlled, they were subjected to exorbitant charges, and were thus forced to impose extravagant dues on their members, and to insist more strongly on their monopoly. There were endless prosecutions of individual artisans, and conflicts as to the limits of the several industrial professions, as well as struggles for precedence between them, and these tended to bring the whole system into disrepute. The body of laws relating to them, however, remained essentially unaltered till 1776, when Turgot proposed to Louis XVI. the entire abolition (except in a few trades for special reasons) of the *jurandes* and *maîtrises*, and the establishment of absolute liberty of manufacture. In an elaborate report which, according to his custom, he prefixed to the ordinance, he maintained that "the right to work is the sacred and inalienable property of the poor man," and that "all sound principles were violated by the accepted doctrine that it was a royal right, which the prince might sell and the subjects must buy." The ordinance was carried against the will of the parliament in a *lit de justice*, but its execution was strongly opposed by interested parties, and, after the fall of the minister, the old system was introduced again, though with some liberal reforms. This state of things lasted until the constituent assembly in 1791 abolished the corporations and proclaimed the complete liberty of industry. With some fluctuations this policy has, on the whole, been maintained up to the present time.

Germany.—The German *Zünfte* were in their aims and constitution essentially similar to the English guilds and the French corporations. The Emperor Henry I. had required all artisans to settle in towns, and the handicrafts were long held to be the special right of urban communities. The *Zünfte* are first found in the 12th century in particular cities and towns. They gradually gained influence in the civic administration, and on the other hand strengthened the cities against the nobility. At first purely private associations, they came to be recognised as organs of the state, and exercised certain magisterial functions. In the 13th and 14th centuries they extended to many additional cities, and in the 15th century there was a complete guild organisation of the trades throughout Germany. The rules of the system were rigorously carried out. What was known as the *Zünftzwang* was strictly enforced, that is, the requirement that every artisan should belong to one of the corporations. The boundaries of trades were precisely fixed, so that a member of one could not do work which properly belonged to another, however cognate the occupations might be. The *Zünfte* in different places were bound together and kept in touch with each other through the institution of the *Wanderjahr*.

In the 17th century the decline of these corporations began. The growth of the arts, the rise of new crafts outside the *Zünfte*, and the extension of manufacture on the great scale made it impossible to maintain the old restrictions on processes of production; and the opening of distant markets and the development of speculative production required a new trade *régime*. At the same time the central governments, in the spirit of the mercantile system, assumed more and more the direct control of the whole field of national industry. As the *Zünfte* increasingly failed to serve real public ends, they were more and more governed by a spirit of selfish exclusiveness, and were worked in the interest of a few privileged families. For those who were not sons of masters it became almost impossible to obtain admission except by marriage with the daughter or widow of a master. The reception of apprentices was made difficult by the imposition of conditions and charges, the qualifications required of journeymen (*Gesellen*) were enhanced by lengthening of the wander-period and the time of probation. The education of apprentices was neglected, and there was little care for the condition and treatment of the journeymen. But the *Zünfte* still retained their powers, and it was only late in the 18th century that they were seriously attacked. They had then to sustain the same assaults of economic theory which were directed against the English guilds and the French corporations. Schlettwein, a German follower of the PHYSIOCRATS (*q.v.*), denounced the whole system and demanded freedom of industry. But the legislative overthrow of these institutions belongs to the 19th century, and was not completed in all the states before the middle of its sixth decade. The Stein-Hardenberg legislation of 1808-10 and the law of 1811 established the liberty of

manufacture in Prussia, which had been previously introduced in the provinces which formed part of the confederation of the Rhine. The principle of freedom was embodied in the general ordinance (*Gewerbeordnung*) of 1845, but the revolutionary period which followed prevented the fair trial of this ordinance, and the complaints against it led to a modification of its provisions and a partial return to the old order of things in the ordinances of 1849. In 1861 and 1865 changes were again made in a liberal direction, but the law of 1849 remained substantially in force in Prussia. In most of the other states, between 1860 and 1864, the principle of industrial liberty was introduced. All these local laws were in 1869 merged in the uniform code of the North-German Confederation, which has since become that of the empire. By this code the exclusive rights of *Zünfte* or mercantile corporations, the distinction between city and country with respect to manufacture, the necessity of a proof of capacity before entering any craft or trade, the limitation of each artisan to one branch of production, and all restrictions as to modes of production, have been abolished, and it is left open to every subject of the empire to carry on any industrial profession, and to take apprentices and employ journeymen in such numbers as he may find expedient, subject only to sanitary and other police regulations and to such fiscal obligations as may be imposed by the laws.

Adam Smith and other economists have dwelt too exclusively on the evils and abuses of these institutions, and have left out of account the social necessities out of which they arose, and the not inconsiderable advantages which they possessed. There has of late been a feeling in France and Germany that with the abolition of the restrictions enforced by the corporations, there was a real loss of moral and social, as well as of some economic, benefits. In Prussia several efforts have been made to restore them on a free basis; and it is understood that further steps of the same kind are now likely to be taken by the German governments, whose object is thus to establish a sort of police of the industrial world and solve a part of the great problem of the organisation of labour. It seems, however, extremely questionable whether these institutions could be usefully revived; and the good ends which some have hoped to attain through their instrumentality must probably be effected by other means better adapted to existing conditions.

[The best book on guilds merchant is Gross's *Gild Merchant*, 1890.—On English guilds, the student should first read Brentano's *Essay on the History and Development of Gilds*, prefixed to Toulmin Smith's *English Gilds*, 1870. With it may usefully be compared Ochenkowski's *Englands wirthschaftliche Entwickelung im Ausgange des Mittelalters*, 1879, and Cunningham, *Growth of English Industry and Commerce*.—In Ashley's *English Economic History and Theory*, vol. i. 1888, will be found a clear account of the origin and early history of the guilds, founded on a study of the sources. Seligman's *Two Chapters on the Mediæval Guilds of England* (Amer. Econ. Assoc., vol. ii.) may also be recommended. For the French and German guilds, see the article "Gewerbe" by Schönberg in his *Handbuch der politischen Oekonomie*, 3rd ed. 1890. Art. "Maîtrise," *Encyclopédie* of Diderot and D'Alembert.—The early Parisian trade rules may be seen in Étienne Boyleau's *Règlements des Arts et Métiers*, published for the first time by Depping, 1837.] J. K. I.

CORTI, Adolfo. Author of *Elementi della scienza del Commercio*, Pavia, 1829. M. P.

CORVAIA, Baron, a socialist, caused a book to be written by Michele Parma, proposing the foundation of a national bank intended to redeem the lower classes from the oppression of capitalists. This bank was to be connected with a savings bank, and was designed to eliminate usury. The treatise, *La Bancocrazia, o il gran libro sociale, novello sistema finanziario* was published at Milan in 1840, and was translated into German. M. P.

CORVÉE. In the strict sense of the term, *Corvée* is used to signify a tax levied by the state on the labouring classes, and paid by them in a certain number of days of labour, either wholly unremunerated or remunerated at a rate less than the ordinary rate of wages. In particular such a system of taxation has very generally been applied in many countries to the construction and maintenance of roads and bridges, each locality being compelled to defray the cost of such works by contributions of labour from its inhabitants. In England the common law threw upon the occupiers of land in each parish the duty of keeping the roads in repair. It is not easy to say exactly how this duty was originally carried out, but it may fairly be presumed that the statute 2 & 3 Philip and Mary, c. 8, which is the first of the many highway acts, did little more than declare the system in use. Under this act each parish is to appoint surveyors of highways to oversee the repair of the roads in that district. Labour required for this purpose is to be distributed by the inhabitants in the following proportions. Every occupier of land is to send for every ploughland occupied by him a cart with horses and two able men with them, and every householder, cottager, or labourer, unless he be a yearly hired servant, is to work himself or by a substitute on such days as the surveyors shall appoint for the repairing of the roads. These days under the act of Philip and Mary were to be four in number, but the act 5 Eliz. c. 13 extended the number to six, which were all to be before Midsummer day. Fines for non-attendance on the days fixed were to form a fund for the repair of the roads. The first step towards the abolition of this form of taxa-

tion was taken by the act 15 Charles II. c. 1, the first of the turnpike acts, which applies the system of tolls to the counties of Hertford, Cambridge, and Huntingdon, through which ran the great road to York and the north. Statute labour, as *corvée* was called in England, had already been found inadequate to keep in proper repair many of the great ways of communication, and the bad state of the chief roads was a frequent subject of complaints and petitions to parliament about this time. The system of turnpikes was accordingly extended by degrees to the whole of England, and in many cases its introduction gave rise to great discontent and serious local riots in spite of the fact that the inhabitants were thus set free from statute labour. However, many of the roads in the country, including almost all purely local ones, were not turnpike roads, but remained subject to the provisions of the various highway acts which were enacted from time to time. But even for the repair of these statute labour was beginning to be found insufficient. The act 3 & 4 William and Mary, c. 12 gives to the justices of the peace power to levy a rate in cases where the six days of forced labour should be found to be insufficient, and after various changes had been introduced by subsequent acts, statute labour was finally abolished by the act 5 and 6 William IV. c. 50, which substituted for it the system of highway boards and rates now in existence.

It would not appear that in England this limited application of *corvée* was ever unpopular. In France, however, where the *corvée* originally existed only in certain districts, its extension to the whole of the country, effected by M. Orry, controller-general of finance in 1737, gave rise to much discontent. The burden on the peasant was heavier, and the peasant was less able to bear it, than in England. In 1758 M. de Boullogne, then controller-general, estimates the annual value of the labour so contributed at 1,200,000 livres, probably a modest estimate. Certainly the burden on the peasant was much heavier. Necker estimates the cost to the peasants of the services rendered in Berry alone at 624,000 livres. These consisted not only of the labour of the peasant himself; beyond this he was compelled to bring with him any beasts of draught or burden, and any vehicle, that he possessed. Nor was it only for the repair of the roads that *corvée* was imposed upon him. In De Tocqueville's *Ancien Régime*, p. 444, will be found an account of the various public services carried out by means of *corvée*, and Turgot's *Lettre au Controleur Général sur l'abolition de la corvée pour les transports militaires* gives a vivid picture of the wastefulness and inconvenience involved in that particular application of forced labour.

A good account of the inadequacy of *corvée* as applied to the construction and maintenance of the roads is given in Diderot's *Encyclopédie*, but the most effectual indictment of this tax is to be found in Turgot's *Mémoire au roi sur un projet d'édit tendant à supprimer la corvée*, with the accompanying criticisms of M. de Miromesnil and Turgot's often rather contemptuous replies (see vol. ii. p. 237 of Turgot's collected works). This, with the curious *Procès verbal du lit de justice tenu à Versailles le 12 Mars 1776*, will give a good idea of the arguments used both by Turgot and his opponents on this question.

The abolition of *corvée* by this edict was, however, only temporary. Turgot's successor Calonne at once restored it, and though again abolished in the early days of the Revolution, the reactionary policy of the Directoire once more reinstated it under the name of Prestation by the decree of 4 Thermidor, an x. At the present day the repair of the communal roads of France is carried out under this system. By the laws of the 28th July 1824 and the 21st May 1836 the municipal councils may call upon every male citizen between certain ages to give three days' labour yearly for this purpose, and may exact the same time from every beast of draught or burden and vehicle within the commune. A money payment in lieu of labour may be made at discretion.

For an account of the use of *corvée* in Egypt, see the *Times*, 14th September 1888. The construction of the Suez Canal during its early stages was carried out under a system of forced labour on a very large scale. In most countries, however, taxes of the nature of *corvée* are now disused, unless the Conscription (*q.v.*) is regarded as an exception to this rule.

In mediæval societies payments in labour to individuals, especially in lieu of rent, were common, and in France were termed *corvées personnelles*. The nature of these and their economic bearings will, however, be most fitly treated of under Manor and Feudal System (*q.v.*)

[*Œuvres de Turgot, nouvelle édition*, par MM. Eugène Daire et Hippolyte Dussard, *précédée par une notice sur la vie et les ouvrages de Turgot*, par M. Eugène Daire, 1844.—M. Necker, *De l'administration des Finances de la France*, 1784.—*Collection de comptes rendus Pièces authentiques états et tableaux depuis 1758 jusqu'en 1787 concernant les Finances de France*, 1788.—Diderot et D'Alembert, *Encyclopédie*, 1772.—De Tocqueville, *L'ancien Régime et la Revolution*, 1857.—De Tocqueville, *Histoire Philosophique du règne de Louis XV.*, 1847.—Larousse, *Dictionnaire Universel*, 1866.—*Penny Cyclopædia*, articles "Turnpike" and "Highway," 1833.—Stephen's *New Commentaries on the Laws of England*, 1886.—Comyns' *Digest of the Laws of England*, 1822.] C. G. C.

CORVETTO, Louis-Emmanuel, Comte de Corvetto (1756-1821), born and died at Genoa, early distinguished himself in law and politics in his native city, and was made a director of

the Bank of St. George there in 1802. Bonaparte created him councillor of state in 1805, and transferred him to Paris, where he helped to draft the *Code de Commerce* and the *Code Pénal*. In 1811 he became inspector-general of state prisons, was retained in the state council by Louis XVIII., made president of the section of finance, and (27th Sept. 1815 to 7th Dec. 1818) minister of finance. The economic interest of his career centres in this last office. Upon Corvetto devolved the problem of freeing the territory by meeting the war indemnity of 700 million francs (£28,000,000), in addition to claims of 1400 million francs (£56,000,000), for requisitions made during the war. Though the latter claims were cut down to 240 millions (£9,600,000), Corvetto was obliged to issue large amounts of stock, and to seek the aid of Messrs. Hope and Baring; but the circumstances under which the loans were floated, and the action of the government in inflating the price of the stock by large purchases, led Wellington to describe the Paris money-market as the scene of such speculation as had not been equalled since the days of Law. Corvetto justified his action on the ground that it was patriotic to pay the state debts as cheaply as possible and to maintain its credit. His conduct has been severely criticised by M. Léon Say, who argues that the intervention of the government in such speculations can have but a momentary effect upon prices, apart from other and pernicious consequences. The intentions of Corvetto were good: his example was dangerous.

[L. Say: *Les interventions du Trésor à la Bourse depuis cent ans.* (Annales de l'École libre des Sciences politiques 1re année 1886, pp. 12-24).—Baron G. de Nervo: *Le comte Corvetto*, Paris, 1869.] H. H.

COSHERY. In the Middle Ages social and political relations in Ireland were regulated by the clan system. There was no private property in land: the clansmen being co-proprietors with the chief. But although the chief was not lord of the land, he had large customary rights over the property of his dependents. One of the most important of these was *coshery*, an old custom which allowed him to take the houses and provisions of his clansmen for the use of himself and his followers. The English invaders of Ireland based upon this right the practice of *coigne and livery*, by which they extorted from the Irish free quarters and provisions for their soldiers. After the Cromwellian settlement many of the dispossessed chiefs lived for years at the expense of their former dependents, and various statutes were passed to prohibit this custom of *coshery*.

R. L.

COST (Comparative and Relative). The doctrine of comparative cost is the basis of the theory of international trade. It is held that the labour and capital of a country naturally flow into those departments of production in which it has the greatest comparative advantage, or in which the comparative cost is least. Thus, at the time of the gold discoveries in Australia, although the absolute real cost (reckoned in days' labour) of producing various articles, was less than in other countries, their cost, compared with gold, was greater, and consequently they were imported in exchange for the gold. The theory rests on the assumption that labour and capital only move with difficulty from one country to another.

[Cairnes's *Principles of Political Economy, newly Expounded.*—Professor Bastable's *Theory of Foreign Trade.*—Cournot's *Théorie des Richesses.*]

Relative cost is a term used in the theory of value. The normal value of freely produced commodities is said to depend upon the relative cost of production, that is, relatively to that of other things, value always expressing a relation of one commodity to others (see Cost of Production). J. S. N.

COST, in the Sense of Price. Cost is sometimes used to signify price, meaning by this money value at the moment. J. S. Mill says (*Principles of Pol. Econ.* bk. iii. ch. iii. § 1.), "Adam Smith and Ricardo have called that value of a thing which is proportional to its cost of production its natural value (or its natural price). They meant by this the point about which the value oscillates, and to which it always tends to return—the centre value towards which, as Adam Smith expresses it, the market value of a thing is constantly gravitating; and any deviation from which is but a temporary irregularity, which, the moment it exists, sets forces in motion tending to correct it." The cost of a thing is thus taken to be indicated by its price, in the sense in which a purchaser uses the word as equivalent to the maker's price at the time. "In common speech," as Prof. F. A. Walker says, "the word price brings up the idea of money value." The "cost" may differ greatly from the "price" which a thing may ultimately fetch, as it may from its "value," but when used in the sense indicated above, the expression refers to the price at the moment. The essential distinctions (1) between normal and market value; (2) cost, in the sense of real cost, and expenses are treated elsewhere. See Value; Cost, Comparative and Relative; Cost of Production.

COST BOOK. The book which contains the names of the shareholders and the number of shares held by each, and particulars of all transactions in a partnership formed for working a mine. Mining regulations differ in various parts of the United Kingdom. In Devon and Cornwall a licence is first obtained to try for ores; and if the metal is found, a lease is then granted for a number of years. The mine is

managed by an agent who is appointed by and works under the direction of the shareholders. A shareholder cannot bind the other shareholders by any contract except for necessaries required for the due working of the mine according to the usual custom of the district. The agent has no power to make the shareholders liable for money lent or upon bills of exchange.

[M'Swinney, *On Mines*, London, 1884.]

J. E. C. M.

COST OF COLLECTION OF TAXES. One of the maxims or principles of taxation enunciated by Adam Smith, and which, as Mill observes, "may be said to have become classical," is that "every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings to the public treasury of the state" (*Wealth of Nations*, bk. v. ch. ii. pt. ii.) Smith cites four ways in which a tax may offend against this principle. The cost of collection, he says, may be excessive; the regulations and procedure which a tax necessitates may be such as to obstruct, and even to divert, industry; it may, by holding out inducements to evasion, require the levy of penalties and forfeitures; and, finally, it may cause annoyance and vexation to the taxpayer from which he would gladly pay to be free. Fawcett adds a fifth ground of complaint under this head, viz. that the price to the consumer of a taxed commodity may be unduly enhanced, and that the dealer may be enabled to augment his profit thereby.

The scheme of taxation at present existing in the United Kingdom cannot be said, except in a few minor instances, to be open to objection on any of the grounds mentioned by Smith. Its revenue is collected at a low cost, amounting in the aggregate to little more than $3\frac{1}{2}$ per cent. of the amount collected; the supervision of the excise is practically restricted to breweries, distilleries, and tobacco manufactories, as to all of which it has been stated that the advantages arising from enforced regularity and accuracy fully balance any disadvantages ordinarily incidental to state supervision; the penalties and forfeitures recovered are inconsiderable, being £45,387 out of a total net revenue of £75,497,000, or ·06 per cent; and lastly, the annoyance and vexation to the taxpayer is certainly not in excess of that which of necessity attends the collection of enforced contributions of every kind.

Dowell (*History of Taxation and Taxes*, 2nd ed., vol. ii. p. 529) describes the causes which have brought about this result. "The reform of the tariff, diminished smuggling, and the consequent reduction in the customs establishment and abolition of the preventive coast guard; an equalised spirit duty throughout the kingdom and diminished illicit distillation; the consolidation of the numerous revenue boards and establishments; the abolition of the taxes on manufactures; increased facilities of communication by railroad, letter post, and telegraph; the abolition of the pernicious system of appointments to offices through parliamentary influence; and improved education, higher intelligence, more sustained assiduity in business, and the use of ready explanation and willing courtesy—arts, perhaps, unknown before in tax-gathering—by a permanent staff, growing in experience from precedent to precedent, and working under carefully formed instructions and, it may be added, eagle-eyed supervision from headquarters, have reduced the percentage by half in the sixty years."

The effect, on the cost of collection, of the limitation of the indirect taxes to a small number of commodities, aided doubtless by greatly reformed administration, is very marked. In 1775, when "heavy duties were already imposed upon many of the most important articles of consumption," and "almost all our most important manufactures were taxed," the net revenue of the customs did not amount to more than two millions and a half, but it was levied at an expense of more than 10 per cent in salaries and other incidents, and more than 20 or 30 per cent if the perquisites at that time exacted by custom-house officers are taken into account (*Wealth of Nations*, bk. v. ch. ii. art. iv.) In 1816, "with everything taxed that could be taxed," the net amount received from customs duties cost more than $14\frac{1}{2}$ per cent to collect. In 1825 this rate had fallen to less than 8 per cent, in 1843 it was $5\frac{1}{2}$ per cent, and it is now about $4\frac{1}{4}$ per cent.

The earlier economists concluded, from the facts of which they were cognisant, that the cost attending the collection of taxes on commodities was much in excess of that of collecting direct taxes. The operation of the various causes above enumerated has, however, tended to equalise that cost, and the same tendency is observable in other countries. Thus in 1841 the cost of collecting the customs duties was 5·33 per cent, and in the case of excise 6·37 per cent as compared with 2·16 per cent for stamps, and 4·13 per cent for assessed taxes (Bohn's *Cyclopædia of Political Knowledge*, 1849, art. "Taxation"). In 1885 the cost of the customs had been reduced to 4·36 per cent, and that of the whole inland revenue (excise, stamps, and taxes) was 3·52 per cent. The cost of collecting direct taxes in France before the Revolution is stated (Roscher, *Finanzwissenschaft*, bk. iii. § 91) to have been 6 per cent as against 14 per cent in the case of indirect taxes, but in 1881 the duties on commodities cost only 5·13 per cent to collect, and the direct taxes 3·5 per cent. In Prussia the cost of the direct taxes rose from 4 per cent in 1861 to 7 per cent in 1883-84, whilst the cost of the indirect imposts fell during the same period from 12 to 9 per cent.

In the United Kingdom it may be said that

the chancellor of the exchequer need not now concern himself with any considerations as to the direct cost of collection when increasing or diminishing the burden of taxation, so long as he is content to alter and adapt existing taxes and not to impose new ones. The expense of collecting the considerable additions made to the stamp duties in recent years has probably not involved an extra expenditure on the part of the state of so much as 1 per cent on the amount received.

The customs and excise duties may now be taken to cost the state something over 4 per cent to collect, as compared with 3·5 per cent for taxes and 1·3 per cent for stamps, but in the latter case it is to be observed that much of the business performed in connection with their collection is paid for by the individual taxpayer, who is frequently compelled to employ solicitors and agents for the preparation of the accounts required in connection with the death duties, and to enlist similar services in making payment of many of the stamp duties on deeds. In the case of the stamp duties levied in connection with stock exchange and other commercial transactions, expense and labour devolve upon bankers, brokers, and others, the cost of which cannot be precisely estimated, but which in the aggregate must be considerable. The cost of the collection of the income-tax is comparatively low by reason of the great ease with which much of the revenue under that head is obtained. The deduction of the tax from dividends payable out of the public funds and other similar incomes is a simple matter, and it may be taken that one-third of the tax costs less than $2\frac{1}{2}$ per cent to collect, which would bring up the cost of the remaining two-thirds of the tax to about the same point as in the case of the indirect taxes, viz. 4 per cent.

The small stamp duties on such documents as receipts and cheques are collected at an exceptionally low cost, whether the charges defrayed by the state or by the individual taxpayer be taken into consideration.

It remains to consider the ground of objection under this head against taxes on commodities, viz. that a dealer makes an additional profit by reason of their existence. Fawcett was of opinion (*Manual of Political Economy*, 5th ed., p. 554) that the retailer is able to obtain "the ordinary trade profit" on the amount of the duty, and assuming this profit to be 20 per cent, he estimated that the consumer would pay at least this amount more than the revenue would receive. This, he says, "is the most serious objection which can be urged against taxes on commodities." It may, however, be doubted whether this proposition is clearly established, the fact that the price of an article is augmented by the imposition of a tax will not of itself be sufficient to enable the trader to secure the same rate of profit on the enhanced price as that which he would obtain on the price of the article calculated duty free, as for many commercial purposes it usually is. It is probable that the only circumstances connected with the existence of a tax on commodities which will affect the amount of a trader's profit are either that the tax is collected, and its evasion prevented, in such a manner as to increase the labour and skill necessary to prepare the commodity for sale, or else that the tax is so arranged as to render the employment of additional capital requisite. In so far as the taxation of commodities in the United Kingdom is concerned, the direct cost attending their collection, whether paid by the state or by the trader, is now very low, and, as has been shown above, it does not differ materially from that of other taxes. The necessity for the employment of additional capital in consequence of the manufacturer or dealer being required to pay over the duty prior to the delivery of the commodity for consumption, has been very much reduced by the establishment of bonded warehouses, in which articles can be stored without payment of duty until the time approaches when they are to be taken into consumption. In the case of beer, which is not permitted to be warehoused in bond, a limited amount of credit is given to the manufacturer for the payment of the duty.

"The English customs system is remarkable for its vigorous adherence to the principle of purely financial duties." See Prof. Bastable, *Public Finance*, London, 1892, bk. iv. ch. vii. § 3.

The following table shows the actual gross receipt of duty by the inland revenue department, and the percentage of the cost of collection in the years specified :—

Year.	Total Gross Receipt by Inland Revenue Department.	Net Charges of Collection.	Percentage of Charges of Collection to Gross Receipt.
	£	£	
1847	32,812,000	1,451,000	4·42
1850	33,363,000	1,358,000	4·07
1855	44,938,000	1,557,000	3·46
1860	44,141,000	1,608,000	3·64
1865	40,806,000	1,548,000	3·79
1870	40,588,000	1,610,000	3·97
1875	43,682,000	1,625,000	3·72
1880	49,817,000	1,831,000	3·67
1885	54,736,000	1,927,000	3·52

The following table is extracted from the reports of the commissioners of customs for the purpose of illustrating the decline which has taken place in the cost of the collection of the duties under their control. It is, however, clear, from the observations contained in the 29th report of the commissioners (1885), that the system of calculation adopted is unduly favourable, and it has now been abandoned. The real cost is probably about 1 per cent in excess of that shown in the table.

Year.	Gross Receipt.	Percentage of Cost of Collection.
	£	
1847	21,824,000	5·97
1850	22,194,000	5·78
1855	23,482,000	5·60
1860	23,517,000	3·27
1865	22,295,000	3·46
1870	22,575,000	3·55
1874	22,867,000	3·47

The cost of collection of duties received by the customs department, calculated on the basis at present adopted, has recently been as follows:—

1875 . . 4·36 per cent.
1880 . 4·44 ,,
1885 . . 4·40 ,,

T. H. E.

COST OF LABOUR. See COST OF PRODUCTION.

COST OF PRODUCTION. The *real* cost of production of any commodity is held to be the "sum of the efforts and abstinences" requisite to make it ready for consumption, and the act of production is not said to be completed until the commodity is in the hands of the consumer or until (as Mill phrases it) it has received the utility of being in the place where it is wanted. In a modern industrial society, with a complex system of division of labour and with raw material and other requisites of production drawn from all parts of the world, it is clear that in most cases the series of efforts of all kinds, taking into consideration those which are indirect as well as those which are direct, would be practically infinite. This difficulty, however, may be overcome as in other sciences by neglecting quantities below a certain magnitude. But even after the mental elements in real cost have been reduced to a minimum in number in this way, it is found that the analysis cannot for most purposes, practical or scientific, be carried so far, and we must attempt to arrive at some common measure by which the summation may be effected and a comparison made. This leads to the position emphasised by Mill (bk. iii. ch. iv. § 1), "If we consider as the producer the capitalist who makes the advances, the word labour may be replaced by the word wages; what the produce costs to him is the wages which he has had to pay." After making allowance for the partial error concerning wages implied in the word "advances" (see WAGES; WAGES FUND), we arrive at the distinction which is expressed by the phrase "*expenses of production*" (adopted by Prof. Marshall in his *Economics of Industry*) as contrasted with the *real cost* in the sense defined above. That is to say, we are to consider only the money measures of these various efforts of labour, and it is left to the theory of wages and profits to explain how the nominal or money expenses tend to become proportioned to the real cost. We assume then that in any industrial society there is at any time a certain general rate of wages which is necessary that labour may be forthcoming and a certain general rate of profits which is necessary for the creation and application of the requisite auxiliary and sustaining capital. The forces, whether "natural" or due to the "policy of Europe," to adopt Adam Smith's language, which are the efficient causes of variations in these rates, or which account for the actual rates at any time, are estimated in considering the distribution of the wealth of the society, and it only leads to confusion in considering cost as affecting value to repeat the analysis at the later stage. It may then be taken for granted that in any modern industrial society no article will continue to be produced which does not yield the wages and profits which will satisfy the labourers and capitalists concerned. It must be added, however, as is shown also in the theory of wages and profits, that there are various natural and artificial causes of difference in the returns in different employments even in "the same neighbourhood" (Adam Smith), and with what would now be termed perfect mobility of labour and capital. These causes of difference must be allowed for in addition to the general rates, and we may then assume that in any industrial society there are at any time determinate rates of wages and profits requisite to bring into play particular kinds of labour and capital.

At this point the fundamental law of cost (or rather expenses) of production may be thus stated:—*The normal selling price of any article tends to be such as to yield the wages, interest, and profits involved in the expenses of production.* If the price is above this rate, labour and capital are attracted to the industry, the supply is increased, and the price falls; whilst conversely, if the remuneration is not so high, labour and capital are repelled and the price rises. But it must be observed that in any established industry, owing to the want of perfect mobility of labour and capital, the effect of a fall in price due to a lessened demand for the product on the part of other industrial groups may be to cause a quasi-permanent fall in the rates of wages and profits in that industry; and thus lower for a considerable time the expenses of production (see WAGES). If, however, we assume that mobility is perfect, or allow time for the full effect of the forces which determine wages and profits, the normal expenses of production are given in the law as stated. The argument involved in this analysis will be found to coincide with the ideas implied in the popular usage of the phrase "cost of production." This is best seen from considering a new industry. The maker of a new article will expect to obtain from the selling price a sufficient return to

attract the labour which he requires, and to give besides a fair amount of profit. Otherwise he will not continue to make the article, whilst conversely, if the price is higher than this normal rate, the industry will rapidly spread until through competition the price falls.

We may now carry the analysis a step further and consider the causes of variation in the "cost price" of articles, to adopt a useful popular phrase. It must be assumed once for all that price will vary exactly with or exactly measure value, in other words that the causes of purely monetary variations may be neglected. It would be as absurd to repeat at this stage the theory of MONEY and PRICES (*q.v.*), as at an earlier stage to bring in the theory of wages and profits. To make the assumption quite clear, let it be supposed then that so far as the causes affecting the general level of prices are concerned, there would be no variation in the prices of particular articles.

With this hypothesis it will be seen that a rise in the general rate of wages, reckoned in money, will so far raise the normal price of the articles on which the labour is employed. It is not necessary here to inquire in detail how such a rise might take place; it might be at the expense of profits, or be caused by a lessened amount of unproductive consumption on the part of governments, municipalities, or individuals, or it might be due to increased cost of living caused by natural or artificial causes. It is sufficient to assume that a general rise occurs as described. There is in this case no necessity *a priori* for a corresponding rise in the rate of profit, and in fact that rate may decline. It follows, then, that so far the cost price of things made by the direct employment of labour will tend to rise relatively to those in the production of which there is much fixed capital and a longer time involved. Thus a general rise in wages may disturb relative prices, considered as dependent on cost of production. Similarly a rise in general profits would disturb relative prices, acting of course in an opposite direction. Conversely a fall in general wages or profits would also disturb prices *mutatis mutandis*.

It may next be noted that any change in the quantity of labour or capital employed will so far affect relative prices, as is best illustrated by the effects of the adoption of labour-saving machinery. Ricardo (and to some extent Mill) appears to lay too much stress on the quantity of labour, and in this way to fall into the paradox, true only under extreme hypothetical conditions, that movements in the general rate of wages cannot affect relative values.

Variations in the relative rates of wages and profits requisite for the normal support of any industry, naturally cause corresponding differences in the normal cost price. This is too obvious to require amplification.

Besides labour and capital in the ordinary sense of the terms, raw material is required. This raw material, however, is itself the product of labour and capital, and so far would come under the analysis just given. But since Ricardo gave such prominence to the economic theory of rent, the text-books have emphasised the fact that raw material is more directly dependent upon natural sources of supply, and that these sources of supply may be exploited at unequal costs. This leads to the position that when there is a difference in the cost of producing the various parts of the normal supply, the normal price must be such as to give a fair return to that portion produced under most unfavourable circumstances. If it falls below, the supply from that source would be discontinued until the price rises, whilst if the price is above this limit resort will be made to inferior sources until the "source on the margin" again just determines the normal cost. If, however, the worst land or mine (or the like) just pays the expenses of working at the price, the better sources will give more than the ordinary return. This difference constitutes *economic rent* (see RENT). According to this view it is obvious that economic rent cannot enter into the cost of production, in other words, *price determines rent not rent price.*

Although economic rent, under the simple hypothetical conditions laid down in the theory, does not enter into cost price, the payment of rent under actual conditions may affect this price in several ways. The object of the landowner is to obtain a maximum net return when the land is let, and it is possible that under a system of cultivating ownership more labour and capital would be devoted to land than it would pay the landowner to sanction in the case of a tenant. Many great improvements, for example, have been effected by English landowners with a very small return, and the consequent increase in the supply must have affected the price, whilst a farmer farming for profit and paying rent would have invested much less in the land. Peasant proprietors, again, notoriously cultivate their land beyond the point at which it would yield a rent, and the produce is consequently somewhat cheaper. On the other hand, the kind of produce may be determined partly by the convenience of the landlord (*e.g.* large grazing farms or deer forests as against arable or crofts), and the consequent effect on the supply operates on the price. If we consider the case of a new kind of produce introduced into a fully cultivated country, the grower would naturally consider the rent which he must pay for the necessary land as part of the cost of production. In some cases also there is in rent an element of monopoly, and in all cases it is difficult to separate purely economic rent from profit rent. This point has been pushed to an extreme by M. Leroy-Beaulieu in

his *Répartition des Richesses*, which is much criticised by Prof. Walker in his work *Land and its Rent*. On the whole it may be said that economic rent, if it can be actually separated from the other elements in cost according to the hypothesis assumed, does not enter into cost, but that practically other factors are closely combined with it to form rent in the popular acceptation of the term, and that, in this sense, rent often does form part of the cost (compare Prof. Marshall's *Economics of Industry*).

To complete the enumeration of the elements in cost of production, reference must be made to the effect of taxes (see TAXATION) and to the manner in which cost operates when combined with a complete or partial monopoly (see MONOPOLY).

The doctrine of comparative cost as determining the course of international trade and the limits of international values, originally enounced by Ricardo, and developed by J. S. Mill, Cairnes, and recently by Prof. Bastable, is properly treated under the headings named (see DIFFICULTY OF ATTAINMENT; INTERNATIONAL TRADE; VALUE). It may simply be noted here that in the statement of the theory cost is taken in the sense of real cost, as, owing to the absence of mobility of labour and capital between different countries, there is not the same correspondence between real cost and expenses as may be assumed in the same industrial area.

The most recent criticism of the generally accepted theory of cost of production described above, as embracing wages and profits, is the attempt of Prof. Walker to place profits on the same footing as economic rent, and thus to exclude it from cost of production in the same way as rent is excluded (see PROFIT).

[Cost of production forms such an important part of the general theory of *Economics*, that it is fully treated in all systematic works, and it is not necessary to refer to monographs on the question.]

J. S. N.

COST, RELATIVE. See COST, COMPARATIVE.

COTTIERS. Under the Stuarts the clan system of joint occupation of land, based upon the customs of gavelkind and tanistry, was abolished in Ireland. In its place was introduced the English system of private ownership by landlords. The landlords let their lands to tenants at a rack-rent. But these tenants were not capitalist farmers, as in England, but labourers who cultivated a small holding by their own labour and that of their families. This system of peasant-tenants, or cottiers, has been extremely disastrous in its results. Owing to excessive competition for land—resulting from the absence of alternative occupations—the tenants were in the habit of offering more rent than they could possibly pay, and thus scraped a miserable existence from the soil, while owing ever-increasing arrears to the landlord. In the early part of last century Swift records that "it is the usual practice of the Irish tenant rather than want land to offer more for a farm than he knoweth he can ever be able to pay: and in that case he groweth desperate and payeth nothing at all." The inevitable result of the cottier tenure under these conditions—aggravated by absenteeism and the consequent presence of middlemen—was a distressed peasantry and a wretched system of agriculture. These evils have led in the present day to the Irish land acts of 1870 and 1881.

[Lecky, *History of England in the Eighteenth Century*, vol. i. p. 240 *seq.*—J. S. Mill, *Political Economy*, bk. ii.—J. E. Cairnes, *Political Essays; Fragments on Ireland*, essay iv.] R. L.

COTTON FAMINE (1861-65). Some of the most serious economic disturbances of modern times arose out of the great civil war in the United States, occurring between 1861 and 1865. Amongst these, the most prominent, so far as its influence upon the interests of the United Kingdom is concerned, was the almost complete extinction for four years of the chief source of supply of cotton, the raw material of the largest textile industry of this country. In the month of July 1861 the United States government established a blockade of the southern ports, and, from that time the American cotton field was practically closed for four years. Fortunately the crop of 1860-61, the largest ever grown up to that time, had already been shipped, and stocks in the consuming countries had been abundantly replenished. The existence of these stocks, and the doubts, then widely entertained, of a long continuance of the war, kept prices of cotton comparatively low until nearly the end of 1861. With the opening of 1862, however, a period of scarcity and abnormally high prices began, which has been fitly named the "cotton famine." The immediate and most striking commercial results of the famine were the gradual establishment of new and extended sources of cotton supply, and the diminished use of cotton fabrics, accompanied by an enlarged consumption of woollen and linen goods. At the same time an industrial disturbance was occasioned in Lancashire, Cheshire, Derbyshire, and in the neighbourhood of Glasgow, which stands out very prominently in the history of those years. An excellent and very full record of the painful consequences of the famine upon the manufacturing population, and of the measures taken to mitigate them, is given in Dr. Watt's *Facts of the Cotton Famine*. Its direct commercial effects upon the cotton trade are stated in a paper read before the Manchester Statistical Society in April 1869, by Mr. Elijah Helm, and entitled "A Review of the Cotton

Trade of the United Kingdom during the Seven Years 1862-68."

When the civil war began the English cotton industry had for more than a year been in the enjoyment of unusual prosperity. Prices of the raw material were lower than they had been since 1856, and to this advantage was added a good general demand, home and foreign, for cotton manufactures. The workpeople had been well employed at very high wages, and the profits of spinners and manufacturers had put them into a comparatively strong position. Those engaged in the industry were, therefore, well prepared, for a time at least, to battle with the difficulties which were in store. This fact, together with the prevailing opinion that the war could not last long, explains to some extent the courage with which the threatened disaster was at first faced, and the refusal of external aid which was offered very early. Towards the close of 1861, however, the advancing price of cotton, and the absence of a corresponding rise in the markets for cotton goods, which had previously been supplied very freely, if not too abundantly, began to tell upon the activity of the industry, and as winter approached it was found that the number of people applying for relief to the guardians of the poor in Lancashire was steadily increasing. It was then realised that the cotton manufacturing districts had to face a public danger of great magnitude, which would require much endurance, co-operation, and effort, if it was to be successfully averted. The rapidly increasing number of applicants for pauper relief told a story the significance of which the employers were well able to interpret. It meant that the various reservoirs into which the savings of their workpeople had percolated were beginning to run dry. The funds of the savings banks, the co-operative and friendly societies, and the trade unions had been heavily drawn upon, and their subscriptions had rapidly fallen off. Private and public appeals for help multiplied, and at length relief committees were established in nearly every cotton manufacturing town or village. These formed the machinery of distribution, by means of which an untold amount of local and national assistance was brought home to thousands of workpeople who were thrown out of employment. Suggestions were often made during the winter of 1861-62 that an appeal for national assistance should be made, but they were at first discouraged from a feeling of self-respect; but in the spring of 1862 a fund for relieving distress in the manufacturing districts was started at the London Mansion House, which before its close reached the sum of £528,336. This fund together with other contributions was dispensed through the instrumentality of the central committee in Manchester, the president of which was the then Earl of Derby; the active, energising, and organising instrument being the late Sir James Kay-Shuttleworth, who occupied the position of vice-president. But besides the national, colonial, and other contributions which were forwarded through the Mansion House, large local gifts in money and in other forms were made, and the spinners and manufacturers and other local employers freely gave their labour (besides contributing abundantly in the shape of money) in the work of distributing help to their poorer neighbours by means of "relief tickets," and of clothing and household supplies, of which large quantities were liberally forwarded from many parts of the country. Towards the close of 1862 Mr Cobden, who was a member of the Manchester committee, taking a very serious view of the crisis, advocated an appeal for extended help. He accepted an estimate of the loss of wages occasioned by the want of cotton at more than £7,000,000 per annum, which he said meant a loss to Lancashire of about £10,000,000. He added that from facts which had come within his own knowledge he had arrived at the conclusion that the whole mass of the working population had been brought down "to one sad level of destitution." He urged, therefore, in view of the fact that the shopkeeping portion of the community was fast sinking into poverty, that an earnest appeal should be made for more liberal contributions. This appeal did much to increase the funds at the disposal of the committee. As time went on the sufferings both of the workpeople and their employers greatly increased. Poor rates and other assessments became heavier, and the burden of the famine fell upon all classes. The distress was extreme and widespread. Emigration had been often suggested, and in April 1863 an "Emigrants' Aid Society" was formed. By means of its funds more than 1000 persons were sent to new lands. In that year the number of emigrant spinners was 2086, whilst in 1861 it was only 123. Many more left their homes in the cotton manufacturing districts, whose occupations were not specified. On the whole, however, the prominent fact of the cotton famine, so far as the working population is concerned, is that it was kept at home. The opportunity was used by local authorities to employ by means of borrowed funds the disemployed population in the paving and sewering of streets, and in other improvements, the advantage of which is now observable in the generally clean and sanitary condition of the streets in most Lancashire towns and villages. The impetus given to the linen industry by the cotton famine may be inferred from the fact that whilst there were, in 1858, only 91,646 acres under flax in Ireland, the area had increased in 1864 to 301,942 acres.

The following figures, taken from the transactions of the Manchester Statistical Society

(1868-69), show the average yearly exports of cotton, linen, and woollen piece goods during the seven years preceding the cotton famine, and the seven years which include that occurrence, and during which the three trades were influenced by it:—

Exports of Cotton Piece Goods.

	Yards.
1855-61	2,311,234,538
1862-68	2,219,011,153
Decrease	92,223,385
	or 3·9 per cent.

Exports of Linen Piece Goods.

	Yards.
1855-61	131,238,504
1862-68	210,304,491
Increase	79,065,987
	or 60·2 per cent.

Woollen Piece Goods.

	Yards.
1855-61	168,747,893
1862-68	245,091,834
Increase	76,343,941
	or 45·2 per cent.

[Arnold's *History of the Cotton Famine.*]

E. H.

COTTON LISTS. In the cotton industry the wages of spinners and weavers are regulated by rates or "prices" framed by committees representing associations of employers and employed. A certain rate of wages is taken as a standard, and the object of the list is to adjust wages to the very varying conditions under which the trade is carried on. In the spinning lists wages depend on (1) the amount of yarn spun; (2) the size of the spinning mule; (3) the fineness of the yarn; and (4) the twist in the thread. Any advantage arising from improved machinery is divided between the employer and the employed, and any extra work not coming within the normal duties of the spinner is paid for separately. In the weaving list the elements taken into account are (1) the fineness of the yarn; (2) the closeness of the threads; (3) the width of the cloth; and (4) the length of the cloth. Neither in the spinning nor in the weaving list is the price of the raw material or the price of the finished product taken into account. Adjustments take place from time to time by adding or subtracting a certain percentage from the standard rate.

[See *Reports on the Regulation of Wages in the Cotton Industry*: (1) Spinning; (2) Weaving, published by the British Association for the Advancement of Science, 1887.] J. E. C. M.

COTTON, Sir Robert Bruce (1570-1631); the founder of the celebrated library; was not a mere antiquary, but one who applied the lessons of the past to practical problems. Such is the character of his speech at the council table, "Touching the Alteration of the Coyne." By numerous precedents, Cotton shows the danger of tampering with the purity of coin. The parity to be maintained between the valuation of gold and silver, that the mintage may be reduced to some proportion of neighbour parts, is also inculcated. Among the "divers choice pieces of that renowned antiquary" which have been preserved, may be noticed here—*The Manner and Meanes how the Kings of England have Supported their Estate*, in Cottoni Posthuma, 1651.

[M'Culloch, *Collection of Tracts on Money.*—Jevons, *Investigations in Currency and Finance*, p. 347.—Edwards's *Lives of the Founders of the British Museum.*] F. Y. E.

COULISSE. The name given to the unofficial market on the Paris bourse and supposed to have its origin in the word *coulisse* or sliding bar which formed a passage for the *agents de change*, outside which speculators used to congregate to transact business. This irregular market in time organised itself in a separate building until the licensed brokers (see Change, Agents de) in 1859 instituted proceedings to defend their monopoly, and a number of offenders were condemned to heavy penalties. The coulisse, however, although disorganised could not be suppressed, and the *agents de change* eventually submitted to tolerate it as a lesser evil than an increase in the number of their own offices, with which they were menaced. It now forms two groups, each with its own directing committee which decides on the admission of members and draws up a daily price list of the business done. One group deals exclusively in French *rentes*, but three per cents only; the other in stocks and shares, principally foreign, the number of which is limited by tacit agreement with the syndical chamber of *agents de change*, French banks and railways being among those excluded. The coulisse does not buy or sell for money; it has only one account day monthly, and its rates of brokerage are lower than those of the licensed brokers. Most of the speculative transactions with London and the continental *bourses*, are executed in the coulisse, and for convenience prices of certain foreign government stocks are quoted in fractions instead of in decimals as on the official market. Its members have no common fund as a guarantee towards the public, and contracts with them cannot be enforced by law excepting for stocks and shares not dealt in on the official market, and consequently not comprised in the monopoly of the *agents de change*. The number of *coulissiers* syndicated is nearly two hundred, but in addition a certain number not "on the sheet," as it is called, are recognised. They are not bound by the strict rules of the *agents de change*, who

are forbidden to operate on their own account. Business in the coulisse commences half an hour earlier than in the *parquet* or regular market, and governs in a great measure the opening prices on the latter. The coulisse for *rentes* meets in the *bourse* itself near the railed enclosure called the *corbeille* reserved for the *agents de change*; the other is dispersed in groups inside or around the building, but always in the same places. The *agents de change* recently adopted measures to defend their monopoly, and, May 1892, reduced the number of foreign funds, dealings in which by the *coulisse* were tolerated, and interdicted quotations of prices on the *coulisse* before or after the business hours of the official market. T. L.

COUNCIL BILLS (*India Council Drawings*). Bills, or cabled instructions, issued by the India Council in London on the treasuries of Calcutta, Bombay, or Madras, as desired, and sold through the Bank of England to bankers or merchants requiring to remit to India. It was not till after the Imperial government superseded the East India Company, that India Council bills were first offered for public competition in London. The Indian government found that it was necessary to make large payments annually in this country for interest upon its sterling debt and for salaries, pensions, and materials—payments which could hardly have been made by remittances in money, and for which therefore it was necessary either to secure "exchange" operations, or to obtain funds in London by additional borrowings. The latter method was first resorted to. Between 1857 and 1862 the sterling debt raised by India was increased from £4,000,000 to £35,000,000, and for the time the necessity to remit to London was obviated. Indeed the Indian government was, on balance, compelled to remit extensively to the East. At that time, too, the external trade of India did not present the remarkable features now disclosed. The exports of merchandise were mostly somewhat larger than the imports, but the movement of specie was sufficient to counterbalance this difference, and, including specie, there was, in each of the seven years 1st May 1855 to 30th April 1862, a balance of imports over exports. Then came the American War and India's opportunity, when Lancashire had nothing but Indian cotton to exist upon; and in the four years 1862-1865 the exports of India averaged £13,500,000 a year more than the imports, specie included. From that date Indian exports have constantly exceeded the imports, and that in spite of the very large amount of silver sent thither from Europe. Indeed in the past twenty years that excess of exports has in value averaged quite £15,000,000 sterling annually. Hence merchants have had on balance constantly to remit very large sums to India in payment for goods, sums quite equal to the amount of the government remittances homeward. Hence there arose the possibility that the government and the merchants should balance each other's commitments by paying them, thus obviating cash shipments out and home by a simple exchange operation. The India Council drawings constitute therefore a method whereby the Anglo-Indian merchants, or rather the bankers on their behalf, provide the cash to cover the Indian government's requirements in this country, while the government in India provides the cash requisite to cover the merchants' payments on the other side.

In 1861-62 there was a stoppage of the heavy Indian loans issued in London, and the Indian government in consequence had a balance of payments to make in England for which the Secretary of State for India drew bills to an amount of 1,20,03,592 rupees, obtaining for these in London £1,193,729, the average rate being 1s. 11d.·867 per rupee. Thenceforward the India Council drawings increased rapidly. In 1862-63 the bills drawn by the India Council realised £6,641,576, and in the following year £8,979,521. In the next five years they averaged about £6,000,000 per annum; and in the five years 1st April 1871 to 31st March 1876, these drawings realised an average of over £12,000,000 sterling annually. In the next five years the depreciation in silver became distinctly pronounced (see Table on next page); but the India Council drawings increased until, in 1879-80, bills were allotted to the extent of 18,35,00,000 rupees, realising £15,261,810. In the financial year ended 31st March 1882, the total issued was 22,21,09,350 rupees, the sum received in respect to those drawings being £18,412,429. In the twenty-seven years ended March 1889, the total drawings were 357,47,59,165 rupees, realising £303,269,974, or an average of close upon 1s. 8d. per rupee.

Time was when these India Council drawings consisted wholly of bills which were offered weekly on Wednesday by the Bank of England, there generally being a stipulation that not more than a certain proportion would be drawn upon Madras. But gradually the character of merchants' operations changed, and the establishment of telegraphic communication with India worked a revolution. The bill became too slow in its operation, and the Indian government found that a higher price was being paid for cabled payments than for its bills. In January 1882 it was decided to sell telegraphic transfers as well as bills, so as to obtain the additional price which remitters were prepared to pay for the advantage given by the more expeditious means of remittance. From the first, these telegraphic transfers were largely purchased, and at the present time in most weeks they exceed the amount of the bills sold. Especially is this the case when there is a pressure for money in India. Another innovation has been that bills or trans-

fers can be obtained on other days than Wednesdays; and it is usual on Thursdays for the India Council to sell additional drafts to enable bankers to complete their remittances, charging a slight additional rate for these beyond that paid on the Wednesday. The Bank of England now announce what the minimum rates will be, what amounts are sold, and the amounts realised; these details are published regularly in the money market intelligence of the newspapers.

	Official Years ended	Amount of Bills drawn.	Sums received in respect of Bills drawn.	Average Rate obtained per Rupee.
		Rupees	£	s. d.
30th April	1862	1,20,03,592	1,193,729	1 11·867
	1863	6,66,37,287	6,641,576	1 11·920
	1864	9,01,41,740	8,979,521	1 11·907
	1865	6,82,45,100	6,789,473	1 11·876
	1866	7,04,71,747	6,998,899	1 11·835
	1867 (11 months)	5,84,14,183	5,613,746	1 11·064
	1868	4,28,18,177	4,137,285	1 11·190
	1869	3,33,40,000	3,705,741	1 11·197
	1870	7,20,00,000	6,980,122	1 11·267
	1871	9,00,85,000	8,443,509	1 10·496
	1872	10,70,00,000	10,310,339	1 11·126
	1873	14,70,25,000	13,939,095	1 10·754
	1874	14,26,57,000	13,285,678	1 10·351
	1875	11,74,37,000	10,841,615	1 10·156
	1876	13,75,00,000	12,389,613	1 9·625
31st March	1877	14,85,75,122	12,695,799	1 8·508
	1878	11,69,85,000	10,134,455	1 8·791
	1879	16,91,23,612	13,948,565	1 7·794
	1880	18,35,00,000	15,261,810	1 7·961
	1881	18,32,77,000	15,239,677	1 7·956
	1882	22,21,09,350	18,412,429	1 7·395
	1883	18,58,56,593	15,120,521	1 7·525
	1884	21,62,15,462	17,599,805	1 7·536
	1885	17,10,22,119	13,758,909	1 7·308
	1886	13,53,25,369	10,292,692	1 6·254
	1887	16,70,03,150	12,136,279	1 5·441
	1888	21,85,76,993	15,389,388	1 4·897
	1889	20,84,17,211	14,223,433	1 4·379
	1890	22,41,86,638	15,474,496	1 4·566
	1891	21,18,69,300	15,969,034	1 6·090
Total for the 30 years		402,28,18,695	335,907,233	1 7·800

COUNTERVAILING DUTY. A duty or surtax imposed on imported goods in order to place them on an equal footing with articles of the same class manufactured at home, and liable to excise or other inland revenue duties.

The duties of this character which are levied in the United Kingdom are intended to be the exact equivalent of the cost to the home producer of the duties levied upon his products. Thus, whilst British spirits are chargeable with the duty of 10s. 6d. per proof gallon, imported spirits are subject to a customs duty of 10s. 10d., the additional 4d. being imposed in respect of the loss and hindrance caused to the home producer by the regulations of the excise department. An interesting account of the negotiations which led to the increase of the countervailing duty from 2d., at which it was fixed by the Commercial Treaty with France in 1860, to 5d., and to its subsequent reduction to 4d., is to be found in the twenty-eighth report of the Commissioners of Inland Revenue (p. 11). Imported articles in the manufacture of which spirits are used are, in the like manner, subjected to countervailing duties, amongst the principal of these being liqueurs, perfumed spirits, chloroform, and transparent soap. On imported methylated spirits, which are not chargeable with duty if prepared according to the prescribed regulations, the countervailing duty of 4d. is alone levied. In the case of imported beer, the customs duty is 6s. 6d. per barrel of thirty-six gallons, at the standard gravity of 1055 degrees, the corresponding charge on British beer being 6s. 3d. On imported playing cards, the stamp duty per dozen packs is 3s. 9d. as against 3s. in the case of cards manufactured at home. In all these instances, the countervailing duty is estimated to be no higher than is necessary to place home and foreign producers on an equal footing as regards the real burden of the home duty. If, in any case, the countervailing duty were in excess of the amount requisite for this purpose, it would become protective in character.

The term is also applied to a duty imposed on imported articles, the manufacturers of which receive a bounty in respect of them. Thus Sir Thomas Farrer discusses the proposal to impose a countervailing duty on "bounty for sugars," and arrives at the conclusion that it would be impossible to fix the amount of such a duty, that it would be contrary to treaty stipulations, and that its effect would be to raise the price of a necessary article (*Free Trade versus Fair Trade*, p. 262). (See also remarks made by Ricardo in *Letters of Ricardo to Malthus*, "If I could convince myself that any part of the price of corn was owing to taxation, I should be in favour of a protecting duty to that amount," p. 64.)

For a complete list of the countervailing duties levied in the United Kingdom, see the *Statistical Abstract*, 1891. T. H. E.

COUNTY BOROUGH. All boroughs having a population of over 50,000, together with some old county boroughs, were, by the Local Government Act of 1888, created county boroughs so as to exclude them from the administrative business of the adjoining county. Retaining all their powers as municipal corporations, these boroughs exercise all the chief powers of county councils, whilst as district authorities they exercise powers in regard to infant life protection, mad dogs, petroleum, habitual drunkards, and slaughter houses (see Corporation Municipal, and County Council). J. E. C. M.

COUNTY COUNCIL. By the Local Government Act 1888 (51 & 52 Vict. c. 41), England and Wales has been divided into sixty administrative counties and sixty-two county boroughs. The county council consists of elected councillors and nominated aldermen. All persons registered as local government voters, all persons entitled to be so registered except in respect of residence, but who are resident within

15 miles of the county, and are possessed of property to the amount of £1000, or are rated to the poor at £30 per annum, and all peers owning property in the county, are qualified to be county councillors. The occupation as owner or tenant of land or any tenement worth £10 a year, provided the owner or tenant has resided six months and has paid all poor rates and assessed taxes, or the occupation as owner or tenant of a building of any value provided the owner or tenant has been in occupation for twelve months and has paid the poor rate and county rate, is the qualification required of an elector. The aldermen, who are one-third in number of the number of councillors, are chosen by the council. County councillors hold office for three years and retire together: aldermen hold office for six years, one half retiring every third year.

The chief powers conferred on county councils are:

1. Authorising sanitary authorities to take land compulsorily for allotments.
2. Maintenance of main roads and their bridges, with the control of traffic thereon.
3. Enforcement of the River Pollution Prevention Act, 1876.
4. Licensing of theatres.
5. Varying the season for protecting wild birds.
6. Enforcing orders of the privy council as to contagious diseases of animals and destructive insects.
7. Licensing magazines and factories of explosives.
8. Formation and regulation of fishery districts.
9. Provision, maintenance, and management of asylums.
10. Establishing and contributing towards reformatory and industrial schools.
11. Deciding claims for compensation for damage by riot.
12. Verifying weights and measures and regulation of gas meters.

Certain counties possess special powers. For instance, London and the metropolitan counties license music halls and racecourses, whilst the Yorkshire councils have power to make rules subject to confirmation of the lord chancellor as to the registration of deeds. Some of the general powers of county councils can only be exercised with the assent of some department of state, whilst the control of the police is vested in a joint committee of the council and the justices of quarter-sessions. The revenue of the county councils is derived from three sources, viz. (1) two-fifths of the probate duty, which is distributed amongst the councils in proportion to the share which each council received during the year ending 31st March 1888 out of the "grants in aid" made by the imperial exchequer. (2) The revenue derived by the inland revenue from the local taxation licences. (3) County rates (see COUNTY RATE).

Powers of borrowing for specified purposes and with the consent of the local government board on the security of the council's revenue, for any period not exceeding thirty years, have been conferred on the county councils.

The county of London occupies an exceptional position as, in addition to the powers of an ordinary county council, it succeeded to the duties and liabilities of the metropolitan board of works.

[A. Pilling, *Handbook for Council Authorities*, London, 1889.—A. Macmorran, *The Local Government Act*, 1888, London, 1888.]

J. E. C. M.

COUNTY RATE. All moneys required by a county council over and above the local taxation licences and fees, are raised by a county rate. The basis of this rate is determined in the first instance by a committee of the council, whose duty it is to estimate the net rateable value of each parish. The council may alter such basis, and any inhabitant of a parish may appeal to quarter-sessions against the basis, on the ground that his parish is treated unfairly. The 15 & 16 Vict. c. 81, § 2, directs the "basis or standard to be founded and prepared rateably and equally according to the full and fair annual value of the property." On this basis the county council rates each parish at so much in the pound, and serves a notice on the guardians of the parish requiring them to pay the same. In London the rate is levied on the same valuation as the poor rate. In 1886-87 the valuation of England and Wales for the county rate was £130,000,000 and the rate varied from $1\frac{1}{16}$d. in Lancaster to 6d. in Montgomery. J. E. C. M.

COUPON. A certificate entitling the bearer to payment of interest on a government or other public security at the time and for the period stated on its face. These certificates are printed on the same sheet as the instrument certifying the principal security, each of them as it falls due being detached by the holder and encashed by him. The original coupons do not always cover the whole period of the currency of the security, in which case there is often a so-called "talon" which entitles the holder, when all coupons are used, to obtain a new coupon-sheet. In other cases the principal document must be presented in order to have a new series of coupons attached to it. E. S.

COURCY, ALFRED DE (1816-1888), born at Brest, died at Montmorency. At the age of seventeen he entered the employment of the "Compagnie d'assurances générales," Paris, the manager of which he afterwards became. He translated the *Théorie des annuités viagères et des assurances sur la vie*, by FRANCIS BAILY (*q.v.*) (2 vols. in 8vo). He was the author of many works on questions connected with insurance

and similar subjects. Among the more important of these are *Essai sur les lois du hasard* (in 32mo, 1862), *Un Examen de la loi du 24 juillet 1867, sur les sociétés anonymes* (in 18mo), *Un Précis de l'assurance sur la vie* (in 18mo, 1870), *Commentaire des polices françaises d'assurance maritime* (in 18mo, 1874); finally, *Le Droit et les Ouvriers* (in 8vo, 1886). His principal claim to notice, however, was the establishment in 1870 of a "caisse de prévoyance" for the employees of his company, based on the individual subscriptions of each. Many other associations have followed the lead thus given, to the advantage both of employers and employed. A law proposed by the French senate, but not, at the date of writing, ratified by the chamber of deputies, proposes to apply the same system to government officials. De Courcy's honest and laborious life was devoted to the improvement of the condition of the humble; during his last years he established the *Société de secours aux familles des marins français naufragés*. His authority on all questions of maritime risk was reckoned the highest that had ever been known in Paris. A. C. f.

COURNOT, ANTOINE AUGUSTIN, eminent mathematician and philosopher (1801-1877), deserves notice as the first who successfully applied mathematics to political economy. His success was signal. His *Recherches sur les Principes Mathématiques de la Théorie des Richesses*, published 1838, is still the best statement in mathematical form of some of the highest generalisations in economic science. This work may be summarised under three headings: pure theory of price, abstract propositions on taxation, and miscellaneous applications of mathematical reasoning.

I. Cournot appears to have been the first to represent by means of an equation, or curve, the relation between the price of a commodity and the quantity saleable at that price in a market consisting of purchasers competing with each other. Let D stand for quantity demanded, and p for corresponding price. Then the law of demand is expressed by the equation $D = F(p)$, or the corresponding curve whose ordinate is D and abscissa p (ch. iv.) How much logomachy is saved by this appropriate conception! How difficult it is in words to distinguish between what has been called a "rise" of demand occasioned by a change in the form of the function F, or displacement of the curve, and an "extension" of demand due to a change of the variable p, a movement along the curve. The price for which the total value is greatest is found by making the expression $D \times p$ or $F(p) \times p$ a maximum. The price thus determined is that which a monopolist would fix, on the supposition that the expenses of production are either zero, or a fixed charge independent of quantity produced, as in the case of a "mineral source." Otherwise, the expression to be maximised must be diminished by the cost of production. This cost is to be regarded as a function of the quantity produced, say ϕ (D). The relation of cost to product may be graphically illustrated by the curve $p = \phi'(D)$; where p, the price, as before is the abscissa, and $\phi'(D)$ represents the cost of producing the last unit of the quantity produced. In the most general and important case, the function $\phi'(D)$ increases with the variable D agreeably to the law of diminishing returns.

After analysing the operation of monopoly, Cournot advances from the simple to the complex by introducing a second proprietor (ch. vii.) He argues, by reasoning which has been traversed by M. Bertrand (*Journal des Savants* for 1883; cp. Prof. Marshall, *Principles of Economics*, bk. v. chap. viii. § 2, note, 2nd ed.), that with the division of the proprietorship, the price diminishes. There is, however, one curious exception to this rule. Suppose two commodities have no other use but to enter into the formation of a certain compound commodity in the fixed proportions $m_1 : m_2$. And let the "sources" from which the component commodities are derived be initially in the hands of a single monopolist; but afterwards let each of the two sources pass into the hands of an independent proprietor. What effect on the price of the compound will be produced by this breaking down of monopoly? Common sense would probably reply that the price would be lowered by increase of competition. But Cournot's reasoning concludes that the price will be raised by the separation of the proprietorship (art. 57). Cournot gives the imaginary instance of zinc and copper having no other use but to make brass. The following would be a more important example. If a railway and line of steamers have no other use except to form part of a certain through journey; then *primâ facie*, and in the abstract, it is more advantageous for the public that the two should be in the hands of a single monopolist than that they should be owned by two competing companies, each seeking independently to obtain for itself the maximum net profit. This theorem exhibits the power of Cournot's methods in a very striking light.

When by the multiplication of producers, monopoly becomes "extinct," the equation for determining price assumes a certain simplicity. It becomes of the form $\Omega(p) = F(p)$; where $D = F(p)$ is as before the demand curve; and $D = \Omega(p)$ is a curve expressing the quantity that would be offered at any assigned price. The function Ω is compounded out of the functions expressing the cost of production to each producer, in such wise as to bring out very clearly the principle that the price is equal to the cost of production of the last unit produced. In symbols $p = \phi'_k(D_k)$; where p is the price, D_k is the quantity of commodity

supplied by any one producer, and ϕ'_k a function representing the cost to that producer of the last unit produced. It is to be observed, that cost of production as used by Cournot must be interpreted as expense, exclusive of the remuneration to the entrepreneur for his own labour. Cournot does not take into account what Jevons calls the "final disutility" of labour, any more than he has expounded the theory of final utility in the case of the consumer.

II. The formulæ which take account of cost are well adapted to investigate the effect of a tax which may be regarded as an increase in cost of production. Cournot has discussed a variety of taxes, including "negative taxes," or bounties; on the supposition either of monopoly, or a regime of perfect competition. The following appear to be the most striking theorems.

If a tax of so much per unit of commodity is imposed on a monopolised article, the consequent rise in price may be greater, equal to, or less than, the tax. The loss to the monopolist is greater than the gain to the treasury (arts. 33, 38).

If a similar tax be imposed under a regime of competition, the rise in price will be less than the tax. There is no general relation between the loss to the producer and the gain to the treasury (arts. 51, 52).

Converse propositions are true of bounties. Similar conclusions are deducible with respect to an *ad valorem* tax and a tithe (chaps. vi. and vii.) There are also some interesting theorems as to the effect of taxing one of two commodities employed in a fixed proportion in the "joint production" of a certain compound, and not useful for any other purpose (art. 62).

The most remarkable results obtained by Cournot's method are those which relate to a tax on the importation or exportation of a commodity subject to the law of diminishing returns. Cournot finds that the price in the importing country may possibly be lowered by the imposition of the tax (art. 70). This paradoxical conclusion appears to the present writer to be due to a flaw in the mathematical reasoning. Equations (6) chap. x. appear not to be legitimately deduced. The following is another argument unexpectedly favourable to protection. Suppose a restriction of trade in respect of a certain commodity between two localities is removed. Cournot concludes that neither the quantity nor the total value of that commodity is necessarily increased by freedom of trade.

III. Among miscellaneous topics treated mathematically there occurs first variation in general prices. Comparing ratios to differences upon the principle which is at the foundation of logarithms, Cournot illustrates the change in the value of money in relation to other commodities by the motion of one body relative to a set of other bodies. He compares the movement of general prices caused by a change on the part of money to the apparent motion of the stars due to the revolution of the earth (chap. ii.) It will be seen that Cournot's measure of the variation in the value of money is of the nature of a mere type, or simple average as distinguished from a "weighted" index number (see INDEX NUMBERS).

The next topic to be noticed is Cournot's mathematical treatment of the foreign exchanges (chap. iii.) We may say with Jevons of this investigation that it is "highly ingenious, if not particularly useful."

It remains to speak of Cournot's theory of "social revenue" (chap. xi.) He well defines the national income so as to include the wages of so-called "unproductive" labourers. He gives formulæ for the "real gain" and "real loss" in revenue which are very similar to the methods by which statisticians would now estimate a change in the "volume of trade." In the definition of "real gain and loss" abstraction is made of the detriment suffered by those consumers who are deterred by a rise of price from purchasing and the converse advantage accruing to those who are induced by a lower price to become purchasers. The peculiarity of this definition permits the truth, while it diminishes the importance, of Cournot's paradoxical conclusion that, when a restriction of trade in respect of a certain commodity between two localities is removed, the importing country suffers a "real loss" (art. 89). Cournot himself points out the limitations of his theory. He does not pretend to treat the question "au point de vue de l'homme d'État." But he adds with modest confidence, in words applicable to his whole book and the mathematical method in general:

"Il y aurait toujours de l'avantage à éclaircir en quelques lignes, à la faveur de signes précis, et d'une methode d'argumentation plus rigoureuse, les difficultés soulevées par des volumes de controverse."

The main outlines of Cournot's system have been presented by their author in a form divested of mathematical symbol, or rather in two such forms, in two works dated 1863 and 1876 respectively. Of these versions the latter seems best to preserve the elegance of the original investigation. Both paraphrases are accompanied with some additional and valuable matter. Particular attention may be called to the criticism of Mill's theory of international trade, and to the remarks on "economic optimism." Some of these reflections may be found in an earlier work treating of the relation between the first principles of the different sciences.

Yet another debt of gratitude is owed by political economists to Cournot. In his masterly work on chances he has pointed out the bearing of the calculus of probabilities on statistics.

F. Y. E.

The following are the works of Cournot which wholly or in part relate to political economy:

Recherches sur les Principes Mathématiques de la Théorie des Richesses (1838).—*Exposition de la Théorie des Chances et des Probabilités* (1843).—*Traité de l'Enchaînement des Idées Fondamentales dans les Sciences et dans l'Histoire* (1861).—*Principes de la Théorie des Richesses* (1863).—*Revue Sommaire des Doctrines Économiques* (1876).

COURT, PIETER DE LA (1618-1685), born at Leyden where he succeeded his father as a cloth-manufacturer after having studied law. He emigrated to Antwerp, 1672, being an adherent of the pensionary of Holland, John de Witt, murdered that year. In 1673 he settled at Amsterdam, where he resided until his death. His principal works, all of a polemical character, are:—

Het Welvaaren der Stadt Leyden (*The Welfare of the City of Leyden*), edited for the first time, 1845, by B. W. Uittewaall, under the title *Proeve uit een onuitgegeven staathuishondkundig geschrift* (*Specimen of an unedited economical Work*).—*Interest van Holland of te Gronden van Hollands Welvaren ungaaewezen door* v. d. H.—(Van den Hove de la Court), (*Interest of Holland, or Grounds of Holland's welfare explained* by V. D. H.), Amsterdam, 1662, translated into German 1665 (twice) and 1668. The second edition of the same work was entitled *Aanwijsing der heilsame politike gronden en Maximen van de Republike van Holland en West-Vriesland, door* v. d. H.—(*Explanations of the wholesome political doctrines and maxims of the Republic of Holland and West-Friesland*, by v. d. H.), Amsterdam, 1669, translated into German, 1670; into French, 1709, under the title *Mémoires de Jean de Witt*; into English, 1743, under the title *Political Maxims of the State of Holland, etc.* by John de Witt, Pensionary of Holland, etc. London, printed for T. Nourse at the Lamb, without Temple Bar. The fact is, that John de Witt added only some remarks, and wrote the chapters 5 and 6 of part iii., as is now placed beyond doubt. De la Court was a free-trader by conviction, but principally for the merchants' sake. Monopolies, especially those of the Indian Companies, he eagerly opposed. Industry too should be free in developing itself—guilds hinder improvement; governmental rules, prescribing the mode of producing and the quality of merchandise, give no security as to adulterations, and cannot have any salutary effect, the consumer being the only person who can judge of what he wants.

A. F. v. L.

COURT ROLLS, MANORIAL ACCOUNTS and EXTENTS. Among the mediæval documents most valuable for the purposes of economic history, must be placed those which illustrate the manorial system. These may be classified under the three heads specified above.

I. COURT ROLLS. The practice of enrolling the business done in the king's court seems to have been begun near the end of Henry II.'s reign. The earliest extant roll is one of 1194, and from that date onwards there is a fairly continuous series of these rolls at the Public Record Office. Some of the entries on them are of interest to the student of economic history; but the rolls that are likely to interest him more are the rolls of local, usually manorial, courts. Such rolls, not being public documents, must be sought in the libraries and muniment rooms of cathedrals, colleges, and landlords; but the Record Office has a fine collection of rolls concerning manors which at one time or another came into the hands of the king. A few lords of manors had begun to keep rolls before 1250, many before 1300; but rolls of the 13th century are not now very common. They are of great value as evidence of the condition of the peasantry, the terms on which they held their lands, and the mode in which justice was done between and upon them. The entries fall into three main classes: (1) cases of litigation between the tenants; (2) the punishment of petty offences, either against the manorial custom or against the general law; (3) the transfer of the customary tenements by surrender and admittance, for the villain or customary lands of the manor could not be alienated without being given up into the hands of the lord, who thereupon admitted the new tenant. In the earlier ages, entries of the two former classes prevail; in later times, the court almost ceases to exercise a contentious jurisdiction, and the court roll becomes little more than a register of the titles of the copyholders. The copyholders, as in the 15th century the customary tenants or tenants in villainage came to be called, acquired this name because copies of the entries on the court rolls concerning their lands served them as title-deeds. From the older rolls a great deal may be learnt about villainage, the common field system and the state of agriculture. It may safely be said that we never shall know how far the tenure of the mediæval peasant was precarious until these documents have been examined. Rolls of municipal courts, and of the courts which administered "the law merchant" in fairs and markets, illustrate another side of economic history, the condition of trade, the nature of merchant guilds and trade guilds, the treatment of foreigners and town life in general. We have some rolls of this class even from the thirteenth century. As yet hardly a beginning has been made towards publishing the court rolls; but the Selden Society's volume for 1889 contains a selection of entries from certain rolls of the 13th century which may be considered as typical.

II. MANORIAL ACCOUNTS. The accounts of the manorial officers, bailiffs, and reeves, are scarcely of such general interest as the court rolls and extents, but they afford excellent materials for the history of prices, and have been largely used by Professor Thorold Rogers. They have not been printed, at least on any

large scale, and must be sought in the Public Record Office and private muniment rooms. A very full and very early set of accounts relating to the Bishop of Winchester's manors is in the possession of the Ecclesiastical Commissioners. It goes back as far as John's reign.

III. Manorial Extents. The "extent" of a manor is a description of it which generally gives the names of the tenants, the size of their holdings, the legal character of their tenure, the amount and nature of their rents and services, whether rendered in money, in produce, or in labour. Generally the extent is the result of a sworn verdict returned by a jury of tenants to a set of interrogatories addressed to them by the lord's steward. To "extend" (*extendere*) a manor is to obtain by this process a full statement and valuation of all the lord's rights. On the continent, the practice of making such manorial registers can be traced to very remote times and possibly is of Roman origin. The most famous of these very ancient registers is that of the Abbey of S. Germain des Prés, made in the time of Charles the Great (published 1844 by B. Guérard under the title *Polyptyque de l'abbé Irminon*; the first volume of a new edition by Auguste Longnon appeared in 1886). The England of the days before the Conquest has apparently left us nothing at all comparable with this. But the "extent" comes in with the Conqueror, and is at once applied to England on a vast scale; Domesday Book is an extent of the realm made on the king's behalf by local juries. Gradually the lords of manors, especially the religious houses, followed the example thus set. We have a few extents from the 12th, many from the 13th century. Some have been printed; some believed to be of almost equal value still lie in manuscript.

[Among published extents are the *Boldon Book*, a survey of the Palatinate of Durham, printed as an appendix to the official edition of *Domesday*, and again by the Surtees Society.—The *Glastonbury Inquisitions* (Roxburghe Club).—The *Cartulary of Burton Abbey* (Salt Society).—The *Black Book of Peterborough*.—The *Domesday of St. Paul's*.—the *Register of Worcester Priory*.—The *Cartulary of Battle Abbey* (all for the Camden Society).—The *Cartulary of Gloucester Abbey*, and the *Cartulary of Ramsey Abbey* (both in the Rolls' series).—*The Hundred Rolls*, published by the Record Commissioners, give very valuable extents of manors in Cambridgeshire, and some other counties.]

F. W. M.

COURTEN, Sir William (1572-1636). See Interlopers.

COURTIER (Broker). See Change, Agents de.

COURTS OF LAW (England). The principal courts in England are the County Courts; the Supreme Court of Judicature; and the House of Lords. The jurisdiction of the County Courts is in most cases limited by the amount or value of the claims brought forward, the limit varying according to the subject matter of the action, but some matters cannot be taken before a County Court, while in others their jurisdiction is unlimited, as for instance in bankruptcy proceedings. England and Wales are for County Court purposes divided into five hundred districts. The districts are grouped together into fifty-nine circuits, one judge being as a rule appointed to each circuit. The county courts have no criminal business. The various statutes relating to these courts, which were first established in 1846, have been consolidated by the County Courts Act, 1888 (51 & 52 Vict. c. 43). The Supreme Court of Judicature consists of Her Majesty's High Court and Her Majesty's Court of Appeal. The High Court has taken the place (*a*) of the Courts of Queen's Bench, Common Pleas, and Exchequer now united in the Queen's Bench Division; (*b*) of the High Court of Chancery now transformed into the Chancery Division; (*c*) the Courts of Probate and of Divorce and Matrimonial Causes and the High Court of Admiralty now merged in the Probate, Divorce, and Admiralty Division. The London Bankruptcy Court has also been absorbed by the High Court, the London bankruptcy work being, at present, allotted to the Queen's Bench Division. The High Court has original jurisdiction in all civil matters which may be brought before an English tribunal, but a plaintiff instituting proceedings in the High Court for which a County Court would have been competent has to submit to unpleasant consequences as regards costs. The active judges of the High Court are the Lord Chief Justice, the President of the Probate, etc. Division and twenty puisne judges (fourteen in the Queen's Bench Division, five in the Chancery Division, and one in the Probate, Divorce, and Admiralty Division). The judges as a rule sit alone, but some matters in the Queen's Bench Division (*e.g.* appeals from County Courts) are heard by divisional courts consisting of two, and in exceptional cases even of three judges. In Admiralty proceedings the judge has frequently the assistance of two nautical assessors. The courts of assize, sitting periodically in the provinces, are now considered as belonging to the High Court; the matters coming before these courts are generally tried by judges of the Queen's Bench Division, but they act as judges of assize by virtue of a special commission issued separately on each occasion. For the purpose of the assizes England and Wales are subdivided into seven circuits. There are also district registries in the provinces attached to the High Court in which all preliminary steps may be taken. In London these preliminary proceedings take place partly in the central office, partly in the judge's chambers. Criminal causes are tried at the assizes and also (exceptionally) by the Queen's Bench Division. Five judges of the latter division form the Court

of Crown Cases Reserved, hearing appeals on points of criminal law reserved by judges of assize, and in cases of particular importance all the Queen's Bench judges sit together for that purpose. The Court of Appeal hears appeals from the High Court. It is composed of four *ex-officio* judges: the Lord Chancellor, the Lord Chief Justice, the Master of the Rolls, and the President of the Probate, Divorce, and Admiralty Division, and of five ordinary judges (called Lords Justices of Appeal). As a general rule, three judges of the Court of Appeal sit together; in particularly important cases the court is sometimes composed of six judges. The Supreme Court has been created by the Supreme Court of Judicature Act 1873 (36 & 37 Vict. c. 66), and its constitution has been modified by a number of subsequent acts. The House of Lords hears appeals from the English Court of Appeal, and from the corresponding courts in Scotland and Ireland. There are four salaried judges forming part of that tribunal who are called lords of appeal in ordinary, and who enjoy all the privileges of the peerage during their lifetime (Appellate Jurisdiction Act, 1887). Besides these, the Lord Chancellor and such peers as have held any high judicial office take part in the judicial proceedings of the House. It ought to be mentioned that the same lords and a few other members of the Privy Council form the Judicial Committee of the Privy Council, a tribunal hearing appeals from the ecclesiastical courts and from the highest courts of appeal in India and the colonies and dependencies. In addition to the courts which we have enumerated, there are a number of courts of exclusively criminal jurisdiction (such as the Central Criminal Court at the Old Bailey, the courts of quarter session and of petty session, the stipendiary magistrates' courts, etc.), and others of purely local importance (as the Lord Mayor's Court in the city of London, the Liverpool Court of Passage, etc.). E. S.

COURTS (IRELAND). The courts in Ireland are, on the whole, organised on the same system as the English courts. There is a Supreme Court consisting of the High Court and the Court of Appeal, the former consisting of the Chancery, Queen's Bench, and Probate Divisions. The Chancery Division has taken over the jurisdiction of the former Landed Estates Court (40 & 41 Vict. c. 57; 50 Vict. c. 6). There is a Court of Bankruptcy which remains distinct from the High Court, and local bankruptcy courts have been constituted by an act passed in 1888 (51 & 52 Vict. c. 44). The courts corresponding to English county courts are called Civil Bill Courts and are held before the chairman of Quarter Sessions or the recorder as the case may be. The chairmen of Quarter Sessions are now called "County Court judges and chairmen of Quarter Sessions," and are appointed by the Lord Lieutenant. They must be barristers of ten years' standing (14 & 15 Vict. c. 57; 40 & 41 Vict. c. 56). The Lord Lieutenant is also empowered to appoint stipendiary magistrates, having all the powers of justices of the peace in counties and boroughs (6 & 7 William IV. c. 13; 3 & 4 Vict. c. 108). The inspector-general of constabulary, his deputy, and assistants, have power to act as justices of the peace throughout Ireland (2 & 3 Vict. c. 75; 9 & 10 Vict. c. 97). The jurisdiction and constitution of the courts of Quarter Sessions and Petty Sessions is similar to that of the corresponding courts in England. The Land Commission constituted under the Land Law (Ireland) Act of 1881 (44 & 45 Vict. c. 49) and the Purchase of Land Act 1885 (48 & 49 Vict. c. 73) has quasi-judicial functions in connection with the carrying out of these statutes. E. S.

COURTS (SCOTLAND). The principal courts in Scotland are (1) the Sheriff Courts, (2) the High Court of Justiciary, (3) the Court of Session.

Courts are also held by justices of the peace and magistrates of burghs, but these are not of the same importance as the corresponding courts in England, as a great part of the jurisdiction exercised by the justices in England is in Scotland entrusted to the sheriffs. In the burghs of Edinburgh, Glasgow, and Aberdeen, the magistrates (who are salaried officials) have the powers of a sheriff, and occupy, in fact, exactly the same position within their respective burghs as sheriffs within their respective counties.

(1) A Sheriff Court exists for each county, and has an extensive civil and criminal jurisdiction (including bankruptcy jurisdiction); it is presided over by the sheriff principal (formerly called sheriff depute) or by the sheriff substitute; juries act in criminal trials only, and even in criminal trials the sheriff is frequently competent to act without a jury. The sheriff principal and sheriff substitute are both salaried judges and must be trained lawyers. An appeal lies from the sheriff substitute to the sheriff principal, and from the sheriff principal to the Court of Session.

(2) The High Court of Justiciary is the supreme criminal court for Scotland. The judges of this court are called "lords commissioners of justiciary"; they hold sittings with juries both in Edinburgh and in the larger provincial towns (Circuit Courts). Since 1887 every judge of the Court of Session is one of the lords commissioners of justiciary. The lord president of the Court of Session, as president of the High Court of Justiciary, has the title of "lord justice general."

(3) Before the Court of Session, actions which the sheriff is not competent to try *must* be brought in the first instance; and as regards

all other actions, it has a concurrent jurisdiction with the Sheriff Court. Its judges are called "Senators of the College of Justice," or "Lords of Council and Session"; the presiding judge has the title "lord president," and the judge next to him in rank is called "lord justice clerk." The court is divided into (*a*) the Inner House consisting of two divisions, presided over respectively by the "lord president" and the "lord justice clerk," four judges sitting in each division, three forming a quorum; and (*b*) the Outer House consisting of five judges who are called "lords ordinary." Actions are generally brought, in the first instance, before one of the lords ordinary, and may then go to one of the divisions of the Inner House by way of appeal, but certain matters (including appeals from the Sheriff Courts) must go at once to the Inner House. Actions of a certain description coming before the Court of Session are tried with a jury, but, on the whole, the trial by jury of civil actions is not nearly as frequent in Scotland as it is in England. E. S.

The Court of Session is the superior court in Scotland: a court both of law and equity. Appeals lie from the Court of Session to the House of Lords.

In respect of the administration of estates the court has the full powers of a court of equity, but in practice the court interferes as little as possible with executors or with the trustees under a settlement; and when it is necessary for the court to do so, or to direct the administration, it appoints judicial factors, independent administrators, who give security, are paid a commission, and report periodically. A. D.

COVERTURE. A legal term used to denote marriage; a married woman being said to be "under coverture." At common law coverture merged the wife's personality in that of her husband, and the result was that her property was governed by the following rules. (1) All freeholds of which she was seised at the time of marriage or afterwards vested in her and the husband jointly during their joint lives, he being entitled to the control and management and to the profits, but only able to alienate with the wife's consent. On the death of the wife, the husband, under certain circumstances, took a life interest in her heritable freeholds. (2) All chattels real vested in the husband, so that he could alienate them during his life; but if she survived him, and he had not alienated them, they vested in her. (3) Chattels personal vested in the husband absolutely, but if they were *choses in action* his title only became complete when he reduced them into possession.

The above rights of the husband were modified by the equitable doctrine, that if he required the aid of a court of equity to enable him to acquire the property, such aid was only given on the condition that he settled a portion of the property on the wife and children. By the Married Woman's Property Act of 1870 (33 & 34 Vict. c. 93) certain descriptions of property which at common law would have vested in the husband were declared to be separate estate, and by the Act of 1882 (45 & 46 Vict. c. 75) every woman married on or after 1st January 1883 is enabled to acquire, hold, and dispose of property as if she were unmarried. The result is that the wife's personality no longer merges in that of her husband, though in some respects she does not possess the same status as a single woman.

[Macqueen's *Law of Husband and Wife*, 3rd ed., London, 1885.] J. E. C. M.

COWELL, John Welsford, author of *Letters to the Right Hon. F. T. Baring on the Institution of a Safe and Profitable Paper Currency*, 1843—an automatic arrangement for maintaining a gold reserve, the third (or some definite) part of the outstanding notes payable on demand. This idea is reproduced in *Further Letters on Currency . . .*, 1858. Cowell contributed, as assistant commissioner, to the evidence collected by the poor law commissioners, 1834. F. Y. E.

COWRIE. A shell found on the shores of the Maldive and Laccadive Islands, and used as small change in Siam, parts of India, and on the west coast of Africa. In Guinea 2000 cowries = 1 macuta, or ten-cent silver piece, which is valued at 4·9d. F. E. A.

COXE, Tench (1755-1824), born in Philadelphia, Pennsylvania. Having entered on a mercantile life he became assistant secretary of the treasury in 1790, and commissioner of the revenue 1792-97. He early devoted much attention to economic subjects, and in 1787 wrote *An Inquiry into the Principles on which a Commercial System for the United States of America should be founded; to which are added some Political Observations connected with the Subject*, Philadelphia, 1787, pp. 52. This favoured the prohibition of the coasting trade to foreign shipping; the importation of foreign goods in the bottoms only of the country producing them, and in other respects was influenced by the commercial policy of England at that time. Coxe also demanded special encouragement to manufactures and the exemption of raw materials from tariff duties. In 1792 he published an *Examination of Lord Sheffield's Observations on the Commerce of the United Provinces*, to prove that Lord Sheffield was wrong in his gloomy prophecies for the future of the new republic. These two articles with others and additional matter may be found in a *View of the United States of America, in a series of papers, written at various times between the years 1787 and 1794; interspersed with authentic documents; the whole tending to exhibit the progress and present state of civil and religious liberty, population, agriculture, exports, imports, fisheries, navigation, ship-building, manufactures, and general im-*

provements, Philadelphia, 1794, pp. 513. He laboured energetically for the establishment of cotton manufactures, and is said to have been the first to attempt to bring an Arkwright machine to the United States. Among his other writings are *Thoughts on Naval Power and the encouragement of Commerce and Manufactures*, 1806; *Memoir on Cultivation, Trade, and Manufacture of Cotton*, 1807; *On the Navigation Act*, 1809; and in particular *A Statement of the Arts and Manufactures of the United States of America, for the year 1810*, Philadelphia, 1814. This latter was prepared under the direction of the government for the census of 1810, and represents the first extended attempt to make an industrial census of the country. The first part of this is descriptive, and the remainder statistical. As a statistical inquiry, it is almost a failure as measured by modern standards. His official papers, 1790-97, may be found in American State Papers, Finance, vol. i.

D. R. D.

CRADOCKE, FRANCIS, author of *An Expedient for taking away all Impositions and for raising a Revenue without Taxes*, 1660; and of *Wealth Discovered* . . . 1661. The author proposes a land bank with "imaginary money," as "a discovery of richer mines than any the king of Spain is owner of." This projector was added (along with Petty) to the king's council on trade (*Wealth Discovered*, flyleaf.)

[*Quarterly Journal of Economics*, vol. ii. p. 485.]

F. Y. E.

CRAFT GUILDS. See CORPORATIONS OF ARTS AND TRADES.

CRAIG, JOHN, of Glasgow, author of *Elements of Political Science*, 1814; and *Remarks on some Fundamental Doctrines in Political Economy*, 1821. All Craig's remarks are not so erroneous as his doctrine that "value in use must be very accurately measured by value in exchange." F. Y. E.

CREDIT. The fundamental notion in credit, as the name itself implies, is trust or confidence, but this characteristic obviously needs limitation; for the buyer of an article must always repose some confidence in the dealer even when the transaction is for cash, and the practical rule is *caveat emptor*. There emerges then as the second principal characteristic the idea of deferred payment, taking payment in the widest sense of the term. A credit transaction involves *time* before it is completed, that is to say, a commodity, or the use of a commodity for a time, or service of some kind is rendered now, whilst the reciprocal service or commodity is given after a specified interval. Some writers have regarded this time element as really the primary characteristic, because in some species of credit transactions there is practically perfect security, and thus no demand on the confidence of the person who makes the advance. It is certainly useful to emphasise the time in some cases. In this way, for example, we understand how the ecclesiastical economists of the Middle Ages thought it sinful to demand or receive a reward on account of deferred payment, because they conceived that time in itself had no value, whilst a modern writer who looks on time as fundamental in the accumulation and use of capital, has no difficulty in giving moral approval to the reward for ABSTINENCE (*q.v.*) Historically, however, and to a very great extent in the modern world, confidence or trust is certainly of the essence, and not merely an accident, of credit.

Much controversy has taken place as to the distinction between capital, in the sense of production capital (see CAPITAL), and credit. The individual merchant or manufacturer regards his credit as one of the principal requisites in carrying on his business. A manufacturer with good credit can at once expand his business to meet a growing demand, whilst his inferior in mercantile standing must proceed more slowly. It thus appears that, from the individual point of view, it is naturally regarded as giving increased productive power. Then, as so often happens in economics, a simple summation is made of the advantages of individuals, and credit comes to be regarded as part of the national (production) capital, just in the same way as a national protectionist policy is fallaciously constructed from considering the gains to particular protected industries. It is evident, however, that in its simplest form, so far as production is concerned, credit cannot directly increase the actual means of production which are potentially at the service of a nation, but can only transfer the right to use these means from one member of the community to another. Credit supplies in fact (as pointed out above) a species of medium of exchange, and logically the mere exchange of products or instruments is quite different from the actual increase of commodities. Thus, credit in the ordinary sense of the term cannot be considered as part of the national (production) capital.

But although a sharp distinction may be drawn logically between exchange and production, it is obvious that in a modern industrial society exchange is practically a necessary part of production. For without exchange division of labour, which is fundamental in production, could not be carried out, and without credit exchange itself, in the present state of society, could not be effected sufficiently for division of labour. Accordingly, so far a well organised system of credit may be regarded as one of the productive forces of industry. This is well illustrated by the occurrence of commercial crises, which for the time being through the collapse of credit place a check on the production of the nation. Bagehot very justly ascribed a large part of our commercial supremacy over continental nations to the superior organisation of our credit.

At the same time, however, it seems useful to retain the old distinction so sharply emphasised by Ricardo, M'Culloch, Mill, etc., between the actual material (production) capital and the mere transference of the right to use that capital. If this is done, it will still be open to the economist to point out the different methods by which indirectly credit tends to increase production and also the accumulation of capital (in the narrower sense). (1) By means of credit capital finds its way into the hands of those who can use it to most advantage, as is shown in the increased discount of bills when a trade begins to flourish. Again many large undertakings would be impossible without credit, *e.g.* the construction of railways, the improvement of lands by funds obtained on mortgage, etc. The return for the funds immediately advanced must from the nature of the case be deferred. We may go further and say that as soon as we pass from the simplest stage of society in which the individual provides for his own wants, this deferred element which is the basis of credit comes to the front. The landowner must give credit to the *métayer* and also to the farmer, and similarly at every stage of a manufacture credit is given before the finished product is available to meet the cost of production. (2) By means of credit also the amount of national capital available for production is increased. Those whose savings would be too small (*e.g.* the working classes) if used alone, and those (*e.g.* the professional classes) who cannot use their wealth in material production, are enabled by credit institutions and all kinds of joint-stock associations to add to the means of production. In former times, as Adam Smith points out, almost the only means of employing possible surplus wealth was by keeping large numbers of retainers who were for the most part unproductive consumers.

The effects of competition in increasing the efficiency of production in spite of the defects of the *entrepreneur* system, have often been pointed out (*e.g.* by Walker), and even the socialists often allow that from the production point of view simply the *régime* of competition is perhaps superior to that of organised state control. But credit is evidently essential to the full development of competition, and the growth of credit is historically one of the most marked characteristics of the progress of society from status to contract. In nearly all contracts there is a deferred element on one side at least, in other words nearly all contracts involve credit, and thus again, indirectly at least, credit, by giving play to freedom of contract and competition, increases production.

Even taking the comparatively narrow view of Mill on the relations of capital to industry, we learn that although industry is limited by capital it seldom comes up to that limit, and we may add the more perfect the credit organisation the greater the mobility of capital, and the nearer it approaches to the limit. And when we take the wider definitions of capital (see CAPITAL), now generally accepted, it seems possible to include certain species of credit directly under capital. An effective system of banking certainly increases the revenue not only of bankers but of the nation at large, and the "bank money" of the money market is to a great extent purely the creation of credit, and is as efficient as actual coin. It may of course be said that it is only "representative" money, but it is the result of highly-skilled labour and of reservation for future needs which are the general characteristics of capital. Thus JOHN LAW (*q.v.*) in his famous system was guilty not of a direct fallacy, but rather of exaggerating a truth from the theoretical standpoint; and practically, as he himself pointed out, he failed by trying to compress within too short a time what must take generations for its development. Credit effects a very great economy of the national resources, and thus may fairly come under revenue capital. Nor does this view appear to clash with popular usage, for we find in estimates of national capital that account is generally taken of the capital of banks and insurance societies and the like, although strictly, and taking only material (production) capital, this would involve counting the same elements twice over.

[Besides the treatment of credit in the text-books, the reader may consult the masterly work of Knies (*Der Credit*), which gives a critical historical survey as well as an original view of the theory, and the article by Wagner in Schönberg's *Handbuch*, which, *more Germanico*, gives a complete bibliography up to date. For the views of Mr. Macleod on credit see his works.] J. S. N.

CREDIT. INFLUENCE ON PRICES. Credit supplies the means whereby the transfer of wealth from one person to another is effected for a period of time, at the end of which it is restored to its owner. Having given this very general description of credit, it is necessary to be more specific. Thus, credit may be given in the form of commodities transferred by a tradesman to a customer, and paid for in money after an interval. In this case, the "consideration" for the credit given is sometimes not mentioned, but as a matter of fact it is obtained by the tradesman in the form of an addition to the price. Sometimes it is expressly understood that when goods are sold, some rate of interest on the cash price will be charged if they are not paid for at once. This form of credit, however, is of little importance from an economic point of view, though it is of importance in other ways. The only prices it affects are retail prices.

The credit given in wholesale transactions is

of much greater interest to the economist. It is a powerful agent for influencing prices, since it gives rise to what are known as bills of exchange (see BILL BROKING; BILL OF EXCHANGE), with all the consequences which their use brings with it. In this case, however, the credit is given, or at any rate is supposed to be given, as the result of a transaction in commodities, that is in real articles of definite value such as actual bales of cotton, or cotton cloth, pigs of iron, or other goods. The bill is drawn by the seller on the buyer, and the buyer "meets" it in three, four, or six months' time according to the nature of the bill. He gets the money, however, at once, by "discounting" the bill with his banker, who keeps it until it is due; or the drawer may discount it with a bill-broker if he has facilities for such an operation, who in his turn may sell it to a banker, or employ it as a "security bill" in his business. When any particular trade is active and profitable, bills arising out of it appear in increased numbers. They not only enable the drawer to use the money due to him for a sale at once, and set the drawer free from the immediate need of finding money to pay for what he has bought, but they may also be used as a basis for a temporary increase of the credit commanded by the person who discounted them. Bill-brokers sometimes pledge bills they have bought with bankers, as security for a short loan, and this leads to the consideration of another form of credit, which is even more effective than bills as an instrument for raising prices.

Bankers' Advances.—Many people suppose that a banker's "deposits" are solely the result of the paying in of money to the customer's account. As regards private individuals this is so in the main (see DEPOSITS), but a considerable part of a business man's deposit is the result of advances made to him, usually but not always on security. A successful manufacturer or merchant has no difficulty in getting such advances except in times of abnormal pressure in the money market, sometimes as an "overdraft," though this mode of giving credit is rarely adopted by banks in the metropolis, but usually as a loan, provided he can satisfy his banker that the operation he wants the money for is a sound one. In times of great trade activity a great deal of the money in the hands of bankers is placed at the disposal of enterprising men of business, and in these circumstances prices generally are apt to rise very rapidly, especially if the men to whom the advances are made are engaged in one or two of the leading trades of the country. A considerable rise in the price of coal and iron is sure to produce a rise in most other articles of commerce, and during the middle stages of a general rise in prices, money is lent freely, and under these circumstances the economic organism is in a state of the highest efficiency. Credit is then at its *maximum*, and exercises its fullest effect on prices. Later on, when prices have risen very much, bankers become aware that the total volume of their customers' obligations is larger than is quite safe, and they therefore make advances with more caution.

Bank Notes.—It used to be thought that bank notes were the most powerful of all agents for raising prices, but that idea has long been abandoned, though it has been true where the notes are inconvertible. All authorities are now agreed that convertible notes cannot be over-issued. Inconvertible notes can be and have been over-issued, but they cannot be kept in circulation at par unless their issue is carefully restricted to meet the actual needs of the commercial community, as was done with consummate skill by the Bank of France after the war of 1870. An excessive issue of inconvertible notes may raise prices enormously. Theoretically the rise will be equal in all articles, but in practice some commodities are usually affected more than others. One peculiarity of an excessive note issue is that it operates primarily on retail prices instead of on wholesale prices as an expansion of banking credit does. In some countries—in Scotland, for instance—*convertible* notes are an important part of the machinery by which the business of bankers is carried on. A person in a small way of business, for whom an account is opened by a Scotch bank, may take a large part of what he requires in the bank's own notes, which thus practically take the place of Cheques. The system works well in Scotland, and it is quite probable that it would also work in England, though it is questionable whether it is absolutely needed, as owing to the great extension of the cheque system any person who has a good business, however small, can obtain the support of a banker. In any case a sound, that is a convertible, bank note issue cannot be nearly as effective an agent for facilitating the expansion of business as the system of advances, or "book credits," as Mill called them. Such credits are capable of expansion, limited only by bankers' opinion of the solvency of their customers. That opinion may at times be wrong, and then too much money is lent to the wrong people, prices are forced up too high, and a commercial crisis ensues.

Cheques.—The cheque system is a necessary part of the banking system, and cheques are not, in the first instance, a form of credit at all. If a bank's customer merely draws against cash actually deposited by him, it is obvious that the cheques he draws to pay debts or to provide himself with cash for daily use are not credit instruments, except to a very limited extent. Even when a cheque is drawn against an advance granted to the customer by the bank, it is not the cheque which is the instrument of credit but the advance itself. But when, as is occasionally the case, cheques pass through

several hands before being presented to the bank on which they are drawn, they become instruments of credit, taking the place of coin or notes in the district where they circulate. In England, where a large proportion of people have banking accounts, cheques do not circulate long in this way, for they almost immediately reach the hands of some person who pays them into a bank, by whom they are "cleared" in the usual manner, but there is reason to think that in countries where banking is less developed than in the United Kingdom, cheques on banks of great reputation are made to do a good deal of work as an aid to the coin and note circulation. Cheques on London banks given to hotel-keepers on the Continent often "remain out" for months, and when finally cleared are covered with the endorsements of the persons and firms through whose hands they have passed. Such cheques have, during the period in question, formed a real addition to the circulation of the districts they have traversed.

Foreign Cheques.—During the last ten or twelve years there has been an important extension of the cheque system in connection with foreign trade, cheques drawn in Berlin and Paris on a London banking house having become negotiable instruments payable at sight, just like a cheque drawn in Manchester on a London bank, so close are the relations between these two great capitals and London. A still more remarkable feature of modern business is the use of "telegraphic transfers," which are largely used in trade with India and the United States. They are of course merely orders sent by bankers to their agents in foreign cities to pay specific sums over to certain persons, but they greatly facilitate the operations of merchants and bankers.

Among the arrangements which have facilitated the extension of credit must be included the clearing houses established in London, Manchester and New York (see CLEARING HOUSES).

[Ricardo, *Works* (M'Culloch), ch. xxvii.—Mill, *Political Economy*, bk. iii. ch. xi. xii. and xiii.—F. A. Walker, *Money*, pts. ii. and iii.—Bagehot, *Lombard Street, passim.*—Adam Smith, bk. ii. ch. ii.] W. H.

CRÉDIT FONCIER OF FRANCE. This institution is intended to enable house and landowners to raise money on mortgage at a low rate of interest, with facility of repayment by an annuity including redemption of the capital. The foundation of the *Crédit Foncier* was due to the economist M. Wolowski. It dates from 1852, but had been preceded in 1820 by a mortgage bank called the *Caisse Hypothécaire*, which, after a struggling existence, was finally liquidated in 1846. The new establishment was created under governmental patronage, and invested with special privileges which constituted a virtual monopoly. The original idea was to found a number of mortgage banks, each with its operations confined to a prescribed region. Three only were organised, those of Paris, Nevers, and Marseilles; the last two were afterwards absorbed by the first, the operations of which were then extended to the whole of France. They were styled *Banques Foncières* with the name of their locality. On their amalgamation the subsisting one was at first called the *Banque Foncière de France*, but on representations by the *Bank of France*, which feared a confusion from the similarity of names, the title was changed to that of *Crédit Foncier de France*. The operations of this establishment were at first restricted to loans on houses and rural property, with or without redemption by a sinking fund. They were extended in 1858 to loans for drainage; in 1860 to Algeria, and in 1860 the *Crédit Foncier* was authorised to lend to towns and departments for public works and improvements. This last extension contributed in a great measure to the vast public works commenced under the empire and since continued. The *Crédit Foncier* was also empowered in 1860 to make advances in the form of discounts to the *Sous-Comptoir des Entrepreneurs*, a contractors' bank, which lends on mortgage to builders after their work has reached a certain stage, and while in progress; the *Crédit Foncier* itself only granting loans on houses when ready for occupation. When the buildings are finished the bills discounted by the *Sous-Comptoir*, and rediscounted by the *Crédit Foncier*, are cancelled by a regular mortgage to the latter company. The *Crédit Foncier* patronised in 1861 the formation of an institution called the *Crédit Agricole*, for advances to agriculture, not authorised by its own statutes, and which it assisted in a similar manner by rediscounts. This association involved the *Crédit Foncier* in difficulties in 1876, the *Crédit Agricole*, having imprudently taken in nearly seven millions sterling of treasury bills of the Egyptian floating debt, and passed them on to the *Crédit Foncier*. The Egyptian government having made default, the *Crédit Agricole* had to go into liquidation, and was merged in the *Crédit Foncier*, shareholders receiving a part of their capital in new Crédit Foncier shares. The *Crédit Foncier* also absorbed in 1882 a rival mortgage bank called the *Banque Hypothécaire*, which had been founded on the expiration of the exclusive privilege of the former, which had been only granted for twenty-five years. That operation gave rise to a further creation of shares, and as the business of the *Crédit Foncier* increased, new capital had to be raised, the right of issue of mortgage and communal bonds being limited to twenty times the share capital, the present amount of which is £6,820,000, with a limit of £8,000,000. The government exer-

cises a direct control over the *Crédit Foncier* by the appointment of the governor and two deputy-governors. The decisions of the elected board of directors are not valid without the approval of the governor. The *Crédit Foncier* enjoys the special privilege of issuing bonds which, in addition to the fixed interest, give a right to drawings for prizes. Each issue of bonds with a lottery requires, however, a special authorisation by the government. The *Crédit Foncier* can only lend on first mortgage, and to the amount of one-half the estimated value of houses and farms, and one-third of that of vineyards, woods, and other plantations. The commission or profit on mortgage loans cannot exceed six-tenths per cent, or an addition of 60 centimes to the rate of interest paid by the *Crédit Foncier* on its mortgage bonds of the preceding issue. The present rate (1890) for loans without amortisation is 4f. 50c. per cent, including commission. The annuity, interest and sinking fund, is 12·52 per cent for a loan to be redeemed in ten years; 7·63 per cent in twenty years; 5·04 per cent in fifty years, and 4·66 per cent in seventy-five years. Borrowers have always a right of reimbursement on specified conditions. The rates for loans to local bodies, communal or departmental, are lower, being calculated on interest at 4·20 per cent. The total amount of mortgage loans granted by the *Crédit Foncier* down to the end of 1891 was £144,004,661, of which £77,976,789 was outstanding. About one-fifth of the extinctions, amounting to £66,027,872, had been effected by the working of the sinking fund, and four-fifths by the exercise by borrowers of the right of liberation. The loans were about equally divided between property in Paris and the environs; and in the rest of France and Algeria. The communal and departmental loans amounted to £82,670,891, of which £47,285,961 remained due on the 31st December 1891. The nominal amount of foncier and communal bonds in circulation at the same date was £161,101,564, representing a realised sum of £122,376,926. The charter of the *Crédit Foncier* is now extended for a period of ninety-nine years from 1881.

[An account of the Crédit Foncier is given by Chas. Gide, *Principes D'Économie Politique*, Paris, 1889, pp. 331-333; see also Alph. Courtois fils, *Histoire des Banques en France*, Paris, 1881.]

T. L.

CREDIT, LETTER OF. A letter addressed to a banker, or some other person or firm, containing a request to make payments or give acceptances to a third person or firm for account of the writer or writers of the letter. Sometimes the letter, instead of being addressed to one particular person or firm, is directed to a number of banks, with an indication that all payments must be indorsed on it by the parties effecting them, so as to show what amount remains unused. A letter of this kind is called a circular letter of credit. Circular letters of credit are also issued in the form of a request to the banks to whom they are addressed to purchase the holder's drafts on the bank who issued the letter, such drafts to be drawn on the forms which are handed to the holders of the letter of credit, each of these forms being marked with a fixed amount. Another class of letters of credit—commonly called confirmed letters of credit—is much used in mercantile transactions with foreign countries. These letters are addressed to the person to whom the credit is granted, and contain an authority to issue drafts up to a certain amount on the writer or writers; and also an undertaking, not only as against the drawer, but also as against all *bona fide* holders, to accept such drafts, provided they are issued within a certain time. If the credit is given for the purchase of goods there is a further condition added, according to which shipping documents of a value corresponding to the amount of the drafts must accompany or precede them.

E. S.

CRIMINAL PROSECUTION in Scotland is conducted by public prosecutors, and private prosecution, which cannot take place without the "concourse" or concurrence of the lord advocate, is almost unknown. When a crime has been committed, all who are supposed to be able to give evidence are called to testify before a magistrate in private: the suspected person may also make a declaration, which may at once be satisfactory and entitle him to liberation; if not, he is at once, or after further examination, committed for trial before a jury of fifteen, who acquit, condemn, or find "not proven," by a majority.

CRISES, COMMERCIAL AND FINANCIAL. Times of difficulty in commercial matters are, when pressure becomes acute, termed crises. The crises of 1857 and 1866 will be described in some detail. The most important ones which have occurred since the end of the last century likewise deserve notice; those earlier than that date, though historically of interest, exhibit features which have little in common with the methods of conducting financial and commercial business at the present day. The crisis of 1792-93, of which Macpherson (*Annals of Commerce*, vol. iv. p. 266) was the historian, is described by him as having followed heavy investments "in machinery and in land navigation." The number of bankruptcies was unprecedented. "Many houses of the most extensive dealings and most established credit failed; and their fall involved vast numbers of their correspondents and connections in all parts of the country." The usual features of a panic followed. Temporary loans became almost unattainable; hoarding followed. "It was impossible to raise any money upon the security of machinery or shares of canals, for

the value of such property seemed to be annihilated in the gloomy apprehensions of the sinking state of the country, its commerce and manufactures; and those who had any money, not knowing with whom they could place it with safety, kept it unemployed and locked up in their coffers." At a meeting of some of the principal merchants and traders in the city (23rd April 1793) the government was asked to assist business houses of real substantial standing by advances of exchequer bills. To this Mr. Pitt, then prime minister, agreed: the result entirely justified his resolution. "The very first intimation of the intention of the legislature to support the merchants operated all over the country like a charm, and in a great degree superseded the necessity of the relief by an almost instantaneous restoration of mutual confidence." A similar plan to that adopted in London was pursued in Liverpool, and parliament authorised the corporation of Liverpool to issue negotiable notes to the amount of £200,000 in support of the credit of individuals. Tooke mentions (*History of Prices*, vol. iv. p. 272) that in 1792, although the bank rate of discount was not reduced below 5 per cent, the market rate had fallen to, or below, 3 per cent per annum, and the 3 per cent consols had reached 97¼ in the March of that year. "This comparatively low rate of interest had been, in some degree, both a cause and an effect of the great extension of the country bank system, which about that time took place." Too heavy advances on insufficient or inconvertible securities, and an overstimulated spirit of mercantile enterprise, appear to have been the causes of this crisis.

During the year 1796, and at the commencement of 1797, a severe pressure in the money market, extensive failures of banks in the north of England, and great mercantile discredit prevailed. The difficulties experienced were very great. At a meeting held in the city, 2nd April 1796, resolutions respecting the "alarming scarcity of money" were passed, and affirming "that this scarcity proceeds chiefly, if not entirely, from an increase of the commerce of the country, and from the great diminution of mercantile discount which the Bank of England has thought proper to introduce in the conduct of that establishment during the last three months." A plan was drawn up for a board to be constituted by act of parliament for the support of credit. They were to issue promissory notes, payable six months after date, bearing interest at the rate of £1 : 18s. per cent per annum, upon receiving the value in gold and silver, Bank of England notes, or in bills of exchange not having more than three months to run (Tooke, *History of Prices*, vol. i. p. 201). This proposal was not carried out. The pressure was aggravated to a great extent by alarms prevalent at the time.

The next serious crisis, taken in chronological order, took place in 1810-11. A careful history of the events which led to this disturbance is found in Tooke (*History of Prices*, vol. i. p. 303). A great advance, and an enormously high range of prices in this country, in 1808, while on the continent they were low, through the operation of the same causes which made them high here (see CONTINENTAL SYSTEM), induced merchants to make great efforts to overcome or elude the obstacles to trade. Heavy importations took place, a great fall of prices followed, so great that in many instances the importer, after paying for the enormous charges on importation, was left with nothing whatever to meet the previous cost. Simultaneously a total stop was put to the exports from this country to the Baltic. Here, as Tooke remarks, all the incidents which lead to a severe crisis were present. "So many circumstances, on so large a scale, combining in the same direction, the fall of prices, the reduction of private paper, and the destruction of credit, were greater and more rapid than were before, or have since been known to have occurred within so short a space of time." In August 1810 several failures of banks, and of important business houses were reported (monthly *Commercial Report*, 1st August 1810). It is stated—"speculations in Spanish wool, an article which has fallen about 50 per cent, are considered as the origin of those unlooked-for disasters. Five Manchester houses have stopped payment in the city, and we are sorry to add, have involved numerous industrious persons, both in town and country, in their ruin. The demands upon the five houses are said to amount to two millions; but it is supposed that their real property will ultimately cover all deficiencies. Speculative exports to South America are the rock upon which these houses have split. In consequence of these unexpected events, public credit is at the present moment as low as ever it has been in the memory of man." The report continues, 1st December 1810—"A numerical evidence of the present state of trade may be deduced from the number of bankruptcies in the *London Gazette*. They amounted—

This month in	1810	to	273
The same month,	1809	,,	130
,, ,,	1808	,,	100
,, ,,	1807	,,	97
,, ,,	1806	,,	65
,, ,,	1805	,,	87
,, ,,	1804	,,	60

besides stoppages and compositions equal in number to half the traders in the kingdom! These failures throughout the kingdom have wonderfully affected the manufacture of every description of goods; and a general want of confidence exists between the manufacturer and the export merchant" (1st January 1811). "In our last report we stated the vast increase

of bankruptcies within the last month compared with similar months for seven years back; and we regret to say that they still continue to increase in number, and that confidence in the mercantile world seems nearly at an end. . . . In Lancashire the cotton manufacturers appear, by the late gazettes, as well as by private information, to be greatly distressed, and business quite at a stand. In Manchester and other places houses stop not only every day but every hour. Cotton wool is in no demand at any price, and no export of the manufactured goods, except a few fine sorts to Rio, etc. The trade of Birmingham, Sheffield, etc., quite at a stand, and no orders for execution there, except a few for our home consumption." A reference to the parliamentary debates in the spring of 1811 will show that this is no exaggerated description. A select committee of the House of Commons made inquiries into the state of commercial credit, and reported that the statements as to the great embarrassment and distress were founded on fact, and that it "had arisen out of great and extensive speculations, which commenced upon the opening of the South American market in the Brazils and elsewhere, to the adventures of British merchants." The chancellor of the exchequer (Hon. S. Perceval) referred to the subject in his speech during the debate on the Commercial Credit Bill; and after mentioning the report of the select committee, he continued, "the distress, originating with the merchant, and disabling him from paying the manufacturer, was felt most severely by the manufacturer and those employed by him. All the principal manufacturers had been compelled to contract, and some wholly to suspend, their works. It appeared by the report that there was scarcely a cotton manufacturer in the kingdom who had not diminished by one half the number of persons employed in his mills; and that many of the smaller manufacturers had discharged their people altogether." Those employed by the manufacturers who still carried on business were retained at lower wages, and "the most calamitous distress" is described as prevailing in many of the manufacturers' districts. The commercial troubles of the time were not confined to the United Kingdom; the condition of trade in the United States was fully as bad. Tooke quotes a letter from New York, dated 11th February 1811, which states that: "Such times for money were never known, and all confidence among merchants is totally, and indeed very justly, destroyed." This crisis appears to have been one of great severity; in reference to it and to the further and even heavier troubles of 1825 the very artificial conditions of business induced by the restrictions on trade imposed by the great war waged at the commencement of the century in Europe, must be borne in mind. Tooke gives (*History of Prices*, vol. i. pp. 308-314) many details of the heavy charges which had to be paid by merchants. Thus the freight and insurance on hemp from the Baltic to London was, 1809, in some instances from £40 to £50 per ton. The charge of conveyance of silk from Italy to Havre amounted nearly to £150 per bale of 240 lb. The following cases referred to, occurring between 1809 and 1812, are even more extraordinary. "The charges of freights and French licence on a vessel of little more than 100 tons burden, have been known to amount to £50,000 for the voyage merely from Calais to London and back; this made the proportion of freight on indigo amount to 4s. 6d. per pound. A ship, of which the whole cost and outfit did not amount to £4000, earned a gross freight of £80,000 on a voyage from Bordeaux to London and back." Tooke says of this period (*History of Prices*, vol. iv. p. 273), "the commercial distress and banking discredit of 1810-11 nearly equalled, in point of intensity, those of 1792 and 1825; and the losses caused by the fall of prices in 1810 were, I am inclined to think, greater than they had been at any former period. In the still more violent fluctuation of prices which took place between 1812 and the close of 1815, it is possible that the losses were greater; but there was not then any such sudden and extensive revulsion of credit and commercial distress as occurred in 1810-11."

The next serious crisis occurred in 1825, one of the most severe through which the commercial and banking systems of the country had ever passed. At this date speculation ran very high, for the most part in loans and mining adventures, and other investments abroad. The foreign exchanges were so much depressed as to be the cause of a nearly continuous drain on the bullion of the bank. This foreign drain, Tooke remarks, was not counteracted by any operation of the bank; it was suffered, he observed, to run its course, till it ceased of its own accord, that is by simple efflux, towards the close of the summer. Many and heavy banking failures, and a state of commercial discredit, preceded and formed the earlier stage of the panic. The tendency to speculation, and the undue extension of credit, was preceded, probably caused, and certainly favoured and promoted, by the low rate of interest which had existed for some time previously; and this low rate of interest was apparently prolonged by the operations of the Bank of England. Facility of banking accommodation which had existed for some time previously, favoured undue extension of credit.

This gradually led on to the great difficulties of the year.

In the summer of 1822 the bank reduced its rate of discount from 5 to 4 per cent. The course of the rate of interest is marked by the following statement of the price of the 3 per cent public funds.

1823.	3rd April . .	73½
,,	1st July . .	80¾
,,	3rd October .	82½
1824.	1st January .	86
,,	2nd April . .	94½
,,	28th ,, . .	97¼ (the highest)
,,	November . .	96¼
1825.	January . .	94½
1826.	14th February .	73⅞ (the lowest)

The great severity of the pressure extended over a very short time, hardly more than three weeks. Some banking failures, principally in the provinces, in the month of December, were followed by the failure of several banks in London. A severe drain on the resources of the bank of England took place—"the lowest amount of the bank treasure was on the 24th of December, viz.,

Coin . . .	£426,000
Bullion . . .	601,000
	£1,027,000

"The accidental discovery, for such it was said by Mr. Harman, in his evidence in 1832 (Bank Charter Report, 1832) to have been, of an amount of £1 notes which had been put away in the bank was, doubtless, a fortunate circumstance; for, although the sum was not large (between £700,000 and £800,000), it served to meet the peculiar difficulty of that time, which consisted in an extensive discredit of the small note country circulation. And it is probable that it had an immediate and very great effect in stopping the demand from the provinces for gold" (Tooke, *History of Prices*, vol. iv. p. 343). Though the period of pressure in 1825 was so short, it had been preceded by considerable and extravagant speculations in foreign loans and shares of companies, mining and commercial. Besides several mining companies for operation in Mexico, Chili, Brazil, Peru, and the provinces of Rio de la Plata, "so great was the rage for speculation that, in the course of a very few weeks, in the early part of the year (1824), the following undertakings, among others, were brought forward in London, and found subscriptions courting their acceptance:—The Alliance Fire and Life Insurance Company, with a capital of £4,000,000; the Palladium Fire and Life Insurance Company, with a capital of £2,000,000; the British Annuity Company, whose capital was £3,000,000; the Metropolitan Investment Company, with a capital of £1,000,000; the Thames and Isis Navigation Company, with a capital of £120,000; an Ale Brewery Association, with a capital of £200,000; a company for obtaining from government a grant of a million of acres in New South Wales, and for improving the growth of wool; an association for the cutting a canal across the Isthmus of Darien" [a curious anticipation of the attempt made to join the Atlantic and Pacific oceans by the recent Panama canal]. More than thirty private acts were brought forward in the House of Commons to give effect to these projects. "In all these speculations, only a small instalment, seldom exceeding five per cent, was paid at first; so that a very moderate rise on the prices of the shares produced a large profit on the sum actually invested." Tooke describes the spirit of speculation aroused as follows. "This possibility of enormous profit by risking a small sum was a bait too tempting to be resisted; all the gambling propensities of human nature were constantly solicited into action; and crowds of individuals of every description—the credulous and the suspicious, the crafty and the bold, the raw and the experienced, the intelligent and the ignorant; princes, nobles, politicians, placemen, patriots, lawyers, physicians, divines, philosophers, poets, intermingled with women of all ranks and degrees (spinsters, wives, and widows)—hastened to venture some portion of their property in schemes of which scarcely anything was known except the names."

The extent of the speculative rise in prices is well shown by the following instances of the upward movement in market prices of five of the principal mining companies.

	10th December 1824.			11th January 1825.		
	£	£	£	£	£	£
Anglo-Mexican	100 sh.	10 pd.	33 pr.	158	115	125
Brazilian . .	100	10	10s. dis.	66	70	44 pr.
Columbian . .	100	10	19 pr.	82	62	59
Real del Monte	400	70	550 —	1350		
United Mexican	40	10	35 —	155	115	125

The recoil from these speculations was inevitable. The country banks, whose advances and whose issues of notes had both exceeded the limit of prudence, were among the principal sufferers. Several London banks likewise failed. A remark made by Mr. Huskisson, "that we were within a few hours of a state of barter," has often been quoted as showing the severity of the trial the country passed through. The turning point appears to have been in the week ending Saturday 17th December 1825. On that day, according to a statement made by Mr. Richards, then deputy governor of the bank, "whether from fatigue, or whether from being satisfied, the public mind had yielded to circumstances, and the tide turned at the moment on that Saturday night." The greater part of 1826 was a time of considerable depression, but by 1827 the trade and manufactures of the country had resumed their usual and steady course.

The monetary disturbances of 1836-37 are not included by Tooke among the memorable commercial crises (*History of Prices*, iv. p. 269). "It was confined in a great measure to two branches of trade, the American and East Indian including China. The bank raised its rate of discount to 5 per cent, and laid some restriction upon the bills of the American houses, who were notoriously overtrading. But for purposes

of trade generally there was no want of accommodation; and the utmost rate that was heard of was 6 and 7 per cent for fair commercial bills of moderate length. And, with the exception above mentioned, there was depression in the prices of produce." The derangement of trade in 1836-37, as well as that of 1839, appears to have been but slight.

Of a far different character was the crisis of the year 1847. As was the case before the crisis of 1825 came on, a considerable period of speculative activity, fostered by a low rate for money, preceded this crisis also. Another circumstance has to be noticed. The bank act of Sir R. Peel came into operation 2nd September 1844. The automatic arrangement for the management of the note circulation which that act introduced took away from the directors alike any power or any responsibility for the "regulation of the currency" so far as this consisted of their notes. This responsibility being removed, the old arrangement by which a fixed or nearly fixed rate of discount was usually charged passed away as well. The demand for money being extremely slack at the time, a charge of 4 per cent, as their rate then was, had kept the bank entirely out of the market. On 5th September 1844 the rate was lowered to 2½ per cent for first-class bills, with not more than ninety-five days to run, and to 3 per cent for notes. 13th March 1845, the rate was placed at 2½ per cent, both for bills and notes, a lower rate than had ever been previously charged. The published rate was also for the first time stated (March 1845) to be the minimum rate, and this form of announcement has been continued ever since. The fact that the bank competed now, practically for the first time, with the bill brokers in the open market was a very important factor. The bank soon became a large holder of commercial bills, and exercised a great influence accordingly. Meanwhile several other causes had contributed to the stringency of affairs which deserve attention. Such causes are usually to be traced to reasons which have been in existence for some time previously. Previously, both in 1825 and 1847, considerable reductions had been made in the interest paid on the public funds. This had in 1825 the effect of turning people's minds to foreign investments. In 1847 speculation was chiefly directed to the development of railways and other improvements at home. "In social and financial interest and importance railways far surpass the other agencies of transport. The creation of the present century, they have contributed largely to promote its special characteristics." Prof. Bastable, *Public Finance*, London, 1892, bk. ii. ch. iii. § 12. Up to 1846 their progress had been slow.

The amounts which parliament had authorised railway companies to raise are given in Porter's *Progress of the Nation*, p. 327, as follows—

Railway Capital.		Yearly Average.
	£	£
In four years 1826-29	3,267,000	817,000
,, ,, 1830-33	8,629,000	2,157,000
,, ,, 1834-37	43,522,000	10,880,000
,, ,, 1838-41	14,458,000	3,614,000
In two years 1842-43	9,173,000	4,586,000
In one year 1844	17,870,000	17,870,000
,, ,, 1845	60,824,000	60,824,000
,, ,, 1846	132,096,000	132,096,000

The enormous increase in this class of expenditure, after 1841-43, explains of itself great part of the monetary difficulties which succeeded. Tooke gives (*History of Prices*, vol. iv. p. 314) an estimate of the actual outlay on labour and materials of railways about this period which is very instructive.

Estimated Outlay on Labour and Materials (Railways).

1841 . . .	£1,176,000
1842 . . .	2,384,000
1843 . . .	3,548,000
1844 . . .	4,880,000
1845 . . .	11,280,000
1846 . . .	29,188,000
1847, first half-year	20,560,000

After an outlay which in the first half of 1847 had been nearly two-thirds of the whole of that in 1846, this class of expenditure was sharply arrested. The effect of these different operations—(1) a sudden immensely increased outlay of capital on fixed investments; then (2) an even more sudden and sharp stop put to this outlay—on the business of the country may be well understood. Meanwhile, simultaneously with this double derangement to the ordinary course of transactions, a wild speculation in railway stocks went on.

Some idea of this may be obtained from a very careful paper read before a meeting of the Statistical Society, January 1847, by Mr. Dawson.

"Between March and September 1845 joint-stock speculations for the immediate investment of capital were set on foot, involving a larger aggregate amount than had ever before been so involved in this country. The amount to raise which, for railways alone, the sanction of parliament was actually applied for in the following session, exceeded £340,000,000 sterling. And if we include all the new schemes in which scrip, or letters of allotment, were actually selling in the market at a premium in July, August, and September 1845, the amount cannot be estimated at less than £500,000,000.

"Many of the schemes of 1845 reached a high premium within a few weeks after their issue; and all those first in the market, and having any substantial merit, were raised considerably above their true value. For instance, the Leeds and Thirsk Railway—£50 shares, with only a deposit of £2 : 10s. paid—were selling in March at £3 : 10s., in September at £23 : 15s., and in November at £4 : 15s. per share. Again,

the Bolton, Wigan, and Liverpool—£40 shares with £4 paid—were selling in January 1845 at £4 : 10s. ; in September at £42 : 15s. ; and in December, when £9 had been paid, at £20 per share. If we assume an average premium of £10 per cent upon the schemes then in the market, the property temporarily created by these speculations (and the repeated purchase and sale of which, on commission, furnished profitable employment to some thousands of brokers) must have been at least £50,000,000.

"And to this there is to be added an increased value, during the same period, of the shares in the established lines of railway. For instance :

"The Midland stock—amount £4,180,000 —was selling in January 1845 at 114 per cent, and in July at 188 per cent ; showing a rise of 74 per cent, and an increase in the aggregate value of the stock of £3,098,000.

"The Great Western—share capital issued £8,100,000—£100 shares selling in January 1845 at £156 ; and in July at £228 ; and (allowing for a call at £5 per share in the interim), showing a rise of 67 per cent, and an increase in the aggregate value of the shares of £5,467,000.

"The Manchester and Leeds—share capital £4,660,000—£100 shares selling in January 1845 at £126 ; and in August at £215 ; showing a rise of 89 per cent, and an increased value in the aggregate of £4,147,000.

"The average increase in the value of £100 shares in these three lines was £76 ; and the total increase of value in August and September was upwards of £12,000,000."

Mr. Dawson continues : "It will be seen, on reference to the tables, that during those months in which the purchases and sales of railway property were most numerous and extensive, while everybody was buying and selling shares, and the current rate of interest was only 2½ per cent, that portion of the circulating medium which consisted of Bank of England notes was but very slightly, if at all, increased ; and that it reached its greatest amount when the prices of shares were lowest—when the number and amount of current transactions were reduced to the lowest point by discredit, and when the current rate of interest for first-class bills had risen from 2½ to 4½ per cent."

These last remarks of Mr. Dawson's refer to an important point connected with this crisis—the first authoritative suspension of the bank act of 1844, and also, incidentally, to the question of the connection between the circulation of notes and periods of commercial crisis. Reference will be made to this further on. Meanwhile other complications occurred.

The failure of the potato crop in 1846 caused the need for a heavy importation of corn. "The price of corn was very high in 1847, the average in May being 92s. 10d. per quarter, but the imports rose in proportion. In the three years from 1845 to 1847 they were as follows :

	1845	1846	1847
	Cwts.	Cwts.	Cwts.
Wheat	3,777,140	6,207,894	11,511,305
Wheatmeal and Flour	945,864	3,190,429	6,329,058
Maize.....	241,667	3,024,883	15,464,194

The corn merchants, who for some time had great difficulty in obtaining advances upon cargoes in consequence of the high rate of discount, lost immense sums from the great fall in prices which took place, owing to the prospect of an abundant harvest. And the result was the failure of many houses in the corn trade, which became the signal for other heavy bankruptcies. Several banks succumbed, and credit was severely shaken" (L. Levi, *History of British Commerce*, p. 310).

The fluctuations in the rate charged by the bank were very considerable, and were the more noticed at the time as nothing exactly similar had ever occurred before.

On 1st January 1847 the notice of 27th August 1846, fixing the minimum rate at 3 per cent per annum on 95 days bills, was still in force.

1847.	Per cent.	
14th Jan.	3½	minimum on 95 days bills.
21st ,,	4	,,
8th April	5	,,
15th ,,	5	omitting all stipulation as to the term of the paper.
2nd Aug.	5	on 1 month bills ; 5½ on 2 months ; 6 per cent above 2 months.
5th ,,	5½	minimum rate.
2nd Sept.	5	on loans till 14th Oct.
23rd ,,	5½	on 2 months bills ; 6 per cent on 3 months.
1st Oct.	5½	on everything falling due before 14th Oct., and total refusal to advance on public securities.
25th ,,	8	minimum rate under authority of the government letter of this date.
22nd Nov.	7	minimum rate.
2nd Dec.	6	,,
23rd ,,	5	,,
1848.		
27th Jan.	4	,,

The announcement of 1st October that no advances would be made on public securities produced (see *Economist*, 9th October 1847) a severe panic on the stock exchange. There was no failure of a bank, however, except that of Cockburns and Co. of Whitehall, till 13th October, when Knapp and Co. of Abingdon suspended payment. On 18th October the Royal Bank of Liverpool stopped ; before 23rd October other important banking failures took place at Liverpool, Manchester, Newcastle, and in the West of England. 3 per cent consols, which had stood at 84½ on 5th October, were

by this time 77¾, the lowest point, and a total suspension of all business and all payments was imminent. The reserve of the bank was reduced to a very low ebb.

1847.	Reserve of Specie.
16th Oct. . . .	£3,070,000
23rd ,, . . .	1,990,000
30th ,, . . .	1,600,000

Meanwhile the anxiety and alarm prevailing were causing a general hoarding of coin and bank notes, and it really appeared not unlikely that the banking department of the Bank of England might be compelled to stop payment while there was more than £6,000,000 of specie in the issue department. The chancellor of the exchequer (Sir C. Wood, afterwards Lord Halifax) was urged by many deputations and remonstrances to relax the bank act, but he declined. At last, on 22nd or 23rd October, some of the leading city bankers had an interview with the prime minister (Lord John, afterwards Earl Russell), and on their explaining the necessities of the position, the desired relaxation was given. The official letter (25th October) recommended "the directors of the Bank of England, in the present emergency, to enlarge the amount of their discounts and advances, upon approved security." A high rate, 8 per cent, was to be charged, to keep these operations within reasonable limits; a bill of indemnity was promised if the arrangement led to a breach of the law. The extra profit derived was to be for the benefit of the public. No really adequate reason has ever been given for this last stipulation, unless it is supposed to have been made to prevent the bank from maintaining the extra rate unduly long.

The effect of the government letter in allaying the panic was complete. When anxiety as to obtaining bank notes or gold was removed, the immediate pressure shortly disappeared. Speaking in the House of Commons, during the debate of 30th November on this subject, the chancellor of the exchequer (Sir C. Wood) stated that the tenor of the remarks made by those who applied to him was "Let us have notes" . . . "We don't mean indeed to take the notes, because we shall not want them; only tell us that we can get them, and this will at once restore confidence."

The space which can be allowed here to this subject does not permit further details being given. It should be observed that the earlier crises than the last one mentioned here, that of 1847, were all so greatly influenced by the highly artificial condition both of trade and credit, caused by the terrible wars of the commencement of the century, that the lessons to be drawn from them are, comparatively speaking, inapplicable to the business circumstances of the present time. The commercial histories of that period, including the admirable one contained in Tooke and Newmarch's *History of Prices*, are full of remarks on the questions how far the crises were brought on, or increased in severity, by the issues of notes made by the country bankers at that period. That those banks employed their own credit frequently unwisely there is no doubt, and equally that they frequently gave credit unwisely to traders on inadequate security. Notes were at that date the recognised medium in which advances were made; and that there was by all banks, including the Bank of England, at times an over-issue of the circulating medium may be conceded. It is, however, matter for fair discussion whether any statesman nowadays would have arranged the bank act of 1844 on the principles of Peel, or whether it is advisable to concentrate the whole of the issues on one bank, however powerful and well-organised.

Commercial crises may take place without any reference to the circulating medium, as has been exemplified in Hamburg and elsewhere. They can only be averted or mitigated by the judgment of those with whom the guidance of commercial affairs and of the banking institutions of the country rests at the time.

[The periodicity of crises has frequently been noticed. Mr. Wm. Langton, in his paper "Observations on a Table showing the Balance of Account between the Mercantile Public and the Bank of England," *Transactions of Manchester Statistical Society*, 1857-58 (reprinted also in the *Transactions*, 1875-76, Appendix), has made valuable remarks on the subject.—Mr. John Mills ("Paper on Credit Cycles," *Transactions of the Manchester Statistical Society*, 1867-68), has shown the connection between these periods and the variations of personal feeling.—Also paper by H. Chubb (*Statistical Society Journal*, June 1872), "Bank Act and Crisis of 1866.—Prof. Jevons (*Investigations in Currency and Finance*, pp. 153, 203-8), has shown, with his customary ingenuity of research, that the period of credit cycles and of the solar cycles of maximum intensity correspond with considerable exactness. The frequent recurrence of periods of excitement and depression in monetary and commercial matters is likewise referred to by Mr. James Wilson, *Fluctuations of Currency, Commerce, and Manufacture, referable to the Corn Laws*. We must be careful not to yield to the belief that *post hoc* is identical with *propter hoc* in these matters; but this subject is eminently one in which careful historical investigation may be expected to produce useful and practical results. For earlier history, Macpherson, *Annals of Commerce* (4 vols. London, 1805).—Anderson, *Origin of Commerce* (4 vols. London, 1801).—*Select Tracts on Commerce and Early Tracts on Commerce*, reprinted and edited by J. R. M'Culloch, 1856-1859, may also be consulted.—Max Wirth, *Geschichte der Handelskrisen*, Frankfurt am Main, 1891.—D. Morier Evans, *Commercial Crisis*, 1847-48 (published 1848).—D. Morier Evans, *Commercial Crisis*, 1857-58 (published 1859).—C. Juglar, *Des Crises Commerciales*, Paris, 1889.]

CRISES, 1857-1866-1890. The early panics of the present century having been described above, our attention will be confined here particularly to the events of 1857, 1866, and 1890.

One of the most remarkable and instructive facts is negative, viz. that there has been really no panic in England since 1866. The difference between the events of that year and what occurred in 1890 will be explained later on. It was formerly regarded as almost a law of nature that a crisis should arise every ten years or thereabouts, and the years 1825, '37, '47, '57, and '66 confirmed this impression. But since the last date, with the exception of some alarm in 1878 (when the City of Glasgow and the West of England Banks collapsed under circumstances calculated to cause such disquietude as would in former times have caused alarm if not panic), though there have been many changes in business, and a huge development of trade, we had no crisis until November 1890. This last crisis differed much from previous disturbances of credit. In former times alarm was diffused over the whole kingdom; London was drained of its reserves to fill up the wants of the country, and the imprudences of banks having caused or aggravated alarms, there was a general uneasiness in the banking world and a consequent increased holding of cash, and an indisposition to grant assistance to the trading world. But, on this last occasion there was no general alarm in the country. Banks outside London were hardly sensible of the crisis, and even in London there was no panic except in Capel Court. No bank failed in town or country, and no suspicion of danger to banks seems to have existed amongst their customers. Some great issuing houses lost their position, and narrowly escaped suspension. Enormous losses fell on the public, but not on banks, except indirectly. It was not a panic as involving general alarm amongst the public, but a crisis in special directions, which might easily have extended, so as to have caused such a panic as never yet has occurred in any country. The danger was prodigious, but it was averted.

In former crises the danger was not averted, and things were allowed to drift, so that great houses and banks failed, and general alarm ensued. In this case, no great house suspended, though Barings, one of the greatest of all, went into liquidation. Instead of a huge lock up of mercantile capital in unpaid documents, business was carried on without any serious inconvenience to any one; and it may be fairly said that, for all practical purposes, nothing was known of the crisis in the country at large, until all was over.

In some respects all crises are alike, inasmuch as all such events arise from what is called an "abuse of credit." But that abuse may take various forms. Sometimes the vagaries of banks in lending enormous sums without any security that can be realised, have caused the trouble. At other times, as for instance in the case just referred to, great investments by the public in stocks which are worthless, or much depreciated, have had a similar effect in arousing exaggerated alarms. The causes varying, the results also vary much.

Of course, if the errors of banks start the anxiety, it is natural that other banks should feel the effects more than merchants who have nothing to do with the matter, except that they suffer for the mistakes of others. If, on the other hand, as in 1890, mercantile imprudence originated the mischief, then, most naturally, mercantile credit is affected more than that of banks, who may suffer, but not deservedly.

A glance at the peculiar features of the several crises above mentioned will illustrate what has been here stated, and will bring out more clearly those resemblances and differences which tend to throw light on the whole subject.

It is not very easy to define how far credit may extend safely, but it is very clear that during the years 1855 and 1856 the extension of credit was enormous and dangerous. It has been sometimes asserted, though there is no way of testing the truth of the assertion, that during the years in question there were as many bills offered for discount in Lombard Street as there are now, though the real volume of trade has vastly increased since 1857, the total of the imports and exports being unitedly £311,764,000 in 1856, and £748,944,000 in 1890. In those times it was a common thing for banks in manufacturing districts to send great masses of bills to London for rediscount, *i.e.* bills taken by the banks, but which they were unable to hold to maturity from their own resources. The amount of this business in 1856 and 1857 was enormous, and even after the panic of that year, when many bills came to an end by failures of traders and of bankers, the amount of rediscounts by banks continued to be very large. But, at this moment, that business has almost come to an end. It was much reduced after 1866, and it is now confined within narrow and perfectly legitimate limits. In fact most of the banks which in 1857 were borrowers in London are now large depositors there.

Those who are too young to remember 1857 would not find it easy to imagine the condition of things which then existed. The reserve of the Bank of England may be said to have been continually at danger point (the amounts in the autumn of 1857 are given in the table that follows), although the daily transactions in Lombard Street were large and important. The demands were often heavy, as we have said, but the reserve was miserably small. It was a common thing for the largest operators in bills to keep practically no reserve whatever,

and to depend on application to the Bank of England for the supply of their wants. The average rate of interest paid on loans and discounts was very high, and though it is true that no prudent trader was ever killed by interest paid on borrowed money, it is clear that in a condition of things when traders generally were large borrowers, the existence of a very high rate of discount was one of those circumstances which combined to create an electrical and excitable condition in men's minds, so that alarm and panic were very liable to supervene.

The immediate cause of panic is of course the fear on the part of borrowers that they will not be able to secure what they need, accompanied by a fear on the part of lenders of giving what, in ordinary times, they would grant with pleasure. This fear arises in different ways on different occasions. It may be caused by heavy failures making even the solvent anxious as to their future, for all traders have payments for which they must provide. Or it may arise from the condition of the Bank of England, as her accounts are periodically published, and are supposed to tell all the world what may be expected as to borrowing and lending. However small may be the reserve kept by other operators, "the bank" is expected to be ready for every emergency, and if her reserve should be depleted, every one gets alarmed and desires to provide without delay against a very uncertain future. So it comes about that adverse exchanges combine with internal alarms to reduce the surplus notes of the bank, and this condition adds to the demands upon her just when she is least able to meet them. Under our system, however great the pressure, she cannot take a sovereign from her issue department. The gold held there is as sacred as if deposited at Westminster in the custody of the government. The bank, therefore, raises the rate of interest, so as if possible to attract gold from other countries. That movement cannot operate at once, but the fact of her taking such action is quickly effective in increasing alarms outside. Demands increase still more, so that the bank has recourse to restrictions in one form or another—restrictions which only aggravate panic, until at last the bank must either collapse as a bank, and cease to make advances, or must obtain extraordinary powers, so that she may allay alarm by a greater freedom in her operations.

So marked has been the influence of these considerations during recent panics, that some writers have been disposed to attribute our present liability to these alarms to the change made in our currency laws in 1844, when the two departments of the bank were separated, and the old elasticity of the issues of the bank was replaced by a hard and fast limit dependent on supplies of bullion. But the answer to this suggestion is very simple, viz. that our panics before 1844 were probably far more severe than those which have occurred since, and that for twenty-three years since 1866, with the same law, we have had no proper panic. In 1837 the bank was very nearly denuded of gold, her issue of notes not being restricted, whereas since 1844 she has never been deprived of a large reserve in the issue department, a reserve not available without special authority from government, but still a reserve which is available, and has been found ample for every emergency of modern times. Alike in 1847, 1857, and 1866, a letter from the chancellor dissipated the panic as by the wand of a magician. Once remove the fear of a complete break-down, and panic passes away far more quickly than it arose. It is astonishing how soon all real alarm disappears, and business resumes an ordinary course. High rates of discount may prevail for some time, but, sooner or later, they too disappear, and the contrast is quite ridiculous, when one considers how small is the real change in affairs in a comparatively short space of time. The weak spot has been discovered, the leak has been stopped for a time, and so it is said "confidence is restored," until a renewal of commercial blunders or follies brings about a renewal of discredit and consequent alarm.

The following table shows the rapid change which arises as soon as the panic has subsided :—

000 omitted in cols. 2 and 3. Figures from nearest return.

1 Year and Month.	2 Gold Bullion in Bank	3 Reserve of Notes.	4 Rate of Discount per cent.
September 1, 1847	£7545	£4488	5½
October 1, ,,	7185	4112	6
November 1, ,,	6745	1547	8
December 1, ,,	8315	4228	7
January 1, 1848	10,262	7786	5
September 1, 1857	10,564	5830	5½
October 1, ,,	10,681	6014	6
November 1, ,,	8777	3485	9
,, 11, ,,	6666	957	
,, 18, ,,	6079	1148[1]	
,, 25, ,,	6784	1918	
December 1, ,,	6895	2268	10
January 1, 1858	10,905	6064	8
March 1, 1866	13,113	7345	7
April 1, ,,	13,502	6881	6
May 1, ,,	13,005	5884	7
June 1, ,,	11,434	415	10
July 1, ,,	14,170	4346	10
August 1, ,,	12,893	2630	10[2]

[1] £2,000,000 was, under authority of treasury letter, 12th November 1857, added to the securities in the issue department, in the returns from 18th November to 23rd December 1857, both inclusive. The strict limits of the act of 1844 were only exceeded in the returns of 18th and 25th November 1857.

[2] Reduced to 8 per cent 6th August.

So far the features of both the panics now under consideration are very similar. The difference is more one of detail than of principle. In both there was the high rate of discount following adverse exchanges, and great demands for accommodation by traders. In both there was the depletion, more or less rapid, of the bank reserve, and finally the heavy failures and the consequent alarms, ending in a sort of "stampede" or "sauve qui peut," if one may use such expressions in this place. In neither case did a single solvent firm succumb, though in both cases, and especially in 1857, more than one solvent house escaped as by a sort of miracle.

Of course the panic of 1866 was marked by the great failure of the almost historic house of Overend, Gurney, & Co., and by that memorable "Black Friday," when it seemed likely that confidence might be utterly lost, whereas in fact it was maintained in a truly astonishing way. Lombard Street was given over to an excited crowd who did not, however, withdraw their deposits, if they had any, and the day passed off with most trifling results as compared with the fears that pervaded the minds of many experienced persons. But the panic of 1857 was in one way more striking and more serious than that of 1866, inasmuch as it was as widespread in America as it was in the United Kingdom, and in fact began in New York. But these differences are not of first-rate importance. The grand distinction between the two panics is that already mentioned, viz. that in the former no warning was taken, and the panic was followed in a few years by another equally severe, while, in the latter case, the lesson seemed to have been taken to heart, the excessive credit was cut down, and the era of panics seemed to have passed away. Why this should be so is not very clear. Some say that the disappearance of Overend, Gurney, & Co., and their friends is one great cause of the change. Without refusing to give some weight to this fact, it is difficult to suppose that this can be the only cause of so remarkable a contrast. It seems more rational to say that the tremendous lessons of 1857 and 1866 were not lost on the financial or the mercantile world, and that, as a result, credit has been maintained on a far sounder footing than in former years.

This confidence in our present position was, it is true, somewhat rudely shaken during the year 1890. As already stated, although we were not visited by an old-fashioned panic, the events of 1890 bore no small resemblance to those of former years, and, but for much judgment and skill displayed by the directors of the Bank of England, the crisis of 1890 might have easily ended in failures and panic far more serious than those of any former years. It is probably quite true that the tremendous lessons of 1857 and 1866 were not lost on the financial or the mercantile world, and that credit was maintained on a comparatively sound footing for many years. There has been abundance of enterprise since 1866, but those who have been familiar with the money market for thirty years will, we think, agree that a much larger proportion of business is now transacted on a cash basis, and without recourse to credit, than was possible a quarter of a century ago. But though this is so, and, in ordinary business, there may be less danger of "abuse of credit" than there was when the country was much less "capitalised" than it now is, the very abundance of means may have given rise to an inclination towards excessive confidence, as if the capital available for loans of all kinds had no limit. This feeling may also have been intensified by the great accumulation of capital in the hands of "trusts" or "investment companies" eager for profit, and not always so much alive as are individuals to the danger of great mistakes.

But, probably, the most important distinction which marked the position of 1890 as compared with 1857 and 1866 will be found in the condition of the Bank of England. When alarm began at the latter end of October 1857, the reserve of the bank was under £5,000,000, and at the end of April 1866 it was under £6,000,000. In one day in 1866 £4,000,000 left the bank in notes and coin, in consequence of the failure of Overend, Gurney, & Co. Such a position was dangerous, and the publication of such returns, combined with the raising of the rate of discount to nine and ten per cent, was sure to aggravate alarms. But in 1890 the reserve stood at £14,500,000 when it became known that the great house of Baring had gone into liquidation, and that its liabilities would be paid by the bank. The position of the bank being so strong, and it being known or rumoured that the action of the bank was approved and supported by the government, panic did not arise, except as to the price of securities directly affected by this great failure, or by failures in America, and no mercantile disaster of the least consequence occurred, nor was the rate of interest charged on discounts excessive. In fact, there was no general discredit. Of course there was uneasiness, it being known that other houses must have lost heavily through South American complications, but banking and other business went on as usual, and prices of produce were not seriously affected.

There were none of the usual symptoms of panic, except in the Stock Exchange, and the contrast to those who had lived through 1857 and 1866 was very remarkable. In those years people feared that the bank would be unable, without an increased power of issue, to deal with the emergency, and it was never absolutely certain when, if at all, the government would come to the aid of the bank. In 1890, thanks

to the forethought of the bank in providing herself with an addition to her bullion by a loan, her position was so strong at the critical moment as to prevent the occurrence of any general alarm. Men did not rush to supply themselves with money one day, in fear that they might find it difficult to procure it on the following day, but attended to their businesses without excessive anxiety as to the supplies of capital. Caution prevailed, but not panic, and the distinction is a very clear one.[1]

As to the effects of crises and panics, there is perhaps but little to be said. It has been already pointed out that trading people soon recover their spirits and their confidence when the panic is once well over. So it comes to pass that prices which, before and during panics, have been in some instances severely depressed, quickly rise to their former level, and men cease to consider the money market in their dealings, being no longer afraid of monetary trouble as to the discount of bills, or otherwise. The statistics of our trade seem to confirm this view. Spite of panics, our aggregate trade has gone on increasing, with fluctuations no doubt, but not with fluctuations which seem to point to panic as the great disturber of our commerce. We have had divers "depressions" in trade, often very difficult to account for, and they are generally followed by improvement and even speculation, often little expected, and arising no one knows why. But certainly, in recent years, neither depressions nor elevations can be traced to the effects of panic. Vast changes have taken place, thanks to "many inventions," and prices have fluctuated beyond all precedent without any very marked oscillations in credit. The supply of loanable capital since 1866 has been, on an average of years, ample, and this has no doubt lessened the tendency to panic amongst traders generally. But there have been these great fluctuations although the money market has been so stable, and this recent experience tends to confirm the opinion that we should not attribute much permanent effect to the panics of former periods. No one is likely to forget the temporary effects of a panic if he has lived through one, but, as to permanent results, panics are probably not important.

Certainly the progress of the United States has not been materially hindered by their panic troubles, although they have been, like other American disasters, on a "magnificent" scale. 1873 and 1884 will not soon be forgotten in the States. The effects of 1873 are said to have been felt for five years, just as were the effects of 1837, but the country made extraordinary progress throughout, and seems now to be moving on more rapidly than ever. If there was a check, it is not very easy to say where it is to be seen. Probably the civil war had far more to do with causing such a check, if there were one, than even the panic of 1873.

It is interesting to observe that countries where panics are rare, as France and Germany, do not appear to make greater commercial progress than England and the States, where panics have been, comparatively, not infrequent.

In fact, in countries of great enterprise, and where credit attains a great development, it is obvious that there must be a danger of undue expansion followed by excessive alarms. Such people use up their means too closely, no doubt, but, on the other hand, they do far more business and acquire far larger profits from their enterprise than can be secured by people who are no doubt more prudent, but are less energetic. The very prudent nations escape panic, but they at the same time must accept a smaller return on their capital. They no doubt keep larger reserves than less cautious traders, but such reserves are expensive to maintain, and it may be well doubted whether in the long run more is not gained by the more enterprising peoples, even though they may subject themselves to occasional alarms of a serious and painful nature.

The general result seems to be that, however remarkable the phenomena of crises may be, they are not of great permanent importance, nor are they to be regarded as an inevitable consequence of an active and enterprising conduct of business. They are really spasmodic symptoms, and not symptoms of any serious and continuous disease which has to be brought under some legislative remedy. They illustrate the results of a temporary suspension of the laws which regulate the ordinary currency of a nation when confidence between man and man is lost, but events so exceptional defy regulation, and the cure for such evils will probably be found rather in the practical good sense of men of business than in any expedients invented by ingenious law makers.

It has, however, been suggested that some kinds of legislation may aggravate panic; as, for instance, the law of the United States of

[1] The contrast of the three great crises with reference to the reserves of the bank in its banking department, is shown by the following Table.

Notes in reserve in the Banking Department of the Bank of England.

1857		1866		1890	
Oct. 3	6,014,000	April 13	6,317,000	Oct. 16	10,275,000
,, 10	4,606,000	,, 27	5,844,000	,, 30	10,600,000
,, 17	4,024,000	May 11	4,950,000	Nov. 13	10,024,000
,, 24	3,217,000	,, 18	730,000	,, 20	13,378,000
,, 31	3,485,000	,, 25	830,000	,, 27	15,309,000
Nov. 7	2,155,000	June 1	415,000	Dec. 11	15,904,000
,, 14	957,000	,, 8	2,167,000	,, 18	15,797,000
,, 21	1,148,000	,, 22	4,067,000	,, 25	14,205,000
,, 28	1,918,000	July 6	3,335,000		
Dec. 5	2,268,000	,, 20	2,498,000		
,, 12	3,900,000	Aug. 3	2,412,000		
,, 19	5,757,000	,, 17	3,611,000		
,, 26	7,426,000	,, 31	5,833,000		

[For returns from 18th November to 23rd December 1857, see note 1, p. 463.]

America as to bank reserves, and our own law as to the issues of the Bank of England. We certainly think that the experiences of 1847, 1857 and 1866 (to say nothing of 1890), show that such a law as ours, which gives no power of expansion to the bank, as such, no matter how grave may be the emergency, is one of very doubtful wisdom. It would, we believe, be far more reasonable to adopt something like the plan adopted by the German Bank law of 1875, whereby the bank can issue beyond the usual limit on paying at the rate of 5 per cent per annum to the government on all extraordinary issue, as a sort of penalty—an arrangement which ensures a reasonable charge to the public on such extra issues, and thus compels contraction of obligations by a sort of automatic process. Panic is thus avoided, while a wholesome warning is extended to the trading world, and the money market is brought under the rule of law, and is not, as with us, dependent in the worst times on the caprice of a Chancellor of the Exchequer, who may be a man ignorant of the dangers and difficulties of commerce, or who only knows them vaguely, as set forth in the books of mere theorists. W. F.

CRISES, PERIODICITY OF. In the world of physics the idea of "periodicity" of "cycles" is familiar. The twenty-eight years period of the sun is a simple illustration of a regular cycle.

The recurrence of commercial crises over a century, at intervals of ten or twelve years, has been frequently noticed by economists, and the suggestion made that possibly the physical law which, every ten or eleven years, brings good vintage years to Europe and droughts to India, may control the commercial fortunes of men. An enumeration of recorded years of acute commercial distress—1753, 1763, 1772-73, 1783, 1793, 1815, 1825, 1836-39, 1847, 1857, 1866, 1878, 1890—suggests periodicity. During these 140 years trade and banking have been carried on in war and peace, with a silver standard, with a gold standard, under a suspension of cash payments, in times of plenty, and in times of want; but the fatal years have come round with a considerable approach to cyclical regularity. While admitting that the commercial crises to which this generation has been exposed have been less acute than those which afflicted the close of the last and the beginning of the present century, the fact of their recurrence in something like periodicity remains—a fact which it is easier to record than to explain. Space only permits a statement of some of the more important crises, with a reference to works from which fuller information may be derived.

To commence with the beginning of this century, the question of the periodicity of cycles is discussed by Henry Thornton, whose well-known sagacity caused him to be greatly consulted on financial questions by William Pitt, in his work, *An Enquiry into the Effects of the Paper Credit of Great Britain*, 1802. Thornton speaks of the crisis of 1793 as the first material one of the kind which had for a long time happened. He points out that the panic greatly abated, and mercantile credit began to be restored, so soon as the *intention* to issue exchequer bills was announced. He also mentions as worthy of notice that, though the failures had originated in an extraordinary demand for gold, it was not any supply of gold which effected the cure, but the idea of general solvency which was created by the promised issue of exchequer bills (pp. 49-51). He further mentions (p. 152) that the fluctuation in the balance of trade with foreign countries which we experience had also become larger than heretofore, in consequence of the greater extent of our population and commerce. "The scale of all things having increased, the scale of this balance may have increased also in a degree unexpected by the bank."

Tooke, in his *History of Prices*, vol. i. p. 176, gives a clear account of the progress of events leading up to the disasters of 1793. Tooke states that immediately preceding that crisis a great revulsion and derangement of commercial credit had occurred, due to a pre-existing and undue extension of credit and paper circulation.

In vol. ii. p. 5, in discussing the causes which led to the discredit of 1816, he explains that the speculation in exported commodities, which had its first rise in the prospect of the downfall of the power of Napoleon I. in Europe, reached its height in the spring of 1814, and that the tardy discovery that the effective demand of the continent had been over-rated precipitated the crisis of 1815-16.

The causes of the crisis of 1825 are discussed by Tooke (vol. ii. pp. 149-159). In 1822, the British 5 per cent had been reduced to 4 per cent; this had led to a general restlessness among those whose incomes were reduced, and a readiness to invest in foreign loans, the principal borrowing states being South American. The South American loans ultimately entailed a loss of nearly the whole of the sums subscribed. The exaggerated views of coming prosperity allowed full scope for an undue enlargement and abuse of credit.

The panic of 1836 is fully described by Tooke (vol. ii. p. 274). It is noticeable that whereas the disasters in 1825 were principally due to foreign speculations, those of 1835 were due to home speculations, an undue extension of credit arising from gambling in shares of railways, joint-stock banks, etc.

In vol. iv., speaking of the crisis of 1847, Tooke says: "In August 1845 the speculation assumed all the apparent characteristics of a mania. Symptoms of an approaching revulsion were, however, then clearly discernible."

It is noteworthy that the gradual develop-

ment and overgrowth of credit indicated by Langton, Jevons, and Mills, are clearly stated by Tooke.

A variety of causes brought about the serious crash in 1847—railway calls in excess of the means of the country, high price of corn, etc.; but the evidence of a culmination of previously developing causes is as clear on this occasion as on the others which have preceded and followed that date.

Mr. William Langton, of Manchester, speaking of periodicity says (*Transactions of the Manchester Statistical Society*, December 1857): "These disturbances are the accompaniment of another wave which appears to have a *decennial period*, and in the generation of which moral causes have no doubt an important part. The prompting cause of these convulsive movements appears to lie in the inordinate use of credit."

The doctrine of periodicity was held strongly by Professor Jevons, who carried his investigations into the subject over a great length of time, and with his noted ability. In a communication on the study of periodic fluctuations, British Association 1862 (Cambridge), Jevons says, "There is a periodic tendency to commercial distress and difficulty during these months (October and November). It is when great irregular fluctuations aggravate this distress, as in the years 1836-39, 1847, 1857, that disastrous breaches of commercial credit occur." In elucidation of Jevons's allusion to "great irregular fluctuations," a quotation from his paper on "The frequent pressure in the money market," *Journal of the Statistical Society of London*, 1866, vol. xxix. p. 235, may be useful. "These changes arise from deficient or excessive harvests, from sudden changes of supply or demand in any of our great staple articles, from periods of excessive investment or speculation, from wars and political disturbances, or other fortuitous occurrences which we cannot calculate upon, and allow for." Still further developing the notion of periodicity, Jevons (*Political Economy*, 1878, Science Primers) says, "Good vintage years on the continent of Europe, and droughts in India, recur every ten or eleven years, and it seems probable that commercial crises are connected with a periodic variation of weather affecting all parts of the earth, and probably arising from increased waves of heat received from the sun at average intervals of ten years and a fraction."

The influence of solar radiation, and the possibility of a relation between the sun-spot period and the price of corn and other events, formed a subject of inquiry suited to the exact and scientific mind of Jevons. For this the reader may be referred to his *Investigations in Currency and Finance*, in which his detached papers are collected, and *Letters and Journal of W. S. Jevons*.

The invention of the term "credit cycle" may be traced to Mr. John Mills of Manchester (Paper on "Credit Cycles and the Origin of Commercial Panics," *Transactions of the Manchester Statistical Society*, December 1867). Mr. Mills discussed the pathology of crises; and after alluding to "the occult forces which swell or diminish the volume of transactions through a procession of years," thus spoke of periodicity. "It is an unquestionable fact that about every ten years there occurs a vast and sudden increase of demand in the loan market followed by a great revulsion and temporary destruction of credit.

"The periodicity of commercial crises is at any rate a *fact*. The decades interposed between the great commercial crises are normal cycles of development of credit under certain existing conditions; that during each of these decades commercial credit runs through the mutations of a life, having its infancy, growth to maturity, diseased overgrowth, and death by collapse."

Mr. Mills enters into a minute examination of the life-history of a credit cycle in a communication made to the Manchester Statistical Society, *Transactions* 1871. Four years earlier, in his paper read before the Manchester Statistical Society in 1867, Mr. Mills had discussed the possibility of finding remedies for the periodic recurrence of commercial panics, in seeking for which he laid stress on the increased spread of information. Mr. Mills's anticipation appears to have been verified in some measure by the course of events.

[Max Wirth, *Geschichte der Handelskrisen*, 1883.—Clément Juglar, *Des Crises Commerciales et de leur retour périodique en France, en Angleterre, et aux États-Unis*, 1889.] G. H. P.

CROMBIE, Alexander (1762-1842), born at Aberdeen, was for some time Presbyterian minister, and then schoolmaster, in London. He was known for his writings on etymology and syntax, especially for his *Gymnasium*, a book of exercises in Latin composition; but he wrote also on theology, philosophy, and political economy. Apart from his books, he seems to have had a wide personal influence. Major Torrens dedicated to Dr. Crombie his *Essay on Money and Paper Currency* (1812), and speaks of him with great deference in the *Essay on the External Corn Trade* (1815). In 1813 Crombie published, in the *Pamphleteer* (vol. x.) a *Letter to David Ricardo containing an analysis of his pamphlet on the Depreciation of Bank Notes*; but Ricardo did not regard him as a perfectly faithful exponent of his views. Crombie's *Letters on the Agricultural Interest* (1816) would seem to have been the last of his economical writings.

[Ricardo's letters to Malthus, 1887, Clar. Press, p. 82, *sub dato* 21st April 1815.] J. B.

CROME, August Friedrich Wilhelm (1753-1833), a distinguished German statisti-

cian and economist, was born at Sengwarden, in the territory of Kniphausen. He studied theology at Halle, and was for some time instructor of the hereditary prince of Dessau. From 1787 to 1831, he filled the chair of statistics and cameral science at Giessen. He is called by Roscher the "Haupt-theoretiker des Rheinbundes," having persistently defended that confederation, and maintained it to be "a liberation for Germany, alike beneficent to rulers and to the people." He expected that under its influence a better national economy would be introduced, founded on the principles of Adam Smith, "as improved by Soden, Hufeland and Jakob." In *Deutschland's Krise und Errettung im April und Mai* 1813, which appeared immediately after the battle of Lützen, just when the national rising against Napoleon was coming to a head, he attempted to show by statistical reasonings the madness of opposing the "great hero," as certain to lead to the ruin of the fatherland. This publication raised a storm which was only partially appeased by his treatise *Ueber Deutschland's und Europa's Staats- und National- Interesse bei und nach dem Congresse zu Wien*, 1814. His other principal works were, *Europa's Produkte*, 1782; *Grösse und Bevölkerung der Europ. Staaten*, 1785; *Ueber die Culturverhältnisse der Europ. Staaten*, 1792; and *Geographische Statistische Darstellung der Staatskräfte von den sämmtlichen zu dem deutschen Staatenbunde gehörigen Ländern*, 1820-1828. He translated into German (1795) the treatise entitled *Governo della Toscana sotto il regno di Leopoldo II.*, 1790, which was the work of that prince himself. Crome undertook the translation by Leopold's desire, and, in the comments which he added, he appears as an advocate of an enlightened and reforming absolutism, such as that of which the book is a history. He was also author of an autobiography. (See Roscher, *Geschichte der National-Oekon. in Deutschland*, p. 649). J. K. I.

CROSS DRAWING. Another term for the making of an ACCOMMODATION BILL (*q.v.*) When such an instrument has been wilfully put into circulation by a fraudulent trader, as if founded on a real transaction, the nicest penetration and judgment of experienced business men, such as bill-brokers and bankers, will sometimes be put to the test to discover the true origin and character of the instrument. Bills of this description are sometimes termed "Wind Bills," or "Kites," from their want of substantial basis.

[Hutchison, *The Practice of Banking*, vol. i. p. 125.]

CROSSED CHEQUE. The crossing of cheques is now regulated by §§ 76 to 82 of the Bills of Exchange Act 1882 (see CHEQUES, LAW OF).

CROWN DEBTS. Debts due from a subject to the crown have priority over all other debts, and may be recovered by the summary process known as an *extent*. Every person who has money belonging to the crown is a crown debtor. Formerly, in order to enjoy priority, a crown debt required to be a debt of record or to be secured by deed, but since the 32 & 33 Vict. c. 46, which abolished the priority of specialty debts, any crown debt takes priority to all others. Crown debts do not affect land until a writ of execution has been issued and registered.

[Elphinstone and Clark's *Law of Judgments and Searches*, London, 1887.—*Prerogatives of the Crown*, by J. Chitty, London, 1820.]

J. E. C. M.

CROWN (ENGLISH). *Gold coin* (Henry VIII. to Charles II.)

Reign.	Year.	Rating.	Weight.	Fineness.	Value in gold 916·6 fine, at £3:17:10½ an oz.
			gr.		
Henry VIII.	1527	5/	57·25	916·6	9/3½
Edward VI.	1549	5/	42·25	833·3	6/2½
James I.	1605	5/	38·725	916·6	6/3½
,,	1605 (Thistle Crown)	4/	31·00	,,	5/0½
,,	1612	5/6	38·725	,,	6/3½
,,	1612 (Thistle Crown)	4/4½	31·00	,,	5/0½
,,	1619	5/	38·725	,,	6/3½
Charles I.	1627	5/	35·12	,,	5/8½

Also double crowns (James I. to Charles II.) and half crowns in proportion.

Silver coin (Henry VIII. to present time).

Reign.	Year.	Rating.	Weight.	Fineness.	Value in silver 925 fine, at 5s. 6d. an oz.
			gr.		
Henry VIII.	1542 (as a kind of medal)	5/	480·00	925	5/6
Edward VI.	1551 (for circulation)	5/	480·00	,,	5/6
Elizabeth	1601	5/	464·50	,,	5/8½
George III.	1817 (and subsequently)	5/	436·36	,,	5/ or 5·81 frs.

Also half-crowns in proportion. A crown in white metal was struck in the reign of James I., but only a few were issued.

Crown (*Scandinavian*). The standard of value, but not a coin, 6·22278 grains of fine gold. Value, 1s. 1·215d., 1·389 franc.

Standard Gold Coins.

Denomination.	Weight.	Fineness.	Value in gold 916·6 fine at £3:17:10½ an oz.	Value in gold francs (900 fine).
	gr.		s. d.	francs.
Twenty crowns .	138·264	900	22 0½	27·78
Ten crowns .	69·132	900	11 0½	13·89

Silver Token Coins.

Denomination.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. an oz.	Value in standard silver francs (900 fine).
	gr.		s. d.	francs.
Double-crowns .	231·485	800	2 3½	2·67
Crowns . .	115·7425	800	1 1⅝	1·33
Half-crowns (or 50 öre pieces) .	77·162	600	6½	0·67
Forty öre . .	61·727	600	5⅛	0·53
Twenty-five öre .	37·346	600	3⅛	0·32
Ten öre . .	22·376	400	1⅛	0·13

F. E. A.

CROWN LANDS. In Saxon times the king owned three kinds of property in land: (1) private estate which he could dispose of by will; (2) demesne lands that could be alienated only by consent of the witan; (3) certain rights over his folkland. The folkland tended to become merged in the royal demesne (Stubbs's *Constitutional History*, i. ch. vi. § 59; c. vii. § 75), a process that was completed by the Norman Conquest (*Ib.* ch. ix. § 95).

From Domesday we learn that the income from royal lands amounted to £20,000 (Pearson's *Early and Middle Ages*, i. 385). An important portion of the royal demesne consisted of forests which were exempt from the ordinary law, and subject to royal regulations of great severity (Pearson's *Hist. Maps*, pp. 44-48; Ellis's *Intr.* i. 103-116). The crown was supposed to defray the expenses of the household, of the administration of justice, and of the military forces. Though the crown revenue was greatly diminished by the loss of the French possessions, it was increased by marriages and by the dissolution of the monasteries. The alienation of the crown lands to favourites led to the attempts of the barons to limit the king's power of giving (Stubbs, ch. xvii. p. 284), and to the passing of various statutes with the same object.

By the 1 Anne, c. 1, §§ 5-8; 10 Geo. IV. c. 50, § 127; and 1 & 2 Vict. c. 2, §§ 1, 2, the right of alienation was limited to leases for lives or a term of years. By the last-mentioned act the crown surrendered its hereditary revenues (see Rogers's *Economic Interpretation of History*, Oxford, 1888, ch. xix.) The management of the crown lands is entrusted to the Commissioners of Woods, and is governed by a series of statutes enumerated in *The Chronological Table and Index of the Statutes*, 10th ed., London, 1887. See also *The Landed Interest*, ch. x., by J. Caird, London, 1878.

The crown, it is said (Chitty, *Prerogatives of the Crown*, ch. xi., London, 1820), is owner of the foreshore between high and low water mark in ordinary tides, unless a grant in private ownership can be proved, but Moore, in his *History of the Foreshore*, London, 1888, maintains that the theory of the crown's ownership of the *jus privatum* of the foreshore did not exist until the reign of Elizabeth, and that its origin is due to successful attempts to extend the prerogative. See also Hall's *Rights of the Crown* and the *Privileges of the Subject in the Seashore*, by R. L. Loveland, 2nd ed., London. Some writers also maintain that the crown owns all land under the marginal seas to the distance of a marine league, a view taken by a minority of the court in R. *v.* Keyn, L.R., 2 Ex., D. 63; but others deny such a right, conceding only a right of jurisdiction (see Hall's *International Law*, Oxford, 1880).

Forfeited estates formerly vested in the crown (see 33 & 34 Vict. c. 23), and the crown is owner of considerable private property in land. In theory, state lands in our colonies are vested in the crown, but control over them is vested in the colonial legislatures. All crown lands, including all private lands not disposed of, descend with the crown. J. E. C. M.

CRUMPE, Samuel (1766-1796), Irish physician, deserved the prize awarded by the Royal Irish Academy to his essay *On the best means of providing Employment for the People*. The causes of Irish distress are ably analysed. Among the remedies is a bounty on the exportation of corn (p. 241). The author is prepared to prohibit the export of wool (p. 303).

F. Y. E.

[Dr. Crumpe's prize essay is described as "an excellent treatise"; Malthus, *Essay on Population*, bk. iv. ch. xi. note.]

CRUSADE. A Portuguese gold coin, bearing the design of a cross. It was current in England in Queen Mary's reign, and was valued at 6s. 8d.

F. E. A.

CRUSADES, Economic Effects of. The crusades cover a long period of time, from the 11th to the 13th century, and their early triumphs were followed by complete and disastrous failure. This long duel between the west and the east, between Christianity and Islam, exercised the most profound influence upon Europe: upon the position of popes, emperors, and kings; upon the relations between church and state; upon the progress of literature, education, and art. To the crusades are due the breaking up of classes and the rise of nations. No less marked was their influence upon the economic conditions of mediæval Europe. The fall of the western empire and the triumph of the Teutonic invaders had resulted in the complete separation of the east from the west, and in the annihilation of that maritime commerce which had been first inaugurated by the Phœnicians and developed by the Greeks. So completely had naval enterprise been neglected that the early crusaders had no alternative but to march overland to Constantinople and to cross the Hellespont into Asia. The first result of the crusades was to revive maritime trade in those countries whose geographical position fitted them for this, especially in the Italian coast towns and such cities as Marseilles and Barcelona. By the 13th century the Mediterranean had become once more the centre of a world-embracing

commerce; from its shores the products of the east were carried overland to the centre of Europe, thence to England and even to the Baltic coasts. The route by the Caspian and southern Russia, through which a scanty trade between Asia and Europe had been conducted in the dark ages, was henceforth almost entirely neglected.

Next to the development of trade due to the crusading movements must be ranked the advance of industry. The products of the east had to be purchased by those of Europe; thus an enormous stimulus was given to manufactures and agriculture. And not only were the old industries developed, but many new ones were actually introduced from the east. From Greece came the manufacture of silk and the cultivation of the mulberry. From Tyre the Venetians learnt the art of making glass, an industry which they retain still, long after the days of their decline. The crusaders introduced from Africa the cultivation of maize and the sugar-cane. In Damascus they learnt notable improvements in the working of metals, and the making of cloth.

The increase of trade and manufactures led to the growth and rise of towns, one of the most important results of the crusades. The greatest immediate profit was reaped by the Italian cities, Venice, Pisa, Genoa, Amalfi, etc. Increase of trade and manufactures also brought wealth to the German towns in the valleys of the Danube and the Rhine, to the communes of France, to the trading and manufacturing cities of Flanders, finally to the north German towns, which formed the famous HANSEATIC LEAGUE (*q.v.*) The traders required protection from lawless oppression and from piracy. This was acquired in the north by combination, in the south by the promulgation of the earliest codes of maritime law, and generally by the acquisition of municipal privileges and independence. The crusades owed their origin to the spirit of religion and of chivalry. They gave the popes a vast increase of secular authority; they led to the institution of religious orders, like the Franciscans, Dominicans, and Carthusians; and of the military orders of the Templars, Hospitallers, and Teutonic Knights. But their ultimate results were fatal to the interests which they at first promoted. The contact with the east gave the first stimulus to the freedom of thought which was destined to destroy the superstitions on which rested the religious unity of Europe. The rise of the burgher class was followed by the rise of the spirit of nationality—both fatal to the class institutions of feudalism and chivalry. The nobles who fought in the crusades were compelled to find money by the sale of privileges to the towns, of their lands to the highest bidder, of freedom to their serfs. The social changes thus produced destroyed the mediæval system, and gave rise to those industrial relations which have been the dominant influence in Europe ever since.

[Heeren, *Versuch einer Entwickelung der Folgen der Kreuzzüge für Europa* (1808).—Adolf Beer, *Geschichte des Welthandels* (1860).—Blanqui, *Histoire de l'Économie Politique en Europe.*—Guizot, *History of Civilisation in Europe.*—Ranke, *Weltgeschichte*, viii.] R. L.

CULPA. An expression of Roman law expressing the want of proper diligence. The Roman jurists distinguished between *culpa levis* and *culpa lata*, and mediæval writers introduced a third degree of culpa which they called *culpa levissima*. *Culpa lata*, *i.e.* gross negligence, was treated nearly in the same way as unlawful intention (*dolus*). In some contractual and other relations there was no absolute standard for the degree of diligence required; the persons concerned had to give the same amount of care as they were accustomed to give to their own affairs. The omission of this degree of diligence is called *culpa in concreto* by mediæval writers. E. S.

CULPEPER, SIR THOMAS, the elder (1578-1662), author of *A Tract against the high rate of Usurie*, 1621, which, "presented to the high court of parliament," conduced to the reduction of the legal rate of interest from ten to eight per cent in 1624. The tract was reprinted with additions in 1641. The author meanwhile "set forth another treatise to evince the necessity of reducing money from eight to six" (preface to the *Discourse* of Sir Thomas Culpeper the younger), namely *A Tract against the high rate of Usurie*, 1640 (Brit. Mus., 1093 b. 98). The two treatises were reprinted together, with a preface, by Sir Thomas Culpeper the younger, 1688. F. Y. E.

CULPEPER, SIR THOMAS, the younger (1626-1697), a worthy son of the elder knight, assailed usury in a *Discourse* dated 1688. Thomas Manley, gent., answered this discourse, maintaining that "as it is the scarcity of money (and many borrowers) that maketh the high rates of interest, . . . so the plenty of money and few borrowers will make the rates low." Culpeper retorted with *The necessity of abating Usury reasserted*, 1670. Some other publications on the same subject are ascribed to Culpeper (Wood's *Athen. Oxon.*, ch. iv. p. 447). F. Y. E.

CULTURE, LARGE AND SMALL. The question of large or small holdings may be treated morally, socially, and economically. Here it will mainly be discussed in the latter aspect. It is the physical formation of a country which chiefly determines the size of holdings. It may be laid down as an axiom that, where the soil and climate are specially adapted for cereals and sheep, and where the physical configuration of the country admits of

large enclosures, there large holdings are the most productive. On the other hand, where districts are hilly, the soil rocky, the surface broken, or where soil and climate are specially favourable to permanent grass, there small holdings are best. It follows that, as a rule, grass counties have most, and corn counties have fewest, small holdings. But there are exceptions. Near large towns, small holdings will necessarily pay best. A small holding is a relative term. It differs in size when the holding is a market garden, a grass farm, or an arable land. A man may make his living off a very small tract of market-garden land, or off 5 acres of grass. It is doubtful whether an arable farmer, solely dependent upon the produce of the soil, and not engaged in any other profitable occupation, can live on less than 40 acres. All holdings may therefore be considered small which are 50 acres or under. In England there were, in 1887, 294,729 small holdings, consisting in the aggregate of 3,559,000 acres (see *Journal of the Statistical Society*, February 1887. Paper by Major Craigie on the "Size and Distribution of Agricultural Holdings"). In England, small holdings are undoubtedly increasing. This increase arises from the fall in the price of cereals, the diminished capital of large farmers, the growing number of men who combine farming with other avocations. It cannot be questioned that grain, meat, and wool can be produced more economically upon large farms, and that dairy produce, pork, poultry, eggs, vegetables, are best suited for small holdings. Fruit-farming is not profitable for small farmers, because the initial outlay is large, the crops precarious, and the profits unreliable. In dairying small farmers enjoy no advantage over large. But in pigs, poultry, calf-rearing, vegetables, where minute care and attention secure safe and quick returns, the advantage is all in favour of small holdings. In these limited products, small farms are economically preferable to large, and chiefly for these reasons. While labour has increased in price and deteriorated in quality, small farmers hire no labourers and employ the best that is procurable—their own. Again, the depression in prices has most particularly affected the produce of large farms, and has fallen comparatively lightly on the produce of small holdings, which is also of a more varied kind. The eggs of large farmers are in one basket, and the bottom has either fallen out or is rickety. The eggs of small farmers are stored in several baskets and the bottoms are relatively secure. Again, small farmers, selling direct to consumers, not only feel the fall of prices less, but eliminate the profits of middlemen. Lastly, small farmers are under fewer temptations to extravagance. They are more frugal and more industrious. They are sparing of everything except their labour, prodigal of nothing but themselves. Employing no hired labour, practising mixed husbandry, rearing stock instead of feeding them, often enjoying common rights, doing the work of two labourers and eating the food of one, small farmers weather storms which wreck their richer brethren. But it is a false argument that small farmers are necessarily more profitable to the community than large farmers, because the former pay higher rents. They undoubtedly pay higher rents; but they do so because the competition for holdings of this class is especially keen, because the expenses of buildings, approaches, hedges, and repairs are far heavier on small than on large farms, and because the land devoted to small farms is, as compared with ordinary agricultural land, what may be called accommodation land. In point of material comfort, wage-earning labourers in constant employment are better off than small farmers, whether they own or occupy the soil. It cannot, for instance, be questioned that the English agricultural labourer is better housed, better fed, and better clothed than the French peasant proprietor. Wherever a peasant proprietary prevails, except under most favourable conditions, the rural populations live hard, fare hard, and are on the border-line of starvation. In point of production, the product per acre in England exceeds that of any country on the continent except East Flanders. In point of agricultural science, English farming is, speaking generally, more advanced than in countries where the small culture of peasant proprietors prevails. Belgium affords a noticeable example of the stagnation which is produced by the multiplication of small cultivators. Half a century ago the agriculture of Belgium was the first in Europe. Since then the size of the farms has decreased, and the number of small farmers continuously increased. Enterprise and experiment diminished with the extension of *la petite culture*. Farming has rather retrograded than advanced; the stock, and especially the sheep, have decreased; the small farmer only raises, and only eats, pork. In point of pauperism, rural England has fewer paupers than countries where small culture is the rule. In Prussia the number of peasant heads of families exempted from direct taxation because their earnings are less than £25 a year, amounted in 1888 to nearly 7½ millions. In France 3 millions out of the 7 million proprietors are unable to contribute largely to state objects by reason of poverty. In point of encumbrances, the soil of England is less burdened with mortgages than the land of countries farmed by small cultivating owners. In France, for example, the real owners of the soil are local money-lenders, and in some departments 80 per cent of the land is said to be mortgaged. Small culture cannot be regarded

as an agricultural panacea. It can only thrive in England under the economic conditions mentioned above.

[Reports to the Royal Commission on Agriculture, 1881 and 1882, especially those of the late Mr. Jenkins.—James Howard, *Continental Farming and Peasantry* (1870).—Lady Verney, *Cottier Owners*, etc. (1885).—W. Beauclerk, *Rural Italy*, (1888).—J. S. Mill, *Principles of Pol. Econ.*]

R. E. P.

CUM DIVIDEND. On the London stock exchange it is always understood that a share sold includes also the dividend which may have accrued upon it since the previous distribution, unless the bargain is made specifically Ex DIVIDEND (*q.v.*) On Indian rupee paper, exchequer bills, and corporation bonds, however, the bargains are done "clean," or exclusive of dividend, which the buyer has to pay to the seller at the conventional rate, according to the number of days since the previous distribution of dividend.

A. E.

CURATOR BONIS. A guardian appointed by a Scotch court to manage the estates of a minor or of a lunatic. His functions are to realise and protect the estate. He has no charge of the ward's person, except in so far as it is his duty to see the ward properly educated.

[Erskine's *Principles of the Law of Scotland*, 1880.]

J. E. C. M.

CURRENCY. This word is sometimes employed in the sense of circulating medium, sometimes in the sense of standard of value. Adam Smith says (book iv. ch. iii.), in the well-known *Digression concerning Banks of Deposit, particularly concerning that of Amsterdam*, "The currency of a great state, such as France or England, generally consists almost entirely of its own coin." Here a standard of value is referred to, and the constancy of the "Bank Money" of the bank of Amsterdam is mentioned as one of its advantages. Adam Smith's comparison of the currency to the road which conveys the produce of a country to market (*Wealth of Nations*, book ii. ch. ii.), and J. S. Mill's description of it as "a machinery for doing quickly and commodiously what would be done, though less quickly and commodiously, without it" (*Principles of Political Economy*, book iii. ch. vii. § 3), illustrate the services which the currency performs. *An ideally perfect system of currency*, to be based on a system of tabulatory prices, is dealt with by Jevons, *Investigations in Currency and Finance*. Some idea of the same kind appears to have passed before the mind of D. Ricardo, *Proposals for an Economical and Secure Currency* (Ricardo's *Works*, 2nd ed. p. 397). His definition of a perfect currency is as follows: "A currency may be considered as perfect of which the standard is invariable, which always conforms to that standard, and in the use of which the utmost economy is practised." A tabular standard of value was suggested by Joseph Lowe to give a steady value to money contracts through reference to the prices of different articles. A similar method was recommended by G. Poulett Scrope, whose remark, "without stability of value money is a mere fraud," goes to the root of the matter. The subject had also been considered by G. R. Porter. Mr. Giffen has more recently carried on the investigation. The idea of a standard of value to remain as far as possible constant, is included in the principle on which CORN RENTS (*q.v.*) are based (see also CIRCULATING MEDIUM; INDEX NUMBERS, etc.)

[Jevons, *Investigations in Currency and Finance*.—Ricardo's *Works*, ed. M'Culloch.—Joseph Lowe, *The Present State of England in regard to Agriculture, Trade, and Finance*, 1822.—G. Poulett Scrope, *Principles of Political Economy*, 1833.—Porter, *Progress of the Nation*, 1815.]

CURRENCY DOCTRINE OR PRINCIPLE. A name given to a doctrine or opinion which supplies the basis for the method adopted by Sir R. Peel when regulating the paper currency by the Bank Act of 1844. It appears to have been first used by Mr. G. W. Norman, who, in his evidence before the House of Commons Committee on Banks of Issue, 1840, *Q.* 2018, speaking of the circulation, referred to "currency principles, according to which it would increase or decrease with increase or decrease of bullion." The evidence of Mr. Gilbart, before the same committee, 1841, showed that he understood the term in a similar sense. *Q.* 932, "I mean by the phrase 'currency principles,' a bank which shall do nothing else but issue notes for gold, and gold for notes;" and *Q.* 933, "I do not at all admit that those are the correct principles upon which the currency should be administered." Mr. T. Tooke, *History of Prices*, vol. iv. p. 167, and *passim*, agrees with Mr. Gilbart. The controversy was continued by others, among whom may be cited Mr. Jones Loyd (Lord Overstone), who, in his writings and in his evidence before the Select Committee, H. of C., 1840, and also before the Select Committee on Bank Acts, H. of C., 1857, expressed the same opinion, *Q.* 648, 1857, "The paper notes or certificates ought to be preserved at their proper value by making them, under all circumstances, conform in amount to the coins or metallic circulation which they represent." Sir R. Peel employed the same opinion as the basis of the argument, on which he founded the reasons for the changes which he introduced in the banking system of the country, through the Bank Acts of 1844-45 (see speech in H. of C. on Bank Charter, 6th May 1844). The principles and the methods of action which Sir R. Peel supported on that occasion, were in opposition, as he admitted, to "the high authority of Adam Smith and of Ricardo," who held that freedom of competition and immediate convertibility into coin

at the will of the holder, coupled, it should be understood, with such provisions as would secure the holder from loss under any circumstances, would prevent the notes of banks from being issued in excess. Sir R. Peel might have added that this opinion of his own was also in opposition to that of Mr. Huskisson. Sir R. Peel referred in the speech quoted above to the BULLION COMMITTEE REPORT (*q.v.*) which, it should be pointed out, was made during the period of suspension of specie payments, and recommended a return to payments in specie as a cure for the evils deprecated. Sir R. Peel was by far the most powerful supporter of this doctrine, which is of importance as laying down a principle unknown before—namely that it is essential that the bank notes circulating in a country should always conform in amount to the metallic circulation which they represent, see above—the result of the acceptance of which has been the separation of the banking department from the issue department of the Bank of England (see BANK OF ENGLAND). The doctrine has never, it should be mentioned, found general acceptance with economists. It marks the difference between those who regard bank notes as "money," and those who consider them, in the words of Huskisson, as "circulating credit," and a "substitute for money in the transactions of the community" (Huskisson on the *Depreciation of the Currency*). While insisting, and properly, on adequate security being given for the bank note, the currency doctrine leaves out of sight the operation of all other instruments of credit, equally effective in their way, as bank notes, on price and the movements of commodities.

[See books referred to under BULLION COMMITTEE.—Evidence before Committee on Banks of Issue, House of Commons, 1840-41.—Committee on Bank Acts, House of Commons, 1857.—Tracts and other publications on "Metallic and Paper Currency," printed by Lord Overstone, 1837-57.—Speeches of Sir R. Peel on "Bank Charter," House of Commons, May 6, 20, etc., 1844, etc.]

CURVES are amongst the most useful appliances which mathematics lends to the social sciences. The curves most frequently employed in this way are *plane* curves: such as AB in the annexed figures; referred to rectangular axes OX and OY in such wise that the curve represents the interdependence of two variable quantities O*x* and O*y*, the change in one of the variables O*y* which attends a change in the other variable O*x*. Two species of curve may be distinguished: (1) where the quantitative relation between the variables is not supposed to be numerically ascertained, the datum being of an indefinite character, as that O*x* continually increases with the decrease of O*y*; and (2) where the curve is the record of statistical observations.

(1) The first kind of curve is used in abstract economics; where the data are in general quantitative indeed but not numerical, *e.g.* that the demand for a commodity increases as its price decreases. Jevons's hope of obtaining demand curves by statistical observation (*Theory*, Introduction, p. 23, 2nd ed.), may appear chimerical. There is one datum of the kind indicated which curves are specially adapted to represent, the property of *increase at a decreasing rate*, which is at the root of the two most exact theories in political economy, viz. the law of rent and the law of final utility. This important relation is simply expressed by means of a curve concave towards the axis OX such as AB in Fig. 1. In this case the quantity represented by the

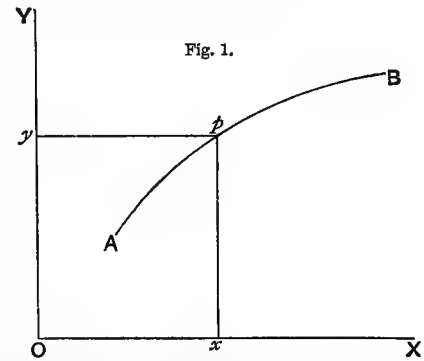


Fig. 1.

line O*y* continually increases with the increase of O*x*, but the rate of increase continually decreases. The same idea may be expressed by

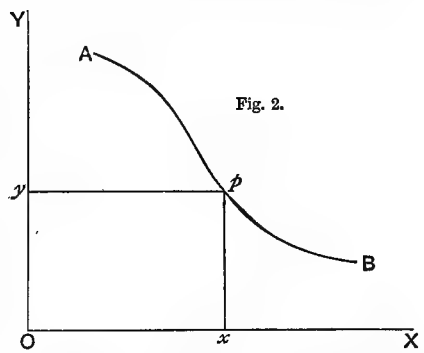


Fig. 2.

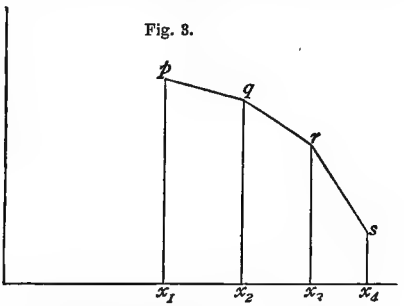
a descending curve such as AB in Fig. 2, if one quantity is represented by the *area* contained between the right lines OY, O*x*, *xp*, and the curve AB. This quantity continually increases with the increase of O*x*, but at a decreasing rate. To represent such relations curves appear a more potent aid than ordinary language, and perhaps even than algebraic symbols. Diagrams are preferred before symbols by Prof. Marshall (*Principles of Economics*, preface to first edition). "The use of the latter [diagrams] requires no special know-

ledge, and they often express the conditions of economic life more accurately as well as more easily than do mathematical symbols."

It may be observed, however, that, as compared with FUNCTIONS (*q.v.*), curves have a somewhat limited use. They are almost restricted to the simple case of two variables. Thus in the theory of rent, a curve happily represents the returns yielded by successive applications of doses of outlay, as in Jevons's illustration (*Theory of Political Economy*, ch. vi.) Or, according to a construction which De Quincey appears to have been the first to use, the successive parts of one co-ordinate Ox may represent qualities of land (arranged in a descending order), while the corresponding values of Oy stand for the returns made to *equal* capitals applied to each portion of land (cp. Prof. Marshall, *Principles of Economics*, p. 483, 2nd ed.) But, when it is attempted to combine these two constructions, as the present writer has done (*British Association Report* for 1886), the unfamiliar ideas of solids and surfaces are introduced; and clearness is sacrificed. To take another example (the DEMAND CURVES, *q.v.*) so much extolled by recent economists, are available only on the hypothesis that, while the price of the article under consideration varies, the prices of all other articles remain constant (Auspitz und Lieben *Theorie der Preise*). But this is a somewhat narrow hypothesis, excluding the important cases of "competing" and "completing" commodities (*ibid.*), as we may call those articles which are related either on the one hand, as beef and mutton, or on the other hand, as tea and sugar. In such cases a symbolic expression representing the advantage of the consumer as a *function* of his purchases is much more helpful than a curve. Again, in the theory of distribution the profits of the *entrepreneur*, depending on the one hand on the sales of finished products, and on the other hand on the expenses of production, wages, interest and rent, and so forth, is better represented by a function of several variables than by a curve. A curve may be best adapted to the Ricardian first approximation that the profits on successive doses of capital are equal. But it is not so easy to represent geometrically the modifications of this conception which a nearer view requires—that the profits of an *entrepreneur* are not proportional to the amount of capital employed, that the wages of a labourer are in a certain sense just equal to the product of his labour (Marshall, *Principles of Economics*, 2nd ed. vol. i. p. 566). Such theories appear to the present writer to flow more naturally from the analytical calculus of maxima and minima than from any use of curves. For further observations as to the use of curves in economics, see FUNCTIONS and MATHEMATICAL METHOD.

(2) Of the curves obtained by statistical observation it suffices here to remark that they are for the most part derived from a discontinuous set of points, such as p, q, r, s, in Fig. 3 (or set of right lines joining those points). Here

Fig. 3.



the lengths px_1 qx_2 rx_3 sx_4 etc., represent the quantities of some variable under observation at finite (not infinitesimal) intervals of time, space, or other variable. Cases in which the registration is continuous, as in some meteorological observations, are rare in social statistics. (As to the use of curves in statistics see the GRAPHICAL METHOD and STATISTICS.)

F. Y. E.

CUSTODI, PIETRO (1771-1846), born near Novara. He was by profession a lawyer, but soon entered into journalism and directed the paper *Amico della libertà Italiana*. He became privy councillor and baron. The *History of Milan* by Pietro Verri was continued by Custodi; as an economist he is widely known as the editor of a collection of the principal Italian economists in fifty volumes. M. P.

CUSTODIA. An expression of Roman law denoting a special duty of taking care of a bailed object (see BAILEE). E. S.

CUSTOM — CUSTOMS DUTIES. Duties charged by law upon commodities imported into or exported from a country. The duties of customs "seem to have been called customs, as denoting customary payments which had been in use from time immemorial; they appear to have been originally considered as taxes upon the profits of merchants" (*Wealth of Nations*, bk. v. chap. ii. art. iv.) As early as 1336, however, complaints were made by the producers of wool, at that time the most important dutiable article, that the intended special taxation of merchants was not effected by customs duties, and from 1344, when the price of wool ceased to be fixed by law, such duties were for a long period supported by merchants, and opposed by the agricultural classes. In 1490, a "retaliatory" and additional duty imposed on malmsey wine imported from Crete "until the Venetians should abate their new impositions," was the first step in the long series of duties imposed for other than revenue purposes, and eventually mainly for the protection and encouragement of home industries. In

1815 when, as Mr. Dowell says, "taxation reached its zenith," the public demand that the enormous necessities of the government should be met as far as possible by the imposition of protective tariffs had resulted in a customs system of the most complicated and onerous description, and even when the burdens of war diminished, the reductions effected in the customs duties were small as compared with the diminution of the direct taxes. In 1842 Sir Robert Peel carried his first great measure of tariff reform, his policy being to utilise the direct taxes, and especially the income-tax, in order to remove the comparatively unproductive duties with which traders were met in every direction. In that year some 750 articles out of about 1200 were removed from the tariff, the loss to the revenue being not more than £1,200,000. Three years later, Peel effected a further revision, abolishing the duties on more than 400 articles, principally raw materials, and repealing all export duties, at an aggregate loss of £3,500,000. In 1846 the duties on corn and some other articles of food were discarded at a cost of £750,000. In 1853 Mr. Gladstone took a further step in the same direction, and, by the same means as his predecessor. In 1860 he proposed further reductions of import duties, and took what has been described as "the final step in the reform of one of the most comprehensive and complicated lists of prohibition and commercial restrictions, in the form of frontier or port duties, that ever hindered the development of the trade and manufactures of a nation." This final step involved a loss of revenue of £2,250,000.

The following table shows the net produce of customs duties in the United Kingdom in each tenth year from 1837 to 1887 inclusive:—

1837	£22,063,000	1867	£22,655,000
1847	21,656,000	1877	20,099,000
1857	23,276,000	1887	19,634,000

The following table shows in detail the net produce of the customs duties collected during the year 1887-8.

Chicory	£71,000	
Cocoa	83,000	
Coffee	188,000	
Tea	4,613,000	
Total duties on imported non-alcoholic beverages		£4,955,000
Beer	£10,000	
Spirits	4,225,000	
Wine	1,085,000	
Total duties on imported alcoholic beverages		£5,320,000
Dried Fruits		539,000
Tobacco and Snuff		8,714,000
Plate		10,000
Other articles		2,000
Other receipts		94,000
		£19,634,000

The management of the customs revenue is conducted by a Board of three commissioners under the general control of the treasury. The cost and numbers of the customs department was estimated for the year 1888-89 as follows:

	Number employed.	Aggregate Cost.
Superintending establishment	*216*	£61,740
Port of London	*1546*	260,600
District of Liverpool	*635*	97,520
Other establishments	*2189*	310,120
Law Departments	*9*	9,665
Superannuations and other non-effective charges	..	198,275
	4595	£937,920

The customs department works in close relationship to that of the inland revenue, many of the duties collected by each are interdependent or countervailing, and the two departments, although nominally independent, transact much of each other's business. The arbitrary distinction between customs and excise existing in the public accounts is therefore of little value for many economic purposes. Each head alike includes duties on beer, chicory, spirits, and tobacco, and in 1887-8, out of a gross customs revenue of £19,791,335, the inland revenue department collected £1,935,591, whilst the customs department collected £3,662,696 out of a total gross excise revenue of £26,459,506.

The customs department performs many functions other than those proper to the collection of revenue alone. It is responsible, *inter alia*, for the measurement of the tonnage of vessels, the registration of ships, the collection of light dues, the receipt of wreck, the maintenance of fisheries conventions, the observance of quarantine regulations, the examination of merchandise marks, and the collection of import and export statistics.

An important feature of any well-organised customs system is that by which dutiable articles are allowed to be deposited in warehouses under bond for the due payment of the duties when delivered for consumption (see BONDED WAREHOUSES). The earlier economists strongly advocated the maintenance of such warehouses, mainly on the ground that the consumer escapes charges for interest on the duties paid by the merchant, but it is now evident that the system is of great and very varied utility. Not only is the payment of duty deferred, but it is not exacted at all on the waste occasioned by natural causes, and by the various operations allowed to be effected under supervision in bonded warehouses, prior to duty being charged. Bonded goods may be removed from warehouse to warehouse, or they may be re-exported or transhipped free of duty, which is in fact only paid when the goods are to be taken into consumption.

The incidence of customs duties, like those of other taxes on commodities cannot be accurately determined without taking into consideration the various conditions attending the production and supply of the article taxed, and its relation to the requirements of the consumer, and even when the incidence of such duties has been established, their effect in restricting international trade, or in diverting it from the channels in which it would naturally flow, must be ascertained before it can be seen whether the direct and indirect cost of the duties outweigh their advantages. It is usually considered that the burden of customs duties will fall eventually upon the consumer, whether they are charged on the export or on the import of the dutiable article, but in the case of export duties it usually happens that the restriction of trade in the dutiable article, or its diversion to other markets, diminishes the profit of the home producers and distributors to an extent far beyond the yield of the duty, and in the case of import duties it has been considered that some portion of the burden will at times be borne by the merchant by whom the duties are advanced, his ability to transfer it to the consumer being by no means absolute. (See COST OF COLLECTION OF TAXES.)

[*Annual Reports of the Commissioners of Customs.*—Ham's *Customs Year Book.*—Dowell's *History of Taxation and Taxes in England.*—Hall's *History of the Customs Revenue.*] T. H. E.

CUSTOM (HABIT)—ITS PLACE IN ECONOMICS. When the two are distinguished, habit is an unwritten law or tradition of our individual selves, custom is so for a society of men. Every custom has thus begun in some habit; and both custom and habit have a power analogous to *vis inertiæ* as defined in Newton's First Law of Motion. Men continue in a state of rest or of uniform motion in a straight line, except in so far as they are led to change that state by force impressed on them. Where actions are determined by the necessity of physical, physiological, or even of ethical laws, they are not said to be done by habit or custom, the latter words being confined to such actions as are more evidently modifiable by human caprice. They are not used of nature but of second nature.

In men more than in other animals habits become customs, social functions creating social structures. The knowledge of the past is preserved, and in the case of scientific discoveries and mechanical inventions, for example, one generation of learners can begin at the point where the preceding left off, and convert into habit and custom what was at first a conscious effort and deliberate act of will. It is an essential condition of a skilled, *i.e.* of nearly every industry that practice makes perfect; and the standard of perfection becomes higher if the skill can be transmitted by teaching, and need not be acquired by each individual *ab initio*, unaided. This applies even to the art of walking upright and the perception of distance by vision. The most familiar economical examples are those given by Adam Smith in his first chapters (see DIVISION OF LABOUR). To his already old text must be added the equally old commentary that the bent and fitness of the individuals must be consulted. Some are born to use tools; others can make better use of their eyes or voice than of their hands, etc. Wherever the bent lies, habit will be acquired fastest when the bent is followed. In the present condition of the working classes in Europe the sons are as a rule brought up to their father's trade; yet, owing to the frequent changes caused in a trade by new inventions, this practice can hardly lead to the growth of castes (see CASTE) such as prevail in the East. But even in our own country custom may often make a long stand against new inventions, to the great detriment of economy, *e.g.* in retention of fallows and opposition to reaping machines.

In the more complicated economical relations, where distribution is concerned, custom as elsewhere may be both a strength and a weakness to those bound by it. It may become an instrument aiding progress; or it may become a fetter. Customary rates of wages may be rates that neither fall so low nor rise so high as the rates that would be fixed by competition in open market, and so it is with customary rents and customary prices. What has always been paid acquires an apparent justification from usage; and this is found in the case of taxes, as appears in the very name Customs, where novelty and unpopularity as a rule go together. The times and ways of payment are largely fixed by custom more than by conscious regard to expediency. Wages, for example, are paid in the case of London workmen by the week, of many Scotch workmen by the fortnight, of domestic servants by the month, of many farm servants by the year.

When wages have been raised by a temporary cause, they may be maintained by custom, in the sense that the labourers' standard of living may be permanently raised. This result can hardly be secured without some form of combined action among the labourers. Combination implies criticism and initiative, and seems a necessary aid if custom is to be a strength instead of a weakness.

It is only roughly true that men are emancipated from custom in proportion to their education. They are seldom removed by it from the influence of fashion (see FASHION), which is simply a form of custom where the capriciousness of the unwritten law is not concealed, and where the matters concerned are supposed to be beyond exact utilitarian calculation. Fashion often determines not only what men eat and wear, but where they buy

and even to some extent what they pay. The goodwill of a business is simply this fashion considered from the purveyor's point of view. Thomas Telford the engineer formed part of the goodwill of the Salopian coffee-house at Charing Cross (see Smiles' *Life of Telford*). It is perhaps the tendency of an active commercial community to go from the one extreme, of regard for custom, to the other, regard for mere cheapness as measured by price without due account of quality. Modern improvements, such as railways, and telegraphs, and co-operative stores, play a great part in breaking down custom and causing a rough equality even in retail prices. In the wholesale markets, where both sellers and buyers are alive to their commercial interests, the power of custom is a smaller factor than in retail dealings. But in the stock markets and elsewhere it is still a factor (see *e.g.* Babbage, *Mach. and Manuf.*, 3rd ed. ch. xv. p. 145;—Ellis, "Influence of Opinion on Markets," *Economic Journal*, March 1892, pp. 109 *seq.*) It may be doubted if customary profit is so tangible a conception as it seemed to Adam Smith; yet in recent Continental Usury Laws it figures still very largely, as it did in the Middle Ages. Where instead of prices or profits conditions of bargaining are concerned, it is not only a factor but the main factor, for commercial law is simply the customs of merchants to which the state now gives legal effect. There is a sense in which nearly all statute law is custom, defined, and made consistent and it may be imposed on an unwilling minority, as in the FACTORY ACTS, *q.v.* To make custom our friend for life we bind him under penalties.

If prices are affected by custom, still more is the currency itself. Custom prevents our adoption of a decimal currency. No money is currency if it falls under suspicion, even groundlessly, like Wood's pence under Swift's attacks, and is refused in ordinary transactions. Money is unlike all other tools in depending almost entirely on custom, instead of mechanical fitness, for its efficiency. The general outward character of European coins has accordingly changed only by a series of variations which were, each, very slight indeed at the time of their introduction. To be current, a coin needs to have a familiar look and resemble its predecessors in almost all respects. In paper money too, as in Scotch one pound and English five-pound notes, custom is essential to currency. Somewhat analogous is the recognition of articles as good because of a well-known trade mark.

There are many instances of the power of custom in political history. Good statesmanship is averse to an absolutely new departure, and makes only such changes as at least *seem* to be an outgrowth of old customs, and a return to some old Magna Charta instead of a new institution. There is no contradiction between custom and reflection. If the former by itself is inertia, the latter by itself is insubstantial, and its product ephemeral, like a learning that dispenses with memory and history, and trusts to unassisted original study. Though, especially in matters economical, deliberate reflection and calculation will inevitably subject all customs and customary institutions to the test of criticism, yet any new order will be built up out of the materials of the old, and will only itself be permanent by becoming customary.

[For the influence of custom on Prices, Wages, Rent, etc., see Richard Jones, *Political Economy*, ed. Whewell, 1859, *Distribution of Wealth* (1831).—J. S. Mill, *Polit. Econ.*, ii., iv. (1848).—T. E. Cliffe Leslie, *Essays in Pol. and Moral Philosophy*, 2nd ed. 1888.—On the emancipation of modern industry from mediæval custom, etc., see Cobden, *Engl., Irel., and America.*—On custom and the currency, see Jevons, *Money*, ch. viii. p. 78, and in relation to the morphology of coins, see C. F. Keary, *Numismatic Chronicle*, v. 165-98, vi. 41-95.—On custom and habit in general see Rümelin, *Reden und Aufsätze* (1881), ii. pp. 148 *seq.*, *Das Wesen der Gewohnheit*, and compare Hegel, *Rechtsphilosophie*, § 151.—On custom as standard of living, see Malthus, *Essay on Pop.*, i., ii., iv., viii.—On fashion, see Hermann, *Staatswirthschaftliche Untersuchungen* (2nd ed. 1870), pp. 99, 100.—On custom as *Status* in distinction from *Contract*, see Maine, *Ancient Law, passim.*—On goodwill, etc., see Schäffle, *Die nationalökonomische Theorie der ausschliessenden Absatzverhältnisse* (Tübingen) 1867.] J. B.

DAIRE, EUGÈNE, born in Paris 1798, died there 1847. He commenced life as a collector of the *contributions directes*, a direct tax on individuals imposed on their incomes, at Arpajon (Seine-et-Oise), but was dismissed from his employment after the revolution of 1830, on account of the opinions held by a relation of his, which he himself, however, did not share. He was afterwards restored to his post at the request of the inhabitants of the place. In 1839 he resigned his office, desiring to apply himself to economic study. After some preliminary attempts he discovered the direction in which his true vocation lay, and devoted himself to preparing the collection of the works of the principal economists, published by Messrs. Guillaumin. Of the fifteen volumes of this collection he edited six: *Les Économistes financiers du XVIIIe siècle* (Vauban, Boisguillebert, J. Law, Melon, and Dutot), *Les Physiocrates* (Quesnay, Dupont de Nemours, Mercier de la Riviere, Abbé Baudeau, and Le Trosne), the *Œuvres de Turgot*, the *Œuvres diverses de J. B. Say*, the first volume of *Mélanges* (David Hume, V. de Forbonnais,

Condillac, Condorcet, Lavoisier, and Franklin). Daire wrote, in these volumes, a special notice of each author. Some of these are of great value, for example, those of Law and Turgot. Equally important is his introductory exposition of "the theories of the Physiocrats," which gained him a prize of 1500 fr. (£60) from the Academy of Moral and Political Science. The news of this success only reached him on his deathbed. An able financier and a distinguished economist, Daire was too early lost to the science, of which, had his life been spared, he might have been a distinguished expositor. A. C. f.

DALBIAC, General Sir James Charles (1776-1848), served with distinction in the Peninsular War, was Tory member for Ripon 1835-37. He published, in 1841 (London), *A few words on the corn laws, wherein are brought under consideration certain of the statements which are to be found in the 3rd ed. of Mr. M'Culloch's pamphlet on the same subject.* See M'Culloch, *Liter. of Pol. Econ.*, p. 80. He wrote also a *Military Catechism for the use of young Officers and non-commissioned Officers of Cavalry* (1817).

To the same author is perhaps to be attributed the following tract ascribed on the title page to "J. *G.* Dalbiac, of Buckham Hall, Uckfield" (Sussex). *Proofs of existing agricultural distress, and an endeavour to show the necessity of permanent and efficient protection to agriculture by permanent and efficient legislative enactments* (Lewes, 1820). The writer employs the form of a dialogue between a farmer and a manufacturer. He argues in the spirit of Western, whose "Resolutions" of March 1816 he quotes in his appendix. J. B.

DALRYMPLE, Sir John, 4th baronet (1726-1810), was the eldest son of Sir William Dalrymple of Cranstoun. He was educated at Edinburgh and at Cambridge, and became an advocate at the Scottish bar in 1748. From 1776 to 1807 he was one of the barons of the exchequer. In 1757 he published an *Essay towards a General History of Feudal Property in England* (4th and enlarged edition, 1759, 8vo), praised by Hume (J. H. Burton, *Life*, ii. 37). Part of this work was revised by Montesquieu. Dalrymple printed in 1764 *Considerations on the Polity of Entails* (2nd ed. 1765, 8vo), a very able defence. His *Memoirs of Great Britain and Ireland, 1681-92* (3 vols. 4to, 1771-88, new ed. 1790, 3 vols. 8vo), largely based upon unpublished documents, is chiefly interesting from a biographical and anecdotal point of view. He received a visit from Dr. Johnson at Cranstoun in 1773 (Boswell, *Life*, 1887, v. pp. 401-404). He was given to chemical and industrial experiments, and in 1798 interested himself in teaching the making of soap from herrings. He was succeeded in the baronetcy by his fourth son, who became eighth earl of Stair in 1840.

His economic writings are:

An Appeal to Facts in a Letter to Earl Temple, London, 1763, 4to (includes an account of the money raised on loan for the public service from 1755 to 1762).—*The Question considered: Whether wool should be allowed to be exported when the price is low at home on paying a duty to the public?* London, 1781 (2nd ed. 1782, answered by Rev. N. Forster and two anonymous pamphleteers. The author gives various reasons why it should be permitted).—*Address and Proposals on the subject of the coal, tar, and iron branches of trade*, London, 1784, 8vo (written to attract the attention of speculators to the coal, ironstone, and limestone on his estate in Edinburgh).—*Address to the Landholders of England upon the interest which they have in the state of the distillery laws*, London, 1786, 8vo (proposes a tax on stills).

[*Dictionary of Nat. Biogr.*; xiii. 424-425; M'Culloch, *Literature of Political Economy*, 1845]. H. R. T.

DAMAGES. The technical name for a sum of money claimed by a person who has suffered injury or loss by reason of a breach of contract or of another's wrongful act or omission. In actions for damages it belongs to the province of the jury to assess the amount, but there are certain established rules, according to which they ought to find, and which the judge ought to explain to them, *e.g.* the rule relating to remoteness of damage, according to which the loss for which compensation is claimed must be something immediately connected with the breach of contract or wrongful act or omission, and must be such as the defendant would reasonably have contemplated as the result of such breach, act, or omission. The non-receipt of money promised to be paid on a certain date may prevent the promisee from making a profitable investment, or may even, through causing his insolvency, bring about the ruin of his prospects; but these are not the ordinary results of the non-payment of a debt, and no damages can therefore be claimed beyond the amount of the debt with interest. In a case of breach of contract for the sale of goods, the measure of damages is the difference between the price named in the contract and the market value of the like goods at the time when the contract was broken. As a general rule, damages are not awarded as a compensation for injuries which do not result in a pecuniary loss, but in exceptional cases it is admissible to compensate the plaintiff for wounded feelings or bodily pain, *e.g.* in actions for breach of promise to marry, in actions for defamation (libel or slander), in actions for assault, etc.

In some cases the conduct of the defendant may be such as to make it permissible for the jury to award damages in excess of the amount which would be sufficient to compensate the plaintiff for the injury suffered by him, *e.g.* trespass of a particularly insulting character, seduction under aggravating circumstances.

In such a case the damages are said to be "exemplary" or "vindictive." On the other hand the damages may be so small that they could not reasonably be looked upon as compensation for any injury. Damages of the latter kind, which in technical language are called "nominal damages," may occur in two classes of cases:—(1) When the plaintiff's intention is not so much to obtain compensation, as to make use of an action for damages as a convenient mode of procedure for asserting a right, *e.g.* action of trespass for the purpose of establishing a title to lands; (2) When the plaintiff, though technically in the right, ought not, according to the opinion of the jury, to succeed in the action, *e.g.* in action for defamation when the defendant through flaws in the evidence, has failed to establish his plea of justification, but has convinced the jury that the plaintiff's character is worthless. The expression "ordinary damages" is used in contradistinction to "nominal" or "exemplary" damages. In certain cases it is recognised by the law that the requirements of the plaintiff cannot be adequately satisfied by damages, and SPECIFIC PERFORMANCE (*q.v.*) is decreed. E. S.

DAMAGES, MEASURE OF. Damages are the pecuniary satisfaction which a plaintiff may obtain by success in an action. The rules by which such satisfaction is measured form a branch of law known as the Measure of Damages.

[See as to English Law, *Damages*, by J. D. Mayne and L. Smith, London, 1884; and as to American Law, *The Measure of Damages*, by T. Sedgwick, New York, 1874.] J. E. C. M.

DAMETH, HENRI (1812-1884), born at Paray-le-Monial (Saône-et-Loire), died at Geneva. He was in early life a devoted follower of FOURIER (*q.v.*), but became, through conscientious study, one of the most ardent popularisers of economic science. He published in 1842 a work entitled *Défense du Fouriérisme*, 1 vol. in 18mo; then in 1849, *Un mémoire sur la fondation des cités industrielles dites cités de l'Union*, in 8vo; after this he filled, from 1850 to 1855, the position of editor-in-chief to the *Avenir de Nice*. Becoming convinced of the soundness of economic theory he shook himself clear of the doctrines of Fourier, and published: *Le Juste et l'Utile*, 1859, 1 vol. in 8vo; *L'Économie politique et le spiritualisme*, 1862, 1 vol. in 8vo; *Introduction à l'étude de l'économie politique*, 1865, 1 vol. in 8vo; *Les Banques publiques d'émission*, 1866, 1 vol. in 8vo (in this he supported the freedom of banks); *Le mouvement socialiste et l'économie politique*, 1869, 1 vol. in 18mo; *La question sociale*, 1871, 1 vol. in 12mo; and finally *Les Bases naturelles de l'économie sociale*, 1872, 1 vol. in 18mo. He lectured with success, in 1864, on political economy at Lyons, in connection with the chamber of commerce of that city, and at the Academy of Geneva, from 1865. His works are lucid in style and temperate in tone. He assisted MM. Victor Philippe, Jean Tisseur, and Alph. Courtois in founding the Society of Political Economy at Lyons (1866). A. C. f.

DAMNUM EMERGENS, *i.e.* the loss or injury resulting to one person in consequence of his having made a loan to another, was usually regarded by canonists and theologians in the later middle ages as justifying a demand for INTEREST (in the original and limited sense of that word, *q.v.*) The doctrine of compensation to the creditor arose out of an obscure passage in the Roman law; and the sharp distinction between *damnum emergens* and LUCRUM CESSANS (*q.v.*), which was for a long time rigidly observed by writers on the subject seems to have been first drawn by the greatest of the mediæval glossators, Accursius. But while the civil law recognised both these reasons as justifying a demand for compensation, Aquinas and many of the schoolmen accepted only *damnum emergens*. Until the end of the middle ages, moreover, the principle was maintained that compensation was only due when the period for which the loan was originally made had expired, and the debtor showed culpable neglect in fulfilling his obligations. The theoretical distinction between usury and interest tended, however, to disappear, owing to (1) the concession, which even Aquinas made, that such a recompense could be justly bargained for at the time of making the loan, (2) the concession that the payment might take the form of a certain percentage for each period of delay, and (3) the practice of making the original term, during which no payment for the use of the money was required, so short that the loan came to bear interest almost from the first. The final step was taken when some of the Protestant theologians, especially Melanchthon, and many of the later Roman Catholic canonists, especially Navarrus, recognised the justice of contracting to receive interest even before there had been any delay, *i.e.* from the time the loan was contracted. As by this time *lucrum cessans* had also come to be accepted as a sufficient cause for the payment of interest, it was possible to meet all the necessities of the growing trade of the period without a violent breach with the doctrine of usury.

A characteristic example of the transitional literature of the 16th century is *The Arraignment and Conviction of Usury* by Miles Mosse, London, 1595. He sums up the matter as follows: "There are two manifest and essential differences between Usury and Interest, which do so distinguish the one from the other, as that they cannot possibly be confounded. One difference is this: Usury is an overplus or gain taken more than was lent; Interest is never gain or overplus above the principal, but a recompense demanded and due for the *damage that is taken* or the *gain that is hindered* through lending. Another difference is this:

Usury accrueth and groweth due by lending, from the day of borrowing, unto the appointed time of payment; Interest is never due but from the appointed day of payment forward, and for so long as I forbear my goods after the day in which I did covenant to receive them again." W. J. A.

[By far the best treatment of the subject is to be found in Endemann, *Studien in der Romanisch-kanonistischen Wirthschafts- und Rechtslehre*, vol. ii. (1883) ch. viii. §§ 1-3. For the views of the Reformers, see also Schmoller, *Zur Geschichte der nationalökon. Ansichten in Deutschland*, etc. 1861, p. 98 [reprinted from *Zeitschr. f. d. ges. Staatswissenschaft*, Bd. xvi.] The subject is also slightly touched in F. X. Funk, *Zins u. Wucher*, 1868, and *Geschichte des Kirchlichen Zinsverbotes*, 1876. For brief accounts in English, see Ashley, *Economic History*, vol. i. part i. (1888), and Böhm-Bawerk, *Capital and Interest*, tr. Smart, 1890.]

DAMNUM FATALE (Scot.) Loss arising from inevitable accident beyond prevention by human prudence. A. D.

DANEGELD. This is the first money tax of which we have any record in English history. Ethelred II. levied two shillings on every hide of land to provide a fund for buying off the Danes. His successors, even the Danish kings, retained this as an annual tax, long after the original pretext had disappeared. Edward the Confessor is said to have abolished the Danegeld, but William I. again exacted it, though at three times the original rate, viz. six shillings for every hide. But under the Norman kings it was an occasional instead of an annual tax. That the impost was unpopular is proved by the assertion of Henry of Huntingdon that Stephen, on his accession, promised to abolish it. The promise was not kept, and the Danegeld was regularly collected in the first seven years of Henry II.'s reign. By this time the tax had become a fixed sum from each county, and any surplus went into the pockets of the sheriffs who collected it. In 1163 Henry II. proposed to take the tax out of the hands of the sheriffs, and to bring it direct into the exchequer. The proposal was opposed by Becket, and from this time the term Danegeld disappears from the Pipe Rolls. It has often been asserted that Becket's opposition led to the abolition of the tax, but this is an error. The two shillings from the hide were frequently levied in the later years of Henry II. under the name of *hydagium*. They were collected under Richard I. in 1194, and in 1198 were raised to five shillings on the hide or carucate. Danegeld and *hydagium* are merely two names for the same tax, which was collected from all free tenants, whether holding by knight-service or by socage.

[*Dialogus de Scaccario*, i. 11.—Stubbs, *Constitutional History*, vol. i.] R. L.

DANGEUL, Marquis de Plumart (fl. 1750), was born at Mans, and became a commissioner of the *Cour des Comptes*. He was a relative of Forbonnais, and, like him, devoted himself to the study of the works of the Spanish mercantilists. He translated one of these: *Le Rétablissement des manufactures et du commerce d'Espagne, traduit de l'espagnol de Bernard de Ulloa*, 1753. After this, at the suggestion of Gournay, he, as Turgot did, made himself acquainted with the works of Josiah Tucker, and following Tucker in the lines of free trade and development of commercial enterprise, he wrote his book *Remarques sur les avantages et les désavantages de la France et de la Grande Bretagne par rapport au Commerce et aux autres Sources de la Puissance des États. Traduit de l'Anglois du Chevalier John Nickolls*, Leyde et Paris, Estienne, 1754. This work is pseudonymous; the author admits that he borrowed the title and the introductory sections from Tucker's *Brief Essay on Trade* (1750). In it he expresses his regret at the want of interest in economic questions in France (p. 49), he states the difficult problems of agricultural and financial policy in which his country was involved; he describes the strength of the leisured and the wants of the labouring classes (p. 60), the effects of unequal taxation (p. 43), and the absenteeism of the nobles (p. 64), the centralisation of government, the multitude of holidays, and the low standard of the working classes (p. 25). On the other hand he praises English husbandry as being the true mine of riches (p. 101), and shows the practical and theoretic literary interest taken in English trade (p. 152). Dangeul, however, condemns, like Tucker, the monopoly of the home trade, exercised in England, by corporations and companies (pp. 205-216), as being opposed to the interests of the population and its growth. According to both, competition, entirely unfettered, is most advantageous for a nation's trade, as it diminishes the profits of dealers (p. 253) and assists the introduction of machinery in manufactures. Dangeul is an admirer of Decker's *Proposal* for a single tax on luxuries in lieu of duties and excises (p. 404); he also differs from Forbonnais in one very important point of taxation: he proposes to exempt the absolute necessaries of life, considering that the taxation of these extinguishes the spirit of private property among the poor (pp. 407-409). In 1756 he wrote anonymously, *Examen de la conduite de la Grande Bretagne à l'usage de la Hollande depuis la naissance de la république*, Paris et La Haye, 1756. The writings of Dangeul are interesting in so far as they are evidence of the practical influence of the now undeservedly neglected Dean of Gloucester, Josiah Tucker, the spiritual father of Gournay, Dangeul, Turgot, and also of Adam Smith.

[See Quérard, *La France littéraire*, t. vii. p. 218.—M'Culloch, *Literature of Political Economy*, p. 62.—Morellet, *Mémoires (inédits)*, 1823, t. i. pp. 37-38.—Tucker, *Instructions for Travellers*, 1757,

p. 9.—Quesnay, *Oeuvres*, ed. Oncken, pp. 148, 206 note 2, p. 230 note 2, approving quotation by Voltaire, *Dictionnaire Philosophique*, 1765, art. Agriculture, *Oeuvres Complètes*, 1875, ch. xvii. p. 83.—Le Blanc, *Discours politiques de M. Hume*, Dresde, 1755, t. i. p. 21; t. ii. p. 271.] S. B.

DARG. A Scottish term for a day's work. Cottars were formerly bound to give the labour of a certain number of days to their superior in lieu of rent: these days were called darg-days, *i.e.* days of work.

[*Scottish Dictionary* (Supplement), by John Jamieson, Edinburgh, 1825.] J. E. C. M.

DARIC. Ancient Persian coin of approximately pure gold, first struck about 1516 B.C. by Darius I., bearing the effigy of the king as an archer, but with no inscription. Double darics, struck about the time of the fall of the empire, bear Greek letters or symbols. F. E. A.

DARIEN COMPANY. The originator of this disastrous enterprise was William Paterson, the founder of the Bank of England. His idea was to found a company for colonising the Isthmus of Darien, and conducting overland the trade between the Atlantic and Pacific. By this means, he thought, the whole commerce between Europe and Asia might be diverted from the route round the Cape, and Scotland might supplant Holland as the great emporium for the wealth of the East. Without divulging the details of his scheme, he succeeded in exciting the speculative interest of his countrymen, and a bill to establish the new company was carried through the Scotch Parliament and received the sanction of the Lord High Commissioner on 26th June 1695. The "Company of Scotland trading to Africa and the Indies," was authorised to seize unoccupied territories in Asia, Africa, and America, to plant colonies, construct forts, wage war and conclude treaties; while the king was pledged to obtain reparation from any foreign state which molested the company. The company received a monopoly of the trade with Asia, Africa, and America for thirty-one years, and for twenty-one years their imports, except sugar and tobacco, were to be free from all duties. Scotchmen hastened to invest their scanty savings in the new venture, and £220,000 was actually contributed towards a nominal capital of £400,000. But Scotland was then a poor country, and the financial success of the scheme could only be secured by English support.

The hostility of England, in those days of commercial jealousy, was from the first a certainty. A new trading colony would certainly lead to war with the country whose monopoly was attacked, and the burden of such a war must fall upon England, as Scotland had neither army, nor navy, nor military revenue. England would never go to war to secure to Scotland trading privileges which would be injurious to herself. The English Parliament protested against the scheme, and William III. recalled the commissioner who had given the royal sanction to the act. No English capital was subscribed, and it was even proposed to prosecute the directors of the company.

But English opposition, ascribed to national jealousy, only increased the obstinate determination of the Scotch to carry out the enterprise. In 1698 some 1200 colonists, including Paterson and his wife, sailed from Leith to Darien, where they took formal possession of the country under the name of New Caledonia, concluded treaties with native chieftains, established a representative parliament, and began to fortify New Edinburgh as their capital. The enterprise was almost insane in its rashness. The isthmus had been discovered and crossed by Spaniards nearly two centuries before, and they had only failed to settle there because it was too unhealthy for Europeans to live there. But Spain would never tolerate foreign intruders in the heart of her American provinces, and an expedition was being fitted out to expel the settlers when disease compelled the decimated remnant to sail to New York. Before this terrible news reached Scotland a second expedition had sailed to Darien, where they arrived four months after the departure of the first colonists, to find New Edinburgh a deserted ruin. With the courage of despair the new settlers landed, but their fate was already sealed by dissensions and disease, when the arrival of a Spanish fleet compelled the survivors to surrender and return homewards. The ill-feeling which this ill-starred undertaking excited between England and Scotland, and the risk of similar misunderstandings of the same nature, gave an impulse to the projects of a legislative union between the two countries which was finally effected in 1707.

[The best modern narrative of the Darien Expedition is to be found in Macaulay's *History of England*, vol. iv.] R. L.

DARWINISM is a name sometimes given to the theory put forward in Darwin's *Origin of Species* that the struggle for existence among plants and animals results in natural selection or survival of the fittest varieties. This theory is sometimes spoken of (*e.g.* in Maine's *Popular Government*, p. 37) as if it had been anticipated in Malthus's doctrine of population. But Malthus, though he insists on the fact of the struggle for existence among mankind, had no notion of its altering or improving the human race by causing the fittest varieties to survive. Darwin (*Life and Letters*, vol. i. p. 83), says that the idea of natural selection occurred to him on reading Malthus's *Essay*, not that he found it there.

Mr. Herbert Spencer and some writers who have followed him have used the theory as an argument against state interference with private property and industrial competition. They

urge that if the state interferes with the struggle for existence it will hinder natural selection, and thus obstruct the evolution of a superior race; "Now more than ever before," Mr. Spencer asserts, "people are doing all they can to further survival of the unfittest" (*Man versus the State*, p. 69). The socialist meets this argument by pointing out that "survival of the fittest" means survival of those who are fittest to undergo a particular struggle, not those who are the absolutely best, and if the struggle is abolished it will not matter whether people are fit for it or not (Sidney Webb, *Contemporary Review*, Dec. 1889, pp. 868, 869). Prof. Huxley says: "It is an error to imagine that evolution signifies a constant tendency to increased perfection" (*Nineteenth Century*, Feb. 1888, p. 163), and even if it were universally admitted that the absolutely best individuals of each generation do come to the top in industrial competition, it might still be questioned whether this results in the survival of the best families. Mr. Francis Galton urges very strongly that the Malthusian advice to delay the period of marriage is likely "to bring utter ruin upon the breed of any country where it is followed by the prudent, while the imprudent are left free to disregard it" (*Hereditary Genius*, p. 356). Now the wealthier and therefore presumably "fitter" individuals certainly marry later than the poorer (see MARRIAGE, RATE OF), and it cannot be said to be proved that the greater mortality among the poor is—or would be if there were no state interference—sufficient to counterbalance their earlier marriages and so to make them less effective continuers of the race than the wealthy.

The subject has not been much discussed by economists of any school, because the analogy between industrial competition and the struggle for existence among the lower animals is too imperfect to be of much service. It is contrary to sound economic traditions to look upon competition as a "private war" (Maine, *Popular Government*, p. 50), and on an improvement in the powers of labour as "sharpening our claws that we may fight our neighbours the more fiercely" (Ritchie, *Darwinism and Politics*, p. 31). Competition is not a struggle for a pre-existing determinate quantity of wealth, in which each man's gain is so much subtracted from the possible gains of all the rest. Though the success of one producer often damages other producers of the same commodity, it almost always benefits the community at large, and makes it not more difficult but easier to obtain the means of existence. Thus it happens that in countries where the industrial powers are most highly developed, individuals who have naturally the least industrial power, *e.g.* the blind, deaf and dumb, and paralytic, find it easier to make a living than they do in more backward countries.

There is a curious anticipation of Mr. Herbert Spencer's theory in Joseph Townsend's *Dissertation on the Poor Laws* (1786). "By establishing a community of goods, or rather by giving to the idle and vicious the *first* claim upon the produce of the earth, many of the more prudent, careful, and industrious citizens are straitened in their circumstances and restrained from marriage. The farmer breeds only from the best of all his cattle; but our laws choose rather to preserve the worst, and seem to be anxious lest the breed should fail" (p. 426 in Overstone's *Select Tracts*, "Miscellaneous"). E. C.

DATE OF DRAWING. As a general rule a bill of exchange is dated; the absence of a date does not, however, according to the law of the United Kingdom, make a bill invalid (Bill of Exchange Act § 3 [4*a*]). The holder may, in such a case, insert the true date of drawing, and the bill is then payable accordingly (*ibid.* § 12), the date appearing on the face of the bill being presumed to be the true date of drawing until the contrary is proved; a holder in due course has, in any case, the same rights as if the true date had been inserted (*ibid.* § 13). According to continental law the date is an essential requirement, and an undated document is not available as a bill of exchange (German Codes, 4 [6]; French Code de Commerce, § 110; Italian Codice di Commercio, § 251). If a bill is to operate as from a date previous to the actual issue, it may, according to the law of the United Kingdom, be dated accordingly (ante-dated), and if its operation is to begin as from a subsequent date, that date may be inserted—the bill is then said to be post-dated. It thus becomes possible to evade the stamp duty by post-dating a bill payable on demand, which has the same effect as if the bill had been drawn from the right date payable on the date which appears as the date of issue—in which case an *ad valorem* stamp duty would have been payable. The holder of a post-dated bill cannot, of course, present it for acceptance before the date appearing on its face. If a bill is drawn from a country in which the Greek calendar is used, the date of issue must be taken as the date according to the Greek calendar. Thus a bill drawn in St. Petersburg on the 1st November is treated as drawn on 13th November according to our computation. It is, however, customary to insert the two dates thus: St. Petersburg 1/13 November. E. S.

DAVACH. Ancient measurement of land, N.E. Scotland; equal (average) to four "ploughgates," which amount to 416 Scotch acres, or 528·5 imperial acres.

[Cosmo Innes, *Scotch Legal Antiquities.*] A. D.

DAVANZATI, BERNARDO (1529-1606), born in Florence. This name will always be famous in the history of Italian literature, because, writing in prose, he attained to the same vigour and precision that Dante displayed in poetry. The writings of Davanzati are still

models of style. He undertook to translate Tacitus and to surpass him in conciseness, and asserts that, on an average, a hundred Italian words are required where Tacitus needs a hundred and eight Latin ones, and a French translation a hundred and sixty. Besides his translation of Tacitus, a history of the Reformation in England under Henry VIII., and minor academic essays, two economic writings, for which he merits here a mention, are extant. These are his *Lezione delle monete*, 1582, and his *Notizia dei cambj*, published in 1588, and included in Custodi's *Scrittori Classici*. To judge him correctly it must be considered that he was a contemporary of SCARUFFI (1582), of JEAN BODIN (1578), and of WILLIAM STAFFORD (1581), men who wrote their books half a century before PETTY and LOCKE were born (Petty, 1623-1687; Locke, 1632-1704). Davanzati begins by showing how "barter is a necessary complement of division of labour amongst men and amongst nations"; he then passes on to show how there is easily a "want of coincidence in barter," which calls for a "medium of exchange"; and this must be capable of "subdivision," and be a "store of value." He then goes off upon a historical digression on currencies, and on returning from thence recognises in money "a common measure of value." This leads him to a dissertation on the causes of value in general, in which respect his remarks are also worth mentioning, because he has clearly shown that utility and value are "accidents of things" and functions of the "quantity in which they exist." Proceeding to examples, he remarks "that one single egg was more worth to Count Ugolino in his tower than all the gold of the world," but that, on the other hand, "ten thousand grains of corn are only worth one of gold in the market," and that "water, however necessary for life, is worth nothing, because superabundant." In the siege of Casilino "a rat was sold for 200 florins, and the price could not be called exaggerated, because next day the man who sold it was starved and the man who bought it was still alive." Returning to his argument, he says all the money in a country is worth all the goods, because the one exchanges for the other and nobody wants money for its own sake. Davanzati does not know anything about the rapidity of circulation of money, and only says every country needs a different quantity of money, as different human frames need different quantities of blood. The rest of his treatise is directed against artificial deterioration of money. The mint ought to coin money gratuitously for everybody; and the fear that, if the coins are too good, they should be exported is simply illusory, because they must have been paid for by the exporter. Davanzati insists particularly on the injury the defrauding government is the first to experience when it tampers with the coin. In his essay on exchanges Davanzati goes minutely into the mechanism of exchanges, but he evidently does not suspect the causes of the phenomenon nor its limits. Davanzati was by profession a merchant, and lived a part of his life in France.

[For a criticism of Davanzati, see Travers Twiss, *View of the Progress of Pol. Econ.*, 1847. Lecture i.] M. P.

DAVENANT, CHARLES, LL.D. (1656-1714), economist and politician, son of Sir William Davenant, the poet, was born in London. He was educated at Cheam Grammar School, Surrey, and in 1671 matriculated at Balliol College, Oxford, but did not then proceed to a degree. After composing, at the age of nineteen, a tragedy under the title of "Circe," which had some slight success, he turned his attention to the law, and appears to have taken the degree of LL.D., but at what university is uncertain. He held the office of commissioner of excise from 1683 to 1689, and represented St. Ives, Cornwall, in the first parliament of James II. His first work of economic interest, *Ways and Means of supplying the War*, was published in 1695. In it he strongly objected to meeting war expenses by borrowing money, and advocated an excise as the best and fairest tax. He sat again in parliament, this time for Great Bedwin, in 1698, continuing to write on economic and political subjects. Under William III. he did not hold office, and criticised the financial policy of the government with some bitterness; but, on the accession of Queen Anne, he returned to official life as secretary to the commission appointed to treat for the union with Scotland. In 1705 he was appointed inspector-general of exports and imports, which office he held until his death.

As an economist, Davenant must on the whole be classed as an adherent of the mercantile theory. In opposition to the bullionists he points out that an energetic people with good seaports and a soil fertile in variety of commodities, can easily exchange its products for as much gold and silver as it may require. "Money," he says, "is the servant of trade—at bottom no more than the counters with which men in their dealings have been accustomed to reckon." He seems to have considered, however, that the possessors of money in specie were in a position of advantage compared with the possessors, and would-be sellers of commodities. "Those who stand possessed of the ready money have, in all times and all countries, given the law." Especially is this the case with perishable commodities, and articles of luxury, which should not be bought by any nation to a large amount, except for the purpose of being re-sold. On the last ground he strongly supported the East India Company in the controversies which raged about 1697 on the

subject of the importation of East India goods, and opposed the act which was passed in the supposed interest of English manufacturers, forbidding the wearing or use of Indian silks and muslins. Such a measure would only benefit the French silk trade and encourage smuggling. "The natural way of promoting the woollen manufacture is not to force its consumption at home, but by wholesome laws to contrive that it may be wrought cheaply in England, which will enable us to command the markets abroad." Europe was foolish enough to be ready to pay for luxuries from India; much wealth could be gained by the nation which would act as the go-between; and for England to refuse to reap the harvest would be merely to leave it to the Dutch.

In his earlier economic period Davenant shows distinct tendencies towards what might almost be called a free-trade position. "Trade is in its nature free, finds its own channel, and best directeth its own course, and all laws to give it rules and directions, and to limit and circumscribe it, may serve the particular ends of private men, but are seldom advantageous to the public. . . . The various products of different soils and countries is an indication that Providence intended they should be helpful to each other." In the works, however, which he published after his return to official employment, he did not venture to disturb current economic ideas, devoting himself to carrying on the statistical work of Sir William Petty and Mr. Gregory King, and attempting by an elaborate investigation to ascertain the precise position of England in regard to the balance of trade (see BALANCE OF TRADE, HISTORY OF THE THEORY). His views on taxation have been already alluded to. He thought that the incidence of taxation should be proportional to the tax-payer's ability to pay, and that taxes should bear chiefly on consumers of luxuries. He thought that "all taxes whatsoever were, in their last resort, a charge upon land." Trade with uncivilised countries such as Africa was, he thought, best carried on by a monopolistic corporation (see FOREIGN TRADE, REGULATION OF). As regards the labour question, he strongly advocated the compulsory employment of the able-bodied poor in manufactures, as a means to cheap production and the consequent command of foreign markets. Davenant's chief works were—

An Essay on the Ways and Means of Supplying the War, London, 1695.—*An Essay on the East India Trade*, London, 1697.—*Two Discourses on the Public Revenues and Trade of England*, London, 1698.—*An Essay on the probable means of making the people gainers in the balance of Trade*, London, 1699.—*A Discourse on Grants and Resumptions.*—*Essays on the Balance of Power*, London, 1701.—*A Picture of a modern Whig*, London, 1701.—*Essays on Peace at Home and War Abroad*, London, 1704.—*Reflections on the Constitution and Management of the Trade to Africa*, London, 1709.—*Two Reports to the Commissioners for taking the Public Accounts*, London, 1712 and 1715. A collected edition of his works, edited by Sir C. Whitworth, was published at London in 1771.

[Stephen's *Dictionary of National Biography*, London, 1888.—Conrad, *Handwörterbuch der Staatswissenschaften*, Jena, 1888.—Guillaumin and Coquelin, *Dictionnaire d'Économie Politique*, Paris, 1858, and heading "East India Trade" in British Museum Catalogue.] A. H.

Davenant is perhaps best known to most readers by his employment of the estimate made by GREGORY KING (*q.v.*) of the effect of deficiency in supply on augmentation of price. The passage in which this is mentioned is as follows:

"It is observed that but one-tenth the defect in the harvest may raise the price three-tenths, and when we have but half our crop of wheat, which now and then happens, the remainder is spun out by thrift and good management, and eked out by the use of other grain; but this will not do for above one year, and would be a small help in the succession of two or three unseasonable harvests. For the scarcity even of one year is very destructive, in which many of the poorest sort perish, either for want of sufficient food or by unwholesome diet.

"We take it that a defect in the harvest may raise the price of corn in the following proportions:—

Defect.		Above the common rate.
1 tenth	raises the price	3 tenths
2 tenths		8 tenths
3 tenths		1·6 tenths
4 tenths		2·8 tenths
5 tenths		4·5 tenths

So that when corn rises to treble the common rate, it may be presumed that we want above one-third of the common produce; and if we should want five-tenths or half the common produce, the price would rise to near five times the common rate" (*D'Avenant*, vol. ii. pp. 224, 225).

DAVIES, DAVID, D.D. (*d.* 1819?), graduated at Oxford, and was appointed rector of Barkham, Berkshire. When in 1775 and 1785 parliament ordered returns to be made of the poor rates throughout the kingdom, no inquiry was thought necessary as regards the actual circumstances of poor families. To remedy this omission, Davies collected budgets of labouring families in his own parish about Easter 1787. Of these accounts an abstract was printed; many copies were distributed with the help of friends throughout England, Wales, and Scotland. The valuable information collected in this manner is tabulated in the following work, and furnishes minute particulars as to the wages, food, etc., of agricultural labourers. The author offers various suggestions for the encouragement of thrift, with recommendations for rating wages by statute and according to the price of bread.

The Case of Labourers in Husbandry stated and

considered, in three parts: Part I. A View of their Distressed Condition. Part II. The Principal Causes of their Growing Distress and Number, and of the Consequent Increase of the Poor-Rate. Part III. Means of Relief Proposed. With an Appendix containing a collection of accounts showing the earnings and expenses of Labouring families in different parts of the Kingdom. Bath, 1795, 4to.

[M'Culloch, *Literature of Political Economy*, 1845, p. 285.—Sir F. M. Eden, *State of the Poor*, 1797, vol. iii.—A. Toynbee, *Industrial Revolution*.] H. R. T.

DÁVILA, EL PADRE BÁUTISTA (17th century). In his *Resúmen de los medios prácticos para el general alivio de la Monarquía* (A short account of the practical means of the general Relief of the Monarchy), printed in 1651, Dávila advocates a single and progressive poll-tax. He thus aims to remedy the frightful state to which Spain had been brought by the bad administration of the "Rentas Reales" and by the vexatious exactions and dishonesty of the collectors. He also deals with the problem of the debased currency.

[Colmeiro's *Biblioteca de los Economistas Españoles* and *Historia de la Economía Política en España* (vol. ii. pp. 494, 575, 576).] E. Ca.

DÁVILA Y LUGO, DON FRANCISCO (17th century). Dávila's *Desengaños y Replicas á las Proposiciones de Gerardo Basso* (Disproof of and Reply to the proposals of G. B.), Madrid 1632, is addressed to Philip IV., and strongly remonstrates against the adoption of a plan suggested by a Milanese writer, Gerardo Basso, who in his *Arbitrios y Discursos Políticos* (Madrid, 1627) had suggested the recoinage of the existing *Vellon*, debased small coins of silver and copper, which made up almost the whole of the existing currency in Spain. This recoinage was to be effected at the joint cost of the state and of the public, and reissued at a nominal value greatly superior to the intrinsic value. Dávila explains the objections to the tampering with the value of the currency and insists that the latter must be brought into strict correspondence with the currency of the neighbouring states. All monetary exchanges ought to be regulated according to a book of rates, which he considers that he alone is qualified to compile, and which must be based on the real metallic correspondence between the national and foreign coins in circulation.

[Colmeiro's *Biblioteca de los Economistas Españoles*.] E. Ca.

DAY, DAY WORK, AND DIET. A term given by the court at the prayer of the demandant or plaintiff, especially at the Exchequer for accountants of the crown to render their accounts (Dialogus, ii. 4). Also *Days of grace* were certain days allowed to the acceptor of a bill or to the maker of a note in which to make payment in extension of the term specified in the bill or note. They were so called because at first allowed only as a matter of favour, perhaps originally through the mediation of the church, but this custom of the merchants has long been recognised by the law. Also a year-and-a-day.

In another sense, one day's entertainment or reception in lieu of service and rent, as in *Domesday Book*, where many such fee-farm rents are mentioned usually reserved to the king in so many days' or nights' provision, *e.g.* "so much honey as was sufficient for the king's family for half a day, and as much as was enough for a whole day" (Spelm. *Domesday*).

Also an allowance or diet for officers of state calculated according to the expenses of a day's journey or sojourn. A table of diets for the sheriffs of the English counties according to the number of days' journeys completed in attending at the exchequer at Westminster or at York is preserved in an ancient record (*Red Book of Exchequer*, fol. 14). Especially used of ambassadors or other agents of the crown (Audit Office Declared Accts., "Ambassadors," "Agents"). Also of soldiers, labourers, etc. paid by the crown (Q. R. Wardrobe Accounts, "Army," etc.) Diet is also used of a day's journey, formerly calculated as twenty miles, presumably for a horseman.

Also in agriculture of the day's work of one ploughman or cart, namely one "journey" (*journée*). Hence sometimes used as a specific quantity in grants of land (*Cart. Reading*, fol. 90d.) The extent of land ploughed in a day was variously computed, but was commonly fixed at four perches. In another sense a day-work was a recognised prædial service rendered by the villeins in most manors to the lord, and these "opera diurna" are enumerated in many custumals, and often in connection with an allowance of food—"Et debent facere LX opera diurna, ut supra, in gardino, vel alibi, ut supra, capiendo LXV panes, ut supra." (*Cust. of Battle*, p. 10).

[Spelman, *Gloss.*—Cowel, *Interpr.*—Norden's *Surveyors' Dialogue.—Notes and Queries* (3rd series), iii. 512.—*Custumal of Battle Abbey* (Camden Soc.)] H. Ha.

DAYS OF GRACE. These are the days which, in the case of bills of exchange, not being payable on demand, are added to the time of payment appearing on the face of the instrument. According to the law of the United Kingdom there are three such days of grace (see BILL OF EXCHANGE, LAW OF); but a bill may (by the use of the words "without grace" or some similar expression) stipulate that the day appearing on its face is to be the final due date. In most continental countries "days of grace," in the sense indicated above, do not exist; the holder *may* take out protest without waiting for any additional days; but he does not lose his right of recourse, if the presentation or protest is deferred for a certain

time (two days according to the German and Italian codes, §§ 41 and 296 ; one day according to the French code, § 162). These additional days, which may be called "days of grace at the holder's option" are convenient, as they enable the holder to exercise some leniency in favour of acceptors who, by reason of some accident, are not in possession of liquid funds on the exact day ; but the English days of grace have no practical object whatever, and only add an unnecessary complication in the computation of the time of payment. E. S.

DEAD FREIGHT. Compensation paid by the freighter of a whole ship for space remaining unoccupied when the cargo is not a full one.

A. D.

DEADLY, WARRANDICE AGAINST ALL (Scot.) Warranty against all mortals (*contra omnes mortales*). (See WARRANDICE.) A. D.

DEAD RENT. A rent reserved in a mining lease and payable whether the mine be worked or not. The object of such reservation is to secure the working of the mine. In some leases the dead rent and the royalty (see ROYALTY) are made payable cumulatively ; in others the dead rent merges in the royalty actually paid (*The Law of Mines*, by R. F. MacSwinney, London, 1884).

[As regards the amount and economic effects of dead rents, see *Mining Royalties*, by W. R. Sorley, London, 1889, and *The Reports of the Royal Commission on Mining Royalties*, c. 6195 of 1890, c. 6331 and c. 6529 of 1891.] J. E. C. M.

DEAD'S PART (Scot.) The portion of a man's free movable estate which he is at liberty at common law to bequeath by will ; that is, if he have neither wife nor child, the whole ; if he have either wife or child, one half ; if he have both wife and child, one third. In other words, the wife is entitled to one equal share ; the child or the children jointly to another equal share ; the testator is limited to one equal share, the deceased's share, or "dead's part." This common-law scheme of distribution may be modified by ante-nuptial contract of marriage (see MARRIAGE SETTLEMENT), or, after the marriage, by formal renunciation of their legal rights by the wife or children respectively. A. D.

DEADWEIGHT ANNUITY. A terminable annuity the creation of which was sanctioned in 1822, in lieu of certain naval and military pensions payable out of the public funds. The phrase was originally employed by Cobbett.

The distressed condition of agriculture in 1822 led Lord Londonderry's government to propose various measures for the lessening of the public burdens. Amongst them was a scheme for the creation of an annuity of £2,800,000, for a period of forty-five years, in lieu of the "dead expense" or "dead weight" of the naval and military pensions and half-pay amounting altogether to about £5,000,000 a year, which had arisen out of the recent wars. It was claimed that the government were justified in distributing this charge equally over a period of years, instead of awaiting the gradual extinction of the burden by the death of the pensioners. The scheme was opposed by Ricardo, amongst others, on the ground that it was a covert attack upon the sinking fund, and a relieving of the then taxpayers at the expense of posterity, but it eventually became law (3 Geo. IV. c. 51). In 1823, the Bank of England agreed to purchase £585,740, part of the proposed annuity, paying for it the sum of £13,089,419, spread over the six years 1823-28 (4 Geo. IV. c. 22), but this was the only sale effected, and the original act was repealed in 1828 (9 Geo. IV. c. 79) on the unanimous recommendation of the House of Commons ; thus the whole of the annuity, except the £585,740 per annum sold to the Bank of England, was cancelled. In July 1839 the Bank of England invited tenders for the purchase of their annuity, with a view to counteract a long-continued drain upon the stock of bullion, but the biddings fell short of the minimum advertised price, and the annuity continued to be paid to the Bank until 1867, when it expired.

[In addition to the Acts above named, Hansard, 2nd Series, vol. vii. pp. 164, 280, 316, 737, 1319, 1396, vol. xix. p. 646 ; Tooke's *History of Prices*, vol. iii. 88, 100-1, vol. iv. 333 ; and the *Report* of the Select Committee on Banks of Issue (No. 602 of 1840), may be consulted.] T. H. E.

DEALER (STOCK EXCHANGE). A dealer is a man who, in concert with others, makes what is called a market. He stands ready to buy or sell certain stocks, or shares, or bonds and, when a stockbroker approaches him with a demand for a quotation, the dealer (or jobber, as he is still called in and about the stock exchange) replies by mentioning two prices, the lower being that at which he will buy, and the higher that at which he will sell. For instance, when quoting the price of consols, he offers to buy each £100 stock at 98, or to sell at 98⅛. There is no legal obligation upon him to quote prices or to deal after quotation, but it is part of the etiquette of the stock exchange, which is quite as much a club as a market, that the dealer should follow up his quotation by buying or selling as the case may be up to the value of £1000. Indeed, were a jobber to give a quotation and then refuse to deal at either price named in the quotation, he would fall into disrepute, and perhaps be reported to the Stock Exchange Committee for General Purposes. In theory the dealer is supposed to be ignorant of and indifferent to the desire of the broker who accosts him—that is, he is supposed to be ready to sell or to buy—but in practice a shifty dealer will try to delay giving his quotation until he has discovered, or thinks he has discovered, the intentions of the person who

has come to him. If he thinks that the latter wishes to buy he raises his selling price; if he has reason to believe that the party wishes to sell, he quotes as low a buying price as possible, unless the state of his book makes it his interest to deal freely. Dealers sometimes transact business among themselves, for at the end of a day it may happen that dealer A has contracted to buy more stock than he can pay for, while dealer B has, on the other hand, contracted to sell more of the same stock than he can possibly deliver. Then A and B come together, and each relieves the pressure upon the other dealer's "book." In short, they institute a kind of clearing-house among themselves, writing off liabilities to sell against liabilities to buy. It need not be said that the dealers who compose a market have many opportunities for discovering facts which may lead them to a correct conclusion as to the drift of prices in the market. At the end of one week they will discover that the public has been absorbing a certain stock so freely as to limit the supply on the market. A week or two later they will have found that the tide has turned, and once again they are enabled to take measures. The dealer is a product of division of labour. He gives his time and attention exclusively to the consideration of one or two securities, and gradually accumulates in his own mind a record of the forces which go to raise or depress that group of securities in the market. He also preserves a kind of continuity, and acts as the middle link between the buyer of a stock who may be at Penzance, and the seller who may be at Middlesbrough. If it were not for the dealer or jobber, a man with stocks or shares to sell would have to run about, or employ a broker to run about, from place to place, offering these shares and remaining, perhaps, in the dark as to what is a good average market price. Thus the dealer forms the nucleus of a perpetual fair, and whereas a horse fair, for example, is often only an annual function, persons in the neighbourhood of the town in which it is held being almost compelled to keep their cattle until a fair takes place, the attendance of a concourse of dealers on the stock exchange makes it always possible to buy or sell the stocks in which they are concerned. In active times the price quoted by a dealer is usually more "close" —that is, the interval between the buying and selling quotation is narrow—whereas in dull times the dealer hesitates to offer anything like a middling quotation for fear of inability to cover or "undo" his bargain by a resale or a repurchase at such a price as would leave the dealer a turn or profit. A. E.

DEARNESS, ARTIFICIAL. When action is consciously and deliberately directed to enhance the price of some commodity in some market above the competitive level, any resulting dearness may be called artificial.

We are not here to consider natural monopolies, for the dearness produced by these may be regarded as in a sense normal; and the end of the monopolist is not dearness, but high net profit, which may in some circumstances be produced by cheapness.

Nor can we conveniently consider under this head such artificial monopolies as copyright in books, or works of art, or patents for inventions. Dearness so produced is in a sense artificial, as deliberately created by the state. But the price of such things is not on the average higher than is necessary to induce the author or the inventor to work for the community.

The protection of home products by duties on imports may produce artificial dearness, but is more conveniently considered separately under the head PROTECTION.

The cases in which *demand* can be artificially created are not important. Laws such as the English law in the reign of Elizabeth for the eating of fish on Wednesdays and Fridays, and the charitable endeavours of leaders of fashion to foster local manufactures, *e.g.* Irish poplins, have had this end and possibly this effect. The effect of false rumours is generally transitory and followed by an equivalent or greater reaction. But the issue of misleading reports and fraudulent balance sheets may maintain the shares of banks and companies at an artificial level for years, as in the case of the city of Glasgow Bank (1878). Again a government may use its power as a purchaser to enhance the price of commodities for the benefit of a section of its subjects, or for the profit of influential persons. The laws passed in 1878 and 1890, to regulate the purchase of silver for currency purposes in the United States, had this effect if not this object.

Artificial dearness can only be permanent when the individual, or association, or public authority engaged in enhancing the price has either practical control over the most important of all possible sources of *supply*, and thus can limit the output, or has absolute control over the market of *demand*.

The East India Company and, in later days, the Indian government, has had such practical control over the sources of supply of a specially high quality of opium. We are told that the company used this power in a very arbitrary way to limit the supply of their opium (Adam Smith, bk. iv. ch. vii.) And the Indian government has placed this restriction on a regular basis with such profitable results that a monopoly revenue of some seven millions sterling is drawn from this source (see OPIUM). But the market is not under English control, and a war with China has been, and might again be, necessary in order to maintain it. Meanwhile the rate of profit is diminishing through increased consumption of Chinese opium, which, although inferior, is a competing substitute.

The Dutch East India Company has had, since 1607, sovereign control over the Molucca Islands, once almost the only sources of supply for certain highly valued spices. Discovering by experience that a small increase of supply creates a more than proportional fall in the price of such commodities, they rigorously limited the supply by destroying a part of the plants in their own islands, and by extirpating as far as possible the clove and the nutmeg in the islands where they had no settlements (Adam Smith, *l.c.*) In abundant seasons they also destroyed a large part of their own produce. In modern times the monopoly of the spice trade is no longer in the hands of any nation.

Mines and salt mines have been commonly regarded in Europe as state monopolies. Until modern times the price has been thus maintained at an artificial level. Where the whole sources of supply are, as in this case, collected in one hand and foreign competition is excluded, it is not necessary to restrict the output. The price can be fixed, and the demand at that price will determine the output.

Somewhat similar are the state monopolies of matches, tobacco, etc. which exist in France and other European countries. They are highly profitable to the state, but the consumer has to put up with inferior quality. More convenient in the latter respect are customs duties, supplemented by equivalent excise, or levied on commodities not produced at home. These also produce artificial dearness for the profit of the state. But the rate of taxation does not measure the increase in price. It may be less or more according to the law which the production of the commodity obeys (see DIMINISHING RETURNS, and INCREASING RETURNS). Export duties can only be levied with permanent advantage to the state when a country has a natural monopoly of a commodity, or produces it under exceptional advantages. So with English wool in the thirteenth and fourteenth centuries. Such duties result in artificial dearness of the commodity, which is generally accompanied by a reduced demand and may ultimately destroy the trade. A bounty on exports has the opposite effect, and raises the price for a time at least to the home consumer.

A trading body, not fortified in a monopoly by the power of a state, can rarely obtain such control over all the sources of supply of any commodity in any market, as may be possessed by a public authority or a chartered company. The attempt has been made in recent times by great associations of capitalists, trading and producing bodies known as syndicates and trusts. The Standard Oil Trust in the United States was formed in 1881, to control three-quarters of the total petroleum refining power of the States, and exercised also, as it is alleged, influence over the output of crude petroleum, and the carrying corporations. It is not suggested that the trust enhanced the price of refined petroleum above its previous level, but the considerable profits of the trust suggest that it partly prevented a natural decline. The Sugar Refining Company, which united under one control the chief sugar refining establishments in the States, is admitted to have raised the price of refined sugar two cents a pound. But in spite of their overwhelming power, neither of these two great associations was able to control the whole of the producing power and effectually keep down the output. Though protected in their own country they could not control the foreign trade, and there remained even at home a small body of outside competitors and a vast power of potential competition which might at any time, if tempted by exaggerated profits, have come into the field. In the case of the Cotton Bagging Trust, a syndicate of consumers, known as the Farmers' Alliance, was formed in opposition. The moderation with which trusts have been generally conducted has not saved them from unpopularity. In some States such combinations have been pronounced illegal, and attempts have been made to crush them by legislation.

One of the best conceived of such schemes was the English Salt Union formed in 1888, to control the supply of salt from the English mines. The effect of their action was immediately seen in the decline of English exports of salt from 898,000 tons in 1888 to 667,000 tons in 1889, with a rise in values from £486,000 to £539,000, thus illustrating a well-known law which is the strength of those who attempt to forestall necessaries. In September 1888 the price of lump salt delivered free in Cambridge was 26s. a ton, in July 1889, 48s., July 1890, 52s., July 1891, 36s. The company paid in the first year 10 per cent on its ordinary shares, in 1890, 7 per cent, and in the first half of 1891, 5 per cent only. The 7 per cent preference shares in October 1891 stood at a discount. Excellent as are the sources of supply controlled by this company, necessary and universal as is the use of salt, its bulk comparatively small and the burden per head light, the rise in price cannot fail to affect the export trade, and the greater the rise in price the greater the inducement to competition, which for the great export trade is serious and even in England may become active. The difficulties of a trust increase with its success and with the duration of its success (on the whole subject, see a Foreign Office Report, 1890, c. 5896-32).

Even more hopeless is the task when the attempt is made to enhance price over a considerable period, with no control over the output, by buying up the stock in the market. The copper syndicate started in France towards the end of 1887, with a capital of 4 millions sterling, and the resources of the

Comptoir d'Escompte at its back. Copper was then and had long stood at about £40 a ton. Demand for copper was reviving. The operations of the syndicate raised copper to £85 in January 1888, and to £99 a ton in September of the same year. They had contracts with all chief copper-producing companies binding the syndicate to take over all their copper up to a certain amount at a certain price. But they had not the power to keep down the output, which increased from 224,000 tons in 1887 to 262,000 tons in 1888.

During the period the visible supply increased from 45,000 tons to 118,000 tons. Meanwhile consumers were minimising their purchases. Copper is not a necessary of life, and in March 1889, when the resources of the society and of the Comptoir d'Escompte were exhausted, the society itself held 130,000 tons.

In April 1889 the price of copper was back at £40. As a speculative venture the syndicate had very favourable prospects. But its ill-regulated attempt to artificially enhance and maintain the price failed, through want of power to keep down the output in proportion to the reduced consumption.

In the middle ages local markets were sometimes so far isolated by difficulties of communication and carriage that a very considerable difference in price would be long in attracting supplies from other markets. Such exceptional markets may occasionally have been looted by speculators, whose resources were large in proportion to the market. In dealing with necessaries, it would be enough to buy up a large part of the available supply, to withhold, export at a loss, or even destroy a part, in order to realise substantial profits (see Jevons, *Theory of Political Economy*, 1879, 167 *seq.*, and the estimate there quoted, which, though resting on an insufficient inductive basis, is the guess of a shrewd man of much experience). Such events may have occurred to justify the popular hatred of FORESTALLERS and REGRATERS and *Accapareurs*, and the legislation on the subject from the *lex Julia de Annona* downwards. But the enterprise could rarely be attempted with success, and Adam Smith (bk. iv. ch. v.) did good service in pointing out the useful function of corn dealers as mitigating the severity of a scarcity, and in condemning all such legislation. It is very difficult to believe that a *pacte de Famine*, in eighteenth-century France, can have been successful, unless by the aid of legislation restrictive of trade.

The modern market for necessaries is co-extensive with the world. The modern harvest continues from January to December. No combination of capitalists has yet arisen which could even threaten an artificial scarcity of food, unless in a strictly protected country, or a country where modern means of communication have not been developed. On the other hand, to produce in a sensitive market a transitory enhancement of price does not require great resources. The device is familiar on the stock exchange and the produce market. But to make this manœuvre profitable the influence of example is necessary. When a leading financier buys largely, small speculators rush in to profit by the boom, and the master may unload at the expense of his imitators. If this expectation is not fulfilled the market must be depressed by the operator's sales, as much as it was raised by his purchases. On the whole, such fluctuations tend to depress average prices by discouraging legitimate purchase for consumption or investment, though they may be profitable to individuals.

At an exceptional conjuncture, when the supply of some necessary runs low, the action of some corner or ring may stimulate normal demand into frenzy. This was the case in New York in September 1869, when £22,000,000 sterling in gold were locked up in the treasury and the available market supply fell to £3,000,000 sterling. The currency being inconvertible, this supply might have been sufficient for normal needs. But it was easy for a few speculators to control the whole, and exact a ruinous price from purchasers whose needs were pressing. A ring was formed and in one day the premium on gold was forced from 40 to 60 per cent. The excitement was so great and the dealings so large that the gold clearing-house was unequal to the strain. The further rise of gold was only stopped by government sales of gold. It is, however, easier to create such movements than to profit by them. The means taken on this occasion by the conspirators to protect themselves are said to have been outside the limits of legitimate trade.

When speculators are rashly *bearing* a stock of which the real supply is small, a corner may sometimes be formed to lock up the whole, and prices are then forced up to an abnormal level, for the bears cannot find stock to deliver on settling day (see BACKWARDATION; CORNER; RINGS).

The so-called cotton corner of 1889, on the collapse of which (September 30th) "Septembers" fell thirty points in one day, was rather a case of exaggerated speculation for the rise than a genuine case of artificial dearness.

The mutual relations of individuals are becoming less important to economics than the mutual relations of great associations. The labour market has been lately swayed by great combinations, not unlike those which attempt to control the production of commodities. The object of their action is to enhance the rate of wages, and in so far any dearness of labour produced may be termed artificial. But bargaining is one of the normal functions of the economic man, and the desire to obtain the

best terms possible one of the ordinary forces that determine prices. It seems best therefore to confine the term, in the labour market, to any dearness that may be produced by the exclusion of certain men from certain labour markets, by limitation of apprenticeship, or by intimidation of outside competition. The attempt is subject to the difficulties already mentioned. The greater the artificial enhancement of price the greater the attraction to outside competition, whether of man with man, or producer with producer, or port with port, or country with country.

The various modes in which it has been attempted to enhance price artificially have been surveyed, according as the enhancement has been permanent, temporary, or what may be called momentary. The success of the attempt depends upon the nature of the commodity dealt with, the extent of the market of supply, and of demand, and the character of the resources commanded. Price may be momentarily enhanced by taking advantage of peculiar circumstances of the market. It may be temporarily enhanced by buying up the stock, but such attempts cannot be successful unless it is possible to exclude extraneous supplies, or unless such supplies are by the circumstances of the case excluded. If this be so, in the case of necessaries there is hardly any limit to the possible enhancement of price. In other commodities consumption is minimised and substitutes employed. Permanent enhancement requires either a practical monopoly of the sources of supply, which is apt to break down if the strain be severe, or such command over a market of demand as only a government can exercise. The safeguard of the community against the tyranny of great capitals rests in the practical difficulty of keeping great voluntary combinations together, and of finding a commodity indispensable, without substitutes, of which the sources of supply are absolutely limited.

[Adam Smith, bk. iv. ch. v.—Cournot, *Principes Mathématiques*, ch. i. § 2.—John Stuart Mill, *Principles of Political Economy*, bk. iv. ch. ii. § 5.—Roscher, *Political Economy*, bk. ii. ch. ii. § 108.—Sidgwick, *Principles of Political Economy*, bk. ii. ch. ii. § 4, § 7; bk. ii. ch. x. See also CORNER; CUSTOMS; EXCISE; FORESTALLERS AND REGRATERS; MONOPOLY; PROTECTION; RINGS; SYNDICATES; TRADES UNIONS; TRUSTS.]

S. M. L.

DEARTH. See FAMINE.

DEATH DUTIES. The collection of a tax on the occasion of the transference of property from the dead to the living has been made a means of raising public revenue from very early times. Adam Smith cites as examples the *vicesima hereditatum* of the Romans, the duties payable by heirs under the feudal law, and the Dutch tax on successions. Duties of this class now rank, with common consent, amongst the most legitimate and least detrimental to individual interests of all descriptions of taxation.

Adam Smith discusses the arguments for and against these duties at considerable length (*Wealth of Nations*, bk. v. ch. iii.), and points out that they are, or may be made, "perfectly clear and certain," "the time of payment is . . . sufficiently convenient," and "they are levied at very little expense." On the other hand he considered them unequal, on the ground that the frequency of transference was not always the same in property of equal value, and he also thought that so far as they diminish the capital value of property they "tend to diminish the funds destined for the maintenance of productive labour." The latter point was emphasised by Fawcett (*Manual Polit. Econ.*, bk. iv. ch. ii.), but Mill (*Principles*, bk. v. ch. ii. § 7) attached no importance to the objection in a wealthy country. He considered that "the amount which would be derived from a very high legacy duty in each year is but a small proportion of the annual increase of capital in such a country; and its abstraction would but make room for saving to an equivalent amount." Prof. Sidgwick adopts a similar view, and says that the bad effect of such duties "is not at all likely to be at all equal in proportion to the similar effect that would be produced by extra taxes on income; in fact, the limits of taxation on inheritances will be practically determined for the financier rather by the danger of evasion through *donationes inter vivos* than by the danger of checking industry and thrift." (*Principles*, bk. iii. ch. viii. § 11).

Mill regarded legacy and inheritance duties as taxes in respect of which it was both expedient and just that the principle of graduation should be adopted (*Principles*, bk. v. ch. ii. § 3), but Prof. Nicholson contests this view and expresses the opinion that "graduated taxation, even in the modified form proposed by Mill, would tend to check production on a large scale" (*Encyclopædia Britannica*, art. "Taxation"). The levy of a larger percentage on a larger sum has, however, received distinct recognition in the scale of death duties in force in the United Kingdom.

Prof. Nicholson (*ibidem*) says that "it is obvious as regards incidence that taxes of this class are the most direct of all taxes, in the sense that they cannot be transferred to other persons by the beneficiaries"; to which he adds, that the principal difficulties connected with them arise in connection with the canon of equality of taxation.

The death duties levied in the United Kingdom date from the year 1694, when a fixed duty of 5s. each was imposed on all probates of wills and letters of administration. This duty was increased four years later to 10s.,

but in both cases the charge was more analogous to the stamp duties levied on instruments of a legal character than to the death duties as we now know them. In 1779 Lord North, taking note of the observations of Adam Smith, proposed that the charges should vary according to the amount of the estate, the maximum duty to be a fixed sum £2 : 10s. on each estate of £300 and upwards. In the following year these charges were supplemented by a graduated duty on receipts given for legacies. Frequent changes in the scale of probate duties were made between 1779 and 1815, the maximum charge being gradually augmented, and in the latter year a distinction was drawn between the duties levied on testate and intestate estates. During the same period the legacy duties were also increased, and their payment made more secure. The most important alterations were those proposed by Pitt in 1796, when executors were made responsible for the payment of the duty, and the charge was levied at different rates varying according to the consanguinity of the legatee to the testator. These rates were enlarged in 1804 and again in 1805. No complete record of the yield of the death duties exists prior to the year last named, but they then produced £495,000, a sum which had increased to £882,000 in 1810, and to £1,298,000 in 1815.

In 1842 the Irish probate duties were brought up to the level of those levied in Great Britain, but, with this exception, the death duties remained unaltered for thirty-eight years. The amount they produced, however, steadily increased, rising from £1,696,000 in 1820, to £2,189,000 in 1830, £2,192,000 in 1840, and to £2,343,000 in 1850.

In 1796, Pitt had endeavoured unsuccessfully to obtain a tax on successions to landed property, analogous to that on legacies of personal estate, and it was reserved for Mr. Gladstone, in 1853, to bring within the scope of the duties all successions to property, by reason of death, whether the property was real or personal, and whatever the nature of the title to receive it. Mr. Gladstone found it essential to make considerable differences between the new duties and the old ones, alike in the amount to be paid and the manner of payment, and his estimate of the produce of the duties he imposed proved excessive, their yield never having amounted to one-half of the sum, £2,000,000, which he thought they would realise. Some slight modifications of the death duties were made in 1859 and in 1864, and six years later Mr. Lowe proposed, but without success, to so rearrange them as to secure an additional £1,020,000 a year, but it was not until 1880 that any substantial changes were made. Meanwhile the aggregate produce had risen from £2,547,000 in 1853 to £3,564,000 in 1860, £4,953,000, in 1870, and to £6,400,000 in 1879, figures which strikingly exemplify the growth of the national wealth.

In 1880, Sir Stafford Northcote revised the scale of probate duties, and a year later Mr. Gladstone followed his example and, at the same time, abolished the distinction between the duties payable in respect of testate and intestate successions, transferred the duty from the probate or letters of administration themselves to a detailed affidavit of value to be lodged with the application for representation, and repealed the 1 per cent legacy or succession duty payable by direct lineals wherever the increased probate duty was paid. On the same occasion Mr. Gladstone afforded relief to small estates not exceeding £300, alike in the amount to be paid and the mode of payment, whilst a new duty, styled the "account duty," was imposed as an equivalent to the probate duty in certain circumstances in which the payment of the latter was avoided. The yield in the year 1880-81, under Sir Stafford Northcote's scheme, was £6,826,000, and in 1882-83, when Mr. Gladstone's proposals first took full effect, the receipts were £7,438,000. Five years later the produce had risen to £8,242,000. In 1888 Mr. Goschen proposed that the exchequer should surrender one moiety of the probate duty for the benefit of various local authorities, and he accompanied this proposal by an addition of a ½ per cent to the 1 per cent rate of succession duty and of 1½ per cent to the higher rates. In 1889 Mr. Goschen imposed a new duty, analogous to the probate and succession duties, which was termed the "estate duty" by reason of its limitation to estates or successions of £10,000 and upwards. The result of the rearrangements of 1888 and 1889 are yet not fully apparent, but as against £8,242,000 received by the exchequer from the death duties in 1887-88, the receipt in 1890-91 was £7,443,000, the additional sum of £2,414,000 collected from the same source in that year being received on account of local authorities and not of imperial funds.

It will now be convenient to describe, under their respective heads, the death duties at present levied in the United Kingdom.

(1) *Probate, Administration and Inventory Duties.*—Prior to the issue of any grant of probate or letters of administration of the estate of any deceased person, the law requires the applicant to deliver an affidavit containing detailed particulars of the value and description of all the property belonging to the deceased which the executor or administrator has the right to recover *virtute officii*. The property must therefore be personal estate, or be legally impressed with that character, as in the case of real estate contracted to be sold, or real estate forming part of the assets of a partnership. Leaseholds are personal property and must be

included in the affidavit, but, except in circumstances such as those referred to, "real estate" is not within the scope of the duty. Debts payable out of the estate, together with reasonable funeral expenses, may be deducted from the assets, and the duty is charged upon the net amount of the estate according to the following scale.

Net value of the Estate.	Rate of duty.
Above £100 and not above £500	£1 for every £50 or fractional part thereof
,, £500 ,, ,, £1000	£1 : 5s. for every £50 or fractional part thereof
,, £1000 . . .	£3 for every £100 or fractional part thereof

The duty is denoted by means of a stamp on the affidavit, and provision is made for the delivery of a "corrective affidavit" where an adjustment of the duty originally paid is found necessary. In the case of small estates not exceeding the gross value of £300 a fixed duty of 30s. may be paid, the grant of representation being obtained through the agency of the officers of inland revenue on payment of a fee of 15s., in lieu of the fees ordinarily charged in the Probate Division of the High Court. In Scotland, where the procedure at death differs from that in force in England and Ireland, the duty is payable on the inventory which is required to be exhibited in that country. Where property is situated in more than one of the three kingdoms, arrangements are made by which one grant of representation suffices.

The probate, administration, and inventory duties produced the sum of £2,414,000 for imperial purposes, and a similar sum for local purposes, in the year 1890-91. Taken as a whole, and regardless of their destination, they form by far the most important branch of the death duties—nearly 49 per cent of the total produce. The yield exceeded £500,000 for the first time in 1814, £1,000,000 in 1837, £1,500,000 in 1863, £2,000,000 in 1872, £3,000,000 in 1880, and £4,000,000 in 1883. The net produce of £4,827,000 for the year 1890-91 was the largest on record, duty being then paid in respect of property of the net value of £165,329,000, an additional £1,060,000 being made up of small estates paying no duty. These sums were comprised in 67,247 separate estates divided as follows :—

Net value of Estate.	No. of Estates.	Value.
		£
Not above £1000	52,276	12,689,000
Above £1000 and not above £50,000	14,522	90,477,000
Above £50,000.	449	63,273,000
	67,247	166,389,000

No important objections are now made to the manner in which these duties are levied. The restriction of their incidence to certain descriptions of property is referred to under the head of succession duty.

(2) *Legacy Duty.*—This duty, originally a stamp duty on receipts, is now more fitly described as "a tax upon movable property; its incidence depends upon the domicile of the deceased owner, and its amount upon the value of the bequest or succession, and upon the degree of consanguinity existing between the deceased and the legatee." It is payable at the following rates :—

Lineal issue or lineal ancestor .	1 per cent
Brothers and sisters and their descendants	3 ,,
Uncles and aunts and their descendants	5 ,,
Great uncles and aunts ,, ,,	6 ,,
Any other person . . .	10 ,,

The duty is payable when the legatee comes into the possession of his legacy, and owing to the complexity of the manner in which property may be disposed of by a testator, the rules for its assessment are of an exceedingly complicated character. The duty is paid in money, although a stamp is impressed on certain forms of account in order to denote the discharge of the liability. There are certain exemptions in favour of the Royal Family, learned societies, and Irish charities; and all property in respect of which probate or inventory duty has been paid is free from the charge of legacy duty at 1 per cent.

The legacy duty produced £2,626,000 in 1890-91, and it then comprised nearly 27 per cent of the aggregate yield of the death duties. The receipts amounted to £546,000 in 1809, £1,070,000 in 1822, £2,154,000 in 1867 and £2,935,000 in 1877. This last-named sum has never been exceeded, the extension of the exemptions in 1881 having stopped the growth of the duty in recent years.

Considerable difficulties arise in the collection of the legacy duty by reason of the length of time which may elapse between the death of a testator and the receipt of a legacy by a beneficiary under his will. But these difficulties cannot well be avoided if a consanguinity scale is maintained, and the retention of such a scale is now almost universally supported by public opinion. All present and future claims for legacy duty under a will may be compounded for by agreement, but it is believed that this course is not adopted to any large extent.

(3) *Succession Duty.* — This duty supplements and completes the duty on legacies. It charges "all successions to property, real as well as personal, whether the title be under settlement or will, by descent, intestacy, or survivorship." The rate payable depends, as in the case of the legacy duty, on the consanguinity of the person from whom the succession is derived, the following being the scale now in force :—

Lineal issue or lineal ancestor . .	1¼ per cent
Brothers and sisters and their descendants	4½ ,,
Uncles and aunts	6¾ ,,
Great uncles and aunts .	7½ ,,
Any other person	11¼ ,,

The capital sum upon which these rates of duty are calculated is ordinarily arrived at by ascertaining the net annual value of the succession after deduction of necessary outgoings, and by calculating the worth of an annuity for an amount equal to such net annual value, for the life of the successor, according to the annuity tables set out in a schedule to the Act 16 and 17 Vict. cap. 51. Thus if the annual income of an estate be £350, and the necessary outgoings £50, the successor being thirty-five years of age, the duty is calculated on £4725, that being the assumed value of an annuity of £300 at that age. The amount so assessed is payable either by eight equal half-yearly instalments, the first being due twelve months after the succession opens, or, as an alternative, by three annual instalments of one-eighth of the duty and by a fourth instalment equal to the amount of the remaining five-eighths. Like the legacy duty, the succession duty is payable in money, although a stamp is impressed on the account required to be brought in. Certain small successions are exempt from duty, and provision is made to prevent the charge of both legacy and succession duty on the same succession.

The succession duty produced £565,000 in 1858-59, and twenty years later the produce was £725,000. In 1884-85 the duty yielded £930,000, the maximum sum collected prior to the increase of the duties in 1888. The produce for 1890-91 was £1,209,000.

The succession duty has been frequently criticised on the ground that the charges it imposes on real property are less than the corresponding ones on personal estate. This inequality was to some extent redressed by the legislation of 1888, but the mode in which the duty is assessed and the manner in which it is paid still favour settled personalty and, to a greater extent, realty. This inequality is, however, defended by reference to the exceptional pressure of the income tax on landed property, and to the incidence of local and imperial taxation generally.

(4) *Account Duty.*—This duty was devised by Mr. Gladstone in order to meet cases in which the payment of probate duty was avoided, *inter alia*, by the execution of a deed having no effect during life, by gifts in anticipation of death, or by investments in joint names. It is little more than a necessary protective adjunct to the probate duty, and is payable at the like rates. It realised £26,000 in 1883-84. Separate figures are not now published.

(5) *Estate Duty.*—A special duty of 1 per cent imposed on all personal estates of £10,000 and upwards, passing by will or intestacy, and on all successions of a like amount. In the case of free personalty the duty is paid by means of stamps on a special form required to be brought in with the affidavit of value delivered for probate duty purposes. In the case of settled personalty or realty, the estate duty is assessed and collected in much the same manner as the succession duty, but the value on which the charge is made is somewhat less favourable to a successor who acquires an absolute interest in real estate. The duty is a temporary one, being imposed for seven years only, in aid of certain special expenditure on the navy. The net produce in 1890-91 was £1,194,000.

[Wallace's *Epitome of the Death Duties*, 1886.—Trevor's *Digest of Taxes on Successions*, 4th ed. 1881.—Hanson's *Probate, Legacy, and Succession Duty Acts*, 3rd ed. 1876.—Hanson's *Revenue Acts of 1881*, 1883.—M'Culloch's *Treatise on Succession to Property vacant by Death.*—Thring's *Introduction to the Succession Duty Act*, 1853.—Archbold's *Succession Duty Act of 1853*, 1854.—Griffith's *Digest of the Stamp Duties*, 9th ed. 1886.—Harris, *English Death Duties*, 1890.—Buxton and Barnes, *Handbook to the Death Duties*, 1890. See also Dowell's *History of Taxation and Taxes in England.*—Hansard's *Debates*, and the *Reports of the Commissioners of Inland Revenue.*]

T. H. E.

DEATH-RATE

Analysis of Contents.—Definition and division of the subject. I. Death-rate as a factor in the natural increase of population, p. 493. II. The causes of variation in death-rate; (*a*) such causes as age and sex; (*b*) such as vice, unhealthy occupations, indigence, insanitary residences, p. 494. III. Death-rate, as indicating (by its decline) national prosperity, p. 497. IV. In relation to insurance, p. 497.

DEATH-RATE may be defined as the ratio between the number of persons dying, out of a certain population, in a unit of time, generally a year, and the number of the population. But as the number of the population cannot be supposed constant for any considerable time, there is some difficulty in rendering precise the conception which has been indicated. To remove the difficulty completely the use of the differential calculus would be required, but it is not necessary to call in that aid except for certain actuarial calculations. For the less technical inquiries which are the object of this article the general idea which the definition above given conveys is sufficiently clear.

The death-rate is the most important ratio or coefficient in vital statistics. While co-ordinate with birth-rate as a factor in the natural increase of population, death-rate is more important than BIRTH-RATE (*q.v.*) on the following grounds. The investigation of the causes which affect death-rate is more directly connected with a practical art, that of preventing disease. Again birth-rate by its variation gives a more equivocal sign of national prosperity or the reverse, than death-rate. A rise in birth-rate

may be due to increased improvidence or illegitimacy, as well as to material prosperity; whereas a fall in death-rate can hardly admit of any other than a favourable construction. Again the chance of death is an object of wider and deeper interest than any other datum in vital statistics; and a great practical business, that of insurance, is based on these probabilities. These points of comparison being taken as headings; it may first (I.) be observed that the natural increase, being the difference between birth-rate and death-rate, is not necessarily small where death-rate is large, or large where death-rate is small. Thus the death-rate for Russia in recent years, 35·7 per mille (Marshall, *Principles of Economics*, bk. iv. ch. iv. and authorities there cited), exceeds the average of Europe, 28 per mille, by a fourth, yet the natural increase for Russia, 13 per mille, is above the average for Europe. Again the death-rate for England is below, the natural increase above, the average for Europe.

Other examples are given in the article on BIRTH-RATE; where it was pointed out that large birth-rates are frequently attended by, but do not cause, large death-rates.

II. The question there raised is to be more fully considered here under the head of causes of variation in death-rates. (*a*) One such cause is difference of age. If the population of any country is divided into groups of different ages, the death-rates for the different groups differ enormously. Thus (according to the English Life-Table, No. III., which may be regarded as a standard) the mortality for infants under one year old is in England 165·6 per 1000 (*Vital Statistics, Selections from the writings of William Farr*, by Noel A. Humphreys, p. 491), while it is only 5·2 per 1000 at the age-period 10-15 (*ibid.* p. 487). After that period the death-rate increases with the age. At the period 75-85 it has become 140 per 1000, and is still greater at later ages; the death-rate of second childhood equals that of infancy. The general law is happily indicated by Addison in his Vision of Mirza (*Spectator*, No. 159, 1st September 1711), where the human race is imagined passing over the flood of eternity by a bridge, supported on as many arches as there are years in man's life. "Hidden pitfalls were set very thick at the entrance of the bridge, so that throngs of people no sooner broke through the cloud but many of them fell into them. They grew thinner towards the middle, but multiplied and lay closer together towards the end of the arches."

It follows from this law that in a population where there is a particularly large proportion of infants or old persons the general death-rate, the mortality "at all ages," as it is called, is apt to be high. Now in an increasing population, as compared with a stationary one, the number of births continually augmenting, the number of infants is particularly large. Hence it is plausibly argued that an increasing population, just because it is increasing, will have a high death-rate; that high birth-rates, *per se*, make high death-rates; other things, and in particular the mortality at each age-period, being supposed the same.

But here, as so frequently in statistics, first appearances are fallacious. It is true, no doubt, that in an increasing population there is a particularly large proportion of infants subject to a high mortality. But it is also true that, in such a population, the proportion of persons at those advanced ages at which the mortality is high is apt to be particularly small as compared with the numbers in the period of healthy adolescence (Farr, *Vital Statistics*, "Deaths." Humphreys "On the Value of Death-rates," *Journal of the Statistical Society*, 1874, vol. xxxvii.)

From these considerations it appears that great care must be exercised in allowing for the influence of age on mortality before drawing inferences from the death-rate as to the sanitary condition of a population. To take an extreme instance, suppose that the death-rate for the inmates of a prison were the same as that for the general population, this at first sight might appear a satisfactory state of things. But when it is considered that the prison population consists of adults, a class of which the mortality under ordinary conditions might be expected to be half that of the general population, the conclusion becomes very different.

To take a less simple case. The death-rate in many towns is particularly high. But it has been argued that this is not an unfavourable symptom, for that it is due to the presence of a great number of infants. But the truth is, that the inference from the high death-rates becomes *à fortiori* unfavourable when proper account is taken of the ages of the urban population.

A usual method of exhibiting such conclusions is to construct what is called a "normal" death-rate for any group under consideration; by supposing the persons at each period of age in that particular population to be affected with the mortality prevalent at that age in the general population (or any other population taken as standard). Thus in the case of three counties containing large towns, instanced by Mr. Humphreys in his instructive paper above cited, the actual death-rate was 26·5.[1] But the *normal* death-rate, or that which might have been expected, if the mortality at each age was the same as for the general population, was only 22.2.[1] Also the actual death-rate for three rural counties was 19; while the normal death-rate was 23·8. The two pairs of figures, whether compared with each other or

[1] Taking the simple average of the death-rates given for each of the three counties.

with the standard death-rate for *a stationary* population, which Mr. Humphreys gives as 24·47, show that the unfavourable inference concerning the urban as compared with the rural counties is stronger than at first sight appears. The original figures, 26·5 and 19, differ only by 7·5. But we may regard the excess of the mortality in the urban over the rural counties as virtually nine; if we take into account that the former normally would have been *less* by nearly two than the latter.

A more exact method of drawing such comparisons is to express the mortality of each section as a ratio of its actual to its normal mortality. This plan is adopted by Mr. Humphreys in his article on "Class Mortality Statistics," in the *Journal of the Statistical Society* for 1887. The following figures (extracted from Mr. Humphreys' Table IV., *loc. cit.*, p. 281) relate to the mortality in two classes of the Dublin population:

Description of Class.	Recorded death-rate per 1000.	Standard death-rate according to English Life-table.	Coefficient of comparative mortality.
Professional Class . .	19·8	25·2	632
General Service Class . .	36·8	21·3	1659

The first column gives the actually observed mortality at all ages for the more and less favoured class. The second column gives the corresponding *normal* mortalities (obtained on the hypothesis that the numbers at each age were those observed for Dublin, and the mortality at each age that observed for England). The third column gives the coefficients expressing the force of mortality; being each the ratio of normal to actual mortality, multiplied by 1000, or expressed as a *per mille*. It will be observed that the evidence of difference in healthiness afforded by the first column becomes *à fortiori* in the third column. The mortality of the "general service" class *appears* to be nearly twice as great, and *is* nearly three times as great as that of the professional class.

The cause of variations in death-rate which has been considered, namely difference of age, may be placed in a category of causes which are of practical importance, largely on the ground that it is necessary to allow for their action in order to estimate the effect of another class of causes which it is more within the scope of human art to alleviate. This distinction is nearly identical with Dr. Farr's of "causes inherent in the population, and causes outside the population" (*Vital Statistics*, p. 159 *et seq.*) Another cause belonging to the first category is sex. The full effect of this cause may be seen on inspection of a life-table. At the early ages the difference between the mortality of the two sexes is marked. At the zero-point of age it appears that the proportion of male to female still-born children is 139 : 100. For the period 0-5 the proportion of mortality is 72 : 62 (according to Dr. Farr's Life-Table for England and Wales). At the age of adolescence female mortality gains upon male; but again lags behind at later ages. The disturbing effect which this cause exercises on inferences drawn from the general death-rate is not so considerable as the effect of age. Mr. Humphreys in his paper "On the Value of Death-rates" already referred to (*Journal of Stat. Soc.*, xxxvii. p. 444), contrasting the English towns which have the greatest and the least proportion of male to female inhabitants, argues that the extreme perturbation of the general death-rates which may be expected from this cause is not more than two per mille.

Here may be mentioned the effect on mortality of the variations of the seasons. Of the four quarters of the year the first is the most fatal; next comes the fourth; the mortality of the second quarter is for this country on an average in excess, but occasionally below, that of the third quarter (Reports of the Registrar-General, tables showing death-rates in each quarter of the years since 1838). A very elegant graphical representation of such vicissitudes is given by M. Levasseur (after M. Janssens) for Belgian infants, in the *Jubilee volume of the Statistical Society*, 1885, p. 232. Quetelet's investigations of seasonal mortality in Belgium are particularly instructive (*Physique Sociale*, liv. ii. ch. v. § 8). He shows that the curve of death-rate at different seasons varies for different ages; and that very generally it presents two maxima, one in winter the other in summer. Besides the obvious importance attaching to such observations, they are valuable as enabling us to avoid perplexity in investigating other causes. The Registrar-General, in the investigation which will be presently noticed concerning the death-rate in different occupations, has very properly selected the samples (of deaths) on which his conclusion is based from all seasons indifferently (*Supplement to the 45th Report of the Registrar-General*, p. 29). A sophist by taking the samples for one occupation from a healthy season, and for another occupation from an unhealthy season, might have brought out almost any conclusion which he wanted.

Other causes, not admitting of such exact measurement, are race and climate (including properties of soil, water, etc.)

Also it may be expected that the mortality of unmarried persons will, *ceteris paribus*, be particularly large. The married have the advantage at almost all ages, as is shown by Dr. Farr (*Vital Statistics*, p. 441, and references

there given). But it is a nice question whether celibacy can be regarded as a cause of high death-rate. The high death-rate attending celibacy may be a case of *post hoc* not *propter hoc*; the finest individuals being selected for marriage; while "men with a weak constitution, ill-health, or any great infirmity of body or mind will not often wish to marry, or will be rejected" (Darwin, *Descent of Man*, pt. i. ch. v.)

(*b*) The causes which have been mentioned require to be taken account of by those who would avoid perplexity in investigating another set of causes which are perhaps of more direct practical interest: as being capable of remedy by human effort. This second category of causes may be divided under four heads: (1) vice, (2) unhealthy occupations, (3) indigence, and (4) insanitary residences,—agencies which are apt to be entangled with each other as well as with the first set of causes.

(1) There is much truth as well as exaggeration in Süssmilch's dictum ascribing the chief differences in mortality to "the manner of life, the moral circumstances, virtue and vice, indolence and industry." One example is the great mortality of illegitimate children. Dr. Farr cites instances in which the death-rate of illegitimate infants is double that of the legitimate (*Vital Statistics*, p. 198). A similar excess of mortality among illegitimate children is shown by Quetelet (*Physique Sociale*, bk. ii. ch. vii. § 2), Wappaeus (*Bevölkerungs Statistik*, pt. i. p. 214), and other continental statisticians. The vice of drunkenness is also conspicuously fatal. On this subject some of the most recent observations together with a reference to the best authorities will be found in the *Report on the connection of disease with habits of intemperance* by the collective investigation of the British Medical Association, edited by Isambard Owen. Among the earlier authorities may be mentioned Neison, who in his *Contributions to Vital Statistics* fully proves the connection between deep drinking and high death-rate; bringing out the remarkable fact that spirits are more fatal than malt liquors (*Contributions to Vital Statistics*, p. 218). Another authority particularly free from suspicion is the Registrar General, whose statistics with respect to occupations (Supplements to Reports for 1865, 1875, and 1885) point unmistakably to a connection between drink and death. The mortality of hotel-keepers and their servants is appalling, about three times as great as that of the most healthy classes. Among the diseases to which the classes mentioned and several others succumb, "alcoholism" plays a large part (Supplement to Report for 1885, p. xxx. *et seq.*)

At this point, however, the action of the cause which has been considered is intermixed with that which we have distinguished as cause (2), unhealthy occupations. It is difficult to pronounce with respect to the mortality in some occupations how much thereof is occasioned by unresisted temptation to drink, how much is due to other circumstances. Thus in the case of drivers ("Cab, Omnibus, Service," *loc. cit.*), the bill of mortality due to "alcoholism" is particularly large; but the same class also succumb in numbers to phthisis and diseases of the respiratory system, which may no doubt be connected with the exposure incident to the occupations in question.

(2) The observations referred to prove the influence of occupation on health in many cases to be real and considerable. The number of deaths observed in 1881-82—more than 400,000; the scrupulosity above noticed with which these samples have been selected impartially from healthy and unhealthy seasons; the allowance for the effect of age (expressed in the last column of table J, *Supplement to the 45th Report* 1885, p. xxvi.), are very convincing. The suspicion of accident is precluded by the general agreement between the statistics for 1861-62, 1871, and 1880-82. The same occupations constantly come out low or high in the scale of mortality. At one end of the scale are clergymen with a co-efficient of death-rate or "comparative mortality figure" 556, gardeners and farmers with co-efficients respectively 599 and 681, with at the other end of the scale hotel-keepers and their servants, for whom the corresponding figures are respectively 1521 and 2205, also chimney-sweeps, workers in earthenware (1742), and the residual class of general labourer (2020). (See J. T. Arlidge, M.D., *The Hygiene, Diseases, and Mortality of Occupations*, 1892.)

(3) In the last case and probably some others, a further cause—indigence, comes into play. The term indigence must be construed strictly as want of necessaries, "inadequate warmth and food" (Farr). Mere absence of riches is not fatal to life, as Neison's statistics with respect to members of friendly societies show (*Contributions to Vital Statistics*; cp. Wappaeus, *Bevölkerungs Statistik*, pt. i. p. 201). The very different consequences of actual indigence may be traced in certain statistics of class mortality among the population of Dublin compiled by Dr. Grimshaw, and discussed by Mr. Humphreys in a paper already referred to (*Journal of the Statistical Society* 1887, vol. 50). In the same paper reference is made to the observations made by Mr. Ansell and Hodgson and others, proving that the more favoured classes enjoy greater vitality. Especially with respect to infant mortality is the poverty of the poor his curse. The death-rate for infants under 5, in the "general service" class of the Dublin population, was 110 per mille, in the "professional" class 22 per mille (*ibid.* p. 282). So the mortality of peers' and clergymen's children is three times less than the mortality of infants of the same age in large towns (Farr, *Vital Statistics*, p. 159). These conclusions are confirmed by numerous

observations on the comparative death-rate in the poorer and more flourishing parts of towns; some of which are cited by Wappaeus (*Bevölkerungs Statistik*, pt. i. p. 200).

(4) Here, and indeed generally, mere indigence, the want of necessaries, is aggravated by a fourth cause, insanitary conditions of residence, or, in Dr. Farr's more exact language, "exposure to poisonous effluvia, and destructive agencies." The interaction of these two causes is strikingly exhibited in a recent article in the *Giornale degli Economisti*, "Nuova Politica Sanitaria, in Italia" (March 1891); where it is contended that the sanitary measures carried out in Italy defeated their own end. For the taxpayer, deprived by the burden of taxation of the necessaries of life, becomes thereby more exposed to the shafts of disease. In our terminology cause (4) might be reduced, and yet the effect would be more fatal if concurrently cause (3) were aggravated.

The nature and variety of insanitary conditions are ably discussed by Dr. Farr (*Vital Statistics*). A vast mass of experience as to the evil effect of crowding is summed up by him in the simple formula that the mortality of districts is as the twelfth root of their densities (*Vital Statistics*, p. 175). In symbols $\frac{m}{m'} = \left(\frac{D}{D}\right)^{\cdot 12}$. The fact that in an earlier paper the *sixth* root was proposed, and that in the formula the index ·12 does not signify the twelfth, but rather the eighth or ninth root, is not suggestive of extreme precision. At any rate the law makes no claim to be more than empirical. It is not fulfilled by the experience of the crowded Peabody Buildings; where the mortality is less than for London generally (Newholme, *Journal of the Statistical Society*, 1891). It is interesting to inquire whether the causes of death which admit of reduction are being reduced by science; or:—

III. More generally, and without reference to causation, whether a decline of death-rate attends the progress of civilisation. The most extended series of observations is that which the Swedish census presents (quoted in the 25th vol. of the *Journal of the Statistical Society*, and by Wappaeus, *op. cit.*, p. 229). Looking at these we may now say with even more truth than Malthus said: "The gradual diminution of mortality since the middle of last century is very striking." According to Dr. Farr "the mortality of the city of London was at the rate of 80 per 1000 in the latter half of the 17th century, 50 in the 18th, against 24 in the present day" (*Vital Statistics*, p. 131).

On the other hand the returns for France and Russia, extending over a long period of years, which Wappaeus adduces (*loc. cit.*), do not show a marked decline. And it is remarkable that the death-rate for England and Wales has remained virtually unaltered for the greater part of the time over which the record extends, from 1841 to 1871. Since that period indeed a decline has set in, ascribed by some to improved sanitation.

There is some difficulty in estimating the gain which has been made in recent years, owing to the circumstance that while the death-rates at some (the earlier) ages decreased, at other (later) ages the death-rates increased. Such at least was the relation when the statistics bearing on this point were first discussed by Mr. Humphreys in his valuable paper in the *Journal of the Statistical Society* for 1883; since that date the gain in vitality at different ages may have become more uniform (cp. Report of the Registrar-General for 1885, Supplement).

IV. The significance of the recent change in death-rates may best be appreciated by glancing at that aspect of the subject which in the arrangement here adopted has been placed last; namely, that which relates to life insurance. The business of insurance is beyond the scope of this article. But the theory of life-tables on which that business rests must be understood in order to make a right use of mortality statistics, even for the general purposes here contemplated.

The simplest view of the matter is that according to which a population is regarded as "stationary"—a steady influx of life through the channel of birth, a steady efflux at each age, at a rate proper to each age. To compare the vitality of two populations thus conceived, there are available several measures besides the common death-rate hitherto considered. One consists of that age which is such that just as many persons die before it as live after it; the "equation of life" as it is called. For instance in the life-table constructed for the healthy districts of England and Wales by Dr. Farr, this meridian point is at the age 58 nearly. It is an even chance that a new-born infant will, or will not survive that age. Similarly may be determined the age to which it is an even chance that a person aged 10 or 20 years will live. Thus Mr. Neison finds that for males aged 10 in the rural districts of England and Wales, the equation of life is 58·375 years; in the city districts the corresponding figure is 51·743 (*Contributions to Vital Statistics*, p. 100). This eminent statistician holds that "the equation of life . . . appears to be the best mode to determine the comparative value of life in different classes or different districts" in certain cases (*ibid.*) at least.

Another measure of vitality, however, has obtained more vogue, namely, the average duration or so-called "expectation" of life, or "mean after-time" as Dr. Farr proposed to call it. For instance, the mean after-time for males at birth, according to the English life-

table No. 3, is 44·4 years; at the age of 11 (the prospect of living having improved for those who have cleared the dangers of infancy) the mean after-time is 51 years nearly.

The following is an instructive example of the uses to which this co-efficient lends itself. Observing the age at which a number of sovereigns or other notables, as popes, during a series of generations had acceded, we can compare the average length of their reigns with the average length of life deducible from a standard life-table; and thus ascertain that the lives of men are lengthened "with the process of the suns."

This example illustrates what is implied in the idea of an average duration, the putting together and treating as commensurate quantities the lives lived by different persons. In fact, actuaries often consider not so much the mean life as the sum of lives, the "years lived" by a whole population. It is thus that the gain in vitality referred to under the last heading is measured. Considering the infants born in any one year in England and Wales numbering say 859,000, the registrar-general calculated that the years to be lived by this generation will, in virtue of the change in death-rates at various ages which have occurred during recent years, be more numerous by some *two million years of life* (Report of the Registrar-General for 1885, Supplement; cp. Humphreys, *Journal of the Statistical Society*, 1883). Of the millions of lives thus yearly gained, by far the greater part are lived at the ages 25 to 60, which are most "careful," most conducive to the defence and enrichment of our country.

So far with reference to a stationary population, abstracting the fact that the actual population is continually increasing. But the logic of the subject and its fallacies would be imperfectly treated without noticing the modifications which this fact introduces. In a stationary population it is evident that the mean duration, or "expectation," of life is identical with the mean age at death; and a little attention will show that each of these co-efficients is identical with another measure with which we are here more particularly concerned, namely, the number of persons out of whom one dies per annum, the *inverse death-rate* as we may call it. But when population increases these identities are broken up. The inverse death-rate becomes a little greater, the mean age at death becomes much less than in a stationary population. Thus the mean expectation of life being, in Dr. Farr's time, 41 for England and Wales, the inverse death-rate was 1 in 43; the mean age at death about 29. The neglect of these distinctions has proved fatal to the work of amateurs who have attempted to use measures of mortality more delicate than the common death-rate "at all ages." The indications given by this last are less fallacious, as has been shown above (under the heading of age and sex), than might have been supposed. Yet it is desirable to supplement if possible this rough measure by arranging our observations in the form of a *Life-Table*.

[The authorities on this subject are almost as numerous as the writers on statistics. As a lucid statement of the principal facts for the leading nations of the world the *Confronti Internazionali per gli anni* 1865-83, issued by the Ministero di Agricultura, Industria, e Commercio, Rome, may be specially mentioned. Works which instructively place a number of facts in the light of theory are:—Quetelet's *Physique Sociale*.—Wappaeus, *Bevölkerungs Statistik*.—Mayr's *Gesetzmässigkeit in Gesellschaftsleben*.—Haushofer's *Lehr- und Handbuch der Statistik*.—Westergaard's *Theorie der Statistik*, and other books cited in the text. For some of the finer logical points which have been touched, Dr. Farr's *Vital Statistics*, edited by Mr. Noel Humphreys, should be studied; and Mr. Humphreys' own papers in the *Journal of the Statistical Society* for 1874, 1883, and 1887.]

F. Y. E.

DEBASEMENT OF COIN, HISTORY OF THE. Coins may be debased in three ways—(1) a debasement in total weight; (2) a debasement in fineness; (3) a debasement by increasing the rating or nominal value, the coins continuing at the same standard weight and fineness. The effect of the last may also be brought about unintentionally by a fall in the value of the precious metals, and herein lies the secret of much of the debasement of the middle ages.

The first historically recorded debasement is that effected at Athens by Solon (B.C. 594) to redeem the poorer citizens from debt. By his advice the weight of metal in the silver drachma or standard Athenian coin was reduced more than 25 per cent, thus enabling 100 drachmæ to be coined out of the mina or unit of weight instead of only 73 as previously (Plutarch, *Solon*, c. 15). Creditors were compelled to take these light coins as full payment, and were thus obviously defrauded; but perhaps in this case the end may have justified the means (Grote, *Hist. of Greece*, pt. ii. ch. xi.; Boeckh, *Metrologie*, ch. ix.) It must be admitted too that, as a rule, the Greek states were not often to blame in this respect, partly perhaps because their philosophers inculcated sound principles (Lenormant, *Contemp. Rev.*, Feb. 1879), but more probably owing to their small size. This naturally caused a large proportion of their money transactions to be international, and in foreign trade coins can only be exchanged for their value as bullion whatever their rating as legal tender within the issuing state; debasements therefore would be avoided for mere convenience where the foreign trade was of primary importance.

In the large and constantly growing Roman state no considerations of this sort existed, nor,

as far as we know, was the subject of money at all adequately studied; on the contrary, a continuous series of debasements lends colour to the opposite view. The history of these is professedly given by Pliny (xxxiii. 13), but the evidence of actual coins that have been discovered makes it probable that his account is incomplete. According to his view the Roman coinage, which originally had the "as" or pound of copper for the unit of value, remained unchanged till the First Punic War. The coined "as" was then reduced suddenly to 2 unciæ or ounces, that is, to $\frac{1}{6}$th of its former weight. About this time 10 asses made a denarius and $2\frac{1}{2}$ a sestertius; but during the Second Punic War the unit was further reduced 50 per cent, and asses were coined weighing only 1 oz., 16 of which made a denarius and 4 a sestertius. Finally, by the Papirian law, B.C. 191, the "as" was made to weigh only $\frac{1}{2}$ oz., but it is hardly necessary to regard this as a debasement of the standard, for by this time silver was also largely current. The silver, however, was in its turn debased, and the denarius, which had weighed $\frac{1}{72}$d of a lb., was reduced to $\frac{1}{84}$th. In B.C. 91 a plated coinage was issued, but was soon withdrawn. The denarius, however, continued to fall, and under Nero weighed only $\frac{1}{96}$th of the lb. In the same reign the gold aurei, which had originally been coined at 40 to the pound, had become debased 12 per cent. Under Alexander Severus these coins got the name of solidus, corrupted afterwards into the French "sou." Constantine fixed them at 72 to the pound, but the mere name gives a measure of their subsequent debasement in the West. In the Byzantine empire, on the contrary, this standard was long preserved, and seems to have still existed in 1204 when the Crusaders captured Constantinople.

In the dark ages gold again fell into disuse, and endless variations took place in the silver standards set up by the numerous barbarian rulers. The first monarch with the power and the will to alter this was Charlemagne. He introduced a silver solidus $\frac{1}{20}$th of a lb. in weight and divided into 12 denarii, but his death in 814 cut short the attempt to get it uniformly adopted throughout his empire. Its use, however, gradually spread, and in England, since the conquest, has formed the basis of our monetary system. Charlemagne's liber, solidus, and denarius are the origin of the £ s. d. we still use, and William the Conqueror's only coin, the silver penny, really did weigh $\frac{1}{240}$th of the lb. This, the so-called Tower pound, was $\frac{3}{4}$ oz. lighter than the Frank pound, but the English standard of fineness (11 oz. 2 dwt. of pure silver to 18 dwt. of alloy) was very high.

The history of the English debasements does not begin till 1300, when Edward I. reduced the weight by cutting the pound into 243 pence. This bad example was soon followed; by 1344 the number had increased to 266, and in 1352 it rose to 300. Early in the next century the pound weight of silver was valued at £$1\frac{1}{2}$ or 360 pence, which by the reign of Edward IV. became 450. In 1526 Henry VIII. abolished the Tower pound as the unit of weight and substituted the French pound troy, weighing $\frac{3}{4}$ oz. more; he, however, continued to reduce the weight of the penny, 540 being coined out of the new pound, equivalent to $506\frac{1}{4}$ out of the old. Further, he was the first king to tamper with the fineness. This began in 1543, when he increased the amount of alloy in the pound from 18 dwt. to 2 oz., following this up by an issue of coins in 1545 containing 50 per cent of alloy. Under Edward VI. the money became still worse, and in 1550 the greatest amount of debasement ever known in England was attained, when a pound of metal containing no more than 3 oz. of pure silver was coined into as many as 864 pence. This lasted only two years. In 1552 an improvement began, which, though not completed till the great recoinage by Elizabeth in 1560 (Froude, *Hist. of Eng.*, vol. vii. ch. vi.), in the end reduced the number of pence cut from the pound to 720, and restored the standard English coins to their old degree of fineness. The latter has been maintained ever since, but it was not till 1600 that the weight was definitely settled. Silver was then coined at 744 pence to the pound, and this continued in spite of some famous proposals for debasement (Macaulay, *Hist. of Eng.*, ch. xxi.) so long as silver remained the standard. Ever since the 14th century gold has been coined in England, but for the greater part of the time only as a subsidiary coinage. It is consequently unnecessary to discuss the numerous debasements and changes of rating to which the earlier coins were subjected in the endeavour, usually a fruitless one, to preserve a proper proportion between the two precious metals. England, however, by the end of the 17th century had become so rich, and gold so much used, that it gradually assumed the superior position. In 1717 a recoinage took place in which the change was legally recognised, and ever since our standard coinage has been gold. When, therefore, in 1816, the silver pound was ordered to be cut in 792 pence, no debasement, properly speaking, occurred, as the object was to make the coins tokens. Since gold has been the standard, there has been no intentional debasement, but a great recoinage was necessitated in 1774. The present money system is regulated by the Coinage Act 1870, 33 & 34 Vict. c. 10.

In Scotland the system of coinage was originally borrowed from that of England, and the two remained identical as late as 1355, in which year Edward III. intentionally debased the English silver in imitation of David II. Subsequently, however, the Scotch kings, under

the influence of French ideas, so multiplied their debasements that they left the English far behind. By 1390 English money was worth twice as much Scotch, and the latter eventually ceased to be current by tale in England. In 1600 £36 Scotch were coined from the pound of silver as compared with 62s. English. The greatest debasement in fineness occurred between 1576 and 1579, but the amount of alloy in the pound never rose above 4 oz. The two coinages were again assimilated at the union in 1707.

In Ireland regular coinages were first introduced by John in 1177, and regular debasements by Edward III. By 1465 the Irish shilling was worth only 9d. English. Three years later 960 pence were coined from the pound and a reaction set in, but in 1520 the coins were again so bad that payment by weight became general. As in England Henry VIII. debased the fineness, and even Elizabeth transferred Edward VI.'s worst debasements to Ireland when she restored the English coinage; James I. attempted to restore the old Irish fineness (9 oz. silver to 3 oz. alloy) and decried Elizabeth's shillings to 2d., but the bad money drove out the good. Complaints of scarcity became constant, and in 1651 all sorts of tokens and foreign coins were in circulation. In 1689 James II. raised the rating of all coins 8⅓ per cent, as a war measure against William III., and this remained permanently in force till 1825. It, however, failed to bring in the necessary funds, and in 1690 he issued a coinage of old guns, broken bells, nails and pewter pots. In the next century there was little improvement, but much dissatisfaction; the case of Wood's copper coinage is the most famous. In 1804 twenty-one shillings of the best Irish silver were not worth nine English; in fact, the debasements only terminated when the Irish and English coinages were assimilated in 1825. On the continent France may be taken as the typical country, and there the debasements were far worse than in England, as no central power was for a long time developed. In 1315 thirty-one barons claimed the right of coinage besides the king, and mutual rates of exchange were arranged for their coins. Dante has (Par. xix.) singled out Philip le Bel as the typical false moneyer, but many other sovereigns were quite as bad. The standard which the people always claimed was that of St. Louis, who in 1226 cut the marc of 8 oz. into 58 solidi or sous, but unfortunately this was afterwards very rarely attained. During the long wars with England the country practically became bankrupt, and the kings dealt recklessly with the coinage. In 1360, when John was captive, the silver marc was once rated at 240 sous, but this was only a temporary measure, and before the end of the year the marc had again fallen to 100 sous. In 1454, when the English were finally expelled, the marc was coined into 175 sous, but quieter times only brought more regular debasements. In 1575 the sou had become so small that silver livres, worth 20 sous each, took their place as the ordinary money of account. 17½ of these, equivalent to 345 sous, were coined from the marc. They soon, however, sank in value, each Bourbon king in succession reducing the weight till 1789, when as many as 52 were coined from the marc. In other words a livre of this date weighed only $\frac{1}{7}$ of the liber of Charlemagne though bearing the same name. During the Revolution even the name was discarded and the synonym "franc" substituted. In all other countries the history has been the same. In modern Germany the mark is only worth a shilling. In Spain the maravedi, originally a gold coin worth 14 shillings, is now a small copper coin not worth a farthing. In Portugal the reis, too small at last for use, are calculated in hundreds. No country, however, has been worse than France.

[A fairly full general outline of the debasements in classical British and French coins may be found in Macleod's *Dict. of Pol. Econ.*, vol. i., "Coinage." For France the standard book is Le Blanc's *Traité Historique des Monnoyes de France*; for England Lord Liverpool's *Coins of the Realm.*—Conigliani, *Note historichi sulla Questione giuridica dei pagamenti monetarii* (1891).—Galiani, *Della Moneta*, bk. ii. vi. iii. ii.—Adam Smith, *Wealth of Nations*, i. xi.—Del Mar, *Money in Ancient Countries* (1885).] W. J. C.

Debasement of coin "in its proper sense means a reduction of fineness," according to an authority quoted by Prof. Walker (*Money*, p. 187). In a wider sense the term denotes also the reduction of the quantity of pure metal in the coin by diminishing its weight while preserving its customary fineness; whether that diminution is effected at the mint, or after mintage by abrasion, clipping, or sweating. For example, Henry VIII. practised debasement proper when, by introducing an increased proportion of alloy, he lowered the fineness of silver to nearly a third of what it had long been before he began tampering with it. Debasement in the wider sense was committed by Edward VI. when he "not only continued the issue of base money commenced by Henry, but lowered the quantity of mixed metal" in each coin (Rogers's *History of Agriculture and Prices*, vol. iv. p. 734). (See ALLOY.) Another example of the less specific sense is afforded by the "debased state of the currency," "previous to the recoinage of 1696," to use Ricardo's words (*Reply to Bosanquet*, p. 96). Elsewhere Ricardo speaks of the metallic currency being "debased by wearing or clipping." (*High Price of Bullion*, p. 26). The term is to be taken in its wider sense in Ricardo's important proposition: "However debased a coinage may

become, it will preserve its mint value, that is to say it will pass in circulation for the intrinsic value of the bullion which it ought to contain, provided it be not in too great abundance"; and provided that, as Prof. Walker adds, it is not discredited (Ricardo, *Political Economy*, ch. xxvii.; *Reply to Bosanquet*, ch. vi.; Walker, *Money*, p. 199). The first of these conditions is not likely to be fulfilled in the case of debasement proper. Governments which debase are likely to over-issue. Striking instances of this abuse are given by Rogers in his *Historical Gleanings* (i. pp. 95-97 quoted by Prof. Walker, *loc. cit.*) F. Y. E.

DEBENTURE. The word "debenture" has been judicially defined as "a document which either creates a debt or acknowledges it" (Justice Chitty in Levy *v.* Abercorris Slate and Slab Company, 37 Chancery Division, on p. 264); every document which answers that description is a debenture, and the use of the word in itself confers no rights whatever on the holder. It is very important that this should be generally understood, as there is a vague belief in the minds of many persons that a debenture must always be secured by a charge on some property, or at least entitle the holder to priority over other creditors. There are certain classes of debentures, issued by virtue of certain acts of parliament, which confer special privileges on the holders (as, for instance, the mortgage debentures issued under the Land Debentures Acts of 1865 and 1870, as to which see Mortgage Banks, or the debentures issued by local authorities under the Local Loans Act, 1875, as to which see Loans, Local); but, speaking generally, the rights of the holders of any particular issue of debentures must be ascertained from the instrument or trust-deed or other document referred to in the same. Debentures issued by foreign or colonial governments or municipalities, as a general rule, do not confer any special privileges on the holders; they are simply promises to pay the principal sum on a given date and interest at a certain rate in the meantime. Debentures of companies registered under the Companies Acts, on the other hand, are now mostly secured by a mortgage of some particular property, or by a charge on the whole undertaking. The latter is called a "floating charge" and does not prevent the company from disposing of its property by sale or mortgage in the ordinary course of business, but it is generally provided that as soon as default is made in the payment of interest or principal, or as soon as the winding-up of the company is ordered or resolved upon, the debenture holders may enforce their security, which thus attaches to the whole of the company's property existing at that moment, but subject to any mortgages or charges created for the purposes of the company's business while it was a going concern. If any property is to serve as a security for debentures in a way which makes it impossible for the company to alienate it at any time, there must be a regular mortgage of such property to trustees acting for the debenture holders by a separate trust-deed. A trust-deed by which movable goods are mortgaged must be registered as a bill of sale, but a debenture issued by an incorporated company which contains a charge on such goods need not be so registered (see Bill of Sale). Debentures containing a charge or mortgage are sometimes called mortgage debentures.

It should be pointed out that the law of most foreign countries does not recognise mortgages of immovable property unless they be registered according to the law of the place, and also that according to most systems of foreign law, movable property cannot be charged in favour of a creditor while remaining in the debtor's possession. Holders of debentures secured by foreign property should remember these facts and not be surprised if, in trying to realise their security abroad, they find themselves in conflict with foreign mortgagees or judgment creditors or a foreign trustee in bankruptcy; and when trustees are acting for the debenture holders, they should be careful to perfect their security as much as possible, by complying with the formalities required by the law of the place where the property is situate.

The special acts of British railway companies generally incorporate the provisions of the Companies Clauses Act, 1845, with respect to the issue of debentures (§§ 38-55), but these provisions leave a wide margin as to the rights of debenture holders, which mainly depend on the special act, authorising a particular issue, or on the conditions attached to it by the company.

A debenture must always be repayable at some time; a fixed date may be appointed for that purpose, or the gradual repayment of the debentures of a particular issue by yearly drawings, or in a certain order of succession, may be provided for. In many cases the company or corporation issuing debentures reserves the right of redeeming the same before the date fixed for repayment, either on the happening of a given event (*e.g.* the sale of the property) or entirely at the borrower's option. There are also so-called "perpetual debentures," which are usually made payable only in the event of winding-up or default on the part of the borrower in the paying the interest.

Debentures may be issued to bearer or to the registered holder, or they may be transferable by indorsement. Debentures to bearer *prima facie* are not "negotiable instruments" (see Commercial Instruments). The question in each case turns upon the conditions of the particular issue and on the usage of the stock exchange.

As debentures to bearer are now subject to a stamp duty of 10s. per £100, which must be

paid by the borrower, whilst the stamp duty payable on the transfer of a registered debenture is payable by the transferor, companies have of late years preferred to issue registered debentures.

[As to debentures issued by companies under the Companies Acts, see Lindley on *Company Law*.—Palmer, *Company Precedents*.—Buckley on the *Companies Acts*. As to debentures issued by railway companies, see Hodges on *Railways*.—Brown and Theobald on *Railway Companies*. As to the negotiability of debentures, see also Chalmers, *Bills of Exchange*, 4th ed. p. 319.]

E. S.

DEBENTURE STOCK. No general definition can be given of this term, as a distinction must be drawn between two different kinds of debenture stock.

(*a*) Debenture stock issued by companies incorporated under the Companies Acts differs from debentures in form but not in substance. A debenture is an instrument embodying the contract between the company and the holder, and generally creating a charge on property. "Debenture stock," on the other hand, is only a name for the debt which it represents, which debt is created and secured by a trust deed between the company and the persons who act as trustees for the holders of debenture stock. By the effect of this deed the holders of debenture stock are, as a rule, placed in the same position as the holders of debentures secured in the usual form, and in cases where a general charge is to be given, it is usual for companies to issue debentures for the amount of the debenture stock to be held by the trustees as a collateral security for the payment of the debenture stock and the interest thereon.

Debenture stock of this kind usually takes the form of so-called "perpetual debenture stock," that is to say, the holders are not entitled to claim repayment of the principal sum until the winding-up of the company, or until default has been made in the payment of the interest; but it also frequently happens that a date is fixed for repayment; any of the ways in which redemption or repayment may be provided for in the case of a DEBENTURE (*q.v.*) is also permissible in the case of debenture stock.

Each individual holder of debenture stock receives a certificate stating that he is the holder of a certain amount of stock, and that the redemption of the said stock and the payment of the interest thereon is secured by a deed dated from a certain date, and made between certain parties. Stock certificates may be issued to bearer, but this is of rare occurrence, the rule being that the names of the stockholders are registered. In such a case it may be provided that any portion of the stock may be transferred, or fractions of one pound may be excluded, or it may be stipulated that all sums transferred must be multiples of £5 or of £10, or of any other sum. The possibility of transferring any portions of the stock is one of the advantages of debenture stock as compared with debentures, and probably one of the principal reasons why the issue of debenture stock by companies has become so popular within the last few years. Debenture stock certificates to bearer are subject to an *ad valorem* stamp duty payable by the company. See the books on companies quoted *s.v.* DEBENTURE.

(*b*) Debenture stock issued by a British railway company or other company obtaining a special act incorporating the Companies Clauses Act, 1863, is with the interest thereon a charge on the undertaking of the company, and the interest of such debenture stock has priority over the dividends or interest on any ordinary shares or stocks. If any interest remains unpaid for thirty days after the date on which it is payable, stockholders whose total holding amounts to a certain sum, may obtain the appointment in England or Ireland of a receiver, and in Scotland of a judicial factor, and any stockholder may also recover the arrears by action against the company. The stockholders are not under any circumstances entitled to claim repayment of the principal sum paid up in respect of the debenture stock, and they cannot, under any circumstances, become entitled to the possession of any part of the property of the company. On the other hand it is not in the power of the company to redeem the stock, unless they obtain a special act of parliament for that purpose.

It has been said that "debenture stock of this kind is nothing but preference stock with a special preference" (Court of Appeal in Attree *v.* Hawe, 9 Chancery Division, on p. 349), but this statement was made with reference to a special point, and was not intended to convey the meaning that there is no essential difference between debenture stock and preference stock. This has been pointed out by Mr. Justice Chitty (*in re* Bodman, Law Reports (1891), 3 Chancery, on p. 138); he says: "the holder of debenture stock is a creditor of the company with a security in the assets of the company . . . debenture stock is borrowed money capitalised for purposes of convenience." The fact that debenture stock issued by a British railway company, or other similar company, is never repayable, while the debenture stock of a company incorporated under the Companies Acts must always be repayable, though not necessarily on a fixed date, constitutes a material difference. Stock of the first kind is in the nature of a perpetual annuity, whereas stock of the second kind is a debt secured in the same way as a debt for which debentures are issued.

The holders of British railway debenture

stock receive certificates registered in their respective names, and transfers are made in the same way as the transfer of ordinary railway stock. See the books on railway companies quoted, *s.v.* DEBENTURE, also Lindley on *Company Law*. E. S.

DEBIT. That side of an account on which everything in the nature of a debt is entered. The word is also used to denote the entries so made, *i.e.* a debt. J. E. C. M.

DEBITUM FUNDI (Scot.) "A debt owed by the land itself," in whosesoever hands it may be; a real burden or lien preferable to all rights of the proprietor, and enforceable not only against the vassal himself, but also by a "real action" against the lands themselves. By law the feu-duties and some other feudal duties due to the superior, are in this category; and by agreement, "annual rents," debts secured on land, reserved burdens, and the like may be made *debita fundi*, and may by registration secure a preference postponed to the superior's rights (see POINDING OF THE GROUND). A. D.

DÉBOUCHÉS, THÉORIE DES, generally regarded as the main original contribution of J. B. Say to economic science. This *theory of outlets* or *of vent* affirms that a general glut or general over-production is impossible. If all products could be had for nothing, men would everywhere spring into existence to consume them. Products are bought with other products. Therefore each product is more in demand as other products increase and bid against it. In other words, as the same product constitutes the producer's demand and the consumer's supply, a general excess of supply over the general demand is absurd. Moreover, human desires expand indefinitely. So long as these are unsatisfied there can be no over-production except from lack of purchasing power arising from under-production on the part of the would-be purchasers.

Hence it is concluded that to maximise production is the interest of all; that industry is *solidaire*; and that cosmopolitanism in commerce is true wisdom, imports stimulating the sale of indigenous products. This theory, Say predicted, "will change the politics of the world" (*Traité*, 5th ed. 1826, I. ciii.)

The theory was resisted by MALTHUS and SISMONDI (*q.v.*), but was supported by James Mill and Ricardo, whose friendship grew out of this agreement, as we learn from J. S. Mill (*Principles*, 1875 ed., III. xiv.) The last-mentioned writer's examination of the theory, though enforcing the strength of the main position, leaves still something to be desired. Arguments are used which take no account of the relativity of demand to price, the imperfection of the world market, or the element of time necessary to create new habits of production or consumption or to raise up a new generation of consumers. The case is, however, conclusive against those whose view involves the fallacy of a general fall of values, or who mistake the phenomenon of a commercial crisis, in times of contracting credit, for over-production. The remedy, says J. S. Mill, for "what may be indiscriminately called a glut of commodities or a dearth of money, is not a diminution of supply, but the restoration of confidence."

[For modern opposition to Say's theory, see Uriel H. Crocker, *Excessive Saving*, Boston, U.S.A., 1884, and in *Harvard Quarterly Journal of Economics*, April 1887 and April 1892.—Edward F. Sweet, "Over-Production," *Chicago Times*, 26th April 1880.—Mummery and Hobson, *Physiology of Industry*, 1889.—See also *Report of the Royal Commission on the Depression of Trade and Industry*, 1885, and for alterations in price and standard of value, Appendix B, by R. H. Inglis Palgrave.] H. H.

DE BROUCKÈRE, CHARLES, born at Bruges in 1796, died at Brussels in 1860. One of the most eminent and honest of Belgian politicians. He served from 1815 to 1820 with the army of the Low Countries, and after this engaged in the business of banking. He then commenced his political career as a deputy in the second chmaber of the states-general, in which he sat among the opposition. After the Belgian revolution of September 1830, he was appointed a member of the national congress, resisted the republican party, declared himself in favour of a monarchy and of the exclusion of the family of Orange-Nassau from the throne. In conformity with these views he voted for the Duke of Nemours, in opposition to the Prince of Saxe-Coburg; but when the latter was elected king, and reigned as Leopold I., he supported him warmly, first directing the finances, and then acting as minister of war. After holding other offices, he returned, for a period of eight years, to private life, engaged in business, was appointed, in 1847, burgomaster of the city of Brussels, which office is considered equal to the position of a minister of state. He was also elected a member of the chamber of representatives, and held both these posts till his death. Besides this he lectured on economic science, on which his views were so liberal that they included free trade. His only work in economics is called *Principes généraux d'économie politique*, 1851, 1 vol. in 18mo, an able though a short production. A. C. f.

DEBT.

Debt, p. 503.
Debt, Imprisonment for, p. 504.
Debtor and Creditor, Law of, p. 505.
Debtor's Summons, p. 506.

DEBT. A "debt" may be defined as an obligation to pay a sum certain in money, with or without interest. But it is to be noted that,

by English law, when goods are sold, or work and materials are supplied without any stipulation as to price, there is an implied obligation to pay a reasonable price for them. If the parties differ, the amount payable can only be ascertained by litigation, which in substance, though not in form, resembles an action for damages.

Putting aside recognisances, and statutory penalties, recoverable by civil process, debts may be divided into three classes, namely, judgment debts, specialty debts, and simple contract debts. When, by the judgment of a court of competent jurisdiction, a person is ordered to pay money, the judgment creditor may usually enforce his rights either by the process of the court which gave the judgment, or by bringing an action on the judgment as if it were an ordinary debt.

A specialty debt is a debt created by an instrument under seal. Formerly specialty debts had priority over simple contract debts, but recent legislation has now practically effaced this distinction, and the main difference between the two classes of debts consist in this; (*a*) a specialty debt may in general be created without consideration, as for example by a voluntary bond, and (*b*) the period of limitation for a specialty debt is twenty years, while in the case of a simple contract debt it is six years.

Any debt, other than a judgment or specialty debt, whether evidenced by writing or not, is called a simple contract debt. It is to be noted that the term applies not only to obligations to pay arising from agreement between the parties, but to cases where the law implies such an obligation apart from agreement. These quasi-contracts, as they are sometimes called, fall chiefly under two heads. First, when a person is compelled to discharge the liabilities of another, he becomes the creditor of that other person for the money so paid. For instance, if one of two sureties pays the whole debt due from the principal debtor, he can recover the proportionate share from the other surety as a debt. Secondly, when a person has wrongfully received money, the party entitled to it can generally recover it as a debt. For instance, if an account by mistake be paid twice over, the second payment can be recovered as a debt due from the person who received it.

As a general rule debts do not, according to English law, carry interest. The obligation to pay interest arises only (*a*) by agreement, or (*b*) by mercantile usage, as in the case of debts secured by bills or notes, or (*c*) by statute. Scotch law is more favourable to claims for interest, see INTEREST (see also DEBTOR AND CREDITOR, LAW OF; RECEIPT). M. D. C.

DEBT, IMPRISONMENT FOR. Most civilised countries have now got rid of imprisonment for debt. It was abolished in France in 1867, in Belgium in 1871, in Switzerland and Norway in 1874, in Italy in 1877, and in Scotland in 1880. But in England the system is in full force. It is true that in 1869 a statute was passed bearing the title "An Act for the Abolition of Imprisonment for Debt, for the Punishment of Fraudulent Debtors, and for other purposes" (32 & 33 Vict. c. 62), but it appears from the county court returns of 1889 that during the preceding year 201,335 applications were made to commit judgment debtors to prison, 54,995 warrants of committal were issued, and 6429 debtors went to prison. The fact is the act in question merely regulates imprisonment for debt, but in no wise abolishes it (see § 5). Imprisonment on mesne process has been abolished, but when a suitor has recovered judgment for debt, damages, or costs, he has two courses open to him. He may proceed either against the property or against the person of his debtor. If he elects to proceed against his person he takes out what is called a "judgment-summons" calling on the debtor to appear before the court on a day named, to be examined as to his means, and to show cause why he should not be committed to prison for having neglected or refused to pay the sum specified in the judgment or order. The summons may be taken out in the county court, whether the judgment be in that court or the high court. At the hearing, if the creditor proves, or the debtor admits, that the latter either *has or has had* since the judgment the means of satisfying it, the court may order him to be committed to gaol for a period not exceeding six weeks. The imprisonment does not operate as a satisfaction of the debt, but on the other hand the debtor cannot be twice imprisoned for the same sum of money. The debtor can at any time obtain his release by paying the debt and costs. While in prison the debtor, like any other prisoner, is kept there at the public expense. Execution against the person therefore differs from execution against property, for in the latter case the creditor has to pay the costs of the execution if they cannot be recovered from the property of the debtor. When a judgment is ordered to be paid by instalments, default in paying any instalment constitutes a ground for committal. Suppose then a debt of £2 is ordered to be paid by instalments of 4s. a month, a common order in the county courts. Theoretically for this debt of £2 the debtor might be committed ten times for periods of six weeks each. Practically the discretion vested in the court would prevent so harsh an application of the law. It has recently been held that a married woman cannot be committed for non-payment of a judgment debt, for under the Married Women's Property Act, 1882, the contracts of a married woman do not bind her personally, but merely bind her available separate estate if any. By one of the eccentricities of modern legislation a

married woman, who has a husband to rely on, is thus put in a more favourable position than a single woman or widow who has no one to help her. From the figures cited above it appears that not more than 3 per cent of the applications to commit result in the actual imprisonment of the debtor. This result is due to a peculiar mode of administering the act of 1869 adopted by most of the county courts, namely the system of suspended orders. It can best be illustrated by an example. Suppose a workman whose standing wages are 25s. a week is summoned for non-payment of a judgment debt of £2 which is three months old. It is clear that since the date of the judgment he has had more than £2 wherewith he could have paid the debt, but on the other hand he probably cannot pay £2 forthwith. The creditor is entitled to his order of committal, but he has no desire that his debtor should go to prison. His only wish is to get his money. The court therefore makes an order committing the debtor, but directs that the warrant of arrest shall not issue as long as the debtor pays a certain weekly or monthly instalment into court, say 5s. a month. This mode of enforcing the act was probably not contemplated by the legislature, but after being questioned by the court of appeal, its validity has been finally affirmed by the House of Lords.

The policy of the act of 1869 is defended on the ground that without it debts would be practically unrecoverable from the working classes, who as a rule have little or no property available for seizure under an execution. Against this argument it is urged that imprisonment for debt encourages a system of factitious credit which is injurious alike to debtors and creditors. All sound credit should rest on one of two bases, namely property or character. If a man has neither property nor character it is better that he should not be able to obtain credit by what is practically a mortgage of his body. The recovery of debt by means of imprisoning the debtor is usually a tedious and expensive process. The creditor is for a long time kept out of his money, and the impecunious debtor has heavy costs to pay in addition to the debt. The tradesmen who deal with the poor no doubt fix their prices with reference to the difficulty in recovering the money, and the result of the present system is to raise normal prices as regards the honest poor who pay their way. The question of imprisonment for debt was inquired into by a select committee of the House of Commons in 1873, who reported strongly against the existing procedure, and suggested various amendments in the law, but no action has hitherto been taken on their report. It is to be noted that under the Bankruptcy Act of 1883 a debtor can file his own petition, and that as soon as a receiving order is made against him he is protected from proceedings under § 5 of the Debtors Act 1869. The same result follows if an administration order is made by a county court in the case of a small debtor, whose total liabilities do not exceed £50.

[See the subject further discussed in Glasson's *Histoire du Droit de l'Angleterre*, vol. vi. § 296, and *Fortnightly Review*, September 1888.]

M. D. C.

DEBTOR AND CREDITOR, LAW OF. The salient points of the English law of debtor and creditor may be noted under two heads, *firstly*, the rights and obligations of creditors and their debtors; and *secondly*, the means for enforcing those rights and obligations.

When a debt becomes due, it is the duty of the debtor to pay it without waiting for any demand. Hence it has been held that an action may be maintained on a promissory note payable on demand, without showing any presentment to the maker. The control of the courts over costs prevents this rule from working any practical injustice. If no place of payment has been fixed either by custom or agreement, it is in general the duty of the debtor to seek out his creditor for the purpose of paying him, unless the latter be "beyond the seas," that is to say out of England.

In most continental countries a creditor is entitled to draw a bill on his debtor for the amount of his debt, but in England the obligation to accept or pay a bill of exchange only arises from agreement between the parties. It is to be noted that when a man has an account at a bank, the banker is not a trustee of his customer's funds, but the relationship between them is simply that of debtor and creditor, with a superadded implied obligation on the part of the banker to honour his customer's cheques to the extent of the balance to his credit.

A creditor is not bound to give change to his debtor. It is the duty of the latter to tender the exact amount of his debt in legal currency as defined by the Coinage Act, 1870 (see LEGAL TENDER). Hence it follows that the creditor, apart from agreement, is not bound to take a cheque or other negotiable instrument in payment of his debt. Bank of England notes are legal tender, except when tendered by the bank itself.

By the common law the relationship of debtor and creditor is regarded as a strictly personal one. Hence, as a general rule, if a third person voluntarily pays the creditor without the debtor's consent or subsequent ratification, the payment is ineffectual. It neither liberates the debtor nor creates any obligation against him. The law merchant has introduced certain exceptions, as, for instance, the payment for honour of a bill of exchange. These exceptions are doubtless borrowed from countries where the rule of the civil law prevails, according to which *debitorem ignarum*,

sive etiam invitum, solvendo liberare possumus. In accordance with the principle that the obligation created by a debt is a personal one, the common law did not recognise the assignment of debts; but now by § 25 of the Judicature Act, 1873, when a debt is assigned absolutely, by writing under the hand of the assignor, and notice in writing is given to the debtor, the assignee is entitled to receive the debt or to sue for it in his own name.

In countries which follow the civil law, mutual debts extinguish each other by what is known as "compensation," but English law acknowledges no such rule. If parties who have cross accounts choose to strike a balance, the balance is recoverable as a debt, but that is by virtue of the agreement. Again by virtue of the Judicature Act 1873, any claim may now be answered by any cross-claim that the defendant may have; for instance, a claim for rent may be met by a counter-claim for damages for trespass, but it is purely optional with the debtor whether he sets it up or not.

There is yet another rule which seems peculiar to the English common law. It has been held that where there is an undisputed debt, payment of a lesser sum cannot discharge the debt, even though the lesser sum be accepted by the creditor in satisfaction of the whole. The alleged reason is that there is no consideration for the abandonment of the balance. The courts, feeling the hardship of the rule, have narrowed its application as much as possible, and have confined it to money payments. For instance, if a creditor, to whom £100 is owing, agrees to take from his debtor the promissory note of a third person for £50 in satisfaction of the debt, the debt is discharged; and it has even been held, in a case of somewhat doubtful authority, that the debtors' own cheque may have the same effect, though a payment by him in cash would not.

Passing now from the creditor's rights to his remedies for enforcing them, the ordinary mode of enforcing a debt is by action. If, however, the debtor has committed one of the overt acts of insolvency known as "acts of bankruptcy," proceedings in bankruptcy may be taken against him. A corporation or company under the Joint Stock Companies Acts cannot be proceeded against in bankruptcy, but if it be unable to pay its debts, the creditor may petition to have it wound up. In the case of an ordinary debtor, if the debt do not exceed £50, the creditor may sue for it in the county court, where the procedure is cheap and summary. If the debt exceeds £50 but does not exceed £100, the action must be commenced in the high court, but either party can apply to have it removed into the county court. If the debt exceeds £100 the high court is the only court competent to adjudicate on it, unless the cause of action has arisen within the jurisdiction of one of the few local inferior courts, such as the Mayor's Court of London, which have unlimited pecuniary jurisdiction within certain local limits. When the creditor has obtained judgment he may enforce his rights in three different ways. First he may under certain conditions proceed against the person of his debtor (see DEBT, IMPRISONMENT FOR). Secondly, he may proceed to realise his debt from the property of his debtor by means of execution against that property, and thirdly, he may by the assistance of the court attach any debt owing by a third person to his debtor.

M. D. C.

DEBTOR'S SUMMONS. Under the Bankruptcy Act 1869, bankruptcy proceedings were commonly initiated by what was known as a "debtor's summons." Any creditor for £50 or upwards could take out a summons in the bankruptcy court, calling on his debtor to pay the sum due within seven or twenty-one days, according as the debtor was a trader or a non-trader. If, subject to certain qualifications, the debt was not then paid, an act of bankruptcy was deemed to have been committed, on which a petition might be presented. The system was grossly abused, and a select committee of the House of Commons in 1880 recommended its abolition. The Bankruptcy Act 1883 gave effect to this recommendation, and substituted the procedure by "bankruptcy notice" founded on the final judgment of a court of justice, on which no stay of execution had been granted, thus eliminating all questions as to really disputed debts.

A debtor's summons must be distinguished from a judgment-summons, under which a creditor, who has obtained judgment, seeks to enforce execution against the person of his debtor (see DEBT, IMPRISONMENT FOR).

M. D. C.

DEBTS, PUBLIC. In primitive society, where commerce is small and manufactures are scanty, the tendency of both sovereign and subjects is to hoard rather than to invest the surplus products not immediately consumable. The elementary state of credit and the difficulties in the way of the exchange of commodities impel both public authorities and individual members of the community to make provision against special contingencies, and when such provision fails, force is resorted to in order that collective and private wants may be satisfied. As, however, commerce and manufactures expand, consumption becomes easier and more attractive both to sovereign and people, and the means of, and inducement to, profitable investment increase. Under these conditions there is a growing disinclination to do more than provide for the current expenses of the government, and when extraordinary exigencies arise, extraordinary measures for raising the funds have to be resorted

to. These measures are rendered the more easy by reason of the expansion of credit and exchange to which they are in a great degree due. Hence Adam Smith, who treats this phase of the subject at some length, remarks (*Wealth of Nations*, bk. v. ch. iii.): "The same commercial state of society . . . produces in the subjects both an ability and an inclination to lend. If it commonly brings along with it the necessity of borrowing, it likewise brings with it the facility of doing so;" whilst Prof. Adams, in whose work on *Public Debts* the most complete presentation of the economic aspects of the subject of this article is to be found, observes that "the funding system seems to be capable of wide acceptance only among people whose labour is of a high grade of efficiency and who have developed for themselves representative government."

At the outset, borrowing by the state, even when incurred for extraordinary purposes such as war, took the form of a mere anticipation of revenue rather than of permanent indebtedness. In the United Kingdom, in the reign of William III. and the earlier part of that of Queen Anne, various loans were raised on the assumption that they would be discharged out of the proceeds of taxes which were at the same time imposed for periods varying from 5 to 10 years, and it has been and is still the constant practice of the government to borrow in anticipation of revenue, it being practically impossible so to adjust the collection of taxes as to meet at the due dates throughout the year the payments requiring to be made from the Exchequer. The limits within which loans can be contracted under such conditions are, however, necessarily narrow; in our own country the increasing requirements of the government soon led to the adoption of a less onerous system, and, as Adam Smith points out, "taxes which before had been anticipated only for a short term of years were rendered perpetual as a fund for paying, not the capital, but the interest only of the money which had been borrowed upon them by different successive anticipations." When this point has been reached the funding system may be said to attain its full development.

Two of the principal causes which have led to public borrowing have already been alluded to—temporary necessity and special emergency. A third remains—the construction of public works, in some instances the most potent of all. When capital is required to be expended in order to provide works which will be a source of benefit and profit to the community over a long period of years, the taxpayers of a single year are unwilling, and indeed unable, to bear the whole of the burden, and in proportion as the conception of the province of the state is enlarged, the public debt incurred in order to provide the capital requisite for its undertakings is necessarily augmented.

Economists have discussed in considerable detail the advantages and disadvantages of public borrowing, as compared with the only alternative possible under a constitutional government—the increase of taxation. It is urged on the one side that a public debt affords a convenient form of investment, especially to those investors who, desiring full security for their investment rather than a high rate of interest, are anxious to obtain a public guarantee. It has also been shown that a public debt may be made the means of materially assisting the establishment and provision of banking facilities; and, as an argument against the repayment of an existing debt, it has been contended that its pressure "is necessarily decreased from year to year by the gradual depreciation in the value of the monetary unit in which all obligations are expressed," and that even when this cause is not operative "all the practical effects of debt reduction may be realised through the natural growth and prosperity of the nation." None of these considerations, however, appears to outweigh the disadvantages of public indebtedness *per se*, even when it takes the most convenient form which can be devised; but they require to be taken into account in determining whether the creation or maintenance of a public debt is preferable to the retention of existing taxes or the imposition of new ones.

The weight of the intrinsic objections to public borrowing depends to a considerable extent upon the purposes for which debt is contracted. In this connection it is to be noted that many of the objections to the funding system which are pointed out by Adam Smith and other early economists, and their predictions of its disastrous consequences, proceed on the assumption that the contraction of debt by the state implies the destruction of capital, and not its profitable investment. Even, however, when borrowing is resorted to in order to provide funds for the purposes of war, it may well be that the net result to a nation may be entirely favourable, for, as M'Culloch eloquently observes, "the integrity and increase of our dominions, the protection of our rights and liberties, and our triumphs by land and sea, are the real equivalents of the public debt and of all the blood and treasure we have spent in warlike enterprise, and they are quite as ample and conduce as much to our prosperity as a nation as if they had been realised in an increase of population and wealth; no sacrifices can be too great that are required to preserve national security and independence, and a loan expended on armies or fleets employed for such a purpose is quite as well and profitably employed as if it had been laid out on agriculture, or in promoting manufactures or trade."

Prof. Adams, in the work above referred to, discusses the objections to public debts under

the three heads of their political, social, and industrial effects. Under the first he points out that the result of borrowing is to conceal from the nation the full effects of the policy and course of action pursued by the government, an argument which in a somewhat different form is urged by Adam Smith, who regarded the borrowing of money as the removal of an adequate check on the undertaking and continuance of war. It may, however, be observed that if borrowing be not resorted to, the difficulty of providing funds by reason of the impatience of the taxpayer may easily prevent, under a democratic system of government, the adoption of a policy in all respects advantageous. A further political objection presents itself in the case of weak states, the autonomy of which may be endangered by the contraction of foreign loans. Under the head of social effects, the same writer expresses the opinion that public debts "exert a social influence in rendering permanent such class relations as spring from disparity of possessions, and they introduce conflicting interests between citizens." It is, however, to be doubted whether this result of the creation of debt is long maintained when it takes an extremely mobile form, as in our own country.

The industrial effects of borrowing are those which will ordinarily have the greatest influence in determining whether a public loan should be contracted, and on this point Prof. Adams may again be cited. "Public loans influence industrial affairs through the medium of capital, but the character of this influence depends upon the nature of the loan, upon the conditions under which it is contracted, and upon the fund of capital from which it is filled. So long as the placement of a debt by the state does not affect the market quotations of commodities, the full extent of its influence is to divert capital, which might otherwise have gone to extend existing industries, to the purposes of the government. But the moment the state offers unusual inducements the price of commodities is thereby affected. Future loans must therefore be contracted on a rising market, and by taking this step the government enters upon a policy which contains the germ of industrial disturbance and social injustice. . . . At the same time there is a wide margin between a slight increase of the normal rate of interest and an offer of excessive inducements; and although the industrial and financial principles are the same in either case the practical results may be very different. It is therefore, impossible, to determine how far a government is justified in raising the rate on public bonds, unless the probable results of this method of securing money be compared with what must follow from running the taxing machinery at a higher rate of speed." M'Culloch arrived at substantially the same conclusion. "The policy of raising the supplies for a war by means of a loan or by an equivalent increase of taxation, cannot be decided on general principles, but must always be determined by reference to the state of the country at the time. Whenever there is no risk of prejudicing industry by increasing taxation, that plan should be preferred, and although a loan should be required to obviate too rapid an increase of taxation, the inconveniences attending the accumulation of debt are so very great, that every practicable effort should be made to raise the revenue to the highest limit to which it can be safely carried, and to make it defray a part, at least, if not the whole, of the extraordinary expenditure."

As to the manner in which public debts should be contracted, there is now but little difference of opinion amongst economists. It is an axiom that "floating debts should be sparingly used," by reason of the disturbing influence which they exercise upon the money market, and *vice versa*, by reason of the difficulties which a government may experience in keeping such debts on foot. It is also agreed that whenever a debt is large enough, it should take a varied form in order to suit the varying requirements of investors. On this point, however, it is to be observed that it is essential that each class of debt should be large enough to be readily marketable if it is of a negotiable character. The question of whether stock should be issued at par with interest at the full current rate at which the money can be borrowed, or at a discount at a lower rate of interest, has been the subject of considerable discussion, and it cannot be said that any general rule has been laid down. Many investors are very willing to accept a low rate of interest for their money if they see in front of them an increment of value, and it may be important to the borrowing power to satisfy its present requirements at as low an immediate charge as possible. There can be no doubt, however, that the system has frequently resulted adversely to the state. M'Culloch (*Dictionary of Commerce*, art. "Funds") states that "in consequence of the prevalence of the practice, the principal of the debt now existing amounts to nearly two-fifths more than the sum actually advanced to the lenders," and the balance of opinion is now distinctly in favour of the issue of stock at par, wherever possible. The course pursued by the British municipal corporations confirms this conclusion.

Many of the considerations presented with regard to the advantages and disadvantages of borrowing as compared with the imposition of taxation apply equally to the repayment of debt. It is probable that the evil effects of an ill-devised system of taxation altogether outweigh the consequences of the existence of debt, and that surplus revenue may be much more

wisely devoted to the revision of the former than the repayment of the latter. When, however, this has been accomplished the gradual liquidation of the debt increases the financial strength of a country and its ability to meet future contingencies when they arise. This object requires therefore to be kept in view in determining the mode in which public debt is contracted, and it is usually accomplished by the periodical drawing of bonds, or as in our own case by the conversion of debt into terminable annuities. This latter course is materially assisted by the constant growth of the funds coming under the control of the government in the shape of savings bank deposits or moneys in Chancery, which can safely be made the subject of financial operations of the character referred to. In many instances, however, and especially in the loans of local authorities, repayment is agreed to be made *en bloc* at a given date, the necessary funds for the purpose being accumulated in the interim. The rate at which a public debt should be repaid, and the period during which it should subsist must be determined by the general considerations above summarised, but in the case of loans contracted for the construction of public works, especially by local authorities, it is obvious that regard must be had to the character of the works and the length of time during which their full utility is likely to endure.

[Nearly all the general treatises on Political Economy refer to this subject. In addition, Adams on *Public Debts*, London, 1888.—Leroy-Beaulieu, *Traité de la Science des Finances*.—Fenn on *The Funds*, London, 14th ed., 1889, and the articles "Funding System" and "National Debt" in the 8th and 9th editions of the *Encyclopædia Britannica* may be consulted.—C. F. Bastable, *Public Finance*, London, 1892. See also ANNUITY; CONVERSION; FUNDING SYSTEM; NATIONAL DEBT; and SINKING FUND.] T. H. E.

DEBT, PUBLIC, STATEMENT OF (Government indebtedness). In the following tables a statement is given of the national debts—(1st) of Great Britain and her Colonies, and (2nd) of all the foreign countries of the world which have created such liabilities. It is impossible to bring all the statements down to a fixed date; but the returns are all comprised within the two years 1890-91, and £6,505,375,562, which is the total of the two tables, may be stated to closely represent the national indebtedness of the world at the close of 1890. Side by side will be found the population of these countries at the same date as nearly as possible, and a statement of the debt per head. But any bald statement of the capital is misleading. Where a debt carries 6 per cent interest it is a far greater burden than where it carries only $2\frac{3}{4}$ per cent, or not much more than 1 per cent, as in the instance of Turkey; and the interest is therefore added as a guide to what the burden of the debt really amounts to. But even the interest is not a guide to the burden of a country's national debt. By many countries large sums have been raised for the construction of railways, and some of these public works make a return sufficient to cover the interest on the national debt. The endeavour has been made in cases where the figures are available to show what portion of the interest has been made good by the earnings of reproductive works, and the net burden met out of national taxation. It would occupy far too much space to describe the results indicated. They must be allowed to speak for themselves. Suffice it to say that interest has been included *which should be paid* where countries are in default, with a note to that effect; that inconvertible paper currencies are included in the total debts; and where interest is payable in a materially depreciated paper an allowance has been made. Amongst the debts have been included the amounts raised by separate states—such as those comprising the United States, the Argentine Confederation, and the Canadian Dominion—but not county or city indebtedness of any description.

As compared with a previous estimate made in 1882 (Fenn on *The Funds*, 13th ed., 1883—Introduction), when the debts were found to aggregate £5,394,000,000, the increase is shown to be £1,111,000,000, and that in spite of the reductions in United States, British, and other debts. But South American and Colonial borrowing has been heavy in the interval, and many foreign countries have increased their debts. In the ten years 1862 to 1872, the national debts of the world increased as much as £2,000,000,000, whereas between 1872 and 1882 the increase was only £789,000,000. But between 1862 and 1872 there were three great wars, and some smaller ones.

[Statistical Abstract of the Principal and other Foreign Countries. Secretary of Legation Reports.—*Almanach de Gotha*, 1892.—*The Statesman's Year Book*, 1892.—Fenn on *The Funds*, 1889 and 1892 (the last-named edition in the press).—Nineteenth Annual General Report of the Corporation of Foreign Bondholders.—*The Victorian Year Book*, 1890-91.—*The Seven Colonies of Australasia*, 1892 (Sydney).—*The Year Book of Canada*.—Generally, the official statistics of foreign countries.]

DEBTS, PUBLIC, LOCAL, GREAT BRITAIN AND IRELAND. *England and Wales.*—Side by side with the national debt of the United Kingdom a very large amount of debt has been contracted by the local authorities, which should not be lost sight of in any estimate of the public indebtedness of the country. The growth of this debt has been rapid, and the proportion which it bears to the national debt has greatly increased. The following figures, which refer to England and Wales alone, show this clearly.

Country.	Population.	Debt (1890-91.)	Debt per Head.	Interest.	Covered by Reproductive Works.	Net Burden of Interest.
		£	£ s. d.	£	£	£
BRITISH EMPIRE						
United Kingdom	37,803,058	684,070,959	18 2 0	23,536,446	489,232	23,047,214
COLONIES AND POSSESSIONS						
India (with Burmah) ‖	220,490,980	192,723,271	0 18 7	13,511,900	9,053,590	4,458,310
Do. Native States	64,123,230	*70,910,000		..	..	..
Straits Settlements ‡	506,673	5,800	0 0 3	261	..	..
Ceylon ‖	3,008,289	2,518,374	0 16 9	101,000	entirely	nil
Hong Kong	221,441	200,000	0 18 1	8,000	..	..
Mauritius	377,986	781,149	2 1 4	34,750	entirely	nil
Asiatic	†294,000,000	267,138,594	0 18 2	13,655,911	..	..
New South Wales	1,165,300	51,422,233	44 2 9	1,895,656	1,310,604	585,052
Queensland	410,346	29,434,734	71 15 7	1,155,574	344,645	810,929
South Australia	322,720	21,580,000	66 17 5	768,300	514,873	253,427
Victoria	1,157,804	44,403,216	38 7 0	1,793,145	1,256,135	537,010
Western Australia	53,285	1,606,000	30 2 10	67,614	..	67,614
New Zealand	675,775	37,359,157	55 5 4	1,640,289	420,998	1,219,291
Tasmania	152,619	6,432,800	42 3 0	257,300	20,012	237,288
Fiji	125,682	248,990	1 19 9	11,200	..	11,200
Australasian	4,063,531	192,487,130	47 8 2	7,589,078	3,867,267	3,721,811
Cape of Good Hope	1,525,739	24,867,900	16 6 0	1,102,000	849,125	252,875
Natal	543,913	7,170,000	13 3 7	187,960	169,062	18,898
St. Helena	4,222	1,250	0 6 0	87	..	..
Sierra Leone	60,546	58,454	0 19 4	2,900	..	..
African, etc.	†5,500,000	32,097,604	5 16 9	1,292,947	..	..
Dominion of Canada—	4,829,411	48,808,194		2,002,615	537,377	1,465,238
Ontario (Provincial Debts)	..	..		..	..	..
Quebec (Provincial Debts)	..	4,468,862		203,500	..	..
Manitoba (Provincial Debts)	..	705,649	11 8 9	35,300	..	..
British Columbia (Provincial Debts)	..	565,000		24,700	..	..
New Brunswick (Provincial Debts)	..	431,771		17,300	..	..
Nova Scotia (Provincial Debts)	..	257,582		(?)	..	..
Newfoundland	193,121	862,214	4 8 3	36,650	2,300	34,350
North American	†5,026,743	56,099,272	11 3 2	2,320,065	..	..
Bahamas ‡	47,565	81,426	1 14 3	3,664	..	..
Jamaica	640,279	1,543,120	2 8 3	61,725	28,498	33,227
St. Lucia	43,685	133,700	3 1 2	6,452	..	..
St. Vincent ‡	41,054	12,270	0 6 0	552	..	..
Barbados ‡	182,322	30,100	0 3 4	1,355	entirely	nil
Grenada	51,427	44,475	0 17 3	2,001	..	..
Tobago ‡	20,727	5,000	0 4 10	225	..	..
St. Christopher	41,029	20,900	0 10 2	890	..	..
Antigua ‡	36,534	26,271	0 14 5	1,182	..	..
Montserrat	[11,700	3,800	0 6 6	190	..	..
Dominica	26,579	41,190	1 11 0	2,080	..	..
Trinidad	198,230	532,320	2 13 10	23,300	13,857	9,443
West Indies	†1,350,510	2,474,572	1 16 3	103,596	..	..
British Guiana ‡	278,328	770,346	2 15 5	34,663	17,481	17,182
Honduras ‡	28,000	17,595	0 12 7	792	..	..
Bermuda ‡	15,884	7,620	0 9 7	843	..	..
Malta ‡	165,662	79,168	0 9 6	3,560	entirely	nil
Total British Empire	†351,000,000	1,235,242,860	3 10 4	48,537,401	..	..

* Guaranteed Capital, Railways, etc.
† Includes population of colonies and possessions without debts. New African Protectorates not included.
‡ Interest estimated at 4½ per cent.
‖ Where debts are in silver, the depreciation has been allowed for.

Outstanding loans of local authorities in England and Wales at the end of the financial years 1874-75, 1881-82, and 1888-89.

Year.	Amount of loans outstanding.
1874-75	£92,820,100
1881-82	151,704,640
1888-89	195,442,397

The liabilities of local authorities in respect of their outstanding loans had therefore increased by £102,622,297, or 110·6 per cent, in 1888-89 as compared with 1874-75. Of this increase £58,884,540 is attributable to the seven years from 1875-76 to 1881-82, and £43,737,757 to the seven years from 1881-82 to 1888-89. The loans raised during the fifteen years amounted to £171,584,112. A considerable part has been repaid in that time. It should be borne in mind, with respect to the above loans, that they have been incurred

DEBTS OF FOREIGN COUNTRIES.

Country.	Population.	Debt. (1890-91.)	Debt per Head.	Interest.	Covered by Reproductive Works.	Net Burden of Interest.
EUROPEAN		£	£ s. d.	£	£	£
Austria	23,895,624	603,217,806	14 11 9	14,810,148	1,311,462	13,498,686
Hungary	17,449,705			9,151,864	1,866,000	7,285,864
Belgium	6,147,041	92,212,148	15 0 0	3,333,117	2,015,639	1,317,478
Denmark	2,185,159	10,452,697	4 15 4	538,675	146,778	391,897
France	38,218,903	1,265,332,340	33 2 9	42,032,168	4,217,124	37,815,044
Germany	49,421,803	64,697,235		2,693,075	1,166,660	1,526,415
Prussia	(29,959,388)	291,739,130		11,231,627	entirely	nil
Bavaria	(5,589,382)	66,659,484		2,487,067	largely	small
Saxony	(3,500,513)	31,598,362	10 12 7	1,088,177	entirely	nil
Wurtemberg	(2,035,443)	21,398,337		973,716	798,165	175,551
Baden	(1,656,817)	19,858,103		645,000	entirely	nil
Minor States	(6,680,260)	29,095,908		1,018,300	largely	small
Greece	2,187,208	29,065,564	13 5 10	1,451,543	..	..
Italy	30,158,408	474,018,180	15 16 0	23,284,284	3,580,604	19,703,680
Luxemburg	211,088	646,800	3 1 3	29,200	..	..
Montenegro	200,000	100,000	0 10 0	6,000	..	..
Netherlands	4,564,565	92,203,923	20 4 4	2,916,568	586,583	2,329,985
Portugal	5,000,000	137,467,342	27 9 10	4,642,000	219,000	4,423,000
Roumania	5,000,000	38,783,008	7 15 1	2,279,436	294,016	1,985,420
Servia	2,162,759	13,220,428	6 2 5	796,032	109,910	686,122
Spain	17,550,246	262,915,936	15 0 0	11,812,124	..	..
Sweden	4,784,675	14,417,366	2 0 4	533,441	463,900	69,541
Norway	1,999,176	6,408,748	3 4 1	215,244	149,922	65,322
Switzerland	2,917,754	1,948,556	5 16 1	106,092	57,452	48,640
Do. Cantons	..	15,000,000		say 600,000	..	..
Russia	113,317,115	552,179,122	14 18 1	24,782,468	3,127,776	21,654,692
Finland	(2,238,404)	3,405,236		197,688	84,000	113,688
Turkey	23,000,000	158,600,000	6 17 11	2,040,000	.	..
Bulgaria & Eastern Roumelia	3,154,375	4,000,000	1 5 0	say 200,000	..	..
	353,525,604	4,301,142,259	12 3 4	165,395,054	..	..
AMERICAN						
United States	62,622,250	330,177,120	6 0 0	7,697,162	422,290	7,274,872
Separate States	..	45,737,115		say 2,286,300		
Argentine Confederation	3,916,492	61,861,665	37 10 8	7,767,076	..	..
Provincial*	..	84,449,926				
Bolivia	2,000,000	1,200,000	0 12 0	say 60,000	..	..
Brazil	14,002,235	100,000,000	7 2 10	say 4,500,000	300,000	4,200,000
Chili	2,766,747	23,000,000	8 6 1	,, 1,300,000	..	..
Colombia*	3,750,000	7,000,000	1 17 4	,, 350,000	..	..
Costa Rica	238,782	4,354,928	18 4 5	,, 250,000	..	..
Cuba	1,521,684	37,200,000	24 8 2	2,090,000	..	..
Ecuador*	1,200,000	3,000,000	2 10 0	say 50,000	..	..
Guatemala	1,452,003	3,332,710	2 6 0	137,035	..	
Haiti	960,000	2,750,000	2 17 3	say 140,000	..	
Hawaii	89,990	519,900	5 15 6	31,200	..	.
Honduras*	431,917	5,804,844	13 8 9	465,000	..	.
Mexico	11,396,000	22,721,335	2 0 0	1,550,000	..	..
Paraguay	350,000	4,121,000	11 15 5	say 210,000	..	
Peru	2,750,000	say 5,000,000	1 16 4	,, 250,000	..	..
Salvador	777,895	,, 1,400,000	1 16 0	,, 75,000	..	..
San Domingo*	500,000	1,300,000	2 12 0	78,000	..	..
Uruguay	750,000	22,500,000	28 13 4	790,000	..	..
Venezuela	2,323,000	4,650,000	2 0 0	say 150,000	..	..
	113,798,995	772,080,543	6 15 0	30,227,200	..	..
OTHER COUNTRIES						
China	350,000,000	(?) 12,000,000	0 0 9	(?) 700,000	..	..
Congo State	15,000,000	6,000,000	0 8 0	300,000	..	..
Egypt (with Tribute Loans)	7,000,000	119,873,000	17 2 5	4,680,000	943,000	3,737,000
Japan	40,072,020	58,866,900	1 9 5	3,565,970	442,000	3,123,970
Liberia*	1,000,000	100,000	0 2 0	*7,000	..	..
Orange Free State	207,503	70,000	0 6 9	4,200	entirely	nil
Total Foreign	..	5,270,132,702	..	204,879,424	..	..

* In default.

Note.—It is very difficult to state the exact sinking fund of the Home National Debt. Nominally £1,271,642 is annually so applied. But a considerable portion of the annual charge on the Terminable Annuities is in reality sinking fund, and out of a total charge of £25,000,000, probably £6,100,000 is applied to the reduction of capital.

for purposes of public utility as, for harbours, docks, and piers, for waterworks, gasworks, markets, from most of which a considerable revenue is derived. Others, such as those incurred for schools, though not yielding an immediate return, have yet been raised for highly useful purposes. The proportion which the local indebtedness bears to the rateable value of the several districts in respect of which it has been incurred varies greatly in

different localities. The annual rateable value of England and Wales for the purposes of the poor-rate, according to the valuation lists in force at Lady-day 1889, was £150,485,974.

The relative proportions which the debts of local authorities bore to the national debt at the end of the financial years 1874-75 and 1888-89 are shown by the following figures.

Years.	National Debt.	Local Debt.	Proportion of Local Debt to National Debt.
	£	£	per cent.
1874-5	768,945,757	92,820,100	12
1888-9	698,430,571	195,442,397	28

The following statement shows, so far as it has been found practicable to apportion them, the amounts outstanding in respect of the principal purposes for which the loans of the local authorities had been raised.

Loans outstanding (England and Wales), year 1888-89.

Local Authorities.

Waterworks	£36,697,897
Harbours, Docks, and Piers	30,733,291
Highways, Street Improvements, and Turnpike Roads	28,736,070
Sewerage and Sewage Disposal	18,948,237
Schools	17,669,430
Gasworks	14,772,825
Poor Law purposes	6,984,886
Markets	5,386,888
Public Buildings, Offices, etc. (not included under other headings)	4,229,877
Bridges and Ferries	4,086,283
Artisans and Labourers' Dwellings Improvement Schemes	3,851,164
Lunatic Asylums	3,612,031
Parks, Pleasure Grounds, Commons, and Open Spaces	3,185,620
Land Drainage, Embankment, and River Conservancy	3,175,226
Cemeteries and Burial Grounds	2,489,149
Tramways	1,309,152
Police Stations and Gaols	1,006,621
Private Improvement Works	944,657
Baths, Washhouses, and Open Bathing Places	852,333
Hospitals	641,820
Fire Brigade	446,381
Libraries and Museums	427,164
Cattle Diseases Prevention Act, 1866	98,641
Slaughter-houses	92,711
Public Lighting	48,920
Loans charged on Church Rates	9,100
Allotments	2,940
Other purposes	5,003,083[1]
	195,442,397

[1] This sum includes loans which have been raised partly for some of the works specifically enumerated, but which it has not been found practicable to apportion as between those works and other purposes.

The local taxation returns from which these figures are obtained, relate to the accounts of the local authorities of England and Wales. These authorities are very numerous. They include 647 Boards of Guardians and the Overseers of the Poor of 14,761 Parishes; the County Authorities of 66 Counties, Divisions of Counties, and Liberties; the Corporations of 287 Municipal Boroughs; 274 Town Councils acting as Urban Sanitary Authorities; the Commissioners of 37 Improvement Act Districts; 691 Local Boards; 30 Joint Boards; 573 Rural Sanitary Authorities; 50 Port Sanitary Authorities; 983 Burial Boards; 19 Boards of Commissioners of Baths and Washhouses; the Conservators of 2 Commons; the Commissioners of Free Libraries in 15 Parishes; the Trustees for 18 Bridges or Ferries; the Lighting and Watching Inspectors of 178 Districts; the Commissioners of 5 Markets and Fairs; 40 Metropolitan Vestries and District Boards;[2] a body of Paving Commissioners acting under a Local Act for Ely Place, Holborn; the Commissioners of Sewers of the City of London; the Metropolitan Board of Works; the Commissioners of Police of the Metropolis; the Corporation of London; the Commissioners of Sewers of 50 Districts constituted under the 23 Henry VIII., c. 5, or Part I. of the Land Drainage Act, 1861; 219 Drainage, Embankment, and Conservancy Boards; 45 Salmon Fishery Conservancy Boards; the Churchwardens of 17 Parishes in which Church Rates were still leviable; 85 Harbour, Pier, and Dock Authorities; 362 Highway Boards acting for 7129 highway parishes; 40 Rural Sanitary Authorities exercising the powers of Highway Boards for 738 highway parishes; 6464 Surveyors of separate highway parishes; 12 Turnpike Trusts; the Commissioners of Highways for the Isle of Wight; and 6 County Roads Boards in South Wales. In addition to the above, are 2238 School Boards, and the Managers of 10 School Districts, 2 Sick Asylum Districts, and the Metropolitan Asylum District, making a total of 28,233[3] authorities.

The management of the local debt of the country is thus divided between a vast number of persons, and, as is usually the case where individual responsibility is lost sight of, administration is lax. For the system of administration, see LOCAL GOVERNMENT.

Scotland.—The local debt of Scotland in 1889-90 was £25,380,723, divided as follows:—

Local Loans on Security of Rates, Dues, or Property (Scotland), year 1889-90.

Local Authorities.

Parochial Boards	£824,610
School Boards	3,194,725
Burgh Authorities	11,417,877
Commissioners of Supply	101,797
District Fishery Boards	Nil.

[2] Including the Local Board of Health for Woolwich.

[3] In a few cases local authorities neither received nor expended any moneys during the year, and these cases are not included in the above number; on the other hand, where a Local Board has become a Municipal Authority during the year, the same district is included twice.

Roads and Bridges Trusts—	
Countries . . .	276,898
Burghs	393,265
Country Road Trusts . .	21,676
Heritors for Ecclesiastical Purposes	12,230
Harbour Authorities . .	9,136,745
	£25,380,723

The rateable value of Scotland for 1889-90 was £23,583,775.

Ireland.—The local debt of Ireland in the year ended in 1890 was as follows:

Local Authorities.	
Towns under Town Councils .	£2,790,830
Town Authorities under Special Acts	1,045,796
Towns under Act of 1854 .	247,563
Towns under Act of 1829 .	32,937
Harbour Authorities . .	2,465,190
	£6,582,316

The local debt of Great Britain and Ireland was therefore, at the dates mentioned, as follows:

England and Wales, 1888-89	£195,442,397
Scotland, 1889-90 . .	25,380,723
Ireland, 1890 . . .	6,582,316
	£227,405,436

This amount should be added to the national debt in estimating the indebtedness of the country. The Local Debt bears now a proportion of about 30 per cent to the National Debt and is continually increasing. Other countries show the same tendency. According to Prof. Bastable, *Public Finance*, 1892, p. 627, the debt of the French *Communes* was more than £30,000,000 in 1878—not including Paris. The debts of that city were over £98,000,000 in 1890. The debts of the Italian *Communes* were £35,300,000 in 1885. The local and municipal debts of the United States were $822,100,000 (£164,000,000) in 1880. The growth of the debts of this description is extremely rapid, and no very accurate general statements are attainable.

[Sir S. H. Northcote (Lord Iddesleigh), *Twenty Years of Financial Policy*, Appendix B. p. 398, London, 1862.—R. H. Inglis Palgrave, *The Local Taxation of Great Britain and Ireland*, London, 1871.—G. J. Goschen, *Reports and Speeches on Local Taxation*, London, 1872.—Essays edited by J. W. Probyn on *Local Government and Taxation in the United Kingdom*, London, 1882.—Wright and Hobhouse, *Local Government and Local Taxation*, London, 1884.—C. F. Bastable, *Public Finance*, ch. viii., London, 1892.—Reports of the Local Government Board.—Local Taxation Returns (Scotland).—Local Taxation (Ireland) Returns.]

DE CARDENAS DI MAQUEDA, DIEGO RAFFAELE, lived in the second half of the 18th century. He belongs to that set of people who, if two are discussing what four and four is, and one says "eight" and the other "ten," will drop in an intermediate opinion, and think it might be "nine." Liberty of commerce, particularly of corn, is wrong, so is state interference; the truth is, of course, between the two—a little liberty and a little regulation by the state. For De Cardenas, the causes of dearth in the kingdom of Naples are three: scarcity of production as a rule; large harvests exceptionally; then government interference. The one only remedy in his opinion is the creation of public store-houses, and the giving power to the government to decide annually what portion of the harvest might be exported. The corn in the public store-houses ought to be saleable by a system of warrants.

The title of his work is *Governo economico intorno ai grani.* Napoli, presso Gaetano Tardano, 1784. M. P.

DECENTRALISATION. Few terms are used more at random or are harder to define than decentralisation. It is the reverse of CENTRALISATION (*q.v.*) If centralisation be defined as the centring of all the powers of government in the hands of a single person, or body of persons, and presumably in a single place, namely the capital of the state, decentralisation may be defined as the distributing the powers of government among various persons or groups of persons, and presumably in various places of which the capital is only the most important. Complete centralisation and complete decentralisation are alike impossible. Complete centralisation is impossible, because the central authority must under all circumstances leave much to agents and subordinates, and cannot wholly deprive them of a discretion in executing their functions. Complete decentralisation is impossible, for this would imply the perfectly independent action of many authorities, in other words the dissolution of the body politic. The decentralisation which is possible without destroying the state may take different forms. The functions of government are distinguished as legislative, judicial, and executive or administrative. All these functions, or only one or two of them, may be decentralised. All are decentralised to a considerable degree in such a commonwealth as the United States of America. Legislation is centralised in most states which are not federal, *e.g.* in the kingdom of Italy or in the French republic. Administration is decentralised in England to a far greater degree than in France, since English local authorities enjoy a far larger independence than do French local authorities. On the other hand the administration of justice is far more centralised in England than in France. By means of the system of circuits a very small number of superior courts has been made to serve the wants of the whole kingdom. In France, under the monarchy, there were

thirteen parliaments or high courts of justice, and although these have disappeared, the number of courts and of judges has been much increased in the present century. Thus we see that it is possible for different functions of government to be decentralised in different states.

Again the political significance of decentralisation differs according to the nature of the function decentralised. Of all the functions of government, legislation is the most momentous. Its centralisation is therefore intimately connected with the unity of the state. The legislative decentralisation in federal states, arises from the fact that these are aggregates of smaller states, which, although willing to combine for certain purposes, are unwilling to forego individual existence and at least nominal sovereignty. Judicial decentralisation usually owes its origin to the desire for cheap and speedy justice, which can be had only by bringing a court of justice within convenient reach of every one who wishes to go to law. Administrative decentralisation usually arises from a totally different impulse, from an instinct of self-government, a desire to execute the laws for oneself rather than to have them executed by officials.

The good or bad consequences of decentralisation differ with the different modes of decentralisation, as well as with the circumstances of each community. Legislative decentralisation is seldom strongly desired or long maintained, unless in states spread over a vast area like the British empire or the United States, or divided by differences of race or religion like the Austro-Hungarian monarchy or the Swiss republic. Legislative decentralisation has the advantage of allowing a freer play to national or quasi-national characteristics. It has, however, the disadvantage of leaving the less civilised parts of a state to persist in their barbarism. It has also, in states under popular government, the disadvantage of opening a field to politicians of low moral and intellectual type. Judicial decentralisation is good in so far as it renders justice cheap and rapid, but bad in so far as it tends to produce judges undistinguished either for learning, for ability, or for character. Few states have attained the right medium in judicial decentralisation. In England it has not been carried far enough; in France and in America it has been carried much too far. Administrative decentralisation is good in so far as it places the administration in the hands of those whom it immediately affects, calls forth their public spirit, and exercises their political capacity. It is bad in so far as it entrusts administration to men who have not competent intelligence or are not conspicuous enough to fear public opinion. In short, decentralisation is good, not as an ultimate end, but as a means of good government and of national training. Its effects are strictly relative to all the conditions of the state decentralised. In what directions and to what extent decentralisation should be carried in any given commonwealth, can be determined only upon mature examination of all the circumstances and cautious trial of what is possible. There are few general propositions on the subject which cannot be shown to be unsound or at least incorrect by familiar historical instances.

[Upon the theory of this subject the reader may consult De Tocqueville's works, especially *De la Démocratie en Amérique*, and Mill's *Representative Government;* for illustrations of the working of decentralisation, Bryce's *American Commonwealth*, —especially the chapters relating to the state and municipal authorities; for a statement of the degree of administrative decentralisation now existing in England, the volumes on Local Government and Poor Relief in the English Citizen Series.]

F. C. M.

DECIMAL SYSTEM (Coinage, Weights and Measures). Viewed from an economical standpoint, the non-adoption in a compulsory manner of any decimal or metric system of current money, weights, and measures, throughout the British Empire is one of the most glaring examples of national waste, financially and educationally, that the spirit of unwillingness to face the trouble of a change from old ways has ever inflicted. Over and over again this has been pointed out to parliamentary committees, to successive prime ministers, chancellors of the exchequer, presidents of the board of trade, and other high executive functionaries, but in vain so far as any practical action is concerned. Not only scientific men and professors, mathematical and politico-economical, but commercial men and chambers of commerce, and educational experts at home, and British consuls abroad, have urged in the most convincing manner that our weights and measures and money are, as a whole, utterly unintelligible to the large majority of foreign persons with whom it is our desire and interest to further extend our trade, and that this renders English price lists and circulars a mere dead letter to many who might otherwise become customers, and greatly handicaps British industries in export trade. It has also been fully demonstrated that the loss of valuable time, and the imperfect intelligence developed, by teaching the young an antiquated non-decimal system, is a fearful extravagance even in a country like ours which can afford to spend eight millions annually in the cause of education, some considerable part of which would be saved if a proper decimal system were substituted for the present effete and unscientific want of system. If such a change be adopted by the legislature, then, within a very limited time there would gradually be no necessity to teach, in board or other schools, the present puzzling, because incoherent with each other, denominations of money, weights, and measures that are behind

the age and internationally discredited. Our space does not admit of more than a few remarks under each head of importance in any comprehensive view of this question.

I. *Origin of the decimal system.* Our fellow-subjects in Hindostan were the precursors of the Arabians, and it is believed also of the Chinese, in the discovery and use of the decimal system of notation. Writers of authority on the early history of mathematical science concur in remarking that the Arabians, who were the real introducers of the system into Europe, borrowed it from the Hindoos. In Arabian arithmetical works which date back more than a thousand years the decimal system is called the Indian method of computation, the Hindasi, or Indian arithmetic.

II. *Use of the system in ancient times.* So far as Europe is concerned it was not until the close of the 18th century that any effective decimalisation of coin, weight, or measure took place. In fact the theory itself of decimal fractions was unknown until nearly the end of the 16th century. Calculations of the value of annual rents or of capital sums, receivable for a certain term of years or at the expiry of a given time, at any particular rate of interest, or, in other words, the ascertainment of their discounted present worth, had continued to be attended with so much complexity that the search for some remedy for this led to more easy and effectual means of computing such values being sought by Simon Stevin of Bruges. This illustrious man of science invented the theory of decimal fractions, in the construction of tables showing the values of such annuities and periodical payments; and with far-seeing foresight predicted the enormous boon his new-found science would prove to mankind, in practice as well as theory, for all future time. The discovery was first printed in Flemish and in French some three years after the tables. In French it is included in the second, but separately-paged, part of his duodecimo volume on arithmetic, printed at the press of Christophle Plantin, at Leyden, in 1585. The fame and practical utility of "*La Disme*" or "*De thiende,*" as Stevin entitled it, echoed throughout Europe. In no country was it better welcomed than in England, or received earlier attention by way of translation and of extension. In this treatise it was suggested that not only all weights and measures should be decimalised, but money also, by the latter being struck in future in various countries into "commencements," Stevin's term for units, and then subdivided into "primes" (tenths); "secondes" (hundredths); "tierces" (thousandths); and so on. This was tantamount, so far as England was concerned, to taking the pound sterling as the unit or *commencement*, the florin or two-shilling piece as the *prime* or tenth of the unit, the 10 mil piece or cent as the *seconde* or hundredth of the unit, and the 1 mil piece as the *tierce* or thousandth of the unit. All this is practically identical with the pound and mil scheme, so well known to the British parliament and public at the present date.

At the beginning of the 16th century, it is well evidenced by the book on arithmetic by Cuthbert Tonstall, bishop-elect of London, printed in 1522 at London and Paris, that not only in England and France commercial accounts were kept according to a vigesimal and duodecimal subdivision of pounds and livres into twenty shillings or sols, and of shillings and sols into twelve pence or deniers, but that such was the general practice amongst the merchants of other commercial states of Europe. And so it continued in France until the era of the great revolution. But that from that time until now France and every other country, except England, should have one by one altered to a decimal system is the most undeniable proof that the advantages of a decimal system over all others must have made themselves felt and understood and acted upon by all except our own country.

III. *The decimal system in France.* Although the United States of America had decimal subdivisions of the dollar into cents and half cents, by its legislation in 1786, whilst the great metric reform in the coinage of France was not made before 1791, the change by France from her old vigesimal and duodecimal division of the livre tournois or old franc into the new decimal and metrical franc and centimes, has been the real turning-point whereby all other European countries except our own have been led to decimalise their coinage either wholly or in part. Those which, like the several nations comprised in the Latin monetary union, have adopted the French coinage system in its entirety, have of course the full advantage of a wholly homogeneous system wherein weights of coin and all other weights and measures have a definite mutual scientific relation to each other. But even those which, like the German empire or Russia, have merely decimalised a not strictly metric unit, as for instance the mark or rouble, have derived much substantial advantage from the substitution of decimal for other systems.

IV. *History of the decimal movement in England.* This country was specially, indeed exclusively, invited by the French government at the very inception of the idea in 1790 to send commissioners to Paris to join with theirs in the metric and decimal reform. The antagonism to almost anything French which prevailed here at the time prevented England from joining this movement, much to our national loss, as it has already retarded for a century our participation in its advantages. Let us hope that the new century, now approaching with fast strides, will not find our executive still of the same slow and halting minds as we shall presently show they have been in the

present century. It would be well, with the present progress of education, that they should meet the year 1901 with a greater disposition towards uniformity in this question with the more scientific theory and practice of other great nations which have long experienced the benefits that accrue from it. The matter has in the meanwhile been before the English commercial and scientific world, and the House of Commons, over and over again. So early as in 1824, when the anti-Gallican spirit had begun to tone down, Sir J. Wrottesley (afterwards Lord Wrottesley) moved in the House of Commons for inquiry into the possibility of coining the subdivisions of the pound sterling decimally, that is, into double shillings or florins, and into 1000 farthings or mils, instead of 960 farthings as heretofore. The government rejected the plan as inconvenient, although they admitted its advantages. In 1841 royal commissioners were appointed to restore the standards of weight and measure destroyed at the fire which burned down the houses of Parliament. They reported unreservedly in favour of a decimal subdivision of the pound sterling, and upon the facility of interposing between the pound and the shilling a new coin equivalent to two shillings, and of considering the farthing, now passing as the $\frac{1}{960}$th part of a pound, as the $\frac{1}{1000}$th part of that unit, of establishing a coin of value equal to $\frac{1}{100}$th part of the pound, and of circulating, besides these principal members of a decimal coinage, other coins bearing a simple relation to them, including coins of the same value as the present shilling and sixpence. In 1843 a second royal commission, consisting of the same members as the former one, with the addition of a few more scientific men, was appointed. They proposed that the recommendations of the first commission should be carried out. The government however shelved the matter, and took no action whatever. In 1847 Sir John Bowring moved in the Commons for an address to the Crown in favour of the coinage of silver pieces of $\frac{1}{10}$th and $\frac{1}{100}$th of the pound. The government fell in with this view, but in a tentative manner only. They came to a resolution, and acted upon it, that the first step in the decimal system should be to establish a coin equal to $\frac{1}{10}$th of a pound. This was the origin of the modern English florin, stamped *one tenth of a pound*, the mintage of which was immediately commenced and has continued until now. In 1853 the commissioners appointed ten years before wrote to Mr. Gladstone, then Chancellor of the Exchequer, strongly urging the government to issue coins related to the millesimal subdivision of the pound sterling, and of the value of $\frac{1}{1000}$th, $\frac{2}{1000}$th and $\frac{4}{1000}$th of a pound (differing little from the farthing, the halfpenny, and the penny), and that these might be extensively used by the public without present inconvenience, while the inscription of their values, as estimated in the decimal scale, would afford the means of shortly introducing that scale throughout the entire system. These were sensible suggestions and about the best that can now be offered. They admit, however, of one important improvement which we have personally repeatedly urged, namely, that the coinage of the new farthing (one mil), the new halfpenny (two mils), and the new penny (four mils); should be struck in *nickel*. A small-sized, unmistakably distinct series of new coins of that metal would obviate all confusion or trouble with the concurrent old bronze coins, for such time at least as the latter might have to circulate with the new nickel coins until the bronze coins were called in. A transition period would have to be faced, and it would practically decide in which direction the reform is to work, by the voice of the public, based on the adjustment of its common wants in which every one is interested on both sides of the question, as debtor and creditor, consumer and producer, of commodities and conveniences measured by the penny and its subdivisions. The great question would be whether penny fares and postages and the price of any article, or service, now measured by the penny or $\frac{1}{240}$th of a pound, should be measured in future by the 4 mil piece or $\frac{1}{250}$th of a pound, or by the 5 mil piece or $\frac{1}{200}$th of a pound. The halving and quartering of the 5 mil piece present awkward fractions, but the 4 mil piece with its perfect halving and quartering is dynamically equally convenient with the present penny, and it has the positive advantage of tending to economy by expenditure of $\frac{1}{250}$th, instead of $\frac{1}{240}$th part of a pound, often answering the same purpose, and preventing waste by its more minute subdivisions. Mr. Gladstone, in 1853, declined to act upon the recommendations of the commissioners, but consented to a select committee on decimal coinage. The twenty-five witnesses examined were unanimous in recommending it, and, with one exception, supported the pound and mil scheme. The committee itself reported that having well weighed the comparative merits of the existing system of coinage and the decimal system, and the obstacles which must necessarily be met with in passing from one to the other, they desired to repeat their decided opinion of the superior advantages of the decimal system, and to record their conviction that the obstacles referred to are not of a nature to create any doubt of the expediency of introducing that system as soon as the requisite preparations shall have been made for the purpose by means of cautious but decisive action on the part of the government. Our readers should note this well-advised verdict, that after weighing the advantages and disadvantages as between the present vigesimo-duodecimal coinage and the proposed decimal coinage, they pronounce, as

we take it any man of practical and theoretical knowledge would do, in favour of the decimal system, so that, as we have now got about forty years more education into the understandings of our people than when the commissioners met in 1853, it may be taken for granted that they were right in their view. But it neither pleased Mr. Gladstone nor his government, and the taking of any action by them was the last thing thought of in appointing the commission. The public had, however, even in 1853, its attention so roused by the favourable report of the select committee that all kinds of rival plans were submitted for discussion at meetings of societies and in printed pamphlets. There was so much doctrinaire attachment still existing even to the last thread of the strange web of our singular coinage system, that champions set forth the existing farthing, halfpenny, penny, ten pence, twenty pence, four shillings, eight shillings, crown, ten shillings, even the long-abandoned guinea, as better bases than the pound sterling in a decimal system. Even the American dollar and the French franc had their advocates. The farthing, halfpenny, penny, and the ten-penny schemes were perhaps the strongest-supported of these opposition methods, but all four of them fail by disturbing the pound sterling to an impracticable extent, as they make this time-honoured unit change into one of £1 : 0 : 10, instead of, like the pound and unit scheme, leaving it quite undisturbed. In 1854 the late Sir William Brown of Liverpool, a practical commercial man, after having well considered the question in concert with the "Decimal Association," of which he was chairman, and amongst whose members were the most accomplished men of the day in trade as well as in science, moved three resolutions in the House of Commons: (1) That in the opinion of the House, the initiation of the decimal system by the issue of the florin has been eminently successful and satisfactory. This was carried by 135 to 36. (2) That a further extension of the system will be of public advantage. Carried unanimously. (3) That an humble address be presented to her Majesty to complete the decimal scale with the pound and florin, as suggested by two commissions and a committee of the Commons, by authorising the issue of silver coins to represent the value of the one-hundredth part of a pound, and copper coins to represent the one-thousandth part of a pound, to be called cents and mils respectively, or to bear such other names as to her Majesty may seem advisable. This was withdrawn, as, with its usual tactics on this question, and on the then alleged interests of the poorer classes, and other such plausible pretexts, but really with the view of again strangling the reform, the government agreed to appoint a royal commission, which consisted, in the result, of three men being appointed commissioners who were bitter enemies to any change, two of them, Lord Overstone and Mr. Hubbard (afterwards Lord Addington) being, to our certain knowledge, given to saying that they had made their money, as bankers and merchants, under the old system, and that as that was good in the past, it would be good enough in the future. The inevitable result of the commission, notwithstanding they had the testimony of men of advanced scientific intellect, and of high commercial reputation, before them in favour of the decimal system of coinage, and especially of the pound and mil scheme, was unfavourable. The royal commission arrived at twelve, on the whole, antagonistic resolutions. It was, however, admitted that the pound and mil scheme is the only form in which, under the then state of public feeling in this country on the question, the introduction of the decimal principle into our coinage could be contemplated with any reasonable probability of sufficient support. It was also alleged that there appeared to be no approach to unanimity of opinion, on the question of the introduction of decimal coinage, in the commercial or other classes of the community. This is, however, only the usual stereotyped sort of phrase in which governmental *non possumus* is wont to be wrapped up. But if we are to wait until the *plebs* move as one body in such a cause we may indeed sit still and await the Greek kalends. Light must be diffused upon it, but the reform is practicable over, and not by, the heads of the million. The "Decimal Association," founded to fan the sacred flame of the movement in its favour, faded out of view by the removal through death of such active friends of it as Sir William Brown, Professor De Morgan, Sir John Bowring, etc. Then on its dissolution another body, with like objects, the "Metric Association," was founded, and although neither money nor pains were spared by its members, of whom the writer is one of the few survivors, in educating the public to the advantages of the decimal and metric systems, by meetings, deputations, pamphlets, and conferences of all kinds with educational and scientific notabilities, still, that association also came to an end, as human nature tires at last in the thankless task of pushing forward reasoning on subjects of argument that are necessarily, in the order of things, abstract and theoretical in form, although they are, in this particular instance, also both real and practical and within the possible range of not very distant adoption. On the ruins as it were of the first two associations, a third "Decimal Association" has been founded, and has succeeded in gaining a more influential co-operation from the chambers of commerce than was formerly possible. It remains to be seen if it can attain its objects better than its predecessors, the associations of the past generation.

It has this advantage over them, that public education of the masses has now made vast progress, and places the latter in a far better position to accept and welcome a decimal reform than when some of us laboured in the same cause in years long gone by. It would seem, notwithstanding, that although individuals may improve in their grasp of the question, ministers do not. A Palmerston, a Gladstone, or a Goschen are all much the same in their desire to put a spoke in its wheel, which may pass on the burden and responsibility of the change to some distant future. Having attended all the deputations in a long series of years which have ventured to trouble the Treasury and Board of Trade with the expression of wishes for present action upon it, we can say we have never discerned even the faintest glimmer of sympathy, in any minister, for the movement. If it were felt in their inner non-official conscience, it was stifled by the knowledge that not only would the cry of reform to a decimal system, either of coinage or of weights and measures, or of all of them, gain them no political votes, but perchance might lose them a few, from the feeling that it would cost the masses trouble and thought, and the collecting and spending branches of the executive the same, and some ingenuity of arrangement besides, if any change in the present antiquated system be brought about. There is unfortunately an excess of timorousness here. If actual experience be a guide, the example of a great country like the German Empire having decimalised its coins, weights, and measures, within quite recent years, proves that a nation, certainly not better if so well educated as England in these days, can carry out such a reform in a limited space of time without any real difficulty, and much to its advantage both in the multifarious daily dealings of home life and in its trade intercourse with the rest of the world. F. H.

DECIME. French bronze token coin of the nominal value of 10 centimes, or one-tenth of a franc. Weight 10 grammes or 154·3 grains. English value ·96 penny. F. E. A.

DÉCIMES. In France, as in other countries of Europe, the clergy long contended for the privilege of exemption from taxes. It was a favourite and frequent assertion that they owed nothing to the state but their prayers. The kings were naturally unwilling to dispense with the contributions of the wealthiest corporation in the realm. From the time of the crusades the clergy were frequently induced or compelled to make occasional grants to the crown, usually for some definite object, and often sanctioned by the pope. It was not till the middle of the 16th century that these grants, under the pressure of Huguenot schemes of confiscation, became permanent and regular taxes. In 1561, by the contract of Poissy, the clergy undertook to pay 1,600,000 livres a year for six years. This contract was renewed in 1567, and ultimately the *décimes*, as they were called, became a regular payment, granted every ten years by a *grande assemblée* of the clergy, attended by four deputies from each province. To settle all disputes about the assessment and collection of this payment a *bureau général des décimes* was erected in 1580 in each of the eight metropolitan sees of France.

Though the consent of the clergy to the grant of taxes became more formal than real, they retained the assessment and collection in their own hands. Necker goes out of his way to praise the system they had adopted in the 18th century. The *décimes* formed a direct tax upon all clergy except the charitable orders. For the purposes of assessment the clergy were divided into eight classes, in which attention was paid to other considerations than mere difference of income. Thus the first class was composed of the non-resident officials such as the abbés and secular priors; whereas the archbishops and bishops only came in the second class. The other classes were mainly arranged according to income, the lowest consisting of curés with 500 livres a year. The first class paid a fourth of income, the second a sixth, and so on down to the last, which paid only a twenty-fourth. But the arrangement was not strictly carried out, and the collegiate clergy succeeded in throwing an ever-increasing burden upon the curés.

The *décimes* were not paid by the *clergé étranger*, *i.e.* the clergy in the provinces added to France in the 17th and 18th centuries. In four of these provinces the clergy paid the ordinary secular taxes, and in the rest a composition for them.

[Necker, *De l'administration des finances de la France*, tome ii.—Gasquet, *Précis des institutions politiques et sociales de l'ancienne France.*] R. L.

DECKER, Sir Matthew (1679-1749), merchant, and economic and trade writer, was born in Amsterdam and came to London in 1702. His business life was eminently successful, leading the way to great wealth and many honours. He was a director of the East India Company, member of parliament for Bishops Castle, high sheriff for Surrey in 1729, and was created a baronet 20th July 1716. His estates were large, and he is reputed, by mistake, to have been the first to produce pine-apples in England, one of which was served up at a great banquet at Richmond when he entertained George I.

His importance as a writer rests on two treatises:—

1. *Serious Considerations on the several high duties which the Nation in general, as well as Trade in particular, labours under, etc., with a proposal for preventing the removing of goods, discharging the trader from any search, and*

raising all the Publick Supplies by one single tax. 1743 (name affixed to 7th edition 1756).

2. *An Essay on the Causes of the Decline of the Foreign Trade, consequently of the value of the lands in Britain, and on the means to restore both.* 1744 (said to have been begun 1739).

Decker's authorship of the last-named treatise has been impugned by M'Culloch on grounds both external and internal. On the authority of Fauquier, *Ways and Means*, p. 56 (1756), he assigns it to Richardson. He further considers the dissimilarity of the systems respectively expounded as evincing an obvious difference in authorship. With regard to external evidence it may be noticed that the evidence rests on the assertion made by Fauquier which is followed by Chalmers in 1782. Against this may be placed Postlethwayte's authority (*Great Britain's True System*, pp. 163-175); a letter from Lord Townshend to Tucker speaking of the treatise as Decker's in 1752 (*Hist. MSS. Com. Report*, xi. App. 4); and lastly, the 2nd edition printed in Dublin in 1749, which has Decker's name on the title page as author.

Turning to the question of internal evidence, it is necessary to point out that there is very little ground for M'Culloch's observations with regard to incongruity. So far, indeed, is this from being a remarkable feature that the opposite may rather be said to be the case, the scheme expounded in the second treatise, of general licenses for consumption, being an expansion of the scheme of particular licenses for the consumption of tea, treated of incidentally in the first (*Serious Considerations*). The tone of the two is similar, and the grievance complained of the same.

To sum up the matter it may be said that the internal evidence is strongly in favour of the two treatises being written by the same man, and as there is no ground for supposing that Decker did not write the *Serious Considerations*, etc., a work always attributed to him, he must be credited with the authorship of the second treatise also, unless the external evidence be directly opposed. So far, however, is this from being the case that its balance is largely in his favour.

Next, we may turn to the contents of these two works. The first, the *Serious Considerations on the High Duties*, etc., opens with long comments on the inducements offered by heavy custom duties to smuggling ("running"), which will take place in defiance of all attempts at suppression. Such a condition of things bring about two chief evils, civil disorder and perverted morality. Decker then notices the great advantage which would be brought about by a repeal of the import duty on tea, and the substitution of a license duty on households wishing to consume tea. But the great scheme developed in this treatise consists in the replacement of all custom duties by an excise on houses. This he would impose in proportion to the rating, with total exemption for the poor. Its chief advantages are, he urges, (1) just and certain incidence, (2) convenience in time of collection, (3) economy. He thus forestalls the four canons of taxation enunciated by Adam Smith.

The second work, *Decline of the Foreign Trade*, is in every way more important than the foregoing. While proceeding on the same lines and aimed at the same evil, it has a wider and more liberal scope. It seeks to attain its end by measures which would affect the conduct of trade throughout the whole kingdom. Although the title is pessimistic in the extreme, it must be observed that the drift of the whole treatise is rather to show the possibility of improvement than to assert any *absolute* decline. In other words England might be made much greater than she is. At the outset he has to confront a particular aspect of the question dealt with in the foregoing work. The proposal to abolish customs and to make England a free port was met by the objection that such an alteration would destroy the value of the land. This he desires to controvert, and in order to do so really divides his work into three parts. The first part is devoted to a detailed criticism of the fiscal difficulties under which England is labouring; the second part to showing the intricate connection between the trade of a country and the value of the land; while in the third part Decker displays the great sources of wealth and prosperity possessed by England, and shows how the references he suggests would permit her to avail herself of these, her natural strength. Some attention must be paid to each of the foregoing.

The first part treats of the causes of difficulty. These are (1) present taxes, (2) monopolies, (3) ill-judged laws, (4) heavy burden of the national debt. It may be noticed that he criticises the East India Company with great severity, and urges very strongly the repeal of the navigation laws, which have, he says, evil effects on trade and shipping alike. The criticisms and complaints comprised under the foregoing headings group themselves round two great matters of grievance:—

(*a*) The undue and artificial exaltation of certain branches of trade.

(*b*) The enhancement of the price of labour.

In the second part, Decker claims that the value of the land is diminished by what foreigners take from others instead of us, by what the poor have given them instead of buying, by the scarcity of people and the scarcity of money.

The third part opens with a description of the natural advantages which England possesses over her two chief rivals, France and Holland. Decker shows how the uniqueness of her position, the wealth of minerals she possesses, the fertility of her soil, the moderation of her government,

and the daring of her sailors combine to give her a position which no other nation can claim. He then proceeds to unfold his proposals. These are eleven in number and are fiscal, economic, and political. Of course one of them is the general repeal of import duties and another the abolition of bounties. To replace the revenue derived from the former of these he advocates a tax on the consumption of things which are not strict necessaries. The tax, as he develops it, partakes of the nature of an income tax with considerable exemptions, since indulgence in different luxuries is supposed to indicate the possession of a certain income. Thus the unambitious drinker of tea is to be taxed on an income of £25, the owner of two coaches and six on one of £8000.

Such are the contents of these two works, which, taken together, supply a body of practical economic doctrine, set off by illustration of fact, of such weight and importance that their author must rank as one of the most important of the precursors of Adam Smith.

[*Nat. Dict. Biog.* and auth. cited, especially ref. in *Gent. Mag.* The works have been very insufficiently treated of, though A. Smith refers to "the well-known proposal of" Decker in bk. v. c. 2, *W. of N.*] E. C. K. G.

DECLARATION OF PARIS. The name given to an important international agreement which was signed at Paris in 1856. During the maritime wars of the 17th and 18th centuries England had acted upon the rule that it was lawful to capture the goods of an enemy in the vessel of a neutral, while the goods of a neutral in the vessel of an enemy were not under ordinary circumstances good prize of war. During the same period it had been the traditional policy of France to confiscate neutral goods found in enemies' ships. Thus, when in 1854 England and France entered into an alliance against Russia, there seemed to be no escape for neutral commerce. The prospect caused much perturbation among merchants, and a considerable amount of pressure was brought to bear by neutral governments upon the allied powers. Accordingly in March 1854 Great Britain declared that "Her Majesty will waive for the present the right of seizing enemy's property laden on board a neutral vessel, unless it be contraband of war." France notified at the same time that she would not capture neutral goods found in an enemy's ship. And further, both states announced that they would not make use of privateers (see INTERNATIONAL LAW, section on *Laws of War*). At the close of the war the powers assembled in conference at Paris, agreed upon a "Declaration concerning Maritime Law," which embodied and made permanent the concessions granted during the struggle. The Declaration was adopted on 16th April 1856, by Great Britain, France, Austria, Prussia, Russia, Sardinia, and Turkey; and all maritime states except the United States, Spain, Mexico, and Venezuela have since acceded to it. Its enacting clauses run as follows:

1. Privateering is and remains abolished.
2. The neutral flag covers enemy's goods with the exception of contraband of war.
3. Neutral goods, with the exception of contraband of war, are not liable to capture under an enemy's flag.
4. Blockades in order to be binding must be effective, that is to say, maintained by a force sufficient really to prevent access to the coast of the enemy.

It was further agreed that no signatory power should be at liberty in its dealings with non-signatory powers to enter into arrangements contrary to the foregoing articles.

The Declaration of Paris is one of the greatest triumphs won by commercial interests over the strict rules of maritime warfare. Its importance resides in its first three articles. The fourth did no more than formulate a principle that had been acknowledged for more than a century. Taken literally it requires an impossibility; for no blockade (see INTERNATIONAL LAW, section on *Laws of Neutrality*), however strict, can always "prevent access to the coast of the enemy." But the explanations given by statesmen at the time and afterwards made it clear that the words were meant to be understood in a reasonable sense as merely prohibitory of ineffective or "paper" blockades (Dana's note 233 to Wheaton's *International Law*). The first article struck at a most objectionable practice. The current of opinion had long been running strongly against the use of privateers. Nelson had declared that they were only one degree removed from pirates. It may be hoped that their prohibition by the Declaration has permanently banished them from civilised warfare. But the new device of a volunteer navy bears some resemblance to ancient privateering. During the Franco-German War of 1870-71, the Prussian government invited private shipowners to fit out their vessels for attacks upon French men-of-war, and offered temporary commissions to the officers of such ships. The project was never carried into effect. France denounced it as a violation of the Declaration of Paris; and publicists and lawyers have differed widely as to its admissibility. Its legality must depend upon the nature and degree of the control exercised over the volunteer cruisers by the naval authorities of the state to which they belong (Hall, *International Law*, part iii. ch. vii.) But there can be no valid reason for questioning the position of vessels bought by private persons and handed over to the government as an addition to the fleet, or of merchant ships built under an agreement that they may be taken by the government and fitted out as commissioned cruisers in the event of war.

The second article of the Declaration has provoked an enormous amount of controversy. Taken along with the third it amounts to a new departure in the law of maritime capture. Up to 1856 the great naval powers had been divided between the old principle that the liability of goods to capture should be determined by the character of their owner, and the more modern principle, introduced by the Dutch in the days when they were the great carriers of the world's merchandise, that the character of the ship in which the goods were laden should settle their fate. The plenipotentiaries assembled at Paris in 1856 combined the two principles and adopted that application of each which was most lenient to commerce. A great outcry was raised in this country because the government accepted the rule "Free ships, free goods" (see *Hansard*, vol. cxlii.) Many of our leading statesmen, among them the late Earl Derby, the late Earl Russell, and the late Earl of Beaconsfield, expressed opinions hostile to this part of the Declaration; and a popular agitation against it was maintained with great vigour by the late Mr. David Urquhart. On the other hand it was supported by such high authorities as the late Lord Palmerston, the late Earl of Clarendon, and Mr. Gladstone. The truth seems to be that, while Great Britain remains neutral, her commerce, and especially her carrying trade, is favourably affected by the Declaration, but, should she be engaged in a great maritime war, the enormous volume of her exports and imports would offer a most vulnerable mark for the attack of the swift cruisers of the enemy, whose trade would seek safety under neutral flags. This being the case, it seems worthy of consideration whether we should not go a step farther, and agree to the exemption of all private property from maritime capture, unless it is contraband of war or destined for a blockaded port (Lawrence, *Essays on some Disputed Questions in Modern International Law*, vii.)

The Declaration of Paris is practically irrevocable. Commercial interests are much more powerful now than they were in 1856; and the pressure they can bring to bear upon governments is amply sufficient to prevent a withdrawal of the privileges then gained. Strictly speaking the Declaration is not binding on the powers which have declined to sign it. But those of them who have been engaged in war since 1856 have invariably observed its rules. Spain and Mexico have signified their approval of the second, third, and fourth articles. The United States would have signed the Declaration, when invited to do so by France immediately after the Conference of Paris, had the first article been extended so as to forbid the capture of private property at sea unless it were contraband. The opposition of the British government prevented the acceptance of this amendment; and consequently the great American republic held aloof. But in its civil war of 1861-65 every article was acted upon, including the first. Thus there is an uninterrupted prescription of thirty-six years in favour of the Declaration. Every year that passes without a breach of the rules gives them an authority derived from usage and precedent. Should they remain unbroken much longer, they will become part and parcel of the *corpus* of International Law.

[The following books may be consulted: *Annual Register* for 1856.—Phillimore, *International Law*, vol. iii. 3rd ed. (1879).—Wheaton, *International Law*, Dana's edition, notes 173 and 223.—Halleck, *International Law*, Baker's edition, ch. xviii.—Hall, *International Law*, pt. iv. ch. vii. 3rd ed. (1890).—Wheaton, *Digest of the International Law of the United States*, vol. iii. §§ 342 and 383-385.—Calvo, *Le Droit International*, vol. iii. 3d ed. (1880).]

T. J. L.

DECLARATION OF WAR. Formerly it was the practice to make a formal declaration of war either by letter of defiance or by heralds. The modern custom is to issue a manifesto, but any act of hostility will mark the beginning of a state of war. The property of enemy subjects residing in the belligerent country is not liable to seizure, and is protected in many cases by treaties. Existing contracts between subjects of the two states are either suspended or extinguished according to their nature, whilst all fresh trading or other intercourse, and every species of private contract is forbidden.

[W. E. Hall, *International Law*, Oxford, 1890.]

J. E. C. M.

DECLARED AND REAL VALUES. For the purpose of compiling the trade statistics periodically presented to parliament it is required of every importer or exporter of goods that an entry should be made at the custom-house of the port of arrival or departure, containing amongst other particulars those of quantity and value. These values are now termed "declared" in distinction from former values denoted as "computed real" and "official." The earlier form was the latter of these three, and so styled because there were "fixed official rates" founded on the ascertained prices which all known articles bore in the year 1694, with the addition of such new articles as sprang up afterwards at the prices they each bore in the first year of their introduction. This method was discarded from the "trade" accounts in 1854, but continued to be used in the "finance" accounts until 1870, when it was dropped altogether.

In 1854 the import values assumed a new aspect, and became known as "computed real." The average prices which had prevailed during each month were obtained from experts, and applied to the quantities returned by the customs officers as having been brought to account

during the past month. This system gave place in 1871 to one by which the importer was required on the first entry of his goods—which took place before they left the ship—to state the quantity, so far as that could be estimated by weight or measurement, and the value also of each parcel as it arrived. This is termed the "declared value," and is that shown in the monthly and annual statements issued from the board of trade and custom-house.

For the exports the "official" values were prepared in like manner up to 1870, but for other reasons merchants were at a much earlier period required to declare the value of their respective shipments, and thus the "declared value," obtained as in the year 1798, has continued up to the present time.

Since 1870 the published values rest solely upon the authority of the persons by whom the several entries are passed; subject to such control as can be exercised by the customs authorities from a close inspection of such imports as, being liable to duty, are weighed or measured, and a cursory examination of such as are free from any charge in the shape of duty. There is also the power which the clerks engaged in the compilation of statistics possess of calling upon the importers to prove the accuracy of their statements by the production of the invoices or other documents in their possession. For the exports of British goods the values are also obtained from the declarations of the shippers, rendered some few days after the vessels in which they are exported have sailed.

For the purpose of comparison between recent and earlier years it is necessary to bear in mind the reversal of previous rules as to the period when the appraisement took place. It used, for the imports, to be after the goods had been landed and been subjected generally to the test of the markets in which they were bought and sold. It is now, before they have been even seen by the owners or consignees. For the exports the valuation used to be prior to their being sent for shipment, and when the quantity that could be received on board was uncertain. Now the declaration is made after they are beyond the reach of inspection, but when the shipper is presumed to have full knowledge of their cost. Thus the values given for imports are now estimates made by those through whose hands they pass, of what they ought to be worth. Those for the exports should be the actual amounts for which they have been obtained. Formerly, that is since the abrogation of "official values," that for the imports was ascertained after many or most of them had been dealt with; for the exports at a time when the shipper to a great extent knew only the orders he had given, but not the extent to which they had been executed.

Another point which needs to be borne in mind in the institution of a comparison between imports and exports is, that the moment of valuation is that of arrival in the one case, and departure in the other. Thus the valuations for imports includes all the charges which they have incurred for transit from the place of production, that for the exports excludes everything accruing after they leave the place of shipment.

It is obvious that in both cases the accuracy of the valuation depends upon the extent to which the facts are known to the person by whom the customs entry is made, and the care he bestows upon the estimate or record which he makes; and in neither is there any reason why these should not be as close an approximation to the truth as was secured at any former time, or in the records of other countries. In the absence of any motive for wilful error it is not probable that they are intentionally misstated. The chief danger lies in the fact that the entry may be made upon insufficient information, and there is a tendency to adopt average prices without due regard to the fluctuations which are continually taking place. To procure absolute accuracy would entail such a minute inspection and calculation as would tend much to impede trade transactions and be the occasion of great expense. The chief security consists in the multitude of small entries which go to make up the large totals, and in the many agents, acting independently of each other, by whom the particulars are gathered. Thus individual errors may be supposed to correct each other. Confidence may be reposed in the results obtained, at least for comparison of one period with another, if not for the perfect accuracy of each especial year or month. Although compiled from different sources and varying methods, there should be no breach of continuity in the records of the "computed real" and the "declared" values, but no fair comparison can be made in either case between the present records and those formerly known as "official."

[For fuller information on this subject reference may be made to "Report of Inspector-General of Imports and Exports in 1854."—"Reports of Commissioners of Customs."—Bourne, S., "Official Trade and Navigation Statistics," in the *Stat. Society's Journal* for 1872, p. 196, and "Trade, Population, and Food," 1880.—Giffen, R., *Essays in Finance* (2nd series).—M'Culloch, J. R., *Commercial Dictionary*, articles "Imports and Exports," "Balance of Trade."—Newmarch, W., "Progress of Foreign Trade of United Kingdom, 1856-77," in *Stat. Society's Journal* for 1878, p. 187.—*Parliamentary Paper*, No. 405, 1881, "Trade with France from 1861 to 1879."—"R. Giffen's Reports upon changes in the prices of Imports and Exports," 1879, *et seq.*] S. Bo.

DECREASING RETURNS. See DIMINISHING RETURNS.

DECREE OF REGISTRATION (Scot.) A Scotch contract usually contains a clause of

consent to registration for preservation and execution; this may be followed by registration in the court books, and an extract of the deed from the court books is equivalent to an extracted judgment of the court, not *in foro*, but enabling summary execution to be obtained, unless an action of suspension be raised to challenge the validity of the deed registered. A. D.

DEDUCTIVE METHOD. By the deductive method is meant a method of reasoning which begins by investigating the principal forces determining a given class of phenomena, and the general laws in accordance with which these forces operate, and then goes on to trace the consequences which ensue from their action and interaction under specified conditions. It proceeds, therefore, from the more general to the less general. The conclusions reached may indeed possess a high degree of generality considered in their relation to actual concrete facts; but they are particular, relatively to the very wide generalisations which constitute the premisses.

Recourse is had to the deductive method in cases where the method of direct induction is rendered specially fallible by reason of the great complexity of the phenomena under investigation. There are, therefore, *prima facie* grounds for availing ourselves of its aid, if possible, in the social sciences; since, as Mill observes, "of all effects, none depend on so great a complication of causes as social phenomena" (*Logic*, bk. vi. ch. 7, § 1). If we can effect a mental isolation of the principal forces in operation, then the problems to be solved will be simplified, and it may be possible to deal separately with their different aspects. The deductive method must not, however, be identified with pure deduction. In its complete form it is found to consist of three steps. There is, first, the selection of premisses; secondly, the deduction of consequences; and thirdly, the verification of consequences by comparison with what is observed actually to occur. The final step has for its object not merely to test the accuracy of the deductive reasoning in itself, but also to determine the relevancy of the premisses to the actual phenomena upon which the reasoning is intended to throw light.

It is at once clear that if the deductive method is to be of practical utility in any science, it must start from a basis of observation. Thus in political economy its premisses must not be chosen arbitrarily, but must correspond broadly with the general characteristics actually displayed by men in their economic dealings with one another, and with the circumstances in which they are placed. The premisses are, therefore, partly psychological, and partly obtained by an investigation of the physical and social environment in which men's economic activities are exercised. It is not necessary, however, that the propositions assumed in regard to men's motives or their material and social surroundings should be true universally or without qualification. To attempt any exact correspondence with what has been called the "full empirical actuality" would be to sacrifice generality, and to involve ourselves afresh in those complexities of actual economic life from which it is the special object of the deductive method temporarily to escape. The requirements are, first, that the motives taken into account shall be exceptionally powerful in the economic sphere, and so far uniform in their operation that the kind of conduct deduced from them may correspond with what actually happens in the great majority of cases; and, secondly, that the circumstances under which the motives are supposed to operate shall be of a representative character, either as regards economic life in general, or, at any rate, as regards a special aspect of it over a given range.

It follows that the deductive method involves a process of abstraction. A condition of affairs is assumed in which the operation of "disturbing causes"—such as never fail to be present in actual experience—is eliminated. The extent of the abstraction admits of all degrees, and what are to be regarded as "disturbing causes" will vary in different instances. In the most abstract reasonings of economics, attention is limited to general principles which are entirely, or almost entirely, independent of social institutions and economic habits, as, for example, the law of diminishing utility—namely, that the additional satisfaction which a person derives from an additional increment of any commodity diminishes as the stock of the commodity already in his possession increases. In other cases account may be taken of quite special conditions, such as a monopoly conferred by government, or temporarily established by effective combination. The abstraction frequently takes the form of assuming a stationary condition of affairs, in which the natural progress of economic life, with its multiplicity of changes and infinitely complex interactions, is supposed to be in certain respects arrested, so that some particular agency may have free play to work out its own proper effects unimpeded and under known conditions. In order to express this assumption, deductive political economy is sometimes said to study society statically, whereas actual society is dynamic. The analogy implied in the use of these terms is suggestive; but it must not be pushed too far.

Attempts have sometimes been made definitively to enumerate the premisses of deductive political economy; and there are no doubt a few premisses—such as the law of diminishing utility, already referred to, and the hypothesis of free and effective competition—which occupy a central position in economic theory. Any

exhaustive enumeration is, however, impossible; since, in order to suit fresh cases, old premisses may at any time be modified and new ones introduced. And it is important not to lose sight of the fact that in having recourse to the deductive method the economist is not rigidly tied down and limited in his choice of assumptions. Even Cairnes, who formulates somewhat narrowly what he regards as the ultimate and fundamental principles of economic reasoning, also recognises subordinate causes influencing human conduct in the pursuit of wealth, which may at a later stage be incorporated amongst the premisses of the science.

When recourse is had to the deductive method, the application of conclusions to actual economic phenomena is of course dependent upon the realisation of the conditions assumed in the premisses. The conclusions, moreover, are almost always subject to the proviso that the causes specially under consideration shall be allowed to work out their effects undisturbed; and they must accordingly be regarded, not as positive predictions of what will be found to occur in every individual instance, but as statements of tendencies which are not unlikely to require a wide range of experience and the lapse of a considerable interval of time in order that their operation may be clearly manifested. For these reasons deductive political economy is said to be a hypothetical science; but this must not be considered to imply unreality or want of correspondence with the actual order of economic phenomena. For so long as the premisses are not chosen arbitrarily, but take account of the most uniform and powerful of the forces in operation, the conclusions reached will be of fundamental importance from the practical, no less than from the scientific, point of view. The description "hypothetical" should, therefore, not be applied to political economy with any disparaging implication. In the same sense in which it is applicable to political economy, it is also applicable to such sciences as mechanics and astronomy.

In order to avoid misunderstanding and error in the use of the deductive method, it is necessary that the assumptions which constitute the basis of the argument should be clearly enunciated; and, further, that the conclusions reached should not be applied to any given state of society without a special investigation of the relevancy of the assumptions to the actual condition of affairs. It has been already pointed out that deductive political economy obtains its ultimate premisses from observation. But it follows from what has just been said that this is not the only function fulfilled by observation in the employment of the deductive method. Observation also determines the limits within which given assumptions are approximately realised, and indicates the kind of allowance that should be made for the effects of "disturbing causes." It, moreover, shows in what directions premisses must be modified in order that they may be adapted to special economic conditions; and, finally, it serves to illustrate, test, and confirm the inferences that have been deductively obtained. In the process of verification, however, it is always necessary to bear in mind the special character of these inferences. In so far as they relate only to what will happen in the long run, time must be allowed for effects fairly to manifest themselves; and in any case it must be remembered that a general tendency cannot be either established or refuted by an individual instance.

In the application of the deductive method to economic problems many recent economists have availed themselves of the aid afforded by diagrams and mathematical symbols; and it may be observed in passing that when this is the case the precautions essential to the right use of the method are less likely to be overlooked. For the employment of mathematical methods necessitates a full analysis and clear statement of the premisses upon which the reasoning is based; and no one is likely to imagine that the results reached can be applied offhand to the solution of practical problems. (See DIAGRAMS; GRAPHICAL METHOD; MATHEMATICAL METHOD.)

The deductive method has been the traditional method of English economics, and the part which it plays in building up economic doctrines has been specially emphasised by Mill in his *Unsettled Questions of Political Economy* and in his *Logic*, and by Cairnes in his *Logical Method of Political Economy*. Upon this point Jevons also expresses his agreement with them. "I think," he says, "that John Stuart Mill is substantially correct in considering our science to be a case of what he calls the physical or concrete deductive method; he considers that we may start from some obvious psychological law as, for instance, that a greater gain is preferred to a smaller one, and we may then reason downwards, and predict the phenomena which will be produced in society by such a law. The causes in action in any community are, indeed, so complicated that we shall seldom be able to discover the undisturbed effects of any one law, but, so far as we can analyse the statistical phenomena observed, we obtain a verification of our reasoning. This view of the matter is almost identical with that adopted by the late Professor Cairnes" (*Theory of Political Economy*, 1879, p. 18).

In opposition to this view, writers belonging to the more advanced wing of the "historical school,"—for example, Knies and Schmoller in Germany, and Cliffe Leslie and Ingram in England,—either reject altogether the use of the deductive method in economics, or hold that the part which it has to play is unimportant and soon exhausted. Thus amongst the pre-

vailing errors of economists, Professor Ingram includes "that of exaggerating immensely the office of deduction in their investigations." "We can," he allows, "sometimes follow the method which Mill calls the *à priori* deductive, that is, we can, from what we know of the nature of man and the laws of the external world, see beforehand what social phenomena will result from their joint action; but though the economists of the so-called orthodox school recognise no other method, we cannot really proceed far in this way, which is available only in simple cases." Hence it is argued that "the *à priori* deductive method should be changed for the historical" (*Statistical Journal*, 1878, pp. 617-626). Similarly, Cliffe Leslie lays it down that "the abstract and *à priori* method yields no explanation of the laws determining either the nature, the amount, or the distribution of wealth." "On the other hand," he says, "the philosophical method must be historical, and must trace the connection between the economical and the other phases of national history" (*Essays*, 1888, p. 189).

It would occupy too much space to attempt here a discussion of the various arguments by which the assailants of the deductive method attempt to make good their position. It may, however, be observed that the problems which they have mainly in view are apt to be different from those which the deductive economists have mainly in view. They are, for example, not unfrequently thinking of historical or semi-historical problems, which no one would seriously maintain to be capable of a deductive solution,—as, for example, the changes in kind which wealth undergoes in different states of society. For further illustrations of this point reference may be made to Cliffe Leslie's essay *On the Philosophical Method of Political Economy*.

Critics of the deductive method are, moreover, apt to misinterpret the nature of the conclusions to which alone it professes to lead. "The deductive economist's theory of profits and prices," says Cliffe Leslie, "will be found to claim to be true, under all circumstances, in the case of every individual in trade and of every particular article, and to foretell the exact rates at which goods will be sold. His theory of taxation is an application of his theory of profits and prices; and it proceeds on the assumption that prices will actually conform to the cost of production, so nicely in every particular case, that every special tax on any commodity will be recovered by the producer from the consumer, with a profit on the advance" (*Essays*, p. 229). It is certain that no authoritative writer of the deductive school has ever intended to lay down such doctrines as these. The doctrine, for example, that taxes on commodities are, under ordinary conditions, paid by consumers, relates solely to what will happen in the long run. and writers like Mill and Cairnes have never for a moment imagined that every individual instance will afford a verification of it. Cairnes is very emphatic upon this point. Referring to the doctrine of cost of production, he says—"Is it meant that freely-produced commodities invariably and without exception exchange for one another in proportion to their respective costs of production? If this is what the doctrine means, the assertion is clearly untrue. In what sense, then, is the statement true, that cost of production regulates the value of freely-produced commodities? The answer is, it is true hypothetically—in the absence of disturbing causes; or, to express the same thing in a different form, the doctrine expresses not a matter of fact, but a tendency" (*Logical Method*, pp. 93-4).

Both friends and foes of the use of deduction in economic inquiries have too often implied that the use of one method excludes the use of other methods. But this is far from being the case. In political economy the inductive and deductive methods are of varying relative importance in different departments of inquiry. But in every department the value of either is increased in so far as it can be supplemented by the valid employment of the other. Increased accuracy and abundance of observations and improved opportunities for making valid inductions will never render deduction superfluous, but will, on the other hand, provide it with a broader and better established basis, extending the range of its applicability, leading to its further developments, and increasing the practical utility of its conclusions. The object of the present article is to explain the nature of the deductive method, and for a detailed consideration of other methods reference must be made to HISTORICAL METHOD, INDUCTIVE METHOD, etc. But whatever method may be immediately under consideration, it is most important to point out that the recognition of its utility does not imply the denial of the utility of other methods in their proper place and under proper conditions.

It will constantly be found that economists are less narrow in their actual method of setting about the solution of economic problems than they are in what they write about method. Mill, for example, while sometimes speaking of the inductive method as if it were altogether inefficacious in economics, himself gives a typical example of its use in the discussion of the economic aspects of peasant proprietorship, which occupies so prominent a place in his political economy. Cliffe Leslie, on the other hand, continually has recourse in his own economic reasonings to that deductive method which he elsewhere so vehemently attacks. Some striking instances of this will be found cited in an article on "Economic Method" by Professor Sidgwick in the *Fortnightly Review* for February 1879.

There are indications that in the future the controversy as to the place of the deductive method in political economy will be less prominent than it has been in the past. A compromise is being effected, and economists are coming to substantial agreement. Thus, writers who carry on the tradition of the so-called classical school fully recognise that induction as well as deduction has an important part to play in the building up of economic doctrines. Professor Marshall, for example, writes—"Induction and deduction go hand in hand. The progress of economic reasoning depends on the study of economic facts, and, on the other hand, that study itself requires to be guided and directed by the scientific knowledge which is the outcome and abstract of a previous study of facts. Every new study of facts adds to our knowledge of the action of economic causes, it enables us to form a better judgment as to the effects which any cause is likely to produce, whether acting singly or in combination with others; and it puts us in a better position to detect the hidden causes of results which come under our notice. But the study, to be serviceable, must be careful and thorough, and must be so arranged as to isolate the action first of one cause and then of another, and make a careful examination of each" (*Principles of Economics*, 1891, p. 88). On the other hand, economists whose natural sympathies tend in the direction of the historical school are emphatic in their statements that the deductive method is very far indeed from being superseded. "These, then," says Professor Wagner, "are the two methods: on the one hand, deduction from psychological motives — first and foremost, deduction from the motive of individual advantage, then from other motives; on the other hand, induction from history, from statistics, and from the less exact and less certain, yet indispensable, process of common observation and experience. With both methods we are to approach the various problems of political economy, and to solve them so far as we can. Which method is most to be used depends on the nature of the particular problems; but it depends also on the turn of mind, very likely on the accident of training and education, of the individual investigator" (*Quarterly Journal of Economics*, October 1886, p. 124). Professor Cohn, again, expresses very clearly the view that deduction and induction are to be regarded as supplementary, not as antagonistic, methods. "Our general consideration of the nature of induction," he remarks, "has taught us that this method by itself alone, without deduction, is blind. Any historical or statistical collection of facts can have a meaning, only when it is made from a point of view suitable to the subject which is to be considered. This material, collected from a definite point of view, can again only be made of use for the discovery of a causal connection by being brought under the light of a previously-prepared hypothesis. The hypothesis is tested by this new material with regard to its reliability, while in its turn it throws new light upon the material. Thus a tentative advance from the most uncertain suppositions to ever more firmly established assumptions, is brought about by progressive observations" (*System der Nationalökonomie*, vol. i. p. 33).

[On the subject of the present article, see also ANALYTICAL METHOD, A PRIORI REASONING, etc. Some discussion of the deductive method and of economic method in general will be found in most systematic works on political economy. Special reference may, however, be made to the following: Bagehot, *Economic Studies*, essays i. and ii.—Block, *Les Progrès de la Science Economique*, Introduction.—Böhm-Bawerk, "Historical *versus* Deductive Political Economy" (*Annals of the American Academy of Political and Social Science*, October 1890).—Cairnes, *Character and Logical Method of Political Economy*.—Cherbuliez, *Précis de la Science Economique*, Introduction.—Cohn, *System der Nationalökonomie*, Introduction.—Cossa, *Guide to the Study of Political Economy*.—Cunningham, *The Use and Abuse of Money*, ch. i.—Dunbar, "The Reaction in Political Economy" (*Quarterly Journal of Economics*, October 1886).—Ingram, *History of Political Economy*, and *Address as President of Section F of the British Association*, 1878.—Jevons, *Theory of Political Economy*, ch. i.—Keynes, *Scope and Method of Political Economy*.—Cliffe Leslie, *Essays in Political Economy*, especially essays xiv. to xvii.—Lunt, *Present Condition of Economic Science*.—Marshall, *Present Position of Economics*, and *Principles of Economics*, bk. i. ch. vi.—Menger, *Die Methode der Politischen Oekonomie*.—Mill, *Unsettled Questions of Political Economy*, essay v., and *Logic*, bk. vi. ch. ix.—Roscher, *Principles of Political Economy*, Introduction.—Sax, *Das Wesen und die Aufgaben der Nationalökonomie*.—Von Scheel, "Die Politische Oekonomie als Wissenschaft" (in Schönberg's *Handbuch der Politischen Oekonomie*).—Schmoller, *Zur Litteraturgeschichte der Staats- und Sozialwissenschaften*.—*Science Economic Discussion* (essays by H. C. Adams, R. T. Ely, etc.)—Sidgwick, *Principles of Political Economy*, Introduction, ch. iii., and *Scope and Method of Economic Science*.—Senior, *Political Economy*.—Wagner, "Present State of Political Economy" (*Quarterly Journal of Economics*, October 1886).]

J. N. K.

DEED (Scot.) Any formal written instrument, properly authenticated, stating the terms of any agreement, contract, or obligation, which must be definite, possible, and lawful. It may be unilateral or bilateral, etc.; it may be gratuitous, for no consideration is necessary; and "sealing" is entirely in desuetude, though anciently necessary in matters above £100 Scots (£8 : 6 : 8), and only dispensed with by statute 1584 in the case of deeds which were also to be registered. A. D.

DEED OF ARRANGEMENT. A deed of arrangement (under the 50 & 51 Vict. c. 57) is an instrument in writing "made by, for, or in respect of, the affairs of a debtor for the benefit of his creditors generally (otherwise than in pursuance of the law for the time being in force relating to bankruptcy)."

The definition of a deed of arrangement given by the act is very wide. It includes (1) an assignment of property (to one or more trustees for realisation and distribution among creditors); (2) a deed or agreement for a composition; (3) and (where creditors obtain any control over a debtor's property or business, a deed of inspectorship or other instrument entered into for the purpose of carrying on or winding up a business; (4) a letter of license given by creditors authorising a debtor, or by a debtor authorising some one else, to manage or dispose of his business with a view to the payment of his debts. The essential feature of the deed in each case is that it must be for the benefit of the debtor's creditors generally, and of the act that such deeds must be registered and open to public inspection. The object of the act, therefore, is not to sanction deeds of arrangement which would otherwise be illegal, or to interfere with or control the administration under such deeds, but simply to secure due publicity. Prior to 1887 such deeds were simple agreements governed by common law and not by special statute. By the above-mentioned act, which came into operation on the 1st of January 1888, deeds of arrangement became subject to certain statutory conditions, the absence of which renders them absolutely void. The act does not otherwise affect their status, or give any validity to them which they would not otherwise possess. They are not required to be in any particular form, and remain voluntary agreements binding only on such persons as accede to them, and enforceable only in accordance with the provisions which they contain. In this respect they are essentially different from the deeds of arrangement and schemes of arrangement which have been legalised under former bankruptcy acts, and more particularly under the acts of 1849, 1861, and 1869. The latter enjoyed certain special privileges, and were binding upon all the creditors of a debtor when adopted by a certain majority in the manner prescribed by law. They also differ in the same manner from the "schemes of arrangement" under the Bankruptcy Acts of 1883 and 1890, which when assented to by a certain majority become binding on dissenting creditors, subject to approval by the court after an investigation into the debtor's conduct (see BANKRUPTCY).

The chief condition imposed upon the validity of deeds of arrangement by the act of 1887 is that they shall be stamped and registered in the bills of sale department of the central office of the supreme court if in England, or in the bills of sale office of the high court of justice if in Ireland, within seven clear days after their first execution either by the debtor or by any creditor. Registration is effected by filing with the registrar copies of the deed accompanied by affidavits verifying the same and containing an estimate of the amount of property and liabilities included thereunder, the total amount of composition (if any), and the names and addresses of the debtor and his creditors. The leading particulars of the deed are then entered in a register, and this register together with the deed itself is open to inspection by any person, whether he be a creditor or not, on payment of the prescribed fee of 2s. 6d. While all deeds are thus registered in the central office in London, separate registers are kept in the county court of the district in which the debtor's place of business or residence is situated, when such place of business or residence is outside the London bankruptcy district. In these cases the registrar at the central office transmits a copy of the deed to the registrar of the county court, who is required to file and to permit inspection of the same in the like manner and on the like terms as in the case of the central register.

The publicity secured by the act has undoubtedly been of great benefit to the trading community. Prior to its passing, an insolvent trader, if he could induce all his creditors to assent, was often in a position to effect a secret arrangement of his affairs, which left him for some months and even years full liberty to trade and incur fresh obligations while he was still under the burden of old ones which remained undischarged, and which were ultimately paid or compounded for out of the proceeds of assets subsequently acquired on credit. Such arrangements were often disastrous to the new creditors who, when their debtor finally passed into the bankruptcy court, had the mortification of finding that the goods which they had thus parted with to an apparently solvent trader had simply been used for the purpose of paying off old liabilities under a secret arrangement with the old creditors. This practice is now rendered more difficult owing to the necessity which the Deeds of Arrangement Act imposes of registering such deeds, and the facilities which it provides for inspection. The publicity thus given is readily utilised through the medium of trade societies for the benefit of the trading community.

An indirect benefit arises from the information afforded with respect to the condition of trade throughout the country, and the total amount of national losses by insolvency. Prior to 1888 no means existed for estimating the amount of these losses except in regard to cases administered under the Bankruptcy Act, although it was known by traders that

a considerable number of such arrangements annually took place, especially in certain trades such as the grocery, drapery, etc. The following statistics relating to the number and scope of the deeds of arrangement registered under the act during the past three years are taken from the annual report of the inspector-general in bankruptcy for the year ending 1890.

Year.	Number of Cases.	Liabilities.	Assets.	Estimated net loss to Creditors.
		£	£	£
1888	3495	4,803,481	2,416,755	3,192,311
1889	3337	4,773,947	2,718,721	2,961,466
1890	3097	4,360,271	2,352,941	2,791,644

Though these figures are not so large as the corresponding figures under the Bankruptcy Act, they show the considerable extent and important character of the insolvency annually dealt with under this head.

A deed of arrangement is only binding upon the creditors who assent to it, and if it comprises an assignment of a debtor's property to a trustee for the benefit of his creditors generally, it is an act of bankruptcy. Any creditor who does not accede to it can therefore proceed against the debtor by ordinary process, and may, if he establishes a debt of upwards of £50, present a bankruptcy petition against him; and if an order of adjudication is made in pursuance of a petition presented within three months after the date of the deed, the latter may be set aside and become void at the instance of the trustee in the bankruptcy. Any person who has dealt with the estate included in the deed, whether as trustee or otherwise, thereupon becomes personally liable as a trespasser for any loss sustained by his intervention. After this period of three months the deed cannot be challenged under the Bankruptcy Act, although it is still liable to be set aside, under the statute of Elizabeth (13 Eliz. c. 5), if it can be established that it was entered into for the purpose of defrauding creditors. Although therefore no creditor is bound by the deed unless he assents to it, he practically loses his remedy as against the debtor's property, unless he can prove fraud, or unless he takes steps to preserve his rights by a bankruptcy petition within three months from the date of the deed; and although he can after that period make the debtor bankrupt, he is not likely to derive much satisfaction from that course, as the debtor will probably obtain his discharge subject to a period of suspension, while the creditor may lose any dividend which he might have received under the deed of arrangement.

There are several important differences betwixt a liquidation under a deed of arrangement, and one under the Bankruptcy Act. The following are the most important.

1. Under the Bankruptcy Act every debtor must undergo a public examination in court. Under a deed of arrangement no examination takes place, either in court or otherwise, except such as individual creditors choose privately to institute, and the debtor chooses to submit to, prior to the execution of the deed.

2. The release of the debtor from his obligations is subject under the Bankruptcy Act to certain statutory limitations, and to the approval of the court. Under a deed of arrangement the release is generally the main consideration received by the debtor for executing the deed, and is effected either by the instrument itself or in such method as the latter may prescribe. A release, however, is not necessarily an essential feature of the deed; in fact the deed is sometimes entered into merely for the purpose of giving the debtor time to pay his debts in full.

3. The trustee in bankruptcy can set aside various preferences given by the debtor within certain periods prior to the date of the bankruptcy petition which would not be capable of being impeached as fraudulent at common law. Under a deed of arrangement the trustee has no such power.

4. A trustee in bankruptcy is required to give security to the board of trade and to pay moneys received to the credit of the bankruptcy estates account with the Bank of England. Under a deed of arrangement no security is required unless prescribed by the deed, and moneys remain under the control of the trustee unless otherwise directed by the deed.

5. In bankruptcy, a trustee's accounts are subject to regular audit by the board of trade; under a deed of arrangement there is no audit except such as may be provided by the terms of the deed.

6. A trustee in bankruptcy is not only bound to file detailed copies of his accounts in court and with the board of trade, but to send a summary of his receipts and payments to every creditor. Under a deed of arrangement the trustee is under no obligation to send any account to creditors (unless specially provided for by the deed). By § 25 of the Bankruptcy Act of 1890, however, trustees under deeds are now required to send copies of their accounts annually to the board of trade, where they can be inspected by any creditor on payment of a fee of one shilling.

While it is obvious that deeds of arrangement thus lack many of the safeguards provided in the interests of the creditors and of the public in the case of bankruptcy proceedings, it is sometimes easier under them to carry on the business of a debtor who has become involved in temporary difficulties with a view to payment of a composition, than would be practicable under the latter. The result may thus be more beneficial both for the debtor and for his creditors.

(It appears admitted on all hands that the present state of the law with regard to deeds of arrangement is not quite satisfactory. On the one hand they are open to great abuse at the instance of unscrupulous debtors, and on the other they are sometimes rendered impossible by the act of a single creditor, in opposition to the will of the general body of creditors. Various suggestions have consequently been put forward for the amendment of the law, and upon this subject the inspector-general in bankruptcy, in the report already quoted from, says:—"To give any majority of creditors the power to condone the offences which the Bankruptcy Act condemns and punishes would be to degrade commercial morality into a question of barter and to undo much of the benefit which the act has conferred upon honest and prudent trade. What appears to be required, therefore, is to give any dissenting creditor the power to bring a deed of arrangement which affects his interest before the court, and to give the court the power when satisfied that it has been assented to by a certain majority of the creditors, that no offences under the bankruptcy law have been committed, and that no judicial investigation is necessary, to make the deed binding upon all the creditors. With a measure passed on these lines safeguarding on the one hand the interests which the bankruptcy law was designed to protect, and providing on the other against obstructive tactics on the part of an unreasonable minority, it might be fairly hoped that the controversy between the advocates of private arrangements on the one hand and bankruptcy on the other would be closed, and that the two systems might be regarded as forming together a complete code of bankruptcy procedure.") J. S.

DEED POLL. A deed executed by one party only. It is so called because the top of the parchment was "polled" or shaved quite even instead of being "indented."

[Stephen's *Commentaries on the Laws of England*, bk. ii. pt. i. ch. xvi.] J. E. C. M.

DEFALCATION. The term defalcation is commonly used to describe the action of a clerk or servant who wrongfully appropriates to his own use money which he has received on account of his employer. A defalcation in this sense, although morally equivalent to theft, differs from theft in the circumstance that the money has never come into the possession of the person entitled to it, and so has not been taken out of his possession by the offender. Defalcation is, however, a popular rather than a legal term, and is often used with no very definite signification. The legal equivalent of defalcation, as above described, is EMBEZZLEMENT (*q.v.*)

F. C. M.

DEFENCE. Name of a pleading in an action by which the defendant replies to the plaintiff's claim as set out on the indorsement on the writ or in the statement of claim. It must, like every other pleading, "contain only a statement in a summary form of the material facts" on which the defendant relies. If it has been settled by counsel it must be signed by him, and if it contains more than 720 words it must be printed. The defence may consist (1) in a denial of the facts alleged by the plaintiff; (2) in a denial of the legal conclusions drawn by the plaintiff from the facts stated by him; (3) in an admission of the facts stated by the plaintiff coupled with an allegation of other facts which take away the plaintiff's right (*e.g.* a contract is admitted, but it is alleged that it was obtained by fraud, or that it has been performed before action brought, or that the plaintiff has released his right). Allegations of fact in the statement of claim, if not denied specifically, or stated to be not admitted, are taken to be admitted by the defendant (except in the case of an infant or lunatic defendant).

E. S.

DEFENCE, COST OF. The feudal system distributed property and influence in proportion to the obligation to take part in defence. Its armies were essentially militias. The growth of monarchy, with the tendency to identify the state with the personal ruler, threw the cost of defence mainly on the revenues of the sovereign, obtained by taxes in lieu of the feudal dues. War came to be regarded as the personal affair of the king, and the efforts made in war were limited by the size of the standing army which he was able to maintain. In this period the art of war became a distinct profession or trade, and the superiority of a standing army over a militia was soon recognised, nowhere more clearly than in the *Wealth of Nations*, where the two were well distinguished. "The practice of military exercises," wrote Adam Smith, "is the sole or principal occupation of the soldiers of a standing army, and the maintenance or pay which the state affords them is the principal and ordinary fund of their subsistence. The practice of military exercises is only the occasional occupation of the soldiers of a militia, and they derive the principal and ordinary fund of their subsistence from some other occupation." Adam Smith, however, clearly perceived that "a militia which has served for several successive campaigns in the field becomes in every respect a standing army." The French revolution identifying the nation with the sovereign, brought the whole nation into arms. The force thus developed, though at first a mere militia, fulfilled Adam Smith's prediction and easily crushed the comparatively small armies maintained by the neighbouring monarchies, and compelled them, too, to recognise that defence is the business not merely of the sovereign but of the nation. This view has been revived by more recent events, and at the present day defence is conducted as far as possible by the employment of the whole of the national resources.

The loss of productive energy and of capital caused by war far exceeds the pecuniary expenditure of the belligerents. It includes also

material destruction on a great scale, the interruption of trade, the cessation of industry, the loss by death, or disablement from wounds or disease, of a great number of workers. The economic losses are usually great in proportion to the duration of the war; they are also as a rule greater on the defeated side. Accordingly, in order to avoid defeat, to shorten the duration of a possible war, and to render attack improbable except for grave motives, preparations are made during peace, which are amongst the principal objects of government expenditure.

The modern continental system combines the advantage of a militia—the soldier's sustenance not being a lifelong burden to the state—with that of a standing army, which consists in superior professional skill. The leaders and instructors (officers) and their assistants (non-commissioned officers) are professional soldiers, at all times paid and maintained by the state. The rank and file are ordinary citizens, compelled to devote to the exclusive practice of military exercises the minimum time within which skill in arms and perfect discipline can be acquired. This period varies in the continental practice between two and three years, with an exception in some cases in favour of well-educated recruits, who serve one year only. The object is to make a capable soldier of every healthy adult male. But no state has yet been willing to incur the expense of training the whole of the men born in any one year—the "annual contingent"—for the full period. Complete or partial exemption is therefore granted, usually to those whose productive services have a special value. The performance of military service is held to rest on a primary obligation and not on contract, so that the trifling money allowance made to the private soldier is not properly described as pay. This organisation produces for defence an army comprising the majority of able-bodied men between the ages of twenty and forty, but it maintains in time of peace only a fraction of this great number at the public cost.

In Great Britain the obligation to military service is in abeyance, and a standing army of a modified 18th-century type is maintained side by side with an old militia and a new militia—the volunteers. The standing army is recruited by voluntary enlistment on the basis of contract for pay. The contract is for twelve years, of which, in exceptional cases three, usually seven or eight, are spent with the colours; during the remainder pay is received in return for the liability to be recalled upon mobilisation. The militia and yeomanry are also voluntarily recruited, officers and men receive pay for each day served, usually twenty-eight days in each year. The volunteers receive no pay. In militia, yeomanry, and volunteers alike the instructors (adjutants) and their assistants (non-commissioned officers), assigned to them from the regular army, receive continuously the full pay of their respective ranks, with extra allowances.

The total defence expenditure of the British empire exceeds £52,000,000 a year. The *Statistical Abstract* shows for the year ending 31st March 1891 an expenditure for the United Kingdom as follows—

The army	£17,935,023
The navy	16,249,929
Coaling stations, etc.	1,023,000
Total	£35,207,952

The Indian government spent upon defence in the year ending 31st March 1890: (R. 220,250,800) = £15,202,821 (converting the rupee as 1s. 4½d.) (of which £3,957,703 were expended by the home government). Besides this the colonies expend for their own defence nearly £2,000,000 a year.

The naval expenditure, £16,000,000, compares with £8,000,000 spent on the French, and nearly £4,500,000 on the German navy. The British navy is more powerful than either of those named, but experts doubt whether the superiority in strength is proportionate to extra cost, and whether a larger proportion of the whole expenditure should not be devoted to maritime defence. For the apportionment the cabinet alone is responsible, and it is probable that no attempt has ever been made to regulate it according to a definite view of the requirements of war.

The Indian army is maintained under peculiar conditions, and cannot be compared with European armies. It numbers about 73,000 British and 145,000 native troops, but it is believed that in case of land attack upon India an addition of at least 30,000 British troops would be required for the safety of the country. The apportionment of British troops between the home and the Indian armies is a function of the cabinet, and the doubt which was expressed with regard to the navy exists here also.

The cost of the British as distinct from the Indian military forces on the basis of the *Statement explanatory of Estimates for 1891-92* is:

I. Personnel of regular army—		
(*a*) 141,321 regimental officers and men	£11,876,500	
(*b*) 60,233 reserve	566,120	
(*c*) General staff *	263,600	
(*d*) Educational *	104,600	
		£12,810,820
II. Stores and supplies other than personal equipment and provisions—		
(*a*) General charge	£2,385,250	
(*b*) Ordnance store department *	70,150	
(*c*) R.E. department *	108,500	
(*d*) Ordnance Committee, etc.*	160,900	
		2,724,800
III. Various "militia" forces—		
(*a*) 109,546 United Kingdom militia	£1,380,200	
(*b*) 10,830 yeomanry	101,080	
Carry forward	£1,481,280	£15,535,620

Brought forward .	£1,481,280	£15,535,620
(*c*) 221,048 volunteers .	985,610	
(*d*) 3,384 Channel Islands militia . . .	18,730	
(*e*) 1,102 Malta, St. Helena, and Bermuda militia .	16,260	
		2,501,880
IV. War Office		319,990
[The total cost of the War Office is not borne upon army estimates. It amounts to £361,590.]		
* Non-effective charges distributed over above items marked *		57,060
Total		£18,414,550
From this are deducted contributions from—		
India . . .	£530,000	
Colonies . . .	252,250	
Egypt . . .	87,000	
		869,250
Net total from British Taxation		£17,545,300

Deducting from the gross total the cost of the various militias, we get the cost of the regular army with its reserve, £15,912,670.

For this sum the British administration maintains a peace force with the colours 137,000 of all ranks and a reserve 60,000, a total strength for war of 197,000 men.

The German army, with a peace force of 490,000 officers and men, has a war strength of 2,000,000 fully-trained men, besides 100,000 with one year's training and 150,000 with ten weeks' training. The total estimated expenditure for 1890-91 was £33,762,134. The French army, with a peace force of 550,000, has for war rather more than 2,000,000 fully-trained men, about 700,000 men with one year's training, and about 700,000 with a training of some ten weeks. The total expenditure on this army according to the *Budget demandé pour 1891* was £33,338,834.

Thus France and Germany obtain, at about double the English peace outlay, more than ten times the English number of trained men at the outbreak of war. The yield of numbers for war depends partly on the strength of the annual contingents trained in peace, partly on the relative duration of active service and of reserve obligation. In Germany, which offers the type of the continental military system, an active service of nominally three, but practically two years, is followed by a liability lasting sixteen years. Thus the German peace force includes three contingents, while the war force comprises eighteen. In the British army the peace force includes, roughly speaking, seven contingents and the war force twelve. But in seven years' actual service the waste of men is large, and the contingents passed into the reserve become reduced in numbers. The British reserve is paid, but has hitherto received no further training. The German reserves receive a brief occasional training, but involve no other expense.

The greater cost of the English peace force arises partly from the endeavour to attract recruits by the offer of pay—a shilling a day with twopence a day deferred pay; of the shilling, about eightpence being absorbed by necessary expenses of food and clothing—from a more expensive scale of clothing, feeding, and living, and from the fact that in England wages and salaries are on an average much higher than in Germany. Moreover, the British army keeps garrisons in North America and the West Indies, in the Mediterranean, South Africa, Ceylon, the Straits Settlements, and China. These garrisons absorb about 36,000 men, costing nearly two and a quarter millions, while the receipts from the colonies and Egypt amount to only £340,000. Then a whole army corps is kept in Ireland. The frequent movement of troops thus necessitated causes some expense. The cost of management is excessive. There is a perhaps needless, and certainly complicated, system of audit within the war office. Lastly, the expenditure of the departments is nowhere co-ordinated in accordance with a prescribed standard of readiness for war, or of economy. In Germany the doctrine of duty applied to defence enables the scale of living and clothing to be kept down to what is necessary. The private soldier practically receives no pay, his 4½d. a day being hardly enough to provide food necessary in addition to what is supplied by the government. The pension list is relieved by the practice of employing discharged non-commissioned officers in the civil services, notably in the state railways and the post and telegraph offices.

A peace army costing thirty-two millions, and withdrawing from productive labour four or five hundred thousand men, involves, of course, a heavier burden of taxation and a larger loss of productive energy than one which costs half as much and keeps unproductive only a hundred and forty thousand men. But it may be doubted whether the continental system involves any other economic loss different in kind from that which accompanies the British standing army. The soldier with the colours is, while his service lasts, withdrawn from production. The economical loss under this head depends on the number so withdrawn. If the number is small a selection can be made of those who would be inefficient producers. If it becomes considerable more efficient producers must in any case be taken, whether the enlistment is voluntary or the service a duty. The soldier is not merely a non-producer, but a consumer. It is evident from the figures that he consumes in proportion to numbers much more largely in England than in France or Germany. In Germany, at least, he is to some extent utilised as a producer, clothes and shoes being in many cases made by the soldiers, and thus the demand on the taxpayer reduced. That the soldiers so employed as workmen are not paid for their work is perhaps an injustice, but hardly a loss to the nation. Further, the

continental system, taking recruits at the age of twenty and dismissing them at twenty-two or twenty-three, withdraws them from industry before their services have become very valuable, and returns them to it with their industrial capacity unimpaired. It is widely believed that the British soldier, on passing into the reserve after seven years of military life, has lost much of his industrial value. But the evidence given to Lord Wantage's Committee showed that in 1891 the majority of the reservists were in regular employment.

The German one-year "volunteers" serve at their own expense, thereby escaping the rest of the nominally three but practically two years' term. They are required to give proof of superior education. They correspond in attainments and amount of personal expenditure with British volunteer officers.

The cheapest kind of military force, but the least effective, is that described by Adam Smith as militia, of which the members are not supported by the state nor withdrawn from industrial life, but receive their military training in occasional brief periods with or without pay. To this category belong the Swiss army and the British militia, yeomanry, and volunteers. In Switzerland military service from twenty to forty-four is the duty of every citizen, and those who do not fulfil it are subject to a poll-tax of 6 francs a year and an "exemption tax" of 1½ per cent on capital and income. Those who serve belong for twelve years to the *Élite*, and for twelve to the *Landwehr*. The *Élite* have a forty-five days' training as recruits and four subsequent trainings of sixteen days each. The *Landwehr* have two trainings of five days each. Pay is given for each day's training. The net cost for 1889 was frs. 17,685,804 (=£707,432), since increased on account of the recent outlay for fortifications. The numbers in 1890 were: *Élite*, 126,444; *Landwehr*, 80,796; total, 207,240. The Swiss militia is organised as a complete army, with infantry, cavalry, field and garrison artillery, commissariat, transport, and medical service. The English militia and volunteers are merely a number of regiments of infantry and of garrison artillery, with neither the organisation nor the supplementary services required for an army. The volunteers have also seventy-nine batteries "of position," which, though really well trained, are not fit for field service. The yeomanry cavalry are not sufficiently trained to be of any military value whatever. While, therefore, the Swiss militia is perhaps an adequate defence for a small mountainous country, much improvement in organisation will be needed before reliance can be placed upon the English volunteers and militia for a sudden emergency. The political economy of defence has perhaps never been fully treated. Useful figures, showing the cost of wars from 1688 to the present day, are given in an appendix to *The National Budget* by Mr. A. J. Wilson. The question of conscription and the cost of armies is examined, not very satisfactorily, in a paper by Capt. Ardagh in vol. xx. of the *Journal of the Royal United Service Institution*. More accurate information was given by Gen. H. Brackenbury in the *Second Report from the Select Committee on Army and Navy Estimates*, 1887, but this evidence suffers from the unsystematic way in which the questions were asked. The best account of defence expenditure is contained in a paper read by Sir Charles Dilke to the Royal Statistical Society, 16th December 1890, which has been freely used in this article. The contribution from Indian taxes towards the cost of the British army at home has increased from £700,000 in 1890-91 to £850,000 in the estimates for 1892-93. This item is discussed in *Imperial Defence* by Sir Charles W. Dilke and Spenser Wilkinson, pp. 183-185. A good analysis of the German military budget is contained in the *Revue Militaire de l'Étranger* for January and February 1890. The figures given in official estimates are almost always arranged with a view to conceal the essential information. For the British empire no balance-sheet has ever been published showing clearly either the whole military and naval expenditure, the purposes which it is calculated to attain, or the revenues from which it is derived.

[See Giffen, Cost of Franco-German War in *Essays on Finance*, and Bastable, *Public Finance*, 1892, ch. ii. on "The Cost of Defence."] S. W.

DEFERRED PAYMENTS. The phrase "standard for deferred payments" is applied by Prof. Walker to the function of money which Jevons describes in the following passage and its context: "Every person making a contract by which he will receive something at a future day, will prefer to secure the receipt of a commodity likely to be as valuable then as now. This commodity will usually be the current money, and it will thus come to perform the function of a *Standard of Value*" (Walker, *Money*, p. 10; Jevons, *Money*, p. 14).

The term "deferred payments," when used in connection with "tabular standard" (or similar phrases), as by Prof. Walker in his *Money*, p. 159, refers specially to those "long-enduring debts and transactions," those "contracts extending over long series of years," which Jevons and others have proposed to regulate by a standard more permanent than money.

[Jevons's *Money*, p. 325; *Currency and Finance*, pp. 122, 297 (see INDEX NUMBER, TABULAR STANDARD).] F. Y. E.

DEFERRED STOCK. On the stock exchange the securities which have been issued by a government or corporation take different ranks. Thus an English railway company is

liable first for the interest on its debenture stock; next, for that on preferred stock, if earned; next, for dividend on the ordinary stock, and finally for dividend on deferred stock should any exist. In America the shares of railways usually represent the "deferred" interest of the original constructors in the profits of the railway; mortgage bonds, and perhaps preference interest, having first to be satisfied out of net profits. Most of the American railroad shares known to the London stock exchange represent nothing more solid than hope deferred for a very long time, but these are not known as what they really are, viz. deferred shares. Of late years it has been largely the practice of trust companies to issue preferred and deferred stocks, the former being entitled to a given rate of interest preferentially, while the deferred section of the capital takes the residuary profit in the shape of a dividend. Deferred stock is usually created to meet the demand of speculators who favour a security which is exposed to violent fluctuations. If an English railway, which has issued deferred stock, be responsible for a serious accident, the holders of deferred stock, who previously had a chance of a dividend, may see the prospect of dividend entirely blotted out for a time. The deferred stock of an English railway company is peculiar. It is the result of an option given to the holders of ordinary stock. For example, holders of London, Brighton, and South-Coast Railway ordinary stock have been allowed to divide each £200 of ordinary capital into £100 of B or preferred stock bearing 6 per cent, if such a dividend be earned, and £100 of A or deferred stock, which receives the surplus. Thus, when a dividend of 7 per cent is announced on Brighton Railway ordinary stock, a holder of £200 stock gets £14; but, if he has divided his stock, he gets £6 on £100 preferred capital and the surplus £8 on £100 deferred capital. There are investors who buy only the deferred stock, regarding themselves as residuary legatees of a fine estate; others avoid such a stock as being too speculative. The division was made to meet different tastes and suit different temperaments and deferred railway stock is simply the result of that division. A. E.

DEFICIENCY ADVANCES. Under sect. 12 of the Exchequer and Audit Departments' Act, 1866, the treasury are required at the close of each quarter to prepare an account of the income and charge of the consolidated fund, including under the latter head the charge for the public debt due on the fifth, and in the case of the October quarter, on the tenth day of the succeeding quarter. This account is forwarded to and examined by the comptroller and auditor-general, and that officer is authorised, if any deficiency is shown, to certify the amount thereof to the Banks of England or Ireland, and those Banks are thereupon authorised to make advances during the succeeding quarter, on the application of the treasury, to an amount not exceeding in the aggregate the amount of the deficiency. The deficiency advances thus made are secured on a simple I.O.U. of the government, and are paid off gradually, as the state of the exchequer balance admits. They bear interest at a rate agreed upon, for each occasion, between the chancellor of the exchequer and the Bank, this interest being paid after the whole advance has been cleared up. The formal correspondence between the chancellor of the exchequer and the Bank respecting these advances is annually presented to parliament. [See *e.g.* Parl. Paper, No. 52 of 1892.] The quarterly account is usually printed in the *Times* newspaper, and is of a very technical character. The net deficiency shown in the account for the quarter ending 30th June 1892, was £3,248,599. (See also DEFICIENCY BILLS.) T. H. E.

DEFICIENCY BILLS. A term used to denote the exchequer bills formerly issued for the special purpose of being given to the Banks of England and Ireland as security for the advances required to make good the deficiency on the consolidated fund. The issue of these bills was regulated by the Act 57 Geo. III. c. 48, sects. 6-14, which provided that if upon making up the accounts of the income and charge of the consolidated fund for each quarter, it appeared to the treasury that the produce of that fund was not sufficient to defray the charges thereon, it should be lawful for the treasury to direct that exchequer bills should be made out for such sum or sums as should be sufficient to make up the deficiency. The interest to be borne by the bills was not to exceed the rate of "three pence halfpenny per centum per diem"; the Banks of England and Ireland were empowered to advance moneys on the credit of them; and they were to be placed as so much cash in the offices of the tellers of the exchequer. The Act above referred to was repealed by the Exchequer and Audit Departments Act, 1866, which substituted for them a similar but somewhat simpler institution known as DEFICIENCY ADVANCES (*q.v.*)

T. H. E.

DEFICIT. In public finance, an excess of expenditure over income, either (*a*) actual or (*b*) estimated. Unless, of course, the occurrence of a deficit is deliberately contemplated—and the practice of making provision annually for the requirements of the coming year is opposed to such a course—an actual deficit is ordinarily due either to the failure of taxation to realise as much as was anticipated, or to the necessity for meeting extraordinary and unexpected expenditure, as in the case of war and warlike preparations. Where a deficit is only estimated, it can be, and frequently is, made good by an increase of taxation, unless an addition to the

public debt is deliberately sanctioned, or some fund or available asset is appropriated to meet the deficiency. Both descriptions of deficit are usually the subject of reference in the budget speech of the chancellor of the exchequer, and it is essential to discriminate between the two in any consideration of the finance of an administration.

The following table shows the estimated and actual deficits shown in regard to the finance of the United Kingdom since the year 1842-43. The column headed "unrevised estimate," shows the estimated deficit, prior to any revision of taxation; the next column headed "revised estimate," the deficit, if any, after such revision.

Year.	Chancellor of the Exchequer.	Deficits.		
		Unrevised Estimate.	Revised Estimate.	Actual.
		£	£	£
1842-43	Goulburn	2,469,000	..	2,421,776
1847-48	Wood	..	..	3,092,285
1848-49	,,	..	2,031,256	269,378
1852-53	Disraeli	2,125,000	..	..
1854-55	Gladstone	2,840,000	3,543,000	6,196,808
1855-56	Lewis	16,560,519	18,895,000	22,723,854
1856-57	,,	13,961,000	9,373,000	3,254,605
1857-58	,,	..	..	247,846
1858-59	Disraeli	3,990,000	..	..
1859-60	Gladstone	4,867,000	..	..
1860-61	,,	9,400,000	1,286,000	2,558,385
1861-62	,,	..	..	2,412,006
1867-68	Disraeli	..	955,000	1,636,024
1868-69	Hunt	2,078,000	278,000	2,380,824
1870-71	Lowe	..	1,852,000	..
1871-72	,,	2,713,000	..	7,000
1876-77	Northcote	774,000	..	..
1877-78	,,	..	..	2,640,197
1878-79	,,	4,559,676	1,155,676	2,291,817
1879-80	,,	2,945,000	..	2,840,698
1882-83	Gladstone	..	200,000	..
1884-85	Childers	..	1,043,000	1,049,772
1885-86	,,	14,932,000	2,832,000	2,642,543
1886-87	Harcourt	543,599	..	..

[For a detailed review of the finances of the years in which deficits have been estimated or have occurred, see Northcote's *Twenty Years of Financial Policy*, London, 1862; and Buxton's *Finance and Politics*, London, 1888. See also BUDGET.]

T. H. E.

DEFINITIONS. Whately, in his ninth "Introductory Lecture on Political Economy" (published 1832), observes that in a science in which terms already in common use are employed there is greater danger of neglecting questions of definition than in a case where the technical terms are quite new to the student, and, therefore, obviously demand explanation. The need of any general maxims regarding the definition of economic terms does not seem to have been felt till after the appearance of Ricardo's chief work. Adam Smith, who gave few cut-and-dried definitions, had generally used words in the sense which they bore in ordinary language and had endeavoured to explain and illustrate this sense. But Ricardo, sometimes disregarded common usage altogether, and attributed entirely new significations to economic terms. For instance, he defined the rise and fall of wages, rent, and profit in such a way that wages and rent might "fall" when they had "increased one-half" and "three-fourths" (*Principles*, ch. i. § 7, in Works, p. 31). Such latitude was sure to offend. Malthus's conservative mind revolted against it, and in his *Principles* (1820) he protested that economists were not at liberty to define their terms just as they pleased (p. 26). In 1827 he laid down in his *Definitions in Political Economy* some "rules which ought to guide political economists in the definition and use of their terms." The object to be kept in view, he says, is such a definition and application of economic terms "as will enable us most clearly and conveniently to explain the nature and causes of the wealth of nations" (p. 4). This object will be best attained, he thinks, by using terms, whenever it is possible, in the sense in which they are used in the common conversation of educated persons. When it is necessary to make distinctions which are not made in common conversation, the previous practice of economists, and especially of Adam Smith, should be followed, and further changes only admitted when it can be clearly proved that they would decidedly contribute to the advancement of the science (p. 5). Cairnes, in his lecture "Of the place and purpose of Definition in Political Economy" (Lect. VI. in *Logical Method of Pol. Econ.*, 1857), repeats these rules in substance, but, less conservative than Malthus, insists strongly on the necessity of gradually improving the definitions of economic terms as knowledge of the science increases. In a frequently-quoted part of his lecture he develops a proposition laid down by Malthus (in *Principles*, p. 25) to the effect that economic distinctions may properly resemble the distinction between animal and vegetable in being founded on differences of degree. Sidgwick (*Pol. Econ.*, I. ii. § 1) observes that the two questions what is commonly meant by a term and what meaning can most conveniently be given to it must not be confused He also urges powerfully that the process of searching for a definition is extremely useful altogether apart from the discovery of a satisfactory one.

It must not be forgotten that the practical usefulness of political economy depends chiefly on its wide diffusion, so that the formation of an economic language understood only by specialists is highly undesirable. For the promotion of the material welfare of a people few things can be more useful than patient inquiry into the actual meaning of terms like wealth, income, capital, rent, wages, profits, when used in common language by ordinary people. As soon as ambiguities and inconsist-

encies are commonly perceived, language may be trusted to find some way of ridding itself of them without the assistance of formal definitions.

Great confusion has often resulted from the practice of defining mere words and neglecting the phrases or terms of which the words constantly form a part. For instance, many definitions of "wealth" are far from deciding what is meant by "the wealth of a nation" or "the wealth of an individual." E. C.

DEFOE, DANIEL (1660 or 1661-1731), was the son of James Foe, a retired London tradesman and a nonconformist. At the age of fourteen, Daniel was sent to a school at Newington Green, kept by Mr. Morton, an ejected nonconforming minister. Having completed his education, he went into business. Keenly interested in politics, he took up arms during Monmouth's rebellion in 1685, and joined the Prince of Orange's army in 1688.

In consequence, perhaps, of not giving all his mind to business, he failed in 1692 for £17,000. He compounded with his creditors, but subsequently paid them in full. He had already made one or two essays in literature, and about this time composed his essay upon *Projects*, which displays his practical and inventive turn, recommending the establishment of a national bank, savings banks, friendly societies, an amendment of the law of bankruptcy, and improvements in education. His first hit as a political writer was with a doggerel poem, the *True-born Englishman*, published in 1701, which ridiculed the exclusive national pride of Englishmen, and their grudge against the Dutch. It gained for Defoe the favourable notice of William III. Thenceforward he found constant employment as a journalist. In 1702 his ironical pamphlet, *The Shortest Way with the Dissenters*, led to his conviction for libel. Released from prison in 1704, he wrote first for Harley, then for Godolphin, and for Harley again on his return to power. But Defoe was again committed to prison in 1713, on account of certain writings directed against the Jacobites. Soon afterwards he received a pardon, and although convicted in 1715 for a libel on Lord Annesley, he was not sentenced, but was again taken into the service of the government. Somewhat later he produced a series of works of special economic interest, *The Tour through Great Britain*, published 1724-26; *The Complete English Tradesman*, published 1725-27; and the *Plan of English Commerce*, published 1728. He had combined literature with business, and was fairly prosperous in his later years. But he seems to have met with misfortune, now not clearly ascertainable, before his death in 1731. He married at least once, and left two sons and four daughters.

Defoe was one of the most versatile and voluminous of English writers. Exclusive of his contributions to journals, 254 distinct works are ascribed to him by his biographer Mr. Lee, who rejects as spurious many others which have been ascribed to Defoe. Some of those enumerated, however, appear to be reprints. Journalist, pamphleteer, verse-maker, novelist, and moralist, he ranged freely over the varied interests of practical life. By virtue of his lively interest in concrete things, his varied information, and his vigorous style, he is an important authority for economic history, especially for the condition of the industrial and commercial classes in the first part of the 18th century. In no sense a scientific writer, he has made no contribution to economic theory. But his inventive genius occasionally suggested improvements in the economic mechanism of the nation, and his lively imagination sometimes placed economic truths in a singularly vivid light. As an instance, we may take from *Robinson Crusoe*—incomparably the ablest of his novels—Robinson Crusoe's reflections on the inutility of the gold and silver which he found on the wreck of the Spanish ship and in the wreck of his own ship, and which to him was not wealth at all. "I smiled to myself at the sight of this money: 'O drug!' said I aloud, 'what art thou good for? Thou art not worth to me, no, not the taking off the ground: one of those knives is worth all this heap: I have no manner of use for thee.'"

[The life of Defoe has been written by Wilson (publ. 1830), by Chadwick (publ. 1859), by Lee (publ. 1869).—See also Professor Minto's Life in *English Men of Letters*, and Mr. Leslie Stephen's Life in the *Dictionary of National Biography*.]

For a complete list of Defoe's writings so far as ascertained, see Lee's *Life*. Those which possess an economic interest are as follows: *An Essay upon Projects*, 1697 (not in fact published until March 1698), 2nd edition 1702.—*The Villainy of Stock-jobbers Detected and the Causes of the late Run upon the Bank and Bankers Discovered and Considered*, 1701.—*Giving Alms no Charity, and Employing the Poor a Grievance to the Nation* (a criticism of Sir Humphrey Mackworth's Bill for establishing in every parish a manufactory for the employment of the poor), 1704.—*Remarks on the Bill to prevent Frauds committed by Bankrupts*, 1706.—*An Essay upon Public Credit*, and *An Essay upon Loans*, 1710.—*An Essay on the South Sea Trade*, 1711.—*An Essay on the Treaty of Commerce with France*, 1713.—*Mercator, or Commerce Revived* (a paper published thrice a week, advocating the commercial policy of Harley and St. John), of which the first number appeared 26th May 1713 and the last 20th July 1714.—*Considerations upon the Eighth and Ninth Articles of the Treaty of Commerce and Navigation;—Some Thoughts upon the Subject of Commerce with France;* and *A General History of Trade*, all published in 1713.—*Anatomy of Exchange Alley*, 1719.—*The Chimœra, or the French*

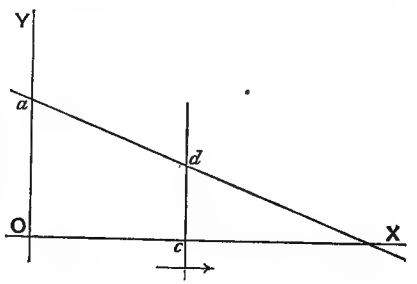
Way of Paying National Debts Laid Open, 1720. —*A Tour thro' the whole Island of Great Britain*, vol. i. 1724, vol. ii. 1725, vol. iii. 1726, republished 1727 (subsequent editions being all more or less altered).—*The Complete English Tradesman*, vol. i. 1725, vol. ii, 1727.—*Parochial Tyranny*, 1727.—*A Plan of the English Commerce*, 1728, second edition 1730.—*An Humble Proposal to the People of England for the Encrease of their Trade and Encouragement of their Manufactures*, 1729. F. C. M.

DEGREE OF UTILITY. This phrase was first made current by Jevons in his *Theory of Political Economy*, 1871. Its precise significance will be best elucidated by an analogy. "Degree of utility" stands in the same relation to "total utility" as "velocity" to "space traversed." Suppose we have a body projected vertically upwards from rest, at a given speed. We may inquire *first* at what height the body will be found at any moment after its projection, and *second* at what rate it will be moving at any point of its course, and clearly the rate of its movement is the rate at which its height is increasing (whether positively as it rises, or negatively as it falls). This rate may be measured in feet per second, or in miles per hour, or in any other suitable unit, but in any case it varies from point to point and does not continue the same during any period, however short.

We must now extend the idea of measurement to such economic conceptions as "satisfaction" and "utility." Measurement consists essentially in determining the ratio of the magnitude investigated to some other magnitude adopted as a standard; and a "satisfaction" would accordingly be measured if we could determine its ratio to some standard satisfaction, or, which amounts to the same thing, some standard dissatisfaction. Thus if I wish to measure the satisfaction derived by a hungry man from the consumption of a certain quantity of bread, I may inquire how much labour he would perform, under stated conditions, rather than go without it; or what he would pay for it sooner than go without if an unscrupulous monopolist exacted from him the extreme famine price. Thus if we take any standard we choose we can, ideally at least, conceive of any concrete "utility" or "satisfaction" being measured in it. But we must remember that such measurements are based on the relative magnitudes of different satisfactions, etc., to one and the same person, and do not profess to give us means of comparing a satisfaction experienced by one mind with a satisfaction experienced by another; for no one can say that the standard unit of satisfaction selected means the same thing to two different men. Nor shall we find that any such absolute measurement is needed for the purpose in hand.

Having premised so much, we may now work out the economic analogue of the projected body. Suppose we take such a commodity as bread supplied to a hungry man. *Firstly*, we may inquire what amount of satisfaction the man has derived from the consumption of any given quantity of bread; in which case we shall be investigating the "total utility" or "value in use" of that quantity of bread, to that man, under those conditions. *Secondly*, we may inquire at what *rate* (per ounce, per pound, etc.) the consumption of the bread is conferring satisfaction upon the man at any point in the course of his meal; and in that case we shall be investigating the "degree of utility" of the bread. This "degree of utility" will of course vary from point to point. When the man was at his hungriest he would be deriving relatively great satisfaction per ounce of bread consumed, and towards the end of his meal, when nearly satisfied, his satisfaction per ounce would be relatively small; and, theoretically, it will not remain constant during any period, however short. Now this "degree of utility" is obviously the rate at which the "total utility" is increasing; just as the velocity of a rising or falling body is the rate at which "space traversed" or "height" is increasing.

The precise relation of velocity to space traversed, and of degree of utility to total utility, is expressed mathematically by saying that the former are the "differential coefficients," "first-derived functions," or "fluxions" of the latter; and, graphically, if the latter are expressed by areas the former will be expressed by lines. In the figure, if we imagine the line



$c\,d$ moving from O in the direction of the arrow head, at a uniform rate, to represent the lapse of time, and if we imagine the area $a\,O\,c\,d$ to represent the space traversed by the projected body in the time $O\,c$, then the intercept $c\,d$ will be the differential coefficient of $a\,O\,c\,d$, and will represent the velocity of the body, or the rate at which it is rising, at the point of time represented by c. Perhaps this will be sufficiently obvious to the non-mathematical reader if he reflects that velocity represents the rate at which height is increasing, as time lapses, and observes that the length of the intercept $c\,d$ likewise determines the rate at which the area

a O *c d* increases as the vertical line moves in the direction of the arrow-head.

Now let the movement of the vertical from O represent the consumption of the bread, so that O *c* represents the amount consumed up to any given point of the meal; and let *a* O *c d* represent the total satisfaction derived from the consumption up to the point reached, then *c d* will still be the differential coefficient of *a* O *c d*, and will represent the rate per unit (ounce, etc.) at which the consumption of the bread is now increasing the total satisfaction reaped by the consumer. That is to say *c d* represents the degree of utility of bread at the point *c*, the amount represented by O *c* having already been consumed.

It should be observed, however, that when we are dealing with economic quantities, the line *a d* will probably never be a straight line, but always a curve of more or less complexity; and it will seldom or never be possible to determine its actual form with any precision.

The main interest naturally attaches to the degree of utility of that increment of a commodity which the consumer expects to obtain next, or which he may have to relinquish, that is to say the last increment he has secured or the next he hopes to secure. This is called by Jevons the "final degree of utility" (*q.v.*) Under this heading, FINAL DEGREE OF UTILITY, references to the most important books on the subject will be found. All that need be said here is that the analogy of the moving body insisted on above was developed by Professor Léon Walras of Lausanne, and was first suggested by his father A. A. Walras (see FINAL DEGREE OF UTILITY). P. H. W.

DE LA COURT. See COURT, PIETER DE LA.

DE LAJONCHÈRE (beginning of the 18th century), a French engineer, was one of the numerous schemers who flourished in the times of Law and the South Sea Company. After having written on the fortification of large towns, and on a *Projet d'un Canal de Bourgogne pour la Communication des deux Mers* (1718) he published his *Système d'un nouveau Gouvernement en France* (Amsterdam 1720). Although De Lajonchère expressly denies having followed Vauban's *Dîme Royale*, he starts from the same initial principle, only, as was aptly remarked by Dupin (*Oeconomiques*, iii. 210), he urges it in an extravagant manner. He advocates one sole tax, to be paid without privilege or exemption, by all Frenchmen without distinction, to consist of a percentage collected in money or in kind, on the general produce of the ground, mines, quarries, etc., by a "Compagnie du Commerce," to be formed for the purpose. This company was to have the monopoly of foreign trade, its shares being given as reimbursement of the price of all the offices sold by the king's predecessors and of the capital of the rents due to towns or individuals. The corn collected by the company was to be sold at a permanently fixed price. The company was also to be entrusted with the recoinage and "diminutions" of the metallic currency, which were to bring it down to what De Lajonchère calls "its intrinsic value."

[See art. (*Journal des Économistes*, 9th Feb. 1863) "Un Émule de Law," by de Lavergne.] E. Ca.

DE LA MARE, NICOLAS (1639-1723), originally a *procureur-général*, later on a *conseiller commissaire* of the Châtelet in Paris, was not an original thinker, but a most industrious, clear, and conscientious compiler, and his *Traité de la Police* (Paris, 1722-1735, 4 vols. in folio, 2nd ed.) is a copious mine of information. The second volume (book v.) deals with the regulation of food in general, and of corn in particular. In it will be found, "according to their order, all the laws, ordinances, and decrees, which have provided for this subject with as much force as wisdom." This sentence, taken from the preface, is completely characteristic of the scope of De la Mare's work, and of his commentaries. They were begun in 1677 at the request of the president of the Parliament of Paris, M. de Lamoignon, and an abridgement was made in 1758 and 1769 by La Poix de Fréminville in his *Traité de la Police*. This, however, does not enable the reader to dispense with consulting the original. E. Ca.

DEL CREDERE. A factor, broker, or mercantile agent who undertakes to become surety for the solvency of the customer with whom he transacts a sale, receives for this an extra commission called a *del credere* commission. A. D.

DELEGATION. Description used by continental bankers of a document drawn in the form of a letter of credit but intended to pass from hand to hand like a bill of exchange. These documents are used on the continent for the purpose of evading the stamp laws; English bankers are, however, in the habit of treating them as ordinary bills of exchange. They are generally sent out for acceptance provided with the bill stamp and presented after the expiration of the days of grace. It is by no means certain what effect would be given to the acceptance of such a document in a court of law, but as they are generally addressed to banks and commercial houses of good standing, and are drawn at very short dates, the question is not likely to arise. E. S.

DELFICO, MELCHIORRE (born in the latter half of the past century at Leognano, died about 1835 at Teramo), is generally remembered only for his *Memoria sulla libertà del Commercio*, which has been included by Custodi in his *Scrittori Classici*; but this does not quite do justice to Delfico, although undoubtedly his pamphlet on free trade is his principal contribution to economic science. Delfico was not only

an *absolute* free trader, but also what would now be called an "absolute individualist," believing in the beneficial effects of unlimited liberty of the individual in any sort of economical activity. Landed proprietors, merchants, and *entrepreneurs* in the interest of the community ought to be left to themselves and allowed to do with their property whatever they pleased.

Delfico, in his *Riflessioni sulla vendita dei feudi* and in his *Lettera al Duca di Cantalupo*, defends the abolition of feudal rights over landed properties and their sale; he sees in them an impediment to the proper cultivation of the land, which gives greater returns when the proprietor is able to do with it what he likes. For the same reason he insists on the abolition of obnoxious rights like those consisting in the right of the community to graze its cattle on the lands of the proprietors, which renders all sorts of plantations impossible (*Memoria per l' abolizione della servitù del pascolo* and *Discorso sul Tavoliere di Puglia*). All Delfico's other writings are occupied principally with different aspects of the free-trade question. He argues that a dearth of food would never happen if there were free trade, and that the means to which governments usually have recourse to avoid it, or to abate it, aggravate famine by making production unsafe and deterring merchants from risking their capital.

Although these doctrines were not new, coming ten and twenty years after Smith's criticism of the protective system, Delfico merits remembrance as a thoroughgoing follower of liberal doctrines in a time when as yet they were very rare.

The writings in which Delfico defends the principle of liberty and absolute property are in order of date the following:—*Memoria sul Tribunale della Grascia e sulle leggi economiche nelle provincie confinanti del Regno*, Napoli, 1785.—*Memoria sulla necessità di rendere uniformi i pesi e le misure del Regno*, Napoli, 1787.—*Memoria per l' abolizione o moderazione della servitù del pascolo invernale, detto dei Regi stucchi, nelle provincie marittime di Abruzzo*, Napoli, 1787.—*Discorso sul Tavoliere di Puglia e su la necessità di abolire il sistema doganale presente e non darsi luogo ad alcuna temporanea riforma*, Napoli, 1788.—*Riflessioni su la vendita dei Feudi*, Napoli, 1790.—*Lettera a Sua Ecc. il sig. Duca di Cantalupo*, Napoli, 1795.—*Memoria sulla libertà del commercio*, Accademia di Padova, 1797.—*Ragionamento sulle carestie*, Accademia di Napoli, 1818.—*Espressioni della particolare riconoscenza della provincia e città di Teramo, dovuta alla memoria dell' immortale Ferdinando I.*, 1833.—*Annali civili del regno delle Due Sicilie*, vol. i.

M. P.

DELICTUM. Expression of Roman law denoting a wrongful act—not being a breach of contract—which gave the aggrieved party the right to claim damages. The term corresponds in a certain measure to the expression TORT (*q.v.*) used in English legal language.

E. S.

DELIVERY (OF BILLS OF EXCHANGE). According to the law of the United Kingdom, a contract on a bill of exchange is incomplete and revocable until delivery of the instrument. The drawer of a bill of exchange may, after having accepted it, cancel the acceptance as long as the bill has not been returned to the holder, unless he has actually informed the holder that the bill has been accepted (Bill of Exchange Act, § 21). This is not so according to German law; a German acceptor having once affixed his signature to the bill is irrevocably bound (German code, § 21). The delivery required by English law need not consist of an actual transfer of possession, but may be a constructive delivery (see DELIVERY of chattels). As according to the regulations of the English post-office a letter, after being posted, cannot be recalled by the sender, the posting of the letter constitutes a delivery. In some other countries, the sender may stop the delivery of a letter; where this is permissible the delivery would only be final when the letter has reached the address to which it has been directed.

E. S.

DELIVERY (OF DEEDS). See DEED.

DELIVERY (OF CHATTELS). In all systems of ancient law legal results are attained by solemn and overt acts only. To admit of the possibility of altering rights of ownership or of creating obligations enforceable by judicial process without the use of recognised formalities is a refinement which undoubtedly is familiar in the later stages of Roman jurisprudence, but which was slow to penetrate into Germanic countries. The principle of allowing the law to protect facts and relations created by the mutual consent of the parties concerned—sometimes authenticated by written documents, but in many cases without writing or formality of any kind—is now thoroughly established in all civilised countries; but traces of the older modes of thought are still conspicuously impressed on modern law, and more particularly on the systems of law administered in English-speaking countries. The old common law rule was that no change of ownership could be effected without a formal delivery to the new owner, called "livery of seisin," an expression afterwards used in the case of land only. Land is now transferred by deed, and "livery of seisin" is a thing of the past, but delivery is subject to the exceptions to be presently mentioned, necessary in all cases where property in chattels is to pass from one person to another. Delivery, according to modern views does not, however, necessarily involve a visible change of possession. There may be a *constructive* delivery, as where a person holding goods in one capacity (*e.g.* as agent for A)

begins to hold them in another capacity (*e.g.* as agent for B—this is a delivery from A to B); or there may be a symbolical delivery (*e.g.* the delivery of the keys of a warehouse where certain goods are may operate as a delivery of the goods). The delivery of documents of title relating to goods (*e.g.* a bill of lading) has generally the same effect as the delivery of the goods. The exceptions to which reference has been made above are the following: the property in chattels can now be transferred without delivery—(*a*) by DEED (*q.v.*); (*b*) by a sale, where the parties expressly or by necessary implication agree that the change of property is to take place immediately on conclusion of the bargain (a sale of this kind is known by the technical name of bargain and sale). The exceptions comprise a large class of transactions, but modern legislation, in view of the dangers resulting from secret changes of ownership—which enable insolvent traders to make a show of property not available for their general creditors—has, by means of the Bill of Sale Acts (see BILL OF SALE) introduced new safeguards (see the elaborate judgment of the court of appeal in Cochrane *v.* Moore, Law Reports, 25 Queen's Bench Division, p. 57; also Benjamin on *Sales*. E. S.

DELIVERY, GOOD. On the stock exchange stock is said to be delivered when it is actually supplied to the buyer, and the delivery is good or not according to the rules of the stock exchange, and the nature of the contract between the buyer and the seller. Contracts are largely made in a manner too rough and ready to permit attention to every stipulation. That is understood, and when a dispute arises the Committee of the London Stock Exchange is appealed to, and the decision often turns upon the question whether the stock or share tendered by the seller constitutes a "good delivery." If, for example, the numbers on the shares delivered are not the numbers which have obtained an official quotation on the stock exchange, the delivery is bad and not good. If, for another example, the shares in an American railway do not bear the proper stamp imposed in this country, the delivery again is not good, but is not irremediably bad. The term "good delivery" covers compliance with the official rules and reasonable conditions on which business is transacted in the stock exchange, but, in practice, the question only arises in two cases—first, when the numbers of the securities do not agree with those for which an official quotation has been granted, and second, when the bond has been tampered with by the holder. This often happens through coupons being carelessly cut off, or having the name of the holder written on them in ink, or through being torn or damaged. A. E.

DE LUCA, GIOVANNI BATTISTA (1614-83), was born at Venosa, became a lawyer in Naples, and was made cardinal by the pope Innocent XI. De Luca is best known as a lawyer, but he wrote also on economical and fiscal questions in his two treatises: *Theatrum veritatis et justitiæ*, Romae, 1669; and *Il Principe cristiano pratico*, Roma, 1679.

As an economist he is a "mercantilist" of the very narrowest species. International commerce, in his opinion, is only a means of getting money from foreigners; raw materials are to be allowed to be imported, but their export is to be prohibited, because only when they are transformed by national industry will they procure a favourable balance of commerce. Money is not to be falsified by the prince, but its export, and also the export of bullion, is to be prohibited, except for the acquisition of those wares which cannot be produced by the country. Famines are to be guarded against by a subtle system of regulation.

In normal times agriculture is to be aided and importation of foreign produce to be prohibited. In case of famine all are to sell their produce to a public office (*Ufficio annonario*, a sort of store for corn under government administration), which is not to pay for it immediately, because in similar calamities "men tend to become communists." Supporting economical doctrines such as these, De Luca shows himself to have been inferior to a great many of his contemporaries, who had already seen through the grossest errors of the mercantile system. In financial questions he takes a better position. First of all he has a clear idea of the historical relativity of institutions, so that when he discusses the question, whether direct taxes are to be imposed with the consent of parliaments, he insists upon this being decided differently in different nations, and with due regard to the different customs and political maturity of the various nations.

Taxes in general, he considers, ought to be levied in such a manner that people pay them insensibly, that tax collectors cannot exact more than the government receives, that all citizens, without privilege and exemption, come to bear a proportionately equal burden, and that no tax be imposed when not absolutely necessary for the existence of the state. De Luca distinguishes correctly the revenue from the private property of the sovereign, and makes a most minute examination of all the different descriptions of crown rights. He defends the state monopoly of salt and tobacco. M. P.

DEMAND. By "demand" in political economy is meant what may be more distinctively called *effective* demand, that is, not the mere desire for anything, but desire accompanied by the offer of something valuable in exchange. When, therefore, there is a demand for any commodity or service, there must be a supply of some other commodity or service, which is

proffered in exchange for it; and when two persons are engaged in exchange, what the one demands the other supplies, and *vice versâ*. It follows that demand and supply considered as aggregates are strictly interdependent, and that neither can increase or diminish without necessitating a corresponding increase or diminution of the other. This simple consideration disposes of the fallacy that there may be an over-supply of commodities in general. At the same time, the two different aspects of the phenomenon of exchange are clearly to be distinguished from one another. Demand depends upon men's desires to satisfy their wants by acquiring a command over new goods or services, supply upon their willingness to undergo efforts or part with goods already in their possession. Some of the older economists, *e.g.* Ricardo, tended to concentrate attention upon the conditions determining the supply of commodities, to the comparative neglect of the analysis of demand. This aspect of the problem has, however, been brought into special prominence in recent years by the full discussions of "utility" and "subjective value," which are characteristic of Jevons and the Austrian school. The importance of a full consideration of the side of demand as well as of supply also receives ample recognition in Professor Marshall's *Principles of Economics*.

Assuming the use of a medium of exchange which represents general purchasing power, the question has been raised whether the demand for any commodity should be measured by the quantity of the commodity demanded or by the quantity of purchasing power offered in exchange for it. Cairnes, criticising Mill, considers that on scientific grounds we are bound to select the latter of these alternatives. There is not, however, any fundamental difference between the two when properly interpreted. The quantity of any commodity which people are willing to buy, and the amount of money which they are willing to spend upon it, are, generally speaking, equally indeterminate so long as nothing is said as to the price at which it is to be had. If, then, we measure demand by quantity demanded, it can only be with reference to some particular price or schedule of prices; and hence some specific quantity of purchasing power offered is necessarily implied. But the same is true, *mutatis mutandis*, if we start from the quantity of purchasing power offered. For example, to say that at half-a-crown a pound you will buy six pounds of tea is precisely equivalent to saying that at that price you will spend fifteen shillings on tea. It may sometimes be more convenient to adopt the mode of expression preferred by Cairnes; but usually the other alternative is simpler and less liable to lead to error, since supply and demand can in this case be more directly compared and equated. The *demand* for any commodity at a given price may then be measured by the amount that would be purchased if obtainable at that price; and the *supply* at a given price may be correspondingly measured by the amount that would be offered for sale at that price. If the amount instead of the price is regarded as the independent variable, then the *demand-price* for a given amount of any commodity may be defined as the price just required to attract purchasers for that particular amount; and correspondingly the *supply-price* as the price just required to cause that particular amount to be offered for sale.

It is clear, however, that the circumstances of demand will be very incompletely expressed, if given with reference to some one particular price only or some one particular amount only. We need what Professor Marshall calls a *demand-schedule*, in which the demand at varying prices is recorded. For example, it may be that in the early spring a person will buy one basket of strawberries at ten shillings a basket, two at seven shillings and sixpence, three at six shillings, four at five shillings, and so on. A statement of this kind is said to constitute his demand-schedule for strawberries at the time in question. If the requisite knowledge were forthcoming it would be possible to draw up a schedule of the same kind representing the total demand for any commodity within a given range and over a given period. The variation of demand with price may also be expressed diagrammatically, and the exposition of the general theory of supply and demand may be much facilitated thereby (see DEMAND CURVES).

With improved statistics of consumption, towards which valuable contributions might be afforded by shopkeepers' books and the great co-operative stores, it might be possible to draw up empirical demand-schedules representing approximately the actual variation of demand with price for certain commodities in general use. As Cournot remarks: "If we suppose the conditions of demand to remain the same, but the conditions of production to change, because the expenses of production are raised or lowered, or monopolies put on or suppressed, or taxes increased or diminished, or import duties imposed or removed, then price will vary, and the corresponding variations in demand will give us our empirical tables" (*Principes de la Théorie des Richesses*, § 56). But, as is also recognised by Cournot, the conditions of demand rarely do remain the same for any considerable length of time. There are constantly in progress independent changes, such as changes in fashions and habits, in the purchasing power of money, in the wealth and circumstances of consumers, and the like, which cause the demand at a given price itself to vary. Since, therefore, the statistical calculation would have to cover a

more or less prolonged period of time, it would always be liable to be vitiated by the effects of such changes as the above, except in so far as these effects could themselves be estimated and allowed for.

For theoretical purposes, however, the inquiry into the variation of demand with price is of the greatest value and importance, independently of any exact empirical constructions. Without elaborate statistics it is possible to determine a *law of demand* to which all demand-schedules will conform, namely, that—other things being equal—a rise in price will be accompanied by a diminished demand and a fall in price by an increased demand. Looked at from the other side, the law may also be expressed by saying that the greater the amount of any commodity offered for sale in a market the lower will be the price at which it will find purchasers.

The above law of demand is a corollary from the law of diminishing utility, namely, that the additional satisfaction which a person derives from an additional increment of any commodity diminishes as the stock of the commodity already in his possession increases. For it clearly follows from this law of diminishing utility that if the general purchasing power of money remains unchanged, then, as the amount of a thing which a person already has increases, the price that he is just willing to give for an additional increment will diminish.

It is an important question how far continuity may be assumed in the variation of demand with price, so that any alteration in the latter, however slight, cannot fail to be accompanied by some alteration in the former. Such an assumption clearly cannot, in general, be justified so far as the demand of individual consumers is concerned. Individual changes in demand will almost always be discontinuous; in other words, there will almost always be more or less wide limits of price within which demand will be constant. The price of coal, for example, might go on rising for some time without leading any given householder to reduce his consumption of coal, although he would probably take steps to economise to a material extent when the rise in price reached a certain point. It is different, however, when we consider the *aggregate* demand for a commodity in general use. Individuals of all degrees of wealth and all varieties of taste will now contribute towards the result, and it becomes a fair assumption that every change in price will affect the demand of certain of them, even if it leaves the demand of others unaffected. It may further be assumed that, as Cournot puts it, "demand does not pass suddenly from one amount to another without passing through the intermediate amounts." The assumption of continuity becomes, for obvious reasons, specially important in the mathematical or diagrammatic treatment of the law of demand.

In speaking of demand as varying with price, it is not of course intended to imply that there is any exact proportion in which the one rises or falls as the other falls or rises. No two commodities are likely exactly to resemble one another in this respect, and even in the case of the same commodity there will be differences at different points. Thus, supposing price to fall fifty per cent, demand might in some cases be increased two or three hundred per cent; it is possible, for instance, that quite a new class of consumers might now be induced to buy the commodity, or it might be worth while to put it to quite a new use. In other cases, the increase in demand might not exceed ten or fifteen per cent, the wants of old purchasers being quickly satiated, and not many new purchasers being attracted. In the former case, demand is said to be very elastic; and in the latter case very inelastic. Professor Marshall gives the following definition: "The *elasticity of demand* in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price" (*Principles of Economics*, vol. i. 1891, p. 160); and he afterwards lays down, as a general law of variation of the elasticity of demand, the principle that as a rule the elasticity of demand of any given class of consumers for a given commodity is great for medium prices, and small for those which, relatively to the means of the consumers in question, are very high or very low. For so long as price remains very high considerable elasticity is out of the question, while it may, on the other hand, fall so low as to reach what may be called satiety point, consumers already buying as much as they practically care to consume. It is important to recognise that at any given point the demand of one class of consumers may be elastic, while that of other classes is inelastic. In the case of game, for example, the demand of the upper middle class at the present time in England is probably very elastic, while it is much less so on the part of the rich, whose consumption would not appreciably be affected except in the case of very great scarcity, and on the part of the lower middle and working classes, for whom any moderate fall would still leave the price too high.

Unless we confine ourselves to very short periods of time, demand-schedules are themselves liable to modification. For the conditions of demand are constantly changing; and this, as we have already seen, is one of the chief difficulties in the way of obtaining accurate empirical data in regard to the variation of demand with price. A change of fashion, for example, might cause the demand for lace to be greater at every point throughout the list of prices. A spread of teetotalism would, *cæteris paribus*, have a similar effect upon the

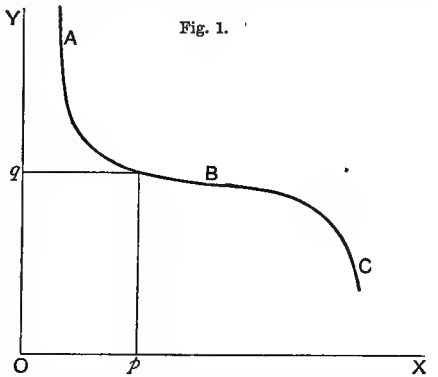
demand-schedules for certain kinds of drink; and an increase of population upon the demand-schedules for most kinds of food. In all these cases there may be said to be a *rise in the demand-schedule*.

In connection with this point, attention may be called to an ambiguity generally attaching to expressions that relate to variations in demand. The law of demand above laid down is the statement of a variation of demand with price which is manifested in every demand-schedule; and it may perhaps be said to relate to a static condition of things, in which there is supposed to be no change in the number of purchasers or in their circumstances or tastes. But we may pass to the hypothesis of a dynamic condition, in which such changes as these do take place. We then have to recognise, as just pointed out, that the amount of any commodity demanded at a given price is itself subject to variation, or that, in other words, demand-schedules may themselves rise or fall. By an "increase of demand," therefore, may be meant either, first, the extension of demand which results under static conditions from a fall in price, or, secondly, an increase in the quantity demanded at a given price which may occur under dynamic conditions. Professor Sidgwick, who explains this ambiguity very clearly, remarks that it will be convenient to have two unambiguous terms to distinguish the two different kinds of change in demand; and he accordingly proposes to speak of the former kind of increase as an *extension* of demand, and of the latter as a *rise* or *intensification* of demand. For the opposites of "extension" and "rise" respectively, he uses the terms "reduction" and "fall" (*Principles of Political Economy*, 1887, p. 179).

[The articles on FINAL UTILITY, SUPPLY, and SUPPLY AND DEMAND, EQUILIBRIUM OF, should be read in connection with the present article. The subject of *demand* is discussed in all systematic works on political economy; but the reader may be specially referred to Marshall's *Principles of Economics*, bk. iii.] J. N. K.

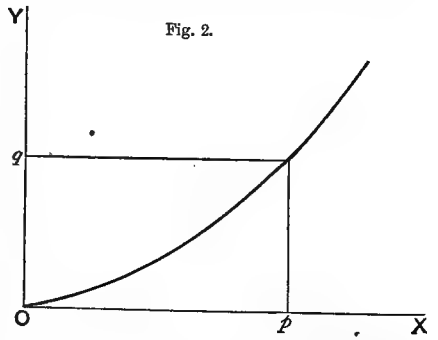
DEMAND CURVES represent the relation between the effective demand for a commodity and the terms on which it can be obtained. The simplest form is where one axis, as OY in the annexed figure, represents price, and the other axis, OX, the quantity of a commodity demanded by a certain individual at that price. Thus at the price Oq the quantity Op is demanded. The curve thus representing the dispositions of a single person may be termed an "individual" demand curve, as contrasted with the "collective" demand curve appertaining to a group of persons such as a market or a nation. The collective curve for a group may be derived from the individual curves of the persons forming the group by adding, for each price, the amounts demanded by all the individuals at that price, and taking this sum as the abscissa of the collective curve; the ordinate as before representing price. The collective curve may be represented by Fig. 1, if the scale is altered

Fig. 1.



so that a unit of the abscissa should represent a larger amount of commodity than when the figure stood for an individual demand curve. This method of representing demand by a curve was introduced by Cournot in his *Principes Mathématiques de la Théorie des Richesses*, 1838. It is remarkable that he began and ended with the collective demand curve, instead of deriving it from the individual curve like many recent writers. Another kind of demand curve is formed by taking one axis as before to represent the quantity of the commodity demanded, while the other axis represents, not as before, the price of each unit of commodity, but the total amount of money (or other article of exchange) corresponding to each amount demanded. Thus in Fig. 2 the curve denotes that

Fig. 2.



for the amount of money (or any other specified article, say x) Op, there is demanded the amount Oq of the article y. This construction was first introduced by Prof. Marshall in a paper read before the Cambridge Philosophical Society, 1873 (to which reference is made in the preface to the first edition of the author's *Principles of Economics*.) The construction is specially suitable to the case where there is a certain symmetry

between the conditions of supply and demand, as in international trade. It will be observed that the curve in Fig. 2, which has been described as the demand curve with respect to the article y, may also be regarded as the supply curve with respect to the article x; since it represents the amount of the article x which the party or parties under consideration are willing to supply for each amount of y. This kind of demand curve, like that which was first described, may be divided into two species, individual and collective. Another kind of demand curve is used by Prof. Walras in his *Éléments d'Économie Politique Pure.*

The demand curve is a potent aid to abstract theory. It expresses better than ordinary language the relation between price and quantity demanded; of which in general we know only that the quantity varies inversely with the price, but are ignorant what is the law of variation. This ignorance is sometimes not complete; we may know that for the same fall in price the demand increases much more rapidly in the case of one commodity than another; or for the same commodity at different prices. This difference of ELASTICITY is elegantly expressed by the shape of the curve. In the case represented by Fig. 1 the demand is very elastic in the neighbourhood of B, very inelastic in the neighbourhood of A and C. The case thus represented is a very general one. In Prof. Marshall's words "the elasticity is small when the price of a thing is *very high* relatively to their means [those of the class of purchasers under consideration], and again when it is *very low*; while the elasticity is much greater for prices intermediate between what we may call the high level and the low level." The use of some such device as the demand curve is required for the perfect apprehension of the theory of value. The relation of "individual" to "collective" demand curves best expresses the dependence of the objective fact of price on the subjective dispositions of individual persons. The position of equilibrium towards which the "higgling of the market" tends is best represented by the intersection of a demand with a SUPPLY CURVE (*q.v.*) Ordinary language does not well discriminate the change in price due to a change in the quantity of commodity supplied, the dispositions of the parties remaining the same, from that change which is due to alterations in taste. The latter sort of change is expressed by the shifting of the demand curve from *right* to left (or conversely), so that to every quantity of commodity there corresponds a higher (or lower) price. The demand curve is employed by Prof. Marshall in the proof of several recondite, not to say paradoxical theorems. "If a given aggregate taxation has to be levied ruthlessly from any class, it will cause less loss of CONSUMER'S RENT (*q.v.*) if levied on necessaries than if levied on comforts." *Principles of Economics*, bk. v. ch. xii. § 4, note, 2nd ed., cp. *ibid.* § 6). The doctrine that "the maximum satisfaction is generally to be attained by encouraging each individual to spend his own resources in that way which suits him best" is seen by the aid of the demand curve to be inaccurate.

The theory of the demand curve must be received with the following cautions and reservations. First (1) it should be observed that there are "many classes of things the need for which on the part of any individual is inconstant, fitful, and irregular," for instance "wedding cakes, or the services of an expert surgeon" (Marshall, *Principles of Economics*, bk. iii. ch. iii., § 5, 2nd ed.) The *individual* demand curve in such a case is discontinuous. But the corresponding *collective* curve will be less irregular. "The fickleness of the individual is merged in the comparatively regular aggregate of the action of a large number of people" (*Ibid.*) Again (2) in comparing the elasticity of demand curves for different commodities care must be taken about the units both of money and commodity. The same dispositions on the part of purchasers will appear more or less "elastic," according as they are expressed in hundredweights or tons, in pounds or shillings. An ingenious method of avoiding this fallacy is given by Prof. Marshall (*Principles of Economics*, bk. iii. ch. iv. § 1). Again (3) demand curves as usually understood involve a postulate which is frequently not fulfilled; namely, that while the price of the article under consideration is varied, the prices of all other articles remain constant. This postulate fails in the case of rival commodities such as beef and mutton. The price of one of these cannot be supposed to rise or fall considerably without the price of the other being affected. The same is true of commodities for which there is a "joint demand" as for malt and hops. And in the case of a necessary of life the price cannot be supposed to increase indefinitely without the prices of other articles falling, owing to the retrenchment of expenditure on articles other than necessaries. The price of clothes has been known to fall during a famine (F. Newman, *Lectures on Political Economy*). It is true indeed that the postulate which has been stated might be dispensed with. But this can only be done at the sacrifice of two of the characteristic advantages which demand curves offer to the theorist. First, unless this postulate is granted, it is hardly conceivable that, when the prices of several articles are disturbed concurrently, the collective demand curve may be predicted by ascertaining the disposition of the individual—a conception which, as employed by Prof. Walras (*Éléments d'Économie Politique*, Art. 50), aids us to apprehend the workings of a market. Secondly, when the prices of all commodities but one are not

supposed fixed, there no longer exists that exact correlation between the demand curve and the interest of consumers in low prices which Prof. Marshall has formulated as "consumer's rent." In considering this relation care must be taken to distinguish between demand and desire. The effective demand of the rich and poor man for oatmeal may be the same. But the intensity of desire is not the same, if the one uses the article to feed his horses, the other for his own frugal meal. Again (4) there is an artificial rigidity in demand curves which imperfectly corresponds to the flux character of human desires. One cause of change is the formation of new habits; the disturbance of the demand curve thus caused is well represented by Messrs. Auspitz and Lieben (*Theorie des Preises*). The increased use of petroleum is not to be ascribed simply to the fall in price, the demand curve being supposed constant, but rather to the fact that "petroleum and petroleum lamps have become familiar to all classes of society" (Marshall). One important cause of alteration in demand curves is the increase of the consumer's purchasing power. The case in which that increase is only apparent, being due to a rise in prices (and the converse case), may be specially distinguished. Owing to the variability, it may be doubted whether Jevons's hope of constructing demand curves by statistics is capable of realisation. In the financial year 1890-91, after the reduction of the tax on tea effected by Mr. Goschen, the quantity of tea consumed per head was greater than in the previous year. Is it possible to determine whether this change is due to the cheapening of the article—the demand curve being supposed the same—or to an alteration of the demand curve caused partly by a change of taste and partly by an increase in prosperity? Some suggestions for evading these and other difficulties will be found in the third book of Prof. Marshall's *Principles of Economics*.

For further considerations and fuller references, see MATHEMATICAL METHOD. F. Y. E.

DEMAND SCHEDULES. See DEMAND.

DEMESNE. Before the statute "Quia Emptores" (1290), a person wishing to alienate land did not entirely sever his connection with the land; he remained the feudal tenant of the king or superior lord, and continued to perform the duties which the tenure imposed upon him, but was at the same time the feudal lord (mesne lord), of the new tenant. That portion of the manor which the lord did not grant to freehold tenants in the way just described was called his demesne; it was either under the immediate management of the lord or it was let out to persons in a subordinate position called "villani" who held at the lord's will, but gradually acquired a customary right to fixity of tenure. The successors of the "villani" are the copyholders of the present day (see COPYHOLD). That part of the crown lands which was not granted to any feudal tenants but remained under the management of royal stewards is, in a similar way, called the "royal demesne," and part of the hereditary revenue of the crown was formerly derived from it. Since the accession of George III. this revenue has been appropriated by parliament, the sovereign receiving a fixed annual sum (see CIVIL LIST) in exchange. E. S.

DE METZ-NOBLAT, ALEXANDRE (1820-1871), born at Colmar, died at Nancy. His first occupation was the law, and he was called to the bar. But he preferred the profession of literature, and soon displayed a predilection for economic study. His principal work, published first in 1853 (2 vols. in 8vo), was entitled *Analyse des phénomènes économiques*. This, after receiving some not very important alterations, was republished as *Les lois économiques*, the first edition in 1867 (1 vol. in 8vo), the second in 1880 (1 vol. in 12mo). This work is, practically, a complete treatise on political economy; the author was professor of this science from December 1864 at Nancy, a chair which still exists. Here De Metz-Noblat made the mistake of failing to keep religion sufficiently apart from economic science—but he was a man truly liberal in spirit. He was a disciple of Malthus, and his works deserve to be read even at the present day. A. C. f.

DEMISE. Used as a substantive noun and as a verb in the same way as the word "lease," and denoting the letting of land or premises for a number of years. E. S.

DEMOGRAPHY. This word, already unanimously adopted of late years by continental nations, has only recently sought naturalisation in England. It still remains to be seen whether the attempt will only be partially, instead of entirely, successful. The word "*Démographie*" was invented by Dr. Achille Guillard, and occurs in the title of his book *Éléments de Statistique Humaine ou Démographie Comparée*, Paris, 1855, intended to be "an exposition of this new science as illustrated by the most authentic documents relating to the condition, the general movement, and the progress of population in civilised countries." It should be observed that statistics are very properly made the very soul of this so-called new science by Guillard, although he might have found a more apposite epigraph to his book than the somewhat crude one from Proclus, "How sublime human understanding has been in the creation of number."

Guillard ventures further to define demography as the natural and social history of the human species, or as the mathematical knowledge of populations, their general movements, their physical, social, intellectual, and moral condition. All this is, however, merely a new name for something very old. Writers in

almost every country have, in the past three centuries, foreshadowed the existence of normal, or mathematical, laws of population. What they failed in, as compared with writers of our own times, was the want, for which they had no help, of adequate or authentic illustrative statistics. Thus our own Petty and Graunt, in the 17th century, had to rely upon very scanty parochial and other registration of births and deaths, restricted also to the metropolitan area, in their very ingenious general inductions respecting the laws of population. In certain instances such statistical observations, partial and few as they may have been, sufficed to suggest to great minds the method of deducing a mathematical law. Thus with De Witt in constructing a table of annuities in Holland in 1672, and with Halley later on in doing the same in a more complete way from the Breslau observations. In the 18th century population statistics came to be more abundantly available, and stimulated the composition of such works as those of Price, Malthus, etc. in England, Süssmilch in Germany, Moreau in France. In the present century we have had abundance of labourers in the same (shall we call it demographic?) field—Milne, and Farr, and numerous others, in England. The same in France and Germany, etc.—for instance, Quetelet, Legoyt, Block, Levasseur, Engel, and Berg. All these have contributed so much to a knowledge of the principles which regulate the laws of the movements and increase of population in its various aspects, that but little is left to constitute demography a new science.

The word demography has, to a certain extent, been familiarised to English ears by the occurrence in 1891 of a Congress of Hygiene and Demography in London. This is a peripatetic body, and its previous sessions had been held in continental capitals. Notwithstanding some admissible advantages accruing from such occasional meetings as these, it can scarcely be pretended that much fresh knowledge as to statistical and mathematical deductions respecting population was added by them to the general stock; there was more room in them for the general outside public than for scientific experts. Hence arose a frequent degeneracy into occupying time with hypotheses regardless of statistical evidence, a repetition of such eccentricities as contributed not a little to the final collapse some years since of the Social Science Association. A better organisation in some respects, although still by no means a perfect one, for discussing the population and census statistics of great countries, or, in other words, demography in its most important aspects, exists, however, in the International Statistical Institute, composed almost wholly of representative experts, limited as to number, from almost all European countries and from the United States, who meet biennially in different countries; for example, last year's session was held at Vienna, and the one for 1893 is fixed to be at Chicago. F. H.

DEMOIVRE (or De Moivre), Abraham (1667-1754), an eminent French mathematician, born at Vitry, after the revocation of the Edict of Nantes retired to London, where he supported himself by giving private lessons in mathematics. A life of privation, in which mathematical discoveries were the principal events, terminated in London 1754. The scientific eminence of Demoivre is evidenced by Newton's habitual saying "Go to Mr. Demoivre, he knows more than I about these matters." Pope bears witness to his fame in a well-known verse,

"Sure as De-moivre, without rule or line."

[Of the spider, *Essay on Man*, ep. iii. l. 104.]

Demoivre not only improved the theory of the calculus of probabilities by his *Doctrine of Chances*, but also extended its application by his *Annuities upon Lives*. Many of the methods now employed by actuaries may be traced back to this great mathematician (see Farren, *Historical Essay on . . . Life Contingencies*, p. 46). Demoivre is, however, most remembered by statisticians for his hypothesis that the probabilities of living any number of years after the age of twelve (see *Annuities*, 1st ed. Problem II.) decrease in arithmetic progression up to the age of eighty-six (taken as the extreme limit of human life). The formula may be thus simply written: lx (the number alive at any age x see Life-tables) is proportioned to $86 - x$ (cp. *Assurance Magazine*, vol. iii.) This law, roughly corresponding to the observations, long served as a good working hypothesis, and even still affords useful exercises (see Sutton, *Life Contingencies*). Demoivre also entertained the hypothesis that the probabilities of life decrease in a *geometrical* progression (*Annuities*, 1st ed., Problem III.), an assumption which lends itself better to the calculation of joint contingencies, but, being less agreeable to the facts, has not found currency.

The first edition of the *Doctrine of Chances* (preceded by an earlier contribution to the calculus of probabilities, *De Mensurâ Sortis*) appeared in 1718; the third, purporting to be "fuller, clearer, and more correct than the former," in 1756. The first edition of the *Annuities upon Lives* appeared in 1724-25, the fourth in 1752. The treatise appears with some modifications, being the "most improved edition" according to Baily, at the end of the third edition of the *Doctrine of Chances*, with the secondary title, the *Doctrine of Chances applied to the Valuation of Annuities*.

[References to Demoivre will be found in most of the leading works on Assurance and cognate subjects. The following may be specially mentioned: R. Price, *Reversionary Payments*,

arranged and enlarged by W. Morgan (1812), ch. iv.; F. Baily, *Doctrine of Life Annuities and Assurances*, preface; W. Sutton, *Life Contingencies*, ch. vi. *et passim*. See also the *Assurance Magazine*, vols. iii., xii., xiii., xv. This magazine, in the vol. for 1869, contains an interesting generalisation of Demoivre's hypothesis. Some traits of Demoivre's personality are recorded in the *Mémoire sur la vie et sur les écrits de M. Abraham de Moivre*, par M. Maty.] F. Y. E.

DEMOLOGY. See DEMOGRAPHY.

DEMONETISATION. The discontinuance by a government of the use of a coin, and its official withdrawal from circulation, are known as its demonetisation. A recent instance of such an operation was furnished in this country by the complete withdrawal from circulation of *all* pre-Victorian gold coins; carried out under the provisions of the Coinage Act, 1889, and the royal proclamation of the 22nd November 1890.

The coins received and exchanged at the mint between 13th December 1889 and 28th February 1891, were of the value of £2,334,573 in sovereigns, and £128,575 in half-sovereigns, of which £12,776 in sovereigns and £712 in half-sovereigns were received through the Sydney Mint, and £30,168 in sovereigns and £2015 in half-sovereigns through the Melbourne Mint.

The value of the deficiency of weight of these coins, as well as of that due to the metal of which the coins were composed being slightly below the legal standard of fineness, is given below—

	Sovereigns.	Half-sovereigns.	Total.
Deficiency in weight	£42,352	£6,353	£48,705
Deficiency in standard	2,403	129	2,532
Total deficiency	£44,755	£6,482	£51,237

The average deficiency of weight of the sovereigns was 2·236 grains, and that of the half-sovereigns 3·046 grains; while that due to the incorrectness in standard fineness amounted to an average of 0·246 penny per £ sterling.

Prior to the issue of the above-mentioned proclamation, guineas and half-guineas were still "legal tender" for payments, although none had been coined since the adoption of the gold standard in the year 1816, and they had long since disappeared from circulation. These coins are now, therefore, legally, as well as actually, removed from the currency of the country.

The demonetisation of a coin must always involve loss; except perhaps in the case of a token piece, which, through a rise in the price of the metal of which it is composed, has become of greater intrinsic value than that at which it is legally current. The profit, however, which a government might realise in such a case could only be small, as, should the price of the metal rise to any appreciable extent above that of its nominal value as coin, holders would dispose of it through ordinary commercial channels, and the government would be unable to attract the coins into its coffers without offering a premium on their issue price. In ordinary circumstances the demonetisation of a token coin must entail some loss, while, in the case of a standard piece, the deficiency through wear in the weight of the coins is alone sufficient to make the operation unprofitable.

If the countries of the Latin Monetary Union were to adopt a gold standard, instead of the present *étalon boiteux*, the consequent demonetisation of the standard silver five-franc piece would, at the present price of silver (May 1892), entail considerable loss. That coin contains 22·5 grammes of fine silver, which, with (English) standard silver at the (gold) price of 40d. per ounce, would be worth 31·28d. only, whereas it is now rated at 47·62d. (5 francs at 25·20 fc. = £1). The loss therefore would amount to a little more than 1s. 4d. per piece. A similar result would accompany the demonetisation of the standard silver dollar of the United States; a coin which when first issued yields a considerable SEIGNORAGE (*q.v.*) to the state. In connection with this subject the fact should not be lost sight of that whereas metal in the form of coin is of a known standard, and is received without question as to its fineness, ingots must be assayed in order to ascertain their purity, and this operation, involving both expense and delay, naturally tends to make the exchange value of coin stand at a somewhat higher figure than that of unstamped bullion. F. E. A.

[For demonetisation in sense of ceasing to use a metal as a standard, see STANDARD OF VALUE.]

DEMONSTRATIVE LEGACY. A legacy of a portion of a particular fund, as, for example, where a testator bequeaths £1000 out of his reduced three per cents. If the fund out of which it is payable fail, the legatee is nevertheless entitled to have the legacy paid out of the general assets, and even if the general assets are insufficient to pay all the legacies, the legatee is entitled to his legacy in full.

[Williams on *Executors* (pp. 11-65), London, 1879.] J. E. C. M.

DEMURRAGE. Compensation payable to a shipowner for detention of a ship in a port beyond time stipulated in the CHARTER PARTY (*q.v.*) E. S.

DENARIUS. Roman silver coin first struck 269 B.C., seventy-two being coined to the pound. Design—obverse, the head of Roma and the letter X indicating ten *asses*; reverse, the Dioscuri on horseback, charging. From 217 B.C. eighty denarii were struck to the pound. In 100 B.C. a new type was introduced, and from 93 B.C. many different kinds were in use.

[Wm. Till, *An Essay on the Roman Denarius*, London, 1837.—J. Y. Akerman, *A descriptive Catalogue of rare and unedited Roman Coins*, London, 1834.—Also see *Encyclopœdia Britannica*, 9th ed., vol. xvii., art. Numismatics,' § ii.—Roman Coins, p. 652.] F. E. A.

DENARIUS DEI (*God's penny*). Earnest money which passed at the making of a bargain. This was regarded as a binding transaction by the custom of the merchants (*Carta Mercator*, 31 Ed. I. c. 4). It had several local uses and names. Originally, perhaps, a penny given to the church or to the poor at the conclusion of a bargain. Also mentioned as a port-due, an exaction forbidden, however, by statute. In this sense the term is usually corrupted as *Adieu*—the customer's "farewell" or "God-speed."

[Maitland in Selden Soc., ii. 130; Hall, *Customs*, ii. 166.] H. Ha.

DENIER (Coin). The word denier, originally merely the French rendering of the Latin *denarius*, was adopted by the early kings of France as a name for a coin of pure silver, the weight of which was originally about one pennyweight (or denier). In the reign of Charlemagne (768-814) it weighed about twenty-seven or twenty-eight grains, in the reign of Charles le Chauve (843-877) thirty-two grains, and in that of Hugh Capet (987-996) about twenty-four grains. A small amount of copper was first added to the metal of which these coins were made in the year 1103, and from that time onwards the amount was continually increased. In the year 1577 deniers were struck which were composed of pure copper.

In the reign of Louis IX. (1226-1270) a coin of fine gold, called a "*Denier à l'Agnel*" was struck, as well as two kinds of silver deniers called respectively "*Denier Tournois*" and "*Denier Parisis.*" From this time the word denier was used as the name for several coins, the identity of which was determined by qualifying words, such as, "*de l'or à l'Escu,*" "*de l'or au Fleur de Lis,*" "*Parisis,*" etc.

The following is a list of some of the more important issues of coins bearing the name Denier:

GOLD COINS.

Reign.	Coin.	Weight.	Fineness.
Louis IX. (1226-1270)	Denier à l'Agnel	64 grains	Fine
Philippe le Bel (1285-1314)	Denier à l'Escu	71 grains	Fine
Philippe de Valois (1327-1350)	,,	71 grains	Fine
,,	,,	71 grains	23 carats
John (1350-1364)	,,	71 grains	22¾ carats
,,	,,	71 grains	21 carats
,,	,,	71 grains	18 carats
,,	Denier au Fleur de Lis	77 grains	Fine

The coinage of "Deniers à l'Escu" was discontinued in the year 1354.

SILVER COINS.

Reign.	Coin.	Weight
Philippe le Bel, Louis Hutin, Philippe le Long (1285-1321)	Denier Tournois	17½ grains
	Denier Parisis	17 grains
Charles le Bel (1321-1327)	Denier Parisis	17 grains
,,	,,	13½ grains
Philippe de Valois (1327-1350)	,,	27½ grains

F. E. A.

DENIER (Tax). The *Denier à Dieu* (see DENARIUS DEI) was originally a small extra sum paid on the conclusion of a sale or bargain and applied to a charitable purpose. It has since come to mean a ready-money payment handed over to bind a bargain, especially in the engagement of labourers, servants, or lodgings. R. L.

DENIER (as denoting Price). The word *Denier* is now obsolete in French as the name of a coin, but it has survived in many phrases of common use. The peasant, in France, who borrows money still describes the rate of interest as *denier-vingt* or *denier-dix* as the case may be (one in twenty or one in ten), instead of saying 5 per cent or 10 per cent. M. Leroy-Beaulieu among other economists sometimes employs the same expression conversely, as when suggesting that the valuation of land should be raised from *denier-vingt* to *denier-vingt-cinq* or from twenty to twenty-five times the rental. In his *Traité de la Science des Finances*, referring to Pitt's plan for the redemption of the land tax, in 1798, he says: "The price of 3 per cent consols was 50, that is to say sixteen to seventeen times the annual interest; in other words, they were negotiated at *denier seize* or *denier dix-sept*, but landed property sold at *denier trente* or thirty times the revenue," etc.

Shares in mining companies founded before the French Revolution are still called *deniers*, the total capital being represented by 240 to 300 *deniers* according to the variations in the value of the *livre* from twenty to twenty-five sols, the sol being twelve deniers. If calculated at twenty sols the part proprietor of a company was said to possess one, two, or ten deniers, meaning $\frac{1}{240}$, $\frac{1}{120}$, or $\frac{1}{24}$ of the total stock. The capital of the great Anzin collieries, which date from 1757, is formed of 288 deniers or full shares, the value of one of which was a few years back as high as £50,000. They are, however, now divided for negotiation into hundredth parts called *centièmes de deniers*, which are quoted under that name on the mining exchange. The widow's mite is still *Le denier de la Veuve*; Peter's Pence, *Le denier de St. Pierre*; public money, *les deniers publics*, etc. (see also DENARIUS.) T. L.

DENIERS DE CALAIS (or Devoirs de Calais)—Calais dues or Calais toll; a fine of 19d. per sack of wool paid to the crown by

merchants for license to export staple commodities elsewhere than to Calais.

[Hall, *Customs*, i. 87, 231-278; ii. 220-224.]

H. Ha.

DENIZEN. An alien who has been made a British subject by letters patent and not by the usual certificate of a secretary of state. A denizen has not the full rights of a subject. He could always hold lands by purchase or devise, but until the Naturalisation Act, 1870, he could not inherit. Even now he cannot be a privy councillor or a member of either House of Parliament, nor can he hold any office of trust, civil, naval, or military.

[*Report* of the Royal Commission on the Laws of Naturalisation and Allegiance, 1869.—*Nationality*, by Sir A. J. E. Cockburn, London, 1869.]

J. E. C. M.

DENNY, William (1847-1887), member of a well-known firm of shipbuilders at Dumbarton, on the Clyde, was not only eminent in the skilled work of his profession, and as a model "captain of industry," but full of promise as a writer on social and economical questions. His *Life* by Professor A. B. Bruce (Hodder and Stoughton, 1888) presents, *inter alia*, a multitude of valuable notes from his various letters and speeches, on such matters as the organisation of a workshop, the encouragement of invention, the uses of apprenticeship, the functions of the board of trade, the character of working men, and the prospects of the labouring classes. He had a strong dislike of "absentee employers," and, having served as apprentice himself, had knowledge of the whole situation such as few other employers could possess. From a comparatively optimistic view of the relations of employer and employed and the influence of competition in industry, he passed gradually to a more critical attitude and less sanguine convictions on these subjects. In his address on "The Worth of Wages" (publ. Bennett, Dumbarton, 1876), he stated the arguments for piece-work so cogently and exhaustively that his own conversion, ten years or so later, to a different view was all the more remarkable. He had believed that the wages of piece-work are self-regulating, but he became convinced, after a larger experience, that they are not so —except in "cases where rates can be fixed and made a matter of agreement between the whole body of the men in any works and their employers"—but, on the contrary, they "are liable, under the pressure of heavy competition, to be depressed below a proper level" (Letter to Mr. John Rae in *Life*, p. 113). In reading his address on the "Industries of Scotland" delivered at Dumbarton, December 1878, with special reference to the competition of the Tyne with the Clyde in the matter of shipbuilding, we need to remember this change of opinion, though, like a good reasoner, he always so states his arguments that we can judge for ourselves. J. B.

DENOMINATIONAL CURRENCY. See Colonial Currency.

DENOMINATIONS OF BANK NOTES. The denominations in which bank notes are issued appear to depend mainly, if not entirely, on custom and convenience. The chief question of policy is as to the issue of notes corresponding in denomination to coins in circulation, especially to the coin, whatever it may be, which forms the unit of the currency. It is obvious that to the extent to which such notes circulate they must displace coin. It is possible that some part of the coin thus withdrawn may be hoarded, but it is more probable that it will be made use of in some way out of the country. The notes not being exportable, it is probable that the coin will be used for the purchase of commodities from abroad, and thus the issue of such notes may lead directly to the depletion of the stock of coin. On the question of convenience the points of most importance in regard to the issue of notes of small values, are, on the one hand the convenience of portability, on the other the discomfort of a currency frequently mutilated and dirty, with the possibility of infection, and of loss or destruction. The prevalence of forgery depends largely on the denominations of the notes issued. Greater caution is shown in dealing with a £5 note than in taking one for a fifth or tenth of that sum. Besides, the chance of detecting a forgery is greatly diminished when the note is dirty or worn by use. The maintenance of a currency of small notes, having extensive use, in a clean and sightly condition, would involve an expense exceeding any profit possible to be derived from its issue, except where current rates of interest are very high and where no important stock of bullion is held to meet the notes. The expense would also probably outweigh any economy arising from diminished abrasion of the coin. The actual loss from abrasion of the English sovereign is about one-tenth of a penny per annum, while the cost of printing a note has never been estimated below one penny, and has been found in practice to be frequently double that sum (see Abrasion). The following table gives the lowest denominations of notes issued in some of the principal countries of the world, though not in all cases in active use.

			£	s.	d.	
Italy	50 centesimi	= about	0	0	5	
Austro-Hungary	1 florin	= ,,	0	2	0	
France	5 francs	= ,,	0	4	0	
United States	1 dollar	= ,,	0	4	2	
Germany	5 marks	= ,,	0	5	0	
Norway	5 kronor	= ,,	0	5	2	
Sweden	5 rixdalers	= ,,	0	5	6	
British India	5 rupees	= ,,	0	10	0	nominal
Belgium	20 francs	= ,,	0	16	0	
Holland	10 florins	= ,,	0	16	8	
Scotland & Ireland	1 pound	= ,,	1	0	0	
England & Wales	5 pounds	= ,,	5	0	0	

It does not appear from these figures that the denominations of bank notes are dependent on or indicative of the poverty or wealth of a

country. But some closer connection in this respect might possibly be found in the extent to which the smaller denominations preponderate, although of course other local circumstances may have some share in determining this matter. We may contrast the note circulation of France and Belgium in 1879.

France.			Per cent.	*Belgium.*			Per cent.
francs	25	and under	0·47	francs	20	and under	40·0
,,	50	,,	0·69	,,	50	,,	8·0
,,	100	,,	22·02	,,	100	,,	40·0
,,	500	,,	16·47	,,	500	,,	8·0
,,	1000	and over	60·35	,,	1000	,,	4·0
			100·00				100·0

R. W. B.

DENOMINATOR, Common. The term "common denominator" is applied by Jevons to the function of money which he thus describes: "In a state of barter the price-current list would be a most complicated document, for each commodity would have to be quoted in terms of every other commodity. . . . Between 100 articles there must exist no less than 4950 possible ratios of exchange. . . . All such trouble is avoided if any one commodity be chosen, and its ratio of exchange with each other commodity be quoted. The chosen commodity becomes *a common denominator or common measure of value*" (*Money*, p. 5). Jevons here uses "denominator" as equivalent to measure of value—the term which he more frequently employs.

According to Prof. Walker a distinction should be drawn between denominator and measure of value. "Curiously-coloured bits of paper with a government stamp upon them, which it is felony to imitate," and without "intrinsic value," may serve the purpose of a common denominator, but not that of a common measure of value (Walker, *Money*, pp. 9, 280-288). (See Measure of Value.) F. Y. E.

DEODAND. Any personal chattel which was found to have been the immediate cause of the death of any reasonable creature, was anciently forfeited to the crown, to be given to God, as by distribution in alms to the poor. It seems to have been originally intended as an expiation for the souls of such as were snatched away by sudden death, just as the apparel of a stranger found dead went to purchase masses for his soul (Thorpe, *Anglo-Saxon Laws and Institutes*). This may account for the rule of law that no deodand was due when an infant under the age of discretion was killed by a fall from a cart or horse, or the like, not in motion; whereas if an adult person were so killed the thing was forfeited. If, however, the horse, cart or other thing in motion killed an infant it was deodand, as the misfortune was then partly owing to the negligence of the owner, who was thus rightly punished. If a thing not in motion were the occasion of a man's death only that part which was the immediate instrument was forfeited; but if it were in motion all that went to make the wound more dangerous was forfeited. Thus if a man, climbing up the wheel of a cart, fell and was killed, only the wheel was deodand; but if the wheel ran over his body, not only the wheel but the whole cart and load was deodand. It mattered not whether the owner of the thing was concerned in the killing or not, for if a man were killed with a sword the sword was deodand although not belonging to the man who used it. For this reason we find in old indictments for homicide the instrument of death and its value presented by the grand jury to enable the king to claim the deodand. Deodands were not due for accidents happening on the high seas out of the jurisdiction of the common law, neither did any deodand accrue in the case of felonious killing, but cases occur in which ships were valued for deodand by reason of accidents at sea. A Latin phrase attributed to Bracton has, by mistranslation, given rise to erroneous statements as to what constituted a deodand. "Omnia quæ ad mortem movent," evidently meaning all things which tend to produce death, has been rendered "move to death"; thus giving rise to the theory that things in motion only were to be forfeited. Deodands were finally abolished altogether by statute 9 & 10 Vict. c. 62. H. Ha.

DEPARCIEUX (or De Parcieux), Antoine (1703-1768), born near Nismes, raised himself from the rank of a peasant by his mathematical ability, which was at first exerted in the construction of sun-dials. A tranquil life devoted to science—applied mathematics chiefly—terminated at Paris, 1768.

Deparcieux's contributions to vital statistics give him a place in this dictionary. He constructed life-tables based upon two sets of observations, relating respectively to persons who had taken part in the French Tontines (*q.v.*), and to the inhabitants of religious houses—monks and nuns. It appeared that the religious celibates had the advantage in respect of longevity at the earlier, but not at the later periods of life. It also appeared that the *expectation of life* at every age was greater for nuns than for monks. Deparcieux seems to have been the first to define expectation of life (which he termed *vie moyenne*), and to construct separate life-tables for males and females. Deparcieux's treatment of statistics commands the suffrage both of the mathematician and the general reader. "I do not see how he could have made a better use of his data," says the specialist Milne; while the lively Voltaire is believed to have taken Deparcieux as the model of "the geometer" who discourses so instructively in *L'homme aux quarante écus*.

Deparcieux is sometimes called *the elder*, to distinguish him from his nephew, Deparcieux the younger, who wrote on the same class of subjects as his uncle, but with less effect.

Essai sur les probabilités de la durée de la vie humaine (1746).—*Reponse aux objections . . .* (1746).—*Addition à l'essai . . .* (1760).—These works are in the library of the British Museum, entered in the catalogue under the head, Parcieux. The *Reponse* is bound up with the *Addition*. De Moivre, *Doctrine of Chances*, 3rd ed. (1756), penultimate page.

[Histoire de l'Académie Royale, Année 1768, p. 155.—*Éloge de M. De Parcieux.*—Richard Price, *Observations on Reversionary Payments*, 4th ed. (1783), vol. ii. p. 189.—Maseres, *Principles of Life Annuities* (1783), Preface.—Tetens, *Einleitung zur Berechnung der Leibrenten* (1785), p. 79.—F. Baily, *Doctrine of Life Annuities*, p. 13.—Milne, *Valuation of Annuities* (1815), vol. ii. p. 555, and p. 574.—*Assurance Magazine*, vol. ii. p. 205, and vol. xv. p. 175.—Farr, *Vital Statistics*, p. 439.—Deparcieux's celebrated tables are given in some of the passages above referred to. Other references, and a version of the tables, will be found in the article on Deparcieux in Walford's *Insurance Cyclopædia.*] F. Y. E.

DE PARIEU. See Parieu, Esquirol de.

DEPARTMENT. A separate branch or division of the public administration.

The varying character and the great extent of the administrative functions of the state necessarily require for their efficient discharge a similar division of labour and concentration of specialised knowledge and skill to that which is arranged in any well-organised industrial undertaking. It is not too much to say that without the most elaborate division and subdivision of official duties, and their concentration within appropriate areas, executive government would be impossible. In addition to the advantages which ordinarily follow the specialisation of function, an *esprit de corps*, or desire to look with a single eye to the efficiency of a particular department, is fostered amongst the more responsible members of its staff. Such a result is of the greatest possible value to the public at large, although it is probable that in our own country it has been gained at the expense of the necessary "integration," and that too little regard has been paid to the necessity for that "intimacy and firmness of the connections between the separate parts" upon which the well-being of organisms, physical, industrial, or social, must depend. In the desire to avoid increase of expenditure, or the undertaking of duties not quite in line with its own special functions, a department will at times be unwilling to perform services which would be of advantage to the community, and apart from the cabinet or the treasury—the one too much pressed with business of the first importance, the other looking at all questions mainly from the financial side—no means of rectifying the separatist tendency exists.

As may be supposed from the varying requirements of the public service, the actual division of the administration into departments varies from time to time. Some of them, as in the case of the treasury, the privy council office, the home office, and the foreign office, are of old standing, whilst others, as in the case of the office of the secretary for Scotland and the board of agriculture, have only recently been constituted. A reference to the particulars given in the annual estimates for civil services will afford interesting evidence of the extension of the functions of government in this country in a comparatively recent period.

The statement as to the "accounting departments and services" prefixed to the estimates shows that, leaving out of account the war office, the admiralty, and the three revenue departments—customs, inland revenue, and post office—the main divisions of the public service were sixty-four in number, of which nine were exclusively Scotch and seventeen Irish. Of these five may be said to exist for the control and service of the remainder, viz. the treasury, office of works, civil service commission, exchequer and audit department, and the stationery office. The number of officers employed and the amount voted to be accounted for by these departments for the year 1892-93, and by some of the other principal departments of the state, is shown in the following table:

Office.	Numbers Employed.	Vote 1892-93.
Treasury (13 votes)	434	£616,875
Office of Works (10 votes)	375	887,553
Board of Public Works, Ireland (3 votes)	554	363,965
Civil Service Commission	51	41,324
Exchequer and Audit Department	232	57,249
Stationery Office	83	475,846
Treasury Solicitor	31	62,358
Treasury Remembrancer in Ireland	104	123,325
Home Office (4 votes)	326	421,675
Foreign Office (2 votes)	1,086	491,751
Colonial Office (2 votes)	91	194,284
Board of Trade (4 votes)	573	247,879
Secretary for Scotland (2 votes)	32	51,206
Chief Secretary, Ireland (7 votes)	169	373,982
Paymaster-General	..	481,578
Paymaster of the Supreme Court (2 votes)	963	332,412
Queen's and Lord Treasurer's Remembrancer (3 votes)	303	138,979
Accountant-General of the Supreme Court, Ireland	355	113,609
Board of Agriculture	100	143,710
Ordnance Survey	2,415	217,110
Local Government Board	308	162,049
Registrar-General's Office	99	59,049
Local Government Board, Ireland	76	133,792
Pensions Department (England and the Colonies)	1,076	620,482
Pensions Department (Scotland)	423	92,648
,, (Ireland)	554	132,018
Land Commission, Ireland	144	74,000
Dublin Metropolitan Police	1,326	99,761
Constabulary, Ireland	12,564	1,382,655
Education Department (England and Wales)	521	5,946,218
Science and Art Department	269	600,054
British Museum	537	158,560
Public Education (Scotland)	88	686,336
,, (Ireland)	171	859,801

[The estimates for Civil Services, 1892-93 (P.P. No. 48 of 1892) may be referred to. See also BUREAUCRACY.] T. H. E.

DEPARTMENT (FRANCE). A term applied to the principal territorial and administrative areas existing in France. The division of that country into departments was first effected by the decree of the 22nd December 1789, the arrangement being embodied in Art. I. of the Constitution of 1791. There are at the present time eighty-six departments, or eighty-seven if the "territory of Belfort," the remnant of one of the departments ceded to Germany in 1871, be regarded as a separate department. Since 1889, the three departments of Algeria have also been treated, for most purposes, as part of France proper. The area of a department ranges from 184 square miles in the case of the Seine to 3597 square miles in the case of the Landes, the average being about 2300 square miles, or more than one-third the area of Wales. A department is administered by a prefect appointed by and representative of the central authority. He is assisted by a *conseil général*, elected by universal suffrage, and a council of prefecture, nominated by the central authority, for the purpose of deciding legal questions and advising the prefect when asked to do so. Each department is divided into "arrondissements," these again into "cantons," and the "cantons" into "communes."

[See Block's *Dictionnaire de l'administration française*, and *Dictionnaire Général de la Politique*.—"Local Government in France," by M. Waddington, *Nineteenth Century*, July 1888.] T. H. E.

DEPOPULATION (TERM). The laying waste, destroying, and unpeopling of a place (Co. 12 Rep. p. 30), stated to be "now the apparent effect of enclosing lordships and manors, whereby several good old villages have been reduced from a great number of sufficient farms to a few cottages," by Cowel (*Interpreter*, ed. 1637), in whose time an extensive inquiry into the depopulation of the rural districts was carried out. The same writer states that *Depopulatores agrorum* "were so called because, by prostrating and ruining houses, they seemed to depopulate towns"; and *depopulatio agrorum* was a great offence at common law for which benefit of clergy was denied. The pulling down of farm-houses and conversion of arable into pasture was checked by 4 Henry VII., and other well-known acts throughout the Tudor period (Cunningham, I. 468). Depopulation might also ensue from excessive taxation or purveyance (*Dialogus*, i. 8). The unit of prosperity in the earlier and later inquisitions alike was the plough itself—the extent of depopulation being ascertained by the reduced number of ploughs in each village. H. Ha.

DEPOPULATION, IN RELATION TO ECONOMIC HISTORY, has hitherto been chiefly considered as a remarkable but disconnected phenomenon. Thus, while it is usual to dilate upon the alarming proportions of this social movement at several distinct periods of our history, it has not always occurred to the general historian to regard it as a visitation, possible under the political environments of every age.

The truth is that the same causes—the visitation of God and the inhumanity of man—have not infrequently operated to produce the same results throughout successive centuries. At uncertain, though constantly recurring intervals, this social scourge has hindered the fairest prospects of industrial progress. Though in recent years less known as a factor in economic life, in earlier days depopulation saddened the reigns of powerful monarchs—causing alike the exultation of foreign enemies or trade rivals and the lament of successive generations of social reformers.

The depopulation of Saxon and Norman England was rather general than local, and of historical rather than economic interest, except for the insight that is afforded by it into the industrial resources of the country. The recurring pestilences and famines, and the partial invasions of the next three centuries left an equally indelible mark upon the page of history; but it is with individual enterprise and the public policy which governed its ceaseless workings from the 14th to the 17th century that we are especially concerned.

The "peace of the plough" is perhaps a fanciful term applied to a very real force in the national polity. It denotes a predominant interest in the pursuit of agriculture, as forming the very basis of the industrial life of the nation. Herein its chief wealth was invested, hereby its entire finances were adjusted, and the ploughshare and the reaping-hook continued to be idealised as the symbols of native industry for centuries after they had been practically replaced by the shepherd's crook and the weaver's shuttle. Therefore, from Saxon times onwards we find the peace of the plough preserved by a succession of remedial measures intended to foster a frequently declining industry.

It is to be remembered that down to the close of the 13th century not only the main resources of the country but the chief part of the royal revenue were derived from this source. This is the period of the great prædial surveys, and of agricultural treatises; the period of CARUCAGE and SCUTAGE (*q.v.*), and of royal commissions of inquiry into the grievances of the rural community. The *Dialogus de Scaccario* alludes to one of these inquisitions in the well-known story of the king on his progress being waylaid by husbandmen bearing their idle ploughshares aloft "as a symbol of agricultural depression." A few original fragments of another inquisition of the 12th century have survived, which almost anticipate the complaints of the English peasant insurgents of the

16th century. The Saxon Chronicle gives ample instances of agricultural distress and depopulation over a wide period, but it is not till we reach the middle of the 14th century that the evil assumes the characteristic type which so long prevailed. Before the reign of Edward III. the interest of the crown in the distribution of wealth had undergone a change. The sheriff's farms no longer enabled the king "to live of his own"; great escheats brought with them greater waste; the last desperate attempt to exact the full feudal liabilities of the military tenants by new-fangled inquisitions, Nevill's taxation—as odious and as fruitless as Noy's ship-money—had failed. The crown, therefore, was compelled to drift with the flowing tide. It spread its nets there and drew in an ample revenue from customs and subsidies and farms of the Lombard and Flemish publicans in place of feudal levies and the plunder of the Jewish mortgagees. The staple articles of the export trade of England became wool and fells, and leather and fats. Corn was henceforth exported only under the sliding scale. Then followed the plague, and in its wake inclosures and convertible husbandry. Then the prædial insurrection, and the industrial revolution had begun.

From the close of the 14th to the beginning of the 17th century we can trace the depopulation of the English rural districts in the complaints and remonstrances of the oppressed, backed by a long string of useless remedial measures, not wholly inspired as might be supposed by the goodwill of visionary churchmen, benevolent despots, and alarmist legislators, but by the far-seeing policy of the great ministers of the crown, the obvious meaning of which is apparent in most of the economic tracts of the 16th century as a preparation for the deadly struggle between the landed and the moneyed interests.

In one aspect the Statute of Labourers itself was devised for the encouragement of tillage. It was so expressed in its later editions, and almost simultaneously the act of depopulating is mentioned as a felony. All through the 15th century the evil grew while the feudal system dwindled. The feudal surveys of Henry VI. are an instructive commentary upon the *Testa de Nevill* on the one hand and the Statute of Fines on the other. It was in the reign of Henry VII. that the suffering consequent on inclosures was first brought prominently forward in a well-known statute. This, however, and the similar measures of the next four reigns seem to have given no real relief to the congested districts. Even the partial migration of labour to the towns was insufficient to cope with this distress. The real solution was the increased employment of labour made possible by the success of convertible husbandry.

There are many valuable materials extant to enable us to estimate both the causes and the extent of this depopulation in the 16th century, but few perhaps as complete as the curious returns made in the year 1517 (*Lansd. MSS.*, i. 60) and the still more extensive returns made in pursuance of letters-patent dated 20th August 1608, which have hitherto been little known (*Chancery Records, Petty Bag, Depopulations*).

This latter instrument recites that the crown being given to understand that there are in many parts of England, and notably in the county of Bedford, "many houses pulled downe, lett to decay, standinge voide and uninhabited, or the ground that of former tymes belonged to dwellinge-houses dismembered and taken from them and greate quantities of ground heretofore used for arrable converted to pasture, by which and by many other sinyster and corrupt practises and devises our Realme is in many partes wasted and depopulated to the grievance of our people the damage of our estate and against the ancient common lawes and statutes of our Realme, and which we are determined to remeadie and redresse," the lord-lieutenants and certain knights and esquires of several of the home counties, to which this inquisition seems to have been confined, are hereby empowered to inquire by a sworn jury and examination of witnesses as to the facts alleged in the schedule.

The articles of the inquiry are to the following effect:—(1) How many towns, villages, churches, hamlets, boroughs, parishes, dwelling-houses, farms or farmhouses, families, ploughs, or tenancies in the county of *Bedford* have since the twenty-fourth year of Elizabeth been depopulated, and by whose fault and by what means; and the population maintained before and after such depopulation; (2) what grounds have been converted from tillage into pasture; (3) what lands have been severed from the farm-buildings; (4) what farm buildings have been pulled down; (5) who hold more than one farm; (6) who have evicted their tenants; (7) what inclosures have been made.

The returns to this inquiry, which were ordered to be made into the Chancery before the October following, give us a complete picture of the agrarian revolution during a given period within a given district. They are as complete in their way as the Hundred Rolls of the 13th century, and they may be regarded as the summary of the agrarian question before it disappeared from public view for another two centuries. It was upon the evidence of this commission that the lawyers of the 17th century based their definitions of depopulation, and it is in this connection that it has descended to us as an economic term.

[Cunningham, vol. ii. Appendix.—The *Inquisition* of 1517, edited by I. S. Leadam.—*Transactions of R. Hist. Soc.* (N.S.) vol. vi. pp. 167-314.]

H. Ha.

DEPOPULATION (Causes). The term depopulation is now used in a sense very different from that originally assigned to it. Such a true

depopulation, or stripping a country of its inhabitants, as has occurred in the past in Mesopotamia, Syria, and parts of central Asia, is scarcely known in these days, but the term depopulation is now applied to the case of any country, or part of a country, in which the population as measured from time to time is found to be diminishing.

The causes of depopulation are numerous; for convenience they may be grouped under three headings, *physical*, *political*, and *economic*, but usually several causes contribute to the result.

A. Physical Causes.—(1) *Volcanic eruptions*, within the usually restricted limits of their action, produce more considerable effects than might be supposed, both in direct destruction of life and in rendering large tracts of country incapable of cultivation. Among the more notable outbursts of volcanic force which have thus caused depopulation may be mentioned the eruptions of Vesuvius in 79 A.D. and again in 1822; of Etna in 1669, which destroyed fourteen villages; of Papandayang in Java in 1772, which is said to have buried 40 villages with 3000 persons; of Galungung, also in Java, in 1822, which killed 4000 people; of the Volcan de Agua in Guatemala in 1541; of Skaptar Jökull in 1783, which destroyed one-sixth of the inhabitants and one-half of the live stock of Iceland, and rendered great part of the island permanently sterile; of the "king of volcanoes," Mauna Loa, in Hawaii, in the years 1855, 1868, and 1881; of the oil wells at Baku in 1887; and of Tomboro, in the island of Sumbawa in 1815, said to have destroyed 12,000 people. Again in 1883 one of the most remarkable outbursts of which we have records occurred in Krakatoa, causing a loss of life estimated at the time to amount to 75,000; while lastly, Tarawera in 1886 covered a large tract of the north island (New Zealand) with mud and ashes. (See, for volcanic phenomena generally, Humboldt's *Cosmos*).

(2) *Floods.*—The Ho-ang Ho affords the most striking instances,—in 1851-53 it changed its course and buried whole villages in mud; in 1888, breaking down its banks once more, it gave rise to an appalling catastrophe, overwhelming it is said at least one million of people and causing subsequently widespread famine.

(3) *Changes of climate*, more especially drought, due to the neglect of irrigation works, or the destruction of forests, may cause the land to be incapable of sustaining as large a population as formerly. The condition of Mesopotamia since its conquest by the Turks in 1515 is a conspicuous example of the former, North China of the latter, case. Mr. J. A. Baines, census commissioner of India, says (*Times of India*, 18th April 1891) that the census proved that a local malarial fever had caused considerable emigration from Rajshahye and Nuddea in Bengal.

(4) *Pestilence* was formerly in Europe, as it is still in Asia, both a potent and a frequent cause of depopulation (see Black Death). In modern times the epidemics of cholera in 1849, 1853, 1854, 1857, and 1866, of smallpox in 1871, and of influenza in 1890, 1891, and 1892 decidedly checked the natural increase of the population in several countries of Europe (see *Statistical Chronology of Plagues and Pestilence as affecting Human Life, etc.*, by C. Walford, 1884).

(5) *Famines* resulting from failure of crops due to exceptional seasons or plagues of locusts, or to great disasters such as the bursting of their banks by rivers, have often been greatly aggravated by pestilence or war; in fact, these three causes are frequently inseparably bound together. The most notable instance in recent times of famine causing considerable depopulation in Europe occurred in Ireland in 1847, but in India famines still from time to time greatly check the growth of population. Great famines occurred in 1770, 1781-83, 1790-92, and even so recently as 1860-61 half a million of people perished from famine in North-West India, while in 1865-66 it is believed that one and a half million perished in Orissa. However, in 1874 and 1876 the efforts of the Government were so far effectual as to prevent any great loss of life except in a few districts. Mr. Baines (*Times of India*, 18th April 1891) says that the famine tracts of Madras, which showed considerable depletion in 1881, filled up rapidly by 1891 owing to the return of emigrants or to actual immigration from other districts. There was an awful famine in North China in 1877-78 in which millions are reported to have perished (see *Famines of the World*, etc., by C. Walford, *Journal of the Statistical Society*, vol. xli. 433, vol. xlii. 79).

B. Political Causes.—(6) *War*, involving as it once did the massacre of women and children, and the carrying off of whole nations into slavery, has been a most powerful cause of depopulation, especially in Asia and Africa. The extinction of aboriginal races in recent times has often been a result of increasing population, the stronger race displacing the weaker, but the conquests of such nations of warriors as the Matabele have caused great diminution of more civilised races like the Mashonas. Modern wars are comparatively short in duration, while owing to sanitary precautions pestilences do not so often follow in their train. Thus it has been said that the war between Prussia and Austria in 1866 was the first in which more men were killed in action than died of sickness. In France in 1854 and 1855 the deaths exceeded the births by 69,318 and 35,606 respectively, and in Austria in 1866 by 57,831; in both this result was the combined effect of cholera and war. In France again in 1870 and 1871 there was an

excess of deaths over births of 103,394 and 444,889 respectively, a disastrous result of the war, the commune, and an epidemic of small-pox.

(7) *Actual deportation of the people*, as in the familiar instances of the Jews in the Babylonian captivity, the Jews expelled from Spain (1492), and the Moors also from that country (1609). This heading connects itself with the next one to be considered.

(8) *Religious persecution* drove the Huguenots from France, the Pilgrim Fathers from England, and is now driving the Jews from Russia, to the great economic disadvantage of the persecuting country in each case.

(9) *Bad government* is not perhaps directly a great cause of depopulation, but indirectly it assists. Restrictions on trade, oppressive taxation, bad land laws, capricious interference with the liberty of the subject, as well as social and political agitation, all discourage the growth of population; but of all acts of government probably compulsory military service has most effect in stimulating emigration.

C. Economic Causes.—Though the action of these is often not so obvious as in the case of natural and political causes, and is often difficult to unravel satisfactorily, yet they are really far more powerful than all the other causes put together.

(10) *The repeal of the Poor Law.*—The old law of settlement in England was intended to prevent men from leaving their native parishes; it was a protective measure which tended to keep up artificially the number of the rural population; its repeal naturally facilitated migration and to that extent contributed to local depopulation. The same is true of the abolition of out-door relief to able-bodied men. The poor law has, however, in some cases produced the same result in an opposite way: *i.e.* some landlords, to prevent the poor from becoming chargeable upon the land, cleared their estates of cottages and so caused a veritable depopulation within a limited area.

(11) *The formation of deer forests.*—Some Scotch landowners, finding they could obtain better rents by devoting their land to sporting purposes, have followed the classical example of William the Conqueror, and removed all agricultural tenants with a view to making deer forests. Naturally this has taken place only in those parts of the Highlands where the land was poor and ill adapted to agriculture. To some extent the inhabitants have found compensating employment in meeting the personal wants of the sportsmen. The real objection to such afforesting seems rather to be to its selfish character than to the withdrawal of a small quantity of land from cultivation.

A return to the House of Commons dated 4th August 1891 gives certain "particulars of all deer forests and lands exclusively devoted to sport in Scotland." From this we learn that the total amount of such lands was in 1883 no less than 2,292,153 acres, and that 274,980 acres have been afforested since, the recent additions being in the counties of Argyll, Inverness, Ross and Cromarty, and Sutherland. The number of persons displaced is not given, but there are various indications that at any rate the greater part of the land devoted to sport can be of but slight agricultural value, thus:—(1) Two-thirds of the estates comprised land having an altitude exceeding 2500 feet above the sea, while in only four estates was the highest land under 1000 feet. (2) In about half the estates the rent before and after afforestation is given; in the very great majority of cases the sporting rent is greater than the old rents, often several times as great, in only three cases is the new rent 25 per cent below the old. (3) The rent before afforestation averaged in more than one-fourth of the acreage for which the facts are available from *nil* to under 2½d. an acre; in nearly half the acreage between 3d. and 8d., and in less than one-fourth between 9d. and 1s. 8d., the last being the highest rent recorded. Land commanding such average rents could sustain but a trifling pastoral or agricultural population.

(12) *The repeal of the corn laws*, by bringing down the artificial price of wheat, caused the tillage of land ill adapted for the growth of cereals to be no longer profitable; hence some lands either went out of cultivation altogether or were devoted to pasturage, in either case there was less employment for labour on the farms affected.

(13) *The application of machinery to agriculture* enables the same amount of land to be cultivated by the labour of a smaller number of men. The cause has operated widely in different parts of the world.

(14) *The centralisation of manufactures*, due to the adoption of the factory system, has caused the decay of village industries such as hand-loom weaving, and has lessened the importance of the village craftsmen.

(15) *The direct attraction of large towns*, not merely as offering higher wages to labour, but as affording more interests, more amusements, in short, more "life," is a potent factor in promoting depopulation in rural districts.

(16) *Improved education and a cheap press* make men more ambitious and more restless, while by familiarising them with new ideas they make them less fearful of change. Moreover in rural districts compulsory education tends to prevent children from being early apprenticed to the soil, and learning the manifold duties connected with agricultural labour.

(17) *The rise in the standard of living* is a very potent and widespread cause of migration, and hence of rural depopulation. Men are no

longer content to live under the old conditions which satisfied the few wants of their grandparents; they want better food, better clothes, better houses, and shorter hours of labour; to obtain these things they must earn better wages; hence they are stimulated to leave their homes in search of more remunerative employment than their native villages afford. This cause has no doubt been largely operative in keeping up the great stream of emigration from Ireland, a stream which commenced to flow long before the potato famine brought it into notoriety.

(18) *Improved communications*, railways and steamships, co-operate powerfully with many of the above causes to accelerate the depopulation of the rural districts; they bring corn from distant countries where it can be grown more cheaply, and so bring down prices; conversely they make more fertile soils readily accessible to settlers; they bring manufactured articles to remote country places and so injure village industries; they facilitate the removal of labourers to factories and mines; they even, as in the case of Cornwall, transport miners to richer and more easily worked lodes in distant lands; in a few cases they lead to local depopulation by diverting old lines of traffic.

(19) *Improvements in large towns* lead to the depopulation of their central areas, dwelling houses are turned into places of business or removed to make room for public buildings, while large clearances are made for railways and new streets. This has long been an obvious fact in London, but a like movement is also in progress not only in such towns as Manchester, Liverpool, and Birmingham, but even, as shown by the last census, in Sydney and in Adelaide; no doubt the same is true of most large towns throughout the world.

(20) *An abnormal age and sex constitution of the population*, the result of war or emigration, lowers the marriage rate and consequently the rate of natural increase. In England there is a marked excess of women, in many of her colonies an even more marked deficiency; in Ireland and in many rural districts of England there is a great excess of old people.

(21) *Deferred marriage and the artificial limitation of children* both contribute to depopulation by lowering the rate of natural increase. The first is a powerful cause in the upper and middle classes in England, the second is a still more powerful cause in France, and is said to be in some portions of the United States. To what extent families are thus restricted in England is uncertain, but the practice has many able advocates and the subject is now widely and openly discussed in a manner that would not have been believed to be possible a few years ago. In France the peculiar land system which compels the division of real estate equally among the children makes small families specially desired. We are not here concerned with ethical considerations.

The economic question arises whether protection, in whatever form applied, can succeed in achieving the result aimed at. In the case of France, which restricts its birth-rate to such a degree that it increases more slowly than any other nation, does France produce as many labourers as she requires? If so, why are there more foreigners in France than in any other country? Does she have to import Belgians, Swiss, and Italians because she has not enough Frenchmen for her needs? The foreign born in France increased from 380,831, or 1·1 per cent of the whole population, in 1851, to 1,126,531, or 2·9 per cent of the whole population, in 1886, numbers and proportions not approached in any other country of Europe. In the interval of fourteen years, between the census of 1872 and that of 1886, the total increase in the population of France was 2,116,082, of which no less than 385,863, or 18 per cent, was due to the increase of the foreign born.

The census of 1891 showed a diminution of the number of foreigners by 13,416, but this is largely attributed to the effect of the alien law of October 1888.

The increase of the population of France in the five years 1886-1891 was only 124,289, by far the smallest increase yet recorded.

Rural depopulation in England and Wales.—The division of a population into urban and rural is a matter of considerable difficulty, and strict comparisons at successive periods are scarcely practicable. In the *Census of England and Wales 1881* (vol. iv. p. 9) it is shown that whereas "the town population, *i.e.* inhabitants of the districts and sub-districts which include the chief towns" increased in the census intervals since 1851 by 19·41, 18·09, and 19·63 per cent respectively, "the country population, *i.e.* the inhabitants of the remainder of England and Wales, which comprises the smaller towns and the country parishes," increased by 4·12, 7·32, and 7·42 per cent. Again the *Preliminary Report of the Census of England and Wales 1891* (p. viii.) shows that in the ten years 1881-91 the "urban sanitary districts" increased by 15·3 per cent, whereas the "rural sanitary districts" increased by only 3·4 per cent, "and," the report says, "these figures may be taken as representing with sufficiently approximate accuracy the respective increases in the urban and the rural populations." If this be so, our rural population (taken as a whole) is still increasing, but so slowly that we may practically consider it to be stationary. An examination of the (geographical) counties separately shows that Cambridge, between 1851 and 1891, has fluctuated in such a manner that its population has only increased by 3345 in forty years; Dorset lost 4746 in 1871-81, but has regained

3518 in 1881-91; Norfolk lost 7916 in 1851-61, but has much more than made up the loss since; Westmoreland lost 819 in 1871-81, but has gained 1907 in 1881-91; Wilts lost 6969 in 1841-61, but has gained 15,653 since; but on the other hand Cornwall has lost continuously since 1861, in all 46,801, or 12·7 per cent; Hereford since 1871, in all 9384, or 7·5 per cent; Huntingdon since 1861, in all 6478, or 10 per cent; Rutland since 1851 (with a slight exception), in all 2324, or 10·1 per cent; Shropshire since 1871, in all 11,787, or 4·8 per cent. It will thus be noted that the decrease has amounted to about $\frac{1}{8}$ in Cornwall and $\frac{1}{10}$ in Rutland and Huntingdon. In the decade 1881-91, out of twelve Welsh counties no less than nine declined in population; in Carnarvon, Flint, and Merioneth, this is something new, but in Cardigan it dates from 1871, in Brecknock and Pembroke from 1861, in Anglesea from 1851, and in Montgomery and Radnor from 1841. This result may be put in another way; while the population of England and Wales has been steadily growing, the following counties are practically in the same (absolute) position as they were many years ago, viz., Dorset as in 1871, Shropshire as in 1861, Hereford, Huntingdon, Brecknock and Pembroke as in 1851; Cornwall, Rutland, and Anglesea as in 1841, Cardigan as in 1831, Montgomery and Radnor as in 1821. The depopulation of rural Wales began much earlier, and has been much more intense, than in England; Cardigan and Montgomery were literally decimated in the ten years preceding the last census.

The *Preliminary Report* 1891 (p. vi.) says: "The increase of population was by no means equably spread over the country. In 271 of the 632 registration districts into which England and Wales are divided for registration purposes, the returns show an actual falling off in the number of inhabitants, and in 202 out of these 271 districts there had also been a decline of population between 1871 and 1881." A comparison, district by district, of the census of 1891 with that of 1881 shows that the process of depopulation of the more rural registration districts was notably less rapid in the latter period than the former in the following registration counties, Hants, Berks, Bucks, Oxon, Hunts, Beds, Cantab, Essex, Suffolk, Wilts, Dorset, Devon, Cornwall, Somerset, Worcester, Westmoreland, Glamorgan, and Brecknock. It was however notably more rapid than during the preceding decade in Sussex, Northants, Hereford, Salop, Rutland, Lincoln, Nottingham, Yorkshire, Northumberland, Cumberland, and in most of the Welsh counties.

If we look still more closely into the case of Norfolk, Suffolk, and Essex, three typical counties in the corn-growing country, we find the following interesting facts. In Essex there are four, in Suffolk seven, and in Norfolk nine districts in which every census since 1851 has shown a decrease of population. This amounted in the four Essex districts to 11,185 or 12·9 per cent, in the seven Suffolk districts to 20,809 or 16·4 per cent, and in the nine Norfolk districts to 20,300 or 11·6 per cent. The greatest decline occurred in the Hoxne district (Suffolk) viz. 26·8 per cent; the least in the Smallburgh district (Norfolk), viz. 6·8 per cent. In general terms, in country districts in the eastern counties a decrease of from $\frac{1}{10}$ to $\frac{1}{5}$ of the population was not uncommon—a true *decimation* but scarcely a true *depopulation*.

For a very able and complete analysis of the facts as to depopulation in the county of Huntingdon, a paper by Dr. William Ogle in the *Journal of the Royal Statistical Society* (vol. lii., 1889, p. 205) should be consulted. The chapters by Mr. H. Llewellyn Smith in Mr. Charles Booth's *Life and Labour* are also very instructive.

Rural Depopulation in Scotland.—Although the population of Scotland has increased in every decade of the present century, the phenomenon of so-called depopulation has been exhibited in limited areas. Three counties, Perth, Kinross, and Argyll reached their maximum in 1831; one, Inverness, in 1841; five, Sutherland, Ross and Cromarty, Dumfries, Kirkcudbright, and Wigtown, in 1851; five, Shetland, Orkney, Caithness, Berwick, and Roxburgh, in 1861; three, Nairn, Elgin, and Haddington, in 1881. In contrast to these the increase has been steadily maintained at each census in Banff, Aberdeen, Forfar, Fife, Stirling, Dumbarton, Renfrew, Ayr, Lanark, Linlithgow, Edinburgh, and Selkirk; and these counties contain seven out of the eight large towns of Scotland. In several counties the decrease has been intermittent, but in the case of Shetland, Caithness, Ross and Cromarty, Berwick, and Wigtown it has been steadily maintained. The seventeen declining counties had in 1891 a collective population numbering 91,654 less than the sum of their several maxima. Argyll has lost 25,028, Perth 16,038; the percentage decline varies from 31 in Kinross, 25 in Argyll, 17 in Wigtown, and 15 in Sutherland, to less than 5 per cent in Nairn, Haddington, Elgin, and Roxburgh. It should be observed that although the depopulation is most evident in the Highlands, and more especially in the extreme north and west, yet six of the lowland counties have together diminished by nearly 20,000 persons. The most active causes of this depopulation have been the application of machinery to agriculture, and the attracting force of the labour markets of Glasgow and the north of England. The diminution in the northern and western counties may probably be mainly attributed to a rise in the standard of living and consequent emigra-

tion since the poor soil did not afford employment for more labourers, but no doubt the concurrent extension of sheep farming, and in a few cases the formation of deer forests, have contributed to the result. Where the barrier of the sea has tended to check the beneficial operation of migration, as in Lewis, the population has continued to increase, with the disastrous results that are too familiar.

Depopulation in Ireland.—The case of Ireland is at once so important and so instructive as to merit especial attention. A century ago Ireland was a by-word for poverty; the people had few other resources than tilling the soil, and this they did in a careless manner, demoralised as they were by long dependence almost solely upon the potato, a crop which in fair seasons gives food for forty persons by the labour of one. The Irish lived under almost the lowest standard conceivable, miserably clothed and fed and even more miserably housed, and were almost chronically on the verge of starvation. Famines occurred in 1814, 1816, 1822, and 1831. Under these distressing circumstances the population continued to increase till at the census of 1841 it numbered 8,196,597. Even at that time the pressure of population upon the means of subsistence had begun to seek relief by emigration, and the census of 1841 showed the population to be considerably less than had been anticipated (see *Census of Ireland 1841*, vol. i. p. ix.); in fact no less than 428,471 emigrants are recorded as having left Ireland for the colonies, and 104,814 for Great Britain, during the decade 1831-41. Nevertheless the population continued to increase, and is believed to have reached about 8,295,061 by the middle of the year 1845, which would give a density of 525 to the square mile. It is true that the density of the population of England and Wales in 1891 was 458 to the square mile, in Belgium 535, and in large districts of Bengal ranges from 555 to no less than 706, but the first-named countries have great wealth in minerals and manufactures with which to buy food from other countries, the latter has a very fertile soil and a tropical climate. The potato rot appeared in 1845 and again in 1846, the main food supply of the people failed, and famine was inevitable. It reached its height in 1847 and was, as a direct result, accompanied by severe epidemics of typhus and relapsing fevers. It is believed that starvation and fever between them claimed from 200,000 to 300,000 victims, but when the people were again numbered in 1851 the population had shrunk to 6,574,278, or 1,622,319 less than in 1841, but 1,720,783 less than the supposed maximum of 1845. The population thus diminished by 20 per cent in six years! The greater part of this startling depopulation was of course due to the great exodus in 1847 and the following years, when the Irish poured into Liverpool and Glasgow and spread themselves over England and Scotland, while every ship sailing for Canada and the United States was filled with Irish emigrants.

The decrease affected every county in Ireland except Dublin (it was least in Leinster, greatest in Connaught), but while this unexampled depletion of the rural districts was taking place, there was an increase in nine town districts amounting in the aggregate to 77,519. Belfast and Dublin each added some 25,000 to their numbers, and the increase amounted to 6 per cent in Cork, 10½ per cent in Limerick, 11 per cent in Dublin, and 33 per cent in Belfast. Meanwhile the census of 1851 showed that the extent of land under tillage had increased by 2091 square miles, and the value of the agricultural stock and crops was greater than any previously recorded. No fewer than 355,689 "fourth-class houses," mostly mud cabins, had disappeared, whereas the houses of the first class had increased by 10,084, and those of the second class by 54,574. In short the depopulation was accompanied by a very notable rise in the standard of living.

Subsequent enumerations have shown the same thing,—a steady, though less rapid, diminution of population accompanied by a rise in the standard of living. The census of 1861 showed a further loss of population amounting to 753,418; that of 1871 a loss of 386,590; that of 1881 a smaller loss, 237,541; but that of 1891 shows a return to larger figures, 468,674. The total diminution of the population of Ireland since 1841 amounts to 3,490,435, or 42·6 per cent, distributed as follows: 786,451 in Leinster, or 39·7 per cent; 1,235,466 in Munster, or 51·4 per cent; 771,386 in Ulster, or 32·3 per cent; 697,132 in Connaught, or 49·1 per cent. Except Dublin and Antrim, and Kerry in 1881, every county has diminished in numbers each decade since 1841. The mud cabins have now nearly disappeared, but on the other hand there is some increase in overcrowding of tenement houses in the large towns.

In the half-century during which this great and real depopulation has been going on, the inhabitants of Cork and Waterford have diminished by 7 per cent; those of Galway, Limerick, and Drogheda by between 20 and 30 per cent; those of Kilkenny by 42 per cent; but on the other hand Newry has increased by 10 per cent, while Londonderry has doubled and Belfast considerably more than trebled its population; the latter city in its rapid progress has indeed rivalled some of the most prosperous English towns. The city of Dublin increased in the same period by 7 per cent, but "greater Dublin," including the suburbs, by 24 per cent.

Rural Depopulation in France.—It is well known that the exceptionally low birth-rate of France involves a correspondingly small rate of

natural increase ; it is perhaps not as well known that depopulation of country districts is a no less striking phenomenon in France than in England ; while it need scarcely be mentioned that the conditions of land tenure are as different as can well be imagined. The population of the whole country continues to increase slowly, a large proportion (about a fifth) of this increase being due to the immigration of foreigners, at the same time in thirty-nine out of the eighty-seven departments the present population (census 1886) is less than that of 1861. The absolute decrease amounts to between 20,000 and 30,000 for the twenty-five years in Gers, Lot, Lot et Garonne, Haute Saône, Somme, and Vaucluse ; it is between 30,000 and 40,000 in Eure, Mayenne, Sarthe, and Var ; it is no less than 43,725 in Calvados, 56,102 in Orne, and 70,556 in Manche. As a rule the densely populated departments have increased in density, while the sparsely populated have lost population. A careful analysis of a table in the report of the census of 1886 shows that of the 361 *arrondissements* into which France is divided 124 appear to be still increasing in population, while 61 attained their maximum by 1841 or before, 56 attained their maximum at the census of 1846, 44 at that of 1851, and 76 in the following thirty years. It would appear therefore that some crisis in rural economy occurred during the years 1846-51, which led to no less than 100 *arrondissements* reaching their maximum at about that time. The decrease in population from the maximum in 21 *arrondissements* reached a degree ranging from 10 to 23 per cent.

The Preliminary Report of the census of 1891 continues the same story. In no less than 55 out of the 87 departments there was a decrease of population, amounting in all to 399,001. The decrease was most marked (exceeding 10,000) in Lot, Aveyron, Aude, Dordogne, Gers, Orne, Lot et Garonne, Tarn, Yonne, Aisne, Ariège, and Haute Saône. The net increase of the whole country was the smallest hitherto recorded, viz. 124,289. At the same time the 57 large towns exhibited a net increase of 340,396, proving conclusively that there had been a migration from country to town of not less than 216,107 in the five years.

Other European countries.—The tendency of people to flock into cities, which has been shown to be closely related to rural depopulation, has been illustrated as regards Germany, Holland, Austria, Hungary, Sweden, France, and Italy, by Mr. E. G. Ravenstein (*Journal of the Royal Statistical Society*, vol. lii. 1889, p. 241), and as regards Germany, by M. le Vicomte Rovrie de Beaucaire (*Bulletin du Ministère de l'Agriculture de France*, Fév. 1886).

Rural Depopulation in the United States.—Perhaps the last place where we should expect to find this phenomenon is the United States, yet that country is not without examples of it. The census of 1890 showed that the state of Nevada had lost in the decade no less than 16,505 persons, or more than one-fourth of its population ; this is attributed to the failure of the Comstock and other mines. No other state actually diminished in numbers, but if the distribution of the population by counties be analysed it will be found that a considerable total depopulation has occurred, notably in the following states : Maine, Vermont, New York, Maryland, Virginia, North and South Carolina, Ohio, Indiana, Illinois, Iowa, Kentucky, Tennessee, Mississippi, Colorado, Arizona, and California. When a period of thirty years is considered it will be found that the three New England states of Maine, New Hampshire, and Vermont have increased very slowly. Again, if we divide the population in each of these states into urban and rural (a division not without its difficulties), it will be found that the rural population of Maine is now smaller than it was in 1860, that of Vermont smaller than it was in 1870, while those of Massachusetts, Rhode Island, and New York have all decreased considerably during the last decade. In addition to many of the causes that have operated in Europe, the state returns show that large numbers of New England farms have been abandoned, either because the soil was naturally poor, or exhausted by an improvident system of farming, or because the farms were inconveniently situated far away among the hills. Thus it happens that much of the soil of New England has passed out of cultivation, the former cultivators having either gone into the great cities or migrated to the fertile soils of the western prairies. One thing is certain, the movement cannot be attributed to an aristocratic or exclusive land system.

Economic Results.—In considering results, our attention will be confined to such depopulation of rural districts as has occurred in the British Isles.

There is no doubt that the present tendency is for the rural population to be reduced to the lowest point consistent with the due cultivation of the land, and for all subsidiary industries to move, so far as practicable, into larger centres, with the well-known result that the proportion of modern civilised populations living under town conditions is a gradually increasing one. In spite of all our sanitary progress a population reared in a town can scarcely hope to be as hardy and vigorous as one born and bred in the country, so that some amount of racial degeneration appears to be inevitable.

Remedies.—All deplore the diminished numbers of our rural population and many have sought by legislative or other interference to check the evil. Bad government may of course be improved, religious persecution may be made to give way to toleration, bad laws may be

repealed, oppressive taxation may be removed or its burthens equalised, but it is obvious that the causes of the depopulation of rural districts are too deep-seated to admit of eradication. The great fundamental economic law of supply and demand will not admit of denial. The provision of allotments for labourers, if judiciously carried out, might be very beneficial; an amendment of the land laws, especially by making public all mortgages and charges on land by a system of registration, and so facilitating and stimulating the transfer of land, would make our land system healthier. An extension of market gardening would of course *pro tanto* employ more hands; something may possibly be devised to foster the growth of village industries; more businesses may be transferred from London to small country towns, as has already been done in the printing trade; country life may be made less dull,—still the countryman will wend his way to London, Glasgow, or Belfast, to New York or Montreal, to Sydney or Melbourne. The remarkable uniformity of the growth of large towns, not only in every country of Europe, but in America and Australia, proves conclusively that it is no question of land laws that regulates the matter. Do not let us deceive ourselves by expecting that results will in this country follow land-law reforms which have not appeared in other countries where a diametrically opposite system has been established. The modern man prefers to live in a town, improved means of communication enable him to accomplish the object of his desires, and no effort will prevent him from doing so, or will succeed in attaching to the soil a greater number of labourers than is absolutely required to produce sufficient supplies of food under the easiest conditions attainable.

The following extracts from the *History of New South Wales from the Records*, G. B. Barton (1889), vol. i. 1783-1789 show the apprehensions once felt that the establishment of the new colonies would deplete the parent country.

Page 8.—Sir George Young sketched the prospective advantages of the settlement in the following form. . . . 4. The settlement of the country would not tend to "depopulate" the parent state, as the settlers would be principally collected from the Friendly Islands and China; the only men required from England being a few skilled workmen, who might be drawn from the ships sent out on the service.

Page 430.—Sir G. Young's proposal—

At a time when men are alarmed at every idea of emigration, I wish not to add to their fears by any attempt to depopulate the parent state; the settlers of New South Wales are principally to be collected from the Friendly Islands and China; all the people required from England are only a few that are possessed of the useful arts, and those comprised among the crews of the ships sent out on that service. G. B. L.

DEPOSIT (Sales of Land). It is usual, on the sale of land or houses, for the purchaser to deposit a sum (generally £10 per cent of the purchase-money) as soon as the bargain is concluded, which on completion is considered as a payment on account of the purchase-money, and in case of non-completion through the purchaser's default is forfeited to the vendor. When the sale takes place by auction the deposit is generally paid to the auctioneer, who holds it as stakeholder for both parties, but in the case of a private contract the deposit is usually paid to the vendor. In cases where the vendor is not entitled to receive the purchase-money, or is only entitled to a part of it (as in the case of a sale by a tenant for life under the Settled Land Act, or by a mortgagor), it is safer for the purchaser to pay the deposit to the vendor's solicitor as stakeholder, or to pay it into a bank to the joint account of his and the vendor's respective solicitors [cp. Earnest Money]. E. S.

DEPOSIT (Deposits). The term "deposits" is used in banking in a technical sense. In considering this it must be remembered that banks may be divided into three classes—banks of issue, of discount, and of deposit. In the first the banker trades with the capital of the public, in the second with his own capital, and in the third, by far the most important at the present day, with that of his customers. Although in its present development deposit banking is entirely modern, as an institution it is of ancient origin. The *Trapezitæ* of Athens received deposits at least as early as the sixth century B.C. They held money at interest, and also took deposits specially for the purpose of payment to a third party, but it is not certain that they kept running accounts. In Rome, both the Argentarii (*q.v.*) or private money lenders, and the Mensarii (*q.v.*), who were appointed by the state, received money on deposit, in addition to money-changing and money-lending. They kept two classes of accounts. On the one interest was paid, the account was then called *creditum*. On the other, called *depositum*, no interest was paid, the lodgment being for safety or for convenience of payment to a third party, upon verbal request, or written authority of the depositor, but it is not certain whether this assignment or cheque (*attributio, perscriptio*) was transferable. In the middle ages the banks of Venice and Genoa, although primarily incorporations of public creditors, also took deposits, although it does not appear whether they paid interest upon them, or lent out the moneys held. The chief function of these banks as well as those of Amsterdam and Hamburg (see Banks, Early European) was to remedy the deficiencies of the circulating medium, which consisted of coins of different countries and kinds, all more or less clipped or defaced. Owing to the difficulty of dealing with

such a currency it became the practice to deposit it in the bank, and to make transactions in bank money. These deposits could not generally be withdrawn, but might be transferred to the credit of other persons. Banks of this class did not lend out any part of their deposits, and therefore did not increase the circulating capital of the country. Out of them arose the banks of issue, dating from the 17th century, which have now, among English-speaking races at least, very largely given place to the modern banks of deposit. In these the cheque has taken the place of the bank note, and by the convenience of this instrument banking has reached a degree of development of which it had not previously been supposed capable (see BANKS and CHEQUE, LAW OF).

The term "deposit" is now used both *generally* and *specially*. *Generally*, it denotes the whole amounts lodged in a bank under whatever conditions held. *Specially*, it denotes money lodged at interest, usually in round sums, and not subject to cheque at sight, a *deposit receipt* being given against every sum paid in, which receipt must be given up on repayment. In its special application the use of the term is the reverse of that which obtained among Roman bankers as quoted above. Connected with the special use of the term is the subject of deposits in Savings Banks (see BANKS). Circulating capital deposited in these banks is not available for the daily needs of business, as their funds are invariably employed in fixed investments, but they are more useful than if hoarded. Banking deposits are frequently taken as an index of prosperity. In comparing returns of deposits held in different countries, or at different times, regard should be had to the following considerations among others. (1) The proportion of the whole banking institutions comprised in the returns under discussion. In comparisons as to time, important alterations may have taken place, so that returns at one date may show deposits previously existing but then concealed. This may be due to (*a*) greater perfection in returns, or (*b*) change in character of banking institutions, *e.g.* gradual adoption by private banks of practice of publishing accounts, or their absorption by banks already publishing. (2) Character of banking institutions. A number of single banks will show large amounts of deposits with each other, which would not appear at all in the case of a few large banks with many branches, *e.g.* some 300,000,000 of dollars (say £60,000,000 sterling) of such cross deposits are held by the national banks of the United States. (3) Peculiarities in making up balance sheets or returns, *e.g.* in the United States clearing exchanges are always made in the morning, therefore the whole clearing appears among the assets of the previous day, and the deposits are larger by a corresponding amount. Thus in returns of national banks at different selected dates we find—

	1869. mlns. $	1880. mlns. $	1890. mlns. $
Deposits	678	1280	1925
Clearing Exchanges	154	244	84
Net Deposits	524	1036	1841

In sterling, converting the $ as 5 = £1.

	1869.	1880.	1890.
Deposits	£135,600,000	£256,000,000	£385,000,000
Clearing Ex.	30,800,000	48,800,000	16,800,000
Net Deposits	£104,800,000	£207,200,000	£368,200,000

Between the first and last dates the increase in gross deposits is 184 per cent, in net deposits 251 per cent. (4) Characteristics of business in different countries, *e.g.* as between France and the United States, where totally different financial methods prevail. (5) Characteristics of banking in different countries, *e.g.* Australasian banking, where probably one-fourth of the deposits shown at the present date are drawn from the United Kingdom, and therefore should be deducted in estimating the wealth of those colonies. R. W. B.

DEPOSITION. In the wider sense deposition means the act of giving evidence in a judicial proceeding. In its narrower sense it means evidence so given which has been recorded in writing. It is a fundamental principle of the English law of evidence that wherever it is possible a witness must be produced in court to be personally examined and cross-examined; and, if this can be done, no record of evidence formerly given by him will be accepted as a substitute for appearance. If the witness cannot be produced either because he is dead or too ill to travel, or insane, or kept out of the way by the person against whom his evidence is used, then his deposition is admissible. But in this case the person against whom the evidence is used in a criminal case must have had the opportunity by himself or his legal adviser of cross-examining the deponent. When any person has been arrested upon the charge of committing an indictable offence, the magistrate before whom he is brought should cause all the evidence given to be taken down in writing. Magistrates are also empowered to take the depositions of persons who are so ill that they are not likely to be alive at the time of the trial.

[See Stephen, *Digest of the Law of Evidence*, art. 32 and 140-142]. F. C. M.

DEPOSITUM. Expression of Roman law for the contract which arises when goods are left in some person's custody, no reward being given to that person for keeping them. E. S.

DEPÔTS ET CONSIGNATIONS (CAISSE DES). A public establishment in France charged to receive and manage under the responsibility of the state all obligatory deposits of money or securities, comprising the funds of benefit societies and savings banks, guarantee money, judicial consignations pending judg-

ment, unclaimed successions, endowments of public institutions, pension funds, etc. The Caisse was charged with the sinking fund of the public debt until its suppression. It also receives voluntary deposits; but the amount is unimportant since the interest has been reduced to 1 per cent. The total liabilities of the Caisse, on the 31st December 1889, amounted to £163,213,166, nearly three-fourths of which were to the savings banks. The funds are employed in rentes, treasury bills, and advances to public bodies; the revenue being credited to the different classes of deposit accounts at variable rates of interest. T. L.

DEPRECIATION. Depreciation is a term used by accountants to describe the reduction in value that takes place in the machinery and plant of a factory or other undertaking in which industrial operations are carried on, which reduction in value must be provided for in the account of profit and loss, before arriving at a present value. Manufacturers, shipowners, or others who treat the annual earnings of their property as income, deducting only the actual outgoings for repairs will soon find themselves with a diminished capital. But, while repairs alone will not maintain a full value or balance the inevitable effects of time and use, the necessity for depreciation may be reduced or avoided by an expenditure out of current earnings for renewals and extensions. Depreciation arises from various causes, but among manufacturers it is generally confined to the loss by "wear and tear." Thus in the statutes under which the inland revenue is collected the commissioners who make the assessments for income tax are authorised "to allow such deductions as they may think just and reasonable as representing the diminished value by reason of wear and tear during the year of any machinery or plant used for the purposes of the concern." But a reduction in value may arise from other causes. For in arriving at the present capital value of machinery or plant it must also be considered whether any of it has become obsolete or has, owing to changes in trade, a less earning power than formerly. Alterations in value may be dealt with in various ways. The most usual is, to write off in each annual account a percentage from the capital value of the preceding year, this percentage either differing for the various classes of plant such as buildings, boilers, machinery, and horses, or being an average rate over the whole. This system of dealing with a constantly reducing value spreads the depreciation over a long period. For 5 per cent so applied would, in 20 years, still leave 36 per cent of the original value. The rate of depreciation may have to be varied. Thus if owing to active trade a manufactory has been working longer hours than usual, or the machinery has been forced to meet an exceptional demand, it is proper and prudent to write off more than usual for wear and tear. On the other hand dull times and short hours may justify a lower rate than usual, though it must be remembered that buildings and plant deteriorate even when idle. Notwithstanding this annual depreciation the tendency of most concerns is to grow in value owing to the expenditure for extensions, which may under such a system be properly added to the capital value. But whatever the methods adopted for estimating and stating the depreciation, it may be said in regard to any of them that the object in view is so to treat the nominal capital in the books of account that it shall always represent as nearly as possible the real value.

Occasional valuations may serve as a useful check in the correctness of a depreciation system, and it is frequently from the inconvenience and cost of making them that they are not made every year. An error may be in either direction. Where there is only one proprietor or few partners, an excess of caution may do no harm, the real value remaining even if too much is written off for depreciation in the books of account. But such an excess is unfair in the case of shareholders who may have only a fleeting interest in the undertaking, and who, not being made acquainted with the details of the annual "profit and loss" accounts, may suffer a diminution of income and a reduced value in their shares for the sake of those who will be shareholders hereafter. Where the nature of the property may render it difficult to estimate correctly the rate of depreciation, the case is sometimes met by establishing a RESERVE (*q.v.*) which, standing separately in the accounts, shows to all concerned a fund available for division in the future. Sometimes depreciation in value is met by the establishment of a SINKING FUND (*q.v.*) Thus the tenure of land or buildings may be shortening; the exclusive patent rights of valuable machines or processes may have only a short time to run; or the minerals in a mine may be consuming. In each of these cases a fund is necessary to give back the capital that has been originally embarked in the undertaking. In some cases the gross earnings are divided each year as income among the shareholders, each of whom is left to provide his own sinking fund. So long as the facts are clearly known to all concerned one system may be as good as the other. In large permanent undertakings like railways there is generally no separate system of depreciation, it being deemed that the value of the property is shown to be maintained by the continual working and by taking care that expenditure for renewals is all defrayed out of current earnings.

But while, in a large undertaking like a railway, the annual expenditure for repairs and renewals may fairly balance the deterioration that is continually going on, smaller concerns

not having so extensive a plant may be subjected to irregular outgoings that will disturb the annual average rate of profit. In some such cases instead of providing beforehand for exceptional renewals by a depreciation rate or reserve fund, the necessary money is borrowed and charged to a SUSPENSE ACCOUNT (*q.v.*) which is paid off by instalments in future years. This is obviously unsound where the expenditure has merely maintained or restored the earning power of the concern, and has not increased it.

E. M.

DEPRECIATION OF MONETARY STANDARD may be defined as the lowering of the value of money in relation to goods. The conception of a change in the value of the thing in relation to things in general is not quite clear; and has been pronounced invalid by high authorities. Thus J. S. Mill speaks of the "necessary indefiniteness of the idea of general exchange value—value in relation not to some one commodity, but to commodities at large" (*Political Economy*, bk. iii. ch. xv. § 1). "We cannot even suppose any state of circumstances" in which the idea would be definite. Yet, as Dr. Sidgwick has observed (*Political Economy*, bk. i. ch. ii.), the same Mill, in the chapter next but one preceding, says that "during the last five years of our long struggle with Napoleon . . . the value of the standard itself was considerably raised"; meaning "an enhancement in the value of gold" in relation to commodities. With a like appearance of inconsistency Ricardo has some passages like the following:

"It has indeed been said that we might judge of its value [the value of a currency] by its relation not to one but to the mass of commodities. . . . Such a test would be of no use whatever. . . . To determine the value of a currency by the test proposed . . . is evidently impossible" (*Proposals for an Economical and Secure Currency*, § 2).

"When we speak of the high or low value of gold, silver, or any other commodity in different countries, we should always mention some medium in which we are estimating them. Thus, when gold is said to be dearer in England than in Spain, if no commodity is mentioned, what notion does the assertion convey? . . . Gold appears dearer or cheaper in Spain as the fancy of the observer may fix on the medium by which he estimates its value" (*Political Economy*, ch. xxviii.). But elsewhere Ricardo implies the conception which is in question: "In saying that gold is at a high price we are mistaken; it is not gold, it is paper which has changed its value. Compare an ounce of gold, or £3 : 17 : 10½, to commodities, it bears the same proportion to them which it has before done" (*High Price of Bullion;* Works . . . by M'Culloch, p. 279, ed. 1888). The difficulties urged by Ricardo and J. S. Mill show that variations in general prices cannot be precisely determined. That it is not wholly indeterminate their admissions show—backed by the reasoning of other theorists, especially MALTHUS and JEVONS (*q.v.*), and the evidence of ordinary language. That there was a depreciation of money in relation to things in general, after the influx of gold from California in this century, few deny; that there was such a depreciation after the influx of silver from America in the 16th century, all admit.

Depreciation as here defined is theoretically ascertainable by observing the variation of the price of each of a number of articles, and taking the average of those variations. For discussion of the different methods of taking such an average see INDEX-NUMBER.

A summary method of ascertaining depreciation is afforded by the use of some one typical article as a *measure of value*—"a measure of the power of purchasing generally, or of commanding such important commodities as the necessaries and conveniences of life" (Malthus, *Measure of Value*, p. 2). As the article best fitted for this purpose Malthus selects *Labour* (*Pol. Econ.*, 2nd ed. ch. 2.—J. Bonar, *Malthus and his Work*, bk. iii. ch. 2). According to this view the depreciation of money is measured by the diminution in the quantity of labour which can be purchased for the same amount of money. Corn also has been proposed as a measure of value when the comparison is between distant periods (Adam Smith, *Wealth of Nations*, bk. i. ch. v.) An average between corn and labour is proposed by Malthus in the first edition of his *Political Economy*. In this connection should be mentioned Mill's statement: "To obtain an approximate measure by which to estimate value in use, perhaps nothing better could be chosen than one day's subsistence of an average man, reckoned in the ordinary food consumed by the class of unskilled labourers" (*Pol. Econ.*, bk. iii. ch. xv. § 2).

A measure proper for thus determining the depreciation of a debased coinage or an inconvertible paper money is bullion. A means of applying this measure is afforded by the EXCHANGES (*q.v.*) As Ricardo says: "While the circulating medium consists . . . of coin undebased, or of paper-money immediately exchangeable for undebased coin, the exchange can never be more above or more below par than the expenses attending the transportation of the precious metals. But when it consists of a depreciated paper-money [or of a clipped coinage] it necessarily will fall according to the degree of depreciation. The exchange will therefore be a tolerably accurate criterion by which we may judge of the debasement of the currency" (*High Price of Bullion;* Works, p. 274). It was thus that the depreciation of the

paper-money in England during the latter part of the Napoleonic war was shown to be from 15 to 20 per cent. The accuracy of such determinations countenances Ricardo's dictum that "it can only be by a comparison to this standard that . . . depreciation may be estimated." *Depreciation proper* perhaps the lowering of value thus measured might be called; it is not necessarily coincident with depreciation in the general sense above defined. Thus Mill in a passage above cited (*Pol. Econ.*, iii. 13, 6) states that in the Napoleonic war "paper, though depreciated relatively to the then value of gold, did not sink below the ordinary value at other times either of gold or of a convertible paper." Professor Walker adduces evidence that the premium on gold, the depreciation of the paper currency in Ricardo's sense, "does not measure the advance of general prices," the depreciation in the other sense of the term.

The propriety of the definition here adopted is that from it flow the chief consequences for good or evil which are attributed to depreciation. (1) A first approximation to an estimate of those consequences is that they are insignificant. Money being regarded as consisting of counters, it is indifferent whether there are more or fewer such. "Let us suppose that to every pound or shilling or penny in the possession of any one another pound, shilling, or penny were suddenly added . . . this increased value would do no good to any one; would make no difference, except that of having to reckon in higher numbers" (Mill, *Pol. Econ.*, bk. iii. ch. viii. § 2, and cp. ch. xiii. § 4). (2) A less abstract view takes into account the disturbance of contracts for deferred payments; the gain to debtors and loss to creditors, and persons with fixed incomes. As producers often belong to the former class, it has been held that, when prices are rising, "everything takes a new face; labour and industry gain life" (Hume, *Essay on Money*). On the other hand Adam Smith says of a debased coinage in a passage which, according to Ricardo, is "equally applicable to a depreciated paper currency" (*High Price of Bullion*; Works, p. 289), "it occasions a general and most pernicious subversion of the fortunes of private people; enriching in most cases the idle and profuse debtor at the expense of the industrious and frugal creditor" (*Wealth of Nations*, bk. v. ch. iii. p. 423, ed. M'C.) Different effects doubtless attend different species of depreciation. That which is due to government tampering with the currency is probably the most deleterious. (3) A nearer approximation to an estimate of the disturbance caused by the depreciation of a currency is obtained by taking into account the different degrees in which the prices of different articles are raised. Inconvertible paper-money issued by the government of a country at war is apt to swell first the prices of war-materials. Again a change in the agio of gold in relation to inconvertible paper may make itself felt in articles of export and import sooner than in the inland trade (see Adolph Wagner, *Russische Papierwährung*, and Krämer, *Papiergeld in Oesterreich*, 1885). The following seems to be the order in which different classes of articles are in general reached by a course of depreciation: first, wholesale commodities; second, retail commodities; third, labour. (4) A peculiar evil of a depreciated paper-currency is that its value is usually fluctuating. The evils of such fluctuation are well stated by Professor Walker (*Wages Question*). There is reason to think that a fluctuating currency favours the large capitalist, who is best able to weather such disturbances. In the case of clipped coinage ill effects are produced by the difference in the value of the coins according as they are more or less worn (Walker).

[For the general principles of the subject see the leading authorities which have been cited. Additional particulars relating to the consequences of depreciation may be found among the following:—W. Bela Foldes, *Ursachen und Wirkungen des Agios*, Konrad's *Jahrbuch*, 1882.—H. S. Foxwell, *Irregularity of Employment and Fluctuation of Prices*, 1886.—W. S. Jevons, *Investigations on Currency and Finance*, p. 77 *et seq.*—K. Knies, "Geldentheurund," *Zeitschrift für die Gessammte Staatswissenschaft*, 1858.—Krämer, *Papiergeld in Oesterreich*, 1885.—Marshall, *Third Report on Industrial Remuneration*, Appendix C, vol. ii. p. 422.—Scharling, "Detailpreise," Konrad's *Jahrbuch*, 1886.—Vita di Marco, *Moneta e Mezzi*, 1885.] F. Y. E.

DEPRESSION, AGRICULTURAL. Industrial enterprises are so inextricably interlaced that agricultural depression cannot be dissevered from commercial depression. A glance over the last twenty-five years reveals one prime factor in existing financial and social disturbances and many concurrent causes. The prime factor is the substitution of machines for men and the consequent increase in the facilities for the production and rapid distribution of produce. One tendency of this development of labour-saving agencies, sea and land carriage, and telegraphic communication, has been to extend uniformity of prices, to increase the stress of foreign competition, to render depression not local but almost universal. Subject to differences produced by commercial policy, the civilised world has now but one market, and suffers or prospers together. Another tendency, which has little direct bearing on agricultural depression, has been to supply the world so completely with manufactured articles that a danger of a glut arises. A third has been to disturb the parts played by capital and labour respectively. First, handicrafts and domestic manufactures were swallowed up by the machinery of individual capitalists; then, the last was in turn

displaced by associated capital, combined in increasing masses till little is left but the largest establishments. Small shops, small factories, small banks, small sailing ships for ocean transport, are replaced by stores, gigantic syndicates, joint-stock companies, huge ocean steamers. A fourth result has been the destruction of great quantities of what once was accounted wealth. To take one illustration only. The opening of the Suez Canal extinguished the sailing tonnage constructed to make the voyage round the Cape, and the new ships that were built to take the place of the old sailing vessels were displaced five years later by steamships. A fifth result has been temporary or permanent diminution of employment. For instance, the application of steam and machinery on farms, wharves and docks, on shipboard, and in factories, has thrown enormous numbers out of work. The saving effected in different departments of industrial effort by this displacement of muscular labour, this substitution of machines for men, varies from 80 per cent in the shoe trade to 40 per cent in the manufacture of machinery (*United States Bureau of Labour Report*, 1886). Agricultural labourers are least affected by this effect of the development of labour-saving agencies, because in many farming operations, and especially in the care of stock, men are needed. On the other hand, agriculturists have felt more severely than manufacturers the pressure of foreign competition which has resulted from the increased facilities of sea and land carriage. The values of agricultural imports rose between 1866 and 1883 from £77,069,431 (average of five years 1866-70) to £157,520,797.

So vast a change necessarily produced distress. Other causes intensified the crisis. Prices were disturbed by appreciation of gold in relation to commodities and depreciation of silver relatively to gold. An exceptional demand for gold and a falling off in the supply (*Report of the Silver Commission*, 1876; evidence of Sir Hector Hay) increased the purchasing power of the metal and lowered prices. At the same time the depreciation of silver, absolutely in relation to commodities in general, owing to the increased yield of silver mines, and relatively to gold, owing to the enhanced value of that metal, disturbed the trade with countries which employ silver or silver and gold as their standards of value. A series of commercial disasters further aggravated the depression. The prosperity of the country reached its height in 1866. Since that date, in spite of temporary inflations, it has never reached its former level. The opening of the Suez Canal (1869) not only brought Indian producers into competition with English, but broke down the system of warehousing and distribution of produce by which England had hitherto benefited. With the year 1870 began an inflation of prices. The sudden withdrawal of France and Germany from industrial competition enabled England to increase her exports by 10 millions; the requirements of the Suez Canal gave extraordinary stimulus to the shipbuilding trade; the railway development in Germany and America created exceptional demand for coal and iron. In 1874 the reaction began from inflated prices. The decline of the coal and iron trade, the stoppage, partial or absolute, of cotton mills, disputes between masters and men, bad harvests, complications arising out of the Eastern question, the default on the Turkish debt, depressed every industry. But the extent of the weakness existing in some parts of our commercial system was not revealed till the failures of the city of Glasgow, Caledonian, and West of England Banks in 1878. Various causes combined to prolong the reaction against the inflated prices of 1871-73 and the abnormal demand then made for labour and shipping. Of these causes some were foreign, some domestic, some temporary, and some permanent. Fluctuations in the standards of value, hostile tariffs, stagnant trade, keenness of competition, unsettled politics, are the principal causes that come from abroad. At home the prolongation of the depression is attributed to the slow adjustment of supply and demand, owing to the accumulation, between 1870 and 1873, of savings not invested, to over-trading, trades' unions, deterioration in quality of production, commercial failures, mutual distrust, wet or sunless seasons. Of these causes only one, foreign competition, with low prices as its consequence, must necessarily be permanent.

In the first part of the period under review the collapse of agriculture was primarily due to bad seasons; in the second to low prices. An inclement autumn in 1872, and an unfavourable spring, neutralised the fine harvest weather of 1873. 1874 was the last of a cycle of prosperous seasons. Yet rents continued to rise for at least two years longer. From 1875 to 1877 there was a succession of bleak springs and rainy summers, producing short cereal crops of inferior quality, mildew in wheat, mould in hops, blight in other crops, rot in sheep, disease in cattle, deteriorating the finer grasses of pastures, throwing heavy lands into foul condition. Upon British farmers, thus enfeebled by three bad seasons in succession, fell the growing force of foreign competition, which was suddenly quadrupled by the extension of wheat areas in America and India, and the new facilities of sea and land transport, and the low freightage rates of commercial depression. The sunless ungenial 1879 produced the worst harvest of the century. Since 1882 seasons have proved less uniformly inclement, and trade has shown signs of revival. But farmers have lost their capital, and are confronted by the problem of low prices and the difficulty of holding their own against the pro-

duce of rich unexhausted soils. It is probable that for many years to come this competition in corn and provisions will rather increase than decrease.

The results of this collapse of agriculture have been disastrous to the landed interests. The increase in the value of land for the last half century has been lost. The annual income of landlords, tenants, and labourers was less in 1886 (see Sir James Caird's evidence before the commission on the depression of trade) than in 1876 by £42,800,000; of this sum it has been calculated that landlords and tenants lost £20,000,000 each, and labourers £2,800,000. Landlords have reduced their rentals to the point at which they stood in 1836; farmers have lost 30 to 50 per cent of their capital (Sir James Caird's *Victorian Agriculture*); the money wages of labourers have fallen and many have been dismissed from employment. The land has been injured by bad seasons and weak farming; the live stock of the country has been diminished; quantities of crops have been ruined or deteriorated by the weather.

The loss to the agricultural classes is enormous. It is more difficult to estimate the absolute loss to the nation, or the general effect of agricultural depression upon commercial prosperity. The nation suffers by the diminution in the purchasing power of a class, by the destruction of capital through bad harvests, by the restriction in the demand for labour, and by the removal of capital from one industry to another, especially if it be a removal from within to without its boundaries. It does not at once suffer as a nation from the low prices of agricultural produce. Thus in 1851 the supply of meat per head was 91 lbs., and 317 lbs. of wheat were supplied to a population of 27 millions at a cost of £53,500,000. In 1885 115 lbs. of meat were supplied per head at a greatly reduced cost, and 400 lbs. of wheat to 36 millions of people at a cost of £43,700,000. Here then, so long as the money in payment for this food is earned in other industries, the nation profits by the low prices which ruin agriculturists. But it is a question whether there is not a point at which the wider interests of the nation suffer from cheapness of food, if the price becomes so unremunerative as to drive land out of cultivation. As to the general effect upon commercial prosperity, the depression of agriculture destroys a considerable portion of the capital engaged in land, and locks up another in unrealisable investments; tends to congest the labour market by disturbance of the relations of supply and demand for agricultural labour; drives capital from land into other investments, and, by restricting the field, adds to the over-production of manufactured articles.

[The following books and pamphlets treat of the practical side of the subject: Sir James Caird, *The Landed Interest and the Supply of Food*; and "Victorian Agriculture" (in the *Reign of Queen Victoria*, vol. ii.).—R. E. Prothero, *The Pioneers and Progress of English Agriculture. Agricultural Depression* (Shrewsbury, 1879).—F. Blood, *Enquiry into the Causes of the Depression of Trade and Agriculture.*—H. Chaytor, *Agricultural Depression.*—J. L. Cowland, *Agricultural Depression in Devon and Cornwall.*—E. G. Man, *Commerce and Prospects of England.*—A. J. Burrows, *Agricultural Depression and how to meet it.*—S. Mason, *Agricultural Depression.*—A. A. Walton, *Agricultural Depression.*—Sir J. B. Lawes, *Fertility.*—R. G. Webster, *England's Colonial Granaries.*—Charles Whitehead, *Fruit-Growing in Kent.*—And the works referred to in article on AGRICULTURE IN ENGLAND.

On the politico-economical side of the subject, A. Mongredien, *History of the Free Trade Movement.*—F. J. B. Hooper, *Free Trade and English Commerce by Mr. Mongredien answered.*—F. Bastiat, *Popular Fallacies regarding Trade and Foreign Duties.*—Richard Gill, *History of Free Trade.*—W. F. Ecroyd, M.P., *A Speech in Reply to the Attack upon Fair Trade by Mr. Gladstone.*—Sir E. R. Sullivan, Bart., *Free Trade Bubbles.*—Sir T. H. Farrer, Bart., *Free Trade and Fair Trade* (3rd ed. 1886).] R. E. P.

DEPRESSION OF TRADE. The royal commission appointed in Great Britain in the year 1885, to inquire into this subject, thus defined depression of trade, in the report adopted by the majority of its members:—"A diminution, and in some cases an absence, of profit, with a corresponding diminution of employment for the labouring classes." The particular instance of this depression into which the commission made inquiry was that dating from the year 1875, which was so conspicuously marked in agriculture; but the statement quoted from the report may be taken as a description of what is commonly meant and understood by depression of trade. The phrase, however, is used very freely and very loosely; and it is therefore best to anticipate more particular discussion of the subject by a few considerations which ought to be kept in mind, and which the above definition helps to explain. (1) All classes are not affected by depression of trade. It is to be observed that, in the first instance at least, profit, and profit alone, is by hypothesis curtailed. If wages suffer, they suffer through the lack of employment which results from the withdrawal of capital found to be invested unprofitably. But it is possible that profit might fall simply through the exertions of the labourers to obtain a larger share of the product as wages; and where the labourers are united enough to accomplish this, it follows of necessity that if by Trades Unions they have to maintain the "out of works," they must be able to check competition among themselves. It might be, therefore, that although fewer labourers were employed in a case of depression, those in employment might not suffer but gain. Again,

all persons who are in receipt of fixed salaries or incomes do not suffer from depression of trade; but, inasmuch as one significant phase of depression is a general reduction in prices, they are gainers and not losers. (2) Although the interdependence of industries is such that a diminution of profit in all may be expected to be simultaneous, or nearly so, yet it must be remembered that one industry, or class of industries, may be for a time subject to severe depression while others are flourishing. The retail and carrying trades are in a different position with regard to the earning of profits from the producing trades; for their percentage of profit depends, not on the ratio between cost of production and price, but on the quantity of custom and the number of transactions they engage in. (3) Depression may affect certain traders in one industry, and may not affect others. During the series of bad years, which, like Pharaoh's lean kine, followed and devoured the years of prosperity in which our trade went up by leaps and bounds, there were plenty of people, even in England, who were amassing fortunes in business all the time. Those who are unsuccessful are apt to lament the falling-off of business as the cause of their misfortunes; while the more lucky make no noise about their prosperity. It would be easy, in any trade or profession, to collect a multitude of evidence from people who could truly say their business was depressed, in the sense applied to the word by the commission. (4) We must be careful to discriminate between a genuine depression and that gradual process of thinning down profit which arises from the natural tendencies of our civilisation, and which is not temporary, but permanent. The slow but certain fall in the rate of interest, the larger share demanded and gained by labour, the increased competition, through the spread of education, for the earnings of business management, and the consequent reduction of these earnings, all combine to effect a chronic decline in profit.

The existence of a genuine depression at times, apart from all the above considerations, is undoubted. In Great Britain there have been numerous instances of such depression during this century, the last of which began about the year 1875, and was the subject of the investigations of the royal commission of 1885 mentioned above. But the earlier phases of depression of trade offer in one respect a distinct contrast to the most recent—a contrast which seems to be symbolic of the modern conditions of commerce. While in former times trade was depressed after a period of great inflation followed by a *crisis*, the depression of late years was preceded by no crisis; and while former stages of depression passed away with some rapidity and gave place in turn to a period of inflation, the revival of trade which ultimately occurred after 1885 took a long time to become apparent, and was very gradual. This fact would seem to bear out the contention that trade is on a sounder footing than it used to be, however hardly depression may bear on traders; and also that the ten-yearly cycle through which British commerce has been wont to pass has given way to a more equable form of progress. (For an account of the earlier cycles in the present century, see art. CRISES. Also Leoni Levi, *History of British Commerce*.—Tooke's *History of Prices*.)

The evidence taken by the royal commission was voluminous, and was derived from representatives of all classes of the community; and from it we can gather the leading features of the depression, as it affected the more important industries. (For the effects on agriculture, see DEPRESSION, AGRICULTURAL.) As to trade in general, there was a concurrence of opinion that profits had been lowered, while wages as a rule had remained firm; but this latter proposition must be qualified by the fact that to a certain extent the employment of labour, particularly in some industries, had been less regular, and the real wages of labour therefore below the nominal rate. The rate of interest had also fallen. It was found that competition from abroad, both in our own and in foreign markets, had of recent years become keener. It was also shown in the evidence that the volume of foreign trade had increased largely even during the depression, but that in the matter of values the increase was small in comparison with that of earlier periods. It was shown that the income-tax assessments under schedule D (trades and professions) had increased very considerably since the beginning of the depression; but that the actual number of persons with large incomes had decreased by about 5 per cent, and of those with moderately large incomes in much the same proportion, while incomes between £200 and £1000 a year had increased 33 per cent. It was given in evidence by a number of witnesses that there was a great and apparently a permanent tendency in the supply of commodities to outrun the demand, and that this had given rise to a very general feeling that over-production, as it is called, was the chief cause of the depression. And with regard to labour, it was discovered that while the agricultural labouring population had largely diminished in numbers, by reason of their employers' losses and the throwing of land out of cultivation, neither the shipping nor the textile industries showed any sign that the surplus labour-population had found a place in these large fields of employment.

From these data, supplemented by many minor and incidental points disclosed in the course of the evidence, it is possible to arrive at the most diverse conclusions as to the causes

of the depression, and, it follows, as to the remedies which ought to be applied, if any. What may be called the most pessimistic side of the discussion, which was supported by numerous witnesses, was embodied in a separate report signed by a minority of the commissioners. It is curious that in one important matter the view taken by this minority coincides with the most extreme optimistic opinion; for, according to both, the so-called depression is not a passing phase of commerce, but a permanent change in the economy of the state. Those who hold the pessimistic view were able to point to the fact that an immense quantity of evidence had been given before the commission which pointed to a diminished employment of productive machinery, especially in the textile industries; also to the increase in the value of imports of textile manufactures and the decrease in the value of exports of the same article. The loss —partial or total—of certain foreign markets for British goods is another point which was urged with much force; the inference being that foreign governments, having found that high tariffs were successful in shutting English goods out of these markets, would increase rather than diminish them:—a view which the so-called McKinley Act, passed in the United States since the commission finally reported, would undoubtedly have been used to strengthen, had it existed at the time. It was pointed out by those who held the opinion referred to that increase even in the value of trade in certain commodities is no proof of the flourishing condition of such industries. It was shown, for example, that in the ten years preceding 1883 the value of the yearly export of coal and iron had increased by more than £17,000,000; while it was notorious that the coal and iron trades had been suffering greatly during that period. The remedies proposed are generally in the direction of import duties of one kind or another. Tariff duties on manufactures coming from abroad are the most extreme form of this proposal; but countervailing duties in order to balance the effect of bounties when they are given, and a fiscal union with India and the colonies, on the basis of a protective tariff levied against goods coming from other countries, are more frequently recommended. The extreme view on the other side was not represented on the commission; but this may possibly have resulted from the fact that a number of the originally-appointed commissioners did not see their way to accept nomination. That view is well expressed in a work entitled *La Crise*, by M. Pirmez. According to this opinion the depression of trade is merely a temporary accentuation of an economic movement which has been slowly going on for years, and which is destined to go on until the relations between capital and labour are completely changed. The fall in profits is admitted, and also the fall in interest; but it is pointed out that these events happen not in one country alone, but in all countries; and that therefore the fear of the desertion of any country by capital and consequent diminution of wealth and employment is merely illusory. The wages of labour, it is maintained, do not fall, but rise; and it is asserted that the whole tendency of the process of which the depression is a phase is to reduce the interest on capital merely lent or invested, to reduce the profits of capital employed in business, and to reduce the wages or earnings of business management. This means the wider and more equal distribution of wealth, and is therefore regarded as a matter not of apprehension, but of congratulation. It may be observed that one of the proofs largely relied on by those of this opinion,—founded on an analysis of the income-tax returns,—is by no means conclusive. These returns show a gradual decline in the number of people with large revenues, and an increase in the number whose incomes are moderate. This does not in any way prove that wealth is more widely distributed, unless that conclusion is borne out by independent evidence. If at one time twenty men in one trade make £5000 a year, and four hundred under £5000, and if in ten years' time the figures are one above £5000 and 419 below it, it is impossible to say, without more proof, whether that result is due to a more even distribution of profit, or an accumulation of business and capital in a single hand, to the detriment of other traders.

Intermediate between these two extremes a great variety of views prevail. The most general is that the depression of 1874-85 was a genuine misfortune, shared no doubt by England with many other countries, but bearing with particular harshness on England, because of the great strides made by foreign competition in many branches of industry which were contemporaneous with it. Those who hold this opinion do not regard the depression as permanent; and the events of the years which have followed the publication of the commission's report go far to bear out their views. The great demand for goods consequent on the Franco-German war is not unnaturally held to be the original cause of what is called overproduction, but is truly production of the wrong things. So greatly do modern modes of manufacture stereotype industry, and so curiously do the laws relating to joint-stock companies tempt to enterprise which offers a great temporary advantage but no permanent benefit, that we constantly see capital invested so that it cannot be withdrawn without ruin in some industry where it is equally unable to produce a fair return. The demonetisation of silver by Germany at the time of the suspension of the Latin league also contributed, by disturbance in prices to the difficulties of traders. Those

who hold the moderate view do not believe that what is injurious to capital is necessarily of advantage to the labourers, and they believe that some kinds of labour suffered severely during the recent depression. They do not believe that any violent remedies, such as import duties, would be serviceable, but rather look for such measures as amendment of the Limited Liability Companies' Acts for safety in the future, coupled with improved technical education and the spread of knowledge of the world's markets. In regard to the matter of countervailing duties a considerable difference of opinion prevails, many who are adverse to any form of protection being favourable to such an impost where an important industry is threatened with grievous loss or extinction.

[The report of the above-named commission contains an immense amount of information, both from English and foreign sources, bearing on this subject, and is by far the best compendium from which the question may be studied. Mr. Giffen's *Growth of Capital*, published since the report, forms an excellent statistical commentary.] M. G. D.

DEPUTY. In law, one who exercises an office or other function in another's right, whose forfeiture or misdemeanour shall cause him whose deputy he is to lose his office. A man cannot appoint his deputy in all cases, but only when his own grant of the office justifies him in so doing (Cowel ed. 1727). In another sense the term is used of offices of state, and most anciently of the exchequer and mint. Thus in the absence of the king's treasurer on foreign service a deputy was appointed by commission, and in later times this practice was extended to many other fiscal offices. In certain cases, such as the hereditary offices of the king's court and exchequer, the holder in fee could appoint a deputy (*Dialogus de Scaccario*, i. 3; Madox, *Hist. of the Exchequer*, ch. xxiiij.) H. Ha.

DE QUINCEY, Thomas, the son of a prosperous merchant, was born 1785, and, after a brilliant literary career, died 1859. That a genius of so high an order of imagination found the abstract reasoning of political economy "Not harsh and crabbed as dull fools suppose" is instructive. The fascination which the severer aspect of the science had for De Quincey is expressed in that passage of the *Confessions of an Opium Eater* where the writer describes how he was aroused from lethargy by the study of Ricardo's *Political Economy* (1818). The fruit of that study appeared in the *Dialogues of three Templars* (1824), a brilliant exposition and defence of the Ricardian theory of value. The paradox, for so De Quincey admits it to be in a good sense, that real value is measured by quantity of labour, that "a million men may produce double or treble the amount of riches, of 'necessaries, conveniences, and amusements,' in one state of society that they could in another, but will not on that account add anything to value" (Ricardo, *Political Economy*; chapter on "Value and Riches"), is expounded by the disciple even more fearlessly than by the master. "My thesis," says X, the Socrates of the dialogues, who represents the author's views, "is that no such connection subsists between the two [the quantity obtained and the value obtaining] as warrants any inference that the real value is great because the quantity it buys is great, or small because the quantity it buys is small." "I have a barouche," says the objector, "which is worth about 600 guineas at this moment. Now, if I should keep this barouche unused in my coach-house for five years, and at the end of this term it should happen from any cause that carriages had doubled in value, *my* understanding would lead me to expect double the quantity of any commodity for which I might then exchange it, whether *that* were money, sugar, besoms, or anything whatsoever. But *you* tell me no." . . . "You are in the right," replies X, "I *do* tell you so . . . . If A double its value, it will not *therefore* command double the former quantity of B" [B representing any assignable thing] (Fourth Dialogue). The intelligent Bailey (*q.v.*) might well be stirred by these startling deductions to attempt a reply (preface to *Critical Dissertation*). In the later dialogues Ricardo's theory of value is defended against Malthus. This controversy had been commenced in the "Measure of Value," published in the *London Magazine* for December 1823. An article on "Malthus" in an earlier number of the same journal contains a mild attack on the theory of population. Some of the points are elucidated in a letter to Hazlitt which appeared in the *London Magazine*, December 1823. To the same period belongs a sort of *éloge* of Ricardo, which De Quincey, shortly after the death of his revered master, contributed to the *London Magazine*, March 1824.

De Quincey's latest and greatest economical work is the *Logic of Political Economy* (1844). The more original portion of this book may be described as a vindication of the part played by utility in the determination of value. The cause is just and the reasoning ingenious; yet the censure with which J. S. Mill tempers his copious citation from this discourse seems deserved (*Pol. Econ.*, bk. iii. ch. ii. § 1, and § 3 *end*). Certainly De Quincey's illustrations are perfect. The rhinoceros which in the reign of Charles II. was sold for a figure far above the cost of importation, the *Valdarfer* copy of Boccaccio which Lord Blandford bought for £2240 and afterwards, when in pecuniary embarrassments, was sold by auction and purchased for £750 by Lord Spencer, whom he outbid at the first sale; Popish reliques which had a high value, but no cost of production (p. 60 *et seq.*, ed. 1844);—these and other "shining

instances" throw light upon an obscure subject. The "dry light" of logic is intensified by a coruscation of wit. Sometimes, however, the doubt occurs whether the writer was as competent to point a moral as to adorn a tale. Thus, in the case of the pearl-market, and the vividly-pictured slave-market (*ibid.* p. 77 *et seq.*) is it correctly stated that for "the *plebs* amongst the slaves," and the "ordinary pearls," value is determined by cost of production, while "the natural aristocracy amongst the slaves, like the rarer pearls, will be valued on other principles"? (see DIFFICULTY OF ATTAINMENT). Even the famous parable of the musical snuff-box (cited by Mill, *Pol. Econ.*, bk. iii. ch. ii. § 1) is not rightly interpreted by its author. It is not in general true of a bargain between two isolated individuals (see COMPETITION) that the price will be "racked up to U" (*ibid.* pp. 25-27)—the measure of the "intrinsic worth of the article in your individual estimate for your individual purposes"; in other words its TOTAL UTILITY (*q.v.*) to the purchaser (cp. Mill, *loc. cit.* § 1 *end*). The following passage seems more correct. "The purpose which any article answers and the cost which it imposes must eternally form the two limits within which the tennis-ball of price flies backwards and forwards. Five guineas being, upon the particular article X, the *maximum* of teleologic price, the utmost sacrifice to which you would ever submit, under the fullest appreciation of the natural purposes which X can fulfil, and then only under the known alternative of losing it if you refuse the five guineas, this constitutes the one pole, the aphelion, or remotest point to which the price for you could ever ascend." The other limit is fixed by the cost of reproduction. These are "the two limits between which the price must always be held potentially to oscillate" (*ibid.* pp. 105, 106). But even here it is not quite clearly stated that, in the absence of competition, the terms are indeterminate; the "tennis-ball" may fall anywhere between the extreme limits. It is nowhere stated that in the presence of competition the upper limit is formed, not by *total*, but FINAL UTILITY (*q.v.*) De Quincey is far removed from the recent theorists to whom he bears a superficial resemblance by his not having attended to final utility and cognate conceptions. The connection between demand and value is denied by him on the strength of exceptional though striking instances (*ibid.* p. 231, quoted by Mill, bk. iii. ch. iii. § 2). "A crazy maxim," he says, "has got possession of the whole world: viz. that price is, or can be, determined by the relation between supply and demand." This imperfect conception of supply and demand is the special object of Mill's severe remarks on De Quincey. Mill's censure is endorsed by Mr. Leslie Stephen in his article on De Quincey in the *Fortnightly Review* (1871). Mr. Shadworth Hodgson in one of his *Outcast Essays* has traversed this unfavourable verdict.

Whatever be the fate of De Quincey's cardinal tenets, it is certain that his occasional suggestions, the minor pearls of his discourse, enhanced as they are by a setting of consummate literary perfection, will preserve a lasting worth. Some important corrections of Ricardo's expressions deserve particular notice. De Quincey perceived, just as clearly as more recent critics, that "the current rate of profits, as a thing settled and defined, must be a chimera." He exposes "the puerility of that little receipt current among economists, viz. unlimited competition for keeping down profits to one uniform level. . . . Everybody must see that it is a very elaborate problem to ascertain even for one year, still more for a fair average of years, *what* has been the rate of profits upon the capital employed in any one trade" (*ibid.* p. 237 *et seq.*) What more could Cliffe Leslie say? De Quincey complains much that Ricardo, while insisting on the tendency towards the degradation of soils (the LAW OF DIMINISHING RETURNS, *q.v.*), has not sufficiently emphasised the counter-tendency towards improvement in the arts of cultivation. "The land is travelling downwards, but always the productive management of land is travelling upwards" (*ibid.* p. 239). De Quincey discerns what a handle is afforded by Ricardo's partial statement to "the systematic enemies of property" . . . "the policy of gloomy disorganising Jacobinism." Rent is referred by De Quincey not to the "indestructible," but the *differential* powers of the soil. Rent is defined as "*that portion of the produce from the soil* (or from any agency of production) *which is paid to the landlord for the use of its differential powers as measured by comparison with those of similar agencies operating on the same market.*" The parenthesis exemplifies the pregnancy of De Quincey's occasional suggestions. In presenting the theory of rent, De Quincey employs an admirable geometrical construction. As in the construction which Prof. A. Marshall has made familiar (*Economics of Industry*, bk. ii. ch. iii.), the *ordinate* in De Quincey's diagram represents produce. But the *abscissa* represents not doses of capital but qualities of soil. The two constructions have been combined by the present writer in an illustration of the *abstract theory of rent*, contributed to the British Association (Report, 1886). Referring to the use of diagrams, De Quincey well says:—"A construction (*i.e.* a geometrical exhibition) of any elaborate truth is not often practicable; but, wherever it is so, prudence will not allow it to be neglected. What is called *evidentia*, that sort of demonstration which shows out . . . is by a natural necessity more convincing to the learner. And, had Ricardo relied on this constructive mode of illustrating his chapters upon

rent and upon wages, they would not have tried the patience of his students in the way they have done." Had De Quincey pursued his mathematical studies further, and applied the conceptions of the infinitesimal calculus to the theory of value, he would have escaped his capital error of having confused integral (or TOTAL, *q.v.*), with differential (or final) utility. If he had worked with dU, instead of U, he might have anticipated Jevons.

All the works which have been referred to will presumably be included in *The Collected Writings of De Quincey*, by Professor Masson, 1890. In the American edition of 1877, called the Riverside edition, all are to be found except the letter in reply to Hazlitt (*London Magazine*, December 1823), and the *éloge* of Ricardo (*ibid.* March 1824). These are reprinted in *De Quincey's Uncollected Writings* by J. Hogg, 1890. The Edinburgh edition of De Quincey's works in sixteen vols., completed 1871, omits also the *Logic of Political Economy*. Earlier collections are still more incomplete. F. Y. E.

DERELICT. The legal quality of derelict was recognised by the Roman Law (Dig. i. xlvij. Tit. ij. De Furtis). Anything wilfully cast away either on sea or land. Goods thrown out of a ship, to lighten the same in case of distress, are not derelict for want of intention (Just. Inst. II. 1. 48). If a ship made jettison without hope of recovering the goods they were derelict to the finder (Rolle of Olayron, 32, 34). Derelict lands suddenly left by the sea belong to the crown, except in case of an arm of the sea belonging to a subject, but if the sea recede slowly, by imperceptible degrees, the land thus gained goes to the owner of the adjacent soil. This was ascertained by commission, and is a subject for a jury. Boats or other vessels forsaken or found on the seas without any person in them are called derelict. Of these the admiralty has the custody and the owner can recover within a year and a day.

[Moore on *Foreshore.*—*Black Book of Admiralty* (Rolls).—*Fleta*, III. 2.—Hale, *De jure Maris.*] H. Ha.

DERELICTIO. Expression of Roman law for the abandonment of any object of property with the intention of renouncing all rights of ownership over it. E. S.

DE SANCTIS, MARCO ANTONIO, lived in the 16th century and the beginning of the 17th. Toppi (*Biblioteca napoletana*, Napoli, 1678, p. 204) says he was born at Nocera dei Pagani, but gives no other biographical indications. Two dissertations of De Sanctis are extant; their scientific value is less than their historical importance, because Antonio Serra would probably never have written his famous *Breve trattato delle cause che possono fare abbondare i regni d'oro e d'argento* (1613), if it had not been for the writings of De Sanctis, which he undertook to refute. The two pamphlets of De Sanctis bear the titles: *Discorso di Marc' Antonio De Sanctis intorno alli effetti che fa il cambio in Regno*, in Napoli, appresso Costantino Vitale. 1605; and *Secondo discorso di Marc' Antonio De Sanctis, intorno alli effetti che fa il cambio in Regno sopra una risposta che è stata fatta adverso del primo;* in Napoli, nella stamperia di Felice Stigliola, a Porta Reale, 1605. De Sanctis endeavours to prove, in the first *Discorso*, that the only remedy against the scarcity of money which was felt in his days in the realm of Naples, would be an act of the government called *Prammatica*, by which the value of foreign coin should be fixed in the money of the country, and heavy penalties prescribed to enforce the established ratio in the payment of all bills of exchange and to prevent any other attempt to give money a value different from that which the *prammatica* prescribed. His advice was followed, but given up two years later, when the effects of the *prammatica* had made people wiser. The first pamphlet of De Sanctis was answered by an anonymous Genoese author to whom he replies in the second one.

[Sir T. Twiss, *View of the Progress of Pol. Econ. in Europe*, 1847, Lect. I.] M. P.

DESCENT OF PROPERTY. Sir Henry Maine (*Early Law and Custom*, London, 1883) points out the connection between ancestor worship and the descent of property in the Eastern and the Roman Empires. "Almost all the English law on the subject of the descent of personalty, a great deal of continental law on the same subject, and some part of our law of realty has for its foundation the 118th Novella Constitutio of Justinian. This novella is the last revision of the older Roman law of succession after death, which was formed by the fusion of the rules of inheritance contained in the venerable Twelve Tables with the equity of the Prætor's Edict: two streams of law profoundly influenced at their source as no reader of M. Fustel de Coulanges can doubt by the worship of ancestors" (Maine). In the *Principles of the Law of Succession to Deceased Persons*, by T. R. Potts, London, 1888, will be found a brief sketch of the history of the law of descent in England. Kenny and Laurence, in their *Essays on the Law of Primogeniture*, Cambridge, 1878, trace the history of primogeniture in England. *The Succession Laws of Christian Countries*, by Eyre Lloyd, London, 1877, contains a summary of the law of descent in the principal European countries. In France, Belgium, Prussia, Austria, and other continental states, on an intestacy all children take equally, no distinction being drawn between males and females or between real and personal property. In England, and in countries that have adopted English common law as the basis of their legislation, the eldest son as a rule succeeds to real property to the exclusion of all other children, whilst the personalty is divided between the widow and the children. Two

important changes have been recently introduced in England and in Ireland. By the 53 & 54 Vict. c. 29, if there are no issue, and the net value of the realty and the personalty does not exceed £500, then the whole estate goes to the widow: if the net value exceeds £500 then the widow is to have £500, whilst by the 54 & 55 Vict. c. 66, § 84, any real estate registered under the act is on the death of the owner intestate to devolve on the personal representatives as if it were personal property.

[As to the economic effects of the English as compared with the continental law, see G. C. Brodrick, *English Land and English Landlords*, London, 1881. — *Systems of Land Tenure in Various Countries*, Cobden Club Essays, London, 1870 (see BEQUEST, POWER OF; LAND LAWS).]

J. E. C. M.

DESIGNS, COPYRIGHT IN. By laws passed in 1737 and 1744 France recognised a right of property in designs applied to silks. In 1787 England by the 29 Geo. III. c. 38 gave protection to the first inventor of a design for linen or cotton cloth. Subsequent acts extended protection to mixtures of flax and cotton, and to animal substances. By the 46 & 47 Vict. c. 57 a new or original design may be registered by its proprietor for a particular class or classes of goods, and by such registration the proprietor obtains copyright in the design, *i.e.* the exclusive right to apply the design to any article of manufacture or substance for five years.

[W. N. Lawson, *Patents, Designs, and Trade Marks*, London, 1889 (see COPYRIGHT).]

J. E. C. M.

DESMARETS, NICOLAS (1648-1721), controller-general of finance under Louis XIV. between 1708 and 1715, was a nephew of Colbert, who gave him a post in his bureau. He rose to be *maître des requêtes*, and on the death of his uncle in 1683 was made *intendant des finances*, an office he held but a short time. Lepelletier, who hated his predecessor Colbert and all connected with him, brought a charge against Desmarets of making illicit profit from the coining, and he was forced to retire to an estate at Maillebois. In 1703 Chamillart spoke in favour of the disgraced man to the king, who nominated him one of the two recently appointed directors of finance (Saint Simon, *Mémoires*, iv. 183). His financial and administrative abilities were of great service to Chamillart, on whose resignation the king gave the controllership of his finances to Desmarets, 20th February 1708. "Il était tout à fait l'homme de la situation," says Vührer, who describes him as possessing "une remarquable sagacité, une intelligence vive et profonde à la fois, beaucoup de justice et de rectitude dans les idées . . . une fécondité, une abondance d'imagination inépuisable" (*La Dette Publique*, i. 128). The condition of affairs was most alarming, with an increased expenditure and a diminished revenue. The income from taxation had fallen from 112 to 75 millions of livres, and the total yearly expenses had risen from 119 millions to 220 millions. The debt was 2 milliards. Arrears to the amount of 36 millions were due to the army, and the revenue of five years had been spent in anticipation. Desmarets commenced by repealing the decree of Chamillart which permitted payments in specie or paper. He allowed the capitation tax to be commuted by a payment of six years in advance. He doubled toll-duties and contracted with Samuel Bernard and others loans extending to 230 millions. These expedients enabled him to get through 1708, but the troubles of the next year began with a winter of unusual severity. To meet the famine which followed he brought wheat from all parts of Europe, enforced a special tax on the rich, sold the undergrowth of the state forests, and effected a recoinage. He received the dignity of minister from Louis.

The king did not accept the onerous conditions offered by the allies in 1709. To meet the enormous charges of the campaign Desmarets proposed a war tax of a *dixième* on all property and incomes. Even the clergy and nobility were not exempted. The new tax produced 25 millions. He also borrowed 15 millions from some merchants. In 1711 he commenced a more regular system and converted into 5 per cent *rentes* all the various state loans. The energy and ability of Desmarets in putting in order the financial embarrassments of the kingdom were of great help to Louis XIV. "Si nos gens de guerre avaient le courage et le génie de Desmarets nous gagnerions toutes les batailles," said Madame de Maintenon. In the seven years of his administration the net produce of the ordinary revenues did not exceed 269 millions, and during this time he was obliged to find 1300 millions of extraordinary resources, and even then he left over 300 millions unpaid (A. Vuitry, *Le désordre des Finances*, p. 25). He hoped in 1715 to produce a properly-balanced budget if the king lived to bestow his favour for two years. Louis died, however, 1st September 1715, and Desmarets was dismissed by the regent. He retired to Maillebois, where he died 4th May 1721. Saint Simon, who was ill-disposed towards Desmarets, draws his character as that of a man "qui avoit plus de sens que d'esprit, et qui montroit plus de sens qu'il n'en avoit en effet; quelque chose de lourd et de lent, parlant bien et avec agrément, dur, emporté" (*Mémoires*, xviii. 157). His son, the Marquis Desmarets de Maillebois, marshal of France, is famous for his Italian campaigns.

Desmarets presented to the Regent *Mémoire sur l'administration des finances depuis le 20 Février 1708 jusqu'au 1er Septembre 1715* [Paris, 1716] 8vo, (also reprinted about 1789, and in the *An-*

nales Politiques (1757) of the Abbé Castel de St. Pierre) "Très-curieux," says Lenglet du Fresnoy, "il vient de main de maître, mais il n'a pas tout dit" (*Méthode pour étudier l'Histoire*, xii. 337). In the opinion of Voltaire "ce mémoire prouve qu'il avait des talens, une grande modestie et des intentions droites" (*Siècle de Louis XIV.*, 1819, i. 38; see also ii. 31).

[Saint Simon, *Mémoires*, 1856, etc., tomes ii., iv., vi., vii., ix., xi., xiii., xviii.—*Nouveau Dictionnaire d'Économie Politique*, 1890, i. 669-701. —F. V. de Forbonnais, *Recherches et considérations sur les Finances de France*, Basle, 1758, 2 vols. 4to.—A. Vuitry, *Le désordre des Finances à la fin du règne de Louis XIV.*, Paris, 1885, 8vo.—R. Stourm, *Les Finances de l'Ancien Régime*, Paris, 1885, 2 vols. 8vo.—A. Vührer, *Histoire de la Dette Publique en France*, Paris, 1886, 2 vols. 8vo.—Monthyon, *Particularités sur les Ministres des Finances*, Paris, 1812, 8vo.] H. R. T.

DESTUTT DE TRACY, Antoine Louis Claude, Comte (1754-1836), born in the Bourbonnais, died at Paris. He was a member of the constituent assembly, and was arrested and imprisoned during the Reign of Terror. He was set at liberty after the 9th Thermidor, 27th July 1794. Although he became a senator under the empire, and subsequently a peer of France under the Bourbon restoration, he retained throughout his early sympathies with liberty. From the year 1808 he had been a member of the French Academy. When, in 1832, the Academy of Moral and Political Science was re-established, he was invited to join the section of moral science. As a philosopher he was one of the last survivors of the *école sensualiste*, a school whose method of thought may best be defined in the words of one of their members, "Penser c'est sentir, rien que cela," and he was also an economist of great distinction. As early as 1798 he wrote, at the request of the well-known Jefferson, his *Commentaires sur l'Esprit des Lois de Montesquieu* (1 vol. 8vo, 1819). In this work he corrected some of the economic errors into which that able thinker had fallen. In 1804 he published his *Traité de la volonté*, part of his *Eléments d'Idéologie*, the larger part of which formed a treatise on political economy. This work was reprinted, without any modification, under the title of a *Traité d'économie politique*, in 1823 (1 vol. in 18mo). In these two works, the commentary and the treatise, Destutt de Tracy shows that he had attained a higher level than the majority of his contemporaries. He has obtained a popularity equal to his deserts, notwithstanding the somewhat metaphysical form with which he had invested his subjects. Bonaparte had him in view when he inveighed against the "Idéologues."

A. C. f.

Destutt de Tracy and Ricardo. A reference to M. de Tracy will be found in Ricardo's *Principles of Political Economy and Taxation* ed. 1852, note p. 171. He says with respect to the *Éléments d'Idéologie*, "In this work M. de Tracy has given a useful and an able treatise on the general principles of political economy, and I am sorry to be obliged to add, that he supports, by his authority the definitions which M. Say has given of the words 'value,' 'riches,' and 'utility.'" In the text Ricardo observes, "I cannot agree with M. Say in estimating the value of a commodity by the abundance of other commodities for which it will exchange; I am of the opinion of a very distinguished writer, M. Destutt de Tracy, who says, that 'To measure any other thing is to compare it with a determinate quantity of that same thing which we take for a standard of comparison for unity. To measure, then, to ascertain a length, a weight, a value, is to find how many times they contain metres, grammes, francs, in a word, unities of the same description.'" An interesting account of Ricardo's meeting with De Tracy is given in the *Letters of Ricardo to Malthus*, No. lxxxii., edited by J. Bonar, p. 211, ed. 1887.

DÉTRACTION, Droit de. In France, before the Revolution, the right of aliens to inherit property was limited by the *droit de détraction*, which enabled the state to confiscate part of any bequest or inheritance falling to an alien. For the history of its abolition see Aubaine, Droit d'. It need only be remarked here that at the present time, should the laws of another country impose any tax of this kind on a share of an inheritance left to a Frenchman, the French law will, where possible, compensate the person so damnified out of any share of the inheritance falling to an alien resident in France. In England and other countries, especially Russia, the right of aliens to inherit land is either entirely denied or severely restricted; but these rules, though analogous to the *droit de détraction*, have a political not a financial aim.

[*Les Codes annotées de Sirey, édition entièrement refondue*, par P. Gilbert, 1847.—Littré's *French Dictionary*, *s.v.*—*Dictionnaire général de la Politique*, par Maurice Block, 1873, *s.v.* "Étranger."] C. G. C.

DEVELOPMENT, or evolution, as distinguished from mere change, means a *growth*, or the unfolding of qualities present, but at first latent, in the subject concerned. Darwinism (*q.v.*) is therefore not a doctrine of development or evolution unless we regard animated nature collectively as one subject which remains the same throughout its changes. The idea of development applies to man and human societies, and especially to their science and culture, for there is present an identity of the subject (humanity) with continuity through the changes —*e.g.* from Greece, through Rome and the middle ages to modern civilisation—and preservation of the results of the past.

Economic evolution has been used in two senses (*a*) the growth of new forms of industrial organisation, keeping pace with new wants, new powers of science over nature, and new political relations, and (*b*) the growth of economic theories, which may or may not be in correspondence with (*a*). The name is best kept for the first of the two phenomena; and the latter may be called the evolution of economics. In both cases the use of the name evolution instead of change seems to imply that both the outward changes, say in European industry during the last hundred years, and the changes in theory, say from Adam Smith to J. S. Mill, have followed a course for which it is possible to discover some logical necessity.

The term evolution was not unknown in the last century, and the idea became the ruling thought of Fichte and especially of Hegel and his followers. In England, the idea has gained currency through the writings of Spencer and Darwin; and evolution in the sense conceived by biology appears to be the essence of the popular philosophy of our day. Marx has applied the notion to economics, and the relation of the two is already a topic of controversy. The extreme left of the school of historical economists hold that there are as many forms of economics, all relatively true, as there are separate peoples and separate epochs; and they would not distinguish the development of economics from the general progress of historical change. The conception of economics as a body of doctrines of universal validity or absolute truth is no doubt discredited; but the conception of "economic categories" as a permanent basis of further development has gained ground; and seems indeed to be required by the very notion of development.

[For distinction of historical and economic categories, see A. Wagner, *Lehrbuch der politischen Oekonomie, Grundlage*, pp. 352 *seq.* and the references there given to Rodbertus and Schäffle.—For distinction of development from Darwinism see E. Caird, *Philosophy of Kant*, (2nd ed. 1889) vol. ii. pp. 539 *seq.* and S. Alexander, *Moral Order and Progress* (1889), pp. 139, 309, 382, etc.] J. B.

DE VIO, F. Tommaso (1470-1534), born at Gaeta, and sometimes called Thomas de Vio Cajetan, was famous for his learning; at Ferrara, where he held disputations with Pico della Mirandola, he was made a Doctor *honoris causa*; he taught philosophy in the *Ginnasio Romano*, and was made Cardinal of S. Sisto by Leo X. He was consulted in all the weighty theological questions of his time. Amongst these was the question of Henry VIII.'s first marriage, which he declared valid. He was sent to Germany to controvert the opinions of Luther. He wrote a great many works of which a list can be found in A. Ciaconii: *Vitæ et res gestæ Pontificum romanorum et Cardinalium.* Romæ. 1677, vol. iii. p. 390-394. Here only the more important concerning economical topics are mentioned:

De Usura, written in Milan, 1500; *De Cambiis*, written also in Milan, 1499; and *De Monte Pietatis*, written at Pavia, 1498, all published 1596 in Venice; F. Thomæ de Vio Caietani, ordinis Prædicatorum, *Opuscula omnia.* Venetiis, 1596, p. 168 *et seq.* In his pamphlet *De Usura*, De Vio does not discuss the argument *ab ovo* and exhaustively, intending rather to solve some special cases in which he thinks the current opinions of canonists wrong or exaggerated. In his pamphlet *De Cambiis*, he declares himself opposed to the profession of what then was called a *cambist*, recognising only the legitimacy and utility of the change of money against money. In his pamphlet *De Monte Pietatis*, he proves that these establishments for pawnbroking served simply to cover a species of usury. De Vio's pamphlets must, therefore, be considered as one single tract in which he discusses the same subject, viz. usury, under three different aspects, and in which he follows the opinions current in his time, although sometimes showing views somewhat broader than those of the canonists. M. P.

DEVISE. A gift of land or other real property by will. The person to whom the gift is made is called the devisee. E. S.

DEW, Thomas Roderick (1802-1846), was born in Virginia and was educated at the College of William and Mary; in 1827 he was appointed professor of history, metaphysics, and political economy in the same institution, and in 1836 president; he died at Paris while travelling. Dew was a most thorough and earnest teacher of history, and exercised great influence throughout the south in upholding public opinion in the support of free trade and negro slavery. On strictly economic subjects he wrote: *Lectures on the Restrictive System*, Richmond, 1829 (pp. 195). In this Dew questioned the general advantage to be gained from manufactures, since they are liable to great fluctuations; and a factory population is not only unfavourable to liberty, but turbulent and of necessity dependent. He wrote an *Essay on the Interest of Money and the Policy of Law against Usury*, Shellbank, Va., 1834 (pp. 24); in which usury laws are regarded as influencing unfavourably the distribution and circulation of capital, and checking the natural division of employments and treating the question with special reference to the farming interest. He also wrote a *Letter on the Financial Policy of the Administration and the Laws of Credit and Trade*, Washington, 1840 (pp. 16), attributing the crisis of 1837 not to banks but to the course of trade; banks are the effect and not the cause of speculation. Dew opposed the subtreasury system inasmuch as it tended to unsound banking operations. For an interesting statement of his educational work and for

bibliographical references, see *Circ. of Information of U.S. Bureau of Educ.*, No. 1, 1887. *College of William and Mary*, by Professor H. B. Adams, pp. 54-56. D. R. D.

DIAGRAMS. For the purpose of conveying readily to the mind the general facts contained in a table of figures, nothing seems better suited than some form of diagrammatic representation.

When the relative magnitudes of a number of disconnected quantities are simply concerned, a series of geometrical figures, circles, squares, or oblongs whose areas are proportional to those magnitudes, is commonly employed.

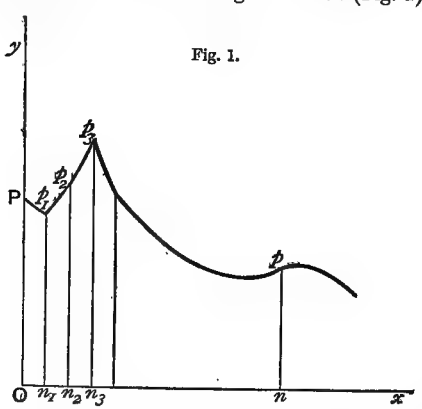
The delineation of the varying circumstances of the different parts of a country in respect to such matters as density of population, degree of poverty, etc., by colouring a map in different tints, which has been frequently employed (recently by Mr. Chas. Booth in *Labour and Life of the People*), is a method which is very readily understood.

The curves which record the readings of a barometer or thermometer are illustrations of another class of diagrams which are very largely used for economic purposes.

It requires a very special training to be prepared to grasp readily the salient points of complicated schedules of figures, which can, however, be exhibited very readily even to the untrained by means of such diagrams. This renders them of great service to the teacher of economics. But curves of similar construction are invaluable adjuncts in the study of economic theory, possessing all the general advantages of arithmetical illustrations, while they are less liable than these to admit the unwary assumption, in the data of illustrations, of the result which it is desired to establish by their help.

If we wish to draw a curve showing the variations in the price of some commodity (say iron) in the course of a number of years we proceed as follows. Along a line Ox (Fig. 1)

Fig. 1.



a number of equal distances On_1, n_1n_2, etc., are measured. We may take each of these distances to represent some convenient interval of time, an hour, day, year, or any other suitable interval. From the points O, n_1, n_2, etc. lines OP, n_1p_1, n_2p_2 etc., are drawn perpendicular to Ox and of such lengths as to be proportional to the price of iron at the epoch represented by the point from which the line is drawn. We might for example draw them on the scale of one-twentieth of an inch for each shilling of the price of a ton of iron, or on any other convenient scale. The points Pp_1p_2... being connected by a broken or curved line, such a line will exhibit the variations of the price of iron with the progress of time, in a manner which is quite as accurate as the table of figures from which the curve is derived, and which is far more striking to the eye of even the most skilled statistician.

The manner in which the connection between time and price is thus shown may be employed to show the concurrent variations of any two connected quantities in economics.

If the abscissæ (the distances along Ox) represent the amounts produced in a given time, such as a month or year, the ordinates (n_1p_1 etc.) denoting the corresponding prices at which the goods could be profitably produced, the curve becomes the ordinary supply curve.

If the abscissæ denote the quantities which could find purchasers at the prices denoted by the ordinates, we obtained the demand curve (cp. DEMAND CURVE).

These curves cannot be drawn completely from records of experience, because actual experience covers in general but a small range of prices for any one commodity. No uncertainty is, however, owing to this cause, introduced into the arguments based on them, since the really important parts of them are those of which we have experience, and, in addition to this, the arguments commonly depend not so much on actual lengths of lines as on the general direction of the curve, whether upwards or downwards, and whether the slope of the curve be gradual or rapid.

It is the result of experience that—except in such a case as that of a collector of rare specimens of some kind, when his collection may be doubled in value by the addition of a single specimen which renders it complete—people are not willing to pay so much for a given small addition to their store of any commodity when they already have a large amount of it, as when they have but little; this enables us to say at once that the demand curve must slope downwards throughout, whatever be its shape in other respects.

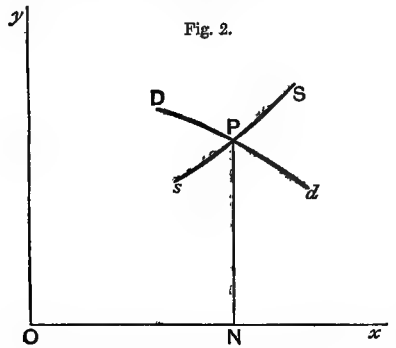
With regard to the supply curve, it is quite possible that its slope should be sometimes upwards, sometimes downwards, or that it may be horizontal throughout or for a portion of its length. If, however, we are considering only small changes in production, not involving a reorganisation of the industry concerned, an

increase of product means, in general, an increase in the total cost out of proportion to the addition to the amount of produce, *i.e.* in the neighbourhood of the actual price the curve slopes upward as we proceed outwards along it, though there are, doubtless, cases in which the contrary is true, and it is drawn sloping downwards in Fig. 5.

For the problem of the equilibrium of supply and demand, the use of diagrams enables us to grasp more clearly than any other method the relations between the quantities involved.

If D*d* and *s*S (Fig. 2) be portions of the curves of demand and supply intersecting at P and

Fig. 2.



PN be perpendicular to O*x*, then PN denotes a price which will equate demand and supply. At a price less than PN it would not be profitable to produce so much, at a greater price there would be more than the ordinary profit, which would lead producers to endeavour to increase their businesses. At a price greater than PN consumers would not be found for the whole amount ON, at a less price consumers would be tempted to increase their consumption, and would be desirous of using more than the amount ON.

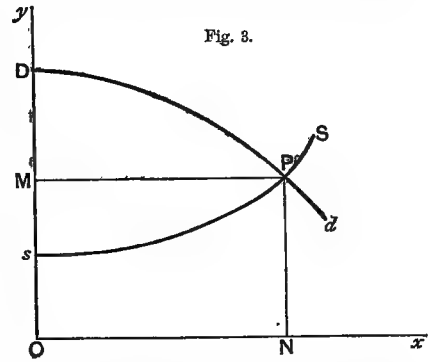
Small variations from the conditions indicated will upset the balance struck at the price PN. We see that the price, which may be taken to measure the exchange-value of the commodity, is equal on the one hand to the expenses of production at the margin, and also to the marginal demand price, *i.e.* to the estimate in money-equivalent made by purchasers, of the utility to them of those portions which they consider only just worth their outlay.

If the curves be supposed traced back to meet O*y* (see Fig. 3) we have a representation of the total utility to consumers of the quantity of commodity ON in the area between the curve D*d* and the lines OD, ON and NP.

The actual outlay being measured by OMPN (if PM be parallel to O*x*), the area DMP is what is called by Prof. Marshall the *Consumer's Rent*, being the excess of the money measure of the total utility over the money cost.

Under certain conditions the area M*s*P denotes the *Producer's Rent* measured in money.

Fig. 3.

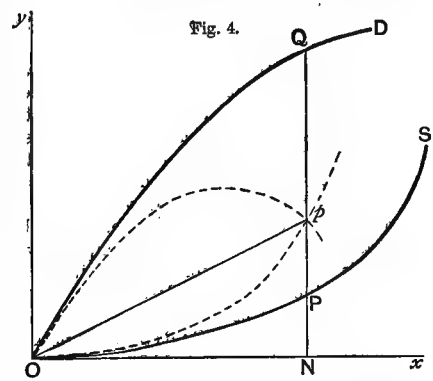


The relations expressed by these curves are represented in a different manner by Auspitz and Lieben in their work on the *Theorie des Preises*. The curves they draw have for ordinates the prices, not of a unit, or given quantity, but of the total quantities represented by the corresponding abscissæ.

The price, in the ordinary sense of the term, is represented by the trigonometrical tangent of the angle between the line touching the curve at any point and the line O*x*, for it is the rate at which the total price increases as the amount increases.

Lines being drawn from O parallel to the tangents at every point to the total cost curve OS to intersect the corresponding ordinates, a second curve is deduced (the dotted curves in Fig. 4). A similar construction applied to the

Fig. 4.



total demand curve gives a second derived (dotted) curve, whose intersection with the former at *p* gives the position of equilibrium of supply and demand and the normal exchange value. ON is the amount produced and consumed, and the price at which a unit of it is saleable is represented by the ratio of PN to ON.

Among the many diagrams expressing the

relations between different economic quantities, one of the most instructive is that which deals with the case of *Monopolies*.

Assuming the ordinary supply and demand curves for a commodity the sources of supply of which are monopolised, we deduce from these a third by measuring along each ordinate NPQ to the supply and demand curves a portion NR equal to the part PQ between the two curves. Where the demand curve lies above the supply curve the distance NR is measured

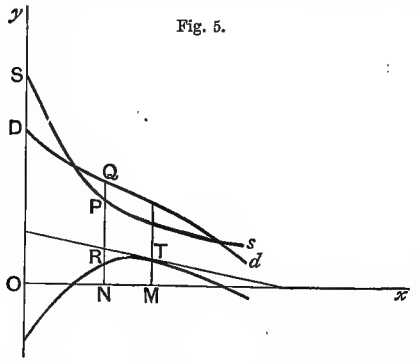


Fig. 5.

upwards and *vice versa*. This curve (Fig. 5) represents the possible profit obtainable with different amounts of the given commodity produced. The aim of the monopolist being supposed to be to make the total gain as great as possible, the scale of production suitable is that denoted by OM when, MT being drawn parallel to O*y* to meet the curve at T, the part of the tangent at T to the third curve, which is cut off by O*x* and O*y*, is just divided equally at T. In this case the product of OM and MT, which expresses the total profit, is greater than for any other position of T upon the curve RT, and thus the condition laid down is satisfied. For any other scale of production, either the lessened rate of profit out-balances the increased sales, or the decrease of sales out-balances the increased rate of profit. Many developments of the diagrams here referred to may be found in the footnotes in bks. iii. iv. and v. of Marshall's *Principles of Economics*, and the examples given will, it is hoped, be sufficient to illustrate the general ideas which underlie most of the diagrams in general use. A. W. F.

DIALOGUS DE SCACCARIO. This notable treatise was written about 1176 by Richard Fitz-Nigel, Bishop of London, at one time treasurer of the exchequer. It is in the form of a dialogue between a master and a disciple, and consists of two books. The first book describes the exchequer, and its two parts: the lower, or receipt, to which money is actually paid by the sheriffs and other officials, and the upper, in which the accounts are formally audited. It also describes the functions of the justiciar, chancellor, treasurer, and other officers of the exchequer. The second book describes the summonses to the exchequer, and the various sources from which the revenue is derived. Besides the direct information about the financial administration of the Angevin period, the treatise also throws a flood of light on the history of constitutional and social organisation from the Norman conquest to Henry II.

The *Dialogus* was "translated into English by a gentleman of the Inner Temple," 1758, also in *Historical Documents of the Middle Ages* (Bohn). It is printed in Madox, *History of the Exchequer*. Stubbs, *Select Charters* gives the complete Latin text. See also Hubert Hall, *Court Life under the Plantagenets*, chs. viii. and ix., and F. Liebermann, *Einleitung in den Dialogus*. R. L.

DICA. A kind of tally used for checking the receipt or issue, not of money, but of household provisions, farm produce, and even merchandise. In the statutes of the order of Sempringham it is provided that all seed issued out of the grange shall be checked by a *dica*, to be divided into two halves, of which one shall be kept by the warden and the other by the granger. In the *Constitution of the King's House*, a treatise probably as old as the reign of Henry I., the master marshal of the king's house was to have *dicæ* against all the king's officers. From this it appears that the use of tallies for public accounts originated with this regulation for the king's Chamber, and we know that the early name of the Exchequer or treasury sessions was "the Tallies," the revenue being at that time rendered in farm produce (*Dial.* i. 8). The same meaning is probably contained in the term "diker" of leather, namely ten hides in every bale, these being tallied by the packer and owner by a notch cut at the counting of every tenth hide. In the present day coals are still "tallied" in a precisely similar way on board ship.

[*Stat. Ord. de Sempringham*, p. 478.—Pipe Roll Society, vol. iii.—*Red and Black Books of Exchequer*.] H. Ha.

DICKINSON John (1732-1808), a native of Maryland, came to London to study law, and was called to the bar at the Middle Temple. After his return to America he distinguished himself by a pamphlet (1765) entitled *The Late Regulations respecting the British Colonies on the Continent of America considered*, in which he showed the economic unwisdom of the Sugar Act and the proposed Stamp Act. His *Letters from a Farmer in Pennsylvania to the Inhabitants of the British Colonies*, 1768, deny the assumed authority of the British parliament to tax the colonies. They examine the claim upon historical, constitutional, and legal grounds; and the argument, though studiously moderate in tone and closely reasoned, is stated in such a lucid and captivating manner that the *Letters* obtained a

very wide circulation. Dickinson was an intellectual factor of the first importance in founding the Independence of the United States, and drafted some of the principal state papers of the time. He was elected president of Delaware in 1781, and of Pennsylvania in 1782.

"The Historical Society of Pennsylvania proposes to print a more complete edition of his political writings than that which was published under his own supervision at Wilmington in 1801." *The Life and Times of John Dickinson*, by Charles J. Stillé, LL.D., Philadelphia, 1891.

H. H.

DICKSON, Rev. ADAM (1721-1776), was born at Aberlady, East Lothian. He graduated at Edinburgh University and was appointed minister at Dunse, Berwickshire, in 1750. He was transferred to Whittinghame in East Lothian in 1769, and died in consequence of a fall while riding.

Dickson gave much attention to agriculture, and published in 1762 a *Treatise on Agriculture* (new ed. 1770, 2 vols. 8vo), with special reference to the soil and climate of Scotland. One section, *On Manures*, directed against Tull, was reprinted in A. Hunter's *Georgical Essays* (vol. iii., 1770). He also wrote *Small Farms destructive to the Country in its Present Situation*, 1764, and *An Essay on the Causes of the Present High Price of Provisions*, etc., 1773, 4to. In this pamphlet he contended that high prices were not due to bad crops but that they were connected with luxury, currency, taxes, and the national debt. Among other remedies he proposed road-making, ox-labour, a tax on stockholders, and an export duty on corn. Dickson is best known for his *Husbandry of the Ancients* (1788, 2 vols. 8vo, French translation by Pâris, 1802), derived from the "Scriptores rei rusticæ" and other writers, and compared with the modern system. His practical knowledge enabled him to clear up many difficulties, but his scholarship was imperfect (Smith, *Dict. of Antiquities*, 1890, i. 83).

[Biography prefixed to *Husbandry of Ancients*, 1788, vol. i.—*Dictionary of Nat. Biography*, xv. 38.] H. R. T.

DIDEROT, DENIS (1713-1784), IN HIS RELATION TO ECONOMICS. There is hardly a single branch of science which does not owe some kind of gratitude to the universal genius of this very able and characteristic French writer. His suggestive mind, his common sense, and his power of concentrating the best thoughts of his contemporaries into one focus, naturally extended themselves to the narrow ground, as it was in his day, of political and economic science. It is almost impossible to state how far in this respect Diderot could lay claim to originality. He is known to have written many passages in the most celebrated works of his time. Rousseau confessedly studied his style, and some striking pages in his *Discours sur l'Inégalité* and in Holbach's *Système de la Nature* are written by Diderot; his keen wit in conjunction with that of Galiani produced the *Dialogues sur le commerce des blés*. It was, however, his connection with the great *Encyclopédie* (1751-1771) which brought him into closer contact with students of economic phenomena, and which also led him to promote and animate their work. The principles of mercantilism, like Forbonnais' *Éléments du Commerce*, as well as the first drafts of the economic system of the physiocrats, Quesnay, Morellet, St. Lambert, Leroy, and in part those of Turgot, are embodied in this vast enterprise. Diderot, who perhaps became acquainted with Quesnay's studies through a mutual friend, Leroy, and had publicly, in 1748, paid homage to Quesnay as a first-rate surgeon (*Œuvres*, t. ix. p. 214), did not blindly follow the track of his school. Perhaps on account of the withdrawal of Quesnay's co-operation in 1757, when the *Encyclopédie* was suppressed, their relations grew colder. Diderot preserved an independent attitude, declaring for instance in 1769 that he "did not approve the opinions of the *Quesnelistes*, but on account of their sincerity held them to be good fellows who did their best" (*Œuvres*, t. iv. pp. 80-85). Similar opinions may be found in the *Réfutation suivie de l'ouvrage d'Helvétius intitulé L'Homme*, (*Œuvres*, t. ii. p. 352), and in Diderot's recommendation of economic instruction in the Russian universities, made to Catherine II. in 1775-1776 (*Œuvres*, t. iii. p. 491). We even owe to him the knowledge of a humble outsider of the physiocratic school—Boesnier de l'Orme, whose anonymous book *Du Rétablissement de l'Impôt dans son Ordre Naturel* (Yverdun, 1769) has been ably criticised by Diderot (*Œuvres*, t. iv. p. 39); see on this book also *Éphémerides du Citoyen*, 1769, t. vi. pp. 255-256, t. viii. pp. 136-163.

Diderot's own contributions towards the *Encyclopédie* bear the features of the different influences of his time, and sometimes of a slight trace of mercantilist views; he often, with a keen instinct, adopts the attitude of his physiocratic friends, without participating in their extravagances; not seldom one might be inclined to ascribe him an anticipation of modern social thought. His articles, moreover, are interesting as exhibiting the vast difference between economic ideas and even terms used nowadays and at the time of their formation. This may be illustrated by the following extracts:

Agriculture (*Œuvres*, t. xiii. pp. 243-265) contains a history of ancient and mediæval agriculture, instructions for husbandmen for each month in the year, and describes the new English agricultural system of Jethro Tull, as interpreted by DUHAMEL DU MONCEAU (*q.v.*) *Artisan* (p. 373), a man who is engaged in the mechanical work that needs the least intelligence. *Balanciers* (p. 408), gives a description of the rules of the corporation of makers of weights and scales, and their supervision by the

Cour des monnaies. The different meanings of the terms, *Bénéfice, Gain, Profit, Lucre, Emolument* (p. 425), of *Besoin, Nécessité, Indigence, Pauvreté, Disette* (p. 478) are explained. *Besoin* (p. 427) is described as comprising the appetites of the body and the desires of the mind; its tendency is to lead primitive man on the one hand to a system of associated life, on the other by the development of artificial wants to bring about the dissolution of society. The articles *Boucher* (p. 489) and *Boulanger* (p. 498) contain an account of the regulations, apprenticeships, etc. of the butchers' and bakers' corporations. In *Brut* (p. 513) raw-produce is distinguished from the finished article. *Change* (t. xiv. p. 85) is said to relate to the barter of movables, *échange* to an estate, etc., *permutation* to ecclesiastical dignities. "There are few exchanges, in which absolutely good faith is preserved; generally the two parties seek to deceive each other." *Chemins* (p. 116) is a history of highway administration in Europe. *Co-opérateur* (p. 225): "this term is much more frequently used in theological matters than in any other." Almost the same moral significance is attached to the word *Crédit* (p. 240), in which reference is only made to the work of Duclos, *Considérations sur les Mœurs.* A vindication of the natural rights of mankind is contained in *Droit Naturel* (p. 296). The study of the rules of husbandry is recommended in an article on *Économie Rustique* (p. 378). (*Fondation*, although inserted in *Œuvres*, t. xv. p. 12, is by Turgot, see the *Encyclopédie*, 1757, t. vii. p. 14). *Homme* (*Politique*, t. xv. p. 139) the pith of this article is derived from an article by Quesnay, which the latter had suppressed. The existence of this was recently discovered by Dr. S. Bauer. "The wealth of a nation is the produce of the sum total of its labours, after the cost of labour has been deducted. The greater the net produce and the more equal its distribution, the better the administration. As long as there is land lying waste, a man is employed to disadvantage in manufacture. The number of domestic servants, and of producers of luxuries, should be diminished. The maxim that an increase of comfort among the agricultural classes would remove a spur to industry is the saying of an ignorant and malignant man. The hope of living the life that a man longs for, urges him to his particular occupation," etc. *Honoraire* (p. 140) a term used for the remuneration of liberal professions, *appointements* for all posts, *gage* for servants, *gage* for soldiers, *salaire* for working men. *Hôpital* (*ibid.*), deals with the administration of almshouses and hospitals. In this article, to quote Mr. Morley, "Diderot struck a keynote of difference between the old Catholic spirit and the new social spirit." "It would be far more important to work at the prevention of misery than to multiply places of refuge for the miserable." The spirit of Rousseau seems to have inspired the following article: *Indigent* (p. 204), "a man who, wanting the necessaries of life, exists in the midst of his fellow-citizens, who exult over him with insolent luxury, rioting in the enjoyment of all possible superfluities. Indigence is not a vice, it is worse than that. There are none indigent among savages." A modern line of thought pervades the notice of *Journalier* (p. 314), "This class of man forms the greater part of a nation; a good government ought to keep his lot principally in view. Whenever the day labourer is miserable, the nation is miserable." The eulogy of competition is contained in *Laborieux* (p. 406), "Name a price, and competition will ensue; taxes and despotic government annihilate industry by rendering their fruits uncertain." *Laboureur* (*Économie Rustique*, p. 407) again brings back reminiscences of Quesnay: "Unhappy the nation in which the farmers are poor, for agriculture greatly needs improvement. Wherever the corn trade is restricted, the reduction of price falls heavily upon the cultivators of the soil; arbitrary taxes, moreover, reduce their earnings and obstruct the flow of national revenue." Like Rousseau, in the article *Législateur* (p. 427) he admonishes princes to visit the houses of the labouring poor, and pleads in *Législation* (p. 436), for the simplest legislation and the system the most consonant to nature, by which the passions of men should not only be curbed, but directed to advancing both private and public interest. The legislator must take care that the expenses of associated life shall fall upon the rich, who enjoy the corresponding advantages (see Mr. Morley's *Diderot*, vol. i. p. 243-246). In the article, *Luxe* (*Morale et Philosophie*, vol. xvi. p. 5), Diderot displays his utmost ingenuity. After having refuted by historical examples all sweeping propositions for and against luxury, he explains it to be a natural outcome of civilisation and not a necessary cause of the decline of empires. Luxury must be in proportion to the general production. "There was more luxury in the years of magnificence of Louis XIV.'s reign than in 1720, and in 1720 this luxury was more excessive." Luxury turns away attention from agriculture, and the privileges granted to the producers of luxuries create an artificial irregularity of distribution; luxury easily escapes taxation, and the "nouveaux riches," indulging in it, demoralise society. The remedies against luxury consist in its gradual diffusion, and in the abolition of its privileges. The article closes with the admirable sentence: "Je prie les lecteurs de se dépouiller également des préjugés de Sparte et de Sybaris; et dans l'application qu'ils pourraient faire, à leur siècle ou à leur nation, de quelques traits répandus dans cet ouvrage, je les prie de vouloir bien, ainsi que moi, voir leur nation et leur siècle sans des préventions trop ou trop peu favorables, et sans enthousiasme, comme sans humeur" (p. 30). Modern ideas and Rousseauism are intermingled in *Misère* (p. 119), "The poor common people are incredibly stupid. I know not what false prepossession closes their eyes to their present wretchedness, and to the still deeper wretchedness that awaits their years of old age. Misery is the mother of crime. It is rulers who make men miserable, and it is they who shall answer in this world and the next for the crimes that misery has caused." He remarks in the same spirit on *Opulence* (p. 171), "It is but seldom that this does not augment the natural malignity of mankind, and that it increases happiness." *Propriété* (p. 439) is shown to be a condition of security—security

was the aim of men in forming societies; taxes the means to uphold them. Where a king pretends to be the sole proprietor of the goods of his subjects, anybody may become king by force. *Prostituée* (p. 440) is explained almost only in the figurative sense as applied to mercenary writers. In *Représentants* the usefulness of representatives of the "nation" in the way of advising the king are explained. All "citoyens" ought to choose men as representatives, who are qualified to be so by reason of their property or their knowledge of the interests of the people. Members from the ranks of the clergy, the nobility, the magistracy, merchants and cultivators of the soil, should be chosen for these assemblies. Diderot's opinions, one sees, are on this point more akin to the doctrines of the physiocrats, and to those of continental liberalism, than to those of modern democracy. The article on *Souverains* (p. 166) does not go beyond the current theory of social contract and renunciation of natural rights. In *Société* (p. 130) Diderot proclaims the principle of seeking the common good of all, not only as the supreme, but as the universal rule of conduct.

After the completion of the *Encyclopédie*, Diderot wrote some pamphlets which evince his unceasing interest in free enterprise. In the *Lettre historique et politique adressée à un Magistrat sur le Commerce de la Librairie*, 1767 (*Œuvres*, t. xviii. p. 7) he admits that "he would consider the entire and absolute abolition of corporations as a step towards a wiser government." Three are many strikingly characteristic remarks on commercial and economic life in his *Voyage de Hollande*, 1774 (*Œuvres*, t. xvii. pp. 406-468). There are besides in his *Fragments politiques* scattered ideas about the dangers of a sudden influx of the precious metals (*ibid.* t. iv. pp. 41-50). His work *Mon père et moi* concludes with an idea of statistics of the distribution of income, and the postulate of exempting the physical necessary from taxation (pp. 481-482). A highly curious anticipation of the modern labour question, as exemplified by the condition of the miners of Saxony, is contained in the *Réfutation suivie de l'ouvrage d'Helvétius intitulé L'Homme*, 1774-1775 (*Œuvres*, t. ii. pp. 430-431).

[The passages above referred to are quoted from the *Œuvres complètes de Diderot*, edited by J. Assézat et M. Tourneux, 1875-77, 20 vols.; also Rosenkranz, *Diderot* (1866)—Morley, *Diderot and the Encyclopœdists*, 2 vols., 1878, 1891, especially vol. i. pp. 177-247.—Du Bois-Reymond, *Zu Diderot's Gedächtniss*, 1884.] S. B.

DIETERICI, Karl Friedrich Wilhelm (1790-1859), a great name in statistics, was born in Berlin, served under Blücher in the Napoleonic war, held several public appointments—the post of professor of political economy (für Staatswissenschaft) from 1834, that of director of the statistical bureau in Berlin from 1844—and died in his native city. His virtues and amiable character are attested by his successor Engel (*Report of the International Statistical Congress at London*, 1860, p. 43) and others who speak from personal knowledge.

Both in the spheres of political economy and statistics, especially the latter, Dieterici was eminent. In his inaugural professorial letter *De vitâ et ratione œconomiam politicam docendi* he distinguishes the different methods of cultivating the science—the philosophical, the juristical, the historical ("Est *historica* via œconomiam politicam docendi," written in 1835); the political or statistical method, of which Humboldt is given as an instance *qui quantum auri et argenti ex America in Europam allatum sit, quantum thecæ consumatur, aliaque similia accurate . . . explicavit*; the technological method, which J. G. Büsch and Ricardo have followed, both praised for their attention to facts and experience. The true method is compound: *et mere philosophando et mere experiendo erratur*. Dieterici promises to unite theory and experience. The facts are perhaps more interesting than the theory in his most ambitious contribution to economics, *On Overpopulation* (*Über den Begriff der Übervölkerung*, Akademie der Wissenschaften in Berlin; März, 1849). True to facts, *experientiâ maxime fretus* as he promised, Dieterici enriched many departments of statistics. His memoir on the *Mean Duration of Life* (*Über den Begriff der mittleren Lebensdauer und deren Berechnung für den preussischen Staat*, Akademie der Wissenschaften in Berlin, December 1858) may be noticed among many other valuable contributions to vital statistics, which will be found among the following references.

Die Waldenser und ihre Verhältnisse zum Brandenburgisch-preussischen Staate (1831).—*Geschichtliche und statistische Uebersicht der Universitäten im preussischen Staate* (1836).—*Statistische Uebersicht der Wichtigsten Gegenstände des Verkehrs und Verbrauchs im preussischen Staate und im deutschen Zollverbande . . .* (1838-1857).—Statistischen Tabellen des preussischen Staats nach der amtlichen Aufnahme des Jahres 1843.—*Uebersicht der Bodenfläche der Bevölkerung und des Viehstandes der einzelnen Kreise des preussischen Staats* (1845).—*Die Bevölkerung des preussischen Staats nach der amtlichen Aufnahme des Jahres* 1846 (1848).—*Der Volkswohlstand im preussischen Staate . . .* (1846).—*Ueber Auswanderungen und Einwanderungen* (1847).—*Ueber preussische Zustände über Arbeit und Kapital* (1848).—*Gedächtnissrede* (in honour of Fred. William III.), 1852.—*Handbuch der Statistik des preussischen Staats* (1858-61).—Much of Dieterici's work is contained in the periodical which he edited from 1848 till his death—*Mittheilungen des Statistischen Bureau's in Berlin*. The fourth volume for 1851 contains the valuable essay *Ueber den Begriff der Statistik*. [*Allgemeine Deutsche Biographie*.—Reports of the first four international statistical congresses, *passim*.] F. Y. E.

DIFFERENTIAL DUTIES. (See Discriminating Duties.)

DIFFICULTY OF ATTAINMENT is a phrase used by De Quincey, Mill, and others, to denote a condition which must be superadded

to utility in order that there should exist value in exchange. "Any article whatever, to obtain that artificial sort of value which is meant by exchange value, must begin by offering itself as a means to some desirable purpose; and secondly, even though possessing incontestably this preliminary advantage, it will never ascend to an exchange value in cases where it can be obtained gratuitously and without effort" (De Quincey, *Logic of Political Economy*, p. 13; quoted by Mill, *Pol. Econ.*, bk. iii. ch. ii. § 1). The difficulty of attainment here indicated is primarily that which is experienced by the purchaser. But it is usual to extend the term to the difficulty experienced by the producer. Thus De Quincey continues: "Walk into almost any possible shop, buy the first article you see; what will determine its price? In the ninety-nine cases out of a hundred simply . . . difficulty of attainment. . . . If the difficulty of producing it be only worth one guinea, one guinea is the price which it will bear." So Mill, of what he considers the general case, "the obstacle to attainment consists only in the labour and expense necessary to produce the commodity" (*loc. cit.*, § 2). And by others difficulty of attainment is used as equivalent to cost of production. Thus Walker (*First Lesson in Political Economy*, Art. 67), "Cost of production is only another name for difficulty of attainment." This transition from the sense in which the difficulty, like the other factor utility, is experienced by the individual purchaser is legitimate, where there exists such perfect "industrial" Competition that it is free to any one to enter any occupation. In that case the sacrifice made to attain a commodity by purchase tends to be equivalent to the efforts and sacrifices made in attaining it by production. If the value in exchange were higher, the commodity would not be purchased; if lower, it would not be produced.

The wider conception is particularly appropriate to the case which Mill, dividing the different kinds of difficulty, places second; where, "without a certain labour and expense it [the commodity] cannot be had; but, when any one is willing to incur this, there needs be no limit to the multiplication of the product" . . . up to a point which there is no need, for practical purposes, to contemplate (*Pol. Econ.*, bk. iii. ch. ii. § 1). In this case difficulty of production has a certain pre-eminence over the co-factor utility, both as (*a*) a cause, and (*b*) a measure of value. (*a*) The cause of a phenomenon being usually a somewhat arbitrarily selected portion of its total antecedent (Mill, *Logic*, bk. iii. ch. v. § 3; Venn, *Empirical Logic*, p. 57 *et seq.*), it is not paradoxical that sometimes utility, sometimes cost, should be regarded as the cause of value. Utility indeed is invariably an antecedent. But the scale of utility (see DEMAND CURVES), may, in the case supposed, be varied without any variation of value. "If the demand for hats should be doubled, the price would immediately rise; but that rise would be only temporary, unless the cost of production of hats . . . were raised" (Ricardo, *Pol. Econ.*, ch. xxx.) Whereas, if the cost of production of an article is varied, its value varies concomitantly. "Diminish the cost of production of hats, and their price will ultimately fall to their new natural price, although the demand should be doubled, trebled, or quadrupled" (Ricardo, *ibid.*) Prediction, the prerogative of causation, is attached to cost rather than utility. (*b*) Accordingly, in the case supposed, the comparative difficulty of producing two commodities affords a simple measure of their relative value. It is true also that value is proportioned to final utility. But this measure cannot be read until the measurement is already given. We cannot tell what the final utilities will be till we know the values. In some cases indeed (see below (4) and (5)) it is conceivable that, given the dispositions, the Demand-Curves of all the dealers in a market, we could deduce the rate of exchange which will be set up. The calculation is indicated by Professor Walras in his *Éléments d'Économie Politique Pure*, Art. 50. Still difficulty of production, in the case most favourable to its operation, measures value directly, as a clock measures time; whereas utility at best is a measure like the shadow cast by the sun, which can only be interpreted by a difficult calculation.

This theory is subject to several reservations and exceptions. (1) The pre-eminence of difficulty of production as a regulator of value depends largely on the assumption that labour is perfectly homogeneous. If all labour consisted of raising weights in precisely similar circumstances, the theory might be literally true. "If . . . it usually cost twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for or be worth two deer" (Adam Smith, quoted by Ricardo), there being only one mode of labour, work being as homogeneous as, say, gold. But suppose, besides effort of exertion, the sacrifice of waiting is required. Then, as between commodities involving these elements in different proportions (cp. Ricardo, ch. i. § 4), it would no longer be possible to assign the rate of exchange between the commodities without being given the comparative remuneration for the two kinds of sacrifice. But this datum could not in general be obtained *a priori*, but only as a result of the higgling of the market.[1] Now, in fact, there

[1] This reservation holds even upon the imaginary supposition that there existed a competition so perfect that it is free to any one to choose whether he will labour or abstain, *a fortiori*, when, as in reality the abstainers form a "non-competing group"; and so fall under head (3).

are not only two, but many, kinds of sacrifice. The general principle is that the "net advantages" (Marshall, *Principles of Economics*, vol. i. 2nd ed. p. 136) in occupations between which there is "industrial competition" (Cairnes), tend to be equal. Accordingly the statement that the "quantity of labour realised in commodities" (Ricardo) regulates their exchangeable value, can be true only on an average with wide deviations. Take the case put by De Quincey of a pearl-diver who sometimes obtains, along with "ordinary," superior pearls. The true principle is that the net advantages of pearl-diving are the same as those of any other occupations between which there is industrial competition. How much truth is there in the proposition that the value of any pearl is proportioned to the "quantity of labour realised" in it? The instance taken is a mild case of plural occupations, or joint production (see BY-PRODUCT). The application of the general principle of net advantages here affords little light as to the value of particular articles (cp. Sidgwick, *Pol. Econ.*, bk. ii. ch. ii. § 10).

(2) The pre-eminence of difficulty over utility, as a regulator of value, disappears altogether when we pass from Mill's second case to a category comprising both Mill's third case (*Pol. Econ.*, bk. iii. ch. ii. § 2), in which the cost of production increases with the quantity produced, according to the law of DIMINISHING RETURNS (*q.v.*), and the converse case, in which the cost of production diminishes with the quantity produced according to the law of INCREASING RETURNS (*q.v.*) In this case the two factors, utility and value, become co-ordinate. As Professor Marshall says (*Economics of Industry*, 1st ed. p. 148), "the amount produced and its normal value are to be regarded as determined simultaneously under the action of economic laws. It is then incorrect to say, as Ricardo did, that cost of production alone determines values; but it is no less incorrect to make utility alone, as others have done, the basis of value." With reference to what Jevons calls the "mechanics of industry" it seems trifling to inquire whether the force or the resistance contributes more to the determination of equilibrium. The *simultaneousness* of the two conditions is indicated by Jevons in his discussion of cost of production (*Theory*, ch. v.) Jevons there entertains the unreal conception that it is free to the producer to apply his efforts in "doses" to different kinds of production. This at most is true of the mere inventor as distinguished from the *entrepreneur* and operative. Still the conception may be usefully employed as symbolical of the actual working of competition in a regime of division of labour (Pantaleoni, *Principii. Theorema di Ricardo ed Marshall*). The simultaneousness of the two conditions may best be shown by imagining the disutility, as well as the utility, to be of the sort called "final" (see MATHEMATICAL METHOD).

(3) The co-ordinateness of difficulty of production with utility disappears when industrial competition is no longer supposed. In this case the assumed equation between the purchaser's and the producer's difficulty of attainment fails. The typical instance is international trade. There is no correspondence between the efforts of the Chinese producer of tea and the sacrifices which the English purchaser incurs to obtain it. It is pointed out by Cairnes that the principle of international trade governs domestic industry where "non-competing groups" exist. With reference to this case, as well as the preceding, Dr. Sidgwick justly says: "It is not merely inconsistent with facts but with other parts of Mill's teaching, to say broadly that 'the value of things which can be increased at pleasure does not depend . . . upon demand'" (*Pol. Econ.*, bk. ii. ch. ii. § 9). In this case the value of an article is proportioned to its final utility for the purchaser in the same sense as in the preceding cases. But it is not proportioned to the difficulty of attainment in the same sense.

(4) The co-ordinateness of difficulty of production with utility is not even supposable, when we pass to another category, Mill's first: "things of which it is physically impossible to increase the quantity beyond certain narrow limits;" such as "ancient sculptures" . . . "rare books or coins" . . . "houses and building-ground in a town of definite extent," and "potentially all land whatever" (*Pol. Econ.*, bk. iii. ch. ii. § 2).

(5) With Mill's first class go those commodities which are temporarily "unsusceptible of increase of supply" (*ibid.* § 5); in short all cases of MARKET as distinguished from NORMAL VALUE (*q.v.*)

(6) Lastly, all cases of monopoly must be excepted from the sphere within which the difficulty of attainment experienced by the purchaser is equateable with the difficulty of production. Outside this sphere the difficulty experienced by the purchaser is due to the niggardliness of his fellow-man, rather than the stubbornness of nature; and is measured only by his own reluctance to part with some useful commodity, and not also by his (potential) effort in producing the article purchased.

It is easier to refine upon these logical distinctions than to prove what is the relative extent and importance of the categories defined; which conception, if any, may be taken as typical of the facts. This is a matter of judgment rather than demonstration; about which there is much disagreement between economists of the last and the present generation. The case which one treats as the general rule, another treats as exceptional or non-existent. Mill speaks of his second category as "embrac-

ing the majority of all things that are bought and sold" (*P. E.*, bk. iii. ch. ii. § 2). To the same effect Ricardo on the very first page of his *Principles*. The reservations which are here indicated under heading (1) are waived by Ricardo. Of the effect of the rate of profits on value he says, "the reader" however should remark that this cause of the variation of commodities is comparatively slight in its effects" (*ibid.* ch. i. § iv.) The difficulties caused by the difference in the qualities of labour he dismisses in a few sentences (ch. i.) The extreme recoil from Ricardo's position is marked by the AUSTRIAN SCHOOL (*q.v.*), who emphasise utility as the determining principle of value, and assign quite a secondary place to Cost. See especially Professor Wieser, *Ueber den Ursprung . . . des wirthschaftlichen Werths;* and Dr. Böhm-Bawerk, *Kapital und Kapitalzins*, interpreted by Mr. James Bonar in the *Quarterly Journal of Economics*, October 1888, January 1889. In this attitude they had been anticipated by Jevons. But Jevons, as has been shown, admitted cost of production as a simultaneous factor. The simultaneousness of the two conditions in a regime of industrial competition has been defended by the present writer in the *Revue d'Économie Politique* for October 1890. In fine there are those who regard all abstract theory as futile (see the HISTORICAL SCHOOL). CLIFFE LESLIE and HELD (*q.v.*), Brentano and others, harp on the unreality of the Ricardian assumptions. Neumann's article on prices in Schönberg's *Handbuch* teems with cases which it is difficult to reconcile with any theory of the relation between value and difficulty of attainment. F. Y. E.

DIFFUSION THEORY OF TAXATION. This is the name given (*e.g.* by Mr. F. A. Walker, *Pol. Econ.*, § 485) to the theory that the individuals from whom a tax on a particular kind of commodity, exchange, or occupation, is actually levied do not ultimately bear the burden, but shift it on to other classes, so that the tax is "diffused" or spread over a large area (see TAXATION). E. C.

DIGGES, SIR DUDLEY (1583-1639), director of the East India Company, was one of the ablest defenders of that society. The loss, near Bantam, in 1613, of the *Trades Increase*, gave rise to an anonymous pamphlet (the *Trades Increase*, by J. R., Lond., 1615) in which the author, while strongly objecting to all the then existing trading companies (see FOREIGN TRADE, REGULATION OF), made an especially violent attack on the East India Company, to whom that vessel belonged. He accused them of restricting the supply of East India commodities and of other objectionable practices, and maintained that their trade led to the diminution of the naval strength of the kingdom. The Company wished to prosecute the author in the Star Chamber, as some parts of the book were held to be "very near to treason and all the rest very dangerous." (*Court Minutes*, 22nd Feb. 1615). Sir Dudley Digges, however, was of opinion that a book should be put forth refuting the charges brought against the Company. He accordingly published *The Defence of Trade: in a letter to Sir Thomas Smith, Knight, Governor of the East India Company*, From one of that Society, Lond., 1615. In this pamphlet he replied to the objections to the Company which were based upon the risks of the trade, the frequent loss of ships and men, and the consequent decrease of the naval strength of the country. He also maintained that the East India trade "increased the stock of the kingdom" (p. 43), and pointed out the fall in the prices of East India goods since the formation of the Company.

[State Papers Colonial (East Indies) 1610-15 *passim*. For full details of the life of Sir Dudley Digges, vide *Dict. Nat. Biog.*] W. A. S. H.

DILIGENCE (Scot.) (1) Care in regard to the subject-matter of a contract; (2) the procedure of the court whereby witnesses are made to attend or documents caused to be produced; (3) attachment of person or property at the instance of creditors to enforce satisfaction of a debt or obligation. A. D.

In English business phraseology *due diligence* is an expression denoting the care which persons who have undertaken certain duties with reference to the performance of work or the custody of goods must bestow on such work or such custody. The amount of care to be given depends on the nature of the contract. When a reward is given or promised, such "care and diligence are expected as are exercised in the ordinary and proper course of similar business, and such skill" as the person who undertook the work or the custody "ought to have, namely, the skill usual and requisite in the business for which he receives payment." When no reward is given or promised, the care usually given to one's own affairs is sufficient. E. S.

DILIGENTIA. Expression of Roman law for the care which was required in certain relations created by contract or otherwise. The degree of diligence required varied according to the circumstances of the case. Sometimes it was sufficient to give the care which the person concerned gives to his own affairs ("dil. quam suis rebus adhibere solet"); sometimes the diligence of a careful householder ("dil. boni patrisfamilias") was necessary. E. S.

DIME. United States silver token coin; nominal value ten cents. First struck in 1796, weight 41·6 grains, fineness 892·4. Altered in 1837 to weight 41·25 grains, fineness 900. Weight again reduced in 1853 to 38·4 grains, and fixed in 1873 at 38·58 grains. English standard value (silver 925 fine at 5s. 6d. an ounce) 5·16d. Value in silver francs, 900 fine, ·5 franc. F. E. A.

DÎME ROYALE. In 1707, at the most disastrous period of the war of the Spanish Succession, the famous Marshal Vauban published his *Projet d'une dîme royale*, which remains the most memorable contemporary impeachment of the French financial system under the monarchy. In his engineering tours about France, Vauban had carefully studied the condition of the agricultural classes, and had arrived at the most gloomy conclusions. "One-tenth of the people has fallen in recent years into beggary; five other tenths cannot afford an alms to the paupers, because they are on the verge of beggary themselves; of the remaining four-tenths, three are in a bad condition, overwhelmed with debts and litigation; while of the remaining tenth barely 10,000 families can be called really rich." For this deplorable state of things the financial system is mainly responsible, and of this system the most glaring defects are the innumerable exemptions from payment and the practice of farming out the taxes, by which the great capitalists make a fortune at the expense of the people. Vauban reckoned no less than eighteen classes of persons who were exempt from the *taille* and other taxes. The exemptions were due in great measure to the practice of selling offices, which had grown up in the 15th century. To make them valuable, the monarchy had parted with the right of removal, thus losing control over its own servants. When they could no longer be trusted, their functions were given to a new set of officials: these in their turn bought their places, became useless, and were superseded by new agents. The result was the existence in France of an enormous number of useless officials, while the real work was done by the intendants and their agents. An office without functions was worth buying, because it freed its holder from direct taxation. Thus the sale of offices created a vast disguised public debt, the amount of which was as difficult to estimate as were the ruinous terms on which it was contracted. It resulted that the contributors to direct taxation were those who could not afford to purchase exemption. The indirect taxes, the *aides* (see AIDES, COUR DES), and the *gabelle*, were as ruinous to industry, if not so glaringly unfair in their incidence, as the *taille*.

Vauban's remedy for the evils which he depicts was to abolish the existing taxes, and to substitute one single impost, levied directly upon real and personal property, from which no class was to be exempt. This *dîme royale*, etc., was to be graduated, varying from a twentieth to a tenth of income, and was to be collected directly by agents of the government. The suggestion of a reform which attached so many vested interests, and the masterly exposure of profitable abuses, were enough to obliterate in the minds of Louis XIV. and his ministers the services of the veteran marshal, now in his seventy-fourth year. The council issued a decree ordering the book to be confiscated, and prohibiting its sale under a fine of 1000 francs. On 24th March 1707, Vauban received the news of the confiscation of his book; on the 30th he died, broken-hearted at the ingratitude of a sovereign whom he had served only too well.

The *Projet d'une dîme royale* which has frequently been published separately, may also be found in Daire, *Économistes financiers du XVIIIme Siècle*, vol. i. p. 33. R. L.

DIMENSIONS OF ECONOMIC QUANTITIES. A unit is a concrete magnitude selected as a standard by reference to which other magnitudes of the same kind may be compared. A derived unit is a unit determined with reference to some other unit. Thus the unit of area may be derived from the unit of length by being defined as the area of the square, erected on the unit of length. The unit of speed may be derived from the unit of length and the unit of time, by being defined as that speed at which the unit of length is traversed in the unit of time. In relation to the derived units of area and speed, the units of length and time would then be fundamental,—"fundamental" being a term correlative to "derived."

The theory of dimensions is concerned with "the laws according to which derived units vary when fundamental units are changed" (Everett). A fundamental unit, together with the magnitudes of like kind referred to it, is regarded as having one dimension. Thus a length has the dimension L. The unit of length enters twice into the unit of area, first determining the base and then the altitude of the unit rectangle, and therefore the dimensions of an area are LL, usually written L^2. If we alter the unit of length, say from a foot to an inch (1 : 12) the unit of area will be reduced in the same ratio twice successively (1 : 144 in all). The variations of the unit of area, therefore, are directly as the squares of the variations in the unit of length. The units of length and of time enter once each into the unit of speed, but they do not enter on the same footing. If the unit of time be the minute, and the unit of length the foot, the unit of speed will be a foot per minute. This unit will become smaller if we make the unit of *length* smaller, since an inch per minute is a smaller speed than a foot per minute; but it will become larger if we make the unit of *time* smaller, a foot a second being a greater speed than a foot a minute. This is expressed by saying that the dimension of time T enters *negatively* into speed. The dimensions of speed, then, are expressed as LT^{-1}. A unit into which a dimension enters negatively is always a unit of rate, and measures amount of x *per unit* of y,—y being the quantity the dimension of which enters negatively.

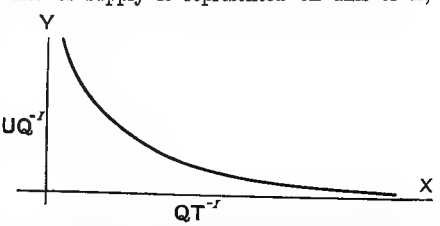
We have now examined simple cases of the variations of derived *units*, but it is obvious that the *numerical values* of concrete magnitudes vary inversely as the units by reference to which they are estimated. The smaller the unit the greater the numerical value of any given magnitude. The numerical value of a magnitude, therefore, will vary inversely as the unit whose dimension enters into it positively, and directly as the unit whose dimension enters into it negatively. Thus, let the unit of speed (dimensions LT^{-1}) be a foot per minute, and let the numerical value of a certain concrete speed be 10, *i.e.* let the speed be *ten* feet per minute. Then change the unit of length to an inch (1 : 12) and the unit of time to a second (1 : 60); the derived unit will now be an inch per second, and its relation to the former derived unit is obtained by altering directly in the ratio of 1 : 12 (dividing by 12) and inversely in the ratio of 1 : 60 (multiplying by 60), so that the new unit is five times as great as the old one, an inch per second being five times as great a speed as a foot per minute; but the numerical value of the concrete speed we had to express must be altered inversely as 1 : 12 and directly as 1 : 60, and is now only 2—*i.e.* the speed is *two* inches per second—or one-fifth of what it was before.

If we are measuring such a magnitude as feet of vertical motion per foot of horizontal motion in the path of a projectile, the dimensions will be LL^{-1} and will cancel each other. No change in the unit of length, then, will in any way affect the numerical value of this magnitude, and as no other dimension enters into it at all, it may be said to have no dimensions. Angular magnitudes, defined as ratios between arcs and radii, trigonometrical functions, and ratios generally are of this nature. They have no selected units, and their numerical values are absolute.

When the elements of the theory of dimensions have been thoroughly grasped it will be easy to apply it to economic questions; and it will be found an invaluable check in the more intricate problems of co-ordination and analysis. Thus, if the unit of value-in-use or utility be taken as fundamental, and regarded as having the dimension U, and if the commodity we are considering be taken as having the dimension Q, then DEGREE OF UTILITY (*q.v.*) of the commodity, being the rate at which satisfaction is secured per unit of *commodity* consumed, will have dimensions UQ^{-1}, and, will be readily distinguished from rate of enjoyment, accruing to the consumer, per unit of *time*, with dimensions UT^{-1}. *Price*, determined by *marginal*, or final, DEGREE OF UTILITY (*q.v.*), will have dimensions UQ^{-1} or P; and *hire*, being price per unit of time, will obviously have dimensions PT^{-1} or $UQ^{-1}T^{-1}$. When the thing hired is money and is used commercially, the utility derived from it is a commodity of like nature with itself. The dimension U then becomes Q, and the dimensions of interest (as a rate) are $QQ^{-1}T^{-1}$ or T^{-1}, which will be found on reflection and experiment to be correct.

The theory of dimensions should be applied to economics in close connection with the diagrammatic method. But of course the connection between dimensions, as now explained, and the geometrical dimensions of the diagrams is purely arbitrary. The physicist may, according to his convenience, represent the height of a projectile—a magnitude of one dimension—by a line, or by an area, and speed by a line or an inclination. So the economist may represent a magnitude measured by a complicated derived unit by a line, or a magnitude measured by a fundamental unit by an area or a solid; and if he keeps the theory of dimensions well before him he may vary his methods indefinitely without any danger of confusion. In all cases, however, the dimensions of those quantities represented by areas or solids will be compounded of the dimensions of those represented by the lines which determine them. Again, those who have any acquaintance with the elements of the calculus will see that if the equation of a curve be differentiated to x then the area of the derived curve will have the same dimensions as the ordinate of the fundamental curve; the ordinate of the derived curve will have the dimensions of the ordinates of the fundamental curve positively, and those of its abscissæ negatively; and the abscissæ of the two curves will have the same dimensions. In other words, differentiation introduces the dimensions of the variable to which we differentiate negatively, and integration introduces the dimensions of the variable to which we integrate positively.

By way of illustration take a figure, on the ordinate of which intensity of desire, or degree of utility, is represented, while supply of commodity per unit of time is measured on the abscissæ. Now imagine a third axis (of Z) perpendicular to the page, along which time is measured. Such a figure will enable us to represent all the quantities we have to deal with in an ordinary problem of consumption. Rate of supply is represented on axis of X,



dimensions QT^{-1}; degree of utility on axis of Y, dimensions UQ^{-1}; time on axis of Z, dimension T; rate of enjoyment on areas parallel to plane of axes of X and Y, dimensions $UQ^{-1}QT^{-1}$

or UT^{-1}; total enjoyment on solid figure, dimensions $UQ^{-1}QT^{-1}T$, or U; total supply on areas parallel to plane of axes of X and Z, dimensions $QT^{-1}T$, or Q, and in like manner price, hire, total sum paid, etc., may be read, and their dimensional relations seen at a glance.

[The theory of dimension was (according to Jevons, *Principles of Science*, 1887, pp. 325) first clearly stated by Joseph Fourier. He expounded it with great lucidity in his *Théorie Analytique de la Chaleur*, 1822, §§ 159-162. An excellent popular statement of the theory, as it has since been elaborated, will be found in the beginning of Prof. J. D. Everett's *C.G.S. System of Units*, 1891. Jevons was the first to suggest the application of the theory to economics (*Theory of Political Economy*, 1888, pp. 232-252), but he unfortunately fell into some apparent errors and confusions which made the suggestion barren in his hands. A criticism of his treatment of the subject and an independent working-out of his suggestion, by the writer of the present article will be found in the American *Quarterly Journal of Economics* for April 1889, pp. 297-314.] P. H. W.

DIMINISHING RETURNS. The law of diminishing returns is the name given to the proposition that increase of the population of a country, or, more strictly speaking, increase of the labour expended on a given area, tends to be accompanied by a diminution of the returns to a given amount of agricultural industry. The law, it is added, is only true after population has reached a certain degree of density, and even then improvements in the methods of production have a counteracting tendency. Its origin is to be found in the corn-law discussions of 1814 and 1815. During the great war cultivation had been extended over lands of a worse quality than those previously occupied, and the conclusion of peace threatened, unless more stringent restrictions on importation were enacted, to throw these lands out of cultivation. It was generally assumed that this would be an evil to the whole nation, and not only to the owners and cultivators of the lands in question, as it was supposed that every increase of cultivation must ultimately lower the price of corn by making it more abundant. But Malthus, in his *Observations on the Corn Laws* (1814), attributed "no inconsiderable part" of the difference between the English and the foreign price of corn to the "necessity" of cultivating the poorer lands, from which a given amount of produce is obtained by the expenditure of a larger quantity of labour than is required in raising an equal amount of produce on the better lands (p. 40). In the *Nature and Progress of Rent* (January 1815) he worked out this idea, and mentioned the opposing force of agricultural improvements, which he considered to be rarely sufficient to balance the necessity of applying to poorer land, so that "the quantity of labour and capital necessary to procure the last addition that has been made to the raw produce of a rich and advancing country is almost constantly increasing" (p. 45). Sir Edward West, in his *Essay on the Application of Capital to Land* (January or February 1815), put forward the same idea of an actual diminution of the returns to agricultural industry in order to show that the price of corn would not be lower than the price at which importation was allowed (see CORN LAWS). Ricardo, in his *Essay on the Influence of a Low Price of Corn on the Profits of Stock* (February 1815), used the theory that with the increase of population the returns to agriculture diminish "independently of all improvements,"—*i.e.* supposing improvements not to take place,—as an argument against any restriction on the importation of corn. For this purpose it was not necessary to follow West and Malthus in holding that returns have generally diminished in spite of all improvements, but there can be no doubt that Ricardo did believe that improvements have only a temporary effect in retarding the diminution of returns (*Low Price*, Works, p. 377 n.; *Principles*, Works, p. 66). James Mill, in *Elements of Political Economy* (1821), insisted on an actual diminution of returns, and paid no attention to the effect of improvements in production. M'Culloch, in *Principles of Political Economy* (1825), expressed unhesitating belief in the actual diminution of returns with only temporary interruptions due to improvements (pp. 205, 277, 278, 383). This became for the time the received doctrine (see Longfield, *Lectures*, 1834-35, p. 181). But Dr. T. Chalmers in 1832 denied it, and showed, what was not then generally understood, that the bringing of new land into cultivation does not prove that an actual diminution of returns has taken place, as, owing to "improvements" or changes in human knowledge, the labour on the new land may be now as productive as the labour on the old land was before the change (*Political Economy*, in Works, vol. xix. pp. 17-24). H. C. Carey, in his *Political Economy* (1837-40), brought forward facts to show that the returns to agricultural industry, so far from diminishing, have actually increased enormously (vol. i. p. 58, iii. pp. 69, 70). J. S. Mill's teaching on the subject is not altogether consistent; sometimes he speaks as if there were no doubt that returns had increased (*e.g.* in the "Introduction" to *Pol. Econ.*) at other times as if they had with occasional interruptions steadily decreased (*Pol. Econ.*, bk. i. ch. xii. §§ 2 and 3, esp. in 1st ed., ch. xiii. § 2, bk. iv. ch. ii. § 3, ch. iii. § 5). To meet Carey's objection, advanced in *Past, Present, and Future* (1848), and in *Principles of Social Science* (1858), that, as a matter of fact, the least fertile lands are cultivated first, Mill confined the operation of the "law" to

old countries. Cairnes is probably the last writer of importance who expressed a strong belief in an actual diminution of returns (*Leading Principles*, 2nd ed. p. 119).

By the law as it is now taught (Sidgwick, *Principles*, bk. i. ch. vi. ; Marshall, *Principles of Economics*, bk. iv. ch. iii.) no suggestion of any actual diminution of the returns to agricultural industry is intended. It is merely equivalent to the proposition that in each stage of progress there is a limit beyond which the labour expended upon a given area cannot be increased without causing a diminution of returns. The position of the limit is constantly being changed by the progress of knowledge, and to say whether it has been passed in any particular case is a very difficult practical question. And even in a case where the productiveness of agricultural industry had actually diminished, it would not necessarily follow that the productiveness of all industry taken together had diminished. Diminishing returns in agriculture might be counterbalanced by increasing returns in other industries. On this point see INCREASING RETURNS.

In the older statements of the law the "diminishing return" was the return to "a given amount of labour and capital." But a given amount of labour is not always aided by the same amount of capital, and when a given amount of labour is assisted by a greater amount of capital the returns to capital may diminish without any diminution of the produce of a given amount of labour. (See J. B. Clark, "Law of Wages and Interest" in *Annals of the American Academy of Political and Social Science*, July 1890.) E. C.

[For a fuller account of the discussions of 1813 to 1815, see E. Cannan, "The Origin of the Law of Diminishing Returns" in the *Economic Journal*, March 1892.]

DIMINISHING UTILITY. (See UTILITY.)

DINAR (*ancient*). An Arabian gold coin weighing about sixty-six grains. It formed the circulating medium of a great part of both Asia and Africa for about twelve hundred years.

DINAR (*modern*). The equivalent of the franc in Servia (see FRANC). F. E. A.

DIODATI, DOMENICO, a Neapolitan, lived in the second half of the 18th century. He was the author of *Illustrazione delle monete che si nominano nelle Costituzioni delle Due Sicilie*, Napoli, presso Donato Campo, 1788 a book which describes the coins of Frederick II., Emperor of Germany and King of the Two Sicilies, and expresses their value in terms of money current at the author's date. It does not deal with theory, except by discussing the "three different values of money, extrinsic value, intrinsic value, and commercial value." According to Diodati the extrinsic value of a coin is the one declared by the state ; the intrinsic value, the value of the metal in it ; the commercial value, the purchasing power of a coin in terms of commercial commodities. M. P.

DIODATI, LUIGI, the younger brother of Domenico Diodati, also wrote on coins, from a wish to continue his brother's work. His competence in questions concerning coins was recognised by the government, which made him director of the Neapolitan mint. He was a great admirer of Broggia, and sent Broggia's works to the Russian court to be translated into Russian.

In his book *Dello stato presente della moneta nel Regno di Napoli e della necessità di un alzamento, con Prefazione ;* Napoli, stamperia Migliaccio, 1790, and in a sequel to it : *Risposta ad alcune critiche fatte all' opera intitolata* . . . ut supra ; Napoli, 1794, Diodati discusses an abstruse point in the history of money, which he says neither De Sanctis, Serra, Turbolo, Locke, Melon, Spinelli, Galiani, nor Beccaria had explained completely, viz. the true cause why gold had disappeared in 1587 from the kingdom of Naples. The usual explanation of this fact was an excess of imports over exports, whilst it was due, according to Diodati, to the monetary reform undertaken by the other states of Italy, each of which had raised the nominal value of their coins. In conformity with this central idea of his, Diodati advises his government to raise the nominal value of money in the kingdom of Naples, so as to make it equal to that of other Italian states, and explains at great length how this alteration should be carried out—changing the money into a species of token money. The reason which Diodati gives for the elevation of the nominal value of coins in other states, and therefore for doing the same in the kingdom of Naples, consists in the rise of prices and the fall in the value of money, consequent on the discoveries of silver in America, and the impulse these supplies of metal gave to enterprise and business, whilst reducing all fixed incomes. M. P.

DIRECT TAXATION. As defined by Mill (*Principles*, bk. v. ch. ii. § 1), taxation "which is demanded from the very persons who it is intended or desired should pay it."

Mill's definition has been generally adopted (see Prof. J. S. Nicholson's Art. "Taxation," *Encyclopædia Britannica*, 9th ed.), *e.g.* by Wagner (*Handbuch*, vol. ii. p. 152), and by Fawcett (*Manual*, 5th ed., bk. iv. ch. iii.) The latter writer abbreviates the definition by the statement that "a direct tax is really paid by the person from whom it is levied."

Practical financiers, as Prof. Bastable states (*Public Finance*, bk. iii. ch. i.), "regard those taxes as direct which are levied on permanent and recurrent occasions."

M'Culloch defined a direct tax as one which is taken directly from income or capital, and Dr. Ely (*Taxation in American States and Cities*, New York, 1888, p. 69) observes that

"direct taxes are taxes on trades, including any branch of business, on permits, on property consisting of other economic goods than articles of consumption, and on income." Both these definitions would include taxes on articles of luxury such as dogs, horses, carriages, and also on successions and gifts.

In this connection Prof. Sidgwick's remark may be noted, "The common classification of taxes as direct and indirect appears . . . liable to mislead the student, by ignoring the complexity and difficulty of the problem of determining the incidence of taxation." See also TAXATION. T. H. E.

DIRECTORS, LEGAL DUTY OF. The duties and responsibilities of directors of joint-stock companies and other associations have frequently been discussed in the courts, and their position is now well defined. In the first place, a director must act strictly within the powers of the company as defined by the memorandum of association, and also within the powers entrusted to the directors by the articles, and if he expends any money or incurs any loss in consequence of transgressing such powers, he is liable to refund the amount. As regards transactions *within* such powers it has sometimes been said that directors are in the position of trustees, and attempts have been made to make their duties as stringent as those of the trustees of wills and settlements, but the courts have consistently opposed that view, and it is now well established that "if the directors apply the money of the company or exercise any of its powers in a manner which is not *ultra vires*, then a strong and clear case of misfeasance must be made out to render them liable" (see the present Lord-Justice Kay's judgment *In re* Faure Electric Accumulator Company, 40 Ch. D. 141, 152); in other words, unless it can be proved that the directors have been guilty of fraud or reckless negligence, they cannot be made responsible for losses arising through any of their acts or omissions as long as they have not transgressed the boundary lines laid down by the memorandum and articles.

A special liability is imposed upon directors with regard to prospectuses. In the first place, it is provided by Companies Act 1867, § 38, that every prospectus issued by a company must contain certain particulars respecting contracts entered into by the company or its promoters, and that the absence of such particulars renders the directors liable in the same way as if the prospectus in question had contained a fraudulent statement. In the second place, directors are liable in respect of fraudulent statements in prospectuses, and to a certain extent also for untrue statements made negligently, but in good faith. Before the Directors' Liability Act of 1890 proof of fraud was always necessary, but fraud was held to be proved if a false representation had been made—(1) knowingly, (2) without belief in its truth, (3) recklessly (see Lord Herschell's judgment in Derry *v.* Peek, 14 Appeal Cases, 337, 359). The new act imposes a more stringent liability, inasmuch as it entitles persons who take shares or debentures on the strength of an untrue statement made in a prospectus to claim compensation, notwithstanding the absence of fraud, unless it can be shown that the person from whom compensation is claimed had reasonable cause to believe, and did in fact believe, that the statement was true. Before the act of 1890 a director who had not authorised or connived at the issue of a prospectus containing a false statement was not liable; but now a director is not absolved from his liability by showing that the prospectus was issued without his knowledge or consent; he must further show that "on becoming aware of its issue he forthwith gave reasonable public notice that it was so issued without his knowledge or consent." E. S.

DIROM, MAJOR ALEXANDER, of Muiresk (end of 18th century), wrote *Inquiry into the Corn Trade and Corn Laws of Great Britain, and their Influence on the Prosperity of the Kingdom*, 1796, with appendix by W. Mackie of Ormiston. The increase of foreign imports of corn is due to alteration of the old corn laws. In consequence of these alterations, Dirom says, "Our agriculture, which had reached its highest prosperity between 1730 and 1750, has ever since been rapidly declining, as is shown by the fact that 137,000 *more* people were employed in the cultivation of land between 1741 and 1750 than between 1773 and 1784." This pamphlet was answered in 1798 by Rev. J. HOWLETT (*q.v.*), *Dispersion of the Gloomy Apprehensions of late repeatedly suggested from the Decline of our Corn Trade.* Mr. Howlett thinks that the increased consumption of a greater general population, the demand for finer grain than formerly, and the greater numbers of live stock, especially horses—sufficiently account for the phenomenon of increased foreign importation (see Dugald Stewart, *Political Economy*, vol. i. 247 *seq.*) J. B.

DISABILITIES OF ALIENS. The only disability to which aliens now remain subject is that they cannot hold any shares in British ships (see ALIENS). E. S.

DISABILITIES OF INFANTS. An infant (*i.e.* a person not having attained the age of 21 years) cannot, as a general rule, enter into any binding contracts or make any valid dispositions of property. To this rule there are several exceptions. An infant may (1) if a male, marry after having attained the age of 14; if a female, after having attained the age of 12; (2) with the consent of the court (*a*) make a valid marriage settlement (18 & 19 Vict. c. 43) (*b*) make leases and grant renewals of leases (11 Geo. IV. and 1 Will. IV. c. 65, §§ 16 and 17); (3) enter into binding contracts

relating to the supply of necessaries—the term necessaries not being confined to the bare means of sustaining life, but including all such things as are considered appropriate to the station of life of the person concerned; (4) an infant after attaining the age of 21 cannot retain property subject to liabilities acquired during his infancy without satisfying the liabilities incurred during that time, *e.g.* arrears of rent, calls on shares. On the same principle an infant partner who on attaining 21 retains his share of the profits, must allow himself to be debited with his share of the losses incurred during his minority. (5) Infant holders of gavelkind land may alienate such land subject to the performance of certain formalities, and there are other local customs giving infants an exceptional capacity to contract. (6) Infants holding themselves out to be of full age are liable to restore any advantage they have obtained by their misrepresentation to a person who acted on the faith of it. E. S.

DISABILITIES OF LUNATICS AND DRUNKARDS. In this case it is not quite correct to speak of a disability. Infants and married women are under permanent restrictions imposed on them as a general consequence of their status. Mental derangement, on the other hand, does not in itself create a new status. No transaction could be invalidated by the simple fact that a party to the transaction is a lunatic or a drunkard; on the other hand, a person generally sane or sober may under certain circumstances avail himself of the plea of mental incapacity. The rule is, that a contract or a disposition of property—which term includes testamentary dispositions—is generally not binding on a person who at the time of making the contract or disposition is not of sufficient mental capacity to understand the nature of the transaction. Whether the incapacity is due to insanity in the proper sense of the word, to mere temporary derangement or illness, or to drunkenness, is quite immaterial. As a general rule the party, or representative of the party, who wishes to escape an obligation on the ground of mental incapacity must bring evidence to show that at the essential moment such incapacity existed, but where a person has, after a judicial investigation (inquisition), been formally declared a lunatic, the presumption is reversed, and the party wishing to uphold a transaction to which the lunatic was a party must prove that the contract or disposition was made during a lucid interval. There is one exception to the above-mentioned rule. When a party to a contract, otherwise voidable on the ground of the mental incapacity of the other party, did not, as a matter of fact, know of such incapacity and had no reasonable ground for knowing it, and where it is impossible to restore the parties to their former position, the incapable party or his representative must abide by the consequences of the contract. Thus the personal representative of a deceased lunatic who, while in a state of mental incapacity not known to the other side, had purchased an annuity from an insurance office, cannot recover the purchase money. (See DRUNKARDS.) E. S.

DISABILITIES OF MARRIED WOMEN. It is generally believed that the Married Women's Property Act of 1882 has removed all the disabilities of married women, but this is not the case. A married woman having separate property, not subject to a restraint on anticipation, may now make contracts binding not only the property of which she is possessed at the time, but also property acquired subsequently, during the continuation of the marriage, and she may by will dispose of her separate property; but great anomalies remain, of which the following may be quoted as instances. A married woman, not being possessed of separate property, who purchases goods on credit and disposes of the goods, cannot be compelled to pay for the same although she subsequently acquires separate property of great value. A married woman not having any separate property, but knowing that her husband has made a will under which she will be entitled to a considerable legacy, makes a will, with the intention of securing the benefit of the legacy to some friend or relative, and dies after her husband. The legacy, will go to her next-of-kin, as her will can only dispose of "separate property," and property acquired after her husband's death is not separate property. A married woman entitled to a life interest in property subject to the usual restraint on anticipation, but not possessed of other separate property, incurs large debts. Her creditors are absolutely without any remedy. This state of things is most unsatisfactory. The old common law rule was based on the assumption that husband and wife were one person; the wife's proprietary existence ceased on the day of her marriage, and became absorbed into that of her husband, who took all her personal property, and possessed extensive rights of control and enjoyment with respect to her real property. This view, which at any rate had the advantage of clearness and consistency, has now been definitely abandoned; a wife now retains all her property and has extensive rights of disposition; the remaining restrictions have no social or economical reason, and their practical inconvenience is obvious. (See MARRIAGE SETTLEMENT.) E. S.

DISCHARGE (Scotland). Extinction of a debt or obligation, which may be by—(1) payment or performance; (2) abandonment of claim by creditor; (3) compensation or set-off; (4) novation or replacement of the original obligation by another obligation; (5) delegation, or replacement of the original debtor by another

debtor; (6) confusion, the debt and the credit, in a condition immediately and finally to extinguish one another, coming to coincide in the same person. Also (Scotland) the document whereby the creditor discharges the debtor. A. D.

DISCHARGE IN BANKRUPTCY. The effect of a discharge in bankruptcy under the Bankruptcy Act 1883, is to free the debtor from all debts and liabilities provable in the bankruptcy, except crown debts, and debts incurred by fraud or through a fraudulent breach of trust. Crown debts can be released by a certificate from the treasury. By the amending act of 1890, it is further provided that, unless the court otherwise orders, the discharge shall not release the debtor from any liability under a judgment in an action for seduction, or under an affiliation order, or under a judgment against him as a co-respondent.

Under the act of 1869, the discharge of a bankrupt was a matter practically in the hands of his creditors unless he had paid a dividend of 10s. in the pound. Under the acts of 1883 and 1890, it is in all cases a matter for the judicial discretion of the court.

At any time after being adjudged bankrupt, the bankrupt may apply to the court for an order of discharge, but the application cannot be heard until after his public examination is concluded. Notice of the day fixed for the hearing must be gazetted, and sent to the creditors. On the hearing, any creditors who desire it, must be heard, and the court must take into consideration a report of the official receiver as to the bankrupt's conduct and affairs. If it is shown that the debtor has been convicted of a misdemeanour under the Debtors' Act 1869, the court is directed to refuse the discharge. If, on the other hand, the debtor is shown to have been guilty of certain minor acts of misconduct specified by the act, such as the assets, without reasonable excuse, not amounting to 10s. in the pound, or not keeping proper trade books, or trading with knowledge of insolvency, or having been guilty of fraudulent conduct, the court must either refuse or qualify the discharge. A discharge may be qualified either by suspending it for a specified time, usually not less than two years, or by imposing conditions as to after-acquired property, as, for instance, by directing judgment to be entered up against the debtor for a certain sum. If the debtor's conduct has been blameless he is entitled to an unconditional discharge, and he may also obtain a certificate from the court removing any civil disabilities consequent on bankruptcy (§ 8 of the Act of 1890).

An undischarged bankrupt who obtains credit from any person to the extent of £20 or upwards without informing such person of his status is guilty of a misdemeanour. M. D. C.

DISCLAIMER. A person appointed as trustee of a will or settlement who does not wish to accept the trust will find it safer as a general rule to execute a deed by which his non-acceptance is stated. A deed of this nature is called a deed of disclaimer. The word disclaimer is also generally used for any act of renunciation. E. S.

DISCOMMODITY. The terms *disutility* and *discommodity* have been introduced into the nomenclature of political economy by Jevons (*Theory of Political Economy*, 1879, pp. 62, 63) as the opposites or contraries of the terms utility and commodity. Thus, by disutility he means, not the mere absence of utility, but the quality of causing positive inconvenience or discomfort. Similarly, by discommodity he means any action or material thing which possesses disutility. The term discommodity is used in much the same sense by Professor Marshall. "While demand is based on the desire to obtain commodities, supply depends on the overcoming of the unwillingness to undergo 'discommodities.' These fall generally under one of two classes, labour and the abstinence involved in putting off consumption" (*Principles of Economics*, vol. i. ed. 2, 1891, p. 193). J. N. K.

DISCOUNT. The term "discount" signifies an abatement, or deduction, and is in practice applied in several ways: (1) stocks or shares are said to be at a discount when their market value shows an abatement from par value; (2) the stock of a trader is sometimes, from bankruptcy or other cause, sold at a discount from cost price; (3) a quoted or published price may be by custom subject to an abatement or discount, to purchasers for the trade, or for export; (4) an account for goods delivered may be paid at a date earlier than is usual upon receiving a discount therefrom; or (5) a bill of exchange, due at a future date, may be discounted, *i.e.* sold for cash at an agreed abatement.

Excepting in the first case, the discount is usually expressed at a rate per cent, and in cases 2, 3, 4, the formula for calculation is simply $D=\frac{P\times R}{100}$. In the discount of a bill of exchange, the time it has to run is taken into account, and the formula is $D=\frac{P\times R\times T}{100}$; T representing, in theory, fractions or multiples of a year, but, in the practice of a banker, a fraction only.

In law, and in fact, the operation of discounting a bill is a purchase, and the property therein passes to the purchaser, who acquires all the usual rights of a holder (see BILL OF EXCHANGE, ENDORSER, etc.) In practice, a banker always places the amount of the bill to the credit of his customer, debiting him at the same time with the discount. In most discount operations the effective rate of interest

upon the capital employed is greater than the nominal rate of discount. In the first three cases referred to above, time is an uncertain factor, and the effective rate will be increased according to the shortness of the time that elapses before the investment is realised; or will be diminished if that time should exceed one year. In obtaining discount upon the prepayment of an account the effective rate is dependent upon the time when payment would otherwise become obligatory. In discounting a bill of exchange, the time it has to run is taken into account in deciding the *amount* of discount, and the only advantage in the effective rate over the nominal rate is that—common also to all the other cases—arising from the fact that the discount is received at once.

Having regard to this fact, it is taught in the schools that *true* discount is the difference between the whole sum and its "present value," this latter being defined as the sum which, if put out at interest at the rate named, would amount, at the end of the given term, to the sum due. It is also further laid down that the current method of charging discount produces less to the holder than he should equitably receive, and examples are usually given only in what is termed the "more correct rule" of "*true discount*." But this teaching is altogether wrong, and appears to be based upon the erroneous notion that the operation of discounting is an *advance*, whereas it is a purchase. Moreover, as the word signifies an abatement, or "reckoning from," it is clear that such abatement must be calculated upon the gross sum, and not upon the net result of its own deduction. The theory of "*true discount*," also connotes the idea, which is equally unsound, that there is an "equity" in rates other than that obtained by free sale in a free market. As a matter of fact it is always found that the discount rate on bills is lower than the rate of interest on advances, which though chiefly due to the more liquid character of an investment in bills, is also, no doubt, in part due to the advantage under discussion.

The extent of this advantage varies directly with the nominal rate, but in greater degree. Thus:

With discount at	1%	the effective rate is	1·01	%	p. ann.
,,	2%	,,	3·0927 +	%	,,
,,	5%	,,	5·2631 +	%	,,
,,	10%	,,	11·1	%	,,

From these instances it appears that the extra profit increases almost as the square of the rate.

But this advantage is derived in the way of compound interest, and is therefore dependent upon the frequency with which the profit is received. The operation of the rule is, however reversed, and the shorter the term the less is the profit. The rates quoted above are based upon a supposed discount of twelve months' bills, and as bankers very rarely discount bills with more than six months to run, and in by far the greater number of cases take bills of three months, or less, the advantage they obtain is very much less than is generally supposed. The effective rate derived from a year's full employment of capital in discounting at 5 per cent is as follows:

In 6 months' bills	5·19375%		
,, 3	,,	,,	5·16 %
,, 2	,,	,,	5·14875%

As this presupposes an immediate re-employment of the full amount obtained by the payment of each bill as it falls due, and a constant rate of 5 per cent, it is considerably above the probable experience. R. W. B.

DISCOUNT, French Stock Exchange (Fr. *Escompte*). The privilege accorded to buyers for the account on French bourses, to demand immediate delivery. The right is based on the fiction that sellers always possess the stock or shares they have sold, and is reaffirmed in Art. 63 of the decree of the 7th October 1890, relative to the office of *agent de change*:—"The purchaser may at all times call for the delivery, by anticipation, of the securities negotiated, whether firm or at option." Sellers may, however, stipulate that the operation is not discountable. The privilege is not frequently exercised, and, unless the market has been prepared by a corner, the manœuvre may turn against those who employ it, for if the seller has no difficulty in procuring the stock, the effect produced may be the reverse of that intended. Notice of "discount" must be given before business hours by the buying *agent de change* to the selling one with particulars which are posted in the private room of the corporation in the bourse building, and the purchase money must be deposited. The seller is allowed five days to pass the stock or shares, and two additional if the transfer requires the acceptation of the buyer, after which the usual measures against defaulters may be applied. T. L.

DISCOUNT, London Stock Exchange. The word is used in two senses, the one legitimate, the other being a piece of slang. First the scrip of a new issue is usually quoted at a discount, or at a premium, as the market price falls below or exceeds the amount of the instalment so far paid up. Thus, were a new government bond to be on the market, on which only £25 per cent had been paid up, the price—supposing it to be £26, would be quoted £1 premium. If, for another example, the shares in the Manchester Canal, on which £10 had been paid, were purchaseable at £8, the market price would be £2 discount. When new scrip has been fully paid up, the necessity of quoting at a premium or discount ceases, and the plain price is then customarily quoted. The *second* sense in which the word discount is used on the stock exchange is to imply a preliminary effect on the market of news, or some other influence

which tends to raise or depress prices. There have, again and again, been rumours of coming war between Russia and England, and a fall in prices of government stocks was produced merely by the "discount" of the effect which an actual outbreak of hostilities would have upon the market. Similarly, the shares of this or that joint-stock company sometimes fall in the market, or rise, as the case may be, dealers and speculators being anxious to discount the effect of a good or bad dividend. Occasionally the effect of this discounting process is excessive, and the actual occurrence of what is anticipated or discounted, and the confirmation of rumours, is often followed by reaction.

On the stock exchange the word is used rather as a piece of slang to convey the impression that an expected event—say the death of the late Emperor Frederick of Germany—has been acted upon in advance by dealers and others, who by putting down or raising the quotations of the stocks in which they deal, "discount" the probable effect of that event on the market. Thus we hear of news being discounted, *i.e.* anticipated in a similar way as the value of a bill is anticipated under Discount.

A. E.

DISCOUNT HOUSES. See BILL BROKING.

DISCOVERIES, GEOGRAPHICAL (INFLUENCE ON TRADE OF). The effect of discovery is to modify or recast the conditions under which trade and industry are carried on. But such effect almost invariable though it be, may and does manifest itself in certain different directions, and thus, though it would be hard to describe within reasonable limits the results produced in the economic world by the discoveries which have been made, it is possible to suggest the directions in which these may be sought. Geographical discoveries may affect trade in the following ways—

a. By providing new sources for the supply of raw material.

b. By opening up new markets.

c. By the ultimate evolution of new trade rivals or competitors.

It is hardly necessary to point out that newly-discovered countries may pass through all the phases described above with regard to other and older-established countries. North America, for example, is the great source of cotton supply, it is a trade rival, and for some time it offered a large opening for the import of goods of European manufacture. As a rule, however, discovery tends to promote the greater differentiation of trade and industry. Each country attains to a distinct and separate position in regard to either supply or manufacture.

There is, however, another mode in which trade is affected by discovery.

d. By opening up new sources for the supply of the precious metals. These may be discovered in an old country; or a new country possessing gold or silver mines may be suddenly discovered. The discovery of the Americas in the 15th century was of this latter character (see GEOGRAPHY, COMMERCIAL; GOLD—SILVER, DISCOVERIES OF).

E. C. K. G.

DISCOVERIES OF PRECIOUS METALS. See GOLD—SILVER, DISCOVERIES OF.

DISCOVERY IN ACTIONS. Discovery in its widest sense means the procedure by which a party in an action may obtain sworn information from his opponent with reference to matters affecting the questions in dispute. Such information may be obtained (1) by administering interrogatories (written questions relating to relevant matters which must be answered by affidavit); (2) by requiring an affidavit of documents (a list of documents, verified by affidavit, relating to the matters in question in the action, being in the possession or power of the party from whom discovery is sought); (3) by giving notice to produce for inspection any documents referred to in the pleadings or in the affidavit of documents. A party may refuse to answer interrogatories or to produce documents for inspection on certain grounds, as for instance because the answer or the production of the document would subject him to criminal proceedings, or that the required disclosure would violate professional confidence or be detrimental to the public interest. Non-obedience to an order of the court directing discovery may subject the disobedient party to imprisonment.

E. S.

DISCRIMINATING OR DIFFERENTIAL DUTIES. Duties imposed upon commodities, and differing in amount according to the particular source from or mode in which those commodities are obtained.

When discriminating or differential duties have been imposed, the circumstances most frequently taken into account have been (*a*) the process of production employed, as in the case of a manufactured article produced either by hand or by steam power; (*b*) the material used, as in the case of sugar made from cane or from beetroot; and (*c*) the country or place of origin, as in the case of what are termed CORN LAWS (*q.v.*)

In cases in which regard has been had to the country or place of origin, the object has been either to protect the home product, or to favour importation from one particular place or in one particular manner, as, for example, where lower duties have been charged on the produce of a colony or of a country with which special treaty obligations are in force, or where higher duties are imposed on goods imported in shipping carrying a particular flag.

In an interesting note to his edition of the *Wealth of Nations* (new edition, 1863, p. 599) M'Culloch discusses the effects of the differential duties imposed on foreign timber to favour our North American colonies, and Sir Thomas Farrer,

in his *Free Trade versus Fair Trade*, refers somewhat fully to the proposals of the fair traders for differential duties in favour of the colonies. The latter writer remarks that such duties are "open to the fatal objection which makes all protection odious to free traders—viz. that they hinder people from buying and selling where they find it to their interest to buy and sell; that they limit production by preventing people from using their natural capacity to the utmost in making and selling the things which they can make better than others."

J. S. Mill arrives at somewhat similar conclusions. "Whatever else may be alleged in favour of such distinctions, whenever they are not nugatory they are economically wasteful. They induce a resort to a more costly method of obtaining a commodity, in lieu of one less costly, and thus cause a portion of the labour which the country employs in providing itself with foreign commodities, to be sacrificed without return" (*Principles*, bk. v. chap. iv. § 5).

The considerations affecting discriminating or differential duties are very closely connected with those relating to the general subject of free trade and protection (see also MOST FAVOURED NATION CLAUSE). T. H. E.

DISCUSSION (Scotland). (1) A cautioner or surety, if not bound jointly and severally with the principal debtor, was formerly entitled to demand that the principal debtor should be "discussed"—*i.e.* that the creditor should employ his means of recourse against him, before he himself was interfered with. This privilege is, since 19 & 20 Vict., c. 60, § 8, now only possessed by cautioners who have expressly stipulated for it. (2) Heirs who represent the ancestor are liable for all his debts; but only in a certain order, which depends on the character in which they succeed; and those who come later in this order are entitled to insist that before they themselves are called upon, those who come earlier should be "discussed," *i.e.* made to choose between paying the debts and renouncing the succession. In English law choice is described as being "put to Election" (see ELECTION).

[Lord M'Laren on *Wills*, § 2269.] A. D.

DISHONOUR OF A BILL. Refusal to accept; or non-payment when due (see BILLS OF EXCHANGE; DILIGENCE; NOTING OF BILLS; PROTEST OF BILLS). A. D.

DISPOSITION (Scotland). Generally a unilateral deed of conveyance. The "disponer" "sells and dispones" or "gives, grants, and dispones" to the "disponee," the thing conveyed. A "disposition and settlement," or "trust disposition and settlement," a disposition, reserving liferent and dispensing with the necessity of actual delivery of the deed, to trustees with powers and under directions specified, is a common form of making one's will. "Dispositions in security," or "bond and disposition in security," are forms of mortgage. A. D.

DISTANCE IN TIME AS AN ELEMENT OF VALUE. Distance does not "lend enchantment to the view" of a future pleasure compared with the same pleasure regarded as present. "There is no man perhaps to whom a good to be enjoyed to-day would not seem of very different importance from one exactly similar to be enjoyed twelve years hence, even though the arrival of both were equally certain" (John Rae, *Statement of some new Principles of Political Economy*, Boston, 1834, a work referred to by Mill in terms of high encomium, *Pol. Econ.*, bk. i. ch. xi.) This incident of our moral nature has often engaged the attention of philosophers. Thus Locke (*Essay concerning Human Understanding*, bk. ii. ch. xxi. § 63): "When we compare present pleasure or pain with future, we often make wrong judgments of them, taking our measures of them in different positions of distance. Objects near our view are apt to be thought greater than those of a larger size that are more remote; and so it is with pleasures and pains, the present is apt to carry it, and those at a distance have a disadvantage in the comparison." Hume gives a more refined explanation of the influence of distance on the will (*Treatise on Human Nature*, bk. ii. pt. iii. § 7; compare the remarks, bk. i. pt. iii. § 9, with respect to a future state). Jevons expresses the depreciation of future pleasures by a fractional factor (a function of the distance in time). Multiplying the future pleasure by this factor we have its value relatively to present pleasure[1] (*Theory of Political Economy*, 3rd ed. p. 72, cp. p. 34). The factor expressing the effect of remoteness should be unity, if human nature were perfect. As Professor Sidgwick says (*Methods of Ethics*, bk. ii. ch. ii. p. 1, note), the "equal and impartial concern for all parts of one conscious life is perhaps the most prominent element in the common notion of the *rational*—as opposed to the merely *impulsive*—pursuit of pleasure." But in fact human nature always falls short of this ideal; and according to the degree of such imperfection nations and classes differ in the desire of accumulating the means of future pleasure (see examples quoted from Rae by Mill, *Pol. Econ.*, bk. i. ch. xi.) The "extent of the intellectual powers" is assigned by Rae as one of

[1] Jevons's equations between pleasures (*loc. cit.*) at different distances of time relate primarily to *final* utilities. But it deserves attention that the equations hold for utilities not qualified as final, upon certain not violent assumptions, which are stated by Professor Marshall in his *Principles of Economics*, p. 179. It is impossible to resist the conclusion, however paradoxical at first sight, that the depreciation of future pleasures, the rate at which they are "discounted," is measured by the rate of discount in the loan market (*Principles, loc. cit.*, and Mathematical Appendix, note 5).

the circumstances which determine the "effective desire of accumulation."

A wiser ground for preferring present goods is their comparative certainty.[1] The "bird in the bush" may never come to hand. The uncertainty of the future is greater, the lower the state of civilisation. "Stability, . . . the reign of law and order," is assigned by Rae as another condition of the effective desire of accumulation.

Again some pleasures are more "urgent" than others. Tastes may change, the sense of pleasure will be dulled in some cases and intensified in others by advancing age. The young man who looks forward to indulging himself in Alpine tours when he has made his fortune "would much rather have them now, partly because they would give him much greater pleasure now" (Marshall, *Principles of Economics*, bk. iii. ch. v.) On the other hand it may be foreseen that certain wants will be more pressing at a future time than at present. Ice will be wanted more next summer than now in winter (Böhm-Bawerk). Age will require more comforts than youth. Prudence dictates spreading out the consumption of a given store of wealth according to the law indicated by Jevons (*loc. cit.*)

The distance in time over which consumption is thus distributed is extended beyond the lifetime of the individual by his interest in posterity. As Mill says (*loc. cit.*): "If mankind were generally in the state of mind to which some approach was seen in the declining [Roman] empire—caring nothing for their heirs as well as nothing for friends, the public, or any object which survived them—they would seldom deny themselves any indulgence for the sake of saving beyond what was necessary for their own future years." Rae places the prevalence of the "social and benevolent affections" first among the conditions of the effective desire of accumulation.

The play of the various motives which have been indicated determines the value of future with respect to present wealth on the loan market, in other words the rate of interest. The spendthrift, however, prefers present to future satisfactions. The borrower of capital to be employed in business is moved by the prospect of future profits. The lender is deterred by providence from grasping all the immediate pleasure which is in his power. Also investment in the "personal capital" of skill and knowledge is governed by motives acting at a great distance in time. The remuneration of the skilled artisan and *entrepreneur* may be expected to compensate the sacrifices made by parents for the education of their children (Cp. Adam Smith, *Wealth of Nations*, bk. i. ch. x., and Marshall, *Principles of Economics*, bk vi. ch. v., 2nd edition).

Thus distance in time is an element in the value of two important agents of production, borrowed capital and trained labour. It is accordingly also an element in the value of products (so far at least as the agents of production enter in different proportions into the products—Ricardo, *Pol. Econ.*, ch. i. §§ 4 and 5, cp. Mill, *Pol. Econ.*, bk. iii. ch. iv. §§ 3-5).

Also the demand for commodities, as well as the supply of them, is affected by the distance in time over which motives range. Where providence prevails, there will be a demand for durable clothing and articles of furniture rather than drinks and other objects of immediate gratification (Rae, *op. cit.* ch. vii.) Now in the case of articles of which the cost of production varies with the quantity produced —that is in the case of most articles—the extent of demand is apt to affect value (Sidgwick, *Pol. Econ.*, bk. ii. ch. ii. and Marshall, *passim*). In this way then, also distance in time is an element of value.

[Leading authorities on this subject are John Rae, M.D., *Statement of some new Principles of Political Economy*, especially ch. vi. and vii. Böhm-Bawerk, *Positive Theory of Capital* (translated by Wm. Smart); especially bk. v. and parts of bk. i.—Marshall, *Principles of Economics*, 2nd edition, bk. iii. ch. v., and other passages relating to discounted pleasures. Other authorities are cited in Pantaleoni's *Principij*. The subject is referred to in most recent treatises on political economy under the head of Capital. Among the earliest of such references are Senior's Observations on Abstinence in his *Political Economy*, pp. 58-59; and the following remarkable passage which occurs in S. Bailey's *Critical Dissertation on Value*, p. 218.

"The time necessary to produce a commodity may, equally with the requisite quantity of labour be a consideration which influences the mind in the interchange of useful or agreeable articles. We generally prefer a present pleasure or enjoyment to a distant one, not superior to it in other respects. We are willing, even at some sacrifice of property, to possess ourselves of what would otherwise require time to procure it, without waiting during the operation, of what would require labour without personally bestowing the labour. If any article were offered to us, not otherwise attainable except after the expiration of a year, we should be willing to give something to enter upon present enjoyment. On the part of the capitalist who produces and prepares these articles, the time required for the purpose is evidently a consideration which acts upon his mind. If the article is wine, he knows that the quality is improved by keeping; he is aware that the same excellence cannot be imparted to any wine without the employment of capital for an equal period; and that people will be found to give him the usual compensation rather than employ their own capital in producing a similar article."] F. Y. E.

[1] It is not easy to distinguish the influence in the will of mere remoteness from that of the uncertainty which attends future events. Is it possible to evaluate separately the Jevonian factors p and q? (See *Theory, loc. cit.*; and cp. Pantaleoni, *Principij*).

DISTRESS. The different kinds of distress may be distinguished according to (*a*) duration or (*b*) cause. (*a*) may be temporary or chronic. The cotton famine, as it is called, during the years of the American civil war, produced temporary distress in Lancashire, which came to an end with the resumption of business at the close of the war; change of fashion often does the same in towns which depend upon a single industry, as Nottingham. On the other hand we speak of the distress in certain parts of London as chronic, meaning that the standard of living is habitually low. So too (*b*) the cause may vary. Distress may be due to disturbances of the market, a collapse of credit, a falling off in demand, or a change in its direction. Again, it may be due to the failure of a crop, as of the potato in the west of Ireland, or the famines in various parts of India. The treatment of distress will vary with the kind of distress, and will aim either at the alleviation of it, when actually existing, or the removal of its causes, and so the prevention of its recurrence. In the case of widespread temporary distress, temporary measures of relief are often tried. The poor-law is often stretched to allow of relief to able-bodied labourers after a labour-test, instead of limiting it to the workhouse, and in the same spirit charity is often in such cases administered with the help of a labour-test, works of public improvement being set on foot, and wages paid out of charitable funds. If carefully managed, with strict inquiry and personal supervision, these remedies are sometimes effective, but they are attended with great dangers. They are often demoralising to the employed, for the work done is quite disproportionate to the wages paid; they are largely resorted to by persons whose distress is chronic and due to causes within their own control; they attract applicants from other districts, and so swell the evil; they divert employment rather than increase it; they come to be regarded as a permanent source of relief. All these evils are intensified when temporary distress is met by indiscriminate almsgiving. The object of remedies should be to remove the causes from which distress comes, but this is no easy task. When it arises from speculation, or change of fashion, the cure can be found only in a higher sense of responsibility on the part of both producers and consumers. When it is due to overcrowding of a locality or an industry, the cure must be sought in organised effort directed towards an increased mobility of labour from place to place and employment to employment, an increased efficiency, a higher standard of living, a truer knowledge of self-interest. The state can do much, by insisting upon the minimum at least of sanitary progress, the provision of an elementary and perhaps a technical education; but the individual, by example and by influence, can do far more.

The mistakes so commonly made, with the best intentions, in attempts to relieve distress, arise from the scale on which such attempts are made more than from any other single cause. Before relief can be undertaken the mass must be broken up into its constituent units, for every individual differs in history, in circumstances, and in prospects from every other, and to attempt to apply the same remedy to all cases is as dangerous as it would be in medicine. But the power of discriminating between different kinds of need is itself the result of long experience, and even when a judgment has been formed on this point, the remedy is often far to seek. It would be impossible to lay down any rule which would cover all cases of distress, but perhaps the following principles apply to a large majority of them. 1. The help given should be determined far more by the future than the past or even the present, the two latter being valuable chiefly as a guide to the former. Many a remedy which is effective for the moment is disastrous in its after effects, and it will be so in proportion as it fails to make the recipient independent of further help. 2. All relief should be adequate to effect its purpose. 3. Help in money and kind, though often inevitable, should be sparingly given, for it tempts the recipient to have recourse to it on every emergency. 4. The results of the help given should be felt after the need for it is past, a man, *e.g.* who has been assisted by a loan should be taught, when the loan is repaid, to continue the economies required to pay the instalments, and put an equivalent amount weekly in the savings-bank. 5. The responsibility of the members of a family, one to another, should be enforced and developed. 6. Lastly, the knowledge and the judgment necessary to put these principles in practice can rarely be attained unless men act in some sort of combination.

[The relief of distress is the subject of the publications of the *Charity Organisation Society*, 15 Buckingham Street, W.C., especially the *Charity Organisation Review*, and the preface to the *Charities Register*. — Moggridge, *Method in Almsgiving*.—Booth, *Life and Labour*.—Pretyman, *Dispauperisation*.—Mackay, *The English Poor*.] L. R. P.

DISTRESS (Legal Term). The legal remedy known as distress consists in the taking of a chattel of the wrongdoer by the injured party as a means either of compelling the wrongdoer to give redress or of obtaining satisfaction out of the thing seized. Generally speaking, the party who has suffered by a breach of contract, or by a tort, must bring his action for damages, and, if the wrongdoer fails to pay the damages awarded, must have the goods of the wrongdoer taken in execution by legal process. He cannot of his own motion seize chattels of the wrongdoer. The remedy by distress is available prin-

cipally in the following cases: (*a*) where a tenant has made default in paying his rent; (*b*) where a person liable to tithe rent charge has made default in paying; (*c*) where a person liable to pay certain rates and taxes, *e.g.* poor rate or highway rate, has made default in paying. Also when cattle stray and do damage they may be distrained upon by the party injured.

Of the above cases the first is the most important. Subject to certain exceptions, the landlord may distrain upon the tenant as soon as the tenant has made default. A distress may not be made by night. In making a distress it is not lawful to break open the outer door of a house, but when the house has once been entered, any inner door may be forced in search of goods. All goods found on the premises, whether belonging to the tenant or to a third party, may be taken subject to certain exceptions, of which the chief are as follows: (*a*) in favour of the goods of a guest at an inn; (*b*) in favour of goods received by the debtor to be worked up in the way of his trade; (*c*) in favour of the bedding, the apparel, and the tools of the debtor and his family. The goods distrained must be kept five days,—or fifteen days if the owner so request in writing and give security for any additional cost incurred,—after which they may be sold. The surplus left, after satisfying the debt and costs, must be paid to the debtor. If the proceeds of sale do not satisfy the debt and costs, a second distress can be levied. The person distrained upon has legal remedies for irregular, excessive, or wrongful distress.

Historically the remedy of distress appears to be a relic of the period when legislators sought rather to regulate than to suppress the use of self-help by injured parties. It occupies a far more important place in the early Celtic and German codes than in modern law. It has been retained only in cases where the claim of the creditor was regarded as particularly strong. It has been criticised as exceptional, as harsh, and as unnecessary; but whether it should be altogether abolished is an open question.

[For the outline of the law of distress, consult Stephen's *Commentaries*, vol. iii. pp. 261-274.—For its details see Oldham and Parker, *Law of Distress.*—For an historical investigation of the remedy see Maine *On the Early History of Institutions*, lectures 9 and 10.] F. C. M.

DISTRIBUTION (or in full THE DISTRIBUTION OF WEALTH), serves in most economic text books as the heading of that part of political economy which deals with different classes of income such as rent, profit, interest, wages, and their subdivisions. The use of the phrase in this way is of modern origin.

The system of the PHYSIOCRATS (*q.v.*) involved the conception of the annual produce of a country being divided between the productive class, the sterile class, and the landlord class. The process of payments and exchanges, intermediate between production and consumption, by which the division ("*partage*," *Œuvres de Quesnay*, ed. Oncken, 1888, p. 315) was effected, was called "the distribution of the expenses of a nation" ("*la distribution des dépenses d'une nation*," *ibid.* p. 320). The *Tableau Économique* (see PHYSIOCRATS) was an arithmetical representation of "the regular order" ("*l'ordre régulier*," *ibid.* p. 319) of this distribution. If Adam Smith's account of the economical table (*W. of N.*, bk. iv. ch. ix.) be compared with Quesnay's *Analyse du Tableau* (*Œuvres*, ed. Oncken, pp. 305-328), no doubt can be felt that the latter part of the title of book i. of the *Wealth of Nations*, "of the order according to which its [labour's] produce is naturally distributed among the different ranks of the people," was like the title of Turgot's *Réflexions sur la formation et la distribution des richesses*, suggested by the physiocratic system. But in adopting the physiocratic phrase, Adam Smith slightly altered its meaning. Though he followed the physiocrats in attaching great importance to the division of the produce between the productive and the unproductive class (*W. of N.*, bk. i. ch. vi. *ad fin.*, and bk. ii. *passim*), what he understood by the distribution of the produce seems to have been, chiefly at any rate, its division into wages, profits, and rent; "The price . . . of all the commodities which compose the whole annual produce of the labour of every country, taken complexly, must . . . be parcelled out among different inhabitants of the country, either as the wages of their labour, the profits of their stock, or the rent of their land; the whole of what is annually either collected or produced by the labour of every society, or, what comes to the same thing, the whole price of it, is in this manner originally distributed among some of its different members" (*ibid.* bk. i. ch. vi.)

Having thus stated that the produce is divided or distributed into the three great portions of wages, profit, and rent, Adam Smith might have been expected to proceed to discuss the circumstances which determine the proportions in which it is divided between the three, to explain what determines the relative magnitude of the whole of wages, the whole of profit, and the whole of rent. He does not do so, however, but "endeavours to explain what are the circumstances which determine" (see ch. vii. *ad fin.*), the absolute magnitude of *per capita* wages, the rate of profit or ratio between profit and capital, and the absolute magnitude of rent per acre. There is therefore considerable justice in J. B. Say's remark that the *Wealth of Nations* contains "no complete and well-connected account of the manner in which riches are distributed among the community" (*Traité*, 8vo, ed. 1876, p. 37). Say did not supply

much of the deficiency himself, but his plan of making "production" and "distribution" the headings of separate parts of political economy has been generally followed by later economists. It was introduced into England by James Mill in his *Elements* (1821). Ricardo was led by the course of his argument against the corn laws (see his *Essay on the Influence of a Low Price of Corn*, 1815) to attach great importance to the proportions in which the whole produce of the earth is divided between rent, profit, and wages. "To determine the laws which regulate this distribution is," he declares, "the principal problem in political economy" (*Principles of Pol. Econ.*, pref.) But this problem did not supersede the older question as to the circumstances which determine the ratio between interest and capital, and the absolute magnitude of rent and *per capita* wages.

As regards the distribution of profits and rent among individual capitalists and landlords, economists have usually been silent, taking it for granted that every one knows why some individuals possess much property and others little or none. As regards the distribution of wages among individual labourers, it has in a similar manner been assumed that the reasons why some individuals earn more than others working in the same occupation are too obvious to require explanation, but it has been usual to follow Adam Smith (*W. of N.*, bk. i. ch. x.), in an endeavour to explain why the earnings of the average workman in some trades are greater than those of the average workman in other trades.

The distribution of wealth or income into rent, profit, and wages, and the distribution of these three shares among individuals, under present conditions, is the result of EXCHANGE (*q.v.*) Without exchange there could not, private property being understood to be established, be any conception of a joint income to be distributed. The value of the joint income reckoned in pounds sterling is merely the sum of the values of all the separate incomes, and without exchange these separate incomes could have no values to add together (see VALUE). The proportion of the whole income which falls to any man's share is determined by the value of his contribution to the production of that income, whether his contribution be work performed or the use of land and capital. This fact was so little recognised until recently, that James Mill and his son both thought it desirable to put distribution before exchange in their treatises (see Sidgwick, *Pol. Econ.*, bk. ii. ch. i. § 1).

For an account of the various theories which have been held respecting PROFITS, RENT, and WAGES, see these headings. For an explanation of the "wealth" the distribution of which is discussed in political economy, see WEALTH.

The word distribution is sometimes used by economists not in the technical sense dealt with above, but as equivalent to the process of conveying commodities from the producers to the consumers, and of dividing large quantities of a commodity into small quantities. See for example the long discussion on distribution in Malthus (*Pol. Econ.*, 1820, ch. vii. §§ 6, 7, 8, 9). This use of the word and kindred expressions is older than the technical usage. Lewis Roberts, in his *Treasure of Traffike*, 1641, speaks of "Commerce or Traffike which distributeth" the produce of a country "into forraigne parts." Adam Smith says that money "circulates and distributes" produce "to its proper consumers" (*W. of N.*, bk. ii. ch. ii.), and we still sometimes speak of merchants and retailers as "distributors," and of co-operative shopkeeping as "distributive co-operation." The kind of distribution contemplated in these modes of expression is a part of the process of PRODUCTION (*q.v.*) E. C.

DISTRIBUTION, ETHICS OF. The primary fact of economics is the production of wealth. The division of the product among those who create it is secondary in logical order and, in a sense, in importance. Yet the most important subject of thought connected with social economy is distribution. If the term be used broadly enough it designates all of the economic process that presents moral problems for solution. On the settlement of the ethical questions concerning the division of the social income depends not only the peace of society but the fruitfulness of industry. It is a striking fact that Ricardo, whose studies carried economic science forward in the direction of the truth concerning distribution, but stopped short of that goal, and so strengthened the hands of social agitators, realised the paramount importance of the subject on which his thought was chiefly concentrated: "To determine the laws which regulate this distribution," he says in his preface, "is the principal problem in political economy."

Scientific errors concerning the law of distribution react more harmfully on production than do errors of doctrine concerning production itself. Among self-asserting people, industry loses fruitfulness whenever the belief is widely diffused that products are shared according to an unjust principle. If it were a general conviction that social evolution is in the direction of iniquity,—that distribution already robs the workers and will rob them more hereafter,—no force could prevent a violent overturning of the social order.

Industry has its fruits and its sacrifices; it creates useful things at the cost of working and waiting. Where production is carried on in a collective way, both the products and the burdens of the process have to be shared by different classes of men according to some principle. The apportionment that has to be

made is not only of products, which represent positive values, but of sacrifices, which may be treated as negative values of a "subjective" kind. While the term distribution, as currently used, designates only the apportionment of the positive values, or products, it is capable of being used in a more complete sense, and made to include the apportionment of the negative ones also. It would then include all of economic science that involves moral problems.

Both parts of this twofold distributive process must in any case be studied if the ethical questions connected with industry are to be solved. There is no independent standard of justice in the distribution of products only. What a man ought to get out of the collective income of mankind depends on how much he or some one who represents him has sacrificed in helping to create it. The apportionment of the positive values referred to is inseparably connected with that of the negative values. Political economy must tell us how both products and burdens are actually shared, and ethics must tell us how both of them ought to be shared, if the existing plan of social industry is to be morally tested.

Political economy has not as yet furnished a theory of the actual distribution of positive values, or products of industry, that has met with general acceptance. It has scarcely attempted to furnish a theory of the distribution of the negative values. Ethical science has not furnished a clear standard of justice in the double apportionment.

Every producer experiences in his own person the double effect of industry; he is first burdened and then rewarded. The net effect of the two influences on the man's well-being may be termed the subjective resultant of production. A complete science of distribution must study the economic resultants in the case of different classes of men. How is a labourer on the whole affected by industry? What is the measure of the net benefit that comes to him from this source? How is a capitalist affected? How do the net effects compare with each other? What tendencies are at work to change the two, both absolutely and relatively? These are economic questions; while the ethical question is what the resultants in the two cases ought to be.

The personal resultant of industry is always a positive quantity. Work yields a net gain; the fruits of it are worth more than they cost. For the most hardly-used classes an industrial life is, by economic tests, more than worth living. The hours of labour in a day are increasingly burdensome as the period of work is prolonged. A man might labour three hours a day with little weariness and no injury. The eighth hour is wearying, and the tenth is more so. There comes a time at which work naturally stops, if the man is free, because working longer would cost more in the way of pain than it would secure in the way of pleasure. Final or marginal labour is that which just pays for the weariness that it costs. The gain that comes through labour offsets the burden that it entails at the point in the working day at which the burden is greatest. The less onerous labour of the earlier hours affords a net personal gain. If the man is paid by the hour he earns a part of his wages very easily. Intramarginal labour, as we may term it, affords a net subjective gain, what some would call PRODUCER'S RENT (*q.v.*)

Though the wages of all hours may be equal by money standards, they are of unequal utility to the man who gets them. His first earnings are spent on necessities, later ones on comforts, and final or marginal ones on things that figure in his estimate as luxuries. The last hour of his labour may ensure to him only the least important thing that he gets at all. It is the minimum benefit secured by an hour's labour that offsets the maximum sacrifice caused by it. There is therefore a second net gain coming to the worker in the spending of his money. As the sixpence or dime that is spent for a luxury benefits the man enough to offset the weariness of final or most fatiguing labour, those that are spent for food, clothing, etc., afford an additional benefit. The man enriches himself whenever he buys a loaf of bread. In general the sacrifices and the benefits of production just offset each other at the point at which the sacrifices are the greatest and the gains are the least. Everywhere except at the margin the gains are greater and the sacrifices are less.

Again the positive resultant of industry is increased by social organisation. Anarchy, even if it were peaceful, would increase sacrifices and diminish rewards. Whatever might be true of a sparsely settled world, a crowded world is dependent on the multiplying of productive power that combination brings. All classes are debtors to society. No serious case can be made against the existing social order on the ground that it lessens the gain that labour naturally brings.

The indictments brought against the social order are based on the comparative treatment that society accords to men of different classes. Are the benefits conferred on different ones what they ought to be relatively? Does society proceed capriciously in the allotment of rewards and sacrifices? Do some classes fail to get the proportionate benefit that is properly theirs? Are social tendencies in the direction of equity or away from it? These are the ethical questions to be solved by a comparison of the ideally just distribution with the actual one.

Of the ideals of distribution that have been advanced none has been crude enough to provide for the apportionment of the products of

industry and take no account of the burdens. A rule of equal rewards for unequal sacrifices would have no moral support. Ethical studies in this field really have as their object the attainment of a rule for adjusting what we have termed the personal resultants of industry, or a rule that, if followed in practice, would make the net effect of industry on the welfare of different classes equitable. Communistic theories make equality nearly synonymous with equity; but the thing that is to be equalised is seldom mere property or income. If the principle of equality be carried into refinements, so as to bring to one level the net benefits that society confers on all its members, the rule approaches, though it is still far from reaching, the ultimate moral ideal of distribution.

The better socialistic ideals are refinements of the rule of equality. In applying the rule to individuals, inheritance is the first disturbing influence encountered. The law of inheritance is based on a certain solidarity of families. Where it is in force the sacrifices of a parent may accrue to the benefit of a child. What we have termed the resultant of industry in the case of the heir to an estate is not to be measured by adding together positive values, represented by the enjoyments that the property brings, with negative values, represented by the inheritor's own sacrifices. If he be considered apart from his family the values in the case are nearly all positive. A crude levelling of individuals' net gains accruing from industry demands the abolition not only of inheritance, but of gifts from parents to children. Where it is advocated it is in the interest of purely individualistic equality.

The handing over of all capital to the state sweeps away even more completely inequalities of wealth in permanent possession. In theory it might avoid the evil connected with the abolition of inheritance, that, namely of reducing the capital that is necessary if wages are to be sustained at a high rate; since it is conceivable that the state itself might accumulate capital with needed rapidity. This measure also would, in effect, disregard the solidarity of families and tend to put men on a footing of individualistic equality.

Economic difficulties do not need to be considered in the shaping of a moral ideal. The vesting of all capital in the state would save the student of applied ethics one serious difficulty, that, namely, of determining whether the sacrifice of abstinence is unduly rewarded as compared with that of labour, or, in other words, whether interest is too high as compared with wages. A socialistic state has its moral duty simplified, since it has only to reward different kinds of labour equitably.

A scheme that is too crude to have much support makes the wages and the working hours equal for all. Estimate the wages in money or its equivalent, gauge labour by time only, and bring both to an equality in the case of the whole adult population. Even the rewards are not thus in reality equalised, and the sacrifices are very unequal. In real rewards unmarried men would be favoured and large families would suffer. The real sacrifices incurred would vary according to the nature of the work performed.

An improvement on this scheme provides a stipend for each dependent member of a family, and tries to equalise sacrifices by so reducing the number of hours of labour per day in occupations that are disagreeable or hurtful, as to bring all employments to a certain uniformity of burdensomeness. In the case of very disagreeable work the hours would be reduced to a minimum, while in occupations that are less and less repellent they would be shortened proportionately less. Production would of course suffer by this arrangement, and the ideal that the plan of division presents is that of small but equal pay, with easy work, for all.

Another scheme does not content itself with equalising what we have termed the personal resultants of industry, but aims to level inequalities of condition that lie at the back of industry itself. Society should do more for the lame and the blind than for those who have all faculties in possession, in order that the ultimate condition of all may be made as nearly equal as is possible. Here is the levelling policy in perhaps its most ambitious mood. It is not the treatment of men by society that is to be equalised, but the treatment of them both by nature and society. The industrial organism is to deal with its members unequally in order that it may somewhat neutralise the partiality of nature.

A rule of division that is often regarded as ethically lower than either of those above specified is that of compensation according to actual production. Give to a man the wealth that he creates, neither more nor less. Every one owns what he brings into existence; let not society wrest or filch from him any part of it. Let it keep itself clear from robbery and fraud.

If workers lived side by side in peaceful anarchy, with no division of labour and no exchanges, each man would get what he created. He would get little, but he would get all that would be his own. Introduce now a social union that multiplies products ten-fold but increases some men's returns only five-fold, and you seem to benefit these men and to rob them at the same time. If in organised industry some of the product that is distinctly attributable to labour itself finds its way into the hands of men who do not create it, the labourer suffers a wrong, even though the share that he still keeps may be larger by reason of the fact of his connection with the men who rob him. Such is the conception of industrial society that exists in many minds. The socialistic indictment

against society is that it filches from workers a part of their share of the *extra* product of industry due to organisation. Does society, under natural law, take from labour a product that is distinctly attributable to it? This is one of the most important questions in economics. A successful analysis of social production answers it. What needs to be known is what part of the composite result of industry is distinctly due to labour itself. In a land peopled by isolated producers and managing to live in peace, each man would get his own; does exchange vitiate this result? If so, organisation proceeds here on an unusual principle; since the complications of society as a rule disguise essential facts of primitive industry, but do not annul them. The presumption is that the man who got his own when he worked alone gets it when he trades with his neighbour on terms of genuine freedom, and that a true analysis of social relations will show the fact. If so, society tends actually to conform to the rule "to every man the product that is distinctly attributable to the sacrifices that he or others in his interest have made." There is common honesty in the distribution that takes place under natural law.

[The literature of the subject of economic ethics is not as scanty as it is one-sided. The basis of the socialistic movement is ethical, and much of its literature is designed to prove that society is organised on a plan that systematically wrongs workers in the apportionment of the social income. A defence would naturally aim to show that the law of distribution is not itself iniquitous, however many particular cases of injustice might arise under it. A weak point in the defence is the lack of a clear demonstration of the complete nature of the actual law of distribution, a lack that, as is hoped, may soon be supplied. In the meanwhile statistics are appealed to on both sides to prove, on the one hand, that the actual apportionment of wealth is departing more and more from the ideal standard, and, on the other, that it is tending towards it. For important socialistic arguments see Rodbertus's *Zur Erkenntniss unserer Staatswirthschaftlichen Zustände;* Marx's *Kapital*; and Louis Blanc's *Organisation du Travail*. For an argument aiming to prove that the private ownership of land involves progressive injustice in distribution see Henry George's *Progress and Poverty*. Of the numerous replies to this work, that contained in F. A. Walker's *Land and its Rent* may be specially mentioned. An historical treatment of this subject is found in Thorold Rogers's *Six Centuries of Work and Wages*. A theory of a law of utilitarian morality in economic evolution is presented in G. de Molinari's *La Morale Économique*. See also M. Minghetti, *Des Rapports de l'Économie Publique avec la Morale et le Droit* (Guillaumin et Cie). Many of the best studies of the favourable features of the existing mode of apportioning the social income are to be sought in the standard treatises on political economy mentioned in connection with article DISTRIBUTION, LAW OF (*q.v.*)] J. B. C.

DISTRIBUTION, LAW OF. The most important share of the income of society is the one falling to labour. The so-called "wage fund" theory accounted for the rate at which labourers are paid on the ground that wages come from a fund of capital devoted to this purpose, and that the rate per man depends on the size of the fund and the number of the claimants. The discovery of the fact that wages come from the product of industry, and not from capital, has made a new theory necessary, and has opened the way to the discovery of a general law of distribution.

The parties in the division of the general product of industry are—(1) those who contribute to production the element labour; (2) those who contribute instruments, or wealth in productive forms; and (3) those who bring labour and productive wealth into co-ordination by hiring both of these agents, and receiving and selling their products. The labour furnished includes the work of management, as well as other kinds of industrial effort; and the productive wealth, as the term is here used, includes land as well as other instruments. The co-ordinating function is, in this enumeration, kept distinct from the other two; the man who performs it is not to be treated in this connection as a labourer or as a capitalist, but as the employer of both labour and capital.

The shares to be accounted for are thus wages, interest, and pure profit, and these shares will include the rent of land and the wages of superintendence. The generic varieties of gain come from putting forth productive effort of some kind, from furnishing productive wealth in some form, and from bringing the effort and the wealth into co-ordination.

The scientific law of distribution determines what reward shall attach to the performing of one of these functions. It does not gauge the income of a particular man, since a man nearly always performs more than one function. A capitalist usually works, a labourer usually has capital, and an *entrepreneur*, or co-ordinator of labour and capital, almost invariably owns some productive wealth, and does some directive work. A scientific study aims to discover what determines the gain that attaches to the working, to the saving, and to the co-ordinating. As a man is a composite functionary, it tells us how much he naturally gets in each of his various capacities.

The Nature of the Distributive Process.—Social production is a synthesis of distinguishable elements. Distribution is an analysis; and it reverses the synthetic operation step by step. In organised production one worker does not complete a product from the beginning; if he applies his energy to crude nature and begins the making of something that the wants of society require, he passes the product in an incomplete state to a successor. This man

in turn advances the article nearer to completion and hands it over to a third man. The product, when ready for final use, has passed through the hands of a series of workers each of whom has put his touch on it and passed it to his successor.

The process may be represented by the following diagram :—

Synthesis resulting in the completed product, clothing.

1st Sub-Product. Elementary Utility. Wool.	2nd Sub-P. Place U. Transporting.	3rd Sub-P. Form U. Manufacturing.	4th Sub-P. Form U. Tailoring.
Resulting from the joint action of Capital and Labour.	Joint result of C′. and L′.	Joint result of C″. and L″.	Joint result of C‴. and L‴.

The garment, when completed, is an aggregate of distinct utilities, and we use the term sub-product to denote the quality imparted to it by each specific group of producers. The sharing of the value that a coat represents among the groups that have performed the specific operations of production is an analytical operation, that follows, in a reverse direction, the steps of the productive synthesis.

The first sub-product in the series is wool. It embodies an "elementary utility," or one that results from calling a raw material into existence. The merchant's sub-product is only the special utility imparted to the wool by conveying it to his warehouse, assorting it, and dividing it into quantities convenient for purchasers. It is mainly a "place utility," which is the service-rendering quality that a thing acquires by being taken to the place where it can be used; though in a complete statement it would be necessary to recognise a "form-utility" due to assorting and dividing. The manufacturer's sub-product is not the cloth, but the "form-utility" imparted to the wool by transmuting it into cloth. The tailor's sub-product is the further "form-utility" imparted to the cloth by making a coat of it. Each specific utility is created by the joint action of labour and capital; and each of these agents must have its share of the value embodied in its sub-product.

In order that the action of labour and capital within the sub-groups may be a joint-action at all, it is necessary that a certain co-ordinating act be done. Some one must hire labour of the right kind, borrow capital and invest it in the proper forms, and cause the two to co-operate. This is the work of the entrepreneur, in an unusually limited sense of the term. This functionary, in his capacity as entrepreneur, is not a capitalist and not a labourer, however frequently it may happen that the man who performs the co-ordinating function may perform others as well. The co-ordinator, as such, is not a business manager or superintendent. The performing of this function does not require salaried labour; indeed, after the process is begun, it scarcely requires effort at all.

Bargaining operations first divide the total product of industry among the general groups of which society as a whole is composed. How much wealth shall come to the entire group of workers, capitalists, and entrepreneurs who are engaged in the creating of the finished products, woollen garments? That depends on the price for which the garments sell. A myriad of finished products from other groups in the world at large must come, by way of exchange, to minister to the wants of the men in this one group; and the quantity and quality of those products is fixed by the sale of the clothing. This sale, and others like it, perform the first and most generic dividing act that takes place in the process of distribution. It determines the total income of those who contribute to the production of clothing.

What fixes the part of the income of this general group that goes to each of the sub-groups that compose it? Bargains again. Each group must buy the utilities made by those that come earlier in the series, and sell them, with the addition of its own utility, to the group that succeeds it. The manufacturing group buys wool and sells cloth; and what it receives, less what it pays, constitutes the reward of the manufacturing operation. As the first division of the income of society resolves it into rewards of general producing groups, the first subdivision resolves the portion falling to one general group into shares for the sub-groups that constitute it.

A further division is to be effected: it is that of the shares falling to labourers, to capitalists, and to entrepreneurs in each subgroup. Here is the test operation of distribution; in this smallest of fields is created and divided the wealth that rewards each class in industrial society.

The productive operation from the fruit of which labour and capital get their pay is *intra-groupal;* it goes on within the specific industry in which a particular force of men and their quota of capital are engaged. The value that rewards woollen weavers and spinners and the men who furnish them capital is created wholly within the mill, and the sum that is divided between these classes is a sum on which no others have any claim. Yet the fact that labour and capital both migrate freely from group to group, so that workers from any group are able to share in the special gains that may come to the earners in any other, creates a certain solidarity of labour on the one hand, and capital on the other. Give to the wool spinners an advance of wages, and movements of labour will in the end distribute the gain among the whole working class. On the

other hand, change the cardinal relations of labour and capital as a whole, and you change them in the end within every sub-group. Labour is in reality *trans-groupal*, and capital is the same. Each is a productive agent, the field of which extends directly across the sub-groups of the diagram. It is the relation of all capital to all labour that determines wages and interest. The law of wages is nothing if not general, and the same is true of the correlative law of interest.

It is a familiar fact that interest and wages tend toward uniformity in different occupations. Men of different productive powers may earn different rewards, even within a single trade; and the labour of management regularly receives more than work of the ordinary kinds. Men differ in the amount of working force that they possess, but men of like power tend to receive uniform wages throughout the series of industrial groups. If wages are high in the woollen mill the young men and women who are about entering the field seek out this part of it, and by their competition reduce the wages there prevalent to the rate that prevails elsewhere. Interest tends to a similar uniformity; under free competition it tends to keep the same rate in all industries.

With interest has often been vaguely grouped what we have termed pure profit itself; the gross gains loosely attributed to capital tend toward equality. It is, however, in a special way that the element that we have distinguished as pure profit tends toward equality in different industries. Wherever it comes into existence it sets at work forces that tend to sweep it again out of existence. In a way this gain is self-annihilating. The uniform rate toward which pure profit tends,—though it never reaches it in all groups at once,—is a zero rate. Here, indeed, we reach controverted ground, and can claim only to present one theory, not a view that has universal support; but the evidence in favour of the correctness of the view is simple and conclusive. Competition tends to annihilate pure profit. The existence in one sub-group of a gain that is in excess both of interest on all the productive wealth that is there used, and of pay for all labour, is an inducement to the entrepreneurs of the group to hire in the market both capital and labour, and secure the pure profit that their joint industry creates. Let woollen mills pay wages, including salaries, and a double interest on the capital that they use, and the mills will speedily enlarge their capacity. The increase in the product will then reduce the price of it, and ultimately bring the enlargement to an end. Under natural law the sub-groups are in stable equilibrium when, aside from insurance and taxes, each earns wages on all labour, including the labour of management, interest on all capital employed, and nothing more. On this point the testimony of experience confirms the conclusions of theory.

The equilibrium is never in practice perfect. Causes that cannot here be analysed in any fulness cause the element pure profit to continually reappear. Inventions, as applied in particular industries, give to one and another of the sub-groups a gain that is in excess of that which perfectly stable conditions would afford. The occupation of new land creates, in a local way, a pure profit for the earlier comers. Continually appearing in particular parts of the field, and slowly disappearing by reason of competition,—such is this element of the social income. If we watch a single sub-group we find the profit at intervals appearing and disappearing; if we watch the industrial field as a whole we find it everywhere present, though not long at the same points.

Pure profit depends on a relation between industrial groups. What the manufacturer pays to the earlier groups in the series above represented, and what he receives from the tailoring group, determine this part of his gain. The actual position of the entrepreneur himself, in the diagram that describes the sub-groups, is on the line that separates his own industry from the following one. He is a purchaser of everything that is produced on the left of that line. In the buying of materials he purchases the products of the earlier sub-groups, and in the paying of wages and interest he virtually buys the sub-product created in the group to which he himself belongs. The entrepreneur of the woollen mill buys wool, and so pays for the sub-products created by wool growers and merchants; and he buys the form-utility created in the woollen mill itself by making bargains with workmen and capitalists, giving them fixed sums, and inducing them to relinquish their claims on the cloth. As the place of a particular workman and of a particular amount of capital is, in the diagram, *intra-groupal*, so that of a particular entrepreneur is *inter-groupal*. Workers and capitalists get their pay from results secured wholly within their own industries, while entrepreneurs get theirs from the fruits of mercantile transactions between earlier groups and later ones. Pure profit does not depend on the relation between capital and labour. Moreover, where this profit exists it is local, it depends on the relations between adjacent groups.

We have shown that there is no law of wages that is merely local. There is no force that gauges the pay of wool-spinning independently of the wages paid in other employments. There is a level toward which all wages tend. There is likewise a level toward which interest in every group tends. What is the law that fixes these levels? What is the general law of wages and interest? Here again we are on ground that is actively contested, and we

therefore only indicate the nature of a certain theory without claiming for it a position of general acceptance, and without arguing any points in controversy.

In presenting it we may utilise a Ricardian formula for determining the rent of land. If we apply to a fixed area of land an increasing amount of labour, we get returns that diminish *per capita*. The first man set working on 100 acres creates a certain amount of wealth as the result of the tillage. Adding a second man does not double the crop. Adding a third does not increase by a half the product due to the former two. Each man, as he comes into the field, adds less to the total output of the industry than did any of his predecessors.

This hypothesis makes the men enter the field in a certain order of time, and the one who is the final man is so in a literal sense—he is the last to arrive. Actually putting the men into the field one at a time is not necessary in order to reveal the principle that governs the final productivity of labour. Let the full complement of men occupy the field at once, and there will still be what may be treated as the final increment of labour. Take any man away from the force that tills the field, and the remaining men will gain in *per capita* productivity by reason of his absence. The departure of one man out of a force numbering twenty does not reduce the crop by a twentieth, since the nineteen men remaining work at better advantage by reason of the withdrawal of one. The final productivity of labour is gauged by what would be lost if one man out of the force were to stop working. We may, by way of illustration, actually set the men working one at a time, and find what the last comer creates; or we may set them all working at once and see what would be lost by the departure of one. The conclusion is the same in either case: the final unit of labour is the least productive.

If, now, land were the only form of productive wealth that figured in the case, wages would equal the amount created by this final or twentieth man. That would gauge the amount that the employer would lose through the departure of any one man in the force. It would determine what he could afford to pay to any one. Each man tends to get what he is separately worth.

What would be true in the case of labour applied to land, and using no other capital worth considering, is actually true of labour applied to a fixed amount of general capital, or to a fixed quantum of wealth in all productive forms, including both land and other instruments. For the field of limited extent in the Ricardian illustration substitute a fixed value, expressible in pounds or dollars, and invested in such appliances of every kind as the needs of the working community require. If there are a hundred men in the force, the departure of one of them will not reduce the product by 1 per cent. His departure will add somewhat to the productivity of the remaining workers. After he is gone the capital will adapt itself in form to the needs of the ninety-nine, and it will be in a slight degree more ample in quantity per man. Wages are gauged, as in the former case, by the final productivity of labour. What on the whole is lost by the departure of one man fixes the importance to employers of every man. If each man gets what employers would lose by his absence, he gets what he is effectively worth.

This principle in a reversed application fixes the rate of interest. It is the productivity of the final increment of capital, as employed by a fixed labour force, that gauges the pay of each increment. Let there be 100 men using 100 units of capital. Take, now, one unit of capital away, and you will not reduce the product by 1 per cent. The 99 units of capital will have gained in productivity per unit in consequence of the departure of the hundredth. The loss inflicted on the entrepreneur by the withdrawal of the one unit of capital gauges the importance of any single unit. Each unit of capital gets as its compensation what would be lost if one unit of capital were withdrawn. This diminution of the total product due to the departure of the final unit of capital gauges the importance to the entrepreneur of each separate unit. It determines what he will pay for the use of each one. Interest is therefore gauged by the final productivity of capital. Each pound or dollar tends, under natural law, to secure for its owner what, in production, it is separately worth.

[For statements in harmony with this theory see J. B. Clark's *Philosophy of Wealth* and *Capital and its Earnings*, and Clark and Gidding's *Modern Distributive Process*. See also *Quarterly Journal of Economics* for April 1891.

For other views on the subject see F. A. Walker's *Political Economy*, and E. v. Böhm-Bawerk's *Capital and Interest*.—J. E. Cairnes's *Leading Principles of Political Economy*.—F. D. Longe, *Refutation of the Wage Fund Theory of Modern Political Economy*.—W. T. Thornton's treatise on *Labour*.—F. A. Walker's treatise on *Wages*.—Henry George's *Progress and Poverty*.—F. v. Wieser's *Natürliche Werth*, and the general economic treatises of Adam Smith, Ricardo, J. S. Mill, Jevons, Carey, Sidgwick, Marshall, Roscher, Wagner, Knies, Cohn, Schönberg, J. B. Say, Garnier, Gide, and others.] J. B. C.

DISTRIBUTION, USES OF THE TERM. In the early half of this century English economists fell into the habit of grouping their subjects under three heads, of which Distribution and Production were almost always two, while the third varied (*Consumption*, James

Mill; *the Nature of Wealth*, Senior and John Mill). Adam Smith had not followed the physiocrats and Turgot ("Formation et Distribution de la Richesse") in giving prominence to the term, and he has often been accused of neglecting distribution in favour of production (see Sidgwick, *Pol. Econ.*, pp. 24-25). Ricardo, on the contrary, wrote to Malthus in 1820: "Political Economy you think is an inquiry into the nature and causes of wealth; I think it should rather be called an inquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation. Every day I am more satisfied that the former inquiry is vain and delusive, *and the latter only the true object of the science*" (*Letters*, p. 175). John Mill (*Pol. Econ.*, 1848) lays stress on the difference which, he says, exists between the laws of production and the laws of distribution. The former are physical facts; the latter are of human institution solely. It has seemed to later economists hardly possible to assert the purely physical character of the first (see Mill himself, *Unsettled Questions*, p. 133) or the purely arbitrary character of the second, or generally speaking to consider distribution quite apart from production, consumption, and the nature of wealth. But it has seemed desirable to define the several distinct notions clearly, for the purpose of methodic investigation, and the question arises whether (*a*) distribution is to be detached from exchange and transportation, etc., or (*b*) is to be the genus of which they are species. The latter is the view implied in the common language of men. The dividend is sometimes conceived as the total wealth, sometimes as the total income of the country, the participants being the inhabitants. Distribution of wealth is perhaps less strictly a question for the mere economist than distribution of income. The narrower view (advocated amongst others by Prof. Walker, *Pol. Econ.* (London, 1888), pp. 31, 187-193, and by Ricardo in the words above quoted) is that distribution must be confined to the sharing of the product among the producers. It is urged again that it must not include mere transportation of goods, *e.g.* from the place where they are not wanted and not saleable to the place where they are both,—this being not a distribution but a completing act of production (Sidgwick, *Pol. Econ.*, p. 171, etc.) According to this view it would exclude many cases of exchange, for exchange might mean a transfer from producers to non-producers. On the other hand, John Mill expressly regards distribution as including exchange (which is simply distribution under competition, see *Pol. Econ.*, III. i. § 1), and certainly to Ricardo exchange and distribution were nearly convertible terms. Professor Marshall even devotes a special section to "value *or* distribution and exchange" (*Principles*, bk. vii.) Professor Newcomb (*Pol. Econ.*, II. ii. 61) avoids the term and describes the three operations needed to present the consumer with the finished article as production, transportation, and exchange. If we confine distribution to a sharing among producers, we find that we must (1) include those who are not producers in the ordinary sense of the word, *e.g.* landlords, and (2) we must exclude middlemen and retailers into whose hands the goods pass by exchange on their way to the consumer, and (3) we must nevertheless include labourers and capitalists who have bargained for parts of the product, as wages and interest. Exchange would thus be partly excluded, partly included; and we are made to realise the difficulty of separating in theory what is conjoined in practice. J. B.

DISTRIBUTION, COST OF. See PRODUCTION AND DISTRIBUTION.

DISTRIBUTION, STATUTES OF. These Statutes (22 & 23 Car. II. c. 10 and 1 Jas. II. c. 17) regulate the distribution of the residuary personal estate of a person dying intestate—not being a married woman. In case of the intestacy of a married woman the husband takes the whole residuary personalty for his own benefit. In all other cases it is divided as follows:—

1. The widow takes one-third if any descendants survived the intestate, and one-half if none survived.

2. The children and descendants of deceased children take two-thirds if a widow survived the intestate, and the whole if the intestate left no widow; the descendants of deceased children in each generation together take the share which their deceased parent would have had if he or she had survived the intestate.

3. The half remaining in the case of a widow but no descendants surviving the intestate, or the whole in the case of neither widow nor descendants surviving him, goes to his father, and if the latter does not survive him, to his mother, his brothers and sisters, and the children (but not the remoter descendants) of brothers and sisters, the mother and each brother or sister taking equal shares, and the children of a deceased brother or sister together taking the share which their deceased parent would have had, had he survived the intestate. If none of the relatives named survive the intestate the next of kin nearest in degree are entitled in equal shares. (See BEQUEST, POWER OF; DESCENT OF PROPERTY.) E. S.

DISTRIBUTION OF THE PRECIOUS METALS. On this branch of the theory of international trade the conclusions of the "older school" of economists are still, in the main, unshaken. Adam Smith's contribution to the general theory, although invaluable (see MERCANTILE SYSTEM), was largely negative. It is to his successor Ricardo that we owe the first clear statement of the principles which

regulate the territorial distribution of the precious metals (*Principles*, ch. vii. p. 77). "Gold and silver, having been chosen for the general medium of circulation, are, by the competition of commerce, distributed in such proportions amongst the different countries of the world as to accommodate themselves to the natural traffic which would take place if no such metals existed, and the trade between countries was purely a trade of barter." Notwithstanding modern developments of trade and credit, this dictum, slightly supplemented, still holds good. To realise its full meaning it is necessary to go back a stage, and to recall the principle which regulates international trade when carried on by barter (see BARTER). This has been stated by Mill (*Principles*, bk. iii. ch. xviii.) "The produce of a country exchanges for the produce of other countries at such values as are required in order that the whole of her exports may exactly pay for the whole of her imports." This law of international values applies also, without essential alteration, after the introduction of the precious metals, and one of the leading functions of money in international trade consists in adjusting temporary disturbances of the equation, since (Tooke, *State of the Currency*) "an increased export of ordinary commodities cannot always be made with the promptness which a sudden exigency may demand." There is general agreement among economists in regarding prices as being now the chief agent in effecting the movements of gold and silver, both between mining and non-mining countries, and between non-mining countries themselves. It is by successive waves of price that the gold of Australia and California is exchanged for the products of commercially related countries, and, through those countries, is further divided among the nations of the world; so that any alteration in the stock of one is ultimately felt by all (for the differences in the case of India in relation to this process, see Bastable's *Theory of International Trade*, p. 67). In view of the number and variety of influences affecting prices, the frequency of the transmission of gold and silver is thus largely accounted for. One of these influences—improvement in production—may be selected for reference, both on account of its increasing importance, and because it is a favourite illustration with writers on the subject. Thus Ricardo (*Principles*, p. 80, and frequently elsewhere)—"The improvement of a manufacture in any country tends to alter the distribution of the precious metals amongst the nations of the world." That this is so may be easily seen. Leaving out of consideration, as being sufficiently obvious, the effect, in attracting a flow of money, of the cheapening of commodities not previously exported (see Mill, *Principles*, bk. iii. ch. xxi.), we find that an improvement in a country's methods of production may have different results, according to the effect of the consequent cheapness upon the foreign demand. Unless that demand happen to be increased in proportion to the cheapness, there will be a movement of the precious metals in one direction or the other pending the re-adjustment of the disturbed international equation, and experience shows that, *cæteris paribus*, the influx is generally in the direction of the country which excels in manufactures. A national advantage in the production of commodities valued for export may have the same effect.

For the effect of improved banking facilities on distribution, see Lord Overstone, *Tracts, etc., on Metallic and Paper Currency*, p. 473 ff.

Recent improvements in foreign methods of production have been suggested as a possible partial explanation of the fact, of which there seems little room for doubt, that the quantity of gold in this country is now less than it was twenty-five years ago (see Bibliography at end.) Far more powerful causes than this, however, may be found in the great developments which recent years have witnessed in our banking and credit system, and in other economising devices which have enabled a greater volume of transactions to be carried on upon a comparatively smaller metallic basis. The great disparity, for instance, between the amount of money per head of the population in the United Kingdom, in France, Germany, and the United States, is largely due to the difference in the habits of these nations in regard to banking and credit. The amount in circulation in 1891 was estimated as follows:

Estimated stock of gold and silver, and actual amount of "uncovered" paper money on 1st November 1891 in the United Kingdom, France, Germany, and the United States.

(The $ converted as 5=£1). Annual report of the secretary of the treasury (U.S.A.) on the state of the finances, 1891, p. 156.

IN MILLIONS OF POUNDS STERLING.

Country.	Population.	Gold.
	Millions.	Millions.
United Kingdom . .	38	110
France	39	160
Germany	49½	108
United States . . .	64	134·2

Country.	Silver.	Uncovered Notes.	Total Metallic Stock and Uncovered Notes.
	Millions.	Millions.	Millions.
United Kingdom	21·4	8	139·4
France . .	140	17·6	337·6
Germany . .	44	30	182
United States .	107·8	81·95	323·95

AMOUNT PER CAPITA IN STERLING.

Country.	Gold.	Silver.	Total Coin.	Paper.	Total Coin and Paper.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
United Kingdom	2 17 10	0 11 3	3 9 1	0 4 2	3 13 3
France . .	4 12 4	3 11 5	8 3 9	0 9 5	8 13 2
Germany . .	2 3 8	0 17 9	3 1 5	0 12 1	3 13 6
United States .	2 1 11	1 13 8	3 15 7	1 5 7	5 1 2

The fact of the use of two metals, in different countries, as standards of value, though of the utmost importance in other connections, does not necessitate any re-statement of the question, since it will be found that the movements of both metals are regulated by the same general laws (see Del Mar's *History of the Precious Metals*, p. 190). The influence of legislation upon the distribution of the precious metals is worthy of notice. The marked increase which recent years have witnessed in the proportion borne by silver to the total metallic stock of the United States is chiefly owing to this cause (see BLAND ACT), and the reform of the Austrian currency cannot fail to alter, to some extent, the general proportions in which both gold and silver are at present distributed.

The following table, taken from statistics prepared by Mr. Leech, Director of the United States Mint, shows the circulation of gold, silver, and uncovered notes per head of the population in the various countries of the world. The date may be taken approximately as the year 1891. The statement, with the others quoted above, must be understood only as estimates.

DOLLARS CONVERTED AT $5=£1.

Country.	Gold.	Silver.	Uncovered Notes.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
United States .	2 2 2	1 14 2	1 6 0	5 2 4
Great Britain .	2 17 10	0 10 5	0 3 3	3 11 6
France. . .	4 12 2	3 11 10	0 8 5	8 12 5
Germany . .	2 0 4	0 16 7	0 8 7	3 5 6
Belgium . .	2 2 7	1 16 0	1 15 5	5 14 0
Italy . . .	0 12 0	0 6 9	1 1 0	1 19 9
Switzerland .	1 0 0	1 0 0	0 18 7	2 18 7
Greece . . .	0 3 7	0 7 3	1 5 5	1 16 3
Spain . . .	1 2 2	1 7 10	1 0 10	3 10 10
Portugal . .	1 12 0	0 8 0	0 4 9	2 4 9
Austria-Hungary	0 3 0	0 9 0	1 6 0	1 18 0
Netherlands .	1 2 2	2 17 10	1 15 7	5 15 7
Scandinavia .	0 14 9	0 4 7	0 12 7	1 11 11
Russia . . .	0 6 7	0 2 0	0 17 7	1 6 2
Turkey . .	0 6 0	0 5 5	..	0 11 5
Australia . .	5 0 0	0 7 0		5 7 0
Egypt . . .	2 17 2	0 8 7	..	3 5 9
Mexico . .	0 1 7	0 17 3	0 0 7	0 19 5
Central America .	..	0 0 7	0 2 7	0 3 2
South America .	0 5 2	0 2 10	1 14 2	2 2 2
Japan . . .	0 9 0	0 5 0	0 5 7	0 19 7
India . . .	..	0 14 0	0 0 5	0 14 5
China . . .	..	0 7 0	..	0 7 0
Canada . .	0 14 2	0 4 5	1 15 7	2 14 2
Cuba, Haiti, etc.	2 0 0	0 4 0	4 0 0	6 4 0

[In addition to the works mentioned in the text, see pamphlet, Ricardo, the *High Price of Bullion*.—F. A. Walker, *Money*, ch. iii.—"Movements of the Precious Metals," by J. Shillcock, *Journal Institute of Bankers*, vol. ii. p. 497. For statistics and estimates of past and present production, distribution, total stock, coinage, and use in the arts of the precious metals, see Jevons's *Investigations*, p. 262, etc.; Palgrave, Appendix B, Third Report of Royal Commission on Trade Depression, 1886; Soetbeer, "Materials," etc., translated in Appendix to Final Report of the Gold and Silver Commission, 1878; Reports of the Deputy Master of the Mint, and the Reports of the Director of the United States Mint for 1891 and previous years.] F. E. S.

[N. W. Senior, *Three Lectures on the Transmission of the Precious Metals from Country to Country*, 1827.—J. E. Cairnes, "The Australian Gold Episode" (in *Essays in Pol. Econ., Theor. and Applied*, 1873).]

The actual course of the distribution of the precious metals depends largely on the position of the producing countries. Thus in classical antiquity their movement was from Asia Minor and Spain to Greece and Italy. The opening of the American mines in the 16th century gave an entirely new direction to the monetary current, which passed first to Spain and Portugal, to be thence, in spite of prohibitions, distributed to the principal centres of European trade, outlying countries being for a long time unaffected (Cliffe Leslie, *Essays*, 2nd ed., 1888, pp. 269-300). At present Australia, the United States, Mexico, and South America are the sources of monetary currents that flow to the countries most closely connected by trade (see GOLD and SILVER). Of equal importance is the tendency —noticed by Pliny (79 A.D.), and still in action —of the precious metals to move towards the east, in consequence of the habits of hoarding produced by industrial insecurity. India has always been the chief recipient, the export thither for the period 1853-1885 being estimated at: — silver, £278,448,224; gold, £91,480,004; total, £369,928,228—but China and the Dutch East Indies also absorb silver.

Besides these permanent movements, various agencies lead to temporary changes in distribution. Thus the AUTUMNAL DRAIN (*q.v.*) on the Bank of England is now well-known, and the same phenomenon is noticeable in the United States, where "moving the crops" leads to a demand for increased currency in the West, and a corresponding drain on New York. Such internal fluctuations are paralleled by international movements. A bad harvest in England is one of the causes of a foreign drain, sometimes ending—as in 1847—in a crisis. More generally, any trade disturbance will show its effect in redistribution of the stock of bullion, an adjustment facilitated and carried out through the mechanism of the EXCHANGES, FOREIGN (*q.v.*) Travellers may directly transport some portion of the money of the world, and governmental requirements may, apart from the exchanges,

lead to transfers of bullion as of other commodities (Clare, *Money Market Primer*, p. 109). State administrations often accumulate money in the process of collecting revenue, and further create hoards for military or other purposes, *e.g.* the German Treasure of £6,000,000 at Spandau. Both in France and in the United States, the sub-treasuries lock up coin, in the latter to a very large amount. The creation of central banks, on the other hand, has drawn a large proportion of the metallic circulation to a few points, and thereby—artificial restrictions apart—has made redistribution easier. The telegraph is an additional aid in securing speedy readjustment of the existing stock when required, and in connection with the refined system of the exchanges, and modern credit arrangements, reduces the need for money bullion to the minimum.

[G. Clare, *Money Market Primer*, London, 1891.—W. Jacob, *Production and Consumption of the Precious Metals*, 2 vols., London, 1831 (chs. iii. viii. and xiii. deal with movements of the metals).—A. Sötbeer, *Materials*, etc., trans. F. W. Taussig, in U.S. Consul's Reports, No. 87, Dec. 1887, pp. 515-528]. C. F. B.

DISTRIBUTIVE JUSTICE in political economy means justice in the distribution of wealth (see DISTRIBUTION, ETHICS OF). As to what constitutes a just distribution, opinions agree only in being chiefly of a negative rather than a positive character. The communist does not contend that perfect justice would be attained by his system of equality modified by differences of need, so much as that the injustice of the present great inequalities of wealth is obvious. The socialist says little about the distribution of wealth which would prevail if his arrangements for making the state the only proprietor of land and capital were carried out, but insists at length on the injustice of allowing private owners of property to enjoy a part of the produce of labour without having worked for it. The defender of private property seldom follows BASTIAT (*q.v.*) in maintaining that the present system is just, but contents himself with urging that the schemes of social reformers would be even less just. The ordinary person who has not thought much about the subject does not question the justice of the distribution which is the result of private property and exchange as a whole, but he is constantly denying the justice of essential parts of it. Compassion for poverty and sympathy with the worker as against the idler frequently lead him to deny the justice or fairness of perfectly honest and open bargains. Still more often it happens that self interest leads him to deny the justice of the existing distribution so far as he himself is concerned; the widely-accepted maxim of distributive justice, "a fair day's wages for a fair day's work," is often understood by the employed as meaning a little more wages or a little less work, and by the employer as meaning a little more work or a little less wages, than the amount fixed by free competition.

Economists have usually declined to discuss distributive justice at any length, holding that it is a question of ethics rather than of economics (see COMMUNISM, INDIVIDUALISM, PROPERTY, SOCIALISM).

[Cairnes, *Leading Principles*, pt. ii., ch. v.—Sidgwick, *Pol. Econ.*, bk. iv. ch. vi.—H. Rashdall, "What is Justice?" in the *Economic Review*, October 1891 and April 1892.] E. C.

DISTRINGAS. A writ of distringas was formerly used for the purpose of protecting persons beneficially interested in stock standing in another person's name. This procedure does not exist any more, but a notice may now be sent to the bank or company in the books of which the stock in question is registered, accompanied by an affidavit stating that the person issuing the notice is beneficially interested in the stock. The bank or company to whom the notice is given, must, as soon as the person in whose name the stock is standing attempts to transfer the same, inform the person who issued the notice, who may thus take immediate proceedings to obtain an order of the court restraining the transfer. If no such restraining order be obtained within a week the transfer of the stock must take place. E. S.

D'IVERNOIS, SIR F. See IVERNOIS, Sir F. DE.

DISUTILITY. See DISCOMMODITY.

DIVIDEND ON STOCK AND SHARES.—The amount of interest or profit divisible among holders of stock or shares; also the amount payable to each stockholder or shareholder.

Questions as to payment of dividends to shareholders in incorporated companies are frequently before the courts; it is now a well-established principle that such dividends must be paid out of profits and not out of capital, and that any clause in articles of association authorising payment of dividends from capital or guaranteeing a certain rate of interest to the shareholders in all events is invalid and cannot be acted upon (*Trevor* v. *Whitworth*, Law Reports 12 Appeal Cases 409; *Guinness* v. *Land Corporation of Ireland*, Law Reports 22 Chancery Division 349. As regards railway companies and similar companies, see the Companies Clauses Act, 1845, § 121, and as regards companies governed by Table A to the Companies Act 1862, see Table A, Art. 73).

The rule that dividends must not be paid out of capital would, among prudent business men, be thought to involve the further rule that only so much of the profits is available for dividend as remains after making provision for depreciation in any of the assets in which a company's funds are invested. A rule of this nature is frequently contained in articles of association, or acted on by directors when the

articles are silent on the subject. In the absence of such a rule, the directors cannot, however, be compelled by dissentient shareholders to make such provision. The excess of money obtained by working the property of a company over the cost of working it may, in such a case, be divided among the shareholders, though the property itself is of a wasting nature—like a mine, a quarry, or a patent. It is also left to the discretion of the directors to decide what expenses are properly chargeable to revenue and what to capital (*Lee* v. *Neuchatel Asphalte Company*, Law Reports 41 Chancery Division 1; as to the desirability of legislation making it incumbent on directors to provide for depreciation of capital before paying dividends, see CAPITAL, *supra*, p. 221). In well-managed companies the directors provide that the valuation of the assets in the balance sheet is correct; which is not possible unless sufficient is taken from profits to provide for any depreciation.

Dividends in companies are not always paid *pari passu* to all shareholders. Companies frequently issue *preference* shares which receive a fixed percentage on their nominal amount, whilst the other shares, called *ordinary* shares, are entitled to whatever remains after payment of the preferential dividend. Dividends payable to preference shareholders must, like dividends on ordinary shares, come out of profits, and cannot therefore be paid when the profit is insufficient. It is generally stated in the articles whether preference shares are to be cumulative,—that is to say, whether a deficiency in dividend arising from insufficiency of profits in one year is to be made good out of profits of subsequent years, or whether preferential dividends are to be paid out of the profits of each year only — non-cumulative dividend. Should no special stipulation exist, dividends on preference shares in companies registered under the Companies Acts are cumulative (*Webb* v. *Earle*, Law Reports 20 Equity 556), but as regards railway companies and other similar companies governed by the Companies Clauses Acts, it is provided by Companies Clauses Act, § 121, that "if in any year ending on the day prescribed in the special act, and if no day is described, then on the 31st day of December, there are no profits available for the payment of the full amount of preferential dividend or interest for that year, no part of the deficiency shall be made good out of the profits of any subsequent year or out of any other funds of the company."

Railway companies have of late years frequently used a privilege conferred on them by the Railway Regulation Act, 1868, § 13, enabling them subject to certain conditions to divide the whole or a part of their ordinary stock into *preferred* and *deferred* ordinary stock. The dividend available for that part of the ordinary stock which has been so divided is apportioned as follows: the preferred stock receives a certain maximum dividend (generally six per cent), and any balance remaining over goes to the deferred stock. The latter is, of course, a habitual object of stock-exchange gambling, speculators always favouring securities liable to sudden rises and falls, and it can hardly be said that it was wise for parliament to create special facilities for speculative operations in railway shares, as such operations cannot fail to have an indirect influence on the management of the companies to which they relate.

Where dividends have been paid improperly to shareholders, the directors are liable to refund the amount out of their own moneys, and when the action has been brought before the 1st January 1890, they cannot plead any statute of limitations, being, in that respect, exactly in the same position as the trustees of a settlement or will who have committed a breach of trust (*In re* Sharpe, Law Reports (92) 1 Chancery 154).

As regards so-called "bonus dividends," see BONUS.

[Lindley, *Company Law.*—Buckley, *Companies Acts.*—Palmer, *Company Precedents.*—Hodges, *Railways.*—Browne and Theobald, *Law of Railway Companies.*] E. S.

DIVIDEND, MEDIÆVAL. One part or the other of an indenture or chirograph, a term confined to the practice of the exchequer. H. Ha.

DIVIDEND (IN BANKRUPTCY). The rateable share in money which a creditor who has proved his debts receives out of the proceeds of his debtor's estate is called a dividend. When the estate is a large one dividends are declared and paid from time to time as the estate is realised. When the assets do not exceed £300, the bankruptcy rules of 1886 direct that the estate shall, when practicable, be distributed in a single dividend. In other cases, under the Bankruptcy Act 1883, the first dividend is directed to be distributed within four months from the conclusion of the first meeting of creditors, and subsequent dividends at intervals of not more than six months (§ 58). Before the declaration of the final dividend, notice must be given to persons claiming to be creditors, but who have hitherto failed to establish their claims.

Unclaimed dividends are paid into a government account of the Bank of England called the "Bankruptcy Estates Account" (§ 162). M. D. C.

DIVIDEND WARRANT. A dividend warrant may be described as a cheque for the payment of a dividend. It may be crossed in the like manner as a cheque, and is in the main governed by the same rules. In one respect, however, it appears to be peculiar. When a cheque is payable to the order of two or more payees, it requires the indorsement of them all, but if a dividend warrant be payable to the

order of two or more payees it is the practice of bankers to pay on the indorsement of any one of them. This practice appears to have received legislative sanction, for § 97 of the Bills of Exchange Act, 1882, in terms provides that nothing in that act is to affect "the validity of any usage relating to dividend warrants or the indorsement thereof."

M. D. C.

DIVISIBILITY OF MONEY. DIVISIONS OF MONEY. The divisibility of the material of money is an important factor in its usefulness. It is essential that the mass should be readily divisible into parts, great or small, with exactness and without deterioration; and, again, that the sum of those parts, if re-united, should be equal in value to the original mass. The precious metals fully meet these requirements; and this quality, in addition to their other merits in respect of durability and portability, has secured for them their position as the money of civilisation. The divisions and subdivisions of money are both the cause and effect of the scale of prices. They have not in many cases been selected for theoretical appropriateness, but have been determined by practical convenience, to suit the habits of the people among whom they circulate. In these instances they bear some reference to the scale of ordinary transactions, but it will be found not unfrequently that the denominations and divisions of money have prescribed prices. Especially is this the case with fees for personal services, where neither the value of the thing done nor the cost of doing it can be stated with accuracy. Such are the fees current in the medical and other professions, which are quoted in guineas or half guineas; such also are the legal fees of 6s. 8d. and 13s. 4d., corresponding respectively to the "noble" and the "mark." In all these cases the rate of payment was prescribed by a denomination of money formerly in use, and the price has survived while the coin has disappeared. Another instance is to be found in the parliamentary railway fare of one penny per mile. At the time that this rate was fixed there was no experience as to the cost of carrying passengers, nor was any pretence made of apportioning the rate to the cost or value of the service performed. The selection was purely arbitrary, and was suggested by the existence of the coin. It would undoubtedly have been 20 or 30 per cent more—or less—had the subdivisions of the shilling been less or more numerous. So also with the penny post. This point is further illustrated by the different rates charged in different countries for international postage, where charges would be uniform but for the difference in the divisions of money. In six countries of the Postal Union, as shown below, the rates differ by as much as 12 per cent among themselves, ranging from 6 per cent above the English rate of 2½d. to 6 per cent below it.

	Equivalent of 2½d.	Rate charged.	2½d.= 1000.
Germany	pfgs. 21·281	pfgs. 20	= 939
France	cents 26·272	cents 25	= 952
United States	cents 5·069	cents 5	= 986
Holland	cents 12·595	cents 12½	= 993
Sweden	ore 18·916	ore 20	=1057
Portugal	reis 46·918	reis 50	=1066

Again, increase or reduction in small charges will necessarily follow the subdivisions of money. Thus fares by omnibus or tramcars have been not unfrequently reduced or raised *e.g.* from 2d. to 1d. or *vice versa*, when there could be no ground for supposing that the cost of carrying a passenger had been reduced or increased by anything like 50 or 100 per cent. B. W. B.

DIVISION OF LABOUR. By the "division of labour," or, as it is sometimes called, the "division of employment," is understood the separation of the total labour required for the manufacture of a single product into various distinct processes, and the allocation of each of these processes to a particular labourer or body of labourers. It is to be distinguished from the simple combination of labour, which consists in the massing together of homogeneous labour to produce a great effect. Thus in road-making, although a hundred men are employed to lay the metal on a road, there is no division of labour, while in the publication of a newspaper, where one man arranges the types, another classifies the material, another corrects the proofs, etc., there is division of labour. The phrase division of labour has become current through its use by Adam Smith in the famous chapters in which he opens the *Wealth of Nations* (bk. i. chs. i.-iii.)

Historically speaking, the division of labour commences with the specialisation of industries, and the specialisation of processes in the same industry, to which alone we strictly apply the term, is only an extension of the same tendency. In an early state of society each man is his own smith, clothier, armourer; he is farmer, hunter, fisherman, carpenter, all in one. The earliest division of labour is made when one individual devotes his whole time to some special work, such as boat-building, or the making of bows and arrows; and we may therefore say that it is coincident with the first creation of capital. (See Bagehot's *Economic Studies*, pp. 57, 58). To the specialisation of industry follows its organisation, viz. the formation of groups of labourers whose efforts are all directed towards the manufacture of one particular product. The organisation of industry leads necessarily to the division of labour, which indeed becomes in time the principal feature of that organisation. In a state of society where industry is very highly organised a single product is frequently the result not only of a variety of different processes

in one industry, but the work of a number of different industries also. Some of these are termed "subsidiary industries," (see Marshall's *Economics of Industry*, p. 52). In the manufacture of machinery a whole series of trades are employed, from the digging of the mineral to the finishing of the machine. This combination of industries is in reality division of labour in an extended form.

Of the consequences of the division of labour the most important is the increase in the quantity of work which it enables the same number of people to perform in the same amount of time. For this improved effectiveness of labour Adam Smith assigns three causes. (1) The workman acquires greater dexterity in his work, because it consists of some one simple operation, and he can therefore do it better and more quickly than if he had to vary his labour. In other words, he has constant practice, and therefore approaches nearer to perfection. It needs no illustration to point out the extraordinary degree of skill which continuous practice in any branch of human employment is known to confer. (2) The workman also saves time when he is entirely devoted to a single process, because he does not require to pass constantly from one place to another, or exchange one tool for another. Adam Smith also suggests that where the work is continuous the application of the labourer is greater than it is where he has to begin new work every now and then. (3) By the direction of his whole attention to a single operation, or a single process, the workman becomes so thoroughly familiar with it that any advantageous change in the machinery he deals with will naturally occur to him more readily than it does to those who have their attention divided between several items of labour. To these causes (4) increased aptitude and skill has been added. The recognition of this is generally ascribed to Mr. Babbage, though that author stated that he found it in a foreign work (see C. BABBAGE) on economics (Gioja, *Nuovo Prospetto delle Scienze Economiche*, Milan, 1815). Increased aptitude and skill is created by the specialisation of labour; it consists in the economy of work that is gained when each man is employed on the kind of labour he is best fitted for. Where a workman has two or more things to do, he will be less fitted for some than for others; but the concentration of his energies on one single kind of work enables him constantly to labour at the things he finds most suitable.

That the division of labour, from the above causes, increases the productivity of labour, and that very greatly, is not denied. It is urged, however, that there are counterbalancing results of the division, less direct perhaps than those above noted, but still traceable to it, which have an opposite effect on the productivity of labour; and this apart altogether from other advantages or disadvantages due to it. (1) Where labour is very highly specialised, the effect of perpetual concentration of the mind on a single operation is deadening to the mental faculties. We are all aware that variety of occupation produces a healthy state of mind, and that while perpetual practice of one thing brings about a kind of mechanical perfection, it has a deteriorating effect on the faculties in general. The principal way in which this consequence of the division of labour acts on its productivity, perhaps, is that it counterbalances to a large extent the probability of useful inventions which we counted among the results on the other side of the question. On the other hand, it is urged that work performed mechanically frees the mind and gives more time for thought. (2) A more important consideration, but one which affects not the labour of the individual so much as labour in the gross, is this—that the specialisation of labour of necessity involves the unsuitability of the average workman for any kind of work other than that he has been trained to. For example, suppose that a workman is employed on some small but delicate mechanical operation, which he has trained himself by long practice to perform with extraordinary celerity and accuracy. Some change in the market, or new invention, or development of mechanical science,—and where industry is highly organised all these causes are to be looked for—renders unnecessary the continuance of the particular piece of work he has hitherto done. Had he been in the habit of doing work in which there was variety or versatility, it would be much easier for him to turn his hand to something new; but in the highly-specialised condition of industry it is now unlikely that he will find any work corresponding to that he has been obliged to abandon. This disadvantage we may call want of elasticity of labour; and we may note that it tends to lessen the productive power of the total labour-force in existence. (3) Inasmuch as health and physical capacity are invaluable in their effect on the power of all labourers, anything which impairs or weakens the strength of the workman diminishes the efficiency of his work. The manifold division of labour has led in our time to the employment in the same business of far larger quantities of operatives than used to be massed together in Adam Smith's days. Therefore, though he states that "we can seldom see more, at one time, than those employed in a single branch," at the present time it is common to have all the branches of a great industry working together in the same place. For convenience' sake, this has led to the massing together of great populations in large centres of industry; and thus the conditions of life, as to health, have been rendered less advantageous to the labourers.

From these considerations it may be deduced

that while the division of labour increases to a great degree the productivity of labour, it has counterbalancing effects which modify the advantage. When we look at some of the other less obvious results of the division of labour, we see that it is in most cases open to argument whether they have a tendency to augment the net result of labour, or the reverse. We have already seen that the monotony of work which a great specialisation leads to must be regarded as an effect which modifies the advantages derived from long and continuous practice; and in its general influence on the workman we are bound to suppose it must have a tendency to impair his mental faculties. On the other hand, it is pointed out that concurrently with the progress of that specialisation, the labouring classes have attained to a continually higher standard of education, and to a greater development of mental power. This may be partly explained by the fact that another result of the specialisation of labour is that a greater and greater proportion of the total work done comes to possess in some degree the character of skilled labour; in other words, it makes demands on the mind of the labourer as well as on his body. Brute force counts always for less as the organisation of industry progresses, and the most striking example of this tendency which we see in our own day is the ever-increasing field for the work of women. The interdependence of industries is another consequence of which much may be said favourably as well as the reverse. When all farm labour is done by hand, movements in other branches of work can only very indirectly affect those engaged in agriculture. But when machinery is introduced for ploughing, reaping, etc., the business of farming comes to be intimately connected with ironwork, the making of machinery, and probably with the hewing of coal also. Therefore the cost of production to the farmer will be affected by inventions in machinery, by alterations in the wages of the classes of workmen who make machinery, and by variations in the price of coal and iron. The interdependence of industries, of which the above is a very obvious example, is a most important factor in modern life. On account of the hanging together in a greater or less degree of all trades, good or bad fortune has a tendency to visit all simultaneously. This interdependence also breeds a feeling of common interest among employers of all classes, and also between labourers on every field; with the result that we now see an increasing tendency, especially on the part of labour, to band its forces together for some general object, or for some special advantage. A universal strike in any large industry would paralyse the entire trade of the country.

The division of labour can be carried out much farther in some industries than in others; and, as Adam Smith points out (*Wealth of Nations*, bk. i. ch. iii.), it is only limited by the extent of the market. This latter consideration, however, is of very much less importance now than it was in the days when he wrote. The improvements in the means of transit made within the last hundred years have been so great as in large measure to abrogate the old limitations of market. The expenses and difficulties of land-carriage, which Smith notices, have been so greatly reduced that goods are constantly sent to market by long journeys across country. Still, in the smaller industries, it must always be the case that in a market where the customers can only be drawn from a limited area, the division of labour cannot be carried to any great extent. As among different industries, the division is generally carried out furthest where two conditions are satisfied: a large employment of workers, and the continued repetition of identical operations. In a small business it is clearly impossible to subdivide the work done very minutely. Where the same work can be done continuously, again, a greater division of labour is possible than where it has to be varied at different periods. Thus agriculture is an industry in which the division of labour can never be very greatly extended, because the same people, from the very nature of their business, must be employed in different operations at different seasons of the year. On the other hand, in a cotton factory, the division of labour is probably extended to its farthest possible present limits. These differences form one of the many causes which bring about the continuous flow of population in this country from rural to urban districts; a tendency which it is hopeless to check so long as we purchase food in great quantities from foreign countries with our manufactured goods.

It is noticeable that in retail trades, in which a vast quantity of capital is invested and a multitude of labourers employed, there does not appear to be as much scope for division of labour as in manufacture. Here the tendency is not for a particular retailer of goods to confine himself more and more to the sale of a special kind of article, but for large retailers to spread their business over as many commodities, and over as great a variety of commodities as possible; and by this means it would appear that retail trade is more remunerative when it is general than when it is specialised. The profits of the retailer depend less on the amount of work done by his workmen or the percentage of profits on the sale of goods than on the total number of sales he can make: what is commonly called his turn-over. Causes which in manufacturing industries increase the power and value of labour, therefore, have no such effect on the labour employed in the retail trade. With the retail trades must be classed

those great organisations called the carrying trades, which aim at the same object, viz. the bringing to market of goods already made.

[The question of the division of labour is discussed in all the standard English works which treat of political economy in general. See also *The Economy of Machinery and Manufactures* by Babbage, chs. xix. to xxiii., where many interesting facts in illustration of the division of labour are recorded. The socialist point of view may be studied in *Capital*, by Karl Marx, translated into English by Samuel Moore and Edward Aveling, and edited by F. Engels, and in Hyndman's *Historical Basis of Socialism*. The most complete monograph on the History of Division of Labour is that by Schmoller in *Jahrbuch für Gesetzgebung*. 1889.] M. G. D.

DIZAIN, a coin struck in France in the reign of Charles VIII. It was worth ten deniers, and was also known as a Carolus.

R. L.

DOBBS, Arthur (1689-1765), was the eldest son of Richard Dobbs of Castletown. He became high sheriff of Antrim in 1720, was member for Carrickfergus in the Irish parliament 1727-1760, and was appointed engineer-in-chief and surveyor general in Ireland by Walpole. His *Essay on the Trade and Improvement of Ireland* (Dublin, 1729-1731, 2 parts, 8vo, reprinted in Thom's *Collection of Tracts*, 1861, ii. 321, etc.) is full of valuable information on Irish trade and population drawn from official sources. The writer endeavours to give a true picture of the "state of the kingdom, and to lay down some hints that may put us upon thinking what may be done for the improvement and good of our country, and to endeavour to rectify the mistakes many in Britain have fallen into, by reason of a prevailing opinion, that the neighbourhood, trade, and prosperity of Ireland are detrimental to their wealth and commerce; and that we are their rivals in trade, which we can never be whilst under their government" (pt. ii. p. 527). Dobbs advocated an improved system of land tenure. In 1732 he introduced an enclosure act in the Irish Parliament (see Viscount Mountmorres, *Impartial Reflections on the Present Crisis*, 1796, 8vo).

He took an active part in promoting the search for a North-West Passage, and on his recommendation the admiralty sent out two vessels under Captain Middleton, with whom Dobbs carried on a pamphlet war (1743-45) partly in connection with the Hudson's Bay Company's monopoly. He wrote *An Account of the countries adjoining Hudson's Bay* (1744, 4to) in which he urged that the trade should be thrown open, as the exactions of the company had diverted the fur trade into the hands of the French. In 1754 he was appointed governor of North Carolina, where he died. He improved the administration of justice and pursued a conciliatory course in dealing with the Indians, but his zeal for the royal prerogative caused incessant quarrels with the colonial legislature.

[M'Culloch, *Literature of Political Economy*, 1845, p. 46.—*Dictionary of National Biography*, vol. xv. p. 132. — Appleton, *Cyclopædia of American Biography*, vol. ii. p. 189.] H. R. T.

DOCK.

Development of the Modern Dock System, p. 611; London Docks, p. 611; Provincial Dock Development, p. 613; Mechanical Appliances at Docks, p. 615; Warrants, p. 615; Effect of Economic Changes upon Docks, p. 615; Competition in relation to Docks, p. 616; Incidence of Dock Charges, p. 616; Dock Finance, p. 617; Dock Ownership, p. 617; Public Ownership, p. 617; (1) Management, p. 617; (2) Public Convenience, p. 617; (3) Finance, p. 617; List of Mercantile Docks in the United Kingdom, pp. 618-620.

Development of the modern Dock System.—The first commercial dock, properly so called, in this country, was the Howland Great Wet Dock at Rotherhithe, constructed in 1660 by private enterprise. This dock, area about 10 acres, known later as the Greenland Dock, now forms part of the system of the Surrey Commercial Docks Company. A contemporary engraving represents it as consisting of an entrance lock with gates, a water area with quay walls to which are moored several three-masted vessels; and on the Thames three slipways for building and repairing ships. The earliest example in this country of a dock owned by a municipality is the harbour at Port-Glasgow on the Clyde, constructed by the municipality of Glasgow in 1662, on account of the distance of the usual port, Irvine, and the necessity of conveying merchandise for twenty miles by pack horses (Deas, "The River Clyde," *Inst. of Naval Arch.*, vol. xxx. p. 20). The next important incident in dock history is the construction of the Mersey Docks in 1708. In 1665 the gross burthen of the 15 vessels that represented the shipping trade of Liverpool was 268 tons. At this time Liverpool possessed a natural harbour of about a mile in length, in a "small creek" off the north bank of the Mersey. The mouth of this pool became, in 1708, the first Mersey Dock—the Old Dock, now no longer in existence (Lyster, on "Recent Dock Extensions at Liverpool," *Inst. Civ. Eng.*, vol. c. pt. ii.) This dock was constructed by the Corporation of Liverpool, which secured from parliament a charter for 21 years. In 1717, in 1737, in 1761, in 1784, and again in 1799, the charter was renewed. Between 1708 and 1799 the corporation borrowed £233,000 and constructed 25 acres of dock area, 7 acres of basins, and 780 yards of quay wall (Rees, *Encyclopædia*, vol. xii., art. "Docks"). The number of ships entering and clearing at Liverpool rose from 1371 in 1757 to 4129 in 1793; and the dock dues from £2336 to £12,480 in the same period.

London Docks.—While the Liverpool docks had thus developed, no new dock had been constructed in London for about 130 years.

The crowded state of the river and the inefficient police arrangements had resulted in smuggling and plundering, which, though probably exaggerated by contemporary writers, must have been considerable (cp. Colquhoun's *Commerce and Police of the Thames*). Successive agitations by the merchants of London resulted in the appointment of royal commissions in 1762 and 1765, and of committees of the House of Commons from 1765 till 1798. In 1790 the Brunswick Dock at Blackwall was constructed by Mr. Perry, a shipbuilder. Thus the two earliest docks in London arose from individual enterprise. In 1795 the West India merchants promoted a joint-stock company for the construction of docks, and subsequently applied to parliament for powers. The Corporation of London opposed the measure, and promoted a rival scheme for the construction of a dock at the city boundary, and for cutting a canal across the Isle of Dogs. The West India Docks Act was ultimately passed in 1799. At the same time the Corporation of London was authorised to cut the canal across the Isle of Dogs, which in 1829 was sold by the Corporation to the West India Dock Company (10 Geo. IV. c. 130). The West India Docks were opened in 1802. The capital at the date of the opening was £800,000. The Company received the privilege of a monopoly for twenty-one years of the West India trade, both import and export, and the commissioners of customs were empowered at their discretion to order other vessels to discharge there. The dock dues alone were fixed at 6s. 8d. per ton register, besides landing charges. Within a few years there was constructed a system of docks which immensely increased the capacity of the port. Contemporaneously with the institution of the docks in London, a great change occurred in the regulations of the customs, by rendering it, from 1803 onwards, no longer necessary to pay customs duties on imported goods at the time of importation. The establishment of warehouses under the supervision of the customs, where goods liable to duty might remain in bond till the duty was paid on delivery, began in 1714 (Rep. Cust. Com. 1818). Its extension was urged by Walpole in 1733, but it was only tentatively adopted till the passing of the first Warehousing Act in 1803 (43 Geo. III. c. 132) (see BONDED WAREHOUSES, and WAREHOUSING). This act permitted the warehousing under bond of West India produce at the West India Docks, and of rice, tobacco, wine, and spirits at the London Docks. The system became general in London in the same year; in 1805 in Liverpool, Bristol, etc.; in 1822 in Glasgow; and in 1824 in Belfast, etc. The earlier development of the privilege of warehousing in bond in London gave that port an advantage over others, and promoted the development of the warehousing department of the business of the docks to a much greater degree than elsewhere. The proposal of the Corporation of London to make a dock nearer to the City than the West India Docks was adopted by private promoters, and in 1800 an act was passed authorising the construction of the London Docks at Wapping. The Corporation of London was represented on the board of directors by the lord mayor. The capital of the company was £1,200,000, raised in 1804 to £1,700,000. The dividends were limited to 10 per cent. Privileges were granted for 21 years. All ships entering the Thames laden with wine, brandy, tobacco, and rice were compelled, under penalties, to discharge in the London Docks. The East India Docks, authorised by act of parliament in 1803, were opened in 1806. The capital was £400,000, and the dividends were limited to 10 per cent. Four directors of the thirteen were to be also directors of the East India Company. A monopoly of the East India and China import and export trades was granted to the East India Dock Company, the privilege extending, however, only to vessels trading direct to or from the East Indies or China. In 1801 the Surrey Canal Company was formed, and afterwards a small dock was constructed at the junction of the canal with the Thames. In 1807 the Commercial Dock Company was promoted for the purpose of acquiring the Greenland Dock and Norway Docks. In 1810 an act, passed for the improvement of these docks, provided for "the discharge of vessels laden with timber," the landing of other goods excepting by permission of the Commissioners of Customs being prohibited. In 1824 the exclusive privileges of the West India Docks expired, and the company did not apply for their renewal. While the monopoly secured them a considerable proportion of the foreign trade of the port, it exposed them to the fluctuations of a single branch of it, and deprived them of possible compensations in the fluctuations of other branches. The imminent emancipation of slaves in the West India Islands may also have rendered the commercial outlook in that direction uncertain at the time when the charter was about to expire.

From the beginning of the century until 1850, the extensions of the docks on the Thames had been comparatively trifling. In that year the Victoria Docks were constructed at a cost of £1,400,000. In 1870 the South-West India Dock was opened. These docks were followed in 1880 by the Royal Albert Docks, which cost £2,100,000; and in 1888 by the Tilbury Docks, which cost £2,600,000. The Victoria and Albert together form a single system, and belong to the London and St. Katherine's Docks Company (capital 1891, £10,789,462). The Tilbury Docks belong to the East and West India

Docks Company (capital 1891, £7,360,355). The administration of the London and St. Katherine's Docks and of the East and West India Docks was vested by act of parliament, in 1888, in the London and India Docks joint committee. The finances of the East and West India Docks were re-arranged in June 1889. The reserve had disappeared in 1887, and no dividend upon the ordinary stock had been paid since 1886; while in 1889 the company defaulted in the interest of the debenture stock. The scheme of re-arrangement involved the hypothecation of all funds available as at 30th June 1889, with future annual surplus funds, and the application of the fund so created for ten years to the payment of interest on mortgage and debenture stock, exclusive of deferred debentures, and of funded interest on these. The London and St. Katherine's Dock Company has arrived at the limit of its borrowing powers, but there is a sum of unissued capital amounting to £181,000. The Surrey Dock and Canal Companies were amalgamated in 1864. The Millwall Dock was opened by the Millwall Dock Company in 1868.

TABLE A.

East and West India Docks Co.

	Share Capital.	Loans.	Debenture Stock.	Total Capital Invested.	Dividend on Ord. Stock.	Reserve.
1866	£2,065,668	....	....	£2,065,668	6%+1% bonus	£300,000
1871	2,385,500	£265,000	....	2,650,500	6%	300,000
1876	2,385,500	339,660	£381,810	3,106,970	6%	200,000
1881	2,385,500	337,732	628,000	3,351,232	4%	200,000
1886	2,385,500	335,352	1,717,000 (a) 800,000	5,237,852	1½%	100,000
1891	2,385,500	584,900	2,909,439 (b) 1,146,845 (c) 333,671	7,360,355	nil	nil

a Debenture Bonds. *b* Mortgages. *c* Deferred Debentures.

London and St. Katherine's Docks Co.

	Share Capital.	Debentures and Loans.	Debenture Stock.	Preference Stock.	Total Capital Invested.	Dividend on Ord. Stock.	Reserve.
1866	£5,756,697	£2,117,675	£1,062,500	£69,790	£9,006,662	3½%	£113,000
1871	5,756,697	1,841,676	1,062,500	136,710	8,797,583	2½%	180,000
1876	5,756,697	1,599,968	1,114,090	420,000	8,890,750	3½%	344,000
1881	5,756,697	1,657,849	1,437,156	420,000 (d) 600,000	9,871,702	2½%	401,000
1886	5,756,697	1,744,115	1,562,500	420,000 (d) 1,200,000	10,683,312	nil	377,000
1891	5,756,697	1,077,073	2,335,692	420,000 (d) 1,200,000	10,789,462	Jan.-June 2%	260,000

d Preference Stock, No. 2.

Provincial Dock Development.—While the dock system of the Thames was developing, that of the Mersey was growing rapidly. The growth of the cotton trade, and the increasing importation of American produce, especially wheat, stimulated the provision of docks and warehouses at the chief ports on the western seaboard. The Mersey and the Clyde became great industrial centres and great harbours. The Clyde at Glasgow was a narrow and sluggish stream. Its excavation into a deep waterway and its embankment by quays served the purpose of a large dock; but the Mersey at Liverpool is broad and exposed to the winds of the channel. Thus, while at Glasgow, docks were a late development, the impossibility of loading and discharging in the river Mersey even the comparatively small craft of the 17th century, made docks necessary from the beginning of the development of the port of Liverpool. Up till 1858, when the Mersey Docks and Harbour Board was incorporated by act of parliament, the Liverpool docks were owned and administered by the Corporation of Liverpool and the Birkenhead Docks by the Birkenhead Docks Committee. The Liverpool docks extend along the margin of the river, and are protected "from tidal influence by a continuous seawall, except where entrances are required into the range of docks" (Lyster, *op. cit.* p. 11). The Liverpool dock system at present consists of 47 wet docks and basins. The Birkenhead docks consist of 2 "floats," 10 docks, 1 large and 2 small basins. The total water area of the Mersey docks is 545 acres, and the quay-space is 35 lineal miles. There are 24 graving or dry docks and 2 "gridirons." The total area of the dock estate is 1611 acres. Hydraulic power stations are placed at suitable centres, the power being used for opening and closing the dock gates, and for working the hydraulic cranes. Double-storied sheds are built at Toxteth Docks for the storage of grain cargoes. The grain is discharged from the ship's hold direct to the place of storage by hydraulic cranes. At the Alexandria Grain Warehouses, owned by a joint-stock company, the grain is raised from the ship's hold in dock by a bucket elevator, and is transferred to an india-rubber band conveyor running underground from the

dock to the stores, it is there received by a system of smaller conveyors, and distributed into bins. By this process the grain is not shovelled or handled in any way. At the Herculaneum Docks, petroleum brought in tank steamers from Batoum and other ports is pumped from the vessel into a short pipe line which conveys the oil to tanks each capable of containing from 2000 to 3000 tons. The total tonnage entered at Liverpool in 1890 was 5,782,351, and the total tonnage cleared was 5,159,450 tons. The authorised borrowing powers of the Mersey Docks and Harbour Board are £20,475,351. The amount of loans (1st July 1891) was £17,211,333. Extensive works are at present in progress at the Canada Dock, which will increase the invested capital. The highest rate of interest on loans is 4½ per cent, at which under £4,000,000 are borrowed; the bulk of the capital has been obtained at from 3½ to 4½ per cent. The lowest rate is 2¾ per cent. A sum of £920,000 consists of Mersey Dock annuities, representing an interest payment of 3¾ per cent to 3⅝ per cent. The interest on loans absorbs about £700,000 per annum. The revenue of the board is derived from eight main sources. These are dock tonnage rates, dock rates, town dues, graving dock and gridiron rates, dock rent, dock railway, and warehouses. The total revenue of the board in 1890-91 was £1,530,000, of which the docks proper yielded £1,080,000, warehouses, £205,844. The proportion of working expenses to revenue is over all about 44 per cent. The proportion of working expenses to revenue on dock account alone is 40 per cent, upon warehouses account alone it is 80 per cent. The town dues, originally levied by the Corporation of Liverpool, were purchased by the Harbour Board in 1858 for £1,500,000. The amount received annually from this source has increased from £140,000 in 1858 to £260,000 in 1891. At an annual average of a quarter of a million this impost yields the harbour board interest at the rate of 16½ per cent per annum on its investment. The dues were revised and reduced in 1881 and in 1884. In addition to their function of dock owners, the Mersey Harbour Board have charge of the conservancy of the river, upon which £62,000 per annum is expended, lighthouses and lightships in the Mersey, and pilotage (*Accounts of the Mersey Docks and Harbour Board for year ending 1st July 1891*). In addition to the property of the Mersey Docks and Harbour Board there are at Liverpool the Duke's Dock and Brunswick Branch Dock belonging to the Manchester Ship Canal Company, and the Garston Docks, belonging to the London and North-Western Railway Company.

At Newcastle the River Tyne Improvement Commissioners were incorporated in 1850, the Corporation of Newcastle, in whose hands the care of the river had previously been, having been inert in improving the port. The commissioners constructed a dock in 1857. In 1859 a second dock was constructed by the North-Eastern Railway Company. In 1884 the Albert Edward Dock was opened. While the wet dock accommodation in the Tyne is limited owing to the extensive development of riverside wharves, there are 21 graving or dry docks, and 14 repairing slips. The deepening of the river and the deepening of the entrances to the docks have facilitated the development of the shipbuilding industry on the Tyne, as also on the Clyde. On the Wear, at Sunderland, the Wearmouth Dock Company constructed a dock, which was opened for traffic in 1838. This dock was a financial failure, and was purchased in 1847 by the York, Newcastle, and Berwick (now the North-Eastern) Railway. In 1850 the South Docks at Sunderland were built by a joint-stock company, from whom they were acquired by the River Wear Commissioners in 1859. In 1809 the Bristol Docks were formed by converting the bed of that part of the river Avon running through the city into a tidal dock, a new channel for the river being cut. The city corporation acquired the docks in 1848. At Swansea, under the harbour trust, a similar expedient was adopted, and the North Dock, formed in a bend of the River Tawe, was opened in 1852. The South Dock was opened in 1859; and the Prince of Wales Dock in 1880. The West Bute Dock at Cardiff was built in 1839 by the Marquis of Bute. The present authorised share capital of the Bute Docks Company is £3,500,000. The trade of the docks in 1880 was 6,291,137 tons, and in 1890, 9,217,960 tons. The docks do not at present yield any return to the capital invested. The Lewis and Hunter system of loading coal, by which 300 tons per hour are placed on board ship, is in use at the docks. An extension of the Bute Docks, to cost £700,000, has been decided upon by the company (1892). The principal export from Cardiff is Welsh coal, which is also shipped from Penarth, where there is a dock of 26 acres belonging to the Taffvale Railway Company, and from Barry Island, where are the Barry Docks belonging to the Barry Dock and Railway Company, promoted 1883, opened 1889, cost £850,000. The town of Hull was forced to construct docks by the commissioners of customs, who had excluded it from the list of legal quays as fixed in the acts of 1559 and 1674, and had insisted on the establishment of a dock to facilitate the collection of the revenue. The commissioners having threatened to establish a legal quay at some other port on the Humber, the Dock Company at Kingston-upon-Hull was formed in 1773. The share capital was originally £30,000, the Corporation of Hull, the Trinity House, and the Charter House sub-

scribing about one-sixth of the amount required. To enable the company to carry out its work the Government made a gift of the land occupied by the old fortifications of Hull, the customs made a gift of £15,000, and certain rights were granted to exact tonnage dues on vessels entering Hull harbour. The Queen's Dock was opened in 1779, and four docks followed in 1809, 1829, 1846, and in 1850.

In Dublin docks were opened in 1796, and in 1821. The administration of the docks is in the hands of the Dublin Port and Docks Board, which in 1867, as regards the control of the docks, replaced the Corporation for Preserving and Improving the Port of Dublin. At Newport (Mon.) docks were opened in 1842, owned by the Alexandra (Newport and South Wales) Docks Company.

At Glasgow the trustees of the Clyde Navigation, by deepening the river-channel and erecting quays upon the banks, had practically converted the Clyde into a dock; but the extension of trade caused the trustees, in 1867, to excavate the Kingston Dock, and in 1880 the Queen's Dock. The combined area of these is 39 acres. Cessnock Docks were begun in 1885, and their construction is still (1892) proceeding. There are no warehouses under the control of the Clyde Trust; but special accommodation is provided for landing and housing cattle and storing timber. The North British and Caledonian Railway Companies have access through branch lines to the docks, and the trustees own a harbour railway on the street level. The total cost of the harbour works at Glasgow from 1770 till 1892, including interest, has been £13,641,301. The revenue of the trust is £369,226, and the debt is £4,843,228. For further details see Table B.

TABLE B.

CLYDE NAVIGATION.

Particulars as to Glasgow Harbour and Docks, 1892.

First Act for improving the River Clyde	1759.
First Act for improving the Harbour of Glasgow	1809.
First Act for making a Dock at Glasgow	1840.
Length of Quays	10,853 lin. yds.
Areas of Quays, Roads, and Shed space	74·37 acres.
Area of Shed space	28·00 acres.
Area of Timber Yards	14·80 acres.
Area of Water space	160·53 acres.
Amount of Parliamentary Borrowing Powers	£6,250,000
Amount of Debt	£4,843,228
Total Expenditure, including all working expenses on River, and Harbour and Docks, since 1770	£13,641,301
Total Income of Trustees from 1752	£8,890,279
Income for year 1891-92	£369,226
Depth of Water, at average Low Water Springs—	
In River	16 to 20 feet.
In Harbour	15 to 20 feet.
In Docks	13 to 20 feet.
Rise of average Spring Tides—	
In River	10 to 11 feet.
In Harbour and Docks	11 feet 2 inches.

At Leith, docks were constructed in 1819, in 1852, in 1869, and in 1881, the total area being 42 acres. The docks are under the control of the Commissioners for the Harbour and Docks of Leith. Application is being made to parliament for power to construct new docks, etc. A curious survival is the imposition of fish tithes by the kirk-session of North Leith Parish Church. The commutation of these is involved in the application to parliament.

Mechanical Appliances at Docks.—Steam hoists for dock manipulation were introduced at the Surrey Docks in 1861. There also hydraulic machinery was introduced for the same purpose in 1873. In 1877 the system of distribution by bands was adopted at the grain warehouses of the Surrey Dock Company. The use of hydraulic cranes, steam machinery of various kinds, grain elevators and conveyors, refrigerating plant, coal loading machinery, etc., has developed largely during the past twenty years. In America the development of mechanical aids for such purposes has probably been carried further than in this country.

Dock Warrants.—Under the system by which warrants are granted by the dock authorities at London, Bristol, and other places, for goods stored in their hands, goods may be sold repeatedly before they leave the warehouse. Goods in this way may be "mobilised like money," and the tendency is necessarily for such goods to be stored at great financial centres under the control of public or quasi-public bodies. See CLEARING SYSTEM; CONDITIONING; COTTON CLEARING; DOCK WARRANT; SAMPLING AND GRADING.

Effect of Economic Changes upon Docks.—Apart from the general causes which contribute to the fluctuations of trade, and by which the business of docks is affected, certain special causes have had important influences upon them. These causes have not affected all docks equally. Their influence varies with the nature of the trade of the port, and with the incidence of the dock charges. At Liverpool the incidence of the charges upon ships and goods is as follows as disclosed by the revenue:—dock tonnage rate on ships, 40 per cent; dock rates on goods, 31 per cent; dues on goods, 26 per cent; warehousing, 3 per cent. At London warehousing yields 70 per cent, and all other charges 30 per cent. It is thus obvious that any changes affecting the custom of warehousing must have much more important effects upon London, where this system is so highly developed, than on Liverpool, or, indeed, than on any other port in the kingdom. Although the warehouses at the docks on the Thames are not exclusively for goods in bond, yet the system of warehousing grew up under a policy of protection, when hundreds of articles now free of duty were taxed, and on importation were stored under the supervision of the

customs, in the dock warehouses till the duty was paid. The successive steps in free trade were therefore successive blows to the revenue of the dock companies. The facilitation of commercial intercourse, too, through the submarine telegraph and the swift steamer, made warehousing at once less necessary and less profitable to the merchant. Markets became more closely drawn together and more sensitive, and the risks and expense of prolonged holding of goods became out of proportion to the possible profits. Thus in the case of many important commodities warehousing ceased to be customary, and the revenue from this, the most important branch of the business of the dock companies at London, fell off. Among the many economic effects of the opening of the Suez Canal were two in which docks were directly affected. The first of these was the impetus given, not alone to the building of steamers, but to the building of steamers of large size; the second, its influence on the entrepôt trade of Great Britain. Only 14 steamers of 4000 tons and upwards had been built prior to the opening of the Suez Canal. The great development of large vessels has taken place since then. From 1870 to 1891 about 200 vessels of 4000 tons and upwards were built. The entrepôt trade of this country has been affected by the reopening of direct trade routes between Europe and the East. The substitution of marine for land transport had made London, for at least a century, the common market for Eastern goods in Western Europe; but when the Suez Canal replaced the route by the Cape, as the main trade channel between east and west, and when the development of international commerce, resulting from this and other causes, enabled France and Germany to employ lines of steamers on direct routes between continental and eastern ports, the entrepôt trade of London gradually diminished. In addition to the changes traceable, directly or indirectly, to the alteration of trade routes, as by the opening of the Suez Canal, other causes, for example, the diminution of prices, had the effect of stimulating direct communication (cp. Dep. Trade Com., *Report*, III. Q. 10,848). The most potent cause was, however, the expansion of trade, enabling the continental ports to cultivate direct relations with the East. The ports which have developed most conspicuously in recent years are Antwerp, Havre, and Hamburg. Navigation laws (of France and Spain, *e.g.*) have stimulated direct intercourse by granting bounties on ships and cargoes. Although from a national point of view the importance of the entrepôt trade may be exaggerated, and although at its highest point it was not more than one-sixth of the total import of foreign produce, yet the fluctuations in it affect London, and specially the docks at London, much more seriously than they affect any other port in the United Kingdom.

Individual docks have been subject to the influence of important changes in the technique of production. The alteration in the sugar trade through the extensive substitution of beet-root for cane sugar, has seriously affected the revenue of the West India Docks, while the substitution of artificial alizarine, and of the aniline dyes for madder, cochineal, and other products, has led to the almost entire disappearance of these, from the London import lists, and to the importation from Germany and France of their substitutes. These substitutes are mainly imported at the provincial ports, *e.g.* Hull, Newcastle, Harwich, and Leith.

Competition in relation to Docks.—One of the features which distinguish the port of London from the ports in the provinces is the circumstance that the docks at London compete not only with those at other ports but with each other, with the legal quay-owners and wharfingers, and even with lightermen discharging in some cases over the vessel's side in dock free from the payment of dues on the goods to the dock company. In almost all the provincial ports, on the other hand, the dock corporations, whether municipal, trustee, or joint-stock, exercise a local monopoly. Occasionally ports are so near each other as virtually to enter into competition for the same trade; but each dock and harbour authority in the provinces, with rare exceptions, enjoys a monopoly of the trade of the port. At Liverpool and Glasgow, *e.g.* there is no competition in docks, and rates are fixed exclusively with regard to the needs of the trust for maintenance and interest, although there is a necessary limit fixed by the competition of other large ports.

Incidence of Dock Charges.—The policy of dock owners as regards the incidence of charges varies very widely. No definite principle is discoverable beneath the multiform methods of rating. The charges in each port have arisen largely through local custom, or have been altered in specific cases from time to time, owing to influential representations by oppressed interests. The charges may be broadly divided into charges on the ship and charges on the goods. Charges on the ship may be divided into dues and rent. Dues are usually charged on net register tonnage, though they have been from time to time charged on the gross tonnage, as in 1856 at Sunderland. (For discussion on the policy of charging on the net or on the gross tonnage, see Royal Com. on Tonnage, *Report*, 1881; also *e.g. Shipping World*, vol. i. pp. 274, 323, 365, and 402). Under the Harbour Docks Act of 1847 preferential rates are prohibited.

Dock rent is charged, as in London, on gross tonnage. In some cases rent begins on entrance, in other cases it begins after a certain period has elapsed. Yachts are free in most harbours,

they are charged for in the Thames Docks. Charges on *goods* may be divided into rates including landing, weighing, and delivery in the case of imported goods; collection, wharfage, and porterage in the case of exported goods; and warehouse rent. There are besides special charges on particular classes of goods. The rates on goods are fixed partly with regard to the difficulty, risk, and cost of handling them, and partly with regard to the value of the goods. At Bristol no rates are charged on exports. It is clear that dock rates so levied must act in a measure as a bounty on exports, and as a corresponding tax on imports. (On differential rates for freemen and foreigners, see Maitland, *History of London.*) There seems much need for simplification in dock charges. The classification adopted finally by the railway companies might form the basis of a classification for docks with advantage both to shippers and dock corporations.

Dock Finance.—The proportion of working expenses to gross receipts at the Mersey Docks was in 1892, 44 per cent, at Swansea 41 per cent, and at Bristol 60 per cent, at the Surrey Commercial 73 per cent, at the Bute Docks, Cardiff, 52 per cent, at Falmouth 70 per cent, at Swansea 48¾ per cent, at Belfast 80 per cent. The capital invested in docks in the United Kingdom may be estimated as very close upon £100,000,000. This represents their probable cost. The water area is about 4000 or 4500 acres. This includes tidal basins, warehouses, and other adjuncts of docks; but excludes breakwaters on estuaries not constructed by dock authorities, or for the direct protection of docks.

The net return on capital invested is stated to be (in 1892) at the Bute Docks, Cardiff, at Ipswich, Southampton, Swansea, Montrose, and Dublin, 4 per cent; at Llanelly from 3½ to 4½ per cent; at Belfast 3⅞ per cent; at Millwall £3 : 18s.; Maryport 4⅓ per cent; at Newport 4½ per cent; at Penarth 5¼; at the Surrey Commercial £6 : 16s. per cent. This last is the highest figure supplied to us by any dock authority. It is doubtful whether the total return on the capital invested can average from 3 to 3½ per cent.

Dock Ownership.—The ownership of the seventy-five docks in the United Kingdom is distributed as follows:

State Ownership . . .	1
Municipal Do.	3
Local Public Trust Ownership .	27
Public Ownership . .	31
Joint Stock Ownership . .	41
Private Do. . .	3
Private Ownership . .	44

Public Ownership.—The question of public ownership of docks has been discussed of late, especially in connection with the docks at London and at Cardiff. There are three main points involved—1st, management; 2nd, public convenience; 3rd, finance.

(1) *Management.*—It is argued that a number of men selected by their townsmen for known fitness for administration may administrate as efficiently as similar men selected for the same reason by a body of shareholders. No considerable support can be found for objecting to administration of docks by public trusts in the records of such bodies. The examples of Liverpool and Glasgow are very noteworthy as highly successful and efficient trusts, the Mersey Board alone dealing with a capital almost exactly equal to the aggregate capital of the London Docks. The same class of men is employed in the practical details of administration, both in companies and in corporations. The conventional answer to this argument is that directors who are pecuniarily interested in a concern are more likely to secure efficient management than trustees who are not pecuniarily interested. (2) *Public Convenience.*—There is some reason for doubt whether any general case could be made out on this ground for or against public control. The slowness with which public bodies sometimes meet public demand has frequently been exemplified in the case of docks under both joint-stock and public management. Directors and trustees alike are sometimes compelled to meet the pressure involuntarily. The Tilbury Docks were constructed some years before their time in anticipation of public demand, while the trusts have usually lagged behind demand. This, however, is susceptible of two interpretations. (3) *Finance.*—While dock property may one day be extremely remunerative, it is now in a period of transition. The joint-stock dock shareholder has had, during the past few years, in many cases, to go without his dividend, while the public trust bondholder has, as a rule, got his interest. In this reference it should be remembered that municipalities have other resources at their command than dock charges. Recent instances of defaulting trusts are, however, the harbour boards of Greenock and Paisley. The broad ground of the advantage in the public interest of public ownership and control of all services which are essentially local monopolies, is the argument usually employed in favour of placing docks under public control. (See MONOPOLIES.)

[Harb. Docks and Piers Clauses Act 1847.—*Select Com. Ho. of Com. Harb. Accom.*, 1883.—*Dep. Trade Com. Report* iii., Entrepôt Trade, queries 10,072, 10,074, 10,098, 10,169, 10,283, 10,291, 10,673, 10,692, 10,848, and 11,334.—*London and India Docks Joint Com. Tables of Rates and Charges.*—*Accounts of the Mersey Docks and Harbour Board*, 1891.—*The Port of Bristol Handbook.*—*Barry Docks, Description of Undertaking.*—*The Accounts of the Trustees of the Clyde Navigation*, and other similar official publications.—Macpherson's *Annals.*

MERCANTILE DOCKS IN THE UNITED KINGDOM, 1892.

Place.	Form of Ownership.	Owners.	Date of First Construction.	Capital Invested.	Depth of Entrance.	Area of Docks and Basins.	Capacity of Warehouses, etc.	Principal Imports.	Principal Exports.
England & Wales.					Feet.	Acres.	Cubic ft.		
Barrow.	Joint Stock.	Furness Railway Co.	1867	Included in Railway.	30	135	3,252,800	Timber, Grain, Coal, Iron Ore, Jute.	Steel Rails, Pig Iron, Iron Ore, Tin Bars.
Boston.	Municipal.	Corporation of Boston Harbour Commisrs.				6¾		Timber, Iron, Seeds, Granite, and Goods.	Corn, Coal, Machinery, Salt, and General Cargoes.
Bristol.	Do.	Corporation of Bristol.	1809	1,985,000		108	400,000 qrs.	Grain, Oils, Marbles, Seeds.	Salt, Tin, Cotton, Machinery.
Cardiff.	Joint Stock.	The Bute Docks Co.	1839	4,000,000	35 at sp. tides.	111	4,250,000 85,000 tons, also 28 acres timber floats.	Timber, Pitwood, Grain, and Iron Ore.	Coal.
Do.	Do.	The Barry Railway Co.	1889	850,000		80		Do.	Do.
Dover.	State.	National Property. Dover Harbr. Board.				17½		Coal, Timber, Seed.	Chalk, Oil.
Falmouth.	Joint Stock.	Falmouth Docks Co.	1862	234,000	22 ft. low water O.S.T.	42	35,000	Timber, Wheat, Barley, Maize.	Granite, China Clay, Paper.
Fleetwood.	Do.	L. & Y. Rly. Co., L. & N.W. Rly. Co., Preston & Wyre Rly. Co.				10	30,000 tons.	Grain, Cotton, Timber.	Coal, Coke.
Goole.	Do.	Trustees of Aire and Calder Navigation Co.				23		Timber, Grain, Ore, Oil, Logwood.	Coal, Stone.
Great Grimsby.	Do.	Manchester, Sheffield, & Lincoln Rly. Co.	1849	2,500,000		97½		Grain, Timber.	Iron.
West Hartlepool. Hartlepool.	Do.	N. E. Rly. Co.				200	150 acres wood, 160,000 qr. gr'n.	Ore, Timber, Grain.	Iron, Coal, General Goods.
Harwich, Felixstowe.	Local Public Trust.	Felixstowe Dock Co.						Coal, Timber.	Cement, Cattle.
Hull.	Joint Stock.	The Dock Co. at Kingston-upon-Hull.	1773	3,593,416		140	340,000 qrs. wht. 630 oxen, 3130 sheep.	Grain, Seed, Flax, Cattle.	Chemicals, Coke, Jute, Linen.
Do.	Do.	Hull, Barnsley, & West Rdg. Rly. & Dks. Co.	1885			46		Do.	Do.
Ipswich.	Local Public Trust.	Ipswich Dock Commissioners.	1837	160,800	23½	29⅝		Timber, Grains, Oil, Seeds, Iron.	Iron Machinery, Phosphates.
King's Lynn.	Joint Stock.	King's Lynn Dock Co.							
Lancaster.	Local Public Trust.	Commissioners & Trustees of the Port.	1787			2		Timber, Clay, etc.	
LIVERPOOL.									
Liverpool and Birkenhead.	Local Public Trust.	Mersey Docks and Harbour Board.	1708	17,129,630	31	546	500,000 tons general goods, 9500 tons petroleum in bulk, 9000 petroleum in barrel.[1]	Miscellaneous, Petroleum, Grain, Cotton, Cattle.	Manufactured Cotton, Machinery, Coal, Miscellaneous, Ships.
Duke's Dock.	Joint Stock.	Manchester Ship Canal Co.			4' below O.D.S.	2½	10,000 tons.	General.	General.

Garston Docks.	Joint Stock.	L. & N. W. Rly. Co.				15		General.	Coals.
Manchester.	Do.	Manchester Ship Canal Co.				114		Under Construction.	
Llanelly.	Do.	Harbour Commis.	1813	50,000		16¾		Timber, Sulphur, Iron, Copper, and Lead Ores.	Corn, Coprolites, Coal, Tin Plates.
LONDON.									
London Docks.	Joint Stock.	London and St. Katherine's Docks Co.	1800			40	31,500,000	Wine, Tobacco.	General Cargoes.
St. Katherine's Docks.	Do.		1803			11	19,800,000	Tea, Coffee, Sugar.	Do.
E. India Docks.	Do.	East and West India Docks Co.	1790			98	5,400,000		Coals, Do.
W. Do. Do.	Do.		1799	£18,147,000		29¾	31,500,000	Timber, Wine.	Do.
Victoria Do.	Do.	London and St. Katherine's Docks Co.	1850			100	19,700,000	Frozen Meat.	Do.
Albert Do.	Do.		1880			87		Do.	Do.
Tilbury Do.	Do.	East and West India Docks Co.				71½			Do.
The above docks are under the administration of the London and India Docks Joint Committee, under Docks Act, 1888.									
Surrey Commercial.	Joint Stock.	Surrey Commercial Dk. Co.	1660	1,606,813	28	158¾	300,000 qrs. 218 acres for wood.	Timber, Grain, and Coals.	General Cargoes.
Millwall.	Do.	Millwall Dock Co.	1868	1,935,000	28	38		Grain, Timber, Fruit, and General Goods.	Do.
Maryport.	Do.	Maryport Harbr. Trustees.		314,846	25	20		Timber, Grain, Ore.	Coal, Steel, Pig Iron, Coal.
Middlesboro'.	Joint Stock.	N. E. Railway Co.	1842		27	15½		Timber, Grain, Ore.	Machinery, Chemicals, Iron.
Milford Haven.	Do.	Milford Docks Co.	1890	1,100,000	34	30			
Briton Ferry.	Do.	Great Western Rly. Co.				13		General Iron, Timber & Sunds.	Coal, Bricks, and Sundries.
Newcastle.	Local Public Trust.	Tyne Improvement Commissioners.	1857			84½	273 acres.	Grain, Fruit, Provisions, Timber, Ore.	Coal, Chemicals, Iron, Lead, Ships.
Northumberland Dk.	Do.	Do.			24 ft. sp. tides, 20 ft. neap tides.				
Albert Edward Dock.	Do.	Do.			30 ft. sp. tides, 26 ft. neap tides.				
Newport.	Do.	Alexandra (Newport & South Wales) Docks & Railway Co.		1,655,000	25	55¾	210 acres.	Iron Ore, Timber.	Coal, Iron and Steel, Tin Plates, Coal.
Penarth.	Do.	Taff Vale Railway Co.	1865	1,032,245	40	26		Timber, Wood-pulp, and General Merchandise.	
Penzance.	Municipal.	Mayor, Aldermen, and Burgs. of Penzance.				3½			
Plymouth.	Local Public Trust.	Plymouth Harbr. Commission.				200		Nitrate of Soda, Guano.	General.
Runcorn, Ellesmere Port.	Joint Stock.	Shropshire Union Rly.	1770 1800			3½			
Do. Bridgewater Docks.	Do.	Manchester Ship Canal Co.	1820 1875		O.D.S.	12	10,000,000 cubic feet.	China Clay, Bone Ash, and other Pottery materials, Slate, Timber, Pig Iron, Dyewood, Sundries.	Earthenware, Coal, Salt, & Pitch.

[1] In these figures the warehouses owned by the Dock Board alone are taken into account.

MERCANTILE DOCKS IN THE UNITED KINGDOM, 1892—*Continued.*

Place.	Form of Ownership.	Owners.	Date of First Construction.	Capital Invested.	Depth of Entrance.	Area of Docks and Basins.	Capacity of Warehouses, etc.	Principal Imports.	Principal Exports.
England & Wales.—*continued.*					Feet.	Acres.	Cubic ft.		
So. Shields Tyne Dock.	Joint Stock.	N. E. Railway Co.	1859		24½	60		Grain, Timber, Ore, Esparto.	Coals, Chemicals, Pig Iron, and Bricks.
Widnes Dock.	Do.	L. & N. W. Rly. Co.				1½			
Do. Westbank Docks.	Private.	Trustees of Private Estate.							
Do. Weston Point Docks.	Local Public Trust.	Weaver Trustees.				6½		Clay, China, Stone, Bone Ash, Flint.	Salt, Pitch, Coal.
Seaham.	Private.	The Marquis of Londonderry.	1830			12		Timber.	Coal, Chemicals.
Sharpness, Gloucester.	Joint Stock.	Sharpness New Dks. Co.				34		Timber, Grain, Slates, General Merchandise, and Cattle.	Coal, Salt, Earthenware, General Merchandise.
Silloth.	Do.	North British Rly. Co.	1859	230,361	24	10			
Southampton.	Do.	London & South-West. Rly. Co.	1844	1,360,000	20 ft. at l. w. sp. tides and 40 ft. at h. w.	50	Warehouses on all the quays.	Coffee, Wines, Spirits, Grain, Timber.	Manufactured Goods and Machinery.
Sunderland.	Local Public Trust.	River Wear Commiss.	1850	1,428,451	26½	78	45 qrs. grain, 600 tons esparto or other like gds.	Timber, Grain, Iron Ore, Esparto, Petroleum.	Coal, Coke, Patent Fuel, Marine Engines, Ships.
Do.	Joint Stock.	North Eastern Rly. Co.	1838		22′	6		Do.	
Swansea.	Local Public Trust.	Swansea Harbour Trust.	1851	1,406,000	32′	60	162,329 sq. ft.	Timber, Grain, Mineral Ores, etc.	Copper, Coal, Tin Plates, and other Metals.
Whitehaven.	Do.	Whitehaven Harbour Trust.	1708			4½		Timber, Grain, and Iron Ore.	Coal, Pig Iron.
Wisbech (Sutton Brge.)	Joint Stock.	Sutton Bridge Dk. Co.[1]				(13)[2]			
Workington.	Private.	Earl of Lonsdale.	1864		21 O.S.T.	4½		Coke, Iron Ore.	Rails, Boats, Pig Iron.
						3166½			
Scotland.									
Glasgow.	Local Public Trust.	The Clyde Trustees.	See Table B.					Produce, Cattle, Iron Ore.	Coal, Iron, Machinery, Cotton, Ships, General.
Aberdeen.	Do.	Aberdeen Harbour Commissioners.			Various.	34	None.	Coal, Lime, Iron, Esparto.	Fish, Granite, Cattle, Oats.
Ardrossan.	Joint Stock.	Ardrossan Harbour Co.				13		Produce, Animals.	Coal, Iron, Produce.
Arbroath.	Local Public Trust.	Arbroath Harbour Trustees.				2½		Flax, Hemp, Jute, Coal.	Sailcloth, Guano, Stone.
Alloa.	Joint Stk. Co.	North British Rly. Co.			18′ S.T.	3		Timber, Grain.	Coal.
Ayr.	Local Public Trust.	Ayr Harbour Trustees.				8		Iron Ore.	Coal, Iron, Produce.
Berwick.	Do.	Berwick Harbour Commissioners.				3½		Timber, Manure.	Coal, Fish.

Bo'ness.	Do.	Bo'ness Do.	1871	330,000	22′	7¾	4 Hyd. Hoists, 10,000 tons W'houses. Coal	Timber, Esparto Goods, Grain, Ore, Phosphates.	Coal, Iron, and General Goods.
Burntisland.	Do.	Burntisland Do.	1876	130,000	22½′	5¼	194,400 cub. ft.	General.	Coal.
Dundee.	Do.	Dundee Harbr. Trust.				31		Timber, Iron, Flax, Hemp, Jute, Coal.	Linen, Sailcloth, Sacking, Paper, Yarns.
Greenock.	Do.	Greenock Harbr. Trust.				64		Sugar, Timber.	Coal, Iron, Sugar.
Grangemouth.	Joint Stock.	Caledonian Rly. Co.				52		Timber, General.	Coal, Manufactured Iron.
Leith.	Local Public Trust.	Leith Dock Commisrs.				64		Grain, Cattle, Esparto, Timber.	Coal, Iron, Machinery.
Methil.	Joint Stock.	North British Rly. Co.	1865	150,000	28′	43	40,000 cubic ft.	Timber.	Coal.
Montrose.	Local Public Trust.	Montrose Harbour Trustees.	1843	25,758	18½′	9¾		Timber, Flax, Hemp, Coals, Lime.	Grain, Fish, Timber.
Port-Glasgow.	Do.	Port-Glasgow Do.				16¾		Timber, Iron Ore.	General, Ships.
						363			
Ireland.									
Dublin.	Local Public Trust.	Dublin Port and Docks Board.	1786	1,269,617		205		Timber, Grain, Coal.	Grain, Spirits, Porter, Cattle.
Belfast.	Do.	Belfast Harbour Commissioners.	1785	1,040,000	26′	101		Coal, Cotton, Flax, Breadstuffs, Timber.	Linen, Hides, Salt.
Galway.	Do.	Galway Harbour Commissioners.				9		General.	Provisions.
						315			

[1] Cannot at present be used by ships. [2] Not at present used. O. S. T.—Ordinary Spring Tides. S. T.—Spring Tides. O. D. S.—Old Dock Sill.

—Porter's *Progress of the Nation*, sec. iii., 1837.—Colquhoun, *Commerce and Police of the Thames*.—Locke, *Hist. of Navigation*, 1744.—Vaughan, *Tracts on Docks and Commerce*, 1839.—Cruden, *Hist. of the Port of London*, 1843.—Eden, *Plan for the Improvement of the Port of London*, 1798.—*Reasons for Extending Wharves in London*, 1797.—Telford and Douglas, *An Account of the Improvements of the Port of London*, etc., 1801.—Forrow, *The Thames and its Docks*, 1877.—Capper, *The Port and Trade of London*, 1862.—Howell, *A Day's Business in the Port of London*, 1850.—Various histories of London, and of the Thames and district, *e.g.* Boydell, Maitland, Pennant, Brayley, Knight, Walford, Loftie.—Burrows, *The Cinque Ports*, 1888.—Lyster, "Recent Dock Extensions at Liverpool," *Proc. Inst. Civ. Engrs.*, vol. c. pt. ii.—Mason, *A brief Hist. of the Dock Co. at Kingston-upon-Hull*, 1885.—*The Industrial Rivers of the United Kingdom*, 1888.—Deas, "The River Clyde," *Proc. Inst. of Naval Arch.*, vol. xxx. p. 20.—*B.A. Meeting Newcastle, Official Handbook of Industries*, 1889.—*Inst. of Mech. Engrs., Liverpool Meeting*, 1891, Official Handbook.—*Shipping World Annual*.—Lindsay, *Hist. of Merchant Shipping and Ancient Commerce*, 1874.—"Dock Companies Shares," *Jour. Stat. Soc.*, xxxix. p. 495.—Turnbull, *Dock and Port Charges*.—Thubron, *Dock and Port Charges*.—"Floating Docks in London," *Industries*, vol. i. p. 337.—Harcourt, *Docks and Harbours*.—M'Culloch's *Dict. of Commerce*, 1882, article "Docks."—Booth, C., *Labour and Life of the People*.] J. M.

DOCK LABOUR. The inaugural address of Mr. Charles Booth, President of the Royal Statistical Society, delivered 15th November 1892, records the results of an inquiry into the condition of waterside labour in the port of London. Since 1887, when Mr. Booth commenced the study of dock employment as a principal East End industry, he considers that the social position of the men employed in it has greatly improved; he ascribes this to the unions which have been founded since. Material improvement is less marked. A larger proportion of the men have regular work, but this is gained at the expense of the remainder, whose work is even more precarious than before. The terms of employment are, however, more satisfactory, and the pay higher in 1892 than in 1887.

Mr. Booth divides riverside labour into the following branches:

I. Import through the docks—(1) discharging from on board ship in dock; (2) receiving on quay and passing into warehouse; (3) receiving and stowing into lighters; (4) handling in warehouse. II. Import through the wharves, subject to the same subdivisions as the dock work. III. Import "over side" from ships lying in the stream. The men so employed are termed "shipworkers," and undertake also the loading of coasting vessels. IV. Export work, both dock and wharf. Handling goods on quay in preparation for the stevedores. V. Stowage of cargo, export, by stevedores. VI.

Lighterage of goods. VII. Handling of coals and ballast, dock, wharf, or stream—(1) discharging coal; (2) loading coal as cargo, by stevedores; (3) coaling steamers; (4) ballast heavers. VIII. Handling of ships in port—(1) tug boatmen; (2) ship scrapers and painters; (3) riggers and shore-gang men; (4) sailors in port. Of these Mr. Booth considers only sections 1 to 4 as "dockers," and it is with their work and conditions that he deals. The numbers of the members of the Dockers' Unions appear to have fluctuated greatly. It is not improbable that the two Unions which were organised in 1890 had, within the London district, about 20,000 members against about 10,000 in 1892.

A large proportion of the work is necessarily irregular, as is shown in the following table of the employment for the twelvemonth from April 1891 to April 1892.

Taking docks, wharves, and warehouses together, it appears that there was work—

					Days' Work.
On 302-309 days	for	12,500 men	(or all the year round)	= about	3,840,000
,, 298-301 ,,		500 more	(all year except part of March)	= ,,	150,000
,, 284-297 ,,		500 ,,	(all year except part of March, May, and August)	= ,,	146,000
,, 260-283 ,,		500 ,,	(all year except part of March, May, and August)	= ,,	138,000
,, 219-259 ,,		500 ,,	(part of March, May, June, July, and August without work)	= ,,	125,000
,, 158-218 ,,		500 ,,	(no work in August, very little in March, not half work in May and June, and no month without some loss of time)	= ,,	101,000
		15,000			4,500,000
On 121-157 days	for	500 more	(no work in March, May, June, or August, and not much in July; half work in April and September)	= about	75,000
,, 80-120 ,,		500 ,,	(no work in March, and practically none 1st May to end of September)	= ,,	54,000
,, 44-79 ,,		500 ,,	(about half work in November, December, January, and February. No other work except a short spell at the end of September)	= ,,	33,000
,, 24-43 ,,		500 ,,	(only quarter work in November, December, January, and February)	= ,,	18,000
,, 7-23 ,,		500 ,,	(practically no work, except at end of November and beginning of December)	= ,,	8,500
,, 7 ,,		500 ,,	(needed at the beginning of December only)	= ,,	1,500
		18,000			4,690,000

It seems probable that in the way the work is now distributed, 20,000 men are actually needed, and that there may be as many as 22,000 professional dockers. This number is made up as follows:—

Usually employed at	Victoria and Albert Docks	3,500
,,	East and West India	2,000
,,	London and St. Katharine	4,000
,,	north side wharves and warehouses	5,000
,,	south	4,000
,,	Millwall Docks	1,200
,,	Surrey Commercial Docks	1,800
		21,500

The earnings of the regular labourers at the docks are also shared by men who seek work there because their own trades are slack.

"There appears to be good work actually for 14,500 to 15,000, or, with a margin for sickness and for unavoidable friction in distribution, for about 16,000 men. For these, with strict preferences over all outsiders, there would be an average of 281 days out of 309. This calculation assumes that when needed 3000 more men could be obtained from the unemployed in other trades. The year's work would then be divided somewhat as shown below:—

					Days' Work.
Permanent men	4,000,	working	294	days (309, less 5 per cent)	=1,176,000
First Preference	4,000,	,,	287	,,	=1,148,000
Second ,,	4,000,	,,	278	,, 10 ,,	=1,112,000
Third ,,	4,000,	,,	266	,, 14 ,,	=1,064,000
	16,000	average			4,500,000
Outsiders	3,000	working	63	days average	190,000
	19,000				4,690,000

"Figured at 4s. a day, the preference men would average 22s. 1d., 21s. 4d., and 20s. 5d., or at 4s. 6d., 24s. 10d., 24s., and 22s. 11d. per week. The off-time of the third preference men would fall in the summer, mostly in August, and might be made of some value. If the outsiders, who it will be remembered are wanted mainly in the winter, could be drawn from those trades which are slack at that time, they too might find a sufficient amount of work between two sources of employment for a decent livelihood. This arrangement, if it were feasible, would dispense entirely with the services of 5000 or 6000 men. It is not to be supposed that such a change could come about quickly."

The way to obtain this lies in a careful regulation of the work.

Into the methods proposed to secure this we cannot go here. Mr. Booth truly says, "of all the causes of poverty and misery, irregular work, coupled, as it always must be, with irregular lives, is by far the greatest. A change in this would effect more than almost anything else could do for the welfare of the people." To the owners of dock property also a proper arrangement for the supply of efficient and dependable labour is most important. The pre-

sent rate of wages appears to range from 4s. to 5s. a day. But it is regularity of employment which it is most desirable to secure. The more regularly employed men obtain also the higher rates of pay.

The statement given above refers only to the labour employed in the London docks. The circumstances of the other docks in the country differ considerably from these, but what has been stated will show the importance of this industry to the commerce of the United Kingdom.

[Booth, *Life and Labour in London*, vol. i. Evidence, transport section of Royal Commission on Labour.]

DOCK WARRANT. A document by which a dock company or other dock owner certifies that the holder is entitled to receive certain goods specified therein, deposited with such dock company or other dock owner (see *Dock warrants* in art. DOCK, p. 615). A dock warrant is generally transferable by indorsement; a holder, though in good faith, and though he had given value for it, was formerly in a less favourable position than the holder of a bill of lading; but since the Factors Act of 1877 a transfer of a warrant by the buyer or owner of the goods to which it refers, to a person who takes the document in good faith, has "the same effect for defeating any vendor's lien or right of stoppage *in transitu*, as the transfer of a bill of lading has for defeating the right of stoppage *in transitu*" (Factors Act, 1889, §10). (See COMMERCIAL INSTRUMENTS.) E. S.

DOCQUET. (1) Declaration by a notary authenticating an instrument of sasine (Scotland, before 1845); (2) Declaration by a notary, by a justice of the peace, or by the parish minister in his own parish, authenticating the signature of a person unable to write (Scotland); (3) Authentication of a mercantile account by signature, initials, or jotting.

[Scotland: Dickson on *Evidence*, §§ 797-800.]

A. D.

DOCTRINAIRE is a term of reproach designating one who applies theory without due regard to facts. The doctrinaire forgets that in social science a consilience between deduction and verification is generally requisite (see Mill, *Logic*, bk. vi. ch. viii. ix.) He is like the Aristotelian doctors in the age of Galileo, who continued to believe that bodies fall faster the heavier they are in spite of experiments proving the contrary. However, such open defiance of facts is rare even in political economy. An instance is the resolution of the British parliament that bank notes had not depreciated with respect to gold in 1811, when the guinea was commonly exchanged for 24s. shillings in paper money and silver. The more usual type of doctrinaire is one who has, so to speak, a tolerably correct theory of gravitation, but makes no allowance for the resistance of the air. The omission of this concrete fact may or may not be serious according to circumstances. The abstraction may be legitimate in the case of a stone dropped from a height, but fatal in the case of a feather. An economic principle like *laissez-faire* may be valid in general, but in some important case be counteracted by peculiar circumstances. Such peculiarities distinguish the labour market from markets in general (see Marshall, *Principles of Economics*, bk. vii. chaps. iv. v. vi.) Those who opposed the Factory Acts on the principle of *laissez-faire* were doctrinaires—so time has proved. But prior to the additional experience of the last half century it was not easy to see who was the doctrinaire and who the empiric. A hesitation between the rule and the exception may often be reasonable. In general no short and handy rule can be given for steering between the Scylla of empiricism and the Charybdis which swallows up the doctrinaire. Some cautions against the more dangerous extreme, some education of the instinct or tact which is required in order to hold the right mean, may be obtained from the example of those who have made shipwreck, and from the precepts of the wise.

A signal example is afforded by the so-called currency principle in banking (see BANK NOTE; CURRENCY DOCTRINE), which was held by Lord Overstone, and largely influenced the Bank Act of 1844. Those who relied on this principle fixed too exclusive attention on the "quantity-theory" of money, neglecting incidents peculiar to a convertible currency, and the fact that bank notes form but a small part of the English circulation. The theory is contrary to the fact that after crises, while prices have greatly fallen, the notes in the hands of the public have greatly increased (see Palgrave, *Journal of the Bankers' Institute*, January 1890). Other examples are afforded by some of Ricardo's followers. Ricardo, as Professor Marshall says, is "more responsible than any one else for the habit of endeavouring to express great economic doctrines in short sentences;" for instance, "The natural price of labour is that price which is necessary to enable the labourers one with another to subsist and to perpetuate their race" (*Pol. Econ.*, ch. v.) "A tax on wages is in fact a tax on profits" (*ibid.* ch. xvi.) "Nothing is more common than to see hats or malt rise when taxed . . . so with labour, when wages are taxed, its price rises" (*ibid.*) "The natural tendency of profits is to fall" (ch. vi.) Those who have interpreted these *dicta* literally, without regard to qualifying passages, both "the hangers-on of the science who have used it simply as an engine for keeping the working classes in their places," and also some socialists—may be considered doctrinaires (see Marshall, *Principles of Economics*, pp. 63, 532, 672). The appellation was probably deserved by M'Culloch when he applied to the concrete case of Ireland his

abstract theory that a landlord does not injure, but rather benefits his countrymen by becoming an ABSENTEE (*q.v.*) However, in this and other instances, it may be proper to attribute the mistake rather to the reasoning process than to a neglect of experience. The holder of a false doctrine is not necessarily a doctrinaire. Still it is true that the bad consequences of wrong theories have been aggravated by neglect of ordinary experience and want of common sense. Examples of wrong theories and their consequences will be found in the articles on BALANCE OF TRADE; MERCANTILE SYSTEM; PHYSIOCRATS; WAGE-FUND, and many other headings—beginning with L. P. ABEILLE (*q.v.*) the doctrinaire who taught that a rise in the price of corn was beneficial to the community, and that high corn prices make high wages.

Such instances fully justify Burke's condemnation of the mathematical method in human affairs (*Reflections on the French Revolution, Letter to a Noble Lord, et passim*). Burke's indignation is directed chiefly against the political doctrinaires of his own time. But it is equally applicable to the "economists and sophisters" of a later age. It should be noticed that the same Burke does not on occasion shrink from applying economic theory with some severity (see *Thoughts on Scarcity*, remarks on the "Labouring Poor"). An instructive protest against the abuse of abstract reasoning is contained in Richard Jones's *Rent* and other writings. Whewell, in his preface to the works of R. Jones, aptly compares the doctrinaire to one who should assume that the surface of the earth was entirely determined by gravitation; making abstraction of the forces of cohesion by which the mountains are "in fluctuation fixed." To complete the metaphor, it should be observed that the abstract hypothesis works very well for the greater part of the surface of the terraqueous globe. The difficulty is to discern in each case what is the character of the subject matter, how far the hypothesis of perfect fluidity is admissible. The importance of facts cannot be stated more emphatically than by Mill in his *Unsettled Questions*. The economist must not rest satisfied until he has examined all the facts which appear contrary to his theory, and either made allowance for exceptions, or ascertained that the appearance was illusory. The theorist who will not take this trouble must be content to hold his opinions with great modesty. Mill repeats this lesson in his account of Auguste Comte; whose warnings against the danger of isolating political economy from social science deserve much attention. Another source of instruction is afforded in the German historical school. Those especially who have shown that they appreciate the value of abstract reasoning (see Wagner, *Quarterly Journal of Economics*, 1886) teach with authority that theory without experience is barren. The method of Prof. Cohn is very instructive. In his classical work on English railways he overthrows by arguments drawn from experience the doctrinaires who preach an equal mileage rate and fares proportionate to cost. Over the ruins of this demolished doctrine he builds, upon a broader basis of fact, a new theory which differs from the old, not in being less simple—for it is capable of being expressed in mathematical form (see Hadley, *Railway Transportation*, Appendix; and art. on DUPUIT)—but in better representing the real circumstances. Among English economists who have stigmatised the intellectual vice which is the subject of this article should be noticed Cliffe-Leslie (*Essays*); Prof. Ingram (Presidential Address, Section F, British Association, 1878); Dr. Cunningham (*Growth of English Commerce, passim*). Even unscientific writers like CARLYLE (*q.v.*) may impart common sense. Literary humour is a potent antidote against the crotchets of doctrinaires. Take as examples: Voltaire's "L'homme aux quarante écus;" Scott's Malachi Malagrowther; some of Thomas L. Peacock's stories, especially *Crotchet Castle;* part of Ruskin's *Unto this Last* (ABSTRACT POLITICAL ECONOMY; FACTS, KNOWLEDGE OF). F. Y. E.

DOCTRINE OF POPULATION (MALTHUS). See MALTHUS, Rev. T. R.; POPULATION.

DOGMA. This term, which properly should signify nothing more than opinion, has come to signify an opinion adopted without proof and maintained with passion. In political economy the term dogmatic, like the terms abstract, unhistorical, etc., is often applied to the old, or, as they are more indulgently described, the classical economists. These economists are sometimes supposed to have based their system upon certain arbitrary assumptions or dogmas such as the universal selfishness of human nature, the universal prevalence of competition, and the universal tendency of population to outrun the means of subsistence. They are sometimes contrasted with the later economists, who are said to have employed induction rather than deduction, and to have consulted history rather than to have employed arguments derived from the working of their own minds. The difference in so far as it exists is only one of degree. No economist—indeed no scientific inquirer—can avoid holding opinions which those who differ from him might stigmatise as dogmas. The processes of induction and historical inquiry would be both endless and fruitless to one who undertook them with a perfectly blank mind. Induction is possible only if we assume the uniformity of nature. History has no lessons for us if we do not assume a certain continuity in human character. In framing an induction or in writing a history there is always implied a process of selection among numberless facts. Such a selection can proceed only upon some principle adopted by

the inquirer; a principle which he does not find, but bring. "Let any one watch the manner in which he himself unravels a complicated mass of evidence; let him observe how, for instance, he elicits the true history of any occurrence from the involved statements of one or of many witnesses; he will find that he does not take all the items of evidence into his mind at once and attempt to weave them together; he extemporises, from a few of the particulars, a first rude theory of the mode in which the facts took place, and then looks at the other statements one by one to try whether they can be reconciled with that provisional theory or what alterations or additions it requires to make it square with them" (Mill, *Logic*, bk. iii. ch. xiv.) Hardly any progress therefore can be made in political economy without assuming certain general propositions. On the other hand, such propositions must be regarded as merely provisional, and must always be liable to revision as research goes on. The same remark applies to the conclusions reached from such premisses which in turn afford a point of departure for new theorising.

[See articles CLASSICAL ECONOMISTS; DOCTRINAIRE, and the authorities therein cited.]

F. C. M.

DOITKIN. A small base coin—probably of Flemish origin—prohibited by Statute 3 Henry V. ch. i. Hence the expression "not worth a doit." H. Ha.

DOLE-FISH. The proportion of fish received as their allowance or share, according to custom, by the fishermen employed in the North Sea fisheries.

[Statute 35 Henry VIII. ch. vii.] H. Ha.

DOLES. A dole is defined by Dr. Johnson as "provisions or money distributed in charity," but the ordinary use of the term in modern times implies somewhat more than this. A dole is now generally understood to be opposed to regular or permanent help, and to be comparatively small in amount. Doles figure largely in the charitable bequests of old time. Thus at Oxford, on St. Thomas's Day, there were given away more than seventy such, ranging in value from 13s. 6d. up to £5, and hardly any town or parish in England is without them. Every kind of condition may be attached. They are confined to freemen, to residents in certain parishes, to regular attendants at church, to widows, to spinsters, to servants, to young men, to old men, to cripples, to the blind. The modern spirit, embodied in schemes issued by the charity commissioners, has abolished large numbers of them, but they still survive in places which resist reform. The objections to the dole-system are numerous and weighty. "The practice of distributing doles," said Sir George Jessel in the famous Campden case, "should be more honoured in the breach than in the observance. There is no doubt that it tends to demoralise the poor and benefit no one . . . the extension of doles is simply the extension of mischief." What are the grounds for so sweeping a condemnation? The first principle in administering charity is that it should be adequate to its purpose of relieving distress or re-establishing independence. Neither of these objects is secured by doles. They are not sufficient in amount to meet a crisis, nor continuous enough to provide for old age; in many cases it is expressly forbidden that the same person shall be a recipient on two consecutive occasions. Again, they are often so numerous, and so unimportant in amount, as to be given without any of that preliminary inquiry which is essential to wise almsgiving, and hence they fall largely into the hands of persons who make anything but a good use of them. The conditions attached to the receipt of doles are often of an absurd kind. They hardly ever further their object, they lead to gross hypocrisy. It is idle to suppose that any religious body receives moral support from the membership of those who are attracted by them; in the great majority of cases it is brought into disrepute by the inconsistency of the profession and practice. Hence, far from being strengthened by such gifts, religion itself comes under the suspicion of aiding and abetting unreal conformity, and its moral influence is weakened and its progress stayed. Add to these objections the canvassing for such gifts, the loss of self-respect involved, the temptations to dishonesty in appearance and in phrase, the melancholy effect on children of witnessing such conduct on the part of their parents, the inducement offered to give up the attempt to gain an honest livelihood and seek it by begging and fawning, the attractions which such periodical distributions have for the idle and self-indulgent from every quarter to settle in the favoured parish or town, and it is not difficult to see that charitable bequests in the form of doles tend almost inevitably to increase the very evils which their founders hoped to abate. A single example will illustrate this. The charities of the city of Bristol are estimated as follows:—endowed £50,000, subscription and Colston £41,000, private £50,000, in addition to a poor-law expenditure of £55,500—in all £196,500 annually spent on a population of 221,665 in the census of 1891. And what are the results of the system pursued in many cases? It is said to demoralise and pauperise. "The poor, qualified by residence in parishes in which endowments exist to receive their benefits, look upon them as a right, apply for them regularly, irrespective of need, and accept them with thanklessness. Jealousies and discontents grow round their distribution. The thought that they will fall in induces unthriftiness; debts are run up to be paid off by them; and if not this, being something beyond and

outside the ordinary sources of income, they are deemed fittingly applicable for some unwonted and needless expenditure. Many waste their hearts in expectancy, and their time—years may be,—better spent in efforts to earn their living, in the continual pursuit of gifts. The adroit professional charity-hunters get the lion's share of them. The industrious old people find themselves too late. Much of the money, and even gifts in kind, quickly sold or pawned, are spent in drink" (*The Condition of the Bristol Poor*). So far doles have been treated as a form of bequest only. The same characteristics and the same results are seen in part in the case of indiscriminate charity by individuals, and of out-door relief given by boards of guardians.

[*Charity Commission Act*, ed. R. E. Mitcheson, 1887.—*Charity Commission Reports.*—*Charities Register and Digest*, Introd. pp. cxlv. *et seq.*—*Poor Law Commission, Report and Evidence* (1837).—*Report of the Committee to Inquire into the Condition of the Bristol Poor* (1885).—*Confessions of an old Almsgiver* (1871).] L. R. P.

DOLLAR

History of, p. 626; of Account, p. 627; Hard (Stock Exchange use of word), p. 627; Hard Spanish, p. 627; United States—gold and silver dollar, p. 627; Trade (United States), p. 627; Maria Theresa or Levantiner Thaler, p. 628; Mexican or Peso, p. 628; South and Central American Republics and British Honduras, p. 628.

Dollar, History of. The name dates from the year 1517, when the Counts of Schlick directed a large coinage of the already familiar silver "gulden groschen" in Joachimsthal (*i.e.* St. James's *Dale*) in Bohemia, whence the coins came to be known as *Joachimsthaler*, or simply *thaler*, the coin of the *Dale*. In 1566, at the Convention of Augsburg, the thaler was adopted as an imperial coin, under the name of "reichs-thaler," or "rix-dollar." At this date the millesimal fineness of the coin was reduced from 937·5 to 888, though the weight remained the eighth of a Cologne mark, or about 451 grains troy. The standard was again settled at Leipzig in 1690, and subsequently in 1763; but these changes, and the history of the rix-dollar, are unimportant for the purposes of this article, seeing that with the close of the 17th century the name (modified to "dollar") was usurped—at least among English-speaking peoples—by a *Spanish* coin, the history of which it is now necessary to trace.

The unit of the (silver) monetary system of Spain had been the "real" or "royal" since at least the days of Pedro the Cruel (before 1369) and was retained by Ferdinand and Isabella in their Mint Edict of 13th June 1497. It was the multiple of this unit, the "piece of eight" reals, weighing by law 423·9 grains, of 931 millesimal fineness, and therefore containing some 394½ grains of fine silver, which was poured forth from the Spanish-American mints after the conquest of Mexico and Peru, early in the 16th century, in such profusion as to become a universal coin, reaching even China—by way of Goa and the Philippines—before the close of the 16th century. Thus, as the rix-dollar and the "piece of eight" were practically of identical fine weight and value—4s. 6d. sterling being the accepted standard,—it came about that, the geographical meaning of "dollar" (or thaler) having been forgotten, the "piece of eight" obtained the name of the "Spanish dollar." And, as the rix-dollar began to lose, even in Germany, its earlier importance—except as money of account—the name "dollar," from the beginning of the 18th century onwards, was entirely usurped by the Spanish coin, which after 1686 ceased in the Peninsula to be a "piece of eight," and became a piece of *ten* reals of "new plate." In 1728 the Bourbon kings of Spain, in issuing the new device of the "globe dollar," took the opportunity to reduce the gross weight to 417·6 grains, and the millesimal fineness to 916·6, and in 1772 the fineness was further reduced to 902·7 for the later device of the "Carolus," or "pillar" dollar. The latter standard was preserved in Spain up to 1848, and survives to the present day in the Mexican dollar, the lineal descendant since 1821 of the Spanish dollar.

It should be added that under Spanish rule the dollar was uniformly below standard. Prior to 1728 its fine content was found by the English mint to be only 385 grains, as against 394·6 by law; between 1728 and 1772 only 377 grains, as against 382·8 by law; and between 1772 and 1810 only 371 grains, as against 377 by law. The Mexican dollar, dating from 1821, has steadily improved, until in the present day, as shown by investigations at the London Mint in 1891, the dollar is practically up to its legal standard.

Though Spanish America was lost to Spain by the revolutionary wars of 1810-21, and though with 1810 the Spanish dollar practically ceased to be coined, yet it still continues to circulate as the standard coin, to the exclusion of the Mexican dollar, the dominant coin of the far East, in certain Malay and Siamese-Malay States—Rhaman, Legê, Patani, and, to a less degree, Kelantan. But, of far greater importance than the modern circulation of the Spanish dollar itself is the line of its descendants. Apart from (i.) the dollar of the Philippines; (ii.) the Mexican dollar and (iii.) the debased piastre of Turkey; the Spanish dollar has originated the silver dollar of the United States, which, in 1785, was avowedly modelled on the average of the Spanish coins in circulation, and so indirectly of the gold U.S. dollar worth 49·316d. sterling. Another gold descendant is the two-dollar piece of Newfoundland. The Hong-kong Mint dollar of 1866-68, the

Japanese "yen," of 1871 onwards, and the recent Canton dollar, are immediately derived from the Mexican, not the Spanish dollar. Most of the South American dollars are now "dollars" only in name, being in reality five-franc pieces weighing only 25 (instead of slightly over 27) grammes. In Spain, which has adopted the monetary system of the Latin Union, the new five-peseta, or five-franc, piece is similarly known as a dollar.

[SYNONYMS. Pieza de á ocho, Peso duro, Piece (or Royal) of Eight, Piastre, Colonato, Cob (from *coba*, slang Spanish for Real) Gourde, Escudo de Plata, etc.]

[Becher, *Das Oesterreichische Münzwesen* (Wien, 1838).—Heiss, *Monedas-Hispano Christianas* (Madrid, 1865).—Linderman, *Money and Legal Tender in the United States* (1877).—Zedler, *Universal-Lexicon* (1745), *s.v.* "Thaler."—*Mint Report* for 1891.] R. C.

DOLLAR OF ACCOUNT. On the stock exchange of London it has been for many years usual to reckon the United States dollar as worth always 4s.; although the actual exchange value of the American dollar is usually near 4s. 2d. It is obviously useful to have, for purposes of quotation, a dollar which is worth exactly one-fifth of a pound sterling. American railroad shares are always quoted in these dollars, and the par value of 100 dollars stock in New York would be, as a rule, nearly 103 dollars in London; and the dollars in which dividends on those shares are paid give the shareholder a rather better percentage than appears when the rate of dividend is reckoned at so much per 100 of the nominal 4s. dollars in which London quotations are given. A. E.

DOLLAR, HARD (*Stock Exchange use of word*). This was the name given on the London stock exchange to certain bonds issued by the state of Buenos Ayres. A hard dollar was originally intended to mark the difference between two currencies of the Argentine Republic, the soft dollar having fallen to an indefinite depreciation in consequence of the over-issue of paper money by that state. The hard dollar, then, had a special value; but in the year 1889 it was found expedient to convert the hard dollar bonds into sterling bonds bearing 3½ per cent, so discreditable was it found by the Argentine government that its "hard" dollars should be depreciating almost as much as the baser currency from which it was formerly distinguished. A. E.

DOLLAR, HARD (*Spanish*). The old Spanish dollar was known as the *peso duro*, or hard dollar. It was struck and issued from 1707 to 1868, when the *peseta* (franc) system of currency was adopted in Spain.

The following is a list of the various weights and finenesses at which this coin was issued at different times; from which it will be seen that, for a coin circulating for so long a period as 161 years, the variations were not great:

Year.	Weight.		Fineness in 1000 parts.	Value in silver 925 fine at 5s. 6d. per ounce.	Value in standard silver francs (900 fine).
	Grains.	Grammes.			
				pence.	francs.
1707-28	423·89	27·468	930·500	58·638	5·680
1728-72	417·74	27·064	909·722	56·491	5·471
1772	417·74	27·064	902·778	56·064	5·429
1848	405·75	26·291	900·000	54·281	5·258
1850	402·87	26·105	900·000	53·897	5·221
1854-68	400·64	25·960	900·000	53·598	5·192

The subdivisions of the *peso duro* were all, until the year 1864, of proportionate weight and fineness to the *peso*. In that year the *escudo*, or *half-peso*, only was struck in metal of the same fineness as the *peso*, the remaining divisional pieces becoming merely tokens, with a millesimal fineness of 810. These coins, however, were still coined proportionate in weight to the hard dollar.

The hard dollar, which was first struck in 1772, is of exactly the same weight and fineness as the Mexican dollar, and was, in fact, the coin of which originally the Mexican dollar was the copy. F. E. A.

DOLLAR (United States). The standard of value in the United States, and both a gold and a silver coin.

Gold Dollar.—Standard gold coin first authorised by Act of Congress in 1849, and first issued in that year. Weight 25·8 grains, fineness 900. Value: English standard (916·6 fine at £3 : 17 : 10½ per oz.) 49·32d.; French standard (900 fine) 5·18 francs.

Silver Dollar.—Standard silver coin first struck in 1793. Weight 416 grains, fineness 892·4; altered in 1837 to weight 412·5 grains, fineness 900. Value: English standard (925 fine at 5s. 6d. per oz.) 55·184d.; French standard (900 fine) 5·346 francs. The coinage of silver dollars was discontinued in 1873, when the gold dollar was established the sole standard of value. In 1878, however, an act was passed reinstating the silver dollar as a standard coin, and their coinage was recommenced. F. E. A.

DOLLAR, TRADE (United States). A silver coin struck for use in the trade between the United States and China during the five years 1874 to 1878 inclusive. Weight 420 grains, fineness 900. Value: English standard (925 fine at 5s. 6d. per oz.) 56·19d.; French standard (900 fine) 5·443 francs. These coins were originally legal tender in the United States to the amount of $5, but were demonetised in 1876, and were then only struck for depositors of bullion on the condition that they were exported. In 1878, however, their coinage was discontinued, as considerable quantities had found their way back to the United States, where they were put into circulation at a profit. The total amount coined was

$35,959,360, equal to nearly £8,000,000 sterling. Those circulating in the United States (about $7,000,000, or roughly £1,400,000) were redeemed by the government at their nominal value. F. E. A.

DOLLAR, MARIA THERESA, or LEVANTINER THALER. Austrian silver (trade) coin, first struck in 1765. Since 1780, however, these coins have always been issued bearing the date of that year and the effigy of the Empress Maria Theresa. They are issued for use in the Levant and Asiatic trade. Weight 433·15 grains, fineness 833·3. Value: English standard (925 fine at 5s. 6d. per oz.) 53·6d.; French standard (900 fine) 5·2 francs. This coin has no subsidiary divisional pieces. It will continue to be coined under the new Austrian currency arrangements. F. E. A.

DOLLAR, MEXICAN, or PESO. Silver coin; weight 417·74 grains, fineness 902·7. Value: English standard (925 fine at 5s. 6d. per oz.) 56·064d.; French standard (900 fine) 5·429 francs. The coins subsidiary to the Mexican dollar are ½ Peso (50 cents), ¼ Peso (25 cents), ⅒ Peso (10 cents), ⅕ Peso (5 cents), all of which are 902·7 fine, and proportionate in weight to the dollar. This coin circulates in China, Hong-Kong, the Straits Settlements, and the East generally, being received by weight. It is also bought and sold as bullion in all parts of the world. "Chopped dollars," which are Mexican dollars that have been chopped or stamped with a mark by the Chinese, are a circulating medium in Hong-Kong, Foochow, Canton, and Amoy, where they are usually received at the rate of 717 Canton taels per 1000 dollars. F. E. A.

DOLLAR (South and Central American Republics). In the Argentine Republic, Chili, Colombia, Ecuador, Guatemala, Honduras, Peru, Uruguay, and Venezuela, the standard of value is the silver dollar, a coin of 385·8 grains, 25 grammes, of silver 900 fine. Value: English standard (925 fine at 5s. 6d. per oz.) 51·613d.; French standard (900 fine) 5 francs.

The Guatemalan dollar is the standard of value in the colony of British Honduras.

F. E. A.

DOLLAR, SPANISH. See DOLLAR, HARD.

DOLUS. Expression of Roman law denoting wrongful intention in the widest sense. Fraud presupposes "dolus," but there may be "dolus" without fraud; for instance an incendiary, or a person committing an assault is actuated by "dolus." E. S.

DOMAINE. In mediæval France, as in mediæval England, the king was expected to "live of his own," and to apply to his subjects for aid to meet any extraordinary expenses. Hence *domaine* comes to mean, not only the lands which the king possesses like any other landowner, but the whole of the ordinary revenue of the crown, as distinguished from the extraordinary revenue or taxes. The *domaine matériel*, or crown lands, was declared inalienable by an edict of 1318, which was frequently renewed, and grants from it were frequently resumed by the crown. In spite of these measures, however, it continued steadily to diminish until the 17th century. The *domaine immatériel* consisted mainly of the almost innumerable rights which belonged to the crown. The most important of these were the *droit d'amortissement*, the payment by a corporation for leave to acquire real property, the *droit d'aubaine* (see AUBAINE, DROIT D'), by which the crown inherited the property of foreigners dying in France, the *droit de bâtardise*, by which the property of bastards fell to the king, the *droit de franc-fief*, and the *droit de régale*. The domain revenue also included the proceeds of the sale of offices, and the PAULETTE (*q.v.*) paid by members of the parliament and other courts. In the 18th century the domaine was calculated to bring in about forty-one million francs (£1,640,000). R. L.

DOMBASLES, ALEXANDRE MATHIEU DE (1777-1843). With the support of M. de VILLENEUVE-BARGEMONT (*q.v.*) the author of the *Economie Politique Chrétienne*, at that time prefect of the department of the Moselle, he founded in 1822 the model farm of Roville, the first agricultural school established in France. His teaching was mainly experimental, and to the end he maintained that "in reality the agricultural improvements, which result from chemistry or vegetable physiology, amount hitherto to very little indeed. . . . The theory of agriculture consists of rules, which are to be deduced from the comparative observation of facts in a great number of various cases. . . . An agricultural school ought to be an agricultural *clinique*" (*Œuvres Diverses*, Paris, 1843, pp. 214-225). As an experimental teacher, Mathieu de Dombasles rendered immense services to French agriculture by the publication of his results in the *Annales de Roville* (9 volumes, 1825, and following years); he was one of the promoters of the beetroot-sugar industry, popularised the methods of breeding of Bakewell, and of farming of Sir John Sinclair, and in a pamphlet, *De l'Impôt sur les Eaux de Vie* (1824), tried to induce the French government to protect the distillation of spirits from potatoes. He also thoroughly explained the advantages and disadvantages both of small and of large farms in his essay on *L'Etendue des Propriétés Rurales dans ses rapports avec la prospérité de l'Agriculture* (1825).

In connection with agriculture, Mathieu de Dombasles often approaches economic questions (see the first part of his *Œuvres Diverses* entitled *Economie Politique*). He was a staunch protectionist and an opponent of French colonial enterprise in Algeria. He also objected to the

teaching of agriculture in country primary schools. E. Ca.

DOMESDAY BOOK is the name which, at least since the 12th century, has been borne by the record of the great survey of England made by order of William the Conqueror. Apparently the decree for the survey was issued at a moot held at Gloucester at the midwinter of 1085-86, and the work was completed in the course of the following year. Royal commissioners (*legati*) were sent into each shire with a list of interrogatories, to which they were to obtain sworn answers from local juries. Their procedure seems to have been this—they held a great shire moot, at which every hundred or wapentake of the shire was represented by a jury, while every vill was represented by a deputation of villagers. From each hundred-jury they obtained a verdict about all the land in the hundred, the villagers being at hand to correct or supplement verdicts, while "the whole shire" was also present, and from time to time appeal could be made to its testimony. The statement thus supplied was "reduced into writing and duly transmitted to the king. It was afterwards methodised and abstracted, and fairly transcribed in the great volume of Domesday and deposited in the royal treasury at Winchester, amongst the other muniments of the realm. It still exists, fresh and perfect as when the scribe put pen to parchment, the oldest cadastre, or survey of a kingdom, now existing in the world" (Palgrave, *History of Normandy and England*, vol. iii. p. 575). Our best information about the form of the original verdicts is contained, not in Domesday Book itself, but in a document known as the "Inquisitio Comitatus Cantabrigiensis." This seems to be a copy made in the 12th century of the verdicts delivered by the juries which represented some of the hundreds of Cambridgeshire. The verdicts having been obtained, they were sent to the king's treasury, and a digest was made of them by the royal officers. This digest is Domesday Book. If we may draw a general inference from Cambridgeshire, the materials supplied by the commissioners were subjected to a process of rearrangement. A scheme that was wholly geographical gave way to one which was partly geographical, partly proprietary. Domesday Book deals with each shire separately, but within the shire it collects, under the name of each "tenant in chief," all the estates that he holds, no matter in what hundred they may be. For example, the Cambridgeshire verdicts showed that Count Alan had lands in many hundreds. In the original verdicts the entries relating to his estates were therefore scattered about; in Domesday Book they are all collected together. Domesday Book consists of two volumes, sometimes called "Great Domesday" and "Little Domesday." The latter deals with Essex, Norfolk, and Suffolk; the former with so much of the rest of England as was surveyed. A document in the keeping of the cathedral chapter of Exeter, and known as "the Exon Domesday," contains an account of a large part of the south-western shires, which is very closely connected with that given by what, for distinction's sake, is sometimes called "the Exchequer Domesday." Seemingly this Exon Domesday is independent of the Exchequer Record, and goes back by a different route to the original verdicts. The same may perhaps be said of the "Inquisitio Eliensis," an account of the estates held by the church of Ely. This Ely inquest must not be confused with the Cambridgeshire inquest.

Domesday Book was printed and published in 1783 in two folio volumes. A third volume containing indexes was published in 1811, and this was followed in 1816 by a fourth volume containing the Exon Domesday, the Ely Inquest, and some other matters. Of late years useful facsimiles have been published by the Ordnance Survey Office of various parts of the great Exchequer Record, and can be obtained at moderate prices. The important Cambridgeshire Inquisition was first published by N. E. Hamilton in 1876.

A large literature has gradually been collecting round Domesday Book. Among the older books Robert Kelham's *Domesday Book Illustrated* (1788) and the essays of Philip Carteret Webb deserve to be mentioned. Sir Henry Ellis, in his *General Introduction to Domesday Book* (1833), supplied valuable indexes, and summed up the older learning. In the fifth volume of E. A. Freeman's *Norman Conquest* good use has been made of all that bears on political history, on the history of great men, great churches, great events. James F. Morgan's *England under the Norman Occupation* (1858) is a good introduction to the study of Domesday, and the like may be said of W. de Gray Birch's *Domesday Book* (1887). A new epoch in the scientific exploration of the record is marked by the various works of R. W. Eyton dealing with Dorset, Somerset, Lincoln, and Stafford, especially by the key to Domesday Book. Two volumes of essays by various writers, called *Domesday Studies* (1888-91), contain two valuable papers by J. H. Round, besides other matters. In some county histories Domesday has been well used, but here it is possible to name only the books of general importance. F. Seebohm's *English Village Community* has done much to awaken a new and an economic interest in our oldest statistics.

Much remains to be done. The student who approaches Domesday from the economic side will at once see that he has before him a vast mass of detailed statistics which ought to tell him much about agriculture, prices, rents, and the like. At the same time he will feel that

he is debarred from making use of these precious materials by the difficulty of discovering the meaning of the crabbed formulas which are repeated on page after page. The difficulty is a very real one. Domesday Book stands alone. It is so far removed in time from the documents which most nearly resemble it, the extents of manors which are found in monastic cartularies, that we have to explain it out of itself or not at all, for we shall look in vain for help elsewhere. Then again the terms that it employs as technical terms are, we may say, derived from two different languages which have only of late come into contact with each other. About half of them have been introduced by the Norman conquerors, while the other half are words which were in use in England under Edward the Confessor. Hence many puzzles; for example, what word did English juries say when French clerks wrote down *villanus*? Then again, the more our record is studied, the more plainly do we see that one main purpose governs both its form and its matter. King William is not collecting miscellaneous information in the spirit of a scientific inquirer. He is in quest of geld. Domesday Book is a geld book, a tax book. Geldability, actual or potential, this is its main theme. If then we are to understand its statistics, the first thing necessary is a theory of geld, of the manner in which the great tax has been and is assessed and collected. Towards the construction of such a theory not a little has been done by modern writers, especially by Eyton and Round, but until the work has been completed, speculations about rents and values seem doomed to failure. Everywhere, for example, the question meets us whether we are reading of real areal units of land or of units which are the results of a rude system of taxation, and a great deal of labour must yet be spent on the book before this question will have been adequately answered. F. W. M.

DOMESTIC SYSTEM OF INDUSTRY. This system is opposed to that of carrying on manufacturing industry in factories (*see* FACTORY SYSTEM). It was very general in England before the changes which were effected at the close of the last, and the opening of the present century (*see* INDUSTRIAL REVOLUTION). Until the introduction of any but the simplest machinery, manufacturing industry had been closely associated with agriculture, and had been carried on, with few exceptions, in country towns and villages, in the houses of craftsmen or handicraftsmen, who worked with their own hands, aided by simple tools and appliances, and were hence called manufacturers (Latin, *manus*, a hand, and *facere*, to make). They were assisted by apprentices (*see* APPRENTICESHIP) whose number and time of service were fixed by law, and by a few JOURNEYMEN (*q.v.*), or hired labourers, whose wages were, in theory at least, settled by the magistrates. These apprentices and journeymen lived in the same house with the master-craftsman, and ate at his table. Thus in the woollen trade, which was the staple industry of the country, the spinning, weaving, and dyeing were carried on in the houses of craftsmen, few of whom possessed more than three or four looms, or had working under their direction more than eight or ten people—men, women, and children. There were apparently even now, and there had been for some time previously, cases of production conducted under the modern system, by which one individual supplies and controls the capital which is needed, but the actual processes of industry were pursued, with apparently few exceptions, in the houses of the craftsmen. This domestic system had its unfavourable side, but it seems to have often led to a feeling of warm personal attachment between the master and his men. With the introduction of machinery, however, and in a more marked and general degree with the employment of steam as the motive power of that machinery, the domestic system of industry gave place to the factory system; and, although it is still found in some employments, it is now the exception rather than, as it once was, the rule. The fact that steam can only be generated in a fixed spot, and that the motive power thereby furnished can only be distributed over a small area has, no doubt, tended to favour the concentration of industry in large factories; and it has been said that the discovery and substitution of some fresh motive power, such as electricity, or of some fresh source of motive power, such as petroleum, which can be distributed along wires or pipes from a common centre over a wide area, might lead to the revival of the domestic system of industry. But there are various economies of management, and of purchase and sale, which lend an advantage to production on a large scale (*see* INDUSTRIES, LARGE AND SMALL); and these would continue to operate, even if a fresh motive power, or source of motive power, were generally introduced. And they would probably outweigh, except in certain occupations where the domestic system is still found, the benefits of the close personal interest which is felt, and of the continual watchfulness which is exercised, by the small master. It should be noted that some of the instances, which now exist, of the domestic system meet with censure rather than approval on the part of the public. What is known by the ambiguous term of the SWEATING SYSTEM (*q.v.*) seems to be in reality one variety of the domestic system of industry. In many cases it appears to be a system under which work is carried on in the houses of small masters; and the conditions of labour of the chain-makers and others in some parts of England are so far similar to those of the workers under the sweating system in London

that they are instances of a domestic system of industry which has earned the severe censure of popular opinion. The characteristic evil of East London seems to be the multiplication in certain trades of small masters—the ease with which a man can start on his own account, and the reckless competition which of necessity ensues. It is the prosecution of industry in domestic establishments outside the sphere of the factory inspector; for the domestic system baffles that publicity, and tends to deaden that sense of responsibility to popular opinion, to which the employer in a large factory is subject. The domestic system, in short, may be said to be suited to a small population, a limited market, and an unbroken routine; it is unsuited to a large population where publicity is less easily attained, and to a world-wide market which is subject to rapid and continual change, and requires the sustaining resources of considerable capital and the exercise of bold and vigilant enterprise.

[For an account of the domestic system, as it formerly prevailed, the student should consult Toynbee's *Industrial Revolution*, ch. iv. and lecture ii., and W. C. Taylor's *History of the Factory System*; and for a consideration of some of its modern illustrations, Booth's *Labour and Life of the People*, vol. i., esp. pt. iii. ch. i., and the *Reports of the Committee of the House of Lords on the Sweating System*.] L. L. P.

DOMICIL OR DOMICILE. The validity of a person's marriage, the legitimacy of his children, and the devolution of his personal property after his death, to a great extent, depend on the law of his domicil. A definition of this term is contained in the following passage of Justinian's Code (X. 40. 7): "ubi quis larem rerumque ac fortunarum suarum summam constituit, unde rursus non sit discessurus si nihil avocet, unde cum profectus est peregrinari videtur, quo si rediit peregrinari jam destitit" (where a person has established his household gods, and the centre of his affairs and his fortunes; the place he will not leave, if no special cause calls him forth, away from which he seems a wanderer, returning to which he is a wanderer no longer). Hence Prof. Dicey, *Law of Domicil*, defines domicil as the legal equivalent for "home."

This definition would leave persons without a fixed abode, and persons who cannot choose a home for themselves, without a domicil; and in order to avoid the complications which would result from that fact, some artificial rules have been introduced into modern law, according to which a domicile is ascribed to everybody who has no "domicil of choice." These rules are the following:—

(1) Every person on his birth acquires the domicil of his father. This is called the "domicil of origin." A "domicil of origin" is retained until a "domicil of choice" is acquired; on the other hand, a "domicil of choice" may be abandoned without the acquisition of a new domicil, and in such a case the domicil of origin revives; *e.g.* a person, whose father was domiciled in Germany at the time of his birth, establishes a permanent home in England with the intention of remaining there for the rest of his life. He has then an English "domicil of choice." At some subsequent time he decides to leave England, but is undecided as to the country in which he wishes to settle; from the moment at which he leaves England his German domicil of origin revives.

(2) A wife on marrying acquires her husband's domicil, and whenever a father or a husband assumes a new domicil, his infant children and his wife assume the same domicil. If the father or husband abandons a domicil of choice without assuming a new one, the infant children and the wife assume the father's or husband's domicil of origin, in the same way as he does himself.

The importance of being able to ascertain a person's domicil at a given time may be illustrated by the following examples. If the father of an illegitimate child, at the time of the child's birth, was domiciled in England, the child can never become legitimate; if, on the other hand, the father at the time of the child's birth was domiciled in Scotland, he may legitimate the child by marrying the mother.

If a man marries his deceased wife's sister, both being at the time of the marriage domiciled in a country where marriage with a deceased wife's sister is permissible, the marriage is valid. If, on the other hand, he or she was at the time of the performance of the ceremony domiciled in England, the marriage is invalid; although the law of the country in which the ceremony was performed allows such marriages.

If a person who dies domiciled in Scotland, and leaving a wife and children, has bequeathed all his residuary personal estate to a stranger, the stranger will receive one-third only, and the other two-thirds will go to the wife and to the children; if, on the other hand, the testator at the time of his death was domiciled in England, no part of the residuary personalty will go to the wife or children. If a person dying intestate and unmarried, leaving surviving him his father and his mother and a brother, was at the time of his death domiciled in France, the father, the mother, and the brother will each be entitled to a third of the intestate's property; if, on the other hand, the intestate was at the time of his death domiciled in England, the father will be entitled to the whole.

There are many circumstances imaginable under which it may be extremely difficult to ascertain what a person's domicil is. Many persons who have emigrated to a foreign country do not know themselves whether they

look upon it as a permanent home, or whether they will some day return to their native place; and even if they have a well-established intention, there may be no evidence from which it can be proved. With the increased facilities of international communications and the expansion of international trade, cases in which such doubts arise will become more and more frequent, and the question arises whether it would not be better to substitute the principle of nationality for the principle of domicil; in other words, whether it would not be better to establish the rule that an individual's personal rights should be determined by the law of the country whose subject or citizen he is. There are, however, many objections to this proposal, and as no rule can be suggested which will clear away all difficulties connected with the subject, the balance of convenience is in favour of the rule to which we are accustomed.

[Dicey, *The Law of Domicil.*—Westlake, *Private International Law.*—Foote, *Private International Law.*—Phillimore, *International Law*, vol. iv.—Nelson, *Cases, etc., of Private International Law.*]

E. S.

DOMICILE, SCOTLAND. Examples: (1) A person's father—or, if he be illegitimate, his mother—was a domiciled Scotsman (or Scotswoman) at the time of his birth—*domicile of origin;* (2) A person, his own master, has become a domiciled Scotsman by actual residence with the intention of remaining in Scotland, and the result of quitting his native country, a circumstance which must be proved—*domicile of choice;* (3) An Englishwoman, say, marries a domiciled Scotsman; she becomes a domiciled Scotswoman — *domicile by operation of law.* There is a general presumption in favour of the domicile of origin as against the domicile of choice, and thus the domicile of origin is readily held to have been recovered on a Scotsman's return to Scotland from life abroad. These are forms of that domicile which govern the legitimation of children, the succession to movable (personal) property, and, in general, the family relations: this is the *domicile of succession.* There are still some delicate questions not finally decided as to the domicile necessary to give jurisdiction to the Scotch courts in cases of divorce. *Domicile of citation* is by custom the place at which a person may lawfully be cited to appear before the court, this being the place where he has resided for forty days until he has ceased for forty days to reside there; but this is a domicile for the purposes of procedure (see JURISDICTION, SCOTLAND).

A. D.

DOMICILED BILL. A bill "drawn payable elsewhere than at the residence or place of business of the drawee" is said to be "domiciled." Such bills must be presented for acceptance before they are presented for payment, and if the holder, in consequence of this obligation to procure acceptance, cannot, with the exercise of reasonable diligence, present a domiciled bill in proper time for payment, he will be excused and the drawers and indorsers will not be discharged in consequence of the delay. Domiciled bills, whether accepted or not, must at maturity be presented at the place of payment, *e.g.* a bill in Liverpool payable in London remains unaccepted; the holder must, at maturity, present the bill in London, although no special address for payment be given; this can be done by handing the bill to a notary, who in his protest will declare that no address was given.

E. S.

DOMINIUM. Expression of Roman law denoting property in its fullest and most extended sense.

E. S.

DOMUS CONVERSORUM. See JEWS IN ENGLAND.

DONATIO MORTIS CAUSA. A gift given by a person believing himself or herself near death, subject to the implied condition that it is to be returned should the anticipation of death by the existing disorder prove unfounded. A gift of this sort is invalid if the delivery of the object of the gift remains incomplete, *e.g.* an unindorsed bill of exchange handed over to the donee by way of *donatio mortis causa* cannot be retained after the donor's death.

E. S.

DONATION (Scotland). Gift, free or for some cause not enforceable by law. Must in general be explicit, and adequately proved; and is then enforceable if the subject be not yet delivered to the donee. Fathers and grandfathers may revoke gifts to children or grandchildren so far as to secure themselves a competence in the event of indigence. Free gifts between husband and wife are revocable at any time during the life of the donor, even after the death of the donee; but not if there have been a legal or a natural obligation to make the provision made. In doubtful circumstances it is generally presumed there is no donation; a debtor is not presumed to make a gift to his creditor; but these are really jury questions.

A. D.

DONATO, NICOLO, a Venetian who lived in the last century, known by his book on politics, which contains a treatise on public finance: *L' uomo di governo,* trattati due, Verona, 1753. This was translated into French: *L'Homme d'État,* par Nicolò Donato, Liège, 1767. In his book there is a classification of public finance under seven headings, and a statement giving details of public expenditure relating more particularly to the Venetian state.

M. P.

DON GRATUIT. The DÉCIMES (*q.v.*), the ordinary contributions of the clergy, were not sufficient to satisfy the French monarchy in the 17th and 18th centuries. The clerical assemblies were frequently called upon to make additional payments, and these grants, in theory voluntary, grew under Louis XIV. into

a practically compulsory payment of about 15,000,000 livres (£600,000), renewed every five years. This *don gratuit*, as it continued to be called, was nearly always raised, not by taxation, but by loan. The credit of the clergy was so good that it was easier for them to borrow than it was for the government. According to Necker the clerical debt, raised for payment of the *don gratuit*, amounted in 1784 to 134,000,000 francs. The Marquis du Bouillé, in his memoirs, asserts that the interest upon this debt was paid out of the DÉCIMES (*q.v.*), and thus reduced the nominal contribution to the state to such an extent that the church was a source of expense rather than of revenue.

[Necker, *De l'Administration des finances de la France*, tome ii.—Gasquet, *Mémoires du Marquis du Bouillé*, p. 44.—*Précis des Institutions politiques et sociales de l'ancienne France.*] R. L.

DORIA, PAOLO MATT., born in Genoa 1675, died at Naples 1743. He wrote principally on mathematical and philosophical subjects. He lived nearly all his life at Naples, and is known to have been a friend of Vico. In his political tract *La vita civile con un trattato della educazione del Principe*, published for the first time in 1710 and republished in 1852 (Turin), he seeks to prove that the adminstration of a state by a prince, in its object and in its means, is qualitatively identical to that of private interests by private people, and is only more complex. The one fundamental rule for a sound administration of the state is a financial rule which consists in burdening the tax-payer least, whilst the prince takes most from him, and in taxing in such a manner "that although paying much, everybody should think he is paying little." Doria is a strict follower of St. Thomas Aquinas in his theories concerning the relative importance of agriculture and manufactures, in the functions attributed to money, and in his opinions about commerce. He has to be classed amongst the most inveterate of the mercantilists.

M. P.

DORMANT (or SLEEPING) PARTNER. A partner who takes no active part in the business of the firm, and who is not known to be a partner. Such a partner is liable for the acts of his co-partners in the transaction of business in the ordinary way, but he has no authority to bind the firm.

[Sir F. Pollock, *The Law of Partnership*, London, 1890.] J. E. C. M.

DORMER, DIEGO JOSÉ, was born in Saragossa during the first half of the 17th century. He graduated as doctor of law at the university of Huesca, and became later on general chronicler of the kingdom of Aragon and archdeacon in the metropolitan church of Saragossa. He was all his life a most devoted and abundant historical writer.

In 1684 he published in Saragossa his *Discúrsos históricos-políticos*, a very scarce book, in which, according to Don Manuel Colmeiro (*Biblioteca de los Economistas Españoles*) he "explains with exquisite clearness the true character of commerce, the nature of exchange, the use and utility of money, and the inefficiency of the prohibitive system. . . . It is one of the most original works of its class, bold and precise in its economic doctrine. The author is greatly in advance of his time, and deliberately puts aside the prevailing prejudices, not only in Spain, but throughout Europe."

[For a complete list of his works, see Latasa, *Biblioteca Nueva de Aragon*, iv. p. 197.]

E. Ca.

DOS. Expression of Roman law for the property brought by the wife into marriage. During the continuation of the marriage the wife retained the ownership, but the husband had the right of management and enjoyment. After the dissolution of the marriage the rights of the parties varied according to the special circumstances of the case. E. S.

DOSES (OF CAPITAL). A term introduced by James Mill (*Elements of Political Economy*) to denote the portions of capital which, according to the theory of RENT (*q.v.*), will be successively applied to land up to the point at which the portion last applied affords only ordinary profits. As Jevons observes (*Theory of Political Economy*, 2nd ed. p. 232), "He evidently means by a *dose of capital* a little more capital, and though the name is peculiar, the meaning is simply that of an *increment of capital*. . . . It is mere pedantry to insist upon calling that a *dose* in economics which in all the other sciences is called by the perfectly established and expressive term *increment*." As the equivalent of "increment," *dose* may be employed wherever the reasoning requires that we should consider a variable quantity as increased by degrees up to the MARGIN (*q.v.*) at which further increase ceases to be advantageous. Thus, Prof. Marshall speaks of a dose of labour as well as of capital (*Principles of Economics*, book iv. ch. iii. §2). Some difficulties attending the use of the term "dose of capital" are cleared up by Prof. Marshall at the end of the chapter referred to. F. Y. E.

DOUANE (*Fr. Customs*). The earliest customs duties in France, as in England, were levied upon exports, and arose from the practice of buying permission to transport goods from the kingdom in spite of royal edicts prohibiting exportation. Import duties seem to have arisen from the fact that foreign merchants had to purchase leave to carry on trade in France, and hence came the practice of apportioning their payments to the goods which they introduced. These customs duties were originally called *droits de haut passage*. The name *douane* was introduced later, and was borrowed

from the Venetian term *dogana*. The great difference between France and England, which illustrates the much later development of unity in the former country, lies in the fact that the *douane* is originally a provincial, not a national charge. Every province had its own customs duties, often of great intricacy and variety; and these charges, dating from the days of provincial independence, were maintained as a source of revenue, after the provinces had been absorbed by the central monarchy. It did not require much economic insight to understand the enormous hindrance which such a system opposed to the development of internal trade and production. Colbert, the most practical if not the most enlightened of French financiers, made a vigorous attempt to abolish the provincial *douanes*, and to have no custom-house, except on the frontier, but he was successfully resisted by the "local protectionists." He succeeded, however, in establishing, in 1664, a sort of *zollverein* in twelve of the most important provinces, called the *cinq grosses fermes*, within which the circulation of goods was to be free. Beyond these were the *provinces réputées étrangères*, which refused to accept Colbert's scheme and retained their local customs, and the *provinces étrangères*, those which were added to the crown after 1664, and received special privileges at the time of their union. Colbert also succeeded in simplifying and making more uniform the charges which he failed to abolish. The system, as he left it, lasted with slight modifications till the Revolution, when the provinces disappeared, and with them the last trace of the provincial *douane*. R. L.

DOUBLE ENTRY. See Book-keeping.

DOUBLEDAY, Thomas (1790-1870), son of a soap manufacturer in Newcastle, was a radical of Cobbett's stamp, of great influence during the agitation for the Reform Act of 1832. He deserves notice here chiefly for his book on *The True Law of Population shewn to be connected with the food of the people*, London, 1841, 2nd ed. 1843, which contained in an expanded form a theory he had brought forward in a letter to Lord Brougham in *Blackwood's Magazine*, March 1837. This theory, which he describes as a "great general law," is that "whenever a species or genus is endangered, a corresponding effort is invariably made by nature for its preservation and continuance by an increase of fecundity or fertility," the state of low nourishment or "depletion," being thus favourable while high feeding or "repletion," is unfavourable to fertility, both in vegetables and animals. Fertility is in inverse ratio to nutriment, even in the case of human beings. In poor and ill-fed communities population increases in the ratio of the poverty and poor living; in a highly-fed and luxurious nation population decreases and decays. He shows a goodly list of examples, from the English peerage to Pitcairn Island, to countenance his conclusion. In his 9th chapter he uses his knowledge of the tallow and soap trade to support the position that there had been a decrease in the consumption of meat in England. But his law is an empirical uniformity of which he has not traced the deeper causes. Physiologists and biologists have emphatically pronounced against him. (See Dr. Charles Loudon, *Problème de la Population et de la Subsistance* (quoted by Doubleday himself); and Herbert Spencer, *Biology*, vol. ii. pt. vi., *Law of Multiplication*, ch. xii. pp. 455, 480, 483 note; Darwin, *Descent of Man*, vol. i. ch. iv. 132, ed. 1871.)

The book is indirectly an attack upon Malthus; but the Essay on Population is more directly criticised in Doubleday's *Financial, Monetary, and Statistical History of England from 1688 to the present time in 17 letters addressed to the Young Men of Great Britain*, 1847, Letter x., pp. 206 *seq.* The writer falls into the vituperative style of his master Cobbett.

Other writings of Doubleday are:—

Letters in the Newcastle Chronicle on the Petition of the Chamber of Commerce, Newcastle-on-Tyne, for the Continued Circulation of Local One Pound Notes (which he opposes), by a Member of the Chamber, 1828.—Two Letters to Lord Althorp in Cobbett's *Register*, 13th April and 25th May 1833 (on excise duties on soap). *Political Life of Sir Robert Peel*, 2 vols., 1856.—*Touchstone*, a series of political letters addressed to the newspapers, republished, with a preface by John Paul Cobbett.—*On Mundane Moral Government and its Analogy with Material Government*, 1852.—*Matter for Materialists, a letter in vindication of Bishop Berkeley*, 1870. He wrote also a romance, *The Eve of St. Mark*, and several stage plays, *Diocletian*, *Caius Marius*, etc.

[See "Life" by G. J. Holyoake in the *Dictionary of National Biography*.] J. B.

DOUBLE-FLORIN, English token silver coin of the nominal value of 4s., first struck in 1887, the year of Queen Victoria's Jubilee, in pursuance of a royal proclamation of the 13th of May of that year. It is (1892) of precisely the same design as the florin. Weight 349·09 grains, fineness 925. Value in silver francs (900 fine), 4·64 francs. F. E. A.

DOUBLE STANDARD. See Bimetallism; Standard of Value.

DOUBLOON, History of. A gold coin of Spain, prior to the adoption of the monetary system of the Latin Union. The name "doubloon" has been diverted by general consent from the Spanish pistole or *double* escudo (whence "doblon" in Spanish) to the quadruple pistole, or "doblon de á ocho." Like the Dollar (*q.v.*), the doubloon was a multiple, and not a unit. Corresponding to the silver unit, or real, was the gold unit, or escudo (=$2), concerning the standard of which the emperor Charles V. and

his mother Donna Juana enacted, in 1537, that "the escudos which we have commanded to be struck shall be 22 carats fine, and shall weigh 68 to the mark of gold of our kingdoms of Castile, which is the fineness and weight of the larger escudos of Italy." As this makes the gross weight of the escudo 52·2 grains troy, the escudo was thus practically a ducat (see DUCAT). From 1537 to 1772 the 8-escudo piece or "doubloon," was 916·6̇ fine per mille, reduced in 1772 to 901, and in 1786 to 875, the legal weight remaining 417·6 grains troy from 1537 up to 1848. Both in 1772 and in 1786 the reduction in fineness was effected not by a public law, but by a *Real órden reservada* addressed to the mints. The doubloon (Peso Duro de Oro) never had the universal currency of its silver analogue the dollar: and even in the New World it was hard pressed by its Portuguese competitors, the "moidore" and the "johannes." The reason, in the words of Newton, was that "gold in Spain is of 16 times more value than silver of equal weight and allay. But this high price keeps their gold at home in good plenty, and carries away the Spanish silver into all Europe." The Spanish doubloon was succeeded after 1821 by various South American doubloons, which enjoy a limited currency in the New World, and are specially quoted in the London bullion-market. In 1848 the "doblon d'Isabel" was introduced in Spain, to be supplanted by the 20-peseta piece on the entry of Spain into the Latin Union.

As the fine content by law was (1) 382·8 grains from 1537 to 1772, (2) 376·2 grains from 1772 to 1786, and (3) 365·4 grains from 1786 to 1848, in theory the sterling value of the doubloon (at £3 : 17 : 10½ per oz. of standard gold) was (1) £3 : 7 : 9, (2) £3 : 6 : 8, and (3) £3 : 4 : 8 for the same three periods respectively; but the results of assays reduce these values roughly by the odd pence. Thus, after 1786, the sterling value of a doubloon as issued was £3 : 4s. (see DOLLAR). R. C.

DOUBLOON. Spanish gold coin, not struck since 1868, when the peseta (franc) system of currency was adopted. Weight 129·43 grains, fineness 900. Value: English standard (916·6 fine, at £3 : 17 : 10½ an oz.) £1 : 0 : 7½; French standard (900 fine) 26 francs. Similar coins of slightly varying values circulate in the South American republics and in Mexico.

The old doubloon or *onza* weighed 418 grains, fineness 875,—value, English standard £3 : 4 : 9, French standard 81·6 francs. This coin is still current in Spain, Mexico, and the South and Central American republics.

A doubloon (or 4-dollar piece) is current in the Philippine Islands. Weight 104·4 grains, fineness 875. Value: English standard 16s. 2d.; French standard 20·4 francs. F. E. A.

DOUGLASS, WILLIAM (about 1691-1752) was born in Gifford, Scotland; he settled as a physician in Boston in 1718; and wrote much on medical subjects, in which he displayed violent prejudice and partisanship. He wrote a valuable *Summary, historical and political, of the first planting, progressive improvement, and present state of the British Settlements in North America*, Boston and London, 1755, in which frequent reference is made to the paper currencies of the several colonies. He was especially interested in the monetary policy of Massachusetts, and contributed to the current heated discussions on the subject of a land bank and paper bills: *Some observations on the scheme projected for emitting 60,000 l. Bills of a new tenour, to be redemed with Silver and Gold, showing the various operations of these Bills and their tendency to hurt the Publick Interest*, Boston, 1738, pp. 25; *An Essay concerning Silver and Paper Currencies more especially with regard to the British Colonies in New England*, Boston, 1738, pp. 23; *A discourse concerning the currencies of the British plantations in America*, etc., Boston, 1740, p. 47 (also with *Postscript*, pp. 47-62). This was reprinted in London in 1751, and is included in a collection of tracts on *Paper Currency*, edited by Mr. J. R. M'Culloch, printed by Lord Overstone in 1857. It is referred to in Smith's *Wealth of Nations*, bk. ii. ch. ii. Douglass clearly sums up and accounts for the infatuation for issues of paper money which prevailed at that time. The following reasons are assigned: that usurers might be prevented from imposing high interest upon borrowers; the scarcity of silver money, which was shipped away to settle foreign balances; that it might be available to meet the demands of a growing trade; and to relieve debtors, "since by large emissions lands rise in denomination value, and debts become really less."

[*A brief memoir of William Douglass, M.D.* By Timothy L. Jennison, M.D., in *Med. Com. of Mass. Med. Soc.*, Boston, 1836, vol. v. pp. 195-240.]

D. R. D.

DOVE, PATRICK EDWARD (1815-1873). Dove is one of the first notable writers of this century who advocated the complete nationalising of the land. In his *Theory of Human Progression and Natural Probability of a Reign of Justice* (dedicated to Victor Cousin) (Edinburgh) 1850, Dove lays down the philosophical foundation of his theories of reform. Three things are, in his view, indispensable to the well-being of the human race—(1) the Bible, (2) "a right view of material phenomena," (3) "a right view of mental phenomena." The science of politics gives us a right view of equity or justice, and leads us to the conclusion that humanity progresses from diversity of privileges to an absolute equality of rights; it points the way to a reconstruction of the natural and God-given order of society, from which the political institutions of actual history have so widely departed. We shall reach the millennium,—

first in mathematics, when *all* mathematical truth is discovered and applied, then in the physical and mechanical sciences and arts, and then in political science. The perfection of the last would bring the political millennium, and one of its conditions would be the abolition of the private ownership of land. This is Dove's central proposition. Though he is not otherwise communist or even socialist, he demands that the land should be held in common. His arguments are given at length in his later book *Elements of Political Science* (Edinburgh), 1854; but they are sketched in the earlier with substantial completeness. Legislation is needed not to grant rights but to secure rights already granted by nature, the chief being liberty and property. There is a progress towards absolute equality in regard to "natural property"; "the earth and all it contains belongs 'for the time being' to the existing generation," and its distribution must not be determined by the dispositions of past generations, when these have been contrary to equity. The assignment to private owners, for example, of the abbey lands, under Henry VIII., is "now exactly equivalent to the imposition of a taxation on articles of consumption, equal to the present rental of those lands, so that those who are labourers have actually the rental of the land taken away from them in the shape of taxes; were there no taxes the alienation of the lands would be of comparatively minor importance." Taxation must fall either on land or on industry; and it is no burden to the community unless, as now, it is taken from land and left to lie upon labour. Political economy is a non-moral science, and unlike political science it is inductive and statistical; it simply traces the effects of certain human actions on social welfare. But the two studies mutually depend on one another. "In the arts man creates form; in political economy he creates value; in politics he creates property." Evolution must proceed from the arts to political economy before finally attaining in politics to the "rational system of property," an open career for all human talents and all burden of taxation borne by the rent of land. Dove thinks this system will be only introduced by a very gradual change of public opinion. He is no revolutionist, but he does not discuss the practical steps by which the change would be introduced with least friction. He is content for the most part to enlarge on the defects of the present system. That a shilling a day should be given to one who labours, and £1000 a day to one who does *not* labour, seems to him to set Solomon at defiance. His discussion of rent is suggestive; but his strength lies elsewhere than in purely economical argument, and his criticisms of older economists are often founded on misunderstanding. He was from the first a free trader. His sketch of Andrew Yarranton, "the genuine founder of political economy in England," is a useful contribution to economic history (see appendix to *Elements of Political Science*). A certain diffuseness of style may perhaps in some degree explain his failure to obtain the popular favour accorded to more recent writers of the same way of thinking, who have added nothing to his doctrines and have lacked his philosophical breadth.

[For a full list of the writings of P. E. Dove, and an account of his life, see *Dictionary of National Biography*.] J. B.

DOWER. The term dower is used in two totally different senses. In the first or popular sense it corresponds to the French *dot* and the Roman *dos*, a portion which the bride brings to assist in defraying the expenses of married life, whether originally her own or given by her father or other near relative. Over this portion the husband acquires certain restricted rights during the continuance of the marriage. In some countries, notably in France, it is a matter of course that every bride should have a dower, and one of the main objects of French thrift is to provide every daughter with a suitable dower. In England there is no general custom of this kind, although it is common for fathers in the middle and upper classes to settle some property on a daughter when about to be married.

In the second, or legal sense, dower signifies the provision to which a widow is entitled out of the land of her deceased husband. At common law a widow was entitled for her life to one-third of the freehold lands of which her husband died possessed. When the title to dower had once attached, it could not be defeated by any act of the husband, and thus the right of dower became a serious obstacle to the alienation of land. Accordingly the statute of uses (27 Henry VIII., c. 10) enacted that when provision for the wife had been made by way of jointure, she should lose her right to dower. Subsequently the right of dower was often defeated by means of a technical contrivance known as a conveyance to uses to bar dower. But by the Act 3 & 4 Will. IV. c. 105, known as the Dower Act, the wife's right of dower in her husband's land was rendered liable to be defeated by any act of alienation performed by him, or by a declaration executed by him under seal or inserted in his will. In short the right of dower is subjected entirely to the husband's discretion. Under these circumstances the right of dower has ceased to have any importance. The making of a suitable provision for a widow is one of the principal objects of marriage settlements, and such a settlement is almost always made on the marriage of persons in the landowning class. The origin of the common law right of dower is found by Maine in the influence of the

mediæval church which was exercised in favour of the wife.

[Williams and Goodeve on *Real Property*—Kenelm Digby, *History of the Law of Real Property*.—Maine, *Ancient Law*, ch. vii.]

F. C. M.

DRACHMA. Greek modern unit of value equal to 1 franc, and divided into 100 lepta (centimes). Weight, 4·98 grains gold 900 fine, or 77·16 grains silver 900 fine. English standard value: gold (916·6 fine at £3 : 17 : 10½ per oz.) 9·52d., silver (925 fine at 5s. 6d. per oz.) 10·32d. The silver drachma piece is a token coin, 835 fine, weight 77·16 grains, value ·93 drachma. The smallest *standard* coin, both in gold and silver, is the five-drachma piece. Greece is (1892) a member of the LATIN UNION (*q.v.*)

Drachma was the name of the ancient Greek unit of value. The Attic drachma was a silver coin weighing about 66 grains. F. E. A.

DRAFTS ON DEMAND. See CHEQUES, LAW OF.

DRAGONETTI, GIACINTO (end of 18th century), a Neapolitan, wrote in 1767 a treatise on virtues and remuneration of virtue, *Trattato delle virtu e dei premi*; a spese di Giov. Gravier, 1767, in which he also discusses economic topics, and shows considerable knowledge of the most recent economic literature of his time. Agriculture especially is discussed by him and regarded as the pivot of the economic welfare of the state. He compares navigation to "a bridge crossing the seas which unites the whole inhabited globe"; he considers it so important that the state is bound to protect it. But social progress, though it takes its origin in agriculture and maritime commerce, must be maintained by a system which rewards virtue and punishes crime. Such a system would harmonise private with public interest, and—through private interest—encourage the promotion of public interests. M. P.

DRAGONETTI, LUIGI (early part of 19th century), wrote *Proposta di un novello piano di finanze per il Regno di Napoli*, 1820, Napoli, a book suggesting reform in the management of the finances of the kingdom of Naples, interesting as showing the defects existing at that date. Amongst other matters we find him urging on the government punctuality in payment of the interest on the public debt, in order to maintain the standing of the national credit, and to induce foreigners to invest capital. He recommends that the tax on land should be based on a cadastral survey (doomsday-book) and that personal property and capital employed in business should bear its fair share of the burden. Dragonetti advises that the tariff for the taxation of imports and exports should not be unduly high, and that it should frequently be revised, so as to bear a uniform proportion to the changes of values in commodities. M. P.

DRAIN OF BULLION. The stock of bullion held by the Bank of England is subject both to all the influences which produce movements of bullion between different countries, and to all those which arise out of the condition of internal trade. Some of these latter are periodical in occurrence and almost regular in extent (see AUTUMNAL DRAIN), whilst others are occasional and uncertain in both respects, but all, whether internal or foreign, if occurring alone, carry with them the elements of reaction, and thus the average level is fairly maintained. When, however, two or more of these influences, acting in the same direction, have come into play at the same time, a drain of bullion from the Bank has resulted, producing danger and alarm, and requiring special efforts on the part of the directors to counteract it. Continued drains of bullion, of more or less importance, have been recorded as occurring in the years 1780-83, 1791-93, 1795-97, 1817-19, 1824-25, 1830-32, 1834-35, 1836, 1839, 1846-47, 1857, and 1866. The points most worthy of notice in these movements are: (*a*) their cause; (*b*) their duration and extent; and (*c*) the measures by which they have been relieved.

The causes have been both general and special. So far as the general causes can be classified, they may be grouped as below, the occasions upon which each one was most strongly in force being annexed.

GROUP I. DOMESTIC.

Joint-stock speculation	1824-25, 1834-36, 1847, 1866.
Banking panic	1793, 1824-25, 1836, 1847, 1857, 1866.
Commercial distress	1783, 1793, 1824-25, 1830-32, 1834-36, 1857.
Deficient harvests	1783, 1795-96, 1830-32, 1839, 1847.

GROUP II. FOREIGN.

Loans or subsidies	1793, 1795-96, 1824-25, 1834-36.
Joint-stock speculation	1825.
Commercial distress	1832, 1836-37, 1839, 1857.

It will be seen that no distinct line can be drawn between the groups, or the causes composing them. Commercial distress may give rise to banking panic, or *vice versa*; or either of these may be largely due to joint-stock speculation. So, also, a domestic cause may give rise to a foreign drain, as when a bad harvest leads to large importations of corn; or, a drain for foreign purposes may have a domestic origin, as in the granting of loans or subsidies, or floating foreign speculations on the home market. Or, a drain commencing in one cause may be

continued through other influences. There are also special causes to be found in almost every crisis.

In duration they have varied greatly. The earliest appear to have lasted during two or three years; thus, from August 1780 to October 1783; from August 1791 to February 1793; from February 1795 to February 1797; from August 1817 to August 1819. In these cases the records show continuous decline throughout each period, but as the figures are given only for February and August in each year, there may have been intermediate increases. In 1824-25, 1830-32, 1834-35 the decline lasted from one to two years, and in later times the movement extended over but a few months.

PERIOD AND EXTENT OF DRAIN.

	From Maximum to Minimum.			
		£		£
1780-83	Aug. 1780	4,179,000	Oct. 1783	473,000
1791-93	Aug. 1791	8,056,000	Feb. 1793	4,011,000
1795-97	Feb. 1795	6,128,000	Feb. 1797	1,036,000
1817-19	Aug. 1817	11,668,000	Aug. 1819	3,595,000
1824-25	Feb. 1824	13,800,000	Dec. 1825	1,861,000
1830-32	May 1830	11,418,000	May 1832	4,919,000
1834-35	Mar. 1834	8,901,000	May 1835	5,951,000
1836	22nd Mar.	8,064,000	29th Nov.	3,840,000
1839	1st Jan.	9,048,000	10th Sept.	2,412,000
1846-47	29th Aug. '46	16,366,000	23rd Oct. '47	8,318,000
1857	18th July	11,841,000	18th Nov.	6,485,000
1866	21st Mar.	14,456,000	23rd May	11,858,000

These figures should be studied in connection with some others that cannot be shown here, as the proportion held by the outflow to the initial stock: or with the average of the preceding year or period, and the rate of the decrease. For the years since 1844 a most important consideration is the state of the banking reserve. This it was that gave to the drain of 1866 an importance beyond that which would appear to attach to the figures as given above.

Since 1866 the outflow has rarely taken the form of a persistent drain, whilst the average stock having been much higher, decreases of considerable amount have not caused so much alarm. Movements of this character took place in 1876 when the bullion decreased from £29,394,000 on 18th August to £21,704,000 on 29th December; and in 1879 when from £35,694,000 on 30th July, it fell to £27,602,000 on 31st December. In each case the initial stock was very much beyond the average of preceding years, and the reserve was also abnormally large.

The manner in which a drain of bullion should be encountered has been the subject of much controversy, and very different methods have been followed at different times. In 1783 the directors laid down the maxim that a drain should be met by contracting their issues until the exchanges became favourable, and they were successful in acting upon these lines. In 1798 relief was obtained by extended powers being granted for the issue of exchequer bills. In 1797 the drain was only arrested by the passing of the Restriction Act, and the subsequent suspension of cash payments. In 1819 the directors communicated to the House of Commons a resolution denying that the exchanges were to be regarded in regulating their issues. In 1825 the Bank endeavoured, in May, greatly to contract their issues, but finding that the outflow continued at an accelerated pace, they adopted in December exactly the opposite policy, and lent money freely. In 1830-32, and 1834-35, the outward movement appears to have been suffered to run its course without any special measures being taken. In 1836 the pressure was met by a generous policy, and large advances were made by the bank.

Up to this date the policy of the Bank fluctuated between leaving matters to right themselves, or taking action by contracting their issues, or by freely extending them. The plan of raising the rate of discount was not in any case adopted. It was indeed not so fully available as now, nor was it equally likely to be effective. The transit of bullion was more expensive and less expeditious, and a larger rise was necessary to produce an influx. There was also less floating capital ready for employment in any market offering, and therefore less probability of attraction by increased rates. Upon at least one occasion in earlier years a serious drain of bullion had occurred in the face of favourable exchanges. During all these years the USURY LAWS (*q.v.*) were at least nominally in force. No doubt in practice they were largely evaded, but they could not be publicly disregarded by the Bank of England. It was not till 1833 that these laws were relaxed at all, and they continued partly in force for twenty years longer. But in fact the directors did not make full use of such powers as they even then possessed. From June 1822 till July 1836 the bank rate remained at 4 per cent, with the exception of the period from December 1825 to July 1827, during which it was maintained at 5 per cent.

During the drain of 1839, which was more serious than any then on record, the rate was raised, on 20th June, to 5½ per cent, and on 1st August to 6 per cent, these being the first occasions since 1695 on which the official rate had been placed above 5 per cent. Since then, in seasons of pressure, recourse has always been had to increased rates of discount. In 1847 it was raised to 8 per cent; and in 1857 and 1866 to 10 per cent. This last occasion is noteworthy as one where a high rate failed to attract gold, as the bullion decreased by 2½ millions from 21st March to 30th May, notwithstanding that the rate was raised by successive stages from 6 per cent to 10 per cent. Yet during the same period the Bank of France, with a rate not exceeding 4 per cent, was constantly gaining gold. This was due to the great doubts felt on the

Continent as to the state of commercial credit in England. In later years, when an efflux of gold has been anticipated, it has been prevented by a timely rise in the bank rate.

One other point in connection with drains of bullion requires notice. It is an almost invariable experience that such movements have an immediate effect upon the notes in reserve, instead of acting upon the circulation, as was expected by the framers of the Act of 1844. The following instances illustrate this clearly:

BANK OF ENGLAND.

1846-7.	Bullion.	Note Reserve.	Circulation.
29th Aug. 1847.	£16,366,000	£9,450,000	*£20,126,000*
30th Jan.	12,902,000	5,704,000	*20,469,000*
17th Apr.	9,330,000	2,558,000	*20,243,000*
30th Oct.	8,439,000	1,177,000	*20,333,000*

1857.	Bullion.	Note Reserve.	Circulation.
18th July	£11,841,000	£5,687,000	*£19,978,000*
12th Oct.	10,110,000	4,024,000	*19,990,000*
11th Nov.	7,171,000	958,000	*20,183,000*

In both these instances the bullion was decreased by 50 per cent, whilst the circulation remained almost unaltered. Upon the next occasion the decrease of bullion was attended by a much greater decrease in the reserve of notes, whilst the circulation increased by more than 25 per cent.

1866.	Bullion.	Note Reserve.	Circulation.
21st Mar.	£14,456,000	£7,918,000	*£20,636,000*
9th May	13,156,000	4,951,000	*23,344,000*
30th May	11,878,000	415,000	*26,019,000*

An important movement in the opposite direction, of more recent occurrence, illustrates the direct action upon the reserve, instead of upon the circulation, of an influx of bullion.

1891.	Bullion.	Note Reserve.	Circulation.
29th Apr.	£21,327,000	£11,802,000	*£24,857,000*
27th May	24,267,000	14,925,000	*24,647,000*
17th June	27,845,000	18,313,000	*24,859,000*

[For history: H. D. M'Leod, *Theory and Practice of Banking*, also *Reports* of Parliamentary Committees on the Bank of England, Banks of Issue, etc. For fluctuations in circulation and effect on Bank of England Reserve and Rate, see paper by R. H. Inglis Palgrave on the Bank Acts and the Bank Rate, *Journal Institute of Bankers*, April 1892.] R. W. B.

DRAKE, JAMES (1667-1706-7), born at Cambridge, became M.D. in London in 1694, and Fellow of the College of Physicians in 1706. His high Tory pamphlets, among which two especially deserve attention, were the cause of much persecution to him. Besides being the author of medical treatises he wrote anonymously *A Short History of the Last Parliament*, 1699, in which he refutes the opinion that exchequer bills had the nature of "money" created by government, and shows them to be mere money-saving instruments of credit. In his pamphlet *An Essay concerning the Necessity of Equal Taxes and the Dangerous Consequences of the Encouragement given to Usury among us of late years. With some Proposals to promote the Former and give a check to the Latter.* By the author of the *History of the Last Parliament*, London, 1702, Drake argues that money should be taxed by reducing interest, and that public credit "be rais'd to a Par with the best private security, and that no higher Interest or Praemium be allow'd upon it." This end will be answered "by a just and equal Tax obliging all Ranks and Degrees of men to pay to the support of the Government in proportion to their share in the Publick and the benefits they reap from it" (p. 5). He contends that "for the eleven first years of the late war, 10s. in the £ per annum, principal and interest, was paid by land, under which latter name husbandry, manufacture, and trade are comprehended as having their existence from and being no more than the product and improvement of land, which is the principal stock, and gives birth and maintenance to them all" (p. 2). This passage, as well as his struggle against stock-jobbing and trading companies, connects Drake with authors like Asgill, Barbon, Briscoe, and other Tory writers on finance.

[*Dictionary of National Biography*, vol. xv. pp. 446-447, where the last-named tract is omitted; for the first tract see Philippovich, *Die Bank von England*, 1885, p. 68.] S. B.

DRAPIER'S LETTERS. In 1722 Ireland complained of the want of copper coin. Copper had apparently been undervalued as compared with silver, and in consequence had been driven from the country. In its place a number of tokens and worthless coins had been used as small change. The English government decided to remedy what was an undoubted grievance. Unfortunately Ireland, unlike England and Scotland, had no public mint, so that coinage was a subject of private contract, and such contracts, in the eighteenth century, were invariably occasions for jobbery and corruption. On 21st Sept. 1723 a patent was issued to William Wood to coin copper to the value of £108,000. The economic and other objections to the patent were unanswerable. Wood himself had purchased it for £10,000 from the Duchess of Kendal, George I.'s mistress. That his own profits would have been excessive is proved by the fact that he was compensated for the withdrawal of the patent by a pension of £3000 a year for eight years. The total issue was ridiculously out of proportion to the needs of the country, as it was estimated at more than a fourth of the whole currency. Finally the issue was debased. A pound of copper was worth at the outside 13d.; in England it was coined into 23d.;

but by Wood's patent it might be coined into 30d. To these objections it must be added that no Irish official, not even the lord-lieutenant, or the council, had been consulted about the terms of the patent.

The patent was itself a scandalous job, and it was also a needlessly irritating assertion of English sovereignty. Irish opinion was roused, and both houses of parliament, usually submissive, petitioned against the scheme. A haughty and threatening answer on the part of Wood only added fuel to the flame. In 1724 Swift came forward as the mouthpiece of the prevalent discontent in a series of letters which were signed M. B. Drapier, and professed to be the work of a Dublin tradesman. The importance of the letters is political rather than economic. Swift had no practical or theoretical grasp of currency questions. He made no attempt to state the real objections to the new coinage. On the contrary he adopted all the prevalent prejudices, and exaggerated and illustrated them with that suppressed yet masterful irony in the use of which he has never been surpassed. In the famous fourth letter he quitted the immediate question at issue, denounced the abuses of English misgovernment, and asserted the rights of the Irish nation to independence. The printer of the letter was prosecuted, but the jury rejected the bill in spite of judicial browbeating. The author, though his identity was notorious, was left unattacked, and the government found it necessary to yield to the storm which it had provoked. The whole importance of the episode lies in the impulse which it gave to the opposition to English rule in Ireland.

[The letters are to be found in Swift's collected works. For comments on them, see Craik's *Life of Swift*;—Lecky's *History of England in the Eighteenth Century* and *Leaders of Public Opinion in Ireland*;—Stanhope's *History of England*.] R. L.

DRAWBACKS. In theory a drawback is a portion of the "mercantile system," and is intended to promote and encourage the exportation of commodities. It consists in the repayment of a duty which has been already paid in connection with the manufacture of the commodity in question, such repayment to be made on its export. Theoretically, therefore, drawbacks correspond to, and are similar to, BOUNTIES (*q.v.*), with this distinction—that a bounty is a direct gift to the exporter of goods, while a drawback should be merely the remittance of a tax in his behalf. It is this difference which caused Adam Smith to hold drawbacks to be the most reasonable form of encouragement to exportation; because, although they must from their nature favour certain classes of exporters, they cannot operate so as to draw more trade into any particular channel than would have been drawn had neither the tax nor the remittance of it existed: in other words, they simply cancel the tax and leave trade free to follow its most natural course. It must always be remembered that Smith held very strong views in favour of absolute non-interference with industry, and was consequently averse to indirect taxation. Drawbacks may be manipulated so as to have the same effect as bounties and other devices for encouraging exportation. Where this is the case there is not only a loss of revenue to the country which repays the tax, but a subsidy is given on exports which amounts to paying the foreign consumer to buy certain goods.

Drawbacks, it will be seen, are much more restricted in their nature than bounties. As worked in this country they are comparatively unimportant. They are of no use in encouraging a rising industry in a new country, and are generally granted simply for the purpose of increasing the amount of export trade. Adam Smith's discussion of them (bk. iv. chap. 4) may be read with great interest. J. S. Mill, in bk. iv., where he deals with the various forms of protection, adverts to drawbacks; and generally all modern economists, who have written on the subject of political economy at large, treat of drawbacks along with bounties.

M. G. D.

DRAWER OF A BILL OF EXCHANGE. The person giving the order to pay contained in a bill of exchange is called the "drawer." If the bill is not paid at maturity, he is bound to reimburse the holder, provided that all the necessary formalities have been observed (presentation in proper time, notice of dishonour, protest in the case of foreign bills, etc.) (See BILLS OF EXCHANGE.) E. S.

DRAWING. This word is used to announce the redemption of certain bonds, as the borrower applies a periodical sinking fund to that purpose. The practice was originally connected with the simple process of drawing lots. A borrowing government, for example, may engage to pay off 1 per cent of its loan every year, and then the question arises as to which bond out of every hundred in circulation shall be redeemed in order to make the redemption fair. A drawing is announced, the function being attended by public officials and other persons of unimpeachable integrity, and the bonds which happen to be drawn by lot are then advertised for repayment at par, or at whatever the stipulated price of repayment may be. Cases have been known in which holders of drawn bonds have gone on receiving dividends in ignorance of the drawing, and other cases are on record in which the drawn bonds having been sold on the stock exchange, it has been discovered several months or years afterwards that the said bonds were not a good delivery (see DELIVERY, GOOD). A question also has arisen where, if a borrowing government formally promises the drawing of 1 per cent of its

debt each year, it is really empowered also to redeem 2 or 3 per cent, or even the whole of the outstanding debt, and in the years of active redemptions—1888-90—borrowers found it so easy to raise fresh loans at diminished rates of interest that they were continually exceeding the rate of redemption by drawing beyond the proportion originally stipulated. The system of drawing is not altogether commendable, and was originally employed to give a kind of speculative attraction to bonds which would otherwise have been neglected by steady investors. That is, the objectionable element of hazard enters into the question, which ought to be purely one of the solidity of the borrower. A. E.

DRENGAGE. A form of land tenure, common in, if not confined to, the district comprised in the ancient kingdom of Northumbria. Drenghs are mentioned in Domesday and in the survey called the Boldon Book. Sir Henry Ellis says: "The *drenchs* or *drenghs* were of the description of allodial tenants . . . and from the few entries in which they occur it certainly appears that the allotments of territory they possessed were held as manors" (*General Introduction to Domesday*, tom. i. fol. 269). But, as menial services were required of them or their servants, at least in Durham, they must have been inferior to military tenants. The instance in the Pipe Rolls of Westmoreland, 25 Henry II. of the enfranchisement of *drenghs*, and the particulars given in the records of the palatinate as to the services attached, show that *drengage* was by no means a free tenure. The services of a *drengh* were to plough, sow, and harrow portions of his lord's land, to keep a dog and horse for his use, attend the chase with him, etc. "A drengage seems to have consisted of sixteen acres to be ploughed, sown, and harrowed" (Blount's *Fragmenta Antiquitatis*). The word is derived by Greenwell, in his glossary to the Boldon Book, from the Anglo-Saxon "dreogan," to work. Another derivation is from the Danish "dreng" a servant or boy. Spelman, however, defines *drenghs* as those who at the coming of William the Conqueror were put out of their lands and afterwards restored by him on proof of ownership (Tomlins), and Cowel says "drenched" is an obsolete word meaning "overcome," and compares the German "tringen" (see also CORNAGE).

[Prof. Maitland, *Engl. Hist. Rev.*, October 1890.—*Notes and Queries*, I. vii. 137, 298.—See-bohm, *Village Communities*, 71.] H. Ha.

DRINKS, TAXES ON. See TAXES.

DROFLAND, OR DRYFLAND. Apparently an ancient service in the nature of driving the lord's cattle to the fair, commuted for a quit-rent; but according to Cowel (*Interpreter*, *s.v.*) a due payable to the lord for the right of passage with cattle through the manor (see THISTLE-RENT). H. Ha.

DROIT, ANNUEL. See PAULETTE.

DROITS OF ADMIRALTY. In England the Lord High Admiral (an office that has still a legal existence) has the benefit of all captures made at sea by non-commissioned vessels, and also of all captures of ships or goods made in the ports of England and Ireland through vessels coming in by stress of weather or other accident, or by mistake of port or by ignorance, not knowing of the war, and also of all derelicts.

By the 1 & 2 Vict. c. 2 it was enacted that the profits derived from droits of admiralty should be paid into the exchequer for the benefit of the state. Phillimore's *International Law*, vol. iii. London, 1873. J. E. C. M.

DROITS D'AUBAINE. See AUBAINE.

DROZ, JOSEPH, born at Besançon in 1773, died at Paris 1850. The incidents of his life were varied, and so were his opinions. Belonging to a family of high legal standing, he commenced life as a volunteer when the Revolution broke out; but afterwards laying down his arms, became professor of rhetoric at the central school of Besançon. He subsequently returned to Paris, where he was closely associated with the habitués of the *Société d'Auteuil*. The members of this club, who were Epicurean in spirit and taste, in most things kept themselves detached from the life of the 19th century. He derived from this association a fund of sanguine optimism which never failed. Towards the close of his life, he came under the influence of religion. He joined the *Académie française* in 1824, and the *Académie des Sciences morales et politiques* in 1833. In 1829 he published his *Économie politique ou principes de la science des richesses*, 1 vol. in 8vo, a valuable work, but one in which he fails to distinguish, with sufficient exactness, moral from economic precepts. He also published in 1839-42 the *Histoire du règne de Louis XVI. pendant les années où l'on pouvait prévenir et diriger la Révolution française*, 3 vols. in 8vo. The dual title of this work is a sufficient indication of the line of thought pursued in it and the object proposed. A. C. f.

DRUMMOND, HENRY (1786-1860), banker, economist, and theologian, was the eldest son of Henry Drummond (*d.* 1794). He was brought up by his maternal grandfather, Viscount Melville, and was educated at Harrow and Cambridge, but took no degree. He became a partner in the well-known house at Charing Cross, and for many years had a leading share in its administration. Between 1810 and 1813 he was M.P. for Plympton Earls, and carried through parliament a bill against embezzlement by bankers of securities under their charge, which became law (52 Geo. III. c. 63). With his wife he started in June 1817 on a pilgrimage to Palestine, but on passing through Geneva he stopped to contend with

the consistory on ecclesiastical discipline. In 1825 he founded the professorship[1] of economy at Oxford. He was an apostle, evangelist, and prophet of the Irvingite Church, and built a church for that community at Albury, where he lived. From 1847 to his death he was M.P. for West Surrey. He was a frequent speaker in the House of Commons. Sir Henry Holland speaks of "the genial temperament and masculine, though eccentric intellect of Henry Drummond . . . who could not tread along the highway of common opinion either in religion or politics, but his aberrant path was always pursued with honesty as well as vigour" (*Recollections*, 1872, p. 156). Some of Drummond's numerous speeches and pamphlets were collected by Lord Lovaine, 1860, 2 vols. 8vo. His economical publications are:

Elementary Propositions on the Currency, London, 1819, 8vo (reprinted with additions in 1826, again in 1848, and with *Speeches*, etc., 1860, vol. ii.).—*Cheap Corn best for Farmers*, London, 1826, 8vo (anonymous: the landlords are the only gainers by the tax, all others, including the farmers, suffer).—*Justice to Corn Growers and to Corn Eaters*, London, 1839, 8vo (in favour of repeal with restrictions).—*Causes which lead to a Bank Restriction Bill*, London, 1839, 8vo ("the Bank of England is the only body which ought to have the power of issuing paper money," p. 20).—*On the Corn Laws*, London, 1841, 8vo.—*On the Condition of the Agricultural Classes of Great Britain and Ireland, with extracts from the Parliamentary Reports and Evidence from 1833 to 1840, and remarks by the French editor published at Vienna*, London, 1842, 2 vols. 8vo (with preface by Drummond; translation of two volumes published by the Austrian government to show "the folly of supposing that it is commerce and manufactures rather than agriculture which constitute the true wealth of this country," pref. xi.-xii.).—*Letter to the Bishop of Winchester on Free Trade*, London, 1846, 8vo.—*Speech on Motion on Public Expenditure*, London, 1849, 8vo.—*Letter to the Working Classes in Trades and Manufactures*, London, 1859, 8vo (on the bad treatment received by them "from manufacturers, millowners, and poor-law guardians, and of the exertions made by noblemen and gentlemen to protect" them—p. 29).

[Lord Lovaine's *Memoir*, 1860.—Oliphant's *Life of Edw. Irving*, 1862, 2 vols.—*Dict. of National Biography*, xvi. pp. 28, 29.—*Historical Register of the University of Oxford*, 1888, pp. 67, 68.]

H. R. T.

[1] Drummond charged his estate with a yearly rent of £100 for the endowment. The commissioners of 1877 increased the emoluments to £300 from the revenues of All Souls, besides £200 attached to a fellowship of the college. The professorship is for five years, but holders of the office may now be re-elected. The following have been the professors: 1825, Nassau W. Senior; 1830, Richard Whateley; 1832, W. F. Lloyd; 1837, Herman Merivale; 1842, Travers Twiss; 1847, N. W. Senior (second time); 1852, G. K. Rickards; 1857, C. Neate; 1862, J. E. Thorold Rogers; 1868, Bonamy Price (again in 1873, 1878, and 1883); 1888, J. E. T. Rogers (second time); 1891, F. Y. Edgeworth.

DRUNKARDS, LEGISLATION RESPECTING. The care and cure of habitual drunkards has, up to the present time, received little attention on the part of social reformers; yet it is as much within the province of legislation as the reception and detention of lunatics. A person with whom the craving for intoxicants has become an irresistible impulse, is not, strictly speaking, a person of sound mind, and it would be no undue interference with the liberty of the subject if such a person could be kept in confinement against his will. British legislation has, at any rate, recognised the principle that, if a dipsomaniac has once allowed himself to be confined in a licensed retreat, he cannot leave it before the expiration of the time during which he has undertaken to remain, unless he is previously discharged or allowed to go out on leave. Such retreats are, in England, licensed by the justices of the peace for the county or borough in which they are respectively situate, and are under the control of the Home Secretary and an Inspector of Retreats. Their number, so far, is very small, a fact which may be due to the circumstances that the Habitual Drunkards Act of 1879 was to remain in force for ten years only, and that the Inebriates Act of 1888 (by virtue of which the provisions of the first-named act, with some slight modifications, are now permanently in force) is of too recent date to have had its proper effect. There were at the end of 1890 seven retreats licensed to receive 100 patients, in which 59 patients were actually detained. Some interesting statistics are contained in the inspector's report relating to the Dalrymple House at Rickmansworth; 224 persons have been discharged from that retreat as to whose family history the following facts are stated:

Insanity in family		19
Inebriety in family—		
One or more of the parents .	34	
" " grandparents	10	
" " brothers .	14	
" " uncles .	35	
	—	93
No history obtainable . . .		112
Total . . .		224

Out of these 224 discharged patients there were:

Doing well . . .	94
Improved . . .	10
Not improved . . .	74
Insane	10
Dead	1
Not heard from . .	35
	224

The managers of most of the retreats are of opinion that a year, which is the maximum term for which a person may bind himself to remain in a retreat, is too short a period; also that there should be power to receive and

detain patients against their will, and further, that some provision ought to be made for paupers or persons of small means.

It would also be desirable to make it possible to protect the property of inebriates in some such way as the property of lunatics may be protected. The Lunacy Act, 1890 (§ 116), authorises the judge in lunacy to give certain directions as to the management and administration of the property of any individual "with regard to whom it is proved to the satisfaction of the judge in lunacy that such person is, through mental infirmity arising from disease or age, incapable of managing his affairs," and in such a case to appoint some person to act in a similar capacity as the committee of a lunatic's estate (see COMMITTEE); and the Lunacy Act, 1891, § 27 (4), provides that the last-mentioned power may be exercised with reference to individuals who are *not* lunatics. It might possibly be held that a dipsomaniac is suffering from mental infirmity and incapable of managing his affairs, but as far as the writer knows, it has not as yet been attempted to apply the section in such a case, and it is very doubtful whether the judges would consider it applicable. Under these circumstances it would be preferable if the legislature would deal with the point in a direct manner.

The bill relating to drunkenness which will shortly (1893) be submitted to the German Reichstag contains a clause which provides that a dipsomaniac who is incapable of managing his affairs, or who exposes himself or his family to the risk of impoverishment, or who imperils the security of any other person, may be placed under guardianship. The guardian is to have power, subject to the consent of the competent court, to cause the dipsomaniac to be confined in a retreat for inebriates, and in case of neglect on the part of the guardian to exercise the power, the court is to have authority to give the necessary directions in his place. A provision of this nature, if applied with care and discrimination, must be beneficial to the persons concerned, no less than to society at large.

E. S.

DRY EXCHANGE (*Cambium siccum*). A euphemism applied to the "coverture" or "colouring" of the stringent statutes passed during the Tudor period against usury. "A *cleanly* term invented for the disguising of foul usury, in which something is pretended to pass on both sides whereas in truth nothing passes but only on the one side" (Cowel). Usury, which was condemned by religion and law alike during the middle ages, was from the middle of the 16th century no longer to be confounded with the legitimate employment of capital; but the sentiment which inspired the above enactments was that of governing classes associated with the landed interest.

[Cunningham, *Growth of English Industry and Commerce*, 1890, 495 *et seq.*—Hall, *Elizabethan Society*, ch. iv.] H. Ha.

DRY RENT (*Rent sec*). An annual rent-charge reserved upon lands conveyed by deed, without the insertion of a clause of distraint.

H. Ha.

DUBOS, ABBÉ J. B. (1670-1742), a member of the French Academy, and author of historical works and of a treatise on poetry and painting.

The one book of his which requires notice here is entitled *Les Interests de l'Angleterre mal entendus dans la guerre présente* (Amsterdam, 1703), and professes to be a translation from an English book. Speaking thus as an Englishman, the Abbé remonstrates against the war policy of the English administration. He is well acquainted with contemporary English pamphlets on the Tory side, especially with Davenant, whom he often quotes. He successively examines the effect of war on each branch of English trade and manufactures, and distinctly states (p. 80) that "the attempts we (the English) shall be obliged to make in order to enforce in the (American) colonies the just obedience they owe to the state which has founded them, will perhaps lead them to rebellion, when they will have learned that they can do without us."

Voltaire addresses him in a letter dated 30th October 1738, as "the most useful and judicious writer he knows," but, when writing to other people, he indulges in sarcasm about the Abbé's "mistaken" notions as to the interest of England. E. Ca.

DUCAT, HISTORY OF. A gold coin (worth about 9s. 4½d.) in extensive use on the continent till this century, and adopted by successive emperors as the standard coin of the empire in the middle ages. The coin first makes its appearance in 1140 A.D., when Roger II., King of Sicily and Duke of Apulia and Calabria, issued silver coins to which he gave the name "ducati," probably because they were first struck in the duchy of Apulia, especially called "il ducato," and bore, in an abbreviated form, the inscription—"Sit tibi, Christe, datus, quem tu regis, iste Ducatus" (Let this Duchy, O Christ, which thou rulest, be dedicated to thee). The coin then spread through Italy until, in 1252, it was formally adopted at Florence, and gold pieces were issued under the name of "ducati gigliati." These ducati gigliati, or florens d'or, as they were called elsewhere, were 24 carats fine, and 64 to the fine mark. Thirty-two years later, by a law passed in 1283 A.D., ducats were struck at Venice by the Doge John Dandolo, the second of the four celebrated Doges Dandolo, 67 to the fine mark, and each bearing the inscription of the original ducat of Apulia. In the 16th century, these ducats received the name of "zecchini" (sequins) from Zecca, the Venetian

mint, whence their Anglo-Indian name of "chicks" (Rs. 4).

By the beginning of the 14th century these florens d'or and Venetian ducats had spread throughout the states of Italy, and especially the Church states, where Florentine ducats were universally adopted and issued as "novelli ducati papales," with only slight variations from the original standard of 1252. The Florentine coin thence spread into Hungary, whither it was followed by the Venetian ducat, until in 1365, Venetian ducats were struck by the king Ludwig, at Kremnitz, of 23¾ carats fine, and 67$\frac{7}{10}$ to the Cologne mark. Later on "imperial" ducats were issued at 23½ carats fine, and 68$\frac{7}{10}$ to the fine mark. From Hungary and Bohemia the Venetian ducat, preceded however by the floren d'or, was introduced into Germany, and continued to circulate as a foreign coin throughout its various states, right up to the Augsburg Convention of 1559. In this year the imperial diet of Germany adopted the ducat into the currency of the empire (Ferdinand I.) at a prescribed "dukaten-fuss" of 23⅜ carats fineness, and 67 to the Cologne mark (and therefore 67$\frac{7}{11}$ to the fine mark)—a "footing" subsequently maintained both by the Leipzig Convention of 1690, by the Austro-Bavarian Convention of 1753, and the Frankfurt Coinage Union of 1765.

This adoption of the ducat into the currency of the empire had the effect of causing the surrounding states to follow the lead of striking ducats for themselves. Yet in every case, though both the floren d'or and the Venetian ducat (by this time known as the sequin) had previously obtained in circulation, it was the latter coin that was adopted and struck as the standard of currency by the several states; by the cantons of Switzerland in the 16th and early 17th centuries, at fineness and weights varying from 23½ carats and 68$\frac{1}{12}$ ducats to the fine mark, at Berne, to 23⅜ carats and 67$\frac{19}{20}$ respectively, at Basel and St. Gallen; by Denmark in 1647 at 23½ carats fine, and 68$\frac{7}{10}$ ducats to the fine mark; by Holland, a little later, at 23$\frac{7}{12}$ carats fine, and 68⅛ to the fine mark; by Russia, Poland, and Sweden, about the same time, or a little earlier, at rates varying from 23½ carats fine to 23¼, and 78 to 68$\frac{1}{10}$ ducats to the fine mark, and continued to be coined till well into the present century. Ducats were even struck by the Porte, and some issued by Sultan Mahomet IV. are known (1649-1693 A.D.). A Barbary ducat was current in the West Indies early in the last century.

The history of the ducat in France, Spain, and Portugal is slightly different. As regards the latter country, Pope Calistus III. having in 1455 demanded supplies for an expedition against the Turks, Alphonso V., then king, had quarter-ducats, or "Crusados" struck in 1455, first at 23 carats fineness; later at 22 carats fine and 289⅛ of these crusados to the fine mark. These Crusados or Portuguese quarter-ducats are the "Kreuz-dukaten" of the German middle ages. Still later (1722-1750), new crusados were issued at the same fineness as before, but at an increased weight, viz. 237 to the fine mark. In France, where the ducat was early introduced, the Florentine coin (64 to the fine mark) was adopted over its elsewhere successful rival, thanks to the fact that at this time (14th century) the Pope resided at Avignon; while in Spain in 1537, under Emperor Charles V., the Italian and French ducat, under the name of the "escudo" (22 carats fine, and 68 to the Castilian mark = 69⅛ nearly to the fine Cologne mark) began and long continued to form the basis of the Spanish gold monetary system (see DOUBLOON).

By far the most common "ducats" were those current in Hungary, Germany, Holland, and Russia, and averaged in value, each containing roughly 53·9 grains, about 9s. 4½d. apiece. The Swedish ducat, however, was only worth about 9s. 3½d., while the modern Italian gold ducat was much less. Silver ducats were also struck in several places, and varied in value much more than the gold; *e.g.* the silver ducats of Italy were worth 3s. 4d.; those of Holland (the daalders) 4s. 2d.; while the silver ducat of Sicily had the value of 3s. 4½d. Ducats were also issued made of platinum (Russia), and earlier of copper and lead (Venice, Germany, France, and Holland), while they were not infrequently struck as medallions.

[Vergara, *Monete del Regno di Napoli*, Roma, 1715.—Philippi Argelati, *De Monetis Italiæ*, 5 vols., Mediolani, 1750.—Johann Tobias Köhler, *Vollständiges Ducaten-Cabinet*, 2 vols., Hanover, 1760.—Bonneville, *Traité des Monnaies*, Paris, 1806]. W. L.

DUCAT (*Modern*). Austrian standard gold coin, weight 53·86 grains, fineness 986. Value; English standard (916·6 fine at £3 : 17 : 10½ per oz.) 9s. 4¾d.; French standard (900 fine) 11·85 francs.

Ducats were the principal medium of exchange in Italy for several centuries. (See DUCAT, HISTORY OF.) F. E. A.

DUCHATEL, Comte TANNEGUY, born at Paris in 1803, died in 1867. He was on several occasions a minister of state and organised the commission of inquiry which resulted in the law of 24th May 1834. This replaced a large number of prohibitions on imports by customs duties (the report of this inquiry has been published in 3 vols. 8vo). In 1829 he published a work entitled *De la charité dans ses rapports avec l'état moral et le bien-être des classes inférieures de la société*, 1 vol. in 4to. This was reprinted in 1836 without any change except that of the title, which became *Considérations*

d'économie politique sur la bienfaisance ou de la charité, etc., 1 vol. in 8vo. Blanqui reproaches him with too unqualified an acceptance of the doctrines of Malthus; but this should rather be reckoned as a point in his favour. He was received in 1846 into the *Académie des Sciences morales et politiques*. His claims to be a descendant of the *Tanneguy du Chatel* of the 15th century appear to be unfounded. A. C. f.

DUCPETIAUX, EDOUARD, born in Brussels in 1804, died 1868. In 1828 he published several pamphlets on *Repressive and Provident Justice*, and on the penalty of death. Shortly after the revolution of 1830 he was appointed general inspector of the Penitentiary and Beneficent Institutions of the new-born kingdom. Ducpétiaux was a prolific and indefatigable writer on the subjects which had from the beginning of his life attracted his attention. His principal works on the punishment of criminals are: *Progrès et État de la Réforme Pénitentiaire* (1838), and *Des Conditions de l'Emprisonnement séparé ou cellulaire* (1857), in which he shows himself a consistent advocate of the cellular system as being the punishment best adapted to awaken a sense of morality in the prisoner, by the predominance of the principle of amendment over the principle of pure repression. He was no less devoted to the solution of the problems connected with the condition of the working classes. In connection with this we may mention his *Condition Physique et Morale des Jeunes Ouvriers* (1843), his *Paupérisme en Belgique* (1844), his *Mémoire sur le Paupérisme dans les Flandres* (1850), which obtained a prize from the Royal Academy of Belgium, and his important *Budgets Économiques des Classes Ouvrières en Belgique* (1855). All his works were published in Brussels.

His book on the condition of young operatives is a very full inquiry into their state and the legislation on this matter in the principal countries of Europe and in the United States; but his two essays on pauperism in Belgium are the most likely to interest the English reader. The former is rather too rhetorical, but the second gives a very graphic account, based on statistics and exhaustive personal investigations, of the miserable state of the population of Flanders after the decay of the weaving by hand of flax and linen. In 1848 in the two provinces of East and West Flanders the average wages of the adult male weaver had fallen to 6d. a day, the number of deaths exceeded the number of births by 4541 (20,715 against 16,174) and about one-third (453,658) of the population of Flanders had to be assisted by state charity. Ducpetiaux ascribed this miserable situation to an excess of population, and to an excessive prevalence of *laissez-faire*. He called upon the state to interfere by fostering the spirit of association, popular education, emigration, and securing labour to adult and able-bodied paupers. Notwithstanding his appeal to the state, he is no friend to the English poor system, which he calls a devouring cancer (p. 272). He is not an antagonist of the factory system, and vigorously asserts that mechanical work is only degrading because it is too protracted (*Condition des Jeunes Ouvriers*, ii. p. 6).

Ducpetiaux also promoted charitable congresses in Belgium. Towards the end of his life he changed political sides, passing from the liberal into the clerical party, but he remained to the last a steadfast adherent of Malthus's views on moral restraint, which were considered by his new political allies as having a tendency to immorality. E. Ca.

DUE (*gerihta, rectitudo, rectum*). That which is owing to the crown or to any corporate body or to any individual subject by prescription or charter. There is this distinction to be made between a "due" and a "custom" that the former is warranted by the common law, being usually levied by virtue of written laws and contracts which are as ancient as the common law itself, while the latter, in its first origin at least, was a more or less uncertain and unauthorised impost, so that we find the term "recta" and "mala" applied to the respective forms of the custom which were authorised by statute or contract, or else levied at the will of the king or other lord alone.

Again, a "due" for the most part seems to arise from the ownership or cultivation of the soil itself, and therefore it is perhaps the most primitive form of tax; whereas a "custom" for the most part seems to arise from the exchange or conversion of the products of the soil by way of merchandise. The most typical due of any, CHURCH-SEED (*q.v.*), is certainly more than a century older than any other customary contribution. Several kinds of dues may be enumerated, as ecclesiastical, seignorial, municipal, and fiscal or regal. Of these ecclesiastical dues are of very great antiquity, for those that are still familiar to us in the present day as tithes (see TITHES) and church-rates can be traced back to the English laws of the 8th century, although many others which were paid to the early church have long since disappeared. A still greater antiquity could even be claimed for them in this country by reference to the doctrinal writings of the 7th century, and the analogy of Frankish customs.

The well-known compact between the Anglo-Saxon sovereignty and the church in virtue of which the king's dignity and the archbishop's were respectively maintained, and the peace of the crown and church went hand in hand, is further exemplified by the arrangements enforced by the state for the temporal welfare of the holy order. Anglo-Saxon finance is no intricate problem, simply because whilst the king lived of his own, the working expenses of government were amply met by the threefold

allodial obligation. But in contrast to their reticence on the subject of lay taxation, the Saxon laws are replete with the most elaborate directions for the payment of ecclesiastical dues. "We enjoin to every Christian man by virtue of his Christendom," is the refrain of these laws, "that he pay tithe and church-scot and Rome-scot, and plough-alms, and light-scot and soul-scot." These injunctions are found equally in secular and ecclesiastical *dooms*, and they take the place of honour in the proceedings of great councils like that of Greatanlea. Under the later Saxon kings the injunction of the pious sovereign becomes far more stringent until it is stereotyped in the precise legal definitions given in the Latinised version of the 12th century jurists, so that at length in the "laws of Henry I." we find tithe and church-scot and other dues embraced under the general heading *De placitis Ecclesiæ pertinentibus ad Regem*.

It is true that in Anglo-Saxon times the dues of the church were put in charge for the crown by means of a heavy fine for non-compliance or even by absolute distraint in which the king's reeve was required to assist the bishop's officer and the local incumbent; and we also find the doctrine prevailing that if the occupier were too poor to pay, the lord should pay for him.

It is possible that the rigour of this system of assessment and collection of church dues was somewhat mitigated by the reflection that these were eventually offerings made to God, a theory carefully fostered both by the crown and the church, so that the term God's dues (*godcunde gerihta* or *Dei rectitudines*) is actually synonymous with church-dues during the latter part of the Anglo-Saxon period at least, and thus perhaps the sentence of excommunication decreed by King Edmund's laws on all defaulters was justified. On the other hand, the refusal to pay Peter's pence was a contempt which led to the appearance of the offender before the court of Rome itself to make atonement. In addition to the above persistent injunctions, these early laws provided further for the payment of church dues to be made at fixed and appropriate seasons. Thus tithes became due always as the plough entered the tenth field, or more probably in actual practice, plough-alms were rendered at Easter, tithes of cattle at Pentecost, the fruits of the earth at All-hallowtide, and church-seed at Martinmas; the tenth cheese as it was made, or the milk drawn on the tenth day. In the same way Rome-scot was payable on St. Peter's feast-day; and light-scot at Candlemas, Easter Eve, and All-hallows Eve. Finally, in order to mark the precision with which these dispositions were made, we find provision for the payment of soul-scot at the open grave, wherever the death might take place.

The statistics available for the purpose of estimating the nature and extent of these contributions are unfortunately not nearly so abundant as these details of the means for insuring their payment, or at least they are not so authentic for the earlier period. It may easily be gathered, however, that the unit of assessment was the plough and the normal sum assessed on every plough the penny. In fact the Anglo-Saxon SCAET like the Anglo-Norman Denarius, was the synonym of money, while the medium of exchange in both periods might be equally treasure in kind or in currency. Add to this primitive basis of calculation the further connection between the plough and the hearth as representing the stake of one family in the soil, and it will be possible to account for nearly every ecclesiastical assessment that fell upon the husbandman free or unfree. Moreover, *denarius* might be, and does indeed appear to have been, used in its original meaning of a tenth part (see DENIER). Thus the thane is required to render a tenth of all that he has; a tithe which, reduced to terms of money according to the normal assessment of the hide, would be found equivalent to a tenth penny. The church-scot was originally a measure of corn that was probably equivalent to a tenth part of the produce of the normal virgate holding, and equally it was assessed upon every hearthstead at which the tiller was found seated in the midwinter before it fell due. So the plough-scot and Rome-scot were expressed in convertible terms of the hearth, the plough, or the penny. The light-scot was always a money payment of a halfpenny on every hide of land because candles were imported from the continent, but if wax were not available, other produce of the soil such as cattle was certainly rendered in kind, *pecunia* and *denarius* being once more convertible terms.

Although no secular institution was endowed with an oblatory revenue as ancient or as extensive as that arising from the dues of the church, it is perhaps possible to trace a certain analogy between the ecclesiastical and municipal corporations herein. Pious sovereigns who had invested the church by virtue of binding ordinances with the power of levying dues upon all products of the soil within the parochial "ministery," were succeeded in direct line of descent and policy by others who invested the towns one by one with a like implied privilege by the terms of royal charters. The one body held by free alms, the other by the *firma burgi*. The latter stood in need of contributions for the repair of streets or quays and general administrative purposes, the former distrained upon its flock on the plea that churches must be repaired, the poor relieved, and the clergy themselves housed and fed. Whatever the value of this analogy may be, it is certain that the dues legally raised for purposes of municipal self-government, pontage,

murage, pavage, quayage, moreage, towage, terrage, strandage, cranage, mesonage, anchorage, keelage, bushelage, lestage, ballastage, measurage, average, primage, and the like afford by far the best-known, the most enduring, and the most regular examples of dues. Indeed it might be thought that the still more historic contributions known as gable tax, tallage, and the like, would fall under the head of dues in a system of common assessment for self-taxation, but here as elsewhere we must sharply distinguish between rent and taxation on the one hand, and between imperial or parliamentary taxation and customary dues on the other.

This necessary distinction brings our inquiry within still narrower limits in the case of seignorial or manorial dues, as well as those that were levied by the king as lord paramount of the whole realm. Extents, court rolls, and ministers' accounts, together with surveys, such as Domesday Book, the Boldon Book, and the Hundred Rolls, present us with an infinite variety of payments in the nature of commuted rents and pecuniary mulcts, the legal definitions of which are set forth in the various *Expositiones Vocabulorum* appended to most of the fiscal registers of the 13th and 14th centuries, but none of these can properly be regarded as dues. Some such there are, however, but their existence was from the first anomalous, and they are chiefly remembered in the present day amongst the curiosities of manorial tenures. In certain cases, however, an inland town or seaport might continue for centuries under the jurisdiction of a lord who enjoyed the tolls and other dues, just as a layman might appropriate the dues intended for the support of the church, and in such cases the seignorial interest takes the place of the ecclesiastical or municipal or fiscal.

The dues or "rights" of the crown *quâ* lord paramount of the whole land must be carefully distinguished from the normal sources of imperial revenue on the one hand and from the customary revenue by prerogative or grant of parliament on the other hand. What remained were the seignorial dues received by the sovereign from the manors and farms composing his demesne, and from escheats and vacant churches, together with certain other rights appertaining to his kingly state alone. Even in the most primitive state of kingship the tribal ruler appears to have received a contribution from the products of the soil, the tradition of which still lingered in the *mises* and *prises* of the 13th century. That is to say, the king took toll of certain staple products to maintain the rude splendour which was as essential to a civil state of society as the ceremonies and "ministery" of the church. As far as we are at present enabled to distinguish between a recognised rent or custom and a specific due, it seems probable that the several forms of purveyance were of the latter nature, together with those tolls or perquisites which are peculiar to the fiscal period that precedes the development of parliamentary supply. Such an assessment as the avalage is probably of this nature (Madox, i. 775). On the other hand, many more, which are popularly regarded as dues, are really in the nature of rent, such as the *firma unius noctis* of Domesday Book and the *gafol* or *gablum* (Round, *Domes. Studies*, vol. i.)

A considerable revenue was certainly obtained from the end of the 12th to the close of the 13th century by way of dues upon merchandise at the outports and inland barriers, which can scarcely be included under the head of customs. Thus in addition to the general exactions alluded to in several public charters, we have notices of a disme and quindisme levied as early as the reign of Richard I., chiefly, no doubt, upon foreign imports (Pipe Roll, 10 Ric. 1 m. 12b). These and other dues appear to have been more or less consolidated under the administration of the royal chamberlains at London and Southampton. The exactions of the king's officers at the Tower of London, forbidden in several of the city charters, were clearly of the same nature. It is interesting to note, moreover, the inclusion of the profits or droits arising from the sale of prizes of war and contraband goods amongst the chamberlains' accounts; these, like deodands, forming a link between the casual and the customary revenue of the crown.

With the statutory recognition and limitation of the ancient dues of the crown in respect of the products of the soil exported under the distinctive term of *Recta custuma* and the corresponding definition of the dues formerly payable at discretion upon imports, such as wines by the name of *Recta prisa*, their history may be said to belong thenceforth to that of the customs revenue. *Prises* and *mises* are for the future associated with the unconstitutional abuses of purveyance, together with *caption* and *emption*, and other relics of the old tribal state. Certain other dues continued to be levied in the king's name, such as the penny (*denier* or *devoir* once more), by the gauger of wines and the aulnager of cloths, and even the Calais dues themselves (see DENIERS DE CALAIS); but these, like the god's-penny, and the cocket, and tronage dues, are properly to be regarded as official fees or *perquisites*, outside the customary revenue it is true, and yet not included in the revenue returns for fiscal purposes. It was by such dues as these, sanctioned by the authority of the crown, and even put in charge for the crown, that the royal ministers, from the smelter of the exchequer to the treasurer of England, eked out their scanty fees *in gremio scaccarii* itself.

H. Ha.

DUE DATE (Bill of Exchange). This is the date at which the holder of a bill of exchange may claim payment from the drawee. The following rules, as to the way of ascertaining that date, are applicable in the case of bills payable within the United Kingdom. A bill is payable on demand: (*a*) if it is expressed to be payable on demand, or at sight, or on presentation; (*b*) if no time for payment is expressed (Bill of Exchange Act, § 10). The due date of a bill, not payable on demand, is found by adding three days (which are called the days of grace) to the time of payment named in the bill, but this rule is subject to the following exceptions: (*a*) when the last day of grace is a bank holiday, or a Sunday immediately following a bank holiday, the bill is payable on the *succeeding* business day (*e.g.* if a bill is drawn payable on the 23rd December in a year when the 26th of December falls on a Saturday, the due date would be the 28th December); (*b*) when the last day of grace is Good Friday, Christmas Day, or a Sunday (not immediately following a bank holiday), the due date falls on the preceding business day (thus, in a year in which Christmas Day falls on a Friday, a bill, drawn payable on the 22nd December is due on the 24th, whereas in the same year, a bill drawn payable on the 23rd, as shown above, is due on the 28th only). Where a bill is payable at a fixed period after sight the time begins to run from the date of acceptance, or in the case of an unaccepted bill from the date of noting or protesting (Bill of Exchange Act, § 14 [3]). On the continent a bill is sometimes stated to be payable after usance (or after two or more usances), the usance being either a fixed time, or a time varying according to the distance of the place of issue from the place of payment. In France the duration of a usance is thirty days, the time being computed from the day *following* the date of the bill (Code de Commerce, § 132); the German and Italian codes do not recognise this mode of fixing the due date. In all continental countries a recognised practice exists of making bills payable at some named fair or market ("Messwechsel" or "Marktwechsel"—German Code, §§ 4, 18, 35; "payable en foire"—French Code de Commerce, §§ 129 and 133; "pagabile in fiera"—Italian Codice di Commercio, §§ 252 and 286). If the fair or market extends over a day, such bills are payable on the day preceding the last day of the fair or market. The importance of those assemblages having much decreased of late years, bills bearing such indications are becoming scarce. E. S.

DUFAU, F. P., born in 1795, was the director of the Institute for the Blind in Paris, and wrote several works on the subject of their proper treatment. In 1840 he published a volume entitled *Traité de Statistique ou théorie de l'étude des lois d'après lesquelles se développent les faits sociaux, suivi d'un Essai sur la statistique physique et morale de la population française.* In the theoretical part he does not approve of the adoption of coloured statistical maps, as being "only able to convey vague and indistinct notions to the mind." In the second part, he intended to apply the rules set down by himself to the study of the population, territory, and state in France; but declares that, owing to the want of sufficient materials, he has been obliged to give up the two last divisions of his investigations. This work received, in 1841, a prize from the Academy of Sciences in Paris. In 1847, under the title of *Lettres à une Dame de Charité*, he gave a complete description of the institutions and associations for the alleviation of the sufferings of the poor. E. Ca.

DUHAMEL DU MONCEAU, Henri Louis (1700-1781) was inspector general of the navy, member of several learned societies, and author of numerous treatises on manufactures, forestry, and agriculture; the principal of which are his *Traité de la conservation des Grains* (1753); *École d'Agriculture* (1759); *Eléments d'Agriculture* (which went through several editions from 1754 to 1779); and the *Traité de la Culture des Terres* (1753-1761), written—at least the last—to advocate in France the methods of cultivation originated in England by Jethro Tull. He is mentioned as a distinguished agriculturist by Voltaire in his *Précis du Siècle de Louis XV.* (ch. xliii.) and in his *Lettre à l'Homme aux Quarante Écus*, although in the latter with some mockery on the pecuniary results of his experiments. A. Young calls him a "useful genius" (*Travels in France*, 1792, i. 55).

In 1764 Duhamel printed a small pamphlet of only fifteen pages (*Réflexions sur la Police des Grains*), in which he asserts that, in order to keep agriculture in a healthy condition, the price of corn must not fall below a price sufficient to meet the necessary expenses of the farmer, nor be carried too high, so as to cause famines, which grind the poor and the artisans. The natural regulations of a good policy would be (1) to allow an entirely free inland trade of corn; (2) to suppress all tolls on the inland carriage of corn, either by land or by water; (3) to allow every citizen to store corn until a time of dearth; (4) to grant free export, without any privilege of person, when the storehouses are full and the crops continue to be abundant.

Duhamel ends by distinctly denying that France ought to follow the example of England, there being a great difference in many respects between the conditions of the two countries.

E. Ca.

DUMOULIN. See Molinaeus.

DUNCAN, Henry, D.D. (1774-1846), a minister distinguished for his philanthropic labours and practical sagacity, is best remembered as the founder of savings banks. It is

true that he was neither the first to suggest the formation of such banks nor the first to establish them. Such banks existed on the Continent, in England, and even in Scotland, before Dr. Duncan founded the "parent institution" at Ruthwell in 1810. But the name of Dr. Duncan is as justly connected with savings banks as those of Cobden and Bright with Free Trade; he did for the one movement what they did for the other.

The attention of Dr. Duncan had been early drawn to the condition of the poor, and he thought and read much on the subject. One day there came into his hands a pamphlet bearing the title *Tranquillity*, the author of which, Mr. John Bone, propounded a scheme for the gradual abolition of poor-rates in England. A subordinate feature of this scheme was the "erection of an economical bank for the savings of the industrious." The suggestion germinated rapidly in the mind of Dr. Duncan. He saw in it the means of elevating the condition of the labouring classes and of preventing the introduction of a compulsory poor-rate, a measure which he regarded as certain to injure the community. The result of his study and efforts was the establishment in his own parish of a bank for savings, and the publication of its rules (Rules and Regulations of the Parish Bank Friendly Society of Ruthwell, instituted 26th May 1810). The rules set forth clearly and plainly the nature and advantages of the scheme, the system of management, the provision for deposits and withdrawals. The latter were in certain defined cases subject to the judgment of the managing body. The experiment at Ruthwell, though made in a parish of only 1100 people, purely agricultural, without resident heritors, and where the majority of those grown up were already members of friendly societies, was most encouraging. From the first Dr. Duncan intended that his scheme should be adopted everywhere, and by tongue and pen he spread the knowledge of what was being done in his parish. In 1814-15 the movement attracted a large measure of public notice and advanced rapidly. The table of Dr. Duncan was heaped with letters of inquiry; and to save his time, and to promote the cause he had at heart, he published in 1815 an *Essay on the Nature and Advantages of Parish Banks*, a greatly enlarged edition of which appeared in the following year. The essay is in four sections. The first discusses, with candour and breadth of mind, the objects and principles of savings banks; the second relates their history so far as known to the author, who speaks of his own labours with singular modesty; the third advocates co-operation between savings banks and friendly societies; the fourth, consisting of miscellaneous remarks, deals vigorously with the morality of saving and the question of a poor-law. In 1817 Dr. Duncan was forced to take the field against Mr. J. H. Forbes, the future judge Lord Medwyn, who had denied that the Ruthwell bank was the "parent institution," claiming that distinction for Edinburgh, and who had exalted the management of the Edinburgh bank at the expense of that of Ruthwell. He showed without passion, and with dignity and courtesy, that both these assertions were erroneous (*Letter to J. H. Forbes, Esq.*). This same year a measure was framed by Mr. Rose in the interests of savings banks, but its provisions, while highly beneficial to depositors in England and Ireland, were disadvantageous to those in Scotland. Dr. Duncan convinced Mr. Rose that this was the case, and Scotland was not included within the scope of the act. Two years later, a bill adapted to the peculiar circumstances of Scotland, drafted by Dr. Duncan, and expounded and defended by him in Scotland and London, passed both Houses. The vindication of the measure is contained in his *Letter to W. R. K. Douglas, Esq., M.P., on the expediency of the Bill brought by him into Parliament for the protection and encouragement of Savings Banks in Scotland.* A *Letter to Managers of Banks for Saving in Scotland*, 1819, informed them of the steps they needed to take in order to take advantage of the act. In 1824 the Scotch banks were forced to reduce the interest of 5 per cent which they had hitherto allowed on deposits from savings banks, and Dr. Duncan sought to procure for the savings banks of Scotland the right to purchase, if they saw fit, those government debentures the acquisition of which was made compulsory, by the act of 1817, on savings banks in England and Ireland. But the treasury refused to treat Scotland exceptionally. In 1835 a measure was passed, with Dr. Duncan's hearty approval, making the regulations for savings banks uniform in the three kingdoms, but at the same time conceding to Scotch banks established before the date of the act the privilege which Dr. Duncan had advocated in 1824.

It should be added that Dr. Duncan was a free trader, and that he published in 1820 a letter to Mr. Douglas, M.P., in which he contended for the abolition of all commercial restrictions. In 1830 he published *Presbyter's Letters* on the West Indian question, in which, with his usual sobriety of statement and calmness of judgment, he argued against immediate and unconditional emancipation, and in favour of emancipation at a fixed but not distant date—substantially the policy which three years later was adopted by parliament.

[Besides the pamphlets cited, see *Memoirs of the Rev. Henry Duncan, D.D.*, by the Rev. G. J. C. Duncan (Edinburgh, Wm. Oliphant and Son, 1848), and the article by Prof. Blaikie in the *Dict. of Nat. Biog.*] W. P.

DUNCAN, JOHN, according to M'Culloch (*Literature of Political Economy*, 1845, p. 286) was the author of the following work, directed partly against indiscriminate almsgiving:—

Collections relative to systematic relief of the Poor at different Periods and in different Countries: with observations on Charity, its proper objects and its influence on the welfare of Nations, Bath, 1815, 8vo. H. R. T.

DUNCAN, JONATHAN (1799-1865) son of Jonathan Duncan, governor of Bombay, was born there, and died in London. He took his B.A. degree at Cambridge in 1821 and lived for some time in the Channel Islands. He edited the *Guernsey and Jersey Magazine* (1836-37) and published several historical works, original and translated. After 1841 he lived chiefly in London and devoted himself to currency reform, on which subject he wrote: *How to reconcile the rights of Property, Capital, and Labour*—Tract I. of the Currency Reform Association, London, 1846, 8vo (all published; "money need not, and indeed ought not, to possess any intrinsic value" (p. 6), "value . . . is labour condensed" (p. 10)).—*The National Anti-Gold Law League; the principles of the League explained versus Sir R. Peel's currency measures, and the partial remedy advocated by the Scottish Banks*, London, 1847, 8vo.—*Letters on Monetary Science;* by Aladdin, London, 1848, 8vo (contributions signed by this pseudonym to Jerrold's *Weekly News*, written "to emancipate the human mind from the gross errors of bullionism and the servile idolatry of a comparatively useless metal").—*The Principles of Money demonstrated, and bullionist fallacies refuted*, London, 1849, sm. 8vo.—*The Journal of Industry*, 30th November 1850 to 15th March 1851, small folio (only sixteen numbers published; chiefly devoted to currency).—*The Bank Charter Act; ought the Bank of England or the People of England to receive the profits of the national circulation*, 2nd ed., London, 1858, 8vo.

[*Dict. of Nat. Biography*, xvi. 170, 171.] H. R. T.

DUNDAS, HENRY (1742-1811), first Viscount Melville, successively solicitor-general and lord advocate of Scotland, and thereafter a prominent member in different offices in several administrations, honoured with the friendship of Pitt, and for many years the dictator of Scotland, was regarded during his lifetime as a high authority on questions of trade and commerce, more especially in connection with the East Indies. From the formation of the board of control, he was in fact, though not in name, the minister for India. In 1793 he moved the renewal of the monopoly granted to the company. The speech he delivered on this occasion was afterwards published, having as a preface the eulogy pronounced on it by Pitt in the course of the subsequent debate (*Substance of the Speech of the Right Hon. Henry Dundas, on the British Government and Trade in the East Indies, 23rd April 1793, London, 1813*). From an economical point of view the most important statement in the speech is the declaration that the existing arrangement in India was "in opposition to established theories in government and commerce." The experience of nine years had however justified the system. The same views are expressed in his *Letters upon an Open Trade to India* (London 1813). He contends that the question cannot be treated as a purely commercial one and strenuously asserts that the trade to India should not be open.

[Stanhope's *Life of Pitt*.—Omand's *Lord Advocates of Scotland*, ii.—articles in *Dict. of Nat. Biog.* and *Ency. Brit.*] W. P.

DUNNING, RICHARD (fl. 1685-1698), published *A Plain and Easy Method, showing how the office of overseer of the poor may be managed, whereby it may be £9000 per annum advantage to the county of Devon, without abating the weekly relief of any Poor* (1685); and *Bread for the Poor*, by R. D. (1698). He defended the old poor law (43 Eliz. c. 2), which he maintained was sufficient to reduce poverty, and suggested various methods for its better administration. The chief value of Dunning's pamphlets consists in the information they contain relative to the condition of the labouring classes in Devonshire at the end of the 17th century.

[Eden's *State of the Poor* (1797), i. 225, 248-252.] W. A. S. H.

DUNOYER, CHARLES (1786-1862), born at Carennac (Lot), died at Paris. He studied law at Paris; then assisted in preparing the *Recueil de jurisprudence* of Sirey. He welcomed the fall of the empire, though he only accepted the legitimist monarchy so far as it respected the liberty of the people. In conjunction with Charles Comte he established, 12th June 1814, the journal entitled *Le Censeur*, but the *Terreur blanche* compelled them to discontinue the publication of this paper in 1816. They resumed it eighteen months later, but modified its title to *Le Censeur Européen*. The increasing severity of the press laws, however, seriously hampered them, and, finally, the assassination of the Duke of Berry, 13th February 1820, and consequent troubles led to the entire suspension of the paper. After this Comte and Dunoyer, notwithstanding the similarity of their political and economic opinions, were compelled to separate—the former went to Switzerland, while Dunoyer devoted himself exclusively to economics. He gave at Paris in the *Athenæum Institution* a course of lectures on political economy and moral science, which were afterwards published in a volume bearing the title of *L'industrie et la morale considérées dans leurs rapports avec la liberté*, in 8vo, 1825.

When the *Ordonnances* of the 26th July 1830

appeared, Dunoyer protested in writing against this breach of the charter of 1814. After this, despairing of the elder branch of the Bourbon family, he turned to Louis Philippe, whose accession to power he welcomed with enthusiasm. Appointed, shortly after the "three days," prefect of the department of the Allier, he was transferred in 1832 to the prefecture of the Somme; this he quitted in 1838 to enter the council of state. This last post was better suited to his disposition, which, though calm, was full of energy, and ill-adapted to the compromises and the half-measures which necessity requires of practical politicians.

In 1830 he reprinted his volume of 1825 with many additions, under the title of *Nouveau traité d'économie sociale*, etc., 2 vols., 1830, in 8vo; but just before the second volume was put into circulation a fire, in 1835, consumed nearly all the copies. Extending the scope of his work, Dunoyer republished it in 1845 under the title *De la liberté du travail ou simple exposé des conditions dans lesquelles les forces humaines s'exercent avec le plus de puissance*, 3 vols. in 8vo. Besides being the author of this masterly work, Dunoyer was a contributor successively to the *Revue Encyclopédique*, the *Revue française*, the *Journal des débats*, and the *Journal des économistes*. The revolution of 1848 was a heavy blow to him, royalist and liberal as he was in his political convictions; he remained, however, on the council of state, and only relinquished his seat there after the *coup d'état* of 1851. Bitterly hostile to the second empire, as he had been to the first, he wrote a work directed against the new order of affairs. This book, which was published after his death, and then only at Brussels, is entitled *Le second empire et une nouvelle restauration*, 2 vols., 1865, in 8vo. He was elected, in 1832, a member of the Institute (*Académie des Sciences morales et politiques*), and in 1845 president of the society of political economy. His miscellaneous works (*Notices d'économie sociale*), and the second edition of his book *La Liberté du travail*, were published, both at the same time, in 1886 (3 vols. in 8vo), through the filial care of his son Anatole Dunoyer.

Dunoyer was one of the great economists of the 19th century. He wrote with much force in support of the theory of "immaterial wealth," even going so far as to say that, from the economic point of view, no "wealth" could be other than "immaterial." He was a warm supporter of the theories of Malthus on population; but he was no believer in the theory of rent, considering that there was only one factor in production, *i.e.* labour. Firm and elevated in character, rigid in life and thought, even more severe towards himself than towards others, Dunoyer was one of those men whose career affords one of the highest examples. He died in the enjoyment of that esteem which his frank and loyal conduct won for him in every public position that he had occupied.

A. C. f.

DUODECIMAL SYSTEM. The following remarks under this rubric are given simply because, as we have devoted considerable room to the subject of the decimal system, it might be supposed that we had not fairly considered the relative merits of an alternative, or, as some may imagine, a superior system. But the fact is that there never has been, and undoubtedly never will be, any true duodecimal system in use by mankind in notation, calculation, weights, measures, or coin. The fundamental reason for this is that whilst the number of digits in the universally-accepted decimal system corresponds with the natural number of fingers on the hand, or with what may be called the digital system, whereby all savage races, and even cultivated man, assist their arithmetic, this cannot be in a notation by twelves. The latter would require fresh additional integers beyond the nine in use. Enormous, almost insuperable, difficulties would be involved in this. It is true that a dozen, like a score, has always been a favourite group of numbers. But this has had no real effect on the more effective arrangement for large as well as small numbers into decimal groups of 10, 100, 1000, and so on, in preference to 12, 144, 1728, and so on. Even as regards money, although it is correct to say, as pointed out in the article DECIMAL SYSTEM, that all European nations once had a system of account, but not all of them of coinage, divided into twentieths of the pound or livre, and into twelfths of the shilling or sol, they have all, except England, deliberately discarded the duodecimal as well as the vigesimal part of this arrangement, so as to gain the superior advantages of the decimal subdivision. The division of the year into 12 months, the foot into 12 inches, and the now almost obsolete English apothecaries' pound into 12 ounces, are practically the sole remaining relics of the system.

F. H.

DUPIN, Baron CHARLES (1784-1873), born at Varzy (Nièvre), died at Paris. He came out in 1803 with distinction from the Polytechnic school, after having been at the head of the list in the entrance examination. Louis XVIII. created him a baron (1824), Louis Philippe, a peer of France (1837); he was appointed a representative of the people after the revolution of 1848, and Napoleon III. made him a senator. "The changes," he said satirically, "are not in myself, but in the powers that be!" Dupin, who was endowed with much ability, devoted his life to the extension of technical teaching in France. It was he who suggested that map of France in two colours (black and white) which shows by graduated shades the degree to which primary

instruction has been carried in every department. This most useful statistical method, though now familiar, was, in 1827, quite a novelty. Of his writings as an economist we may mention *Le petit producteur français*, Paris, 1827, 7 vols. in 8vo.

In a familiar yet witty style this little book describes, in the form of a dialogue, the strictly regulated system existing in France before 1789, and the commercial and industrial liberty which the majority of modern economists desire to see realised. The names of the two personages, the old "Prohibant" and the young "Lefranc," show clearly enough the side to which Dupin inclined then. Afterwards he became one of the pillars of the protectionist system. This time it was not the "powers that be" who had changed.

[See French *Dict. de l'Éc. politique.*—His work *The Commercial Power of Great Britain, exhibiting a complete View of the Public Works of this Country*, with atlas and plans, was translated from the French, 2 vols. (Knight), 1825.] A. C. f.

DUPIN, Claude, born towards the end of the 17th century, died in 1769; he was the grandfather of Madame Georges Sand, *née* Aurore Dupin. First an officer in the French army, he became afterwards a *fermier général*. In 1745 he printed anonymously his *Oeconomiques* (Carlsruhe, 3 vols.), but the name of the place (Carlsruhe) appears to have been used to deceive the police. Notwithstanding these precautions, Dupin found it advisable to withdraw from circulation all the copies he could collect, and very few are known to exist in our days. The chapter entitled *Mémoire sur les Bleds* was published separately in 1748, and reprinted in the *Journal Économique* (February and March 1760). Dupin appears to be entitled to the honour of having been the first in France to advocate a more liberal policy concerning the corn trade, as Herbert's essay was only published in 1755. "When corn is dear," he says, "money is lavished to import it from foreign countries. Is it not a mistake not to be forgiven, to prevent its export when its price is gone down to nothing (vol. i. p. 205). . . . If the trade in corn were constantly free, corn would never be wanting (vol. i. p. 208)." However, he does not push his deductions from this principle to their legitimate conclusion, for in his proposed legislation on this subject, although he recommends a free inland trade, he shackles it with numerous formalities, and as for foreign trade, he only allows corn to be exported when the price is lower than 12 livres per sack; from 12 to 18 livres, corn may be imported against payment of a duty of 3 livres per Paris *setier;* from 18 to 24 livres, the duty is to be only of 5 sous per sack. At 24 livres a bounty of 2 livres is to be granted on imports.

Some terse and pregnant remarks may also be gathered mostly from the rest of the first volume, for instance this one (p. 115), "Money ought to be considered like any other commodity and never restrained in its natural course"; but such enlightened opinions are not followed to their ultimate conclusion. "Never has money been drawn from a state without its being provided with the same value of goods or produce, and we must suppose that these goods were useful to the buyer, for the simple reason that he has bought them" (*Oec.* vol. i. p. 114). "Money, which flows out of a state, calls other money in; the money that comes in calls other money out. This is the mechanism of trade; to oppose it is to ignore and to destroy the principles of trade. . . . It is the interest of a state to have rich neighbours; if they are poor, they will not come to buy our superfluous goods. A shopkeeper sells nothing in a place peopled with beggars. . . . It is an absolute mistake to think that we can dispense with our neighbours, and that they cannot go on without us; the richer our climate, the more we need them to consume our excess of riches. If heaven has not granted us certain goods, or if the disorder of the seasons deprives us of our usual produce, these same neighbours will come to our help" (p. 115).

Besides this work Dupin wrote, also anonymously, and with the assistance of two Jesuit fathers, some very bitter *Réflexions sur quelques parties d'un livre intitulé l'Esprit des Lois* (1749), but Madame de Pompadour interfered, and almost the whole edition was suppressed by the author. In 1759, Dupin criticised Montesquieu's views on trade, finance, and the influence of climate under the title of *Observations sur un livre intitulé l'Esprit des Lois*, but in a more temperate style, and without any indication of author, date, or place.

For a very detailed account of the printing and suppression of Dupin's books, see Du Plessis' notice on Cl. Dupin in the *Bulletin du Bibliophile*, Paris, 1859, p. 309. E. Ca.

DUPONT (or, as he himself wrote, Du Pont), Pierre Samuel (1739-1817), received the addition of de Nemours to his surname from the place which he represented at the constituent assembly, in order to distinguish him from another Dupont in the same assembly, and was one of the greatest of the "men of great learning and ingenuity in France" (Adam Smith) who were called "economists." Born at Paris, Du Pont early ranged himself on the side of the Physiocrats (*q.v.*) His first work (1763) attracted the friendship of Quesnay and other leaders. The most valuable of their doctrines, free trade, was ably advocated by him in his *Exportation et importation de grains*, 1764. If Quesnay was the father of physiocracy, Dupont was its godfather, for he gave it its

name by the publication of his *Physiocratie*, 1767 ; a collection of Quesnay's articles, which the editor introduced by a *Discours* (see Daire's *Physiocrates*, part i. tome ii. p. 19). To the same period belongs his *Origine et Progrès d'une Science nouvelle* (see Daire, *Ibid.* tome ii. p. 335), based upon that "little book written by Mr. Mercier de la Riviere," which Adam Smith calls "the most distinct and best connected account of this doctrine" (*W. of N.*, bk. iv. ch. ix.). Many other expositions of physiocratic doctrine were contributed by Dupont to the *Journal de l'Agriculture* . . . and the *Ephémérides* (*q.v.*), which he successively edited (1765-1772). He was aided in his editorial work by the pen and advice of Turgot. Almost the only cloud in the friendship between the two publicists arose when Dupont, with the usual indiscretion of editors, ventured to "touch up" the now celebrated "Réflexions sur . . . la richesse," contributed by Turgot to the *Ephémérides*. When Turgot became minister he did not forget his friend. Dupont was appointed to an important and confidential post ; which he forfeited on the fall of Turgot, but was afterwards employed under Vergennes, in an office not altogether congenial to a great opponent of the commercial system, the "bureau de la balance du commerce." The practical ability of Dupont was displayed in the negotiation of the treaty which secured the independence of America (1783), and the treaty of commerce with England (1786). In the constituent assembly Dupont de Nemours played a considerable part. He was president for some time. His eloquent voice was often heard on the side of sound theory and good sense. His protests against the creation and increase of the issue of assignats were founded upon the justest reasoning. Siding with the king at the *émeute* of 10th August 1792, Dupont fell under the ban of the extreme party. While hiding from their pursuit, he wrote, during this period of enforced leisure, his optimistic *Philosophie de l'univers*. Discovered at length and dragged to prison, Dupont would infallibly have been guillotined, but for the timely fall of Robespierre. Under the directory Dupont obtained the influence due to his financial ability ; but on the revolution of the 18th Fructidor he abandoned politics and retired to America. He resided in France during the empire, devoted to literary pursuits. It was during this period that he edited the works of Turgot (1809), which he enriched with interesting notes. Dupont took office under Louis XVIII. in 1814, but on the return of Napoleon once more retired to America, where he died in 1817.

It is impossible in a curt abstract to convey an adequate impression of the exuberant genius which, during more than half a century, continued to pour forth eloquent discussions on varieties of subjects ranging from the "philosophy of the universe" to the habits of insects. If in political economy Dupont made no great advance ; if, contrary to the advice of Turgot, he turned in one circle, confined to a narrow sect ; he at least purified and embellished the doctrines of that sect. He emphasised what was best in its teaching, the principle of *laissez-faire*. With potent voice he bade trade, Lazarus-like, be loosed ; "Otez-lui ses liens et laissez-le aller." The magic of his eloquence was enhanced by the influence of a character noble and disinterested. He lived up to his motto : *aimer et connaître*. The breadth of his public spirit corrected the narrowness of his theory (see EPHÉMÉRIDES).

[A full account of Dupont's economical career is given in Schelle's *Du Pont de Nemours et l'école Physiocratique*, 1888. Among earlier authorities may be mentioned Daire ; who, in the first part of his *Physiocrates*, tome ii. p. 307, gives an outline of Dupont's life and a selection from his writings. Other authorities are referred to by Schelle, who also gives a list of Dupont's writings, occupying forty 8vo pages. The principal of these works have been mentioned above. Some more detailed references to the *Ephémérides* may here be added. The "impôt direct et unique" of physiocratic theory is discussed by Dupont in *Ephémérides*, 1770, tom. v. (*Principes des Finances*) ; the "liberty of commerce" *Ibid.* (1770, vol. vi. ; *et passim*), the wastefulness of slave-labour (*Ibid.* 1771, vol. vi.) The *Fragments in Ephém.*, 1771, vol. vii., contain some striking reflections on the theory of population, a subject which was resumed by Dupont in his last work, and according to Schelle one of his best, *Examen du livre de M. Malthus*, 1817. See also *Briefliicher Verkehr Carl Friedrichs von Baden mit Mirabeau und Du Pont*, 2 vols., Heidelberg, 1892.] F. Y. E.

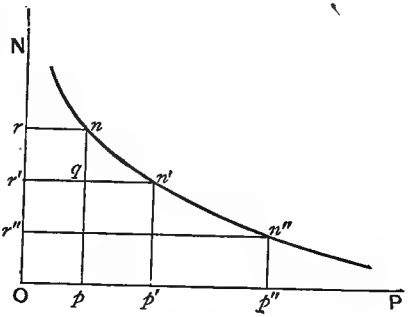
DUPONT-WHITE, CHARLES (1807-1878), born at Rouen. After having practised as a barrister at the court of cassation from 1831 to 1843, he became, in 1848, general secretary at the ministry of justice. Distinguished by the elegance of his style, he was a sound economist and a resolute thinker, but too ardent a champion of centralisation and the extension of governmental authority. His earliest work, entitled *Essai sur les relations du travail avec le capital*, 1 vol. in 8vo, 1846, shows that the bent of his mind was adverse to liberty. In that volume he vigorously opposes the maxim of Gournay, *laissez-faire, laissez-passer*. Of his other publications, the best known are : *De la suppression de l'impôt du sel et de l'octroi*, br. in 8vo, 1847 (he would gladly have substituted for these, taxes on landed property and capital), *L'individu et l'état*, 1 vol. in 8vo, 1856, and *La Centralisation* (a sequel to the last mentioned), 1 vol. in 8vo, 1860. His other works are principally political. He also translated the works of John

Stuart Mill on *Liberty* and *Representative Government*. A. C. f.

DUPRÉ DE SAINT-MAUR, NICOLAS FRANÇOIS, born at Paris about 1695, died 1774. He is better known in the present time by his works on money than by his translation of Milton's *Paradise Lost* (Paris, 1729, 3 vols. in 8vo), which nevertheless secured his admission into the French academy in 1733. His economic writings mentioned below are now necessarily out of date, and their places taken by more recent works on the same subject. They may still, however, be consulted with advantage.

Essai sur les monnaies ou réflexions sur le rapport entre l'argent et les denrées, 1 vol. in 4to, 1746, and *Recherches sur la valeur des monnaies et sur le prix des grains avant et après le concile de Francfurt* (1 vol. 12mo, 1762). A. C. f.

DUPUIT, A. J. ETIENNE-JUVENAL (1804-1866), was born in Piedmont and died in Paris. An engineer and mathematician, holding the office of *Inspecteur-général des ponts et chaussées*, Dupuit was led both by his occupations and studies to reflect upon the advantage which the public derive from means of communication, and on the method of measuring with precision that species of advantage, and utility in general. His profound reflections are embodied in two articles in the *Annales des ponts et chaussées*, viz., "De la mesure de l'utilité des travaux publics," 1844, and "De l'influence des péages sur l'utilité des voies de communication," 1849. The author of these papers "must probably be credited with the earliest perfect comprehension of the theory of utility," as Jevons says (*Theory*, preface, p. 30). By the example of water supplied at different prices to a town, Dupuit shows in the first paper that "tous les produits ont une utilité, non seulement pour chaque consommateur, mais pour chacun des besoins à la satisfaction desquels il les emploie." To measure the total utility obtained by a purchaser, Dupuit employs a construction similar to that which Professor Marshall has made familiar (*Principles of Economics*, bk. iii. ch. vi.). The curve in the annexed diagram represents the variation of demand with price; the abscissa measured along OP corresponding to price, and the ordinate measured along ON to the quantity of the commodity purchased. The construction is the same as that of COURNOT (*q.v.*), published in 1838; which Dupuit does not appear to have seen. Upon the principle that "il n'y a d'utilité réelle que celle qu'on consent à payer," the total utility corresponding to the consumption of the quantity *or* is measured by the area *ornp*. For the utility of each portion such as $r'r''$ is represented by the amount of money, $r'n'n''r''$, which the purchaser is just willing to give for that increment of commodity. (The reservations with which this representation must be accepted are well stated by Professor Marshall, *loc. cit.*). Such is the *absolute* utility, not taking into account what the purchaser has to pay for the quantity *or*. This value being subtracted, the "relative utility" (Professor Marshall's "consumer's rent"), is *np*P. By parity of reasoning the (relative) utility incident to the drop from the price *op'* to *op* is *nqn'*. Dupuit assumes the area of the *triangle nqn'* (a straight line being drawn through *nn'*) to be greater



than this relative utility, on the assumption that the curve is convex; which would seem not to be universally admissible. The paper concludes with some very weighty reflections on the mathematical method in political economy. Referring to the objection that statistical data for the measurement of utility are not obtainable, Dupuit replies "que quand on ne peut savoir une chose c'est déjà beaucoup que de savoir qu'on ne sait rien." If the earlier theorists, instead of formulating the balance of trade, had confined themselves to declaring that the question was above their powers, they would perhaps have done a greater service than those who afterwards exposed their errors.

In the second paper (1849), Dupuit applies these principles to the measurement of the advantage derived by the public from roads and other means of communication. First he shows that the method proposed by J. B. Say for evaluating this utility is inadmissible. He proves that a government seeking a minimum return to meet fixed charges and the maximum advantage of the public, will in general impose a different scale of charges for canals and railways, from a monopolistic company seeking a maximum return (cp. Marshall, bk. v. ch. xiii.) The incidents peculiar to a *régime* of monopoly, that price is not in general proportional to cost, that articles will be charged according to what they will bear, that a mileage rate is not to be expected, etc., seem to be stated here as perfectly as by the most recent writers on railway problems.

These important principles are restated by Dupuit in several of his articles in the *Dictionnaire d'Économie Politique*, of which the follow-

ing is a complete list—"Eaux," "Péages," "Routes," "Voies de Communication." It will be seen from the last that Dupuit is not blind to the advantages of competition; though, in cases where it is impossible, he accepts governmental management. With these articles should be read one which appears to have been originally designed for the *Dictionnaire*, and accordingly is referred to in the article on "Péages"—the admirable paper on "Utilité" in the *Journal des Économistes*, for July 1853; perhaps, as the editor of the *Journal* says, more "clear and methodical" than the memoirs upon which it is based, and which have been here described.

A full statement of the offices which Dupuit held, of the engineering works which he constructed, and of the books and papers which he wrote, both in his capacity of engineer and of economist, will be found in *Titres Scientifiques*, 1857 (British Museum, *sub voce* Dupuit).

F. Y. E.

DUQUESNOY, Adrien Cyprien (1763-1808). A member of the States General of France, where he generally voted with Mirabeau, he was *maire* of Nancy, and later on of an *arrondissement* of Paris, and one of the chief writers in the *Ami des Patriotes* (1792). He did most useful work by his *Recueil de Mémoires sur les Établissements d'humanité*, including translations of Rumford, Eden, Bentham, Ruggles, Howard, etc. He also published, separately, translations of Hoeck's *Statistical View of the States of Germany*, and of Bentham's *Tracts on the Poor* (*Esquisse d'un Ouvrage en faveur des Pauvres*), Paris, 1802. E. Ca.

DURATION OF LIFE (as an Element of Well-being). Length of days is referred to in the earliest literature as a blessing to the individual; but it has been reserved for modern statistics to estimate more exactly the advantage which a community derives from an increase in the longevity of its members. A rough measure of the prolongation of life is afforded by the Expectation of Life (*q.v.*). Thus, for the period 1871-80, as compared with the period 1838-54, the mean life-line of males (41·35 years), is longer by 1·439139 years. In other words a million of males born in the later period would live 1,439,139 years more than in the case of the former period. So a million of females would live 2,777,584 additional years, if born in the later period. Or, taking the mean annual number of births as 858,878—437,492 males and 421,386 females—the additional years lived by this annual number of children would be 1,800,047. But this addition of nearly two million years of life does not represent the whole advantage which the community derives from the change in the death-rate. For of these additional years the greater part—66 per cent in the case of males and 65 per cent in the case of females—are lived at the most *useful* period of life, the period at which the individual is least dependent on others and most productive, namely, between the ages twenty-five and sixty-five. This calculation is taken from the supplement to the forty-fifth annual report of the Registrar-General (1885). A similar conclusion had already been reached by Dr. Noel Humphreys upon somewhat different and less perfect data (*op. cit.* x. note; and *Journal of the Statistical Society*, 1883).

As to the causes which have contributed to this gain of life, see the Registrar-General's supplementary report above referred to, and Dr. G. B. Longstaff's paper on "The Recent Decline in the English Death-rate," *Journal of the Statistical Society*, 1884; and his *Studies in Statistics*. Some other writers on the subject—not all wise—are mentioned by Dr. Humphreys at the beginning of the paper above referred to (*Journ. Stat. Soc.*, 1883). F. Y. E.

DUSSARD, Hipp. (1798-1876), born at Morez, died at Nyer near Olette (Eastern Pyrénées). He commenced life as a publicist, writing in the *Revue Encyclopédique*, 1819-33; the *Bulletin de Ferussac* (a periodical devoted to science and industry), 1823-30; and in the *Temps*, the journal founded 15th October 1829 by Jacques Coste, which ceased to appear 17th June 1842, up to which date he remained a contributor. He signed the protest of the journalists against the *ordonnance* of July 1830, but he did not, like many others, derive any advantage from the new *régime*, as he preferred to remain in opposition. He supplied, in 1844, working with Eug. Daire, the notes to the edition of the works of Turgot (2 vols. large in 8vo.) published by Guillaumin. He assisted from its commencement (in 1841) in editing the *Journal des Économistes*, in which he wrote many articles, having been editor-in-chief of that journal from February 1843 to May 1845. He was the traffic manager of the Paris and Rouen railway, and distinguished himself after the revolution of 1848 by placing himself at the head of the courageous volunteers who undertook the defence of the railways in the neighbourhood of Paris, which had been overrun by bands of incendiaries. His brave conduct gained for him the office of prefect of the Seine inférieure, in which position he successfully closed the national workshops (see Ateliers Nationaux); this judicious intervention brought to an end the labour disturbances, and restored the confidence of employers. He left this post for the council of state, in which he did not remain long; his name having been drawn as one of the members who had to retire. Returning to private life, he busied himself with various occupations, such as works of irrigation, forestry, and railways, in the management of all which he displayed great ability.

A. C. f.

DUTCH AUCTION. See Auction.

DUTCH SCHOOL OF ECONOMISTS. In Holland, during the 17th century, the most glorious period of Dutch history, economics were not regarded as an independent science, deserving separate treatment. Economic theory at that date must be sought for in the works of eminent writers on theology, jurisprudence, and politics. Perhaps the best information can be found by studying the means adopted to promote the general welfare of the country. Practice preceded theory. The discussions on practical questions of the day gave rise to innumerable pamphlets, and by searching these we may still trace the general ideas underlying action. *Laspeyres* and *Van Rees* among others have done good service in utilising these sources of information. The titles of their works are mentioned below.

In this place attention can only be called to some of the most illustrious writers whose opinions on economic questions were ahead of their times, although in many cases the living generation refused to be guided by their advice.

HUGO GROTIUS (1583-1645) advocated freedom of commerce as one of the natural rights of man. It leads to a useful division of labour between nations. Both parties gain by the exchange, the abundance of the one supplying the penury of the other. Grotius allows the right of free immigration to foreigners. In his opinions concerning value we find a forecast of the most recent theories, as he distinctly asserts the subjective element in the determination of price. "Mensura ejus quod res quaeque valeat maxime est naturalis indigentia. . . . Non tamen haec unica est mensura. Nam hominum voluntas, quae rerum domina est, multas res magis desiderat quam sunt necessariae. . . . Et contra evenit ut res maxime necessariae minoris sint propter copiam" (*De Jure Belli ac Pacis*, ii. ch. xii. § 14, n. 1). Grotius describes money as the common measure of value, and regards fixity of purchasing power as the first quality money ought to possess. Though gold and silver do possess that quality in a satisfactory degree, he recognises that abundance and scarcity in the precious metals, as in other goods, will bring with them variations in their purchasing power. Grotius was among the first to defend the taking of interest on scientific grounds, and distinguished the different elements in the interest, viz.—the price for the use of capital,—the wages of the creditor and the insurance-premium for his risk. Nevertheless he was opposed to taking compound interest, and advocated the fixing of a maximum interest by legislation.

GRASWINCKEL (1600-1668) is conspicuous for his defence of free trade in corn, and for his clear insight into the causes of the general rise of prices during the latter part of the 16th and the beginning of the 17th century. He describes the pernicious effects of forbidding the re-export of foreign corn, as the doing this would deter foreign producers from sending their corn to our markets. Even in a state of famine, when it would be legitimate on general grounds, practical considerations make Graswinckel advise against such a prohibition, because the best remedy is the high price itself. As water flows to the lowest level, so corn flows to the highest market. Their own private interest will prevent merchants from exporting corn in times like these. A policy that proscribes itself ought not to be proscribed by odious restrictions. Graswinckel clearly sees the use of forestalling corn in times of approaching dearness. It is folly to consider speculators as the cause of the dearness. He that keeps in his granaries the corn he has got, in the hope of a rising price, does not cause the high price, but the expected rise causes him to keep what he has got. The best thing government can do for preventing excessive dearness is to collect statistics respecting the quantity of corn still in the country. The knowledge where this quantity is, which will probably be more than enough to feed the people for two years, will dispel unreasonable fears and prevent hoarding by private individuals. Apprehension of dearness is the principal cause of dearness.

Concerning the rise of general prices in his time, Graswinckel wrote: "The change has been one, not in the commodities, but in the money. As there is four times more money in the world than there was before, there must necessarily follow a decline in money and a rise in commodities, if such can be called a rise. For leaving money out of account, and measuring commodities against each other, wages among the rest, all things have remained at their former level." Considering these variations in the value of money, he expressed the opinion that the best way to fix the rent of land would be to stipulate for payment in corn.

SALMASIUS (1588-1658) was the most influential among the many writers who defended the taking of interest. But while most of them hoped to protect the lower classes against excessive rates by legislation or by the monopoly of a public body, Salmasius recommended confidence in free competition, as that would compel money-lenders to lower interest to a fair rate in order to augment their business.

The works of Pieter DE LA COURT (1618-1685) on economic subjects are among the best, not only of this, but of all other countries. One of his works, the *Aanwysing*, pub. 1669 (see below), has been ascribed by deliberate fraud to the statesman Johan DE WITT, in a French translation under the title *Mémoires de Jean de Witt*, 1709 (also in English, 1743, *Political Maxims of the State of Holland*, by John de Witt, pensionary of Holland, London, J. Nourse). De la Court deserves a high place in the history of economic

thought for his ardent defence of the freedom If industry against corporations and monopolies. on his native city, Leyden, he found ample evidence for illustrating his conviction that industry suffers under government tutelage, and that the interests both of producers and consumers are best served by free competition, even in freedom to make cheap goods, perhaps of low quality, but within the means of their customers. Producers ought to have absolute liberty in order to be able to follow the changing tastes and fashions of consumers. Regulations, even if they could be efficient in the beginning, would remain unaltered long after they had become obsolete, as, even under the best of governments, a law once made is only amended when much harm has been done. De la Court not only attacked the regulation of industry and the testing of manufactured goods by public authority, but also all close corporations of producers. Under the pretence of protecting citizens against aliens, and of procuring work for native industries, these corporations deprive all their fellow-citizens of the liberty of buying where they find the commodity can be had the cheapest and the best; they retard the increase of the community by increasing the difficulty of finding a living in it; they give rise to all kinds of vexatious disputes concerning the limits of their rights, and in the end they do not even benefit those persons for whose profit they were intended, as by secure earnings and luxury men everywhere are made idle, lavish, and stupid. Still De la Court did not defend freedom of trade in the modern sense of the term. He recommended freedom of labour and of competition as the best policy for strengthening his native country, but he was not opposed to import and export duties on foreign manufactures as high as the interests of commerce would permit.

Of the statesman, *Johan de Witt*, we may mention here a memoir on the value of annuities, the one of his writings which, excepting his correspondence, has most attracted public attention.

We can only recall the names of other distinguished writers as *Usselinx*, BOXHORN, *Huber*, *Bynkershoek*, *Noodt*, etc.

In the 18th century we find among others the works of *Ricard*, *De l'Espine*, and *Le Long* on commerce, of *Pinto* on credit, of *Luzac* on the wealth of Holland, and many treatises on the decline of prosperity and the means of reviving trade.

Among political arithmeticians KERSSEBOOM deserves to be remembered as an original writer, who improved the method of HALLEY in constructing life-tables by following out the history of a generation of persons of a certain age, individually, till all of them had died. *Struyck* and *Nieuwetytk* worked in the same direction.

In the 19th century political economy has found a place in the curriculum of the Dutch universities. Along with statesmen like VAN HOGENDORP, VAN HALL, and THORBECKE, the Professors ACKERSDYK, VAN REES, and VISSERING are to be named among its most distinguished representatives. The central figure among Dutch economists of the last generation was W. C. MEES, for many years (1863-1884) the president of the Netherlands Bank. His works on economics are not very numerous, but all of them are characterised by great power and originality of thought. He never joined in the optimism of the French school of BASTIAT and other partisans of *laissez-faire*. Neither could he assent to the principles of the German economists who regarded economics as a purely historical study. Against the French he maintained the fundamental truth of MALTHUS' doctrine on population, against the Germans the necessity of abstract economic reasoning. In questions of economic method he followed Ricardo, but with a fuller understanding of the limitations of the abstract treatment, and a much more careful handling of his hypothesis. His book, *Chapters in Political Economy*, a model of sound reasoning and clear insight into the problems of distribution and foreign trade, has not met, even in his native country, with the degree of attention it deserved, as it was more difficult reading than most of those who concerned themselves with economics were accustomed to. It may be considered as the best exposition of the general theory of economics before the works of Jevons and the Austrian school of economists. In 1869 Mees deduced from a correct theory of value the principles of international bimetallism which, since that date, have steadily gained ground among students of monetary science in all countries. In other papers, read before the Dutch Royal Academy of Science at Amsterdam, he treated of the incidence of taxation and of the elementary conceptions of political economy. In his youth he published an exhaustive history of banking in the Netherlands.

Among living economists *N. G. Pierson*, the successor of Mees as president of the Netherlands Bank and at the present time chancellor of the Dutch exchequer, holds the first rank. In his *Manual of Political Economy* he has succeeded by the brilliancy and lucidity of his exposition in interesting cultivated people in general in the study of scientific economics. By means of this work the latest improvements in economic theory, initiated by JEVONS, Menger, and others, and their application to the problems of distribution, have penetrated wide circles of readers. Pierson combines an extensive knowledge of the literature of political economy and a full appreciation of the historical inquiries of our eastern neighbours, with the gift of prudently using the deductive method. Though his mode of treatment is less systematic than that of Mees, it is much more attractive; he always

tries to interest his readers in the general knowledge he wishes to impart to them, by reference to the practical problems on which the theories throw light.

The study of Mees and Pierson by the younger generation of economists explains the slight influence in Holland of the German school of Schmoller and others, who recommend an exclusively inductive treatment of economics, and the favourable reception of the doctrines of the Austrian school. The question of economic method was much discussed in the Netherlands a few years before the work of Menger on the subject appeared. *Borgesius* and *Levy* had recommended the inductive treatment, and were refuted, among others, by *D'Aulnis*, *Pierson*, and *Heymans*. Since 1880 the controversy may be considered as closed.

Following the lead of Mees and Pierson, many young authors have attempted to work out special problems on deductive principles. In this spirit *Beaujon* wrote on the theory of international trade, *Harte* on interest, *Falkenburg* on the rate of wages, *Verrijn Stuart* on socialistic theories of value. Much highly original work has been done by applying the principles of Jevons and Menger to the theory of taxation, in the works of *Cohen Stuart* on the progressive income tax, and by *Tasman* on the incidence of taxation.

Another feature of the Dutch economic school of the present day is its adherence to the fundamental ideas of Malthus' doctrine of population. Excepting a few writers, among others, Professors *Vissering* and *Cort van der Linden*, all are convinced that the great mass of the people cannot permanently better its standard of living, if it does not diminish competition by limiting its numbers. A lively controversy arose about Malthusianism and so-called Neo-Malthusianism about the years 1875-76. *Greven* and *Van Houten* defended neo-Malthusianism against the objections of Professor *Evers* and others. Pierson lately declared in his treatise that all the objections to that doctrine which an economist was competent to judge of, appeared to him to be invalid, and that the question ought to be definitely settled on medical grounds. Professed neo-Malthusians were called more than once to professorships at the public universities, and a neo-Malthusian league has set up an active propaganda since 1880.

Next in importance to a due regulation of numbers, Dutch economists regard all kinds of measures for "social reform." They do not proclaim Malthusianism as a panacea for all evils, but they are convinced that all other measures for elevating the masses, however useful in themselves, will avail little, unless "peopling up to them" as MILL expressed it, is prevented. The theory of *laissez-faire*, which never had been accepted without qualification, even by the older generation of economists, such as DE BRUYN KOPS and *Vissering*, is visibly losing ground in the minds of the general public, and is regarded as insufficient and incomplete by all scientific writers on economics. Here the impulse came from Germany. The new German school of the "Kathedersocialisten" found eloquent and ardent expositors in *Van Houten*, *Kerdijk*, *Borgesius*, and others. Van Houten initiated the factory-legislation in 1874, and since that date public opinion has been steadily ripening for more extended state interference. Since 1886 parliamentary and royal commissions have collected materials for further legislation concerning the interests of the working classes, outside agriculture. A weekly paper on social questions, under the able editorship of Kerdijk, has worked since 1887 in the same direction. Compulsory insurance has been recommended by various writers, and government seems not unwilling to propose such a measure. Trade-unionism and the co-operative movement not having attained among the working classes that degree of development their friends had wished for, the necessity of state interference begins to be recognised by many who would have preferred self-help.

Socialism in its most uncompromising shape is actively propagated by *Domela Nieuwenhuis* and others by means of papers and public meetings, and finds an increasing number of adherents among the younger generation in the great cities and in the northern provinces. *Quack* has been occupied for many years in writing an extensive history of socialism, which has now been carried down to the year 1850. D'Aulnis has given an able criticism of modern socialistic theories from MARX downwards.

In commercial matters there is but one opinion among economists in Holland. Free trade is considered the best policy for countries generally, and more so for a small country, where trade flourishes and combinations among producers would easily dominate the market if foreign competition were excluded. Beaujon defended free trade with great acumen in the second part of his essay on international trade. An agitation for duties on corn, set up a few years ago, vigorously defended by *Diepen* and in a more scientific spirit by Harte, has met with energetic resistance on the part of our best writers, *e.g.* Pierson and the younger *Mees*, and may be said to have subsided since that date.

In the "battle of the standards," Dutch economists, since the exposition by Mees of the principle of bimetallism, are agreed that theoretically that would be the best system, because it would give the greatest guarantee of fixity of value in the standard coins. We possess many valuable articles on the question by *Boissevain*, who recently gave a very able defence

of the bimetallic theory against its English and continental opponents in his work *The Monetary Question.*

The necessities of the exchequer and the need for reform in the fiscal system have directed attention in an unusual degree to questions of finance. *Sickenga* has published, commencing with 1863, an historical exposition of the rise of the present system, in establishing which men like GOGEL, *Van Hall*, and *Betz* took a prominent part; *Sprenger Van Eyk* wrote a masterly *résumé* of the present situation with all its imperfections; Pierson, *Van Nierop*, Cort van der Linden and *Treub* are among the most distinguished writers on the principles of taxation.

Holland possesses a *Monthly Review*, now in its forty-first year, exclusively devoted to economics, edited from the first by *De Bruyn Kops* and after his death (1888), by a committee, including many of the writers mentioned above.

Statistics are much indebted to *De Bosch Kemper*, who founded the Dutch statistical society and has edited since 1849 the year book of that society.

Below are given the titles of the works mentioned in this article.

Laspeyres, *Geschichte der volkswirthschaftlichen Anschauungen der Niederländer und ihrer Litteratur zur Zeit der Republik*, 1863.—Van Rees, *Geschiedenis der Staathuishoudkunde in Nederland tot het einde der achttiende eeuw* (History of political economy in the Netherlands to the end of the 18th century), 2 vols. 1865-68.

17th century: Grotius, *Mare liberum*, 1609; *Inleiding tot de Hollandsche Rechtsgeleerdheid* (Introduction to Dutch jurisprudence); *De jure belli ac pacis*, 1625.—Graswinckel, *Aenmerkingen ende betrachtingen by 't Placaetboek op 't Stuck van de Lijftocht* (Remarks on the edicts concerning the trade in corn), 1651.—Salmasius, *De usuris*, 1638; *De modo usurarum*, 1639; *Dissertatio de foenore trapezitico*, 1640.—Pieter de la Court, *Het welvaren der stad Leyden* (The Welfare of the city of Leyden), 1659; *Interest van Holland ofte gronden van Hollands-Welvaren* (The Causes of the wealth of Holland), explained by V. D. H. (Van der Hove, =De la Court), 1662; *Aanwysing der heilsame politike Gronden en Maximen van de Republike van Holland en West Friesland* (Demonstration of the salutary political maxims of the Dutch Republic), 1669.—Johan de Witt, *Calculatie van de waardye der Lyfrenten* (Calculation of the value of Annuities, etc.), 1671.

18th century: Le Moine de l'Espine, *De Koophandel van Amsterdam* (*Le Commerce d'A.*), 1715 (new editions by Le Long).—Ricard, *Traité du Commerce*, 1715; *Le négoce d'Amsterdam*, 1722.—Kersseboom, *Proeve van politique Rekenkunde, vervat in drie verhandelingen tot eene proeve om te weeten de probable menigte des volks in de provintie van Holland en West-Vriesland* (Essay in Political Arithmetic, contained in three dissertations on the probable numbers of the population of the provinces of Holland and West Friesland), 1748 (the original editions from 1738 to 1742).—Pinto, *Traité de la circulation et du crédit*, 1773.—Luzac, *Hollands rijkdom* (The Wealth of Holland), 4 vols., 1780-83.

19th century: Van Hogendorp, *Bijdragen tot de huishouding van staat in het Koningrijk der Nederlanden* (Contributions to the Political Economy of the Kingdom of the Netherlands), 10 vols., 1818-25.

De Bruyn Kops, *Beginselen der staathuishoudkunde* (Principles of Political Economy), 1850.—Five editions—Vissering, *Handboek der praktische staathuishoudkunde* (Manual of Practical Political Economy), 1860.—Four editions—Mees, W. C., *Overzicht van eenige hoofdstukken der staathuishoudkunde* (Sketch of some Chapters in Political Economy), 1866.—Pierson, *Grondbeginselen der staathuishoudkunde* (First Principles of Political Economy (1875-76).—Three editions—*Leerboek der staathuishoudkunde* (Manual of Political Economy), 2 vols., 1884-90.

Heymans, *Karakter en methode der staathuishoudkunde* (Scope and Method of Political Economy), 1880.—Harte, *De rentestand* (On the Rate of Interest), 1883.—Falkenburg, *Bijdrage tot de leer van het arbeidsloon* (On the Theory of Wages), 1890.—Verrijn Stuart, *Ricardo en Marx*, 1890.—Cohen Stuart, *Bijdrage tot de theorie der progressieve inkomstenbelasting* (On the Theory of the Progressive Income-tax), 1889.—Tasman, *Afwenteling van belastingen* (On the Incidence of Taxation), 1889.

Greven, *De Ontwikkeling der Bevolkingsleer* (The Development of the Theory of Population), 1875.—Articles in the periodical *Vragen des Tyds* (Questions of the Times) since 1875, by Van Houten, Kerdijk, Borgesius, etc.—*Sociaal Weekblad* (Weekly Paper on Social Questions), since 1887, ed. Kerdijk.—Quack, *De Socialisten, Personen en stelsels* (The Socialists, the Men and the Systems), 1875 *seq.*, 3 vols.—D'Aulnis de Bourouill, *Het hedendaagsche Socialisme toegelicht en beoordeeld* (A Description and Criticism of Contemporary Socialism), 1886.

Beaujon, *Handel en handelspolitieck* (On Foreign Trade and its Policy), 1886.—Harte, *Vrijhandel en Bescherming* (Free Trade and Protection), 1890.—Mees (M.), *Nadulen van het protectionisme voor de werkende klassen* (Why the Working Classes lose by Protection), 1891.

Mees, W. C., *Proeve eener geschiedenis van het bankwezen in Nederland* (Essay on the History of Banking in the Netherlands), 1838; *De muntstandaard in verband met de pogingen tot invoering van eenheid van munt* (On the Monetary Standard and an International Unit of Money), 1869.—Boissevain, *The Monetary Question*, 1891.

Sickenga, *Bijdrage tot de geschiedenis der belastingen in Nederland* (Contributions to the History of Taxation in the Netherlands), 1864; *Geschiedenis der Nederlandsche belastingen sedert het jaar 1810* (History of Dutch Taxes from the year 1810), 1883, 2 vols.—Sprenger van Eyk, *De rijks-en gemeentebelastingen in Nederland* (General and Local Taxation in the Netherlands), 1891.—Treub, *Ontwikkeling en verband van de Rijks, Provinciale-en Gemeentebelastingen in Nederland* (On the Development of and the Relation between Imperial, Provincial, and Local Taxes in the Netherlands), 1885.—Cort van der Linden, *Leer-*

boek der financiën. De theorie der belastingen (Manual of Finance. The Theory of Taxation), 1887.

Sloet tot Oldhuis, *Tijdschrift voor staathuishoudkunde en Statistiek* (Magazine of Political Economy and Statistics), 1841-75, 28 vols.—De Bruyn Kops, *De Economist*, 1852-91, 69 vols.—*Staatkundig en staathuishoudkundig jaarboekje* (Annual of the Dutch Statistical Society), 1849-84, 36 vols.—*Jaarÿfers. Annuaire statistique des Pays-Bas*, since 1881; *Bijdragen van het Statistisch Instituut*, since 1885 (Publications of the Statistical Bureau of that Society).—Falkenberg, *Bijdrage tot de leer van het Arbeidsloon*, on the lines of the Austrian economists.—Cossa, *Introduzione allo Studio della Econ. Pol.*, 1892. H. B. G.

DUTENS, Joseph Michel (1765-1848), born at Tours, was inspector-general of roads and bridges (*ponts et chaussées*) from 1830 to the time of his death. In his writings he manifests a spirit retrograde even relatively to the time when he lived, and favourable to government regulation. With all this he was conscientious and hardworking. In 1840 he was admitted to the Academy of Moral and Political Science.

The economic works published by him are entitled: *Analyse raisonnée des principes fondamentaux de l'économie politique*, 1 vol. in 8vo, 1804. —*Philosophie de l'économie politique ou nouvelle exposition des principes de cette science*, 2 vols. in 8vo, 1835.—*Essai comparatif sur la formation et la distribution du revenu de la France en 1815 et 1835*, in 8vo, 1842.—Finally, *Des pretendues erreurs dans lesquelles, au jugement des modernes économistes, seraient tombés les anciens économistes, relativement au principe de la richesse nationale*, in 8vo, 1846. A. C. f.

DUTOT. No biographical details respecting this author are discoverable. It is only known that he was cashier of the India Company in which the well-known John Law was concerned. (The name of this company was changed from that of *Compagnie d'Occident* to that of *Compagnie des Indes*, May 1719.) The book of which Dutot was the author is entitled *Réflexions politiques sur les finances et le commerce* (2 vols. 1718-1738, reprinted in 1743, 1754, and also in the collection of Guillaumin). In it he examines the questions what would be the effect on the public revenue, on the price of merchandise, on the foreign exchanges, and in consequence on trade, of the increase and diminution of the monetary value (*i.e.* of the purchasing power) of the circulating medium (money). This work, although too partial to the *Système* of Law, is very instructive reading, especially when its date is remembered. It was written in opposition to the views of Melon (*q.v.*)

["Les Réflexions de Dutot sont incontestablement ce qu'il y a de plus profond sur le système de Law, et sur la cause de sa chute," Thiers. See reference in M'Culloch's *Literature of Pol. Econ.*, p. 344.] A. C. f.

DUTY, CUSTOMS. See Customs.

DUTY, EXPORT. See Exports, Duties on.

DUTY, IMPORT. See Imports, Duties on.

DUTY, Legacy, Probate, Succession. See Death Duties.

DU VERNEY. See Paris Du Verney.

DUVILLARD DE DURAND, Etienne (1755-1832), born in Geneva of an ancient French Huguenot family. He was member of the French *Académie des Sciences*, and head of the statistical department of population in the office of the French ministry of the Interior; he is best known by his *Tables of Mortality*, which are inserted (p. 159) in his *Analyse et Tableaux de l'Influence de la petite Vérole sur la Mortalité* (Analysis and Tables of the Influence of Smallpox on Mortality), Paris, 1806. They have long been in use in France. According to Quérard (*France Littéraire*), he left mathematical dissertations in manuscript under the titles of "social mathematics," "mathematical statistics of population," and "A mathematical theory of banking and finance," which are the object of a report to the *Académie des Sciences*, given as an appendix to the *Analyse et Tableaux*. In 1787 he published his *Recherches sur les Rentes, les Emprunts et les Remboursements*. E. Ca.

DWELLINGS, Industrial, may be defined as homes for the poorer wage-earning classes specially constructed with a view to meeting the particular needs of the occupants, and ameliorating their physical and moral condition. Since about the year 1840 the construction of such dwellings, in or near centres of labour, has been, in this country, the object of public and private enterprise, as well as of extensive national and local legislation (see Dwellings, Regulation by the State in England, and bibliography of same). The object of such enterprise has been "to provide, instead of miserable house accommodation for which extremely high rents are charged, which is ill arranged, insanitary, overcrowded, and lacking the conditions under which the ordinary decencies of life can be observed, clean homes at moderate rents, with proper ventilation and sanitary arrangements, and not too far from the places where the occupants have to work" (*Report of Dwellings Committee of Charity Organisation Society*, August 1881, the whole of which report may be advantageously studied on the subject). The various evils resulting from the unsatisfactory dwellings of the poor will be found detailed in the evidence given before the Royal Commission on the Housing of the Working Classes, 1885, and in the First Report of the Commissioners issued in 1889; but it may be briefly stated that in the design, construction, and location of industrial dwellings it is specially intended to mitigate or remove the following defects:—(1) Undue crowding, either of houses on a site or of occupants in single apartments. (2) The immorality which is the frequent result of so large a number occupying one room as to make decency impossible. (3)

The wasteful disposal of tenants on a given area, owing to their homes being inconveniently planned or designed originally for a different class of occupant. (4) Unduly high rents resulting partly from the last defect. (5) Unhealthy conditions arising from the overcrowding above mentioned, from faulty construction, or from lack of proper sanitary appliances. (6) Inconvenient distance from the daily work of the tenants.

Whereas it has been stated that, in a specially constructed building, from 1200 to 1600 tenants can be accommodated per acre without overcrowding, while the same area would, even in a "crowded" district contain only some 300 or 400 if housed in the old-fashioned manner and in old-fashioned dwellings, it is reasonable to expect that a great financial profit to the owners should accompany the substitution of "model" dwellings for houses of the old unsatisfactory class. According to reports, events did not, in the earlier days of the movement, altogether justify these expectations, though some of the companies owning industrial dwellings realise substantial interest on their capital. It appears that legislation while facilitating the acquisition of land for the purpose of building model blocks, has occasionally given such delay and publicity to the transaction as to prejudicially affect the cost. Hence in some of the provincial towns of Great Britain the more cautious movements of the purchasers, even when backed by legislation, have been attended with more successful results than similar but more open negotiations in the metropolis, where the knowledge of the compulsory powers has led to exorbitant demands for compensation. (At the same time see the evidence on p. 418 of the *Royal Commission Minutes*, and the suggestions there made as to the terms on which the Peabody Trust bought from the Board of Works.) Further it has been stated by experts specially called in to advise on the financial aspects of these schemes, that "to build for the lowest self-supporting class in central positions in London the land must practically be given." This statement and the fact that more than one "Dwellings Company" now secures a satisfactory interest on its outlay, are to be reconciled partly by the circumstance that it is not always, nor perhaps often, the lowest classes who occupy the "model" dwellings, partly by the fact that not all the dwellings even of one company are built on "central" sites, and partly also by the consideration that the associations which promote these buildings may be broadly divided into two classes:—(1) Those which are purely philanthropic, or at least do not make a dividend their first aim. (2) Those whose primary object is to realise a large proportion of rental to outlay. It is satisfactory, however, to learn from the published accounts of 1890 that, with the exception of the Peabody Trustees, even the most philanthropic of these institutions realise a dividend of from 4 to 5 per cent, the percentage of gross rental upon cost varying from 7·6 to 9·1. During that year the Peabody Trust received a gross rental of 5·1 per cent on cost, and spent 2·1 per cent. The Improved Industrial Dwellings Co., whose undertakings have been amongst the most extensive, pay a 5 per cent dividend, while 4½ per cent is reached by the Metropolitan Association, which has been nearly fifty years in existence. The Peabody Trust, which was instituted in 1862 during the lifetime of Mr. Peabody, naturally ranks among the most important of the metropolitan agencies. The Return to the House of Lords, 1888, shows how large a number of the areas dealt with under the Citizens' and Labourers' Dwellings Imp. Acts, 1875-85, have been put into the hands of this body. It was stated in 1881 that whereas the rents of three-room tenements in their buildings varied in a period of five years from 3s. 11d. to 4s. 4½d. per week, the average wages of the tenants occupying these rooms was from £1 : 3 : 1 to £1 : 5 : 10. Thus less than one-fifth of the wages was expended in rent, a satisfactory condition in face of the evidence given before the Commission that in dwellings of the unimproved class 88 per cent of the poor population paid more than one-fifth of their income in rent, 46 per cent paying from one-fourth to one-half, while 3s. 10¾d. might be taken as the average rent of one room let as a tenement. The Trustees at the time of the commission were stated to let their rooms at about 20 per cent less than the commercial companies, their charge for a single room being 2s. and upwards. No doubt the lowness of their rents has served to keep down the rental in the "model" dwellings of other proprietors. There is great competition for admission to the Peabody Buildings in the more popular neighbourhoods, recommendations of good character are required of the applicants, and thus it is a sort of guarantee of respectability to have lived in a Peabody Building. A result of this competition and the consequent selection of applicants is that the better class are chosen and consequently the Trustees' dwellings are practically not available for the lowest or poorest classes.

An epoch in the early history of the "dwellings" movement was marked by the erection, on ground adjoining the Great Exhibition of 1851, of a model dwelling from designs of Mr. Roberts, and under the initiative of Prince Albert, who was at the time President of the Society for the Improvement of the Condition of the Labouring Classes. The special feature in the construction of this block, which contained four complete dwellings on two floors, was its fireproof nature. The walls were of special hollow bricks, and the floors of a similar material set in arches and covered with "metallic lava."

Each tenement contained a living room, parents' bedroom, two small bedrooms, a scullery, and a W.C. (For illustrations and descriptions of this building see *The Builder*, 1851, pp. 174, 311, 343.) In the following year a competition was instituted at Nottingham for designs of similar buildings; and a block of dwellings, more or less on the "Prince Albert" model, was erected at Windsor. About the same date various efforts were made in the provinces to improve labourers' dwellings, chiefly in the north of England, by the enterprise of large owners of land or employers of labour. Such were the building of the workmen's colonies at Saltaire and Copley, by Mr. (afterwards Sir Titus) Salt and by Mr. Akroyd respectively, the latter building also the village of Akroydon. In 1851 Mr. Denison built a set of single men's lodgings at Leeds, and similar lodgings were built in Huddersfield in 1854. Sir Sydney (then Mr.) Waterlow was among the first promoters of the typical modern metropolitan artisans' dwellings. In his Langbourne buildings he is said to have produced by great economy in materials, and by the use of artificial stone, a profit of 8¼ per cent. He began his operations in 1860, at first with his own capital, and built no fewer than ninety tenements. His next step was the formation of the Improved Industrial Dwellings Company, the above-mentioned "Society for the Improvement of the Condition of the Labouring Classes," and the "Metropolitan Association," being already established. As early as 1867 thirty towns in the provinces of England had formed an association or taken some definite action towards improving the dwellings of artisans. Among them were Bath, Bristol, Bradford, Brighton, Cambridge, Liverpool, Newcastle, Norwich, Southampton, and Wolverhampton, besides the localities already mentioned. Scotch societies were established in Edinburgh, Glasgow, and several other towns, and Dublin had also taken up the movement.

Any detailed account of the present state of the industrial dwellings movement in London is impossible here, for there are over 475 block dwellings in the metropolis, representing nearly 36,000 tenements. In the central and western districts the better-managed dwellings are invariably full, but the pressure of applications is not so great in remoter quarters. Besides the buildings erected for the Peabody Trustees, and for the many companies engaged in this work, various model dwellings are built in London, as in the large provincial towns, by public corporations. There are also several instances in London of buildings erected by large employers of labour for their own workpeople—these, of course, differ largely according to the taste or requirements of the builders and the occupants.

To meet the difficulties which attend the acquisition of the ownership of a tenement in a block dwelling, the Chambers and Offices Act was passed in 1881. Its purpose is "to facilitate the management of blocks of buildings occupied in sections as separate tenements, and the disposal of each separate tenement." The number of small houses purchased through BUILDING SOCIETIES (*q.v.*) by members of the working classes, shows a great desire on their part to own their homes. But it does not appear that tenants have availed themselves to any extent of the facilities offered by the Act. In this connection, however, should be mentioned the work of the "Tenant Co-operators, Limited," a small society formed in 1888, with the object of applying to the owning and letting of workmen's dwellings the principle of co-operation. The property of the society consists both of old buildings and new; fair rents, according to the locality, are charged to the tenants, who must be members of the society. After providing for depreciation, etc., and the interest on loan stock, a dividend limited to 4 per cent is paid on the share capital, and the remainder of the profits are divided among the tenants in proportion to the rents paid by them, being carried to the credit of their share accounts until a tenant holds shares equivalent to the value of his house, after which he is entitled to receive his share of surplus profits in cash. The houses of this society, which are suburban, are let at from 7s. 6d. to 10s. a week, and the last division of surplus amounted to 2s. 6d. in the £ on the rental.

A great work in the "housing of the poor" has been carried on for more than twenty years by Miss Octavia Hill upon a system of her own, which is known by her name. Miss Hill, who is opposed to the prevalent methods of building and conducting "model dwellings," objects to them, among other reasons, because they do not help the most necessitous poor, nor can they in any way ameliorate the actually criminal classes, who are obviously undesirable tenants for blocks. They are a nuisance to more respectable neighbours, and if grouped together are destructive to property. The cardinal point of Miss Hill's "system" is a carefully organised method of rent collection. She has at her service a body of unpaid collectors whose self-imposed duty is, while collecting the payments due, to inspect the tenants and their manner of life, and by every means of personal influence to assist the more degraded to improvement. Though Miss Hill has built several new houses, her work has principally consisted in buying up old buildings, generally for the sake of tenants already occupying them, over whom she is desirous of exercising moral influence, while at the same time ameliorating the condition of their homes. The first act on acquiring a property is, if needful, "to put the drains, water supply, and roofs to rights."

Other improvements follow in proportion as the tenant shows himself appreciative of these attentions, and ready to protect his dwelling from misuse and destruction at his own or others' hands.

The difficulty of obtaining a sufficiency of sites in central positions has induced the building of many blocks of artisans' dwellings in suburban districts. The consequent distance of the occupants from their work leads to two fresh difficulties: the impossibility of return for the midday meal, and the expense of travelling. The former of these has been obviated by the action of many employers who have erected or provided mess-rooms for their work-people. The second difficulty, the expense of travelling, is partly met by the institution of workmen's trains. Under the Cheap Trains Act, 1883, the Board of Trade have power to order any railway company, who may appear to them not to provide a sufficient number of workmen's trains at convenient hours and low fares, to forthwith provide such trains, and failing compliance they may deprive the company of the benefit from the remission of duty to which they are otherwise entitled under the Act. Before the passing of this Act provision for workmen's trains had been made in the special Acts of several of the railway companies serving the metropolis. These trains have been of great service to the working classes living in the suburbs. But a family in which there are two or three wage-earners has still so much to pay in travelling that the cheapness of workmen's trains is not a sufficient compensation for the added expense of living remote from the work. Again there are some classes of work, such as mending and other small jobs for tailors, in which whole families are often engaged, which cannot be carried on if the distance between the shop and the home is great.

As regards the general principles of construction which are found to be most successful in block dwellings, it may be noticed that the buildings of the best types, though varying, have certain essential features in common. They differ from ordinary tenements in having a staircase, or staircases, which are not only common to the tenants, but open to the public; the door, if any, at the entrance being open at least by day. Five or six stories is the usual height; the buildings commonly stand round a wide square or quadrangle entered by an archway from the street, the entrance to the staircases being from within the square. Light and air are primary considerations, and tall dwellings should not stand in a narrow street, but with an open space round them, or the tenants of the lower rooms will have insufficient light. The staircases are sometimes open to the air, but if built within the block should be lined with glazed bricks. They are generally so tall and narrow that top light is insufficient, and in the best buildings they are provided with good windows. All windows of rooms should open direct into the space in front or back of the buildings, not into narrow areas, as it is important to get direct daylight. Sanitary accommodation is one of the debated problems among designers of these buildings. For convenience, cheapness, and simplicity, it is better to collect the apparatus into a distinct portion of the building. Where the tenements are arranged on the external gallery system, with only one or two staircases in a block, the W.C. accommodation is sometimes grouped together by the staircases. But among the more respectable class of residents greater privacy is preferred, and a separate W.C. is provided for a small group of tenants. An approved arrangement is that on each floor of a staircase there should be four sets of rooms, one wash-house (with copper washing trays and a bath) serving the whole set of four, and two sinks and closets. By means of this distribution a certain privacy is maintained, and in the matter of the wash-house an objection is met which is almost fatal to the prospects of some of the dwellings in which a wash-house common to the block is provided in the upper part of the building. There is a strong objection among the quieter women to the noisiness and publicity of this arrangement.

Tenements in model dwellings vary in size from one to six rooms, but by far the greater number consist of two. The rents for one-roomed tenements range from 1s. 9d. per week to 6s., and a two-roomed tenement can be obtained in a good building at 5s. In all modern block dwellings it is customary for every living room to have a fireplace.

The occupations of the tenants vary so greatly as to defy analysis; all whose work is inoffensive or is not done at home are considered suitable tenants if respectable; but in well-managed blocks those trades are considered inadmissible which can be in any way obnoxious to occupants of the building, *e.g.* costermongers may not keep their goods nor donkeys in Peabody Buildings, nor may French polishers conduct their trade in them. It is important to realise the proportion of wages to rent. In a set of one-roomed tenements rented at from 3s. to 4s. the wage-earners were found to make from about 15s. to 28s. a week, in another building, three-roomed tenements at 4s. 6d. were occupied by families in which the father earned from 25s. to 30s. The difficulty of forming a ratio between rent and wages lies in the fact that in many cases the latter are not constant, and that the earnings of the head of the family are supplemented by the occasional gains of the other members.

The rural employers of labour have, in a large

number of cases all over the country, built improved and sanitary cottages for their employés, In many cases this work has been one of pure philanthropy, for it is impossible at the present rates of wages to demand of an agricultural labourer a rent which will remunerate the builder of a model cottage in a genuinely rural district. A landlord who lets allotments with his cottages may receive some return for the total outlay, but generally speaking his expenditure in labourers' dwellings can only be said to indirectly "improve the estate."

Besides the books and reports mentioned above, Charles Booth, *Labour and Life of the People*, vol. ii., 1891.—Hole, *Homes of the Working Classes*, 1866.—Roberts, *Dwellings of the Labouring Classes*, 1867.—Society of Arts *Report*, 1864.—Statistical Society *Journal*, 1875, 1891.—Royal Inst. British Archts. *Transactions*, 1866-1875.—Reports of Mansion House Council on the Dwellings of the Poor. P. W.

DWELLINGS, MODEL, OF WORKING CLASSES IN FRANCE. The problem of housing the working classes in France is complicated by several peculiar considerations. Where towns are fortified, military policy forbids the erection of buildings within a certain distance of the fortifications; but the pressure upon this rigid zone has, in some cases, become so severe that the fortifications (as at Lille) have been demolished. The purchase of house property by yearly instalments is hampered by the French law of succession, whose operation breaks the continuity of the transaction. Nor can this difficulty be entirely overcome by insuring the life of the purchaser. Conscription, again, may remove from the family a son whose earnings were essential to the payment of the instalments. The taxes on doors, windows, and furniture, the contributions exacted for drainage, water, cleansing the streets, etc., form serious obstacles to the erection of cheap model dwellings. Complaint is also made that legal formalities of acquisition, transfer, and eviction are tedious and expensive.

Under the empire a subvention of 10,000,000 francs (£400,000) was decreed (22nd June 1852) in favour of improvements in workmen's dwellings. 6,000,000 (£240,000) were devoted to raising *asiles* at Vincennes and Le Vésinet; 2,000,000 (£80,000) to the construction of seventeen houses in Paris (now occupied by well-to-do persons); and the remaining 2,000,000 (£80,000) were granted to builders. Of this last sum, 1,200,000 francs (£48,000) were awarded on conditions in Paris, at the rate of one-third of expenses actually incurred in building; but the financial results appear to have been unsatisfactory. Napoleon III. built forty-one houses at Paris, and offered to give them to a workmen's society which should subscribe 100,000 francs (£4000) of its own. The *Société co-opérative immobilière* accepted the offer. Its net receipts have not, however, reached 5 per cent of its capital.

While the population of Paris has been increasing, the habitable space within the walls has been seriously diminished by the widening of streets (now required to measure 12 mètres across—say 39 ft. 6 inches), the demolition of old dwellings and the substitution of warehouses, railway stations, and the like. Land is, therefore, very dear. Building materials are, also, subject to *octroi*, and the cost of construction is high. M. Cacheux gives as his experience that 6000 francs (say £240) is the lowest sum which a detached workman's residence could cost in Paris. His lowest estimate for contiguous model dwellings is 5000 francs (£200) per house; and, in each case, the rent is fixed at about 8 per cent per annum upon the capital. A group of ten houses, sold by M. Cacheux at cost price (5500 francs [£220] each) to the *Société des habitations ouvrières de Passy-Auteuil*, is let out upon the Mulhouse system (*v. infra*). Each house contains two rooms, a kitchen, cellar and garden, and may be bought by a twenty years' tenancy at from 450 to 500 francs (£18 to £20) a year.

The main difficulties encountered in Paris in this connection are the low wages of the workmen concerned, their deficient sanitary education, and want of attachment to a particular residence. They live largely out of doors, and remove for the most trifling reasons.

At Mulhouse (now German territory) was founded in 1853 the *Société mulhousienne des Cités ouvrières*, under the presidency of M. Jean Dollfus. Its shares of 5000 francs (£200) apiece originally numbered sixty, and were held by twelve persons, but were increased to seventy-one divided among twenty holders. 300,000 francs (£12,000) of the subvention above referred to were received from the emperor. Numerous small houses, each with a separate garden, were built from the plans of M. Émile Müller, and offered to tenants at a yearly rent of 8 per cent on the cost price. Share capital may not receive more than 4 per cent. Any surplus after payment of expenses is devoted to works of public utility. The distinguishing feature of the society is, however, its system of sale. By advancing about one-tenth of the cost of the house the tenant may become its incipient owner. A yearly rent of about 10 per cent on the cost paid for a period ranging from 12 to 15 years makes him the absolute owner. Interest upon the cost of the house is calculated at 5 per cent, and the same interest is allowed upon all sums paid by the tenant over and above ordinary rent. The amount standing to a tenant's credit is paid over in full in case of his death, removal, etc. The experiment has yielded excellent financial and moral results. On the 1st January 1889, 1124 houses costing 3,485,275 francs (£139,400) had been built and

sold; 4,584,020 francs (£183,360) had been received; sums due amounted to 424,950 francs (£17,000). Rents are always regularly paid. The occupants of the houses exceed 8000. The rules forbid sub-letting. One family only is to reside under each roof. And a house once acquired may not, without the directors' sanction, be resold within ten years. The price of a house, originally about 2500 francs (£100) is now (1890) upwards of 5000 francs (£200). The rise is partially explained by the exhaustion of the subvention in the construction of roads, drains, and so forth at an early stage. Such expenses are now thrown upon houses as they are built. Dr. Herkner (*Oberelsassische Baumwollindustrie und ihre Arbeiter*) asserts that several of the houses are mortgaged by their tenants. The houses are much in demand, rents in other parts of Mulhouse being nearly as high as the instalments of purchasing tenants.

At Lille, in 1865, a society very similar to that of Mulhouse was started,—the municipality guaranteeing 5 per cent interest on its capital up to 2,000,000 francs (£80,000). Up to the present time recourse to this guarantee has not been necessary. The few houses of two stories built by this society do not sell readily. Over 200 houses of one story had been sold on the 1st January 1886. Many more have since been erected. Napoleon III. presented 100,000 francs (£4000) to the society.

At Havre the Mulhouse system was adopted by a society founded in 1871, capital 200,000 francs (£8000). The municipality voted it a subvention of 25,000 francs (£1000) and, following the example of Lille, offered a guarantee of interest upon capital up to 500,000 francs (£20,000). 117 houses have been built, and half of them sold. The society pays 5 per cent.

At Orleans a society, founded by two workmen in 1879, has built and sold 220 houses, and paid 5 per cent upon its capital—now amounting to 450,000 francs (£9000).

At Nancy a society of 200,000 francs (£8000) capital has built and sold 57 houses, costing from 4500 (£180) to 7000 francs (£280). It is said that this society paid too much for its land. Having paid 5 per cent up to 1884, it then fell to $2\frac{1}{2}$ per cent, and is now (1890) being wound up.

At Rouen a society with 200,000 francs capital (£8000) was formed in 1885, and built a block of six houses capable of lodging ninety-five families. Interest on shares is limited to 4 per cent, and bids fair to reach that amount. On the 15th April 1890 there were seventy tenants in residence, of whom twenty are small employés. The wages of tenants range from 600 francs (£24) (in the case of women) to 1200 francs (£48) a year. Rents range from 87 francs (£3 : 10 : 0) (one room) to 450 francs (£18) (four rooms) a year. These prices compare favourably with those of other lodgings far less comfortable and healthy in the same central quarter.

Societies similar to those already described exist at St. Quentin, Amiens, Nantes, Lyons, Rheims, and elsewhere. That of Rheims is co-operative, and includes the improvement of old dwellings as well as the construction of new. At Lyons, Marseilles, and other towns, advantage has been taken by savings banks of a recent permission to invest their profits in aid of the construction of workmen's houses.

Employers engaging regularly a large number of hands have, in many cases, supplied their operatives with suitable houses rent free within easy distance of their work. Among others may be named the settlements of Anzin, Beaucourt, Blanzy, Commentry, Le Creusot, Maine, and Noiseul. The remarkable experiment of M. Jean Godin at Guise is described under the article FAMILISTÈRE (*q.v.*)

There is substantial agreement among French writers as to the superiority of suburban cottages over town dwellings. But the time and money spent in locomotion, the necessities of particular industries, and the advantages of proximity to good markets, often outweigh other advantages.

[Jules Simon, *L'Ouvrière* (2nd ed.), Paris, 1861. —*Le Travail* (2nd ed.), Paris, 1866.—E. Müller et E. Cacheux, *Les habitations ouvrières en tous pays*, Paris, 1879.—Marjolin, *Les Causes et les Effets des logements insalubres*, Paris, 1881.—Du Mesnil, *L'Habitation du pauvre à Paris*, Paris, 1882.—E. Laurent, *Les logements insalubres*, Paris, 1882.—G. Picot, *Un devoir social et les logements d'ouvriers*, Paris, 1885.—E. Cacheux, *Habitations ouvrières et pour employés*, Laval, 1885. —E. Cheysson, *La question des habitations ouvrières en France et à l'étranger*, Paris, 1886.—A. Delaire, *Les logements d'ouvriers et le devoir des classes dirigeantes*, Lyons, 1886.—A. Raffalovich, *Le logement de l'ouvrier et du pauvre*, Paris, 1887.—A. Perrot, *Les cités ouvrières de Mulhouse* (4th ed.), Mulhouse and Paris, 1889.—E. Rostand, *Questions d'Économie Sociale dans une grande ville populaire* (*i.e.* Marseilles), Paris, 1889.—*Compte rendu du Congrès international des Habitations à Bon Marché* (*Official Report of the Paris Exhibition*, 1889).—O. Trüdinger, *Die Arbeiterwohnungsfrage, Preisschrift* (1889).] H. H.

DWELLINGS (REGULATION BY THE STATE IN ENGLAND). The regulation of dwellings by the state in England is of very modern origin. Down to the present century the responsibilities of the government in matters of health was entirely ignored or confined to the ideals of individuals. The first impetus to any recognition of such responsibility was given by the poor-law commissioners in their fourth and fifth reports (1838-39), and probably originated with their secretary Mr. Chadwick (afterwards SIR E. CHADWICK). The commissioners utilised the opportunity afforded by a purely financial

question to direct inquiries into the "prevalence of certain physical causes of fever in the metropolis," and also into "some of the physical causes of sickness and mortality to which the poor are particularly exposed." A further report on the sanitary condition of the labouring population of Great Britain was issued by them in 1842, in which attention was directed to "the condition of the residences of the labouring classes where disease is found to be most prevalent" and also to "circumstances connected with the internal economy and bad ventilation of places of work, lodging-houses, dwellings, etc." Already in 1840, the subject had attracted the attention of the House of Commons, and a select committee had reported in favour of a general buildings act, a general sewerage act, the establishment of a central board of health, and the appointment of sanitary inspectors in large towns. From that time forward legislation on the subject falls under two principal heads, viz. (I.) that which is intended to enforce sanitation, and (II.) that which is designed to facilitate the repair or removal of unsanitary buildings.

I. Under the first head may be mentioned the following:—(*a*) Two acts (14 & 15 Vict. c. 28, 14 & 15 Vict. c. 34) passed by the influence of Lord Shaftesbury in 1857 to provide for the control of common lodging-houses. By the second of these power was given to the local authority to build such lodging-house, but the power has never been exercised. Subsequent acts passed in 1866-67 have placed the control of these houses, which are usually distinguished by having a common sitting-room, in the hands of the police. (*b*) The principal acts governing the metropolis, viz. the Nuisances Removal Act of 1855 (18 & 19 Vict. c. 121), extended and amended by 29 & 30 Vict. c. 30 (1866), and 37 & 38 Vict. c. 89 (1876). By the first of these the sources of a nuisance are defined to include foul and defective drains and cesspools, accumulations of filth of any kind, and overcrowding; and of any such information may be given to the local authority by persons immediately affected, by any two inhabitant householders, or by any official person. The local authority is bound to ascertain by inspection the truth of the information, and if satisfied, to call on the person responsible—in cases of structure, the owner—to remove the nuisance. Failure to do so may be met by an order issued by a magistrate, and ultimately by the closing of the house. Under the act of 1866 the local authority is empowered to make regulations in the case of houses occupied by more than a single family (1)—for fixing the number of inmates, (2) for registration, (3) for inspection, (4) for general supervision, (5) for cleansing, and to inflict penalties in cases of neglect. To these powers the act of 1874 added similar powers with respect to ventilation, paving, and drainage, separation of the sexes, notification of infectious or contagious disease, which last was made compulsory in 1889 by 52 & 53 Vict. c. 72. Further regulations, of a more minute kind, and also as to new buildings, are contained in the Metropolis Management Acts of 1855 and 1862. Whilst the above refer wholly to existing buildings, the erection of new buildings in London is regulated by the Metropolitan Building Acts of 1855 and 1878. (*c*) Outside London the action of the local authority is governed by the Public Health Act of 1875 (38 & 39 Vict. c. 70). Here, as in London, the local authority is empowered to make bye-laws dealing with all houses occupied by more than a single family, and also for the notification of disease, it is compelled to appoint medical officers and inspectors of nuisances, who are to report on the sanitary condition of the district generally.

II. The acts which are designed to provide for the demolition of unsanitary buildings fall into two classes, viz. Torrens' Acts, so called from their promoter W. T. Torrens, M.P. for Finsbury, and Cross Acts from Viscount Cross. (*a*) Torrens' Acts are 31 & 32 Vict. c. 133, 42 & 43 Vict. c. 64, 45 & 46 Vict. c. 54. They apply to single houses or small groups of houses only; the local authority is to call in the first instance on the owner of unsanitary houses, either to repair or to demolish them, and he, on his side, may compel the local authority to purchase them at a valuation; should he neglect or refuse, the local authority may act for him, destroying the buildings if need be; should the local authority neglect to do its part the Metropolitan Board of Works was to act in its place, but this clause has never been put in operation. (*b*) Cross Acts, 38 & 39 Vict. c. 36, 42 & 43 Vict. c. 64, 45 & 46 Vict. c. 54, refer to large areas, the clearing of which is necessary for sanitary reasons. Under these the local authority acts at once, purchasing and demolishing; they apply only to the metropolis and places with more than 25,000 inhabitants.

It remains to notice the changes made by the legislation which followed upon the report of the commission upon the housing of working classes. By the Housing of the Working Classes Act of 1885, 48 & 49 Vict. c. 72, the due administration of the various sanitary acts is made compulsory upon the local authority, instead of permissive; all contracts with regard to buildings presuppose a sanitary state; the power of the owner under Torrens' Act to compel purchase by the local authority is abolished; the Cross Acts are extended to every urban sanitary district; the local authority is empowered to build lodging-houses and to make loans to building societies. A bill to consolidate, and on some points to amend the above act is now (1890) before parliament.

[*Reports of Commission* (1885) *and Committees*

H. C., 1881-82.—H. Duff, *Legal Obligations in respect of Dwellings of the Poor*, 1884.—*What to do and how to do it. Manual of law affecting the Housing and Sanitary Condition of Londoners.*—E. Spencer, *Artizans' and Labourers' Dwellings*, 1881.—D. Schloss, *Homes of the Poor*, 1885.—*Reports of Mansion House Council on the Dwellings of the Poor*, 1885, *seq.*—*Dwellings of the Poor*, C. S. Loch, 1882.—Raffalovich, *Logement de l'Ouvrier et du Pauvre*, 1889.—Rawlinson, *Old Lessons in Sanitary Science revived*, 1883.—Picot, *Un Devoir Social*, 1885.—Aschrott, *Verein für Socialpolitik*, 1886.—*Dwellings of the Poor*, Report of Investigation by Church of Scotland, Glasgow, 1891.—Booth, *Life and Labour*, vol. ii.

L. R. P.

EAGLE. United States standard gold coin of the value of ten dollars, weight 258 grains, fineness 900, value—English standard (916·6 fine at £3 : 17 : 10½ an ounce) £2 : 1 : 1¼, French standard (900 fine) 51·8⅔ francs. Also double, half, and quarter eagles of the same fineness and of proportionate weight. F. E. A.

EARNEST MONEY. Probably derived from the same root as the word ARLES (*q.v.*), which is used in some English dialects, and can be traced from the Latin word *arrha*, a sum of money paid down on conclusion of a bargain as a security for its due performance. It generally becomes forfeited in case the bargain remains unperformed, but this depends on the arrangement between the parties. The payment of earnest money establishes the validity of a contract for the sale of goods of a value exceeding £10, which might otherwise be void under the statute of frauds (*e.g.* the administration of the estates of deceased persons, the taking of partnership accounts, foreclosure and redemption of mortgages, the execution of trusts, partition actions, guardianship matters, etc.) E. S.

EARNINGS AND INTEREST FUND. This term was employed by Professor and Mrs. Marshall (*Economics of Industry*, bk. ii. ch. vi. § 3, old edition) to denote that part of the "net-income of the country" which remains "after deducting rent and taxes." The share of this income which "the landlord can claim as rent" is, they remarked, "fixed by definite economic laws," and the share taken by the state as taxes is arbitrary in character; and the amount, therefore, "which remains after deducting rent and taxes from the net annual income" may be regarded as a "given fund," and called the "Wages and Profits Fund," or the "Earnings and Interest Fund." The latter expression is preferred because the earnings of management are "similar in nature" to those of other kinds of labour, and "are in the long-run governed by the same laws." It seems therefore better to classify the receipts of the employer (see EMPLOYERS and EMPLOYED). so far as they represent earnings of management, together with other earnings, and to include his receipts, so far as they represent interest on capital, under the same head as interest generally.

[See also Professor Marshall's article on "Theories and Facts about Wages," printed in the *Report of the Industrial Remuneration Conference*, 1887, pp. 186, etc. In his *Principles of Economics*, 2nd ed., bk. vi. ch. ii. § 1, footnote 2, Professor Marshall adduces reasons for withdrawing the expression as being liable to misunderstanding. He would substitute the idea of a stream or flow for that of a fund, and would not "put rent aside," in the way the phrase might suggest.] L. L. P.

EARNINGS OF MANAGEMENT. A technical term for one of the elements of profits, according to classical English economics. Profits, regarded by Mill as the return to capital, are divided by him into three portions: interest, insurance for risk, and wages of superintendence, or earnings of management, as they are now more commonly called. They consist of all the profit that is left over after the other two elements have been abstracted; and unfortunately, according to the threefold division, it is impossible in any other way to allocate the share which falls to management. We have an exact criterion of interest on borrowed capital, on first-class security in consols and corporation stocks. Risk generally fixes its own price by means of insurance; but there is no scale or measure for the earnings of management, and in consequence they are held to vary with each individual case, though as a greater profit may be considered as roughly representing a greater quantity of business capacity, the one should roughly measure the other.

The earnings of management, being in reality a payment for skilled labour, are in a proper sense wages; and they appear in the market as such in the countless instances where business supervision is delegated to subordinates. As understood generally, they embrace the great bulk of profits, however. There is thus a difficulty in bringing under the same term the great percentages on capital frequently earned as profits, and the comparatively small salaries attached to the delegated management of business — a difficulty which the admitted superiority of personal supervision is not sufficient to solve. A limited liability company for banking, insurance, or other purposes divides among its shareholders say 8 to 10 per cent. Half of this, at the very least, is earnings of management, according to hypothesis. But it goes to people who do not manage the concern; while, as to those who do, their salaries are fixed by the demand for and supply of

business power, so that the management of the business is paid for at its full price. It would therefore seem that there is still an element in profits, unaccounted for, which cannot properly be held as covered by the term earnings of management.

With this proviso, however, the form of wages may be in general considered as the price accruing to the capitalist for the services he renders in managing his business, and his capacity as being measured and determined by that price. The exercise of this capacity cannot, by any careful method of reasoning, be counted as anything but labour, unless indeed that term be unscientifically restricted to manual labour only,—a labour which is employed to develop a visible and material product. It is, in the highest meaning of the words, skilled labour; and yet it differs in one singular respect from almost every form of work so classified. The skilled workman in general, whether his energy be that of brain or muscle, whether he be mechanic or scientific, artisan, journeyman, lawyer, doctor, or writer, works in a particular industry, within the compass of which his sphere is limited. In a word, his labour is specialised. The work of business management, on the other hand, is as little specialised as anything outside of mere muscular labour-power can be. Professor Marshall gives two reasons for this (*Principles*, 1st ed., vol. i. p. 643): first, that every one has to manage the business of his own life, and secondly, because technical knowledge is becoming in most cases subordinate to the non-specialised faculties of judgment, resource, and the like. It may be suggested that perhaps the cause of the wide scope of business power is that it rests upon just those faculties which underlie all technical or special skill, plus versatility. It would be a great mistake to suppose that this faculty is not a talent in itself, and quite apart from other species of ability. Many men possess qualities which place them in a distinguished position in some sphere of activity, who yet are not fitted to manage any public business, and sometimes show themselves, notwithstanding the universal training above mentioned, singularly unfortunate in the management of their own. No more striking instance of the existence of a special faculty of business power can be found than that of the number of men, eminent in thought and action, who have turned out indifferent or incapable statesmen.

Earnings of management, being in reality a species of wages paid for a particular kind of labour, are regulated by the supply of business capacity in a community, and the demand for managers. It must be noticed, however, that the phrase is commonly used to denote all that remains of profits after rent and interest are deducted. In purely productive industries there may seem to be little distinction between the two; but in retail business the difference is important. In the latter, the gross profit does not principally depend on the amount of capital employed, but on the number of transactions performed; and in these industries, as to a lesser extent in all, the profits proper which accompany success are far in excess of the market value of the business capacity of the capitalist. Used in the wider sense, the phrase covers all the advantage that fortuitous circumstances, monopoly, or other causes in trade may confer on an owner or investor of capital (see CONJUNCTUR; DEARNESS, ARTIFICIAL; MONOPOLY). M. G. D.

EASEMENT. The owner of one piece of land may be allowed to exercise certain rights over another piece of land belonging to a different owner. If these rights consist of the privilege of taking away tangible objects (*e.g.* peat, underwood, fish, etc.), they are called profits; in all other cases they are called easements. The piece of land to which the benefit of an easement attaches is called the "dominant tenement"; the one which is subject to its burden has the name of the "servient tenement." If the owner of the dominant tenement is entitled to use the servient tenement for certain purposes (*e.g.* for the purpose of walking over it or driving cattle over, or taking a drain through it), the easement is called an "affirmative" one; if, on the other hand, the owner of the servient tenement is restrained from exercising his privileges of ownership in certain ways (*e.g.* from erecting buildings which obstruct the lights of the dominant tenement, or from removing buildings so as to take away the support from a wall on the dominant tenement), the easement is called a "negative" one. Easements are acquired (1) by express grant from the owner of the dominant tenement; (2) by implied grant; this arises when part of the property is sold having apparently privileges in the nature of easements relating to another part of the property, *e.g.* when a house is sold enjoying certain lights, in consequence of an adjoining piece of land belonging to the same owner not having been built over, the owner will not after the sale be allowed to erect buildings obstructing such lights; (3) by prescription, *i.e.* by enjoyment for a certain number of years. The subject of easements is treated very fully in the notes to Sury *v.* Pigot, in Tudor's *Leading Cases on Real Property*; see also Gale on *Easements*; Goddard on *Easements* (see PROPERTY, LAW OF). E. S.

EASTERLINGS. This name was given in the middle ages to the German merchants who visited England, and ultimately came to be applied generally to the members of the Hanseatic League. Mediæval law in all countries connected the licence to trade with nationality. The foreigner had no rights, except such as could be acquired by individuals or communities

who could afford to purchase them from the ruler of the country. In order to obtain such trading privileges in England, the German merchants formed themselves into a *hansa* or guild. The original *hansa* in London, which has its origin in the reign of Edgar, was formed by the merchants of Cologne. They continued to have a monopoly of trading privileges until the 13th century, though the natives of other towns had succeeded in gaining admission, and the association had grown to include traders from the Rhine valley and Westphalia. But the rising towns of northern Germany resented the exclusive pretensions of Cologne, and set themselves to break down the monopoly. In 1266 and 1267, Hamburg and Lübeck were allowed to form hansas of their own, on the model of that of Cologne. Under Edward I. these three associations were united into the great German hansa, of which we find the first documentary mention in 1282. The buildings of this corporation on the banks of the Thames, consisting of dwellings and warehouses, were known as the STEELYARD (*Stahlhof*). The corporate property and discipline were administered by an alderman elected annually, with the help of two assistants and a council of nine. For their privileges from the state, the Easterlings contracted for the payment of customs duties, while they discharged their obligations to the city by annual payments to the lord mayor and by maintaining a watch and ward at the Bishop's gate. Originally the hansa was an independent community, but in the course of a long struggle with the jealous and rival native population, it came to rely more and more upon the growing league of towns in North Germany, and ultimately became a "counter" or depot of the HANSEATIC LEAGUE.

Although the Easterlings were traders and left money-dealing in the hands of the Lombards, yet their name came to be applied to money. Probably this was due to the excellent quality and uniform weight of their own coins. Matthew Paris tells us (*sub ann.* 1247), that "moneta esterlingorum, propter sui materiam desiderabilem, detestabili circumcisione cœpit deteriorari et corrumpi." The statutes of Edward I. refer to a definite coin called "sterling," which is thus described: Denarius Angliæ, qui vocatur Sterlingus, rotundus sine tonsura, ponderabit 32 grana frumenti in medio spicæ, et 20 denarii faciunt unciam, et 12 unciæ faciunt libram. From England these coins passed to France, and we find frequent references to them in the middle ages. That the quality of the coins was for the time excellent is proved by the survival of the term sterling, to denote money of standard weight and quality, to the present day.

[Pauli, *Pictures of Old England.*—Kunze, *Hanseakten aus England*, 1275-1412.—Du Cange, *Glossarium*, *s.v.* "Esterlingus."—Helen Zimmern, *Hansa Towns* (Story of the Nations Series).] R. L.

EAST INDIA COMPANY (1600-1858). The circumstances attending the formation and the aims present to the minds of the promoters of the East India Company did not differ materially from those which influenced the foundation of the other "venturer" COMPANIES of the same epoch, from among which it stands out pre-eminent by reason of the magnitude of its operations, and its profound imperial importance. Like them its early attempts were ventures for the sake of quick gains; like them it owed much to the spirit of daring enterprise characteristic of the age. The difference which became so marked afterwards was due to several causes; partly to the larger sphere of its activity; partly to a difference in its management; and partly to certain embarrassments in which it found itself involved through its relations with native powers and the rivalry of continental companies and European nations.

From very early times the East had been viewed as a great source of wealth, and consequently as a great goal of trade. This feeling was accentuated rather than lessened after the Portuguese had discovered and at first monopolised the passage round the Cape of Good Hope. Many schemes of adventure had been formed, and some of them tried. The LEVANT COMPANY had striven, but without much success, to extend its operations overland in the direction of India. On the other hand, attempts had been made to open a north-west passage which should be to the English what the Cape route had been to Portugal. One of these found place in 1591, when a license was granted by Queen Elizabeth to send out three ships. They were sent under Captain Raymond, but without success. But the hope of trade with India was not abandoned; the prospect was too promising. In 1599, no doubt after some preliminary action, the project which was to issue in the formation of the East India Company was first put on a substantial basis. On 22nd September of that year a record was drawn up of the people who had agreed to subscribe to the intended voyage to the East Indies. On 24th September a meeting of the subscribers was held, and in due course a charter was applied for. For a time operations were checked owing to negotiations of the government with the Dutch, but in the autumn of the next year the matter was proceeded with; and on 31st December 1600 a charter was issued to the *Governor and Company of Merchants of London trading to the East Indies*. The charter was drawn on the lines of those previously issued to other companies, from which it differed in no important point.

The history of the company can only be reviewed in its essential features. These cluster chiefly round two points; (1) the mode of conduct of the company; (2) its negotiations with

native powers, and rivalry with other European companies and powers.

(1) The early voyages of this company were like those of certain others, of the nature of separate "ventures," that is, members of the company subscribed in varying proportions towards a certain expedition, the proceeds of which were afterwards distributed among them according to their respective shares. This method endured till 1612, when what was termed the first joint stock was subscribed. This, however, is a term which is likely to lead to misunderstanding. It did *not* imply the formation of a permanent capital divided into shares and distributed among the members of the company in varying proportion. It was little other than a somewhat prolonged series of ventures. Subscriptions were taken up in the most various amounts from members, none of whom were necessarily bound to subscribe, and paid into the hands of the governor and directors, who then applied the money at their discretion for the equipment of a number of expeditions for the benefit of the subscribers. Thus the first joint stock subscribed in 1612 was distributed among four voyages, and came to an end in 1617; the second joint stock, contributed 1617-18, furnished three voyages, and so on. Such a method, while in some respects a decided improvement on that previously pursued, had serious drawbacks. With each succeeding voyage the amount of "dead plant" belonging to the company, in the form of factories in India, etc., was increased; and so the relations of the members of future to those of preceding joint stocks were rendered somewhat complicated.

Meantime the company was experiencing a foretaste of the difficulties and dangers which finally caused it to assume political responsibilities. On the one hand it had to contend with private rivals (INTERLOPERS, *q.v.*) at home; on the other, the rivalry of continental powers and companies[1] threatened its existence in India. So early as 1602 a factory had been founded at Bantam, despite the keen opposition of the Portuguese. As operations extended, new factories were established, notably one at Surat in 1612, and new enmities incurred. The relations with the Mogul were rendered more amicable by the tact and capacity of Sir Thomas Roe. But the Dutch were about to prove the most formidable opponents of the young company. The friction which had arisen owing to various causes, chiefly perhaps to the efforts of the company to establish a trade with the Spice Islands, assumed such serious proportions, that the attempts to bring about a peaceful settlement by the Treaty of Defence made in 1619 proved unavailing, and the opportunity of much future quarrel was given by the massacre of Amboyna. The immediate result was the withdrawal of the English from the neighbourhood of the Malay archipelago. In a few years new efforts were made in the mainland and a factory was established at Armagaon, which growing, absorbed that at Masulipatam. In its time abandoned, it was supplanted by the settlement of Fort St. George (1639-40). The acquisition of this station marked a new step in the progress of territorial aggrandisement. In 1646 grants were made in Bengal, and in 1661 Bombay was ceded to the British Crown as part of the dowry of Catharine of Braganza on her marriage with Charles II. The quarrel with the Dutch had been rendered of less importance than it threatened, through the energetic action of Cromwell, who in the treaty of 1654 had inserted a clause dealing with the demands made on both sides for compensation for injury. To adjust these, a commission of award was appointed and began its sittings 30th August 1654. But owing to events such as these, and in part, no doubt, to the increasing importance of the companies' factories, a more definite territorial aim would seem to have presented itself to the minds of some. It became a matter for consideration whether the company was to be considered one of commerce alone, or one which had other beside trade interests. But yet another point. Assuming that commerce was its chief aim, could its attainment be assured without the acquisition of territory by the company? Such territory would need to be protected. The appointment of Sir Josiah Child as governor in 1686 was without doubt a distinct advance in the direction of this new policy. Again, in 1687, when the question of the grant of charters and commissions was mooted with the king (James II.) and his council, he had agreed that it would be better if such charters and commissions were granted by the court of the company instead of emanating from himself. The company, it should be noticed, had in 1624, supplemented its ordinary judicial authority by the power of punishing its servants by martial law. Matters were such, that further advance was natural, and in 1689-90, instructions were sent from home to the regency of Bombay, as also to Madras, which contained the following noteworthy sentences: "The increase of our revenue is the subject of our care as much as our trade; 'tis that must maintain our force when twenty accidents may interrupt our trade; 'tis that must make us a nation in India; without that we are but as a great number of interlopers, united by His Majesty's royal charter, fit only to trade where no body of power thinks it

[1] The following is a list of the chief foreign companies licensed to trade to East Indies. The Dutch Company, founded 1602. The French Companies; the first founded 1604; the second, 1611; the third, 1615; the fourth by Richelieu, 1642; and the fifth, 1644. In 1719 the French Company of the Indies was established, and lasted till 1796. The first Danish company, 1612, and the second 1670. In 1723 the Ostend Company was established; in 1731 the Swedish Company; and in 1733 the Royal Company of the Philippine Islands.

their interest to prevent us; and upon this account it is, that the wise Dutch, in all their general advices which we have seen, write ten paragraphs concerning their government, their civil and military policy, warfare, and the increase of their revenue, for one paragraph that they write concerning trade."

These words are an open declaration in favour of the new policy. Commerce, if still a main aim, was henceforth to be undertaken on a secure basis of territorial possession and political dominion.

At home, however, the company had found, and were still to find, their exclusive rights questioned and combated. At the outset their progress had been hampered by the grant of a royal license to trade to Cathay, Japan, etc., given to Sir Edward Michelbourne, who had made full use of his opportunities to wring booty from the natives. They had convinced the king (James I.) of the need of maintaining their powers, and had received a renewal of their charter. But a more serious rival menaced them in the next reign. In 1635 a license was granted to an association formed by Sir William Courten. This association, afterwards known as that of the Assada merchants, sent out ships and entered upon commerce to the detriment of the East India Company, both by reason of competition and, as was also alleged, by reason of the bad treatment the natives experienced at the hands of its servants. In answer to the petition of the company, the king (Charles I.), in 1639, promised the withdrawal of the license, but the promise remained unfulfilled. In 1650 a kind of amalgamation took place, and the Assada merchants became members of the company. But in so doing they did not wish to deprive themselves of the right to trade in their own bottoms, in other words, they wished to bring about a return to the earlier principles of separate ventures, in part accordance with which the commerce of the company had been carried on before 1612. In consequence, they appealed to the Protector against the enforcement of the joint-stock trading. The company replied, and in 1654 obtained a decision from the council of state in favour of joint-stock management and exclusive trading.

Such had been the history of the company before its important declaration in 1689. Almost immediately after that events took place in England which nearly brought about its extinction. The arbitrary and severe measures which had marked several of their acts in India had excited the animosity of the House of Commons, already prejudiced against societies not of their own creation. In 1690 a committee reported in favour of the formation of a new company which should be constituted by act of parliament and not derive its authority from royal charter. In accordance with this recommendation, next year the king (William III.) was petitioned by the Commons to dissolve the old company. His apparent neglect of this request does not seem to have aroused much feeling. Not so, however, his renewal, in 1693, of the charter. A declaration was drawn up and passed, asserting the right of all Englishmen to trade to East Indies and elsewhere unless prohibited by act of Parliament, and the king gave way. In 1698 a new association, termed the English Company, was formed (with right of *exclusive* trading after 1701), and the existence of the old company was limited to the three years from date for which they could claim notice. To maintain their control over India, members of the old and now condemned company bought up shares in the new company. During these three years the two companies traded in rivalry, in which the older association, fortified by experience and provided with stations, ships, and stock, had a distinct advantage. As the last year (1701) ran on, the old company not unnaturally showed itself more willing to entertain the idea of a compromise, to which the members of the new company were not averse, and in January 1702 a partial union was effected under the title of "The United Company of Merchants trading to the East Indies." Several causes of difficulty and dispute remained over; but the need of harmonious working was too great to allow of their long continuance; and in 1708, on the arbitration of Lord Godolphin, a complete and final union was brought about.

The early opponents of the company had been overcome; its right as against home competitors was established; a settlement in India obtained. It was an acknowledged political power as well as a trading company.

(2) In this direction it had to progress, for the animosities aroused by its dominion, coupled with the ambition of France, made it impossible for it to exist as it was, one power among many others. It had soon to choose between supremacy or political extinction.

The death of Aurungzebe (1707) and the consequent disruption of the Mogul empire afforded the opportunity, and in part created a necessity for further political action on the part of those European companies whose interests were involved in India. The French under La Bourdonnais initiated a policy of advance, which under the more skilful and more ambitious guidance of Dupleix became a policy of aggression and conquest. They sought to subordinate or expel their rivals, the English, and to establish themselves as a ruling, if not predominant, power in the country. Inaction on the part of the English company was impossible, and ill-prepared though they were, a strenuous resistance was offered to the designs of the French. Under the leadership of Clive the English, too, progressed towards sovereignty, and the battle of Plassey (1757) made them virtual masters of

the Nawab's dominions. Their creature, Meer Jaffier, whom they placed upon the throne, made them a grant of territory in Bengal. A few years after they stepped into the position of what we may term definite individual sovereignty, receiving from the Mogul emperor an acknowledgment of their right to the revenues of the three provinces — Bengal, Behar, and Orissa, which they combined into a presidency of Bengal. Other acquisitions were made in the neighbourhood of their other stations. The French war was a turning point in the history of the East India Company. When it emerged successful, the political ambitions, inchoate till then, had realised themselves in power, destined ultimately to become imperial. The task of its control was in fact too important to be committed to the sole will of a trading company and henceforth governmental interference and supervision begins.

The economic interest of the new period centres chiefly in two subjects—the economic settlement of India, and the successive acts whereby the state drew affairs more and more within its own control.

By the act of 1773 an important change was made in the government of India. Till that date the government of each province had been separate, the direction in each case resting with a council composed of the senior civil members in the company's service. By this enactment alterations were made in certain directions. A governor-general was appointed and a supreme council specially constituted for Bengal. To this governor and council the other presidencies were placed in subordination so far as the making of war and the entering into treaties were concerned. In addition the home government, while recognising for the first time the possession by the company and its servants of administrative functions, provided that everything in the company's correspondence which related to civil or military affairs, which concerned either the government of the country or the administration of the revenue, should be laid before the ministry. In the constitution as thus established, there were three grave defects:—The governor was left dependent on the will of the council; no definite connection was established between the various presidencies; the relations between the ministry and the Indian government were but ill-defined. It was to remedy the two latter of these that the act of 1784, which established the board of control, was passed. This body consisted of six members of the privy council, of whom the chancellor of the exchequer and one of the chief secretaries of state were to form two. But, as in the absence of these two *ex-officio* members the senior of the remaining four was to preside at the board, the chief power was vested in the hands of one man who, under the title of the president of the board of control, performed many of the functions which now fall to the lot of the secretary of state for India. The first defect noticed above was largely remedied by the act (26 Geo. iii. c. 16), which Lord Cornwallis obtained when he took the post of governor-general. By it he and his successors were empowered to override the council in cases of emergency.

To Lord Cornwallis is due the organisation of the young empire. Under his rule British officials became something more than mere collectors of the revenue; under him the outlines of the land system were laid down; and it was owing to him that the administration became so effective and so honest. In 1793 the charter was renewed for another twenty years. Lord Cornwallis had regulated the condition of the country and Lord Wellesley established the preponderance of the British power. His policy, though it was not formally assented to by the company, was necessary for the sake of peace and stability. When he left India the company was established as the great sovereign power. In 1813 the charter was once more renewed. When in 1833 it came up again for renewal changes were made. The power of trade was taken away from the company, despite the protest of those who, still faithful to earlier conceptions, continued to view trading as its main function. A further access of power was granted to the governor-general and the supreme council.

Further progress was made in the direction, both of the acquisition of wholly new territories and of the subordination to active government of the protected or dependent native states. But the rule of the company was about to end after a period of some two and a half centuries from its beginning. The fanatical outburst which swelled into the mutiny aroused a feeling, whether right or wrong cannot be here discussed, that the government of India was too important to be left to the directors, however controlled, of a company originally formed for the purpose of trade, and in 1858 it was formally and finally transferred to the crown.

[Bruce, *Annals of British India.*—Histories by James Mill and others.—Chesney, *Indian Polity.*—Parliamentary Papers and Reports.]

E. C. K. G.

EASTLAND COMPANY (established 1568). This company was an association of the English merchants trading to and from the Baltic. From the wording of their charter it seems that they were formerly called the Dantzig merchants. In 1568 a charter was issued to the traders desirous of associating themselves, granting to them "to enjoy the sole trade through the Sound," into Norway, Sweden, Poland, Lithuania (except Narva, the trade with which was claimed by the Russian Company), Prussia, and also Pomerania, from the river Oder eastward to Dantzig, Elbing, Konigsberg, Ebling,

Braunsberg, also to Copenhagen and Elsinore, and to Finland, Gothland, Bornholm, and Oland. The company thus constituted was a "regulated one," and the members of it were entitled to trade "in their own bottoms." The provisions of the charter were much the same as those laid down in other cases. The various privileges were confirmed in 1629, with the single proviso that the trade in grain between the countries and districts enumerated and England was thenceforth to be free. During the early as well as during the latter portion of its existence, the difficulties encountered by the company were considerable; in particular they found themselves impeded in their passage through the Sound. Thus in 1602 complaints were made with regard to the excessive charges levied on their vessels when passing through; in 1653 they petitioned Cromwell on account of the detention of their ships in Denmark. At home they met with disfavour from the strong and growing feeling against monopolies. But on the whole they received considerable support, an ordinance being passed in their favour in 1647. The privileges so warmly cherished did not long survive the Restoration, for in 1672 it was decreed, firstly, that there should be a free trade to Norway, Denmark, and Sweden; secondly, that any one should be entitled to trade to the other Baltic ports within the limits of the Eastland Company's charter on his joining that company, which, it provided, any trade could do on payment of 40s.

[Macpherson, *Annals;* MS. authorities.]

E. C. K. G.

EATON, Daniel Isaac (1752?-1814), a London bookseller who upheld the cause of freedom of the press, at the cost of eight prosecutions, for the publication of works by Thomas Paine and Pigot, of his own periodical (see below), and of a free-thinking work of doubtful authorship called *Ecce Homo*. Very few of the trials ended in a conviction. His weekly periodical, *Hog's Wash, or Politics for the People*, 1794, dealt, not systematically, with political and social subjects in a violently revolutionary spirit. Rhetorical hatred of kings appears as a set-off to real consideration for the poorer classes. The unequal distribution of wealth was treated as the fundamental mischief; parliamentary reform, peace, the lowering of taxes, especially of duties on necessaries, subscriptions for poor labourers, republican government for the sake of economy, the recognition of the natural equality of men; these are some of the various remedies proposed.

Eaton translated Helvetius's *Law of Nature* and *True Sense and meaning of the System of Nature*, 1810, and Féret's *Preservative against Religious Prejudices*, 1810.

[Howell's *State Trials*, xxii. 753-822; xxiii. 1013-1054; xxxi. 927-958 —*Notes and Queries*, 3rd series, vol. x. 396.—*Dict. Nat. Biog.* xvi. 336.

E. G. P.

EBAUDY DE FRESNE, born (*c.* 1760) at Vesoul, published in 1788 his *Traité d'Agriculture considérée tant en elle même que dans ses rapports avec l'Économie* ("Treatise of Agriculture considered in itself and in its relations with Economy"), 3 vols. 8vo; and presented in 1790 his *Plan de Restauration et de Libération*, based on the former work to the National Assembly of France. According to De Fresne, French agriculture was suffering from the undue extent of corn-growing, and an excessive consumption of fodder in large towns, resulting in a loss of manure. He advocates the extension of pasture lands, and a more developed production of cattle and consumption of meat (instead of bread), but most of the methods he suggests to reach this end are very unpractical. E. Ca.

ECK, Johann (1486-1543), was professor of theology at Ingolstadt, and is best known as the antagonist of Luther; he played also an interesting part in the movement of economic thought. He was among the first, if not indeed the very first, to maintain that a contract to pay a certain percentage for the use of money was not necessarily usurious. His justification he apparently found in the theory of "the triple contract," *contractus trinus*, which had grown up before his time, but which he would appear to have been the first to popularise. A contract of partnership (*societas*), where both partners shared in the risk and gain according as their undertaking prospered, had long been recognised by theologians as lawful. It was argued that as another sort of contract, a contract of insurance, was also in itself free from objection, it was permissible for one partner to contract with the other to receive a less return than he might otherwise fairly expect, on condition that in any case his capital should be restored to him. It would then be equally lawful to add a further contract by which the investor insured himself against the chances of fluctuating dividends by surrendering a further portion of the return he might otherwise look for, in exchange for the promise of a definite annual percentage. By the combination of these three contracts in one—"the triple contract," the investor obtained a security both for the return of his capital and for a certain annual percentage; so that the contract, though still technically one of partnership, was essentially one of loan.

Eck, who before his controversy with Luther had already sought fame as a public disputant, announced himself in 1514 at Ingolstadt as ready to maintain the thesis that merchants might lawfully bind themselves to pay 5 per cent. The Bishop of Eichstätt, as ordinary and chancellor, forbade the disputation; and the university of Mainz, being consulted by its archbishop, gave the opinion that it was inexpedient. Thereupon Eck, assisted with money and letters of recommendation by the great

German financiers the Fuggers, set off for the university of Bologna, and there defended the same proposition with much applause from the jurists. This Bologna disputation excited general attention; it was ironically referred to in the *Litteræ Obscurorum Virorum* as showing that usury was allowed by "theology"; and the humanist Pirkheimer wrote to Eck that now the great merchants dared to say that any bargain was just. About the same time Eck stated a case for the Sorbonne; and although the faculty gave no decision, the opinion of Eck was adopted by the distinguished Scotch divine at Paris, John Major. The subject fell into the background with the appearance of the Lutheran controversy. It is probable that the extremely conservative position taken up at first by the Protestant divines on the question of usury prevented for a time the development of opinion among Catholic theologians in the direction pointed out by Eck. A bull of Sixtus V. in 1586 condemned all contracts for insuring either the capital or a certain rate of profit. But this was explained away; and "the triple contract" was very generally recognised as lawful by Catholic divines and faculties from the beginning of the 17th century.

[Schmoller, *Zur Geschichte der nationalökonomischen Ansichten in Deutschland*, 1861, pp. 127-128.—Janssen, *Geschichte des deutschen Volkes*, 15th ed., 1890, i. p. 444 (where it is urged that Eck was altogether alone; and that he did not defend usury but merely the triple contract, and that only in the case of rich merchants who received money for trading purposes).—Endemann, *Studien in der romanisch-canonistischen Wirthschafts-u. Rechtslehre*, vol. i. 1874, pp. 384-385.—Funk, *Zins u. Wucher*, 1868, pp. 84-86 (where the argument in defence of the triple contract is spoken of as justified by circumstances), and *Geschichte des kirchlichen Zinsverbotes*, 1876, pp. 57-64 (where it is described as mere sophistry).—Ashley, *Economic Hist.*, vol. i. pt. ii.—Th. Wiedemann, *Dr. Johann Eck*, 1865.] W. J. A.

ECONOMIC FREEDOM. This is a term properly signifying a condition in which competition acts without influence from other causes. If used in the same popular sense as free trade, it ought to mean merely freedom from legislative imposts or governmental supervision. In order to meet the requirements of a scientific phrase, however, it must be given a more extended meaning; and include the absence of such determining causes of value as combination, custom, immobility of capital and of labour, etc. Professor Marshall uses the term as generally descriptive of modern industry as compared with the economic condition of the middle ages; and this is a singularly happy definition from a literary point of view. Those influences which are most powerful at the present day in affecting exchange values are styled economic causes, which in reality expresses the fact that competition has a much wider range than it had in past centuries. This is the necessary result of the discoveries and inventions of modern times. The railway, the steamboat, the telegraph, all combined towards the amalgamation, for fixing of prices, of all the markets of the world; the breaking-up of much that was ancient and customary, which went on simultaneously with these innovations, introduced strict contract and commercial principle into every sphere of industry. Education, spread throughout all classes, introduced an equality between contracting parties previously unknown. Economic freedom, however, though correctly applied to describe modern industry in a wide sense, is not properly a scientific term; and if it is so used, it may lead to great confusion. In the first place, there are points in which the industry of to-day is not so free as it was in earlier times; in the matter of wages, for instance, although industry is now, in Great Britain generally, free from legislative interference, it is more liable than ever to interference from combinations, whether of masters or of men; moreover, the very conditions of modern trade cause an interlacing between different branches so intimate that they affect each other in greater measure than at any earlier period. Again, in using such a phrase, we must not forget that the era it applies to has been as yet very brief; and that, though it is an important era to ourselves, it may turn out to be of merely passing value in the progress of a science yet so young as that of economics.

Strictly speaking, economic freedom involves a great deal more than we admit even in industry under present conditions. The repeal of differential duties, which established free trade, is the most prominent sign of the economic tendencies of the age in England; but absolute freedom involves no less the repeal of duties on tea, sugar, wine, etc., and in fact the abolition of all indirect taxation. The absence of all restrictions on the hire and sale of land, and of all regulation of the hours of labour, are essentials to economic freedom in the strict application of the words. Freedom of combination is to most minds a necessary attribute of economic freedom; yet the results of combination are such as to destroy that absolutely unfettered competition which is of the essence of the term. M. G. D.

ECONOMIC GOODS, see GOODS, ECONOMIC.

ECONOMIC HARMONY. A phrase rendered classical by Bastiat, the title of the last of whose works it forms (*Harmonies Économiques*). In this work (chap. x.) may be found the key to the meaning of the term, "the constant approximation of all men towards a level which is always rising—in other terms, improvement and equalisation—in one word, harmony." This sentence, if understood as a precept of action, combining legislative and

social effort, might stand as an expression of the aims of a collectivist or socialist of the present day. But with Bastiat it expressed a doctrine, not a precept; and therefore bears an interpretation diametrically opposed to the theory of the communist. For indeed Bastiat's fundamental principles of harmony he termed property and liberty; and his doctrine of economic harmony is that, under absolutely free exchange of labour and other commodities, and the fullest security of private property, whether in land or other things, the arrangements of providence are such as to continually improve the condition of the human race; and that any disturbance of these fundamental laws retards that improvement. Professor Marshall (*Principles*, 1st ed., vol. i. p. 453) states the doctrine thus: "The maximum satisfaction is generally to be attained by encouraging each individual to spend his own resources in the way which suits him best;" and he follows with some interesting criticisms of the theory, or rather limitations, of its operation. The latter definition, which is a description of what has been termed "enlightened self-interest," scarcely includes all that is involved in the individualist theory of Bastiat; but it is an accurate statement of the principle which underlies it.

The phrase economic harmony represents, in another form, the extreme individual theory, and can hardly be properly called an economic doctrine; it is rather an ethical or utilitarian deduction from economic data. But it is used as a normal rule chiefly to exhibit the limitations to which it is subject. It rests really upon the premiss that it is indifferent to any one except the consumer in what manner wealth is consumed; a position not seriously maintained by any economist, and explicitly opposed to the last of Mill's four classical propositions regarding capital—"a demand for commodities is not a demand for labour." The importance of consumption as a factor in economics has of late years come to be more highly appreciated; and its effect on an idea of maximum satisfaction will be found to modify greatly, if not to destroy as a normal principle, the doctrine of economic harmony.

[See HARMONIES OF INDUSTRY.] M. G. D.

ECONOMIC HISTORY. As to the relation between economic history and economic theory, five views are possible, which may for convenience be given the following brief designations:

(1) "The *no-connection* view." This was the view of those who regarded political economy as a purely deductive science, derived infallibly from a few simple abstract postulates which every reasonable being must necessarily grant. Political economy, in this view, was not only not "greedy of facts"; it could be constructed in absolute disregard of any alleged facts except the assumed postulates. To those who held this view, economic history had no direct interest, any more than heraldry or genealogy.

(2) "The *hand-maid* view." This view, which is but a slight modification of (1), is still very generally current. It is that of those who while believing that "economic laws" are to be obtained by deduction from given assumptions, are interested to find illustrations or confirmations of their conclusions in facts furnished by economic history. If the facts agree with the theory, so much the better for the facts; if not, then they are left alone, and the implication is that the historian is mistaken with regard to them.

(3) "The *corrective* view" is again a modification of the preceding. It grants that economic history may sometimes furnish reason for questioning abstract conclusions, and proposes in that case to re-examine the original postulates, and either to modify them, or, if they are still tenable, to examine into the disturbing influences which have affected the result. This is a position which has been avowedly held by many recent writers, *e.g.* by Cairnes; but there are few examples of the practical application of the implied rule.

(4) "The *concurrent* view" is one appropriate to a period of compromise following upon one of controversy, and it is at present not infrequently expressed. It is that economic history and economic theory have each an interest and importance of their own which will attract students whose bent is in one or other direction; and it leaves to the future the decision of the question what bearing historical work may have on economic method.

(5) Finally "The *supersession* view," which is one often held by what are called "economists of the historical school," teaches that the science of political economy, as it has been created by the classical economists, will ultimately be replaced by, or incorporated in, a science based on historical investigation. Among the writers of this school, again, there are two divergent tendencies. Some think that the political economy of the future will resemble that of the classical school in containing "laws" or brief generalisations concerning rent, wages, profits, interest, etc., but derived wholly or chiefly from induction from observed facts past or present. This view, however, is seldom directly formulated, and may perhaps be said to be due to a certain vagueness of thought as to the character of economic "laws." Others hold that political economy will ultimately be replaced by a doctrine of economic development—a philosophy of economic history; a view which is largely due to the influence of modern conceptions of evolution, and of the organic nature of society (see HISTORICAL SCHOOL and HISTORICAL METHOD). In their view, abstract deductive theory will continue to

be of use, as a *minor* method of investigation, and as a useful preparatory training, but it will no longer dominate the field of economic thought.

[G. Schmoller, on *Die Schriften von Karl Menger u. W. Dilthey zur Methodologie der Staats- und Sozialwissenschaften* in *Zur Litteraturgeschichte der Staats- und Sozialwissenschaften* (1888).—K. Menger, *Methode der Sozialwissenschaft.—Die Irrthümer des Historismus* (1884).—J. N. Keynes, *Scope and Method of Political Economy* (1891), ch. ix., note B.—W. J. Ashley, *Economic History*, vol. i. pt. 1 (1888), preface; and *On the Study of Economic History* in the (Harvard) *Quarterly Journal of Economics* for January 1893.—J. K. Ingram, *History of Political Economy* (1888), ch. vi. These books, especially those of Ingram and Keynes, will guide the reader to the very considerable literature upon the subject.] W. J. A.

ECONOMIC LAW. This phrase has frequently given rise to confusion. Law, in its imperative sense, belongs to no science; properly speaking, it is a term in the art of legislation. Law, in its indicative sense, as a statement of cause and effect, is purely scientific; and when political economy is treated as a positive science, it is in this sense that the phrase is used (see Marshall, *Principles*, introd.). In common parlance, however, an economic law is frequently understood to be something imperative, or at least a statement that a certain course of action is wise or just; and the confusion between the art of legislation based on economic formulæ and the science of economics itself (from which the works even of the classical English economists are not free) has done much to spread this misunderstanding. To break the laws of a science is in one sense impossible, as they are merely generalised statements of fact; yet it is not uncommon to hear it said that a certain course of action will break the laws of political economy; when what is intended to be conveyed is that it will lead to a result different from that expected, and that the laws of economics prove this. Thus it is often said that to regulate the hours of labour, or to introduce differential import duties, is to break economic law; and M. de Laveleye, in his very able effort to include the science of economics in an art of sociology, evidently considers luxury liable to be condemned in a similar manner. (See also his *Elements of Political Economy*, for an account of economics treated as an art with definite moral aims.)

The laws of a science are always in themselves useful as guides to action, merely because of the deductions we draw from them. The objection made to this view of the subject, that such laws are entirely barren and uninstructive, is therefore one which would apply equally to every science. In another form, however, the objection has considerable force. A scientific law presupposes unchanging circumstances; and any alteration in these introduces a new law to vary the relations of cause and effect. In physical science we find uniformity to a far greater extent than in economics. It is this uniformity which has caused the phrase "exact science" to be used; and mathematics, in which the circumstances never change, is the most exact of all sciences. But in economics, where the conditions are dependent, not on the inanimate forces of nature, but on the variations of human feeling, passion, sentiment, and taste, it may well be thought that no generalisation, comprehensive enough to be useful, can be made. The older English economists were aware of this; and to get out of the difficulty they presupposed a state of matters in which mankind is governed by one single passion, viz. the desire for wealth. Happily they never adhered to the limitation they set for themselves; indeed, a science of economics on these lines is as inconceivable as a science of dynamics where every force is neglected excepting that of gravity. The great complexity and variety of circumstance which surround every economic problem are such as to render the enunciation of general laws, on a large scale, barely possible, and if possible barely useful. In consequence of this, few efforts have been made to reduce any economic truths to theorems; nor is it probable that any such theorems will be found of great value. Economic laws are rather expressions of tendencies than actual predictions of cause and effect (see LAWS OF POLITICAL ECONOMY).

[See *Der Gebrauch des Ausdruckes "Gesetz" in der National Ökonomie*, by J. Bonar, Zeitschrift für Volkswirthschaft, 1892.] M. G. D.

ECONOMIC MAN. This term has been often used to indicate a more or less imaginary being postulated for theoretical purposes by ABSTRACT POLITICAL ECONOMY (*q.v.*) Those writers who defend the use of the conception, have regarded it as analogous to the perfectly rigid or perfectly smooth body assumed in theoretical mechanics. Speaking roughly, the economic man is one who in his economic relations is moved only by regard to his own material interests. But in reality there is considerable ambiguity in the use of the term. It can be most clearly understood when applied to the sphere of *contracts*. Thus Dr. Keynes, maintaining in a qualified form the legitimacy of the conception, writes (*Scope and Method of Political Economy*, 1891, p. 121): "Is it not a patent fact that in buying and selling, in agreeing to pay or to accept a certain rate of wages, in letting and hiring, in lending and borrowing, the average man aims at making as good a bargain for himself as he can?" Hence in relation to contract, the notion of the economic man is tolerably clear. He may perhaps be best defined negatively, either as one who is not moved by regard to the interests of the opposite party to the contract; or, more gener-

ally, as one who is not influenced by such motives as class-prejudice, public opinion, resentment, compassion, or personal partiality. When we pass to economic actions outside the sphere of contract, it is not so easy to define the economic man. We may consider first the nature of the objects upon which a man's material resources are expended. So far as economists have treated the problem of demand and consumption on a deductive basis, they have certainly not assumed that the economic man normally or necessarily expends such wealth as he may have acquired only upon objects subserving his individual interests. For example, the family, rather than the individual, is often taken as the unit in economic science. But the economic man may be admitted to determine his expenditure under an indefinite variety of influences, such as philanthropy, love of ostentation, etc. In fact, the deductive economist, in his indifference to the purposes for which wealth in general is desired, cannot rightly be charged with recognising none but egoistic motives to its acquirement. Passing from consumption to production, we have to recognise the universally antagonising principles to the desire of wealth, namely, aversion to labour and to the postponement of enjoyments. These aversions are no doubt of a purely egoistic kind. But, as all economists have recognised their importance, they clearly have not represented the economic man as inspired merely by a desire for accumulation, irrespective of the effort or sacrifice involved. Indeed, they have gone further in differentiating the various motives operating in industry. For, from Adam Smith downwards, they have allowed, not only for aversion to toil in general, but also for various degrees of aversion corresponding to various kinds of employment. But another and somewhat different qualification is necessary in concrete applications of economic doctrine. In the abstract sciences it is frequently convenient to take no account of forces of the nature of friction. Thus there are influences which retard, and perhaps permanently modify, the tendency to equilibrium of supply and demand. These influences are mainly those of custom, habit, and ignorance. For example, a labourer is not, or has not been, easily moved to change his abode or mode of employment, in circumstances in which he would immediately do so if he were deliberately to balance its advantages and disadvantages, including risk of adventure and breach of old associations, etc. Similarly, important limits to the mobility of capital exist. The actions neither of the labourer nor of the capitalist are wholly the result of cool, unimpassioned, and completely informed reason. Economists of all schools have, of course, recognised these facts. But it may specially be noted that the deductive economists of the most declared type have attributed to the working classes a character which is the reverse of economic. An important part of the doctrines of Ricardo and of his followers is based on the tendency of the labouring class to multiply until their resources are reduced to the level of bare subsistence. In this notable case, the chiefs of the deductive school have postulated a particularly uneconomic man.

With respect to the range of application of the conception of the economic man, there are some not unimportant differences of view among the supporters of the abstract method. Bagehot, for example, regards the conception as applicable only to the latest phases of economic development. Mill and Cairnes, on the other hand, hold that the results of the abstract method indicate universally operative *tendencies*, the realisation of which is, more or less, actually interfered with by conflicting forces. A slight modification of this view represents the motives of the purely economic man as manifesting themselves *in the long run*,—on the ground that other and conflicting motives cancel one another when a sufficiently large area is contemplated.

[Mill, *Unsettled Questions of Political Economy*, Essay v.—Cairnes, *Logical Method of Political Economy*, Lecture ii.—Bagehot, *Economic Studies*, Essays i., ii.—Keynes, *Scope and Method of Political Economy*, chs. i., iv., vii.—Sidgwick, *Principles of Political Economy*, Introduction, ch. iii.—Marshall, *Principles of Economics*, 1891, vol. i. pp. 71-81.—Cliffe Leslie, *Essays in Political Economy*, 1888, Essays i., xv.—G. J. Goschen, Address on "Ethics and Economics," to the British Economic Association, *Economic Journ.*, Sept. 1893.]

The idea of a *semi*-economic man, one for whom the advantage of another counts, not indeed for as much as his own, but still for something, is suggested by Prof. Edgeworth in his *Mathematical Psychics*, pt. i. end of § 2. A similar conception is more usefully employed by Prof. Marshall in his consideration of the *compromise benefit* of a monopolist (*Principles*, bk. v. ch. xii.). The whole subject of egoism and sympathy in their economic aspect is well treated by Prof. Pantaleoni in the beginning of his *Principii di Economia pura*. See also Mr. Bonar's discussion of utilitarianism in his *Philosophy and Political Economy*, 1893. W. E. J.

ECONOMICS, for other articles under this heading see POLITICAL ECONOMY.

ECONOMIC SCIENCE AND ECONOMICS. The terms "economy" and "economic" or "economical," are now used chiefly in two meanings, which it is well to distinguish clearly; since, though divergent in their history, they are liable to fusion, and therefore in some degree to confusion.

"Economy" originally meant, in Greek, the management of the affairs of a household, especially the provision and administration of its income. But since both in the acquisition and in the employment of wealth it is

fundamentally important to avoid waste either of labour or of its produce, "economy" in modern languages has come to denote generally the principle of seeking to attain, or the method of attaining, a desired end with the least possible expenditure of means; and the words "economy," "economic," "economical," are often used in this sense, even without any direct relation to the production, distribution, or consumption of wealth. Thus we speak of "economy of force" in a mechanical arrangement without regard to its utility, and of "economy of time" in any employment whether productive of wealth or not.

On the other hand, as there is an obvious analogy between the provision for the needs of a state and the provision for the needs of a household, "political economy," in Greek, came to be recognised as an appropriate term for the financial branch of the art or business of government. It is found in this sense in a treatise translated as Aristotle's in the 13th century; and so, when, in the transition from mediæval to modern history, the question of ways and means obtrusively claimed the attention of statesmen, "political economy" was the name naturally given to that part of the art of government which had for its aim the replenishment of the public treasury, and,—as a means to this,—the enrichment of the community by a provident regulation of industry and trade. And the term retained this meaning till the latter part of the 18th century without perceptible change—except that, towards the end of this period, the enrichment of the people came to be less exclusively regarded from the point of view of public finance, and more sought as a condition of social well-being.

But in the latter part of the 18th century, under the influence primarily of the leading French "Économistes" or "Physiocrats"—Quesnay, De la Rivière, and others—the conception of political economy underwent a fundamental change, in consequence of a fundamental change in the kind of answer which these thinkers gave to the question "how to make a nation wealthy." The Physiocrats proclaimed to France, and through France to the world, that a statesman's true business was not to *make* laws for industry and trade in the hope of increasing wealth; but merely to ascertain and protect from encroachment the simple and immutable laws of nature, under which the production of wealth would regulate itself in the best possible way if governments would abstain from meddling. A view broadly similar to this, but less extreme, and, partly for this reason, more directly influential, was expounded in Adam Smith's *Wealth of Nations*. Instead of showing the statesman how to "provide a plentiful revenue or subsistence for the people"—which was one of the two main objects of political economy, according to the traditional view—Adam Smith aims at showing him how nature, duly left alone, tends in the main to attain this end better than the statesman can attain it by governmental interference. Accordingly, so far as the widespread influence of Adam Smith's teaching went, that branch of the statesman's art which aimed at "providing a plentiful revenue for the people" tended almost—though not altogether—to shrink to the simple maxim of *laisser faire:* leaving in its place a scientific study of the processes by which wealth is produced, distributed, and exchanged, through the spontaneous and partly unconscious division of labour among the members of human society, independently of any governmental interference beyond what is required to exclude violence or fraud. A part, indeed, of the old art of political economy—that which aimed at "supplying the state with a revenue sufficient for the public service"—remained indispensable to the statesman; but it was held that this traditional art required to be renovated by being rationally based on the doctrines of the new-born science just described. It is, then, this scientific study of a department of social activity that most writers on the subject now primarily mean by the term "political economy": such part of the old governmental art so called, as the doctrine of the new science is held to admit, being commonly regarded as "applied political economy." In consequence of this change the adjective "economic," instead of the too cumbrous "politico-economic," has come to denote the matters investigated by the science of political economy, and the propositions and arguments relating to them.

By thinkers and duly-instructed students this distinction between "science" and "art"—between the study of "what is" and the study of "what ought to be"—is usually regarded as simple and clear; and accordingly when such persons speak of the "laws of political economy" they mean not rules by which the process of the social production and distribution of wealth *ought* to be governed, but general relations of co-existence and sequence among phenomena of this class, ascertained by a scientific study of this process as it actually takes place. This distinction, however, has been found difficult to establish in common thought: even well-educated persons still occasionally speak of the "laws of political economy" as being "violated" by the practice of statesmen, trades-unions, and other individuals and bodies. It is partly in order to prevent this confusion that the terms "economic science" and "economics" have recently come more and more into use, as a preferable alternative for political economy, so far as it is the name of a science. As to the scope of this science,—it would be generally agreed that it is a branch of a larger science, dealing with man in his social relations; that it is to an important extent, but not altogether, capable

of being usefully studied in separation from other branches of this science; and that it is mainly concerned with the social aspect—as distinct from the special technical aspect—of such human activities as are directed towards the production, appropriation, and application of the material means of satisfying human desires, so far as such means are capable of being exchanged. It would also be generally agreed that the method of economic science is partly deductive, partly inductive and historico-statistical. But to attempt a more precise determination of its method and scope, and especially of its relation to the art or system of practical rules which should guide the action of governments or private individuals in economic matters, would require us to enter into questions of a highly controversial kind; which will be more conveniently discussed when we come to deal with the older and wider term POLITICAL ECONOMY (*q.v.*) H. S.

ECONOMISTES. The narrower term PHYSIOCRATS (*q.v.*) is now generally applied to the writers who were known in their own time, and to Adam SMITH, MALTHUS, etc., as the *Économistes*. The chief members of the "sect" were QUESNAY, the elder MIRABEAU, Mercier de la RIVIÈRE, DU PONT de Nemours, ABEILLE, BAUDEAU, ROWLAND, SAINT PÉRAVY, LE TROSNE.

As to the origin of the name compare Mirabeau (Letter of 20th December 1767 to J. J. Rousseau): "De ma part, je fondai chez moi un diner et une assemblée tous les mardis. J'y reçus tous les étrangers qui viennent voir le bâton flottant sur l'onde, les magnats qui me viennent voir, et surtout la jeunesse. C'est de ces assemblées, qui ont été fructueuses à l'excès, que nous est venu le nom d'Économistes." Levallois, *J. J. Rousseau, ses amis et ses ennemis*, Paris, 1865, ii. 385.

[For further remarks on the Economistes, see PHYSIOCRATS.] H. H.

ÉCU. A French coin, so called from the shield covered with fleurs-de-lis which was stamped upon it. It was originally a gold coin, and was first struck in 1336. But the historic *écu* of the 17th and 18th centuries was a silver coin (*écu blanc*), corresponding to the English "crown," and worth six francs. There was also *petit écu* or *demi-écu*, worth three francs. These coins were in circulation at the beginning of the present century. In recent times the term *écu* has been applied to a piece of five francs. R. L.

The gold écu of 1336 was made of pure metal. (See *Traité Historique des Monnoyes de France*, Le Blanc, Paris, 1692.) The silver écu, first struck in 1641, was of silver, 913 fine. (See *Traité des Monnaies d'or et d'argent*, Bonneville, Paris, 1806.) F. E. A.

EDEN, SIR FREDERICK MORTON, Bart. (1766-1809), graduated at Oxford, and was chairman and one of the founders of the Globe Insurance Company. Eden's independent position was favourable to his completing, in the thirty-second year of his age, his principal work, involving much study and expensive research, *The State of the Poor*. This book, called by M'Culloch, "the grand storehouse of information respecting the labouring classes of England," entitles its author to rank with Arthur Young as one of those immediate successors of Adam Smith who best developed the inductive branch of political economy. The importance of facts as a foundation of theory is insisted on in the preface and opening pages of this work (p. xxix and p. 4); "These and many similar questions [relating to the poor laws] cannot, as it seems to me, be fully and satisfactorily answered, unless many minute circumstances are previously stated, which have rarely been sufficiently attended to in the plausible and ingenious but unsolid speculations of several merely theoretic reasoners." Such writers "voluntarily impose upon themselves the task, so much and so justly complained of by the Israelites, of making bricks without straw." "The edifice of political knowledge cannot be reared without its 'hewers of stone' and 'drawers of water.' I am content to work among them." "I have purposely and almost wholly abstained from drawing conclusions from the facts here presented to the public." Fortunately not "wholly." In the first chapter of his second book Eden discourses freely "of national establishments for the maintenance of the poor, and of the English Poor Laws, and of Mr. Pitt's proposed bill for the better relief of the poor." His reflections upon the events and opinions which he records are just and striking: for instance, on the "fathers of the poor," whom CHILD (*q.v.*) proposed to create, "not only clothed in the garbs, but vested with the powers of papal inquisitors" (p. 188); or, with reference to Henry VIII.'s confiscations, on the danger of reposing confidence in "the most specious promises made by any *reformers by violence*, whether they be overbearing despots like Henry the Eighth, canting Puritans like the parliament and their adherents in the time of our First Charles, or blustering and boastful constitution-mongers like many of the modern revolutionists." Although Eden declares, "I have never wasted that time in polishing a sentence which I thought I could better employ in ascertaining a fact," he enhances by considerable literary attractions the curious and important information which he has collected.

The subjects which Eden principally dealt with are sufficiently indicated by a title which is almost a catalogue: *The State of the Poor, an history of the labouring classes in England from the Conquest to the present period, in which are particularly considered their domestic economy with respect to diet, dress, fuel, and habitation, and the various plans which from time to time have been proposed*

and adopted for the relief of the poor, together with Parochial Reports relative to the administration of Workhouses, and Houses of Industry; the state of Friendly Societies, and other public institutions, in several agricultural, commercial, and manufacturing districts, with a large appendix, ... 1797. A translation of the less detailed parts of this work is published in Duquesnoy's *Recueil de Mémoires sur les Etablissements d'Humanité*, No. 21, 1799; and also separately, 1800. There is an analysis of Eden's work by Cabanis, in the *Mercure Français*, Nos. 29, 30, 32, an. vi. (1798). Eden is also the author of (1) *Porto-Bello, or a Plan for the Improvement of the Port and City of London*, 1798.—(2) *An Estimate of the Number of Inhabitants in Great Britain and Ireland*, 1800, written on the eve of the first census, and estimating, by means of the number of baptisms, the population of Great Britain and Ireland (inclusive of sailors and soldiers) as 10,710,000. (The real number, according to the census, was, in round figures, 14,991,000).—(3) *Eight Letters on the Peace and on the Commerce and Manufactures of Great Britain*, 1802, defending the peace with France, and illustrating the economical position of England by statistics and interesting reflections.—(4) *Address on the Maritime Rights of Great Britain*, 1808 (first edition 1807), commending the orders in council of 1807, and "offering some suggestions on the measures necessary to render the United Kingdom independent of other countries for the most indispensable articles now supplied by foreign commerce." The suggestions comprehend a plan for the encouragement of Anglo-Merino sheep, which the author defends against "Adam Smith, the great enemy of bounties," having regard to "what, on the whole, in pecuniary or political advantage, will be the gain to the country when the measure is carried into full effect." Eden is stated (in Walford's *Insurance Cyclopædia*), to have privately printed a considerable pamphlet *On the Policy and Expediency of granting Insurance Charters*, 1806, to which M'Culloch refers in his *Literature*. There is among the Bentham MSS. (*Brit. Mus. Addit. MSS.*, 31,235) a letter from Eden to Vansittart, containing observations on Bentham's scheme of annuity notes. F. Y. E.

EDGEWORTH, Maria (1767-1849), daughter of R. L. Edgeworth, owing to the great popularity of her moral tales for children, has had considerable influence on the attitude of thought in England regarding economic questions. An intimate friend of Malthus, Richard Jones, and Ricardo, and well acquainted with their works, her writings evince considerable power of applying economic principles successfully in everyday life. Her novels and tales were directly written to inculcate a utilitarian morality, and the virtues which she specially exalts are those assumed to exist in the economic man of abstract theory — intelligence, honesty, love of truth, industry, prudence, and judgment; she excelled in her truthful portraits of the stupid, the wilfully ignorant, the extravagant, and the sentimental, against whom she directed a keen wit and satire, the more deadly because good-humoured. Her books for children dwelt on the pains of idleness and the pleasures of industry, an aspect of the labour question now too little regarded. Her pictures of life among the Irish peasantry and the English working classes contain frequent reference to the lucrative employment of young children; but although she believed that work was pleasurable even when remunerated, and goes so far as to make four orphans under thirteen years of age support themselves (see *Parent's Assistant:—The Orphans*), the children in her stories always seek and receive facilities for educating themselves. Numerous instances of generous and yet discriminating relief of the distressed, to be found both in her fiction and in her life, show her to have been in advance of her time in her views on almsgiving; her stories, *Rosamond* and *Egerton Abbey*, exemplify this. (See also article in *Charity Organisation Review*, Nov. 1889). To the economist the most valuable of her writings are the novels dealing with the relations of landlord and tenant in Ireland. The land agent, middleman, or "journeyman gentleman" is presented in all his aspects, good, bad, and indifferent. *Castle Rackrent* is a delightful history of three generations of Irish spendthrift and absentee landlords, written from the point of view of an old family retainer. The hero of *The Absentee*, whose parents have deserted their Irish estates for London society, travels incognito to inspect the condition and treatment of their tenantry; and the account of his adventures, given by one who had herself acted as land agent on her father's estate and who was entirely free from party spirit, is well worth studying apart from its artistic merits. The nearest approach to definite exposition of economic theories is to be found in *Ennui*, in the criticism of the well-meant actions of an Irish landlord by his Scotch agent. Mr. M'Leod "doubted whether the best way of encouraging the industrious was to give premiums to the idle." "He was told that some Indian Brahmins were so very compassionate that they hired beggars to let fleas feed upon them. He doubted whether it might not be better to let the fleas starve." "He doubted whether long leases alone would make improving tenants." "He doubted whether, if a farm could support but ten people, it were wise to encourage the birth of twenty. It might be doubted whether it were not better for ten to live and be well fed than for twenty to be born and be half starved." "He doubted whether it would not encourage the manufacturers to make bad stuffs and bad linen, since they were sure of a sale and without danger of competition," and "he doubted whether it would not be better for a man to buy shoes if he could buy them cheaper than he could make them." The admirable portrait of King Corny in *Ormond* elicited warm praise from Macaulay.

[Helen Zimmern's *Maria Edgeworth*, 1883. The books for children still widely read are: *Frank*, *Rosamond*, *Harry and Lucy*, *The Parent's Assistant*, *Moral Tales*, and *Popular Tales*. See also article in *International Journal of Ethics* for April 1892, where the writer has treated this subject at greater length.] C. E. C.

EDMONDS, Thomas Rowe (1803-1889), born at Penzance, educated at Cambridge (B.A., 1826), was actuary of the Legal and General Life Assurance Society from 1832 to 1866. He wrote *Life Tables*, 1832; *Inquiry into the Principles of Population*, 1832; *Laws regulating Human Mortality*, 1866; and contributed many papers on the same subject to the *Lancet*. He also published:—

Practical, Moral, and Political Economy, or the Government, Religion, and Institutions most conducive to Individual Happiness and to National Power, London, 1828, 8vo. ("The social system is the limit towards which all governments tend, and at which they cannot fail to arrive sooner or later," p. 283. The author considers that labourers should work six hours a day, and proposes a tax on marriage.)

[Walford, *Insurance Cyclopædia*, ii. 470-74.—F. Boase, *Modern English Biography*, i. 961.—Marx, *Misère de la Philos.*, pp. 49-50.] H. R. T.

EDUCATION, Economic Aspects of. Trade and industry may be affected by education in two ways. In the first place, their progress may be assisted by *General Education*, which, though developed without any immediate or particular reference to their well-being, must necessarily promote it by quickening the intelligence and calling into play the latent capacities of the people of any country. In the second place, a particular industry will be advanced by means of *Technical Education*, which renders those employed or likely to be employed in any industry more fully acquainted with the nature of its processes and with such branches of general education as may be deemed to have a direct and immediate bearing on these. It is education directed to an end, and a particular end. *General Education*, in its early stages, may be the same for all classes, notwithstanding their differences of calling; in its later or specialised stages it will direct attention to certain cognate branches of study with the view of inducing students to concentrate their powers on the problems presented by these studies. Should these problems coincide with or resemble those involved in the profession or trade they may adopt, they will be additionally benefited. *Technical Education*, on the other hand, will have regard to the special requirements of the profession or trade in which the students in question are, or are likely to be employed. It will be evident that the term *Technical Education*, though usually employed as above, may be expanded so as to include or imply an education more fitly described as specialised education.

General Education.—In order that the advantages of such education may be fully felt it is necessary that it should (1) in its primary stages be national; (2) in its later or specialised stages be open to all those fitted to avail themselves of it. The first of these conditions has been recognised by civilised nations. As a rule it has, so far at least as a certain minimum, been made compulsory. There is overwhelming testimony to the benefits conferred on industry by such a state of things. The second condition is less fully regarded, little provision being made in many countries, among which we must include England, where the higher education is costly. The advantages of a high standard of General Education may be seen from many examples, as for instance the position of America and in some degree that of Germany. England, where in industry the standard of workmanship is high, owes her position to causes somewhat different. She owes much to her political condition, and much also to the free and fair intercourse of life common to her.

Technical Education.—The early recognition of the desirability of such training may be gathered from the evidence before Royal Commissions, etc. (see especially "Royal Commission to inquire into condition of the Handloom Weavers," Parl. Paper, 1841, vol. x.), in which the difference in artistic merit between English and French work is instanced and the demand made for the establishment of schools of design, etc. But England made much less rapid advance in this respect than most of the chief foreign countries, where highly-organised systems of technical instruction have been adopted (see *L'Enseignment Commercial*, par Eugène Leautey). In this country, on the contrary, little was achieved till 1890.

[The "economic value" of the intelligence of the population is borne witness to by all our leading economic authorities. See *e.g.* Marshall, *Principles of Economics*, 1st ed. pp. 264-276.] E. C. K. G.

EDWARDS, Bryan (1743-1800) was born at Westbury. In 1759 he went out to Jamaica to the house of his uncle, a merchant in that island. On his uncle's death he succeeded to the business and other property. His chief interests lay in the West Indies, and though shortly before his death he returned to England and sat in parliament as member for Grampound, he continued to act chiefly in the interest of the West Indies. His principal work is *The History, Civil and Commercial, of the British Colonies in the West Indies*, published in 1793; a third edition of this work appeared in 1807 in an enlarged form, containing a brief autobiography and chapters on the French colonies in the West Indies. These were first published in 1797 as *A Historical Survey of the French Colony in the Island of San Domingo*. The economic importance of the book which

reached a fifth edition in 5 vols. 8vo, in 1819, lies (*a*) in the full and accurate account of the West Indies contained in it; (*b*) in an able and temperate discussion of the slavery question from the point of view of a defender, though not an advocate of it. He considers it impossible to abolish the slave trade, but insists that it should be placed under government regulation, and considers that the importation of a larger number of negresses would bring the trade to a natural end. His arguments in defence of slavery are of the usual type, but he admits that the institution has a tendency to injure the character of the planters.

He also wrote *Thoughts on the Late Proceedings of Government respecting the Trade of the West India Islands with the United States*, 1784; *Speech at a Free Conference between the Council and Assembly of Jamaica on Wilberforce's Proposition concerning the Slave Trade*, 1790; and some other pamphlets on West Indian Questions.

[*British Museum Catalogue.*—*Dictionary of National Biography.*—M'Culloch, *Lit. Pol. Econ.*, p. 92.] C. G. C.

EDWARDS, GEORGE, M.D. (1752-1823). George Edwards took his doctor's degree at Edinburgh in 1772, and practised at Barnard Castle in Durham, and afterwards in London, where he died. Besides a few medical works he published a large number of pamphlets upon social questions, propounding various remedies for the social ills which weighed upon England in the early part of the 19th century. He seems, however, to have been more impressed with the evils than capable of studying them scientifically; and to have been little more than a political visionary. His chief discovery in his own eyes was the invention of the income tax. The British Museum contains about forty pamphlets by him, which are principally devoted to recommending the precepts contained in his larger books.

Their titles are: *The Aggrandisement and National Prosperity of Great Britain*, 1787.—*The Royal and Constitutional Regeneration of Great Britain*, 1787.—*The Practical Means of effectually exonerating the Public Burthens of paying the National Debt, and of raising the Supplies of War without new Taxes*, 1790.—*Effectual Means of providing against Scarcity and High Prices of different Articles of Food*, 1800; *A Plan of an Undertaking . . . for the improvement of Husbandry, etc.*, Newcastle, 1783, 8vo.—*Radical Means of counteracting the present Scarcity and preventing Famine in the Future; including the Proposal of a Maximum founded on a New Principle, etc.*, London, 1801, fol.—*A Plain Practical Plan by which Great Britain may extricate herself from her present Difficulties, etc.*, London, 1808, 4to; with many more of the same kind.

[*Gentlemen's Magazine*, 1823; *Dictionary of National Biography;* Allibone's *Dictionary Brit. and Amer. Authors*, i.] C. G. C.

EFFECTS. This is one of the vague and undefined words which often occur in legal documents, and are a frequent cause of litigation. A gift of the testator's effects in a will, unless restrained by the context, means a gift of the whole of the personal property, and may, if other circumstances favour such an interpretation, include even real estate. The word also occurs in partnership deeds in the combination "estate and effects of the partnership," which has been held to include all the property of the partnership "available for the purpose of discharging the debts and liabilities." (Steuart *v.* Gladstone, 10 Chancery Division 626.)

E. S.

EFFECTUAL DEMAND. See DEMAND, EFFECTUAL.

EFFICIENCY OF LABOUR is the resultant of combined (1) strength, (2) skill, (3) diligence and care on the part of the labourer. The product of his labour is manifestly governed very largely also by the efficiency of the tools he is supplied with, and the efficiency of the superintendents under whom he serves; but these are rather external aids furnished from the side of capital than constituent conditions of efficient labour itself. The most perfect tools are valueless in the hands of the inefficient, whereas the truly efficient workman, according to an eminent practical authority, Mr. Nasmyth, the inventor of the steam hammer, is a man who can always produce his result with the tools that lie to his hand, or, as the same idea is expressed in the curious maxim of another eminent engineer, Maudsley, the criterion of the thorough mechanic is to be able to cut a plank with a gimlet and bore a hole with a saw. The workman who can do as well with bad tools as his neighbour does with good, will accomplish with good tools much more remarkable results; but the secret of his efficiency in both cases lies in the physical, mental, and moral energies of the man's own being.

(1) The first condition of the fit workman is physical vigour—not merely muscular, but general vigour, for as Professor M. Foster observes "the power of doing work hangs not on the muscle alone, but on the heart, the lungs, the nervous system, and indeed the whole body" (*Text-book of Physiology*, p. 845). Nervous energy is of especial moment, because fatigue is much more a nervous than a muscular condition. Professor Foster considers it doubtful whether men ever, even in their severest efforts, draw on more than a portion of the store of energy lodged in their muscles; it is the store of energy in the nerves that gives out. People differ much in their power of sustaining hard and continuous exertion, and in the degree of ardour and "go" they throw into it, and the difference depends on the general conditions of sound physical health, especially on original constitution, more or less

plentiful diet and adequate or inadequate repose. A mountain stock has more grit than the average, even though it has been more poorly fed; and Mr. Jones, one of Mr. Brassey's managers, always preferred mountaineers for railway-making when he could obtain them. English workmen enjoy better fare and shorter hours than other workmen, and they are noted for their physical strength, their endurance, and their rapidity at work. Mr. Brassey found English navvies able to do heavier work, to do more work in the day, and to remain afterwards fresher for an extra spurt if required, than any other navvies in the world. In constructing the Paris and Rouen railway, in which he employed 4000 Englishmen and 6000 Frenchmen, he took great pains to ascertain the relative industrial capacity of the two nations, and he came to the general conclusion that three Englishmen did the work of four Frenchmen. In "shifting" materials the English navvy was found to do twice as much work in the day as the French, though he worked two hours less, and he received twice the wages, and a half-franc more, because he could be counted on for additional speed under pressure; while for the hard work of mining and tunnelling, Mr. Brassey employed none but Englishmen; and even in Italy, where he found the Piedmontese excellent workers—in some respects better than the English—and employed them in tunnelling in dry rock, he still reserved the more arduous labour of tunnelling in clay for English limbs (Brassey, *Work and Wages*, pp. 118, 146). For mere strength Englishmen excel even their better-fed but longer-worked American kinsmen. "When we want physical force combined with skill," says the well-known American ironmaster, Mr. A. Hewitt, "we get Englishmen" (*Trade Union Commission Report*, qu. 6980). In girder rolling he said the Americans were more active and better rollers, but when it came to puddling the heavy bars there were no workmen like the English; and the reason was, what he thought every observer must remark, that the English were superior to the Americans in physical development. Sir I. L. Bell, in a comparison of five American furnaces with those of Cleveland, calculates that the workers in an English furnace, with a shorter working day, move 2400 tons of fuel, ore, and limestone in the week, while the same number of Americans move only 2100 tons (*Iron Trade of United Kingdom*, p. 137). Luxemburg ironstone, again, is not harder to work than Cleveland ironstone, but two Cleveland miners turn out 10½ tons of stone in an eight hours' day, whereas two Luxemburg miners turn out only 10 tons in a twelve hours' one (*ib.* 86). In continental textile mills Mr. Mundella always found five hands doing work that was done in England by three. During the eight hours strike in Melbourne in 1859, it was ascertained for a wager that an English bricklayer laid half as many bricks again in the day as a German. Then in England itself, the well-fed Midland labourer will do twice the work of the ill-fed Dorset hind; whilst the Australians, the best-fed and shortest-worked race of work-people in the world, strike even English eyes for the extraordinary vigour and "go" they put into their work. Lord Brassey praises the "remarkable physique" of the Australian navvy, and Captain Henderson, R.N., said Australian dockers coaled a ship three times as fast as English ones (*Proceedings of Royal Colonial Institute*, xix. 122). More specific proof still exists of the connection between work and feeding. Mr. Brassey often employed agricultural labourers for navvy work, and when they first came they would lie down utterly exhausted about three in the afternoon, but after twelve months of good wages and better diet than they enjoyed before, they became quite fit to do their work without any difficulty. Irishmen in their own country are the poorest of workmen, mainly because of their poor fare. Arthur Young said, in his time, that an Essex labourer at half-a-crown a day was cheaper than a Tipperary labourer at fivepence; and Mr. J. Fox said to the Trade Depression Commission that, though he paid the hands in his Manchester mill 20 per cent higher wages than the hands in his Cork mill, the real cost of the work was the same in both. But when the Irish come over to England and get better diet their working power soon improves; Sir I. L. Bell says, many young Irishmen come to Cleveland ironworks, and though not worth much at first, yet "as soon as their improved style of living permits it," they become equal to any workman in Cleveland, both for ability and will to work. M. Chevalier mentions that when Messrs. Manby and Wilson started their French foundry at Charenton in 1820, they brought over a few of their English hands with them, and found these did far more work than the French labourers. Suspecting the reason to be better nourishment, they took steps to get the French work-people to eat as much meat as the English; and the result was, that in a short time they did nearly as much work as the English too. The effect of shortening hours of labour in improving industrial energy will be treated separately, but even the minor changes in the sanitary conditions of work, effected by the Factory Acts, have caused such a perceptible increase in productive capacity that Dr. J. Watts says Lancashire cotton operatives care far more about being employed in a good mill, with plenty of air and light, than about the exact price per lb. they get for spinning or per piece for weaving, because "they know practically what is the effect of these conditions upon the weekly wages" (*Facts about the Cotton Famine*, p. 44). The same sound

physical conditions which enlarge productive capacity at the time also extend the term of efficient working life.

(2) Skill is a compound of general mental intelligence, special technical culture, and acquired manual dexterity. All work involves head work. The good workman must be a thinking and planning being, and according to his general intelligence will be his share of the supreme industrial qualities of resourcefulness, versatility, and precision. The intelligent man needs a shorter apprenticeship and less superintendence, and is less wasteful of materials, all simply because he understands better than the ignorant man the nature of the stuff he handles, the working of the tools and machinery he uses, and the end and object of the commodity he is making. Hence the immense industrial value of general education. The want of education has hitherto been the chief industrial defect of the English workman. Escher, a Swiss manufacturer, who employed about 2000 hands of all nationalities, said, in 1840, that while the English workmen were the best in what they had actually learnt, they were of less value outside their own specific work than the Swiss or the Scotch, because of their inferior education (Mill, *Political Economy*, bk. i. ch. vii. § 5). But on the other hand, a later Swiss manufacturer, Herr Wunderley, who also employed men of all European nationalities in his mills, stated to the Technical Instruction Commission that there was a certain practicality and method in English labour—a mechanical genius, he termed it—which seemed to enable it to do, without much knowledge, what continental labour did with it (*Technical Instruction Commission Report*, p. 269). Mr. Mundella, too, thinks that English labourers naturally more inventive than foreigners, more apt in devising means for ends, but this is probably due in some degree to their greater physical energy, their greater determination not to be mastered by a difficulty; for Mr. E. Rose, in 1832, stated one of the chief differences between French and English work-people to be that the French got much sooner bewildered with a difficulty and gave in, while the English still kept on trying to find a way out until the thing was done (Senior, *Political Economy*, p. 150). But all are agreed that this and other industrial capacities would be greatly developed by better education. Mr. E. Peshine Smith states that the Massachusetts Board of Education procured from the owners of factories in that state, some fifty years ago, a report of the different rates of wages paid and the education of the recipients, and the amount of wages varied exactly as the education, the lowest being foreigners who signed their name with a mark, and the highest the girls who went to school in winter and worked in the mills in summer. He adds that it was estimated that popular education gave an advantage of 20 per cent to the American manufacturer in competition with foreigners (*Manual of Political Economy*, 151). American manufacturers used to say that, from their better education, two American mill hands would do the work of three English ones, and Mr. Harris Gastrell, in his report to the English Foreign Office in 1873, admits that this may be so still in the mills—now apparently a minority—where American has not been superseded by foreign labour (p. 682). Sir W. Fairbairn said, that for difficult engineering work they always looked out for the best-educated workmen; and when Mr. Mundella asked a Swiss manufacturer how his countrymen had taken the ribbon trade from the French, he was answered, "We beat them by means of an educated people."

Special dexterities are, generally speaking, the result of special training and practice. No doubt cunning of hand may be inherited like other faculties, but even then greater facility still comes from repetition. This is the source of the increment of production obtained through division of labour. The jack-of-all-trades never has the chance of becoming master of any; but when every man confines himself to a separate trade, the sum of their total work is improved, both in quality and quantity, through the greater perfection each man acquires in the performance of his special branch of work by means of constant repetition. On the other hand, an extreme sub-division of labour may involve a certain monotony which is not favourable to efficiency even in the special branch of work concerned, and is certainly adverse to general efficiency. Marx, however, exaggerates the ill effects of specialisation when he calls the modern "detail workman" a mutilated and crippled monstrosity, a mere bit of the machine he sits and watches. Mr. Nasmyth, with much more practical experience, says he has often been struck to observe how this process of watching the beautiful and precise working of machinery exercised a positively intellectualising effect upon the labourer which was not unfavourable to versatility. Another essential for good work, hardly behind manual facility, is visual accuracy, and Mr. Nasmyth thinks the average workman comes far short in this quality; he found that his own men in general spent most of their time in applying the rule and straightedge, while the dexterous workman seldom used these tools at all; his eye was enough.

Intermediate between this cunning of eye and hand, and general mental intelligence, stand certain special mental capacities, such as artistic taste and mastery of sciences cognate to the workman's trade, which are of great importance for good work, though some authorities contend they are less the concern of the manual labourer who executes the work than of the designers and

managers who direct it. The French have long excelled all other nations in taste, and the Germans have pushed to the front in some industries through their better technical and scientific instruction.

(3) Diligence and care are the moral virtues of labour, and in the national distribution of industrial qualities they are the portion of the Germans. The English, as Defoe said, are the most diligent-lazy people in the world, very strenuous in their work while they are at it, but prone to breaks of idleness after pay-days, or at other times, for purposes of dissipation. This is, of course, a great advance in diligence over the uniform sluggishness and aversion to labour of many inferior races, but it stands much below the diligence of the Germans, who are not only steady and docile in general, but have a conscientiousness and power of taking pains which alone render them, says Sir C. W. Siemens, preferable to other work-people for many special kinds of work. No race is incurably indolent. The Scotch in the last century were counted the laziest people in the United Kingdom, and in this century are the most industrious. The Irish are still thought idle in Ireland and found active out of it. The diligence is always due to circumstances, to a change from conditions in which nothing was to be made by working to conditions in which present work is seen establishing future comfort, and is made pleasant and cheerful by the hope so inspired. The great encourager of willing industry is good wages. It is an old contention — which was already successfully refuted with a considerable induction of facts by Adam Smith (*Wealth of Nations*, bk. i. ch. viii.)—that good wages only make men indolent, enabling them to supply their wants with so much less labour; and Professor Cairnes (*Some Leading Principles of Pol. Econ.*, p. 240) has made a kindred objection, that good wages are a bad thing, because they always encourage dissipation; but both these objections err by drawing an unwarrantable conclusion as to the general operation of good wages from the experience of their operation in particular instances only. The countries of the highest wages are also the countries of the highest productivity; and while wages have been generally rising for half a century, drunkenness has been lessening. J. R.

EFFICIENCY OF MONEY. This term is proposed by Mill to express "the average number of purchases made by each piece in order to effect a given pecuniary amount of transactions." According to the "quantity theory," in that rudimentary form which makes abstraction of *Credit*, the value of money will be inversely proportional to the quantity multiplied by the efficiency thereof. This proposition is not true of the *rapidity* of circulation, when defined, *e.g.* by Roscher, as the number of purchases made by each piece per *year* (or other unit of *time*); unless indeed the total amount of transactions is regarded as constant.

A wider definition of "efficiency" covers the circulation of *instruments of credit* as well as coins. Thus Mill: "as money tells upon prices not simply in proportion to its amount, but to its amount multiplied by the number of times it changes hands, so also does credit." Mr. Macleod has in view this wider sense when he introduces the happy phrase "*duty*" of money (*Economic Philosophy*, i. p. 211).

There is reason to believe that the efficiency of money in both these senses varies from time to time. Mill says (*Pol. Econ.*, bk. iii. ch. xii. § 3), "the money of the community is virtually increased in a time of speculative activity . . . by increased rapidity of circulation." So Walker (*Pol. Econ.*, art. 174), "the rapidity of circulation varies from day to day with the state of trade and the temper of the public mind." But precise observations of the extent of variation are wanting. "On that subject there are no statistics," says Prof. Marshall (*Evidence before the Royal Commission on Recent Changes in the value of Silver and Gold*).

Much the same may be said of efficiency in a third sense in which the term is sometimes used, namely, to denote the amount of pecuniary transactions which a given quantity of the metallic standard either effects directly by hard cash payments, or supports and renders possible by acting as a *reserve*. We may say that the efficiency of money in this sense is greater in one country (*e.g.* England) than another; but an accurate measure is not to be expected; for even if we could ascertain (1) the total amount of metallic money, whether in active circulation, or in reserve, and also the "efficiency" (in the first sense of the term) of that part which is in active circulation; and (2) the total volume of things on sale; we should still require to know the average number of times each of these things changes hands during the year, the rapidity of the circulation of goods, and, as Prof. Marshall says (*loc. cit.*), "with regard to that we have no statistics whatever; indeed there has never been any attempt to obtain statistics on the subject."

[Mill, *Political Economy*, bk. iii. ch. viii. § 3, ch. xii. §§ 3, 4.—Walker, *Political Economy*, art. 174.—*Money*, p. 62.—Roscher, *System of Political Economy*, § 123, and authorities there cited.—H. D. Macleod, *Economic Philosophy*, i. p. 211.

On the statistical aspect of the subject some hints may be obtained from the following: *On Currency*, anonymous, attributed to Sir J. W. Lubbock, London (Charles Knight and Co.), 1840 (included by Jevons in his list of Mathematico-Economic books).—Dr. Franz Kral, *Geldwert und Preisbewegung* (Staatswissenschaftliche Studien, Dr. L. Elster).] See RAPIDITY OF CIRCULATION.

F. Y. E.

EGOISM. This term may be said to have a popular and also a philosophic meaning. In

popular usage it is nearly equivalent to selfishness, and expresses the temper of mind which sacrifices to one's own welfare the welfare of others. Economists have often been accused of assuming that all men are egoists in this sense, and of giving practical precepts in conformity with this assumption. In philosophic usage egoism has a more subtle meaning. Egoistic psychology finds the only possible motive of action in the desire to attain pleasure and to avoid pain, although it allows that this desire may often prompt to actions which in ordinary parlance would be called unselfish. Egoistic ethics, taking its premisses from egoistic psychology, defines morality as the intelligent pursuit of that which instinct compels us to pursue, as the rational pursuit of pleasure and avoidance of pain, although it tries to show that such morality is compatible with what is commonly known as unselfishness. The founders of modern political economy have often been censured for assuming the truth of egoistic psychology and the validity of egoistic ethics. This charge is quite distinct from the other charge, although the two are commonly confused. The first has excited most odium. The second is more difficult to disprove. No distinguished economist has said that men all are and ought to be selfish. But many distinguished economists have held that self-love is the mainspring of human action.

Adam Smith's view respecting the influence of self-love on economic action is most plainly stated in his account of the principle which gives occasion to the division of labour (*Wealth of Nations*, bk. i. ch. ii.): "Man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour and show them that it is for their own advantage to do for him what he requires of them. . . . It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves not to their humanity, but to their self-love; and never talk to them of our own necessities, but of their advantages. Nobody but a beggar chooses to depend chiefly upon the benevolence of his fellow-citizens." At first sight this passage seems to assert that selfishness is the only economic motive. But on further consideration it will appear that the operation of self-love here described is not of that injurious kind which would commonly be considered selfish. Tradesmen who undertook to supply everything gratis would be far less useful to society than tradesmen who expect a fair price for their goods. Such an expectation is not selfish in the popular sense of the term. It is only conformable to common sense. Similarly, when Adam Smith recommended complete economic liberty and trusted to self-love to generate the best economic system, he did not mean to preach selfishness in the popular sense. The self-love to which he trusted was self-love restrained by the criminal and civil law, by public opinion, by conscience, and by social and amiable instincts. With his sentiments we may compare those of Malthus expressed in the Appendix to his *Essay on Population*: "The great Author of nature . . . by making the passion of self-love beyond comparison stronger than the passion of benevolence, has at once impelled us to that line of conduct which is essential to the preservation of the human race. . . . He has enjoined every man to pursue as his primary object his own safety and happiness and the safety and happiness of those immediately connected with him. . . . By this wise provision the most ignorant are led to promote the general happiness, an end which they would have totally failed to attain if the moving principle of their conduct had been benevolence. Benevolence indeed as the great and constant source of action would require the most perfect knowledge of causes and effects, and therefore can only be the attribute of the Deity."

Here self-love is not only stated as the actual, but justified as the best, motive of ordinary human action. Yet the self-love here justified is not selfishness commonly so called. Thus it includes "those immediately connected with" oneself, *i.e.* one's family. Again the benevolence here disparaged seems confined to the desire of doing good directly to others. The scope of such benevolence must always be narrow for most men. In ninety-nine cases out of a hundred the greatest service which a plain man can render to society is to do his own work well. His work will doubtless be ennobled by his perceiving that it has a value for society as well as for himself. But if he were to forsake it and devote himself entirely to works of charity he would be less useful than in his old calling. Malthus felt that he had laid himself open to misinterpretation, for he adds in a note: "It seems proper to make a decided distinction between self-love and selfishness, between that passion which under proper regulations is the source of all honourable industry and of all the necessaries and conveniences of life, and the same passion pushed to excess when it becomes useless and disgusting and consequently vicious."

These quotations do not justify the inference that Adam Smith and his successors alleged that mankind universally were or ought to be selfish in the plain sense of that term. "This opinion may be dismissed at once as a popular error which finds no support in the teaching or practice of the best economists" (Marshall, *Principles of Economics*, bk. i. ch. vi., "Economic Motives.") But the above quotations do show

that the founders of modern political economy accepted an egoistic psychology and an egoistic ethics. In other words, they took for granted the current philosophy of their day. That philosophy regarded man simply as a subject of pleasure and pain, and defined morality as the line of conduct which led to happiness. The motive of duty to one's fellows was found in the gratification of the social instinct. Human shortcomings were made good by the over-ruling benevolence of God or of nature which led every man to promote the good of others even when thinking solely of his own. It may well be that such a philosophy is inadequate or even corrupting; but it is unfair to blame an economist for accepting the philosophy current in his own day. With the ultimate solution of psychological or ethical problems an economist has nothing to do. As a man of science he has only to estimate the motives which actuate men in producing, distributing, and consuming wealth. As an adviser of individuals or of states, he has only to take for granted the highest morality known to his age.

Egoism or selfishness in the popular sense is perhaps more conspicuous in the economical sphere than in any other sphere of human activity. Yet even here it affords no universal key. "Ethical forces," says Prof. Marshall in the preface to his *Principles of Economics*, "are among those of which the economist has to take account. Attempts have indeed been made to construct an abstract science with regard to the actions of an 'economic man,' who is under no ethical influences, and who pursues pecuniary gain warily and energetically, but mechanically and selfishly. But they have not been successful, nor even thoroughly carried out. For they have never really treated the economic man as perfectly selfish; no one could be relied on better to endure toil and sacrifice with the unselfish desire to make provision for his family; and his normal motives have always been tacitly assumed to include the family affections. But if they include these, why should they not include all other altruistic motives, the action of which is so far uniform in any class at any time or place that it can be reduced to general rule? There seems to be no reason." And in the chapter on economic motives above referred to, Prof. Marshall points out that it is the measurable, not the selfish character of motives, which brings them within the range of economic inquiry. Of course the motives thus measurable are not simple but highly complex. We may be able to measure, *e.g.* the force of the complex motive which leads a particular class in a particular country to spend money on the education of their children. But we cannot measure, nor for economical purposes is it necessary to measure, the relative importance of the elements in this complex motive, such as desire for the worldly advancement of one's children, desire for their spiritual perfection, etc. Nor need we determine how far each particular motive approaches to pure selfishness or pure unselfishness.

In giving practical advice the economist must equally take account of ethics. It will be useless or mischievous to give advice which the common conscience of mankind declares to be immoral; and equally useless or mischievous to give advice which assumes that great masses of human beings are exempt from human weakness. In estimating the force of egoism under actual conditions, and the possibility of controlling it to higher issues, the economist will be guided aright only by a sagacity which is the gift of nature, although it may be improved by study. It would not be hard to show that even so well-informed a writer as Mill thought contemporary men more selfish than they are, and expected men in the future to be less selfish than they are likely to prove.

[See Goschen in *Econ. Journ.*, Sept. 1893, and ECONOMIC MAN.] F. C. M.

EGRON, ADRIEN CÉSAR, born in Tours, was a printer and publisher in Paris (fl. first half of 19th cent.). He printed in 1844 his *Livre de l'Ouvrier; ses devoirs envers la Société, la famille, et lui-même* and in 1847 his *Livre du Pauvre; devoirs de celui qui donne et de celui qui reçoit.* Both works consist mainly of a series of extracts out of different writers from the Bible and Aristophanes to modern times, illustrating the duties of the rich and of the poor respectively. These are connected by rather prolix considerations of his own. He is much more a Christian moralist than an economist. E. Ca.

EIGHT-PIECE (or piece-of-eight). A Spanish silver coin of the value of eight reals, was for many years known as a "piece-of-eight" throughout the British, American, and West Indian colonies, where it was the principal coin in use from the time of the foundation of those colonies until the early part of the 19th century. It circulated in the United States until as late as the year 1857, when it was withdrawn from circulation in that country and demonetised. Pieces-of-eight were also to be found in circulation in New South Wales during the early years of that colony's existence; and they are still used in some of the islands of the East Indian archipelago. The title "piece-of-eight" fell into disuse about the end of the 17th century, when the coin began to be known as the "Spanish" or "hard" dollar (see DOLLAR, HARD). F. E. A.

EIGHT HOURS MOVEMENT. An agitation for a universal eight hours day of labour —for eight hours work without diminution of pay—was begun in England as far back as 1833, by two large employers, John Fielden, M.P., and Robert Owen, and a special or-

ganisation, the National Regeneration Society, as it was termed, was formed to carry on the agitation, but it led to no results, and the question was not practically raised in this country again till the present energetic movement sprang up here and on the continent simultaneously about the year 1887. Meanwhile a successful beginning had been made with the eight hours movement by the working class in Victoria in 1856, in New South Wales in 1863, and in the United States in 1866, and under the same general influences which brought the question up in Europe, this Australian movement took a fresh start in 1884, and the American in 1886. Of the fifty-two trades of Melbourne which now enjoy the eight hours day, thirty-two obtained it since 1884. In the United States, where the agitation died away altogether after the industrial depression of 1873, in which its previous gains were all lost, the struggle is renewed every spring now with a great campaign of strikes, and the eight hours day is spreading among the more powerful trades.

A special plea for the eight hours' day is set up on behalf of certain exceptional trades on account of their dangerous, unhealthy, or exhausting character, but with respect to the mass of ordinary occupations the demand is usually based on one or other of two different and indeed opposite grounds. The advocates of one section base it on the necessity of the eight hours day for realising the recognised claim of modern workpeople to reasonable leisure for the culture, enjoyments, and duties of life, and on the small cost, if any, at which the claim can, in their view, be realised, inasmuch as experience seems to justify the expectation that the personal efficiency of labour would be so much improved under an eight-hours system that the rate of individual production would remain as high as before. Another section plead for the eight hours day because they believe it will result in the contrary alternative of a general diminution of individual production, and they think it will prove, on that account, a sure means of increasing the demand for labour, thinning the ranks of the unemployed, and raising the general rate of wages. The latter plea, though apparently the most prominent and influential in the present movement, is unsolid, going against the possibilities of the case in its view of the effect of a general diminution of individual production, and against its probabilities in its view of the effects of a general eight hours day. On the former point it is admitted, by those who use this plea with discrimination (cp. Webb and Cox, *Eight Hours Day*, p. 107), that if a general diminution of individual production involved a corresponding diminution of the aggregate production of the country, it would necessarily cause a fall instead of a rise in the demand for labour, because the amount of work which society requires done at any given time depends strictly on the extent of the produce of society at that time. But they contend that the aggregate production of the country will not be diminished, inasmuch as any shortcomings will be made up by the work of those who are at present unable to obtain employment at all. They seem to believe it possible to make work for the unemployed by means of capital that only comes into existence as the product of the work it is supposed to make, but if they can do that under an eight hours system, why cannot they do it now?

As a matter of experience the eight hours day has surprisingly little effect on the numbers of the unemployed. In Victoria, for example, where three-fourths of the population now work only eight hours a day, the unemployed are strangely enough a greater and more constant trouble than they are here, and, stranger still, they seem to have become even a greater trouble since the eight hours day became general a few years ago than they were before. Whatever are the causes of this redundancy, the eight hours day has had little influence to check them; and the reason of this is twofold. First, shortening the hours of labour has no possible effect on the ordinary causes of fluctuations of employment, bad harvests, injudicious speculations, wars, bad weather, sudden changes of fashion, etc.; and second, shortening the hours of labour involves no corresponding shortening of the product of labour, because it enables the labourer very largely, in many cases completely, to recover by the greater intensity and energy of his work what he loses by its shorter duration.

The degree of this recovery naturally differs in different occupations, but we have now had extensive experience of the eight hours day, and the results of that experience show (1) that there are extremely few occupations in which no recuperation at all takes place, but the diminution of work has been exactly proportional to the diminution of time of work; and (2) that in the majority of trades in which the experiment has been tried, the recuperation has been, not partial merely, but complete. Nay, in a number of cases there has been a positive increase of product. Mr. W. Allan, Scotia Engine Works, Sunderland, for example, found the labour cost of his engines to have become slightly less. Mr. Beaufoy, M.P., vinegar and jam manufacturer, gets more work done in the year, and without any overtime, than he ever got done even with some months' overtime before, and he did not employ a single additional hand except three or four gate-keepers. The South Yorkshire miners had their hours reduced in 1858 from twelve to eight, and turned out much more in the short day than they did in the long one. The men in some of the depart-

ments of the Springfield Armoury, U.S.A., were found in 1868 to have done considerably more work in eight hours than they used to do in ten; and in the other departments the old rate of production, though not similarly exceeded, was fully maintained. The same result of a full maintenance of the old rate of production is reported of many other eight hour experiments in trades so various as iron shipbuilding, chemical manufacture, engineering, glass-making, cabinet-making, printing, masonwork, cutlery, soda manufacture, typefounding. There is more than one instance of this occurring even in cotton-spinning, when the mills were working slack time. The reason is in all cases the same; less lost time and more physical energy. While the period of nominal work is shortened, the period of effective work is really lengthened. The large number of the trades in which the eight hours day has been already introduced without interfering with the amount of production certainly suggests the probability of its similarly successful introduction into most other productive trades. The London gas-workers, indeed, did not maintain their production, but then the reduction in their hours was very great, from twelve to eight, and as it was, their product per hour was so much improved that, though their hours were shortened by a third, they did in one of the gasworks one-sixth, in another one-seventh, and in a third only one-twelfth less work. There are other trades, like gate-keeping, and perhaps certain branches of tram and railway service, in which the work is not susceptible of compression into shorter time, but they are not numerous. And it is worthy of notice that the Huddersfield Tramways, on substituting two eight hours shifts for one fourteen hours day, did not require twice as many conductors and drivers as before, but only half as many again. Under all these circumstances the very current expectation that the eight hours day will do anything considerable in thinning the number of the unemployed is illusory, and the true hope of the movement lies in the probability—the very great probability—that the eight hours day may be generally introduced without in any way impairing production, and therefore without in any way either lowering the rate of wages or lessening the competing capacity of the nation.

Those who believe in this probability will not be greatly concerned whether the eight hours day is to come by trade-union agency or by legislative enactment, the aspect of the question on which opinion in this country is chiefly divided. There cannot be said to be two opinions about the desirability of the eight hours day in itself; for experience of previous shortening of hours justifies the expectation that the leisure will be a much more abundant source of good than of ill to the working classes; but even among these classes themselves there is a strong, though declining, opposition to obtaining it by compulsory legislation. Unconditional compulsion, indeed, is not contemplated by any one, except in the case of certain special trades, such as mining and baking, which are alleged, rightly or wrongly, to be more dangerous or unhealthy than the rest; what is commonly demanded by the advocates of legislation is an eight hours law conditioned by trade option in some form: either (1) in the form of making the law enforceable only on such trades as petition for it by a clear majority of their members (or of their organised members) in the whole country; or (2) in the form, carried by decisive votes in the trades-union congresses of 1891 and 1892, and known as the 'trade exemption principle, of making the law enforceable on all trades which do not petition by a majority of their members (or of their organised members) to be exempted from its operation; or (3) in the form—commended by Mr. Gladstone in 1892, and known as the local trade option principle—of giving the right of option or exemption to the majority of each trade in each district. These limitations proceed from a general recognition that an eight hours day cannot be equally practicable or suitable for all the twelve thousand different occupations of England, and that any law fixing the hours of ordinary adult labour must be applied with considerable elasticity in accordance with the desires and circumstances of diverse trades. But legislative interference is alleged to be necessary in order to enable trades to get what they desire, inasmuch as under present conditions, though a majority of adult labourers in a trade might want an eight hours day, they could always be prevented from obtaining it as long as a minority were willing to work longer, and the interference is accordingly represented as really promoting instead of infringing the freedom of adult labour.

On the other hand, the opponents of eight hours legislation contend that it makes a prejudicial inroad on the freedom and independence of the labourer, that it will prove disastrous to production and trade, and that in any case it is unnecessary since trade-union agency will answer the purpose more safely and more effectually. Trade-union agency has certainly proved sufficient in Victoria. Of the fifty-two eight hours trades of Melbourne, not one got the eight hours by law, and though the miners in other districts have had an eight hours act since 1883, many of them had the eight hours day long before. A factory act, restricting women's hours to eight, has existed in that colony since 1874; but in accordance with one of its clauses, its operation has been very generally suspended by the minister at the request of the workers; and though the number of suspensions is now diminishing, the enforcement of

the eight hours day in the factories depends more really on opinion than on the law. On the other hand, many eight hours laws were passed in the United States in the first heat of the movement, twenty-five years ago, but they have all, for one reason or another, long been mere dead letters, and all recent gains have been won by trades-union agency. It must be admitted however that long labour conflicts are extremely costly and hurtful to trade, while their results are often short-lived, and the inclination for legislation among English trade unionists is due largely to the desire to avoid the expense and misery of a strike, and to their belief that law will better secure permanence in the arrangements.

[Hadfield and de B. Gibbins, *A Shorter Working Day*, 1892.—Webb and Cox, *Eight Hours Day*, 1891.—John Rae, "The Balance-Sheet of Short Hours," in *Contemporary Review*, Oct. 1891.] J. R.

EINERT, Carl (1777-1855), a German jurisconsult, known for his theory of foreign exchanges. Alluding to the influence of political economy on the development of jurisprudence and commercial legislation, Cossa remarks that "Einert's book (*Das Wechselrecht*), propounding a legal theory of the bill of exchange founded on its modern economic functions, contributed largely to prepare the way for the German law of 1848, which marked a new epoch in the history of the legislation of *bills of exchange*" (*Guide to Study of Political Economy*, ed. 1880, pp. 30, 31).

Das Wechselrecht, nach dem Bedürfniss des Wechselgeschäfts im neunzehnten Jahrhunderte, Leipzig, 1839, 8vo.—*Ueber das Wesen und die Form des Literal-Contracts wie dieser zur Zeit der Justinianeischen Gesetzgebung ausgebildert gewesen und Vergleichung desselben mit dem Wechsel*, Leipzig, 1852, 8vo.

[*Dr. C. Einert namentlich in seinen Beziehungen zu der jüngsten Entwickelung des deutschen Wechselrechts dargestellt*, Leipzig, 1855, 8vo.—*Allgemeine Deutsche Biographie*, v. 759.] H. R. T.

EISDELL, Joseph Salway (fl. 19th cent.), author of:

A Treatise on the Industry of Nations, or the Principles of National Economy and Taxation, London, 1839, 2 vols. 8vo (vol. i. deals with production, and vol. ii. with distribution, consumption, and taxation; translated, with introduction, by Prof. F. Ferrara, in *Biblioteca dell' Economista*, Serie I., vol. viii. Ferrara calls it a mere compilation without special character, but interesting, as showing the views of the English school of economists, "se una scuola inglese vi ha").—*An Essay on the Causes and Remedies of Poverty*, London, 1852, sm. 8vo ("poverty and crime, therefore, among a great mass of the population, are the sign and evidence of industrial improvement, not, however, yet universally adopted," p. 58). H. R. T.

EISELEN, Johann Friedrich Gottfried (1785-1865), born at Rothenburg, died at Halle, where he gave much attention to the conduct of the affairs of the city. He edited a second edition of L. H. von Jakob's *Die Staats-Finanzwissenschaft*, 1837, and wrote:

Grundzüge der Staatswirthschaft oder der freien Volkswirthschaft und der sich darauf beziehenden Regierungskunst, Berlin, 1818, 8vo.—*Handbuch des Systems der Staatswissenschaft*, Breslau, 1828, 8vo.—*Die Lehre von der Volkswirthschaft in ihren allgemeinen Bedingungen und in ihrer besonderen Entwickelung, oder wissenschaftliche Darstellung, der bürgerlichen Gesellschaft als Wirthschaftssystem*, Halle, 1843, 8vo.

[*Allgemeine Deutsche Biographie*, v. 764.] H. R. T.

EJECT, EJECTMENT, EJECTION. The object of proceedings in ejectment is to recover possession of land. The action of ejectment, properly so-called, was abolished by the Common Law Procedure Act of 1852. It was used as a means of ascertaining the title to land. It involved a remarkable series of fictions designed to escape from the inconveniences attaching to what were known as real actions (*i.e.* actions for the recovery of real estate). The party claiming delivered to the party in possession a declaration containing the names of imaginary parties, John Doe and Richard Roe. The declaration set out that John Doe was lessee of the land in question, holding of the real plaintiff, and had been ousted by Richard Roe. A notice signed by Richard Roe was served upon the real defendant, to inform him that Richard Roe had no real title to the land, and that judgment would go against him by default, so that the real defendant would be turned out, unless he appeared to defend his title. The action was then tried as between John Doe and the real defendant. If John Doe obtained judgment, this was tantamount to a judgment in favour of the real plaintiff, under whom John Doe claimed. The place of the old action of ejectment is now taken by an action for the recovery of land, which differs little from other actions in the High Court. Proceedings brought by an undisputed proprietor wishing to get rid of a tenant whose term has expired, or who has made default in payment of his rent, are commonly described as proceedings in ejectment. Such proceedings may be taken either at common law or under the Common Law Procedure Act of 1852. The action at common law cannot be brought unless the landlord, or his agent authorised for that purpose, has made a demand of the precise amount of rent then due, and on the precise day on which the rent becomes due under the terms of the agreement. The demand must be made before sunset of that day, and the tenant may pay at any time up to midnight. It must be made either at the place where the rent is payable or on the land itself. The necessity for the demand is the same, even though there be no person on the land to pay. But any or all of these require-

ments may be dispensed with by the express terms of the lease. The Common Law Procedure Act, 1852, dispenses with the formal demand if half-a-year's rent be owing, and no sufficient property to meet the claim can be found on the premises. But this enactment applies only when the agreement of tenancy gives the landlord a right of re-entry for non-payment of rent. When half-a-year's rent is in arrear, and neither the value of the premises nor the annual rent amounts to £50 a year, the county court can order that the landlord shall be put in possession of the premises. By whatever procedure effected, ejectment is the ultimate remedy of a landlord against a defaulting tenant. By means of ejectment he recovers possession of the land for which he no longer receives rent. Unless he could in the last resort employ this remedy, the premises which he has let would often be practically valueless to him. For there may be no sufficient goods on the premises to distrain upon, and the defaulting tenant may not be substantial enough to make it worth while to bring an action against him personally. Besides default might be made again and again by a tenant remaining in possession. The circumstances which make ejectment of defaulting tenants peculiarly unpopular seem to be these: —sympathy with the instinctive attachment which almost all persons feel for a place which they have long inhabited; a vague notion of proprietary right in a tenant who has occupied the land a long time, and a more definite feeling of injustice when the tenant, although a defaulter, has in years past executed improvements which have added to the permanent value of the land. In this last case, adequate compensation should be made, but the power of vindicating proprietary right is essential to the well-being of society. Ejectment and eviction are, legally speaking, the same process, but eviction is perhaps the term oftenest used in common parlance (see EVICTION).

[Wharton, *Law Lexicon*, Art. *Ejectment.*— Woodfall, *Landlord and Tenant* (14th ed.), ch. 22.—Copinger and Munro, *The Law of Rents*, chs. xxiv. and xxv.] F. C. M.

ELASTICITY is a technical term employed by Prof. Marshall, to denote the sensitiveness of the response which a certain thing returns to changes in another thing that stands in a causal relation to the former; *i.e.* the ratio between the percentage increase (or, it may be, diminution) of one thing, say x, and the percentage increase (or diminution) of another, say y. (1) in symbols: $\frac{\Delta x}{x} \div \frac{\Delta y}{y}$, or $\frac{\Delta x}{\Delta y} \cdot \frac{y}{x}$ (cp. Marshall, *Principles of Economics*, 2nd edition, bk. iii. ch. iv. p. 160, *et seq.*, *Journal of the Statistical Society*, Jubilee Vol. 1885, p. 256).

An important case is the "elasticity of demand." "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price" (Marshall, *Principles of Political Economy*, bk. iii. ch. iii. 1st ed.). The difference in this respect between different commodities has been felt, though not so accurately conceived and expressed, by some other writers. Thus Mill: "If the article is a necessary of life, which, rather than resign, people are willing to pay for at any price, a deficiency of one-third may raise the price to double, triple, or quadruple" (*Political Economy*, bk. iii. ch. ii. § 4). And again, "Some things are usually affected in a greater ratio than that of the excess or deficiency, others usually in a less. . . . The amount of what people are willing to expend on it . . . may be affected in very unequal degrees by difficulty or facility of attainment" (*ibid.* bk. iii. ch. viii. § 2). [Compare Auspitz and Lieben, *Theorie des Preises*, p. 41, *et seq.*— Seligman, *Shifting and Incidence of Taxation*, p. 148, *et seq.*—Irving Fisher, *Mathematical Investigations in the Theory of Value and Prices*, p. 46, *et seq.*] Prof. Marshall holds that in general the elasticity of demand "is small, when the price of a thing is *very high* relatively" to the means of a class of purchasers, "and again when it is *very low;* while the elasticity is much greater for prices intermediate between what we may call the *high* level and the *low* level" (Marshall, *Principles of Economics*, bk. iii. ch. iv. § 2). The elasticity of demand is a prime factor in determining the interest which the consumer has in a fall of price (see CONSUMER'S RENT), and the effects of bounties and of monopolies (*op. cit.* bk. v.).

F. Y. E.

ELASTICITY OF DEMAND. See previous article and DEMAND.

ELDER, WILLIAM (1806-1885), was born in Pennsylvania, and died in Washington. He practised medicine and wrote frequently for the press. Besides several volumes in general literature, he published *The Debt and Resources of the United States*, Philadelphia, 1863, pp. 32; *Questions of the Day*, Philadelphia, 1871, pp. 367; and *Conversations on Political Economy*, Philadelphia, 1882, pp. 316. Elder belonged to the Carey School, and advocated a political economy which was national as opposed to cosmopolitan. He introduced the term "guarantyism" to denote the various charitable, savings, and philanthropic agencies to promote thrift. D. R. D.

ELECTION. The doctrine of election was introduced by the courts of equity (see EQUITY), and may be shortly stated as follows: if by a will or deed a testator or donor disposes of property belonging to another person, and by the same instrument confers a benefit on that

person, such person cannot at the same time accept the benefit conferred upon him and refuse to surrender his property in accordance with the disposition of the testator or donor. He must choose ("is put to his election") as to whether he will accept the benefit and surrender the property in question, or whether he will keep his property and forego the benefit, or at least part of it, the principle being that where the value of the benefit under the will or deed exceeds the value of the property with respect to which the election arises, the party disappointed by the election is not entitled to compensation beyond the value of that property. Thus if a testator by his will gives A an estate belonging to B, of the value of £10,000, and by the same instrument gives B a legacy of £20,000, B may elect to conform to the will by conveying the estate in question to A and receiving the legacy of £20,000; but if he elects against the will, he must pay £10,000 to A by way of compensation and may retain the remaining £10,000. In many cases the facts are not so simple and the doctrine frequently gives rise to considerable difficulty. E. S.

ELEGIT (Writ of). A writ of execution (see Execution), by virtue of which a judgment creditor is enabled to take possession of the debtor's land. The writ does not in itself authorise the creditor to sell the land, but an order for that purpose may be obtained by application to the chancery division of the high court (27 & 28 Vict. c. 112, §§ 4-6). Execution by "writ of elegit" was introduced by the Statute of Westminster (13 Ed. I. c. 18), and originally extended to the debtor's chattels (excluding beasts of the plough), but was restricted to one-half only of the land. The last-named restriction was removed by 1 & 2 Vict. c. 108, whilst on the other hand the Bankruptcy Act 1883, § 146, enacts that writs of elegit are no longer to extend to chattels. A recital is contained in the writ, showing that the creditor has chosen this means of execution in preference to others, which in the original Latin form (quod "elegit") included the word from which the name is derived. E. S.

ELEVATOR. Part of the machinery in unloading vessels (see Docks, *Mechanical Appliances at Docks*). In America a public warehouse for produce (see Warehouses).

ELIBANK, Patrick Murray, fifth lord (1703-1778), lawyer, soldier, and pamphleteer, was admitted a member of the Faculty of Advocates at Edinburgh in 1723, and served in the Carthagena expedition under Lord Cathcart in 1740. He thought the existence of the national debt a very great calamity, and stockholders and stock-jobbers a most pernicious class of men, whose ill-gotten wealth gave them the power to further their speculations by embarking the nation on harmful lines of policy. He accuses them of having caused the war of 1739; and suggests that their property might with advantage be confiscated, like the property of the monasteries in 1537, and the proceeds devoted to encouraging our manufactures by bounties.

On economic subjects Lord Elibank wrote *An Inquiry into the Origin and Consequences of the Public Debt*, Edinburgh, 1753-1754.—*Essay on Paper Money and Banking from Essays on the Public Debt, Frugality*, etc., 1755. This essay is reprinted in M'Culloch's *Select Tracts on Paper Currency, etc.*, London, 1857. M'Culloch says of this, "It is a poor performance."—*Letters on the proposed Plan for altering Entails in Scotland*, Edinburgh, 1765.—See also Douglas's *Peerage of Scotland*. A. H.

ELIOT, Francis Perceval (*c.* 1756-1818), entered the civil service, and for some years before his death was a commissioner of audit at Somerset House. His economic writings are chiefly on subjects connected with currency and banking. He considered that notes might safely be issued on good securities, and need not be restricted to representing actual deposits of bullion. He belongs to a class of writers fostered by the Bank Restriction, who, in Sir Robert Peel's words, "would not admit the doctrine of a metallic standard." Eliot advocated an "ideal money" which "admits of invariable value, because it is not formed of substantial and therefore variable materials." . . . "The money of account remains in itself fixed and undepreciated, while the precious metals may either be suffering an intrinsic depreciation," or the converse (*Observations*, p. 33). As General Walker remarks, it is scarcely worth while to separate the parts of truth and error here. Otherwise a rudimentary conception of the standard which is formed by an Index Number might be ascribed to Eliot. Compare the context of the passages above cited (and *Observations*, p. 41), where reference is made to Sir George Shuckburgh. Consistently with this view, Eliot maintains that during the war it was the gold which was appreciated not the paper depreciated. He wrote:

Demonstration or Financial Remarks with occasional observations on Political Occurrences, 1807 (the first part discussing sinking funds, the latter part "noticing in a summary way some of the principal events since the decease of that ever to be regretted statesman," Pitt.)—*Observations on the Fallacy of the supposed depreciation of the Paper Currency of the Kingdom with reasons for dissenting from the Report of the Bullion Committee*, 1811; Second edition, with a supplement replying to criticisms, 1811.—*Letters on the Political Situation of this Country*, addressed to the Earl of Liverpool by Eliot under the signature of Falkland.—*Pamphleteer*, Nos. vi. and vii. (1814), No. x. (1815), No. xiii. (1816).

[*Quarterly Review*, February 1811—"Tracts on the Report of the Bullion Committee."—Peel, speech on the Bank Charter Act, May 1844.—Walker, *Money*, p. 277.] F. Y. E.

ELIZABETHAN LEGISLATION. For notice of the legislation of the period of Queen Elizabeth, in its reference to economic changes, see LEGISLATION.

ELKING, HENRY (*fl.* 1720), who was at one time extensively engaged in the Greenland whale fishery, published (1) *The Interest of England considered with respect to its Manufactures*, etc., London, 1720, 8vo. This pamphlet was directed against the importation of calicoes by the East India Company, to which Elking attributes "the decay of trade, the melting of coin, the scarcity of silver, and the increase of poor." The importation of East India calicoes was, in accordance with these principles, prohibited in the following year (1721). (2) *A View of the Greenland Trade and Whale Fishery, with the National and Private Advantages thereof*, London, 1722, 8vo, 2nd ed. 1825. Reprinted in vol. iv. of the *Overstone Collection of Select Economical Tracts*, 1859. This is one of the most valuable of the early pamphlets on the whale fishery. Elking gives an account of its origin, and progress of the fishery and its condition at the time he wrote, and suggests means for getting it once more into English hands. (3) *The Interest of Great Britain considered*, etc., London, 1723.

[M'Culloch's *Literature of Pol. Econ.*, p. 233.—Halkett and Laing's *Dictionary of Anonymous Literature*, 1240.—*Brit. Mus. Cat.*] W. A. S. H.

ELLIOTT, EBENEZER (1781-1849). Ebenezer Elliott, the "corn-law rhymer," was born at Masborough near Sheffield, and was the son of a manufacturer who had obtained a share in a small iron-work in that place. He received very little education, but at an early age he began both to read largely and to write verses. His early attempts in verse writing are not of much value. On his marriage he invested the money his wife brought him in his father's business. But the trade was declining at the time; his father died worn out by business anxieties; and after a few years spent in a hopeless struggle, Elliott found that he was a ruined man, ruined, he always maintained, by the corn laws. In the year 1821, however, he made a fresh attempt, and for some years he prospered. But after the year 1837 trade again began to fall off, and when in 1842 he gave up business, he was only able to take with him the sum of £6000. The losses of these five years were another result of the bread-tax he so hated. This hatred was the passion that inspired all his best poems. He was filled with fierce indignation against the law that had kept him poor, as an employer, and that pressed so hardly on the workers whom he wished to benefit. In *The Splendid Village*, *The Village Patriarch*, and above all, in *The Ranter*, the reader feels the depth of his feeling for the poor and his hatred of the landlord class. In the *Corn-law Rhymes* (1831) the whole of his bitter anger breaks out. No one can read them without feeling some share of the indignation that inspired them, and as a picture of the state of men's minds at the time their force and brevity make them invaluable. C. G. C.

[Watkin's *Life, Poetry, and Letters of Ebenezer Elliott*, 1850.—*Athenæum*, 12th January 1850.—*Poetical Works*, 1876.]

ELLIS, WILLIAM (died 1758), a self-taught farmer of unusually wide agricultural knowledge. His early writings made his name. He was afterwards employed by a bookseller to write in monthly instalments, but made the mistake of producing the required quantity by padding with quack receipts, old wives' tales, etc., and thereby injured his reputation. He was too much occupied in travelling about the country, acting as a consulting farmer and selling seeds and agricultural implements, to work his own farm at Little Gaddesden, Herts, according to his own teaching; on his journeys, however, he learned the methods of farming prevalent in different counties, and his habits of observation enabled him to enrich his writings with shrewd criticism and comparisons. He treats most fully of the management and breeds of sheep, the use of manures, the growing of timber, especially of oaks, the need of different soils, and the latest improvements in ploughs. His style is homely, often rough, and sometimes ungrammatical.

The following is a list of his works:—

The Practical Farmer; or, The Hertfordshire Husbandman, 1732.—*Chiltern and Vale Farming explained*, 1733.—*The London and Country Brewer* (see *Country Housewife*, p. 12).—*New Experiments in Husbandry for the Month of April*, 1736.—*The Timber Tree improved*, 1738.—*The Shepherd's Sure Guide*, 1749.—*A Compleat System of experienced improvements, made on Sheep, grass lambs, and house lambs*, 1749.—*The Modern Husbandman*, 1750.—*The Country Housewife's Family Companion*, 1750.—*Every Farmer his own Farrier*, 1759.—In 1772 was published Ellis's *Husbandry abridg'd and methodized*, the original padding and some of the less intelligible and interesting matter being omitted.

[Biographical notice in preface to last named work.] E. G. P.

ELLIS, WILLIAM (1800-1881), ably discharged for fifty years the duties of chief underwriter to the Indemnity Insurance Office. Ellis is mentioned by Mill in his *Autobiography* (among the disciples of Bentham) as "an original thinker in the field of political economy, now honourably known by his apostolic exertions for the improvement of education." Of these distinctions the latter appears the more permanent. Ellis used to convey to the young a knowledge of political, or as he preferred to say "social," economy and of "right conduct," by the method of "Socratic" dialogue. His method deserves this epithet, so far as it inculcated the homely virtues with the zeal of the Socrates of Xenophon. A Platonic vein of

speculation is not to be looked for in Ellis's dialogues.

A good account of Ellis's "conduct teaching" is given in the *Memoirs* written by his granddaughter, Ethel Ellis, 1888. The *Life*, by E. K. Blyth, 1889, describes his economical, as well as his educational, work; and contains a complete list of his writings. Of these may be mentioned: various articles in the *Westminster Review;* including one on M'Culloch's *Political Economy* by Ellis and J. S. Mill jointly (July 1825); *Outlines of Social Economy*, 1846; *Progressive Lessons in Social Science; Philosocrates*, 1861-64.

J. S. Mill refers to an essay by Ellis, published in the *Westminster Review* for January 1826, as "the most scientific treatment of the subject which I have met with" (*Pol. Econ.*, ch. iv. § 2). The subject is "the effect of the employment of machinery on the happiness of the working classes," an effect which the writer pronounces to be beneficial with less qualification than economists would now generally employ. F. Y. E.

ELLMAN, JOHN (1753-1832). A successful farmer of Glynde in Sussex, best known for his improvements in the breed of Southdown sheep, for the origination of the Sussex Agricultural Association, and as one of the founders of the Smithfield Cattle Show. As an agriculturist he was so much esteemed by his contemporaries that his biographer, Walesby, writing shortly after his death, claims that Ellman had by his discoveries so increased the productiveness of agriculture as to effectually disprove the doctrines of Malthus. Ellman himself abstained from abstract economics, and is chiefly interesting to students of the science for his helping ARTHUR YOUNG (*q.v.*) with materials for the latter's *Annals of Agriculture*. Ellman appears, from his correspondence with Young in this connection, to have supposed that the POOR RATE (*q.v.*) and similar imposts fell almost exclusively on the farmers, who had to support the used-up labourers when past work in factories. He also urged very strongly that the wages of labour should be proportional to the labourer's skill.

[See life of Ellman in preface to Baxter's *Library of Agriculture*, 4th ed., 1851.—Young's *Annals of Agriculture*, London, 1784, etc.; and *Dictionary of National Biography*, London, 1888.] A. H.

ÉLUS were financial officers in France who superintended the collection of taxes in those provinces which had not estates, or assemblies, of their own. They are to be distinguished from the *trésoriers*, who collected the domain revenue. The *élus* originated in 1356, when the states-general made the most notable attempt to impose constitutional checks upon the crown. Not content with claiming the sole right of imposing taxes, they insisted upon entrusting their collection to their own elected officials (*élus*). Charles V. subsequently maintained both the taxes and the collectors of 1356, though he turned the latter into royal officials, and they continued till the revolution. The district of an *élu* was called an *élection*, and hence the provinces which had no estates come to be called the *pays d'élection*, as distinguished from the *pays d'états*. The provincial estates were quite distinct from the ÉTATS GÉNÉRAUX (*q.v.*)

[De Tocqueville, *L'Ancien Régime.*] R. L.

EMANCIPATION. The general subject is dealt with in connection with SERFDOM, SLAVERY, ENFRANCHISEMENT OF LAND, and VILLENAGE, but the emancipation of the negro slaves in America offers some points of special economic interest. The main influences which led to abolition were unquestionably moral and religious; but there had been growing up a strong suspicion that the system was wasteful, and it was too palpably an outrage upon the prevalent *laissez-faire* principle to last far into the 19th century, wherever English ideas were in vogue. A close scrutiny brought out that the one solid basis of efficiency was the easiness of direction of unskilled labour in large masses, but the following objections left a large adverse balance.

(1) Slave labour wasted the soil through its lack of intelligence; (2) it confined agriculture to certain products, especially sugar, cotton, tobacco; (3) it prevented the rise of manufactures; (4) it degraded labour, and thus arrested immigration of fresh white people, and prevented the formation of an industrious middle class; (5) it prevented the industrial development of which the negro population was capable; (6) it kept down the gross production of a community in favour of net-production; and further, kept back net-production in general, in favour of the net-production appropriated to a small portion of the community. Allowing for the general material progress of the world as a stimulant, and in the case of the British West Indies for the equalisation of the sugar duties in 1846 and the rise of beet sugar since 1860, as obstructions, a comparison of the present condition of the countries affected with their condition before emancipation substantiates this arraignment of the slave system in every point.

(1) With greater intelligence and better appliances the soils are no longer wastefully exhausted. Mr. Briggs, an intelligent Barbados planter, who resolutely improved his methods, made a large fortune soon after emancipation, and the soil of that island now appears likely to continue to yield its 50,000 tons of sugar a year indefinitely. (2) Agriculture has been extended and varied. In the West Indies the once despised "subsidiary" products have, in gross, taken the chief place from sugar, except in Barbados; lands hitherto thought useless have been brought into cultivation—50,000 acres were added to cultivated areas in Jamaica alone between 1880 and 1890; in South Carolina the forests are giving employment to 700 timber mills; in Brazil coffee-production increases every decade. (3) Manufactures have sprung

into existence in the Southern States. In South Carolina minerals are being worked, notably the phosphate rock; and manufactures have passed from 8½ million dollars before emancipation to 16¾ millions in 1880 and 32 millions in 1884. In the West Indies to turn to manufactures would be pernicious waste of natural advantages, and no one desires to see it done. (4) The lower classes of the white race are rapidly improving their position. Professor Bryce says of the South, "The chasm that used to divide the poor whites from the planters has been in many places bridged over by the growth of a middle class of small proprietors in the country and of manufacturing industries in the coal and iron regions" (*American Commonwealth*, iii. p. 95). In the West Indies there is no change in this respect; the employing class has diminished (Jamaica from 40,000 to 17,000), and opinion is, on the whole, against the suitability of these colonies for any other class of white people. (5) There has arisen in the West Indies a peasant class of negroes of whom it is no exaggeration to say that they have the most favoured lot that has ever fallen to any considerable portion of their race. In Barbados, where there was no unoccupied land available for squatting, the emancipated negroes at once became wage-earners, and they so continue; in Jamaica there was abundance of land available, and the planters were so ill-tempered in their attitude to the new status that the negroes in large numbers became independent peasants, and the separation of labour from capital has therefore been far wider than it needed to have been. There are now over 90,000 small holdings among the 100,000 families in the colony. In Trinidad and Demerara also the negroes abandoned plantation work, and resort was made to East Indian coolies for this purpose; still the negro population increases and prospers on other products—cocoa, for example, and fruits not requiring much capital and adapted for small-scale production. In the Southern States, whatever is to be allowed as to their low political and social condition from a European point of view, it cannot be gainsaid that there are now millions of negroes industrially wealthy in comparison with the condition of their fathers, whose labour had little influence upon their own material well-being. (6) The gross produce of all the countries affected has more than kept pace with the growth of population, and the wealth is more widely distributed. Whereas, in former times 60,000 families worked in Jamaica on slave rations, while some 8000 received an abnormal return for both capital and superintendence, an examination of the imports now shows that there is a very considerable net-produce in the hands of the common people of the colony. If the summit of luxury has fallen, the level of subsistence has risen to a stage of comfort and civilised life. The statistics of all the countries in question indicate a similar change. Even in Cuba, where the emancipation has not led to any extensive industrial change, the output of sugar has not been affected so far.

The following remarkable figures are given for Brazil:—Annual produce of coffee, 1835-1840, slave-trade in existence, 88 million lbs.; 1855-1860, slave trade abolished, 264 millions; 1872-1877, emancipation by purchase in progress, 389 millions; 1890, emancipation completed, 880 millions.

Of course fixed capital was lost during the transition, but when the old capitalist class still represents Jamaica, for example, as a standing reproach to Great Britain, serious inquirers will find this unsupported by the official statistics of the colony. If a colony with an increasing area of cultivation, an increasing public revenue, and increased expenditure on public institutions of all kinds, increased support of voluntary religious bodies including a now disestablished branch of the Episcopal church, and a pauperism of less than one per cent, is a reproach, where are the jewels of an imperial crown to be sought?

[The economic chapters and appendices in Cairnes's *The Slave Power*, 2nd ed., 1863, excellently introduce the subject, which can be further studied in the histories of the various colonies (especially Gardner's *Jamaica*, 1873), of the United States of America, of Cuba, and of Brazil. For the present condition of the countries affected, the many statistical works published in America show the situation in the southern states; whilst our colonies can be studied in the Reports in their Blue Books, issued from time to time by the colonial office for a few pence each. Amongst noteworthy articles of recent issue are N. Lubbock, *Our West Indian Colonies* (from sugar-merchant's point of view).—*Royal Colonial Institute Proceedings*, vol. xvii.—H. Fowler, "Capital and Labour for the West Indies," *ibid.*, vol. xxi.—Lord Brassey, "The West Indies in 1892," *ibid.*, vol. xxiii.—D. Morris, "Fruit as a Factor in Colonial Commerce," *ibid.*, vol. xviii.—C. S. Salmon, *Capital and Labour in West Indies*, Pamphlet, 1883.] A. C.

EMBARGO. The word "embargo" used in a general sense means any prohibition affecting commerce; in a more special sense, it is a term of international law implying the seizure of foreign ships. Formerly ships belonging to a foreign power were placed under embargo in contemplation of war, but in modern times this practice has been discontinued, and the only occasion on which an embargo of ships is now resorted to is when it is sought to use reprisals in the case of any specific wrong committed by any foreign state. If in such a case the relations between the two powers concerned re-assume their normal condition, the ships which have been placed under embargo are released; if on the other hand war is declared, the ships are confiscated (see ANGARIE, DROIT D').

[Hall's *International Law*, 3rd ed. 1890, pp. 366, 373.] E. S.

EMBEZZLEMENT. This offence is defined in Mr. Justice Stephen's *Digest of the Criminal Law* (Art. 309) as "the conversion by a clerk, or servant, or person employed in the capacity of a clerk or servant, of any chattel, money, or valuable security delivered to or received or taken into possession by him for or in the name or on account of his master or employer." Embezzlement differs from theft principally in the circumstance that the thing embezzled has not yet come into the possession of the person entitled to it, and is not taken out of his possession by the offender, whilst in the case of theft the thing stolen is taken by the offender out of the possession of the person entitled to it. Thus, if a shopman receives money for goods sold by him for his employer and puts this money into the till and then takes it out of the till and appropriates it, he commits a theft of the money. But if the shopman, after receiving the money, puts it into his pocket and afterwards applies it to his own purposes, this is embezzlement. If a clerk or servant appropriates a thing given into his custody by his employer, this act is not embezzlement but theft. For the thing so misappropriated is regarded by law as still in the possession of the employer. A further distinction between theft and embezzlement lies in the fact that theft may be committed by anybody upon anybody, but that embezzlement can be committed only by a clerk or servant or person employed in the capacity of a clerk or servant and with reference to property belonging to the employer. Accordingly, before an offence against property can be described as embezzlement, it must be shown that the property was in the possession of the offender, and that he stood in the relation of a clerk or servant to the injured party. The ascertainment of these points is often a matter of great nicety. Embezzlement is a felony, and renders the criminal liable to a maximum penalty of fourteen years' penal servitude.

[For the present state of the law regarding embezzlement, consult Stephen, *Digest of the Criminal Law*, Arts. 297, 309-312, and 325. For the history of the law regarding embezzlement, see Stephen, *History of the Criminal Law*, vol. iii. pp. 151-156.] F. C. M.

EMBLEMENTS (from the med. Latin word *embladare* = to sow with corn), technical name for growing crops. Where the owner of land dies intestate, the emblements do not go with the land, but devolve on the personal representative for the benefit of the next of kin (*e.g.* if a man dies leaving two sons and one daughter, the land goes to the eldest son, and the emblements are divided between the three children in equal parts). A person entitled to land for his own life, or during the life of another person, is entitled to the crops sown during his tenancy and reaped after its termination; but it is now provided (by 14 & 15 Vict. c. 25), that in the case of land held at rack rent, the tenant or his representative may after the termination of the tenancy hold on the same terms to the end of the current year; and the rule as to emblements does not therefore come into operation in such cases. E. S.

EMERSON, Gouverneur, M.D. (1796-1874), was born in Delaware and settled as a physician in Philadelphia. He devoted much of his time to scientific and agricultural inquiries; and gave special attention to medical and vital statistics. In 1872 he translated and prepared a preface for *The Organisation of Labor* by F. Le Play, Philadelphia, pp. 417, preface, pp. v.-xiii.

[*Biographical Encycl. of Pennsylvania*, 1874, p. 27.] D. R. D.

EMIGRATION — its Effects on the Country of Origin. In all that has been written on the subject of emigration, a minor place has been assigned to the discussion of its effects upon the population of the country which the emigrant leaves. The assumption, however, that these effects must be in every way beneficial underlies most of the pamphlet and other literature on the subject of emigration and colonisation which exercised the public mind in this country during the period from 1820 to 1850, or thereabout.

It would be idle to dwell on the pre-historic migrations of the Indo-European races, or the hardly less remote expatriation of the Phœnicians. Nor will our knowledge of the economic condition of the ancient Greeks justify us in drawing too confident conclusions from the most regular system of emigration which the ancient world exhibited. The Romans were not given to emigrate in the sense in which we now use the term, although they made great political use of their "colonies." Nor can the descent of the barbarous hordes of the north on the declining Roman empire in the early centuries of our era, or the victorious career of Spanish conquest in the new world in the 16th century, be considered to furnish any economic lesson. Such movements of population as those of the Flemings and Huguenots to England in the 14th and 17th centuries were pregnant with economic results, but were too partial and irregular to constitute an era of emigration.

The beginning of emigration, as we have to consider it, may be placed in the 17th century; and the nations which chiefly furnish instances of it are the English, the French, the Dutch, and Portuguese. The motives which prompted these earlier streams of emigration were usually love of adventure or political discontent. The feature which marked this emigration off from previous movements was its steady set towards new countries; the freshness and emptiness of

the new lands swelled the volume of the stream which they attracted. There can be little doubt that the new impulse reacted with a considerable effect on the conditions of life in the countries which the emigrants left behind; the Dutch being at that time the first to feel the influence.

With the present century emigration entered on a new phase, and then England was in the van. She was suffering from acute commercial distress at home, and anxious about her vast possessions abroad. It occurred to a certain section of thinkers that the latter could be utilised as a remedy for the former, and various schemes of state-aided emigration to the colonies were much debated throughout the second quarter of the century, both in and out of parliament. Such were those to facilitate emigration from the south of Ireland to Canada (1823) and to relieve distress in the Highlands of Scotland (1841). At this time, indeed, the idea of emigration became merged in the more complex idea of colonisation. "Of colonisation," writes WAKEFIELD, "the principal elements are emigration, and the permanent settlement of the emigrants on unoccupied land." We refer again later to the distinction between the secondary results of emigration to a foreign state, and those of emigration to a colony or similar possession.

What was thought of the economic bearing of emigration at the time alluded to may best be gathered from the following passage from Wakefield's book:

"My fancy pictures a sort and amount of colonisation that would amply repay its cost by providing happily for our redundant people; by improving the state of those who remained at home; by supplying us largely with food and the raw materials of manufacture; and by gratifying our best feelings of national pride, through the extension over the unoccupied parts of the earth of a nationality truly British in language, religion, laws, institutions, and attachment to the empire."

The first words of this passage strike the keynote of the modern intention in emigration. The movements of the individual and the larger schemes projected by the state are alike connected with the sense of undue pressure and competition at home. Love of adventure, political complications, religious difficulties, which have been active forces in causing emigration formerly, play a less conspicuous part now. Yet they are still not absolutely unimportant: the existing movement of the Jews from Russia is strongly influenced by these motives. The circumstances are too recent to enable us to judge whether the effect on the prosperity of Russia may not be similar to that experienced by Spain after the expulsion of the Jewish-Mahommedan population in the time of Ferdinand and Isabella. The present large emigration from Germany, which is usually assigned to the existence of conscription, may with greater probability be traced to the pressure of financial burthens resulting from military expenditure. Professor Mayo Smith, in his recent work, laid it down that persons rarely emigrate in order to better themselves, but because they are actually pinched at home.

And this at once suggests the most important of the questions which our subject presents. The effect of emigration on any particular state must largely depend upon the functions which have daily been discharged by the emigrant. We must ascertain then, what are the classes of people who do emigrate. It is not enough to speak about "relieving one labour market and supplying another"; we must discover if we can what branch of labour is chiefly affected, and to what extent its efficiency is impaired by the removal of its active members.

Next in importance is the question of volume of emigration and drain on the population.

Thus emigration must be examined both as to quantity and quality; but having arrived at some decision on these points in any particular case, and at an estimate of the actual loss to the country which they involve, we shall have to set off against it the advantages gained by the persons left behind, the freedom from over-competition, the raising of the standard of comfort, and so forth—a subtle and difficult inquiry. In this way we should gauge what may be considered the primary results of emigration.

The secondary results are partly commercial, partly political. Mill kept the first-named very clearly before him when he penned the following passage:—

"The question is in general treated too exclusively as one of distribution—of relieving one labour market and supplying another. It is this, but it is also a question of production, and of the most efficient employment of the productive resources of the world. Much has been said of the good economy of importing commodities from the place where they can be bought cheapest; while the good economy of producing them where they can be produced cheapest is comparatively little thought of. . . . The exportation of labourers and capital from old to new countries, from a place where their productive power is less to a place where it is greater, increases by so much the aggregate produce of the labour and capital of the world. It adds to the joint wealth of the old and the new country what amounts in a short period to many times the mere cost of effecting the transport. There needs be no hesitation in affirming that colonisation, in the present state of the world, is the best affair of business in which the capital of an old and wealthy country can engage."

Similarly Wakefield, in a work which followed

Mill's: "The practice of colonisation . . . has reacted with momentous consequences on old countries by creating and supplying new objects of desire, by stimulating industry and skill, by promoting manufactures and commerce, by greatly augmenting the wealth and population of the world"; and he goes on to add in words which we may quote without tying ourselves to accept them, "it has occasioned directly a peculiar form of government, the really democratic, and has been, indirectly, a main cause of the political changes and tendencies which now agitate Europe."

The above sketch of the lines to be followed in an investigation into the effects of emigration may be considered to hold good generally for all times and for all peoples; but it is questionable whether any sufficiently trustworthy data exist to enable us to draw fair inferences concerning the earlier emigrations. Even in regard to the last few years we shall do well if we can arrive at fairly accurate conclusions in respect of one or two countries, such as England or Germany, in which statistics are becoming understood. It is hardly necessary to observe that the case of the United States, whose statistics are sufficiently careful and elaborate, furnishes no illustration of the effect of emigration. Such emigration as may take place from the States is so individual and spasmodic that, compared with the large volume of IMMIGRATION (*q.v.*), it may be neglected.

In considering the results of emigration from Europe in the 17th and 18th centuries, it is almost impossible to separate political and economic phenomena.

Spain suddenly found an area for her development which has been unequalled even by Great Britain; she subdued many native peoples and settled a vast territory. There was a constant flow of Spaniards to Central and South America. The ease of conquest and the lust of gain had a large share in the deterioration of the national character; loss of population and a false conception of wealth completed the downfall of an empire. If it be sought to fasten a portion of the blame on emigration it will not be forgotten that, while the drain on the resources of the old country was excessive, the Spanish emigrants were for the most part the worst type of mercenary soldiers.

The history of Portugal presents rather different features. The Portuguese in those days, as now, were deeply imbued with the trading instinct; they had far more capacity than the Spaniard for settling down on new territory. The effect of discovery and conquest in this case is parallel to that upon Holland; a people dwelling in a circumscribed area suddenly rose to the level of a first-class state; the more rapid loss of power by Portugal was probably due to the weakness of its political constitution as compared with that stern combination of free men who had gone through the fire of oppression and emerged a fresh nation.

The Netherlands form the best instance, besides our own country, of the beneficial effects of regular emigration. To them it was a safety-valve: the closing years of the 16th century had purged away the dross of the nation; it was composed of men, on the whole, remarkably even in power, will, and capacity; to avoid fretting and wear and tear at home a proportion of such men must find an outlet abroad; the emigration from Holland accordingly included many of the best of its citizens, and they did not hesitate to settle permanently in their new homes, and reproduce the political constitutions and commercial aptitude of the mother country. On the other hand the volume of emigration was not large, and we have De Witt's authority for the fact that there was a constant immigration into the free republic from surrounding nations; the centre of the system was never exhausted. The new settlements distinctly increased the trade and power of the Netherlands; the monopoly which they established of the East India trade was only partly due to the chartered company; it could not have lasted so long but for the Dutch merchants on the other side of the world.

We may pass over France, which furnishes no further lesson, and take the early history of English emigration. There we find emigration proceeding along two distinct lines—the intentional transportation by the great companies of such persons as would form a useful community, and the voluntary expatriation of large bodies of persons of the same political or religious persuasion. The class of emigrants who left England at that time was thus, in the main, a very good one. It was only natural that the intention of the founders of the settlements should be better than the results attained. The proposal in the case of Carolina—that not more than 100 or 150 settlers should be sent over the first year, and none but labourers, artisans, and skilful seamen should be sent during the next two or three years—is a fair sample of the way in which the nucleus of a colony was intended to be constituted. But in practice it was impossible to avoid an influx of worthless characters; and in spite of BACON'S warning, adventurers and government alike could not resist the temptation of sending out condemned prisoners, vagrants, gipsies, and bad characters,—people "divers ways gathered up in England."

England, however, did not lose by the exodus. "Virginia," says Doyle, "was the offspring of economical distress:" in fact, Great Britain could at the time afford to part with a large slice of population. The ablest workmen and richest merchants did not go; those who did emigrate, whether honest men or rogues, left a feeling of relief among those who remained

behind them; there was more elbow-room, but there was no gap; the work at home went on better.

The number that emigrated at this period was considerable; although our information is not sufficient to be tabulated. To Virginia alone 1261 persons went in 1619, 1000 in one year previous to 1635, 2000 the next year, 1600 the next, and so on—many thousands in all; and the movement was steady year by year. In 1639 an order in council was issued with the object of restraining the efflux of population. There was an alarm that this was becoming a drain on the country's resources. But the very next year there were appeals for the rescission of the order in whole or in part; and Sir Josiah CHILD, writing in 1692, denies that there ever had been a drain on the people.

In the large extent of this emigration lay the germs of its future benefit to England. The plantations called out enterprise and activity on the part of those who remained behind. "I say," writes Child, "that for provisions, clothes, and household goods, seamen and all others employed about materials for building, fitting, and victualling of ships, every Englishman in Barbadoes or Jamaica creates employment for four men at home." The emigration of a considerable number of men, and the successful growth of their settlements in new lands, transformed England into the first commercial and carrying nation of the world.

In the 18th century the stream of emigration flowed more slowly; the severance of the United States, and the wars in which Great Britain was engaged, both contributed to check it; and when next it assumed larger proportions a new era had begun—the era of emigration without conquest or settlement, directed as much to foreign countries as to British possessions. In 1815 the number of emigrants from the United Kingdom was 2081, in 1820 it was 25,729, in 1830, 56,907; in that year the Colonisation Society was formed; in the next year the first effort was made to regulate emigration; an agent general for emigration and certain "South Australian" commissioners were the chief centres of authority for some years, and in 1840 the Colonial Land and Emigration Board was established in Downing Street. It had become clear that the matter was one of great interest both to the mother country and the colonies. On the one hand was the theory described as "shovelling out the paupers," on the other was the demand that no emigrant should be sent to the colonies except under proper safeguards, and with some guarantee of his fitness. And on the lines which were settled fifty years ago, the attitude of the state towards emigration has remained ever since. The activity of societies and other quasi-public influences has, however, been growing, till we are confronted at the present day with the efforts of Mr. Arnold White, Baron Hirsch, and the projects of the Salvation Army.

We can now examine in more detail, in the case of our own country, the answers to the questions propounded above.

1. As regards the stamp of the emigrants from England it is specially noted in 1845 that one-half were unskilled labourers, and four-fifths of the remainder agricultural labourers and farmers, the great bulk being exceedingly poor and depending on immediate employment for subsistence. And a study of the Board of Trade returns for the last few years confirms the same opinion. "There seems no doubt," says Mr. Giffen in a recent report, "of the broad facts that the majority of the adult male emigrants are labourers, and of single adult female emigrants, domestic servants." In 1891 (a good sample of the years), out of 189,756 adults of British origin, 112,256 were males, and 77,500 females, and the adult males were classified as follows:

Agricultural labourers . .	14,797
Unskilled labourers and miners, etc.	36,521
Occupation not stated . .	26,663
Mechanics and skilled labourers .	9,717
Farmers and graziers . . .	3,704
Clerks, shopkeepers, etc. . .	4,773
Professional men . . .	11,467
Miscellaneous	4,614

It may reasonably be assumed that the majority of those whose occupations are not stated were also unskilled labourers; hence it is probable that some 70,000 out of 112,256, about sixty-three per cent, were of this description. The reports of the Emigrants' Information Office may at first sight appear to contradict this, as the larger percentage of their recorded inquiries has been from mechanics; this, however, is natural from the position of the office in London, and the general readiness of the mechanic as compared with the unskilled labourer in availing himself of an institution of this kind.

It would appear to be the fact that neither of the ordinary tenets as to the class of persons who leave the country is correct. The pauper cannot go—despite the theory that emigration was to relieve the weakest portion of the community; the receiving country rejects him, and the regulations which agents of government here and abroad have sought to enforce constantly tend to encourage the better class of emigrant. Macintyre, writing fifty years ago, insisted on this: "Emigration, as it is carried on from this country, does not afford any relief to the masses of the people reduced to the verge of starvation." "The conditions required of the persons selected for emigration show that they are picked individuals." Emigration has done little or nothing towards elevating the lowest classes of our people. But, on the other hand, it appears to be untrue that only

the best of them are leaving us. With some reservation as to what stamp of man is really the best and strongest in a community, we need not accept that theory. While it is obvious that a man must have some capital before he can emigrate to Australasia or the States, especially if he take his family with him, and that he must have some energy to cause him to make the effort to move, the fact seems to be that the best and most skilled workers, those who feel they can make their way, remain at home; the less competent hands emigrate. The figures given above support this opinion, which is endorsed by Mr. Giffen (comp. Francis Galton's *Hereditary Genius*, new ed. p. 346). Hence it appears that the loss of productive power to the country is not serious. And if the productive capacity, the skill and worth of the emigrants is improved in their new sphere, there is a clear economic gain to the world at large. A more real disadvantage to a country is found in the tendency of males to emigrate in greater numbers than females. Emigration in this aspect appears as contributing indirectly to the greater immorality and pauperism which usually result from the excess of females. Similarly there may be a loss to the community in having to educate and bring up a new set of children to take the place of adult emigrants.

The questions of the effect of the removal of labour on wages, and the prospect of thereby raising the standard of comfort amongst the labouring classes, are matters which bring us to the consideration of the volume of emigration. To raise wages in any particular trade it is necessary that an ample number of that particular craft should be removed at one time; and that is an event which does not occur. Some effect might be produced on all trades by the removal of a very large mass of general labour; but neither is that at present attainable; though there is a growing tendency towards encouraging emigration in families and small communities, *e.g.* to the state colonies of the Argentine Republic.

In computing the volume of emigration, we must obviously set off against it the total of immigration in each year. The two proceed side by side; thus in 1891 the gross number of emigrants from Great Britain (including foreigners and children), was 334,543; the number of immigrants was 151,369; the net emigration being thus 183,174. Mr. Giffen notes that both vary in well-defined cycles, guided by the state of trade; when prosperity is at its height there is a decline of gross emigration, accompanied by increase of immigration. It has unfortunately happened of late years in England that the immigrants who take the place of our British emigrants are foreigners of a lower stamp than our own people; so that there is a double loss apart from mere figures; for these foreigners not only replace better men, but tend again to lower the standard of comfort and depress the status of the workers.

The annual average number of persons of British and Irish origin who have emigrated in the last half-century is as follows:

Annual average	1851-60	164,085
,,	1861-70	157,182
,,	1871-80	167,891
,,	1881-90	255,853

and the proportion of this emigration to the population of the United Kingdom was as follows:

Average for years	1856-60	·43 per cent.
,,	1861-65	·48 ,,
,,	1866-70	·56 ,,
,,	1871-75	·60 ,,
,,	1876-80	·42 ,,
,,	1881-85	·73 ,,
,,	1886-90	·69 ,,

These figures (taken from the board of trade returns) include tourists and travellers as well as emigrants. They show that while the proportion has, on average, risen, it has not at the highest reached 1 man in 100. There cannot be said to be anything in them to affect vitally the interests of our nation either for good or evil. And when we take Mr. Giffen's figures for the net emigration of persons of British and Irish origin, we find the proportion far lower.

Of the emigrants from Great Britain at the present time about 72 per cent go to the United States, and the rest in almost equal proportions to British North America, Australasia, and "all other places" abroad.

The secondary results of emigration are (*a*) commercial; (*b*) political.

(*a*) They differ according as the emigrants go to a foreign country or a colony. In the early part of the century it made a great difference whether the emigrant went to a colony or not: nowadays, when the colonies are as ready as the foreigner to protect themselves against British goods, it does not commercially so much matter. The general effect is well described by Wakefield.

"The emigrants would be producers of food . . . and raw materials of manufacture for this country; we should buy their surplus food and raw materials with manufactured goods. Every piece of our colonisation, therefore, would add to the power of the whole mass of new countries to supply us with employment for capital and labour at home. Thus employment for capital and labour would be increased in two ways and two places at the same time; abroad, in the colonies, by the removal of capital and people to fresh fields of production; at home by the extension of markets or the importation of food and raw materials."

How true this is may be seen by the growth of trade between Great Britain and her colonies (see IMPORTS and EXPORTS). The enhance-

ment of Great Britain's commercial prosperity, owing to emigration to her colonies and the United States, is an admitted fact. But when the emigrant goes to a foreign country and is lost in the general mass of its population, it is impossible to earmark his particular effect on increase of trade: if trade were free, old association might do much; but in the vast majority of cases the matter is determined by other causes. Of all the nations who have most increased the national commerce with foreigners through emigration, we should select the Germans as the most successful at the present day.

But a large emigration may sometimes produce a transfer of trade which is a distinct loss to a country. England seems to be on the verge of experiencing something of this sort in consequence of the McKinley Act of the United States; if, as is possible, the plush or mohair manufactures are transferred bodily to their best market there will be a loss of people and of profits to England. But in this case emigration is a result rather than a cause, differing herein from the emigration of the Flemings from the Low Countries in the 14th century, which produced a transfer of the woollen manufacture to England.

(*b*) With purely political results of emigration we are not here concerned. On the one hand, it tends to the union of nations and to the establishment of peace; on the other, it is always increasing the responsibility of a nation towards foreign powers. England with her many subjects scattered over the globe, and her vast possessions across the seas, is the great example of the double responsibility. We are not likely now, as the Romans did, to make emigration a distinct method of control over subject peoples.

In reviewing the foregoing results we have purposely selected Great Britain as their chief exponent. And we have dealt with the kingdom as a whole: in Scotland and Ireland, taken separately, we find two well-marked opposite results. Scotland has sent out a steady stream of emigrants whose departure has only strengthened those who were left behind. Ireland, partly from poverty, partly from political causes, has been rapidly depleted of the stronger part of her population. In examining the emigration from other countries, we also find special phases to arrest us. Norway and Sweden have both been centres of a large emigration, which now appears to be losing strength. In Norway the causes and effects have been akin to the case of Scotland. In Sweden the parallel is rather with Ireland. In Italy the large annual emigration is becoming a serious drain, and the face of the country is already showing this. The loss of the more enterprising peasantry is making more helpless those who are left behind. Germany, on political grounds, is struggling with the tendency to emigrate; she does not wish to lose her soldiers at the best period of their lives.

The comparative strength of emigration in certain European countries may be gauged by the following figures for 1887-88:

Great Britain and Ireland .	7·46	per 1000
France	·61	„
Germany	2·10	„
Italy	6·87	„
Norway	10·58	„
Sweden	9·86	„

These figures show the gross emigration; we have to go further to find the net result. In the last three countries mentioned there is little immigration and there is consequently the heavier drain. One of the best instances where population has, decade after decade, been kept stationary by emigration is that of the Leeward Islands in the West Indies.

Before concluding, a reference is required to the considerable annual emigration from India to the British tropical colonies, and from China to the Australian colonies and the United States. The Indian government do not encourage emigration, except under very strict conditions and safeguards. The Chinese law, till recently at any rate, prohibited it; but pressure of population set the law at defiance, and the government, as is its wont, connived. In 1852 Sir E. Bowring expressed the opinion that it left greater ease to those who remained and cleared the country of vagrants. Hardly any women leave China, and this gives the movement a special feature. An indirect effect of slow growth may be expected in the case of Indian coolie emigration, especially that to the West Indies. The lowest classes of the population go: their return at a stated period is part of their agreement; they come back much improved in circumstances, with standards of living greatly raised. But the population of both China and India is so crowded that hardly a mark can yet be said to have been left upon it by emigration.

[The aspect of emigration here discussed is but slightly referred to in most published works. Special attention may be called to chapters II. and IX. of *Immigration and Emigration: A Study in Social Science*, Prof. Mayo Smith, London, 1890: this book has a full bibliography.—The reports of the Emigration Commissioners from 1832 to 1870.—The annual statistics of the Board of Trade, especially the reports for 1877 and 1891. First and second reports on the Emigrants' Information Office, 1887-88.—*An Essay on Plantations*, by Sir Francis Bacon.—*A Treatise*, by John de Witt, Pensioner of Holland.—*A Discourse concerning Plantations*, by Sir Josiah Child (all three re-published amongst select tracts, London, 1827).—*The Effects of Distant Colonisation on the Parent State*, Thomas Arnold, 1815.—*Thoughts on Population and Starvation*, by J. J. Macintyre, London, 1841.—*Letter on the Condition of England*, by R. Torrens, 1843.—*A View of*

the Art of Colonisation, by E. Gibbon Wakefield, London, 1849.—An essay *Ueber italienische Auswanderung und Feldarbeit* in *Italienische Gyps-Figuren*, von W. Kaden, Leipzic, 1891.]

C. A. H.

[For the effect on the country which receives the emigrants, see IMMIGRATION.]

EMINENT DOMAIN. This term, in constant use among American lawyers and publicists, but still hardly familiar in England, seems to be derived from a phrase of Grotius (*De Jure Belli ac Pacis*, l. i. ch. iii. vi. § 2) where, speaking of the attributes of supreme public authority in a state, he says: "in quibus comprehenditur et dominium eminens quod civitas habet in cives et res civium ad usum publicum." That is to say, there is in every state a paramount authority over the persons and property of its subjects for matters of public advantage. It will be carefully observed that this is not a right of property, and is quite independent of the laws or doctrines as to the tenure of any kind of property which prevail in this or that state. Where the state, or a public department, in a corporate capacity, or as an ideal or "moral" person, is the owner of any property, its rights are the ordinary rights of an owner. The right or power now in question is to supersede the ordinary rights of the subject, whatever they may be. In other passages Grotius calls it "supereminent," as if to make this clear. Being a power above ordinary legal rights, it can be set in motion only by an exercise of legal sovereignty; in other words it can take effect in a civilised state, except perhaps in singular emergencies, only by express legislation or under some authority conferred by express legislation. This passage alone does not make it clear whether Grotius contemplated the right or power of "eminent domain" as something capable of being in frequent and normal action, and having a settled place in the institutions of public law. Perhaps he was here thinking rather of impressing men for service against an invader, entering on private land to make fortifications (a power attributed to the crown from ancient times by the common law of England), taking horses and provisions for urgent military needs, and the like. But in a later chapter (l. iii. ch. xx. vii. § 1) he distinctly says that it is not merely an emergency power, but exists for the sake of the public weal in general. In modern usage we speak of "eminent domain" only as exercisable with regard to property. Experience has shown that many objects of public utility and necessity cannot be effected without overriding the ordinary rights of owners, and especially the right of parting with one's property, if at all, only on such terms as one thinks fit to accept. On the other hand it is found necessary or expedient to make interference of this kind as little burdensome to the individual as is consistent with accomplishing the public objects in view, and to avoid, both in fact and in appearance, anything like arbitrary disturbance of private rights. Hence the exercise of sovereignty in this kind is reduced to rule and brought under legal and judicial categories. Under names denoting either the power itself, as "eminent domain" in America, or the principal mode and effect of its exercise, as "compulsory purchase" in England, "expropriation pour cause d'utilité publique" in France, "Zwangsenteignung" in Germany (where, however, "Expropriation" is in more general use), we find the matter dealt with, on substantially similar lines, in the legislation and jurisprudence of most civilised countries.

The principles recognised, it is believed, in all jurisdictions, though secured by various forms of procedure, are that private property is not to be taken by compulsion unless for some object of which the public utility has been proved, that it must not be taken without just compensation, and that the compensation must be paid or at least put in the way of impartial ascertainment before possession can be required. The enactment of the French Civil Code "Nul ne peut être contraint de céder sa propriété, si ce n'est pour cause d'utilité publique, et moyennant une juste et préalable indemnité" (art. 545) may be taken as a concise and typical statement. It is copied or translated in many other codes (*e.g.* Civil Code of Lower Canada, art. 407). The exercise of eminent domain on terms of just compensation goes back, in France, to the early 14th century (see Philippe le Bel's ordinance quoted, *Law Quart. Rev.*, iii. 316). A law of 1841 (to be found in the collections of *Lois usuelles*) now regulates the procedure in France; it has probably served as a model for similar legislation in many of the countries which have adopted the Napoleonic codes or come under their influence. In England the method has been for promoters of public works, such as canals, bridges over navigable rivers, and in later times railways, to apply to parliament for incorporation, and at the same time to seek the grant of compulsory powers. Parliament cannot of course be bound by any positive law in the exercise of its supreme power of law-making, but the settled practice of Parliament in dealing with private bills embodies all the essential safeguards. What is called "proving the preamble" of a private bill is really a quasi-judicial process of establishing, by full and often keenly-contested argument, the utility of the proposed undertaking. Compensation used to be separately provided for in every Act granting compulsory powers to take land: at length "the multiplicity of such statutes and the general similarity of their provisions led to the enactment of various general laws, notably the Lands Clauses Con-

solidation Act of 1845, which," together with later amending Acts dealing with particular matters of procedure, "is really a code regulating the law and practice of the eminent domain." (Mr. Carman F. Randolph in *Law Quarterly Review*, iii. 323). "Lands Clauses Acts" and "Compensation" are the English lawyer's practical catch-words on the subject. The ultimate feudal superiority of the crown has nothing to do with eminent domain, although the two things have sometimes been confused even by able writers. It is sufficient to say that the principles are the same, and the practice alike in all essential matters, in France, where feudal tenures have long been abolished, and in the United States, where they never had any effective existence.

Eminent domain has been described by the highest American authority, the Supreme Court of the United States, as "the right which belongs to the society or to the sovereign of disposing in cases of necessity, and for the public safety, of all the wealth contained in the State"—*Pollard's lessee* v. *Hagan* (1844), 15 Curtis, 391, 395, s.c. 3 How. 212. It is carefully distinguished by American publicists from the right, which they call the *police power*, of restraining the use of private property in ways which may be dangerous, offensive, or otherwise injurious to the public weal. The specially full discussion and definition of these topics in the United States proceeds from the fact that the legislative power, both of the federal and of the state governments, is not unlimited, but must be exercised in conformity with the constitutions of the United States and of the respective states of the union.

[American treatises on Constitutional Law; Kent's *Comm.*, ii. 339, and ch. xv. of Cooley on *Constitutional Limitations* will suffice for most general purposes; also recent works on *Eminent Domain* by Lewis, 1888; and Mill, 2nd ed. same date.—In England, Cripps on the *Principles of the Law of Compensation*, 3rd ed. 1892. Mr. Randolph's article above cited, *L.Q.R.*, iii. 314, gives a convenient general view.] F. P.

EMMERY DE SEPT FONTAINES, HENRI CHARLES (1789-1842), was chief engineer of the *Ponts et Chaussées*. He superintended the construction of the canal of Saint Maur, and of the bridge over the Seine at Ivry, and about five miles of sewers and six miles of water-conduits were laid by him in Paris between 1832 and 1840. He principally wrote on subjects connected with his profession, but published in 1837 a short pamphlet of thirty-two pages, *Amélioration du sort des Ouvriers dans les Travaux Publics*, in which he condensed the results of his own experience of the state of workmen employed in extensive public works. He strongly advocated the arbitration of the State *Ingénieurs* in all contentions arising between contractors for the State and their workmen, and the responsibility, according to the case, of the State or of the head contractors for accidents or ill-health resulting from unhealthiness of work. He gives some interesting statistical details on the amount of indemnities allowed under these heads of the principal works he had superintended. On an average, they amounted to 35 francs (say £1 : 8s.) per case, and to the proportion of 3, 2·25, and 0·50 francs per 1000 francs (2s. 5d., 1s. 10½d. and 5d. per £40) of the gross cost of works performed. E. Ca.

EMPANEL. To put the names of jurymen on a list which is called the panel. E. S.

EMPHYTEUSIS. An expression of Roman law, for the permanent letting of land at a chief rent, called *pensio*. The tenant was, for all practical purposes, the owner of the land (cp. FEU). E. S.

EMPIRICISM. Empiricism is a term of somewhat vague import. Perhaps it is oftenest used in an unfavourable sense to describe the frame of mind of one who cannot or will not reason from general principles, but guides himself in every emergency by reference to particular experiences. Consistent empiricism in this sense is, strictly speaking, impossible. The empiric who most loudly disclaims recourse to general propositions must employ them as soon as he begins to apply his empirical wisdom. He must reflect somewhat after this fashion:—The present case resembles, or does not resemble, certain cases which I have known. Therefore certain results which followed in those cases are likely, or are unlikely, to ensue in this case. Therefore I ought, or I ought not, to take such and such measures. Here the most scrupulous empiric is reduced to employ both induction and deduction, to form a theory applicable to more than the single case before him; in a word, to have recourse to general reasoning. It is true that he may not utter his argument aloud, that he may be himself unconscious that he is arguing. Men of practical genius, whether soldiers or statesmen, men of business, or medical men, often carry out extremely complicated and subtle processes of reasoning which they have no time to note, which language is hardly adequate to express, and which produce upon bystanders the effect of a happy unaccountable knack. Such men are often mistaken for mere empirics, but that is only because they theorise so rapidly and so well.

Empiricism, in so far as it is serious, may be described as an illogical protest against the abuse of logic. Most persons of systematic mind are in such a hurry to complete a system that they will not take time either to ascertain all the facts important to be known or to give to each known fact its due place and significance. Accordingly they make wild work when they apply their systems to the facts of life.

The mischief thus occasioned has often led men of real sagacity to express themselves as though all reasoning were useless in practice, whilst they only meant to say that any reasoning which is to be of use in practice must be difficult.

The empiric and the theorist have by turns exerted a dominating influence upon the study of political economy among all nations. Until the 18th century books of economic theory were comparatively few, and their practical influence was comparatively small. Statesmen and the public sought economic guidance chiefly from persons actually engaged in industry and commerce. Of this empirical wisdom Sir Thomas GRESHAM may be taken as a favourable instance. If its admonitions were now and then disregarded, this was less in deference to the opinion of economic theorists than in deference to a supposed interest of government or doctrine of religion or morals. But in the course of the 18th century theoretical writers upon political economy began to acquire an unprecedented authority. To their teaching chiefly was due the revolution in favour of individual freedom and unrestrained competition which filled the first half of the 19th century. Since the middle of the century empiricism has perhaps regained some of its former power. The views of Adam SMITH and his immediate successors were perhaps more deeply coloured by the circumstances of their own age than they themselves could be conscious of, or would have admitted at the time, for nothing is more difficult even for the deepest thinker than to clear himself of the influence of the atmosphere in which he moves and has moved all his life. The correction of economic doctrine by later students has made the main theory enunciated at once more accurate and comprehensive, and less easy of practical application. Political power has passed to classes who do not read political economy, and politicians do not think it prudent to quote economists. But political economy may regain its former influence when it is more generally studied and its lessons are enforced by the stern teaching of actual experience. F. C. M.

EMPLOYERS AND EMPLOYED. During recent years economic writers have been bringing into greater prominence the functions of the employer in industrial affairs. The older English economists regarded the agents concerned in the production of wealth as three in number, viz. land, labour, and capital; and in a similar way they considered that the classes concerned in the distribution of wealth were three in number also, viz. landlords, labourers, and capitalists. The landlord received rent, the labourer wages, and the capitalist profits. They analysed indeed the share of the capitalist or PROFITS into the constituent elements of interest on capital, insurance against risk, and wages of superintendence or management; but they did not apparently establish any distinct conception in their own minds—nor did they endeavour to instil any such conception into the minds of their readers—of the employer as separate from the capitalist. And it was natural that they should adopt this position; for it is only with the modern development of the BANKING and BILL-BROKING system, which permits of the systematic lending of capital by one man, or body of men, to another, and only also with the modern growth of large industries (see LARGE AND SMALL TRADE) that the functions of the employer have acquired a marked and separate importance of their own. Under the DOMESTIC SYSTEM OF INDUSTRY, which previously prevailed, manufacture was carried on mainly in the houses of craftsmen, who were generally employers on a small scale, working for the most part for a market near at hand, the conditions of which varied but little, and supplying in the main from their own resources the capital needed for conducting their business. But, with the changes consequent on the INDUSTRIAL REVOLUTION at the close of the last and the opening of the present century, manufacturing industry passed from villages to towns, and from the house of the craftsman to the factory of the employer. The functions of the employer as such became important; for he had to anticipate the fluctuating demands of a world-wide market, and to direct the operations of a multitude of workmen who were engaged under an organised system of minute DIVISION OF LABOUR on small portions of work, all of which were necessary to, and formed part of, a complete manufacture. He now acquired also to some extent a separate character from that of the capitalist; for, although he generally possessed some capital of his own, he could, through the agency of bankers and others, obtain the loan of further capital from those who did not wish to enter on active business for themselves, but were glad to receive interest for the use of their surplus wealth. And hence at the present time, while it is recognised that the functions of the employer and of the capitalist are to some extent as a general rule combined in one person, and while it is still held by most writers that the term profits should be understood as including interest on capital as well as wages or earnings of superintendence or management, it is also considered that an adequate classification of those among whom the wealth produced in a country is distributed should assign a distinct place to employers as such, and by some writers it is urged that the term "profits" should be confined to that part of the employer's receipts which belong to him as such, that is, to his earnings or wages of management or superintendence, and should not be extended to the interest which he obtains as a capitalist for himself, or hands over to some one else from

whom he has procured a loan. This last view is held, amongst others, by the American economist, General F. A. Walker, who, together with Bagehot in England, has been specially instrumental in bringing the importance and distinctive character of the functions of the employer into due prominence. He has even adopted (*Political Economy*, pt. iv. ch. iv.) a theory which regards the profits of the employer, using the term profits in this narrow sense, as being of the nature of RENT, and depending for amount on the natural ability possessed, and the opportunity enjoyed, by different employers, in the same way as the economic rent of land depends on its fertility and situation. But among English writers, at any rate, the term profits is generally employed in the wider sense; although there is a growing tendency to regard that part of them which represents earnings or wages of management or superintendence, as governed by similar laws to those which determine the earnings of labour generally.

The employer's labour, it is held, is labour of a high, and indeed of a special class, but it is none the less labour, and it must not be confounded in any way with interest on capital (see EARNINGS AND INTEREST FUND). Bagehot has compared (*Economic Studies*, pp. 53, etc.) the modern employer to the editor of a newspaper, or the general of an army, and has remarked in a striking passage that just as the general of an army is "nowadays a man at the far end of a telegraph—a Count Moltke with his head over some papers—who sees that the proper persons are slain, and who secures the victory," so in commerce the "whole" is now "an affair of money and management—of a thinking man in a dark office computing the prices of guns or worsteds." The employer "settles what goods shall be made, and what not; what brought to market, and what not. He is the general of the army; he fixes on the plan of operations, organises its means, and superintends its execution. If he does this well, the business succeeds and continues; if he does it ill, the business fails and ceases. Everything depends on the correctness of the unseen decisions, on the secret sagacity of the determining mind." In a similar way General Walker (*Wages Question*, ch. xiv.), after remarking that the conditions of admission to the employing class are a "long self-initiation, a high premium of immediate loss, and a great degree of uncertainty as to ultimate success," quotes from M. Courcelle-Seneuil's *Opérations de Banque* (p. 392) an enumeration of the qualities which an employer should possess. They are "du jugement, du bon sens, de la fermeté, de la décision, une appréciation froide et calme, une intelligence ouverte et vigilante, peu d'imagination, beaucoup de mémoire et d'application" (judgment, good sense, firmness, decision, a calm and cool temper, an open and alert mind, little power of imagination, great power of memory and of application). Professor and Mrs. Marshall (*Economics of Industry*, bk. iii. ch. ix. § 4, old edition) regard the work of the employer as consisting of two main varieties. "The first is that of organising the production; of determining what shall be made, and how it shall be made; and of deciding where and when to buy and sell. We may," they remark, "adopt an American term and call this *engineering* the business. The second part of his work, which may be called that of *superintendence*, consists in providing for the proper carrying out of his instructions." As the size of the business increases, the employer tends more and more to depute the duties of superintendence to subordinate managers and foremen, and to concentrate his own thought and attention on the *engineering* of the business. To some extent he becomes, as Bagehot has aptly expressed it (*Economic Studies*, p. 59), like a cabinet minister, who may be shifted from one department of state to another in successful reliance on the specialised knowledge of the subordinate permanent officials. He ceases indeed to be personally acquainted with his actual workmen, but he is able to bring his ability and experience to bear more exclusively on the work of management. "The highest class of employers," writes General Walker (*Political Economy*, pt. iv. ch. iv.) consists of those "rarely-gifted persons who, in common phrase, seem to turn everything they touch into gold; whose commercial dealings have the air of magic; who have such power of insight as almost to seem to have the power of foresight; who are so resolute and firm in temper that apprehensions and alarms, and repeated shocks of disaster, never cause them to relax their hold or change their course; who have such command over men that all with whom they have to do acquire vigour from the contact, and work for them as they would not, perhaps could not, work for others, just as great captains (see INDUSTRY, CAPTAINS OF) inspire their armies with a confidence which alone goes far to make them invincible." Below these men come a "much larger" class of a "high order of talent, though without genius or anything savouring of magic"—"men of natural mastery, sagacious, prompt, and resolute in their avocations." Then come the "men who, on the whole, do well, or pretty well, in business;" and lower down come a "multitude of men who are found in the control of business enterprises for no very good reason that can be seen by those who know them." The passages which have been quoted will sufficiently indicate the nature of the work and qualities required of a modern employer, and will explain the high remuneration which he often commands. The average earnings, indeed, of employers seem now to be falling, with the

general diffusion of education and the rapid spread of inventive discovery. But the modern world of business offers greater opportunities for exceptional talent and extraordinary luck than have perhaps ever before been afforded; and the amount of capital and of labour placed at the disposal of a single employer is frequently very considerable. The employer is in a sense the pivot on which the modern world of industry revolves, and the distinctive prominence into which he has been brought in more recent economic literature has conduced to greater definiteness in questions of distribution generally, and in particular in the consideration of three matters of the first importance. The conception that a conflict between labour and capital is involved in the relations of employers to employed is shown to be somewhat misleading; for the employer is in a sense a labourer as well as the employed, and he often does not furnish himself the whole of the capital which he uses. It may even be supplied by individuals who are themselves employed in his own or in other trades. The employer is in reality a middleman, a kind of "buffer" intervening between one set of individuals and another; and, while he may have to bear the first brunt of the conflict, he may also shift part of the burden on to others. The conflict is not then entirely, though it may be partly, between labour and capital; but it is in some degree between one class of labourers and another, who are both interested in obtaining the supply of capital on advantageous terms, and are on the other hand respectively anxious to secure for themselves the larger share of the produce remaining when the claims of capital have been met. Another question, on which considerable light is thrown by the modern analyses of distribution, is the question of co-operative production (see CO-OPERATION). This has sometimes been represented as a question of combining the functions of capital and labour in the persons of the same individuals; but in reality, as General Walker has shown (*Wages Question*, ch. xv.), it involves the elimination of the employer. The workmen wish to take the responsibilities of management upon themselves, and to secure for their own benefit the profits of the employer. They are unable to dispense with capital, even if they entertain such a wish; and they may acquire capital, and become capitalists, without co-operative production. But the object, at which they really aim, is more difficult, for the functions of the employer are very important, and they are making an attempt to undertake them themselves. A third and last question, which is affected by the distinctive importance of these functions, is that of SOCIALISM (*q.v.*) Modern socialist writers represent the products of manufacture as due entirely to the labour of the actual workmen, and therefore as belonging of right to them. They regard the employer as an exploiter and robber of labour, and they consider profits as the outcome of the surplus value (cp. VALUE) of what the labourer produces over what is required for his subsistence. This theory of surplus value is fallacious in other respects; but part of its error may be traced to a failure to distinguish the functions of the employer as such from those of the capitalist as such, and to separate that portion of profits which forms the reward or earnings of the difficult work of management from that which is simply and solely interest on capital.

[In addition to the books mentioned above the student should consult J. S. Mill, *Political Economy*, bk. ii. ch. xv. for the older definition of profits, and the *Boston Quarterly Journal of Economics* for 1888 and 1893 for the controversy raised by General Walker's *Theory of Business Profits*. Reference should be made to Marshall's *Principles of Economics*, bk. iv. ch. xii., bk. vi. chs. vii. and viii., and Sidgwick's *Political Economy*, bk. ii. chs. i. and viii., for the disposition to regard the labour of employers as subject to the laws affecting labour generally. For the tendency to a fall in average profits Leroy-Beaulieu's "*Essai sur la répartition des richesses*, ch. xi. and the *Report of the Industrial Remuneration Conference*, 1887, pp. 4, etc. and 186, etc., should be studied. Pierstorff, *Unternehmergewinn*.—H. v. Mangoldt, *Die Lehre vom Unternehmergewinn*.—Loria, *La rendita fondiaria e la sua elisione naturale* (see also ENTREPRENEUR).] L. L. P.

EMPLOYERS' LIABILITY ACT, 1880, 43 & 44 Vict. c. 42, extends and regulates the liability of employers to make compensation for personal injuries suffered by workmen in their service. At common law the liability of an employer, with respect to persons in his employment, differed from his liability with respect to persons not in his employment (see COMMON EMPLOYMENT, DOCTRINE OF). He was not liable to his servants for the consequences of acts done by fellow-servants in the course of their service. He was, however, liable to them for injuries resulting from the negligence of himself or his partner. Thus he was bound to take reasonable care that his plant and machinery were in a safe condition, and that servants selected by him were competent to their work. But his liability to persons not in his service was far more extensive. He was liable for injuries caused to them by his servants, even when he had not been guilty of any negligence, even when he had expressly forbidden the act producing injurious consequences. The difference of the employer's liability towards his servants and towards the public might conceivably be justified by the fact that the public has no choice as to incurring the danger which may result from his undertaking, whilst a workman can choose whether or no he will take service with any particular employer. But the distinction

came to be more oppressively felt as industry was more and more concentrated in huge concerns, such as railways and factories, where the range of choice between employers is limited, and service involves co-operation with a multitude of other "hands" about whose individual care or dexterity nobody can learn much. The influence of the working class was exerted to obtain a modification of the common law, and the Employers' Liability Act embodies a compromise on the subject. It provides that in five specified cases the workman who has sustained injury through the action of a fellow-workman may bring an action for redress as though he were not in the same employment. Where the injury happens by reason of (1) any defect in the works, plant, or machinery; (2) the neglect of any person engaged in superintendence; (3) the neglect of any person to whose orders the workman was bound to conform when the injury took place; (4) the act of any fellow-servant done in obedience to the rules, by-laws, or instructions (if improper or defective) of the employer or his delegate; (5) the negligence of any signalman, pointsman, or person having charge of a locomotive on a railway, the workman is put on the same footing with the public. But for the purpose of the act "workman" is so defined as to exclude seamen, domestic servants, and any servant not employed in manual labour. When an injury has been sustained notice must be given, and the action must be brought within a limited time, and the amount of the compensation must not exceed three years' earnings of a workman in that employment. If the injury prove fatal, the right of action passes to the dead man's representative. The act was originally passed for seven years only, and since 1887 has been renewed from year to year. Parliament has not found time to place the law relating to this subject on a permanent footing. The above statement, both of the common law and of the effect of the act, must be regarded as summary and popular, not full or precise.

For the previous state of the law and the change made by the act, the reader may consult Macdonell, *The Law of Master and Servant.* For a discussion of the principles involved, see *Essays on Jurisprudence and Ethics* by Sir Frederick Pollock (essay v., "Employers' Liability.") In the present session of parliament (1893) the home secretary (Mr. Asquith) has introduced a bill putting the workman on the same footing with the public whenever he has been injured by the negligence of a person in the service of his employer. The bill applies to seamen. The person employed cannot contract himself out of his right beforehand. The Employers' Liability Act, 1880, is to be repealed. It is impossible to say at present what alterations in the law may follow from this bill. F. C. M.

EMPLOYING CLASS. General F. A. Walker, who has contributed greatly to bring into due prominence the functions discharged by the employer (see EMPLOYERS AND EMPLOYED) in the modern world of industry, draws a distinction (*Wages Question*, ch. xiv.) between what he calls a "false employing class" and the "real employing class," to the latter of which alone these functions in his opinion properly belong. The "false employing class" includes, in the first place, those who hire servants who help their employers rather to consume the wealth they have previously produced than to produce fresh wealth. In the second place it includes artisans who are employers on so small a scale that they have only single apprentices; and in the third place it comprises those who are nominally employers, but practically are partners of the employed; and, fourthly and lastly, it contains those who "cling to the skirts" of the profession. The "real employing class," therefore, is the "comparatively small body of men" which is reached by eliminating these various kinds of "false" employers. L. L. P.

EMPLOYMENT. The number of persons employed in the performance of labour in a country obviously cannot exceed the number of persons capable of labour existing in the country, and, as a matter of fact, it is never for any length of time very much below this number; in all countries the able-bodied unemployed, including not only the men "out of work," but all others who from whatever cause are not engaged in labour, are but a minute fraction of the whole able-bodied population. This is sufficient to show that, broadly speaking, the number of persons employed is regulated in the main by the number of persons seeking employment, or in other words, desirous of earning a livelihood by labour. In a small community, say of ten or twelve persons, living in entire isolation from their fellows, every one would find it easy enough to obtain employment, though he might find that a great deal of employment produced very little food. In a great community where co-operation in the production of wealth is effected by means of exchange, the fact that there is always a certain small proportion of persons seeking employment who are unable to find it is chiefly due to the circumstance that, owing to the division of employments, every kind of production comes to be carried on by people who have by training and experience acquired particular skill in that kind of production, so that when the demand for any one commodity slackens and the number of those who produce it has to be reduced, or at any rate not increased at its normal rate, the persons deprived of this employment are not immediately absorbed in other employments.

[Marshall, *Elements of Economics of Industry*, pp. 368, 369.] E. C.

EMPLOYMENT OF WOMEN AND CHILDREN IN AGRICULTURE. See FEMALE LABOUR.

EMPLOYMENTS. See OCCUPATIONS.

EMPTION. The right of the crown, exercised from time immemorial, *to take and buy* "at its need" or "for its use" an indefinite amount of commodities, at such price or on such terms of payment as the circumstances of the case might warrant. It was claimed by Edward I. in 1297 that the king was "free to buy and sell like another"; the advantage to the crown being that such purchases were paid for by tallies, and the amount of the maltolte deducted from the purchase-money (see MALTOLTE). Hall, *History of Custom Revenue*, vol. i. pp. 62, 64; (see also PREËMPTION AND PURVEYANCE).

H. HA.

EMPTIO-VENDITIO. The Roman contract of sale, or of buying and selling as it is called in order to denote its bilateral character, is formed by one contracting party promising to pay a sum of money or price (*pretium*), and the other party promising to deliver a thing (*merx*) in return. The contract is binding by mere agreement between the parties, neither requiring any formality nor delivery on one side, and so belonging to the class of contracts called consensual. *Arrha* (see ARLES; EARNEST MONEY), a sum of money or other object of value frequently given by a contracting party to afford evidence of the contract, and a security for its fulfilment, is not a requisite of the contract itself. There can be no contract of *emptio-venditio* unless a determinate price, or a price which can be made so (*id certum est quod certum reddi potest*), is made part of the agreement. It was at one time a subject of dispute whether the price must necessarily be in money; thus the Sabinian school of jurists maintained that exchange was a species, and the oldest species, of sale, citing in support of their view the lines of Homer—

"Here touched Achæan barks in quest of wine,
They purchased it with copper and with steel,
With hides, with horned cattle, and with slaves."
(Poste's *Gaius*, III. § 141.)

But the view prevailed that sale was a contract distinguished from barter or exchange by the fact that it had for its object the payment of a sum of money for a thing.

When the contract of *emptio-venditio* is complete the vendor is bound to deliver the thing to the purchaser and the purchaser to pay the price of the thing, but one party cannot be compelled to perform his part if the other will not perform on his side. The obligation of the vendor is not to make the purchaser owner of the thing, but only to give him possession of it. If, however, the purchaser is evicted by a third party who has a superior title, the vendor is obliged to make good to him the loss. Ownership of the thing does not pass to the purchaser until possession of it has been delivered to him and he has paid the price, if it is a ready-money transaction. But though the property has not passed to the purchaser, he is subject to the risk (*periculum*) of its accidental loss, *i.e.* of loss which cannot be attributed to the negligence of the vendor from the time of entering into the contract (*respuit emptori*). This rule is only applicable where there is a specific object appropriated to the contract. If the thing is determined only by its genus or kind, the risk does not attach to the purchaser until the thing has been weighed, measured, or counted, and the purchaser has had notice of this having been done. The purchaser, on the other hand, could claim all accessions and profits of the thing bought arising between the making of the contract and the date of delivery.

The vendor is liable on account of defects in the thing sold, not only when he represents that they are absent, or fraudulently conceals their existence, but, according to the law established by the edict of the curule Ædiles, who had jurisdiction over the market, even on account of latent defects of the existence of which he was unaware. Thus in the Roman contract of sale there is an implied warranty that the thing sold is free from defects. Such, in brief outline, are the main features of the contract of *emptio-venditio*, with which those of the English contract of sale of goods may be usefully compared.

E. A. W.

EMULATION, EFFECTS OF, ON SOCIETY. The feeling of emulation may be defined as the desire to excel one's fellow-creatures in any respect whatsoever. It thus admits of infinite variations, produces the most dissimilar consequences, and gives rise to the most contradictory judgments. At its best the spirit of emulation is hardly distinguishable from the desire to achieve greatness or perfection, at its worst the spirit of emulation is hardly distinguishable from envy and uncharitableness. It is, however, an indestructible instinct, which may be schooled but cannot be extirpated, and which is most powerful in the most vigorous natures. Further, it prompts to unceasing effort because it is insatiable. The plain animal appetites may be sated; but emulation incessantly creates anew its object of desire, and, the more it has accomplished, finds the more to be done. Next to the instinct of self-preservation and the instinct of sex, the instinct of emulation has probably had greater effects than any other upon the economic history of mankind. We may consider its effects shortly under three heads: (1) *Emulation in accumulating wealth*, (2) *Emulation in expending wealth*, (3) *Emulation in other directions.*

(1) Emulation in accumulating wealth. The desire to be richer than one's neighbour, to excel him in the power and consideration given by wealth, has been a prime factor in accumulation. Its force has varied chiefly with two

circumstances: with the degree of desire for wealth characterising any given society, and with the proportion of persons who have had a chance of acquiring riches. As to the former circumstance, societies have differed considerably in the value which they assign to wealth in comparison with the other goods of life. The causes of this difference are too many and too subtle to be enumerated here; but among the most influential are different moral and religious ideals, different stages of political development, different degrees of command over the resources of nature. As to the latter circumstance—the proportion of persons who can indulge a spirit of emulation in the pursuit of riches is exceedingly variable. In many societies a small proportion has been above, and a large part has been below, any active emulation in wealth. Sometimes a class of nobles has owed its pre-eminence rather to birth and to military prowess than to riches, and has therefore been less emulous of riches. Often a class of slaves who were legally incompetent to hold property, or of serfs who were not adequately protected by law in the enjoyment of their property, or a class of underpaid free labourers who could barely earn their daily bread and nothing more, has found it difficult or impossible to rise into a more comfortable condition, still more to compete in a rivalry of riches. In such a case the spirit of emulation dies out, because not fed with hope. These remarks might be illustrated from the history of mediæval Europe, in which the emulation of riches appears as a great force only in certain classes and in certain places. But in such communities as our colonies and the United States of America, in which material well-being is the accepted ideal, in which every citizen has hopes of realising this ideal, and in which the command over natural resources is almost unbounded, the emulation of wealth becomes a passion as universal as it is intense, and impels to an amazing economic development.

It is conceivable, indeed, that emulation in the pursuit of wealth might become so intense as to lessen, not to augment, the wealth of society. Thus a community of men so zealous in the pursuit of wealth that they grudged time, trouble, and money for national defence, or for alleviating social evils, might end in subjection to a foreign power or in mere anarchy; and would in either case be reduced to comparative poverty. The same result might follow if emulation in the pursuit of riches led to a universal disregard of commercial integrity or to a neglect of all liberal culture. For there is no instinct which, if left to itself, will not sometimes defeat itself.

(2) Emulation in expending wealth must be taken to mean emulation in expenditure which is not directly productive. The immediate result of such emulation is to lessen wealth. Its ultimate result will depend on many considerations. Thus the wealthy citizens of Rome rivalled each other in expenditure on public works intended for the health and recreation of the public; the burghers of mediæval Europe in building and endowing churches; the nobles of France in display at Versailles. Clearly each of these modes of emulation in expense differed from the rest in its ultimate economic effects, although each was in the first instance non-productive. Again, emulation in expense has different economic results accordingly as it is the emulation of a productive or of a non-productive class. The courtier of Versailles, when he had squandered his fortune, remained poor or had to squeeze his dependents. The American, when he has spent lavishly in Europe, goes back to his country and works yet harder to make another fortune.

(3) Emulation in other directions. Every form of emulation soon or late produces economic consequences. In all ages wealth has followed power, and has been kept by strength. Few nations have got wealth and none have kept it unless there was an emulation of public spirit and military virtue among their citizens. Intellectual emulation, emulation in knowledge and culture, has always stimulated economic and industrial development, and often most effectually when it has been most free from sordid motives. Thus the wealth of modern Germany is directly due to the intelligence of the age of Goethe and the public virtue of the age of Bismarck. Again, the economic condition of the later Roman empire and of the middle ages must have been considerably affected by the emulation of ascetic piety which withdrew so many of the strongest wills and keenest intellects from the world to the cloister. The immediate result was an economic loss, although this may have been partially countervailed by the civilising influence of many monastic bodies. Even emulation in mere sports and pastimes would be found to influence occasionally the economic state of society. F. C. M.

ENCABEZAMIENTO, a contract between the Spanish treasury and the local authorities, by which, after a preliminary estimate of the taxes to be levied, the latter engaged to collect and remit the amount. The first known *encabezamiento* goes back to 1494. E. Ca.

ENCLOSURES. Of "enclosing," *i.e.* the fencing round of land which had previously lain open, whether as common field or as common waste, we hear but little before the 13th century, when the necessity for statutory regulation points to the existence of the custom and of differences between the lords of manors and their tenants. About the origin of those common rights of pasture which play so important a part in the history of enclosures, there has been much controversy; but there is

an increasing consensus of opinion as to the main legal points. Although in strict feudal theory the land belonged to the king as the supreme landlord, the lords of manors came in course of time to be treated as owners of the soil within the manor, who in various ways granted certain rights over it to their tenants. Land might be cultivated by the tenants for their lord or for themselves according to a common system of husbandry, upon certain terms which in many cases included certain pasture rights. These might be (1) rights over the arable land during the year, when under the three-field system it was lying fallow, or during the period between harvest and the sowing of seed; or (2) the right of herding a certain number of animals in a common close; or (3) rights over the wastes and woods belonging to the manor. Whether the lord could from the earliest times enclose at will is a matter of some controversy, but, by the statute of Merton, 1236 (20 Hen. III. c. 4), a parliamentary sanction was given to the enclosure of wastes by the lord of a manor, provided that sufficient pasture was left for the requirements of his freehold tenants; while by the Statute of Westminster, II., 1285 (13 Edw. I. c. 46), enclosure was permitted as against commoners who, without being tenants, possessed pasture rights by a special grant. Until the middle of the 14th century the enclosure of open fields in the interests of tillage continued, and many agreements were made between lords and commoners destroying the common rights over the arable land between harvest and seed-time, and sometimes involving exchange of land. Since such enclosure simply implied the rearrangement of estates, and required the same resident population as before, while the conversion from wood and waste into arable land—another feature of the time—found employment for a larger population, no grievance could arise, and the agricultural gain was great. But owing to the scarcity of labour after the ravages of the Black Death (1349), and the consequent introduction of the lease system, attention was turned to the advantages of pasture farming over tillage. When to these influences there was added, in the 15th century, a desire to promote commercial interests by increasing the supply of wool for exportation, pasture farming was still more widely introduced. Sheep could not be properly reared upon open commons, or upon the small scattered strips, and thus arose the policy of enclosing commons wherever this was possible, either by force, or by voluntary agreement; while the profits of sheep-farming led to the conversion of much arable into pasture land. Tenants were encouraged to consolidate their holdings, to exchange their strips in the open fields for separate farms, and to divide the common pasture with the lord, or in some way to make an agreement with him. The economic advantage of enclosure for grazing purposes was doubtless great, but the social and political dangers were considerable, as was pointed out by many contemporary writers who dwelt upon the depopulation of vast tracts, the diminished sphere for employment, the increase of pauperism, the pressure of evictions, and the loss of customary rights. These evils became more apparent after the dissolution of the monasteries; the earlier agricultural system had been retained on many estates which were confiscated, and thus passed under the new system, while the customary rights of the tenants were held to be overridden by the royal grant. Various statutes were enacted throughout the 16th century for the encouragement of tillage, but it was not until its close that the danger passed away. Edward VI. issued a commission in 1548, to investigate the matter throughout the country, but it was unable to put an end to the social discontent, which found an expression in Kett's Rebellion in 1549. The subject was summarised in the charge read by John Hales at the opening of the commission, and in the *Brief Conceipt of English Policy* (see ed. 1893 under the title of *A Discourse of the Commonweal of this Realm of England*, and article by Miss E. Lamond, *English Historical Review*, 1891). By the close of Elizabeth's reign complaints about enclosures in the interest of pasture farming seem to have ceased; this was partly due to the encouragement given to the growth and export of corn, a course which had a more beneficial effect in reviving tillage than the many statutes passed with that object. From this time onwards enclosure of waste and common fields alike is chiefly advocated in the interest of tillage, not of pasture. In the 17th century many writers advocated enclosures of common fields for the improvement of tillage. Steps were taken for the draining and enclosing of the fens under the direction of Cornelius Vermüyden, a Zealander, while the Earl of Bedford headed an enterprise for enclosing the level which bears his name. In each case the undertakers were rewarded with a portion of the lands thus reclaimed, and this led under the Commonwealth to serious riots on the part of the fen men, whose customary rights were thus set aside. The only other noteworthy feature in the history of 17th-century enclosing, was occasioned by the financial necessities of Charles I., which led him to institute proceedings against those who had encroached upon the royal forests. Heavy fines were imposed upon offenders who had thus enclosed, but it is doubtful whether the king derived as much profit from this source of revenue as he had anticipated.

Until the reign of Charles II. enclosures were effected by agreement between the owners of land and those who possessed rights of common, commissioners being appointed to allot the

lands; the agreement was ratified by the court of chancery, or by royal licence where crown interests were concerned, but from the reign of Charles II. a parliamentary sanction was required. This was only given after the consent of the landlord, the tithe owner, and four-fifths of the commoners had been obtained in favour of enclosure. During the first half of the 18th century enclosing continued slowly; but the rise of a moneyed class interested in agriculture and willing to spend money on agricultural improvements, the increased use of green crops, which raised the profits of tillage, but which could not be profitably worked under the open-field system, the increase of population together with the withdrawal of a large portion from agricultural labour, the difficulty of providing a sufficient food-supply and the danger of dependence upon foreign countries, together with the famine prices produced by the French wars—all these various causes combined necessitated the utmost development of natural resources, and gave an enormous impetus to enclosure both of open fields and of common wastes from about 1760 onwards. The rate of progress is most easily shown by a few figures. In the reign of Anne there were three private bills for enclosure, in that of George I. 16, and under George II. 226, a total of 245 in fifty-eight years, while the sixty years of George III.'s reign show the astounding number of 3209 private bills as well as the general enclosing act of 1801. Unlike the enclosures of Tudor times, those of the 18th century were entirely in the interests of tillage. It is hard to estimate by how much the actual area brought under tillage was extended, since a great many enclosures affected open fields already under cultivation. In 1797, when over 1720 private bills had been passed, the select committee on enclosures reported that of the 46,000,000 acres which England was supposed to contain, about 7,800,000 were uncultivated wastes, while 1,200,000 were in the state of common fields, and it has been estimated that about 4000 parishes, containing open fields, chiefly in the eastern and some of the midland counties, out of a rough total of 8500, were enclosed between 1760 and 1844. Where such enclosures took place with due regard to common rights the gain was great, as the customary course of agriculture, and the difficulty of introducing changes such as machinery or a better rotation of crops, were almost insuperable obstacles to improvement. The enclosure of the wastes was also an economic gain, for in many cases they were previously worthless, the cattle reared on them were of an inferior kind, and, as Sir John Sinclair pointed out in an address incorporated in the report of the select committee of 1795, it was found more profitable to hire land for the breeding of sheep of a more valuable sort than to turn them on to a common for nothing. Nor must it be forgotten that though much suffering was probably inflicted, still it was a social gain to clear some districts of an idle and lawless population—the haunts of thieves who, more especially near the capital, were a public nuisance,—while the draining of vast tracts was not without beneficial effects upon the public health. In many cases the enclosures, as carried out, were hurtful to the labourers, whose cottages had been on the commons, and who had been able to keep a cow, which was no longer possible when enclosure of the open fields and of the waste deprived them of customary pasture rights—often without compensation. The expense of enclosing and the loss of pasture rights is one of the many causes which contributed to the disappearance of the yeomanry during this period. The force of the argument against enclosures lies in the fact that the poor did not in many cases receive compensation for the loss of traditional rights. The enclosure bills did indeed provide that all legal rights should be regarded, and on the whole the commissioners tried to act fairly, but the expense of enclosing was very great; much of the money compensation paid to the commoner was swallowed up in legal expenses, and the poor man was doubtless at a disadvantage in contesting the rival interests of a wealthy neighbour. After receiving reports from various select committees which had communicated with the board of agriculture, parliament in 1801 passed a general enclosing act (41 Geo. III. c. 109) with the object of cheapening and facilitating the process of enclosure, and of thus protecting the interests of the poor. By the act certain general provisions were laid down, which rendered the private acts shorter, though the expense of an application to parliament, and of referring contested cases to a parliamentary committee, still remained.

In 1836 an act (6 & 7 Will. IV. c. 115) was passed by which enclosure of common fields was facilitated. Possessors of common rights to the number and value of two-thirds might nominate commissioners to carry out enclosure of common fields, provided that these were beyond certain distances of the larger towns.

By the general enclosure act of 1845 (8 & 9 Vict. c. 118) this method was extended to the common wastes. An enclosure commission was appointed to deal with land of various kinds in England and Wales. (1) All lands held in severalty, or subject to definite common rights, could be enclosed by the authority of the commissioners without parliamentary sanction. By 15 & 16 Vict. c. 79, the commissioners were, however, forced to submit proposals dealing with land as above described to parliament. (2) All lands over which undefined rights of common existed—and all wastes within 15 miles of London, or within certain distances of other

towns. In such cases the commissioners held an inquiry, and then drew a scheme; all the schemes for the year being presented to parliament in one general act. The commissioners were thus substituted for the parliamentary committee, and it was hoped by the promoters of the measure that examination on the spot would prove a security to the poor, whose interests were directly protected by clauses empowering the commissioners to make allotments and recreation grounds. (3) Village and town greens, as well as the New Forest, and the Forest of Dean, were excluded from the operation of the act.

In 1852 parliamentary sanction was made compulsory for the enclosure of land held in severalty without definite common rights. In 1893 the statute of Merton, though not repealed, was greatly modified; and no enclosure may henceforth be made under that act without the consent of the board of agriculture, which in dealing with such proposals is instructed to carry out the requirements of the Commons Act of 1876, when considering applications for the general enclosure of a common.

[T. E. Scrutton, *Commons and Common Fields* (1887).—R. E. Prothero, *Pioneers and Progress of English Farming* (1888).—*Reports from Committees of the House of Commons*, IX., 1774-1802. —*Reports of the Board of Agriculture—General Report on Enclosures* (1805).—Notice of enclosures in Bacon's *History of Henry VII.*, p. 93, vol. vi., Bacon's Works, Ellis and Spedding's edition. —Leadam, *Inquisition of 1517 in Transactions of Royal Historical Society*, N.S., vi. 169]. W. C.

ENCOMIENDA, the name of the estates, comprising both land and its Indian inhabitants, granted by the Spanish crown to the *conquistadores* or military adventurers in America.

E. Ca.

ENCROACHMENT. See TRESPASS.

ENCYCLICAL. The encyclical of Pope Leo XIII. on the condition of labour, dated 15th May 1891, which is the subject of this notice, receives its name from its opening words *Rerum novarum*. Here, as in previous encyclicals, notably the one *Quod Apostolici Muneris*, issued in the first year of Leo XIII. (1878), the question of capital and labour is considered mainly in its connection with the recent advances of socialism. It offers us, as M. Charles Périn, emeritus-professor of the University of Louvain, puts it, a "synthesis of the economic order according to the divine laws which regulate human conduct," and it is important as constituting "la vérité catholique pour l'ordre économique," or, as we should put it, an authoritative statement on the part of the Roman Catholic Church on the economics of labour. Its distinguishing feature is the introduction of the principles of justice and charity in the solution of economic questions. The encyclical opens with an allusion to the "spirit of revolutionary change," and the influence of this in the "field of practical economy"; it dwells on the danger of social agitation in the presence of real grievances such as "the misery and wretchedness which press so heavily at this moment on the larger majority of the very poor," and the isolated and defenceless condition of working men, "the callousness of employers, and the greed of unrestrained competition" (*Encyclical Letter*, official translation, p. 4). It then proceeds to examine the remedies proposed on the one hand by socialists, which it condemns, and those which are within the province of the church and state, which it recommends, dwelling in conclusion on self-help by means of association and the importance of a wider diffusion of Christian charity in all human relationships which strikes at the root of all social evils. (1) The socialistic proposals are characterised as unjust and tending to rob lawful possessors, and putting the state into "a sphere that is not its own" (p. 5), and thus depriving the labourer of the liberty of choosing his own employer and using the proceeds of his work. Private property is defended, as against the socialistic recommendation of collective ownership as being "according to nature's law," whilst, "the authority of the divine law adds its sanction" (pp. 7, 8); and, considering the rights of the family as co-ordinate with those of the state "our first and fundamental principle, therefore, when we undertake to alleviate the condition of the masses, must be the inviolability of private property" (p. 11). The pope here falls into the common error of supposing that all private property is excluded in the schemes of modern socialism, whereas it is only instruments of production—private ownership in lands, capital, and machinery—which are to be abolished and become state property, the state directing the process of production, with the disappearance of the wages system in the socialistic state. (2) The encyclical declares inequality as in the nature of things permanent, and points out the methods of the church under these circumstances for remedying the evils arising therefrom. It is the duty of the church to teach and to train men in the principles of social ethics (pp. 18, 19), whereby the poor may learn "to suffer and endure" and to abstain from violent measures in compassing their ends, whilst the rich are taught to "religiously refrain from cutting down the workman's earnings, either by force, by fraud, or by usurious dealing" (pp. 13, 14). The church, too, in her institutions, as in the past, guards the "patrimony of the poor" by means of "deposits of piety" flowing from Christian self-sacrifice and charity. (3) The state as the organ of distributive justice protects each class with a view to the common good; all well-constituted states are bound "to provide those bodily and ex-

ternal commodities *the use of which is necessary to virtuous action.*" "It is only by the labour of the working man that states grow rich. Justice, therefore, demánds that the interests of the poorer population be carefully watched over by the administration" (pp. 22, 23). Sunday rest, and the protection of health and the prevention of excessive labour of children and females being among the subjects demanding state interference, as also the restraint of the disturbers of social peace, "to save the workman from their seditious arts, and to protect lawful owners from spoliation" (p. 25). On the wages question Leo XIII. proves himself to be "le pape des prolétaires" in demanding of the state protection against unscrupulous employers, who under a semblance of free contract deprive the labourer of his due. Distinguishing between this theory and facts, between normal wages and fair wages, he points out that the working man, having nothing but his wage to fall back upon for a livelihood, is bound to come to terms with the master even to his own disadvantage, unless he is protected by the state or boards of conciliation authorised by the state to secure the rights of both parties of the contract, and this on the equitable principle that "each one has a right to procure what is required in order to live" (p. 28). (4) In the last place the pope recommends association and corporation as after the pattern of Christian confraternities under the fostering influence, though without undue controlling power, of the state as means of mutual support and protection against encroachments; but it is by a return to Christian faith and charity alone that the evils of society can be cured in the end,—so concludes the encyclical which thus becomes what Anatole Leroy-Beaulieu, in his appreciative study of *La Papauté, le Socialisme, et la Démocratie*, calls "un code de morale sociale" (see pp. 66, 67). But also, as the same writer points out, so far from coming into conflict with the principles of political economy, as now understood, the encyclical is on a line with its most recent developments (*ib.* p. 50), adding to the moral factor the religious forces without which selfishness and greed would be the only prompting motives of economic action.

[Charles Périn, *L'Économie Politique d'après l'Encyclique sur la condition des ouvriers*, Paris, 1891.—*Note sur le juste Salaire d'après l'Encyclique rerum novarum* by the same.—Henri Joly, *Le Socialisme Chrétien* under the head, *Les dernières écoles.*—Anatole Leroy-Beaulieu, *Papacy, Socialism, and Democracy*, trans. from the French by B. L. O'Donnell, Chapman and Hall, 1892, gives the text of the encyclical in an appendix.—Henry George, *On the Condition of Labour*, 1891.—Also W. T. Stead, *The Pope and the New Era*, 1890.] M. K.

ENDORSEMENT. See BILL OF EXCHANGE.

ENDOWMENTS. Adam Smith in a well-known passage[1] has written strongly on the subject of endowments. In his eyes they tend to hinder capital and labour from taking their natural course. In certain professions, notably that of holy orders, the existence of endowments, to encourage and support those who are preparing for them, has attracted large numbers of men who would otherwise have carried their energies into different fields. Hence a depression of incomes in those professions, for the number applying for employment in them is greater than the work requires. A change in circumstances since Adam Smith wrote has robbed his particular instance of much of its force, for the endowments in question have, as a rule, been diverted, and the growth of population coupled with well-defined religious revivals has greatly increased the work of the clergy. But Adam Smith goes farther, and maintains that, tested by experience, endowments have failed to secure any good object. The universities, he says, are largely endowed, and have failed to make any great additions to the learning of the country, which is no more than might have been expected *à priori*, for the motive to exertion being removed by the certainty of income independent of it, exertion itself would tend to diminish. Dr. Johnson,[2] though not accepting Adam Smith's conclusions, put the same argument in a popular form when he says, "Why, sir, we would all be idle if we could."

As the growing tendency of the present time is to employ endowments for the advancement of learning or the furtherance of education, it may be worth while to examine the reasoning at greater length. The objections to endowments may be put in the form of a dilemma—either a given result is worth having, and then the public are ready to pay for it, or the public is not ready to pay for it, and then it is not worth having; in the one case endowments are superfluous and cripple energy, in the other they are wasted. It will be observed that this argument is based on the assumption that the public are the best judges in such matters. To this it is objected that although the common exchanges of life may safely be left to competition, and the public are able to judge of quality in the matter of tea, sugar, etc., the case is very different when learning and the higher forms of education are involved. The public, or at least the English public, are not qualified to discern good and bad in such matters. The demand for books and teaching in the highest subjects is never likely to be sufficient to make it worth any one's while to write upon or teach such subjects as a profession, and many persons who have the ability and the taste requisite are powerless to pursue the subjects for want of

[1] *Wealth of Nations*, bk. i. chap. x.; cp. bk. v. chap. i., art. ii.

[2] Boswell's *Life of Johnson*, A.D. 1776.

means. In such cases endowments, it is argued, may profitably be used to provide the means of subsistence for men who are in reality great public benefactors. Certain chairs, for instance, at the universities need endowments to support their holders in the absence of a sufficient number of students ready to pay fees to maintain their teacher. Certain forms of study and research are never likely to be sufficiently remunerative to provide those who pursue them with the means of livelihood, and must consequently be endowed. Outside these special cases it is readily granted that endowments, by making men independent of their exertions, tend to weaken their industry; but unless these particular subjects are endowed, the level of learning and of teaching is likely to be lowered, for the subjects studied and taught will be those, and those only, which bear directly on practical life. The question is not, perhaps, one which admits of a final answer. The enthusiasm which leads a man to adopt an unpopular subject may in many cases be trusted to keep him industrious, independently of reward. A certain habit of mind is observable in those who are mainly supported by endowments, a tendency to delay publication, an excessive self-criticism, a want of definiteness—all these go far to postpone, if not to destroy the realisation of the results of their work. It has been remarked that in this country a large amount of the best work has been done by men who have a regular employment, and with whom the advancement of learning is a secondary occupation. J. S. Mill, *e.g.*, wrote his principal treatises in the intervals of his work as a clerk in the India House. Grote's *History of Greece* was the work of a banker, and other instances might be quoted. In the great majority of cases a certain amount of teaching is a help and not a hindrance to research. The most successful use of endowments has, perhaps, been in cases where they have been employed to support men who have already made themselves a name in a subject, and who have been set free from the necessity of working for their daily bread at some occupation which they have hitherto practised. But the method of distributing endowments is distinct from the question of their inherent advantages or drawbacks. In German universities endowments are, as a rule, only a part of the income of a professor, the proportion that he earns by fees being greater or less as his subject is popular or the reverse.

Apart from the encouragement of research, endowments are largely used to forward the higher education of the country. The universities expend large sums annually in scholarships to attract students; and fellowships, being now largely used as prizes at the end of a university course, are additional inducements to students to undertake it. The consideration of poverty enters but little into their distribution. Here again a question may be raised as to the wisdom of such a policy. Studies, it will be urged, which are not self-supporting in the sense of attracting students by their own charms, are not worth supporting at all. Others will hold that studies which do not bear directly on practical life (in German phrase are not "bread studies") have a value of their own, of which the public are not the best judges, but which make it worth while to support them by endowments; and that while studies which are a direct preparation for business may safely be left to themselves, it is the interest of a country to preserve others from extinction. We have in England no logical principle applied to the graduation of studies or their mutual relation; but the tendency of the present day is to use endowments largely to facilitate the passing from the lower to the higher grades. Instances are not wanting of those who by their means have risen from elementary schools to high places in the universities. In practice it must be owned that endowments often (1) cheapen education for a class who can perfectly well afford to pay for it, by providing plant, etc., for the great public schools and the universities; (2) enable poor men to live at a needlessly expensive rate, which is determined by the standard of comfort set by more wealthy companions.

Two subsidiary points may be mentioned.

1. The system of confining the advantages of endowments to certain localities is being gradually modified. It is argued that migratory habits and facilities of communication have greatly lessened the reality of local divisions; that, on the whole, every locality gains by the process; that waste is avoided, and the supply of endowments made to correspond more nearly to the number of persons qualified to make a good use of them.

2. The abolition of any poverty qualification, mentioned above, has been severely criticised. It may be defended on the ground that it is almost impossible to make such a qualification real. Poverty is difficult to define, and it is impossible to formulate any system of compensation as between ability and want of means. Moreover, on the whole, the present tendency to distribute endowments by competition, making ability and not poverty the test, tends to raise the whole level of education, and so to benefit the poor; whilst the spur of poverty is sufficient to ensure industry, and the temptations to idleness which go with wealth are, in the great majority of cases, strong enough to prevent members of the wealthy class from competing successfully.

[Mill, *Pol. Econ.*, bk. v. chap. xi. § 15.—Turgot, *Fondation et Fondations*, Œuvres, vol. iii., ed. 1808.] L. R. P.

ENEMY GOODS. In early times the pro-

perty of the enemy, wherever found, was liable to capture. By custom and treaty the harshness of this rule has been modified, and the modern practice may be summed up as follows:—(1) Movable property belonging to an enemy state may be appropriated; immovable property may be occupied but not alienated. (2) Movable private property is liable to contribute to the support of the invading army, contributions and requisitions being levied for that purpose; immovable private property is exempt from appropriation. (3) Private property on the high seas is liable to capture except where it is on board a neutral vessel. (4) Private property within the jurisdiction of the belligerent is not as a rule liable to capture.

[*International Law*, by W. E. Hall, Oxford, 1890. Many writers advocate the exemption of private property at sea from capture. The United States has more than once made this proposal, and in some modern wars this principle has been followed. See De Laveleye, *Du Respect de la Propriété Privée en Temps de Guerre.*—Bluntschli, "Du droit de Butin," *Rev. de Droit International*, tom. ix. and x., and articles in the same review by M. Vidari, tom. iii. (1871).—M. Gessner, tom. vii. (1875), and the reports presented to the Institute of International Law, tom. viii. (1875).] J. E. C. M.

ENFACED PAPER OR RUPEE PAPER. The title applied by stock exchange custom to Indian government securities, the interest on which is payable in silver rupees. The capital also is expressed, or enfaced, on the certificate as being so many silver rupees, the value of which in the London market varies according to the value of silver in relation to gold. The word "enfaced" might almost as well be applied to any other kind of security, inasmuch as all have more or less on their face a description of the security represented. Custom, however, has lent the word simply to those Indian rupee stocks which bear interest at 4 per cent and upwards, the interest of course being payable in silver, and subject to an increase or decrease in sterling value according to the value of silver in the bullion market. The Indian government cannot borrow so easily or at so low a rate of interest in silver as it can in gold, the mass of investors having been repelled by the possibility of fluctuations in the sterling value of the interest receivable. At the same time it has been thought well by Indian statesmen to avoid accumulating a large sterling debt, lest the Indian government should some day encounter a heavy fall in the value of silver, which would compel it to tax the natives of India to the extent that more rupees would be required to provide each pound sterling. A. E.

ENFACEMENT is the converse to endorsement (see BILL OF EXCHANGE). The word does not appear to have been in use before the year 1858, when the Indian Government decided to pay the interest on the Indian home debt in London by means of drafts at sight on India, and issued the following notification:—

"When holders of notes in Calcutta desire that the interest thereon should be made payable by bills issued in London, they must present their notes at the office of the Accountant-General to the Government of India, where an enfacement will be made on each of the notes in question as follows: *Interest payable in London by draft on Calcutta* (or Madras, as the case may be)."

[Geo. Clare, "Stock Exchange Securities," *Journal of the Institute of Bankers*, vol. xiv. p. 226.]

ENFANTIN, PROSPER, called "Le Père" (1796-1864), was born at Paris and died in the same city. Having first been, in conjunction with BAZARD (*q.v.*), a leader, he became, after Bazard retired, the sole chief of the St. Simonians, and did his utmost to promote the success of that economico-religious sect, up to the date of its fall. Commencing as a devotee of mysticism, Enfantin finally adopted the doctrine of "free love"; this brought him into trouble with most of his fellow-religionists. He was condemned on 28th August 1832 by the assize court of the department of the Seine, in company with Charles Duveyrier and Michel Chevalier, to a year's imprisonment and a fine of 100 francs, for having assisted, without previously obtaining permission, in the formation of an association consisting of more than twenty members, and in the promulgation of articles injurious to public morality.

The penalty was before long commuted, and Enfantin made his way to Egypt, where he studied the question, now long since settled, of piercing the Isthmus of Suez.

Subsequently, after remaining for several years at Tain (Drôme), he returned to Paris, and was appointed, in 1845, a director of the first company for constructing a railway from Paris to Lyons.

After the revolution of 1848 he founded, in conjunction with Charles Duveyrier, the journal *Le Crédit*, which continued to appear till 1850. Finally Enfantin became the administrator of the second Paris, Lyons, and Mediterranean Railway Company—a post which he continued to hold till his death.

Before the fall of the St. Simonian School, Enfantin published, in conjunction with others, *Doctrine de St. Simon, Exposition*, 2 vols. 8vo, 1830-32; afterwards, in his own name, *Économie politique et Politique*, 1 vol. 8vo; *Morale*, 1 vol. 8vo, etc. After the dispersion of the St. Simonian School, Enfantin wrote a volume, *Colonisation de l'Algérie*, 1843, 8vo, in this, across a web of original ideas and among passages which show deep historical study, may be traced the opinions of the early socialists.

His works were collected by zealous disciples, and printed in 9 vols. 8vo, 1866-73. A. C. f.

ENFRANCHISEMENT, the liberation of the serf from his forced astriction to his lord's estate, and his forced labour for his lord's behoof. Though not liable, like the slave, to be sold from master to master, or to give his whole time to his master's work, the serf was still practically chained to the estate to which the right to his labour was legally appendant, and he could still be compelled to his work by whips or imprisonment at his master's will. There was a third strand in his bondage—his subjection to his lord's civil and criminal jurisdiction, which left him defenceless against arbitrary exactions, and therefore operated often quite as injuriously on his economic position as the other two, but it was not felt to involve the same personal indignity as they did, and the serf is commonly considered enfranchised when he is released from them, although he may continue subject to his lord's general authority. Enfranchisement has proceeded perhaps more generally from moral than from economic motives, but it has usually justified itself immediately, and always eventually, by bringing with it a decided economic advance. The pinch of serfdom was the forced labour; when that was commuted to a money payment the astriction to the estate fell away of itself, for want of any practical reason for enforcing it longer. But though the astriction to the spot was less grievous to individuals—except indeed among the Russian peasantry, whose chief complaint, Haxthausen tells us, always was that it restrained their idle propensity to rove—it was always most pernicious to the progress of the community, because it stopped all division of labour, limiting occupations to the little round of work in a rural village, and preventing the rise of towns, and trade, and manufactures. Russia consequently, where serfdom was only abolished in 1861, is still, in spite of the acknowledged industrial gifts of its people, little more than a vast nation of crofters, every man half indifferent agriculturist and half indifferent tradesman; and even in agriculture, though it is now one of the largest exporters of grain in the world, its system of husbandry continues almost primitive, and there has never arisen a modern farming class with the requisite skill and capital for practising improved methods. The ill effects of the forced labour were always more directly obvious. The serf who got a small holding to cultivate for his own support, but was obliged to give three days a week (the usual quota) to his lord's work, could neither do justice to his own fields nor to his lord's,—not to his own because he was called away from them precisely when he most required to be upon them, and not to his lord's because he gave his labour reluctantly, sometimes with bitter ill-will, and he had no interest except to give as little of it as he dared. His holding is sometimes called the wages for his labour, and his labour the rent for his holding; but that was a bad form of wages, because it repressed instead of encouraging the labour it was supposed to reward, and this was a bad form of rent, because it interfered with the proper cultivation of the land which was supposed to yield it. Serf labour, like all discouraged labour, was habitually indolent. Professor R. Jones was informed by the English engineer who superintended the making of the road from Hamburg to Berlin in 1830, that the Prussian free labourers he employed broke thrice as much granite in the day as the Mecklenburg serfs, and that when he tried to animate the latter by mixing them in the same gangs with the former, the experiment failed because it had exactly the contrary effect of making the free labourers slacken their exertions to the bond pace (*Distribution of Wealth*, p. 52). The peasants on Russian state lands, whose labour rents were commuted into money rents long before the universal emancipation, are much more energetic, enterprising, and prosperous than the recently-emancipated serfs (Thun, *Landwirthschaft u. Gewerbe in Mittelrussland*, p. 43). Roscher quotes two authorities who made personal investigations into the relative industrial capacity of serf and free labourer in the same communities, and one—Jakob—counted two free labourers equal to three serfs, while the other—V. Flotow—counted three free labourers equal to four serfs (*System d. Volkswirthschaft*, i. 152). The difference is still more strikingly shown by Hanssen, who mentions that on the estate of Rixdorf in E. Holstein, where labour rents were commuted in 1780, it required ninety-two horses and seventy-five men to work the home farm before the commutation, and only thirty-six horses and fourteen men after it (*Aufhebung der Leibeigenschaft in Schleswig u. Holstein*, p. 39). Usually, too, though the labourers were fewer the harvest was greater. The eminent Danish statesman, Count J. H. E. von Bernstorff, finding he could not with serf labour make his property yield enough to pay the taxes, freed the serfs in 1767, paid them wages for the work they did, and obtained a net return of £150 a year (Sugenheim, *Gesch. d. Aufhebung d. Leibeigenschaft*, p. 500). Storch mentions that he nearly tripled the production of his estate by this enfranchisement, raising his product of rye in the ratio of from 3 to $8\frac{1}{3}$, of barley from 4 to $9\frac{1}{3}$, and of oats from $2\frac{2}{3}$ to 8 (*Cours d'Économie polit.*, iv. 306).

In factory work it has been generally found impossible to employ serf labour remuneratively at all. Haxthausen found some old serf factories in Russia during his visit, but they were in a very languishing condition, and most of the Russian manufacturers, though they had generally begun with their unemployed domestic serfs, and then changed them for some of their agricultural serfs who were stronger, had all in the end to learn the same secret—that the

Russian was a bad workman when he worked on compulsion, but became an excellent workman when he worked for hire. Force extorts but the minimum of effect; it is hope that draws out the maximum. They consequently set their serfs free, imposed a small annual charge as commutation duty, and engaged them in the ordinary way for wages (*Russian Empire*, i. 110), precisely as Storch says had been done in Moscow factories as far back as 1805 (*Cours*, iv. 30).

Enfranchisement has occasionally resulted ill, but that has been due either to moral defects in the particular individuals or groups enfranchised, or to the excessive burden of the compensation dues or other conditions of the enfranchisement. Freedom necessarily contains the possibility of doing worse as well as the possibility of doing better. J. G. Kohl repeatedly came across villages in Little Russia with free peasants living on one side and serfs living on the other, and he always found that while the most prosperous inhabitants of the village were among the free peasants, so also were the most miserable (*Reisen im Innern von Russland*, ii. 300). On the Zamoiski estates in Poland, enfranchisement seems to have had a curious double action; it tripled the production on the proprietor's fields (Cox, *Travels in Poland*, i. 22), but it had a bad effect on the serfs' own, because they became drunken and neglected their work (Burnett, *Present view of Poland*, 106). The great Russian emancipation of 1861 is the most notable example of the natural and good operation of enfranchisement being vitiated by concomitant economic and social conditions. J. R.

ENFRANCHISEMENT OF LAND FROM COPYHOLD AND SIMILAR TENURES, HISTORY OF. The enfranchisement of copyhold lands in England has passed through three stages. It is necessary for the purpose of tracing its history to consider (1) enfranchisement at common law; (2) voluntary enfranchisement under the copyhold acts 1841-1887; (3) compulsory enfranchisement under the copyhold acts 1852-1887.

1. Enfranchisement at common law. Copyhold lands and lands of similar tenure must, according to the law of England, be "parcel" of a manor, or in other words, wherever lands are held by copy of court roll, the freehold in those lands is in other hands than those which hold the "copy." The process of enfranchisement unites, in the hands of the copyholder, the freehold and the copyhold interest. It is evident that nothing short of the whole freehold interest will suffice to clear the land of all its copyhold incidents, and therefore an enfranchisement at common law may be effected "by any lord entitled to the manor in fee simple, or who has a power to enfranchise or a power of sale and exchange," but it cannot be effected by a lord with a more limited interest or less extensive powers. An enfranchisement, therefore, before the year 1841, was carried out through a conveyance of the fee simple of the copyhold in question, from the lord of the manor to the tenant for an agreed price. The fact that the tenant himself had only a limited interest in his copyhold estate did not affect the validity of the enfranchisement, which would enure for the benefit of the estates of those who succeeded him. Unless special provisions were inserted in the conveyance, three somewhat unexpected results would follow from the enfranchisement. (1) That the mines and minerals would pass from the lord to the copyholder; (2) that the copyholder's rights of common in the "waste" of the manor would be extinguished; (3) that all mortgages, or other incumbrances affecting the lord's title, would affect the enfranchised lands in the hands of the quondam copyholder. It will be readily understood that the difficulties attending enfranchisement, under such conditions, rendered the conversion of copyholds into freeholds a cumbrous and costly process.

In 1802 we find, in the Land Tax Redemption Act, provisions which enable owners of limited estates in manors to make enfranchisements for the purpose of obtaining money for redeeming the land tax. This appears to be the first indication of the principle subsequently worked out in the copyhold acts.

2. In the year 1841 was passed the first of the acts which "provide the means for an adequate compensation for the rents, fines, and heriots payable to the lords of manors, in respect of lands of copyhold and customary tenure, and for facilitating the voluntary enfranchisement of such lands, and for improving such tenure." This act created a body of commissioners called the copyhold commissioners, now the land commissioners, whose consent and approval must be obtained to enfranchisements made under the act. Under this protection the legislature felt itself enabled to give authority to the lord of any manor, "whatever may be his estate or interests therein," to enfranchise "all or any of the lands holden of his manor," and to any tenant, "whatever may be his estate and interest," to accept such enfranchisement. The consideration was payable in money, but by agreement such money might be made payable at a future time. Whenever the lord who enfranchised had a limited interest only, the money, so soon as it was paid over, was to be invested, and to be subject to the same trusts as those affecting the manor to which the enfranchised copyhold had previously belonged. It was now enacted that any rights of common belonging to the land enfranchised should continue to be attached thereto after it had become freehold, and that the lord's right to

mines and minerals, under the enfranchised land, should not pass upon the enfranchisement unless expressly commuted. Upon payment of the sum payable for enfranchisement, the tenant was authorised to charge it upon the lands enfranchised, with all the powers and rights of a first mortgagee. Finally, the title to the enfranchised copyholds was to be separated for ever from the title to the manor.

By this act, therefore, three of the main impediments to general enfranchisement were done away with; for (1) it was no longer necessary to obtain the conveyance from an absolute owner; (2) it was no longer necessary expressly to reserve the lord's mines and minerals and the tenant's rights of common; and (3) the enfranchised copyholder had nothing to fear from any encumbrances clogging the estate of his former lord. But enfranchisement still remained a matter of agreement, and could not be forced upon an unwilling lord. Amending acts are a sure sign that a statute is not a dead letter, and the Copyhold Act of 1841 was followed by those of 1843 and 1844. The act of 1843 provided that the consideration for enfranchisement, which under the act of 1841 was a lump sum of money, might in future be paid wholly or in part by an annual rent charge, or might take the shape of a conveyance of lands forming part of the manor to which the enfranchised lands had previously belonged. The act of 1844 extended the last-mentioned provision to any lands which, in the opinion of the copyhold commissioners, could be conveniently held with the manor to which the enfranchised lands had previously belonged, although themselves not belonging to such manor.

These three acts of 1841, 1843, and 1844, constituted a short code under which voluntary enfranchisement could be satisfactorily carried through. But it was not until 1852 that compulsory enfranchisement became possible for either lord or tenant.

3. The system of compulsory enfranchisement, which was inaugurated by the Copyhold Act of 1852, was applied in the first instance to those copyholds only to which a new tenant was admitted on or after 1st July 1853, or in other words, so long as an existing estate in the copyhold continued to subsist, neither lord nor tenant could force an enfranchisement upon tenant or lord. But six years' experience of the act of 1852 enabled the legislature to extend its provisions to all copyholds whenever the last admission had been made to them.

The key-note to the system of compulsory enfranchisement is valuation of the lord's interest by independent valuers, under the supervision of the copyhold commissioners. The difficulty which compulsory enfranchisement had to deal with was the amount of compensation to be paid to the lord in respect of fines and other sources of profit to which, if the copyhold interest continued, he would become entitled at uncertain intervals, and which, upon enfranchisement, required to be turned into money once and for all. Without going into the meaning as to "the lord's fine," it may be sufficient to say that such fines are payable when a new tenant is admitted, that is, entered upon the court rolls as the person holding the copyhold tenement "according to the custom of the manor." Originally the price given to induce the lord to accept the new tenant, the fine, was in its nature arbitrary and uncertain, and depended in each manor upon the custom of that particular manor. But the courts of the king had, at an early date, established that the courts of the manorial lords could not by custom give efficacy to unreasonable fines, and in course of time developed the working rule that "two years' improved value of the land, after deducting quit-rents," was the maximum amount which the lord of a manor should be entitled to receive upon the admission of a new tenant.

How then does the act of 1852 meet this problem? In the first place all fines and other manorial dues, payable upon the admission, which under that act supplies the opportunity for enfranchisement, are to be discharged before any further step is taken. Then the valuers, or their umpire, or the single valuer agreed upon by lord and tenant, must ascertain the value of the manorial rights now exercised for the last time. The valuation, when made, must take the form of an award, must be confirmed by the copyhold commissioners, must be registered at the office of the commissioners, and must be entered upon the court rolls. The amount of the valuation, failing agreement, is to be paid by the tenant in a lump sum, if he has claimed the enfranchisement; but if the lord has insisted on the change of tenure, the compensation will, in the absence of express agreement, take the form of an annual rent-charge. In either case the "enfranchisement consideration" is a first charge upon the lands enfranchised.

Two provisions of this act are noteworthy, as showing the caution with which the legislature introduced compulsory enfranchisement. Firstly, power is given to the lord to buy out the copyholder compulsorily if he can show, to the satisfaction of the commissioners, that his "mansion-house, park, garden, or pleasure grounds," may suffer from the tenant's enlarged powers of dealing with the lands which are ceasing to be copyhold. Such a power might well be granted to the lord if the tenant threatened to open a marl pit or cut down standing timber upon land with which he could not so deal whilst still a copyholder. Secondly, if it be found at any time that the person who

purported to enfranchise was not the lord at all, it is provided that the true lord is to recover the consideration for the enfranchisement from the person who wrongfully received it, instead of forcing the tenant to pay the money again and look to the wrong-doer for compensation.

Valuers acting under the Copyhold Act 1852 must take into consideration "facilities for improvement," as, for example, the possibility that the land may become building land, and the hindrances to such improvement, as, for example, the probability that it will not become building land for some years.

The Copyhold Act 1858 is to the Copyhold Act 1852 what the Copyhold Acts 1843 and 1844 are to the Copyhold Act 1841. It contains such improvements as the working of the principal act had suggested. Thus for the deed of enfranchisement specified by the act of 1852, which the parties would execute, was substituted an award of enfranchisement to be made by the copyhold commissioners; owners of at least two-thirds of the value of copyholds held in undivided shares, obtained the power to insist on an enfranchisement whatever their co-tenants might desire; and one form of certificate of charge was provided for securing the payment of consideration money, compensation money, and expenses of enfranchisement, as the case might be.

Speaking generally, the costs of a voluntary enfranchisement are paid in manner agreed by the parties, or, failing agreement, are paid as directed by the commissioners; while the costs of a compulsory enfranchisement are to be paid by the party who has insisted upon abolishing the copyhold tenure.

In 1887, after an interval of thirty years, an act was passed "to make further provisions for enfranchisement" of copyhold lands. An important provision of this act is that the steward of any manor, when a new tenant comes for admission to a copyhold, must hand to such tenant a notice stating that he is entitled, if he desires, to enfranchise the copyhold. A further provision of great importance prevents the lords of manors from making grants of portions of the "waste" of their manors. Again, the tenant may, under the act of 1887, pay the compensation for an enfranchisement on which he has insisted by means of a rent-charge of 4 per cent of the amount of compensation. Finally, the compensation to the steward of the manor is fixed by a schedule to the act, and the land commissioners are directed to "frame a scale of compensation" such as "will be fair and just, and will facilitate enfranchisement."

The scale published by the land commissioners in conformity with this act comprises a table in which is calculated the number of years' annual value payable to the lord, according to the age of the tenant, as compensation for the loss of future fines. This table ranges from the case of a tenant of five years or under, who should pay 2·29 years' purchase, to the case of a tenant of 100 years or upwards, who should pay 5·16 years' purchase. Quit-rents are calculated at twenty-five years' purchase; timber at full value if the lord had the right to enter and cut; at half value if the lord could not enter to cut without the tenant's consent.

Enfranchisements on crown lands, churchlands, and university and college lands, are the subject of special statutes which are not of general importance.

[Brown, *Copyhold Enfranchisement Acts*, 1888. —Scriven, *On Copyholds*, 6th edition, 1882.]

ENGLISH EARLY ECONOMIC HISTORY.

In the present state of historical investigation, it is difficult to give a complete and exhaustive account of the development of political economy in England. Although many writers have devoted attention to the subject, and have reached important conclusions, comparatively little use has been made of the vast stores of material relating to the later middle ages, and the rise and fall of the mercantile system. Particular movements have indeed been carefully investigated, and we are not without indications of the general course of development. To borrow an illustration from mathematics, certain points on the curve of development have been fully ascertained; we have some notion of its shape; we know also that the English curve is only one of a large family of curves, other members of which may be found on the continent. But of its direction between the points already ascertained, and of the differences between it and others of the same class, we know little.

The subject may be best approached by considering the influence of the mediæval church. Before the conversion of the Anglo-Saxons to Christianity there was little or no commerce, although Christian merchants resorted to England while the inhabitants were still pagans, and so brought them into contact with a more highly developed economy than their own. Many of the principles which we find in mediæval economic teaching may probably be traced back to this or an earlier period. The idea, for example, of money as a *pledge*, which exercised an important influence on economic doctrine in England far into the 17th century, was derived from pre-Christian times. Neither the condemnation of avarice nor hostility to usury was peculiar to Christianity. The social system of the middle ages, greatly modified as it was by Christian teaching, had its foundations in a pre-Christian state of society. But making every allowance for the influence of ideas and

customs derived from earlier times, the fact that the new religion obtained a firm hold on the population while industry and commerce were still in their infancy, is of primary importance in tracing the development of political economy. Early economic institutions and laws are stamped with the teaching of the church. Subsequent modifications of doctrine are largely the outcome of the struggle, on the part of the church, to guide or control new economic forces as they gradually came into operation. To follow rightly the course of development it is first of all necessary to understand the position of the church with regard to trade and industry.

From the earliest times the church had had forced upon it the duty of applying the principles of Christianity to social life. Outside Palestine the earliest converts were found in the busy trading centres of Asia Minor ; and the first persecutions were probably due to the fact that the new religion threatened various trading interests, and tended to the overthrow of the existing social system (Ramsay's *Church in the Roman Empire*, pp. 12, 199, 200, etc.). But the church was hostile to the ordinary usages of the world only in so far as they were in conflict with the ideal of Christianity, which supplied a standard by which all actions in the economic sphere could be tested. Everything inconsistent with the profession of Christianity was condemned, and uncompromising obedience to its precepts was enjoined. The process of applying Christianity, in changing or widely differing social conditions, went on in the earlier centuries of the Christian era and throughout the middle ages. The work of the church was not so much to introduce new principles of action as to test those already known, assimilating those which were not hostile to Christianity, and giving them new significance when considered in the light of the Christian faith.

The pursuit of gain as an end in itself was obviously inconsistent with Christianity, and the condemnation of avarice in every form is one of the most striking characteristics of the teaching of the church. This may be regarded as the fundamental principle of mediæval economics. Its different parts are so closely interwoven with each other that we can without much difficulty reconstruct the whole system from any one of its elements. Closely bound up with the condemnation of avarice was hostility to many methods of acquiring wealth which have since been adopted by civilised communities, and chief amongst those forbidden methods was USURY (*q.v.*), the objection to which extended to all forms of investment for the sake of gain. But the general teaching of the church would have had comparatively little influence but for its wide and far-reaching application of the principle of association. The interests of the individual were subordinated to those of the community. The duty of helping those in need, and the brotherhood of all Christians, were insisted on. It was this side of the teaching of the church (see CHURCH, THE MEDIÆVAL, ECONOMIC INFLUENCE OF) which accelerated, if it did not initiate, the formation of gilds and other associations, and ultimately led to the creation of the elaborate system of the middle ages for the regulation of trade and the restraint of competition. Insistence also on a just or reasonable price for commodities, the approximate determination of which was easier in this early stage of industrial development than it would be in modern times, led to numerous laws framed with a view to realising that object. It may be noticed as evidence of the hold which mediæval doctrines obtained, that the expression "just price" (JUSTUM PRETIUM), interpreted to mean that price which most closely approximated to cost of production, was used as a synonym for "cost price" as late as the end of the 16th century.

(*Vide* R. RECORDE'S *Grounde of Artes*, 1543, frequently reprinted and edited by Dr. Dee, John Mellis, Robert Norton, and others.)

The early hostility of the church to usury was based on the biblical records and on the authoritative declarations of the Christian fathers and the councils. Had the church maintained its original attitude there can be no doubt that its influence would have seriously hampered economic development. It became impossible, however, to regard with hostility many of the new methods of acquiring wealth which appeared with the extension of trade and commerce, and thus began one of the most interesting movements of thought of the middle ages, viz. the adaptation of the principles of Christian teaching on the subject of lending and borrowing to the needs of a changing environment. This process begins about the twelfth century. The canonist writers, on the one hand, endeavoured to separate the essential from the non-essential elements of the doctrine of usury, and to apply it to mercantile transactions, strengthening their position by appeals to ARISTOTLE'S doctrine of the barrenness of money, the conception of *natural law*, and other arguments ; while, on the other hand, merchants and traders, anxious to escape the "censure of usury," appear to have been not unwilling to submit to decisions which, on the whole, did not seriously hamper freedom of investment. *Bonâ fide* credit agencies, bills of exchange, loans for trading purposes, the payment of interest whenever the lender could show that the loan would result in "certain gain lost" or "actual loss incurred," rent charges, partnership, loans on bottomry, and other expedients for securing a return for the investment of capital, were gradually approved by the canonist writers, and the outcome of the movement was that the doctrine of usury was stripped

of everything likely to prove an obstacle to the practice of ordinary business methods.

Such was the course of movement on the continent. But for the present we are only entitled to say that there was a general similarity between English and continental opinion during this period. No doubt many passages may be quoted from English statutes which appear to be suggested by the canon law. The influence of the church was great, and the trading classes would not lightly risk excommunication for the sake of gain. "Goods lost, nothing lost; credit lost, much lost; soul lost, all lost," is an old proverb; and even as late as 1486 Pope Sixtus IV. thought it worth while granting to the inhabitants of the Channel Islands "the help and authority of the church by interdict, anathema, and other forms of censure, for the repression of piracy, robbery, and violence" (*Materials for history of the reign of Henry VII.* (Rolls series) i. 280). The ordinary teaching of the church, whatever may have been its practice, was hostile to avarice and covetousness (*vide*, for example, the homily in *Ashm. MSS.* 750), and occasionally the influence of the GILDS (*q.v.*) may have been favourable to the rule of the CANON LAW (*q.v.*) [*Ordinances of the Gild of St. Leonard, Lynn*, Toulmin Smith's collection, p. 50]. The usury laws also were enforced and had the support of the trading classes (*Liber Albus*, ed. 1861, 318, 319, 339). But such evidence enables us to say only that there was a general similarity, which indeed we should expect, between England and the continent; and in the development of economic doctrine the points of difference are of equal if not of greater importance. The backwardness of investigation prevents us from dealing with the latter with any completeness of detail. The following, however, may be noted. Neither the canon law nor the civil law was received in England as authoritative "except educationally, and as furnishing scientific confirmation for empiric argument." (Stubbs, *Lectures on Mediæval and Modern History*, 307.) The canonists, however, claimed that "a suit might be brought in the ecclesiastical courts for every matter which was not cognisable in the courts of secular law, and for a great many matters which were so cognisable" (*ib.* 316), and there was a long conflict on the subject. The system of rent charges was not generally prevalent in England, and *montes pietatis* were never established (see MONT DE PIÉTÉ). An attempt to introduce the latter was made without success, by Gerard MALYNES, early in the 17th century (*Lex Mercatoria*, 1622). The economic legislation of the 14th and 15th centuries was largely empirical. In the regulation of foreign trade especially, and in the organisation of the customs, the measures adopted were mainly determined by the fiscal necessities of the government, and we can see very early the tendency to subordinate trade to the exigencies of foreign diplomacy (*e.g.* in the relations between England and Flanders) which became so prominent a feature of later commercial development. Councils of merchants were summoned by Edward I. and Edward III. to advise with them on questions of trade (see Rymer, *Foedera* (1821) vol. ii. pt. v. 1057). The general impression we get from a study of the legislation of this period and from such arguments as are recorded in the Rolls of Parliament, is that many of the measures adopted were tentative and experimental. To understand therefore the economic ideas of the time we must examine closely the statutes and institutions in which they were embodied. Such were the statutes regulating wages and prices, the organisation of the crafts, the staple system, restraints on the exportation of bullion, statutes of employment, and usury laws. We may notice the following points: (1) The movement of thought on the subject of usury was slower in England than on the continent. (2) Financial methods well known on the continent were not introduced into England until comparatively recent times. The discussion, therefore, of various credit agencies which did so much to modify continental opinion was scarcely possible in England. (3) The impression prevailed —with what reason it is unnecessary here to discuss—that the staple system, while imposing certain regulations on all merchants alike, was not unfavourable to freedom of enterprise. (4) Money, so far from being subject to the same laws as other commodities, was supposed to be essentially different from them. It was, in fact, not a commodity at all, but a *pledge, a medium of exchange*, circulating under the authority of the prince or commonwealth, its value determined solely by that authority. The first appearance of those forces which were destined to break up the mediæval system should be noted. In the reign of Richard II. we have the first navigation act; then the beginning of various trading companies, especially that of the merchant adventurers (see ADVENTURERS, MERCHANTS; NAVIGATION ACT).

We are now in a position to trace the subsequent development of economic doctrine in England. The reign of Henry VII. was of great importance in the economic history of the country, and its industrial and commercial progress very soon brought about far-reaching changes in economic ideas. From the middle of the 16th century onwards there were few years in which some book or pamphlet was not published on subjects of economic interest, and such works may be reckoned by thousands. It is difficult to draw a sharp line of division between economic and non-economic publications. We shall, however, keep as closely as possible to the main line of development of doctrine, and in a later section indicate the relation to it of other currents of thought.

English statesmen and writers in the middle

of the 16th century had to face the most difficult economic problems which could possibly be submitted to them. The mediæval system for the municipal control of trade was unsuitable for the regulation of the new economic forces which the extension of the domestic system, especially in the woollen industry, brought into operation. The decay of tillage, and the growth of enclosures, appeared to threaten the country with the evils of depopulation, as well as a great increase in poverty. The social changes induced by the reformation seemed to be equally momentous. In relation to foreign trade, the loss of Calais inflicted a death-blow on the staple system, and the withdrawal of the privileges of the Hanse merchants injured the interests of a section of English merchants, although it left the way clear for the development of a national foreign trade by the merchant adventurers. In the growth of industry and commerce these difficulties were inevitable. There must have been great disturbance and loss to some classes, but in time the country would have settled down to the new conditions. The evils, however, of the period of transition were aggravated by a currency problem of the first magnitude. The debasement of the coinage under Henry VIII. and Edward VI., coupled later on with the influx of the new silver from the American mines, led to a rise of prices without parallel in the history of the country. The evils of the debasement were felt especially by the landed interest, the government, and the working classes. It is important to keep these facts in mind, for they formed the subject-matter of the earliest economic literature. One treatise—the *Briefe Conceit of English Policy*, attributed to William Stafford, and published in 1581, but really written by John Hales about 1549 (*Eng. Hist. Review*, vi. 284)—deals with these questions as a whole, and sums up the aims of the government at this time. The writer shows a clear insight into the causes of the high prices; his work is invaluable as a storehouse of information, and in it we have a broad outline of the theory of the balance of trade, which was elaborated in the following years. The *Briefe Conceit*, however, scarcely enables us to trace distinctly the relation between the opinions which have already been described, and later economic doctrine. To do that we must go to the history of the merchant adventurers.

With the growth of their trade, the merchant adventurers naturally adopted means of avoiding the transmission of bullion, such as bills of exchange, which had long been in use for certain transactions. Until the middle of the 16th century all went well, but then the fluctuations in the ratio of exchange between London and Antwerp, and other places, brought into prominence the usurious aspects of bill discounting, and the opponents of the merchant adventurers attributed the rise in prices to their practices. It was commonly believed that it was within the power and the exclusive right of the government to fix the rate of exchange, and thus determine the prices of commodities. We cannot here detail the circumstances which gave rise to this theory. It must suffice to say that when it arose it was not altogether absurd; there was much in the ordinary practice of merchants to give some show of truth to the theory; and it was closely bound up with the doctrine of usury. From the middle of the 16th century until late in the 17th it was advocated in pamphlets, and pressed upon the attention of the government, which was really uncertain how to act. It was the basis of the charge of usury, which was one of the most usual arguments against the merchant adventurers (*vide* the *Treatise on Exchange*, 1564, printed in Milles's *Customers Replie*, 1604), and the economic world was divided into two opposite camps — the bullionists, represented by the advocates of the Staple System (*q.v.*), and the newer mercantile school represented by the merchant adventurers and their supporters. In his economic works, nine in number, though only five survive, Thomas Milles, head customer of Sandwich, undertook the defence of the staple system, and denounced the monopolising tendency of the merchant adventurers. In his *Customers Apology* (1601), we have a curious anticipation of Adam Smith's canons of taxation, and one of the earliest instances of the claim for free trade based upon the theory of natural rights (cp. Report from the Committee on the Free Trade Bills, 1604, *Journals of the House of Commons*, ii. 218-221. The monopoly of the merchant adventurers was "against the natural right and liberty of the subjects of England.") The attacks on the company called forth John Wheeler's *Treatise of Commerce* (1601). Wheeler was secretary to the merchant adventurers, and his statements are not free from bias and inaccuracy, but his book is a good defence of their policy and aims. Wheeler's reply to Milles provoked another attack from the latter, in the *Customers Replie* (1604), in which he added to the force of his own arguments by reprinting the *Treatise on Exchange in Merchandise and Merchandising Exchange* mentioned above. We need not, however, follow him through his other works. His mantle fell on Gerard Malynes, who was more moderate in his views, and had more knowledge and experience than Milles. Meanwhile, the East India Company had obtained their charter, and in it a clause allowing them to export bullion. In consequence of this, the controversy on the foreign exchanges, the brunt of which had been borne by the merchant adventurers, was turned against the East India Company. Matters were also complicated by the introduction of a new element into the discussion, viz. the relative advantages of joint-stock and regulated companies for

carrying on distant trade, the East India Company being an example of the former, and the merchant adventurers of the latter. It must also be pointed out that the state of trade in the reign of James I. caused, reasonably or unreasonably, much anxiety; and the currency, the privileges of the trading companies, the price of wool, the navigation acts, etc., formed from time to time the subject of government inquiry. We shall deal with these issues later on; they are mentioned now to show how impossible it becomes with the growing complexity of economic questions to separate the writers of this period into well-defined groups. Early in the reign of James I. there was some possibility of the revival of the old machinery for the regulation of the foreign exchanges. The controversy burst into new life in 1622. To meet the charges brought against the East India Company, Thomas MUN published, in 1621, his *Discourse of Trade from England to the East Indies*, which was devoted partly to showing the advantages of the exportation of bullion. It is interesting to notice, however, that as yet Mun had not entirely broken away from the old school, for in this work he approved of the statutes of employment. Edward MISSELDEN, for some time deputy governor of the merchant adventurers at Delft, had long devoted attention to the woollen trade, and in 1622 he published his *Free Trade, or the means to make Trade flourish*. In this work he discusses the reasons for the backwardness of the English cloth trade, and defends the company organisation. But for some cause he appears to have been not unwilling to disarm the opposition to the merchant adventurers and to turn it against the East India Company; and amongst the causes of the decay of trade he enumerates the exportation of bullion by the latter.

Now Malynes had already, in his earlier pamphlets, found a sufficient cause not only for depression of trade, but for all social evils, in the theory of the foreign exchanges which we have already noticed. To his mind the only remedy likely to prove efficacious was the revival of the staple system. Naturally, therefore, he thought Misselden completely mistaken in the causes to which he attributed the supposed decay of trade, and he approved of a joint-stock company for the East India trade. He therefore replied to Misselden in his *Maintenance of Free Trade* (1622), in which he reiterated his theory of the foreign exchanges. This pamphlet was almost immediately followed by his great folio *Lex Mercatoria*, in which he expressed the same views.

We may digress for a moment to point out that we probably owe to Malynes the introduction of the word "capital" into England. At the beginning of the 17th century this word was unknown, or at any rate not in use in England. In his *Lex Mercatoria*, Malynes endeavours to popularise the Italian and Dutch method of keeping accounts, and he describes the *capital* or *stock* of a merchant as consisting of the goods in his warehouse, his ready money, debts due to him, houses and lands in his possession, and his "plate, apparell, and household stuff." "Capital," as used by Malynes, was derived from *capitale*, very numerous instances of which may be given from continental treatises on mercantile law.

To return to the controversy of 1622, Malynes's work was not allowed to pass unquestioned. In 1623, Misselden replied in his *Circle of Commerce, or the Ballance of Trade*, in which he completely refuted Malynes's theory of the foreign exchanges, and, taking up the defence of the East India Company, pointed out the advantages of the exportation of bullion, and sketched the theory of the balance of trade. Malynes again replied, but his theory had been completely demolished. Thus the mercantilists not only arrived at a truer doctrine of international trade, but in doing so destroyed a theory with which the old views with regard to usury were closely bound up. In 1628 Thomas Mun further developed the argument for the exportation of bullion in the *Petition and Remonstrance of the East India Company*, which was republished in 1641. Meanwhile, Sir Ralph MADDISON had been devoting attention to the subject. He had sat, with Mun and others, on the royal commission of 1622, though for some reason his name was omitted on the reappointment of the commission in 1625. Under the commonwealth and the protectorate he was regarded as a great authority on currency questions. He gave a clear statement of the theory of the balance of trade in *England's looking in and out*, 1640, a work which was reprinted in 1641, and again, with a few verbal changes and additions, in 1655 under the title of *Great Britain's Remembrancer*. Maddison, however, holds a middle position between Malynes and Mun, for his views on currency and the foreign exchanges appear to be based upon the works of the former. Mun incorporated the arguments of the *Petition and Remonstrance* in *England's Treasure by Foreign Trade*, published in 1664, some years after his death, and this work became the chief bulwark of the mercantile system in England. It passed through many editions and exercised an influence almost incredible at the present time. Thus the great system of which we find the general outline in the *Briefe Conceit of English Policy* was furnished with an economic basis. But before we describe the principal characteristics of Mun's work, it is desirable to trace the development of the other lines of thought which his book brought to a focus.

The economic writers of the 16th and the 17th centuries agreed in maintaining that the unrestricted operation of the motive of self-

interest led to disorders in the state, and that an efficient system of industrial and trade organisation was necessary to direct the economic activities of the country into the right channels. They set before themselves a definite object, the "public good," by which they meant the creation of a "commonwealth," in which the various trading interests should be so balanced as to secure the greatest economic efficiency of the various elements consistent with the self-sufficiency of the nation as a whole; and considerable prominence is given to this idea as an "economic motive" in the works of the best writers. Thus Mun distinguishes between three sorts of gain, (i) that of the commonwealth, which was sometimes the merchant's loss; (ii) that of the merchant, "which he doth sometimes justly and worthily effect, although the commonwealth be a loser"; and (iii) that of the king, "whereof he is ever certain" (*England's Treasure*, etc., p. 64), but he had previously stated the rule that, in commerce, "private gain was ever to accompany the publique good" (*ib.* p. 3). The pursuit of the public good, interpreted in the sense given to it above, was a real force in the economic world, and the suppression of a trade "hurtful to the commonwealth" was generally approved. Taking the mercantile system at its best, it shows a distinct advance on mediæval ideas in the substitution of the wider interests of the nation for those of the craft or the municipality. On the other hand, it must be admitted that the majority of the writers show little or no consciousness of a high national aim. The "hurtful" trade generally happened to be that of a rival company, a dependency, or a neighbouring nation. The mercantilists differed too from the *laisser faire* school in the views they held on the relation of economic questions to religion, politics, and other subjects. Economic interests could not be isolated. Prosperity was the result of various economic, political, and religious forces mutually interdependent. Thus Sir William Temple remarks of Holland: "The trade of this country is discovered to be no effect of common contrivances, of natural dispositions or situation, or of trivial accidents, but of a great concurrence of circumstances," amongst which he enumerates the immigration of aliens, the constitution and credit of the government, liberty of conscience, security of life and property, and the interest of the people in their government, as well as causes of a more strictly economic character (*Observations upon the United Provinces*, Collected Works, 1723, i. 65). One of the mercantilist tests of economic prosperity separates them so sharply from more modern schools, that it deserves to rank as a fundamental principle of their teaching. This was the quantity of the precious metals which the country contained. A thorough examination of mercantile doctrines in relation to the circumstances of the time does not exonerate the writers from the charge of confusion of thought on this subject. There is no evidence that this led to any evils in the ordinary economic life of the community. But on foreign trade as a whole, and on the popular estimation in which different branches of foreign trade were held, it had enormous influence: "The ordinary means to increase our wealth and treasure," says Mun, "is by Forraign Trade, wherein we must ever observe this rule: to sell more to strangers yearly than we consume of theirs in value." The economic pamphlets of the period abound with similar statements. They certainly mean that the benefit of foreign trade is measured by the excess in value of exports over imports, and that branches of commerce which can not bear this test should be discouraged, or even suppressed altogether. Although there is no "historical justification" for this doctrine, we can see how it arose. We may dismiss the idea that the mercantilists thought "wealth" and "money" identical. No man could believe more firmly than Gerard Malynes in the necessity of securing a constant influx of bullion, yet we owe to him the first clear definition of capital in the English language. His book, bound up with Dafforne's *Merchants' Mirrour*, one of the most complete works on book-keeping then in existence, was very generally used as the chief authority on mercantile affairs. The strongest advocates of the theory of the balance of trade were successful business men. Mun was one of the ablest East India merchants of his time. There is no trace of any confusion of wealth with money in their business transactions, and they exported bullion like any other commodity. We must therefore seek some other explanation of the fallacy. Although the old bullionist theory of the foreign exchanges had been refuted, the writers of the 17th century could not free themselves from the conceptions on which it was based, and such works as Roberts's *Mappe of Commerce* (1638), or even Alexander Justice's *General Treatise of Monies and Exchanges* (1707), in which the ratios and methods of exchange between London and other trading centres are given in great detail, show that international transactions were still carried on in much the same manner as under the staple system. The king's Exchanger (*q.v.*) had disappeared, but the cambists and goldsmiths performed his functions with great profit to themselves. Communication between one country and another was slow and difficult; credit agencies were little developed; and in such circumstances the old view of the precious metals was not easily eradicated. It remained firmly fixed in the popular mind. It was more natural to regard the changes which lapse of time, expanding commerce, and the rise in prices had brought about, as modifications of an old theory, than to invent a new

and more accurate one. The strict analogy drawn by the writers of this period between the business transactions of an individual and the foreign commerce of the nation as a whole gave to the old theory a greater persistence. The fact that during the 17th century imports and exports were a fairly good test of international indebtedness had the same influence. It may also be pointed out that English imports consisted of a greater proportion of luxuries, such as spices, wines, silks, and fine linen, and a smaller proportion of necessaries and raw materials than at the present day, while bullion was indispensable for trade with the east, in the then backward state of English manufactures. So the mercantilists tried to keep down the importation of commodities which in their opinion sapped the vitality of the nation, and to secure the bullion which they required (see MERCANTILE SYSTEM).

We are now in a position to understand the attitude of the school of which Mun was the typical representative to the economic questions of the 16th and the 17th centuries. It is obvious that the mercantilists were not likely to take much theoretical interest in the finely-drawn distinctions of the canonist writers on the subject of usury. Theological influences were not strong in this country; and true to the English tradition, the mercantilists preferred expediency to metaphysics. It is probable that the views of the later canonists were never thoroughly popularised in England. During the reformation period there was much controversy, and towards the end of the 16th century many pamphlets were written, amongst which we may mention Nicholas SANDERS's *Briefe Treatise of Usury* (1568), Thomas WILSON's *Discourse of Usurie* (1569), Rogers's translations of the works of M. P. Cæsar and N. Hemming (1578), H. SMITH's *Examination of Usury* (1592), and Miles MOSSE's *Arraignment and Conviction of Usury* (1595). But the development of trade and commerce, which at an earlier period might have imparted great vitality to such discussions, took place subsequent to the reformation, and though the influence of the contending schools may be traced in the legislation of the period, English writers appear to have regarded the subject mainly as one of practical expediency. Malynes was indebted to Wilson's *Discourse* for some of his arguments and illustrations, but even those who were willing to prejudice the merchant adventurers by attributing their "usurious" practices to the influence of Rome, were on the whole hostile to the prohibition of usury. The doctrine was important only as a support to an erroneous theory of the foreign exchanges, and, with the refutation of the latter, interest in the former disappeared. The CULPEPERS, father and son, Thomas Manley, and other writers from time to time engaged in the controversy. The average English position is stated in Sir J. CHILD's *Brief observations concerning Trade and the interest of Money* (1668). In *The Interest of Money mistaken, or a treatise proving that the Abatement of Interest is the Effect and not the Cause of the Riches of a Nation*, published in the same year, an attempt is made to correct a current popular fallacy. Mun's view was the ordinary view of the time; favourable to usury, he held that "this course in the rich giveth opportunity presently to the younger and poorer merchants to rise in the world, and to enlarge their dealings; to the performance whereof, if they want means of their own, they may and do take it up at interest: so that our money lies not dead; it is still traded" . . . "usury and trade rise and fall together" (*England's Treasure*, etc. 144, 146). With the views of LOCKE and the other writers of the end of the 17th century we shall deal in a later section.

While the theoretical discussion of interest and usury attracted few writers, the constitution of the trading companies assumed great importance in economic controversy. This was inevitable, for at the beginning of the reign of James I. the whole of the foreign trade of the country except that carried on with France was monopolised by one or another of the companies, and they were one of the most important factors in economic development from the beginning of the 16th to the middle of the 18th century. During the period which we are now considering, viz. from the beginning of the 16th century until the publication of Mun's work (1664), there were, roughly speaking, two stages in the controversy on this subject. In the first stage the Merchant Adventurers Company was the most powerful of the associations then in existence. The controversy naturally took the form of a struggle between the merchant adventurers and those who looked for a solution of the great problem of the organisation of foreign commerce to a revival in some form of the staple system. The first stage may be said to terminate with the free-trade bills of 1604, to which reference has already been made. After the failure of these bills the position of the companies was assured, although hostility to them in one form or another is a most marked feature of 17th century history, and Cromwell tried the experiment of a free and open trade with the East Indies in 1653. The case for the merchant adventurers is stated with great moderation in an anonymous treatise, *Towchinge the Multitude of Marchantes for ventinge of Eng. clothes* (*Rawl. MSS.*, D. 23). After pointing out that the government should provide for only so many merchants "as have acquaintance, and as have polycy and understandinge to trade together to buy up all clothes vendyble for marchant venturers, and to carry them together, by one consorte of Marchants, unto one certen marte," the writer goes on to say:

"I do also suppose yt it is not profytable for the realme to have a multytude of Marchante Venterers, yt have but small stockes, and thereby they have but small credytt, and suche marchantes can not convenyently tary for theyre sales, nor yet keepe necessarye order." The opponents of the companies, as we have seen, claimed free trade as their natural right and inheritance, but "this generall lybertye . . . would cause a greate confusion, and a greate dysorder to growe in the ventyng of Englyshe clothes, whereby would follow yt or Englyshe clothes would be soulde at a lower pryce, then is fytte for the benefytte of or realme, and strange wares for England would be boughte at a dearer pryce than is convenyent for our commonweale of Englande." On the other side the arguments, in addition to the one mentioned above, were very strong. It was urged that freedom of trade would lead to the increase of wealth and shipping, the more equal distribution of wealth, and the increase of revenue. It was further maintained that the company organisation was no longer necessary, and that if trade were free, commerce might be extended beyond its present limits.

The growth of the East India Company, which was incorporated on the last day of the 16th century, led to the second stage of the controversy. The merchant adventurers were what was called a regulated company; the East India Company was organised on the joint-stock principle (*vide* Companies). Now many people who objected to monopoly in every form were of opinion that the former was less injurious to trade than the latter, and the East India Company had a long and arduous struggle before it won the victory. The conflict had to be waged with the Turkey Company, whose trade in raw silk was ruined by the enterprise of the East India merchants, with those who were alarmed at the exportation of bullion, with the free traders and interlopers, and with those who thought the East India trade disastrous to the growth of the navy. The last-mentioned cause of hostility gave rise to a sharp controversy between Sir Dudley Digges and an anonymous writer, J. R., in 1615. "The East India men," says the latter, "not able to furnish those places they resort to, keep out others from coming amongst them. . . . Besides, how tedious and costly they, and all other companies, make it to their own associates, whereas out of orders, and cause of upholding their trade, men can neither dispose of their own as they would nor have the benefit under a long time? How private do they and other companies make it when . . . how plentifully soever the commodities are brought in and at what advantage soever they buy them, they will be sure to keep up the price, either by sending most part of the commodities abroad, or else by buying all others into their hands?"

Digges's reply, *The Defence of Trade*, on behalf of the company, probably derived more force from the position of the author than from the arguments he employed. The company of course could point to the fact that the prices of eastern produce had fallen since their incorporation, and they made as much as possible of this argument, which was further elaborated by Mun in his *Discourse of Trade to the East Indies* (2nd ed. 1623). The company and its advocates, however, appear to have evaded rather than answered the objections of their opponents. No one during the 17th century wanted freedom of trade in the modern sense of the words. It was universally recognised that some form of regulation was necessary, and most people would have chosen the company organisation. The object of the free-trade bills (1604) was not to break down all restraints on free competition, but to throw the companies open to all who cared to join them, imposing by government authority such charges as were necessary to keep up their official establishments in foreign ports. It was the monopoly of the companies which roused the hostility of the outsiders. The companies seem to have imagined that when they had shown the advantages of the trades they monopolised, and proved the necessity for regulation, they had answered their opponents. Mun wrote *England's Treasure* long before the end of the struggle. But his book did good service to the company. Their exportation of bullion could no longer be urged as a reasonable ground of objection, and the East India trade had been proved to be favourable to the growth of the navy.

It has become a commonplace to regard the navigation acts as the natural outcome of mercantile doctrine. The political circumstances of the time, the growth of foreign commerce, and along with it the necessity of providing adequate means for its defence, and the foundation of colonies, showed the great importance of a powerful navy. The economic writers of the period were naturally influenced by the general movement, and they urged the encouragement of trades, especially the fisheries, which were favourable to the growth of the navy. The vast increase in the wealth of the country, and the greater ease with which large sums can be raised by taxation, have made inapplicable to the present age the practical suggestions of the mercantilist writers. But the importance of a mercantile marine as a naval reserve is felt as keenly now, especially in times of danger, as in the period under discussion. The economic arguments, however, by which the navigation acts were defended, give to those measures a peculiar character. There were navigation acts in the reign of Richard II. Those, however, we need not discuss. It is the series of acts commencing in the reign of Elizabeth, and culminating in the great act of

the Long Parliament (1651), re-enacted at the restoration, to which we shall devote our attention (*vide* NAVIGATION ACTS). The Merchant Adventurers Company, which as we have seen played such an important part in the development of the mercantile system, early associated itself with this naval policy. Thus we find them advocating it in 1551. One of their *Articles and Allegations . . . against the Hanse Merchants* (*Rawl. MSS.* C. 394, ff. 37, 38) was to the effect that whereas they "have and by all waies do indevoure themself to supporte and maignteigne to their power, the whole Nâvie of this your Ma^tes realme, by fraightinge and ladinge of the same and to contynue a greate nomber of your Ma^tes subjects in maroners crafte: the said Esterlinges to the intollerable decay therof, both inwardes and also outwardes do contynuelly lade, fraight and shippe their goodes, wares and marchandises in foreyne and strange bottomes, and vessells." They then point out the loss to the country of the money paid for freight and insurance. This is an argument which recurs over and over again, and it is evident that the writers of the period attached great importance to it. Mun argues that we must "use our own shipping and so get the merchant's gains, insurance and freight," though generally speaking "commerce should be free to strangers to bring in and carry out at their pleasure" (*England's Treasure*, p. 22). The influence of the navigation acts was made the subject of government inquiry, and much attention was given to the subject throughout the 17th century. *The Advocate* (1651), which was published to allay the discontent caused amongst some classes by the act of 1651, and which we find reflected later on in the writings of Roger COKE, shows how these acts were regarded as part of a general scheme of economic policy. This work points out that it was the design of the Dutch "to engross universal trade that so they might poiz the affairs of any other state about them and make their own considerable." The advantages which Holland has over England are then enumerated. Their ships are built, provisioned, and convoyed at less cost than those of England. Their "cheapness of freight," which is an advantage of 20, 15, and 10 per cent over England, has forced English merchants to hire and freight Dutch ships. They employ a "great stock"; give "prudent care to their manufactures"; make the negotiation of commercial treaties their "interest of state"; impose small customs; encourage inventions; have a low rate of interest; facilitate their trade by a bank; and pursue an enlightened land policy. Some "unalterable laws in manufactures" are enunciated. (1) There is no manufacture or artificial commodity which cannot be transplanted into any country. (2) All manufactures, if they are of a certain goodness, are of a certain value and price also. (3) Two persons selling or making commodities of a like goodness, he shall have the preference of the market that will sell them the cheapest. And so in international trade. (4) The cheapness of manufactures and artificial commodities depends upon the plenty and cheapness of the raw material, and upon the price of labour. The price of labour depends upon the price of victuals, house-rent, and other things necessary. The Dutch have no extraordinary advantages over England. Such as they are, they are due to the carelessness of England. By trade alone can wealth and shipping be increased, and so the power of any nation sustained. A commonwealth can only be enriched by reducing into general practice the courses used by private men for that purpose. Hence England should encourage native manufactures; and weaken Dutch shipping. Commodities must be imported from the immediate places of their production or growth, or as near as conveniently may be. Exports, native or other commodities, must be sent to the farthest market, where they will yield the greatest price and have the quickest sale. After these reasons, it is hoped that little or no dissatisfaction with the navigation acts will remain.

The examples we have given show the manner in which the mercantilists approached the questions of their time, and it is unnecessary to trace in detail the economic policy which found expression in the corn laws and bounties, in the commercial treaties, and the foundation of colonies. We have said "policy," for the mercantile system was a collection of practical expedients, based indeed on the fundamental principles we have noticed, but never elaborated into a scientific economic system. Such was the state of economic thought when Mun's book was published, and we can now understand the popularity with which it was received. As a scientific work it has no merit whatever. But it appealed to a very strong and growing sentiment, and put into words what most people believed at the time of its publication. Mun's work, with its sequel the *British Merchant*, the name given to the series of papers written in opposition to DE FOE'S *Mercator*, during the controversy on the free-trade clauses of the Treaty of Utrecht (1713), gives the best idea of mercantilism as an economic system. But before the time of its greatest influence forces had been set in operation which ultimately overthrew it, and we must now briefly sketch this movement.

We have already seen the character of the early opposition to the trading companies, and the appeals to natural right as the basis of free trade. The companies won the victory, for in the relation of the government to trade, and the unsettled state of the countries to which the companies traded, their organisation was neces-

sary, and they included amongst their numbers the wealthiest and most influential of the merchants. The outsiders on the other hand were weak and disunited. But with the extension of commerce the number and influence of the latter grew; and it became clear that the exclusive privileges of the companies were an anomaly. The great statute of monopolies (1625) was a step towards freedom of trade; for although many of the evils complained of remained unchecked, it established the principle that none should monopolise for private gain what was the equal right of all English citizens; and it restricted the royal prerogative in the regulation of trade. The agitation against the trading companies was not without important results, for the most powerful of them, the East India Company, was reorganised on a broad national basis (1692-1702). In the 18th century we find little discussion of a subject which had been of such importance in the century before, and Tucker's pamphlet on the Turkey Company (*Reflections on the expediency of opening the trade to Turkey*, 1753) only expressed what was true of all the companies then in existence. It is doubtful whether at this time they were a serious restriction on trade, but they had performed the useful functions they once had, and it was absurd to continue their privileges. In other directions also, *e.g.* in Walpole's colonial policy, and the decay of the Elizabethan system for the regulation of wages and industry, we can see a movement towards free trade.

Meanwhile the theory of natural right was shattering the philosophical basis on which the mercantile system rested. The instances we have given from the history of the trading companies may probably be referred to popular sentiment, or to conceptions derived from English common law. At any rate, the latter was appealed to in the Commons debates of 1601 (Townshend's *Historical Memorials;* D'Ewes's *Journals.*) But the theory grew in influence and the range of subjects to which it was applied; and the levellers claimed universal suffrage and other measures as the natural right of all men (*Clarke Papers*, edited by C. H. Firth for the Camden Society, Introduction). Economic and popular sentiment coalesced with the philosophical movement, and with the development of the theory of the social contract the way was paved for an individualist system of political economy. Philosophical conceptions, however, derived from this source, had little or no influence on economic theory until the time of HUME. HOBBES and Locke took the economic ideas of their age as they found them ready made by the pamphleteers of the 17th century, and merely stated them with greater clearness. During the period with which we have to deal, the economic is of greater importance than the philosophical movement. The attempt to deal with the practical difficulties of the 17th and the 18th centuries supplied those fundamental economic conceptions without which the science could have made no progress.

We have seen that one of the chief sources of error in the works of the mercantilist writers was their confusion of thought on the nature and functions of money. The foundation of the Bank of England (1694) and the recoinage (1696) called forth an immense number of pamphlets dealing directly or indirectly with this subject. It is from this period that we can date the theoretical discussion of economic questions, and the attempt to work out a scientific system. English writers had discussed continental banks many years before the foundation of the Bank of England. We may mention, for example, the *Treatise on Exchange* (1564), to which reference has already been made. In works intended for the guidance of merchants, such as Malynes's *Lex Mercatoria* (1622) and Lewis Roberts' *Merchants Mappe of Commerce* (1638), it was natural that the writers should explain so important a feature of continental practice. The superiority of the Dutch was, as we have seen, partly attributed to their banking system, and during the 17th century the advisability of adopting it in England was frequently urged upon the government (*e.g.* Hugh Morrell to William Lenthall, ii. Jan. 1646-47, *Portland MSS.*, vol. i. p. 405). Generally the establishment of a bank was advocated in pamphlets in which its advantages were discussed. Amongst these we may mention Thomas Violet's *Advancement of Merchandise*, 1651; Sir Ralph Maddison's *Great Britain's Remembrancer*, 1655; Samuel LAMBE's *Seasonable Observations*, 1657; W. POTTER's *Tradesman's Jewel*, 1659; Francis CRADOCKE's *Wealth Discovered*, 1661; Sir Edward FORD's *Experimental Proposals*, etc. 1666, etc., which show that for some years before the great experiment people's minds were much occupied with the subject. As these proposals took a more definite shape the number of books published became larger. The banking question was associated with the coinage, the public debt, and general questions of trade and commerce. Sir Dudley NORTH, Sir William PETTY, John LOCKE, Nicholas BARBON, Michael GODFREY, William LOWNDES, William PATERSON, Robert MURRAY, John ASGILL, Simon CLEMENT, are some among the many names which may be found in English controversy during these years. One pamphlet followed another with such rapidity, and discussion was so general, that it is difficult to single out any one author as the representative of the others. North's *Discourses* (1691), however, should be noticed, and the works of N. BARBON show a deeper insight into economics than those of his contemporaries. Locke's *Considerations of the Lowering of Interest and Raising the Value of Money* (1691), followed by his *Further Con-*

siderations (1695), not only refuted the arguments advanced by William Lowndes and others, in favour of his scheme for restoring the coinage, and so saved the country from a great disaster, but contributed much that was of permanent value in economic science. In spite of these merits, however, Locke was strongly under the influence of the mercantile doctrine. The great controversy of 1691 to 1696 finally disposed of the theory of money which underlaid the mercantile system, and the relaxation of its influence was now only a question of time. The persistence of an old theory, long after its refutation, is a common phenomenon in the history of human thought. While the discussion of currency, banking, and credit undermined the theoretical framework of the mercantile system, and the growth of statistics threw doubt upon the balance of trade as a test of economic prosperity, the accumulation of capital and the development of commerce were removing the conditions of which the mercantile system was partly the reflex. During the first fifty years of the 18th century economic progress was slow. Defoe indeed in his *Mercator* had urged a principle which would have led to important results if it had been acted upon. He recommended no less than the *isolation* of economic questions. "Gain is the desire of merchandise: trade is a commutation of merchantable commodities between one country and another, and for the mutual profit of the traders. The language of nations one to another is, *I let thee gain by me, that I may gain by thee* . . . Trading is a matter entirely independent in its nature, and neither consults other interests, nor depends on any interests, but what relate to itself" (*Mercator*, No. 21). But it was the *British Merchant* and not *Mercator* that was sent to every parliamentary borough for the use of the inhabitants.

Why is it, we may ask, that for so great a length of time little progress in economic science has to be recorded? Certainly it was not due to lack of interest in economic subjects. There seems to have been no difficulty in obtaining a hearing. There are literally hundreds of economic writers in England between 1500 and 1752, and every trade crisis or controversy produced its score or so of pamphlets. The reasons for the slow growth of the science seem to have been as follows:—(1) With few exceptions the economic works of this period were written merely to advocate some definite object,—to urge the adoption of some scheme for the improvement of trade, to defend those whose interests were threatened by new developments, *e.g.* the numerous pamphlets on the East India Company, and their relations with the Levant Company, or to protest against some abuse and to suggest a remedy, *e.g.* the pamphlets on the poor laws, the coinage, public credit, etc. This close relation between economic literature and the practical life of the nation was unfavourable to the development of a system of economic doctrine. Mun (*England's Treasure by Foreign Trade*, 1664) expressly states that his work was not intended as an exhaustive and systematic treatise on the economics of the 17th century. He proposed to discuss only "so much of the merchant's practice as concerned the bringing of treasure into the kingdom." (2) Such being the objects of the writers, there is a strong bias in most of them in favour of the organisation or project with which they happened to be identified. The biographies of the earlier writers are therefore of importance, for their personal relations with hostile organisations or individuals, and events in their lives, affected their views to a great extent. (3) When once a controversy was concluded, no one endeavoured to develop and apply the general principles which may have been stated in the course of it. Thus the currency controversy in 1694, and the defence of the East India Company, led to a statement of the main outlines of the principle of the division of labour (Simon Clement; *Discourse of General Notions*, etc., 1695; *Considerations on the East India Company*, etc.). Other writers such as Petty, Berkeley, Addison, etc., also enunciate this principle. But it lay unregarded until Adam Smith made it one of the fundamental principles of the *Wealth of Nations*. (4) The early writers had to depend, for the most part, on their own knowledge and experience to suggest or illustrate their arguments; trustworthy information on economic subjects was neither so copious nor so widely diffused as it is at the present time. Sir William Petty, John Graunt, Gregory King, and Charles Davenant, who laid the foundations of statistical science, all lived in the latter half of the 17th century. So late as 1699 Davenant complains (*Essays on Trade*), that "the aids and lights which might be gathered from the public accompts and offices have been industriously withheld from all who are not servile applauders of the wild and destructive conduct . . . of some persons of no small power in the management of affairs." He and Gregory King are "beginners of an art not yet polished, and which time may bring to more perfection." (5) The early writers employed in their works the language of ordinary business. They had no scientific terminology. Now the language of the market-place is not characterised by scientific precision, and their looseness of phrase gave rise to endless misunderstanding.

The point of view from which early economic literature should be regarded becomes therefore quite clear. It must be studied along with the history of the times at which it was written. This must be carefully borne in mind, or we shall form an erroneous estimate of the value of these early works and the ability of the writers.

We must not expect a uniformity, consistency, and completeness of doctrine and practice which are not to be found. Nothing could be more fatal to the right appreciation of this period than to investigate it with the idea that we shall find in it only illustrations of a well-rounded set of general propositions.

[Much has been written on the history of economics. *Vide* especially Ashley, *Economic History*, vol. i. pts. i. and ii.—Cunningham, *English Industry and Commerce.*—Endemann, *Die Nationalökonomischen Grundsätze der Canonistischen Lehre.*—Hewins, *English Trade and Finance.*—Heyking, *Handelsbilanztheorie.*—Knies, *Politische Œkonomie.*—Roscher, *Geschichte der Nationalökonomik in Deutschland.*—*Political Economy* (trans. Lalor), *Geschichte der englischen Volkswirtschaftslehre.*—Schanz, *Englische Handelspolitik.*] W. A. S. H.

ENGLISH SCHOOL OF POLITICAL ECONOMY.

Before Adam Smith, p. 730; Modern Economics, p. 733.

BEFORE ADAM SMITH.—The English writers on political economy before Adam Smith do not at any time present the marks of a "school," properly so called. The nearest approach to a "school," so far as community of doctrine is concerned, is found among the mercantilists; but even these writers owe no allegiance to any personal authority. Their views are individual and independent; and it is only with Adam Smith that the English school *par excellence* begins. The rise of that school was affected by many influences, English and foreign. Of these the genesis of economic theory in England must be sought chiefly through the writings of the authors whose names are mentioned in the rapidly-connected sketch which follows.

There is much that is of interest not only to the economic historian but also to the student of economic theory in the early statutes and the records of the social history of England, but few English writers earlier than the 17th century call for special mention in this article. Langland, in his *Visions of Piers the Plowman* (14th century), and the writer of the *Libell of Englishe Policye* (15th century) incidentally supply some interesting illustrations of the course of life in England during those periods. The writings of WALTER OF HENLEY (13th century), FITZHERBERT (16th century), and TUSSER'S *Five hundreth pointes of good husbandrie* (Tottel's edition, 1573), throw light on the state of agriculture and the condition of the people. "W.S." (see HALES, JOHN) in his *Discourse of the Common Weal of this Realm of England* (written 1549, printed 1581), acutely discusses the contemporary depression of agriculture and industry. His attempts to show that the "alteration of the coyne is the cheifest and principall cause of this universall dearthe" are highly interesting examples of early economic argument and analysis. More's *Utopia*, 1518, imbued as it is with the ideas of classical antiquity, has more affinity with the *Republic* of Plato than with the industrial utopias of later writers. The chief impetus to the publication of *Discourses upon Trade*, was afforded by the problems of policy in colonial trade by which the commercial activity of the English people, following upon the enterprise of navigators and adventurers, found itself confronted. This is noticeable as early as the essays of BACON, 1597 ("Of Plantations"), and the writings of RALEIGH. From the incorporation of the East India Company, 1600, there is a continuous succession of writers on the theory of foreign trade which formed the kernel of the old MERCANTILE SYSTEM. The mercantile school may indeed be said to continue its existence in quite different forms from this time to the days of STEUART. The traffic in the precious metals naturally attracted the attention of statesmen and of merchants alike; and from the reign of Edward III. onward, attempts were made to regulate its exchange for imported commodities. The inevitable export of bullion for the East India trade found an ingenious apologist in MUN, who, in his *Discourse of Trade from England into the East Indies*, 1621, and *England's Treasure by Forraign Trade*, published 1664, shifted the ground of the BALANCE OF TRADE from the position which it holds in the writings of ARMSTRONG (1530) and MALYNES (1601). He argued that this export, like the seed cast away by the husbandman, was in the long run amply repaid in kind, and that the raw material which the precious metals purchased, when worked up and sold to foreign countries, caused the national stock of bullion to be increased and not diminished. "The title of Mun's book, *England's Treasure in Foreign Trade*, became a fundamental maxim in the political economy, not of England only, but of all other commercial countries" (*Wealth of Nations*, bk. iv. ch. i.). Malynes, *The Canker of England's Commonwealth*, 1601, and *Lex Mercatoria*, 1622, describes the Ancient Law Merchant as well as the contemporary habits and institutions of trade; and LEWES ROBERTS, *Merchants Mappe of Commerce*, 1638, *Treasure of Trafficke*, 1641, explains the operations of commerce, and recommends practical measures,—*e.g.* free export of gold and silver, and low customs,—for its promotion. His *Mappe of Commerce* is a mercantile geography, showing the situation, exchanges, and commodities of trade of different places. MISSELDEN (*Free Trade*, 1622, *Circle of Commerce*, 1623) exhibits the Spaniards as warnings, the Dutch as models in mercantile policy, and disputes with Malynes the causes and consequences of an unfavourable balance of trade. The example of the low rate of interest in Holland further stimulated the CULPEPERS, father and son, to urge the reduction by parliament of the legal rate of interest—a demand supported with much weight by

CHILD (1668), whose business instincts, superior to his scientific theory, were probably not at fault when he supposed such a measure would redound to the encouragement of English commerce. The unsoundness of some of the arguments which he employs was pointed out in *The Interest of Money Mistaken*, 1668.

Passing by the utopia of HARRINGTON (*Oceana*, 1658), and such agricultural writings as those of Blith, *The English Improver Improved*, 1652, HARTLIB, *Legacy of Husbandry*, 1655, WORLIDGE, *Systema Agriculturae*, 1668, and John SMITH, *England's Improvement Revived*, 1670, we come to the speculations of HOBBES, 1670, and ASGILL, 1696, on the nature and causes of wealth. Particular recommendations for the improvement of trade by the naturalisation of aliens, and in favour of the policy of enclosures, are found in FORTREY, *England's Interest and Improvement*, 1663, and COKE, 1671. Fortrey's statement that the country "lost" £1,600,000 a year by its trade with France, long had a discouraging effect. The despondent tone of most writers of this time is echoed in the title of *Britannia Languens*, 1680, and in the arguments of its pseudonymous author (Philanglus), that the importation of foreign luxuries was a "consumptive trade" which threatened to bring about the decay of the nation while money was exported for them. The same writer urges the "legal regulation" of trade, to prevent its destruction by "private interest" and by the "cloggs" of navigation acts, companies, monopolies, etc. Similar views with regard to the eastern trade are found in POLLEXFEN'S *England and East India Inconsistent in their Manufactures*, 1697—a reply to DAVENANT'S *Essay on the East Indian Trade*, 1696-97. A more hopeful note is struck in *England's Great Happiness: wherein it is demonstrated that a great part of our Complaints are Causeless*, 1677, and in the optimistic preface of PETTY'S *Political Arithmetic*, 1682, which opposed to vain imaginings and timid surmises the positive conclusions of comparative statistics, and drily observed that the price of food was "so reasonable, as that men refuse to have it cheaper, by admitting of *Irish* cattle." The best thought of the time had now for many years been directed into the channels of trade, and produced, as was natural, an abundant crop of pamphlet literature on all questions connected with "the Science of the Great Commerce." Comparative study of other nations, especially of France, Holland, and Spain, was one main source of the inspiration of these writings, and numerous proposals sprung up for establishing banks (see ASGILL, BRISCOE, CARY, CHAMBERLAIN, CRADOCKE, LEWIS, MURRAY, PATERSON) and for emulating Holland in other matters. This spirit is shown in YARRANTON'S *England's Improvement by Sea and Land: To outdo the Dutch without fighting*, etc. (pt. i. 1677; pt. ii. 1681), in Sir Wm. TEMPLE'S *Observations on the Netherlands*, 1693, and in the popularity of the translations of "John de WITT'S" *True Interest and Political Maxims of Holland*, 1702, etc. (see DUTCH SCHOOL).

An important epoch is marked by GRAUNT'S *Natural and Political Observations upon the Bills of Mortality*, 1662, with which begins the science of DEMOGRAPHY, as statistics, and the theory of taxation may be said to commence with Graunt's more famous friend Sir Wm. Petty, whose remarkable treatises on *Taxes and Contributions*, 1662, *Political Arithmetic*, 1682, and the *Political Anatomy of Ireland*, 1691, exhibit an ingenuity of method and grasp of principle rarely if ever shown by his predecessors. The first table of mortality was published by HALLEY in 1693. DAVENANT (1699) and GREGORY KING (in 1696) continued the work of statistics (see ARITHMETIC, POLITICAL); while the current views on the balance of trade found an able opponent in BARBON (1690), who was soon to cross swords with LOCKE on the subject of money.

The proposals of LOWNDES, then secretary to the treasury (1695), to coin the new (silver) money lighter, provoked the opposition of Locke, whose able writings on money at this critical period of the great recoinage (see RECOINAGES) are still appealed to in controversies of to-day upon the history of the currency. The earlier work of VAUGHAN, *Discourse of Coin and Coinage*, 1675, should also be mentioned here. Mingled with the discussions of semi-political questions by earlier authors are many glimpses of a broader consistent theory, general principles of which now begin more clearly to emerge. The close of the 17th century is indeed a time conspicuous for the ability of English economic writers. Barbon's *Discourse of Trade*, 1690, contains some striking analyses of value, price, interest, and rent. NORTH'S *Discourse of Trade*, 1691, is an admirable exposition of the merits of free exchange. FLEETWOOD'S *Sermons against Clipping and Sweating of the Precious Metals*, 1694, precede by thirteen years his *Chronicon Preciosum* or history of prices, familiar to students of Adam Smith. The problem of the conditions of the poor which had fitfully occupied statesmen since the date of Richard II., in whose reign the earliest legislation for dealing with impotent beggars took place, seriously engaged the attention of FIRMIN (1678), HALE (1683), Child (who proposed the appointment of poor-law guardians or "fathers of the poor"), Cary (1695) and BELLERS, *Proposals for Raising a Colledge of Industry of all Useful Trades*, etc. 1695-1696. From DEFOE'S lively and prolific pen came, in 1704, the vigorous essay, *Giving Alms no Charity and Employing the Poor a Grievance to the Nation*, in which it was contended that workhouse labour should not be employed in competition with outside industry. The same writer's *Compleat English Tradesman*, 1725-27,

and *Plan of the English Commerce*, 1728, are the chief of his other numerous works on subjects relating to trade. John HOUGHTON, F.R.S., *Collection for the Improvement of Husbandry and Trade*, 1692-1703 (particulars of prices of corn, cattle, coal, hops, wool, etc.); *The British Merchant; or Commerce Preserved*, 1713 (papers collected and published by Charles KING, 1721); and Defoe's *Mercator, or Commerce Revived*, 1713, 1714 (an opposition paper to *The British Merchant*), afford useful details for the history of commerce.

LAW'S *Money and Trade considered*, 1705, exhibits at once the power and the defects of his erratic genius; original, daring, and acute, he admits no limit to the bounds of credit, and has little thought of its contraction. His book marks, however, a real advance in the study of money and credit. WOOD'S *Survey of Trade*, 1718, also deals with money and bullion. MADOX is an invaluable source of information for the economic historian in his *Antiquities of the Exchequer*, 1711, and *Firma Burgi*, 1726. In Ireland appeared about the same time the well-known *Drapier's Letters*, 1725, in which SWIFT inflamed the anger of his countrymen against Wood's copper halfpence; DOBBS' essay on "The Trade and Improvement of Ireland," 1729-31; and BERKELEY'S *Querist*, 1735, a collection of searching and suggestive inquiries in economics, revealing at once the author's mind and the degree of development which the science had then attained. Swift's *Modest Proposal for preventing the Children of Poor People from being a burden to their Parents or the Country*, 1730, is an elaborate joke framed in a tone of ironical and pseudo-economic savagery. GEE'S *Trade and Navigation of Great Britain considered*, 1729, is a despondent treatise of mercantilism, affecting to show "that the surest way for a nation to increase in riches is to prevent the importation of such foreign commodities as may be raised at home." VANDERLINT'S *Money Answers all Things*, 1734, on the other hand ably argues for free trade, while MANDEVILLE'S *Fable of the Bees, or Private Vices, Publick Benefits*, 1706, 1714, 1723, etc., urges the social advantages of individual liberty. Both books mark a movement in the direction of LAISSEZ-FAIRE. DECKER'S *Proposals*, 1743, for raising the whole revenue by a single tax on houses, and the *Essay on the Causes of the Decline of the Foreign Trade*, 1744, show much ingenuity in the study of taxation. John SMITH'S *Chronicon Rusticum Commerciale*, or *Memoirs on Wool*, 1747, is an industrious compilation of standard value upon this great branch in the history of English trade. Equally laborious but less praiseworthy are the *Dictionaries of Trade and Commerce* of POSTLETHWAYT (1751), ROLT (1761), and MORTIMER (1766). Postlethwayt's, the best of the three, was founded mainly upon the French dictionary of SAVARY. In 1751 and 1753 appeared translations from the Spanish of USTARITZ and ULLOA of the history of trade in Spain, and in 1753 a translation from the German of MAGENS' *Universal Merchant* (postscript 1756). The last two writers are mentioned by Adam Smith. FRANKLIN'S *Observations concerning the Increase of Mankind*, 1751; HUME'S essay of "The Populousness of Ancient Nations" in his *Political Essays*, 1752; and WALLACE'S *Dissertation on the Numbers of Mankind in Ancient and Modern Times*, 1753, show an interest in the progress of population, its causes and limits, nearly half a century before MALTHUS. The middle of the 18th century recalls the end of the 17th by the fertile ability of its economic writers. Hume's *Essays* contributed powerfully to the development of sounder views on money and the balance of trade. Wallace, in his *Characteristics*, 1758, discusses the functions of paper money and credit. The essays of Patrick Lord ELIBANK, on *The Public Debt* were published in the same year (1753) as FIELDING'S *Proposal for making an Effectual Provision for the Poor*. The most important writings appearing at this time were, however, those of CANTILLON, MASSIE, and TUCKER.

Cantillon's posthumous *Essai* (published 1755) is the earliest approach to a complete presentation of economic principles, tracing the distribution of wealth by the guiding thread of a central theory of value. Its influence was greatly felt in the FRENCH SCHOOL, but is also clearly seen in the *Essay on Money and Coins* of HARRIS (1755-58). Massie (see *infra*), though best known by his criticisms of Decker's and FAUQUIER'S proposals in taxation and by his *Essay on the Governing Causes of the Natural Rate of Interest* (1750), has been shown by Dr. Cunningham to have left a bibliography of economic literature of the highest value (*Economic Journal*, vol. i. No. 1). Tucker (see *infra*), dean of Gloucester, is remarkable for the breadth and liberality of view with which he regards the economic aspect of colonial and foreign politics. Tucker accepted with pride the sarcasm of Warburton, that he made a religion of trade as other ecclesiastics had been known to make a trade of religion. The dignity of economic study did not much longer need vindication. His *Reflections on the Expediency of a Law for the Naturalisation of Foreign Protestants*, 1751, were translated into French by Turgot (1755). His *Brief Essay on the Advantages and Disadvantages which respectively attend France and Great Britain with regard to Trade*, 1750, is said by BLANQUI to show the influence upon Tucker of the French economists with whom he was in close correspondence. But there can be little doubt that in their relations with Tucker at this time they were rather disciples than masters.

The high esteem in which the early English writings was held abroad was no doubt largely

due to the superiority of English commerce which gave them birth. It was felt with justice that a nation of successful merchants were worth listening to on matters of trade. The French in particular richly repaid their debt to us through Adam SMITH, upon whose mind they impressed their systematic and logical views; but it should not be forgotten that those views were largely founded on the practical judgments of English writers. Nor can the diligent student of the *Wealth of Nations* fail to be struck by the extent to which that work is rooted upon the earlier English writings. And though in the crucible of Adam Smith's mind the materials of his predecessors are often refined, they still do not defy recognition, but testify to the close continuity of the English school.

It has not been possible in this slight account to do more than enumerate some of the writers who preceded Adam Smith. For fuller notices the student is referred to the separate articles under the names of the authors. Contemporaries of Adam Smith are dealt with in a later portion of this article. It is only necessary to mention as appearing before 1776, the *Three Tracts on the Corn Trade and Corn Laws*, 1758, by Charles SMITH, whom Adam Smith has described as "ingenious and well-informed"; the important *Inquiry into the Principles of Political Economy* of STEUART, 1767 (see *infra*); ANDERSON'S *History of Commerce*, 1764; FERGUSON'S *History of Civil Society*, 1767; PRICE on *Reversionary Payments*, 1769, and on the *National Debt*, 1774; and Arthur YOUNG'S *Farmer's Letters*, 1771, *Rural Economy*, 1773, and *Political Arithmetic*, 1774, with some of his earlier *Tours* in the English counties. H. H.

MODERN ECONOMICS. PERIOD I. ADAM SMITH.—After the Union of 1707, Scotland began to play a part in English economic study. Francis HUTCHESON (professor of moral philosophy at Glasgow, died 1747) turned the attention of Scottish philosophers to economic questions, on which he himself touches, though briefly, in his published works (*e.g.* in his *Inquiry into the Original of our Ideas of Beauty and Virtue*, etc., 1st ed. 1725). The notion of the "greatest happiness of the greatest number" appears in Hutcheson, and he also lays stress on the connection between industry and self-interest, industry and property, thus carrying on the discussion raised by Mandeville (*Fable of the Bees*, etc., 1706, and later eds.), on the nature of the motives to economic action. The activity of the Scotch press (Foulis, Urie, etc.) in the publication and reprinting of economic treatises becomes noticeable about this time (say 1750 to 1770). Adam FERGUSON in the 4th ed. of his *History of Civil Society* (1773), announced the forthcoming work of Adam Smith, which was to be "a complete theory of national œconomy"; but Ferguson's own economical views (*e.g.* on division of labour) are given incidentally along with his political philosophy, and not in a separate treatise. In his *Institutes of Moral Philosophy* (1769), where he treats of economical questions, he borrows to some extent from Joseph HARRIS (*Essay on Money and Coins*, 1757). To much greater effect David HUME, who had learned from Hutcheson, had prepared the way for his friend Adam Smith by his keen criticism of the current views of the balance of trade, to say nothing of his pregnant remarks on the other subjects embraced by the "Mercantile Theory" (*Essays on Commerce, Money, Interest*, etc., 1752). Economical subjects receive separate consideration, and Hume's reasonings upon currency, credit, and population were of special influence. In the controversy as to the populousness of ancient nations he took the side of the moderns. In the matter of public credit, or national debts, he took the view that national debt would eventually prove the ruin of modern nations. He points out that the quantity of metallic money in a country does not determine the rate of interest, also that a time of increasing currency is a time of lively trade. He thinks that commercial jealousy rests on a false idea that one party must always be the loser, in a bargain. He goes, if not as far as Adam Smith, nearly as far as Josiah Tucker (*Advantages and Disadvantages which respectively attend France and Great Britain with regard to Trade*, 1750). But it was left to Sir James Steuart and Adam Smith to recognise for their own country what had already been made good by the physiocrats in France (see PHYSIOCRATS and FRENCH SCHOOL), that economical subjects must be a study by themselves. Sir James Steuart's book (*An Inquiry into the Principles of Political Economy, being an Essay on the Science of Domestic Policy in Free Nations*), written in exile in Germany, and first published (in Edinburgh) in 1767, made no impression on the public to be compared with that of Adam Smith's *Inquiry into the Nature and Causes of the Wealth of Nations* (1776); and was rather a revised edition of the mercantile theory than a new departure. The immediate popularity of Adam Smith's work, on the other hand, was largely due to its crushing criticisms (especially in .bk. iv.) of the "commercial system," which was tracked out and destroyed in all its logical ramifications, however tenaciously it might afterwards survive in political practice. The idea of "natural liberty" organising industry, and transforming society "of its own accord," was stated by Adam Smith even more boldly than by the French economists, and he avoided their mistake of restricting productiveness to agriculture (bks. iv. ix.) In his chapters "On the Revenue of the Sovereign or Commonwealth" (bk. v.), he came out as "the greatest of theorists on finance" (Bastable); and no economical treatise ever exerted greater political influence.

On economic theory its influence has been also very great, though it was not so immediately visible, and is now partly spent. The definition of wealth, the discussions on labour, wages, rent, interest, and the short remarks on value, served as starting-points for more thorough and satisfactory consideration of these matters. Adam Smith's method of reasoning, though frequently deductive, involves so full an illustration from facts and statistics, where such were accessible, that he has often been claimed as an inductive economist. The industrial changes then taking place in England gave his treatise a peculiar historical importance, if they were not indeed responsible for its creation. Similarly, if we pass by Bentham's correction of one false concession in "the Wealth of Nations" (see BENTHAM), the next contribution to English political economy was largely occasioned by a change in the condition of the people.

PERIOD II. MALTHUS AND RICARDO.—The poor law of W. PITT, proposing a bounty on large families, and the popularity of Godwin's political theories, led MALTHUS to bring forward in his *Essay on Population*, 1798, a clear-cut theory of "the principle of population." He inquired into the nature and causes of poverty, as Adam Smith into those of wealth. The tendency of population to increase up to the limits of the means of subsistence was brought out more strongly than the checks on this tendency, which were not adequately stated till the book had emerged from the floods of criticism into a second edition (1803). The views of Malthus on general economic theory were not elaborated with such perfect lucidity as his doctrine of population; he tended either to fall back on physiocratic views, or to theorise, as on the measure of value and the corn laws, with a subtlety inconsistent with clearness. He maintained views on overproduction which brought on him the damaging criticisms of J. B. SAY. On the other hand, he shares with JAMES ANDERSON, and Sir E. WEST, the credit of first stating what is usually called the Ricardian theory of agricultural rent, that rent is the effect not the cause of price, and that it depends on the graduated fertility of lands. RICARDO, who first obtained fame by his *Letters on the High Price of Gold Bullion* (1809), and made an enduring mark on the theory of currency, owes his prominence in economic literature to his *Principles of Political Economy and Taxation* (1817). In this book he pushed the theory of rent farther than its discoverers, and made it, together with a new theory of value, the centre of a theory of the distribution of wealth between the three parties concerned in its production—the labourers, the employers, and the landlords. The value of manufactured articles is determined mainly by the quantity of labour necessary to the production of them, and of agricultural products by the quantity of labour necessary to the cultivation of the worst land actually cultivated. The height of this "margin," to use the phrase of Dr. CHALMERS, determines the amount of profits to the employers, and the amount of rent to the owners of all land above the worst. Ricardo's qualifications of this theory were neither numerous enough nor clearly enough stated; and, even if the theory had not been reproduced, as by M'CULLOCH, without the qualifications, a reaction against Ricardian political economy could be only a matter of time. But it held the field for nearly a generation after the publication of the *Principles*. It found popularisers both humble and eminent (Mrs. MARCET and DE QUINCEY): James MILL followed it wholly, and SENIOR with reservations that seemed in those days unimportant, though in after times the acuteness of Senior has been better recognised. TORRENS did not succeed in establishing his claims to independent authority, nor did Chalmers restore the authority of Malthus. WHATELY, LONGFIELD, LAWSON wrote clearly but without making any decidedly new departure. Professor Richard JONES, in appealing against Ricardo to the history of India, was before his time. The minor writers (see below) left fruitful hints, but made few converts among students of the subject. Robert OWEN and his followers gained little hearing in the world of letters. The victory of FREE TRADE (1846), the passing of the early FACTORY ACTS, the rise of CHARTISM, and the regulation of the paper currency (see BANKING), affected the course of economic discussions; and the French Revolution of 1848 played a part in England as well as on the Continent French and German writers began to acquire greater influence than ever before.

PERIOD III. JOHN STUART MILL.—Their influence was shown in John Stuart Mill's *Political Economy* (1848). This book was an attempt to combine abstract economical theory with the modifications necessary for its application in the concrete, and to view the whole of economics in relation to other parts of the philosophy of society. As Mill went beyond Bentham in his ethics, he went beyond Ricardo in his economics. Long before this time Mill had, like SENIOR, given attention to the question of method, which was afterwards to become an object of lively discussion.

The study of COMTE and other foreign writers had led Mill to doubt whether abstract theory was allowable at all in social inquiry. He retained it, however, for political economy; and in his chief economic book the abstract theory is presented, along with the modifications, being little more than a careful re-statement of Ricardian principles. He had wished to do for his own day what Adam Smith had done for his (see preface to Mill's *Political Economy*); and the influence of his book was so great that it seemed as if a new departure had

been taken and a new era begun. But Mill was so far from overthrowing the old doctrines that he really strengthened their hold at a time when it had been loosened. Yet, by his emphasis on the relativity of abstract economics to particular societies, and on the possibility of far-reaching changes in the social system, he showed an affinity with "historical economists," and "scientific socialists." The former found their earliest representatives in Cliffe LESLIE and Thorold ROGERS; and their views are now energetically advocated by Ingram, Cunningham, and Ashley. The CHRISTIAN SOCIALISM (of MAURICE, KINGSLEY, LUDLOW, NEALE, Hughes) grew out of Owen and Chartism; and its upholders, in advocating co-operative production, appealed rather to philanthropy and human brotherhood than to cool economic theory. The scientific socialism of MARX, avowedly based on the Ricardian theory of value, can hardly be said to have representatives in this country among professed economists. In his views of Land Reform, Mill (like his father), approached very near to socialism; but his attitude to socialism as a general policy is quite as truly critical as sympathetic.

PERIOD IV. W. S. JEVONS.—This cool reception of scientific socialism is mainly due to the rejection, by Jevons and his closest followers, or the serious modification, by Marshall and Sidgwick, of the Ricardian theory of value. The ideas of Jevons have had greater power since his death than during his life. He was too impatient at the almost universal submission to Mill's authority to do Mill complete justice. But he was one of the first critics of Mill who attracted general attention at all; and, since his time, there has been less submission to authority of any kind. There has no doubt been a line of writers who follow the elder school very straitly (FAWCETT, CAIRNES, MALLET) as among statesmen there has been a line of supporters of the old economic policy identified with BRIGHT and COBDEN. But changed conditions have forced most leading statesmen to go beyond *laissez-faire;* and new aspects of old problems have led theoretical economists into deeper study of particular questions (*e.g.* CONSUMPTION) than before. The mathematical treatment of economical data has practically fallen into the hands of a wing of the school of final utility, which is often spoken of as a school by itself, the mathematical school (Edgeworth, Wicksteed). Amongst the many writers who have taken part in discussions on currency and banking, Mr. H. D. Macleod has fallen back on WHATELY'S view that economics is simply catallactics, Bonamy PRICE has professed to represent unaided common sense, BAGEHOT has insisted on the need of formulating deductive economics for "advanced" nations, and on the impossibility of doing so for uncivilised peoples. Bagehot's lucid writings on banking and depreciation helped to keep these questions before the minds of economists; and the fall of silver since 1870 has made bimetallism versus monometallism an object of lively debate. The dominant view among professed economists after Jevons seems to be that bimetallism under certain conditions is possible, but that the conditions are difficult of fulfilment. The question has been discussed in close connection with the subject of the metallic reserves of our English banks, and, in this as well as other connections, the wisdom of the Bank Charter Act of 1844 is not now upheld by the majority of economists. A large part of the recent work of economists in England has been the restatement of the older doctrines, with the fresh light afforded by the theory of value laid down in 1871 by Jevons in this country, and substantially one with the theory of the AUSTRIAN SCHOOL OF ECONOMISTS. In connection with this, there has been practically a new theory of wages and profits, towards which not only Jevons but Walker has contributed very essentially. The idea of a wages fund, as held by Ricardo's immediate successors, and till 1869 by J. S. Mill, has been abandoned as Longe and W. T. THORNTON had foretold. The distinction of interest from profits—capitalist from employer, has been better kept in view—largely owing to the writings of Walker. The application to wages, interest, profits, and even taxation, of the idea of final utility has been pursued vigorously. Probably at no time have questions of economic theory ever been more ardently discussed in England than at present; and these discussions have hope of greater fruitfulness than before, because conducted now (*a*) with a much more adequate knowledge of what is written and said, about the subjects concerned, on the Continent of Europe, and in the United States of America, and (*b*) with a closer regard to the facts of everyday life, as the touchstone of all theories. Economists are more conscious than at any previous time of the importance of statistics for the understanding of the phenomena of society. They are also more keenly aware, partly from the influence of CARLYLE and Ruskin, of their need of contact and sympathy with men and associations of men in the surrounding world, though they keep in mind the distinction of an economic theory from a mere record of facts or a mere utterance of philanthropic aspiration.

Even in this short sketch it would be wrong to omit mention of the minor writers and amateur economists. Every great industrial or financial change, besides awaking a corresponding movement of speculation among professed economists, has been reflected in the fugitive literature of the day; and there has often been a subordinate movement of social, political, and economic theory, apparently quite aside from the path of the classical economists. The

writings of the agriculturist, Arthur YOUNG, and the financier and politician, Richard PRICE, had a certain influence on economical study. In the dark days of the French War the writings of William GODWIN may be said to have given the first impulse to the socialistic speculations afterwards carried out by Charles HALL, Robert OWEN, EDMONDS, GRAY, J. F. BRAY, and William THOMPSON. With Thomas SPENCE begins the movement for the nationalising of the land, countenanced in theory at least by James Mill, and advocated in later times by DOVE, George, and A. R. Wallace. The books of PAINE include not only deistic and political utterances, but useful admonitions in regard to paper currency in the early days of the suspension of cash payments. Ld. LIVERPOOL'S *Coins of the Realm* (1805), with the mass of pamphlets (see *e.g.* H. THORNTON, Lord KING, Boyd, BARING, BOSANQUET, HUSKISSON, TROTTER) called forth by suspension and by the Bullion report, form a considerable literature, in the face of which (and often by the aid of it) the theories of economists like Ricardo shaped themselves. Such books as Thomas TOOKE'S *History of Prices*, ably continued by NEWMARCH, and in a less degree COLQUHOUN'S book on the *Resources of the British Empire*, and (later) PORTER'S on the *Progress of the Nation*, helped to point economists to the more ample use of statistics; and this service is now rendered by writers like Guy, Rawson, Palgrave, Booth, Giffen, and others in the journal of the "Royal Statistical Society" (founded 1834).

The "refutations" of Malthus on population proceeded from all sorts and conditions of men. Many men of the stamp of COBBETT and Perronet THOMPSON took up every economic controversy that had a conspicuous political side. The new Corn Law of 1815 gave birth to a multitude of pamphlets and books on the corn laws, and eventually, after HUSKISSON'S reforms, to the movement that took shape in the ANTI-CORN LAW LEAGUE, and was kept up vigorously by the MANCHESTER SCHOOL of Free Traders. Concurrently with this movement and later in its political victory came the agitation for extension of the FACTORY ACTS, with a literature of its own. The discussions in regard to emigration (see SELKIRK) and (later) colonisation (see TORRENS, WAKEFIELD, and HILL-BURTON) as well as in regard to the reform of the poor law, produced not only small tracts but large volumes in which economists still find useful materials. The value of English blue books on such topics can hardly be over-estimated, and since the establishment of a labour department (1893) their usefulness in this particular field may be expected to increase. Where economic policy has touched closely the business of the City, as in the Bank Charter Act, the repeal of protective duties, and the repeal of the navigation act, commercial men have taken the lead in the composition of pamphlets contending for or against particular measures by the aid, as a rule, of a popular political economy. Yet on such matters as banking and the foreign exchanges such pamphlets have not unfrequently achieved a permanent place in classical economic literature.

The great development in the last half century of organisation among the working classes has led to considerable modifications of economic theory (see WAGES FUND). This organisation has shown itself most notably: (1) in trades unions and other benefit societies among skilled labourers; (2) in co-operative societies for sale of goods. The former are federated somewhat loosely in the trades union congress, the latter very compactly in the co-operative union. Hitherto co-operative production in the sense of partnerships of workmen has not advanced rapidly. The latest phases of the organisation of the working classes are: (1) the growth of trades societies among women, and especially (2) the "new unionism," which has two chief features (*a*) the organisation of unskilled labourers, (*b*) the policy of united action by all the organised groups when the interest of perhaps only one is at stake. These movements have undoubtedly influenced politics in the direction of greater interference by the state than was contemplated by our forefathers.

Indications that political economy has not lost its attractiveness for the English mind may be seen in the foundation of the British Economic Association (1890), its organ the *Econ. Journal* (1891), and indeed in the present *Dictionary*. The *Econ. Review* (1891) covers partly the same ground, though not so strictly economic as the *Econ. Journal*. The Cobden Club is still on the watch against protection and over-interference of the state. The Statistical Society has a journal coeval with the society, embodying its transactions, with much other valuable matter. The *Economist*, under the editorship of such men as Wilson, Bagehot, and Palgrave, has done valuable service in presenting clear, vigorous, and solid economic argument on questions of the day. With the *Statist* it represents on the whole the views of the economists of the City. The *Banker's Magazine* does the same for the world of bankers. Many papers of a strictly economical character (especially those of Jevons and Giffen) have been published in journals like the *Contemporary Review*, not addressed to professional economists but to the educated public generally. It is to be regretted that fugitive economic literature, whether in pamphlets or articles, has not yet found its historian; J. R. M'Culloch attempted the work in his *Literature of Political Economy* (1845), with a fair measure of success.

The series of volumes edited by M'Culloch (printed for the Political Economy Club and Lord Overstone), in some degree supplement his work, at least for the early part of the period above treated; their titles are: *A Select Collection of Scarce and Valuable Tracts on Money*, London, printed for the Political Economy Club, 1856.—*A Select Collection of Early English Tracts on Commerce*, London, printed for the Political Economy Club, 1856.—*A Select Collection of Scarce and Valuable*

Tracts and other Publications on Paper Currency and Banking, printed by Lord Overstone, London, 1857.—*A Select Collection of Scarce and Valuable Tracts and other Publications on the National Debt and the Sinking Fund*, printed by Lord Overstone, London, 1857.—*A Select Collection of Scarce and Valuable Tracts on Commerce*, printed by Lord Overstone, London, 1859.—*A Select Collection of Scarce and Valuable Economical Tracts*, printed by Lord Overstone, London, 1859.—*The Evidence given by Lord Overstone before the Select Committee of the House of Commons of 1857 on Bank Acts*, London, Longman, Brown and Co., 1857.—*Tracts and other Publications on Metallic and Paper Currency, by the Right Hon. Lord Overstone*, London, Longman, Brown and Co., 1858.

[In addition to M'Culloch's *Literature* there may be consulted:—Prof. Travers Twiss, *View of the Progress of Political Economy in Europe since the 16th century* (1847).—Prof. Adolf Held, *Zwei Bücher zur Socialen Geschichte Englands* (1881, especially bk. i., *Sociale und politische Literatur von 1776 bis 1832*).—Prof. J. K. Ingram, *A History of Political Economy* (from *Encycl. Britann.*) (1887).—Prof. H. S. Foxwell, "The Economic Movement in England" (*Harvard Quarterly Journal of Economics*, vol. ii. 1887).—L. L. Price, *A Short History of Political Economy in England from Adam Smith to Toynbee* (1891).—Prof. L. Cossa, *Introduzione allo studio dell' economia politica* (1892). English translation (L. Dyer), 1893.—Prof. Wm. Cunningham, *Growth of English Industry and Commerce*, and list of authorities *ad finem* (1892).—For financial history, Prof. C. F. Bastable, *Public Finance* (1892); Prof. E. R. A. Seligman, *Incidence of Taxation* (1892).—Anton Menger, *Das Recht auf den vollen Arbeitsertrag in geschichtlicher Darstellung*, 2nd edition, 1891, good for early part of the century and history of English socialism.—Karl Marx, *Das Kapital*, 2nd edition, 1879, good for history of factory legislation and for references to the minor economic literature. The *Political Economy* of Dugald Stewart (2 vols., ed. Sir Wm. Hamilton, 1855) is a mine of references to the pamphlet literature of the end of last century. E. Cannan, *History of the theories of Production and Distribution in English Political Economy*, 1776-1848, 8vo (1893).—J. Bonar, *Philosophy and Political Economy* (1893).—Schulze Gävernitz, *Zum Socialen Frieden* (1890). J. B.

ENGROSSING. See FORESTALLERS and REGRATORS.

ENREGISTREMENT, Fr. One of the principal divisions of the French finances, consisting of a registration duty on all deeds and documents, including notarial acts, judgments, contracts, sales, leases, indentures, wills, insurance policies, loans, articles of association, successions, transfers of property by gift or sale, etc. The duties are fixed or proportional—fixed for deeds not involving any pecuniary obligation; proportional when applied to acts stipulating a money consideration or a mutation of property. The registration dues produced in 1891 £27,600,000 independently of £6,640,000 for stamp duty. The proportional duty ranges from 12½ centimes to 10f. 80c. per 100 fr., the highest rate being for legacies or gifts from strangers in blood. The registration dues have been frequently criticised for their exaggeration. M. Leroy Beaulieu describes them in his *Traité de la Science des Finances*, with the stamp duty superadded, as frequently occurs, as a fiscal brigandage. He admits the utility of registration as a record of transactions in case of loss of the original deeds, but adds that the tax is only justifiable provided that it is of moderate amount, whereas as it is established in France it frequently becomes a confiscation of private fortunes by the state. The duty for gifts *inter vivos* is substantially the same as for successions after decease; that on sales of real estate is 6f. 60c. per 100 fr., and the effect of this heavy charge is to restrict the free circulation of such property. T. L.

[*Code annoté de l'enregistrement et du timbre, par* Dalloz et Vergé, Paris, 1878.—*Annuaire de l'administration de l'enregistrement*, P. Dupont.]

ENSENADA, ZENON DE SOMODEVILLA Y BENGOECHEA, Marquis de la (1702-1782), died in Medina del Campo. Belonging to a noble but poor family, he joined the naval service as commissary at the age of eighteen, and through his personal merit rapidly rose to the highest rank; he made an immense fortune and received his title of marquis in 1736 from the Infante Don Carlos, afterwards Charles III. of Spain, then king of the two Sicilies.

In 1743 he was appointed at the same time secretary of state for the navy, war, the Indies, and finance, although he expressly declared that "he did not know one word of the latter subject." He remained in power until his fall in 1754.

Ensenada was one of the most efficient finance ministers of Spain, and in 1751 he informed the king that "all the requirements of the state were met," an assertion which no Spanish minister had been able to make since the accession of the house of Austria in the 16th century. Under his enlightened administration, the ordinary revenue rose in a few years from 211 to 360 millions of *reales* (say from 21 to 36 millions sterling), although he contrived to alleviate the pressure of the enormous and vexatious taxation which oppressed the lower classes of the population. He put an end to the scandalous exactions of the farmers of the *rentas reales* (royal taxes), and he deprived them completely of collecting the *rentas provinciales*, which he put under the direct administration of the crown. Looking on precious metals as ordinary commodities, he allowed the exportation of silver, subject to a duty of 3½ per cent when drawn from Spain and of 6 per cent when drawn from America. He established *registros* or register ships, which were allowed to trade with America, independently of the *flota* and galleons. The flota was the annual fleet between Spain and her American colonies, the galleons were the

trading vessels escorted by the fleet. He formed the design of doing away with the *millones* or numerous minor excise taxes and tolls which weighed on every transaction of daily life, and of compensating the resulting deficiency by a better management of the customs and of the excise on salt and tobacco, and by establishing in Castile the *unica contribucion* or single tax, which was to be of 4 per cent on every species of income and property. It had been suggested for more than a century by the majority of Spanish economic writers and introduced into Catalonia in 1729. The preliminary survey or *catastro* was begun under his direction. Ensenada also abolished the internal duties, which interfered with the transport of corn from one province to another, and improved the means of internal communication. The royal navy, military ports, and arsenals were the object of his incessant and successful exertions, which were extended to almost every branch of government.

Ensenada's views and plans are explained in clear and straightforward language in the *Representaciones*, which he submitted to King Ferdinand VI., and which have been given in full for the first time in Don Antonio Villa's excellent biographical essay (*El Marques de Ensenada*, Madrid, 1878). One of them, written in 1751, will be found, although not quite complete, in the *Semanario Erudito* of Valladares (Madrid, 1788, vol. xii. p. 260), and in French in the French translation of Coxe's *Memoirs of Spain under the Bourbon Kings*, published by Andres Muriel in Paris in 1827 (*L'Espagne sous les rois de la Maison de Bourbon*, vol. iv. p. 282). Coxe gives a very favourable account of the internal administration of Ensenada (ch. liv.); which will be discussed in a special notice by Count Fernan Nuñez in his *Vida de Carlos III.*, now (1892) in the press. E. Ca.

ENTAIL, Law of. An entail is defined by Wharton (*Law Lexicon*) as "an estate settled with regard to the rule of its descent." The object of legislators in recognising entails has been to preserve estates undiminished in the hands of successive generations of the same family. This fixity of landed property was essential to feudalism, which based the political rights and duties as well as the social consideration of each individual on his relation to the land. Feudal law, therefore, regulated the disposition and devolution of land less with reference to the wishes of the owner or to the increase of the riches of the community, than with reference to the permanence and efficiency of the feudal organisation. Feelings of family pride deepened by feudal ideas contributed in turn to perpetuate the system of entails which had fostered them. But in the main the system of entails is a political institution.

In one form or another the system of entails may be traced in every country where feudalism established itself. In many of those countries it disappeared in the series of political changes which opened with the French Revolution. In England, however, it has survived, but with many modifications which have almost destroyed its identity. The English law relating to entails may be considered under three heads:

I. The doctrine of "estates" in land; II. the practice of making settlements of land; III. the modifications recently made in the law relating to land.

I. The unity of ownership, so prominent in Roman law, is almost lost in the feudal land law. In England land is not technically an object of private ownership, since the crown is supreme lord of all the land of England. Private persons can only have *estates*, *i.e.* interests more or less extensive in land. Many different persons may have estates or interests in the same piece of land. In freehold land there are three different estates: (*a*) estate in fee simple, (*b*) estate tail, (*c*) estate for life. Estate in fee simple or an estate *to a man and his heirs* is practically, although not technically, the same thing as full ownership. The tenant in fee simple has the fullest power of enjoying and disposing of the land. An estate tail is an estate to *a man and the heirs of his body*, *i.e.* to a man and his descendants. It may be an estate in tail male, *i.e.* descending only to male offspring, or an estate in tail female, *i.e.* descending only to female offspring, or an estate in tail special, *i.e.* descending only to offspring by a particular wife. But estates in tail special, are, in practice, very uncommon. When the offspring of the tenant in tail are all deceased, the estate tail is at an end and the land reverts to the grantor of the estate tail or to his representative. Thus an estate tail is a smaller interest in the land carved out of the fee simple estate. When there is an estate tail in one party there must be a reversion in fee in another party. An estate given to a man and the heirs of his body was at first regarded as a fee simple estate given conditionally upon the birth of issue. When the tenant had issue he acquired the right of alienating so as to defeat the rights of his heirs and also of the reversioner. By the statute De Donis Conditionalibus (13 Ed. I. c. 1), the power of alienation was entirely taken away. But within two centuries the lawyers invented methods of evading the statute, namely, the collusive actions known as Fines or Recoveries, whereby the tenant in tail could once more alienate his land, and defeat the rights of heirs and reversioners. By the Act for the Abolition of Fines and Recoveries (3 & 4 Will. IV. c. 74), these actions were superseded and the tenant in tail was enabled to attain the same object by simply executing a deed to that effect and having it enrolled in

a public office. Thus a tenant in tail can turn his estate tail into an estate in fee simple, and acquire virtually unrestricted ownership. An estate for life does not descend to offspring of the tenant, and cannot be enlarged so as to extinguish the rights of the reversioner. The position of the tenant for life at common law, and previously to certain modern statutes, was that of a usufructuary, who might enjoy the income, but might not change the character, much less impair the capital value, of the property. Thus he could not open mines, fell timber, or plough up old meadow land. Nor could he dispose of the land by way of gift, sale, or exchange, or lease it for more than a very limited period. He has been recently invested with very wide powers which will be explained later on.

II. The settlements of real estate in use date from the 17th century. When a landowner executes a settlement, he usually reserves a life estate to himself and gives an estate in tail to his eldest son with remainders in tail to his other sons. The eldest son, when born, acquires an estate in tail to take effect after his father's death. Such a future estate in tail cannot be barred without the consent of the tenant for life, who is called the protector. If the son held out till his father's death, he would become tenant in tail in possession, and then could bar the entail and get an estate in fee simple. But whilst his father lives he has nothing. Therefore, when he wants an establishment of his own, he has every reason to join with his father in making a new settlement similar to the old one. Thus the perpetuation of an estate in the same family is ensured. But the powers of a tenant for life at common law were not enough even for the proper management of an estate. In every well-drawn settlement there were appointed trustees, invested with powers of selling, exchanging, or leasing parts of the estate and of executing permanent improvements and charging the estate with the cost thereof. These powers the trustees were to exercise only with the consent of the tenant for life and with a view to the interest of all persons entitled under the settlement.

III. The modifications recently made in the law amount to bestowing upon the tenant for life powers similar to those bestowed upon the trustees by the settlement. A series of statutes of the present reign ending with the Settled Land Act of 1882 has annexed to the character of tenant for life the fullest powers of alienating the whole or parts of the estate, and of employing the proceeds either to buy other land or to pay off encumbrances on the fee simple, or to make permanent improvements, or to invest in certain specified securities. The tenant for life now combines two totally distinct characters: his former character of usufructuary, and his new character of trustee for all parties (himself included) who have an interest under the settlement. The settled estate is now to be regarded not so much as land, but as capital which happens to be invested in land, but may be invested otherwise at the discretion of the tenant for life. It remains to notice the objections made by economists against systems of entail generally, and to consider how far they are applicable to the system of entails now existing in England. These objections are principally two: I. entails check the improvement of land; II. entails restrict the transfer of land.

I. Entails check the improvement of land, and so lessen the wealth of the community; because the limited owner, as compared with the absolute owner, has (*a*) less motive to improve and (*b*) less power of improving. (*a*) The limited owner has less motive to improve his land, because he cannot dispose of it by sale or testament, and because the property will all go to one son, without affording a provision for the other children. Hence the limited owner is exposed to the temptation of desiring to apply the whole income of the land, either to his own purposes or to making a provision for daughters and younger sons. The English tenant for life cannot now be deprived of the power of selling his land, but he can touch only the income of the proceeds. This objection, therefore, is lessened rather than removed by recent legislation. (*b*) The limited owner lacks power to improve the land, because (i) his freedom of action has been narrowly regulated by law. (ii) His land may have been encumbered with charges created in favour of other members of his family, which lessen the net income; (iii) he has to make provision for children other than the heir, and is thus further straitened.

(i) The English tenant for life (see Settled Land Act, 1882), has now the legal right to do almost anything which the tenant in fee simple could do. His means for permanent improvement are now much greater than they were formerly, since he can sell part of his land in order to raise capital for improving the rest. He can do this without impoverishing his younger children, as the land which he sells would under the settlement have gone to the eldest son. (ii) The charges on the land to provide a jointure for the widow of the late tenant for life, and portions for the younger brothers and the sisters, are not affected by recent legislation. They form deductions from the gross income of the tenant for life, and lessen his means of improvement. (iii) The tenant for life still has to provide for his younger children, and may thus be tempted to set apart for them money which might with advantage be spent on improving the land. Recent legislation, therefore, whilst much enlarging the powers of improvement possessed by a tenant for life, has

not put him upon an equality in this respect with the tenant in fee simple.

II. It is said that a system of entail deprives landowners of (*a*) the power, (*b*) the motive to sell their land, and thus produces the following evils:—(i) the retention of land in the hands of persons who may be too impoverished to improve it; (ii) the exclusion of capital from being employed in the improvement of land which under a system of free sale would be purchased by capitalists; (iii) a restriction in the number of landowners, which diminishes the stability of society; and (iv) the removal of a strong motive to industry and economy in the labouring class, namely, the hope of becoming the owner of a piece of land.

That the power to sell is wanting, under a complete system of entail, is clear. That it is not wanting under the modified system of entail now existing in England is also clear. The motive to sell is still wanting to the tenant for life, in so far as he cannot appropriate the capital sum paid by the purchaser. But, since his income is much reduced by prior charges, and by the necessity of saving for children other than the heir, he has the strongest inducement to exchange an investment like land, which at the present day rarely pays more than 2 per cent, for investments like railway debentures, which pay 3 per cent. For the increase of return all goes to swell his income, the charges upon it remaining the same.

Under the Settled Land Act, a good deal of land has been sold in England. But hitherto land has been offered for sale mostly in large masses. For this there are several reasons:—(i) the influence of habit upon those who conduct the sale of land; (ii) the extravagant expenses connected with making out a title, which may be as heavy for a small piece of ground as for a large estate, and so act as a prohibitory tax on sales of small parcels; (iii) the present condition of the market for agricultural produce which represses any strong desire, in the English middle or lower class, to become freeholders. Energetic persons engaged in agriculture prefer to employ their capital in working a large farm rather than in buying a small one. Other small capitalists dislike so risky and unproductive an investment as land is at the present time. For all these reasons the estates which have come into the market have generally been bought undivided by wealthy men who can afford to place great sums in a sort of property which gives social consideration and out-of-door amusement, but yields only a paltry return in money. Thus the sales which have taken place in England are not believed to have much increased the number of landowners. In Wales, the tenants sometimes buy their farms when offered for sale. In Ireland the tenants are almost the only purchasers. In those countries the number of landowners is thus increasing. Moreover, as small owners rarely make family settlements, an increasing part of the land in Wales and Ireland is no longer subject to a system of entails, but is held by tenants in fee simple.

[For the legal learning of entails, the reader may consult Kenelm Digby's *History of the English Law of Real Property*.—Williams' *Law of Real Property*.—Goodeve, *Modern Law of Real Property*.—*The Land Laws*, by Sir Frederick Pollock (English Citizen Series), and many other text-books, together with the statutes and leading cases to which they make reference. Some interesting observations upon the rise of feudal systems of tenure, upon entails and primogeniture, will be found in Maine's *Ancient Law*, ch. vii., and *Early Law and Custom*, ch. ix.

Of the writers who have considered entails in their economic aspect, only a few can be mentioned here: Adam Smith, *Wealth of Nations*, bk. iii. ch. ii., who dwells on the injustice to younger children caused by entails, and asserts in terms much too absolute the improbability of a great proprietor executing great improvements.—M'Culloch, *Principles of Political Economy*, who justifies primogeniture by its effect in raising the fashionable standard of living, and so giving an impetus to the pursuit of wealth.—Mill, *Principles of Political Economy*, bk. v. ch. ix., who condemns entails partly as encouraging idleness and extravagance, partly on the grounds above explained at length.—Boyd-Kinnear, *Principles of Property in Land*.—Cliffe Leslie, *Land Systems and Industrial Economy*.—A volume of the Cobden Club Essays, entitled *Systems of Land Tenure in various Countries*.—George Brodrick, *English Land and Landlords* (also included in the Cobden Club Essays).—Shaw Lefevre, *English and Irish Land Questions*.—Arthur Arnold, *Free Land*.—Kay, *Free Trade in Land*, etc. None of these writers can be said to have fully considered the latest stage of the English law relating to this subject, and therefore many of their criticisms are partially obsolete.] F. C. M.

[Refer for other sides of the question to BEQUEST, POWER OF; MORCELLEMENT.]

ENTAIL (SCOTLAND) anciently and still sometimes called tailzie, from Lat. *talliatum*, cut off; any deed by which the ordinary legal course of succession is cut off and a fresh one substituted. The power to create an entail, previously doubtful in Scotland, was definitely given by the act 1685 c. 22. Every proprietor in fee since that date may grant a simple destination which merely names a succession of heirs, each one of whom may dispose of the estate as he pleases, and whose successor in the destination merely takes in default of such disposition, or he may protect the succession he prescribes by restrictive clauses forbidding any interference with the succession by selling, alienating, or disposing of the lands, contracting debt, or doing any deed whereby the succession might be frustrated. These clauses must be inserted in all title-deeds, and the entail with the judicial authority of the court of session

must be recorded. Every act or deed contravening these restrictions was declared null, and the real heir might, on contravention, take up the estate. In 1770 the heir in possession of entailed lands was allowed a modified power of leasing, and of charging against future heirs a proportion of the expense of improvements on the property by the Montgomery Act, 10 Geo. III. c. 51. Further relaxations were granted in 1824 by the Aberdeen Act, 5 Geo. IV. c. 87, enabling an heir of entail in possession to make limited provisions in favour of a husband or wife or children, which were payable by the successors out of the yearly rents or proceeds, but did not affect the fee of the entailed estates; by the Rutherfurd Act 1848 the fee may now be charged in favour of younger children. But no powers either under the Montgomery Act or the Aberdeen Act could be exercised so as to deprive the successors of more than two-thirds of the free yearly rents. In 1836 the Rosebery Act, 6 & 7 Will. IV. c. 42, gave the heir in possession a limited power to sell parts of the estate for the entailer's debts under the authority of the court of session. In 1848 the Rutherfurd Act, 11 & 12 Vict. c. 36, first conferred on an heir of entail in possession the power to disentail. Elaborate and intricate provisions were made by the Rutherfurd Act distinguishing between entails made before and after its date, and heirs in possession who were born before or after that date, with regard to the consents required to disentail. Broadly speaking, if the heir in possession was born before the act and the entail was made before the act, he requires the consent of all the heirs if less than three, or of the next three heirs, or of the heir apparent and two of the heirs who would, including the heir apparent, be successively heirs apparent, provided the nearest heir be twenty-one years old; or if such consents be refused by any heir, even, since 1882, the nearest heir for the time, the court may assess the value of the heir's interest and dispense with his consent on the payment to him of the value of his interest, or sufficient security for such payment. The next heir in succession thus receives a lump sum for his expectancy instead of getting, as in England, the interest of the purchase money if and when he succeeds in lieu of his interest in the land. The distinction between old and new entails is now removed. Other powers now possessed by heirs in possession of entailed estates are—to sell under the same conditions as those of disentailing, to excamb, or exchange, any portion of the entailed estate for an equivalent in contiguous lands, without any consent, taking or giving not more than £200 for equality of exchange, to grant feus and leases, to charge improvements, and to charge family provisions in favour of the wives, husbands, or children of heirs of entail in possession.

[Rankine, *Land Ownership*, chap. xxxiv.—Bell's *Principles*, § 1716, *et seq.*—Duff on *Entails*.—Duncan on *Entail Procedure*.] J. W. B. I.

ENTREPÔTS. A term applied in France and other countries to places of deposit for goods, analogous to the bonded warehouses in the ports and trade centres of the British Empire. In them articles subject to custom or excise duties may be placed, until time of payment of the imposts to which they are liable on delivery for consumption, or until removal for the convenience of trade, or exportation to foreign countries. In the latter case the importers are relieved altogether from the necessity of the revenue payments, and in the others this outlay need not be incurred until such time as the consumers are ready for their use. In this country, where an immense transit trade centralises, where the operations are often of great magnitude, and the few duties retained are great in proportion to the prime cost of the articles, the facilities afforded by this system permit of much trade being carried on which would otherwise be cramped or altogether prevented. The use of capital is economised, and excessive fluctuations in price are checked by the large stocks it is possible to retain on hand, as well as the speed with which supplies may be transferred to the consumers, at a lessened cost for time and money expended. On the other hand, the care bestowed upon their safe custody, and the supervision of the necessary operations, such as sorting, vatting, and other processes, constitutes a charge upon the revenue for the benefit of the consumer or trader.

These observations apply with much greater force to the "entrepôts" established in France and elsewhere, because of the multitude of articles which have, for the security of the revenue, to be taken in charge, at a considerable cost if the supervision be effectual, or of risk if it be insufficient. There, too, it is not only the national revenue which, as here, has to be safeguarded, but also the municipal tolls in the shape of *octroi*. It is mainly this which has led to the division of these *entrepôts* into "*réels*" where the goods are actually kept in custody, and "*fictifs*," nominal or conventional, where the owner has them in his own charge, but is answerable for the payment of the duties to which they are liable. See also BONDED WAREHOUSES.

[*Nouveau Dictionnaire d'Économie Politique*, 1891, vol. i. p. 898; and *Dictionnaire des Finances*, 1889, vol. ii. p. 118.] S. BO.

ENTREPRENEUR. An alternative name for the employer (see EMPLOYERS and EMPLOYED). Adam Smith (*Wealth of Nations*, bk. i. ch. vi.) used the term "undertaker," and J. S. Mill (*Political Economy*, bk. ii. ch. xv. § 1 footnote), expresses his regret that "this word, in this sense, is not familiar to an English ear." He adds that "French political economists enjoy a great advantage in being able to

speak currently of 'les profits de l'entrepreneur'"; and it seems that, partly perhaps in consequence of this, political economy has in France avoided the mistake committed by some of the older English economists in failing to distinguish the functions of the employer and his share in the produce of industry as such from the functions and share of the capitalist as such. General F. A. Walker (*Wages Question*, ch. xiv.) echoes Mill's regret that "we have not a single English word which exactly fits the person who performs" the office of the employer in modern industry. "The word undertaker," he remarks, "at one time had very much this extent," and so had the word "adventurer." But they have since acquired other senses. The "French word entrepreneur," however, he adds, "has very nearly the desired significance, and it may be that the exigencies of politico-economical reasoning will yet lead to its being naturalised among us." L. L. P.

[See also FRENCH SCHOOL.]

ENTRY, BILL OF. The name given to an office within the custom house at London, and other ports of the United Kingdom, from which there issue daily lists of ships arriving and sailing, with accounts of their cargoes, deliveries from bonded warehouses, and other particulars of considerable interest to the mercantile community. In addition to these printed publications, manuscript accounts are rendered to those who may desire such special information as can be gleaned from the customs records, or may be compiled from the various documents and forms supplied for customs purposes. The printed lists are sold to subscribers, and the special returns are paid for in proportion to their length or the trouble involved in their preparation, for the exclusive use of those at whose expense they are compiled.

The history of this arrangement is somewhat peculiar; it is, or was until recently, a remnant of the old times when special privileges were conferred on favoured individuals for their pecuniary advantage, or in return for payments made by them. One of these acquired, in 1660, by letters patent, the exclusive right of access to all official documents connected with the customs reports and entries, and of obtaining and publishing any portion of the information they furnished. Ultimately, in 1817, this right became vested in the Customs Annuity and Benevolent Fund—a mutual insurance fund supported by payments of the officers themselves, supplemented by the profits of the bill of entry, and devoted to the sole benefit of their widows and orphans. Through the energy and wisdom of the directors this had grown to be a valuable business, which, at the expiration of the crown patent, in 1880, the treasury appropriated to its own benefit, and it is now profitably carried on by the commissioners of customs. The public funds thus became possessors of a private property created by independent exertions on behalf of a charitable purpose.

The existence of such a source of information is of great advantage to merchants, statisticians, traders, and shipowners, by enabling them to obtain correct knowledge on points too minute, too varied, and too numerous to be set forth in the periodical returns of trade and navigation laid before parliament.

[*Reports of Commissioners of Customs.—Bill of Entry*, Journals A and B.—Bourne, *Royal Statistical Society's Journal*, vol. xxxv. pp. 214-215, 1872.] S. BO.

ENTRY, RIGHT OF. The payment of the rent, and the performance of the covenants in a lease, are usually secured by a "condition or proviso for re-entry," which enables the landlord on non-payment of the rent or non-performance of the covenants, to take possession of the premises let, as if no lease had been made. The courts of equity and the legislature have, in a certain measure, succeeded in preventing landlords from making any oppressive use of this power. Thus a tenant who has been ejected in consequence of the non-payment of rent may be reinstated if he pays the rent and costs within six months after the execution of the judgment. As regards the non-performance of covenants, not relating to the payment of rent, and not belonging to one of the excepted classes referred to below, a right of re-entry or forfeiture is not enforceable unless the tenant has failed to comply with the terms of a notice specifying the breach and requiring him to remedy it and to pay compensation in money in respect of it (Conveyancing Act, 1881, § 14). In such cases forfeiture is therefore impossible, except when the breach is wilful and persistent. The rule just mentioned does not, however, extend to covenants against assigning and underletting, and the omission to obtain the landlord's consent to an assignment or underlease of the premises may lead to the forfeiture of the lease although it was due to forgetfulness on the part of the tenant's solicitor, and although the landlord would not, under the circumstances, have withheld his consent if asked for (Barrow *v.* Isaacs [1891], i.; Queen's Bench, 417). The attempts to induce the legislature to enact some provisions more favourable to tenants in respect of such covenants have proved abortive, and their only result has been § 3 of the Conveyancing Act of 1892, which provides that in the absence of an express agreement to the contrary, a landlord shall not make his consent to an assignment or underletting dependent on the payment of a sum of money beyond a reasonable amount in respect of expenses. Conditions for forfeiture on the bankruptcy of the tenant, or on the taking in execution of the tenant's interest, were also originally excepted from the rule granting relief

as stated above; but it is now provided by §§ 2 and 3 of the Conveyancing Act of 1892 that, subject to certain exceptions, a lease is not to be forfeited in such a case, unless the tenant's interest remains unsold within a year after the date of the bankruptcy or of the taking in execution. The practical importance of the exception is materially reduced by this alteration. E. S.

ENUMERATED COMMODITIES. This term has two distinct meanings, according as it is applied: (1) to the European trade of England; (2) to the colonial trade of England. In both cases it refers to commodities which were originally enumerated in the Navigation Act of 1660, but which were altered from time to time by subsequent legislation.

(1) With regard to the European trade, the first Navigation Act in 1651 forbade the importation of European products except in British ships, or ships of the country where the goods were produced, or from which they could only be, or most usually were, exported. The second Navigation Act in 1660, while adopting most of the provisions of 1651, modified this particular article. It renewed the restriction about importation to (1) all Russian and Turkish products, and (2) certain enumerated commodities: viz. timber, salt, pitch, tar, rosin, hemp and flax, raisins, figs, prunes, olive oils, all kinds of corn or grain, sugar or potashes, wines, vinegar and spirits (12 Car. II. c. 18, § 8). All other European goods could be imported in any vessel. Two years later a further restriction was made, and it was provided that certain goods should not be imported into England in any ship whatever from Germany, Holland, and the Spanish Netherlands. This second list of enumerated commodities included all wines other than Rhenish, spices, grocery, tobacco, potashes, pitch, tar, salt, resin, timber, and olive oil (13 & 14 Car. II. c. 11, § 23). Changes in the enumeration were made at intervals in obedience to momentary pressure or changing interests. But no great relaxation of the system of 1660 and 1662 was made till 1822, when the importation of enumerated goods was extended to ships of the country or place from which they were imported; and at the same time the exceptional restrictions upon trade with Germany, the Netherlands, Russia, and Turkey, were abolished (3 Geo. IV. c. 43, § 6). The distinction between enumerated and non-enumerated commodities disappears altogether after the repeal of the Navigation Act in 1849.

(2) As applied to the colonial trade, the term enumerated commodities had an equally important significance. The act of 1660 limited all trade, both of export and import, with British plantations in Asia, Africa, or America to British ships. But it added a distinction between those colonial products which could only be carried to England and those which might be carried, still in British ships, to countries other than England. The former, which are the enumerated commodities in this connection, naturally included all those commodities which England did not produce herself, or did not produce in sufficient quantity for her needs. The non-enumerated commodities, which included all those goods in which the home producers dreaded colonial rivalry, were originally allowed to choose any market outside England, but were ultimately limited to countries south of Cape Finisterre. The motive for this restriction was to prevent the manufacturing rivals of England from obtaining raw materials from our colonies. These and other oppressive regulations with regard to colonial trade were undoubtedly a chief cause of the revolt in 1774 of the American colonies, whose success dealt a fatal blow at the policy of the navigation acts, and in 1796 the United States were allowed to carry their goods in their own ships to Great Britain. In 1822, the distinction of enumerated commodities among colonial products became obsolete, and the colonies were allowed to export not only their own produce, but their imports from other countries, to any place in Europe, Africa, or America, either in British ships or in ships of the country to which they were exported (3 Geo. IV. c. 44, § 4, and c. 45, § 2).

[M'Culloch's edition of Adam Smith, note xi., and Leone Levi, *History of British Commerce*, pt. iii. ch. ii., give a clear account of the enumerated commodities in European trade. For the term as applied to colonial products see Adam Smith, *Wealth of Nations*, bk. iv. ch. vii. pt. 2.] R. L.

ÉPHÉMÉRIDES. About the middle of the 18th century proposals for reform both in finance and agriculture began to interest the French public. In 1751 a special review, the *Journal œconomique ou Mémoires, Notes et Avis sur l'agriculture, les arts, et le commerce*, was established in order to deal with these subjects. This journal contained essays both on practical and theoretical questions; the latter presenting restrictive as well as liberal views. Recommendations of free-trade in corn, and translations of the works of English economists, such as Tucker and Hume, strengthened the position of the French school of free trade who became afterwards the physiocrats. The *Gazette du Commerce*, established in April 1763, admitted the contributions of Le Trosne and St. Péravy as well as those of their opponents. The government, favouring these discussions on the corn policy, bought up this newspaper and connected with the *Gazette du Commerce* a special review, the *Journal de l'Agriculture, du Commerce, et des Finances* (1764). This *Journal* soon passed into the sole possession of the physiocrats and was their organ from September 1765 to November 1766. It ceased to appear in 1783.

Among the periodicals treating on subjects akin to those dealt with by the *Journal de l'Agriculture* was a weekly paper, the *Éphémérides du Citoyen ou chronique de l'esprit national* (6 vols. 12mo), established in December 1765, after the model of Addison's *Spectator*, by the Abbé Baudeau. He intended through its means to defend the interests of "humanism" by pleading for the abolition of slavery in the colonies. He, however, employed his organ to attack the Economists, professing for his own part mercantilist views and a detestation of free-trade. Le Trosne replied in the *Journal de l'Agriculture* of March 1766 to Baudeau; the latter answered, but soon desisted, for, after reading but half a page of Le Trosne's private observations on the futility of the "balance of trade," he abandoned his intention of continuing these polemics. Shortly after this the Marquis of Mirabeau brought Baudeau fully to agree with the physiocratic school. This event, *le saut de la science*, proved very important for the progress of the Economists. For the *Éphémérides* was ready to receive their contributions just at the time that the editor of the *Journal de l'Agriculture* put difficulties in their way (December 1766). After January 1767 the new organ appeared as a monthly review under the title *Éphémérides du Citoyen, ou Bibliothèque raisonnée des Sciences morales et politiques*. Baudeau remained its editor till May 1768, when his place was taken by Du Pont de Nemours. The most eminent writers of the physiocratic school contributed to this journal. Among the most interesting articles are the following:—Quesnay's "Essays on the Government of Peru" (1767, t. i.); he declares that the system of tithes in Peru proves its ancient government to have been the most prosperous and the fairest in the world.—On "Despotism in China" *signed* M.A. (1767, t. iii., iv., v., vi.), in which he describes Chinese political institutions as exhibiting "an order of essential stability," besides minor articles (1767, t. x., 1768, t. ii.); cp. Oncken's edition of Quesnay's *Œuvres*, pp. 660-692.—Mirabeau's "Letters on the Legal Order." In these he undertakes to give an historical account of the causes of economic legislation, and the study of the "physical" causes leading towards its reform (1767, t. ix., x., xi., xii.; 1768, t. i. to vi., viii. to xii.; 1769, t. i. to iii., v.).—On the economic education of girls; insisting upon the necessity of instructing them in the science of the natural social order (1768, t. iii.).—Dialogues between a child and its teacher, on the use of science to princes (1769, t. vi. to ix.).—Historical eulogies on Sully, whose merits as statesman and as a predecessor of the physiocratic school are dilated on (1770, t. iii. to xii.; 1771, t. i. to xi.).—Baudeau wrote "Avis au peuple sur son premier besoin," treating of a free trade in corn, the best manner of baking bread, and on its price (1768, t. i., ii., iv., v.). "Avis aux honnêtes gens, qui veulent bien faire," dealing with the effects of the bad harvest of 1769, and the methods pursued to cheapen the price of bread (1768, t. x., xi.; 1769, t. x.). An Explanation of the Tableau Économique to Madame de —— ("political economy made easy") (1767, t. xi., xii.; 1768, t. viii.; 1770, t. ii.). On luxury, its destructive effects on agriculture (1767, t. i. to iii.). "On the actual state of Poland," on the causes leading to its destruction by the Moscow policy (1770, t. ii. to iv., xi.; 1771, t. i., iii. to v.).—There are also some observations by Butré respecting agriculture on a large and a small scale, illustrated by accounts of farms and estates cultivated on the Métayer principle, and proving the unprofitable character of the latter (1767, t. ix., xi., xii.).—Among Du Pont's contributions his "Notice abrégée" containing the first sketch of a history of economics, particularly deserves mention (1769, t. i. to iv., vi., ix.; 1770, t. i. *avertissement*).—Among the latest important articles were Turgot's "Réflexions sur la formation et la distribution des richesses" (published in 1769, t. xi., xii., and 1770, t. i., but written in November 1766) and the "Abrégé de l'économie politique" by the Margrave of Baden-Durlach (1772, t. i.).—Minor articles were written by Roubaud, St. Péravy, Le Trosne, Morellet, Franklin.—Criticisms are also included directed against Linguet (1767, t. iii.; 1770, t. i.), who, in his *Théorie des lois civiles*, 1767, had taken no notice of the physiocratic conception of natural law, and in accordance with Hobbeism had declared that "l'esprit des lois—c'est la propriété"; Forbonnais, who is censured on account of his attacks against the physiocratic theory that trade was a simple exchange and not affording a "produit net" (1767, t. vi., ix.);—against the attempted refutation of their doctrine by Graslin, the author of an *Essai sur la Richesse et sur l'Impôt* (1768, vol. ii., iii., x.);—against the *Doutes adressés aux philosophes économistes* by Mably, who had from the communistic standpoint attacked the foundation of this system, the right of private property (1768, t. ii., iii., v. to viii.; 1769, t. v.).—The *Éléments généraux de Police* of Justi (1769, French edition), is shown to be a work of very shallow and contradictory views, which maintains the wisdom of grandmotherly regulations (1769, t. ii., iii.); Galiani's *Dialogues sur le Commerce des Bleds*, one of the wittiest productions of economic literature, is described as "un ouvrage charmant, qui renferme les plus jolis lazzis du monde" (1769, t. xi., xii.); Baudeau also criticised Beardé de L'Abbaye's *Recherches sur les moyens de supprimer les impôts, précédées de l'examen de la nouvelle Science*, 1770, a criticism directed against the single-tax theory (1770, t. vii.); and Pinto the mercantilist "Pindar of the stock exchange" (*Traité de la circulation et du*

crédit, 1771), (1771, t. x.). Besides these articles the review contained a chronicle of public events considered to be symptoms of the progress of the doctrine of the physiocrats: this includes the utterances of the French *parlements* in the provinces on the corn-trade; the emancipation of serfs in Denmark; the encouragement given publicly to agriculture by the heir-apparent of the crown (Louis XV. being king), the Dauphin Louis, who on the 15th June 1768 himself held the plough at Versailles (1768, t. vii.; 1769, t. viii.). Louis was followed in this by the Emperor Joseph II., who drove a peasant's plough, the 19th August 1769, at Slavikovitz in Moravia (1770, t. xii.). These events have been commented on by Diderot in a review which he wrote about the *Éphémérides*, in the following words: "Plough, plough as much as you will; I promise you that as long as matters stand on their present footing, the wheatsheaf growing under your royal hands will not nourish your peasants" (*Œuvres*, t. iv. p. 85). An account is given of an experiment made by the Marquis of Mirabeau and his son at Aigueperce in Limousin, to form a *bureau de conciliation*, composed of prud'hommes elected by the parishes, in order to avoid the frequency of lawsuits. The experiment was imitated by the Marquis de Sérent at Malestroit in Bretagne; it was a precursor of the modern boards of conciliation (1771, t. iii. p. 110-194; t. vii. p. 183, cp. Loménie, *Les Mirabeau*, t. ii. p. 79; t. iii. p. 59). This part of the *Éphémérides* contains some statements about financial reforms in foreign countries, especially of the experiment of a "single tax" on land (*impôt unique*) in Baden (1771, t. iv., v., vi., vii.), with the performance of which Schlettwein was entrusted in the village of Dietlingen (1770) (see Impôt Unique).

The *Éphémérides* was suppressed by the Controller-Général, the Abbé Terray, in November 1772 (t. iii. is the last of the sixty-three volumes of this series). The editors sought in vain to connect themselves with other journals. It is characteristic of him that, after being forbidden to publish the *Éphémérides* in 1772, Du Pont continued to work in their line by issuing a fortnightly *Correspondance littéraire et politique* in MS., and to send transcripts to the monarchs interested in the physiocratic doctrines (cp. *Carl Friedrichs von Baden brieflicher Verkehr mit Mirabeau und Du Pont*, edited by Carl Knies, Heidelberg, 1892, vol. i. p. 151-152; cp. also vol. i. pp. 21, 56, 57, 61; vol. ii. p. 109 *seq.*, 197). After a three years' silence Turgot, who had become minister, enabled the Abbé Baudeau to resuscitate the review. It thus became almost an official organ intended to explain and justify Turgot's politics. In December 1774 appeared the first part of these *Nouvelles Éphémérides Économiques, ou Bibliothèque raisonnée de l'Histoire et de la Politique* (18 vols., 12 in 1775, 6 in 1776). The *Journal de l'Agriculture* too became again an organ of the physiocratic school under the direction of Abbé Roubaud. Among the contents of the *Nouvelles Éphémérides*, the following are remarkable: "Letters and Memoirs written to a Magistrate of the Paris Parliament on the Arrêt of September 13th, 1774," by Baudeau (1775, t. i.) This is an historical and theoretical interpretation of the causes which lead on to Turgot's celebrated ordinance, by which the free circulation of corn in the provinces of France was established and its free exportation abroad was made the object of future decisions of the government (see Turgot, *Œuvres*, 1844, t. ii. p. 169).—Bigot de Ste. Croix's posthumous *Essay on the Abuse of Exclusive Privileges, on the Freedom of Trade and Industry* (1775, t. i. iii.), is a literary forerunner of the abolition of corporations by Turgot.—The third part of vol. i. (1775) opens with an *Éloge funèbre de M. François Quesnay*, delivered by the Marquis de Mirabeau four days after the master's death, the 20th December 1774. T. v. of the same year contains an historical eulogium of Quesnay by the Count d'Albon.—Baudeau again contributes inquiries and historical memoirs on the finances of France from Louis XII. to Louis XV. (1775, t. ii., iii.), and a refutation of an author who had written in defence of the Corvée system.—The Marquis de Pezay writes an essay on *The Fortification of the Military Frontiers of Alsace*.—Fréville inserts a translation of extracts from A. Young's *Eastern Tour through England* (1775, t. ii. iii.), and *On the Present State of British Commerce* (1775, t. viii.) Turgot's ordinance, which allows again leases of twenty-nine years' duration (January 2, 1775) is published as a memorable event (t. ii.).—The general aspects of the school are dealt with in a *Letter on the Economists* (1775, t. iii.); in this the contrast between formal liberty, adhered to by the economists, is contrasted with the postulate of economic equality and the latter declared unnatural. Still the fundamental principle of the economists is declared to be the truth, that "the particular happiness of individuals can only be reasonably and firmly established upon the basis of the general happiness of the whole race" (1775, t. iii. p. 59). The philosophical and political ideas of the physiocratic school are embodied in a *Memoir on Public Instruction* by Mercier de la Rivière (1775, t. ix. x.), and in Roubaud's *Political Reflections on America* (1776, t. iii.), which are full of sympathy for separation of the colonies from England.—Finances are dealt with in *Reflections of a Citizen on the financial administration of great cities, and especially of the City of Lyons* (t. iv.), written to oppose indirect local taxation; they exhibit the destructive tendency of the physiocratic doctrine for local life by subjecting it to central government. An essay

is directed against the heavy taxation of tanneries after 1759 (1775, t. iv., also 1776, t. iv.), and of salt, spirituous liquors and tobacco; this essay, *Le Profit du Peuple et le Profit du Roi*, had been previously written in 1769 by Baudeau, and twelve copies only printed, 1775, t. iv.; cp. a letter to Baudeau on that subject in 1775, t. x., extracted from *Nouvelles de la République des Lettres* (Lausanne, vol. i. 1775); cp. also the criticisms on Baudeau's essay contained in *Nouv. Éph.*, 1776, t. ii. p. 70, taken from the *Journal Encyclopédique* of 1775, vol. viii. Other articles deal with the suppression of the duty on fish coming to Paris during Easter-time (1776, t. iv., and Turgot, *Œuvres*, ed. Daire, vol. ii. p. 402), and the suppression of a series of duties in Russia by Catherine II. (17th (28th) March 1775, t. vii.). Historical details are given relative to duties laid on eggs, butter, cheese (1776, t. i.), on wines coming to Paris (1775, t. v.), and likewise on such imports within Champagne (1776, t. iii.). A new method of levying the duty on brandy is described, and the weight of the impost of 1771 on the manufacture of paper, 33 per cent on the cheapest sorts, is complained of (1776, t. v.). A document, proving the antiquity of complaints on French finances, from the year 1415, is published in 1775, t. xi. An essay of Baudeau, written in 1768 was published for the first time in 1776, t. i., on the occasion of the abolition of the "Caisse de Poissy" on the 9th February 1776 (see Turgot, *Œuvres*, vol. ii. p. 316); this institution since 1743 had farmed the exclusive market right of meat for Paris to a company, which was entitled by it to take a duty of 6 per cent upon all sales of meat at Sceaux and at Poissy. Baudeau's article produced great irritation among the partners in the company, who brought an action against its author; the text of the latter is inserted in *Nouv. Éph.*, 1776, t. vi. This volume also contains a "memoir on the taxes raised in unforeseen cases ('affaires extraordinaires') in France during the war of 1756-1763." They amounted to no less than 1,105,227,761 livres.

The free-trade movement is represented by a memoir written by M. Belly on the decline of the trade of Leghorn in consequence of the number of charges (1775, t. vi.); the same author contributes an essay on the state of commerce and manufactures in Italy (t. vii.) The obstacles to the shipping trade in the Rhone (1775, t. ix., t. xi.), and to the exportation of iron (1776, t. iv.), are complained of, and a petition of the Guyenne chamber of commerce for free trade to the East Indies is published (1776, t. iv.).

Among the events favourable to the economists the following are worth mention:—The correspondence of King Gustavus of Sweden (when a youth) with Count Tessein and Scheffer, published by Col. St. Maurice de St. Leu (1775, t. iv., 1776, t. ii.); the foundation of a "Société d'émulation" in Paris after the model of the London "Society for encouraging arts and manufactures," the rules of which are contained in 1775, t. ix. The economic reforms introduced in Tuscany by the Grand-duke Leopold, and enumerated in *Saggi di Agricoltura; di un Paroco Siamminiatese*, Florence 1775, are favourably reported on. Among these the erection of a kind of co-operative store at Florence for the sale of all sorts of goods deserves mention; upon the abolition of corporations it was imitated at Paris by the Bureau de Correspondance Générale, March 1776 (*N. Éph.* 1776, t. iii. p. 177). The publication of *Ephemeriden der Menschheit* by Isaac Iselin at Basel is chronicled with enthusiasm by Baudeau.

The literary movement is represented by a lengthy criticism of Necker's book, *Sur le Commerce et la Législation des Grains*. It marks the distinct contrast between social protectionism and the spirit of individual property; the contrast between landed and moneyed "capitalism." (*Eclaircissements demandés à M. N——, au nom des Propriétaires Fonciers et des Cultivateurs français* 1775, t. v. 65-168, t. vii. 89-167, t. viii. 93-139, and Baudeau's letters to M. N. on his "Éloge de Colbert," held at the French academy in 1774, t. ix. pp. 44-106). A letter directed against the free-trade theory of the economists by the Count de Magnières (t. xii.) is refuted by M. de R——(?) in 1776, t. ii.—A review of the book of Condillac, *Sur le Commerce et le Gouvernement* (1776, t. iv. pp. 109-130, t. v. pp. 131-147), written by Baudeau, treats this author as a heretic from the orthodox school. "The true economists are easy to characterise by one feature which everybody understands. They recognise one master (the doctor Quesnay), one doctrine (that contained in the *Philosophie rurale* and the *Analyse Économique*), classical text-books (the *Physiocratie*), and technical terms . . . precisely like the old scholars of China" (p. iii.).

The *Nouvelles Éphémérides* ceased in June 1776, on the dismissal of Turgot from the ministry (12th May 1776), after which date the only organ of the physiocrats was the *Journal de l'Agriculture*, which Roubaud had reconstituted in 1775; but this periodical also came to an end in 1783. Baudeau made a last effort to re-establish his former review, for there are at the Bibliothèque Nationale at Paris three volumes of *Nouvelles Éphémérides économiques* of 1788 (Paris, Onfroi et Royer) extant. These contain attacks against Colbert and Necker, historical remarks on Sully; fundamental questions of economics, inquiries into the origin of taxation among the Greeks and Romans, and on the influence of morals on agriculture by the Marquis de P——(?).

In 1789 appeared *Éphémérides de l'Humanité ou bibliothèque raisonnée des sciences morales.* Tome premier (and last), aux dépens de la Société. This is probably the last utterance of this kind made by the Économistes, and is entirely written by A. F. J. Fréville. It begins with a lengthy exposition of their doctrines (pp. 1-68), contains articles on the principles of taxation (pp. 108-132), and their application to the Austro-Belgian provinces (pp. 337-394); others against Necker's theory of the circulation of riches, as enunciated in his book, *De l'administration des finances en France*, t. iii. ch. xxi. (pp. 284-336). The greater part of the volume deals, however, with political questions; it is filled up with polemics against the champions of absolutism, such as Count Windischgraetz (pp. 68-108, 133-158, 265-284), and with observations on the convocation of the *États généraux* (pp. 159-264). It closes with a philosophical letter on Montesquieu's *Esprit des lois* (pp. 395-400). Constitutional questions being at this time the most prominent ones, and economic problems standing more in the background, this publication ceased with its first volume. The *Journal d'Économie publique, de Morale et de Politique*, edited by Roederer and Morellet appeared August 1796.

The *Éphémérides* thus played an important part in the literary life of economics during the 18th century. As an example it may be mentioned that Lavoisier, in his introductory remarks to his statistics *De la Richesse territoriale du Royaume de France*, printed by order of the national assembly in 1791, and reprinted in 1797 in the *Journal d'Économie publique*, edited by Roederer, mentions Quesnay as having reached the same conclusions as himself, and notes the fact that Quesnay's statistics were the occasion of Voltaire's *L'Homme aux quarante écus.* The *Éphémérides* formed a scientific economic review written with a distinct practical tendency, namely, to struggle for free trade, free enterprise, and equal taxation; to combat the crushing burdens imposed by commercial restraints, industrial monopoly, arbitrary assessment, and lavish public expenditure. Being in the exclusive possession of a "school," they preserved, in spite of the variety of their contents, a systematic uniformity in method and policy. Besides exhibiting the first example of journalism made subservient to social science, they are the richest source for the history of contemporary economic life, and the growth of modern ideas, not only in France but even in eastern Europe.

Their immediate influence in France was rather short-lived, and after the outbreak of the Revolution they became so entirely forgotten as to enable the tale to be spread that they had been written in order to help Voltaire, Servan, and Bovier to establish a democratic revolution (Abbé Barruel, *Mémoires pour servir à l'histoire du Jacobinisme*, Londres 1797, 2nd pt. pp. 210-215). The interest, however, which the *Éphémérides* excited abroad was a far-reaching one; and by inducing monarchs, statesmen, and landlords to introduce agricultural and financial reforms, to alleviate feudal burdens and commercial restraints, they benefited even the lower classes in Sweden, Denmark, Baden, Austria, and Tuscany. Thus they helped towards transplanting economic progress eastwards both in thought and practice.

[An account of the origin of this review is given in the *Journal de l'Agriculture*, March 1766; in the *Éphémérides*, 1769, t. iv., v.; in the *Dictionnaire de l'Économie Politique*, under the heading "Éphémérides du Citoyen"; in the *Nouveau Dictionnaire d'Économie Politique* the information will be found under the heading "Baudeau." See also Loménie, *Les Mirabeau*, 1879, t. ii. p. 251. Levallois, *Rousseau, ses amis et ses ennemis*, 1865, t. ii. p. 385.—G. Schelle, *Du Pont de Nemours et l'école physiocratique*, 1888, pp. 43, 99, 125, 144, 211, 408. In Germany Mauvillon complained in 1775 of the want of a German economic review of the value of the *Éphémérides* (*Untersuchungen über die Natur und den Ursprung der Reichtümer und ihrer Vertheilung*, a translation of Turgot); only the next year they were imitated by Isaac Iselin, the editor of *Ephemeriden der Menschheit oder Bibliothek der Sittenlehre und der Politik*, Leipzig, 1776-1782. The only known complete set of the *Nouvelles Éphémérides* belongs to the Giessen University Library (pressmark B. 800),—the use of it was most liberally allowed to the writer of this article, in order to enable him to draw up the above statement.] S. B.

(See also BAUDEAU, DU PONT DE NEMOURS, PHYSIOCRATS, QUESNAY, and TURGOT.)

ÉPICES. The French judges down to the revolution were paid partly by salaries (*gages*), and partly by the payments of suitors (*épices*) The latter were originally voluntary presents in kind, and several of the early kings tried to limit their amount. But in the 15th century the *épices* gradually became compulsory and were paid in money. These payments for justice constituted a considerable indirect tax upon the people, and gave rise to many abuses. It was the interest of the judges to spin out cases so as to increase the charges upon suitors, and thus justice became dilatory as well as expensive. On several occasions the states-general, and even the parliament itself, petitioned for the increase of the judges' salaries, in order that the *épices* might be abolished or at least diminished. But the French treasury was never in a condition to adopt this very simple remedy, and the abuse of *épices* lasted till the constituent assembly abolished the old parliaments, and made justice gratuitous.

[Adam Smith, *Wealth of Nations*, bk. v. ch. ii. pt. 2.] R. L.

EQUALISATION OF INTERNATIONAL DEMAND. The equation of international demand is a particular case "of the more general

law of VALUE (*q.v.*) . . . called the equation of supply and demand," but presents some peculiarities which almost justify Mill (*Principles of Political Economy*, bk. iii. ch. 18, § 4), in describing it as "an *extension*" of that law. These are: the absence of (1) a single market—which allows the substitution of price for value in discussing domestic trade, and (2) of the regulator given by cost of production (see INTERNATIONAL TRADE). An analysis of the forces tending to bring about equilibrium of supply and demand, always important, is here essential.

On the simplest supposition—that of two countries trading in two commodities—each article is necessarily the price of the other, and the equation of reciprocal demand is the evident outcome of the bargaining on each side, carried to the point at which no additional advantage can be gained. When several commodities enter into foreign trade the equation is established in substantially the same way. Values are so arranged that the sum of exports is *equivalent* to that of imports, since, were it otherwise, readjustment of quantities, of values, or of both, would be necessary. In the actual complications of foreign trade carried on between many countries the law takes a somewhat different form. "It may be concisely stated as follows. The produce of a country exchanges for the produce of other countries at such values as are required, in order that the whole of her exports may exactly pay for the whole of her imports" (Mill, *Principles*, bk. iii. ch. 18, § 4). Though each country must export to an amount equal to what it imports, its trade with any one country may mainly or even exclusively be import or export, an excess on either side being compensated by a corresponding deficit in the trade with other countries.

The statement of the equation of international demand has to be further modified so as to include the effect of the various elements of *indebtedness*. All debts due to a country act like an effectual demand created by the same value of exports. The principal heads are: (1) interest on foreign loans or on capital invested abroad; (2) freightage for shipping services; (3) such items as (*a*) tribute due by foreign states; (*b*) earnings of citizens abroad; (*c*) expenditure of foreigners travelling in the country. Accordingly, the final result is that "the state of international demand which results in commercial equilibrium is realised when the reciprocal demand of trading countries produces such a relation of imports and exports amongst them as enables each country, by means of her exports, to discharge all her foreign liabilities" (Cairnes, *Leading Principles*, bk. iii. ch. 18, § 5). In the most complicated as in the simplest case, the force producing equilibrium is the action of self-interest, causing the supply of commodities for exchange at such terms as will afford the maximum advantage to the trading countries (see GIFFEN, *Essays in Finance*).

The mechanism of PRICE (*q.v.*) enables the complex adjustments of value which are requisite to be easily carried out (see INTERNATIONAL TRADE).

As to the difficult question whether the equation of international demand can be consciously altered to the advantage of one of the parties, see Mill, *Principles*, v. ch. iv. § 6; Cournot, *Principes Mathématiques de la Théorie des Richesses; Théorie des Richesses*, bk. iii. ch. iv.; Sidgwick, bk. iii. ch. v., who maintain that it can; also Torrens, the *Budget*. See *contra*, Jevons, *Theory*, pp. 157, 158.

[See references under INTERNATIONAL TRADE and INTERNATIONAL VALUE, more especially those to Mill, Cairnes, and Mangoldt.] C. F. B.

EQUALITY. The claim for equality may mean in politics (1) simply a claim for just and impartial administration of the laws; or (2) a claim that the laws themselves should not favour one class, still less one individual, at the expense of another; or (3) a claim for equal division of the comforts and discomforts of life. In the economic as distinguished from political doctrine, the claim of equality appears as the basis of the theory of free competition, and takes a form not precisely identical with any one of the three described. Economic reasoning, so far as it is quantitative, must assume a similarity of units. There might be a "free competition" within certain classes of the community only; and thus only the first kind of equality might be secured. An economic theory of the probable effects of such a competition would be perfectly possible. The most striking modern instance is perhaps the industrial system of the southern states of America before the emancipation of the slaves. Where the laws were clearly defined and fairly carried out, the task of the deductive economist would be comparatively easy. He would need indeed to postulate that they were so, before he could draw his theoretical conclusions; and he would then be postulating equality in the first sense, impartial administration. There might also be a state of things in which legislation was professedly indifferent to the privileges of particular classes, and all men were left free so far as legal hindrances were concerned, to seek their fortunes in the same ways. Economic theory would assume in this case that there was equality not only in the first sense, but in the second; and this has been perhaps the commonest assumption of modern economists. It was made by Adam Smith with full consciousness of its utopian character; indeed he could not conceive the possibility of so close an approach to it as has now been made by free-trading England. The full attainment of it is, however, impossible in a community of human beings, so long as they are divided by physical, social, and other

causes, into classes respectively weaker and stronger. The effort of legislation has been to redress such inequality by means of special protection and assistance. The result, though for every other reason desirable, is unfavourable to economic theory, so far as it makes the assumption of legal equality, in the second as well as the first sense, farther removed from the reality. It is no doubt possible to conceive the patronage of the laws as simply an attempt to secure to every one that equality of *opportunities*, of which the reinforcement by the laws of the inequalities of wealth would deprive the poorer members of society. From this point of view an economic theory of free competition could be worked out for competing citizens, supposed equally strong and fit for the race for wealth. But the inequalities left out seem too great for the equality assumed. Even if we neglected other causes of difference, opportunities would never be perfectly equal till human beings were physically and intellectually identical one with another.

On the other hand the effort after an equality of opportunities seems to carry society a step nearer perfection than the effort after justice and legal equality in the senses described. The opportunities may be conceived to be not of making money but of developing the faculties and doing the best work for which a man has the capacities. In all the noblest of the founders of socialistic and communistic schemes, such as aimed at equality in the distribution of wealth, equality of opportunities for the development of human individuality has been the real aim, more or less clearly understood. [See also ARISTOCRACY, COMMUNISM, TAXATION (equality of burdens).]

[Sir Jas. Fitzjames Stephen, *Liberty, Equality, Fraternity*, ch. v. "Equality" (1873).—Bédollière (Émile), in Maurice Block's *Dictionnaire de la politique*, art. "Égalité."—A. Wagner, *Lehrbuch; Grundlegung* (1879), 2nd part, §§ 220 to 223, pp. 418-426.—F. Y. Edgeworth, *Mathematical Psychics* (1881), pp. 129, *seq.*—J. S. Mackenzie, *Social Philosophy* (1890), pp. 249, *seq.*] J. B.

EQUATION OF SUPPLY AND DEMAND. (See DEMAND.)

EQUILIBRIUM is discerned by Jevons (*Theory of Political Economy*, ch. iv.) to be a cardinal conception in the abstract science which he elsewhere calls the MECHANICS OF INDUSTRY (*q.v.*). So Professor Marshall, indicating in the preface to his *Principles of Economics* the leading ideas by which he was inspired, says, "the demand for a thing is a continuous function, of which the 'marginal' increment is in stable equilibrium balanced against the corresponding increment of its cost of production." Professor Marshall employs the term *equilibrium amount* as the amount of any commodity produced in a unit of time when the demand for and supply of that commodity are in equilibrium, and when there is therefore no tendency in the quantity produced in a particular time to increase or diminish. The term equilibrium price is similarly used to denote the price of the equilibrium amount in the same circumstances. M. G. D.

EQUITABLE ASSETS. Assets that could be made available for the payment of debts only through a decree or order of a court of equity. Such assets were always treated as a trust fund, and were therefore divided amongst creditors *pari passu* without any regard to the priority of one debt over another. The chief equitable assets are the proceeds arising from the sale of lands devised in trust to pay or charged with the payment of debts.

[Williams on *Executors and Administrators*, pt. iv. bk. i. ch. i., London, 1879.—*The Administration of Assets*, by A. S. Eddis, London, 1880.] J. E. C. M.

EQUITABLE ESTATE. An estate in land that formerly was recognised in a court of equity only. The principal equitable estates are the estate taken by a person entitled to the benefit of land given in trust, equities of redemption (see EQUITY OF REDEMPTION), and equitable charges.

[*Principles of Equity*, by E. H. T. Snell, London, 1892.] J. E. C. M.

EQUITABLE EXECUTION. The method by which a judgment creditor obtains payment by the appointment of a receiver of the rents and profits of the lands of the debtor. At common law certain forms of property, such as the interest of a mortgagor in the mortgaged premises, or the right to an unascertained sum of money, could not be reached by any ordinary writ. When the creditor had exhausted every method of obtaining payment he could resort to the Court of Chancery, who would appoint a receiver. Now the High Court of Justice can appoint a receiver in all cases where it is just and convenient that such appointment should be made.

[*The Law of Execution*, by T. K. Anderson, London, 1889.] J. E. C. M.

EQUITABLE MORTGAGE. A contract for a mortgage that previous to the Judicature Acts could be enforced only in a court of equity. The most usual case in which it arises is where a person deposits the title deeds of property with a creditor as security for a debt. But a mortgage is also "equitable" if the subject matter is trust or equitable property, such as an equity of redemption, or where there is a written agreement to make a mortgage. The mortgagee in every case may either call on the mortgagor to make a legal mortgage or may take proceedings to enforce a foreclosure or a sale.

[*The Principles of Equity*, by E. H. T. Snell, London, 1892.] J. E. C. M.

EQUITABLE WASTE. Waste in the nature of acts of spoliation, that a court will restrain a tenant for life from committing, though his estate was granted to him with liberty to commit waste, such as pulling down the family mansion or cutting down ornamental timber.

[Goodeve, *Law of Real Property*, London, 1891.] J. E. C. M.

EQUITY is the name applied to a number of legal rules, which formerly were administered by the court of chancery. The chancellor was originally the king's secretary, and as such he had to advise the king in "matters of grace and favour"; viz. in matters in which the king's intercession was invoked for the sake of mitigating the strict rules of the common law. "When early in the reign of Edward III. the chancellor ceased to be a part of the king's personal retinue, and to follow the court, his tribunal acquired a more distinct and substantive character . . . ; petitions for grace and favour began to be addressed primarily to him, instead of being simply referred to him by the king, or passed on through his hands. In the twenty-second year of that king such transactions were recognised as the proper province of the chancellor, and from that time his separate and independent equitable jurisdiction began to grow into the possession of that powerful and complicated machinery which belongs to later history" (Stubbs's *Const. History*, ii. 269). One of the most important stages in that growth was reached when, in the reign of Richard II., the "writ of subpœna" was introduced, which enabled the chancellor to enforce obedience to his decrees by the threat of imprisonment. One of the most important matters which came under the chancellor's jurisdiction was the protection of the rights of persons possessed of "uses" in land. For several reasons it had become convenient to sever the legal ownership of land from the beneficial ownership, and with that object it became customary on a transfer of ownership to enfeoff one person "to the use" of another. The first-named person was called the "feoffee to the use," and he was the only person whom the ordinary courts recognised; but as he was in duty and conscience bound to allow the rights of beneficial ownership to the second-named person, known by the technical name of "cestui que use," the chancellor in the exercise of his equitable jurisdiction compelled him to do so, if he wished to take advantage of his formal right. The practice in matters of this nature developed into a regular system called "equity," to distinguish it from the "common law" administered by the other courts. That system was characterised—(1) by the recognition of rights which the other courts refused to enforce (so-called "equitable rights"); (2) by legal doctrines differing in substance from the doctrines of common law; (3) by a special procedure; (4) by special kinds of relief.

(1) The most conspicuous among equitable rights are the rights derived from trusts. Trusts are the modern successors of "uses," but are used on a much larger scale, and also in the case of personal property; the most familiar instances being the trusts created by wills and settlements, by which the control of certain land or certain funds is given to one or more persons for the benefit of another person or other persons. Another instance of an equitable right is the right of the mortgagor to redeem the mortgaged property, the legal right to which is vested in the mortgagee.

(2) Amongst doctrines specially belonging to the sphere of equity may be mentioned the rule that a debt may be assigned; that, in the absence of an express stipulation or necessary implication, time is not considered as of the essence of a contract, that penalties named in contracts cannot be enforced unless they partake of the nature of liquidated damages, etc.

(3) The administration of trusts and of the estates of deceased persons involves protracted inquiries and the taking of accounts, etc.; for this purpose a special procedure and a special machinery has been developed in the courts of equity, which were the only courts which had to deal with matters of this nature.

(4) Among the special kinds of relief which could be obtained with the assistance of the courts of equity, the right to claim specific performance of contracts for the sale of land, and the right to claim injunctions, *i.e.* orders restraining the opposite party from doing certain acts injuring the rights of the plaintiff, are the most important. The courts of equity, in granting relief of this kind, were supplying a material defect in the administration of justice, as in the courts of common law; the only remedy in the case of breach of contract or injurious acts consisted in pecuniary damages, which in many cases did not adequately compensate the injured party. The power of the courts of equity to enforce their decrees by the imprisonment of disobedient parties materially helped them in the exercise of this jurisdiction.

The Judicature Act of 1873 has merged the equity courts and the courts of common law into one high court, and the rules of equity are now administered in all courts; but as they are derived from a different source from the common law rules, and have always been treated as a separate system, the distinction is still kept up, though it has no longer any practical meaning. The matters which are specially fitted for the procedure of the chancery court, have, however, been assigned to a special chancery division which is organised in a manner appropriate to the proceedings required with regard to them.

[Spence, *Equitable Jurisdiction.*—H. A. Smith,

Principles of Equity. For the place of equity in systems of law generally, and its importance in the evolution of society, see Maine, *Ancient Law*.] E. S.

EQUITY OF REDEMPTION. The right that a mortgagor has to recover, on payment of principal, interest, and costs, a mortgaged estate which has under the mortgage deed become the property of the mortgagee owing to the failure of the mortgagor to pay the principal and interest at the time agreed on. The right resembles real estate inasmuch as it will descend to the mortgagor's heirs. It is alienable, and may itself be mortgaged.

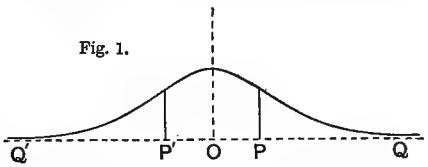
[*The Principles of Equity*, by E. H. T. Snell, London, 1892.] J. E. C. M.

EQUITY TO A SETTLEMENT. When a husband had to resort to a court of equity in order to reduce into possession property of his wife, the court compelled him to make a settlement of a portion, usually one half, of such property on the wife and children.

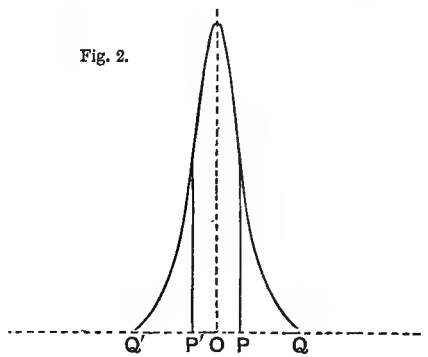
[*The Principles of Equity*, by E. H. T. Snell, London, 1892.] J. E. C. M.

ERROR EXCEPTED. These words are frequently inserted at the end of a statement of account, and are intended to show that the accounting party wishes to reserve the right to make further claims in case any error should subsequently be discovered in the account. E. S.

ERROR, Law of. When an average of a set of statistics is taken, the deviation of any one of them from the average is sometimes called an *error;* and the arrangement of the group about its mean, a *law of error*. A particular arrangement, which under certain frequently-realised conditions arises, is designated as *the* law of error. According to this law the figure which is likely to occur most frequently is the one which forms the average; the others are grouped symmetrically above and below the average; becoming less frequent as they are more distant from that central magnitude. In the exact language of symbols, if x_1, x_2, etc., are the quantities averaged, and X the average, the number of quantities comprised between x and a neighbouring value $x+\Delta x$ is approximately $= n\,\Delta x \frac{1}{\sqrt{\pi c}} e^{\frac{(X-x)^2}{c^2}}$; where π and e are the well-known constants 3·1415 . . ., 2·718 . . .; and c is a constant proper to the group under consideration. This arrangement is represented by the curve $Y=\frac{n}{\sqrt{\pi c}} e^{-\frac{(X-x)^2}{c^2}}$; the number of observations in the neighbourhood of any point in the axis of x being proportioned to the ordinate at that point; and the number of observations comprised between two values of x being equal to the area intercepted by the ordinates at those two points, the curve, and the axis x. Two illustrations of this curve are given in the annexed diagrams. The curve is spread out, as in Fig. 1, when the constant c is



large; it is gathered in, as in Fig. 2, when the



constant c is small. The constant c being ascertained for any group of statistics, we are able to predict what proportion of the group will probably be comprised between limits defined in terms of that constant. Thus half of the group is likely to be comprised between the limits X − ·4769 . . . c and X + ·4769 . . . c; or, in other words, it is as likely as not that an observation taken at random will be distant from the average X by an interval greater than ·4769 . . . c; which multiple of c is accordingly called the *probable error*. Again the greater part of the group is comprised between the limits X − 2c, X + 2c; the odds are more than 200 to 1 against any observation being at a distance greater than 2c from the average. The odds are 50,000 to 1 against the distance of any observation from the average being greater than 3c. The points P and Q (P' and Q') in the figures are intended to represent the "probable" and what may be called the *improbable error* (2c or more).

The condition under which the law of error is fulfilled is that each of the things averaged is dependent in the same way upon (the same function of) a great number of independently variable elements. For example add together ten or more digits obtained thus: the first is the *first* decimal place in any constant, *e.g.* π, the second addendum is the first digit in any other constant, *e.g.* e, and the remaining eight constituents of the sum are the *first* digits in almost any other unconnected constants. Form another

sum of ten digits by taking the *second* decimal place in each of the ten constants; and so on. The set of sums thus formed will group themselves according to the law of error; the average being 45, and the constant c being $\sqrt{165}=13$ nearly. About half the group will be found between $45-6$ (*i.e.* 39) and $45+6$ (*i.e.* 51) since $\cdot 477\sqrt{165}=6$ nearly. A very small proportion of the group—less than a two-hundredth part—may be expected to occur outside the limits 45 ± 26. ($26=2\times\sqrt{165}$ nearly). If the number of elements entering into each of the figures averaged had been greater than ten, *e.g.* twenty, the "probable" and the "improbable" error would have been greater *absolutely*, namely 10 and 36 respectively; but less *relatively* to the average, now 90. Similar consequences would follow if, instead of a simple *sum*, we had employed almost *any function*.

There is reason to believe that the condition which has been indicated is frequently fulfilled; and the law of error has been observed to prevail in extensive classes of phenomena, which may thus be summarised:—

1. Repeated observations of one and the same physical quantity.

2. Shots fired at the same object.

3. A series of numbers each of which is obtained by taking at random a batch of say n balls out of a bag containing white and black balls mixed up in a certain proportion, and noting the number of whites in each batch of n balls; or a series obtained by tossing coins or dies and noting the number of heads or aces; and similar series.

4. Measurements of the organs of numerous specimens of a natural species.

5. Statistics of social phenomena which do not present a *progressive* character, *e.g.* the number of births, deaths, or marriages or the *rates* of the same, or the ratios between the male and female rates; observed at places or times not materially distant from each other.

Illustrations of the third and fifth classes are given in the accompanying tables, the materials of which have been taken from Professor Westergaard's *Theorie der Statistik*. In Table I., column 1, was obtained from 100 batches of balls; each batch numbering 100 balls, which were taken at random from a bag containing black and white balls in equal proportions; the number of white balls in each batch having been noted, the number of these numbers comprised between two limits, which are defined by a multiple of the constant c, forms an entry in column 2. The corresponding limits are given in column 1. Thus twenty-five of the observations occurred between the limits $50-\cdot 3\frac{c}{\sqrt{2}}$ and $50+\cdot 3\frac{c}{\sqrt{2}}$, or 47 and 53, since the value of c is here $\sqrt{2}\times 10$; 40 of the errors occurred between $50-\cdot 5\frac{c}{\sqrt{2}}$ and $50+\cdot 5\frac{c}{\sqrt{2}}$, or 45 and 55; and so on. Column 3 similarly registers the arrangement of the statistics obtained from 750 batches of lottery tickets—each batch numbering 100—by noting the number of prizes in each batch (the average being 16, and the constant c being 5 nearly).

Table I.

Table showing the correspondence between fact and theory in the arrangement of the numbers of white balls in batches of 100 balls each drawn at random from a bag; and of prizes in batches of 100 tickets drawn at a lottery.[1]

Limits above and below the average.	Percentage of errors within limits.		
	Observed.		Calculated.
	Balls drawn from bag.	Tickets drawn at lottery.	
1	2	3	4
$\cdot 3\frac{c}{\sqrt{2}}$	25	23	*23*
·5 ,,	40	36	*36*
·7 ,,	50	48	*49*
1·1 ,,	70	67	*69*
1·5 ,,	85	83	*82*
2·1 ,,	95	95	*93*

These results of observation are to be compared with the predictions of theory which are contained in column 4.

Table II.

Table showing the correspondence between fact and theory in the proportion of male to all births for nineteen years in Italy.[2]

Limits above and below the average.	Number of errors within limits.	
	Observed.	Calculated.
1	2	3
$\cdot 3\frac{c}{\sqrt{2}}$	2	*5*
·5 ,,	7	*7*
·7 ,,	9	*9*
1·1 ,,	12	*12*
1·5 ,,	16	*14*
2·1 ,,	17	*16*

[1] Westergaard, *op. cit.* p. 67.

[2] See Westergaard, *op. cit.* p. 39. The first column differs from his only in notation; the second column is the same as his; the third column is calculated from the second column of his table at p. 67.

In Table II., the first column gives limits defined by the constant c as before; the second column gives the arrangement of errors obtained by comparing the proportion of male births to all births, male and female, in Italy for each of nineteen years with the average proportion for the whole period; the third column gives the theoretical arrangement.

The applications of the law of error with which we are here concerned relate partly (I.) to practice, and partly (II.) to the investigation of causes.

(I.) It is useful, when employing an average obtained from statistics, *e.g.* a death-rate, or an index-number, to have the means of estimating the extent to which the figure in the case with which we are dealing is likely to differ from the average obtained in past experience. It is useless to calculate the average to a number of decimal places not warranted by the "probable error" to which the figure is liable.

(II.) Under the second head two cases may be distinguished: (a) where the analogy of simple games of chance holds good; the constant c being that which would be obtained if the statistics were of the sort which forms our *third* class of phenomena above; and (b) where the constant is not such.

(a) In the first case we have the advantage of knowing that the given group cannot be broken up into two, or more, with widely different averages; that the analysis which is a principal object of the scientific statistician has been already pushed almost up to its limit. Our statistics cannot be like batches of balls taken from bags in which the proportion of white to black is very different; but rather are analogous to the successive numbers of white balls occurring in batches of the same size taken at random from the same bag. It would appear hopeless therefore to trace by ordinary induction the causation of any particular event of this character. It is only crazy gamblers who pretend to predict the "runs" in games of pure chance. But we are not precluded from applying the law of error to detect delicate differences, such as may exist between a perfect and a slightly-loaded coin. Take for example the observation that the percentage of male compared with female births for more than a million *plural* births (of twins or triplets) in Prussia during a certain period of years was 104·447 (males to 100 females); whereas the corresponding ratio for all births (single as well as plural) was 106·305; the observation on which this average is based numbering several millions. Given these numbers, and knowing as we do that the phenomenon belongs to class (a), we are able to determine the constant c; which proves to be nearly ·3. Thus the difference between the two averages compared, viz. 1·858, is about six times the constant, and accordingly (see above par. 1) the odds against the observed difference in the averages being due to accident and not to a real cause which may be expected to continue acting—are many times more than 50,000 to 1 (Duesing). We have obtained, at a stroke, a degree of evidence in favour of a law which otherwise could only be obtained by a laborious analysis of the returns. By parity of reasoning it is found that in times and places where the absolute number of births is large the proportion of males is small (*ibid.*).

(b) This summary method may be employed also in the second case (where the analogy with games of chance does not hold good); but not in such a clear light of foreknowledge as to the character of the causes under investigation.

Besides the exact and direct applications of the law of error, it also affords what may be called "regulative ideas" to the statistician; supplying the *rationale* of many received maxims: that *ceteris paribus* an average is more worth the greater the number, and the less the divergence, of the returns averaged; that a few accurate returns may be better than many loose ones.

[For a general exposition, at once simple and accurate, of the law of error, see Venn, *Logic of Chance*, third ed. 1888, chaps. xviii. and xix. See also Jevons, *Principles of Science*, chap. xvii.—Bertillon, art. "Moyenne," *Dictionnaire Encyclopédique des Sciences Médicales*.—Quetelet, *Physique Sociale*. For the conditions under which the fulfilment of the law may be expected, Glaisher, *Memoirs of the Astronomical Society*, vol. xl. p. 104.—Galton, *Philosophical Magazine*, 1875, "Statistics by inter-comparison."—Edgeworth, *ibid.* 1892, "The Law of Error."—For the *a posteriori* proof, that the law is fulfilled, see Galton, *Natural Inheritance*.—Westergaard, *Grundzüge der Theorie der Statistik*, chap. iii.—Edgeworth, "Empirical proof of the law of Error," *Phil. Mag.*, 1887.—For the application of the law to practice, Dormoy, *Théorie mathématique des assurances sur la vie*. For the application of the law to induction, (a) where the analogy of games of chance holds good, Westergaard, *op. cit.*—Lexis, *Massenerscheinungen*. — Duesing, *Das Geschlechtsverhältniss in Preussen*; (b) in general, Edgeworth, *Journal of the Statistical Society*, Jubilee Volume, 1885, "Methods of Statistics," *ibid.* December 1885, "Methods of Determining Rates." Many of these writers throw light on other parts of the subject besides those with special reference to which they have been cited. Several other authors might have been cited. Merriman has published an immense list of writers on the cognate subject of the *Method of Least Squares*, many of whom have touched on the *law of error*, and some on its applications to social phenomena (see PROBABILITIES; STATISTICS).] F. Y. E.

ESCHEAT (historical) was a feudal term introduced by the Normans into England, and applied to the reversion of land to the lord. The ordinary cause of such reversion was the failure of heirs, when the whole estate passed into the hands of the lord. If the heir was a

minor, the phrase was *escæta cum hærede*, when the necessities of the heir and other children were paid for out of the estate and the surplus only went to the lord, until the heir, on reaching his majority, paid a relief and obtained seisin. Escheat also took place in cases of treason or felony. If the criminal was a tenant-in-chief, the whole of his property reverted to the crown; but if he was a sub-tenant, his movables only fell to the crown, while the real estate passed to the immediate lord.

[*Dialogus de Scaccario*, ii. x.] R. L.

Escheat (modern law), takes place where a person dies intestate and without an heir. The lands of such a person go to the feudal lord, but, as in the case of freehold land the right of mesne lords can in our days be established but rarely, such land generally goes to the sovereign as lord paramount. Copyhold land goes to the lord of the manor, and § 4 of the Copyhold Act provides that the right of escheat is to continue after enfranchisement; enfranchised copyhold land, though otherwise of the nature of freehold land, does not therefore escheat to the crown, but goes to a private person. Formerly the lands of felons were subject to the right of escheat, but an act passed in 1870 has repealed this rule. On the other hand the Intestate Estates Act of 1884 has made certain rights as to real property subject to escheat, which were not so subject before. The same act has enabled the crown to waive its right in certain cases. The procedure which takes place to inquire as to the right of the crown has been simplified by the Escheat (Procedure) Act of 1887.

The right of the state to acquire the property of a person dying without relations or a will exists in most countries independently of feudal rules, and seems justified by reason and convenience.

[Bentham, J. S. Mill, Godin, and other reformers, have proposed to narrow the rights of intestate succession (*i.e.* to extend escheat) in order to correct, to some extent, the unequal distribution of wealth.] E. S.

ESCUDO. The name of the Spanish half dollar.

Gold and Silver Coins as follows:

Metal.	Denomination of Coin.	Fineness.	Weight.	Value.	
				In gold 916·6 fine at £3:17:10½ an ounce.	In gold francs, 900 fine.
			grains.	£ s. d.	francs.
Gold	10 Escudos (or Doubloon)	900	129·44	1 0 7½	26·0
	4 Escudos	900	51·78	0 8 3	10·4
	2 Escudos (or Dollar)	900	25·89	0 4 1½	5·2

Metal.	Denomination of Coin.	Fineness.	Weight.	Value.	
				In silver 925 fine at 5/6 an oz.	In silver francs, 900 fine.
			grains.	s. d.	francs.
Silver	Escudo (or ½ Duro or Dollar)	900	200·30	2 2½	2·6

These coins have not been struck for circulation in Spain since 1868, when the system of pesetas (francs) was introduced. Similar coins, including a doubloon of eight escudos, are current in the Philippine Islands (see DOUBLOON). F. E. A.

ESCUSADO, the name of the portion of ecclesiastical tithes made over in 1567 by the Pope to the crown of Spain. E. Ca.

ESSART, EXART, sometimes also called ASSART. A mediæval term applied to a portion of forest land cleared and brought into cultivation. To make essarts was technically a breach of the forest law, punishable by fine. These fines, with the yearly rents levied on the essarted lands, which the maker of the essart was usually allowed to keep under cultivation, formed a considerable item in the revenues of the royal and other lords of forests in mediæval England. These rents would appear to have been fixed at the highest rate that could be maintained, a rate which will be found to be often several times as great as that paid by free or even customary tenants for other land in the same neighbourhood. In spite of these high rates, however, fresh essarts were made almost every year in England. The forest of Wirrall in Cheshire, for instance, was entirely under cultivation before the death of the Black Prince, who, in his capacity of Earl of Chester, by a formal charter of disafforestment, put his seal to the work of reclamation. The word *essart* has been variously derived from the old French *assortir*, to make smooth, or one of the low Latin terms, *exertum*, rooted up, *sarrire*, to weed, or *exarare*, to plough up.

[Manwood, *Forest Law*, London, 1596, etc.—Ducange, *Glossarium Mediæ et Infimæ Latinitatis*, ed. nova a L. Favre, Paris, 1884.—Forest accounts among the ancient records of the exchequer in the Public Record Office.] A. H.

ESTATE. A so-called owner of land has, according to English law, no absolute right of ownership; all that he has is an interest varying in extent and duration, and known in technical language as an "estate" in the land. The largest estate known to the law is an "estate in fee" (fee simple), which gives the owner as complete rights of enjoyment and alienation as the nature of the property will admit; an estate tail (see ENTAIL), being convertible into an estate in fee—by the tenant alone, if in

possession, and otherwise by him jointly with the tenant for life—confers rights nearly as complete. An estate for the life of the tenant, or for the life or lives of another person or other persons, gives the tenant the privileges of ownership during his life or during the life or lives of such other person or persons; but a tenant for life—unless the estate is conferred upon him "without impeachment of waste"—is not allowed to pull down buildings, cut timber, or open mines. An estate for the life of another person is called an "estate pur autre vie." Estates in fee or in tail, and estates for life, are called "freehold" estates, estates for a definite number of years, however large the number may be, are "leasehold," also called "less than freehold" (see LEASEHOLDS). The word estate is also used as a comprehensive name for the assets of a bankrupt or of a deceased person. In the latter case a distinction is made between freehold land and houses (real estate) and other property (personal estate).

E. S.

ESTATE DUTY. See DEATH DUTIES.

ESTCOURT, THOMAS (end of 18th and early 19th century). Thomas Estcourt sat in parliament as member for Cricklade from 1784 to 1806. In 1804 he published *An account of an Effort to Better the Condition of the Poor in a Country Village* (*Long Newton*) *and some Regulations suggested by which the same might be extended to other parishes of a similar description.* The work was printed by the board of agriculture. Estcourt states that in 1800 arrangements were made for letting to any cottager a small quantity of land at a rent of £1 : 12s. an acre, the land to be forfeited if not properly cultivated, or on the receipt of parish relief other than medical. He states that the offer was largely accepted, and that the scheme greatly decreased the poor-rate in the village.

C. G. C.

ESTERNO, PHIL., COMTE D' (1805-1883), born at Dijon, died at Paris. Esterno's life was mainly devoted to agriculture and to political economy. The first work of his which caused him to be known as an economist was entitled, *Des banques départementales en France*, 1 vol. in 8vo, 1838. In this Esterno argued in favour of departmental banks, to be established in a good many towns, and at Dijon in particular. This was at a time when the government, urged on by a spirit of centralisation, were hostile to institutions of this description.

In 1840 Esterno took part in a discussion instituted by the Academy of Moral and Political Sciences, on the signs and causes of poverty in different countries. BURET (*q.v.*) won the prize. Esterno's paper was rejected because, according to the report, "it was not an economic essay which was wanted." This work, printed in 1842, under the title of *La misère; de ses causes, de ses effets*, in 8vo, reflected the ideas of Malthus, while Buret, on the other hand, had allowed sentiment to overpower reason.

During the same year (1842) Esterno assisted as secretary, in conjunction with P. Rossi, who was president, in founding at Paris a society for promoting political economy (*Société d'économie politique*), an association which only lasted a few months, but was a forerunner of the society now known under the same name.

In 1867-68 Esterno published another work, *Des privilégiés de l'ancien régime en France et des privilégiés du nouveau*, 2 vols. in 8vo. In this work the author argued, in a brisk and original style, in favour of agriculture, which was put too much on one side by the privileged persons under the new regime, the moneyed classes, as distinguished from the landed proprietors, notwithstanding the untrustworthy titles of some of their institutions, *Le Crédit agricole*, for example. Before this date (1867-1868), and later on, Esterno strove, on behalf of the agricultural interest, against those artificial monopolies which, even to this day, have arrested the development of agriculture in France. He thus became deeply interested in works of irrigation, and it is to him and to his energy, though he never allowed his name to appear, that the adoption of the regulations of 29th April 1845 and 11th July 1847 (*lois d'Angeville*) is due.

Esterno's mental activity led him to occupy himself with other subjects with which we are not concerned here. His intelligence, his energy, and his scientific devotion enabled him to render them interesting to others. He was a vice-president of the second *Société d'économie politique.*

A. C. f.

ESTIMO. The revenue of Florence in the flourishing days of the republic was mainly derived from indirect taxes, which produced some 300,000 florins a year. But in times of war, which became frequent in the 14th century, this income was insufficient, and it was supplemented either by direct taxes or by compulsory loans (*prestanze*). Both taxes and loans were supposed to be based upon an *estimo*, or government valuation of property, and hence the term *estimo* comes to be applied to the exactions themselves. The earliest *estimo* was formed in 1288, and seems to have referred only to real property. Another assessment took place in 1327, when a foreign judge was appointed to determine the wealth of each individual by the secret testimony of seven of his neighbours. But the attempt to provide a regular basis for direct taxation proved a failure in the 14th century. An *estimo* soon became obsolete as property rapidly changed hands, and a charge upon real property alone pressed heavily upon the noble families and the peasants of the country, while the wealthy burghers escaped.

For the most part the forced loans were arbitrarily assessed by the existing government, and one great reason for the Florentine greed for office, which introduced the system of lot, was the desire to escape taxation. When the CIOMPI (*q.v.*) rose in revolt in 1378, one of their demands was that no loan should be levied without an *estimo*, but their subsequent defeat prevented any change being made. The discontent excited by arbitrary and unfair assessment forced the government in 1427 to introduce the CATASTO (*q.v.*), which was only a new name for a thorough *estimo* of real and personal property including income. But this great reform was abandoned by Cosimo de Medici in 1441, when the old arbitrary assessments, formerly maintained to favour the wealthy burghers, were revived to relieve and conciliate the poorer classes. The Medici from this time introduced the principle of progressive taxation, and, as Guicciardini says, used the taxes instead of the dagger to ruin their opponents.

[Canestrini, *La Scienza e l'Arte di Stato desunta dagli Atti officiali della Repubblica Fiorentina e dei Medici* (only one volume of this great work was published).—Napier, *Florentine History*, vol. iii. p. 117.—Perrens, *Histoire de Florence.*] R. L.

ESTOPPEL. A term used in connection with the rule of law, according to which a person who, by statements or conduct, causes another person to believe in the truth of a certain matter of fact, with the intention of inducing him to act upon it, cannot, in any dispute concerning the matter in question, be allowed to assert that the state of things which he represented to be in existence, did not, in fact, exist; thus, for instance, a person, by accepting a bill of exchange, induces the holders to assume that the drawer was of full age, and otherwise capable to draw a bill, and he is therefore "estopped" from denying the drawer's capacity (Bill of Exchange Act, § 54 [2]). Estoppel by conduct is in certain cases also called "estoppel by negligence," *e.g.* if a person by the careless filling in of a cheque enables a fraudulent holder to alter the amount, he is estopped from denying that he drew the cheque for the full amount, as by his negligence he has allowed the banker to think that he has done so. Estoppel by statement or conduct is in the older law books called "estoppel by matter in pais," and distinguished from "estoppel by deed" and "estoppel by record." "Estoppel by deed" prevents a party to a deed from denying any fact mentioned in the same by way of recital or otherwise. "Estoppel by record" precludes a party to an action, or his successor in title, from denying any fact established by the decision in the action. The fullest statement on the law of estoppel is contained in the notes to the Duchess of Kingston's case in Smith's *Leading Cases*, vol. ii. E. S.

ESTOVERS (derived from the same root as the old French word *estovoir* = to be necessary), also called "Bote," is the right of a tenant for life, unless restrained by agreement, to take the necessary wood from the estate for the use or furniture of a house or farm. "Common of Estovers" is the right of a commoner to cut wood (see COMMONS). E. S.

ÉTATS GÉNÉRAUX, THE, or States General of France, were, under the old monarchy, the national representative assembly of the kingdom, composed of elected members of the three orders, the noblesse, the clergy, and the third order or state (*Tiers État* or *bourgeoisie*), but no fixed rule was ever followed for their election and assembling. Their first authentic meeting was summoned, 1302, by King Philippe le Bel, to assist him in his struggle against Pope Bonifacius VIII.; after this date they were convoked at irregular and often very protracted intervals, whenever the royal finances were in a state of extreme distress. In 1357, during the captivity of King John in England, they vainly tried to give a constitution to the kingdom. The *Etats Généraux*, which must not be confounded with the *Assemblées des Notables*, were at all times steady and consistent upholders of the theory that no tax could be valid without their assent; the monarchy never contested this doctrine, but never followed it in practice. The *États Généraux* of 1614 were the last before the revolution of 1789.

[Toussaint Quinet, *Recueil des États tenus en France*, 1651, 1 vol.—Paulin, *Grandes chroniques de France* (vol. vi. 1350-1382, Paris, 1838).—Jean Masselin, *Journal des États Généraux de 1484* (in Latin, translated into French by Bernier in 1835).—Rathery, *Histoire des États Généraux en France* (1845).—Bouillée, *Histoire complète des États Généraux et autres assemblées représentatives de 1302 à 1626* (Paris, 1845, 2 vols.).—Augustin Thierry, *Histoire du Tiers État.*—The most recent works are M. Jallifier's *Histoire des États Généraux* (1 vol. Paris, 1888), and M. Georges Picot's exhaustive *Histoire des États Généraux considérés au point de vue de leur influence sur le gouvernement de la France* (1355-1614).] E. Ca.

ETHEL. See ALOD.

EVANS, DAVID MORIER (1819-1874), was born in Wales. He treated economic subjects from a journalistic point of view, aiming rather at giving an accurate narrative of the successive phases of economic crises and the like than at tracing their hidden causes. In his own words he was a man of "facts and figures."

Besides numerous contributions to the *Bankers' Magazine*, which he edited for some years, the *Bullionist*, and the *Stock Exchange Gazette*, Evans wrote *The Commercial Crisis, 1847-48*, London, 1848-49.—*The Annual Commercial Register*, London, 1850.—*Fortune's Epitome of the Public Funds*, London, 1851-56.—*Facts, Failures, and Frauds*, London, 1859.—*The History of the Commercial Crisis, 1857-58, and of the Stock Exchange*

Panic, 1859, London, 1859.—*Notes on Speculation*, London, 1864.

[See *Dictionary of National Biography*, London, 1888, *Times* for 2nd January 1874.] A. H.

EVANS, THOMAS (end of 18th and early 19th century). In 1798 Thomas Evans was acting as secretary to the London Corresponding Society, and was imprisoned for nearly three years on a charge of treasonable practices. He afterwards acted as librarian to the Spencean Society, and published the work whose title is given below. The book contains the usual Spencean doctrines, advocates the nationalisation of the land as the only remedy for the prevailing distress, and denounces Malthus as the "hireling of pagan landlords."

Christian Policy, the Salvation of this Empire, "being a clear and concise examination into the causes that have produced the impending national bankruptcy, and the effects that must ensue unless averted by the adoption of the only real and desirable remedy" (2nd ed., 1816). C. G. C.

EVERETT, ALEXANDER HILL (1792-1847), was born at Boston, Massachusetts. He graduated with the highest honours at Harvard; engaged in the diplomatic service, and from 1825 to 1829 served as U.S. minister to Spain; returned to Boston and became editor and proprietor of the *North American Review;* from 1830 to 1835 was in the Massachusetts Legislature; in 1840 undertook a diplomatic mission to Cuba; and in 1847 was engaged in a similar errand in China, when he died at Macao. His writings cover a wide range in history and literature. Of economic interest is the following: *New Ideas on Population with Remarks upon the Theories of Malthus and Godwin*, Boston, 1823, pp. 125 (translated into French). In opposition to the Malthusian theory Everett argues that an increase of population is a cause of abundance and not of scarcity, since it develops the new elements of skill by which the same quantity of labour is applied with greater effect. Although the population of Great Britain doubled in the 18th century, improvements in the mode of applying labour increased its productiveness probably a thousand times. Everett, by travel and intercourse with eminent men in Europe, enjoyed opportunities possessed by few of the earlier American writers on economic subjects. He had an interview with Malthus, carefully discussing the points at issue. The latter suggested to Everett that his views were similar to those of Mr. S. Gray in the *Happiness of States* (1815). The Malthusian theory was also discussed in a correspondence between Everett and Prof. George Tucker in the *Democratic Review*, vol. xvii. pp. 297-310, 379-391, 438-444, and vol. xxi. pp. 397-410.

[For a summary of Everett's views, *v. Dem. Rev.*, vol. x. p. 466, where there is a sketch of his life until 1840. To the *North American Review* he contributed many essays, among them "M'Culloch's Political Economy" (1827), xxv., 112; "Political Economy" (1829), xxviii., 368; "British Opinions on the Protecting System," xxx., 160; "American System," xxxii., 127; "Phillip's Manual of Political Economy," xxxii., 215; "The Laws of Population and Wages," xxxix., 68; "Rae's Political Economy," xl. 122. Everett was a protectionist; and in 1833, as chairman of a committee at the Tariff Convention in New York, prepared a memorial to Congress in reply to the memorial prepared by Gallatin for the Free Trade Convention at Philadelphia. He advocated reforms in the banking system in two articles on "The Currency" in *Boston Quarterly Review*, July 1839; January 1840.] D. R. D.

EVERETT, GEORGE (*fl.* 1693-1698), Shipwright, appears to have occupied some position of importance in the government dockyards. He was also employed by the commissioners of customs in the detection of smuggling. He published (1) *The Pathway to Peace and Profit; or Truth in its Plain Dress*, etc., London, 1694, 8vo. (2) *Encouragement for Seamen and Mariners, in two parts*, etc., London, 1695, 4to. The first of these pamphlets embodies certain proposals, which Everett laid before the lords of the admiralty in February 1694, for securing greater economy and efficiency in the dockyards. If they were adopted he promised an annual saving of £100,000. The second pamphlet was directed against the abuses of the system of impressment for the sea service. His object appears to have been to devise a system which should at the same time secure a constant supply of sailors for the royal navy and get rid of the expense to the government, and "injury to the subject," of the system then in vogue. Amongst his suggestions may be noticed the registration of all seamen and mariners, fixed pay days, abolition of the sale of all offices in the navy, and a strict application of the principle of promotion by merit, an additional allowance for seamen disabled in the public service, the payment to the family of the sailor of six months' wages for every nine months he should be at sea, etc. Everett's pamphlets are of no theoretical interest, but they throw much light on the conditions of labour in the dockyards and the sea service at the end of the 17th century.

[Watt's *Bibl. Brit.*—*Cat. of Treasury Papers*, xxxvi. 38; liv. 29.] W. A. S. H.

EVELYN, JOHN, F.R.S. (1620-1706), the author of the famous *Diary*, published several works of economic interest. Amongst these may be mentioned (1) *Sylva, or a Discourse of Forest Trees and the Propagation of Timber*, etc., London, 1664, fol., 5th ed. 1729. A new edition with notes by A. Hunter was published in 1776; 4th ed. 1812. (2) *Navigation and Commerce, their Origin and Progress. Containing a Succinct Account of Trafficke in General: its Benefits*, etc., London, 1674, 8vo.

(3) *Terra: A Philosophical Discourse of Earth, Relating to the Culture and Improvement of it for Vegetation, and the Propagation of Plants*, etc., London, 1676. New edition, with notes by A. Hunter, 1778. (4) *Numismata: A Discourse of Medals, Ancient and Modern*, etc., London, 1697, fol. Evelyn also translated several French works on horticulture.

[M'Culloch's *Literature of Pol. Econ.*, 146, 212. For a full account of Evelyn's life and writings see *Dictionary of National Biography*.]

W. A. S. H.

EVELYN, JOHN (*fl.* 1830), of Edgbaston, Birmingham, was the author of *Co-operation: An Address to the Labouring Classes on the Plans to be pursued in Conducting Trading Unions*, 1830, 8vo. By "trading unions" Evelyn meant co-operative societies.

[*Brit. Mus. Cat.*] W. A. S. H.

EVOLUTION. See DEVELOPMENT.

EVICTION. The recovery of possession of land whether by simple re-entry or by legal process is often termed eviction. Eviction is substantially the same as EJECTMENT. The term is rather popular than technical. F. C. M.

EX. ALL. A well-known phrase on the stock exchange, used to signify that a security quoted or dealt in conveys to the buyer no rights in the shape of dividends or drawings or issue of new stock or other contingent advantages. The word ex. is simply short for excluding (see EX. DIVIDEND, EX. DRAWING, EX. NEW). A. E.

EXAMPLES. Examples in economics, as elsewhere, are simply cases, real or fictitious, or partly both, supposed to embody a general principle. They may be classified as follows: (1) *Real but general*, as Ricardo's hunters (*Principles*, ch. i. § i.), and Ad. Smith's bricklayers, carpenters, and men of letters (*Wealth of Nations*, I. x.). The examples are taken from a known genus but not from known individuals. Where the genus is perfectly well known, no cavil is possible. Ad. Smith's illustration of division of labour could hardly have been improved by a reference to a particular pin-making establishment in a specified place. But, in exposition, the more concrete the genus the more telling the example; *e.g.* 'blacksmith' seems nearer life than 'workman.' (2) *Real and particular*, as in Cairnes's illustration of the theory of international trade from the Australian gold discoveries (see CAIRNES). Adam Smith, where he does not use the real and general, uses the real and particular, and falls back on fiction only for his similes (as "the highway," "the waggonway through the air," the "wings," and "the pond and the buckets," *W. of N.*, II. ii.), or his metaphors ("wheel of circulation," "channel of circulation.") Ricardo and his immediate followers have preferred, as a rule, (3) *Fictitious* examples. These may be illustrations of which the component elements are generically well known, as even the favourite "man on the desert island," but the combining of the elements is the work of the writer, and is more or less arbitrary, as De Quincey's "man with the musical box on Lake Superior," and Bastiat's "plank and plane." There is also a risk that the construction of the example may involve a begging of the question to be proved. "Suppose that there are but two nations in the world living side by side, with a population of one million souls in each" (Barbour, *Bimetallism*). "My object was to elucidate principles, and to do this I imagined strong cases that I might show the operation of those principles" (Ricardo, *Letters*). There is no necessary fallacy in this method of exposition any more than in illustrating the law of gravitation by the action of bodies *in vacuo*. Concrete cases must necessarily exemplify much more than one principle, and, even if they suggested a particular generalisation, they may perhaps not clearly illustrate it without a fictitious simplification. The lawfulness of such a method of exposition or, it may be, of proof is discussed elsewhere (see DEDUCTIVE METHOD). J. B.

EXCAMBION is the technical term used in Scotch law to designate the contract whereby one piece of land is exchanged for another. The persons effecting the exchange are known as excambers. Each party gives the other such a warranty of title that, if evicted from the land which he has received, he and his heirs can recover from the other party and his heirs the land which he originally gave. When lands burdened with debt are disponed in excambion, they are freed from that debt and are thenceforward burdened with the debts, if any, formerly affecting the land given in exchange. Tenants in tail have a statutory power of effecting such exchanges which now extends to one-fourth of the total value of the property entailed (see LAND).

[Bell's *Dictionary and Digest of the Law of Scotland*, edited by George Watson, Edinburgh, 1882, art. "Excambion," and the authorities therein cited.] F. C. M.

EXCHANGE.

Exchange, p. 758; Exchange, Value in, 759; Exchange, Value in (History of Theory), p. 762; Exchange, Usury (see Usury), p. 767; Exchange (as Bourse), p. 767: Exchange, Stock, p. 768; Exchange, Provincial Stock, p. 770; Exchange, Foreign, p. 770; Exchange, Foreign (Practical Working of), p. 772; Exchange between Holland and Dutch India, p. 773; Exchange between Great Britain and British India, p. 776; Exchange, Internal, p. 777; Exchange of Notes (Scotland), p. 778; Exchange Broker, p. 778; Exchanger, p. 778.

EXCHANGE, the voluntary giving of one commodity or service on condition of receiving another, is to a great extent the basis of the existing system of PRODUCTION and DISTRIBUTION (*q.v.*). If there were no exchanges, each article of separate property could be used only by its owner, and, excluding gifts, slaveholding, and

communistic arrangements, each man would have to subsist on what he could produce directly for himself, using his own and no one else's instruments of production. As things are, however, separate property is used in the main by those who are most capable of using it, whether they are its owners or not, and no one lives only on what he has himself produced but each lives on what has been produced by a vast number of other persons (see Adam Smith, *Wealth of Nations*, bk. i. ch. i. at end). This is the result of exchanges; owners of property allow others to use it because they can get commodities and services in exchange for the use of it, and men are able to devote themselves exclusively to one occupation because the products of that occupation can be exchanged for the products of other occupations. While production is thus largely dependent on exchanges, distribution, as the word is commonly understood, could not exist at all without them. The use of the word implies that the whole produce of all the workers is considered to be a joint or common produce which, after being produced, has to be divided or "distributed." If each man lived on his own patch of ground, using his own instruments, and receiving no help from any one either in commodities or services, each man's produce or income would obviously be quite distinct from that of every other person, and the conception of a joint produce requiring to be distributed would never have been formed. Individuals' incomes would vary, but the variations would be questions of production only, since each man's income would depend entirely on the amount he produced. Exchange being practised, questions of "distribution" arise because each man's income depends not only on how much he produces but also on the value of what he has to sell, *i.e.* on how much of certain other things he can get in exchange for a given quantity of his work or of the use of his property.

Adam Smith showed a very fair appreciation of the importance of exchange with regard both to production and distribution. He rightly attributed what he called the "division of labour," but what is now usually called the "division of employments," to the practice of exchange, and he did not treat of wages, profits, and rents, till he had discussed "the rules which men naturally observe in exchanging" goods (*Wealth of Nations*, bk. i. ch. iv.) Unfortunately, James Mill, to whom the common arrangement of English works on political economy is chiefly due, seems to have had no adequate conception of the importance of exchange. He spoke of it as if it were a mere incident which occasionally happens to commodities after they have been produced and distributed (*Elements of Political Economy*, Introduction), and when he endeavoured to improve upon J. B. Say's division of political economy into Production, Distribution, and Consumption, by inserting Exchange, or "Interchange" as he called it, he placed it not only after production, but after distribution also. M'Culloch returned to Say's arrangement, but J. S. Mill followed in his father's footsteps, treating exchange after distribution, and declaring distinctly that "exchange and money make no difference in the law of wages, in the law of rent, nor in the law of profits" (*Principles*, bk. iii. ch. xxvi., Contents). But so far is this from being the case that the very existence of wages, rent, and profits, including interest, is dependent upon exchange. The payment of any particular sum of wages, rent, or profits is a case of exchange, and every variation in wages, rent, and profits is a variation of value, wages being the value of work done, rent the value of the use of land, and profits, the value of the use of capital and of the capitalist's services (see Sidgwick, *Principles of Political Economy*, bk. ii. ch. i. § 2). Of writers since J. S. Mill, most have so far deviated from his arrangement as to place "exchange" before "distribution," *e.g.* Walker, (*Political Economy*), or, with Profs. Sidgwick and Marshall, to treat exchange and distribution as too intimately connected to be treated separately (see DISTRIBUTION). E. C.

EXCHANGE, VALUE IN. Value in exchange, or exchangeable value, denotes a ratio of exchange—"the ratio of the number of units of one commodity to the number of units of another commodity for which it exchanges"; as Jevons particularly clearly points out (*Theory of Political Economy*, ch. iv.), and most authorities admit. The unsettled question is: What are the circumstances which cause the ratio to be what it is? "Utility and difficulty of attainment," answers Mill (bk. iii. ch. ii.), and similar terms are used by almost all economists, but in various shades of meaning, and with different emphasis on each of the two factors. The confusion is aggravated by the not sufficiently noticed circumstance that the operation of the two causes, utility and difficulty, is different in different classes of transactions. It is proposed here to discriminate those essentially distinct cases; mapping out and partially exploring the ground, which may be more fully investigated under the head VALUE.

A convenient tripartite division—Two-sided monopoly, one-sided monopoly (or one-sided competition), two-sided competition—is based upon the degree in which competition is present.

I. The action of competition is at a minimum where the dealers in two articles exchanged are single individuals, or bodies of persons actuated by one will, *e.g.* two governments negotiating a commercial treaty, or a trades-union coming to an agreement with a combination of masters about the rate of wages. The general principle in this case is that both parties will be gainers

by the bargain; in technical language the total utility (see CONSUMER'S RENT, DEMAND, DUPUIT, FINAL UTILITY), of each will be greater after than without the transaction. But to what extent each party will be gainers is not in general determinate; there is a sort of indefinite tract, a "spielraum" (Böhm-Bawerk), within which the point of equilibrium must be determined by other than purely economic considerations. Jevons well says: "the existence of combinations in trade disputes usually reduces them to a single contract bargain of the same [this] indeterminate kind. The men, for instance, ask for 15 per cent advance of wages all round. Rather than have a strike, it might be for the interest of the employers to give the advance, or for the men to withdraw their demand; *a fortiori*, any intermediate arrangement, would still more meet their views. But there may be absolutely no economic principle on which to decide the question. Mathematically speaking, the problem is an indeterminate one and must be decided by importing new conditions" (*State in Relation to Labour*, p. 154).

II. Where there is a monopolist, sole or corporate, on the one side, and on the other side an indefinite number of buyers, or sellers, competing with each other, the most general principle is that the monopolist will beat down the other parties to the point at which each of them is only just a gainer by his bargain; the addition to the total utility of each will be a minimum. The "law of indifference" that there should be one price in a market is not in general true of monopoly. The oppressiveness of the monopolist is modified by regard for his own future interests, as when an American railway company "builds up" a customer by giving him favourable terms, by fear of competition and of public opinion, and other considerations not here relevant (see MONOPOLY).

Mere convenience will often prompt the monopolist, instead of making separate terms in each transaction, as theoretically conceivable, to prescribe rates for classes of persons and goods. These charges are not in general proportioned to the cost incurred. Thus soldiers, in some foreign theatres, are admitted at a different rate from citizens; though the accommodation of the former may be as good as that of the latter. The differences between first and third class passenger fares, and between the rates for different kinds of goods, do not correspond to the outlay of the company in each case. For the object of the monopolist is to render his net profits a maximum; and this result will not in general be reached by apportioning charge to cost. True, if the cost changes, the arrangement most advantageous to the monopolist is apt thereby to be disturbed, and accordingly the charge will be in general altered, but not *proportionately* to the cost. Thus a tax on a monopolised article will in general increase the price, yet not equally with the tax, but, as it happens, by either more or less (Cournot, *Théorie Mathématique*, ch. vi.); the assertion which is often made that the charge will be unaffected by the tax is true only where the tax is a lump sum, not of a specific or an *ad valorem* tax.

In the case of monopoly then value is not measured by cost; but it is measured by utility: by total utility in case the monopolist takes the full advantage of his position; by final utility in the more usual case, where a rate is fixed for a class of commodities. In that case each consumer will go on purchasing up to the point at which it is just not worth his while to purchase another unit of commodity at the prevailing price.

III. The most general, or at least the most frequently treated, case is where there is unlimited competition on both sides of the market. This case may be subdivided into two: A, where value is not measured by cost of production, and B, where it is.

A, the first subdivision, corresponds to what Mill calls the "law of value anterior to cost of production, and more fundamental, the law of demand and supply" (see Mill, *Political Economy*, bk. iii. ch. xvi. § 1, and Prof. Marshall's criticism of the passage; *Principles*, p. 544, 2nd edition). This case may be subdivided into two: (1) where production, or at least reproduction is impossible, or may be left out of account; (2) where this abstraction is not admissible.

(A1). To this head belong market values—not only commodities which cannot be multiplied rapidly, but also those of which the quantity in existence cannot be diminished rapidly, namely the precious metals in circulation (Mill, bk. iii. ch. ii. § 5). Prof. Marshall gives an instructive general type of the "temporary equilibrium" of market value; unaffected by cost of production which requires a "long period" in order to influence value (*Principles*, bk. v. ch. ii.).

Other articles referred by Mill to this category are "ancient sculptures, pictures by old masters, rare books or coins, or other articles of antiquarian curiosity" (*Political Economy*, bk. iii. ch. ii. § 2). Compare Prof. Marshall's enumeration of articles in the case of which "there is no connection between cost of reproduction and price" (at the end of the chapter last referred to).

Mill adds to his list of such articles "building grounds in a town of definite extent (such as Venice), the most desirable sites in any town whatever . . . potentially all land whatever" (*loc. cit.*). It should seem that his limitation of the statement to the case of "countries fully occupied and cultivated," is unnecessary. But it is impossible here adequately to discuss all the difficulties which the subject presents.

It is a nice question whether it is proper to

include in this section (A1) the exchange of present goods for future (cp. Böhm-Bawerk, *Positive Theory*), the settling of the rate of interest. Mill says "this is evidently a question of demand and supply" used in the same as in the preceding cases (*Political Economy*, iii. ch. xxiii. § 1). It is usual, however, to regard the "sacrifice" incurred by postponing consumption as a mode of *cost;* and so not to be included in this section.

(A2) To this class belong "commodities of which, though capable of being increased or diminished to a great extent, the value never depends upon anything but demand and supply" in a sense opposed to determination by cost of production (Mill, bk. iii. ch. ii., last paragraph). Perhaps the most typical case under this head is international trade, where in Cairnes's phrase (*Leading Principles*, bk. iii. ch. iv. § 4), cost "controls" but does not "determine" value; in the terms above used with respect to monopoly *affects*, but does not *measure*, value. Thus suppose tea produced in China exchanges for cutlery made in England. There is no equation between the efforts and sacrifices of the Chinese and the British producer. For the *mobility* tending to produce that equation is wanting. As an additional verification that value is not proportioned to cost in this case, it may be observed that if the cost of production be altered, *e.g.* by an improvement or a tax, the value in the international market will be altered indeed, but not in proportion to the alteration of the cost (Mill, bk. iii. ch. xviii. § 5, and bk. v. ch. iv. § 6).

The cognate case of "non-competing groups" (Cairnes) is amenable to the same law. The labour-market (cp. Mill, bk. iii. ch. ii. last par.) forms a particularly important instance —so far as it is legitimate to abstract efforts and sacrifices incurred with a view to preparation for that market (see below, p. 762, col. 1, par. 3).

Throughout the whole class of transactions which have been considered (A) there is wanting that adjustment between remuneration and effort and sacrifice which is the essence of the classical doctrine that cost of production determines value. Up to this point those who have impugned or ignored that doctrine are correct.

(B) A transition from the *régime* of "non-competing groups," to "industrial competition" (Cairnes) is obtained by supposing removed the barriers which have prevented competition. There ensues with the mobility of industry the equation of "net advantages" (Marshall) in different occupations. It will be convenient to break up class B in two: (1) where abstraction is made of division of labour; (2) more concrete.

(B1) Suppose each worker free to apply his labour in *doses*, or increments, to any industry —the abstract supposition implicitly made by Jevons in his analysis of labour (*Theory*, ch. vi.). No one will work in any branch beyond the point at which the trouble attending the last increment of product is just compensated by its remuneration. In this case then it becomes true that value is measured by the final disutility of the producer; while it does not cease to be true that, as in former cases, value is measured by the final utility of the consumer. There is no opposition between these verities; one need not be subordinated to the other.

In this case the relation between the two factors of value, utility and disutility, is almost as symmetrical as in what Prof. Marshall calls "the simplest case of equilibrium between desire and effort when a person satisfies one of his wants by his own direct action, as for instance when he picks blackberries. . . . After he has eaten a good deal the desire for more diminishes, while the task of picking begins to cause weariness which at last counterbalances the desire for eating, and equilibrium is reached." (*Principles*, bk. v. ch. iii. § 1). In such a case the question whether it was the desire, or the weariness, which "determined," or "regulated" the equilibrium would be insignificant.

The "fundamental symmetry" (Marshall) between the forces of demand and supply is aptly represented by mechanical illustrations. "Just in the same way, when several balls are lying in a bowl, they mutually determine one another's positions; and again, when a heavy weight is suspended by several elastic strings of different strengths and lengths, the equilibrium positions of all the strings and the weight mutually determine one another" (Marshall, *Principles*, bk. vi. ch. i.). The principle that water seeks its own level has been employed by Dr. Irving Fisher in his masterly *Investigations in the Theory of Value and Prices* (from *Transactions of Connecticut Academy*, vol. ix., July 1892) to construct a more elaborate illustration of the great principle thus enounced by Cournot, "Le système économique est un ensemble dont toutes les parties se tiennent et réagissent les unes sur les autres."

What has been said of the relation of disutility to value applies equally, or even better, to the "sacrifice" of postponing consumption. As Prof. J. B. Clark well says (*Yale Review*, No. 3), "the final act of abstinence is like the last act of labour, the costliest of all" . . . "the cost entailed on society by its final acts of abstinence is a second possible measure of value." It may be observed that the abstraction proper to this section (B1) is not so violent in the case of capital as labour. The idea of a capitalist distributing his outlay among different enterprises, from each of which *ceteris paribus* he will expect a similar return—is one that is partially realised in the "share" market. Compare Cournot, *Principes de la Théorie des Richesses*, 1863, Art. 45.

(B2) The "fundamental symmetry" between

utility and disutility as factors of value, continues to subsist when we restore the concrete circumstance of division of labour. But superficial differences arise. The individual may be conceived as seeking to maximise his total utility, *per saltum* by a change of occupations, rather than by doses distributed at different points of the industrial system. The equation of "net advantages" in different occupations, rather than of final disutilities, is now the condition. But the analogy of physical equilibrium is still appropriate. "The normal value of everything rests, like the keystone of an arch, balanced between the contending pressures on its two opposing sides. The forces of demand press on the one side, those of supply on the other" (Marshall). We must regard "the various elements of an economic problem—not as determining one another in a chain of causation—A determining B, B determining C, and so on—but as all mutually determining one another" (*ibid.* preface to 1st ed., p. xiv.).

To rightly apprehend the relation between value and cost of production it should be considered that one occupation may comprise several commodities. The production of different articles has been joined together by nature or custom. It would be idle to expect the value of beef and hides to be respectively proportioned to the quantity of labour "worked up" (Ricardo) or "congealed" (Marx) in each. A person who chooses a literary or academic career may hope to be, on the whole, as well off in that as in any other line open to him; but he must not expect the pay of each particular task—*e.g.* writing an article, or giving a lecture—to be proportioned to the trouble (cp. Mill on *Subsidiary Industries*, bk. ii. ch. xiv., and see JOINT PRODUCTION).

The sense in which value, in the case under consideration (B2), is determined by cost of production, as well as marginal utility, appears to the present writer to have been best stated by Prof. Marshall. Besides showing the interdependence of the two factors, as above mentioned, he also makes it clear that *time*, "a long period," is required in order that the forces of supply should work themselves out. Thus in the case of labour the adjustment between cost and value must be dated from the time when parents begin to make efforts and sacrifices with a view to the education and advancement of their children. There is presented the vast conception of trained industry put upon a future labour-market, by parental providence, for vicarious remuneration.

But perhaps no form of words devised by one person can be expected to recommend itself to all others as the best adapted to express the subtle relations of utility and cost to value. As in higher spheres of speculation, it may be hoped that differences of doctrine are less important than at first sight would appear.

[As to the indeterminateness of the bargain between two individual or corporate units, see Auspitz and Lieben, *Theorie des Preises*, p. 381.—Böhm-Bawerk, *Positive Theory* (translated by W. Smart), bk. iv. ch. ii.—Edgeworth, *Mathematical Psychics*, p. 21, *et seq.*—Jevons, *Theory of Political Economy*, pp. 130-137, and Marshall, *Principles of Economics*, p. 715; Mathematical Appendix, Note xii.—Menger, *Grundsätze*, pp. 176-178.—Price, *Industrial Peace*, pp. 14 and 54.—Sidgwick, *Political Economy*, bk. ii. ch. x. § 3 (end), also p. 349.

On the abstract theory of monopoly, see Cournot, *Principes Mathématiques*, chs. v. and vi. *et passim.*—Hadley, *Railway Transportation*, and other books and reports relating to railways.—Marshall, *Principles of Economics*, bk. v.

The authorities on the more general case of value in exchange defy quotation by their number. Those to whom the present writer is most indebted have been mentioned in the text.] F. Y. E.

EXCHANGE, VALUE IN. HISTORY OF GROWTH OF THEORY. For the purpose of an elementary survey of the history of the theory of value we may roughly divide the various theorists into two "schools"—the "cost-of-production" school and the "utility" school. The "cost" school is the older; its sway over our science has only begun to be broken in the last few decades by the "utility" school, the earliest quite consistent representatives of which wrote in the middle of this century.

The "cost-of-production" school.—The first step towards an analysis of the economic phenomenon of value consisted in a discrimination between value in use and value in exchange. Aristotle makes this important distinction: "To take *e.g.* a shoe, there is its use as a covering of the foot, and also its use as an article of exchange" (*Polit.*, i. 9, p. 22 of Welldon's Transl.). His example is followed, among English economic thinkers, by Locke ("Considerations of the lowering of interest and raising the value of money," in *Works*, ed. 1714, ii. p. 21) in the end of the 17th, and by Hutcheson (*System of Moral Philosophy*, 1755, ii. p. 53) in the middle of the 18th century. Locke, *l.c.*, speaks of "the intrinsic natural worth of anything," as separate from its "value"; and Hutcheson, *l.c.*, observes that "the prices and values in commerce do not at all follow the real use or importance of goods for the support . . . of life." French physiocrats (*e.g.* Dupont and Quesnay), speak of *valeur usuelle* and *valeur vénale;* and Turgot distinguishes between *valeur estimative* and *valeur commerçable* or *échangeable*, defining the first as a purely individual, the second as an essentially social mode of weighing the sacrifice, necessary in order to get possession of the commodity, against the enjoyment of possessing it. English economic treatises of the 18th century sometimes show an appreciation of the difference between use value and

exchange value by discriminating between the words "worth" and "value."

When Adam Smith wrote his *Wealth of Nations*, he made this old primary analysis of value the basis of further analysis. He first hints that "things" must have some "value in use" in order to have any "value in exchange," and then for a time entirely drops "value in use" out of the discussion, proceeding to investigate "what is the real measure of this exchangeable value; or, wherein consists the real price of all commodities," and "what are the different parts of which this real price is composed or made up" (bk. i. ch. iv. p. 42, ed. 1793). He does not explicitly treat the problem: How does value measure men's desires to possess, or consume, commodities? This significant feature is, however, to be found among the French physiocrats. Turgot—("Valeurs et Monnaies," in *Œuvres*, ed. Daire, vol. i. p. 83) says: "For an isolated individual, the *valeur estimative* of an object is precisely that portion of his total faculties (*la portion du total de ses facultés*), which corresponds to his desire for the object, or which he is willing to employ in order to satisfy this desire." Adam Smith proceeds (comp. bk. i. ch. iv. and ch. vii.) to discuss "the different circumstances which sometimes raise some or all of these different parts of price above, and sometimes sink them below their natural and ordinary rate," *i.e.* their cost of production—or "the whole value of the rent, labour, and profit, which must be paid in order to bring" the commodity to market. Here he looks at the problem chiefly from the point of view of the seller, as if exchange were regulated almost exclusively by estimates of labour or cost. In this connection he uses "worth" and "cost" as identical terms. The manner in which Adam Smith treated this question gave rise to that school of economic thinking which (to use the phrase of Professor Nicholson, art. "Value" in *Ency. Brit.*) regards utility "simply as a kind of entrance examination which every commodity must pass to enter the list of valuables, whilst the place in the list is determined by variations in the degree of the difficulty of attainment."

Ricardo states: "Utility then is not the measure of exchangeable value, although it is absolutely essential to it" (*Principles*, ed. Gonner, p. 5). Elsewhere (pp. 7, 8), Ricardo speaks of labour as the "foundation of the exchangeable value," and of "quantity of labour realised in commodities" as "regulating their exchangeable value."

Malthus (*Principles*, ed. 1820, p. 52) sees that value in exchange "does not depend merely upon the scarcity in which commodities exist . . . but upon the circumstance of their not being distributed . . . in such quantities to each as the wills and powers of individuals will enable them ultimately to effect by means of exchanges." He does not, however, search further into the relation between "such quantities" and their value in use. This latter term he describes in his *Definitions* (ed. 1827, p. 234) as being "synonymous with utility. It rarely occurs in political economy, and is never implied by the word value when used alone."

J. S. Mill emphasises more strongly than his predecessors the importance of the play of supply and demand in determining exchange value. He, however, retains Ricardo's notion of two laws of value: one for commodities that "are susceptible of being multiplied at pleasure," and another for commodities that are not. These latter, "no doubt, are exceptions," and it is for these latter that he conceives his supply-and-demand theory of value (*Principles*, bk. iii. ch. ii.).

Karl Marx, the founder of German social democracy, seeks, on the lines of Hegelian dialectics, to separate value in use totally from value in exchange. The latter is "something quite independent" of value in use; and an investigation of value in use may be of some good in commercial education, as "die Disciplin der Waarenkunde," but does not belong to economic science, though "nothing can have exchange value without being a thing of utility" (*Das Kapital*, ed. 1883, pp. 2 and 8). Exchange value, Marx continues, is a ratio, and as where there is a ratio there must be homogeneity, he arrives at the conclusion that commodities can only be homogeneous as products of human labour. This, therefore, determines value. Marx's theories, though they have never been accepted by any economist of note, are worth consideration, partly because of their enormous influence on socialistic workmen in different parts of the world; partly because they undoubtedly display some of the worst consequences of consistently neglecting to analyse consumption or demand as carefully as production or supply.

Turning to the French, German, and other Continental theorists of the cost-of-production school, we find that, with few exceptions, they have been far more disposed to devote attention to the utility element of value in exchange than the "classic" English school from Smith to Fawcett. Though there are most important scientific divergences between the majority of 19th century German economists and the new "Austrian school," it is still by no means difficult to look upon the former as slowly and laboriously paving the way for the latter.

J. B. Say indicated (*Traité*, ed. 1803, ii. p. 58) that the fundamental elements of value in exchange were, the quantities offered and demanded, and the expense of production, which latter he called "the natural value" of the commodity. He set the example for later French

economists of treating the value problem as essentially dealing with the laws which determine when and how "utilities" exchange against one another. "No doubt what determines us to give up a commodity which we possess in order to get another is some quality in this other commodity which pleases us, and which quality is not to be found, or to be found only in less amount (*à moindre dose*) in the commodity which we give in exchange" (Coquelin and Guillaumin, *Dict. de l'Éc. Pol.*, 1853, vol. ii. p. 808)—this, and not the cost of production, is the starting point of most French discussions of value. J. Garnier's definition (*Traité d'Éc. Pol.*, ed. 1889, p. 280): "things have value in exchange when they are useful and, at the same time, transferable and scarce; that is to say, value in exchange is exchangeable utility, corresponding to the amount of labour which the thing saves, and, in most cases, owing its existence to labour and other expenses," is characteristic of the standpoint of many French economists. An exception from the general French attitude is F. Bastiat, notable not so much for solid scientific merits as for a widespread popularity. He defines value in exchange as "the proportion (*rapport*) between two services exchanged" (*Harmonies Économiques*, ed. 1851, p. 118).

Among most German economists of this century there is a tendency to treat utility as of at least equal importance with cost of production in the determination of exchange value, "The value in exchange of a commodity, or its suitableness for the purpose of being exchanged against other commodities, depends upon that combination between use-value and cost-value which has its rise in the economic relations of men one with another," writes W. Roscher in his *System der Volkswirthschaft*, ed. 1882, i. p. 10. And Schäffle defines value in exchange as "a disguised comparison between the cost-values and the use-values of the two commodities which are to be exchanged against each other" (*Kapitalismus und Socialismus*, p. 35). In his *Bau und Leben des socialen Körpers*, ed. 1878, iii. p. 279, the same writer shows that exchange value is at the same time an individual and a social phenomenon. Adolph Wagner (*Allgem. od. theoret.. Volksw.*, Thl. I., *Grundlegung*, ed. 1876, p. 47) says that "the exchange value of a commodity depends, for the individual who demands it, upon its degree of concrete utility for him, and upon the difficulty of getting it." Wagner is careful to observe that value in use is "the foundation of all the estimates" which determine exchange value, and that difficulty of attainment is an incident which, though in most cases present, can by no means be used exclusively for the definition of exchange value. The position of the majority of living German economists is also well represented by Professor Neumann in Schönberg's *Handb. d. Pol. Oek.*, ed. 1885, vol. i. p. 156, etc. He proposes to abandon the phrases "value in use" and "value in exchange" as not sufficiently emphasising the all-important personal element in value. The essential thing in all the varying meanings of value (*Werth*) is "the estimate (*Beurtheilung*) of the usefulness or fitness of a thing for human interests, wants, or aims." Neumann, however, does not enter into any far-reaching examination of the relations between his subjective and objective "categories of value." This intermediate position between the extreme cost-of-production school and the modern utility school is, however, not taken by Max Wirth, Prince Smith, and several other German "free traders." Their value theory is very closely related to that of BASTIAT (*q.v.*) and to that of the classic English school. Another notable dissenter from the majority of German economists is Eugen Dühring. He has adopted the value theory of H. C. Carey, according to whom value "results exclusively from labour." Value in exchange is "the measure of the resistance offered by nature, to the possession of the things desired," or "the measure of the power of nature over man" (*Principles of Social Science*, ed. 1877, ch. vi. § 88). The economic writers among the German social democrats continue to follow Karl Marx.

[In the following works are to be found references to the more important writers of the cost-of-production school both in England and on the Continent. W. Roscher, *System der Volkswirthschaft*, ed. 1882, vol. i. p. 10-12, footnotes.—Adolph Wagner, *Grundlegung*, ed. 1876, pp. 37-40, 43, footnotes.—Schönberg, *Handbuch*, ed. 1885, vol. i. p. 156, footnote; also footnotes to several of the following fifteen pages.—Coquelin et Guillaumin, *Dictionnaire de l'Éc. Pol.*, 1853, article "Valeur."—J. Garnier, *Traité d'Éc. Pol.*, ed. 1889, pp. 275-280, 692-694.—J. R. M'Culloch, *Literature of Pol. Ec.*, ch. i.—J. K. Ingram, *History of Pol. Ec.*, 1888.—L. L. Price, *History of Engl. Pol. Ec.* since Adam Smith, 1890.—K. Marx, *Das Kapital*, vol. i., footnotes to ch. i.—E. von Böhm-Bawerk's *Kapital und Kapitalzins* (Engl. Transl. by W. Smart), contains in its historical part, vol. i., a great number of bibliographical references, which are very useful to a student of the history of the general theory of value, though the book deals only with the history of the theory of interest.—Specially for Italian theory: Augusto Graziani, *Storia critica della Teoria del Valore in Italia*, Milano, 1889.—Specially for early German theory: W. Roscher, *Geschichte der National-ökonomik in Deutschland*, 1874.]

The "Utility" School.—Though all economists insist that "utility is indispensable to value," and though many of the writers who have been classed as belonging to the cost-of-production school strongly emphasised the great importance of utility to value in exchange, they never succeeded in working out a consistent

quantitative theory of the general and necessary connection between utility and value in exchange. To have done this is the scientific characteristic of the "utility school." The principal achievements of this school, as far as they concern the general theory of value, consist (1) in the discovery of the connection between the variation of the utility to an individual of a unit of a commodity and the variation of the number of such units possessed or commanded by him; and (2) in the discovery of the law of the marginal determination of all forms of exchange value (see MARGIN). These discoveries led to the important distinction between total utility and degree of utility, and to the unravelling of the complicated connection between exchange value as determined in a market, under the influence of free competition between producers and consumers, and the marginal degree of utility of a unit of the commodity to individual dealers in the market. These deductions have led to the general theory that *value in exchange is a relative marginal degree of utility and a function of quantity possessed.* Hence it is concluded that variations in cost of production or difficulty of attainment can never directly affect or, strictly speaking, determine value in exchange, but only indirectly affect it, when and in so far as the variations in cost of production affect quantity possessed — such conditions as time and FRICTION (*q.v.*) being taken into account. What directly determines exchange value is not the desire to avoid work, the root idea of the "cost" school, but the desire to possess the commodity—not the production, the past history of the commodity, but the consumption, the future destiny of the commodity. This theory is the result of quantitative analyses of CONSUMPTION (*q.v.*). The "cost" school had in a very conspicuous manner neglected the theory of consumption—had indeed often denied that there could be such a thing. The "utility" school, on the contrary, looks upon the quantitative theory of consumption as the only sound basis of economic theory in general.

The root idea of the "utility" theory is to be found in economic treatises from the earliest time, *e.g.* Aristotle. "It follows," he wrote, "that such things as are the subjects of exchange must, in some sense, be comparable. . . . Money . . . measures everything, and consequently measures, among other things, excess or defect, *e.g.* the number of shoes which are equivalent to a house or a meal. . . . But this will be impossible unless the shoes and the house or meal are in some sense equalised. Hence arises the necessity of a single universal standard of measurement. . . . This standard is in truth the demand for mutual services, which holds society together; for if people had no wants, or their wants were dissimilar, there would be either no exchange, or it would not be the same as it is now" (*Nic. Ethics*, v. 8, p. 152 of Welldon's transl.). Condillac (*Le Commerce et le Gouvernement*, ed. Daire, 1847, p. 250) observes: "We say that a thing is useful when it serves one of our wants. . . . According to this utility we estimate the thing more or less. . . . Or, it is this estimate which we call value. . . . The value of things is then founded upon their utility, or, what amounts to the same, upon our wants for them, or, what still amounts to the same, upon the use we can make of them." B. Hildebrand (*Nationalökonomie d. Gegenwart u. Zukunft*, 1848, p. 318) foreshadows the theory that value is determined by marginal utility and is a function of quantity wanted. The French engineer Dupuit, when attempting to find a measure for the utility of public works, observed that the utility of a commodity is often not only different for different individuals, but that it will vary enormously for the same individual when the quantity possessed or commanded by him varies. "The utility for the same individual of a piece of bread can grow from zero to the amount of his whole fortune" ("De l'influence des péages sur l'utilité des voies de communication," in *Annales des ponts et chaussées*, 1849, p. 185; also "De la mesure de l'utilité des travaux publics," in *Annales*, 1844). Dupuit states (*Annales*, 1849, p. 172) that his theory is an elaboration of that of P. L. O. Rossi, who considered the theory of utility as the true basis of economics. Other more or less fragmentary attempts at building a value-theory upon an analysis of utility are to be found in writings of K. H. Rau, von Thünen, Friedländer, Knies, Schäffle, L. von Stein, A. Walras, Th. de Quincey, Samuel Bailey, R. Jennings, and others (see the bibliographical notes by Menger and Jevons referred to below).

The first economists who succeeded in establishing and elaborating a consistent theory of value by a thorough analysis of consumption or demand, were A. Cournot and H. H. Gossen. In his *Recherches sur les Principes mathématiques de la Théorie des Richesses* (Paris, 1838) Cournot observes (p. 22): "What is truly important is to know the laws which govern the variations of values, or, otherwise expressed, to have a theory of wealth. This theory alone will allow us to show to what absolute variations are due those relative variations" (in values) "which fall within the field of observation." In the chapter on "the law of demand" Cournot writes: "Let us then assume that the annual demand D for each commodity is a special function F (p) of the price p of this commodity. To know the forms of this function would be to know what we call the law of demand. . . . The form of the function would evidently depend upon the nature of the utility of the commodity, upon the nature of the services which it can render, or upon the

enjoyments which it can procure, upon the habits and the customs of each people, upon the average wealth and upon the scale according to which this wealth is divided" (p. 50). Cournot proceeds to argue (p. 56) that "as the function F (p) is continuous, the function pF (p), which expresses the total value of the quantity annually demanded, must also be continuous." Further, it is possible to assign to p such a small value that pF (p) becomes zero, and also to assign to p so high a value that the same happens. It is easily seen that these quantitative relations between price and quantity demanded at that price have their exact analogy in the subjective fact, not treated by Cournot, that the value in exchange of a commodity is the differential coefficient of its value in use.

The treatise by Gossen entitled *Entwickelung der Gesetze des menschlichen Verkehrs und der daraus fliessenden Regeln für menschliches Handeln* (1st ed., Braunschweig, 1854), opens with the explicit assumption of economics being the theory of pleasure and pain—economic activity having for its aim the realising of a maximum of pleasure with a minimum of pain. He proceeds in a strictly logical sequence to expound the theories of utility, of labour, and of exchange. "The magnitude of the same desire," writes Gossen, "diminishes steadily, when we without interruption continue to administer to it, till at last a state of satiety is reached" (p. 4). He distinguishes between total utility, degree of utility, and marginal degree of utility.

The two early pioneers of the utility theory of value, Cournot and Gossen, failed to gain recognition. Their suggestive writings were practically unknown at the time when W. S. Jevons, Karl Menger, and Léon Walras, early in the seventies, published independently of each other their epoch-making treatises.

Jevons as early as 1860 thought out the outline of his theory, and had in 1862 published a preliminary notice of the same. His well-known *Theory of Political Economy* (1st ed. 1871, 3rd ed. 1888) has exercised a great reforming influence. Its most salient and enduring feature is the profoundly philosophical spirit in which its early chapters deal with the method and very foundation of the science. In his introduction (ch. i.) Jevons contends "that economics, if it is to be a science at all, must be a mathematical science . . . simply because it deals with quantities" (pp. 3, 4, 2nd ed., 1879). Having shown the mathematical connection between total utility, or value in use, and degrees of utility, having framed the law of variation of final or marginal degree of utility, and having shown how this law rules the distribution of a commodity in different uses, he only needs to define MARKET (*q.v.*) and to formulate the LAW OF INDIFFERENCE (*q.v.*) to lay the foundation of his theory of exchange (ch. iv.). This is expressed in the words: "The ratio of exchange of any two commodities will be the reciprocal of the ratio of the final degrees of utility of the quantities of commodity available for consumption after the exchange is completed" (p. 103). Jevons continues: "There are two steps between labour and value. Labour affects supply, and supply affects the degree of utility, which governs value, or the ratio of exchange" (p. 179).

Léon Walras, in *Éléments d'Économie politique pure, ou Théorie de la Richesse sociale* (1874), and subsequent works supported the same theory of value as Jevons, the chief point of difference being one of terminology. Walras, for example, often using the highly concentrated and therefore rather ambiguous term rarity (*rareté*) instead of final or marginal degree of utility. Léon Walras developed the mathematical utility theory of value expounded by his father A. Walras, and he also utilised the work of A. Cournot above referred to.

Karl Menger published his *Grundsätze der Volkswirthschaftslehre* in the same year as Jevons his *Theory* (1871). In the preface he announces as his object to frame so general a theory of price that it accounts not only for price of commodities but also for interest, wages, rent, etc. (p. x.). He approaches his subject by way of an elaborate analysis of the economic significance of goods (*Güter* as distinct from *Waaren* or commodities), and he establishes in the very first chapter the doctrine of the different "orders" of goods—a very characteristic part of his theory, and valuable as an attempt to broach the special problems of the value of tools or of goods which only indirectly serve our life. Menger's theory of value (pp. 98-99 and 107-108) is in substance the same as that of Jevons and Walras though not formulated with the same amount of precision.

[During the last ten or fifteen years there has grown up in England, America, Austria, Germany, Holland, Italy, France, and Denmark, a "school" of economists engaged in developing the science on the lines of Jevons, Walras, or Menger. The well-known treatises of such Continental economists as E. von Böhm-Bawerk, Friedrich von Wieser, Wilhelm Launhardt, R. Auspitz, and R. Lieben, N. G. Pierson, Emil Sax, Harald Westergaard, are all founded upon the utility theory of value. The new theory has, besides, exercised a very marked influence on many prominent economists of the present day who, like Professor H. Sidgwick and Professor F. A. Walker, cannot be said actually to belong to this "utility school."

Among English treatises distinctly belonging to the "utility school," we can only mention a few. F. Y. Edgeworth's *Mathematical Psychics* (1881) is interesting as an attempt at utilising the new theory for establishing, on strictly mathematical lines, a science of social life. *The Alphabet of Economic Science*, by Ph. H. Wicksteed (1888), takes up the theory of value of Jevons, and gives a popular explanation of the fundamental

theorems of the higher mathematics upon which it rests. Professor A. Marshall, in his *Principles of Economics*, vol. i. (1890), shows the true organic connection between the modern theory and the doctrines of the leading economists of the past.

The most complete bibliography to the value theory of the utility school is found in the appendix to W. S. Jevons's *Theory of Political Economy*, ed. 1888. See also: Carl Menger, *Grundsätze der Volkswirthschaftslehre*, thl. i. 1872 (notes to pp. 78-80, 108-113, 215-216, are excellent as a guide to German writers on the subject); Léon Walras, *Théorie de la Monnaie*, 1886, pp. vii.-ix.—Auspitz and Lieben, *Untersuchungen über die Theorie des Preises*, 1889 (preface).—Graziani, *Storia critica della Teoria del Valore in Italia*.—R. Zuckerkandl, article "Preis" in Conrad's *Handw. b. d. Staatsw.*, also same writer's *Zur Theorie des Preises*, 1889.—E. Cannan, *History of the Theories of Production and Distribution in English Pol. Ec. 1776-1848*, 8vo, 1893.] G. F. S.

EXCHANGE (USURY). See USURY.

EXCHANGE, as BOURSE. (*a*) A place where merchants, bankers, brokers, etc., assemble at certain hours for the transaction of business; and (*b*) the assemblage itself. In both senses the word is commonly contracted into 'Change.

"The last yere, I shewyd your goode lordeshipe a platte, that was drawen howte for to make a goodely Bursse in Lombert strette for marchaunts to repayer unto. I doo suppose yt wyll coste ii. M. li (£2000) and more, wyche shalbe very beautyfull to the citti, and allsoo for the honor of our soverayngne lord the Kinge." Thus wrote Lord Mayor Sir Richard Gresham in 1538 to Cromwell, the lord privy seal. He had recently seen and admired the new *Burse* at Antwerp, and was anxious that London merchants, whose custom it was to congregate twice a day in the open air in Lombard Street, should be provided with a similar house, or covered walk, to shelter them from the inclemency of the weather. But powerfully as he advocated the scheme, it did not find favour. Owners of property were difficult to treat with; and, as the merchants themselves appear to have been completely indifferent, the plan was suffered to fall through. After the lapse of a quarter of a century, it was however again brought forward by his public-spirited son, Sir Thomas Gresham. On the death of his only child in 1564, Sir Thomas appears to have conceived the idea of making his country his principal heir; he munificently offered, provided the city would furnish a suitable site, to erect the building at his own expense. His fellow-citizens gratefully accepted the offer; they raised a sufficient sum by subscription, purchased the piece of land on which the Royal Exchange now stands, and conveyed it over to him. By the end of 1568, merchants were able to hold their meetings within the building. It consisted of a quadrangular arcade, enclosing an open court, and bore a general resemblance to the *Burse* at Antwerp, which had suggested the plan. After completion, it was inspected and formally opened (23rd January 1571) by Queen Elizabeth, who "caused the same Burse by an herralde and a trompet to be proclaimed the *Royal Exchange*, and so to be called from thenceforth, and not otherwise." Gresham had ordained in his will that, on the death of his wife, who was to enjoy the rents during her lifetime, the Royal Exchange should be vested in the hands of the Corporation of the City of London and of the Mercers' Company, conjointly, and to them it in due time reverted. Exactly 100 years after the laying of the foundation stone, the building was swept away in the great fire of 1666; and its successor, the second exchange, was also destroyed by fire in 1838. The present structure dates from 1844.

To the inquiring foreigner or stranger who nowadays visits the Royal Exchange, as many do, in the expectation of finding there the very heart and focus of the business of London, the silence and the deserted appearance of its interior are a constant source of wonderment; for with the exception of a short interval in the afternoon, when it is resorted to by dealers in some of the minor branches of commerce (paper, oil, drugs, etc.), and of an hour or so on Tuesdays and Thursdays, when foreign bills are dealt in, it appears to the observer to be entirely given over to loungers. As a matter of fact it has to a great extent outlived its object. In the time of Gresham, and for many years afterwards, the space afforded by the quadrangle and ambulatory was doubtless amply sufficient for all requirements, but to-day the building would hardly give standing-room to a tithe of those who every day come together in the city to discuss and transact affairs; long ago it became apparent, as the throng grew more and more dense, either that the exchange must be greatly enlarged, or that some of those who frequented it must forgather elsewhere. One after another, accordingly, the larger and wealthier sections of traders forsook the parent assembly and built homes for themselves in more convenient localities. The dealers in stocks and shares, the produce merchants, shipowners, insurance underwriters, coal, metal, corn, hop, wool-traders, and others, now possess their own separate exchanges. There is, however, one small but important group which still transacts business in the old parent centre, and which the mind more particularly associates with the word "'Change." On Tuesdays and Thursdays, immediately after luncheon time, the principals of the great merchant-banking houses, and of the foreign and Anglo-foreign joint-stock banks, collect at the eastern end of the courtyard to discuss matters of common interest and to deal in foreign bills. The attendance is never very large—not more perhaps, including the brokers,

than five or six score; but it comprises members of firms whose names are "household words" on every bourse throughout the world, and is eminently representative of the financial side of England's *Welthandel*. Hubbub and excitement, apparently necessary concomitants of the dealings in other commercial assemblies, are here entirely absent; the negotiations are conducted in a quiet undertone, and with an air of nonchalance which might almost lead the onlooker to believe that the chief object of the meeting is conversation, and that business is quite a secondary consideration.

Formerly the foreign mails were despatched from London only twice a week, on Tuesdays and Fridays, and on these "post days" alone were foreign bills negotiable on "'Change." Though times have changed, the custom of a bi-weekly meeting (since 1879 fixed for Tuesday and Thursday) still subsists, as it is found that two exchange-days are quite sufficient for all practical purposes, and are perhaps even more advantageous than a daily market would be, inasmuch as they collect on the same spot and at the same time all the important buyers, and therefore establish a genuine quotation.

Owing to the fact that the settlement of our mercantile transactions with other countries is effected almost entirely by means of bills drawn on London from abroad—the bills drawn on abroad from England forming only a very small fraction of the whole, that is to say, our exporters, instead of drawing against their sales, mostly arrange to have remittances sent them; and our importers, instead of remitting against their purchases, mostly arrange to accept,—the traffic in "London" paper on the Continental bourses is on a far larger scale than that of the dealings in foreign bills on the Royal Exchange; and the buying and selling of long or short "London," either for the portfolio—as stock-in-trade, investment, or speculation, as the case may be—or in execution of orders received from customers, is part of the regular round of a Continental banker's duties, and necessitates his daily attendance at the bourse. An English banker, on the contrary, is rarely or never seen on "'Change," as he confines his bill-operations to paper payable at home, and immediately disposes through his broker of whatever foreign paper may be sent up to him from the provinces for negotiation. A notable consequence of this predominance of foreign-drawn over English-drawn paper in the various markets is that the course of most of the exchanges is controlled from abroad, and that the fluctuations registered here are mere reflections of the movements produced by forces operating on the other side. G. C.

EXCHANGE, STOCK. The largest stock exchange in the world is that of London, in which securities to the nominal value of £7,004,789,088 are marketable, or were so on 31st Dec. 1891. These securities are officially recognised, and there are besides numbers which have no official quotation, but are yet dealt in from time to time according to the speculative rage of the moment. There are also in the United Kingdom eleven other exchanges, viz.:—those of Manchester, Liverpool, Leeds, Sheffield, Newcastle, Birmingham, Bristol, Aberdeen, Edinburgh, Glasgow, Dublin. The whole of these do not include the attendance of as many persons, or turnover of so much money and securities, as the London stock exchange alone. Their business, however, presents some points worthy of notice (see EXCHANGE, STOCK, PROVINCIAL). The London stock exchange is not only the chief of the English stock markets; it is also linked internationally with nearly all the financial centres of the world, and it would be difficult to name a security which could not find a market in London, either through the ordinary channels provided by *arbitrage* dealers (see ARBITRAGE), who buy in the cheaper and sell in the dearer markets, or through the agency of trusts which, by the aid of English investments, form funds applied to the purchase of a vast variety of securities in European, Asiatic, American, and Australian exchanges as well as those which are of native production. There has never been anything in history like the London stock exchange for magnitude and extent of financial resources. It is an immense business engine with certain unavoidable drawbacks which give it also the nature of an extensive gambling centre. On the whole, it has been found by experience that the advantages and merits of such an organisation outweigh altogether the drawbacks imposed by the too-speculative spirit of mankind. Members have been heard to assert that nine-tenths of the operations on which stockbrokers live by commission are gambling operations, and still it has been found by experience that, although the speculative public pay annually a heavy tax to the professional stock exchange element—it has been calculated that the annual revenue of members of the London stock exchange is £4,000,000,—yet the stock exchange provides a useful barometer; and sometimes, by its extreme sensitiveness to events which have yet to happen, eases and mitigates the effects of disasters which would otherwise have assumed proportions of a national calamity. The stock exchange is always running ahead of anticipated events, and the events, when they happen, being so "discounted," have the less effect if any effect at all. This is by no means the only public service done by the stock exchange. The modern fashion of turning over growing private undertakings into joint-stock companies makes the stock exchange a necessity. It is also a means by which astute men of business can

insure, or hedge, against the worst results of what would otherwise be a hazardous operation. It is on record that a large financial house, which had undertaken to supply the Spanish monarchy with a sum of money, went to Lloyds and insured the life of the king of Spain, in order to provide a hedge, as sporting men would say, against the possible death of the Spanish monarch, who happened to be in ill-health at the time. Similarly the stock exchange is often used as a hedge against commercial contracts. For example, if a group or firm of contractors have undertaken to supply steel rails for a South American railway at an advantageous rate, the chief contingency to be guarded against is default or discredit on the part of the state. While undertaking to contract on the one hand, they find it advisable to acquire the option to deliver stock at fixed prices on the stock exchange; so that, whatever happens, there is no great or irreparable loss to be feared. Commercial operations which depend on the maintenance of peace in Europe can obviously be entered into with some sort of security when it is possible to hedge against disaster by recourse to the stock exchange. It is a two-edged tool, however, and cannot be used safely by others than men of the greatest discretion and experience. We may usefully put on record here an extract from the conclusions of the royal commission on the London stock exchange, which reported in the year 1878 as follows:

"The public are enabled to count upon a reasonable speed and certainty in the transaction of business, and the vast amount of business done secures to those who deal in the London stock exchange as small a difference between the buying and selling prices as can be obtained in any other market. We think, however, that if it were possible, it would be desirable that the exchange should be open to the public,—not so much because an investor would in the event have any real control over the bargain which his broker might make for him, as for the purpose of removing a certain amount of jealousy and suspicion which is created in some minds by the present system." The stock exchange has not found it practicable to throw open its doors to the public, and it remains what it was—a strictly regulated club.

The report of the royal commissioners also contained these words: "In the main the existence of such an association, and the coercive action of the rules which it enforces upon the transaction of business and upon the conduct of its members, has been salutary to the interests of the public." The stock exchange having, or rather being, a valuable monopoly, it is not surprising that the tone of its government is exclusive. It has a share capital of £240,000, the shares being reckoned as £12 paid. The £12 shares are (in the year 1893) worth about £120 each, and none other than a member of the stock exchange is allowed to be a proprietor. For the year 1891-92, the dividend paid was £6 a share, or 50 per cent of the share capital, and the net revenue of the year had been £120,602 : 15 : 2, after payment of interest at 3½ per cent on £250,000 debentures. The share and debenture capital together are more than balanced by freehold and leasehold property, which stands at £596,111 : 8 : 3 in the accounts, and may be worth more. The value of the connection of the stock exchange may then be reckoned at something between two and three millions sterling.

The management of the stock exchange has thus been good enough to stand the test of public opinion during the fast-working 19th century. About the year 1700, dealers in public securities found the accommodation in the Bank of England too small and migrated to 'Change Alley; thence to Sweetings Alley in 1773, where a room was engaged and kept up by subscription; and afterwards to Capel Court where, in the year 1802, a building was opened, but the public were excluded. There were at that time about 500 subscribers, and this was the formal beginning of the stock exchange, as it is now known. Fifty years ago the number of members was about 350, and now (1893) the number is 3332, besides 1923 clerks, who are admitted at reduced rates. The stock exchange included, as it still includes, a responsible body, a complete organisation, a local habitation, a public institution privately managed. Its Benevolent Fund is unique.

Mr. F. Levien, for many years secretary to the committee for general purposes, in his evidence before the royal commission in 1877, described the internal administration of the stock exchange in the following words: "The administration of the stock exchange is vested in two bodies, whose functions are distinct. First come the managers, who represent the proprietors or shareholders in the undertaking, under the deeds of 1802 and 1876, who are the executive of the landlords of the house and premises, have control over all monies paid for admission, fix annually the charge for admission of members for the year ensuing, appoint all officials, except the secretary to the committee for general purposes and the official assignees, and superintend all matters connected with the building, supplies, etc." He goes on to describe the functions of the committee for general purposes, who are the executive of the subscribers, and "have control over the business of the house; make and administer the rules and regulations for the conduct of the business of the stock exchange; adjudicate all questions between members and complaints against members by non-members, if desired to do so by the latter. They investigate the question whether their published requirements have been com-

plied with by governments and companies asking for settlements or official quotations, for loans or shares, and have vested in their hands the election by ballot of those who seek to become members of the stock exchange." This committee have been known to suspend or expel members for offences against the body, also for those against the public, seeing that such conduct would be calculated to bring the stock exchange into disrepute. On the whole, the management has been successful, and, again on the whole, is approved by public opinion. New members are elected and old members re-elected on the first Monday in March of each year. An applicant for membership must be recommended by three members of at least four years' standing, each of whom must pay £500 in case of default by the new member within four years of his admission. The full entrance fee is £500 and the annual subscription £31 : 10. A. E.

(See BROKER, DEALER, JOBBER.)

EXCHANGE, STOCK, PROVINCIAL, IN GREAT BRITAIN AND IRELAND. The best known of the provincial stock exchanges are Birmingham with 25 members, Dublin with 67, Edinburgh with 54, Glasgow with 141, Leeds with 14, Liverpool with 163, Manchester with 75, and Sheffield with 26 ; collectively 565 members.

All are organised associations managed by committees, and the aggregate of yearly business transacted by them is very great. It is to be noted that cases of dispute and litigation between provincial brokers and clients are extremely rare, and it is claimed on behalf of these institutions that no description of business in this country is carried on with greater rapidity and accuracy than that in which these exchanges are engaged.

Up to the year 1890 the provincial exchanges had no common understanding or organisation ; but in that year was established what has since become widely known as the council of associated stock exchanges,—that is to say of provincial stock exchanges,—a consultative body composed of delegates, generally the chairmen and deputy chairmen of the various exchanges. The council meets annually, or more frequently in cases of emergency ; the presidency and administration being undertaken by the larger exchanges in turn. The provincial exchanges have long been engaged in the revision and codification of stock exchange rules ; a task likely to result in the institution of numerous common rules and identical practices. The first public action of this body was their successful attempt, by securing the guarantee of share titles, to avert from shareholders, in future, the disastrous possibilities opened out by the North-Western Railway Company's now historical denial of their stock certificates. The London stock exchange declined to take action in the matter, until the principle of indefeasible titles to securities had been accepted by public bodies and press opinion ; and the Forged Transfers' Acts, and the benefits resulting from them, will accordingly always be associated with the provincial exchanges, and more especially with that of Liverpool, upon a member of which institution devolved the labour and responsibility both of securing the passing of these acts and of putting them into operation.

The business of the provincial stock exchanges consists very largely of :—(1) Transactions for investment in British railway stocks —and with this distinction as regards the London stock exchange that, being practically brokers' markets, investors can there operate free from such profits as are absorbed by London dealers. (2) Speculative dealings in the above-mentioned securities. (3) Extensive dealings in shares of insurance, banking, shipping, and commercial undertakings. (4) Very extensive dealings in Canadian and American railway stocks. It is difficult to compute the extent of the yearly transactions upon the provincial stock exchanges named above ; they have been estimated in round figures at an average of £500,000,000. The number of public companies introduced in the provincial stock exchange centres, although at times considerable, bears but a small proportion to the total number annually brought before the public.

EXCHANGE, FOREIGN. The term foreign exchange denotes the value at which an amount quoted in the currency of the country where the transaction originates is interchangeable with that of a foreign country. The quotation of foreign exchange fixes the market value, for the time being, of foreign currency in the place wherein the quotation is made. For instance, if the French exchange is quoted in London to-day at 25 frs. 20 c. for cheques on Paris, it means that for every sovereign a London banker would buy or sell 25 frs. 20 c. in a cheque on Paris—one must say buy *or* sell, because it is most unlikely that he would do both, for there is always a difference between buying and selling, therefore the quotation is generally twofold—for instance 25 frs. 20 c. to 25 frs. 25 c., meaning that the London banker would give the public an order on Paris for 25 frs. 20 c. for each sovereign he receives, or would give a sovereign for every 25 frs. 25 c. offered to him in the shape of a cheque on Paris.

He thus leaves a margin of profit of, $2\frac{1}{2}$ centimes in each pound, either in buying or selling, the actual exchange being 25 frs. $22\frac{1}{2}$ c. This margin of profit pays for the trouble and outlay involved in the transaction, which the banker in London and his agent in Paris have to carry out.

It is necessary to point out that these quotations constantly fluctuate for various reasons, the principal cause being the balance of trade between different countries ; let us cite an instance :

If operators in France sell in England goods or securities of a greater value than what English operators sell in France, the balance of trade is said to be against England; consequently the quotation in Paris for pounds sterling declines. There are, however, indirect influences on the exchanges between different countries; for example, England may owe money to the United States for wheat, cotton, or other commodities, while the United States may owe money to France for silk or wine. In that case the American merchant would probably send to France bills drawn on England against the goods which English merchants have bought from him. These bills being sold in Paris would tend to depress the quotation of pounds sterling in Paris, just as if England owed the money to France. We thus see that foreign exchanges play an important part in facilitating the settlement of debts due by one country to another, thus avoiding the cumbrous mode of paying international indebtedness by the transmission of specie.

Another cause of variation in foreign exchanges is the inequality of the value of money in different commercial centres; money, like water, finds its level, it flows, unless some obstacle intervenes, to those countries where a better rate exists, until it equalises those differences. Those obstacles are the question of credit, and of the dissimilarity in the respective currencies; where these things are equal, a difference in discount rates will attract or repel money from one country to another. For instance, when the Baring crisis occurred in November 1890, the Bank of England raised its rate of discount to 7 per cent., which rate was maintained for some time, and was higher than the value of money in other commercial centres. The effect was immediately apparent; all foreign merchants and bankers who had confidence in their London agents remitted money to obtain a higher rate of discount than what obtained in their respective countries. These remittances acted on the foreign exchanges, causing them to advance to the gold export point (see GOLD POINT OF EXCHANGE), necessitating the shipment of gold to London.

Another effect of high discount rates is the depression in the value of merchandise and securities, such as bonds and shares held on borrowed money. These are sent to markets abroad where money is cheaper, and naturally money is sent to London in payment of the goods and securities received. Another cause of fluctuations in foreign exchange is internal disturbance, either social or financial, creating alarm and inducing the transference of money from one country to another for safe custody.

We have seen at intervals in Paris that disturbances have caused the exchange on London to advance very rapidly in consequence of large sums being sent to London for safe keeping.

The season when English people migrate to the Continent is generally marked by a decline in the value of sovereigns abroad, and the exchange is then said to move against this country. The quotation of exchange between countries using gold as the chief circulating medium can however only fluctuate between well-defined limits called the export or import gold points. Thus the exchange on London cannot for any length of time fall below 25 frs. 10 c., nor rise above 25 frs. 40 c.; because in the former case gold would be sent from London to Paris to purchase pounds sterling, and in the latter case the reverse operation would take place, and gold would be sent from Paris to London. The difference of 30 c. or 3d. per sovereign covers the freight and insurance, also the mint charges involved in converting the gold of one country into that of the other.

There is, however, considerable difficulty at times in fixing the exchange between this country and another which has a silver or paper currency. Sometimes the variations are great and rapid; sometimes it is difficult to fix a close ratio between buyers and sellers of exchange on countries having a basis of circulation different from our own. Let us take the exchange between this country and India, which is the largest silver using country in the world. The exchange in London on India varies materially and suddenly. On some occasions there has been no reasonable quotation for bills on our great dependency, because of the uncertain value of silver. The rupee declined from the rate of 2s. ¾d. in 1864, to the rate of 1s. 2⅝d. in August 1892, and subsequently even lower. These enormous fluctuations arose from the variations in the gold price of silver in this country, but the fluctuations in the exchanges between India and other silver-using countries has been very slight.

Thus the exchange between Shanghai and Calcutta has not varied as much during the past year (1891) as the quotation between London and Paris; in fact, the fluctuations between China and India seldom exceed ½ per cent, which represents the cost of freight and insurance on transmitting silver between those countries.

The greatest variations, however, arise in the exchanges between this country and those where there has been a suspension of specie payments. The most notable instances are with Russia, Spain, and Portugal in Europe; and with Brazil, Chili, and Argentine in America. There is hardly a limit to the possible depreciation of a paper currency. We have noticed, with regard to Argentine, a premium on gold of 300 per cent, or a reduction in the value of paper to one-fourth of its former gold value.

All depends in these cases upon the quantity of paper money issued, relatively to demand and to the absorbing power of the country con-

cerned and upon the credit of the government which is responsible for the ultimate redemption of the paper currency. We know that almost every country has passed through this critical financial stage; even in this country, at the beginning of the 19th century, gold has been quoted at a premium of over 50 per cent, as against Bank of England notes. At such a time the foreign exchanges were greatly adverse to this country, and all gold was exported. Thirty years ago the United States had a similar experience of a forced paper currency with foreign exchanges all against that country, causing the exportation of gold and silver to pay for war stores. We thus see that foreign exchange acts like a barometer giving indications of the financial aspect in every country, acting as a warning when a financial storm is impending, counselling those who have too many engagements afloat to take in sail; while in fair weather it gives an assurance of smooth water ahead, administering a well-founded impetus to all who embark in legitimate enterprises.

[See Goschen, *Foreign Exchanges.*] S. M.

EXCHANGE, FOREIGN, practical working of. If it be sought to apply the theory of the foreign exchanges to practical ends, or to draw trustworthy conclusions from their fluctuations, the following axioms should be noted.

Firstly, the current rate of exchange is the price of a bill of exchange. It is not necessarily the ratio at which the money of one country exchanges for the money of another. At a time when *e.g.* a cheque on Berlin is to be bought at 20·40 marks to the £, it may be necessary to pay 20·20 for German gold coin (because it must be assumed that the seller has been at the expense of importing it); but 20·40 would be called the rate of exchange, not 20·20.

Secondly, the price of bills is governed by the ordinary laws of supply and demand. When they grow scarce they grow dear, when they become plentiful they become cheap. If they become very dear, the would-be purchasers look round to see whether there is anything else they can remit to better advantage—produce, let us say, or some particular stock exchange security, or one of the precious metals—and, as soon as they discover such an article, they cease buying bills, and the price stops rising; if they become very cheap, the would-be sellers consider whether it might not pay better to employ the money standing at their credit abroad in the purchase of something—gold, say, or a foreign bond—which is saleable at home, and immediately this becomes feasible they cease offering bills, and the price stops falling.

Thirdly, the rate of exchange at A for cheques on B must correspond, or tend to correspond, with the rate of exchange at B for cheques on A. Thus if cheques on B stand at 1 per cent discount at A, cheques on A must be at 1 per cent premium at B; or in other words, if 99 units of A currency are equal in value for the time being to 100 units of B currency, then 101 units of B currency will approximately equal 100 units of A currency. For, suppose cheques on A stand at par in B, then if a banker at A pays 99 for 100 units on B, and sends it to his agent there with orders to buy and remit 100 units on A, it is evident that he will gain 1 unit on his outlay. It is also evident that such purchases would not only tend to reduce the margin, but would continue until it disappeared. Or again, notice what the London manager of the Anglo-Gallic Bank, to imagine a name, does, if, just as the exchange on this side relapses from 25·25 frs. per £ to 25·24, his Paris colleague telephones that as bills over there are rather scarce this morning the rate has improved a point to 25·26. "Then draw, say, £5000," he instantly replies; and forthwith proceeds to do the like himself. The result is as follows—

London pays £5000 (amount of the Paris draft), and receives £5000 (proceeds of its draft on Paris for fr.126,200 at 25·24).

Paris pays fr.126,200 (amount of the London draft), but receives fr.126,300, proceeds of its draft on London for £5000 at 25·26; showing without any outlay whatsoever, a gain of 100 francs. This is called arbitrage-business, and illustrates the manner in which the exchanges are actually regulated, for it is of course obvious that under the influence of such transactions the rates in Paris and London will very speedily be brought to a level.

Fourthly, as it is the custom of trade to give credit to the buyer who buys to sell again, most bills are drawn at a usance, varying from thirty days to six months, according to custom, and the usual exchange quotation applies to bills at usance. Between the exchange for a bill at sight and that for a bill at usance, the difference depends on the rate of interest prevailing in the place upon which it is drawn. The usance, for example, of bills on Italy is three months, and if interest in Italy rules at 4 per cent, a bill at usance should cost 1 per cent less than a bill at sight.

Fifthly, as the bills drawn on London from abroad vastly outnumber the bills drawn on abroad from London, the demand and supply of the former exercises a proportionately greater influence over the course of the exchange than that of the latter. In other words, the actual rise or fall takes place on the foreign market, and London in most instances merely adjusts its rates according to the quotations telegraphed from abroad.

Lastly, in those countries where the value of the currency oscillates in relation to gold, the exchange is subject to two sets of fluctuations—to fluctuations of limited extent caused by changes in the ratio of supply to demand, and

to fluctuations of almost unlimited extent caused by changes in the value of the currency-medium. Thus, if the normal exchange with a paper currency country be 48d. per $ gold, or $5 to £1, a rise in the gold premium, which is illimitable, from 200 per cent to 300 per cent would cause the exchange to move from 16d. per $ paper, or $15 per £, to 12d. per $ paper, or $20 per £. G. C.

EXCHANGE BETWEEN HOLLAND AND DUTCH INDIA. (The guilder converted in this statement as 12=£1.) To explain the working of the exchange between Holland and Dutch India, it is necessary to describe the different currency systems in force in the mother country and the dependency. To begin with that of Holland. At the commencement of this century the state of the currency in the Netherlands was very unsatisfactory. From early times silver had been the only standard of value, but an almost unexampled variety of silver coin was in circulation, owing to the fact that, during the existence of the Republic of the United Netherlands, nearly every province had a separate mint. Gold coin had also been struck, and was a medium of exchange at rates officially fixed by the government; but silver alone was legal tender until the year 1816, when (Act of 28th September) dual legal tender was introduced at the ratio of 15·87, between the then current silver guilder of 200 aas weighing 9·61 grammes fine, and the ten guilder piece weighing 6·056 grammes fine gold.

Gold being thus over-valued, as compared with the bimetallic ratio of 15½ adopted by France in 1803, all the full weight silver coins were driven out of the country, and gold coin, struck according to the law of 1816, together with all the worn and clipped silver coin of earlier date, formed the only circulating medium.

To remedy this state of affairs it was enacted in 1839 (Act of 22nd March) that the historical guilder of the weight of 9·61 grammes fine silver should be reduced to the weight of 9·45 gram fine, thus raising the ratio from 15·87 to 15·60; but the clipping of the old coin continued on a most scandalous scale, so that often a premium of 5 to 7½ per cent had to be paid for full weight pieces. A thoroughly efficient reform of the currency became indispensable, and a general recoinage of all the old silver money, struck before 1839, was accordingly ordered by the Act of 22nd May 1845.

Within a couple of years a nominal amount of 85 millions of guilders old silver (£7,083,000) was withdrawn from circulation and converted into new coin, at a cost of some 8 millions (£666,600), the operation itself being to a great extent facilitated by the still existing double standard, gold coin being available for the use of the public in adequate quantities. At the same time, the question whether the double standard system could be continued, became a matter of ample discussion in the press, and after lengthened debates in parliament the law of 26th September 1847 was enacted, by which the monetary system of the Netherlands was based on the silver standard only, with the silver guilder of 10 grammes and $\frac{945}{1000}$ fine as the unit, all the gold coins in the hands of the public being withdrawn from circulation and demonetised.

This decision was taken at a moment when nothing yet had transpired about the Californian and Australian gold-fields. That only became known to the world a couple of years later; nothing, therefore, can be more erroneous than the assertion, often made, that the final adoption of the silver standard as basis of the monetary system of the Netherlands originated in the fear of a probable fall in the value of gold. The greater convenience of silver for domestic purposes was the principal motive for a reform which at that time perfectly answered the purpose.

The recoinage of the old silver coins being completed in 1849, a beginning was made in the following year by withdrawing the gold ten and five guilder pieces from circulation. Of these g.172 millions (£14,333,300) had been coined and delivered to the public, but scarcely one-third of that amount, say g.50 millions (£4,166,600) was presented for exchange against the state notes (*muntbiljetten*). These notes were intended to be issued as a temporary medium of exchange only, but as the public became accustomed to them they proved so convenient that they still form a part of the currency of the country to a limited extent, 10 millions originally, and 15 millions at the present moment (£833,300, and £1,250,000).

All the gold coins received from the public were sold on government account at a loss of 1 million of guilders (£83,300), and altogether the reform of the currency, including the recoinage of the old silver money, and the demonetisation of the former gold coin, has been effected at a cost of about 10 millions (£833,300).

Since that date, 1847, the state of the currency became most satisfactory in every respect, and certainly no new reform would have been thought of if the monetary policy of the neighbouring countries had remained unaltered. But in 1872 the rulers of Germany deemed it advisable to introduce gold as the standard of the newly-constituted Empire, and it soon became evident that Holland could not remain indifferent to the intended reform of the German currency.

In October 1872, therefore, the Dutch government appointed a special commission to consider the subject and to advise as to the measures necessary in the interests of the country, and in December the commission re-

ported that it would be impossible for Holland to retain the silver standard established by the Act of November 1847, were all her neighbours to adopt gold as their standard of value. According to their views the most desirable solution of the question for Europe in general would be the adoption by the leading monetary powers of the double standard—admitting the free coinage of both gold and silver as legal tender at the same fixed ratio of value. They considered that a great stability of value for both metals would be the result of the compensatory action of that system, if introduced throughout the whole of Europe; that Holland alone would be powerless in the matter, and therefore that it would be indispensable for Holland to adopt the single gold standard should Germany decide upon that line of action, and that, in the meantime, without abrogating the law of 1847, the further coinage of silver on private account should at once be restricted or stopped altogether.

In conformity with the recommendation of the commission, the closing of the Utrecht mint for private coinage of silver was ordered by the law of 21st May 1873, and on Germany establishing the gold standard by the law of 9th July 1873, a bill was submitted to the states general, proposing the introduction of a legal tender currency of ten and five guilder pieces in gold, and the withdrawal from circulation of the silver standard coins issued under the currency regulations of 1847. The bill, however, was rejected; matters remained as they were until the middle of the year 1875, when, according to the law of 6th June, the mint was opened to the public for the coinage of ten guilder pieces of 6·048 grammes fine gold, to be legal tender concurrently with the silver guilder, the further coinage of which remained prohibited.

Thus the system of the *étalon boiteux* was introduced in the Netherlands, and, though it is of course open to the greatest objections, it must be acknowledged that, up to this moment, it has caused no serious inconvenience or mischief whatever. As a rule, the balance of trade is in favour of Holland, and bullion accordingly flows in freely. But occasionally the tide turns, as was the case in 1882, when a strong demand for export set in and the bank's stock of gold, which about the middle of 1880 had amounted to 80,000,000 of guilders (£6,666,600), decreased to below 5,000,000 (£416,600). The defect of the system then became evident. If once the gold stock of the country were exhausted, silver would become the regulator of the currency without any other limit to the depreciation of the currency and a corresponding rise in the foreign exchanges than the price of bar silver in the London market.

To protect the general interests of the country against the serious dangers eventually certain to result from such an unsettled state of affairs, a bill was passed (Act of 27th April 1884) empowering the government, as soon as the state of the currency should render it necessary, to withdraw from circulation, and to sell in the open market, silver coin to the amount of 25,000,000 of guilders (£2,083,300, at 12 gs. = £1) and to buy gold with the proceeds. Up to this moment, however (February 1893), there has never been any need to put this measure—which in the full sense of the term may be considered as the safety valve of the present currency system of Holland—into force. The law of 1884 is the unequivocal acknowledgment of the principle that the state is responsible for the maintenance of the gold value of the silver currency, and that it is one of the first duties of every government that has imposed a standard of value upon its subjects to take every reasonable precaution in its power to prevent that standard from fluctuating.

The currency system which has now been in force in Holland for about eighteen years, though defective in principle, has fully answered the requirements of the country, and it may remain unaltered for many years more unless it breaks down through the immense profit to be made by unscrupulous persons in manufacturing illicit coins of exactly the same weight and standard as the legal ones. But if this becomes the case, it will not only be Holland but nearly the whole continent that will have to face a difficulty of the greatest magnitude, the solution of which will make an international understanding with respect to money matters more urgent than ever.

Having thus described the system of currency in force in Holland, we will now turn to that of her Indian possessions.

In Dutch India the state of the currency was for many years even worse than it was in the mother country before the reform of 1847 was effected, and even the government itself was instrumental in wilfully perverting the currency of the colony.

The erroneous idea prevailed that the wants of the native population were on too limited a scale to require the precious metals for a general medium of exchange, and that it was in the interest of "the good people of these countries to increase the circulation of copper coin as much as possible" (*Decree of the Governor-General of Dutch India*, of 25th June 1818). Hence the government continued for years to effect the bulk of its payments in copper money, the so-called doits (*duiten*), which were imported in large quantities from Holland with the unavoidable result that all the good money formerly issued was driven out of the country. Silver was still the legal standard, and the silver guilder the unit of account, but virtually only copper remained as the general circulating medium for the whole community. A general depreciation of the currency was the natural consequence of this

state of affairs, a loss of 25 to 30 per cent having to be incurred on every remittance to Holland or elsewhere.

The colony suffered severely for many years under this miserable and scandalous condition of the currency. At last the government became aware that measures of a most stringent character ought to be taken to resettle currency matters on a satisfactory basis. By the law of 1st May 1854 the monetary system of the mother country, as regulated by the law of 1847, was introduced in Dutch India, and since that time nothing has been left undone by the authorities to secure the colony the benefit of a thoroughly efficient currency. For some consecutive years large shipments of silver coin from Holland to Java were made on government account, between 1854 and 1860, 90 millions of guilders (£7,500,000). Everywhere an opportunity was offered to exchange silver for the circulating copper money, and thus a long-wished-for reform was effected at a cost to the state of about 20 millions of guilders (£1,666,600).

Ever since that date the condition of the currency in Dutch India has been as satisfactory, nay as perfect, as in the mother country itself; even the recent silver crisis leaving it altogether unaffected in consequence of the measures taken by the government to keep the currency at the standard value by closing the Utrecht mint, not only for the home, but also for the colonial coinage. Having no mint of its own, Dutch India has always been supplied with the money required for circulation by specie imports from Holland, the standard coin being exactly identical, and the stock of silver legal tender money available in Holland has till now been more than sufficient to meet the requirements of the circulation of the colony.

Thus a very close link exists between the currency of Dutch India and that of Holland. At first it was thought that silver might remain the standard in the eastern possessions of the kingdom, whatever reform might be introduced in the monetary system of the mother country; but gradually the conviction prevailed that, equally with the people of Holland, the Indian subjects were entitled to protection from the difficulties in which the action of a depreciating currency must necessarily involve them, and to remove all uncertainty as to the standard of value in the colony the law of 28th March 1877 decided that gold ten guilder pieces should from that date be legal tender in Dutch India,—thus establishing the monetary system of the colony on exactly the same basis as in Holland.

Meanwhile no gold whatever is to be found in circulation in Dutch India; but the lack of gold has never caused any inconvenience, and is in fact of no consequence so long as the circulating silver money fetches the full value of gold for payments in Holland. Recently Dutch India has repeatedly had to face an unfavourable balance of trade, making the export of specie unavoidable (Table A), but the rate of exchange never exceeded the bullion point of gold (see GOLD POINT of exchange), since silver could always be used as a remittance to Holland in order to effect payments there, or to purchase sterling bills in Amsterdam for payments in England.

Table A.

Imports and Exports of Silver Coin from and to Holland.

(The guilder converted as 12=£1.)

Years.	Government account.		Private account.	
	Imports.	Exports.	Imports.	Exports.
	£	£	£	£
1871	875,666	—	—	—
1872	503,333	—	235,000	—
1873	2,112,166	—	77,500	—
1874	83,333	—	10,000	—
1875	353,750	—	—	206,666
1876	41,666	—	296,666	487,500
1877	1,458,333	—	—	—
1878	833,333	—	—	560,000
1879	541,666	—	—	229,166
1880	250,000	—	—	230,000
1881	—	—	—	50,000
1882	108,333	—	—	191,666
1883	—	—	—	—
1884	—	—	41,666	—
1885	—	—	41,666	50,000
1886	—	—	—	—
1887	—	—	16,666	—
1888	—	—	724,166	—
1889	666,666	—	792,500	—
1890	333,333	—	219,166	—
1891	83,333	—	—	804,166

Table B.

Batavia Rates of Exchange for Bank Bills.

Years.	Amsterdam six months' date. (Par=100)			London six months' sight. (Par=g. 12)		
	Lowest.	Highest.	Average.	Highest.	Lowest.	Average.
1871	103⅛	100	101 5/16	11·90	11·375	11·65
1872	104⅜	101	102 3/16	11·70	11·375	11·55
1873	104	101½	102¾	11·90	11·525	11·70
1874	102½	100½	101½	11·85	11·60	11·725
1875	102¼	99½	100 7/16	12·	11·60	11·80
1876	102⅜	99¼	101	12·125	11·70	11·90
1877	101 15/16	99 5/16	100⅛	12·10	11·725	11·90
1878	101¼	99½	100 3/16	12·075	11·80	11·95
1879	101	99½	100¼	12·05	11·75	11·90
1880	101¼	99½	100½	12·125	11·825	11·975
1881	101⅓	100½	101	12·10	11·875	11·
1882	101	100¼	100 5/16	12·10	11·975	12·05
1883	101⅛	100⅜	101⅛	12·05	11·875	11·975
1884	101½	100½	101	12·	11·85	11·925
1885	102	100½	101¼	12·	11·80	11·90
1886	101⅝	100¼	101	12·	11·825	11·90
1887	102⅛	100¼	101⅜	11·925	11·75	11·825
1888	103	101⅛	102 1/16	11·85	11·675	11·75
1889	102⅛	100¼	101 1/16	11·975	11·70	11·825
1890	102	99⅝	100 7/16	12·05	11·80	11·925
1891	101	99⅛	100⅛	12·05	11·925	11·975

In consequence rates of exchange at Batavia —the financial centre of Dutch India—have maintained a most remarkable steadiness during the last twenty years, as shown in table B, see page 775, to explain which it may be added that the way of quoting the rate of bills drawn on Amsterdam is exactly the reverse of the quotations for sterling paper. For the latter the Dutch Indian currency is the fluctuating term, the quotation consisting of a varying number of guilders and cents to be paid for the pound sterling. In the exchange between Batavia and Amsterdam, on the other hand, the latter place gives the "uncertain" a quotation of 101, meaning that g. 100 Dutch Indian currency gives claim to g. 101 Netherlands currency. Thus it is obvious that a rise in the quotation of bills on Amsterdam must correspond to a decline in sterling quotations. [See EXCHANGE, FOREIGN, practical working of.]

During the last twenty years in drawing from Java the extreme rates for Dutch bills have been 99¼ and 104½, and for English bills g. 12·125 and g. 11·375, thus showing a fluctuation of only 5¼ per cent for the former, and 6 per cent for the latter bills. Since 1875, when the great fall in the price of bar silver set in, rates have not fluctuated more than 2½ or 3 per cent. Thus Dutch India has been spared the disturbance in money and exchange matters which is causing so much inconvenience and loss in British India.

[A good insight into the present working of the currency of Dutch India may be obtained from a note by Mr. A. Kensington, deputy secretary to the government of British India in the financial department, dated 21st September 1892, and published by order of the governor-general of India. The conclusion of Mr. Kensington's inquiry during his stay in Java, was that the nominal gold standard introduced into the colony works well as regards the trade and the people of the country, and that it has on the whole also proved beneficial to the planters. But the fact is not to be overlooked that the whole structure must collapse in case Holland is forced by circumstances to complete its monetary reform by the demonetisation of the silver actually circulating as full legal tender money. Then the colony would be obliged to follow, and it is therefore not at all impossible that at some future period even the Eastern Archipelago may appear in the market for the sale of silver, and the purchase of gold, unless it may still be practicable to arrive at an international understanding about the free coinage of silver as proposed originally in the report of the Dutch currency commission of 1872.] N. P. v. d. B.

[Ratio of silver to gold in Holland, taking mint charges into account, 15·625 to 1.]

EXCHANGE BETWEEN GREAT BRITAIN AND BRITISH INDIA.—As these pages are passing through the press (June 1893), it has been made public that the government of British India has made an arrangement for its remittances between India and London, similar in many respects to that in existence between Holland and the Dutch Indies (see EXCHANGE BETWEEN HOLLAND AND DUTCH INDIA). The rate at which council bills are to be issued in London is to be separated from the price of silver. In order to effect this, the coinage of rupees in India on private account is to be suspended, with a view to the introduction of a gold standard. The Indian government had been anxious that this step should be taken; but the home government desired that a thorough examination into the whole matter should be previously made. A departmental committee was accordingly appointed, consisting of Lord Herschell, the present lord chancellor, as chairman, the other members being Mr. Leonard Courtney, Sir Thomas, now Lord, Farrer, Sir Reginald Welby of the treasury, Mr. Arthur Godley of the India office, Sir Richard Strachey, and Mr. B. W. Currie, who is a member of the council of India and of the firm of Glyn and Co. The committee considered the proposals of the Indian government, which aimed at fixing the exchange at the rate of 1s. 6d. per rupee. This rate the committee did not feel inclined to adopt; the market rate being at the time (June 1893) approximating to 1s. 2d. for the rupee. The general conclusions of the committee, in their report to the secretary of state for India, Lord Kimberley, were that "while conscious of the gravity of the suggestion, we cannot, in view of the serious evils with which the government of India may at any time be confronted if matters are left as they are, advise your lordship to over-rule the proposal for the closing of the mints and the adoption of a gold standard, which that government, with their responsibility and deep interest in the success of the measures suggested, have submitted to you. But we consider that the following modification of these proposals are advisable:—The closing of the mints against the free coinage of silver should be accompanied by an announcement that though closed to the public, they will be used by the government for the coinage of rupees in exchange for gold, at a ratio to be then fixed, say 1s. 4d. per rupee; and that in the government treasuries gold will be received in satisfaction of public dues at the same ratio." The Indian government acted immediately on this recommendation, and an act was passed in the council at Calcutta (June 1893) carrying the report of the committee into effect, and fixing the rate at 1s. 4d.

We are still too close to the events to judge what the ultimate results of this measure may be. The action of the government was immediately followed by a rise in the selling rate of India council bills in London from about 1s. 2d. to 1s. 4d. for the rupee, and by a rather more than corresponding fall in the market price of silver. Suggestions have been made

to bring the rate for council bills upwards to 1s. 6d., and ultimately to about 2s. for the rupee. It remains to be seen whether the Indian government will have sufficient control over the market for bills to enable it to carry this into effect. Nor can the influence on the coinage legislation of other countries—as for example on the United States of America—or on the rate of exchange in the trade with other silver-using countries be stated at present, or the effect which may be produced on the trade of British India, or on the condition of the people. One result, if the measure continues to operate, will be the formation of the largest "token" circulation of coins that has been known in modern times, as the rupee will circulate at the rate which the government fixes it at relatively to gold, irrespective of the gold price of uncoined silver; while for the present, at all events, there will be no gold coin to represent the rupee. A further result will be the entire separation of the rate for the bills on India from the market value of the ordinary circulation of the country. The council bills would, it was hoped, be issued at the rate fixed for the time by the Indian government. The arrangements, in so far as they are based on an authoritative rate fixed by a government for monetary transactions, and a fixed ratio between gold and silver are similar in some points to those on which bi-metallic systems have been founded; but while this is the case, the leading principle of bi-metallism, namely, the power of the subject to have his bar silver or bar gold coined into money and to be able to pay his debts with either metal so coined, is entirely absent. The success of the plan depends solely on the power which the Indian Council may be able to exert over the London market and if other and cheaper methods of remittance can be obtained this will fail. Meanwhile from the point of view of the Indian government the rate for exchange should be fixed as high as possible, as in the example of Dutch India, because of the advantage hence resulting in the remittances to England.

No reference has been made in this statement to the other points, many of great weight, connected with this question, such as the possibility of the private coinage—in the vast region of India, much of which is not under the control of our government—of spurious silver rupees equally valuable with those issued by authority, an operation which would be very profitable to the coiner—of the effect on the Indian cultivator of the soil, who will now be deprived of the resource which silver, in the form of ornaments, has been to him in time of famine—or of the result on the trade on other silver-using countries.

The measure, as it stands, was stated to be designed to prevent the rate from dropping lower, but it will have the effect of stereotyping the loss entailed by the fall in exchange both on the government and on private individuals at the point at present fixed.

[See *Report of the Committee appointed to inquire into the Indian Currency*, 1893.—*Correspondence between the Government of India and the Secretary of State*, 1893. Comp. *Econ. Journal*, Sept. 1893.]

[Ratio of silver to gold in India, with rupee at 1s. 4d., taking mint charge into acct., 22·37 to 1.]

EXCHANGE, INTERNAL. One factor in the calculation of all exchanges is the cost of the transmission of bullion, including therein the cost of actual transport and the risk and trouble involved. In the foreign exchanges these charges are in a general way concealed by the fact that the two sides are in terms of different currencies; and they are modified by the competition of bills of exchange, according to the supply and demand of which will be the proportion of such charges which a remitter will have to bear. The same expenses attach to the settlement of transactions between different parts of the same country, but they are rendered more apparent by being expressed in the form of a commission or premium. They are also usually more uniform, as they are not affected by momentary competition, but are governed by the condition of the banking system, tending gradually to diminish in proportion to the completeness of its development.

In this country the facilities for internal exchange are considerable, and its cost has been brought to a low point. The post-office system of money orders, and of postal notes and orders, furnishes the means of remitting small sums to almost every village, at a cost that has continually decreased as the facilities offered have increased. In the first quarter of the present century remittances could only be made to a few towns, and at a cost of about $2\frac{1}{2}$ per cent. At the present time the number of points to, or from, which remittances may be made has risen to upwards of 10,000, whilst the cost may not much exceed one-half per cent. For larger sums remittances were formerly made by bankers' drafts, or bank post bills, the charges on which were defrayed partly by a direct commission, and partly by deferred payment. At the present time, by means of the country cheque clearing (see CLEARING SYSTEM), remittance may be made throughout the whole of England and Wales absolutely without cost, whilst for the collection of drafts other than cheques, and for all collections in Scotland and Ireland, the cost has been brought generally to about $\frac{1}{20}$ of 1 per cent. This result is greatly due to the spread of branch banking (see BANKS, UNITED KINGDOM).

In the United States the development of the national banking system (see BANKS, NATIONAL, U.S.A.) has led to remarkable results in the same direction. This system was established in 1865, at which time the cost of southern and western exchange on New York was from 1 to

1½ per cent, and even for different parts of the state of New York it was ½ per cent. The difficulty of obtaining reliable remittances was even more serious than its cost, as the notes or drafts of banks in any state were frequently quite useless but a few miles beyond its borders. In 1890 the rates of commission or premium, on internal exchange, had so far declined that they ranged from 1 cent per $100 ($\frac{1}{100}$ of 1 per cent) in some small states, as Rhode Island and New Hampshire, up to 21 cents per $100 ($\frac{1}{5}$ of 1 per cent), in Nevada, Texas, and some other states.

In France the Bank of France, through its numerous branches, has long afforded considerable facilities for internal exchange, which have been added to in recent years by the still more numerous branches of one or two other banking institutions. R. W. B.

EXCHANGE OF NOTES (in reference to the note circulation in Scotland). All the banks now (1893) carrying on business in Scotland are banks of issue. They are ten in number, and there is a stringent system maintained of exchange of notes once a day in every town in which there are two or more banks. In the case of a bank holding the notes of another bank not represented in its town, these are remitted to the issuing banks at short intervals. On Saturdays there is an afternoon as well as a morning exchange, so that the returns of circulation made at the close of business on Saturdays, as required by the terms of the Bank Act of 1845, exhibit the amount of notes then in active circulation, *i.e.* in the pockets and tills of the people. No bank ever issues the notes of any one of the other banks.

The notes are, by the system described above, "cleared" to a great extent independently of the ordinary settlement of drafts and bills between the banks. The system is a very convenient one, and saves the banks concerned a great deal of labour.

All clearing-house balances, other than those arising at the Edinburgh clearing-house, are settled by drafts on Edinburgh, which pass through the clearing-house there, and the balances of the Edinburgh clearing-house are settled bi-weekly by transfers of cash made in London four days later. Interest at 3 per cent is paid by the debtor banks on balances until the date of final settlement in London.

EXCHANGE BROKER. Unlike the bill-broker (see BILL-BROKING), who in most cases is really a *dealer* in bills, which he buys and sells for his own account, the exchange or *foreign bill* broker is strictly what the title of his calling implies, namely, an intermediary or negotiator between the buyers and sellers of bills of exchange drawn on foreign countries.

Such bills fall into two classes; those drawn from the provinces, and those drawn from, or held in, London. As regards the former, all practically pass through the country banker into the hands of his London agent for negotiation, and, as the latter does not attend 'Change, they are, without exception, sold through brokers. In the case, however, of London-drawn paper, or of such as is remitted to London houses, the seller is quite at liberty, if he so chooses, to go on 'Change and save the brokerage by offering the bill for sale himself; but he usually finds it to his advantage to employ a skilled agent.

The exchange broker must be sufficiently familiar with foreign law and custom to be able to point out and explain any irregularity of form, stamp, or endorsement, etc., in the bills that pass through his hands. He ought also to be competent, besides knowing the present state of the exchange, to form an opinion as to its probable course, in order to advise his client, if need be, when best to buy or sell. He is also expected, when executing a buying order, to protect his client's interest by exercising a due regard to the financial and moral standing of the parties to the bill.

On concluding a bargain, the broker makes it legally binding by passing a contract note to both parties, giving particulars of the bill and specifying the rate at which it has been sold. In the buyer's copy he also fills in the name of the party who has to deliver, and in the seller's that of the party who has to receive and pay. Payment, it may be added, is not effected through the broker, as in stock exchange transactions, but the principals settle direct on the following day. The charge for brokerage is nominally one per mille (2s. per cent), but is subject to modification. Brokerage accounts are rendered once a year.

The growing tendency to effect settlements by bill on London, instead of by bills drawn from England on abroad, is strikingly illustrated by the fact that, notwithstanding the enormous increase in our foreign trade in the last half-century, the number of exchange brokers has only risen, according to the Post-Office Directory, from 13 in 1841 to 16 in 1893, as against an increase during that period in the number of London stock brokers from 343 to upwards of 3000. G. C.

EXCHANGER, ROYAL. The chief functions of the king's or royal exchanger were as follows: to buy bullion for coin save where private mints existed, to exchange current coin of one metal or denomination for that of others, and to exchange foreign and English coins.

In the reign of Henry I. we find this office and that of moneyer united and vested in one person. But this union did not continue. Succeeding kings separated the office of exchanger and developed its constitution. Thus Edward I. had tables of Exchange set up in various places, as York, Dover, Canterbury, etc. In addition to the other and more ordinary ser-

vices which he performed, the exchanger and his subordinates were entrusted with the important duty of so discharging his office that the export of precious metals from the country might be prevented. He continued a royal functionary and in discharge of his duties till the reign of Henry VIII. Then the complaints of the goldsmiths and the advice of Sir Thomas Gresham were listened to, and in 1539 the office of the royal exchanger was abrogated on the ground that its charges and action impeded traffic. Despite a nominal restoration in 1546, the previous date may be regarded as marking the termination of this restraint on the exchange. Statesmen and theorists were, however, very much divided as to the expediency of this action, and the protests against the extinction of the office proceed from well-known men, as for instance, Sir Robert Cotton.

Its reconstitution was mooted at the very beginning of the reign of Charles I. (in 1626). The goldsmiths were heard in opposition in the privy council, but did not prevail. On 25th May 1627 the revival of the exchanger was announced, and the king appointed "Henry, Earl of Holland, and his deputies, to have the office of our changes, exchanges, and outchanges, whatsoever, in England, Wales, and Ireland," for a period of thirty-one years. The goldsmiths petitioned, and the House of Commons protested against this reconstituted office. The Earl of Holland offering to submit his office to the judgment of the latter body, a debate took place, and it was agreed that it was a "grievance." No steps seem to have been taken to exercise any jurisdiction, and no attempt was made subsequently to revive this ancient office.

[Ruding's *Annals of the Coinage.*—Macpherson, *Annals of Commerce.*—Rymer, *Fœdera;* and MSS. authorities.] E. C. K. G.

EXCHEQUER.

Exchequer, Early History of, p. 779; Exchequer, present constitution of, p. 781; Exchequer, Scotland, p. 784; Exchequer Bill, p. 784; Exchequer Bill, History of, p. 784; Exchequer Bond, p. 785; Exchequer Bond, History of, p. 785; Exchequer, Closing of, 1672, p. 786.

EXCHEQUER, EARLY HISTORY OF. The Exchequer, *i.e.* the department of government which superintended and managed the king's revenues, and into which all dues were paid, appears as an organised part of the state system in Norman times. In Early English times there seems to have been a treasury, sometimes at Winchester, sometimes at Westminster, while a hoard was kept in the king's chamber, and local treasuries were found in some provincial towns (Hall, *Antiquities of the Exchequer*, p. 3), but there are no traces of a court of account so early. Richard, Bishop of London, the treasurer, son of Bishop Nigel of Ely, and our chief authority for the early history of the exchequer, writing in 1178 (Liebermann, p. 11), states that it dates from the Norman Conquest, the arrangement being taken from the exchequer across the seas (*Dialogus de Scaccario*, i. iv.). Though this fact of a Norman origin for the English exchequer cannot be proved, it is probable that both came into existence about the same time; even if entirely independent, the English exchequer is certainly not much older than the Norman; while on the other hand, some of its peculiarities, such as the "blanch farm," show that the system was not borrowed in its entirety from Normandy.

In Henry I.'s time it is found as a distinctly organised department and as a court of law under the name "scaccarium," a name derived from the chequered cloth which covered the table at which the accounts were made up. All the financial business of the crown was carried on at the exchequer, and as in early times the regulation of finance and the administration of justice were intimately connected, much judicial work fell for a while under its control, until, with the elaboration of the judicial system, new courts arose, and until its authority was restrained by Magna Carta, by the statute of Rutland (12 Edw. I.) and by other statutes, to cases which directly affected the revenue. This close connection between justice and finance is indicated by the fact that the officials who sat as *justitiarii* in the curia regis, the supreme judicial court, sat also in the exchequer as *barones scaccarii*. These were the great officers of the household and others specially named by the king, presided over by the king or by his representative, the chief justiciar, until the final disappearance of that official in Henry III.'s reign, when the treasurer, always an important functionary, took the foremost place. The treasurer, who was assisted in the performance of his duties by the chamberlains, had indeed the superintendence of every department, and was responsible for the compilation of the great roll, the annual record of the crown dues, while he also gave directions for the execution of the royal writs. The chancellor, the representative of the equitable jurisdiction, acted as nominal guardian of the great seal, and also as a check upon the treasurer, whose roll was copied by one of the chancellor's clerks. The constable, with clerical assistance, made payments to the royal officers and others upon receipt of the king's writ, for without such a warrant the issue of money was strictly forbidden. To cut the tallies (see TALLY), used as receipts, a cutter of the tallies was employed. Under these more important dignitaries were a large body of officials, sitting in the lower chamber, who prepared the summonses and other business, and acted as fiscal experts. Some of these offices were held in fee, and mention is found of a woman hold-

ing office as chamberlain and acting by deputy (Hall, p. 82).

Full sessions of the exchequer were held at Easter and at Michaelmas, generally at Westminster, although instances of its session elsewhere are found as late as the reign of Edward II. (Madox, ii. p. 7). Other sessions were held during the Hilary and Trinity terms, and whenever it was deemed necessary, not excepting Sunday (Thomas, p. 7).

Manifold were the duties of the officials in connection with the revenue; not only did they receive payments from the sheriffs and others responsible for debts to the crown after careful examination of the accounts, but they also directed payments to be made to meet the royal requirements, and met administrative expenses of all kinds.

Business was carried on in two departments.

(1) The upper chamber, known as the exchequer of account (*scaccarium majus*), where the reports of the sheriffs and of others were received, and where all legal negotiations were carried on.

(2) The lower chamber or exchequer of receipt (*scaccarium inferius*) where the money was paid down, weighed, and tested, and from whence it was issued when necessary. The proceedings in the case of a sheriff, the most important of all accountants, may be taken as typical of the method adopted in transactions with the customers, escheators, bailiffs, and others responsible for the collection of the revenue.

At Easter the sheriff having received a summons and a statement of the items for which he had to account, appeared in person at the exchequer, unless excused for special reasons, when an attorney of suitable rank might act as his representative. The view of his account was then taken, and a proffer was made by him, being generally an instalment of half the total amount for which he was responsible. In return he received a receipt, known as a *tally*, the counterfoil of which was retained at the exchequer. When summoned to the Michaelmas session, the sheriff was required to answer for the full annual dues "in money or in tallies"; he then presented the tally or the voucher which represented such payments or allowances as might already have been made, together with the remainder still due in cash, and received full quittance of his obligations. A simple expedient for balancing the liabilities and the actual payments of the sheriff was devised by means of counters placed upon the squares of the chequered table, those on the one side of the table representing the value of the tallies, warrants, and specie presented by the sheriff, and those on the other the amount for which he was liable, so that it was easy at a glance to see whether the sheriff had met his obligations or not. In Tudor times "pen and ink dots" took the place of counters, and are found in use for the last time in 1676 (Hall, *Antiquities of the Exchequer*, p. 131).

Depreciation of the coinage through wear and the possibility of fraud led in early times to the adoption of precautionary measures. Thus when money was paid by tale a payment of sixpence on every pound was added to make good any possible deficiency; this was found to be inadequate, and in place of such a payment *ad scalam*, a payment *per pensum* was demanded, by which any deficiency in the actual weight had to be made up, or a composition of one shilling in the pound was exacted. In some cases the coin was submitted to a smelting test; this was generally done with the farm of the county, which was said to be blanched or dealbated, when such a test or a composition in lieu of it had been accepted. A regular staff of officials was employed in the exchequer of receipt to see that *real combustion*, *i.e.* the actual testing of bullion, or *nominal combustion*, *i.e.* the additional payment offered as a substitute, was not evaded by the king's debtors (see ASSAY).

Among the important records bearing on the work of this department, and carefully guarded by successive generations of officials, in hampers and chests, were the Domesday book, the most ancient record of the liabilities of crown tenants, the Red and Black Books of the exchequer, and other similar compilations; the most important for centuries was the great roll of the exchequer, commonly known as the Pipe Roll or *Rotulus Annalis*, the official register of all debts due to the crown arranged under the heads of counties, drawn up annually under the superintendence of the treasurer, and which served as the supreme authority by which the sheriffs and other accountants were judged. The first of these rolls still extant is that for 31 Henry I. (1130), but from the second year of Henry II. the series is complete. A duplicate of this roll was prepared for the chancellor, who closely checked any error on the part of the treasurer, while at the date of the compilation of the dialogus a third roll was transcribed for the king (*Dialogus*, I. vi.). In later times with the expansion of royal revenue a number of other rolls dealing with special parts of it became necessary (Thomas, *Ancient Exchequer*, p. 68). As attendance on the king and their duties in the various courts prevented the great officials from regular attendance at the exchequer, and as the sources from which the revenue was derived changed, various new officers were appointed to meet the demands in different directions. Thus as the chancellor and his subordinates became engrossed by the business of the chancery, their places were taken by the comptroller of the pipe and the chancellor of the exchequer (Thomas, p. 100), the latter official being often mentioned from the reign of Henry III. onwards, when the remembrancer

is also first heard of, keeping the memoranda roll, upon which were entered points left for consideration until the close of the audit, and acting in the capacity of solicitor to the treasury (see PIPE ROLLS). Towards the end of Elizabeth's reign the number of officials reached its highest point, and it is also noticeable as the time when the lord high treasurer, as he was now called, began to act less frequently in person at the exchequer and more by means of written instructions, and this gradually led to a new system for the conduct of business (Thomas, p. 21). Upon the death of the Earl of Salisbury in 1612 the treasury was for the first time put in commission, and since verbal orders could not be accepted at the exchequer from several persons, written instructions became a necessity, and led to the use of treasury warrants, which again paved the way for the modern department of the treasury. There is evidence that the lord high treasurer still acted in person until the removal of the exchequer to Oxford in 1643. Finance under the commonwealth was managed by committees of revenue until Cromwell revived the exchequer in 1654, and put the treasury in commission, which has been its normal condition since that time. During the Great Fire of 1666 the exchequer was moved for a while to Nonsuch (Hall, 76). In the course of George III.'s reign many of the old offices were gradually swept away, until in 1833 the ancient account and receipt departments of the exchequer were entirely abolished (3 & 4 Will. IV. c. 99; and 4 Will. IV. c. 15), the office of queen's remembrancer being the sole relic to-day of the early system, for the work of the exchequer is now undertaken by the modern departments of the paymaster-general and the treasury, while the Bank of England has taken the place of the old exchequer of receipt. See BUDGET; EXCHEQUER, PRESENT CONSTITUTION OF; JEWS, ECONOMIC INFLUENCE OF (for exchequer of the Jews); PIPE ROLLS; TALLY; TREASURY.

[Gneist, R., *History of the English Constitution*, translated by P. A. Ashworth (1886).—Hall, H., *Antiquities and Curiosities of the Exchequer* (1891) and *Introduction in Pipe Roll Society's Publications*, iii. (1884); *Court Life under the Plantagenets* (1890). He gives a valuable list of manuscript and printed authorities on the subject of the exchequer in *Antiquities*, p. 224.—Henderson, E., *Historical Documents of the Middle Ages* (1892), gives a translation of the *Dialogus de Scaccario*, the Latin text of which is given by Madox and by Bp. Stubbs in his *Select Charters illustrative of English History*.—Liebermann, F., *Einleitung in den Dialogus de Scaccario* (1875).—Madox, T., *History and Antiquities of the Exchequer*.—Stubbs, W., *Constitutional History of England* (1875).—Thomas, F. S., *The Ancient Exchequer of England* (1848).] E. A. M.

EXCHEQUER, PRESENT CONSTITUTION OF. The Exchequer is the national purse or receptacle into which (*a*) all the public revenues are paid, and out of which (*b*) all public expenditure is defrayed. The moneys paid into the exchequer constitute in the aggregate the consolidated fund of the United Kingdom (see CONSOLIDATED FUND), of which the local situation or receptacle is in practice at the Banks of England and Ireland, where all such moneys are carried to a general account, operated upon by the commissioners of the treasury, and known as the "Consolidated Fund Account," or Exchequer Account.

a. The following is the machinery by which the exchequer is supplied, viz.:

In the fiscal system of the United Kingdom the financial year does not coincide with the calendar year, but is reckoned from the 1st of April to the 31st of March. Towards the close of one financial year or beginning of the next—that is to say, in the month of March or April—the chancellor of the exchequer lays before the House of Commons his budget (see BUDGET), which is a statement of the revenue and expenditure of the outgoing, and the estimated revenue and expenditure of the incoming, year. He first estimates the revenue of the incoming year on the assumption that the existing scheme of taxation will be continued unaltered by parliament. If he considers that on this basis the revenue of the year will exceed the expenditure, he generally proposes to abolish or reduce certain taxes; if the contrary, to raise, increase, or extend them. It is not necessary that the scheme of the chancellor of the exchequer, so far as the revenue which he anticipates is founded upon the existing basis of taxation, should be sanctioned as a whole by parliament; for, in the absence of an enactment to the contrary, all taxes and imposts go on from year to year without express legislative renewal, except the tea-duty and the income-tax. If, therefore, the House of Commons approves of the budget proposals, all that is necessary, in the first instance, is that it should, by resolutions passed in committee of ways and means, sanction the levy of tea-duty and income-tax during the financial year, at the old rates, or at new rates proposed by the chancellor of the exchequer, as the case may be; and that it should also sanction by similar resolutions any changes which he proposes in other duties or taxes. These resolutions are subsequently confirmed, as soon as the exigencies of parliamentary business will allow, by acts of parliament, for example, see the customs and inland revenue act of 1892, 55 & 56 Vict. cap. 16. At this stage the arrangements for supplying the exchequer with the necessary revenue during the financial year are formally complete. The commissioners of customs and of inland revenue, acting under the directions of the commissioners of the treasury, levy the duties and taxes prescribed by statute; the post office continues from

year to year its profitable labours; and the moneys derived from these several sources are, together with the hereditary revenues of the crown, and certain other miscellaneous items, paid in by their collectors as they accrue to the exchequer account at the Banks of England and Ireland.

b. Such is the manner in which the exchequer is filled. It is now necessary to explain the procedure by which its treasures are disbursed. From the foregoing account it will be seen that the levying of the national revenue is completely under the control of parliament. The control of parliament over the national expenditure—or, in other words, over the disbursements of the exchequer—is no less, in fact if anything it is more complete. The expenditure of any given year is divided into two classes. 1. The first consists of charges, more or less permanent in their nature, which are authorised by act of parliament either for a given period or until the act authorising them has been repealed. These charges therefore do not form the subject of an annual vote of parliament, but are paid as they fall due under the authority of the act which grants them. They are called fixed charges on the CONSOLIDATED FUND (*q.v.*), and comprise the interest, sinking fund, and cost of management of the public debt; the civil list, or dotation of the crown; the allowances to members of the royal family; certain pensions granted for public services; the salaries of the judges; and of certain high officers whose independence is thought to be better guaranteed by permanent grant than by annual vote. It appears from the finance accounts of the United Kingdom for 1891-92 that the sums issued from the exchequer on account of fixed charges on the consolidated fund amounted in that year to £29,009,499, or rather less than one-third of the total expenditure of the state for the year. 2. The ordinary charges of the military, naval, and civil government, as well as the cost of collecting the revenue, form the second class of the public expenditure. They are annually granted by parliament, and as they are in the first instance voted by the House of Commons in committee of supply, they are called the supply services (see SUPPLY, PARLIAMENTARY). The amount issued from the exchequer in 1891-92 on account of expenditure on the supply services is returned at £60,918,273, being rather more than two-thirds of the total expenditure of the year.

Money to defray a fixed charge on the consolidated fund is taken out of the exchequer under the authority of the special act of parliament which fixes the charges. The following is the machinery by which money for supply services is obtained.

The government submits to the House of Commons estimates of the sums which it requires, under the several heads or denominations of service, known as votes (as the House of Commons votes them). Each of these votes is discussed at such length as the House thinks proper, and any item in a vote can be rejected, but the House cannot add a penny to a vote, it being a constitutional maxim that expenditure can only be voted on the recommendation of the crown. Nor has the House of Lords any share in the matter. It is a co-ordinate branch of the legislature; but the privilege of voting the money of the subject is exclusively reserved to the representative chamber.

Suppose now that the House of Commons has voted the proposed expenditure. This alone would not enable the government to act; for, although the exchequer is being daily filled with the produce of taxes, it cannot be availed of without further parliamentary authority for defraying the expenditure which the House of Commons has sanctioned.

The House of Commons alone criticises and sanctions the proposed expenditure, but the doors of the exchequer cannot be unlocked without the authority of an act of parliament. Accordingly, acts are passed from time to time, each parliamentary session, authorising certain sums to be taken out of the exchequer to defray expenditure sanctioned up to date. These acts are often referred to as "ways and means acts." Their parliamentary title is "consolidated fund acts," and the language in which they are couched is instructive, as summarising the procedure of parliamentary supply, viz.:—"Most Gracious Sovereign.—We, your Majesty's most dutiful and loyal subjects, the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled, towards making good the supply which we have cheerfully granted to your Majesty in this Session of Parliament, have resolved to grant unto your Majesty the sums hereinafter mentioned, and do therefore most humbly beseech your Majesty that it may be enacted, and be it enacted by the Queen's Most Excellent Majesty, etc., etc." (Then follow, after the usual preamble of an act of parliament, provisions authorising the treasury to issue certain sums out of the exchequer.) Thus the House of Commons *grants* the money; but the three estates of the realm conjointly authorise, by statute, the taking of money out of the exchequer. In the parliamentary session of 1892 three such Consolidated Fund Acts were passed (55 Vict. c. 3; 55 & 56 Vict. c. 20; 55 & 56 Vict. c. 33). The last of these acts passed each session is called the "Appropriation Act"; it sets out in detail all the votes which the House of Commons has sanctioned in supply, and applies to them, and to them only, the required sums of money out of the exchequer, thus strengthening parliamentary control over administration by making it illegal for the executive to expend upon one service

money which has been voted for another. This practice of *appropriating the supplies*, as it is called, dates from the Revolution of 1688.

Thus it will be seen that the control of parliament over the exchequer is complete. A fixed charge on the consolidated fund can only be paid on the authority of a special act of parliament, and a supply service can only be paid after it has been voted by the House of Commons in committee of supply, and after the disbursement of the necessary funds has been authorised by a consolidated fund act or ways and means act. But it may be asked what practical security is there that these conditions are observed and that ministers do not take money from the exchequer for purposes which parliament has not approved? The answer is that money is only issued out of the exchequer with the permission of an independent officer, over whom the executive government has no control, who guards the exchequer on behalf of parliament. This officer, styled the comptroller of the exchequer and auditor-general, only obeys the directions of the treasury to make an issue out of the exchequer when he has satisfied himself that the demand is for a service authorised by parliament. It may next be asked how does parliament provide against ministers obtaining money from the exchequer for a purpose which parliament has authorised, but spending it upon some other purpose? This danger is guarded against by the fact that every department to which public money is issued is obliged, under the Exchequer and Audit Act (29 & 30 Vict. c. 39), to render an account of the disposal of such money to the officer above mentioned, the comptroller of the exchequer, etc.

It will here be proper to say a word as to the difference between the "committee of supply" and "committee of ways and means" in relation to public finance. In committee of supply the House of Commons determine how much money government shall be allowed to spend; in committee of ways and means it considers where the money thus authorised to spend is to come from. "The committee of supply considers what specific grants of money shall be voted as supplies demanded by the crown for the service of the current year, and explained by the estimates and accounts prepared by the executive government, and referred by the House to the committee. The committee of ways and means determines in what manner the necessary funds shall be raised to meet the grants which are voted by the committee of supply, and which are otherwise required for the public service. The former committee controls the public expenditure, the latter provides the public income. The one authorises the payment of money, the other sanctions the imposition of taxes and the application of public revenue not otherwise applicable to the service of the year" (May's *Parliamentary Practice*, p. 616, ed. 1879).

The grants which have been described are made by parliament to the crown, and the sovereign, by royal order, places them at the disposal of her finance department, the treasury. The treasury from time to time, as money is wanted, calls upon the comptroller of the exchequer to issue out of the exchequer the sums required, and the money so issued is paid to the account of the paymaster-general, who holds it at the disposal of the departments, subject to the control of the treasury.

Careful distinction must be drawn between the exchequer and the treasury. The exchequer is the national purse, the treasury is the finance department of the state, which controls the exchequer, on behalf of the executive government, subject to the check and audit of the comptroller and auditor-general acting on behalf of parliament. The treasury is governed by a board of commissioners, of whom the chancellor of the exchequer is one. The treasury, through the chancellor of the exchequer, moves parliament at the commencement of the financial year to provide the means of carrying on the government. It is to the account of the treasury, the exchequer account, that all public moneys are paid into the banks of England and Ireland, and it is the treasury again which, when the supplies granted to the crown by parliament have been placed by the sovereign at the disposal of her finance department, the treasury, supervises and controls the expenditure of such supplies throughout every branch of the public service. The duties of the treasury, as the department responsible for the administration of the exchequer, are thus summarised by Mr. H. D. Traill in his *Central Government* (English Citizen Series, 1881), viz. :—

1. To provide the means of meeting the necessary yearly expenditure on the military, naval, and civil services of the nation.

2. To exercise a general control and supervision over the amount and details of that expenditure.

3. To revise and regulate the internal or domestic expenditure of the other public offices of the state, and generally to exercise such a superintendent authority over the financial management of such offices as is implied in these revisory and regulative powers.

4. To decide upon appeals from its own subordinate departments in all cases arising out of the receipt of revenue, and

5. To determine as to the remission of fines and forfeitures due to the crown.

The board of treasury consists of five commissioners, namely: the first commissioner or first lord of the treasury, an office which is generally held by the prime minister; the

chancellor of the exchequer; and three other commissioners, known as junior lords of the treasury. The financial powers of the treasury are in effect centred in the chancellor of the exchequer, who may therefore be described as the finance minister of the United Kingdom.

EXCHEQUER (SCOTLAND); originally a department or committee of the Scottish parliament, by the Treaty of Union, Art. 19, this court was to continue until a new revenue court should be established in Scotland. By 6 Anne c. 26, a new exchequer court was established in Scotland on the English model, the judges being the lord high treasurer of Great Britain, the lord chief baron, and four barons of exchequer. It was an attempt to establish a common judicatory for England and Scotland, and all members of the English or Scottish bars were entitled to plead before it, and the privileges of senators of the Scottish college of justice were conferred on the barons. It had exclusive jurisdiction over customs, excise, and other revenues of the crown, and all honours and estates accruing to the crown, and the gift of the office of tutor dative, or guardian appointed by the court. English forms of procedure were to be used. Other powers were the passing of sheriffs' accounts, superintending the administration of the sovereign's feudal superiorities, dues, and fines of crown vassals, etc. By 3 Will. IV. c. 13, all powers of this court bearing on revenue were transferred to commissioners of the treasury in London, but its legal jurisdiction was preserved. Other statutes modified and altered the court. Finally by the court of exchequer, Art. 1856 (19 & 20 Vict. c. 56) it was abolished as a separate court and all its former jurisdiction was transferred to the court of session, becoming the revenue department of that court. The English forms and terms were assimilated to those of the court of session, and one of the lords ordinary to be named by the crown was to act in exchequer causes.

[Clerk and Scrope's *Historical View of the Court of Exchequer in Scotland;* and Mackay's *Practice*, vol. i. 43, 192.] J. W. B. I.

EXCHEQUER BILL. This is one of the securities on which the British exchequer customarily raises money for temporary purposes. The bills are usually dated March or September, occasionally June, and bear a specific rate of interest never known to exceed 5½ per cent, or to fall below 2 per cent. The bills do not specify the date of redemption, but bear a sheet of coupons, payable half-yearly at the specified rate of interest. The rate of interest is variable from year to year, and if the holders of exchequer bills are not satisfied with the rate advertised by the exchequer, they have their remedy in the way of payment of exchequer bills instead of cash for customs, excise, or other duties due to the Government—that is, supposing the bill is paid in during the latter part of any year from the original date; otherwise the holder has the option of renewing the bill, and often does so, supposing the interest to be satisfactory. A. E.

EXCHEQUER BILL, HISTORY OF. Exchequer bills are a form of security on which the government, under the authority of parliament, may borrow money for the service of the state. They have been in use since the year 1696, and had their origin in the scarcity of the circulating medium during the great recoinage at that time. Their invention as a substitute for "money" is attributed to Charles Montague, the chancellor of the exchequer in William the Third's reign, and may be said to have been the first introduction of a paper currency organised by the state.

The first exchequer bills were issued under the authority of 7 Will. III. c. 31, and were to "pass in payments from any person or persons to any other person or persons that shall be willing to accept and take the same." They were made out in sums as low as £5 and £10, and were to bear a daily interest not exceeding 3d. per cent per diem. The object of the inventor of these bills, however, was not realised. They were received with so little favour that, out of £1,500,000 authorised to be issued, only about £160,000 got into circulation; an amount too limited to give any relief to the monetary difficulties of the time. In 1697, under Acts 8 & 9 Will. III. c. 8 and c. 20, their use was considerably extended by making them pass in payment of all taxes, duties, etc., and "in all payments at the exchequer due to the king." Originally exchequer bills were, like the ordinary loans at the exchequer, charged upon the produce of certain specified duties imposed or renewed by the act authorising the issue of the bills. As, however, it frequently happened that the duties so appropriated proved insufficient to pay off the loans raised thereon, it subsequently became the practice to make the bills payable out of the general supplies granted by parliament year by year. This practice did not extend to the bills charged on the annual malt duty and land-tax, which duties continued to be specially appropriated, although they often were deficient and had to be made good out of the supplies of the following year. In 1763-64 exchequer bills entirely superseded the old form of loans at the exchequer, and for a period of ninety years, *i.e.* until 1853, continued with one or two exceptions to be the only form of temporary security on which money was borrowed either to meet the ordinary service grants of parliament or for loans granted for purposes of a local character. Amongst the latter may be mentioned the building of churches, public works, poor relief, Irish tithes, Shannon navigation, relief of West India proprietors, etc. The

largest amount of exchequer bills issued in any one year was in 1813, when it reached the total of over £54,000,000. The amount of exchequer bills in circulation has at various times been reduced by a process called "funding," *i.e.* by the creation of "funded debt" in lieu thereof. The usual course was to offer government stock to the public at a given price to be subscribed for either in exchequer bills, or money, or both. The bills so subscribed were cancelled, and the money subscribed was applied in paying off other exchequer bills on their maturity. In cases where the bills required to be funded have been held entirely by the Bank of England or by the national debt commissioners, the exchange of bills for stock has been effected by arrangement, but always under statutory authority. The first instance of funding was in 1709, when exchequer bills with the accrued interest thereon, together amounting to £1,775,000, were funded. Until 1797 there were only two further fundings, viz. £2,000,000 in 1717 and £986,800 in 1746. From 1797 to 1858, when the last "funding" of exchequer bills took place, no less a sum than £143,000,000 was cancelled by the creation of funded debt, of which about £105,000,000 was cancelled during the period of twenty-five years, from 1797 to 1821 inclusive. The largest amount of exchequer bills funded at one time was £27,262,000 in 1818-19. In 1861, under the provisions of Act 24 Vict. c. 5, exchequer bills ceased to be issued annually and to bear a daily rate of interest. The issue of exchequer bills at the present time is regulated by the Act 29 Vict. c. 25. They are of the nominal value of £100, £200, £500, or £1000, and are current for a period of five years, but they may be sent in for payment, after due notice, at the expiration of each twelve months from the date of the bills during their legal currency, and may be paid in for customs or inland revenue duties at any time in the last six months of each year of their currency. The rate of interest is fixed and advertised by the Treasury every half-year, and varies with the rate of interest prevailing in the money market at the time. The bills are prepared and issued by the Bank of England who receive an allowance for the management of the same. There has been no new issue of exchequer bills, beyond the periodical renewals, since 1861. They have been gradually superseded by Exchequer Bonds and Treasury Bills (*q.v.*).

The amount of exchequer bills outstanding on the 31st March 1892, as shown by the finance accounts of the United Kingdom for 1891-92, was £3,588,400, of which £1,492,700 were June bills and £2,065,700 March bills, so called on account of the date of their issue. G. H. H.

Exchequer Bond. Unlike exchequer bills, these securities run for a specific period, say, two or three years from the date of issue. The bonds bear coupons, but may be registered or inscribed in the books of the Bank of England, in which case no coupons would be available, and the half-yearly interest would have to be applied for personally. A. E.

Exchequer Bond, History of.—These are securities on which money may be borrowed by the government under the authority of parliament. They are regulated by the Exchequer Bills and Bonds Act (29 Vict. c. 25), but they differ from exchequer bills by being issued for fixed periods, generally for one to three years, and bearing a fixed rate of interest. In the absence of any special provision in an act authorising money to be raised by this security, the principal of exchequer bonds is repayable by votes of parliament. Formerly, when bonds had matured, and it was found necessary to replace them by new bonds, special statutory authority had to be obtained in each case. It is usual now to take power in the act authorising the issue of bonds to replace them on maturity by new bonds or other securities. Exchequer bonds may, under treasury warrant, be delivered up to be registered or inscribed in the books of the Bank of England, and transferable certificates issued in lieu thereof. This class of security has generally been made use of for special services only.

Exchequer bonds were first introduced in 1853 by Mr. Gladstone, in connection with his scheme for redeeming or commuting certain three per cent stocks and South Sea annuities. Under 16 Vict. c. 23, holders of these stocks were offered, as one alternative, the option of taking exchequer bonds in exchange for their stock. The bonds were to be payable to bearer, so as to be readily transferable; to bear interest at $2\frac{3}{4}$ per cent per annum payable half-yearly until 1864, and thenceforward at $2\frac{1}{2}$ per cent per annum until 1894. They were to be offered for sale, the proceeds to be applied in paying off dissentient holders of stock, and they could be issued in exchange for and in cancellation of exchequer bills; only £418,300, however, were issued, of which £408,900 were in cancellation of exchequer bills. Subsequent acts made these bonds repayable out of moneys voted by parliament, and until such time interest would continue to be paid at $2\frac{1}{2}$ per cent. Power was also taken to replace them in 1894 by new bonds, to be issued for any term not exceeding six years. There was an issue in 1854-55 of £6,000,000, for periods not exceeding six years, to defray expenses connected with the Russo-Turkish and South African wars. Between 1874-75 and 1879-80 £7,750,000 was borrowed from the National Debt Commissioners on exchequer bonds with three years' currency, for the purpose of granting loans to local authorities for public works. By 44 & 45 Vict. c. 55 they were converted into permanent funded debt. In 1876, under 39 Vict. c. 1, £4,000,000 was borrowed on

exchequer bonds, also from the National Debt Commissioners, for the purchase of 176,602 shares in the Suez Canal Company, and repayable at any time not later than 1912. An advance of £400,000 in 1885-86 to the government of the Cape of Good Hope for the construction of a railway was provided by the issue of exchequer bonds repayable by moneys voted by parliament. The colony repaid the advance in 1890, and the bonds were paid off as provided. The interest on the bonds was paid by the colony. Under the National Debt Redemption Act 1889 (52 Vict. c. 4) bonds to the amount of £18,100,000 were issued to pay off holders of three per cent stocks who had dissented from Mr. Goschen's conversion scheme of 1888. Of this amount, bonds for £12,800,000, which were held by the national debt commissioners, were, by the National Debt (Conversion of Exchequer Bonds) Act 1892, converted into permanent funded debt. A small issue was made in 1892 for money borrowed under the Naval Defence Act of 1889 (52 Vict. c. 8). The total amount of exchequer bonds now outstanding is about £6,500,000. G. H. H.

EXCHEQUER, CLOSING OF THE (1672). The only part of the public debt which was incurred before the revolution of 1688 originated in the closing of the exchequer on 2nd January 1672-73. Maladministration of the finances, the sale of Dunkirk, and the disastrous close of the first Dutch war, undermined the credit of Charles II., which had been good for some years following the restoration. In 1666 the Commons proposed to appoint commissioners to examine the accounts of those through whose hands the money granted for the war had passed. The bill was delayed in the Lords till the prorogation. Commissioners were appointed two years later, and in consequence of their report the treasurer of the navy was expelled the House of Commons. It was therefore impossible to apply to the Commons for further supplies to execute the secret treaty with Louis XIV. which Charles signed at Dover in May 1670. In the emergency it was suggested that the sum of £1,328,526, the total amount borrowed from the bankers and others on the security of the supplies, should be appropriated with a view to overcoming the financial difficulties of entering on the Dutch war. In 1667 Charles had published a declaration to secure inviolably the course of payments at the exchequer, both with regard to principal and interest. But, on 2nd January 1672-73, he issued a proclamation to the effect that all payments upon assignations at the exchequer would be suspended for one year. The consternation in the city was great; the bankers were unable to meet their engagements, and many people were ruined. To quiet the public mind, the king promised to pay 6 per cent while the money was detained, and in 1676 letters patent were issued, charging the king's hereditary revenue with the interest, which amounted to rather more than £79,000 per annum. This engagement was regularly kept until the year before Charles's death, when payment was stopped. The creditors tried for twelve years, without success, to get legal redress, until, in 1697, judgment was given against the government. Somers, the chancellor, afterwards set aside this decision, notwithstanding the fact that ten out of the twelve judges were opposed to him. The chancellor's decree was afterwards reversed by the House of Lords, and in 1699 it was enacted that after 25th December 1701 the hereditary excise should be charged with the interest of the principal sum, at 3 per cent, redeemable on payment of £664,263, or half the principal. The principal was never repaid, and in 1716 it was incorporated with other public debts in the general fund which was then established. It may therefore still be regarded as part of the national debt.

[Grellier, *History of the National Debt*, p. 12 *seq.*—Hamilton, *Inquiry concerning . . . the National Debt*, p. 66; *State Trials*, xiv. pp. 1-114. —Hewins, "Origin and Growth of the National Debt," *Co-operative Annual for 1889*, p. 228, 229. —Thorold Rogers, *The first nine years of the Bank of England*, 8vo, 1887.—Defoe, *Compleat English Tradesman*, 3rd ed. i. 164, 188, 346, 347, ii. 94. There are several pamphlets dealing with the subject; amongst these may be mentioned, *The Joyful News of Opening the Exchequer to the Goldsmiths* (*in a letter by the Author of the Bankers' Case*, Thos. Twine), 1677.—*The Case of the Bankers and their Creditors, by a true Lover of his King*, 1674.—*Considerations on the Goldsmiths' Letters Patent*, 1678. "His Majesty's (Chas. II.) patent to the goldsmiths for payment and satisfaction of their debt," 1677 (patent granted to Sir Robert Vyner for £416,724, and to eleven other "persons hereafter named" for sums ranging from £295,994 down to £1784, the interest at 6 per cent to be paid by the quarter).] W. A. S. H.

EXCISE, THE, is the name given collectively to those duties which in the fiscal system of the United Kingdom are levied upon commodities produced within the kingdom itself, as distinguished from customs duties (see CUSTOMS) which are levied at the ports upon commodities imported from abroad. The word *excise* (Latin, *excido*) signifies etymologically *something cut off;* as an excise duty may in effect be considered something cut off or deducted, for the benefit of the state, from the price of the article as paid by the consumer. If there were no duty the consumer would pay a lower price for the article. The price, therefore, that he actually pays includes the duty; whence it follows that the duty itself is something deducted or subtracted from the actual price paid. The price in fact is divided into two parts, one part being

subtracted from the whole for the benefit of the state, and the remainder going to the vendor.

Duties of this character, whether levied on articles produced at home or imported from abroad, were at first equally known as excise duties, but in revenue parlance the word has long been restricted to duties on native commodities, those on foreign articles being known as the customs.

An excise duty properly so-called belongs to the category of indirect taxes, because though levied on the producer, its burden really falls on the consumer. It is, however, the practice to classify under the general head of excise the railway duty on passengers, a direct tax; of which the real as well as the apparent incidence generally falls on the railway companies; and a large group of *assessed taxes*, being license duties paid to the state in return for permission to practise or follow certain sports, trades, or occupations; *e.g.* the dog, game, and gun licenses and the licenses on brewers, auctioneers, and pawnbrokers. For a considerable period previous to their introduction into England excise duties formed part of the fiscal system of Holland. They were first imposed in this country in 1643 by the Long Parliament in order to raise funds for the war against King Charles the First. The principal articles first subjected to the duty were ale and beer, cider, perry, and strong waters, to which was soon afterwards added a long list of articles of food and clothing, *e.g.* flesh, victuals, and salt, alum, copperas, hats, saffron, starch, and all manner of silks and stuffs. The prime necessaries of life—flesh and salt—were subsequently struck out of the list, but, nevertheless, the general tendency from the Restoration (1660) to the administration of Sir Robert Walpole was rather to extend than to restrict the operation of these imports.

Walpole, to whom the material progress of England is so deeply indebted, applied himself from the first to fiscal reform. His biographer, Archdeacon Coxe, boasts of him that "he found our tariff the worst in the world and left it the best." By economical administration and the maintenance of a strictly pacific policy in foreign affairs, he enabled himself to help forward the growing prosperity of the country by a substantial alleviation of the burden of taxation. One of the main objects to which he set himself was to make the exportation of our manufactures, and the importation of the principal articles used in them, as free as possible. The reforms which with this view he carried out belong rather to the history of customs than of excise; but in the department of excise proper his beneficent activity made itself felt in the abolition of some duties, the reduction of others, and the simplification of many more. The most famous and the greatest of all his schemes, though it ended in failure, was the bill for warehousing wine and tobacco, generally known as the *Excise Scheme*, which occupies so important a place in our fiscal and parliamentary history that it deserves a separate notice (see EXCISE SCHEME).

The history of the excise since the administration of Walpole cannot here be written *in extenso*. It contains few features of salient interest, nor does it record any convulsion such as that which was excited by his unlucky Excise Scheme.

It will be observed on reference to the following list that the greater part of the excise revenue is derived from taxes on alcoholic drinks. This is no new fact; more than a hundred years ago Cowper drew attention to it in some indignant lines in "The Task."

> "*The Excise* is fattened by the rich result
> Of all this riot, and ten thousand casks
> For ever dribbling out their base contents
> Touched by the Midas finger of the State
> Bleed gold for ministers to sport away."

Such indignation is perhaps misplaced; as it is obvious that taxation should be imposed on luxuries rather than on necessaries; and whatever may be thought of the wisdom of consuming alcoholic drinks, they certainly cannot be classed among the necessaries of life. The tendency of modern legislation has been to throw the largest possible burden of excise taxation on alcoholic drinks, and to exempt, as far as possible, other articles.

[The best authority on the history of excise is Dowell's *History of Taxation and Taxes in England* (Longmans, Green, and Co. 2nd ed., 1888, 4 vols. 8vo.]

List of the chief heads of excise revenue, during the financial year 1891-92, taken from the published *Finance Accounts of the United Kingdom for 1891-92*, viz. (net receipts)—

	£
Excisable Liquors, viz.—	
Beer Duty	9,851,822
Spirit Duty	16,480,199
Railway Duty	324,984
License Duties, viz.—	
Brewers	15,478
Spirits—Distillers and Rectifiers	10,476
Tobacco Manufacturers	7,019
Patent Medicine Vendors	7,185
Beer and Cider, and Beer and Wine	186,167
Spirits—Dealers	129,579
Spirits—Publicans	1,527,074
Wine and Sweets	70,103
Refreshment Houses	7,755
Tobacco Dealers	78,509
Dogs	419,809
Gun Licenses	92,624
Game Licenses	181,740
Male Servants	143,019
Carriages	474,084
Armorial Bearings	75,303
Auctioneers, etc.	82,382
Hawkers and Pedlars	18,720
Plate-Dealers	51,858
Pawnbrokers	36,645
Miscellaneous	17,160
Total	£30,289,694

The whole of this sum is collected by imperial officers acting under the direction of the commissioners of inland revenue, who in turn are by statute subjected to the directions of the commissioners of the treasury; but since the new arrangements initiated by Mr. Goschen, when chancellor of the exchequer in 1888, the proceeds of certain specified portions of the beer and spirit duties and of certain licenses are handed over direct to the local authorities throughout the kingdom, in substitution for the grants formerly made by parliament in aid of local expenditure (see Mr. Goschen's statement in the House of Commons of 26th March 1888, Hansard's *Parliamentary Debates*, vol. cccxxiv.). The amount thus payable to the local authorities out of the excise receipts of 1891-92 was £4,572,268, leaving (say) £25,717,425 payable to the exchequer.

The following are some of the duties that have been repealed, viz.—

Cider, 1830. Paper, 1861.
Bricks, 1850. Hops, 1862.
Soap, 1852-53.

EXCISE SCHEME, THE, is the name by which history knows the proposal introduced into parliament by Sir Robert Walpole in 1733 for applying what is now known as the bonded or warehousing system to tobacco, and afterwards to wine. Instead of paying duty, or giving bonds, on landing the tobacco, from Maryland or Virginia on the quays of London or Bristol, the merchant was to lodge his hogsheads in warehouses under the control of excise officers, to pay duty only as he took it out for home consumption, and if he took it out not for the home market but for re-exportation abroad, no duty was to be paid. The same system was to be extended to wine. Various advantages were claimed for the change. First, it would put an end to sundry gross frauds upon the revenue, from smuggling on an immense scale down to abuses, petty and great, which the iniquity of dishonest merchants, practising on discounts, allowances, and drawbacks, and the rapacity of lightermen and watermen, carried out at every port in the island. Second, the prevention of these frauds and the decrease of smuggling would be a great gain to the honest trader. Third, accompanied as it was by a simplification of rates, this cheaper and easier collection would be a great advantage to the revenue. Fourth, and much the most important of all, it would tend to make London a free port, and by consequence the market of the world. Such were the advantages claimed for the change at the time. But another, and not the least important, may be added, viz. that it anticipated and fulfilled the principle of Adam Smith's fourth canon of taxation, by taking as little as possible out of the pockets of the people beyond what it yielded to the revenue. The merchant, relieved of the necessity of paying the duty on the importation of the article, would have the use of his capital for a longer time, and would therefore be able to sell at a lower rate to the consumer. In fact the merchant would gain, and the state lose, the interest on the amount of the duty for the period between the importation and the sale of the article. The merchant's, and, through him, the consumer's gain would in practice be greater than the state's loss, as the rate of interest which he would require on his capital, in order to make his business remunerative, would greatly exceed the rate at which the state could borrow; and moreover the loss of the state was more than counterbalanced by the economy of the cost of collection, and the prevention of fraud, which the scheme involved.

Such was the famous excise scheme, which alone would suffice to establish Walpole's reputation as a finance minister far in advance of his age. But the public mind of the time was not sufficiently instructed to receive it; and the design had no sooner been bruited abroad than a popular outcry arose, one of the loudest and fiercest of which history makes mention, which shook his power to its foundations, and at no long distance of time compelled him to abandon the scheme. The parliamentary Opposition, whose motives need no explanation, used all their powers of misrepresentation against Walpole's plan, the object of which was to turn the customs duty on the importation of tobacco into an excise duty on its consumption, as a scheme for levying a general excise over the whole range of commodities. Food, clothing, and the other necessaries of life were, they declared, to be loaded with a crushing tax. Every man's house might be invaded at any hour by the excise officer. Every man's goods and all his dealings would be exposed to minute and ceaseless inquisition. A great standing army of revenue officers would be created, which would overturn Magna Charta,—even undermine parliament. Such were the misrepresentations to which the credulity and factious spirit of the people, and the general unpopularity of the excise as a whole, made them an easy prey. The whole country resounded with shouts of "no slavery, no excise, no wooden shoes." The majority in the House of Commons in favour of the measure went down from sixty-one on the first resolution to seventeen on a subsequent issue; and this dwindling of his supporters, combined with the growing frenzy out of doors, determined Walpole to abandon a measure which in the inflamed temper of the nation could hardly be put into execution without an armed force. "I will not," he said, in announcing his resolution to his friends, "be a minister to enforce taxes at the expense of blood."

The abandonment of the scheme was celebrated throughout the country with rejoicings as for a national victory; the crisis was long remembered; and it is noteworthy that the

popular feeling, many years after the occasion had passed away, found an exponent in the tory prejudices of Dr. Johnson, who in his dictionary defined "excise" as a "hateful tax levied upon commodities, and adjudged not by common judges of property, but by wretches hired by those to whom excise is paid."

For a compact and trustworthy account of Walpole's excise scheme the reader is referred to Mr. John Morley's *Walpole* (series of English Statesmen, Macmillan and Co.), from which the foregoing description is mainly taken.

Writing more than forty years after Walpole's failure, Adam Smith had still to lament that so excellent a scheme had not been resumed by subsequent ministers (*The Wealth of Nations*, bk. v. ch. ii.). The credit of resuming it was reserved for William Pitt, who notwithstanding the inevitable parliamentary opposition, carried it into law in 1789 (29 Geo. III. c. 68).

[E. Leser, *Ein Accise-Streit* (Walpole's Scheme), 1879.]

The amounts raised by means of the excise have varied much since the first imposition of the tax levied under this name. As the articles subjected to it have differed very greatly, an exact comparison is scarcely possible. In the earlier periods the excise was farmed out, and "in 1657 an offer was made to give, for the farm of the excise and the port duties, no less than £1,100,000 per annum" (Dowell, 2nd ed. vol. ii. p. 13). Up to the end of the 17th century, the yield scarcely altered. Dowell writes (p. 62), "the revenue from inland duties had varied considerably in different years. In 1700 over a million, it was in 1702 nearly £1,400,000." During the later half of the 18th century great additions were made to the tax, though Walpole's proposals were not accepted (see EXCISE SCHEME).

In this century the gross produce of the tax has been in round figures at the following dates:

1835 . . .	£15,200,000
1855 . . .	£15,300,000
1875 . . .	£28,400,000
1892 . . .	£30,200,000

EX. DIVIDEND. A stock exchange phrase, shortened, as usual, to signify that the price at which a given security can be bought or sold is exclusive of dividend, which has been, or is about to be deducted. Unless so specified, the security in question is *cum dividend*, meaning that the dividend or interest accrued since the previous distribution is covered by the purchase money. Certain securities, including corporation bonds, exchequer bills, Indian deferred paper, English mortgage bonds, never carry interest in the prices, which are quoted net, the buyer being charged interest up to the date of the completion of purchase (see EX. ALL; EX. NEW). A. E.

EX. DRAWING. This phrase simply means that in case of the DRAWING (*q.v.*) of bonds at par, the bargain is not to be affected by the price obtained by the hazard of drawing, and the buyer gets no benefit. Thus, a specific government bond might have been bought at 90 a week or two before the periodical drawing of such bonds, and the buyer would get £100 if his bond happens to be among the lucky numbers, unless the words "ex. drawing" formed part of the contract. A. E.

EXECUTION is the name of the procedure by which the judgment or order of a court of law is enforced. This is generally done by "writs of execution," which, in the case of judgments of the high court, are issued in the central office or a district registry, and directed to the sheriff of the county in which they are to operate. The usual writs issued in the case of money claims are writs of *fieri facias* (cp. FIERI FACIAS, WRIT OF), commonly called fi. fa. and WRITS OF ELEGIT (*q.v.*); money claims may also be enforced by so-called "garnishee orders," viz. orders by virtue of which the judgment creditor obtains a charge on debts owing to the debtor, or "charging orders" which affect stocks or shares standing in the debtor's name, or, if the debtor has an equitable interest in the property out of which the judgment creditor seeks to obtain payment of his debt, by the appointment of a RECEIVER (*q.v.*) Judgments for the recovery of land are enforced by "writ of possession," and judgments for the recovery of any property other than land by "writ of delivery" or "writ of attachment"; in the case of judgments directing a person to do any act, other than the payment of money, the disobedient party is subject to imprisonment through the instrumentality of a "writ of attachment" or through "committal," which two means of execution differ in form only. Imprisonment on account of the non-payment of money has been nearly abolished, and where it occurs it is punitive in its nature, and not merely a means of enforcing payment (see DEBT, IMPRISONMENT FOR). E. S.

EXECUTOR; the legal administrator of the personal estate of a deceased person. In Scotland if appointed by written nomination of the deceased he is called executor nominate, if by decree of the commissary court executor dative, the former answering to the English executor the latter to the English administrator. His title in either case is completed by *confirmation* (see CONFIRMATION OF EXECUTOR) which answers to the English taking out probate or letters of administration. A husband has in Scotland no absolute right to administer to his wife's movable or personal estate. In default of an executor nominate, a residuary legatee is preferred, then the next of kin, those in the same degree being entitled to be joined if they please, then the husband or wife of the deceased, then the creditors, and lastly a special legatee. An executor differs from a trustee in that an executor's duty is to distribute the fund, a trustee's to hold it.

[Currie on *Confirmation of Executors.*—M'Laren *on Wills*, ii. § 1657.—Dove Wilson, *Sheriff Court Practice*, 4th ed., 546.] J. W. B. I.

EXECUTRY (Scottish); the subject of an executor's administration; the whole of the personal estate of a deceased person, equivalent both to legal and equitable *assets* in England. J. W. B. I.

EXERCITOR (Scottish); a term derived from Roman law and implying one who employs a ship for his own profit in trade, and to whom the profits belong. It matters not whether he is the actual owner or only the freighter. He is liable for necessaries ordered by the master. His obligations properly fall in the first instance under the jurisdiction of the admiralty court.

[Bell's Pr., § 450.] J. W. B. I.

EXHEREDITATIO signifies, in Roman law, a testator's declaration in his will that he excludes from being his *heres* a member of his family belonging to the class of relations who cannot be passed over in the will in silence, but must either be appointed *heredes* or thus declared to be disinherited. E. A. W.

EX. NEW. This refers to the quotation of prices on the stock exchange for shares or other security, the holders of which are about to receive an allotment of new stock at what may be considered an advantageous price of issue. When these words form part of the contract, the seller retains the advantage, if any, and the buyer's right to the security is exclusive of any right to subscribe to the new issue (see Ex. All; Ex. Div.). A. E.

EXPECTATION OF LIFE, a term introduced by De Moivre, denotes the number of years which persons of a certain class, *e.g.* English males, live on an average after a certain age, *e.g.* 20; the average being obtained as follows. The number of years which each of a great many, say *n*, specimens of the class under observation, lives after the assigned age having been observed, the sum of these numbers is divided by *n*. The Expectation is thus the arithmetic mean of the *n* observed numbers (see Average). It is contrasted with another average of the same numbers, viz. the *Median* (see Average), technically termed the "equation of life." The term "expectation" is objected to by Dr. Farr as suggesting the latter rather than the former sort of average. He prefers to say *mean after-lifetime*. Comparing the two kinds of average, Neison seems to think that the expectation of life is not so well suited "for medical and other purposes in which it is required to determine the relative value of an improvement or other change which may have taken place within a given period of life."

(See Death-rate; De Moivre; Insurance; Mean Afterlifetime; Statistics.)

[Walford's *Insurance Cyclopædia*, article "Expectation."—Farr, *Vital Statistics*, pp. 279, 309.—Neison, *Contributions to Vital Statistics*, p. 100.—Report of the Registrar-General for 1885, Supplement.—Humphreys, *Journal of the Statistical Society*, 1883.] F. Y. E.

EXPEDITATION. By the Forest Laws (*q.v.*) all mastiffs or other large dogs kept within a forest had to be expeditated, *i.e.* maimed sufficiently to prevent them chasing the deer. According to the laws of Canute the dog was to be hamstrung, but by a charter of Henry II. a somewhat milder operation was allowed, three toes of one forefoot being cut off with a chisel, leaving the ball of the foot intact. For keeping an unexpeditated dog within a forest a fine of 3s., called "footgeld," was imposed, but before the end of the 15th century in many of the English forests this fine had become a customary payment, sometimes called "hound-silver," collected triennially, which formed no small item in the revenues of the forest owner.

[See Ducange, *Glossarium mediæ et infimæ Latinitatis*, Editio nova a L. Favre, Paris, 1884.—Manwood, *Forest Laws*, London, 1615.—Cowell's *Interpreter of Words and Phrases*, London, 1701.—Forest Accounts, some of which are quoted by Manwood.] A. H.

EXPENDITURE or SPENDING has two distinct meanings which are often confused.

1. Expenditure may mean simply the payment out of money, that is, the exchange of money for other goods. In this sense it does not imply any consumption of wealth on the part of any one, and it cannot be opposed to "saving." A man who saves £100 a year ordinarily expends or spends those £100, *i.e.* exchanges them for other goods, just as much as if he did not save anything. The things on which he expends them will be different, but the expenditure, unless of course the money is hoarded, will be the same.

2. Expenditure may mean payment of money for personal consumption on the part of an individual, and consumption, pure and simple, on the part of the community. In this sense it is rightly opposed to "saving." The £100 a year saved by an individual is not in this sense of the word expended or spent either by himself or any one else. It is simply the value in money of a part of the community's income, which, instead of being consumed, has been added to the capital of the country (see Saving, Productive and Unproductive). E. C.

EXPENSES OF PRODUCTION (see Production).

EXPERIENCE. Upon the value of experience in the study of political economy the most contradictory opinions have found adherents.

Some economists have expressed themselves as though political economy were a science similar in type to astronomy—as though all economic truths could be derived by strict deduction from one or two first principles,

such as "All men desire wealth," or "All men are averse to labour." Other economists have denounced general reasoning, and have laid exclusive stress on the accumulation of facts. They would apparently reduce political economy to the task of observing and recording particulars without any admixture of inference. These opposite opinions have rarely been held in their most extreme forms. But by stating them as forcibly as possible we may be assisted to detect the fallacies which they involve.

It will appear upon examination that neither of these principles can be carried out in its integrity. The attempt to carry out either would result in intellectual paralysis.

There has never yet existed an economist so rigorously deductive in his method as not to draw to some extent upon experience of economic phenomena. Many economists have indeed drawn upon a field of experience too restricted to justify dogmatic conclusions. Many economists have been too much influenced by the economic experience of their own time, or of their own country. Even this narrow experience they may not have studied exhaustively. They may have picked up their knowledge of it insensibly, here and there, bit by bit. It is thus that the man of business, as contrasted with the student, acquires his knowledge of economic phenomena. Ricardo, the greatest of those economists who are alleged to have been rigorously deductive in method, may be said to have acquired most of his knowledge in this way. Such knowledge, being very partial, may sometimes prove misleading. But even such knowledge has great influence upon the development of theory. Ricardo's economic theories would certainly have been different had he lived in another age than the nineteenth century, or in another country than England.

An economist strictly deductive in method could never get beyond his first premisses. The contrary seems possible because the economist who apparently deduces everything from first principles in reality weaves into his argument statements of fact and wide generalisations which have become so familiar that he and his readers forget how they were first acquired.

Nor has there ever yet existed an economist who merely observed and recorded. Those economists who aimed at this ideal have nevertheless written history. The writing of history involves processes of selection, comparison, and inference, in which the historian's mind is active. No two persons perform these processes in quite the same way, and it is extremely easy to make mistakes in performing them. It is not merely that historians often infuse their work with their own political or religious sentiments, with the prejudices of their own age or their own class. It is rather that the historian cannot construct a narrative out of facts without interpreting those facts. But he cannot interpret the facts without using his mind, without adding to, or rather, without transforming, those facts.

The object of all science, including political economy, is not merely to amass facts but also to explain them. Facts are explained in so far as they are successfully brought under general laws. The general laws are always at first hypotheses, or in the vulgar tongue, guesses—guesses at truth. Hypotheses are suggested by facts, and facts are interpreted by hypotheses. He who forms a hypothesis with hardly any knowledge of the facts is pretty sure to throw away his trouble. He who clings to a hypothesis once formed, neglecting or rejecting new facts, does worse, for he is trying to confirm himself in error. But to refrain from forming hypotheses is impossible to a reasoning creature, and, if it were possible, would be suicidal. The value of experience is not absolute but varies directly as the power of the mind which has the experience. One glance at the field of battle will suggest a decisive movement to the great general. The vicissitudes of a short and obscure life will give the great poet a key to human nature in its infinite variety. The scientific genius, although less brilliant, is not essentially different from theirs.

Whether in physical or in political science the master mind is that to which facts suggest their own explanation. F. C. M.

[Cairnes, *Character and Logical Method of Political Economy.*—Bagehot, *Economic Studies.*]

EXPERIMENTAL METHODS IN ECONOMICS. Experiment in the scientific sense has been well described as "putting in action causes and agents over which we have control, and purposely varying their combinations and noticing what effects take place" (Herschel, *Study of Natural Philosophy*, p. 76). In sciences such as physics and chemistry, in which the phenomena are amenable to arrangement, it is by far the most potent instrument of discovery. Where, however, there is not the same facility for easy manipulation, the inquirer is compelled to fall back on the less effective method of simple observation. Instead of creating instances for himself, he has to find them in nature, or wait till they are presented spontaneously to his view.

Economics, in common with the other social sciences, clearly belongs to the latter class. The phenomena of wealth are closely inter-connected, and are besides affected by the other forms of social activity. Hardly any economic event can be said to be the result of a single cause, it is rather the product of several contributory causes. Nor are the total effects of any one agency easily separable; they are combined with those of others in a whole which cannot be analysed. In technical language "plurality of causes" and "intermixture of effects," the

two great hindrances to the use of experiment (Mill, *Logic*, bk. iii. ch. x.), are generally present in economic facts. To secure the requisite isolation of any phenomenon selected for study is rarely possible. The most rigorous form of inquiry, known as the "method of difference," the essence of which "is the comparison of two instances, which resemble one another in all material respects, except that in one a certain cause is present, while in the other it is absent" (Keynes, *Scope*, p. 170), is plainly excluded, since we cannot introduce a single cause that will have only a measurable effect, nor can we be sure that the surrounding conditions remain unaltered. The "method of agreement" in which the instances compared resemble each other in only one particular is not merely inferior as an experimental resource, but is inapplicable to social phenomena. Two countries or periods that had one common feature would have more than one. In two classes of cases, however, experiment may be sometimes used, viz. (1) in reference to the premises or *data* of economic science, thus the "law of diminishing returns" admits of experimental proof; (2) More important than the preceding exception, which is rather apparent than real, are those cases in which, by deductive reasoning, it can be shown that the action of an economic force is limited, and then its working within those limits can be experimentally ascertained.

These exceptions notwithstanding, it may be said that scientific experiments (*experimenta lucifera*) are a very slight resource in economics.

The case is somewhat different with regard to practical questions. Legislative measures and individual actions are, if so intended, so many experiments on the social system. Thus if several countries, widely differing in other respects, have established a system of peasant proprietary with good results, while several other countries, also widely differing *inter se*, are without that system and show inferiority, we may argue that peasant proprietary is experimentally justified. The same reasoning would be applicable to commercial policy, and has actually been used in reference to the case of Victoria and New South Wales, but illogically, as a number of cases are required to exclude other influences.

Again, by applying special legislation, *e.g.* a particular kind of land tenure, to one part of a country, we can ascribe to its influence the special effects noticed in that district. Practical experiments (*experimenta fructifera*) may also be employed by means of (1) permissive legislation, or (2) temporary legislation.

Private persons also carry out practical economic experiments, as in the cases of profit-sharing (Leclaire), and the recent eight hours day experiment at Sunderland (*Economic Journal*, ii. pp. 755, 756). A large accumulation of instances may even give a very near approach to rigorous scientific proof.

A vaguer use of the term "experimental method" is common in continental and especially in French writers. J. B. Say, for example, declares that the true method of political economy is *La méthode expérimentale qui consiste essentiellement à n'admettre comme vrais que les faits dont l'observation et expérience ont démontré la réalité* (*Traité, Discours prélre*, p. x. 5th ed. 1826). Here "experiment" is used as synonymous with "experience"; it therefore includes observation and experiment in the strict sense.

[J. N. Keynes, *Scope and Method of Political Economy*, pp. 169-178.—J. S. Mill, *Logic*, bk. iii. chs. viii., x. ; bk. vi. ch. ix.—G. C. Lewis, *Methods of Observation and Reasoning in Politics*, ch. vi. —Jevons, *Methods of Social Reform*, pp. 253 *seq.* —Léon Donnat, *La Politique Experimentale*, 2nd ed. Paris, 1891]. C. F. B.

EXPERT. An expert may be defined as a person possessing special knowledge of any science or art. Art is here taken in its most comprehensive signification, to include the useful as well as the fine arts, cooking or carpentry as well as music or painting. The opinion of an expert on matters connected with his own subject is more likely to be correct than the opinion of a man to whom that subject is almost or altogether unknown. But the degree in which an expert's opinion outweighs the opinion of the ordinary man will vary according to the nature of the subject.

For, first, the subject may be one with which the ordinary man has no acquaintance, or it may be one with which he is acquainted, although not so fully as the expert. Thus every man in his senses knows to some extent what food is wholesome, although he may not know so much on this point as a qualified doctor. Every man who can write has some power of comparing hands, although not so much power as belongs to an expert in handwriting. But only an expert in navigation can determine the exact position of a ship out of sight of land. Only an expert in astronomy can determine the probable distance of a fixed star from our planet. In such matters the judgment of the ordinary man is absolutely worthless.

Secondly, the subject may be so complex that no expert has more than a very imperfect knowledge of it. Political and economic science are characterised by this complexity. Upon political or economic questions the opinion of a man who knows much is far more valuable than the opinion of a man who knows little or nothing ; but even the opinion of the man who knows much affords a very imperfect security. Such complex questions often present different aspects to different classes of experts. Let us suppose that an opinion is required on the expediency of a law to regulate the hours of labour. At least five different classes of experts

are more or less entitled to be heard:—(*a*) The economist who has read and reflected upon the theory of economic phenomena; (*b*) the political philosopher who has read and reflected upon the theory of the state and of legislation; (*c*) the statesman who is familiar with the practice of government, and can judge what kind of laws it is usually expedient to make and possible to enforce; (*d*) the employer who has had the opportunity and the will if not the wisdom to discover how production can be carried on to the greatest profit; (*e*) the workman who has had the opportunity and the will, if not the wisdom, to discover what are the best conditions of life which he can obtain for himself; all these men can bring to the determination of the problem a knowledge which other men do not possess, and are entitled in a greater or less degree to speak with the authority of experts. One person might, of course, combine more than one of these characters, and might, therefore, claim a higher degree of authority.

Thirdly, the subjects of knowledge differ in the degree in which they excite passions such as prevent the expert from employing his intellectual superiority to its fullest advantage. On any subject, indeed, were it astronomy or textual criticism, the judgment of an expert may be disabled by vanity or love of contention. But on those subjects which immediately touch the interests of mankind, notably theological, political, and economical subjects, the judgment of the expert is more likely to be disturbed by his passions. These passions are at least as ungovernable in ignorant men. But wherever they prevail they lessen the interval between the ignorant man and the expert. For the finer the intellectual instrument the more it is disturbed by acute emotion. F. C. M.

EXPERTISE (French) is the legal process by which judges, when called on to decide special or technical cases, may appoint, on their own authority, or on the demand of one or both of the litigants, persons possessing the necessary knowledge or experience, called experts, to examine, and report on, the points at issue. The conditions under which those operations are conducted are laid down in Arts. 303-323 of the Code of Civil Procedure. One of the most frequent applications of the law is in the settlement of disputes between foreign importers and the French customs authorities relative to the class, quality, origin, or value of merchandise subject to duty. The first supplementary convention to the Anglo-French treaty of commerce of 1860 conferred on British importers in France the right to demand an *expertise*. When the Customs propose to exercise the right of preemption, the importer and the customs each nominates one of the experts. In case of disagreement the two experts choose an umpire, and if they cannot agree on the choice, the umpire is appointed by the president of the nearest tribunal of commerce. Objections were frequently made that the persons named as experts did not possess the necessary qualifications, and on the renewal of the treaty of commerce, in 1873, a protocol was signed, stipulating that they should be chosen from a list of merchants or manufacturers drawn up by the chambers of commerce in each locality having a customs bureau. A British chamber of commerce had just been founded in Paris, and that body submitted to the Paris chamber (French) the names of the principal British merchants in Paris, for them to be comprised in the list of experts; but the French chamber of commerce refused to nominate them on the ground of their foreign nationality, although British traders had previously been accepted as experts. The British chamber appealed to the Foreign Office, and on the intervention of the British ambassador the French minister of foreign affairs considered the claim a just one, and some of the names proposed were added to the list of experts in Paris. Those names were, however, subsequently removed from the list on the expiration of the treaty of commerce in 1881, and British importers who now have disputes with the French customs can only be represented in an *expertise* by a French merchant or manufacturer, who is naturally disposed to impede rather than to facilitate foreign competition in his own trade. There is no appeal from the decision of the experts in commercial affairs, when they agree, but civil *expertises* are still governed by Art. 323 of the Code of Civil Procedure, under which judges are not bound to adopt the opinion of experts if they are not convinced by it. T. L.

[*Lois du 27 Juillet 1822 et du 7 Mai 1881; arrêts de la Cour de Cassation, 30 Avril 1838, et 30 Janvier 1839.*]

EXPLOIT. The French verb *exploiter* primarily means simply to use in such a way as to make a profit out of. It is applied to such actions as working a mine or a railway, cultivating a farm, or publishing a newspaper. There are some things which it is admittedly improper to use in such a way as to make a profit out of them; it is disgraceful, for instance, to *exploiter* any one's credulity, ignorance, or good nature. Hence the word comes to have sometimes a bad sense. The socialists who teach that the capitalist obtains an illegitimate gain by employing men for wages have applied the term to his action in this bad sense. To *exploiter* men or labourers thus means to use them in such a way as to make a profit out of them, it being at the same time implied by the use of the word that this, though not perhaps disgraceful to an individual who does it under present circumstances, is fundamentally improper, and would not be allowed in an improved state of society.

It is almost exclusively in this bad sense that

the word "exploit" has been introduced into English. E. C.

EXPORTS AND IMPORTS, see IMPORTS AND EXPORTS.

EXPORTS, DUTIES ON. Duties on exports have been generally condemned by modern economists, but they survive in many of the British possessions as well as in some foreign countries. The history of these duties in Great Britain is merged in that of the customs revenue. The original customs duties were, in fact, duties on exportation. They appear to have been levied by prerogative of the crown from early times, but the first statute which imposed them was one of 3 Edward I.

Two somewhat diverse theories have been suggested as explanatory of the origin of these duties in England. One, which we find first indicated by Sir W. Petty, is adopted by Mr. Dowell (*History of Taxation*). It holds that the sovereign power simply levied a toll on all merchandise, whether inward or outward, as a reward for its protection of the merchant. The duties "were in the nature of a premium paid to the king for insurance." The analogy of the customs duties levied at Athens and at Rome (*portoria*) may be held to favour this view. The other theory is on the whole the more probable, and is that adopted by Mr. Hubert Hall (*History of the Customs*); the king's chief concern was to see that he got as much revenue as he could. He was from ancient times entitled to a purveyance or prise on certain classes of commodities—"if then these were conveyed beyond the kingdom the crown would suffer a possible loss to its state or dignity." When it was found that the wools and hides on which the king was entitled to the internal toll or prise were being exported and escaping taxation, he at once put on a countervailing export duty in order to secure his revenue (see PRISAGE).

It seems probable that these duties were adjusted at the discretion of the crown according to its necessities, and Mr. Hall thinks that immediately before the statute 3 Edw. I. "it is probable that the commuted prise on staple exports, such as wool, hides, and minerals, was taken at an average rate of half a mark per sack of wool or an equivalent bulk of woolfells, a mark per last of hides, and an *ad valorem* duty of 3d. on every librate or twenty solidi of lead or tin."

The Act of 3 Edw. I. (1275), which is the first instance of levying taxation by act of parliament, placed the export duty at

½ mark per sack (26 stone) of wool.
,, ,, per 300 woolfells.
1 ,, per last of leather.

These are the *custuma antiqua sive magna*, and the chief contributor to the revenue was the wool. In the thirty-second year of this reign the produce was as follows:

Wool at 6s. 8d. . .	£1501	0	9¼
Woolfells at 6s. 8d. .	57	15	1
Leather at 13s. 4d. .	0	8	7½
Total of the great customs	£1559	4	5¾

In February 1303 an agreement was made with the alien merchants, whereby they undertook, in consideration of the king's protection, to pay 50 per cent beyond the ancient customs on wool and leather, and certain fresh rates on other commodities whether exported or imported. Rates were specified for wax, cloth, and wine, and all other articles were to be charged 3d. in the pound of 20 shillings. These were the *custuma nova sive parva*.

The next development of the exports (as part of the customs) duties was by the statute of 49 Edw. III., which levied the due of tunnage and poundage, afterwards known technically as a subsidy. The poundage was a duty of 6d. on the pound-weight of all articles exported and imported.

With variations in the rate these two forms of export, and import, duty were continued on the same basis down to the Restoration in 1660. They were granted by the Commons for periods of years as a rule; sometimes for the life of the reigning sovereign. After Agincourt in 1415, such a life grant was made to Henry V., and the duties had gone up considerably, as follows:—

	From denizens.			From strangers.		
On wool per sack	£2	3	4	£3	0	0
On woolfells	2	3	4	3	0	0
On leather per last	2	3	4	5	6	8

and in the following reign the rate for wools, etc., was raised to £5 for strangers, and that for leather to £5 for natives. The subsidy of poundage had already been raised to 1s. on the pound-weight, and there was a special duty of double that amount on tin exported by strangers. In 1421 the yield of all the customs was £40,687, of which the great custom on wools, export duty, produced £26,036; in 1431 the total was £34,851, of which the greater proportion was derived from export duties. But the revenue appears to have been a falling one; the customs regulations were anything but complete, as is shown by the act of 27 Hen. VIII. c. 14, to regulate the exportation of leather from other ports besides Southampton and London; and there were constant interferences with the export trade by way of partial or complete prohibition, as late as Mary's reign. In 1570 the value of woollen goods and cloth exported from England amounted to £26,665, and from this was obtained £2388 : 10 : 11, viz. customs £1523, and subsidy £865 : 10 : 11; gradually the revenue from imports was becoming the more considerable.

The Long Parliament, after declaring in 1640 that "no subsidy, custom, etc., may be imposed upon any merchandise exported or imported without common consent in parliament," proceeded to levy heavy duties on the old lines. The year 1660 marks the beginning of a transition stage. In the Book of Rates for this year, 212 articles were subject to export duty "rated for duty outwards." The duties granted to Charles II. were levied with some modifications in the ninth and tenth years of William III. as the "new subsidy" and continued by 9 & 10 Anne, c. vi. (1710) by the act "for reviving, continuing, and apportioning certain duties upon several commodities to be exported and certain duties on coal, etc., etc." But in 1721 the export duties on corn, woollen fabrics, linen manufactures, and other staples were repealed; the mercantile theory with its mania for exportation had found these duties obstructive. Nevertheless in Saxby's manual of the Customs (dated 1757) some twenty-five pages are occupied with the enumeration of the goods rated for duty outwards, and the directions for paying the proper duties, and in Pitt's consolidating Customs Act of 1787 there are fifty articles subjected to export duty, many of them being of foreign origin. These duties were increased during the great war, and at the beginning of the century, under the act of 1809 (49 Geo. III. c. 98) Sched. A "Outwards," which rated for permanent duty, and in a parallel column for temporary or war duty:—

(*a*) Foreign commodities to the number of sixty-three at varying, chiefly specific duties.

(*b*) British goods, of which coals, skins, and other articles were subject to specific duty; all other goods, wares, etc., to an *ad valorem* duty—excepting cotton, linen, sugar, woollen goods, and certain special exemptions with reference to the port of destination.

By an act of 1810 linen goods were subjected to an *ad valorem* duty of 15 per cent on exports. But with the close of the war and the progress of the new economy the backward policy was reversed. In 1815 the export duties produced £365,598, and in 1826, £102,255. Under Mr. Huskisson, in the latter year, the schedule of articles left subject to export duty was as follows:—

Coals, per chald. 1s. 6d. to 30s. 3d., according to destination, etc.
Culm, per ton, 1s. to 10s., according to destination, etc.
Skins, per 100, 1s.
Wool, per lb., 1d.
Woollen manufacture, per lb., 1d.
All produce of the United Kingdom, except certain articles definitely exempted, *ad valorem*, 10s. per £100, *i.e.* ½ per cent.

and with Peel's reformed tariff of 1842 these disappeared altogether.

One of the few accidental gains to be placed to the credit of the old mercantile theory was that it tended to discourage duties on exportation. Sir W. Petty (1679) shews a consciousness that such duties required careful watching. Sir John Sinclair (1790), who had imbibed the doctrines of Adam Smith, is the first writer apparently who distinctly expresses a doubt as to the propriety of their imposition. Formerly, he writes, almost every commodity sent out of the kingdom was subject to such a duty; it was supposed that the duty came out of the pockets of foreigners, but "such ideas are now exploded." He referred to the principal export duties at that time, under Pitt's recent act, as being those on coals and lead, with certain duties on raw produce intended to give our manufacturers "an advantage over rivals." McCulloch (*Taxation and the Funding System*) has a full discussion of the economic propriety of export duties, and suggests the grounds on which they have generally been condemned. His statement of the arguments for and against the retention of such a duty on coals, published just at the time when that duty was finally removed, is of special interest; it embodies the argument in which economists have for the most part summed up the whole discussion on these duties, viz. that they should not be levied except in the case of a country which has a monopoly of supply of the commodity taxed, or such an advantage in its production as to approximate to a monopoly.

Turning to the British possessions it is natural to find that in those which were acquired during the 17th century, when export duties were an unchallenged feature in the fiscal system of this country, the export duty is, so to speak, bred in the grain; in the colonies established towards the close of the 18th century such a duty practically had no place.

The notorious 4½ per cent *ad valorem* duty which created such squabbles between the crown and the West Indian islands was the progenitor of colonial revenues. At the time of the Restoration, when all the revenues of the crown were being revised, plantation enterprise was at the height of its activity, and it occurred to the crown advisers that the new dominions beyond the seas ought to contribute their share. Thus the origin of colonial customs was precisely the same as that of the English customs. The patent of 1663, constituting the office of commissioners of customs, empowered them to levy and collect a duty of 4½ per cent *ad valorem* on all dead produce exported from Barbados and certain other sugar colonies, and from the plantations in America. In respect of the latter no such duty was ever actually levied. In the West Indies it was the cause of much grumbling; already, in 1689, it was urged that "moreover this four and a half is collected in such manner that in the judgment of all that have

tryed it, the attendance and slavery is a greater burthen than the duty" (*Groans of the Planters*); it was found to be "the same thing in effect as a tax on lands." It was the subject of a great action in 1763 in a case arising on the island of Grenada, Campbell *v.* Hall, where payment of the duty was refused on the ground that the island was ceded by France on the condition that the privileges of the former *régime* should be secured to the inhabitants. This led to the exception of "the Ceded Islands," and Jamaica, from the operation of the duty. It was for many years paid in kind, and in 1778 the right so to pay it was successfully contested (Macpherson's *Annals*, iii. 625). This is not remarkable in an age when sugar was the current money of account. For the better collection of this and other duties the customs department had branch establishments in the colonies, and they continued to levy the 4½ per cent till it was abolished with slavery in 1838.

Of the other colonies the only ones in which duties on exports were levied in the first quarter of this century, were the Mauritius (certain rates on sugar, coffee, cotton, indigo, and one or two other articles), the Cape (on all produce shipped, half the amount of the import duties on similar articles), and Ceylon (on cinnamon, etc.). These were relics from foreign rule in each case, and disappeared gradually under British rule. The export duty on cinnamon from Ceylon had an instructive history, as it was exceedingly profitable when Ceylon had almost a monopoly of that spice, it was a chief element in driving other tropical countries to compete with Ceylon, and was dropped, in 1833, too late to save the colony's pre-eminence in that export.

In India export duties were a relic of the old system: when the imperial government took over the provinces in 1857 there were export duties levied in all the presidencies, and chiefly on grain, rice, indigo, lac, opium, silk, tobacco, and native manufactures of all sorts. An act of 1860 abolished those on manufacture of wool, flax, hemp, jute, etc. At the present day those on rice, opium, and certain other commodities remain. The Indian export duty on rice has been quoted by Fawcett and others as an instance where the duty was probably justified owing to the great advantages possessed by the exporting country in the production of the commodity.

The most striking modern recrudescence of export duties was in connection with the immigration of Indian coolies to the sugar-growing colonies. One of the conditions of government aid in importing coolies was that the planters should pay their fair share; and after much discussion an export duty on sugar and the other produce of the plantations was settled as the best method of obtaining the necessary contributions. Hardly therefore were many of the West Indian colonies freed from the ancient 4½ per cent duty than they undertook a new specific duty on exportation of sugar and other produce. The St. Lucia Schedule was a fair sample, imposing duties on—

Sugar	Charcoal	Hides
Rum	Logwood	Cocoa
Molasses	Firewood	Coffee

From a return given to parliament in 1854 it would appear that then the only British colonies which levied a duty on exports were the West Indian islands of St. Lucia, St. Christopher, Nevis, Montserrat, and the Virgin Islands, and the Mauritius which exacted 9d. the 100 lbs. on sugar. The Turk's Islands imposed a ½d. per bushel on salt. But it was inevitable that a principle admitted in the case of a special service should sometimes extend itself; and in later years there has been an increased tendency to levy export duties in the West Indies; while in New Brunswick, for a time, there were certain export duties on lumber, and in Prince Edward Island in 1861 a special duty was provisionally authorised to be collected for a special purpose on all agricultural produce exported. In the Bahamas so lately as 1870 and 1873 a general export duty on all produce was imposed; but that has now been dispensed with; the Virgin Islands being now the only instance of the survival of general export duties, which are almost entirely evaded, upon all the commodities which nature will allow those islands to produce. Such duties were distinctly condemned by the royal commission which inquired into the finances of various West Indian colonies in 1883-84 (*v.* their report, pt. iv.).

At the present time export duties are levied, usually for purposes of immigration, in many of the West Indian colonies, but not British Guiana. In one or two cases they are levied under a delusive name, *e.g.* "statistical tax," in others they are indirectly increased by wharfage duties for outward goods. In Trinidad, besides the duties on products of the cane, there is an export duty on pitch. In Turk's Islands that on salt remains a chief source of revenue. New South Wales, Western Australia, and Natal levy one on gold. The Fiji Islands, for purposes of regulating the trade, levied one in 1877 on silver coin and sandalwood, and in 1887 on *bêche de mer*. The duties on pitch, gold, and salt are generally looked on as royalties and in the nature rather of a rent than a tax.

The plantations on the mainland of America appear never to have paid an export duty, and the United States maintained the tradition, which also fell in with their policy of encouraging exportation as much as possible. One feature in the recent commercial policy of the United States deserves special mention. In the many treaties or agreements which they have been negotiating with the Central American and other states, they have carefully guarded themselves against the possibility of an export duty

being levied in the contracting state; apparently arguing that the imposition of such a duty is an attempt to raise the price to the United States consumer, and must, therefore, be treated as an unfriendly act to be punished by a countervailing duty.

In foreign countries duties on the exportation of commodities are still prevalent, levied sometimes on the chief product of the country, as on the charcoal and olive oil of Italy, in other cases as protective of home manufactures, as in the case of Swedish iron.

The views which have prevailed as to the incidence of export duties have been indicated in several passages above. The accepted view that the duty operates as a restriction to exportation, except where the exporting country has a monopoly of production, appears to be correct. If all countries levied export duties in exporting the same commodity the price of the commodity would be raised to cover the amount of the duty, and the foreign consumer would eventually pay the duty or the greater part of it. But as the facts are contrary to this hypothesis, it will be found in almost all cases, *e.g.* sugar exported from the West Indies —that the price paid by the foreign consumer is determined by stronger considerations: the exporter cannot control it; the duty falls on him and enhances his expenses in production, or perhaps more accurately it lessens his profits. In any special case the factors which determine price are important in deciding the incidence. The case of monopoly is nowadays hardly of practical importance.

[Petty's *Treatise of Taxes and Contributions*, 1679, chap. vi.—Saxby's *British Customs*, London, 1757.—Sinclair's *History of the Public Revenues*, London, 1804, esp. pt. iii.—Jickling's *Digest of the Customs Laws*, 1815, esp. the Pref.—McCulloch *On Taxation*, 1845, bk. v.—McCulloch's edition of Adam Smith's *Wealth of Nations*, vol. iii. p. 460.—The *First Report of the Commissioners of Customs*, 1857.—Dowell's *History of Taxation and Taxes in England*, 2nd ed., 1888, bk. i. c. 5, *et passim*.—Hall's *History of the Customs*, 1885.]

C. A. H.

EXPROPRIATION. Expropriation may be defined as the compulsory sale of private property either to the state or to private parties who have received specific authority from the state.

That such compulsory sale is sometimes indispensable to the public welfare is too obvious to need demonstration. The necessity for expropriation can rarely arise in the case of movable property. Such articles can almost always be obtained by a voluntary transaction, if not from one owner, then from another. The acquisition of a particular movable can hardly ever be matter of necessity to the state. Even a unique picture or statue is a luxury which it is not advisable for the state to acquire at the cost of infringing upon the general freedom of an owner to dispose of his property at his pleasure. In some countries the finder of antiquities is obliged to transfer them to the state on receiving compensation. But this exceptional rule is of no economic importance. With reference to immovable property the case is different. Not only is land necessary as the basis of human industry and limited in extent, but the land suitable for a specific public purpose is often very narrowly limited indeed. In order to lay out a street or a railway, to construct a public building, a fortress, or a harbour, particular pieces of land must be obtained, even although their owners do not desire to part with them. If no compulsion were to be used in such cases the state would be reduced to offer a preposterous price or to forego a necessary improvement.

But expropriation is allowable only in order to effect an appreciable public good. All compulsion is painful, and pain should not be inflicted without a rational object. The presumption is in favour of letting every man do as he likes with his own. Therefore the burden of proof lies upon those who advocate expropriation in any particular instance.

To what extent expropriation should be carried is a wider question than that to which these remarks must be limited. We need not inquire whether the state would be justified in expropriating certain species of property on the ground that it could manage them more advantageously to the whole community than private owners could or would do. Such an inquiry belongs rather to the head of STATE INTERFERENCE (*q.v.*). Nor need we inquire here into the kindred question whether it would be right to expropriate, say, large estates in order to break them up and sell the land in small parcels so as to multiply peasant proprietors. Nor need we determine whether the state would do well to acquire certain species of property on the ground that they tend to increase in value merely through the general progress of society, and that this increase should go to enrich the community rather than individuals (see INCREMENT, THE UNEARNED). It is enough for us that the necessity of expropriation in certain cases is admitted by the great majority of persons who have considered the subject. We have only to consider upon what principles expropriation, when necessary, should be conducted.

In case of expropriation the owner should receive at least the price which he could obtain in the open market, if he were disposed to sell. The market price is the only impartial and trustworthy measure of the value of property. It represents the value of property under all the actual circumstances, including the reasonable expectations to which the laws and policy of the state have given rise. It is unworthy of a civilised government to pursue a certain class

of owners with covert hostility, to burthen them with overwhelming taxes, or to deny them effectual protection, in order to make their property worthless, and then to buy it at so many years' purchase of zero. Yet these expedients are occasionally recommended in our time by persons who profess to have a special sense of political justice. Even in the case where the state interferes to suppress a form of property distinctly condemned by the improved morality of the general public, it still owes compensation to the proprietors affected. When the British parliament compensated the West Indian slave-owners it acted on the sound principle that the state, which for many generations had recognised and maintained the lawfulness of slavery, was *particeps criminis*, and ought to take its share of the loss. But in cases of this kind the right amount of the compensation may be more doubtful than in others.

Where the owner of property expropriated has increased its returns by a violation of the law the case is different. If the owner of a house permits it to be over-crowded with lodgers, he has no right to compensation for the extra rent which he has thus received. If he lessens his outgoings by allowing the house to fall out of repair, the cost of the repairs necessary to make it habitable should be deducted from the compensation paid. If the house is so ruinous that no repair can make it habitable, he is entitled to compensation only for the site and the materials. In other words the market value, which forms the basis of compensation, must be understood as *the market value obtainable without a breach of the law.* It would be monstrous that a man should obtain compensation for relinquishing a profit which is illegal.

Subject to these qualifications, then, the amount of the compensation should not be less than the market value. But it may justifiably be somewhat more. Over and above the loss of his property, he who sells against his will suffers the pain of compulsion, and for this a reasonable allowance should be made. Distinction may be made between objects which have and objects which have not "a value of affection." Thus one acre of arable land differs from another acre of arable land only in its capacity of producing wealth. He who is compelled to sell one field is usually able to buy another field which will do just as well. But the house where a man has lived all his life may be much more to him than any other house of equal value. If compelled to sell it, he cannot buy another which will be the same to him. *Prima facie*, therefore, the indemnity for constraint put upon an owner to sell should be more liberal in this case than in the other. Compensation, however, must be assessed on general rules, and fine gradations of feeling cannot always be taken into account.

Yet another difficulty remains. The owner who is compelled to sell part of his property may have the value of the remainder greatly augmented by the public works for which the land was taken. Whether this prospective improvement should be taken into account in assessing the compensation due to him is a much-disputed question (see BETTERMENT).

The principles of compensation will be the same whether the party taking by compulsion be the national government or a municipal authority or a private joint-stock company or individual. But, when the state confers the power of expropriation upon its subordinates or upon private parties, it is entitled to determine the objects for which this power shall be exercised, the extent to which it shall be exercised, and the service which shall be rendered to the public by those who are invested with it. These, however, are points which must be determined by common sense in each case as it arises. F. C. M.

[See also EMINENT DOMAIN.]

EXTENSIVE CULTIVATION (see INTENSIVE CULTIVATION).

EXTENTS (see COURT ROLLS, MANORIAL ACCOUNTS, and EXTENTS).

EXTRANEUS. A freeman by birth coming into a manor from outside, and so opposed to *nativus*, but holding land on it by villein tenure. He could not, however, be ejected as long as he performed the services due from his holding, and he could surrender the holding at will. Vinogradoff shows (*Villainage in England*, 1891, p. 63), against Britton's theory, that the descendants of an *extraneus* might lapse into villainage in the fifth generation.

[Vinogradoff, pp. 77-82, 142.] E. G. P.

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Such of his works are: *Domesday Studies* (Somerset), London, 1881.—*Domesday Studies* (Stafford), London, 1881.—*Key to Domesday*, London, 1878.—*Notes on Domesday*, London, 1880.—*The Staffordshire Pipe Rolls*, vol. i., London, 1880.

[See life in *Dictionary of National Biography.*] A. H.

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OF

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EDITED BY

R. H. INGLIS PALGRAVE, F.R.S.

Ore trahit quodcumque potest atque addit acervo.

VOL. II.

F—M

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INTRODUCTION TO VOLUME II.

THE remarks made by way of introduction to the first volume of this work, both as to the method followed and the general plan, may be usefully continued here.

The work has been carried on upon the lines previously proposed, with the assistance which the experience thus gained has given. The great desire of the Editor has been to assist the student to understand the existing position of economic thought. To do this effectively, the past also has had to be investigated, and the many lessons which it contains brought again before the mind. In this reference attention may particularly be drawn to the article on the Historical School of Economists, and the articles on the French, German, and Italian Schools of Economics, which the present volume contains. It has been encouraging to the Editor to be assured that the histories of the Dutch and the English schools, which appeared in the first volume, have been found of value by other economists, and he sincerely trusts that the histories specified above will also be serviceable in a similar manner.

The better knowledge of economic teaching in other countries, which has extended itself among us of recent years, is, of itself, one proof of the more fruitful attention given to the study. In every branch of science it is always advantageous to know how a subject has been regarded by those who have examined it from other points of view than our own. This is especially the case with such a study as economics. The ruling modes of thought and of training, the very conditions of society, all tend to cause differences in the way of regarding social questions. Familiar instances of this are found in the fiscal arrangements of different countries, the modes of levying taxation, the laws regulating labour, and many other matters. For instance, large sums are raised by methods of taxation in France—*e.g.* the Octroi duties—which would never be borne in this country. Here they would be considered to shackle trade and to oppress the working classes; there they are regarded as an equitable mode of collecting the sums needed for local administration.

Again, there are always some differences of treatment, some differences of surroundings, which colour and shape with their special influences the work of students in other lands. The sketch of the French school shows what progress economic thought had made in France before the end of the 18th century; the improvements in fiscal legislation, which were effected by successive ministers, influenced by the teaching of the *Économistes*, and exemplified by Turgot.

In Germany, the attention given to "cameral science," even in the mediæval period, gave early economic study a different and more practical turn from that followed in any other country of Europe. It will be new to many of our readers

to learn that a Zollverein for the empire was proposed in the Imperial Diet of 1522-23. But the most brilliant period in German economic thought is found in the present century. The influence of the great leaders of the German mind—of Fichte, Hegel, and Kant—was slow to develop itself in economics, but it has leavened all the subsequent literature of the subject.

Of the historical articles the one on the Italian school will probably contain most that is new to English readers. The political subdivision of Italy, carried on for centuries and perpetuated to a comparatively recent period, had its counterpart in the prolific wealth of Italian economic literature. The number of small principalities and independent states with the most dissimilar forms of government—from free-trade Tuscany, the great commercial republics of Venice and Genoa, to the militant mediævalism of Naples, with almost every intermediate form of political association—had the result of enriching Italian economic literature with the works of many writers who had continual opportunities of recording the effect of the different systems pursued.

The works of the writers noticed throughout the volume are widely unlike in character. Some are the labours of practised scholars with a perfect command of the vocabulary they employ, enforcing the broad views which wider experience enables them to express. Others have been the jottings down of hard-working but comparatively uneducated men, full of practical common sense and of shrewd observation, but sometimes exhibiting a deficiency in dialectic skill which prevents them from setting forth the truths they desire to inculcate to fullest advantage. Again, the history of science has often to record periods of abatement in energy, but after a time of quiescence the vigour of a living study invariably revives.

Besides the historical articles and those describing the works of economic writers, the side of pure theory has also received due attention. Thus, to select merely the subject of Method, the volume contains articles on Graphical Method, Historical Method, and Inductive Method, Logic and Political Economy, and Method of Political Economy, Mathematical Method, and many other articles on similar subjects, and the Laws of Political Economy, giving a full explanation of this difficult and often debated expression. Under the heading of Labour Exchange will be found illustrations of the Labour Notes issued by associations under the influence of Owen and Place. This phase of an earlier movement, designed to bring all labour to a parity of value, is now almost forgotten. But in its time it bore an important part among the passing influences on current thought.

I desire again to express my best thanks for many valuable suggestions, much kind help and useful information most liberally supplied. This has been to me a source of constant pleasure and a great advantage to the work; especially I desire to record that this volume has greatly benefited both as to its form and its substance through the special help of Dr. Bonar, Mr. Henry Higgs, Mr. E. Schuster, and Mr. H. R. Tedder. Only the Editor can know the value of this assistance.

Considerable progress has been made with Vol. III.

R. H. INGLIS PALGRAVE.

BELTON, NEAR GREAT YARMOUTH,
Midsummer 1896.

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AND truly as we look for greater knowledge of human things and a riper judgment in the old man than in the young, because of his experience and of the number and variety of the things which he has seen and heard and thought of; so in like manner from our age, if it but knew its own strength and chose to essay and exert it, much more might fairly be expected than from the ancient times, inasmuch as it is a more advanced age of the world, and stored and stocked with infinite experiments and observations.—BACON, *Novum Organum* (Ellis and Spedding's edition, 1858), vol. iv. p. 82 (translation).

. . . So far is it from being true, as some would seem to suppose, that economic science has done its work, and thus become obsolete for practical purposes, an object of mere historical curiosity, it belongs, on the contrary, to a class of sciences whose work can never be completed, never at least so long as human beings continue to progress; for the most important portion of the data from which it reasons is human character and human institutions, and everything consequently which affects that character or those institutions must create new problems for economic science.—CAIRNES, *The Character and Logical Method of Political Economy*, 2nd edition, lecture i., introductory, p. 22.

DICTIONARY OF POLITICAL ECONOMY

F'S, THE THREE

Fixity of Tenure, p. 1; Fair Rent, p. 1; Free Sale, p. 2.

The "Three F's" is a cant term to express three things desired by some tenants of agricultural land—fixity of tenure, a fair rent, and freedom of sale of the tenant's interest in the land. The first two are closely connected, for the tenant would derive no benefit from fixity of tenure if the landlord was free to demand whatever rent he pleased; nor would the tenant derive benefit from the ascertaining of a fair rent if he might at any moment receive notice to quit. Fixity of tenure at a fair rent, or, to put the same thing in other words, a fair rent with the assurance that while circumstances continue the same it will not be raised, is the really desirable thing. Nor would this be hard to secure if the tenant always did his duty by the land and the landlord always did his duty by the tenant.

Fixity of Tenure.—It is clear that the cultivator will cease to cultivate unless he has some assurance of reaping the fruits of his labour. But the possible degrees of assurance are many. The cultivator who is not a proprietor must pay for the use of the land and must give up the land when he can pay no longer. Subject to this liability, however, he may be protected from disturbance either by law or by custom. Under Roman law the person who held land in virtue of a contract of Emphyteusis (*q.v.*) was absolutely irremovable so long as he paid his rent and did not commit waste. A lessee for a term of years is protected by English law so long as he fulfils the covenants of his lease. If there is no evidence to the contrary, our courts assume that every contract for the letting of agricultural land is for a year at least, so as to ensure the harvest to the tenant who has sown it. Under the Irish Land Act of 1881 the Irish tenant has fixity of tenure so long as he pays the rent determined either by a judgment of the land court or by an agreement made with his landlord to avoid the necessity of litigation. The Crofters Act of 1887 contains similar provisions for the benefit of a class of agricultural tenants in Scotland. Legal fixity of tenure is also enjoyed by certain classes of cultivators in our Indian empire.

But the same result has frequently been brought about by custom. The mediæval villein was originally a slave cultivating the soil for his lord. But the services due from the villein were gradually fixed by custom, and then the villein acquired fixity of tenure. In England a further step was taken when these services were commuted for money. In the case of the metayers, who form so large a class in several European countries, the share of the produce due to the landlord came to be fixed at one-half or two-thirds of the whole; and subject to this claim of the landlord, the Metayer (*q.v.*) was secured in his holding by custom. Even in modern England the apparent insecurity of tenancies from year to year has been mitigated by the feeling general among all good landlords that a satisfactory tenant should not be displaced merely in order to get a higher rent from a newcomer.

Fair Rent.—Few vaguer terms than "fair rent" can be found in the whole range of economics. Some limitation to the demand for rent is an indispensable condition of fixity of tenure. Such a limitation may be the result either of custom or of law. In those societies where custom has created fixity of tenure, custom has determined the landlord's claim whether for service, for produce, or for a money rent. But the ascertainment of rent by custom has not proceeded from any abstract notion of fairness. Experience has settled how much the cultivator can afford to give, one year with another. But when the rent is to be settled by judicial award, some guiding principle must be sought and is extremely hard to find. If the fair rent be taken to mean the economic rent, the surplus due to the natural advantages of the land, the amount of this surplus in the case of any particular farm, is something which eludes inquiry. But if the landlord or his pre-

decessors in title have expended capital on the improvement of the land, the fair rent must be something different from the economic rent. It must include, over and above the economic rent, an allowance for the return upon the capital invested in the soil in so far as the effects of that investment are not exhausted. The ascertainment of the fair rent would thus involve two additional inquiries, one almost hopeless, viz. how much the landlord and his predecessors in title have expended in improving the land, the other quite hopeless, viz. what additional value the land at this moment possesses as the result of that expenditure. But, if the law neglects these considerations and adopts the principle that a fair rent is that which allows a fair subsistence to the cultivator, new difficulties arise. In the first place, the standard of living differs much in different districts and in different classes. In the second place, it is well known that one man will thrive on the farm on which another man starves. In the third place, it is unlikely that the cultivator to whom a fair subsistence is secured by law will exert himself to produce anything over and above that fair subsistence. He is not likely to labour in order that there may be a surplus for the landlord. He is more likely to reduce his exertions to providing for himself and to trust that the next judicial award will lessen his rent in consequence. Lastly, the holding may be so small that under no circumstances could it support a family. In such a case the tenant will derive much of his income from other sources, and it will be doubly difficult to say how much his holding should contribute to his maintenance. These difficulties may explain the fact that in the Irish Land Act of 1881 and in the Scotch Crofters Act of 1887 no precise instructions were laid down for the guidance of the courts entrusted with the determination of fair rents. The actual process of determination has unquestionably been very summary, and the result is at best a rough compromise between the claims of the landlord and of the tenant. Only urgent necessity can justify the state in undertaking such a hopeless task as the ascertainment of "fair rents." So long as the settlement of rents by competition does not occasion any violent social disturbance, competition should be left to take its course (see FAIR PRICE; FAIR RENTS).

FREE SALE.—Wherever the first and second F's have been accepted, the third F follows as a matter of course. For the tenant who enjoys fixity of tenure at a fair rent has an interest in the land which approaches nearly to ownership, which has an appreciable value in the market, and which he should be allowed to sell whenever he wishes to part with it. It is for the landlord's advantage that the tenant should have this power of sale. For it is a strong incentive to the tenant to labour for the improvement of his holding, and thus to augment the landlord's security. It is only just, however, that the landlord should have the right of objecting upon definite grounds to a person who wishes to purchase the tenant's interest and to take his place. Otherwise the landlord might occasionally be forced to accept a man who would let the holding dilapidate and fall into arrear with his rent. Such cases however are rare. Recent experience in Ireland shows that with fixity of tenure and judicial rents the tenant's interest in the land has become extremely valuable. The man who is willing to pay the high price demanded for the tenant-right is probably anxious to make the most of the farm when he gets it. In conclusion, it may be said that when the principle of the three F's has been fully admitted, the tenant is economically, although not legally, part owner of his holding. Economically, although not legally, there is a divided ownership. In countries which have only attained a low stage of economic development, where all economic relations are settled by custom, and where the mass of mankind have no distinct idea of "getting on," divided ownership of land may continue for many hundreds of years. Divided ownership was a lasting phenomenon in mediæval Europe. It is likely to survive a long time in India. But in modern Europe and especially in the United Kingdom it is not likely to last. The farmer who has secured the three F's will wish to take another step and to become full owner of the land. The landlord who has been obliged to yield the three F's will feel that he retains no more than a rent-charge on his land and a rent-charge of a highly precarious nature. The landlord will be willing to sell and the farmer will be eager to buy. When arrangements for sale are based on mutual agreement they are far more likely to be satisfactory to both parties than when resulting from the influence of legal rules. In the classic country of the three F's, in Ireland, where these have been so long demanded and at last so fully conceded, they are gradually losing their importance as one large estate after another is bought by the tenants. The Land Act 1881 was followed by the Ashbourne Act 1885, the Purchase of Land (Ireland) Acts 1891, and the Irish Land Act 1903.

[In *Cobden Club Essays*, "Systems of Land Tenure in various Countries."—J. S. Mill, *Political Economy*, and Speeches on the Irish Question.—J. Boyd Kinnear, *Principles of Property in Land.*—O'Connor Morris, *The Land Question in Ireland.*—Baden-Powell, *Land Systems of British India.*]

F. C. M.

FABBRONI, GIOVANNI (1752-1822), born in Florence of noble parentage. He devoted his time to natural science, political economy, and foreign languages, and attained high position under the government of the Grand Duke Leopold of Tuscany. When Tuscany was

annexed to the first empire of France, Fabbroni was appointed deputy in the Paris legislative assembly for Pisa, and baron of the empire. When Napoleon I. fell Fabbroni retired to Tuscany, and became honorary professor at the university of Pisa. He wrote on agriculture, technology, chemistry, physics, and mathematics, and his writings are read with interest to the present day. He was greatly esteemed at home and abroad: Jefferson dedicated to him a house in far Virginia; Cuvier honoured him with an historical eulogium.

A complete catalogue of Fabbroni's works is in his "Life" by Andrew Mustoxidi inserted in the *Biography of Tipaldo* (vol. i. p. 337 *et seq.*). In economics he supported Leopold's liberal reforms, especially free trade in corn, which he discussed in different polemical writings, and with more energy in his *Dei provvedimenti annonari* (1804, 2nd ed., 1817); here he examines and refutes the various systems of restricting commerce in corn, and concludes in favour of full liberty. In his treatise *Della prosperità nazionale, dell' equilibrio del commercio e dell' istituzione delle dogane* (1789), published under the name of VALENTINO FORONDA, he opposes custom-houses as they "are contrary to the principle of fraternity which ought to be the ensign of all nations," and violate the rights of property and liberty. No foreign commerce ought to be feared, because "it requires fourfold the advantages of our nation to cover the risks and commission, carriage, and the like." Thus, in his treatise *Dei premi d'incoraggiamento che si retribuiscono alle mercature, dei privilegi esclusivi che si accordano alle manifatture, e della libertà che si concede al commercio dei grani*, he opposes any interference with the natural development of commerce. In another treatise, he opposed (1791) the retrograde views of the *Sentimento imparziale per la Toscana*, by Biffi Tolomei. Fabbroni supports the theory of free-trade, gathering together all the arguments of contemporary writers: he sets out the respect due to property and liberty, describing the natural conditions through which national industries succeed in home markets; the advantage accruing to all classes from the increase of rent of land, which causes a demand for manufactures—an idea derived from the physiocratic doctrine as to the products of land,—which doctrine Fabbroni, however, does not accept in its entirety.

[*Scritti di pubblica economia* del cavaliere Giovanni Fabbroni (Firenze), 1847-1848 (in the *Raccolta degli economisti toscani*, 4 vols.).] A. B.

FACE VALUE, or nominal value, is the value mentioned on the face of a security as distinguished from the market value. The face value of securities passing by delivery determines the amount of the government stamp, and generally also of the broker's commission. Thus the stamp duty on £1000 Egyptian state domain bonds is the same as on £1000 Honduras bonds, though the market value of the former is (1893) about £1030, while the market value of the latter is only about £75. The face value generally represents the amount at which the security is repayable or redeemable, but this is not always the case. There are some debentures which are repayable at a higher amount than the amount represented by the face value, and instances also occur of securities being redeemable at a discount. E. S.

FACTOR (Scots law). A paid commercial agent, remunerated by commission, entrusted with the possession, apparent ownership, management, and disposal of the employer's property and the management of all the principal's affairs in the place where he resides, or in a particular department. He is in point of law a person distinct from his principal. Factorship or "factory," is express or implied, special (*i.e.* limited to a particular department), or general, or both special and general, his commission in the last case conferring on him both general powers and special powers, which would not otherwise have been included. He must act personally, as a rule; he must remit, according to the principal's directions, all money received by him in the course of the factory business. The employer is bound by all engagements contracted by the factor within his powers; by the common law of Scotland, which in this respect differs from that of England, as well as by the FACTORS ACTS (*q.v.*) he can pledge the goods of his principal; and the risk of goods in the factor's hand is, as a rule, with the employer. Third parties deal with the factor as with a principal, unless he expressly deals as a factor for a disclosed principal, not one resident abroad. Factory endures, unless recalled, or terminated in terms of the commission, or superseded, during the life of the employer, and thereafter for unfinished transactions or those entered into in ignorance of the death of the principal.

[See Bell's *Commentaries*, i. 506. Also a steward, a law-agent who manages the letting of farms and other landed estate business. See also JUDICIAL FACTOR.] A. D.

FACTOR (English law). See FACTORS' ACTS.

FACTORIES. The East India Company early established stations in the east for their trade with Persia, Japan, and especially India and the Islands. The first was built at Acheen, in Sumatra, 1602, and within forty years was followed by factories at Bantam, Surat, Agra, Banda, Masulipatam, Jaccatra (Batavia), Scinde, Hooghly, and many other places. Some, *e.g.* Fort St. George (Madras) and Surat, were fortified. These factories were houses containing resident traders—merchants, factors, and writers—the foreign agents of English traders, whether of individual "interlopers" or of a company. These gave their employers much trouble by private trading, perhaps because of their low salaries. Factors received only £20 yearly. Against factories are urged their expensiveness, the patronage enjoyed by the directors, the collisions they occasioned with the Portuguese and Dutch merchants, who feared

competition; for them it is argued that they systematised, extended, and gave continuity to the company's trade, that merchants without permanent stations and forts could not have resisted Dutch opposition (Mill's *British India*, 1840, vol. i. p. 105-106 and note). The success of the system seems to justify it. The factories became governmental centres and led to territorial acquisitions.

[Bruce's *Annals*, 1810.—Elphinstone, *Rise of British Power in the East*, 1887.] E. G. P.

FACTORS' ACTS. The Factors' Act 1889 (52 & 53 Vict. c. 45), which consolidates and repeals the previous acts dealing with similar subject matter, is a partial application to English law of the celebrated French maxim, "En fait de meubles possession vaut titre." The present act is the outcome of a long struggle between the mercantile community on the one hand and the principles of common law on the other. The general rule of the common law as of the civil law was *Nemo dat quod non habet*, and it was held that the mere fact that a person was in possession of goods, or documents of title to goods, did not enable him to bind his principal by disposing of the goods or documents in contravention of his instructions with respect to them. The merchants and bankers contended that, in the interests of commerce, if a person was put or left in possession of goods or documents of title, he ought, as regards innocent third parties dealing with him in the ordinary course of business, to be treated as the owner of the goods. The object mainly contemplated by legal rules is to guard against fraud, the object mainly contemplated by mercantile usages is to guard against the risks of insolvency. The legislature has effected a compromise between the legal and mercantile contentions, but in doing so has in each enactment given more and more weight to the mercantile opinion. The first Factors' Act was passed in 1823 (4 Geo. IV. c. 83), the second in 1825 (6 Geo. IV. c. 94), and the third in 1842 (5 & 6 Vict. c. 39). The object of these three acts was to validate sales and pledges made by factors and other mercantile agents of the same class who were entrusted by their principals with either goods or the documents of title to goods. The Factors' Act 1877 (40 & 41 Vict. c. 39) made a new departure by putting the seller who was left in possession of the documents of title, and the buyer who obtained the documents without paying the price, on the same footing as factors.

The present act, after defining the terms "mercantile agent," and "document of title to goods," enacts that when a mercantile agent is with the consent of the owner in possession of goods or documents, any sale pledge or other disposition made by him in the ordinary course of business shall be as effectual as if it were authorised by the owner of the goods, provided that the person with whom he deals has no notice of the agent's want of authority (§ 2). If, however, the goods are pledged for an antecedent debt or liability, the pledgee acquires no better title than the pledger had at the time of the pledge (§ 4). Protection is then given to *bona-fide* exchanges of goods or documents, and to the lien of consignees, when the consignor is not the owner of the goods (§§ 5 and 7). Some important alterations in the law of sale are next effected. Henceforth if the seller is left in possession either of the goods themselves or of the documents of title to them, any sale or pledge by him to a transferee in good faith and without notice binds the original buyer, and in like manner, if the buyer of goods obtains possession either of the goods or documents without having paid for them, any sub-sale or pledge by him binds the original seller (§§ 8 and 9). Finally when any document of title is lawfully transferred to a holder for value, the seller's lien or right of stoppage is defeated to the same extent as it would be defeated by the transfer of a bill of lading which by common law is treated as a quasi-negotiable instrument (§ 10).

The misappropriation of goods or documents by factors or other agents is made penal by §§ 77-79 of the 24 & 25 Vict. c. 96. The Factors' Act 1889 applies to England and Ireland, and operates on transactions subsequent to the 1st January 1890. Its provisions are now applied to Scotland by the Factors (Scotland) Act 1890. M. D. C.

FACTORY ACTS. Under this general title is commonly included the whole of that very exceptional code of laws for the regulation of labour in this country, which, springing up about the beginning of the present century, and gradually extending, now covers almost the whole area of industrial production. The title is, however, no longer either logically or even conventionally accurate. For, firstly, the designation "factory" is applied by statute in a manner constantly varying and often inconsistent; and secondly, under that general designation are popularly included other establishments engaged in production, as workshops, which are not technically factories.

England is the original home of factory legislation. Previous to the first Factory Act (1802) no precisely similar enactments are known to have existed in any country. Statutes in restraint of slave labour there had been, both in ancient and modern times, and in constraint of free labour: as *e.g.* the celebrated Statute of Apprentices (5 Eliz. c. 4), of which Prof. Jevons says, in *The State in Relation to Labour*, p. 35 (1882), "The hours of labour were prescribed, not, as in our factory acts, by way of limitation, but by imposition"; but up to that time the regulation of voluntary work had been chiefly undertaken, where it was undertaken at

all, by associations of the nature of the Roman colleges (*Collegia Opificum*) and mediæval gilds, either with or without the direct cognisance of the State. About the end of the last century, however, the GILDS (*q.v.*) having fallen into decay, and the pressure of competitive industry having been enormously increased by the introduction of new methods of industry and the great extension of British trade, public attention began to be drawn to the hardships endured by workers in factories, and some supervision of them was demanded. At first this attention was concentrated on the new type of factories exclusively, and principally on juvenile labour employed there. (On juvenile employment, see CHILDREN'S LABOUR.) The first Factory Act (42 Geo. III. c. 73), was further restricted in application by being mainly confined to apprenticed, pauper, labour, and absolutely confined to cotton and woollen mills. It was amended from time to time by subsequent ones, 59 Geo. III. c. 66; 60 Geo. III. c. 5; 6 Geo. IV. c. 63; 10 Geo. IV. c. 51; 10 Geo. IV. c. 63, all of which were repealed, however, by 1 & 2 Will. IV. c. 39; which was itself repealed by 3 & 4 Will. IV. c. 103. In this last act a notable advance was made in the principle of factory legislation. It no longer applied exclusively to cotton and woollen mills, but to "any cotton, woollen, worsted, hemp, flax, tow, linen, or silk mill or factory, wherein steam or water or any other mechanical power is, or shall be, used to propel or work the machinery," . . . and it included within its operation, not only apprentices, but all children up to the age of thirteen years and over eight, and others (in subsequent acts denominated "young persons") between the ages of thirteen and eighteen, for all of whom special hours of work were enacted, and, in particular, night work prohibited. This important act was amended and much improved by 7 & 8 Vict. c. 15; and these two statutes constitute together the foundation of the laws at present in force, not alone for the special classes of factories to which they had then exclusive reference, but for all others. By the last-named an elaborate set of regulations was provided for the conduct of factories (still confined to "textile" factories), and female operatives above the age of eighteen years (thereafter called "women") were for the first time put upon the same footing as "young persons." A department of factory inspection was constituted, having a central office in London; and the well-being of the workpeople was aimed at by many minute regulations and in many thoughtful ways.

With the enactment of this statute (1844) the first stage in the progress of English factory legislation may be said to have been accomplished; that stage, namely, which brought the textile industries under some sort of efficient control. For the next twenty years the energy of factory reformers was principally expended in securing the advantages thus gained and perfecting the system of inspection now fully introduced. To this season belongs, too, the successful conclusion of the long controversy of the Ten Hours' Bill. The demand for a day's work of ten hours, or sixty a week, began as early as before the passing of the act of 1833, which fixed them at forty-eight per week or nine per day, for children from nine to thirteen, and at twelve per day or sixty-nine per week for "young persons" from thirteen to eighteen. By the Factory Act of 1844 these hours were altered to six and a half per day for children between eight and thirteen (not nine and thirteen as formerly), and twelve per day and nine on Saturday for young persons and women (now first included). The object of the agitators was to reduce this number by five hours per week. Such a consummation was apparently achieved by the enactment of 10 Vict. c. 29, fixing them at fifty-eight per week, which, with the shorter time on Saturday, was the equivalent of ten hours' work per day. But in this statute there was a fatal defect. It was not exactly provided when the hard-won ten hours were to be taken—between the extreme limits of 5.30 A.M. and 8.30 P.M.—so that opportunities were offered for evasion, which were only too freely embraced. The remedy was supplied by the Factory Act of 1850, 13 & 14 Vict. c. 54, which definitely introduced the normal working day of twelve hours; six to six, or seven to seven, with one and a half out for meals; thus slightly increasing the full number of working hours per week by two, whilst securing that these should not be exceeded. A subsequent Factory Act (1874) made ample compensation to operatives for any disappointment experienced in this result by reducing the hours in textile factories to fifty-six and a half a week, at which they still remain. During this period (from 1844 to 1864) several valuable new measures were added also to the statute book, some of an amending kind, others distinctly widening the scope of legislation. The first of these was the Print Works Act (8 & 9 Vict. c. 29), applying the principles of the factory acts to print works, as therein defined. This was a very ill-conceived and ill-drawn statute, which was afterwards repealed, and those works were brought under the provisions of 33 & 34 Vict. c. 62. In 1853 and 1856 again further acts relating to factories were passed: the first for the purpose of clearing up some debatable points connected with employment; the latter relating to the fencing of machinery: and in 1860 was passed "An Act to place the employment of women, young persons, and children in bleaching works and dyeing works under the regulation of the Factories Acts" (23 & 24 Vict. c. 78), followed by three amending acts, since repealed, and by the Lace Works Act (24 & 25 Vict. c. 117). But in the meanwhile

the same impulse which had produced these laws had been active also in other directions, and had produced substantial results. As early as 1788 some protection had been afforded to chimney-sweeping boys, and this was extended by other legislation in 1834 and 1840 respectively. In the same year (1840) was issued the first of the great Commissions on the employments of the people, popularly known as the Children's Employment Commissions, one of whose earliest results was the passing of a Mines Act (5 & 6 Vict. c. 99), enlarged and improved (1860) by a subsequent act (23 & 24 Vict. c. 151). Three years later (1863) bakeries were brought under a much-needed supervision by the Bakehouse Act (26 & 27 Vict. c. 40); and in 1864 a whole batch of other industries followed, whose inclusion commences a fresh chapter in the history of English factory legislation.

The Factory Act of 1864, which followed on an early report of the second great Commission of inquiry into the occupations of the people, introduced some startling innovations. Hitherto it had been held, either directly or by inference, that the proper arena of factory legislation was specially the textile industries, or, at most, these and a few others closely related to them; and it had been assumed at all events as a matter of course that *manufacture* was their peculiar sphere. In this view the Print Works Act, and the Bleaching and Dyeing, and Lace Works Acts, had been regarded rather as affiliated than belonging to the Factory Acts, as the Bakehouse Act is to this day. From the Factory Act of 1864 must be dated an entirely new conception of that sphere and this arena. This Act (27 & 28 Vict. c. 48) brought under inspection, not merely several new manufactures in no way connected with textile industry, but certain *employments* as well; and this it did no longer by affiliation, but distinctly by inclusion, thereby formally abandoning the earlier presumptions of what constituted a factory and the proper subjects of factory legislation. The included manufactures were: (*a*) the manufacture of earthenware, "except bricks and tiles not being ornamental tiles"; (*b*) the manufacture of lucifer matches; (*c*) the manufacture of percussion caps; (*d*) the manufacture of cartridges. The *employments* were: (*e*) the "employment" of paper staining; (*f*) the "employment" of fustian cutting. It is clear that the statutory conception of the term factory had hereby undergone a great transformation, and clear also that the present could but be regarded as an instalment of more and larger changes of a like kind to follow. These industries, some of them at least, were not new, the first being possibly the oldest manufacture in the world; nor were they all carried on by novel methods, whether of greatly congregated labour or by means of labour-saving machinery. The operation of fustian cutting, for instance, was a purely manual occupation, largely pursued in the work-people's own houses; it formed in fact a typical "home industry." Nor was the above presumption falsified by the event. Three years afterwards (1867) the Factory Acts Extension Act (30 & 31 Vict. c. 103), passed the legislature, whereby a still greater number and variety of fresh industries were brought in. Under the comprehensive terms of this statute the designation "factory" obtained a very wide significance indeed. First, it included all previous definitions not specially mentioned in the act; and next some thirty new and specially-mentioned ones. But it included also "*any premises* whether adjoining or separate, in the same occupation, situate in the same city, town, parish, or place, and constituting one trade establishment in or within the precincts of which fifty or more persons are employed in any manufacturing process," this last expression being further defined to mean "any manual labour exercised by way of trade or for purposes of gain, in or incidental to the making any article, or in, or incidental to, the altering, repairing, finishing, or otherwise adapting for sale any article"—than which it would be difficult to devise more inclusive terms. To all appearance it only remained now to legislate for the places where under fifty persons were employed in manual labour to cover the whole field of industrial production. This task was undertaken accordingly, within the same year, by the Workshop Regulation Act (30 & 31 Vict. c. 106), the preamble distinctly stating this to be its object. A set of similar, not the same, provisions were enacted for workshops as for factories, and the new term defined. "Workshop" meant any place, not a factory or bakehouse, where any handicraft was carried on, *in which any child, young person, or woman was employed* and "to which or over which the employer of the persons working therein has the right of access or control"; so that workshops employing only adult men were, unlike factories, exempt, and places to which work was taken home to be done were likewise unregulated. With the enactment of these two statutes factory legislation in England theoretically reached the highest point of efficiency that it has yet touched.

But in practice this efficiency was not so apparent. The administration of the Workshop Act had been confided to local authorities, and these almost universally refused or failed to put the law in operation. After three years of unsuccessful trial it was handed over to the inspectors of factories, and seven years afterwards (1878) the two acts were incorporated under the title "Factory and Workshop Act" (41 Vict. c. 16). Unfortunately, whilst so incorporated, the purely artificial distinctions between factories and workshops were retained, whence arises much of the confusion which still encumbers the treatment of this subject, and constantly thwarts the best endeavours of legis-

lators to remove. Repeated inquiries, by parliamentary committees and otherwise, have but succeeded hitherto in making those inconsistencies more apparent, and the remedies applied of demonstrating the impossibility of fixing a complicated mass of legal regulations on a sound basis by means so empiric as those adopted. The act of 1878 deals with five classes of works:—Textile factories, non-textile factories, workshops, workshops in which neither children nor young persons are employed, domestic workshops. By its definitions a "factory" is a place in which machinery is moved by the aid of steam, water, or other mechanical power, and factories are divided into two classes, textile factories and non-textile factories; the words textile factories and non-textile factories being now first used in an act of parliament. The definition of a textile factory remains the same as under former acts, and the regulations affecting them continue the same, as to hours of work and meals, education of children, limewashing, holidays, etc. The term "non-textile factory" applies to the occupations enumerated in the acts of 1864 and 1867 respectively, whether having mechanical power or not, and includes in addition all unnamed occupations in which such power is used. This definition releases from the special factory regulations all those occupations which were factories under the Factory Act 1867 by reason of fifty persons being employed, and in which mechanical power is not used, which therefore become workshops. The works which are specially named as non-textile factories under the act of 1867 are:—Blast furnaces, copper mills, iron mills, foundries. The manufacture of machinery, of any article of metal, or of india-rubber or gutta-percha, by the aid of mechanical power. Paper manufacture, glass manufacture, tobacco manufacture, letterpress printing, bookbinding. All unnamed occupations in which power is not used, except those specially named in the acts of 1864 and 1867, are workshops as above. In these the hours of work and meals, the sanitary condition, and education, are as strictly provided for as in factories, but unless circumstances satisfy the secretary of state that they are required, registers, and certificates of fitness for young persons and children, obligatory in factories, will not be compulsory. The next class of works, to which fewer regulations apply, are the workshops in which none but women above the age of eighteen are employed. In these workshops the actual time of work and of meals must be the same as in non-textile factories, but with more elasticity of arrangement, and the sanitary condition is to be cared for by the sanitary authority. The last class of works is designated "domestic workshops." These exist where work is carried on in a private house, room, or place, in which the only persons employed are members of the same family dwelling there. In them the actual hours of work and meals for children and young persons must be the same as in non-textile factories, but with more elasticity of arrangement; the education of children is on the same plan, and the sanitary condition is cared for by the medical officer of health. The employment of women in domestic workshops is unrestricted. But the act exempts even from such regulations as apply to domestic workshops, and leaves altogether free from this act certain occupations of a light character when carried on in a dwelling-house by the family dwelling there, viz.:—Strawplait making, pillow-lace making, glove making, or others of a like nature to which a secretary of state may extend the exemption. It also exempts from the regulations as to hours of labour and meals, flax scutch mills in which women only are employed intermittently, and for not more than six months in the year. It also exempts any handicraft which is exercised in a dwelling-house by the family dwelling there, at irregular intervals, and does not furnish the whole or principal means of living to the family. Quarries are brought under inspection by this act, either as factories or workshops; and *pit banks*, that is, all parts of a metalliferous mine not subject to the provisions of the Metalliferous Mines' Act.

Since this act has been in operation another important Factory Act (54 & 55 Vict. c. 75) has been passed (1891), in addition to several minor ones. In the act of 1891 some disposition is shown to return to the method of inspection under the Workshop Act, which placed the administration of the law in the hands of local authorities. In both of them a decided retrogression is shown from the strong position occupied by the dual acts of 1867. This is principally apparent in the multiplication of different classes of protected places and the multiplication of authorities having legal cognisance of them. In the meanwhile several cognate acts have also found a place in our statute book; dealing with shop labour, with the injection of steam in cotton factories, the abuses of the Truck system, the protection of children employed in theatres, with bakehouses, white-lead works, etc.; most or all of which are conventionally understood as being included under the general designation factories, and are either wholly or in part under the jurisdiction of the inspectors. Nor has this tendency to spread the utility of factory legislation by the fiction of conceiving of almost any and every occupation as carried on in a factory, reached its probable limit yet, and it is not easy to predict at what point it will do so. The continuous success that has hitherto waited on all these experiments is a strong practical argument in their favour, and the inconveniences which have resulted are not so distinctly of the kind

that enlists general sympathy as to call for any very strong protest against them. Only it should surely not be beyond the bounds of legislative capacity to retain what is good in the present arrangement while eliminating what is faulty, —to secure that a reasonable and consistent technology should replace the present unreasonable one, and a real, not nominal, harmony pervade the whole body of law.

The history of factory legislation abroad is to a large extent but a repetition of the story that has now been told. In other countries, as in England, the pressure of competition, and the novel circumstances brought about by greatly subdivided labour and the increasing use of machinery, have necessitated some counter impulse to neutralise the worst evils which have everywhere been found to accompany the advantages of this great industrial change. In other countries, too, the counter impulse has been usually supplied from the central power of the state. As was also natural the example of this country has been, in a great number of instances, closely followed at first, England being the country that not only had earliest made trial of the new experiment of the factory system itself, but on its greatest scale. Thus foreign factory acts have followed pretty closely the lines of English ones, commencing with partial legislation for only textile fabrics, and proceeding afterwards to other industries. But this rule is not universal. In some countries where remedial measures were late in being adopted, the course pursued has been of a more logical kind, and our more palpable errors have been avoided. Partly on account, no doubt, of the useful object-lesson which they provided; partly, also, from a greater freedom from that tyranny of precedent and mere words, which is so marked a national characteristic here, they have in many cases kept themselves much clearer of inconsistencies and contradictions.

Prussia was the first country of Europe to adopt the principle of the English factory acts, in a law dated the 9th of March 1839, imposing certain restrictions on the employment of young persons and children in textile manufacture. Other states of Germany followed intermittently: Bavaria in 1840, Saxony not till 1861, the North German Confederation in 1869. There is now a general law of a comprehensive kind, embracing the whole German empire. France was but little behind Prussia. The first factory act was enacted there in 1841. Sweden was comparatively early in the field (1846); Norway much later (1860). Austria promulgated her first factory act in 1859; but Hungary not till 1872. Only quite recently have Belgium and Holland moved in the matter, but much has been done of late by these countries to make up for lost time. In Switzerland a few cantons led the way in 1862; others have followed since; and factory legislation is now general. Neither in Italy nor Spain has much been accomplished, but Portugal since 1888 has entered heartily on the path of regulation. In Russia there has been a factory act in force since 1881. The United States of America have no general system, but different states provide for their requirements by different laws, while a few are still without any. In India there is a factory act, but a very inefficient one from our point of view. In the civilised parts of Australia one of a very comprehensive kind is in operation, and an extremely stringent one has been in force in New Zealand since 1873.

[George Jarvis Notcutt, *The Factory and Workshop Acts* (Stevens and Sons, 1874).—Alexander Redgrave, C.B., *The Factory and Workshop Acts*, 4th ed. (Shaw and Sons, 1891).—Ernst Edler von Plener, *The English Factory Legislation* (Chapman and Hall, 1873).—R. Whately Cooke-Taylor, *The Modern Factory System* and *Introduction to a History of the Factory System* (Bentley and Son, 1886, and Kegan Paul and Co., 1891).—Victorine Jeans, *Factory Act Legislation* (1892); being the Cobden Club Prize Essay for 1891, and describing legislation from 1850.—W. Stanley Jevons, *The State in Relation to Labour* (English Citizen Series, 1882).—Karl Marx, *Capital*, English translation (1887).—Edwin Hodder, *Life of Lord Shaftesbury* (Cassell and Co., 1886).—Philip Grant, *History of Factory Legislation* (1866).—"Alfred," *History of the Factory Movement* (1857); down to the passing of the Ten Hours' Bill.] W. C. T.

FACTORY LAWS IN THE UNITED STATES. The regulation of factory labour in the United States is not a subject of federal, but of state legislation. Consequently there is no uniformity in laws of this character. Some states have progressed much farther than the rest, and are much more active in the execution of the laws. Massachusetts on the whole has taken the lead, while New York, Ohio, New Jersey, and Pennsylvania have advanced in the same direction. In Massachusetts the first law regulating the hours of labour was passed in 1874, making ten hours a legal day for women and children. This was followed by the act of 1877, which provided for the guarding of belting, shafting, gearing, etc., in factories. Members of the state police are detailed to act as inspectors. The act of 1886 provides for weekly payment to operatives employed by corporations. By other legislations night labour is forbidden for women and children, and the time of meal hours is governed. There are numerous other provisions, similar, however, in most respects to factory legislation in England. In 1892 a further reduction of hours, to 58 per week, was made. As yet no attempt has been made in any American state to regulate the hours of male adults. In a few of the states women are employed as inspectors. The labour laws of Massachusetts may be found in the *Annual Report of the Bureau of Labour of Massachusetts* for 1890. D. R. D.

FACTORY SYSTEM. "The term Factory System designates in technology," says Dr. Ure (*Philosophy of Manufactures*, pp. 13, 14), "the combined operation of many orders of workpeople, adult and young, in tending with assiduous skill a series of productive machines continuously impelled by a central power." It includes, he continues, "such organisations as cotton, flax, silk, and wool mills, and also certain engineering works," but it excludes "those in which the mechanisms do not form a connective series, and are not dependent on one prime mover," . . . such as "iron-works, dye-works, soap-works, brass foundries, etc." "Some authors indeed," says Dr. Ure, "have comprehended under the title factory all extensive establishments wherein a number of people co-operate towards a common purpose of art, and would therefore rank breweries, distilleries, as well as the workshops of carpenters, turners, coopers, etc., under the factory system. But I conceive that this title in its strictest sense involves the idea of a vast automaton, composed of various mechanical and intellectual organs, acting in uninterrupted concert, for the production of a common object, all of them being subordinated to a self-regulated moving force." "If," he concludes, "the marshalling of human beings in systematic order for any technical enterprise were allowed to constitute a factory, this term might embrace every department of civil and military engineering—a latitude of application quite inadmissible." It has been shown already (see FACTORY ACTS) that many of the work-places enumerated by Dr. Ure as "quite inadmissible," have, nevertheless, been since included in the statutory term "factory," and many others under the cognate term "workshop." Moreover his definition is inconsistent with itself, and too recondite for ordinary use. "An automaton composed of various mechanical and intellectual organs, acting in uninterrupted concert," is a definition of the factory system which, even if technically correct, would be of little practical use. A more recent writer, Hon. Carroll D. Wright, special agent of the U. S. government, who some years ago conducted an elaborate investigation into the origin and working of the factory system in America and this country, approaches much nearer a proper conception of the subject (*Report on the Factory System of the United States*, Washington, 1884). "A factory is an establishment where several workmen are collected for the purpose of obtaining greater and cheaper conveniences for labour than they could procure individually at their homes, for producing results by their combined efforts which they could not accomplish separately and for preventing the loss occasioned by carrying articles from place to place during the several processes necessary to complete their manufacture. The principle of a factory is that each labourer, working separately, is controlled by some associating principle which directs his producing powers to effect a common result, which it is the object of all collectively to obtain."

The factory system is therefore a system of production carried on in establishments such as these, and a factory must be defined to be an *establishment*, as laid down by Mr. Wright; not a series of productive operations, which appeared to be the idea of Dr. Ure. It is a concrete fact, a *place* of definite and assured bounds. In such places, then, a mode of industry is carried on that differs, and differs even greatly, from what is carried on in other places. Now wherein does that difference consist? Not exclusively in those facilities of manufacture; some of which Mr. Wright has pointed out; certainly not—economically considered—in the circumstance of a greater or less quantity of machinery being used there, or no machinery at all, nor because of any manner of setting or not setting such machinery in motion (which is the distinction of the current Factory Acts). The difference in the social relation resides in the part allotted to labour under it, and in the purely economical relation in the amount, not the nature, of the product. Under a system of manufacture not so carried on the labourer is master of the industry; he is the prime mover in the enterprise; the active centre of the productive act. In manufacture carried on by factory methods he is this no longer. Where machinery is employed, his duty is principally to keep that going, to feed it, clean it, connect it with some exterior motor, and remove the manufactured commodity from it; or where machinery is not employed, he replaces it. He is then but a portion of the producing organism; whose component subdivisions are partly animate and partly inanimate, and whose initiative is supplied from outside; and in this case he is but an adjunct in the general result. He must go altogether with that method of production or withdraw altogether from it; he cannot choose his time or place of work within it, or choose or venture anything. Such is the position of the labourer towards the system; his attitude towards the product has undergone a great change too. Formerly this relation was intimate. He had actually made it, or part of it; an appreciable quantity of his own personality, of his "labour force," had passed into it; it was *of*, even if not *belonging* to him. It is both of and belonging to the system now. A similar transformation marks his position towards the producer. This also under the smaller system of production was intimate, and is so no longer; the great combinations of labour characteristic of the new method, and the great capitals requisite in manœuvring them, rendering each individual human instrument of comparatively

small account. The organism is the supreme object of concern, and hence the relation of the worker to the producer tends to be as remote and impersonal as his relation to the system and the product.

But although machinery, automatic or otherwise, is no necessary feature of the factory system, it was, undoubtedly, the great spread of mechanical invention, and its application to purposes of industry, that fostered its modern growth; just as it was, undoubtedly, the application of the motive power of steam which conferred upon it its most characteristic new form. That the already existent factory system would have continued to spread had these events not occurred is practically certain in view of the industrial history of the time, but no less certain that it would not have spread so rapidly and so much; and it is a natural subject of interest, therefore, at this stage of development —when it begins already to show some signs of entering on a new phase—to inquire what are the most conspicuous economic results that have proceeded from it thus far. The most conspicuous of all results is the immensely increased production of which it has been the instrument; but this is one so patent, and which has been so often the theme of eulogy, that it does not seem necessary to descant upon it here. It will be more to the purpose in such an undertaking as the present to consider to what extent the human agents of production have been affected, and through them the economic position and prospects of the community at large.

It may be said at once, then, that many dismal prophecies which accompanied the unusual development of modern factory labour during its initial period have not been hitherto fulfilled. The factory population has not become less moral during that period, but more moral; not less religious, but more religious. The criminal statistics of factory districts may be appealed to with confidence on the first head; and on the second we have the conclusive evidence accumulated by Sir Edward BAINES (*q.v.*) in a remarkable pamphlet published in 1843, called *The Social, Educational, and Religious State of the Manufacturing Districts, with Statistical Returns* (Simpkin and Marshall), wherein it is shown that in the four typical manufacturing counties of Lancashire, Yorkshire, Cheshire, and Derbyshire, the proportion of sittings in church and chapel to the population was much greater than in—for instance—London, and the proportionate advance in the provision of new sittings during the typical factory period 1801 to 1841 far more rapid. It has not become less intellectual but more intellectual. For, first, the Factory Acts and Elementary Education Acts have secured better instruction; and, next, it is clear from the quantity and quality of literature circulating in factory districts that opportunities of intellectual culture are more appreciated now than formerly. Moreover, it was actually owing to the opportunities afforded by the factory system that the first trial of compulsory education was made in this country through the preliminary medium of the half-time system. Its effect on public sanitation has been good. The large spaces and highly-organised conditions required for the successful prosecution of factory labour might, in any case, have been expected to secure this, and it is further provided for by statute. A physical deterioration has been assumed among the operative population, but this remains to be proved. It is an assertion easily made and readily believed; but is in direct opposition to the opinion of some of the most acute and unprejudiced observers, like Mr. Carroll Wright, and M. Louis Reybaud, the well-known French statistician, who have minutely investigated the facts. Or, if that deterioration be allowed in the case of male operatives compared with the race of domestic manufacturers whom they superseded, the same should not be lightly assumed to apply to women. No one familiar with the textile industries of the north of England can have failed to notice the robust type of women employed there, presenting an especially striking contrast with the equivalent class among sempstresses, domestic servants, or the female population of agricultural districts. Mr. Wright declares the women factory workers in France and Germany to be far superior in physique to those who are employed in workshops, and holds the same to be true both of America and England. Neither, it appears, is it the case that the children of these women are degenerate when compared with the children of others at work at other occupations, or compared with children of wholly unemployed mothers (of the same class), or that infant mortality is higher in factory districts than elsewhere. Mr. Cooke-Taylor has even gone the length of arguing that the opposite is true (see *Transactions of the National Association for the Promotion of Social Science*, 1874 and 1882; *Fortnightly Review*, May 1875; *Contemporary Review*, September 1882; *Modern Factory System*, pp. 408, 423), and has produced a long array of statistics in support of the contention. As for the further question—more social than economic—of the degree in which family life has been affected by the factory system; that is again of wider import than appears at first sight. It is allowed that the arena of productive labour, especially in the greater industries, has been largely transferred from the home to the factory; but is that necessarily an evil? Is it not even what some of our philanthropists are crying out loudly for at the present time? It is true, too, that the factory system fosters independence of character among the young, and has a tendency to break down the old organisation of the domestic circle.

But independence of character may be a gain, not a loss, when not pushed to illegitimate excess; and all modern experience is in favour of limiting the power of parents over their offspring. We have probably not yet seen all that the factory system portends in this connection, just as we have not yet seen the ultimate lineaments of that system itself; the present is a time of rapid transition in labour relations, and it may be well to wait for further readjustments before pronouncing hastily on this and some kindred points.

Some of the more apparent results may, nevertheless, be indicated. How has the factory system affected the relations between capital and labour; and what is its attitude towards the consumer? We have noticed its effect on the relations between employer and employed: it has diminished the intimacy that formerly subsisted between these partners in production. It is much to be feared that its action in the mass has followed the same course as its action in individual instances. It is alleged that capital has not become more, but less, careful of the interests of labour, that labour is not more, but less, careful of the interests of capital; and that even in disputes between the two the aim of each side is sometimes openly proclaimed to be the ruin of the other; what is more apparent, in almost every dispute, is the utter indifference of both to the welfare of the consumer. This was not so always. The gilds and mediæval trade societies, whether of masters or men or both combined, were as careful to make rules against bad workmanship as against bad workers or harsh masters; they were not formally constituted on a purely selfish basis. These are not exclusively the results of the factory system; they are determined by the fierce competition that rages throughout all modern industry; but it must be said of it, at least, that it has never done anything of its own instance to moderate this struggle, while much in its methods inevitably tends to aggravate it.

There is one result, though but an indirect one, which must be set unequivocally to the credit of the modern factory system, and which will remain long after the present form of it has passed into that oblivion which is likely to be its final home. It was the originator of the Factory Acts. By concentrating the evils of competitive industry, it drew public attention to the cruelties of which that vast influence for good was capable, and caused to be set in motion a body of laws of exceptional humanity, whose purpose is to counteract them. The political economy of the future has no worthier task before it than the harmonising those laws with its own principles, the defining their proper sphere of influence, and the guiding their free extension towards just and legitimate ends.

[Andrew Ure, M.D., *The Philosophy of Manufactures* (Bohn's ed., 1861).—Charles Babbage, *Economy of Machinery and Manufactures*, 4th ed. (Murray, 1846).—"Alfred," *History of the Factory Movement* (Simpkin and Marshall, 1857).—Karl Marx, *Capital; A Critical Analysis of Capitalist Production*, vols. i. and ii., English translation (Swan Sonnenschein, 1887).—R. Whately Cooke-Taylor, *Introduction to a History of the Factory System* (Bentley and Son, 1886); *The Modern Factory System* (Kegan Paul and Co., 1891).—Carroll D. Wright, *Report of the Factory System of the United States* (Washington, Government Printing Office, 1884).] W. C. T.

FACTS. In political economy all true theory depends on facts. But the dependence is not always of the same sort. It may be immediate or through a chain of deduction. Thus when Carey maintains that settlers in a new country cultivate the worse lands first, he depends upon comparatively direct evidence; whereas a critic of Carey's theory brings to bear deductively more general facts of human nature when he humorously doubts whether a settler, having a choice between two equally accessible pieces of land, would reject the better as being too good for the "likes of" him. When the two sets of facts, the general and the special, are consilient, there is the strongest evidence (Mill's *Logic*, bk. iii. ch. xi., bk. vi. ch. ix. x.) When they seem to conflict, care is required to interpret fact by theory and to correct theory by fact. The danger of resting exclusively on abstract reasoning has been shown under the head of DOCTRINAIRE. The converse fallacy, to which the "practical man" is liable, may be noticed here.

"Facts by themselves are silent," says Prof. Marshall (*Principles of Economics*, bk. i. ch. vi. § 3); "they teach nothing until they are interpreted by reason." They are often only "half facts": for instance, the local variations of wages adduced as a fact proving that there is little competitive mobility among the working-classes; the explanation of the fact being that there is a difference of efficiency between the working-classes in the compared districts (*id.* bk. vi. ch. iii. § 2). The reckless use of facts is well exemplified in the controversies about free trade. Many instances of blindly following the suggestion of facts are contained in Taussig's *Tariff History of the United States*. The same facts have been used to prove that raising the tariff increases and that it diminishes prosperity. "One disputant ascribes to a recent lowering of the tariff a result which another says was part of the effect of a raising of the tariff that occurred some years before" (Marshall, *Present Position of Economics*, p. 43). "The most reckless and treacherous of all theorists is he who professes to let facts and figures speak for themselves, who keeps in the background the part he has played, perhaps unconsciously, in selecting and grouping them" (*id.* p. 44). Much the same view as to the need of combining facts with theory is presented by Dr. Sidgwick in his

Scope and Method of Economic Science, Professor Wagner in a communication to the *Quarterly Journal of Economics*, October 1886, and other high authorities living and dead—pre-eminently Mill in his *Logic* and *Unsettled Questions*. A lively statement of the truth here emphasised is contained in Lunt's *Economic Science* (Questions of the Day), 1888.

[Consult also Keynes, *Scope and Method of Political Economy*.] F. Y. E.

FAILURE. See BANKRUPTCY.

FAIR PRICE. The word "fair," when used in reference to economic matters, has rarely a scientific meaning. On the assumption that a fair price is one just both for buyer and seller, the proper definition is that it is that price at which the same quantity of a commodity is offered for sale and demanded. It must be observed, however, that the term is in practice never used in this signification. Indeed, it is chiefly met with in discussions on questions relating to land; where it is generally used, not in consonance with, but in contradistinction to, the above definition. The received and now statutory term "fair rent," is perhaps responsible for this use of the term, and in the case of rent of land, as of land itself, there is a possible scientific meaning attachable to the phrase which is not the meaning commonly associated with it. In fact, fair price has come to be applied exclusively to those commodities in which, through some form of monopoly, it is thought that one party to the bargain of exchange has an advantage over the other if the laws of supply and demand are left to work out the price without interference. Thus when it is said that public bodies ought to be allowed to acquire land compulsorily for a fair price, the meaning conveyed is that a computation based on the market value of the land is too high and therefore unfair. A fair wage, it may be noticed, is merely a fair price for labour, and is generally used without reference to the state of trade or of the labour market, but on the assumption that without some interference with the contract for the hire of labour the wage paid will be too small for the proper sustenance of the workman. Such a term, however, is not properly economic (see JUSTUM PRETIUM). M. G. D.

FAIR RENTS. Fair rent, like the similar expressions "fair wages," "fair price" (JUSTUM PRETIUM, *q.v.*), is used to convey an ethical judgment on an economic fact. Applied in a primitive community, it means the customary or usual rent of land, especially when held by a member of the group (Maine, *Village Communities*, p. 187). Again, like fair wages or price, it implies the idea of an amount that will allow the person interested to live—the rent under which a tenant "can live and thrive." The development of economic science brought about the identification of fair rent with competitive or Ricardian rent as paid by a capitalist farmer,—the surplus remaining after expenses of production, ordinary profit included, have been satisfied. Lastly, Mill and his leading disciple Cairnes were led from their study of the Irish land question to separate competitive from fair rent in the case of cottier tenants, and to regard the latter as being equivalent to "economic" rent, from which under the pressure of demand the actual rents paid by the cultivators were likely to diverge. "Economic rent," says Cairnes, "is no other than the fair valuation rent of the good landlord. The fair valuation rent of the popular platform admits, in short, of being reduced to strictly scientific expression" (*Essays in Political Economy*, p. 205). Where competition fails to secure justice the intervention of an external authority becomes necessary. According to Mill rent paid by a capitalist . . . may safely be abandoned to competition; rent paid by labourers cannot. . . . Peasant rents ought never to be arbitrary . . . either by custom or law it is comparatively necessary that they should be fixed" (*Principles*, bk. ii. ch. 10, § 1).

The Report of the Bessborough Commission in 1881 (C. 2779) accepts this view, arguing that there is no "freedom of contract" between landlord and tenant (p. 21) and recommends that fair rents should be fixed "by a constituted authority" (p. 19), and proceeds "to negative the idea that such rent means what in England is known as a full or fair commercial rent, but in Ireland as a rack-rent" (p. 23).

The Irish Land Act of 1881, avowedly based on the Report of the Bessborough Commission, is in fact the legislative enactment of Cairnes's theory as to Irish land rents. It creates a tribunal for the fixing of fair rents, a term which is not further defined, and lays down that the court, "after hearing the parties and having regard to the interest of the landlord and tenant respectively, and considering all the circumstances of the case, holding, and district, may determine what is such fair rent" (44 & 45 Vict. c. 49, § 8).

This measure, which became law on 22nd August 1881, applied to yearly tenancies only; and pastoral holdings over £50 valuation, were excluded from its operation. By an act of 1887 (50 & 51 Vict. c. 33) leaseholders for less than 99 years were admitted to the privilege of having a fair rent fixed.

During the ten years ending 22nd August 1891, fair rents have been fixed or arranged in 277,160 cases, affecting 8,316,878 acres, being over two fifths of the area of Ireland. In these the former rents come to £5,739,153 : 3s., the new judicial or fair rents £4,548,147 : 2 : 8, showing a reduction of £1,191,006 : 0 : 4 or 20·7 per cent. Fuller details are given in the following table.

Table showing the Operation of the Irish Land Acts 1881 and 1887, for the ten years ending 22nd August 1891.

Method of Settlement.	Number of Cases.	Area Affected.	Tenement Valuation.	Former Rents.	Judicial Rents.	Percentage Reduction.
		Acres R. P.	£ s. d.	£ s. d.	£ s. d.	
Rents fixed by Chief and Sub-Commissions (yearly tenancies)	124,451	3,641,428 3 27$\frac{3}{4}$	1,824,080 2 10	2,378,293 16 5$\frac{1}{2}$	1,875,021 19 5	21·2
Rents fixed by Chief and Sub-Commissions (leaseholds) *four* years ending August 22nd 1891	20,883	1,212,604 3 18$\frac{11}{20}$	756,164 10 4$\frac{1}{2}$	1,048,756 15 9$\frac{3}{4}$	786,322 18 9$\frac{1}{4}$	25·0
Rents fixed by Civil Bill Courts (yearly tenancies) . . .	12,078	306,534 1 22$\frac{1}{4}$	145,589 12 8	194,295 10 10$\frac{1}{2}$	149,502 7 5$\frac{1}{2}$	23·0
Rents fixed by Civil Bill Courts (leaseholds) *four* years ending August 22nd 1891 . . .	1,622	69,233 0 18$\frac{1}{4}$	45,700 13 7	63,707 13 4$\frac{1}{2}$	45,851 16 1	28·0
Fixed by Court Valuers . .	1,306	55,856 2 38$\frac{1}{2}$	26,740 12 5$\frac{1}{2}$	36,451 19 8	29,441 3 5	19·4
Fixed by Agreements, registered with Commissions . . .	109,753	2,845,165 2 42$\frac{3}{4}$	1,573,101 5 2$\frac{3}{4}$	1,892,978 17 0$\frac{1}{4}$	1,559,188 19 3	17·6
Fixed by Agreements, registered on Civil Bill Court . . .	7,030	182,866 1 11$\frac{1}{4}$	94,802 17 0	121,566 16 0	100,623 0 7	17·2
Arbitration under Commissions .	35	2,719 1 39	1,880 0 0	2,567 5 8$\frac{1}{2}$	1,854 17 8	27·7
Arbitration under Civil Bill Courts . . .	2	469 1 24	352 10 0	544 8 1	340 0 0	37·5
Total	277,160	8,316,878 3 5$\frac{3}{4}$	4,468,412 4 1$\frac{3}{4}$	5,739,153 3 0	4,548,147 2 8	20·7

Under the Act of 1886 (49 & 50 Vict. c. 29) a commission has been appointed to fix fair rents for the crofters in six northern Scotch counties (see F'S, THE THREE).

[H. S. Maine, *Village Communities*, Lecture VI. —J. E. Cairnes, "Political Economy and Land" in *Essays in Political Economy* (1873). For the details of fair rents in Ireland and Scotland, the successive *Reports* of the Irish Land Commission and the Crofters Commission.] C. F. B.

FAIR TRADE. A term recently brought into use in antithesis to FREE TRADE (*q.v.*) and applied to commerce on which no restriction is imposed by either party or on which equal restrictions are imposed by both. The fair trader regards reciprocity as being essential for fair exchange, and looks on the English system as "one-sided free trade." In consequence of trade depression the Fair Trade League was founded in 1881 to advocate (1) the use of retaliatory duties against countries that tax British exports, and (2) the closer fiscal union of Great Britain and the colonies. The germ of fair trade ideas is to be found in the work of TORRENS (*q.v.*) entitled *The Budget*.

[T. H. Farrer, *Free Trade versus Fair Trade* (4th ed.), 1887.—C. J. Fuchs, *Handelspolitik Englands*, Leipzig, 1893, pp. 157-172 (see RETALIATION), and the publications of the Fair Trade League.] C. F. B.

FAIRS AND MARKETS, THE DEVELOPMENT OF. Before discussing the history and development of fairs and markets in this country, it will be useful to define the meaning of the terms according to the law. "A market, viewed in its strictly legal aspect, may be defined as an authorised public concourse of buyers and sellers of commodities, meeting at a place, more or less strictly limited or defined, at an appointed time." "A market right is a franchise or privilege to hold a market: to this is generally attached the right to levy tolls and other dues." "A fair has been described as a larger market. Thus in Comyns' *Digest* we have the following definition. 'Every fair is a market—not *è contra* therefore when any statute speaks of a fair, a market should also be comprehended.'" "The specific difference between a fair and a market appears to be that a fair is held less frequently, it generally extends over a longer continuous period, and is of a more miscellaneous character than a market." The above definitions are taken from the final Report of the Royal Commission on Market Rights and Tolls (1887-1891). A few comments will serve to explain these definitions. "A market is a public concourse." Therefore a private meeting of traders—as for instance in many so-called corn-markets—is not a market at all; nor are the auction-marts, which are now so frequent throughout the country for the sale of cattle, in any proper sense of the term cattle-markets. "The place of meeting must be more or less strictly limited or defined." The owner of an English market has exclusive possession for market purposes of an area—it may be a manor, or it may be a township—and within that area he is entitled to shift his market from place to place; beyond the limits of the area he cannot move. "The meeting must be at an appointed time." Market days are fixed either by the terms of the grant which creates the market or by length of usage; and the general law is that a change of the day without the consent of the crown will forfeit the right to hold the market. "A market right is a franchise." A franchise is a royal prerogative and is one of those *jura regalia* which the king, if he think fit, can grant

to a subject. No English subject therefore can hold a market unless he can show a grant of this monopoly by letters-patent or such long enjoyment of the right that it will be presumed that a grant was made to him at an early period and has since been lost. "The right to levy toll and other dues" is not a necessary incident of a market. Free markets exist in many places in England, as for instance at Chippenham in Wiltshire. The right to keep standard weights and measures, to hold a market court, and to sentence offenders to fine or pillory, were parts of the privileges of market-owners in the past. Markets are seldom held less frequently than once a week; fairs are seldom held more frequently than three or four times a year. It seems tolerably certain that in origin fairs and markets are distinct. The fair is a holiday or "wake" or festival of a saint, which is incidentally utilised by the itinerant trader for purposes of gain. The name is probably derived from the Latin *feria* (a holiday), and a fair in Brittany at the present day would show us with tolerable accuracy what an English fair was before the Reformation. A market, on the other hand, comes into existence for the express purposes of trade. The Latin name (*nundinæ*) shows that under the Romans a market was usually held once in their nine-day week. From these considerations we can understand why we find in England what are called "pleasure fairs," while such a thing as a "pleasure market" is unknown.

Fairs.—Dealing in the first instance with fairs, it would appear that before the Norman Conquest the ownership of a fair was not a matter of great value. It is observed in an antiquarian report forming the first volume of the proceedings of the royal commission of 1887 that "there are only two notices of fairs in Domesday Book, namely, the mention of the third part of a fair at 'Aspella' in Suffolk and of the *forum annuale* held by the Earl of Moretain at 'Matele' in Cornwall;" and that "even in these instances there is no estimate of annual value, as is usual where markets are described."

The trade of England developed rapidly after the Norman Conquest and under the Plantagenet kings, and its development took a shape which led to the great development of fairs in the direction of trade. It was a natural result of the kingdom of England and duchy of Normandy being in the same hands that trade across the English Channel should become larger, and in Plantagenet times this connection with Europe increased still further, not only on account of the extended possessions of our kings in France, but also by reason of the genius for commerce which more than one of them displayed. For such a foreign trade, at a time when the means of communication were imperfect, the system of fairs was a godsend. The fixed dates at which the fairs were held enabled the merchant or dealer to arrange his circuit with certainty; and thus, at a fair, merchandise would be found which was necessarily absent from the weekly market; or, as the late Professor Rogers expresses it, the fair was "a market in which goods which could not be found in the ordinary town market would be procurable, and in which there would be a wider market for ordinary goods." The same writer gives us a picture of the great fair of Stourbridge near Cambridge, which it is impossible to read without wonder at the present day. The day of the proclamation of the fair was 4th September. On 8th September the fair was opened and lasted for three weeks. "The temporary wooden buildings were commenced by custom on St. Bartholomew's Day, 24th August, and the builders of these houses were allowed to destroy corn grown on the spot with impunity if it were not cleared before that time. The space allotted to the fair, about half a square mile, was divided into streets which were named sometimes by nations, and in each of these streets some special trade was carried on, the principal being foreign spices and fruits, ironmongery, fish, metal goods, cloth, wool, leather, and latterly books." At this fair, as we learn, there would be found traders from the Levant, from Genoa, and from Venice, "war-horses and jennets from Spain, and iron from Seville."

For securing merchants and their goods from robbery and violence we find that from the earliest times a special "peace" was enforced which in course of time came to afford protection to all minor offenders who could find sanctuary within the limits of the fair. A quotation from the Scottish *Leges Quattuor Burgorum* will illustrate this practice.

"This is the ordinance of the peace of fairs in a royal burgh on the hither side of the water of Forth, to wit; That from the time when the peace of the fair is proclaimed, no man be taken nor attached within the time of that fair, either in coming to the fair or in passing thence or in sojourning in the fair itself; unless he has broken the peace of the fair, or unless he be an outlaw of the Lord King or the King's traitor, or such a misdoer as the peace of Holy Church ought not to save. And if he be such a misdoer, or have broken the peace of the fair, he shall be attached securely until the mort of that fair, and there he shall stand for his right, and justice shall be done in the matter whereof he has been charged."

During the continuance of the fair, then, the ordinary executive and judicial officers of the place were ousted of their jurisdiction and were replaced by the officials of the owners of the fair. In the court of PIE-POWDER (*q.v.*) (pieds poudrés) the "dusty-feet" or travelling dealers found a substitute for the ordinary courts of law. There is nothing strange in the lord of the fair thus

usurping the position of the ordinary magistrate; for no principle is more firmly fixed in old English law than the doctrine that ownership of land carries with it the right to hold courts of justice within its limits; and of this doctrine the court of "pie-powder" forms a typical illustration.

The legislation of Edward I. and Edward III. did very much to make the conduct of trade more easy, to prevent the encroachments of middlemen, and to substitute for the special privileges and usages of particular districts a general system of trade for the whole country. Slight reflection will show that the more secure and definite ordinary commerce becomes, the less are periodical fairs required. If the single trader can readily go through the country from day to day, there is no necessity for his customers to come together at stated intervals to meet him. The development of the craft-gilds operated upon the fortunes of fairs from another side. And thus they have long ceased in England to be of importance for trade purposes. Pleasure fairs have also sunk very low. An act of the present reign, reciting that they are often the cause of "grievous immorality," gives power to the Home Secretary to abolish any fair with the consent of the owner. The country would probably suffer very little if all purely pleasure fairs were done away with.

Markets.—Markets, so far as we can judge, were far more numerous and valuable than fairs during the period before the Norman Conquest. The century which followed the taking of the Domesday Survey was a period of remarkable development in town life. The town-gilds, which were one of the outcomes of this development, had for their business "the framing and enforcing a sort of market law—seeing to the weights and measures in use, taking measures for securing and evidencing by their trade-marks the quality of goods exported from the town." The town-gild was in many cases the authority which fixed the ASSIZE OF BREAD AND BEER (*q.v.*), that is to say "the sliding scale by which their values were adjusted as corn varied in price."

The accession of Edward I. is a crucial period in the history of markets. Finding that during his father's reign the rich nobles had in many places usurped the royal rights and abused them for the oppression of the poor, he sent commissioners throughout the country, to inquire in every "hundred" of each shire what were the king's lands and the king's rights there. The results of this remarkable inquiry were recorded in rolls called the HUNDRED ROLLS (*q.v.*), and of these rolls those which relate to seven of the counties still survive. They show by their extraordinary detail how special jurisdictions and special exemptions were spread like network over the country, which must have been most prejudicial to the interests of trade. It was these varieties of local usage, and the abuses they engendered, which Edward I. had to meet by statutes which should apply to the whole realm. Two or three illustrations may show the nature of the evils he had to remedy; their extent may be appreciated when we remember that during the period of seventy-four years, which preceded the commencement of Edward's reign, John and Henry III. had made grants of about 1500 new markets and fairs. The first instance comes from the county of Berkshire, and records that "the burgesses of Wallingford were not accustomed to take toll save only of merchants, but now, contrary to their ancient franchise, they take toll of the men of the country who buy corn and other victuals for their household supplies." In Derbyshire "the masters of the hospital of Yeveley appropriate and attach to themselves men of the royal borough of Assheburn—whereby the king loses toll and passage. And the same masters have made themselves of late a seal for stamping gallons and bushels without warrant, whereas the men of the borough used to have the seal." In Devonshire "the jurors say that the prior of Frompton has toll in his manor of Norham, and that of late only, and takes toll of the men of the said borough wrongfully, to the great damage of the borough, by what warrant they know not." This great survey, or inquisition, was followed by the series of trials of *Quo Warranto*, in which the king tested "by what warrant" the markets were held which were in private hands, and enforced uniformity of practice as a condition of continued enjoyment of the franchise.

The management of markets in Scotland during this period took a different course. Large tracts of country were granted by the crown to various towns as areas within which the "burghs" should have the monopoly of buying and selling. Thus "the royal borough of Rutherglen had by charter rights of taking toll and exclusive dealing over the district where Glasgow afterwards rose."

After the time of the Edwards grants of new markets become much rarer. The decay of the manorial system, and the social changes indicated by the Statute of Labourers and the rising of the villeins give a sufficient explanation of this fact. The demand for grants of letters-patent for new markets steadily decreased during succeeding centuries, until the following result is arrived at, as recorded in the final report of the commission of 1887: "Between the years 1700 and 1846 we have in England and Wales, exclusive of the metropolis, only twenty-four markets created during 147 years; while during the forty-six years of this present century only eleven grants have been made. Two of these were grants of markets in the metropolis; three extended existing rights; and in three of the remaining instances no markets are now in existence." But while

royal grants were becoming obsolete, a system was springing up of creating new markets by private acts of parliament, by special local acts, and by general legislation.

In 1847 the "Markets and Fairs Clauses Act" for the first time codified the "provisions usually contained in acts of parliament authorising the construction or regulation of markets and fairs." But the provisions of this act only apply to markets created by act of parliament after the year 1847, and thus the scope of a very useful act was much limited.

The Public Health Act of 1875 for the first time gave urban sanitary authorities—*i.e.* boroughs, improvement act districts, and local government districts, conditional powers to establish markets. Under this act local authorities may establish markets if they do not interfere with markets already existing; may acquire existing markets by purchase or lease; may provide buildings for the convenient use of the market; may make bye-laws for their regulation; and take rents and tolls for their use. For carrying out these objects the sanction of the local government board must be obtained by the local authority.

There appear to be at the present day some 769 markets in England and Wales, exclusive of the metropolis. Of these 261 are in boroughs, 266 in other urban districts, and 242 in rural sanitary districts. Of the markets held in the boroughs, 216 out of 261 belong to the local authority, of the markets recorded in rural sanitary districts, 142 out of 242 belong to private persons, 18 to trading companies, 24 to bodies of persons other than trading companies, and 8 only to local authorities, while in 10 instances the market rights are questionable, and in no fewer than 40 instances the markets are not held. Thus, speaking broadly, large markets are now in the hands of local authorities and small markets in the hands of private persons. Under the existing law local authorities have no compulsory powers of purchasing markets within their districts which are in private hands. It is not easy to ascertain how far markets are remunerative at the present day. A selection of 40 markets made in the final report of the commission of 1887 shows that on a capital expenditure of over two and a half millions, a return is made of very nearly 6 per cent in tolls and other incomings. The nine markets belonging to the corporation of London on an expenditure of over 3 millions obtain a revenue of nearly 4 per cent.

The accommodation provided by private market owners is often merely an open space, or open street. There are still many cattle markets in England which are held in the streets. Many private owners lease their markets to persons who make a business of taking tolls on hire and making a living out of the difference between the rent they pay and the tolls they collect. In the south of England even local authorities are found to lease their markets in this way. Markets are a decaying institution in the south of England, but flourish in the northern counties.

The majority of the commissioners of the 1887 commission recommended the abolition of market monopolies upon payment of compensation. A strong minority preferred the compulsory transfer of all markets to local authorities.

(See further MEDIÆVAL FAIRS ON THE CONTINENT.)

[*First Report of Royal Commission on Market Rights and Tolls* by Mr. Charles Elton, Q.C., M.P., and Mr. B. F. C. Costelloe.—*Final Report of the Royal Commission.* — Cunningham, *Growth of English Industry and Commerce.*—Thorold Rogers, *A History of Agriculture and Prices in England.* —Sir F. Palgrave, *The Merchant and the Friar.*]

FAJARDO or FAXARDO, COUNT DIEGO DE SAAVEDRA FAXARDO (1584-1648), knight of the Order of St. James, Spanish historian and political philosopher, was descended from a noble family of Murcia, being the son of Peter de Saavedra and Fabiana Faxardo. He became doctor of laws in the university of Salamanca, and in 1606, as secretary of the viceroy of Naples, Cardinal Gaspar Borgia, commenced a distinguished career in foreign diplomacy, which involved a residence of thirty-four years in Italy, Switzerland, and Germany. He died at Madrid, a member of the council for the government of the Indies. His works were widely read, not only in their original tongue, but also in Latin, Italian, French, and English translations, but neither these, nor any Spanish edition subsequent to the first, have the reputation of being faithful reproductions of the original. The English translation of his most important work, *Idea de un Principe*, published by Sir J. A. Astry in 1700 under the title of *The Royal Politician*, is from the fourth edition (Valencia, 1660). In this book, "under the awkward arrangement of a hundred ingenious emblems, with mottoes that are generally well-chosen and pointed, he has given a hundred essays on the education of a prince; his relations with his ministers and subjects, his duties as the head of a state in its internal and external relations, and his duties to himself in old age and in preparation for death" (Ticknor's *History of Spanish Literature*, iii. 215,216).

Idea de un Principe politico cristiano, representada in cien empresas, Münster, 1640, in 4to.

See also *Obras politicas y historicas*, of Faxardo. Antwerp, 1677-78 and Madrid, 1789-90. C. A. F.

Faxardo represented Philip IV. of Spain at the Congress of Münster, which laid the foundation of the treaty of peace of 1648.

His *Idea de un Principe politico Cristiano* (Idea of a Wise and Christian Prince), written in his leisure moments during his German embassies, and dedicated to the Prince Royal of

Spain, is full of sound and judicious counsel on all matters of state, but rather oddly divided under one hundred mottoes or *empresas*. The author's reflections on economic questions are mostly to be found under the *empresas* LXVI., LXVII., and LXIX. He advocates exemption from taxation for all goods of first necessity consumed by the labouring classes, and holds agriculture to be the principal wealth of a country and the richest mine it can possess. The cost of coinage is the only item that should be added to the intrinsic value of money. Fajardo, however, shares the opinion prevailing in his time that export duties are always borne by the foreign purchaser.

Frequently printed and reprinted, the *Idea de un Príncipe político cristiano* was translated into Italian (Venice, 1648), into French (Paris, 1668), and anonymously in Latin under the title of *Symbola christiana politica* (Brussels, 1649). It is included in Rivadeneyra's *Biblioteca de Autores Españoles* (Madrid, 1853, vol. xxv.) E. Ca.

FALDAGE originally appears to have been the same as faldsoke, viz. the right of a feudal lord to compel his tenants to fold their sheep at night in his fold on his demesne lands, so that his lands might have the benefit of the manure. The term, however, afterwards came to be applied to the money payment for which tenants generally commuted this service.

[Cowell, *Interpreter of Words and Terms*, London, 1701.—Ducange, *Glossarium Mediæ et Infimæ Latinitatis*, Paris, 1733.—Martin, *Record Interpreter*, London, 1892.] A. H.

FALD-SILVER. A customary manorial payment on sheep (see FALDAGE); Vinogradoff (*Villainage in England*, p. 291) considers it an original, not a commuted payment. E. G. P.

FALLACIES may be defined as "apparent evidence which is not real evidence" (Mill, *Logic*, bk. v. ch. i. § 1). Logicians from Aristotle downwards have made it their business to class and label fallacies. The species termed by the schoolmen *a dicto secundum quid ad dictum simpliciter* comprehends many of the bad arguments in political economy; if with Mill we include under this head all cases "where a principle true *in the abstract*, that is all modifying causes being supposed absent, is reasoned on as if it were true absolutely" (see DOCTRINAIRE). A signal instance is the omission of the condition of *time*. It is not true that prices, profits, wages, etc. "always find," but that they "are always finding" their level (Mill, *loc. cit.*) Mill places under this head several economical errors which might also be referred to the fallacy of *composition and division*, that is using a term collectively in one part of an argument and distributively in another. This sort of confusion affects many of the popular errors which economic science has dispelled. Thus, at the root of the mercantile theory lies the fallacy that an increase of money is good for the community, because it is good for the individual. The inflation school of currency commit the same mistake. Many popular fallacies relating to wages fall under the same head. The notion of "making work" by breaking things is plausible only as long as attention is confined to the interest of the particular man who may thus obtain a job. Prof. Marshall well observes of an argument in favour of short hours of work: It rests on the fallacy "that all trades will gain by the general adoption of a mode of action which has been proved to enable one trade under certain conditions to gain at the expense of others" (*Princ. of Economics*, p. 744, 2nd ed.) A similar fallacy affects some of the arguments which are used in defence of trades unions (Cairnes, *Leading Principles*). Prof. Marshall's words are equally applicable to the prejudices which maintain protection. Nor are free-traders free from the fallacy of *composition and division*, when they ignore the distinction between the interest of any particular nation and of all nations collectively. List maintains that Adam Smith has only proved free-trade to be advantageous in the latter sense. Another fallacy often exemplified in economic arguments is *ignoratio elenchi*, not understanding the thesis which you controvert. Refuting the Malthusian theory by showing that in fact population has not outstripped subsistence is an instance of this fallacy (Mill, *loc. cit.*) It would be possible to include other economic fallacies under other scholastic headings. But it may be doubted whether a minute chart, so to speak, of the paths of error is of much practical use. What is required is rather a broad indication which, occurring in the course of one's reasoning, may prevent taking a wrong step. As a danger-signal of this sort may be offered the warning that in political economy a great many mistakes have arisen from treating, as fixed, quantities which are variable. Thus DE QUINCEY (*q.v.*) misses the true theory of value by assuming that the demand for a commodity is a fixed quantity independent of its price. A predetermined fund for purchasing commodities, is hardly less tenable than a similarly-fixed *wage-fund*. The "iron law" that wages tend to sink to the point of bare subsistence is an instance of the same fallacy which has probably affected every theory of distribution down to recent times. It is well shown by Prof. Marshall that the different economic factors "mutually determine one another" (*Princ.*, ed. 1, bk. vii. ch. ii.). Some theories about the rent of ability become insignificant when it is reflected that the margin from which, as base line, the surplus remuneration of any calling is measured, is itself a variable depending on that remuneration (*id. sub voce* "Quasi-Rent"). In economics "all things," or at least most things, "are in flux."

[Effective refutations of economic fallacies are given by Bastiat (*q.v.*). Bentham's *Fallacies* may also be referred to. Of the writers on logic who have treated of fallacies Mill and Whately are particularly suggestive.] F. Y. E.

FALLATI, Johannes (1809-1855), German statistician and economist, was born at Hamburg, where his father, originally of Rovigo (Venetia), was a merchant. Educated at Tübingen and Heidelberg, he was appointed in 1838 professor of political history and statistics at the former university. In 1839 he travelled in England, inquiring into English statistical societies and other institutions. In 1848 he became a member of the Würtemberg parliament, and under-secretary for commerce in the short-lived Frankfurt imperial assembly, 1848, 1849. On its dissolution he returned to an academic career, becoming in 1850 university librarian at Tübingen. From 1844 to 1855, the date of his death, he was joint-editor of the quarterly *Zeitschrift für die gesammte Staatswissenschaft*. During his brief political career Fallati planned and embodied legislative organisation in four directions, viz. the imperial consulate, inland navigation, marine measurement, and—his most cherished idea—an imperial statistical bureau. He also prosecuted inquiry in the question of emigration. To a winning personality and many-sided culture he united clear and practical method.

Works, economic and statistical:—*Die statistischen Vereine der Engländer*, Tübingen, 1840.—*Ueber die sogenannte materielle Tendenz der Gegenwart*, Tübingen, 1842.—*Einleitung in die Wissenschaft der Statistik*, Tübingen, 1843.

In the *Deutsche Vierteljahrsschrift*, "Ueber die Haupterscheinungsformen der Sucht, schnell und mühelos reich zu werden, im Gegensatze des Mittelalters und der neueren Zeit," 1840. 3tes Heft.

In the *Zeitschrift f. Staatsw.*: on Social Origins, i. (1844); on Association as a Moral Force, i. (1844); on English Working Men's Clubs and Institutes; on Free Trade in Land; and on German Blue Books, ii. (1845); on Agriculture and Technology at the Congresses of Italian Scientists, iii. iv. (1846-47); on Progress in Practical Statistics; and on modes of Statistical Inquiry in England, France, and Belgium, iii.; on Dearth and Famine Policy in Belgium; Belgian Excise; Belgian Census; Statistics in Sicily, Denmark, and Schleswig-Holstein; and Socialism and Communism, iv.; on Statistics at the Lübeck Germanist (Philoteuton) Conference, v. (1848); on the Evolution of Law in Savage and Barbarous Tribes; a proposed Inland Navigation Law; and Administrative Statistics in Germany, vii. (1850); on Trade Combinations in France, viii. (1851); on Statistics of Area and Population in British India; and Administrative Statistics in Norway, ix. (1852); on the Statistical Congress at Brussels, ix. (1853). C. A. F.

FALSA DEMONSTRATIO NON NOCET. A wrong description in a will of an heir or legatee does not invalidate a disposition if there is no doubt as to the identity of the person whom the testator had in his mind. (*Inst.* 2, 20, 30; *Dig.* 28, 5, 49, 3.) E. A. W.

FAMILISTÈRE, the name given by Godin (*q.v.*) to the settlement which he founded at Guise, Aisne, France, in 1846. The word is reminiscent of the *Phalanstère* of Fourier, by whom Godin was much influenced.

The Familistère is now a co-operative joint-stock company, possessing iron works as well at Guise as at Laeken in Belgium. A full description of it has already been given under the title Cité Ouvrière, *supra*. An excellent and authoritative account, with maps, charts, and details respecting the nature, organisation, and march of the society, is *Le Familistère de Guise, Association du Capital et du Travail, et son fondateur, J. B. A. Godin. Étude faite au nom de la Société du Familistère de Guise, Dequenne et Cie., par F. Bernardot, Membre du Conseil de Gérance*, Guise, 1889.

[Godin, *Solutions Sociales*.—Urbain Guérin, *Monographie de l'Usine et du Familistère de Guise*, 1885.—*Les Ouvriers des deux Mondes*, 1892.—E. V. Neale, *Associated Homes*, 1880.—E. O. Greening, *Co-op. Traveller Abroad*, 1888.] H. H.

FAMILY BUDGET, the balance sheet of receipts and expenses of a family. Such a record is of prime importance in studying the consumption of wealth. It shows directly the standard of comfort and the real wages of the industrial classes, and is particularly useful in estimating the incidence of taxation, constructing weighted index numbers, and judging the various effects of movements of prices. It also brings to light subsidiary sources of income, where these exist, and generally lays bare to the eye of the statistician the whole economic life of the family concerned. The budget should, under ordinary circumstances, cover a whole year, to eliminate, so far as possible, the effect of disturbances due to the influence of climate and season, and to include clothing and other expenses which do not often recur. Budgets were compiled by writers like David Davies and Sir F. Eden in the last century, but their modern history dates from 1855, when important works were published by Ducpétiaux and Le Play. The last-named writer (see Le Play) devoted his life to the collection of budgets and founded in 1856 the *Société Internationale d'Économie Sociale* at Paris, which still carries the work on. Among recent writers on the subject may be mentioned Sargant, Dudley Baxter, L. Levi, Engel, Ballin, Schnapper-Arndt, Grüber, Cheysson, U. Guérin, Hector Denis, V. Brants, L. Bodio, the Countess Pasolini, Landolt, etc. Budgets are now frequently found in official publications (*e.g.* Consular Reports, Blue-Books, Reports of American Labour Bureaus). The subject has also received attention from the International Institute of Statistics, whose *Bulletins* should be consulted.

[See especially F. le Play, *Les Ouvriers Européens*, Paris, 1855.—*Les Ouvriers des deux Mondes* and *La Réforme Sociale*, published periodically at Paris.—*La Science Sociale*, Paris.—*Sixth and Seventh Reports of Commissioner of Labour*, Washington, 1891.—*Les Budgets Comparés des Cent Monographies de Famille* par Cheysson et Toqué, Rome, 1890.—*Labour Statistics. Returns of Expenditure by Working Men*, London, 1889. —*Family Budgets*, 1891-94, published by the Economic Club.—*Cost of Living of Working Classes*, Board of Trade, 1903, pp. 207-258. H. H.

FAMILY, JOINT (see JOINT FAMILY).

FAMINE.

Economic Study of, p. 19; Social Conditions Predisposing to, p. 19; Price of Corn as a Symptom of, p. 21; Natural Remedies, p. 22; Remedial Action by the State, p. 22.

Famines constitute for the economist a study in what may be called the pathology of wants, and their satisfaction; in them he sees the conditions of some of the greater deviations from that average capacity on the part of production and purveyance to meet consumption, in which economic equilibrium consists. Under certain conditions these deviations find to some extent an index in the fluctuations of price, and hence famine, or scarcity of food, the term being extended only by analogy to other kinds of scarcity (see COTTON FAMINE), has at times been used interchangeably with *dearth* (*dear*-th),—the latter word giving in terms of price that which *scarcity* expresses under the aspect of supply and *famine* under that of felt want or demand. It is more usual, however, to apply the several names to denote different degrees in this kind of economic disturbance. Thorold ROGERS, for example, limited *dearth* to mean a famine in which the rise in the price of wheat is only from 50 to 100 per cent, reserving *scarcity* for those famines in which the increase extends to over twice the average price (*Industrial and Commercial Hist. of England*, p. 59).

A disproportionate intensity of demand for the more important kinds of food in general, as compared with the supply, is here measured in one kind in particular,—the kind which has constituted the staple food of all classes of English people for a good many centuries. For the whole of Great Britain a more comprehensive measure by means of corn averages would be required; for Ireland and some parts of Europe it would be necessary to include potatoes in the computation; and for some Asiatic countries the price of rice would afford a truer index of the presence or absence of famine.

Social Conditions Predisposing to Famine.—As M. A. Legoyt has said: in France *famines* have gradually been replaced by *disettes*, and to day only *chertés* are known.

The causes of present immunity from famine in some countries must be sought, not in milder seasons, nor altogether in that wars are fewer and less barbarous, but in the removal of many circumstances which enhanced the effects of bad seasons, of wars, and other positive checks to life. It is true that modern civilisation tends to develop certain predisposing conditions in the growth of cities and the extension of international division of labour; but through the progress of economic organisation, famine, if it be still a possible disaster, is rendered infinitely less probable. In past ages long immunity from famine rarely happened in Europe. The producer of corn was hampered by his own rudimentary methods of agriculture, by game-laws, and often by heavy taxation, by foreign military service or civil strife. The merchant was impeded by undeveloped communication and transport, by irregularity in international trade, and by a system of state-restriction in the interest of the consumer. The latter was much in ignorance as to the state of the general food-supply,—either was, or imagined himself to be, the victim of the merchant's engrossing and withholding his food, and was prone to panic. Money was scarce; the machinery of credit undeveloped; the money-lender oppressive. Under such circumstances, the introduction of one of the exciting causes of famine—sterile seasons, war, vermin, or pestilence—would be far more quickly and more intensely felt than at a stage of more advanced civilisation.

TOOKE expressed his amazement that parliamentary and other inquiries into the high and low prices between 1793 and 1815 did not assign as the principal cause the varying character of the seasons (*Hist. Prices*, I. iii. § 5). Adam SMITH was convinced that nothing but the waste of war and the fault of the seasons—especially the latter—had ever created a dearth, the violence of well-intentioned governments however converting dearth into famine (*Wealth of Nations*, IV. v.).

To the English economist the narrow margin of surplus corn in the home supply, prior to regular importation on a large scale, and in the absence of any regulated storage of grain, made an absolute deficiency of corn a matter of more than hypothetical interest.

England seldom had a surplus of three months' provision (DAVENANT reckoned it in his time at four to five months' stock) at the new harvest. While the national food supply stood foremost among political questions, economic opinion was divided on the crucial point as to the effective power of either a free or a regulated trade to induce, prevent, or remedy famine.

French economists of the last two centuries, concerned directly with a country of greater area and fertility, were more disposed to see in famines the result of merely partial deficiencies in crops in which collectively there was never a deficit France commanded, even with an ordinary yield

an overflowing abundance of the means of subsistence,[1] and was both self-sufficing and the feeder of her neighbours. A good harvest meant a store sufficient for three years (cp. the allusions to Boisguilbert, Vauban, Richelieu, De Boislisle, Delamare, and Herbert, in Biollay, *Etudes économiques sur le 18me siècle*, 1885). The years of famine during the 17th and 18th centuries—there were forty-one in all—were imputed to commercial speculation, to "the malice of some merchants and regrators" (Delamare, pp. 1007; 954; 707), to the stupidity and brutality of the people (Boisguilbert, vi.), to changes in currency and disordered finances (Forbonnais, *Recherches et considérations sur les finances*, ii.), to the intrigues of officials (Saint-Simon, *Memoires*, ed. Chéruel, v. p. 332), then to those of ministers, finally to those of the king (Biollay, p. 11), and, by Turgot, to the restrictions on inland trade (*Lettres sur les grains*, pp. 27, 109). Necker was slightly more cautious:—*je sçais bien qu'un vuide réel n'existe* presque *jamais*, etc. (*Sur la législation et le commerce des grains*, i. xiii.).[2] And Colbert, a century earlier, by frequently keeping himself informed as to local harvests, was constrained to admit that the great disorder in the finances was due quite as much to the general sterility, involving "an infinity of scarcity and need," which had prevailed in France since the death of Henry IV. (1610-1662), as to official abuses and the exhaustion from long wars (Colbert, *Lettres*, etc., ed. Clément, ii. 5, 8, 10, 19, etc.). Yet in much more recent times Cherbuliez took as the starting-point of his arguments against the interference of the state in the corn-trade the hypothesis of an actually adequate supply (*d'un approvisionnement réellement suffisant*) (*Dict. de l'Econ. politique*, *s.v.* "Disette").

It is contended that India is self-sufficing taken as a whole (Walford), and that her great famines, which are always partial, are, if not wholly preventible, certainly in great measure to be palliated and kept within the limits of a mere dearth. The chief predisposing conditions are local density of population, in conjunction with anti-migratory instincts, disafforestation (till the middle of this century), (see FORESTS), rigidity in taxation of land, absence of diversity of industry, 92 per cent of the population being engaged in agriculture, insufficient irrigation and imperfectly developed means of transport. Storage of surplus grain in pits is largely practised both by cultivators and by merchants, so that the crops of one year are never the only resource.

Famines, however, in India and elsewhere, bear this generic likeness to sorrow, that they come not single spies but in battalions. The seven lean kine which came up out of a seven times shrunken Nile have replicas in every history. The great famines in India have usually been the result of drought continued over two or three years. The record of French famines exhibits, besides shorter periods, series of bad harvests as follows:—

1043-49	1475-77	1692-94
1138-44	1528-34	1708-10
1338-47	1572-74	1788-95
1415-19	1625-31	1811-13
1430-39	1660-63	(*Legoyt*).

The law of the recurrence of famines has occupied economists intermittently from Petty downward, but first took shape as an inchoate scientific hypothesis in the researches made by Hyde Clarke and Jevons. (*Investigations in Currency*, vi.-viii.).

There does not seem to be *conclusive* evidence that a famine ever ensued in Europe in mediæval or modern times solely from what have here been called predisposing conditions. The only doubtful cases in English history seem to be (1) the famine of 1124, spoken of by Simeon of Durham as *magna per Angliam fames*, when the dead lay about unburied in city, village, and cross-road, and to which Penkethman assigns as the immediate cause, the dearth occasioned "by means of changing the coine" (*Artachthos*, 1765); (2) the "great penury" of 1248, "by reason of embasing the coin." There was peace in the former year, civil war in the latter; no mention is made of failure of crops, but it is probable that they were at least deficient.

However necessary a physical or social disturbance of abnormal intensity be to bring about strain and distress amounting to a famine, it is equally certain that men have in many instances so shaped their physical and social environment, "either by blundering, by intention, or even by the zeal of them who govern" (Bandini), as to go far to bring themselves within hailing distance of hunger. Earlier generations are liable to render the land they live in worse adapted for the requirements of their successors by exhausting its resources (Sidgwick, *Principles of Political Economy*, i. iv.). William Rufus is said to have taxed the land so heavily that agriculture was discouraged and famines ensued. There were four in his short reign (Walford). The TAILLE (*q.v.*) crushed the French peasant, whilst the noble was exempted. Rome, both in ancient and modern times, ruined Italian agriculture to indulge itself in cheap bread (Mommsen, *Hist. of Rome*, ii. 394-395; Galiani, *Dialogues sur le commerce des blés*). In 1295 and again in 1390 the export of wool was checked through our anxiety to secure coin at staple towns; the slender capital of the period was not "turned" and men famished (Penkethman; Knyghton). Fearful that corn might be exported in the famine of 1438-39, the government refused to take the more positive remedy of relaxing the restraints on inland water-carriage. Commerce, it is true, "recognising neither king nor country," will go on exporting grain, while the people are famishing, as in England, 1586, 1595, and 1709 (see speeches of Queen Elizabeth and Queen Anne); and *Parliamentary Hist.*, vi. 802); Tudor kings, by issuing base money, have made famine "endemic" (Th. Rogers); and under a republic depreciated *assignats* may intimidate the farmer from bringing corn to a hungry town (Thiers, *Hist. de la Révolution*, iii. 93, etc.). Neglect of reservoirs have been a potent factor in enabling a scarcity of crops to dissolve Ceylon villages. Over-population may, as in the great Irish famine, be suffered to precipitate unchecked the action of the law of diminish-

[1] In the famine 1528-34, owing to heat and vermin, the harvest barely furnished enough grain for sowing (Delamare; cp. Legoyt).

[2] He would not admit that restrictions had ever occasioned *disette* or *cherté*, ii. cp. vi.

ing returns (Cairnes, *Fragments on Ireland*). The result of a relatively rigid law assessing wages, and a relatively elastic assize of bread, "necessarily brought want and starvation to the labourers" when corn grew suddenly dear (Denton, *England in the 15th century*, p. 96). Dependence on a staple commodity is in itself a risk. And ignorance generally, rendering man weak in wielding natural forces, strong in hatred of his neighbour and superstitious as to cause and remedy, is a predisposing condition implied in all the rest, constituting at times well-nigh an efficient and sufficient cause of famine (cp. Hazzi, p. 15; Leland, *Etruscan Roman Remains*, i. x.; King, *Italian Valleys*, p. 132).

On the other hand a country predisposed by physical conditions to scarcity, as *e.g.* Holland, may by effective organisation and enterprise have remained a stranger to national famishment (cp. Blanqui, *History of Political Economy*, p. 314).

Price of Corn as a Symptom of Famine.—That scarcity in the supply of corn (where corn is the staple food) is dearth in terms of price, is a truism. Observation, however, has shown that the price does not rise in the same ratio as the supply falls short. In an article used as a prime necessity of life the elasticity of demand is at a minimum, while the demand itself is habitually at a maximum. Thus when the supply is checked consumption is reduced reluctantly, creating the purveyor's opportunity and then the producer's. The intensity of demand has moreover ever been rendered the more stubborn at the rumour of a scarcity of bread, "by emotions against which reason is of no avail, and out of which populations are not to be educated" (Dupin, cp. Biollay, p. 22). "There arises a sort of general scramble for the scanty and waning stock" (Fullarton, *infra*, c. v.; Necker, *op. cit.* i. xiii.), which DAVENANT (*q.v.*) formulated by the famous law called after Gregory KING.

In considering this formula it must be borne in mind that fertile years beget confidence and check dearth; a bad year accelerates alarm in the next. The famine of 1390 was preceded by years of such plenty that it was believed a five years' stock might have been accumulated and the price rose not much (*non nimis excessivum*, Knyghton).

The maintenance of a heavy outlay for bread in times of scarcity involves a redistribution in the demand for other commodities. "Famine depreciates all but food" (F. Newman, *Lectures*, p. 85); but this must be accepted with reservations. "Fancy" foods will depreciate (Roscher, 61), although in a siege famine they may command a fancy price at the outset (Labouchere, *Diary of Besieged Resident in Paris*), but there will be an appreciation in the price of all the "surrogates" of the staple article of food, partly because they are scarce from the same cause, partly owing to increased demand. "Men," as Locke put it, "would not rob themselves of all other conveniences of life by paying all their money for wheat, when oats, that are cheaper, though with some inconveniences, would supply that defect" (*Several Papers on Money*, 1696, p. 48). If all kinds of corn have been deficient, grass, especially in a wet famine, and roots may be abundant, and dairy produce and mutton not much affected, although the cost of fattening cattle will tell on beef before long. If the course of prices be traced in Thorold Rogers's tables during *e.g.* the chief famine of the fifteenth century, 1438, it will be seen that oxen rose in price in about the same proportion as corn, but not till the year after; wool, wine, and salt fish rose also, but pigs and sheep did not. Again, in the famine 1647-49, 1648 being the dearest year for corn; butter and candles rose in years 1 and 2, then fell; sugar and beef rose in all three years, sheep first fell, but shot up in year 3.

Disturbances and readjustments such as these are but the upper layer in the basket. The poor, when corn rises out of reach, betake themselves to inferior food, unless, indeed, by habitually living on something cheaper than corn, they have no such resource left them. Herein is another limitation to the sufficiency of the price of corn as a criterion of plenty or dearth. In the reign of Edward II. when the purchasing power of the people had been brought very low by the wars of Edward I., and a series of unproductive harvests supervened, wheat often entered in very moderate proportion into the loaf of the great bulk of the population, chestnuts, acorns, and fern-roots being substituted (Denton, p. 91). Waster, in *Piers Plowman* (W. Langland, c. 1332-1400) when gripped by Hunger, is glad to eat the horses' beans; bark has been much sought after both in European and Chinese famines, nor has exception been taken to dogs, cats, and vermin, dead bodies and living children, while the newly-imprisoned thief has found prompt sepulture in the stomachs of famished captives (cp. the accounts of English chroniclers in the writings by Farr and Walford referred to below).

Finally, excessive mortality, both through want and "famine fever," and other want-engendered illnesses (as well as at the hand of the enemy in case of war), constitutes a slackening in demand and a consequent modification in the movement of price, which is hardly a positive symptom of the cessation of famine. The excess over the average annual deaths in Ireland during 1846-47 amounted, taken together, to 216,716, of which 208,617 were the result of famine fever. Nevertheless 9395 died of starvation in the two years following, when prices had abated, wheat being cheaper than for sixty-seven years past, viz. 38s. 6d. (cp. Walker, *Wages Question*, p. 111).

The harrying of Northumbria by William the Conqueror in 1068, leaving a few survivors "to live like beasts of the field" and surrender themselves as slaves (Stubbs, *Hist.*, i. 78), the Black Death, 1349, when cattle roamed loose and corn rotted in its abundance, and "there were small prices for everything," yet the survivors feared to touch the plague-infected food (Knyghton), are instances of dislocation in the equation of supply and demand not easily interpreted by readings of price. DEPOPULATION itself, as a symptom of famine, is significant enough (*v. sub voce*). Mediæval towns have cast the beggar and the "casual" out of their gates in time of scarcity (Villani, Voigt, Wachsmuth, cited by Roscher). Famine, as checking population, has been held a necessary condition of internal peace in China, (Malthus, *Essay*), and has been tolerated as a chronic easing-off of demand in modern Europe.

Cantillon commented on the poor dying of "la misère, comme nous le voyons journellement en France." The peasant of southern Italy emigrates from sheer destitution (Nitti, *Rev. d'Ec. Polit.*, July 1892); and the history of industrial centres tells of chronic misery which has suffered, out of 21,000 infants, only 300 to survive their fifth year (cp. Schönberg's *Handbuch der polit Oekonomie*, i. 689, n. on "Starvation Diseases"). Histories, such as Malthus desiderated, of the nations viewed as mostly poor people, will, with him, look on years of plenty as "interrupting causes, obscuring" the normal working of the great ultimate check to population.

Natural Remedies to Famine.—In the natural course of things "while the earth remaineth, seed time and harvest . . . shall not cease," the heat of war dies out, the recuperative recoil characterising the springs of human energy after mishap asserts itself markedly in obliterating the traces of famine (cp. Malthus, *Essay*, ii. xiii.) and by natural selection the predisposing conditions are re-adjusted. Dupont de Nemours's saying, *Ce qu'on l'appelle cherté est l'unique remède à la cherté*, is applicable both to the extended operations of the cultivator and the merchant, encouraged by the high price of corn, and also to restricted consumption. Demand for bread may suffer some contraction without entailing suffering. Penkethman even assigns wasteful "use of the creature" as a cause of famine (*e.g.* in London in 1369).

Nor is corn the staple food it once was. Tooke was careful to omit the labourers from that "agricultural interest" which derived benefit from scarcity. The wages of labour do not rise in full proportion to the advance in the price of provisions (i. 2). In a long famine they do rise especially, Thorold Rogers found, in the case of the worst paid kind of labour, as for instance, the wages of women and threshers of oats (*Econ. Interpretation of Hist.* i. 16, 17). The rise, after 1315 and 1621, was 10 per cent.

Theoretically the collector and redistributor of the annual supply of corn should, by steadying the fluctuating price of corn, be both a preventive and remedial force with regard to scarcity. But his aim being to produce profit rather than plenty, and often short-sighted at that, his power also, where publicity was small, being very great, he has been wholly mistrusted by the consumer as a "dearth-desiring Hoorder" (see FORESTALLERS AND REGRATORS, cp. Proverbs xi. 26).

Importation of German corn, as a remedy in time of famine, is mentioned in connection with the scarcity of 1258, and often subsequently. Knyghton accounts for the cheapness of corn at London, as compared with his native town of Leicester, through the number of grain-ships meeting in the Thames. Davenant, while estimating that the variety of soil and elevation in our corn-fields rendered us the less liable to more than local dearth, deemed us only "safe because we have everywhere the sea to friend." In modern times the advent of Russia to the international corn-market (in the French famine 1778; South Russia in 1816-17), and of America in the middle of this century, more recently of Australia and India, minimised the chances of serious famine in Great Britain.

Remedial Action by the State.—This may briefly be analysed as follows:—

1. Subvention of the corn trade, viz.—(*a*) Regulated collection and distribution of corn in public granaries. Burke could point to the farmer's rick-yard and barn as the only British granary, but English economists have winced at Holland, with her well-stocked "conservatories," retailing to us our own grain (Davenant. Cp. *Britannia Languens* and Sir W. Raleigh, p. 303, etc. "a dearth of only one year in any other part of Europe enriches Holland for seven years" (*Observations upon Trade*). (*b*) Purchase of foreign corn, the drain of bullion to effect which, was often a source of financial anxiety (Fullarton). (*c*) Restriction of export of corn. (*d*) Suspension of duties on Imports. (*e*) Bounties on imports of corn. (*f*) Suspension of bounties on exports, "a peculiarly English policy," pursued since the 15th century (Cunningham, *Growth of English Industry*, etc., Modern Times, p. 372).

2. Subvention of the producer by advance of loans, as in recent Indian and Russian famines. A developed banking system may herein replace the state (Fullarton, Roscher).

3. Economising the supply of corn by prohibiting the use of barley in brewing and distilling, or that of flour for hair powder; or the sale of bread before it is stale.

4. Compulsory lowering of the price of corn and bread.

5. Relief works and gratuitous distribution.

6. Publication of corn statistics.

[Besides the works mentioned, see:—Burke, *Thoughts and Details on Scarcity*, 1795.—Davenant, *Essay upon the probable Methods of making a People gainers in the Balance of Trade*, § iii. 1699.—Farr, *Journal of the Statistical Society*, June 1846.—Fullarton, *On the Regulation of Currencies*, 1844, cp. vi.—J. E. Thorold Rogers, *History of Agriculture and Prices.*—Walford, *Journal of the Statist. Soc.*, Sept. 1878; Mar. 1879.—Danvers, F. C., *A Century of Famines*, 1877.—Hunter, Sir W. W., *The Indian Empire*, 1878, etc.—Short, Th., M.D., *General Chronological History of the Air, Weather, Seasons, Meteors*, etc., 1749.—Fleury, *Famines, misères*, etc., 1849.—Legoyt, *Journal de la Soc. de Statistique*, vol. i. (1860).—Von Hazzi, *Betrachtungen über Theuerung und Noth*, 1818.—Von Koch-Sternfeld, *Versuch über Nahrung und Unterhalt*, 1805.—Roscher, *Ueber Kornhandel, und Theuerungs-politik*, 1852.—Bandini, *Discorso sopra la Maremma di Siena*, 1775.—Issaïew, *Revue d'economie politique*, July 1892.—Bernouilli, *Populationstatistik*, 1841, pp. 365 *et seq.* On physiological effects of hunger.—Luciani, *Fisiologia del digiuno*, and other authors cited by Lebrecht, "*Il Malthusismo*" (1893), p. 71, note.] C. A. F.

FARMER-GENERAL. From early times it was the custom in France to farm out a tax to a contractor, who having advanced a fixed sum to the government, collected and pocketed the tax which he had bought. In 1697 the indirect taxes, customs, excise, *octroi*, taxes on

wine, salt, tobacco, oil, and manufactures, were collectively leased to a body of financiers, thenceforward distinguished by the name of farmers-general (*fermiers généraux*), to show that their powers of collection were general, and not confined to one particular tax. These farmers, sixty in number, were appointed by the king for periods of six years, and they paid an agreed sum in advance year by year. Their selection was largely governed by court favour, and the coveted contracts were often awarded to needy favourites who found wealthy financiers willing to surreptitiously share the transaction. The privileges of the farmers yielded to the government—

In 1697	37	millions of	francs.
1743	64	„	„
1763	90	„	„
1786	112	„	„
1789	180	„	„

There can be no doubt that the farmers' profits were, as Adam Smith says, "exorbitant" (*W. of N.*, bk. v. ch. ii.), and the cost of collection "wasteful and expensive." The amount taken out of the pockets of the people was thus out of all proportion to the amount received by the state (see especially Necker's remarks upon this subject, *De l'Administration des Finances*). Moreover, the taxes, grievous in themselves, were collected harshly. Domiciliary visits, the seizure of goods suspected to be smuggled, and the efforts to capture smugglers who were, if caught, sent to the galleys or the gibbet, caused frequent personal collisions between the agents of the farmers and the public, often resulting in bloodshed. "Those who consider the blood of the people as nothing," says Adam Smith indignantly, "in comparison with the revenue of the prince, may, perhaps, approve of this method of levying taxes." The ostentatious luxury in which the farmers lived accentuated the popular anger against them, though their riches were sometimes antecedent to their contracts; and though some of them made a noble use of their wealth, *e.g.* Beaujon, who founded a hospital, Helvetius, Dupin, and Lavoisier. The Convention prosecuted the farmers-general as enemies of the people, and thirty-five of them, including Lavoisier, were guillotined. The Constituent Assembly abolished the system of farming-out the national revenues. The farmers-general have thus a history of less than a hundred years.

The disfavour in which they were held is best illustrated by a story told of Voltaire, who once gave a dinner at which the talk fell upon the exploits of famous robbers. When each guest had recounted some notorious exploit, Voltaire was pressed for a story in turn. "There was once upon a time," he began, "a farmer-general . . . "; then after mock hesitation, "I forget the rest!"

[Most French writers on finance refer to this subject. Sully scolded the farmers as vigorously as Turgot, and Necker criticised them sharply. On disadvantages of the system, see Adam Smith, *loc. cit.*, Cost of Collection of Taxes; Farming of Taxes; Indirect Taxation. On the other hand, it is contended that the necessary defects of the system are not considerable. J. B. Say thought the French post office might have been farmed out with advantage, and better managed by men of business who were not state officials, maximum rates being fixed by the government (*Cours Complet d'Écon. Pol.*, ii. 413). The money order department of the English post office has only ceased to be farmed out within about the last 18 or 19 years (1905). Comp. Publicani.] H. H.

FARMERS' ORGANISATIONS IN THE UNITED STATES.

Order of Patrons of Husbandry, p. 23; National Farmers' Alliance and Industrial Union, p. 24; Farmers' Organisations in the North and West, p. 24; Coloured Farmers' National Alliance and Co-operative Union, p. 25; Other Organisations, p. 25; General Principles and Present Demands, p. 25; Ocala-Indianapolis Demands, p. 25; Business Features, p. 26; Political Action, p. 26.

The Order of the Patrons of Husbandry.—The first great farmers' organisation in the United States was a secret society founded December 1867, under the name "Order of the Patrons of Husbandry," but more familiarly known as "The Grange"; not an accurate designation, as the word "grange" is a term applied to one of the units of the order, as for example the local grange, the state grange, etc. (see Granges). The aim of the Patrons of Husbandry was to bring the farmers into closer relation with one another, and thus to lessen the disadvantages of the isolation in the farmer's life, Social intercourse was emphasised and the educational features, including courses of reading and study, were made prominent; and it was sought to render life on a farm more attractive, especially to the sons and daughters of farmers. Economic purposes were from the earliest days leading features in the activity of the order, and for a time a large measure of success in distributive co-operation was achieved. The farmers sought to meet combination with combination.

A movement among the farmers to correct railway abuses had begun before the Patrons of Husbandry became a great power, and this order naturally enough joined in the struggle, and soon became the chief factor on the side opposed to railway corporations. Stringent laws were passed to regulate railways, railway commissions began to be created in various states, and this movement continued until now we have such commissions in most of the states of the union, and also a federal commission, called the Inter-State Commerce Commission. These laws were not always wisely conceived, the railway corporations rallied their forces, and finally a reaction began, which among other things weakened the Patrons of Husbandry The order spread rapidly until 1874, when it

claimed a half-million members, and then began to decline in numbers and influence. One evil in the order was the presence of professional politicians and other designing persons slightly or not at all connected with agriculture, who attempted to use it for selfish ends. Membership was accordingly restricted in that year and limited to persons actually engaged in agriculture, and a few others, such as editors of agricultural periodicals and country mechanics who could reasonably be supposed to be in active sympathy with agricultural interests. The reaction following the meeting of 1874 continued for a long time, but recently the order began to grow again, stimulated no doubt by other powerful organisations, and it now claims to have organised 26,500 sub-granges, with an aggregate membership of 1,325,000. Deducting one-half of this number for extinct granges, gives a conservative estimate of 662,500 as the present membership. For a long time the political influence of the Patrons of Husbandry had been so slight as to attract little attention, although it has doubtless had some influence on legislation, even in recent years. The members of the order have for the most part acted with one or other of the two great parties, the Republican and the Democratic, and it is now the most conservative of the farmers' organisations of the United States. Its influence is chiefly social and educational, and it furnishes an excuse for annual gatherings of farmers' families, in which amusement is as prominent a feature as speech-making.

The National Farmers' Alliance and Industrial Union.—The Order of the Patrons of Husbandry is called the mother of the Farmers' Alliance, and it has undoubtedly, directly and indirectly, had great influence upon all the other farmers' organisations which have in recent years come into existence. The farmers turned from the grange to organise more radical orders, and these began to exist at about the same time in various parts of the south and west. Their purposes were similar, their platforms all having a striking resemblance to one another, owing to the similar conditions out of which they grew ; and the various organisations coming into closer connection produced the present "farmers' movement."

The National Farmers' Alliance and Industrial Union is at present the greatest farmers' organisation in the United States, and is perhaps the most powerful organisation of farmers known to history. It and the Patrons of Husbandry are to be remembered as the two chief farmers' organisations which have thus far arisen in America. The National Farmers' Alliance and Industrial Union may be traced back to a local society in Lampasas County, Texas. The precise date of its birth is a matter of dispute, but it was somewhere between the years 1870 and 1875. The Local Texas Farmers' Alliance was organised to protect the farmers against cattle thieves and "land-sharks," that is speculators in land, especially dishonest speculators and land thieves. The scope of the local society was enlarged, and in 1879 the Texas State Alliance was formed, one year later it received a charter from the state. This grew and united with other societies. There had arisen an order in Louisiana called the Farmers' Union with similar aims. This was the first larger order absorbed. The two consolidated in January 1887, at Waco, Texas, and took the name National Farmers' Alliance and Co-operative Union. As this society grew, it came in contact with the National Agricultural Wheel, which was founded in Arkansas in 1882, and was at first a local body. It grew rapidly and had membership in most of the southern states in 1887, and claimed a half-million members. Its avowed purposes were so similar to those of the National Farmers' Alliance and Co-operative Union that a plan of fusion was arranged at Meridian, Miss., in 1888, and having been ratified by three-fourths of the local organisations of both societies, the Union was declared in force 13th September 1889, and the new order became known as the Farmers' and Labourers' Union of America.

Farmers' Organisations in the North and West.—The organisations just mentioned operated chiefly in the southern states of the union, but similar bodies in the north and west had begun to make themselves known, of which the most important was the National Farmers' Alliance, sometimes called the Northern Alliance as the other society is occasionally, though now with less propriety, called the Southern Alliance. The National Farmers' Alliance grew from a local society established in 1880 to a national body organised in 1887 and claiming, in 1889, a membership of nearly 400,000. This was a non-secret order, whereas the National Farmers' Alliance and Co-operative Union was a secret order with grips and passwords, but the purposes of the two organisations were the same. Still another society with like aims was founded in 1883 in Southern Illinois. This was the Farmers' Mutual Benefit Association. It soon acquired a membership in Missouri, Kentucky, and Kansas, as well as Illinois, becoming a national organisation in 1887. A fruitless attempt to unite these orders was made in St. Louis in December 1889. Personal ambitions, sectional animosities, the race question, and the question of secrecy or non-secrecy seem all to have had more or less influence in preventing a fusion ; nevertheless they came into closer relationship with one another, and have since then been acting together in the pursuit of their aims.

The Knights of Labour were represented by delegates at St. Louis, and thus were brought together urban mechanics, employés chiefly,

and farmers, not employés, but in so far as they did not cultivate their farms alone, employers rather than employés. Thus began a strange and probably hitherto unknown combination of industrial classes for political aims. A platform was agreed upon, acceptable to all, and this platform embodied what is known as the "St. Louis demands." In anticipation of fusion with the Northern Alliance the name of the Farmers' and Labourers' Union of America was changed at St. Louis to National Farmers' Alliance and Industrial Union. This is the body almost invariably meant when the Farmers' Alliance or The Alliance is mentioned in the press, and it has in fact extended its membership into states in which the National Farmers' Alliance was formerly strong, and appears nearly to have absorbed the latter.

The Coloured Farmers' National Alliance and Co-operative Union. — Only one other prominent farmers' organisation remains to be mentioned, and this is the Coloured Farmers' National Alliance and Co-operative Union. All who know the south in the United States will at once understand the difficulties in the way of common action of whites and blacks in a single society. A coloured alliance was established in Houston County, Texas, in 1886, and in 1888 it became a national body with the above-mentioned name. In 1891, it claimed a membership of considerably over a million, and representation in thirty states. It held a meeting in Ocala, Florida, in December 1890, at the same time when the National Farmers' Alliance and Industrial Union met; friendly greetings were interchanged, and it virtually agreed to act with the organisations of the white farmers for the attainment of the "St. Louis demands." The Farmers' Mutual Benefit Association also held a meeting at the same time and place, and appears to have come nearer to the other organisations present.

Other Organisations.—Other organisations are heard of here and there, as the National Farmers' League, the Farmers' National Congress, and the Supreme Association of the Patrons of Industry of North America—not the Patrons of Husbandry already mentioned—but all these are of minor importance. The Citizens' Alliance (Mrs. Annie L. Diggs, Washington, D.C., Secretary; Noah Allen, President) may be mentioned as an attempt to organise professional and business people in the cities, and thus to enable them to act with the farmers' organisations.

General Principles and Present Demands.— All the farmers' organisations have a statement of general principles similar to that of the Alliance, in which expression is given to feelings of fraternity and general goodwill to mankind, a determination to promote the education of the farmers is avowed, and sectional prejudice is condemned. The immediate demands of the Alliance are stated in the platform adopted at St. Louis, which was endorsed by the Knights of Labour. As amended at Ocala in 1890, and at Indianapolis in 1891, the platform reads as follows:—

Ocala-Indianapolis Demands:

1. (*a*) We demand the abolition of national banks.

(*b*) We demand that the government shall establish sub-treasuries in the several states which shall issue money direct to the people at a low rate of tax, not to exceed 2 per cent per annum on non-perishable farm products, and also upon real estate, with proper limitations upon the quantity of land and amount of money.

(*c*) We demand that the amount of the circulating medium be speedily increased to not less than $50 per capita (say £10).

2. We demand that Congress shall pass such laws as will effectually prevent the dealing in futures of all agricultural and mechanical productions; providing a stringent system of procedure in trials that will secure prompt conviction, and imposing such penalties as shall secure the most perfect compliance with the law.

3. We condemn the silver bill recently passed by Congress, and demand in lieu thereof the free and unlimited coinage of silver. [The Silver Bill condemned was that of 14th July 1890, providing for the purchase of 4,500,000 ounces of silver bullion per month.]

4. We demand the passage of laws prohibiting alien ownership of land, and that Congress take prompt action to devise some plan to obtain all lands now owned by aliens and foreign syndicates; and that all lands now held by railroads and other corporations in excess of such as is actually used and needed by them be reclaimed by the government, and held for actual settlers only.

5. Believing in the doctrine of equal rights to all, special privileges to none, we demand—

(*a*) That our national legislation shall be so framed in the future as not to build up one industry at the expense of another.

(*b*) We further demand a removal of the existing heavy tariff tax from the necessities of life, that the poor of our land must have.

(*c*) We further demand a just and equitable system of graduated tax on incomes.

(*d*) We believe that the money of the country should be kept as much as possible in the hands of the people, and hence we demand that all national and state revenues shall be limited to the necessary expenses of the government economically and honestly administered.

6. We demand the most rigid, honest, and just state and national governmental control and supervision of the means of public communication and transportation, and if this control and supervision does not remove the

abuse now existing, we demand the government ownership of such means of communication and transportation.

7. We demand that the Congress of the United States submit an amendment to the Constitution providing for the election of United States senators by direct vote of the people of each state.

Demand No. 6 was substituted for the St. Louis demand for complete ownership and operation of the means of communication and transportation. At a meeting of representatives of farmers' organisations and other organisations, most prominent among which were the Knights of Labour, the original St. Louis demand for complete ownership and operation was adopted as a platform for independent political action.

The following tabular statement gives some leading facts touching the different farmers' organisations mentioned :—

	Patrons of Husbandry	Southern Alliance [1]	Northern Alliance	Mutual Benefit Association	Coloured Alliance
Date of Organisation	1867	1870-1875	1880	1883	1886
Character of Ritual	Secret	Secret	Non-Secret	Secret	Secret
Estimated Membership [2] 1892	662,500	3,000,000	200,000	150,000 [claimed membership in 1890]	1,250,000
Demands.					
Free Coinage of Silver	*	*	*	*	*
Abolition of National Banks	*	*	*	*	*
Establishment of Sub-Treasuries		*		*	*
Prohibition of Alien Ownership of land	*	*	*	*	*
Government Ownership of Railways		*	*	*	
Tariff Revision	*	*	*	*	*

An asterisk (*) indicates that the "demand" appears in the platform of the particular body designated.

Business Features.—The Alliance has made various efforts in business, all of which have been, to a greater or less extent, co-operative. Co-operation in buying and selling has been the chief of these, but mutual insurance has been a prominent feature. "Alliance Exchanges" have transacted business amounting to many millions of dollars; and although these appear to have failed frequently or suspended, the claim is made that the gains to the farmers can be counted by the million. The abolition of the middleman is one of the goals of the Alliance.

Political Action.—The different farmers' organisations claim to be non-partisan, but the Alliance avows a willingness to use parties as "a method" of attaining their ends. At first there was an evident desire to work through the old parties, but the feeling that independent political action is a necessity has grown. A "third party," composed for the most part of members of the alliance, has made itself prominent in the country, and in 1890 astonished the politicians by capturing two states and gaining important positions in others; while in some southern states the alliance seemed to have gained control of the democratic party. In that year the alliance had nine members, chosen as "third party" candidates, in the House of Representatives, and claimed twenty-six members elected as democrats. There were also two members in the senate.

The Knights of Labour and the farmers' organisations are not in so many words committed to a third party, but the third party was formed by delegates from these organisations, and the same men are prominent in both. The members of the organisations appear to have liberty to vote as they please, but these organisations are the recruiting grounds of the "third party."

The meeting at St. Louis, February 22-24, 1892, already alluded to, adopted a platform called "The Second Declaration of American Independence" of the "Confederated Industrial Organisations of America." The preamble begins with these words: "This, the first great labour conference of the United States, and of the world, representing all divisions of urban and rural organised industry, assembled in national congress, invoking upon its action the blessing and protection of Almighty God, puts forth to and for the producers of the nation this declaration of union and independence."

The platform resembles closely that of the Alliance already given, except that a "land plank" is added which reads as follows :—"The land, including all the natural resources of wealth, is the heritage of all the people, and should not be monopolised for speculative purposes, and alien ownership of land should be prohibited.

"All land now held by railroads and other corporations in excess of their actual needs, and all lands now owned by aliens, should be reclaimed by the government and held for actual settlers only."

A demand for a Postal Savings Bank is added, and the incorporation of the telegraph and telephone as part of the postal system is specially mentioned as a desirable reform. The whole platform is described as a "three-fold

[1] This is the main body, familiarly known as the Alliance or Farmers' Alliance.

[2] These estimates are not vouched for by the writer of this article.

contention of industry," for it is divided into three parts, viz. money, land, and transportation, but the money part is most emphasised. A convention to nominate candidates for the political campaign of 1892 met at Omaha, Nebraska, in July. This movement was inaugurated and carried on chiefly by members of the Farmers' Alliance, though others were invited to co-operate. In order to attract various classes of voters the name "People's Party," used in the campaign of 1890, was adopted as a national party name. In the general election which took place in November 1892, General Weaver, the party's candidate for president, received a popular vote of about a million and a quarter, and obtained twenty-two votes in the electoral college. The party has eight members in the present (1893) House of Representatives and three in the Senate. The most prominent of the representatives is Mr. Jeremiah Simpson of Kansas, and the senator most frequently mentioned is Mr. W. A. Peffer of the same state—the state indeed in which the Alliance has secured its greatest victories. Immediately after the election an effort was made to repress the partisan tendencies of the Alliance, but without avail.

Peculiarities.—It must be remembered by English readers that the American farmer is a proprietor, but that means a peasant rather than a European landlord. The American farmer dreads becoming a tenant, and the fear that he may become one is a partial explanation of the farmers' movement. He has heard much of rack-rented Irish tenants, and he sees something of rack-renting in his own country. The farming and peasant class is regarded by conservatives as a bulwark against revolutionary tendencies, but the American farmer appears to have become revolutionary, and his organisations have joined hands with the Knights of Labour. Perhaps to the economist the most remarkable peculiarity is that already mentioned, viz. the combination of organisations of landowners with organisations of wage-earning mechanics.

Causes.—It would require a treatment of recent American economic history to explain the causes of the present American farmers' movement. The contraction of the currency at the close of the civil war, lowering the price of land, and raising the value of mortgages, is one cause; another is the extension of the means of communication and transportation, increasing the supply of available agricultural land, and lowering the prices of agricultural products. The American railway system, which has entrusted the ownership and operation of railways to private corporations, whatever may be its advantages, has been productive of grave abuses; and these have had something to do with the discontent of the farmers. Great fortunes and urban luxury, of which the farmer hears much and of which he catches glimpses, may be also mentioned as a general cause.

The Future.—An estimate of the future farmers' organisations is so difficult that a wise man will be extremely careful in making one. The past would seem on the one hand to justify the belief that large political results ought not to be anticipated in the near future; on the other, that if the present organisations disappear, they will be succeeded by others. A clearer, fuller, more scientifically elaborated economic "platform" would also seem to be a condition of permanence as a political factor, but this may come as the result of continued discussion.

[Nothing like an accurate account of the farmers' organisations of the United States has appeared. They are mentioned in their connection with the labour movement in Ely's *Labour Movement in America* (New York, 1886). Mr. N. A. Dunning, who is connected with the Farmers' Alliance, has edited *The Farmers' Alliance History and Agricultural Digest* (Washington, D.C., 1891). This contains historical sketches of the principal farmers' organisations, and a number of essays upon topics connected with their demands or activity. Senator Peffer explains his monetary ideas in *The Farmers' Side* (New York, 1891). Annual reports of the various bodies are important but difficult to obtain. The periodical literature is vast. It is said that over 1000 newspapers now advocate the platform of the Alliance. The principal of these is the official organ of the Alliance, *The National Economist*, published in Washington, D.C. The *National Economist* has issued considerable pamphlet literature of importance as hand-books, tracts, etc. American magazines contain many articles about the Farmers' Alliance. Various numbers of the *Arena* for 1892 may be mentioned as containing articles favourable to the Alliance. The "Farmers' Alliance," by W. A. Peffer, in the *Cosmopolitan* for April 1891, gives a historical view. A more critical sketch is that which appears in the *Political Science Quarterly* for June 1891, by Frank M. Drew, entitled "The Present Farmers' Movement."]

R. T. E.

FARMING. This word has come to signify in general the cultivation of land, as a farm is a portion of land cultivated as one holding. But it is derived from a Saxon word signifying provisions, and was originally applied to the rent reserved for the use of land by a tenant, which in early times was in the form of a portion of the produce. When in money it was called "*alba firma*," meaning silver. So in Scotland "a victual rent" is still used to express a rent consisting of a certain quantity of grain, though that is now converted into its current equivalent in money as ascertained by the FIARS PRICES. For the purpose of the present article farming will be understood to be the system of letting land for cultivation to a tenant, who finds the whole of the capital, and pays the rent reserved to the landlord,

whether as a definite quantity of produce or as money. Where the landlord finds part of the capital, and receives a share of the produce, the arrangement follows the system of MÉTAYAGE.

The cultivation of land by interposition of a tenant belongs almost necessarily to a somewhat advanced stage of social organisation, and to conditions in which large domains are held by one individual. In the earliest times the land of a tribe was held in common, and after separate property began to be recognised, the several portions were only such as one family could cultivate. With the division of labour, however, there occasionally occurred cases in which it was convenient that the owner should follow some different pursuit, and then the land might be for a consideration handed over to the temporary occupation of another. Such an arrangement was called by the Romans *precarium* whenever it endured only at the pleasure of the owner. The term *locatio* was applied when the land was let for a definite period. But the large estates acquired by Roman magnates towards the close of the republic and under the empire were chiefly cultivated by slaves working under the stern discipline of a steward, himself generally also a slave.

During the middle ages the aggregation of land in large estates under the Feudal System (see FEUDALISM) gave rise to various methods of holding. Part of the extensive grants from the crown were by subinfeudation transferred to smaller owners,—for military service, or for certain dues payable on occasion of the lord's exigencies, and occasionally for some small annual rent in money or kind. But the chief lords, as well as the subordinate tenants, drew the main part of their subsistence and revenues from the domain or "demesne" lands which they retained in their own occupation. The cultivation of these lands was carried on partly by dependents who were wholly maintained by their lord, partly by means of services reserved from bondsmen, or peasants, who received a grant of so much land as sufficed to maintain them, subject to the obligation of giving the services necessary to cultivate the lord's domain lands. This system continued to prevail generally on the continent till it was put an end to in France by the revolution, in Germany by the land reforms of Stein and Hardenberg. In England the same system gave rise to the copyhold tenures, in which the services, which abroad were indefinite and arbitrary and therefore oppressive, came gradually to be restricted by the courts to fixed amounts and periods. But early in the Plantagenet period there began to grow up a system of farming out land to tenants for fixed rents in money or kind. The records of certain manors show that this arrangement had become general by the middle of the 14th century. The statute book bears similar testimony. The pestilence known as the BLACK DEATH (*q.v.*) had about that period swept off half the labouring population, and the immense rise of wages which followed, and which the statutes of labourers (23 & 25 Edw. III. an. 1346-49) (see LABOUR STATUTES) were passed to repress, prove that there existed a large body of free labourers unconnected with any special lands, but ready to give their services to whatever masters offered the highest wages. Up to this time the food grains were the main objects of culture, but the growing of wool, for which England became specially famous, gradually took a leading place in husbandry. The consequence was that less labour was required in agriculture, and small farms were consolidated into large. The statute book shows that by the beginning of the reign of Henry VII. the depopulation caused by this system had advanced to a degree which endangered the safety of the realm. The statute 4 Hen. VII. c. 16 (1487) states that in the Isle of Wight the practice of landlords throwing small arable farms into large pastoral ones, in order to obtain the higher profits yielded by wool, had proceeded to such an extent that the population was seriously diminished, and the island left without adequate defence against an invader, and it was therefore ordained that no one tenant should hold a farm exceeding the value of ten marks a year, though tenants who might be thus evicted from possession were declared to be entitled to compensation for improvements they had made or buildings they had erected. Although this statute applied only to the Isle of Wight, as being the part of the realm most exposed to invasion, there is no doubt that the greater part of England was in the same economic position. The mischiefs arising from the consolidation of small arable farms into large sheepwalks were some of the most prominent popular grievances during the whole period of the Tudor dynasty.

In Scotland also, half a century earlier than the last cited statute, an act of parliament (1449, c. 18) was passed for assuring to tenant farmers (puir pepil that labouris the grund), holding under leases for definite terms, security against eviction by a purchaser of the land, which shows that this system of tenure must already have become general in that country.

This simultaneous rise of the practice in both North and South Britain excludes some explanations which otherwise might have appeared to account plausibly for its prevalence in place of the continental systems of cultivation by forced labour. The immunity of England from foreign invasion cannot be accepted as a reason, for Scotland was harried by incessant inroads of her English neighbours. Neither could the richness of English soil, and the wealth produced by exportation of corn and wool, explain the result, for Scotland was comparatively a

desert, and grew barely enough for her own consumption. But the one point of resemblance between the two countries was that in both most of the great owners of estates were of Norman descent, while the bulk of the labouring population was, in the lowland districts, Celtic-Saxon. To the proud and warlike Norman personal superintendence of agricultural operations was distasteful if not degrading, and he willingly assented to an arrangement by which the whole risk and trouble were devolved on a tenant, from whom he drew a fixed annual rent in produce or cash. On the side of the labourer, the sturdy Saxon independence preferred the payment of rent for an assured possession of what on that condition he could call his own to the rendering of personal services on his lord's domains. The idiosyncrasies of both races thus, under great divergencies of actual conditions, combined to establish the system of farming of land to tenants. In England land seems to have been from the first, as it still continues to be generally, let from year to year. In Scotland the caution of the race, or the extreme poverty of the soil, which refused its returns except to a long preliminary process of reclamation, made leases for long terms the rule. This we see was the case in the 15th century, and it continues in Scotland to this day. The customary length was nineteen years; it is not known why this particular number was adopted. Of late years the uncertainty of prices has tended to the adoption of shorter terms.

Under the system of farming land the landlord as a general rule places the land in a position for cultivation and supplies the necessary apparatus affixed to the soil. Thus he reclaims the land from waste, drains it, removes boulders, forms fences and roads, and in addition erects a dwelling-house for the tenant, as well as stables, barns, cattle-sheds, and all the other buildings requisite for stock and grain. The outlay demanded under these heads is of course variable, but in almost all cases it is very large, and probably in most cases equals or even exceeds, and often in a series of years greatly exceeds, the original fee-simple value of the land. In general also the landlord is at the expense of upholding all these improvements and structures. But these general rules are subject to occasional exceptions. Thus under the cottier system which formerly prevailed in Ireland, the tenant made the reclamations and erected the humble structures required for his habitation and stock. Not unfrequently, however, the landlord gave wood, stones, or slate to aid him. In Scotland a great deal of land has been reclaimed under what are known as "improving leases," these being for a duration varying between thirty and fifty years. During the first decade the tenant probably sits rent free—he will pay a small sum during the second, and a gradually-increasing one afterwards, under the condition that he brings the land under cultivation and erects suitable buildings on it. In this system the absence or smallness of rent is the consideration for the improvements, so that in this form they are paid for by the landlord.

After this expenditure of capital on the part of the owner of the land, the application of capital in the charges of cultivation is under the farming system made wholly by the tenant. The purposes to which it is applied are the purchase of horses and implements, of seed and manures, of live stock, and the payment of wages till returns come in. The amount invested by a tenant for these purposes varies between £5 and £15 per acre. Probably £7 or £8 is now an average, but all good farmers agree that it should not be less than £10. Under metayage most of this capital, except that required for wages, would be supplied by the landlord. Hence it appears that the farming of land has the effect of drawing in additional capital; it thus contributes to improved cultivation, while at the same time it tends to the maintenance of large estates. On the other hand a cultivator who has capital generally prefers to rent land instead of buying it, because as a tenant he obtains the use of his landlord's capital, which has been expended in the purchase of the soil, in draining and fencing, and in erection of buildings, and for all this the rent which he pays amounts to only a very low rate of interest. In this way the tendency is to promote the holding of large farms. In point of fact it is not till a tenant-farmer has made his fortune and intends to retire that he ever thinks of buying land; up to that time he usually invests his increase of capital in renting more land.

As a means of thus attracting capital to the cultivation of the soil the tenant-farming system has no doubt contributed materially to the fact that cultivation is on the whole better in Great Britain than in any other country; as, also, possession of capital implies comfort and some degree of education, it has elevated the position of the cultivators. The relation between landlord and tenant has in general been friendly and often accompanied with much personal regard. Nor, though really commercial in character, has it usually been conducted on strict legal rules. Landlords being often wealthy men have been easy in regard to the period of payment of rents, and liberal in accepting less than the full amount due when bad years occurred. Tenants, though holding only from year to year, have often retained the same farm for several generations, and in reliance on this usage have often expended a great deal of money in improvements which strictly belonged to the province of the owner of the soil. In Scotland, where leases in

writing and for definite terms are almost universal, this reliance on usage has not been the rule, and it has been common to submit each farm at the end of the lease to public competition. But even then many tenants have, at the cost of a moderate rise in rent—balanced frequently by the landlord executing further improvements—remained for life in the same holding; while in the exaction of the stipulated rent the same liberality, or laxity, has been shown as in England. Yet this very liberality has had a tendency to raise rents, since a sanguine man will offer more if he has some hope that in the event of losses he will not be severely pressed.

This easy-going arrangement went well on the whole not only in the periods of prosperity in the beginning of the present century, and again during 1850-70, but even during the agricultural depression which existed 1815-25, and again in 1833-40. When, however, a series of bad seasons set in from 1869, followed by severe falls in prices of corn dating from 1875, and of meat from 1884, all combined with a material rise in wages, some new influences were felt in the relation of landlord and tenant. A good many estates had changed hands, and the purchasers being generally commercial men, were inclined to take a strictly legal view of the liabilities of their tenants. Further, the extension of the franchise not only gave votes to the smaller tenants, but strengthened the general radical feeling in favour of tenants against landlords, and the Irish land legislation suggested some parallel changes in the laws of Great Britain. Under such motives the two successive AGRICULTURAL HOLDINGS ACTS (*q.v.*) were passed. But the social and personal effects of the depression have been much more vital. On nearly all estates very considerable changes of the tenantry have taken place. In a good many, leases or other written agreements have been introduced; a more commercial spirit has arisen; better agricultural education begins to make its way; more capital is invested alike on the landlord's and tenant's parts; and as a necessary consequence stricter calculations are made as to the profits and security of such investments. There is indeed an infinite variety in the degree in which such a spirit affects landlords and tenants; there are still many estates in which it is not felt at all, but such is undoubtedly the direction in which, with more or less rapidity, the mutual relations are moving.

One tolerably definite change may be said to be almost universally in progress. As a general rule it has been found that the largest holdings have felt the depression most severely, and that rents have been most regularly paid, and with least claim for reduction, on the smaller. One reason for this is that the smaller can be more closely superintended, another is that the tenant's capital consists partly of his own labour and that of his family, on which he does not expect full or at least regular payment of interest. Hence the process of consolidating small farms into large has been checked, and the reverse process of letting land in small farms or in allotments has made considerable way. The subdivision of large farms into small farms would undoubtedly proceed more rapidly were it not that it demands an outlay of landlords' capital in providing dwelling-houses and other buildings which the rents at present current would hardly repay. The same cause prevents any subdivision by tenants themselves. Where, as in Ireland, they erect their own buildings, and these are so inexpensive as to be within the means of an ordinary labourer, a tendency to subdivision among different members of the family at once develops itself, and is with difficulty kept within reasonable bounds by the landlord. No such tendency occurs where the outlay of capital required for such a purpose is considerable.

These considerations explain the rapid growth of "allotments," which, speaking generally, involve no outlay of capital in buildings, and the comparatively slow progress of "small holdings," which as a rule require erection of buildings and fences. The fact that cultivation on the small scale of allotments pays well, even at the present very low rate of prices, is shown by an important paper in the *Economic Journal* for March and June 1893 (see ALLOTMENT; SMALL HOLDINGS ACT).

The question whether farming is best conducted by leases for fixed periods, or by agreement from year to year, has been viewed differently in Scotland and in England. Strange as it seems, the latter has tended in practice to a more continuous possession by the same tenant and his descendants. On estates belonging to old families a tenant is seldom removed, and the rent is generally moderate. Thus cultivation proceeds on the assumption that there will be no disturbance, and this, if verified, is unquestionably the system on which the best farming can exist and the best returns be obtained. But where a fixed determination of the lease impends, and there is uncertainty of its renewal, the tenant takes as much out of the land as possible, and hence whoever succeeds him (or he himself, should he ultimately obtain a renewal) has to spend two or three years in bringing the farm again into condition. Some landlords have endeavoured to remedy this mischief by a clause in the lease declaring that it shall continue in force until three or more years' notice has been given. Leases for lives were at one time common, especially on estates belonging to corporations and in Ireland, but they combine the disadvantages of a certainty of expiry with an uncertainty of time, and hence are unfavourable to good culture. They are seldom now adopted.

Certain conditions or rules of rotation of crops

and other methods of culture used to be universally found in written leases or in estate regulations. They are necessary to prevent bad farming when either knowledge or inclination to adopt good farming is absent. But the advance of scientific knowledge and the general recognition that only good farming can pay has tended to make these rules to be less strictly insisted on, and even to disappear altogether.

RENT, whatever be its theoretical definition, is, in the practice of farming, the surplus of produce after paying the expenses of cultivation and interest on the tenant's capital. It is really fixed by the tenant, for although in England it may be nominally fixed by the landlord, yet it depends on the tenant's acceptance of the farm at such rate. In Scotland farms are almost universally let by tender, and therefore the rent is directly fixed by the tenant. The rate of interest which a tenant generally looks for on his own capital is 10 per cent, or it is often viewed as 5 per cent of interest and 5 per cent as remuneration for his personal exertions. The INCOME TAX Acts originally assumed that a tenant's profits in England were equal to half the rent and in Scotland to one-third of the rent, but the fall in rents (following on the fall in gross value of returns) has altered this proportion, and led to the adoption in England of the same proportion as in Scotland. In computing the profit to be retained by himself, a tenant does not in general include the rent of the dwelling-house and value of the farm produce (milk, potatoes, etc.) consumed in his own household, so that the actual interest he expects to make on his capital is nearer 12 than 10 per cent. This refers to the making of new bargains; with falling prices the actual profits have often been much less, or have disappeared. Rates and tithes, till the recent change in the Tithe Act, were in England generally paid by the tenant, in Scotland by the landlord—under recent legislation rates are divided between the two,—but in any case they form a deduction ultimately from the rent and not from tenants' profits.

The rent paid for farms is in the United Kingdom almost always in cash. In Scotland the practice long prevailed of paying in kind, *i.e.* the rent was fixed at so many "bolls" (four to six bushels) of the different grains grown in the district, commuted each year for money at the rates fixed as the FIARS PRICES. Some poultry were often added, known as "kain hens." This arrangement met equitably the case of fluctuations in prices, but not of fluctuations in crop; if the price rose in consequence of a bad crop the tenant whose crop was bad suffered, he had less to sell and more rent to pay; while with a large crop and low prices the landlord suffered by the fall of rent while the tenant, though his crop might be good, made no better profit. But when free trade rendered prices largely independent of the home crop, there ceased to be any compensatory influence at all, a low price might coincide with a bad crop; hence the system of rents computed in grain has almost entirely died out. A further reason for its cessation is that grain is now only a part of the produce, the production of meat having become a material source of revenue and the price of meat varying only within narrower limits; but, these variations occurring from market to market, its value could not be taken as any safe indication of the profits of the year. It may happen that store cattle are cheap while beef is dear, which gives good returns to the feeders while the rearer of young cattle is impoverished; or the reverse may occur and the breeder may make profits while the feeder buys so dear that he loses. These complications appear to render impracticable the suggestion which has sometimes been made recently that rents should vary in accordance with varying prices of produce.

Legislation has not very materially interfered with farming in Great Britain. In the Tudor period laws were enacted with the purpose of preventing the consolidation of small holdings and the laying down of land to grass. We have no definite record how far they proved effectual, but the fact of reiterated enactments and complaints seems to indicate that they did not attain their object. The influence of modern land legislation in Ireland and the Highlands of Scotland is yet hardly clear. In the rest of Scotland and in England the only compulsory enactments have been those giving compensation to tenants for the unexhausted value of manures and feeding stuffs, and giving to tenants the right to kill ground game. Neither have yielded much satisfaction to the parties concerned. The compensation is frequently more than balanced by claims made by the landlord for dilapidations or bad farming, which are quite legitimate but probably would not have been urged had there not been claims for compensation put forward by the tenant. If the Acts were more onerous than they have been found to be the result would have been that landlords would have refused to let farms, and have cultivated them by means of bailiffs. So also with regard to game, any compulsory provision is evaded by the tenant being made to understand that exercise of his legal rights will be followed by notice to quit. It is probably only the recent depression in agriculture—leading on the one hand to a difficulty in finding tenants at all, and on the other making existing tenants dependent on the kindness of the landlords—which has prevented these compulsory statutes from greatly diminishing the prevalence of the system of farming.

It is not easy to forecast the direction which farming may take in the future. The influence which developed it in the past,—the desire to

maintain large estates in land,—with all the social and political position which they implied, has in a great measure passed away, and more and more every year land is coming to be viewed and dealt with as a commercial commodity. The dominating question will therefore be whether land yields the best return to capital when cultivated by an owner or a tenant. The rent usually given by a tenant is little more than interest on buildings, drainage, and fences, so that he virtually gets the land for nothing. The position of tenant, therefore, with rents on their present basis, is undeniably an advantageous one. But the outlay of still more capital, both by the landlord in providing more ample farm-buildings and cottages, and by the tenant in paying the higher wages now required to keep labourers on the land, is urgently required. The good effects of both are conspicuous in Scotland and the Border counties of England, where higher rents (comparatively) are paid, the land is maintained in higher cultivation, labourers are more easily obtained, and being better fed, do more work for their wages. The misfortune is that many landlords or tenants do not possess the capital which would permit this course to be adopted.

[Mommsen, *History of Rome*, bk. iii. cap. xii. —Thorold Rogers, *History of Agriculture and Prices*.—Prothero, *Pioneers and Progress of English Farming*.—Shaw-Lefevre, *Agrarian Tenures*. —Boyd Kinnear, *Principles of Property in Land*. —Pell on the "Making of the Land in England," *Journal Royal Agric. Soc.*, 2nd series, vol. xxiii. p. 355.—J. Caird, *The Landed Interest*, 4th ed. 1880.] J. B. K.

FARM, OF THE COUNTIES. The revenue received by the crown in composition for its ancient claims on the land. The old payments in kind, *feorm-fultum* made to the king by the tenants of demesne lands, were commuted in Norman times for money rents (*Dialogus*, i. 8). These rents, together with the profits arising from the king's claims on the land, were termed collectively the *ferm*, or farm, of the county. The collection of this farm was usually entrusted to the sheriff or some other accountant, who was called the farmer, and was made absolutely responsible for the whole farm due to the crown. In some cases, however, the collector was called the *custos* or bailiff of the crown, and, as such, was only responsible for as much of the farm as he actually received. In the revenue rolls of the exchequer the farm includes the following items: (1) The *corpus comitatus* or rents, which remained the same from year to year and were charged with certain fixed payments; (2) The *remanens firmæ post terras datas*, or remainder of the farm, after the value of the lands granted away from the body of the county had been deducted; (3) The *crementum* or INCREMENTUM chiefly arising from new tracts of land being brought into cultivation; (4) The *proficuum*, including any profits arising from the king's territorial jurisdiction. There was formerly an important record preserved in the exchequer called the *Rotulus Exactorius*, which contained the details of all the farms of England as they appeared in the Pipe Rolls, and this list was posted up to date from Michaelmas to Michaelmas. This record, however, no longer exists. The *Red Book of the Exchequer* contains several lists of farms; and in the nearly related MS. Hargrave 313, a unique table is preserved of the farms of England as they appear in the Pipe Rolls from the year 1154 to the end of the reign of Henry III. In later times it was usual for the crown to grant fee-farms, or long leases of land at low rents, to corporations and others, who answered severally for the same as farmers. In this way also a large area of forest land was brought under cultivation before the reign of James I., but most of these *assart-rents* (see ESSART) were resumed by the crown in the reign of Charles I. A. E. S.

FARMING OF TAXES. The collection of revenue has always proved a problem to governments, especially in early times before the growth of efficient administrative machinery, or in states of very large extent. An obvious method of solving the problem has been to entrust the difficult and invidious task to private individuals or companies, who pay a fixed sum to the government and take any surplus they can make from the taxpayers as their own profits. The two states in which this system of farming the taxes has been most extensively adopted are ancient Rome and France under the old régime.

As the dominions of Rome grew, the privilege of extorting contributions from the provincials was sold by the censors for a period of years to PUBLICANI (*q.v.*), most of whom belonged to the equestrian order. Their profits were enormous, especially when Asia fell under Roman rule, and the equestrian capitalists became a very influential body in the state from the days of C. Gracchus. As the *publicani* had to give security to the state, and this was often beyond the wealth of any individual, it was usual for them to form associations among themselves and to share the profits. Sometimes a company only contracted for a particular branch of the revenue, sometimes it collected the whole payments of a particular province. A provincial governor could never have an interest in the companies of *publicani*, and this rule had the effect of excluding the senatorial class. The actual collection of the taxes was entrusted to subordinate agents.

In France it was only the indirect taxes which were farmed (see FARMER-GENERAL). The practice originated in the constant pressure of pecuniary needs upon the French government, which compelled it to anticipate its revenue.

and thus threw it into the hands of financiers. By the 18th century nearly all the taxes were farmed by a single company, the *ferme générale*. This consisted of sixty capitalists, who were nominated by the king, and were under the management of the controller-general. They paid a fixed sum for the right of collecting the *gabelle*, the *traites*, the *entrées de Paris*, and for managing the tobacco monopoly. The lease was made for six years, and the controller received a *pot de vin* of 300,000 francs, which was, however, refused by Turgot and Necker. The position of *fermier-général* was eagerly sought after, and the kings had always a long list of candidates for vacancies. The chief defects of the system arose from the tyranny of local agents, who were often ill paid, and from the action of the king. In appointing the *fermiers* he often saddled them with obligations to pay considerable sums to courtiers and favourites. These charges, called *croupes* and *pensions*, compelled the government to lease the taxes at a lower rate than would otherwise have been obtainable.

In England, the system of farming the revenue was adopted in Anglo-Saxon and Norman times, when the sheriffs paid a composition (*ferm* or *firma*), for the various dues which they had to collect from their shires. It was a great object of the towns to free themselves from the sheriff's control and to pay their contributions direct to the crown. The acquisition of this privilege, or *firma burgi*, marks the beginning of municipal independence. In the 12th century the collection of the DANEGELD (*q.v.*) was farmed by the government to the sheriffs, but after Henry II.'s reign the practice of farming the taxes gradually disappeared. This was due partly to royal jealousy of the power of the sheriffs, and partly to the rise of the new system of taxing personal property. R. L.

FARMING TAXES, PRINCIPLE OF. The system of letting out the collection of taxes to contractors at a fixed rent, as opposed to direct levy by state officials (REGIE, *q.v.*), marks a low stage of financial development. It is naturally employed where a skilled administrative staff has not been formed, and where private capitalists are ready to undertake the work. Farming has been in most cases limited to taxes on commodities—the Roman direct taxes were for a time an exception (Mommsen, *Hist. Rome*, vol. iii. p. 115)—and may be given either by delegating the collection of the tax, or bestowing a monopoly of the taxed product. The most conspicuous examples of this form of collection in ancient times are found in the Roman state, where powerful companies, *societates vectigales*, were formed for the purpose. France from the 16th to the 18th century is the chief modern instance (see FARMER GENERAL). Under the *ancien régime* the salt monopoly (GABELLE, *q.v.*), the *aides* or drink duties, and the tobacco monopoly were farmed out. At present the system is limited to cases in which taxation is raised through monopoly of the taxed article—as tobacco in Italy—or to indirect taxes for local purposes (OCTROI, *q.v.*).

The objections to farming taxes are weighty and easily perceived. Politically, it interposes a privileged body between the ruler and his subjects, and leads to the enactment of oppressive revenue laws, which are harshly applied (*Ubi publicanus est, ibi aut jus publicum vanum aut libertatem sociis nullam esse*, Livy, xlv. ch. 18). Economically, it reduces the income of the state by the profits—generally exorbitant—obtained by the farmers. The early financial theorists protested against its use. Montesquieu (*Esprit des Lois*, bk. xiii. chs. 19, 20), while admitting that it is "sometimes desirable to give new taxes in farm," strongly approves of direct collection by the state as good for both sovereign and subjects. Justi is still stronger, "the farmer is the leech of the people," *Natur und Wesen der Staaten*, p. 451, ed. 1771. Adam Smith declares that "the best and most frugal way of levying a tax can never be by farm"; the great capital required for farming the revenue practically excludes competition, which is replaced by combination, "even a bad sovereign feels more compassion for his people than can ever be expected from the farmers of his revenue"; the permanent interests of ruler and people are in harmony, while those of farmer and taxpayer are opposed (*Wealth of Nations*, bk. v. ch. ii. art. 4, ed. Nicholson, p. 383).

The intense hostility that the farmers of revenue excited both at Rome and in France supports these strictures (see PUBLICANI). Collection by public officials is the only proper course in a well-organised state. Farming is, however, admissible when the public economy is imperfect, and the chief source of revenue is from the domain. To entrust the collection of dues on commodities to persons whose self-interest will secure strict supervision, and whose profits will be but a part of the larger return obtained by their efforts, is under such conditions the most economical mode. Wide-spread official corruption may also justify the employment of farming, which, however, is plainly a transitional step to be superseded by means of deeper reforms.

[In addition to quotations in text, the leading German writers on *Finanzwissenschaft*, viz. Roscher, bk. ii. ch. vi. § 67, 2nd ed. 1886,—G. Cohn, § 385, 1889.—A. Wagner, vol. ii. pp. 746-752, 2nd ed. 1890), also Bastable, *Public Finance*, 1903, pp. 552-3, 742-3.] C. F. B.

FARR, WILLIAM (1808-1887). Born at Kenley, Shropshire, died in London. He was educated for the medical profession, but exchanged it to enter, in 1838, the department of the registrar-general of births, deaths, and marriages. His knowledge of statistical science, and lucid and original style of study and composition were early recognised by his

superiors in office; and, although he did not advance beyond the post of Deputy-Registrar-General, his talents and force of character made him, throughout his long public service, the most prominent man, in general estimation, of that section of the official hierarchy to which was confided not only the registration, study, and analysis of the three leading events in the lifetime of the population, but also the very important duties of the census enumerations. Dr. Farr's literary activity was very considerable, and was directed, with much earnestness and consistency, to the scientific analysis of subjects having a real practical bearing on social economy, sanitation, and the prevention of cholera and other specific diseases. Dr. Farr's contributions to the mathematical and statistical improvement of the theory of vital statistics and their tabulation were also important. Some were treatises from the medical, others from the mathematical or economical point of view, and all were remarkable for clear insight, and for novelty of conception. To Dr. Farr also belongs the credit of instituting a proper nosology, or classification according to diseases, of those dying at each age, and also of doing much to aid the labours of actuaries by the calculation of life tables based on reasonably accurate returns of the mortality according to the most modern facts revealed by the census enumerations of the whole population of England and Wales. His first essay on this subject dates from 1843, when he published his *English Life Table No. 1*, to be followed in 1853 by the *English Life Table No. 2*, and in 1864 by a more elaborate work, the *English Life Table No. 3* (often called Farr's Tables), which contains many tabulated values of annuities, and auxiliary tables for the calculation of all sorts of ordinary life contingencies, with an excellent introduction. The results are still largely used by actuaries when an approximation is desired to the most modern available experience of the duration of life amongst the general public of all classes in this country. Dr. Farr also wrote many able papers upon provident funds for widows and children of the civil servants of the state as a whole, and for single departments, such as the post-office. He was also partial to the study of centralising schemes, such as the purchase of railways by the state, government insurance of capital sums and survivorship annuities, and mutual cattle insurance associations for agriculturists. A vast number of reports on subjects more or less cognate with those above indicated were contributed by him to the various periodical publications and blue-books of the registrar-general and census commissioners, and to the transactions of English and foreign societies with which he was connected. It may be said with truth that no English statistician was ever before so cosmopolitan, or so appreciated abroad as Dr. Farr. His genuine goodness of disposition, as well as his scientific attainments, made him a *persona grata* at the many international statistical congresses held at London and on the Continent, which he punctually attended as one of the English delegates. The effectual manner in which he played a leading part in the organisation of the congress of which Prince Albert was the president in London is still an agreeable reminiscence with the one or two still surviving secretaries of sections. At the Royal Statistical Society Dr. Farr was equally esteemed. He took, for a long period of years, a great share in its management, contributed many valuable papers, and filled with credit the post of president from 1871 to 1873.

Some illustrations of the style and scope of Dr. Farr's views and conclusions respecting his work and his important studies in the domain of vital statistics, a subject with which his name and public services will long continue to be honourably associated, will be found in his book under that title, named below.

In 1885 the Sanitary Institute of Great Britain reprinted, under the editorship of Mr. Noel A. Humphreys, of the registrar-general's office, a selection from Dr. Farr's works above mentioned, in some instances in rather an abridged form. This was issued by subscription as a memorial volume under the title of *Vital Statistics*, London, 1885, 8vo, pp. xxiv + 563. It contains also an appreciative and interesting sketch of Dr. Farr's life, by Mr. Humphreys.

Among Dr. Farr's principal works are:—"Report upon the Mortality of Lunatics" (*Stat. Soc. Journal*, 1841).—"The Influence of Scarcities and of the High Prices of Wheat on the Mortality of the People of England" (*Stat. Soc. Journal*, 1846).—"Statistics of Civil Service of England, with Observations on Funds for Children and Orphans" (*Stat. Soc. Journal*, 1849).—"Influence of Elevation on Fatality of Cholera" (*Id.* 1852).—"Formules adoptées en Angleterre pour l'inscription des naissances," etc. (*Congrès Internat. de Stat.*, 1853).—*Report on Internat. Stat. Congress*, Paris, 1855.—*Report on Nomenclature and Stat. Classification of Diseases*, 1856.—*Report on Internat. Stat. Congress of Vienna*, 1857.—"On the Pay of Ministers of the Crown," *Stat. Soc. Journal*, 1857.—*Rapport sur la statistique de la G. Bretagne*, 1858.—*Tables relative to the state of the British Army in Russia*, 1854-56, published 1859.—*Reports on the Vienna Int. Stat. Congress*, 1861.—"Recent Improvements in Health of Brit. Army" (*Brit. Assoc.*, 1861).—*English Life Table No. 3*, large 8vo, clv. + 605 pp., London, 1864.—"Address as President of Section F" (*Brit. Assoc.*, Bath, 1864).—"On Infant Mortality" (*Stat. Soc. Journal*, 1865).—"Mortality of Children in Principal States of Europe" (*Id.*, 1866).—"Statistik von Gross Britannien' (*Congrès Intern. de Stat.*, 1865)—"Statistique de la Grande Bretagne" (*Id.* 1867-69).—"International Coinage" (*Brit. Assoc.*, 1869).—"On the Question of

Metric Weights and Measures" (*Intern. Stat. Congress*, 1870). —"Inaugural Addresses as President of the Stat. Soc. 1871 and 1872.—"On the Valuation of Railways, Telegraphs," etc. (*Stat. Soc. Journal*, 1876).—"Étude sur la mortalité en Angleterre" (*Annales de démographie*, 1877).—"Some Doctrines of Population" (*Brit. Assoc.*, 1877).—"Éloge de Samuel Brown" (*Congrès Intern. de Stat.*, 1878), [cf. art. on Farr by Prof. V. John in *Handwörterb. der Staatswissenschaften.*] F. H.

FARTHING. Originally the name given to the fourth part of a silver penny (fourth-ing). First struck as a separate coin in reign of Henry I. The coinage of silver farthings was continued until the reign of Queen Mary. Copper farthings were introduced in 1613 during the reign of James I., and were coined until 1860, when the present bronze coinage was adopted. The bronze farthing weighs 43·75 grains, and is legal tender to the amount of one shilling. F. E. A.

FASHION, ECONOMIC INFLUENCE OF. Fashion, when taken in its more general sense as the mode in which a civilised society is satisfying its various wants, or more specifically that of dress, conveys the idea of a more or less incessant tendency to *change*. The French recognise this quality of variableness with greater emphasis than the English, *mode* being defined by them as taste that is essentially mobile and transient. For us fashion is current usage; for them "usage is long fashion." Fashion cannot claim to include all such changes in habits and modes of life as are due to fresh discoveries and improvements in taste and comfort as such, or are consequent on change in physical or social environment. These may all involve corresponding changes in fashion, but when eliminated they will leave a residuum of variableness in wants not accounted for, but which, together with the complementary fact of a general conformity to that variableness, make up the phenomenon of fashion properly so called. For the economist it is one of the causes producing disturbing fluctuations in demand and supply, and therefore requiring "a more careful investigation than those causes whose action is more constant and more undeviating" (H. Fawcett, *A Manual of Political Economy*, 1876, p. 84). Under present economic conditions fashion, or any given fashion, comes to be both for consumer and purveyor an element on the one hand of complication, on the other of simplification. The field for the selective play of the consumer's choice is so great that purveyance is rendered very speculative. On the other hand, where his choice settles, demand is certain, at least for a brief period, to be both prompt and extensive, though of uncertain duration. "Changes of fashion are often due to the steady deterioration in the quality of articles which sets in the moment they become open to the fierce and unscrupulous competition of the market" (Foxwell, *Irregularity of Employment*, p. 69).

Fashion in Consumption.—In this connection the economic historian has to trace how "custom in wants, locally homogeneous and temporarily stable, has become fashion distributed in space and transient in time" (V. Schäffle, *Das gesellschaftliche System der menschlichen Wirthschaft*, Tübingen, 1873, pt. iii. sect. iii. The phenomenon of fashion, rooted as it is in elemental instincts and tendencies, is absent from no society or social epoch. "Every epoch has colours and contours which it prefers, forms which it affects, symbols which it venerates" (H. Havard, *L'art à travers les mœurs*, Paris, 1884), ebullitions of sentiment, whims, and fantasies to indulge in. Every nation, while it differs from others in geographical conditions, in political and social constitution, has also its own passing ideas to express. Every individual modifies this sentiment of the day according to his own individuality. The *essential* elements of fashion are present in all societies (cp. Darwin, *Descent of Man*, II., p. 383; Westermarck, *The History of Human Marriage*, London, 1891, pp. 165-186 and 274).

As an element in present-day consumption of wealth, fashion may be ranked, not so much as a class of wants under either necessaries, comforts, or luxuries, but rather as a co-efficient of any of these, a want *in* wants, *i.e.* a factor affecting a want already categorised under one of these three heads. Thus it may enter even into necessaries, there being no one commodity, unless pure air and pure water be considered as relative exceptions, which admits of being produced in one *mode* only. The essential elements in food may be taken in a variety of products, some of which, such as "Vienna bread," may be sold at a "satiety price" and yet be fairly viewed as a fashionable taste. In comforts, and still more in luxuries, fashion is a co-efficient of higher power. There is more scope for change because there is a wider field for choice. Fashion in such wants has been ranked as one of the four principles of luxury (Baudrillart, *Histoire du Luxe*, Paris, 1878, i. p. 7 *et seq.*), and as the outcome expressed in unreal needs of refined sensuality, opinion, or caprice (J. B. Say, *Traité d'Économie Politique*, Paris, 1841, bk. iii. ch. iv.). At the same time it has been claimed for fashion, and by the same national temperament, that love of change and mobility of taste, of which fashion is an apparently inevitable expression, constitute the mighty incentive or *primum mobile* of all progress, and if wisely cultivated, would banish *ennui* and social strife (Baudrillart, *op. cit.* i. p. 10; Fourier, *Le Nouveau Monde Industriel*, Paris, 1845, § 1, notices 1 and 2 on "La Passion Papillonne"). Berkeley expresses the same idea in the *Querist* (Query 20) when he asks "whether the creating of wants be not the likeliest way to produce industry in a people?" (Nos. 10-14, 18, 102, 140, 141, 144, 406, may also be consulted.)

As a want in wants, fashion may be considered as influencing—(*a*) the quality (or kinds) of wealth consumed; (*b*) the relative quantities of the different kinds of wealth consumed; (*c*) the rapidity of consumption.

(*a*) As expressing desire for change, as well as for distinction, fashion will prompt to departures in the direction of *contrast*. Changes in dress abound with illustrations of this tendency. Further, as an expression of the effort after social equalisation, fashion, in diffusing itself outwards and downwards, involves deterioration in quality through adulteration, reproduction in coarser material, and more coarsely finished production. When every woman wishes to wear silk, cotton admixture is lavishly used, even in a proportion of 9 to 1. Again, as expressing the drift of some epochal idea, fashion selects some class of materials, forms, and colours in preference to others; deserting, for instance, the perukes, powder, and the gay hues of a courtly, conventional, and aristocratic *régime* for the simpler modes of a phase of social upheaval and democratic ideals.

(*b*) Thus also fashion affects the relative quantities of goods in demand. Ribbon is always to some extent in request, but consumed in far greater quantities when fashionable wear. Further illustration is needless.

(*c*) In enumerating the causes governing the rate at which wealth is consumed, Storch distinguished, beside nature and use, opinion, which destroys the value of wealth independently of matter (*Cours d'économie politique*, St. Petersburg, 1815, IV. vii. cp. I.). This truth, expressed more picturesquely by Shakspeare, "the fashion wears out more apparel than the man," is dealt with by some economists, notably by J. B. Say, who asserts that fashion, by its privilege of condemning what is still fresh, and perhaps comfortable and pretty as well, as worthless, impoverishes the state both in what it consumes and in what it does not consume,—an epigram limited in application through the redistribution and prolonged consumption of whilom fashionable goods in the second-hand trade. Nevertheless the effect of fashion on very many is to throw a glamour over certain products irrespective of beauty, convenience or fitness, and which, as it fades, causes the same product to be the more hastily superseded in proportion as those qualities are absent.

These constitute to a greater or less extent limitations to the nature and rapidity of changes in fashion. Beauty and fitness combined may limit the mode of dress in one age and climate to draping and swathing the body, in another to close-fitting raiment. Hygienic principles, where accepted, proscribe some tastes potentially or actually in fashion. The love of comfort and convenience may, and in Germany does, tend to diminish the love of change in fashion (*vide* Carl Junghans, *Der Fortschritt des Zollvereins*, Leipzig, 1848, pp. 27-58). Economy may either prolong or proscribe a mode. Custom and routine, whether or not coinciding with convenience, may greatly circumscribe change, as in uniforms and special "costumes." Finally philanthropy and patriotism, morality and religion, have all been brought to bear as regulative principles on excessive instability or wantonness in tastes. Fashion on the other hand has often rendered such principles yeoman's service by investing them, as *their* coefficient, with a constraining power exceeding that conferred by reason.

Viewed from the standpoint of the budget, changes of fashion, increasing some values and lowering others, have been considered as cancelling each other in the national income (Roscher, *Principles of Political Economy*, New York, 1878, § ccviii.). Modern production, on the "mass-pattern," and "ready-made" system renders it cheapest to buy what is in fashion. Yet Locke struck the true key-note when he wrote, "Things of fashion will be had, . . . whatever rates they cost, and the rather because they are dear" (*Some Considerations of the Consequences of the Lowering of Interest*, etc. 1692, pp. 93, 94; and H. S. Foxwell, *Irregularity of Employment*, etc., 1886, pp. 36, 37; cp. also a contrast in this respect alleged between French and German ladies, Junghans, *op. cit.*, pp. 57, 58).

Fashion in Production and Distribution.—The anxious purveyor to fashionable whims is as ancient a figure in history as fashion itself (cp. *e.g.* Plautus, *Epidicus*, ii. 2; *Aulularia*, iii. 10). Were the record of industrial and commercial statistics of longer standing, there might be many such instances preserved as that in the *Limburger Chronik*, which describes in A.D. 1380 the failure year by year of tailors who competed unsuccessfully in ministering to the swift changes of fashion. As affecting modern trade and industry, fashion is now considered, not merely under the special question of overproduction or "gluts," but in connection with the more generic subject of trade risks, fluctuations of industry, or variations in production. The great expansion of variableness in demand has involved the extension of principles once governing the production of articles of luxury only, to all forms and modes of supply. More or less, every maker and every purveyor, even of necessaries, has now to study both to supply what people want and to win them to want what he supplies. Like everything else in the struggle for life, success, *i.e.* survival, is a feat of adjustment in midst of fluctuating conditions. Failure is the result of miscalculation, of maladjustment.

Even owners and cultivators of land are not exempt from this species of risk. Viticulture, sericulture, the cultivation of the finer sorts of

garden produce, and the conducting of ostrich farms, are liable to be affected by changes in fashion. The value *e.g.* of the ostrich feathers imported into this country had declined between 1880 and 1889 in the proportion of 5 : 2 ; the weight in that of $2\frac{1}{2}$: 2.

In the tactics of the manufacturer the symptoms (1) of indecision in vacillating demand raise the problem : What can I "bring out" to attract ? (2) of a favourable turn : How long will it last ? What can I do to get, or keep, ahead in the race ? Can I devise developments ? (3) of a recoil : Can I turn out what is now in demand with such plant, machinery, and hands as I have ? In such an attitude he has to confront demand with its co-efficient fashion, and armed with "money, wits, and perseverance," compass the capture of the lucky *conjunctur.* "Wits" he partly embodies in superiority of machinery, of designing, *i.e.* in the faculty of taking a lead in designs that "sell," of dyeing and finishing, and finally in that fine commercial *flair* which leads to "hits" rather than to "misses." By it he lays his hand upon the pulse of taste, and, divining the symptoms, is able in some degree to eliminate from his business that "aleatory" element which dominates else the amount of his reward (cp. Leroy Beaulieu, *La Répartition des Richesses*, pp. 299, 302). The importance of such augury was expressly admitted by a Lyonnese manufacturer (*v.* "Report by Mr. Dyce to the Board of Trade on Foreign Schools of Design," 1840, cp. *Edinburgh Review*, vol. xc. 1849, p. 481). "That something, which in the world of fashion is only an indefinite sentiment, in fact, a mere predisposition, we endeavour to render palpable, to give it a strongly-pronounced character and assign it a name. Therefore it is that with us fashion is so paramount : the objects of industry, the commencement of a season, exactly chime in with, and anticipate, the predispositions of society." Others who are content to follow rather than lead fashions, watch the inception of a taste, estimate the rate of its diffusion, and anticipate its final stage in mass-production. Exact estimates of the effect of fashion on the career of an industrial centre or firm are complicated for *entrepreneurs* as well as for laymen, by demand being a plurality of effects, and by the "intermixture of causes" in trade fluctuations. Of nineteen merchants and manufacturers who gave evidence before the Commission of Inquiry into the Depression of Trade and Industry, 1886—an inquiry which negatively absolved fashion as a cause of that specific depression—one (a German in Scotland) stated that adaptation to demand and avoiding large stocks were sufficient to meet changes. Another confirmed this, the adjustment being possible "in the great majority of cases" without change of machinery, an exception being the recent preference of worsteds (combed yarns or "serges," etc.) to woollens (carded yarns or cloth). All, in one way or another, while not clearly distinguishing between the grounds of change in taste, admitted that such changes, especially in the silk and lace trades, were "one of the greatest difficulties" they had to contend with, and had occurred, perhaps, with greater frequency and rapidity in late years. Bradford, Paisley, and Coventry in Great Britain, St. Etienne and Lyons in France, may be cited from a long list of centres, the industrial careers of which have experienced fluctuations peculiarly aggravated, if not created, by changes of fashion. In the words of a Yorkshire mill-owner, "in the crinoline days Bradford dress goods from English wools were in great demand. When ladies preferred clinging fabrics (cashmeres, etc.) the advantage went to the 'soft goods' of France, which now are largely made in Bradford. When mohairs and alpacas were in fashion, Bradford, by its yarns, got the advantage. When braids are fashionable, Bradford benefits. When calico prints were much in fashion, Bradford suffered ; on the other hand it obtained advantage from the demand for *mousselines de laine.*" If these and other towns and firms are to-day surviving in the fight, it is in consequence of adjustment to new tastes and of substituting many-sidedness for over-concentration. As the demand for the pseudo-Indian or Paisley shawl died out, which till about 1850 gave occupation to one-third of the Paisley town population, several industries —thread, starch, engineering, shipbuilding— were developed instead. "Trade is on a broader basis and less liable to severe fluctuations." Coventry has ceased to concentrate itself on ribbons, and realised locally unprecedented fortunes in cycles, besides developing other trades. Lister's spin thread when plush and velvet is "sluggish," and with superlative machinery, skill, and invention, weather every storm, even the blast of McKinley tariffs.

Adjustment to, and creation of, new demand in the business of the modern "purveyor" is in conformity to the democratic nature of to-day's fashions. Dress, for instance, was at one time imposed from above. Now the sovereign people's tastes have to be besieged simultaneously and *en bloc* by the shop-window, the stage, the park and race-course, by advertisement, daily paper, and fashion journal—this last organ coming to birth with the French Revolution. Royalty can only suggest, not lead, the fashion. Just as the highest class of dressmakers will equip their customers completely, so the modern "Grands Magasins" cater for the million from head to foot. And always rigidity is avoided by the purchase of lighter stocks, smaller quantities.

The interests of the wage-earner are affected

by fashion in a precisely parallel manner. New demands, if within the range of his skill, mean more work. Rigidity, whether by over-specialisation, want of technical versatility, or any accidents of combination, is fraught with danger. When the ribbon trade was slack at St. Etienne the workmen were reported to be in the habit of getting taken on in the other industries of that centre (*v.* M. de Lanessan's Report; Depression of Trade Commissioners' Report, 1886). The Coventry ribbon weavers with domestic looms fared very badly, especially after the French treaty (1860). Fashion was more responsible for the poverty occasioned by the decay of the Irish cottage industry of embroidery muslin (*Journal Statist. Soc.*, xxiv. 515-517, cp. De Laveleye, *Le Luxe*, Verviers, 1887, p. 70). A sudden cessation of employment is not alone disastrous, a slowly-decaying industry bringing with it degradation in skill and reduced wages. "East-End" industries, such as artificial flower-making, trimmings, *e.g.* fringes, etc., and fur-sewing, especially where there is no alternative occupation, suffer more sudden fluctuations, the London season—a political quantity with a co-efficient of fashion—greatly aggravating the precariousness of maintenance (*v.* Miss Collet on "Women's Work" in Booth's *Life and Labour*. See also CUSTOM; DEMAND; HABIT).

[Beside the works referred to, there are brief allusions to the effects of fashion in Cantillon, *Essai sur la Nature du Commerce*, 1755, ch. xiv., xv.—Malthus, *Essay on Population*, bk. iii. c. 13.—M'Culloch, *Principles of Political Economy*.—H. Sidgwick, *Principles of Political Economy*, bks. i. ch. iv. and ii. ch. 11.—Walker, *The Wages Question*, ch. xi.—A. Marshall, *Principles of Economics*, 2nd ed., vol. i. pp. 144-145, 161, 167-168, 448.—Herrmann, *Staatswirthschaftliche Untersuchungen*, München, 1870, pp. 98-100.—De Molinari's art. "Mode," in Guillaumin's *Dictionnaire de l'Économie Politique*, 1853, is, of course, more comprehensive; still more so is J. Lessing's *Der Modeteufel*, Berlin, 1884. For the philosophy of fashion see J. von Falke, *Zur Cultur und Kunst*, Wien, 1878, "Costüm und Mode"; and F. Kleinwächter, *Zur Philosophie der Mode*, Berlin, 1880.—H. Spencer, *Principles of Sociology*, II. pt. iv. ch. 11. For influence of fashion on demand for gold or silver as currency see Giffen, *The Case against Bi-metallism*, p. 220.] C. A. F.

FASTNYNGSEED. A doubtful term connected with certain ploughing work due from the holder of a full carucate on a manor.

[Vinogradoff, *Villainage in England*, 1892, p. 282, with reference to the *Ely Inquisition*.]

E. G. P.

FATHERS, THE; THEIR ECONOMIC TEACHING AND INFLUENCE. The history of Christian teaching, as expressed by the Fathers, concerning material goods and the proper conduct of life in relation to them, falls into three periods—(1) that of the Primitive Church; (2) that of the third century; (3) that of Post-Constantinian times.

(1) The church of the first two centuries was marked by a fraternal sympathy in face of the hostile world, and by a belief in the approaching end of the dispensation. Accordingly there was a liberality of charity among its members which amounted almost to a common enjoyment of possessions, so that Tertullian (160-240) boasted, "We Christians have all things in common except wives"; and earthly possessions were treated with indifference except so far as they contributed to actual sustenance. It was scarcely necessary to enforce the duty of almsgiving; but, when it was referred to, the rule was laid down that relief should be given to every suppliant. Clement of Alexandria (*d.* 220) warns his readers not to attempt to discriminate; "for by being fastidious and setting thyself to try who are fit for thy benevolence and who not, it is possible thou mayest neglect some who are the friends of God." But as this charity was practically restricted to the necessary relief of the brethren, whose desert was sufficiently guaranteed by their avowal of Christianity, it could hardly have had any baneful effects. Moreover the Christian teachers constantly exhorted their followers to labour industriously at their several callings, that they "might have enough for themselves and for the poor, and not be a burden to the church"; and this attitude towards labour certainly helped to remove the stigma which the institution of slavery had put upon it. Wealth was recognised as a gift of God to be rightly employed. Tertullian explained that the Christians were "no Brahmans or Indian gymnosophists, no wild men of the woods, and separatists from life"; and it was only among Gnostics and some of the Judæo-Christian communities that there was any rejection on principle of private property.

(2) The ascetic Montanist movement at the end of the 2nd and beginning of the 3rd century, though itself unsuccessful, seems to have affected Christian thought by suggesting a "double ethic,"—the idea of the diverse duties of perfect and of ordinary Christians. Renunciation of earthly property became with Origen (185-253), and S. Cyprian (200-258), a counsel of perfection in the same way as celibacy. Almsgiving, also, was spoken of by the writers of the period as itself sin-atoning; and the treatise of Cyprian *On Good Works and Alms* had great influence on the subsequent doctrine and practice of the church.

(3) The situation in the post-Constantinian period was fundamentally changed by the adoption of Christianity as the state religion. The church now included multitudes whose moral standard was low, and with deepening distress among the poorer part of the population the sphere of its duties became more extensive.

Accordingly increasing stress needed to be laid on the duty of almsgiving; and to overcome the reluctance of their hearers, the great preachers—such as among the Greeks, S. Basil (329-379) and S. Chrysostom (347-407); among the Latins, S. Ambrose (340-397) and S. Augustine (354-430)—were led to use extremely forcible language as to the wrongfulness of a selfish use of wealth. Thus S. Basil, in a frequently quoted passage, puts into the mouth of the hard-hearted the question, "Whom do I injure, if I keep what is my own?" and replies, "Tell me then what is thine own? Whence didst thou obtain it, and bring it into the world? The rich are just like one who has taken his place in the theatre, and crowds all who come in later, as if the playhouse, which is for all, were for him only. For they first take possession for themselves alone of what is common to all, and then lay claim to it as property, because they obtained it first. If each would only take as much as he needs to satisfy his necessary requirements, where then would be the rich, and where the poor?" Expressions almost verbally identical, and apparently calling in question the rights of property, fell also from S. Ambrose. But such language is to be explained, partly as rhetorical exaggeration; partly as due to the idea that voluntary surrender of property was the duty of every Christian who would be perfect; and partly as due to another idea which now made its appearance—that the natural and original order was one of communism, and that private property first arose from sin. But this original order Christians were to aim at restoring only by self-abnegation; and the Fathers did not intend to imply, nor were they understood to imply, that the compulsory abolition of private property would be justifiable. The case is parallel with that of slavery. Slavery also was held by the Fathers to be a departure from natural equality produced by sin. But though the Fathers regarded manumission as a work well-pleasing to God, and endeavoured to mitigate the lot of the slave, they never attacked slavery as an institution. Similarly S. Chrysostom describes the happy society which would be constituted if all the Christians in Constantinople would only agree to live in common; but he meant by this rather a distant ideal than a practical proposal.

It is clear, however, that the duty of giving all one had to the poor *was* taught as a means of perfection; and that this teaching, while it led to much noble self-sacrifice, led also to an indiscriminate distribution of doles, which must have had a pauperising effect. A more excellent way of charity was taken by the establishment of hospitals for the sick, which made their first appearance in the 4th century.

The contempt for earthly goods, pushed frequently to the point of asceticism, had already led some of the Fathers, such as Tertullian and S. Jerome, to condemn trade,—especially foreign trade; and even S. Augustine spoke of trade as itself evil since it turned men from seeking God. Teaching such as this encouraged the early anchorite and monastic movements. But the more sober judgment of the church, as expressed by Leo the Great (390-461), held that trade was good or bad according to the way in which it was carried on. The conditions on which trade was justifiable were as yet hardly analysed; but the idea that buyer and seller should abide by the "just price" of every commodity had even thus early made its appearance (see JUSTUM PRETIUM).

Of more immediate effect was the teaching of the Fathers who with one voice reprobated the taking of usury, *i.e.* of all payment for the use of money. It is abundantly clear that the Fathers themselves condemned the practice absolutely,—whether the payment was small or great, and whether it was taken from rich or poor. But it is almost equally clear that, although borrowing for the purpose of business investment was not at all unknown, loans were far more commonly contracted by the poor to help them through seasons of distress; and it was in their character as the administrators of charity that the problem was brought before the rulers of the church. Thus Pope Gregory the Great (544-604) felt himself obliged on more than one occasion to make advances without interest out of church funds to farmers who were constrained to pay their taxes before selling their crops, and were having recourse to usurers. The Council of Nicæa (325) forbad the practice of usury to the clergy; and it was doubtless due to the influence of the church that the Code of Justinian (529) limited the rates of interest which could lawfully be taken by laymen.

Christian teaching had, however, a wide economic influence outside its bearing on the personal employment of wealth. This is seen in its condemnation of infanticide; its suppression of the gladiatorial shows; its consecration of Sundays and festivals as days of rest; and above all in its effect upon slavery. Mr. Lecky has thus summed it up, "Christianity supplied a new order of relations in which the distinction of classes was unknown. It imparted a moral dignity to the servile classes; and it gave an unexampled impetus to the movement of enfranchisement." In all these ways it contributed immeasurably to the gradual elevation by which slavery slowly passed into mediæval serfdom.

[The above is based chiefly on the excellent work of Gerhard Uhlhorn, *Christian Charity in the Ancient Church*, Eng. trans. 1883, especially bk. ii. chs. ii. vi.; bk. iii. ch. iii.—Lecky, *History of European Morals*, 1869, ch. iv. gives an impressive account of the practical consequences

of Christian teaching, especially in relation to slavery; and Milman's chapter on "Christian Jurisprudence," in vol. i. of his *History of Latin Christianity*, 1854, should also be consulted.—F. X. Funk, *Geschichte des kirchlichen Zinsverbotes*, 1876, furnishes the best statement of the views of the Fathers on usury. The very suggestive criticism of the economic ideas of the Fathers in K. Knies, *Politische Oekonomie vom geschichtlichen Standpunkte*, 1853 (2nd ed. 1883, pp. 113-120) is the source of most of the later expressions of opinion on the subject by professed economists.]

W. J. A.

FAUCHER, Julius (1820-1878) was descended from French Huguenot exiles. He studied philosophy at Berlin, and there resided during the greater part of his life. As a journalist, lecturer, publicist, politician, and delegate in different capacities, he impressed himself upon his age mainly as an opponent of protection and collectivism. In 1846 he founded the first free-trade association at Berlin with Prince Smith, E. Wiss, and others. When the paper he edited was suppressed, he joined the staff of the *Morning Star* in London, and became Cobden's secretary. In 1863 he founded, and for fourteen years edited, the Liberal economic journal entitled the *Vierteljahrschrift für Volkswirthschaft und Kulturgeschichte*. He laboured also for the unification of fiscal and commercial legislation in Germany, and founded for the promotion of inland navigation the *Verein für Fluss- und Kanal-schifffahrt*.

He wrote (*a*) separate works, *Die Vereinigung von Sparkasse und Hypothekenbank, und der Anschluss eines Häuserbauvereins als socialökonomische Aufgabe unserer Zeit, insbesondere der Bestrebungen für das Wohl der arbeitenden Klassen*, Berlin, 1845, 8vo.—*In der Bankfrage gegen Gustav Julius*, Berlin, 1846, 8vo.—*The Russian Agrarian Legislation of 1861* (being No. 7 of the "Systems of Land Tenure in Different Countries," published under the sanction of the Cobden Club), London, 1870, 8vo.—*Ein Winter in Italien*, etc., Magdeburg, 1876, 8vo.—*Vergleichende Culturbilder aus den vier europäischen Millionenstädten*, Hannover, 1877, 8vo.—*Streifzüge durch die Küsten und Inseln des Archipels, und des ionischen Meeres*, Berlin, 1878, 8vo.—(*b*) Articles in the *Vierteljahrschrift:* 1863—"Die Baumwollennoth," "Staats- und Kommunal-budgets," "Geschichte, Statistik und Volkswirthschaft," "Zur Frage der besten Heeresverfassung." 1864—"Oesterreich und die Handelsfreiheit." 1865—"Die Bewegung für Wohnungsreform" (pt. ii. 1866). 1866—"Sachsen am Scheidewege." 1867—"Die zehnte Gruppe auf der Pariser Ausstellung" (workmen's dwellings), "Die Hypothekennoth in Norddeutschland." 1868—"Währung und Preise." 1869—"Vom Wegezoll und seinem möglichen Ersatze," "Ueber Hausbau-Unternehmung im Geiste der Zeit," "Gedanken über die Herkunft der Sprache" (continued in subsequent numbers). 1871—"Auf kosmopolitischer Fahrt." 1874—"Ueber die wirthschaftliche Zukunft des osmanischen Reiches," "Ein Rückblick auf die Geschichte des lebenden Geschlechts aus örtlichen und persönlichen Perspektiven." 1875—"Kurze Wechselziele zur Vorbeugung der Handelskrisen," "Die handelspolitische Grenzzollfrage vor dem 16ten Kongresse der deutschen Volkswirthe in München," "Die handelspolitische Grenzzollfrage vor dem deutschen Reichstage," "Die warnende Dynamit explosion in Bremerhaven." 1876—"Der Plan einer Erwerbung sämtlicher Eisenbahnen in Deutschland durch das Reich."

C. A. F.

FAUCHER, Léon (1803-1854), born at Limoges, died at Paris. A man of action rather than a thinker, at once a politician and an economist, he led a varied life. His first occupation was that of a teacher in the humblest sphere, but his essentially energetic temperament soon drew him into more active pursuits. The revolution of 1830 had scarcely terminated before he joined the *Temps*, a paper belonging to Jacques Coste, and he remained working on it, side by side with Dussard, up to 1833. He then joined the *Constitutionnel*, and also worked on the *Bien public*, a short-lived journal, and finally, in 1834, on the *Courrier Français*, of which he became chief editor in 1839. It was at this time that he published his work *De la réforme des prisons*, 8vo, 1838, and soon afterwards *L'Union du midi*, which, to checkmate the German Zollverein, proposed a customs association between France, Belgium, Switzerland, and Spain, 1837-1842, in 8vo. Faucher was, after 1834, a constant contributor to the *Revue des deux mondes;* his sober and exact style, contrasting with his impulsive ideas, rendered him popular with the readers of that journal. He read, in 1843, his *Recherches sur l'or et sur l'argent* before the Academy of moral and political sciences, and entered it in 1849. Meanwhile he commenced publishing, in 1845, his *Études sur l'Angleterre*, 2 vols. 8vo, a very interesting work which, though now of course out of date, may still be read with pleasure. The city of Reims elected him, in 1846, to a seat in the chamber of deputies, where he urged, but in vain, the issue by the bank of France and the departmental banks of notes of 100 francs (£4), a step in the direction of progress which was not taken till 1848. Meanwhile Faucher turned with increasing force towards those occupations for which he had a special taste. He was one of the most active movers in the free-trade campaign in France of 1846-47—which was itself a preparation for the campaign against socialism. Two works of his, *Du système de Louis Blanc, ou le travail, l'association, et l'impôt*, 1 vol. 16mo, and *Du droit au travail*, 1 vol. 8vo, testify to his labours in this direction. He became a representative of the people successively at the constituent and legislative assemblies. After this time politics, and for a moment, during the period of transition, finance, absorbed him. He discussed questions con-

nected with the budget and the income-tax, which last he opposed. Unfortunately also he gradually gave up economics for politics. Thus, in November 1849 he opposed the abolition of the law for the restriction of combinations among workmen, and in June 1851 he abstained from voting on Sainte-Beuve's resolution in favour of commercial liberty. On the 20th December 1848 the president of the republic placed in his hands the portfolio of public works, an office which he exchanged, the 29th of the same month, for the ministry of the interior. His unwonted intervention in the elections compelled him to quit office after a stormy sitting of the assembly, in which he defended a bad cause with a courage worthy of better things. He was intrusted again, on the 16th April 1851, with the office of minister of the interior only to be deprived of it on the 26th October following. His bias towards absolute government had led the man who was seeking power to imagine that he would find in Léon Faucher a useful ally in the government which arose after the *coup d'état* of the 2nd December. But Léon Faucher, when appointed on the consultative commissions which the prince-president joined in the character of a protector, entered his protest against him with a rather noisy indignation, and then retired into private life, devoting himself to economic work in the *Revue des deux mondes*, the *Journal des économistes*, and other similar publications. If something was wanting in Léon Faucher's character, his honourable disinterestedness was at all events highly appreciated by all parties. A. C. F.

FAUQUIER, FRANCIS (1704 ?-1768), author of *An Essay on Ways and Means of raising money for the support of the present war without increasing the public debts*, 1756, was Lieutenant-Governor of Virginia from 1758 to 1768, and in that capacity is said to have written to Mr. Pitt about 1760 warning him against a project of taxing the colonies.

His *Essay* maintains that the poor cannot themselves pay any tax, since taxes levied from them necessarily raise the price of labour, and thus ultimately fall on the consumer, or "man of fortune who lives on his income." To the "consumer," therefore, the best tax would be that which is subject to the fewest deductions before reaching the exchequer, and this, Fauquier thought, would be a tax on houses roughly proportioned to their value. To the 2nd edition, 1756, he added a postscript in which he declared that his only object was to recommend the plan of raising sufficient revenue to meet expenses instead of contracting debt, and proposed a graduated capitation tax as a possible substitute for the house tax (see DECKER).

[*Dictionary of National Biography*, vol. xviii. p. 249.] E. C.

FAVOURED, MOST, NATION CLAUSE. See MOST FAVOURED NATION CLAUSE.

FAVRE, ANTOINE, also FABER and FAURE (1587-1624), chief president of the senate of Savoy, the father of the French grammarian Vaugelas, and friend of St. Francis of Sales, was one of the most distinguished writers of his time on Roman law and jurisprudence.

Besides other miscellaneous writings, such as a tragedy (*Les Gordiens*), and sacred poetry, he wrote a short treatise, *De variis nummariorum debitorum solutionibus* (Lyons, 1598, and Nürnberg, 1622), which, according to Michaud's *Biographie Universelle*, was directed against the more liberal views of Dumoulin (MOLINAEUS, *q.v.*) on usury and interest. E. Ca.

FAWCETT, HENRY (1833-1884), was born at Salisbury, and died at Cambridge. He was educated at King's College School and at Cambridge, where he migrated from Peterhouse to Trinity Hall. He graduated seventh wrangler in 1856, and was elected to a fellowship at Trinity Hall in the same year. In 1858 he was suddenly deprived of his eyesight by an accidental shot from his father's gun, but the infliction of this, perhaps the most serious and disheartening of all physical calamities, did not cause him to swerve from the intention to enter public life which had been formed in early boyhood. He deliberately set himself to smoke and to improve his taste for music, because these occupations would help him to pass his time independently of the attentions of other persons. He walked, rode, skated, and fished, and throughout his public career he eagerly promoted any promising scheme for the encouragement of habits of self-reliance and means of self-support on the part of the blind. After his accident he returned to Cambridge, where he resided for some time. In 1863 he published a *Manual of Political Economy*, which commanded a wide sale, and was reissued in successive editions, until at the time of his death it had reached a sixth. In the same year (that of 1863) he was elected professor of political economy, and he continued to hold this appointment throughout his life, republishing in the form of books more than one course of the lectures which he had delivered from the chair. In 1867 he married Miss Millicent Garrett, and in 1877 he was for some little while a candidate for the mastership of Trinity Hall, finally withdrawing, together with the Rev. Henry Latham, in favour of Sir Henry Maine. Meanwhile he had, after standing and then withdrawing as a candidate for the parliamentary representation of Southwark in 1860, and contesting Cambridge and Brighton unsuccessfully in 1863, been elected for the latter constituency at the general election of 1865, and had entered Parliament as an advanced liberal. In the House he adopted an independent attitude on more than one occasion. He supported Mill in the proposed extension of the suffrage to women; he advocated the in-

clusion of the agricultural labourers within the range of the Factory Acts; he pressed for the abolition of religious tests in the Universities in 1870; he separated from the Birmingham League on the question of national education, and he was largely instrumental in defeating Mr. Gladstone's Irish University Bill in 1874. But it was as "member for India," as he came to be called, that he won especially a reputation, and it was in this capacity that he occupied the most distinctive position. He devoted considerable attention to the study and improvement of Indian finance, which he regarded as the key to the successful and useful government of India. He maintained that India was manifestly a poor country, associated in partnership with a rich country like England, and that in the terms and regulations of this partnership there should be the most scrupulous avoidance of anything that savoured of meanness or injustice. The account-keeping should be at once strict and clear, and the budget, instead of being discussed at the fag-end of the session, should be introduced at an earlier period and carefully examined, and, if need be, severely criticised. But, while the finances of India required this vigilant watchfulness, the Indians themselves were unrepresented in Parliament, and the government officials were, not unnaturally, inclined to resent unpleasant inquiries. Fawcett, however, overcame official opposition, and secured the full investigation of these matters before parliamentary committees. He wrote some articles on the subject for the monthly magazines, in which he showed that the revenue of the Indian government was inelastic, while its expenditure was elastic and increasing. The revenue derived from the land tax was settled in perpetuity in some districts, and for long periods in others. The revenue derived from the cultivation of opium as a government monopoly, or from taxes on its exportation, was precarious. The salt tax was imposed on a prime necessity of Indian life, and the other sources of revenue were inconsiderable. But the expenditure was continually growing. The cost of the civil service and of the army was increasing, the burden of the interest of the debt, which had to be remitted to England, was rendered heavier by the fall in exchange, and the execution of expensive works of irrigation and railway construction, and there was no surplus to meet such recurring emergencies as a famine. The practical sagacity and sober common sense with which Fawcett addressed himself to the consideration of these questions of finance, which his training as an economist fitted him to handle, the generous hatred of injustice and oppression which led him to insist on the strictest equity in the relations of England to India, the appreciation of plain simple principles, which inclined him to interest the public in a few broad considerations of importance, and the resolute independence with which he persevered in his inquiries, were perhaps the most conspicuous features of his character, and they revealed themselves also in his attitude on other questions of political interest and in his writings on economic matters. He opposed the extension of the Factory Acts to adult women for fear of undermining their independence, and he urged the preservation of commons in the interest of the neglected agricultural labourer. In the election of 1874 he was defeated at Brighton, but was almost immediately selected as a candidate for Hackney. He was successfully returned, and occupied this seat, in spite of differences, frankly confessed and courageously maintained, with sections of his constituents, until his death. In 1880, on the formation of Mr. Gladstone's ministry, he was offered, and accepted, the post of Postmaster-General, when he introduced some changes of practical convenience, and some reforms designed to elicit and render easier the thrift of the poor. His administration was allowed on all sides to be most successful, and to afford evidence of the possession of practical qualities of a high order. "He regarded the post-office," writes his biographer, "as an engine for diffusing knowledge, expanding trade, increasing prosperity, encouraging family correspondence, and facilitating thrift." In 1882 he was attacked by an illness which aroused a remarkable amount of public sympathy. From this illness he eventually recovered, but in 1884 he succumbed rapidly to the effects of a chill. After his death Mr. Gladstone, writing to his father, declared that there had been no public man of our day whose remarkable qualities had been more fully recognised by his fellow-countrymen, and more deeply embedded in their memories. These qualities were, as it has been already attempted to show, largely of a practical order, and he cannot be said to have contributed much to the development of economic theory, though his powers of exposition were considerable. His love of independence and abhorrence of pauperism were shown in two little books—one on the *Economic Position of the British Labourer*, and the other on *Pauperism*, and he strenuously opposed any scheme of social reform which promised, by invoking the power and resources of the state, to endanger individual initiative and discourage private experiments. This spirit was also shown in the new chapter on State Socialism, which he added to the sixth edition of his *Manual*. He was, in fact, a faithful disciple of that school of economic thought which inclined in the direction of emphasising individual liberty and limiting the interference of the state, although he was willing enough that the state should endeavour to elicit thrift and self-help through the medium of the post-office, or protect the

interests of those who could not defend themselves—such as children who needed education, or agricultural labourers who were deprived of commons. His *Manual* was in the main, and it was intended to be, an abridgment of Mill's larger work, but he added materials of his own on such practical subjects as Co-operation and the Poor Law. His *Free Trade and Protection* was also, together with apt and recent illustrations drawn from the practice and facts of commerce, an exposition of orthodox theory. A biography of him has been written by Sir Leslie Stephen under the title *Life of Henry Fawcett* (1885). From this biography the appended list of his books is taken—

A Manual of Political Economy, 1863 (sixth edition, 1883).—*The Economic Position of the British Labourer*, 1865.—*Pauperism: its Causes and Remedies*, 1871.—*Essays and Lectures on Social and Political Subjects*, by Professor and Mrs. Fawcett, 1872.—*Speeches on some Current Political Questions*, 1873.—*Free Trade and Protection*, 1878.—*Indian Finance*, 1880. See also L. L. Price's *Short History of Political Economy in England*. L. L. P.

FAXARDO. See FAJARDO.

FEALTY. It was the peculiar characteristic of the feudal system that the political position of individuals was determined by their relation to the land. The man who held land of another was for some purposes his subject, or at least his dependent. The tenant became his lord's man (Lat. *homo*); did homage to him, and took an oath of fealty (fidelity) to him. On this principle, only those who held directly from the crown should have taken an oath of fealty to the king, whilst their sub-tenants should have taken the oath of fealty only to them. In some countries this was the case. But in England William I. at the great council of Salisbury compelled all landed men to take an oath of fealty to him. The obligation of this oath would override that of fealty to an immediate lord, if the two happened to conflict. An oath of fealty is still technically due from a freehold tenant to his lord, if any lord can be found; but it is never exacted (see FREEHOLD, HISTORICAL; FREEHOLD, LEGAL). F. C. M.

FEDERAL CO-OPERATION. The federal principle is to be traced, in one form or other, in most of the organisations of any importance which make up the British co-operative movement. Its development has not been primarily due to any school of theory, but to considerations of economy and stability. Obviously, if the co-operative movement was to consist of anything more than a number of local societies, with no common policy, centre, or organisation, some federal arrangement would be necessary,—either that, or something in the nature of an amalgamation. The co-operators hold—and it would seem that experience justifies the opinion—that the combination of autonomy for purely local purposes, and federation for general purposes, is the best working form of constitution. It gives at once a large measure of liberty, together with all the advantages and economies to be derived from mutual organisation. The federal theory of government adopted by the co-operators is based simply on expediency and experience. As the movement has grown, so it has become advisable to provide, not for the supersession of local effort by any form of central administration, but for the better co-ordinating and more effective interaction, for the common benefit of local effort and organisation. But though federalism has been of spontaneous growth, the massing of local effort and resources for common purposes has inevitably had a stimulating effect, in its turn, on the movement as a whole. The federal embodiments tend to become propagandist bodies; their advice and help is sought by the weaker members of the associated groups, and they increasingly focus the opinions of the main body on matters affecting their social and political interest.

The Co-operative Union, to which most of the societies are attached, provides a sort of consultative and advising executive for the movement, and organises an annual congress, attended by delegates from the united societies. It is largely due to the influence of the union that such extraordinary uniformity characterises the constitution and methods of the societies. No pains are spared in devising the very best rules, as a guide to local effort; and the Industrial and Provident Societies Act, 1876, of which the union is the parent, forms the legislative basis for these rules. An amended act, promoted by the Co-operative Union, was passed in 1893. The functions of the executive of the union, which is known as the central board, are declared to be to act as (*a*) a board of legal and general advice in all matters relating to the business and interest of societies as co-operative associations; (*b*) a statistical bureau, collecting and collating for the free use of societies every kind of information likely to be of service to them; (*c*) a propagandist agency for the dissemination of principles of co-operation throughout both Great Britain and Ireland, and afterwards to the world at large. No society is admitted to the union unless its management is of a representative character, nor unless it agrees to accept the general principles enunciated by the union in favour of the promotion and practice of truthfulness, justice, and economy in production and exchange. The name of Mr. Vansittart NEALE will always be associated with the Co-operative Union, of which he was secretary for many years, and to which he devoted infinite labour. The present secretary is Mr. J. C. Gray; the headquarters of the union are at Bank Buildings, Nicholas Croft, Manchester. There are some co-operative societies unaffiliated to the

union, but the majority recognise the advantages which it offers, and subscribe to its funds, take part in the election of its executive, and send their delegates to the annual congresses.

The two co-operative wholesale societies—one of which embraces England and Wales, the other Scotland—are in many ways the most remarkable and powerful workmen's organisations in the world. Both are due to federal developments. The two federations are, in the first place, wholesale agents for the supply of their constituents, the retail stores. The capital is accumulated in precisely the same way as in the stores, which are conducted on what is known as the Rochdale system. Thus a society, on applying for membership, has to take up so many shares—not less than three £5 shares for every twenty members, or fractional part of twenty—on which it pays, on admission, not less than one shilling on each share. These shares are transferable only—that is to say, they may not be withdrawn, but only disposed of to some other society within the federation. No dividends on purchases or interest on capital (which is fixed at 5 per cent) can be withdrawn until such time as the shares are fully paid up. The usual plan is to allow the dividends and interest to accumulate until this shareholding qualification is reached. But the object of the wholesale societies is not to make profit, but to effect economies for their constituents by direct and effective purchasing. Their operations are conducted on such a gigantic scale that they are enabled to command the best terms to be had in the market; and with their fleet of half-a-dozen steamers, their buyers in different parts of the world, and their system of cash trading, they are practically independent of the middleman. At the end of 1904 there were 1150 societies, comprising 1,594,145 members embraced by the English federation, with a share capital of £1,196,703, and loans and deposits amounting to £1,769,006, whilst the sales for the year stood at £19,809,196. The Scottish society's share and loan capital at the same date amounted to £2,130,225, and its trade for the year was £6,801,272. These two federations, though distinct in their constitution, work together in many ways in making their purchases; so that the combined influence of the British co-operators is brought to bear upon the markets of the world. The federal agencies have many advantages not possessed by the ordinary trader. They are practically free from bad debts, as the societies are only allowed the briefest credit; their dealings are not speculative, inasmuch as their constituents provide an assured market whose demands can be foreseen with practical certainty from year to year; and their expenses for travelling and advertisements are very small. The cost of management is also extremely low. The constitution of the societies is on the basis of membership, not of stock. The societies composing "the wholesale" may nominate one representative for every 500 of its members, to represent them at the general or branch meetings, which are held quarterly. These meetings examine the balance sheet, and discuss the proposals submitted by the directors of the society, who in their turn are elected by the retail societies. In addition to acting as wholesale purchasers, both the English and Scottish wholesale societies have started manufacturing on a considerable scale, the branches of industry selected being those for which there is the most constant and regular demand—such, for instance, as boots, ready made clothes, furniture, flour, soap, and so on.

The federal principle has also been adopted for many years in the co-operative flour-mills, many of which exist in the northern and midland counties. There is no need to enter into details as to these bodies, which are conducted on the same basis as that of the co-operative wholesale societies, a fixed rate of interest being paid on capital, whilst the savings effected after paying working expenses and depreciation are returned to the shareholders' societies in proportion to the amount of their purchases. These mills, however, form a highly important part in the economy of co-operation; and they have served more than once to break up flour rings; whilst their influence on the prices of bread affects others besides co-operators.

The Co-operative Insurance Society is another federal association which has been promoted, for fire and life insurance, amongst co-operators. The Co-operative Newspaper Society conducts a weekly paper, the *Co-operative News*, its shares being subscribed for the most part by co-operative societies, though there are a certain number of individual members. A good many co-operative productive societies are conducted partly on a federal, and partly on an individual basis, the capital being found, and the direction provided, by co-operative societies and individual co-operators as well.

Something must be said upon the controversy as to the merits or demerits of co-operative production conducted upon the federal principle. The main arguments of the anti-federalists are based upon the fact that under the federal system the consumer and not the producer receives the first consideration—manufacture is carried on, not for the benefit of the workman but for the use of those whom he serves, though now in the Scottish Wholesale Society the workers receive a share in the profits. This school would be appeased in part if the workmen were allowed to share in the profits and management with the consumers; and various schemes have been put forward with the view of detaching the productive departments from the co-operative wholesale societies, and placing them under the director-

ship of the workmen employed. It is claimed also that under the federal system there is an absence of that spontaneity and scope for free development which alone can call forth the spirit and energy which must be the inspiration of co-operative production. On the other hand, the federalists point to what has been attained by their system, and to the comparatively scanty results of co-operative production carried on independently of the consumer. A considerable section of this school contend that co-operation is not concerned with profit-making, though the dividend is a feature of all the societies, but with a system of production and distribution based upon use. They hold, however, that good wages, good hours, good surroundings, and general conditions of work are on the whole more advantageous to the workmen than a problematical share in more or less speculative profits. As to management, they take the line that it is impossible for the workmen to hold the balance true in matters of workshop administration; and it must be confessed that a study of the history of co-operative production bears out this fact (see *Co-operative Production*, by Benjamin Jones). Though an award based upon the achievements of the two schools is by no means conclusive as to their merits, yet the controversy is coming to turn more and more on results, and the increased attention paid to the interests of labour by the federated societies may perhaps in time satisfy those who claim—and rightly claim—that the interests of the workman-consumer can never be served by depreciating the value of labour. It is, however, evident that experiments will continue to be freely tried in conducting co-operation on a basis in which federalism plays no part, and in which the consumer does nothing more than trade with the workmen associated in production.

[See *Co-operative Wholesale Society's Annuals*, published at Balloon Street, Manchester; and *Reports of Annual Congress of the Co-operative Union*, Bank Buildings, Nicholas Croft, Manchester.]

V. N.

FEDERATION, COMMERCIAL, as applied to the British empire, aims at establishing closer and more favourable trade relations between the colonies and the mother land than those which now prevail. When Great Britain, commencing in 1846, adopted the principle of free trade, she finally abandoned the right which she had previously exercised of directly regulating the commercial relations of the colonies. Those colonies had up to that time enjoyed advantages over foreign countries in British markets for many of their products, and in return they had often submitted to trade restrictions imposed by the imperial parliament. They were now to receive no better and no worse commercial treatment than foreign countries; they were on the other hand to be left quite free to frame such trade policies as seemed to themselves best, without reference to other interests than their own. The result has been the adoption of extremely divergent systems in different parts of the empire. While the United Kingdom has followed out the principle of free trade, imposing duties for revenue alone, several of the most important self-governing colonies have adopted tariffs intended not only to produce revenues, but to artificially develop local industries by shutting out the products of other countries and even those of Britain itself.

In thus having no fiscal system common to all its parts, the British empire occupies a position peculiar among all the nations of the world. The fact is accounted for in part by the extremely anomalous composition of the empire. "In it we find communities existing under widely different conditions, some with vast populations concentrated in a small space, while others have their inhabitants thinly scattered over immense areas. Some with wealth which lends itself readily to direct taxation, others which can only collect revenue easily at the ports; some chiefly engaged in manufacture, others in the production of food and raw material; some with capital and cheap labour in such abundance that they can cheerfully face any competitors, others under severe pressure from the competition of commercially hostile neighbours more rich and numerous than themselves" (*Imperial Federation*, Parkin, p. 279).

It seems not unreasonable to suppose that this very variety of condition might have been turned to account in forming a common system. But no serious effort was made to check the tendency to commercial separation on account of two false assumptions on the part of political thinkers of the last generation. The first of these was that all other nations would soon follow the example of Great Britain in the adoption of free trade: the second, that the growth of the great colonies must inevitably result in their separation from the empire. The persistent advance of protective systems abroad has turned attention to commercial federation as a means of maintaining industrial prosperity: the growing belief that the empire can and should be held together has led to its consideration as helpful to the maintenance of political union.

All known precedents lead us to associate the idea of commercial federation with that of political federation. In the existing federal systems with which we are familiar, such as those of the United States, Germany, Switzerland, Austria-Hungary, and Canada, freedom of internal trade has been the result, even where it has not been the fundamental condition, of political unity. In the system which has been proposed for the Australasian colonies one of the

chief objects aimed at is the same freedom of internal trade. Free commercial intercourse, indeed, seems one of the most distinctive marks of national unity. It appeals directly to the masses, and gives at once a sense of mutual interest and mutual benefit. A common flag and common appliances for defence may mean more in times of danger: under the normal conditions of peace, the unhindered movement of commerce has the greater significance as a mark of common national life. The tendency, therefore, to look to commercial unity as a bond of national unity is natural and reasonable. Different methods have been suggested by which a greater or less degree of commercial unity may be attained.

1. By general adoption throughout the whole extent of the empire of the system of free trade as it prevails in Great Britain. The existence of high tariffs in many of the colonies, and especially of those imposed on great numbers of articles in order to give protection of local industries, certainly tends to weaken the sense of community of interest which is the strongest of national bonds. Earl Grey has pointed out (*Commercial Policy of the British Colonies, 1892*), that a feeling of annoyance has not unnaturally been caused among the merchants and manufacturers of the United Kingdom by finding the products of British industry prevented from competing on equal terms with similar goods produced in the colonies, while at the same time narrow feelings of commercial jealousy have been fostered in the colonies. He continues: "It is not only between this country and the colonies but between the different colonies with each other that feelings of animosity have been excited by the measures adopted in pursuance of the policy of protection. A few years ago bitter, and just, complaints were made in Tasmania of the conduct of their neighbours in Victoria in imposing duties on the fruits of Tasmania to protect their own growers from their competition. There have been disputes of the same nature between Victoria and New South Wales, and between New South Wales and Queensland, and quite lately threats at least of a tariff war between Canada and Newfoundland. In this manner it is to be feared that feelings far from favourable to the maintenance of a firm union of all parts of the empire must have been created both in this country and in the colonies."

The federation of the Australian colonies, the amalgamation of Newfoundland with the Dominion, will put an end to the conflict of interests between these colonies; it is not so easy to find a solution as complete where the interests of the United Kingdom and the colonies in the same way are opposed to each other. Purely protective tariffs could be removed; to do the same with ordinary tariffs, often necessarily high, would not be easy. Even the United Kingdom would suffer considerable loss of revenue if the duties were remitted on the tea, coffee, and one or two other articles subject to duty imported from India, Ceylon, and other parts of the empire. But the chief difficulty would occur in the colonies, which, great and small, depend chiefly upon import duties for their public revenues. In most cases the bulk of these imports come from the United Kingdom or from other colonies. Inter-imperial freedom of trade would therefore leave a very large amount of necessary revenue to be raised by direct taxation. To such taxation the objection felt in most of the colonies is so decisive as to render impracticable its substitution for import duties. Complete freedom of trade within the empire, therefore, such as exists between the different parts of the United Kingdom, of Canada, of the United States, or of Germany, is at present admitted to be impossible. Still the abolition of protective duties throughout the colonies, and the limitation to a few articles of import duties imposed for revenue alone, would be a great advance towards commercial union. The desire, felt as strongly in many of the colonies as in foreign countries, to build up manufacturing industries, and the belief that this can best be done by protective tariffs, are the chief obstacles to the adoption of this policy. There are indications, not as yet entirely decisive, that in the colonies, as in the United States, faith in the protective system of developing industries is giving way. Should this change of public opinion go on, the prospects of commercial union by means of greater freedom of trade will be improved.

2. A system of preferential tariffs has been proposed in order to secure some measure of commercial federation while recognising existing differences of policy. Under this system, while each self-governing division of the empire would be left as free as before to choose between a tariff for protection or one merely for revenue purposes, it would be bound to make a fixed discrimination in favour of countries within the empire as against countries without it. The advocates of preferential tariffs for the empire claim that by them several important results would be secured. The preference given to colonial products in the home market would, it is believed, tend to direct emigration towards countries under the British flag, thus retaining as citizens great numbers of emigrants who now go away to add to the strength of foreign nations. This increased colonial population, with its greater productive power, would gradually make the empire almost entirely independent of other countries for supplies of food and raw material of manufacture: it would also furnish a large, friendly, and constantly increasing market for the output of British manufactures. The immense extent of the national territory and the variety of its produc-

tions are facts which are relied upon to give weight to these arguments for preferential tariffs. The undeveloped or half developed areas under the British flag in every zone produce almost every kind of food, every raw material of manufacture, every article of use and luxury. The sufficient application of labour and capital, it is argued, is all that is necessary to bring production up to the level of national consumption. The overflowing population of the United Kingdom and its superabundant capital would thus find the necessary outlet within the empire, and the colonies in these respects would receive what they most need. It is even asserted that if the resources of the empire were fully developed there would be no need to draw upon other parts of the world for any article of commerce, and that within a measurable time the supply of her colonies and dependencies would furnish full occupation for the factories of the United Kingdom.

Another argument has had much weight. The belief of the early advocates of free trade that all nations would be led to adopt that system having proved fallacious, it is now claimed that preferential tariffs within the empire will prove the best means of obtaining better trade relations with foreign protective countries. At present, for instance, the United Kingdom continues to give free admittance to American products, although the United States show an increasing tendency to impose duties for the express purpose of keeping out British and other goods, and so securing the home market for the home manufacturer. Cut off by a preferential tariff from free access to what is his best market, the American, it is said, would be glad to make concessions in order to regain his old privileges. In this case a preferential tariff would be a temporary expedient for coercing protective nations into a greater or an absolute freedom of trade.

Some of the difficulties in the way of adopting a preferential tariff are obvious. The United Kingdom still depends upon foreign countries for more than 75 per cent of its imports: these would be taxed to favour countries which furnish less than 25 per cent. Granting that the empire can produce within itself all that it requires, a lengthened period must elapse before it actually does so, and there still remains the doubt whether natural conditions would allow the products to be supplied as cheaply by places within the empire as by places without it. Sir Rawson Rawson has pointed out (*Analysis of the Maritime Trade of the United Kingdom*) as an important consideration, "the inconvenience, expense, and intolerable delay that would be imposed upon commerce by the revival in England, and the universal adoption elsewhere, not only of a duty upon every article, but of a discriminating duty upon every article, which would necessitate the revival of the system of certificates of origin. . . . Its re-imposition here and its universal introduction into every part of the empire, considering the immense increase of trade at the present day, would strike a blow at the freedom of commerce which would go far to counteract any advantage arising from the proposed difference in the rate of duty."

3. A plan for preferential tariffs within the empire was submitted to the colonial conference of 1887 by Mr. Hoffmeyer, one of the representatives from Cape Colony. Mr. Hoffmeyer, in proposing that on all produce imported into the United Kingdom and the colonies from foreign countries a small fixed duty should be levied over and above any duty which like imports had to pay when coming from British countries, added the important condition that the revenues derived from this additional duty should be paid into a common fund for national defence. Such a plan, he said, would "establish a feeling on the part of the colonies that whilst they were paying for the defence of the empire they were at the same time enjoying in British markets and inter-colonial markets certain advantages which foreigners did not enjoy. That would establish a connecting link between the colonies mutually as well as between the colonies and the empire also, such as is not at present in existence, and which might further develop by and by into a most powerful bond of union" (*Proceedings Col. Conference, 1887*, vol. i.). Mr. Hoffmeyer estimated that an additional duty of 2 per cent on all imports of foreign produce would give a revenue of £7,000,000, a sum which would materially lessen the burden of taxation for defence. Under existing circumstances this method would apparently bear heavily upon the mother country. Whereas more than 75 per cent of the imports of the United Kingdom are from foreign countries and therefore liable to the additional duty, the imports of the colonies are chiefly from the United Kingdom or from other parts of the empire, and therefore not in the same way liable. In the case of South Africa only about 10 per cent of the whole imports would pay the duty; in Australia 15 per cent or 20 per cent; in Canada 35 per cent or 40 per cent. The distribution of the tax would therefore not be at all in proportion to the whole volume of trade to be protected.

The fairness of the impost might be destroyed in another way. A section of the empire might adopt tariffs practically prohibitive of products from other sections. To these latter it would be no advantage that still higher duties were nominally charged on foreign products. It is to be noted, too, that the value of the additional duty as a means of raising revenue for defence would diminish in exact proportion to the attainment of the other object of preferential tariffs, viz. the self-dependence of the empire for exports and imports.

The difficulties, therefore, which confront any plan hitherto suggested, for the commercial federation of the empire, are many and great. On the other hand, if the stringent methods of protection adopted by foreign communities are maintained, there is no doubt that the minds of producers, traders, and statesmen alike will be turned more and more to seek within the empire the free commercial intercourse which is denied without. The gradual formation of a strong political bond may lead to the gradual assimilation of commercial systems. Prof. Nicholson says (*Britannic Confederation*, page 95): "Nothing is more common than to speak of the complicated tariffs and the vested interests of the newest colonies as insuperable obstacles to any general fiscal reform. As a matter of historical fact, however, in much less than a century the commercial policy of the British empire has passed, speaking broadly, from the extreme of central regulation to the extreme of non-interference, and there is, *primâ facie*, no reason why a reaction should not occur if such a course is shown to be to the mutual advantage of the colonies and the mother country." The confederation of groups of colonies like those of Australia and of South Africa, carrying with it, as confederation has already done in Canada, entire freedom of commercial intercourse between the different provinces, will do much to reduce the existing complexity of tariffs. Any inclination towards free trade in the protective colonies, even to the extent of lessening the number of articles taxed, would render much easier the task of arranging these tariffs on a basis of mutual advantage throughout the empire. The attitude of foreign nations on trade questions will probably go far to determine the strength of the forces which make for or against commercial federation.

[See Sir Rawson Rawson's *Synopsis of the Tariffs and Trade of the British Empire.—Sequel to the same.—Analysis of the Maritime Trade of the United Kingdom 1869 to 1889.—Analysis of the Maritime Trade of the United Kingdom 1889 to 1891, with special reference to the proposals for the establishment of a Zollverein.*—G. W. Medley (Cobden Club, 1892), *The Fiscal Federation of the Empire*. To *Britannic Confederation 1892*, Prof. J. S. Nicholson contributes an article on "Tariffs and International Commerce," and Mr. G. G. Chisholm one on "The commerce of the British Empire." *Blue book, No. C. 5091*, fully reports the discussions of the colonial conference of 1887 on Mr. Hoffmeyer's scheme for an Imperial Zollverein. G. R. Parkin's *Imperial Federation the problem of National Unity*, gives a chapter to Trade and Fiscal Policy. H. O. Arnold-Forster, M.P., edits *Tables published by the London Chamber of Commerce*. Much leaflet and pamphlet literature has been published by the United Empire Trade League, a body "formed for the purpose of promoting mutually advantageous trading relations between all parts of the British empire upon a preferential basis." The same may be said of the Fair Trade League, "formed to agitate for such fiscal readjustment as shall prevent the products of foreign states, which refuse to deal with the United Kingdom in fair trade, from unduly competing in British markets with the products of home labour: and to promote, by means of the bond of commercial union between the mother country and her colonies and dependencies, an extension of trade with our own empire." The publications of the Imperial Federation League discuss impartially the merits of free trade and of preferential trade as offering each a possible basis of commercial federation. Articles touching upon the question have been numerous in most of the leading magazines during the last few years.] G. R. P.

FEE. (*a*) In English law the term *fee* means an estate of inheritance as distinguished from a lesser estate, but in feudal law it was used to denote that which was the "subject of tenure" as opposed to the *alod* or hereditary estate, for which the owner rendered no service to a superior (see FEOD; Challis on *Real Property*, London, 1885).

(*b*) Payments made by suitors in courts of justice or to the steward of a manor. The former are regulated by ancient usage or by rules of court, the latter are regulated entirely by custom (see Scriven on *Copyholds*, London, 1882). J. E. C. M.

FEE (Scots law). The right of a tenant or "feuar" of land under the feudal system of tenure: also reversion and remainder. The rules of law relating to fee are based on the principle that the fee can never be *in pendente*, for the superior, or lord, is always entitled to have a vassal.

[For the fee in the case of an heir of entail, see ENTAIL (Scotland). See Bell's *Principles of the Law of Scotland*, §§ 1713-1715.] A. D.

FEE SIMPLE. An estate "descendible to the heirs generally, that is, simply, without restraint to the heirs of the body or the like" (*Co. Litt.*, 1 b). It is the greatest estate or interest which the law of England permits any subject to enjoy in land. In theory the ultimate ownership belongs to the crown. Williams (in *Principles of the Law of Real Property*, London, 1892, p. 54), says, "A small occasional quit-rent, with its accompanying relief, suit of the court baron, if any such exists, an oath of fealty never exacted, are now, it appears, the ordinary incidents of modern socage tenure" (see Digby's *History of the Law of Real Property*, Oxford, 1884; Williams, on *Real Property*, 19th ed. 1901). The owner of a fee simple has full power of leasing or alienating it, and on his death it descends to the heir of the last person who acquired the estate otherwise than by descent.

J. E. C. M.

FEELING OF VALUE. See VALUE.

FEE TAIL. Land is held in fee tail if, according to the intention of the original grant, it

passes, on the death of any individual owner, to one of the descendants of the original donee. Land may be held in "tail general" or in "tail special." In the first case the grant is made to the use of "A and the heirs of his body," and the land descends to the next heir of the original donee according to the rules regulating the intestate succession to land held in fee simple (see HEIR); it therefore passes to females in default of males of the same degree. Gifts in "tail special" occur much less frequently than gifts in tail general, the least rare instance being a gift to the use of "A and the heirs *male* of his body," in which case female heirs are excluded. If the tenant in tail is in possession he can, by the execution and enrolment of a disentailing deed, convert the fee tail into a FEE SIMPLE (*q.v.*), and thus becomes absolute owner of the land. If, however, the land is in the possession of a tenant for life on the death of whom it would pass to the tenant in tail, the latter cannot bar the entail except with the concurrence of the former, who for that purpose is called the "protector" of the entail. In the case of large family estates the land is generally held by a tenant for life under the provisions of a settlement, the tenant in tail being entitled to succeed on his death; and it is usual, as soon as the tenant in tail attains his majority, to "resettle the estates" by barring the entail, giving the former tenant in tail an estate for life and making his next heir tenant in tail in remainder. It is one of the commonplaces of popular oratory to say that the free movement of land is hindered by "the law of entail"; but, as shown above, entailed land, if not forming part of a family settlement, can always be brought under the absolute control of the owner; settlements, not entails, impose fetters on land. But even these fetters can easily be broken through, as under the provisions of the Settled Land Acts the tenant for life has, subject to certain excepted parts, the power to sell any part of the settled land at his discretion; and as regards the excepted parts (mansion-house, heirlooms, etc.), he can do so subject to the consent of the court. [For further particulars see ENTAIL, LAW OF.]

E. S.

FELDAGE, see FALDAGE.

FELT, JOSEPH B. (1789-1869), was born in Salem, Massachusetts, and was educated for the Congregational ministry, from which he early retired. Throughout his life he engaged in antiquarian researches of a historical and statistical nature. To the economist the most important of his writings are: *Historical Account of Massachusetts Currency*, Boston, 1839, pp. 259; and the contributions to *Collections of the American Statistical Association*, vol. i., Boston, 1847, containing especially *Statistics of Taxation in Massachusetts*, pp. 221-596. (See Memoir by Henry M. Dexter in *Mass. Hist. Soc. Proc.*, 1875-76, pp. 113-117.)

D. R. D.

FEMALE LABOUR. The introduction of machinery and the growth of the factory system have effected considerable changes in the conditions of female labour during the present century in every country where these causes have operated. Women in the poorer classes had been accustomed to add to the family income by casual work, and by spinning or weaving for manufacturers in their own homes. Much light is thrown on the conditions of working women in England, towards the end of the 18th century, by Sir F. Eden (*The State of the Poor*, 1797), but he does not always make it quite clear whether the women actually worked at the factory or at home. Home work was the rule, and of one village Eden remarks that "employment for labourers' wives and children is much wanted; they are oftener seen basking in the sun in summer, and shivering over a stolen wood fire in winter, than in any profitable exertions of industry." The use of machinery made it economically necessary for female labour to be employed at the factory itself, and a long uninterrupted working day was enforced instead of work at irregular intervals varied by household occupations. The increased demand for female labour in the factory was accompanied by a diminished need for their services at home. The questions of economic interest which the history of the employment of women should explain are (1) the extent to which they compete with men; (2) the effect of such competition on the wages of men in the same trade; (3) the effect of the economic independence of women on the rate of wages of men in the same class, and hence on the income of the family; (4) the effect of the employment of married women in factories on the well-being of the family. The first point is the only one on which we have statistics of any general value. The regulation of factories and workshops in which women and children work (*vide* FACTORY ACTS) has made it possible to obtain returns of the numbers of males and females in such factories in the United Kingdom.

It is in the textile industries that male and female operatives are most frequently to be found employed on the same kind of work. The factory returns show a steady increase in the proportion of female to male operatives since 1895 (for which year the first *compulsory* return was made). But it is a mistake to suppose that this is a proof of displacement of men by women; in several towns male labour has been attracted to higher paid occupations (*e.g.* machine-making), and female operatives have therefore been more easily obtainable than male operatives.

The census of 1901, however, shows that female labour is still in the main employed in supplying the same needs as a hundred years ago; but the work is done in the factory, workshop, school, or institution, instead of in the home.

E

UNITED KINGDOM.—*Number of Female to every 100 Male Operatives in Textile Factories.*

Year.	Under 14 Years.	14 Years and under 18 Years.	18 Years and upwards.	All Ages.
1895	118	187	158	161
1896	119	187	157	161
1897	122	194	160	165
1898	121	199	163	167
1901	116	208	166	171

Occupations of Women and Girls of 10 years and upwards, according to the Census 1901.

Industry.	Number.
Domestic Offices or Services	2,055,725
Clothing	903,646
Textile	867,259
Food, Tobacco, Drink, and Lodging	372,027
Teaching	203,132
Agriculture	133,607
Paper, Books, and Stationery	114,640
Commercial	80,532
Sick-Nursing	79,002
Metals, Implements, and Conveyances	65,142
Other and Undefined	385,248
Total occupied	5,309,960

A comparison of the census returns since 1850 shows that the employment of women relative to the female population is increasing between the ages of 15 and 25, and decreasing amongst women over 25, this decrease being probably mainly due to diminished employment of married women (*General Report on Census of England and Wales, 1901*, Cd. 2174); it is also largely due to the decreased demand for the casual labour of women in their homes, and the increased demand for regular labour in the factory (*Journal of the Royal Statistical Society*, June 1898). The England and Wales census 1901 gives the number of married and widowed women returned as occupied as 13·2 per cent of their total number, while 52·3 per cent of the unmarried women and girls over 10 years of age were returned as occupied. In 1851, the only year for which similar information was compiled, the census report stated that 25 per cent of the wives in Great Britain, and 67 per cent of the widows, were engaged in some extraneous occupation.

The effect of female labour on men's wages, and the extent to which it has superseded men's labour, are difficult to ascertain. Work requiring neither muscular strength nor long training would naturally be remunerated at a low rate, whether done by men or women, and much of the work in which women have superseded men is of this nature. Thorold Rogers remarks of women's labour in the 15th century, "that women's work, when of what we may call an unskilled kind, was equally well paid with that of men," and at the present time there is ground for believing that inequality in the rate of payment is most frequently to be found when women compete with men in work requiring training and education. There is not sufficient evidence to enable us to judge of the effect of married women's labour on the wage of the husband. For its relation to infantile mortality, see papers under this heading in the *Journal of the Royal Statistical Society*. (FEMALES AND CHILDREN, EARNINGS OF; FACTORY ACTS.)

[*Board of Trade* (*Labour Dept.*) *Reports* and *Home Office Factory Inspectors' Reports.*—S. Webb, *The Alleged Differences in the Wages paid to Men and Women for Similar Work.*] C. E. C.

FEMALES AND CHILDREN, EARNINGS OF. Previous to the growth of the factory system the earnings of women were principally gained by irregular work done at home for employers. Women also worked in the fields, but rarely for long periods, as such work made it necessary for them to leave their homes; it was more highly paid than those industries which were carried on by married women in their leisure hours. Adam Smith, in speaking of the domestic industries, says that "in most parts of Scotland she is a good spinner who can earn 20d. a week." Sir F. Eden (*State of the Poor*, 1797) gives the earnings of spinners in different parts of England: in Cumberland they earned from 4d. to 6d. a day; at Wirksworth by worsted-spinning 5½d to 6d. a day, and by cotton-spinning 3s. to 5s. a week; at South Tawton, in Devonshire, by serge-spinning 6d. to 7d. a day; at Colchester, children of eight or nine years of age spun for 2d. or 3d. a day, and women weavers earned 5s. to 5s. 6d. a week. At Leicester, women worsted-spinners earned 4d. to 8d. a day, and at Kilworth 6d. to 10d., children from twelve to fourteen earning about 6d. a day; at Kirkby Lonsdale, Underbarrow, Southam, Inkborough, and Sheffield the women earned 4d. to 8d. a day. Whereas the spinners at the last-mentioned town earned about 6d. a day, washerwomen earned 1s. a day and victuals. The earnings of lacemakers in Bedfordshire and Buckinghamshire ranged from 6d. to 1s. a day, a few women in Leighton Buzzard earning as much as 1s. to 1s. 3d. In Northamptonshire, the lacemakers by hard work earned 1d. to 1½d. an hour, the earnings ranging from 6d. to 1s. 2d. a day, but the ordinary earnings being about 8d. to 10d. a day. At Dunstable, the straw plaiters earned from 6s. to 12s., children earning from 2s. to 4s. a week. The total earnings in the factories were higher. At Carlisle, women in the stamperies earned 3s. to 12s. a week; at Manchester in the cotton trade from 6s. to 12s., 8s. being the average; at Birmingham in button-making, when in full work, 7s. to 10s. a week. In some cases, however, the wages in cotton mills and other factories are put at a very low rate, leaving it also somewhat doubtful whether the women worked the whole week at the factory. Thus, Eden says, that at Newark "women and children" earned 1s. to 5s. a week in the cotton thread mill; at Northampton 2s. to 5s.; but at Settle children eight to fourteen years of age earned from 1s. to 5s. or 6s. in the cotton works. Children under ten

earned 2s. 6d. a week for attending the machines at Frome, 2s. to 3s. in winding silk at Coventry, 1s. to 2s. 6d. in the silk and cotton mills at Derby, 2s. to 4s. at Manchester. In 1816 the average earnings of 316 children under ten years of age employed in twenty-four cotton factories in Preston were 2s. to 3s. 3d., the hours worked being 12½ to 13½ on ordinary days, and 9 hours on Saturdays. In some silk mills in Cheshire in 1816, of the people employed, fifty-four children under ten years earned from 1s. 6d. to 4s. a week, 129 young persons between ten and eighteen earned from 3s. to 8s. 6d., and of 114 men and women, the men earned from 9s. to 15s., and the women from 4s. 6d. to 9s. In 1832-33 the wages of women and children in cotton mills in Glasgow and Manchester were obtained with more exactitude.

Statement of the ages and wages of persons employed in cotton mills in Glasgow and its neighbourhood in 1832:

Ages.	Males.	Weekly Wages.
9 to 10	128	*1s. 3d. to 3s.*
10 to 12	361	*2s. to 4s.*
12 to 14	417	*2s. 9d. to 6s.*
14 to 16	274	*3s. 6d. to 7s.*
16 to 18	214	*4s. 3d. to 9s. 6d.*
18 to 21	143	*6s. to 20s.*
21 and upwards	1050	*9s. 1d. to 35s.*

Ages.	Females.	Weekly Wages.
9 to 10	114	*1s. 3½d. to 4s.*
10 to 12	468	*2s. to 4s.*
12 to 14	479	*2s. 9d. to 6s. 6d.*
14 to 16	419	*3s. 6d. to 7s. 6d.*
16 to 18	520	*4s. 3d. to 7s. 6d.*
18 to 21	581	*5s. to 20s.*[1]
21 and upwards	1411	*6s. 6d. to 20s.*[1]

Statement of the ages and wages of persons employed in weaving mills in Glasgow and its neighbourhood in 1832:

Ages.	Males.	Weekly Wages.
9 to 10	1	*1s. 6d.*
10 to 12	31	*1s. 9d. to 4s. 6d.*
12 to 14	38	*3s. to 6s.*
14 to 16	60	*3s. to 10s.*
16 to 18	36	*6s. 3d. to 12s.*
18 to 21	56	*7s. to 25s.*
21 and upwards	760	*16s. to 24s.*

Ages.	Females.	Weekly Wages.
9 to 10	9	*2s. to 3s. 6d.*
10 to 12	66	*2s. 6d. to 7s. 6d.*
12 to 14	220	*3s. to 7s. 6d.*
14 to 16	447	*4s. 10d. to 9s.*
16 to 18	538	*6s. 1½d. to 10s. 2½d.*
18 to 21	826	*7s. to 10s. 0½d.*
21 and upwards	1235	*7s. to 9s. 9½d.*

Average weekly earnings of persons employed in forty-three cotton mills in Manchester in 1833:

[1] Probably forewomen.

Ages.	Males.	Average Weekly Wages.
9 to 10	498	*2s. 9¾d.*
10 to 12	819	*3s. 8d.*
12 to 14	1021	*5s. 0½d.*
14 to 16	853	*6s. 5½d.*
16 to 18	708	*8s. 2½d.*
18 to 21	758	*10s. 4d.*
21 and upwards	3632	*22s. 5¾d.*

Ages.	Females.	Average Weekly Wages.
9 to 10	290	*2s. 11½d.*
10 to 12	538	*3s. 9½d.*
12 to 14	761	*4s. 10½d.*
14 to 16	797	*6s. 4¾d.*
16 to 18	1068	*8s. 0½d.*
18 to 21	1582	*8s. 11d.*
21 and upwards	3910	*9s. 6½d.*

The wages census of the board of trade for 1886 showed the following results:—

Percentage of Women and Girls (Full Timers).

Earning	Cotton Trade.	Other Textile Trades.	Miscellaneous Trades.
Under 10s. . .	15·5	53·0	62·6
10s. and under 15s.	44·4	42·2	29·6
15s. ,, ,, 20s.	29·5	4·8	6·8
20s. ,, ,, 25s.	10·3	..	·8
25s. and upwards .	·3	..	·2
Total .	100	100	100
Numbers in returns	79,244	103,836	3717

Domestic service is the industry employing the largest number of women in the United Kingdom. The board of trade report on the money wages of indoor domestic servants [C.—9346 of 1899] gives the following table:—

Average Wages of Female Domestic Servants (in addition to Board and Lodging) classified according to age.

Age.	London.	England and Wales (excluding London).	Scotland.	Ireland.
Under 16 years . .	£7·9	£7·1	£7·6	..
16 years .	9·3	9·0	10·4	£10·2
17 ,, . . .	10·6	10·6	11·5	7·6
18 ,, .	12·8	12·2	13·5	9·6
19 ,, . .	14·1	12·7	13·8	10·6
20 ,, . . .	15·7	14·4	15·6	12·8
21 and under 25 years	17·5	16·5	17·4	12·6
25 ,, ,, 30 ,,	20·6	19·5	19·8	15·1
30 ,, ,, 35 ,,	23·2	21·5	21·5	17·7
35 ,, ,, 40 ,,	27·0	23·1	22·8	16·9
40 years and upwards	27·8	24·7	23·5	18·0
Number of servants on which the above averages are based	1867	2461	651	369

The board of trade report on the earnings of agricultural labourers [Cd. 2376 of 1905] states that Northumberland and Durham are the only counties in England where the employment, for wages, of women at ordinary regular work in the fields is a general custom. In Scotland women are frequently employed at field work, and in the Border counties and the Lothians

the number of women workers on many farms is nearly equal to the number of men; the women workers are usually paid between 8s. and 10s., sometimes 11s. a week, with extra money at harvest and sometimes at potato-lifting. The status of women workers on the whole appears to improve.

[*Parliamentary Papers, Labour Statistics*, 1887. —*Reports of Royal Commissions on employment in Factories*, 1832, 1841-43, 1862-66, 1874-76.— *Reports of Inquiries into employment of Women and Children in Agriculture*, 1867-71.—*Reports of Select Committee of House of Lords on Sweating*, 1888-90.—*Royal Commission on Labour—Reports on Employment of Women*, 1893.—*Board of Trade Report on Employment of Women in Flax and Jute Centres*, 1898.—*Life and Labour in London*, Second Series, vols. v. to ix., edited by Charles Booth.—*The Englishwoman's Year-Book*.—Publications of Women's Industrial Councils and of the Women's Trade Union League.] C. E. C.

FENELON, FRANÇOIS DE SALIGNAC DE LA MOTHE (1651-1715), born at the Château de Fénelon (Perigord), and died at Cambrai. He was the author of *Télémaque*, in which very decided communistic ideas are to be found; (*Bétique*, bks. vii. and *Salente*, bks. x. and xvii.), which have led the socialists to claim the writer as on their side. Strongly-pronounced views on commercial freedom are also to be found in the *Conseils de Narbal à Télémaque*, bk. iii. These, like the communistic ideas, cease to be surprising when the reader remembers that the book is a classical romance, written (1699) not for the public, but for the moral education of the Duke of Burgundy. Fénelon expressed his opinions more decidedly when passing judgment on the policy of Louis XIV. The letter which this eminent writer addressed to the monarch (dated about 1691-1694), the instructions which he gave to the king's grandson, the Duke of Burgundy, and finally many passages in *Télémaque*, for none of which Fénelon sought publicity, show how great a mind his was. Yet Fénelon was not free from the prejudices of his age in matters of politics and religion, Augustan age though that age might be called. Fénelon was appointed tutor of the Duke of Burgundy in 1689, and archbishop of Cambrai in 1695. He was from 1693 a member of the French academy. A. C. f.

FEOD OR FEUD. Land granted to be held of the grantor or donor as opposed to land (ALOD) which a man could call his own either personally or as a member of a group or tribe. Alodial land disappeared and the words *feod feudum*, came to be applied to an estate of inheritance as opposed to an estate for life (see FEE).

[Digby, *History of the Law of Real Property*, Oxford, 1884, pp. 31, 71. See also p. 31 for the various suggested etymologies of the word. Sir H. Maine, in *Early Law and Custom*, 1883, p. 338, discusses the history of the feud.] J. E. C. M.

FEODARY. A book or roll containing lists of knights' fees showing the liabilities of the tenants in respect of military service and scutage, and serving as an assessment for any system of taxation which has the knight's fee for its basis. The best known and most important feodaries are the "The Red Book" and "Small Black Book" of the exchequer, the *Liber Feodorum* or "Testa de Nevill," "Kirby's Quest," and the "Book of Aids." Of these the "Testa de Nevill" or "Book of Fees" is the most perfect specimen: it was compiled probably in the latter part of the reign of Edward I. and contains the result of an inquisition held during the last years of Henry III. and the first of Edward I., giving a detailed list of knights' fees, crown livings, widows and heiresses whose hands were in the gift of the crown, together with the scutages, aids, etc. payable by each tenant. The "Red Book" contains a list of all the scutages levied between 1156 and 1212, and the result of the inquisition held in 1166 on account of the marriage of Henry II.'s daughter; the latter is also contained in the "Black Book"; both books contain, besides, a large amount of miscellaneous matter more or less closely connected with the exchequer. "Kirby's Quest" and the "Book of Aids" contain the results of similar inquisitions held in 1296 and 1356 respectively. DOMESDAY BOOK, the earliest known survey of the country, differs from the above-mentioned works in having for its unit the hide instead of the knight's fee. These books are not merely of historical and antiquarian interest; they afford the student of economics an excellent means of determining the distribution of wealth and population in mediæval England (see KNIGHT'S FEE). A. E. S.

FEOFFMENT. The term applied to the conveyance of a fee, *i.e.* an estate of inheritance, by the livery or handing over of the seizin (*i.e.* feudal possession) of the land. It was the usual method of transferring fees in feudal times, and though it still survives it is rarely used.

[H. W. Challis, *Law of Real Property*, London, 1885.] J. E. C. M.

FEORMFULTUM. A term of Anglo-Saxon times of doubtful meaning. It sometimes applies to contributions in kind paid to the sheriff for the maintenance of the king and his household, corresponding to the later purveyance. Sometimes it seems to refer to the rent paid to the sheriffs for the occupation of unbooked folkland.

[Stubbs' *Select Charters*.] R. L.

FERDEL OR FERLING. A fourth part of a virgate, and, speaking generally, a sixteenth part of a hide. But as the hide contained a varying number both of virgates and of acres, the ferdel cannot be considered as a fixed quantity, though the normal ferdel was prob-

ably 7½ acres. The holder of a ferdel was reckoned among the lower classes of villeins, and seems not to have contributed an ox to the common plough-team.

[Vinogradoff, *Villainage in England*, 1892, pp. 148, 256.] E. G. P.

FERGUSON, ADAM, LL.D. (1723-1818), began life as an army chaplain, but in 1757 became librarian to the faculty of advocates at Edinburgh. In 1759 he was appointed professor of natural philosophy at Edinburgh university, from which chair he was transferred in 1764 to that of moral philosophy, which he occupied till 1785. While he ranks rather as an historian and a philosopher than an economist, Ferguson has a fair claim to the latter title through the *Essay on the History of Civil Society* (Edinburgh, 1767, 7th ed., 1814), and the *Institutes of Moral Philosophy for the use of students in the College of Edinburgh* (Edinburgh, 1769). The first-named work consists of an inquiry into the development of civilisation from the savage state: the influence of MONTESQUIEU is clearly seen in this as well as in his other writings. The style is diffuse and ornamental. Ferguson's views in pt. iv. § 1, on the advantages and disadvantages of individuals being confined to one particular employment, are entirely in accordance with those of Adam SMITH. Though this work was published nine years before the *Wealth of Nations*, it is not certain that Ferguson's ideas may not have been influenced by Smith, for the two philosophers were on intimate terms, and Ferguson entertained a high admiration for his friend. Several German writers, notably Karl MARX, referring particularly to the division of labour, consider Smith, but scarcely on sufficient grounds, as the pupil of Ferguson. In his *Institutes of Moral Philosophy*, which are written in a terse aphoristic manner, Ferguson deals with "arts and commerce" (pt. i. ch. i. § 9); here he admits his obligations to Joseph HARRIS (*q.v.*), to whom both he and Smith owe considerably, unless, indeed, Ferguson was acquainted with CANTILLON. He has, in the same work, a more important part (vii.) on "politics," subdivided into "public economy" and "political law." The former treats, among other subjects, of taxation, in respect to which he lays down the following six maxims: "(1) that the exigencies of the state must be provided for at any hazard or expense to the subject; (2) that in levying taxes no subject be unnecessarily burdened; (3) that the security of the subject, or that of his property, be not impaired; (4) that no useful branch of trade be unnecessarily burdened; (5) that taxes least felt as grievances be preferred; (6) that the least burdensome method of collecting taxes be chosen." Of these the 2nd, 3rd, 5th, and 6th convey some of the ideas included in Smith's 2nd, 3rd, and 4th canons, though the latter in every case cover far more ground. There is nothing in Ferguson corresponding to Adam Smith's first maxim. But Ferguson's examination into the expediency, or otherwise, of the various kinds of taxes, divided into capitation, assessment, customs, and excise, might almost have been the text of Smith's arguments on these methods of taxation. Pt. i. ch. i. § 7 of the *Institutes* deals with population, the laws of increase being set out, in some respects, as by Malthus thirty years later. In his *Principles of Moral and Political Science* (Edinburgh, 1792) —a revision of his own lectures—pt. ii. ch. vi. he treats of such economic questions as population, wealth, revenue, liberty, "judicature," and executive power. Here also he repeats his maxims on taxation, omitting the 4th and 6th but adding, "No tax should be laid on in such a manner as to drain the source from which it is derived." He does not mention Smith's canons.

With Ferguson political economy is only incidental, and not yet dissociated from "politics"; his views, without being entirely original, are considerably in advance of his predecessors', and more generally consonant with those of Adam Smith. In his opinions on mankind may be seen the dawn of what is now known as SOCIOLOGY. In his philosophical system, while being, on the whole, a pupil of Reid, Ferguson introduced a new theory by maintaining that the principle of perfection was of more importance than the principles of self-conservation and sociability, though he admits the influence of these latter, which had till then been held sufficient to explain human morality. Cousin considers that he was the first Scotch moralist to understand the true destiny of man. Ferguson also wrote an important *History of the Progress and Termination of the Roman Republic* (London, 1783).

[Small, J., *Biographical Sketch of A. Ferguson*, Edin., 1864.—*Encyclopædia Britannica*, suppl. to 4th, 5th, and 6th editions, art. "Ferguson," 1824. —Hasbach, *Untersuchungen über Adam Smith und die Entwicklung der Politischen Ökonomie*, Leipzig, 1891.—Cousin, V., *Cours d'histoire de la philosophie morale au 18me siècle;* 2de partie, Ecole Ecossaise, Paris, 1839-42.—Carlyle, Alex., *Autobiography*, Edinburgh and London, 1860.—Cockburn, Lord, *Memorials of his Time*, Edin., 1856.—Burton, J. H., *Life and Correspondence of David Hume*, Edin., 1846.] R. H. H.

FERM OR FIRMA. The composition paid by the sheriffs in Anglo-Saxon and Norman times, for the domain and other revenues due from their shire (see FARMING OF TAXES).

[Cp. the title of Madox's well-known *Firma Burgi*.] R. L.

FERRARI, JACOPO (living in 1600), born at Rovigo. Though a friar and a theologian, he maintained that payment of interest on money lent was justifiable. After giving a description of the different modes of operation then practised by the bank of St. Ambrogio at Milan, he

proved their lawfulness, and opposed and argued against the well-known objection of theologians, *pecunia non potest parere fructum nisi ratione lucri cessantis vel damni emergentis*, as it was referable to money in its primary use; in its secondary use it is a class of merchandise on which it is right to ask an interest for lawful transactions (see CANON LAW).

Digressio resolutoria in contractus usitatos a Banco S. Ambrosii ciuitatis Mediolani, per Fratrem Jacobum Ferrarium, Rhodiginum, in conuentu S. Mariae gratiarum Mediolani, Ordinis Praedicatorum sectorem primum Mediolani, 1623.

A. B.

FERRETTI, JULIUS (fl. 1500), a jurisconsult, born at Ravenna, who applied himself to subjects referring to the revenue. Like his contemporaries Francis Lucano and John Batacchio,—mentioned by Ricca-Salerno in his *Storia delle Dottrine Finanziarie in Italia*,—he considered that taxes should be for revenue only.

He wrote, *De Gabellis.—Quaestiones et decisiones utiles et quotidianae in materia vectigalium et gabellarum tam in terra quam in mari*, Venetiis, 1547.—*In civitate Campaniae* (Fabris), 1547, 8vo.

A. B.

FERRIES (Scotland). As in England, ferries are *inter regalia*, that is, they belong to the Crown, unless granted away. In that case the grantee must keep sufficient boats running in order to meet the requirements of the public, and the rates charged, if not specified in the grant, are regulated by the justices of the peace. Rights of ferry must not be evaded or competed with. Public ferries are under the administration of the local authorities, or of bodies constituted by special acts. A. D.

FERRONI, PIETRO (19th century), an abbot of Florence, was the author of—

Rapporto sopra una lettera sulla libertà del commercio dei viveri di Monsignor Antonio Scarpelli (6 Giugno, 1804).—In *Atti della R. Accademia dei Georgofili* (vol. v. Firenze, 1804).

A. B.

FEU (Scotland). Land held under the Scottish form of the feudal tenure, copyhold in form, freehold in substance, though subject to seizure (after declaratory action) for failure to "pay the canon," or meet the stipulated annual payments to the immediate superior. The feu is, in effect, land held under conditions of fixity of tenure for an indefinite period, fixed rent, and free sale or subletting, subject always to the conditions of the original grant. The tenant of a feu is called the "feuar," or in popular language, or even in legal narrative, the "proprietor"; the lord or granter, who receives a fee-farm rent, as also certain incidents or "casualties," is called the superior, and his rent the feu-duty. He in his turn may have superiors over him, and so on up to the Crown.

A. D.

FEUD. See FEOD.

FEUDALISM, ITS ECONOMIC CHARACTERISTICS. It is difficult to state with precision the economic characteristics of feudalism; partly because the term itself is used very loosely, and partly because the conditions which it is commonly employed to denote did not long remain absolutely unchanged in any country, and were not altogether identical in any two. For the present purpose it will be allowable to use "feudalism" for the whole complex of social relations in Western Europe from about the 10th to about the 15th century. "Feudalism" must, indeed, in the strict sense of the term, be defined as an organisation resting on a peculiar system of land-tenure—a system in which ownership was divided between tenants and lords, and in which the connection as to land was accompanied by a close personal tie between lord and tenant, involving mutual rights and duties. The economic features of mediæval life were many of them the results of this system of land-tenure; but it would be pedantic to confine our attention here to those which could be definitely connected with it.

I. Early feudal society was (1) almost exclusively agricultural, and (2) the population was divided into two great rural classes, the lords of the soil (from the king and the great vassals down to the pettiest *seigneur* or manorial lord), and the cultivators of the soil. The husbandmen were able to spend only part of their time—as a rule, perhaps, less than half—on the cultivation of their own holdings; the rest of their time was devoted to labour upon the demesne of their lords. In the later feudal centuries these labour services were, in whole or in part, commuted for money payments: a change which, if we may judge from modern experience in eastern Europe, must have led to a great increase of production both on the servile holdings to which the tenants were now able to give the whole of their labour, and on the demesnes which could be better cultivated by hired labourers than by unwilling serfs. (3) Those lords, lay or clerical, who held many estates were obliged to devise methods by which the net produce could be forwarded to them; but with this exception each MANOR or Seigneurie (*q.v.*) formed a self-dependent economic unit, scarcely connected by exchange with the outside world. (4) Such exchanges as went on, and such dues as needed to be rendered, within or without the rural group, were arranged in what later economists have called a *Naturalwirthschaft* as opposed to a *Geldwirthschaft;* payments in kind or in services being the rule instead of payments in money. (5) Social relations were also marked by a high degree of fixity. Labour dues must, at some period, have become limited; but once the limitation was made, it remained for centuries unchanged; and, again, after labour was exchanged for money, the payments rapidly became well-nigh unalterable. There

was but little movement from place to place on the part of the vast majority of the people; ascription to the soil being not only a legal rule but a social custom. Population, moreover, increased so slowly that there was little difficulty in finding room for additional members in each manor. The forces which are now summed up in the term "competition" were not, indeed, altogether absent; but they were so much weaker than they are now, and they moved within such narrow limits, that they may almost be regarded as non-existent.

II. In a feudal kingdom sovereignty tended to disappear in suzerainty. But the king, besides being the supreme over-lord, was himself the immediate lord of great estates. The royal court was normally maintained by the proceeds of the royal manors. In time of war the overlord called upon his vassals for personal service. (1) Thus neither for the ordinary nor for the extraordinary needs of government was taxation resorted to unless as an exceptional occurrence,—a marked contrast alike to the financial system of the later Roman empire and to the habitual reliance on taxation of modern states. (2) Taxation being something exceptional, it was held to require the express consent of those to be burdened. Herein appeared the motive which led to the establishment of parliamentary assemblies, and the feudal organisation furnishes the key to their early constitution.

III. In the later feudal centuries trade and industry sprang up in the towns. In the absence of strong government, and under existing conditions as to communication and transportation, it was natural that the towns should not only be the centres of, but should secure control over, this new activity, and that they should seek to regulate it in their own interest. Thus, side by side with a manorial-economy, sprang up a town-economy; both to be superseded in later times by a territorial and a national economy. Under the sheltering care of municipalities and guilds arose a middle class, a *bourgeoisie*, by the side of, and after a time in a sense *between*, the two classes previously existing; and it is this class which has been the peculiar representative and champion of modern ideas in economic and constitutional matters.

[On the history of feudalism in Europe the most generally accepted authority of late has been G. Waitz, *Deutsche Verfassungsgeschichte* (last ed. 1880 *seq.*) This should, however, now be compared with Fustel de Coulanges, *Histoire des Institutions Politiques de l'ancienne France* (1889 *seq.*). For England the standard authority is Stubbs's *Constitutional History* (1873 *seq.*), a summary of whose conclusions as generally accepted in 1887 will be found in the essay on "Feudalism," in *Constitutional Essays*, ed. Wakeman and Hassall. Much information as to details of mediæval life will be found in the writings of Thorold Rogers, either in the *History of Agriculture and Prices* (vols. i. ii. 1866; vols. iii. and iv. 1882), or, in a more popular form, in *Six Centuries of Work and Wages* (1884). For Germany, Inama-Sternegg, *Deutsche Wirthschaftsgeschichte* (vol. i. 1879, vol. ii. 1891). On mediæval labour-rents light is thrown by Richard Jones in his *Essay on the Distribution of Wealth* (1831). The work of most vital importance for understanding the inner life of mediæval society is *English Village Community* by F. Seebohm (3rd ed. 1884). An endeavour is made to trace English agricultural development in Ashley, *Economic History*, (pt. i. 1888; pt. ii. 1893; in Amer. ed. vols. i. and ii.)]. W. J. A.

[See FORESTS, MEDIÆVAL; KNIGHT'S SERVICE.]

FIARS PRICES (Scotland). In the month of February every year the sheriff of every county in Scotland fixes, with the aid of a jury, the average local or "fiars" price of the different kinds of grain. The prices so fixed serve to regulate the money equivalent of all payments in grain, clerical stipends, grain-rents, or of payments stipulated to be in grain sold at fiars prices, or the price of grain stipulated to be delivered without any price having been fixed.

[See Connell, *On Tithes.*—A. Smith, *W. of N.*, I. xi. p. 84, 1, ed. M'Culloch.—*Add. Report of Lanarkshire Commissioners of Supply on Fiars of Grain*, 1817.—J. H. Maclean, *Fiar Prices and Produce Rents*, 1825.] A. D.

FIAT MONEY. A colloquial term in the United States applied to paper money issued by the government as money, but not supported by coin, bullion, or any promise of redemption. It circulates because the government wills it. The advocates of this money are in extreme opposition to the HARD MONEY or bullion party. D. R. D.

FIBONACCI (*filius-Bonacci*), LEONARDO PISANO (12th and 13th centuries), the mathematician of Pisa, chiefly famous for having introduced Arabic numerals from Barbary into Italy at the commencement of the 13th century, contributed materials to the history of currency and of commerce in his work on arithmetic, entitled: *Incipit Liber Abbaci compositus a Leonardo filio Bonacci Pisano in anno 1202.* In it an account is given of the various coins and their values, as well as of the different weights and measures used, when he wrote, at the principal cities of Italy. Extracts from it are given by Targioni Tozzetti (*Relazioni d'alcuni viaggi fatti in diverse parti della Toscana*, ed. 2; vol. ii. pp. 62-65, Firenze, 1768). C. A. F.

FICHTE, JOHANN GOTTLIEB (1762-1814). Fichte, though of the first importance as a philosopher, cannot be called an economist. Yet through his philosophy he has indirectly exercised great influence on economists, his system giving in outline the theory of development worked out by Hegel, and applied by certain of Hegel's followers to economic history and theory (see HEGEL, LASSALLE, MARX, PROUDHON). Yet the direct influence of Fichte, through his writings on social and

political questions, has been much less strong than might have been expected from the power of the writer and the brilliancy of his theories.

Fichte himself had two social ideals. (*a*) He looked forward to a condition of human society when the state and the coercion of laws would not be needed; as regards the remote future, he is what is now called an anarchist, of the type of William Godwin (*q.v.*). (*b*) But he sees that men have, strictly speaking, no rights without the state, and conceives that they must necessarily pass through a stage of development in which the state and the laws shall educate them. He has, therefore, a proximate ideal, an ideal state. The best state is to him a "closed state"; it is not merely to have its separate nationality and laws, but it is to be separate in its industry and wealth. It is not to be merely "protected" against its neighbours' competition; it is to have a cordon drawn round it, and, with a few jealously-watched exceptions, it is to have no trade and hardly any intercourse with the foreigner.

The cordon once drawn, the guardians of the state can, he thinks, regulate production and trading, prices and wages. They can introduce a *Landes-geld* or peculiar national currency, valueless abroad; and they can control its value by controlling its quantity. Thus in all departments of economical life there would be hope of introducing constancy, security, and the maintenance of the chief right of man, the right to labour. Fichte means by right to labour the same sort of exclusive privilege as was secured by the old gilds to their members; and he regards this as the most important form of property. Private property in the ordinary sense of the word, family life, and even accumulation of fortunes, are not excluded; and the advantages of family life are clearly recognised. Fichte is a socialist but not a communist; and he does not try to regulate consumption.

The fire of enthusiasm always present in Fichte's writings is not wanting in the *Closed State;* but the *Characteristics*, and *Vocation of Man*, are better examples of his best manner.

Collected works ed. by J. H. Fichte, Berlin, 1845-46 (8 vols.). There are passages of economic interest scattered up and down in nearly all these volumes. *Der Geschlossene Handels-Staat* (1800) was an appendix to the *Naturrecht* (1796). Both are contained in vol. iii. of works.

The *Characteristics of the Present Age*, *The Vocation of Man*, and other of the more popular works of Fichte were translated into English (with much spirit) by the late Sir William Smith (Chapman, 1848, etc.). The translator published also a *Memoir* of Fichte that went through two editions. Fichte's chief philosophical treatise is *Wissenschaftslehre* (1794), vol. i. of works.

[Gustav Schmoller, *Litteraturgeschichte der Staats- und Social-wissenschaften* (Leipzig), 1888.—J. B. Meyer, *Fichte, Lassalle, und der Sozialismus*, 1878.—Ferd. Lassalle, *Die Philosophie Fichtes und die Bedeutung des deutschen Volksgeistes*, *Festrede*, May 1862; also the article *Fichte* in the *Handwörterbuch der Staatswissenschaften*, by Dr. Karl Diehl; also Bonar's *Philosophy and Political Economy* (1892), bk. iv. ch. ii.] J. B.

FICTITIOUS EXAMPLES. See Examples.

FICTITIOUS PAYEE. By § 7 (3) of the Bills of Exchange Act, 1882, which by virtue of §§ 73 and 89 applies *mutatis mutandis* to cheques and promissory notes, when the payee of a bill is a fictitious or non-existing person the bill may be treated as payable to bearer. This provision has been held to apply to the case of a forged bill, when the name of a real person was inserted as payee, but the bill was never negotiated, or intended to be payable, to him; see Bank of England *v.* Vagliano (1891), 1 App. Cas. 107; and see the whole subject discussed in an article on that case in *Law Quarterly Review*, vol. vii. p. 216. In France the insertion of a fictitious payee constitutes a *supposition de nom*, and makes the bill void in hands of any party with notice of the fact. Most of the continental codes contain similar provisions. M. D. C.

FIDEICOMMISSUM. A legacy by way of informal request instead of formal command, thus differing from the strict *legatum*. The fulfilment of the request at first depended entirely on the good faith of the person to whom it was made, but it subsequently became legally enforceable on any one who succeeded to property of the testator. The advantage of *fideicommissa* was, that being originally outside the law, they were not subject to the restricted rules applicable to *legata*. Thus many kinds of bequest were valid as *fideicommissa*, though invalid as *legata*. In course of time, however, the differences between these two forms of legacy disappeared, the law relating to them being assimilated. The idea of vesting property in one person in the confidence that he will allow another to have the benefit of it is common to the fideicommissum and the trust of English law. Indeed some writers suppose that the existence of fideicommissa suggested to mediæval chancellors the enforcement of uses and trusts. But the analogy is only of a general kind. A fideicommissum is simply a form of bequest requesting a transfer of property to be made by some one after the testator's death, whereas a trust is much more freely enacted and may be of much wider extent.

The notion of a double estate, legal and equitable, which belongs to trusts, being derived from the separation between common law and equitable jurisdiction, is foreign to fideicommissa. From the fideicommissum of Roman law a form of family settlement was evolved in France and some other continental countries by which the property affected by it was made inalienable in accordance with feudal ideas (see Majorat). E. A. W.

FIDES, BONA, MALA. These terms are frequently used in connection with the acquisition of property, a person acquiring the property of another *bona fide*, *i.e.* not knowing of his defective title, being sometimes in a more favourable legal position than one acquiring *mala fide*, *i.e.* knowing that he has no right. Thus according to Roman law only a person who comes *bona fide* into possession of the property of another can acquire ownership of it by usucapion, and in English law only a *bona fide* holder of a bill of exchange for value, not a *mala fide* holder, can recover on it. (See BONA FIDE.) E. A. W.

FIDUCIARY. A person entrusted with the management of property or business transactions on behalf of another person or other persons is said to stand in a fiduciary relation to the owner or owners of the property, or the person or persons on whose behalf the business is transacted. The more usual instances of fiduciary relations are those between trustees and beneficiaries,—principals and agents,—directors and shareholders. The nature of the responsibility varies according to the character of the relation, but the rule that a person standing in a fiduciary position must not, in the absence of special authority, derive any direct or indirect profit from his position, is common to all cases. E. S.

FIELDING, HENRY (1707-1754), playwright, novelist, and essayist, was made a justice of the peace "for the County of Middlesex and for the City and Liberty of Westminster," by the whigs, in return for his anti-jacobite journalistic writings. Some results of his magisterial experience took shape in two essays, which are not without interest to the economist from the historical point of view—*An Enquiry into the Causes of the late Increase of Robbers, etc., with some Proposals for Remedying this Growing Evil*, London, 1751; and *A Proposal for Making an Effectual Provision for the Poor, for amending their morals, and for rendering them useful members of the society. To which is added a Plan of the Buildings Proposed, with proper Elevations*, London, 1753.

"*The history of Jonathan Wild the Great*," says Mr. Leslie Stephen in his biographical essay, "is a powerful illustration of the facts which were going on under Fielding's nose." He was compelled to "set a thief to catch a thief," for "London at this period, and for long afterwards, was without any proper system of police. Although the population was close upon a million, the organisation for such purposes was still that of a country village. . . The weakness of the police, in fact, made it convenient for private persons to come to terms as best they could with the criminal classes," by means of advertisements promising silence if restoration of stolen property were made.

Fielding attributes the increase of theft (1) to the growth of luxury introduced by trade (and of which as such he approves), through which the working classes had become unsettled, idle, extravagant, and addicted to drunkenness and gambling; (2) to the abuse or neglect of the laws for the regulation of the poor. Neither the receivers of stolen goods nor the thieves were prosecuted with vigour, the tortuous mazes of London buildings favoured escape, conviction was difficult, pardons were frequent, and executions made festive, not solemn, as in Holland, but "a day of glory" for the criminal.

In the second essay Fielding insists—(1) that work should be provided for the poor; and (2) that the poor should be compelled to work. He descants on the burthen and nuisance they had become, gives an early instance of "slumming," and pointed out that there was no street in Westminster "which doth not swarm all day with beggars and all night with thieves," that open insults by day were frequent and depredations in the suburban parishes of nightly occurrence. He planned, with full regulations, a county workhouse and house of correction to contain at least 5000, to which vagrants and thieves should be sent, and to which the unemployed might go. There instruction should be given in "manufactures and mysteries," and a labourers' registry kept. In support of his principles, he quotes from Sir Josiah Child, "the great Mr. Law," and "Sir William Petyt." C. A. F.

FIELD SYSTEMS. The prevailing agricultural system, in the middle ages, of England as well as of many European countries. The enclosure acts of the 18th and 19th centuries finally put an end to it in most parts of England, but a few relics may yet be found. Open-fields and town-fields are names often given to lands cultivated under this "three-field" system. One of the three fields was left fallow each year, while the other two were under crops. In some cases a simpler two-field system existed. The open-fields were divided into strips, generally of an acre or some fraction of an acre, varying in breadth, but usually, except where the irregularity of the land prevented it, a furlong in length; evidently the shape was dictated by the necessities of ploughing. Balks of unploughed turf separated the strips, and across the ends ran a common way, sometimes a path, sometimes a strip, the last to be ploughed. The cultivators, whether freeholders, villeins, or copyholders, held a varying number of strips in each field; the demesne land of the lord of the manor, and probably even the church lands, were similarly scattered in strips in each field; the tenants paid rent, in early times chiefly in produce and in labour on the lord's strips, in the later middle ages and since, chiefly in money. Ploughing, sowing, reaping, carting, felling wood, washing sheep, repairing hedges, were among the commonest services performed by the tenants. These would come

under the head of week-work, usually the labour of three days a week from the ordinary serfs; other services, not fixed in time or amount, were called boon-work. In addition to their holdings in the fields the cultivators had grazing rights on the common pasture land which was never divided into strips like the arable, and also, as soon as hay-harvest was over, on the lands temporarily enclosed for hay by the several tenants. "Lammas meadows" (see LAMMAS LANDS) still recall this old right, which points to the common ownership originally existing in the village community. Another evidence of this is the communal or manorial rule, enforced by the township or manor courts, by which common cultivation was made compulsory. The same crops must be grown by all, the same fields cultivated and left fallow in the same order. Individual ownership was *practically* established, but there was no individual freedom of action. Economically, the system was wasteful, tending to keep the standard of farming at the level of the worst farmer, giving scope for endless quarrels, and preventing the adoption of improved methods and implements. The holdings being scattered, the farmhouses could not stand in the midst of the farms, but were placed side by side in the village street. The normal holding of the better class of villein, if in the complexity of classes and holdings anything can be called normal, may be taken to have been 30 acres,—a virgate or yardland; such a tenant usually owned two oxen, and combined with other tenants to form the common plough-team. Others held a half-virgate,—bovate or oxgang, and contributed one ox to the team, while others again of the lowest class of villein had little or no share in the common fields and owned no ox, but held a hut with a small plot of garden. All gradations are found between these classes, and some villeins even held more than a full virgate. The co-operative plough-team, like the compulsory common cultivation, calls to mind the common ownership of earlier times.

The chief points which are still controversial are, the origin of the scattered holdings and of the services and rents of the peasants. But the latter, though intrinsically the more important, cannot be considered here. With regard to the former, Seebohm argues that the strips were apportioned to the co-owners of the plough-team in a certain rotation, and in proportion to the number of oxen owned by each. Vinogradoff, contesting Seebohm's explanation of the problem by coaration, mentions the fact that in central Russia the strips are intermixed although the plough is drawn by one horse, and argues that the large landholders, who must have owned beasts enough for at least one full team of eight oxen, would under this theory have had compact holdings, which was not the case; and that very many instances are found of small teams of four oxen owned by two peasants, which under the system of distribution by coaration would have given the strips alternately to two tenants,—an arrangement which seems not to be found. Vinogradoff explains the intermixed strips by the desire to divide the land fairly; on the ground that, as due allowance for the uneven quality and irregular conformation of the land was nearly impossible, the plan of dividing good, bad, and indifferent land alike equally among the claimants, would be the most natural resource.

[Nasse, *Geschichte der mittelalterlichen Feldgemeinschaft in England*, 1869.—Thorold Rogers, *Six Centuries of Work and Wages*, 1884.—Seebohm, *English Village Community*, 1883.—Vinogradoff, *Villainage in England*, 1892.]

E. G. P.

FIERI FACIAS, WRIT OF. This writ, commonly called *fi. fa.*, is the one most frequently used for the purpose of enforcing judgments for the recovery of money claims. It directs the sheriff to "cause to be made" (*fieri facias*) the sum of the judgment debt by sale of so much of the debtor's goods as are required for that purpose. The sheriff's officer must be careful not to seize more goods than are required, and not to seize goods which are not the debtor's property. It sometimes happens that goods seized by the sheriff are claimed by the debtor as his property as well as by some other person; in such a case the sheriff may have the rights of the parties ascertained by a procedure known by the technical name of Interpleader. Formerly the sheriff was unable to take possession of anything beyond "goods and chattels" in the strict sense, but a statute passed in the beginning of the present reign (1 & 2 Vict. c. 110) enables him to seize money, banknotes, bills of exchange, bonds, and other securities for money, and to enforce such securities in the judgment debtor's place.

E. S.

FIFTEENTHS AND TENTHS. The expedient of raising money by means of a tax on personal property is said to have been first tried in England in the time of Henry II. (reigned 1154-1189), who raised money for a crusade by means of the *Saladin tenth*. Whether this was the first occasion or not is a disputed point; it is, however, certain that as soon as subsidies began to be granted by parliament, these subsidies took the form of a tax on personal property. The amount levied was some definite fraction of the value of each person's movables; the inhabitants of cities, boroughs, and ancient demesnes being taxed somewhat more heavily than the rest of the country. In the reign of Edward I. (reigned 1272-1307), the usual grant became a *fifteenth and tenth;* that is to say, a tenth of the value of all movables was to be collected from the inhabitants of cities, boroughs, and ancient demesnes, and a fifteenth from every one else. At first a special assess-

ment was made for each grant, but in the year 1334, when a *fifteenth and tenth* was granted to Edward I., a great inquisition was held, the tax being assessed with much care, extraordinary pains being taken to secure an accurate result, and after this date a *fifteenth and tenth* was a technical expression, and meant that each district was to contribute the amount fixed by the great assessment of 1334. When, owing to changes in the distribution of wealth, the burden of taxation was no longer fairly distributed by the assessment of 1334, the balance was restored by allowing a drawback of £4000, and in later years of £6000, on each *fifteenth and tenth*, in favour of waste and impoverished places; but no new assessment was made till the reign of Henry VII. (reigned 1485-1509). The whole system of taxation was altered during the commonwealth, and *fifteenths and tenths* were levied for the last time in 1626. The accounts of the assessment and collection of these subsidies, extending as they do from the reign of Henry III. to the end of the reign of Charles I., form a class of documents of great importance in economic and general history.

[Stubbs, *Constitutional History of England*, vol. ii., Oxford, 1883.—Blackstone's *Commentaries on the Laws of England*, vol. i., London, 1862.—*Second and Third Reports of the Deputy-Keeper of the Public Records*, appendix ii.—Dowell, *History of Taxation*, 2nd ed., 1888.] A. E. S.

FILANGIERI, GAETANO (1752-1788), was born at Naples. His parents, nobles, intended him for a military career, which he soon abandoned to study law and philosophy, with a strong belief in the high future of science, and a desire to discover a new system for the good of mankind. He was the king's chamberlain, and passed his youth at court. During that time he supported the reforms which the Minister Tanucci introduced in the juridical administration (1774), and published, in 1780, the two first volumes of his great work, *La Scienza della Legislazione*, and soon after (1783) the 3rd and 4th vols., which, if they brought him honours both at home and abroad, brought him enemies also. He married, and removed to Cava, where he published (1785) three volumes more, and was appointed a member of the supreme treasury council by Ferdinand IV. His impaired health and zealous work in his new office obliged him to retire to the country at Vico Equense, to recover his strength. But in vain: he died suddenly, aged 36, leaving a lasting fame.

Filangieri was one of the most important writers on economics in the latter years of the last century. He did not, as he himself declares, create new systems, or any new theory; he had a considerable acquaintance with the economical studies of his time, but it is strange he knew nothing about Smith, whom he never refers to. However, he followed no leader, standing between the physiocratic and mercantile theories. He was a zealous partisan of free-trade and the SINGLE TAX, while he believed in the BALANCE OF TRADE; so that he may be termed eclectic, but not in the same sense as his fellow-citizen GALIANI. Filangieri is a connecting link between MERCANTILISM and FREE-TRADE; he sustains the principle of the balance of trade, but he argues for a system of liberty both for exportation and importation, tempered only by the opinion that laws ought to be different in countries differently circumstanced; his works are thus the prelude to a historical system of social legislation. In this aspect Cossa (*Introduzione allo studio dell' Economia Politica*) justly classes him among the authors who accept the new liberal theory without giving up entirely the ancient ones, physiocratic and mercantile.

La Scienza della Legislazione, Venezia, 1822, vol. ii. The 1st ed. is of 1780, and another at Genoa, 1798.—See especially lib. ii. *Delle Leggi Politiche ed Economiche*, reprinted by Custodi in his *Collezione P. Mod.* vol. xxxii.—*Parere presentato al Re sulla proposizione di un affitto sessennale del così detto Tavogliere delle Puglie*, Napoli, 1788.—*Estratto dell' opera* [*William*] *Playfair sul Debito Nazionale*, Napoli, 1788. Playfair's work is *An Essay on the National Debt*, London, 1787. Filangieri, in sending his work to the Marquis Tommasi, explains that he owed to Playfair his opinions against establishing a national debt, to meet the extraordinary requirements of the state. A. B.

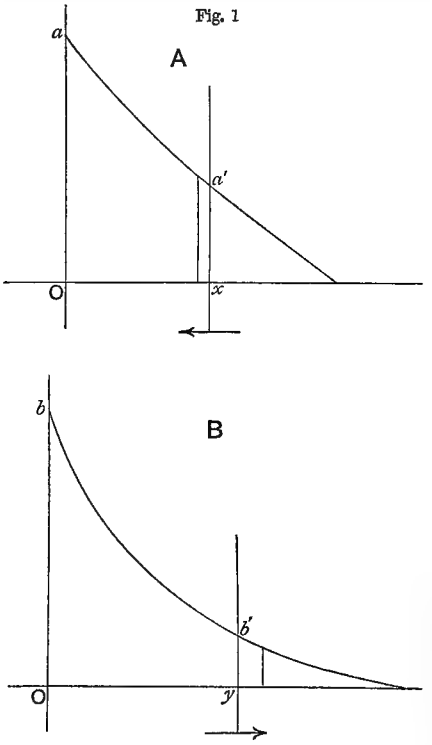
FILIUCCI, VINCENZO (18th century), a Jesuit, born at Siena, who summed up with intelligence the oft-repeated theological considerations about the determination of price, and discussed usury and exchange operations, faithfully keeping to the canon law. The first part of his volume treats of the theory of price, and is interesting to the economical student.

Moralium quæstionum de christianis officiis et casibus conscientiæ, auctore Vincentio Filiuccio, Lugduni, 1622. A. B.

FINAL DEGREE OF UTILITY is the expression used by Jevons for the DEGREE OF UTILITY (*q.v.*) of the last increment of any commodity secured, or the next increment expected or desired. The increments being regarded as infinitesimal, the degree of utility is not supposed to vary from the last possessed to the next expected. It will be obvious, after a study of the article on DEGREE OF UTILITY, that it is the *final* degree of utility of various commodities that interests us commercially, not, for instance, their initial or average degrees of utility. That is to say (Fig. 1), if a is a small unit of the commodity A, and b a small unit of the commodity B, and q_a the quantity of A I possess, and q_b the quantity of B I possess, then, in considering the equivalence of a and b I do not ask whether A or B has the greater initial degree of utility, *i.e.* I do not compare the lines Oa and Ob, nor do I inquire which has the greater average degree of utility, *i.e.* I do not compare the height of the rectangle on

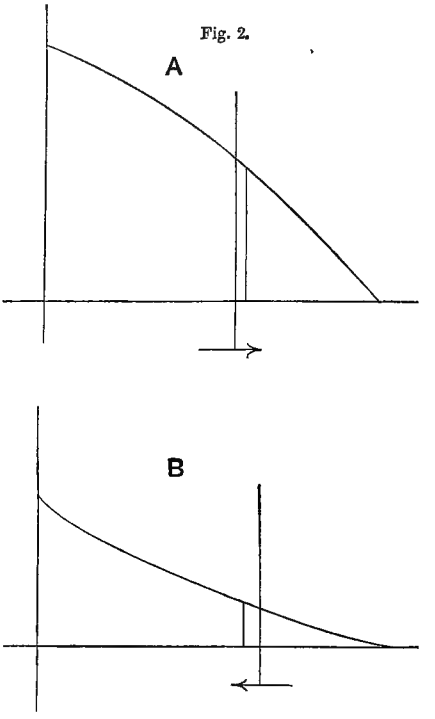
base Ox which shall equal the area $aOxa'$, with the height of the rectangle on base Oy which shall equal the area $bOyb'$, but I compare the length xa' with the length yb', and ask what are the relative rates at which increments of A and B will *now add* to my satisfaction. If xa' is twice the length of yb', then (since a and b are supposed to be small units, throughout the consumption of which the decline in the curves aa', bb' may be neglected) it is obvious that $2b$ will be equivalent to a, since either increment will yield an equal area of satisfaction.

Fig. 1



Now suppose (Fig. 2) that some other possessor of the commodities A and B, either because he possesses them in different proportions, or because his tastes and wants are different, finds that the relative final utilities of the small units a and b are not the same for him (2) as they are for me (1). Say that for him $3b$ is the equivalent of a, clearly the conditions for a mutually advantageous exchange exist. Let δ be greater than 2 and less than 3, so that $\delta - 2$ and $3 - \delta$ are both positive. Now suppose (1) exchanges with (2), giving him a and receiving from him δb. Then, (1) receives δb in exchange for a (worth $2b$ to him) and benefits to the extent of $(\delta - 2)\ b$, and by the same transaction (2) has received a (worth $3b$ to him) in exchange for δb, and has benefited to the extent of $(3 - \delta)\ b$. The result of this exchange will be a movement of all the verticals that indicate the amount of each commodity possessed by each exchanger, in the directions indicated

Fig. 2.



by the arrow-heads; and this again will (as is obvious from inspection of the figures) tend to reduce the difference between the ratio of equivalence between a and b in the case of the two exchangers. The process of exchange will go on (δ not necessarily remaining constant) until the ratio of equivalence between a and b coincides for the two exchangers, the last exchange bringing about an equilibrium in accordance with that ratio. Such a ratio of equilibrium is a limiting ratio of exchange; that is to say, exchange constantly tends to approach such a ratio, and would cease were such a ratio actually arrived at.

Hence follows Jevons's fundamental theorem: "The ratio of exchange of any two commodities will be the reciprocal of the ratio of the final degrees of utility of the quantities of commodities available for consumption after the exchange is completed."

The final degree of utility of a commodity is thus seen to be the same as its exchange value, and a precise relation is established between

(*q.v.*), the former being the differential coefficient of the latter.

The subject is worked out in an elementary and expository manner in Wicksteed's *Alphabet of Economic Science*, where Jevons is closely followed, but the term "marginal usefulness" is substituted for "final degree of utility."

The conceptions of "degree of utility" and "final degree of utility" lie at the heart of the mathematical method of political economy, and their complete history would almost coincide with the history of mathematical economics. Incidentally the idea has been struck from time to time by sundry mathematicians, and it has been worked out independently by economists no fewer than four or five times. COURNOT (1838), DUPUIT (1844), GOSSEN (1853), and JEVONS (1862 and 1871), successively discovered and taught the theory, each one in ignorance of the work of his predecessors. In 1871 the Austrian Menger, and in 1874 the Swiss Walras (working on the basis laid down by Cournot), adopted essentially the same central conception, and since then the theory has not again sunk into oblivion. Many writers in Germany, Holland, Denmark, France, Italy, and England are now engaged in developing it. See the bibliographies and lists of writers in the appendix to Jevons's *Theory of Political Economy*, 3rd ed., and the Preface to Walras's *Théorie de la Monnaie*, 1886.

[Jevons's "final degree of utility" is the *Grenznutzen* of the Austrian school, Gossen's *Werth der letzten Atome*, and Walras's *rareté* (see VALUE).]

P. H. W.

FINANCES, PUBLIC. See BUDGET, THE; DIRECT TAXATION; DEBTS, PUBLIC; FLOATING DEBT; INDIRECT TAXATION; TAXATION, Articles on.

FINANCES.

General Principles of, p. 61; of United Kingdom, p. 65—I. Imperial Finance, p. 65, (*a*) Revenue, p. 65, (*b*) Expenditure, p. 66; II. Local Finance, p. 66. Colonial and Indian, p. 67. Belgium, p. 68. France, p. 68. Germany, p. 71. Netherlands, p. 75. United States, p. 77—I. Revenue, p. 77, (*a*) Import Duties, p. 77, (*b*) Internal Revenue, p. 78; (*c*) Other Sources of Revenue, p. 78; II. Expenditure, p. 78; III. Debt, p. 79; State and Local Finance, p. 80; (*a*) Debts, p. 80; (*b*) Revenue and Expenditure, p. 80.

[The details of the taxation in each country must of necessity, in a work like the present, become rapidly out of date, but the examples of the methods of finance given will remain of service to the student of economics by showing him the manner in which the public revenue is raised in the countries cited, which have been selected as important instances of different methods.]

GENERAL PRINCIPLES. The word "finance," originally applied to the payment of a fine (*financia*, *finatio*), has by a series of changes come now to denote dealings with wealth or capital, most frequently, however, in respect to the management of public or state wealth. Public finance is in fact state housekeeping or "political economy" in the earlier sense of that term, which, according to Adam Smith (*Wealth of Nations*, bk. iv. ch. i. note), "considered as a branch of the science of a statesman or legislator, proposes two distinct objects," the second of which is "to supply the state or commonwealth with a revenue sufficient for the public services." It is accordingly concerned with the best methods of raising and applying the revenue of the state, with the administration of public property and debts, and finally with the systems of accountability and control. The forms and mode of financial organisation, and the principles on which it may best be carried on, have been gradually developed with the progress of political life and the growth of economic knowledge. The earliest societies show the direct levy of commodities and services from the members by the ruler. This simple method of supplying public wants after a time proves inadequate, and more complicated forms come into use. The sovereign obtains property sufficient to enable him to discharge the state services, or, as it was said, "to live of his own" (see DOMAINE), with the power of imposing taxes on extraordinary occasions. As the use of money in transactions becomes more general, the revenue is collected in the shape of coin, which is then expended for the public needs. It is regarded as the duty of the sovereign to accumulate treasure as a safeguard against emergencies, and the administrative arrangements for collection are improved and centralised. The sources of revenue are widened by the employment of various forms both of DIRECT TAXATION and INDIRECT TAXATION, the private or peculiar receipts from state property sink into a position of less importance, while on the other hand the forms of outlay expand with the increasing duties of the state. A further factor is introduced in the establishment of CREDIT, which allows of the substitution of borrowing (see DEBTS, PUBLIC) for the older plan of keeping a treasure. Credit also, by its use, as a medium of exchange, facilitates the collection and disbursement of the public receipts, which are readily managed through the banking system. Parallel with this movement is the application of a better and fuller method of AUDIT, and the greater power obtained by the people over finance, until, under the modern representative system, complete control has been given to the legislature over the appropriations for expenditure and the taxes laid for the obtaining of revenue. This stage, only reached by the most progressive nations within the last century, marks the highest type of financial organisation as yet known. The ruder and less developed forms still survive in backward countries, but their position only shows the course which progress has taken, and does not aid in the explanation of the best system of finance.

Theories on the subject of finance are of comparatively recent origin. At first the

financier's sole idea was to take possession of whatever articles were nearest to hand. The ulterior consequences of his action did not seem to need any consideration; therefore both in ancient and mediæval societies visible and accessible wealth formed the chief object on which the initial weight of the public burdens fell. Even high administrative organisation—as in imperial Rome—did not secure any wiser policy in the substantive methods of finance. Fiscal science took its rise with the need for increased outlay caused by the formation of the modern European system. "Statecraft," as understood by the rulers of the 16th and 17th centuries, included the management of national resources in the public interest. It therefore, more especially under the influence of the ideas of the MERCANTILE SYSTEM, sought to adjust financial rules in a way calculated to stimulate the growth of wealth. Not only the direct but the indirect effects of the fiscal policy adopted were taken, however mistakenly, into account. Thus in the *De Republica* of BODIN, certain kinds of taxation are preferred, and the rule of taxing according to "faculty" or "ability" is stated (bk. vi. ch. ii.). Modern maxims of finance in a crude form appear in the German writers of the 17th century on the subject of "the treasury," and in a more developed shape in the CAMERALISTIC SCIENCE of the succeeding one. The expediency of retaining, and the proper management of state property, the distribution of taxation, and the limits of its amount, the principle of public expenditure, and finally the questions of public treasures and debts are treated in his *Staatswirthschaft* (2nd ed. 1758), and his *System des Finanzwesens* (1761) by JUSTI who systematised the cameralist doctrines.

But the great source of financial principles in the scientific form has been POLITICAL ECONOMY (*q.v.*) as expounded by Adam SMITH (*q.v.*) and his successors, and either included, as in England, in the usual text-books of the science, or, as mostly in Germany, considered in a distinct department with the title *Finanzwissenschaft*. In the midst of much difference of opinion and dispute on controverted points some general principles may be found that have commanded widespread acceptance, or at least enable the opposed views to be realised and defined. Taking the several departments of finance in what seems their natural order, public expenditure first presents itself. The broad rule on this head is admittedly that of "economy." No expenditure should be undertaken unless for an adequate object, and the utility to be gained should be carefully balanced against the disutility or cost of the service. Not only must the total state outlay be weighed against the total sacrifice involved in the raising of revenue, but a due proportion between the several wants to be satisfied must be also observed. The "necessary" functions of the state should be met before what J. S. Mill (*Principles*, bk. v. ch. i. § 1) calls the "optional" ones receive attention. "Defence," to adopt a phrase otherwise used by Adam Smith, is prior to "opulence," and therefore expenditure for security comes before that for the encouragement of industry or the improvement of art. The rule of "economy," or perhaps better, "maximum utility," holds in respect to each class of outlay. There are limits beyond which even the most necessary object cannot be wisely pursued; and most disputes as to particular cases of expenditure,—*e.g.* the recurring one as to the sufficiency of the English army and navy—turns on the question of the observance or breach of this rule, which in practice only admits of a rough empirical application. The expediency of increasing or reducing state action may theoretically be regarded as coming under the same comprehensive canon. It should be carried up to and not pushed beyond the point at which the distribution between public and private activities produces the maximum advantage. In this respect the doctrine of FINAL DEGREE OF UTILITY (*q.v.*), promulgated by JEVONS (*q.v.*), and Menger has been employed by Mazzola (*Finanza Pubblica*, Rome, 1890), Viti de Marco (*Economia Finanziaria*, Rome, 1888), and others, but owing to the complications of the factors, it seems as yet impossible to get any definite results. On the lower plane of practice the prudence and insight of the statesman form the only guarantee for successful treatment. Other laws of expenditure are those laid down by Prof. Wagner (*Finanzwissenschaft*, vol. i. pp. 76-83, 3rd ed. 1883) as (1) the law of increase in state functions with the progress of society, and (2) the preference of prevention to repression in modern state-action. These, however, are bare generalisations from the specific experience of Germany (and in a less degree other states) during the present century rather than fundamental laws of financial policy.

Of the two great classes into which the public receipts are divided, the older, "drawn from some fund which peculiarly belongs to the sovereign" (*Wealth of Nations*, bk. v. ch. ii. 1st paragraph), may consist of lands or industrial property. The weight of authority represented in Adam Smith's dictum that "the revenue which, in any civilised monarchy, the crown derives from the crown lands . . . in reality costs more to the society than perhaps any other equal revenue which the crown enjoys" (*Wealth of Nations*, bk. v. ch. ii. part 1), favours the sale of public lands, in European countries at all events, and is opposed to fresh purchases. Any exceptions, *e.g.* the case of FORESTS (*q.v.*), are made not on financial grounds, but for reasons of public policy. As a necessary result the revenue derived from this source is quite insignificant. The question of retention or

appropriation of rent by the use of taxation is treated under LAND, NATIONALISATION OF (see also SINGLE TAX).

Though the industrial receipts of the state are not declining as much as those from the DOMAINE (*q.v.*), yet up to the present the field of public enterprise is a limited one, being confined to the means of communication and transport (see POST OFFICE; RAILWAYS, STATE; TELEGRAPHS), certain municipal services, as waterworks, gasworks, and tramways, and lastly industries monopolised for the purpose of securing revenue (MONOPOLIES, *q.v.*). The contribution from this source is comparatively small owing to the great disparity between net and gross receipts. Any considerable gain, as in the instances of the English post office, and (till quite lately) the Prussian railways, is in fact a covert form of TAXATION (*q.v.*). The relatively small yield of the quasi-private or "peculiar" sources of revenue, together with the increasing expenditure for public purposes, compels recourse to a larger extent to the agency of TAXATION.

The nature and general features of TAXATION, its just division, and its real pressure on those affected, as well as the technical rules for its convenient and economical levy, belong to the articles assigned to that head (TAXATION; TAXATION, EQUALITY OF; TAXATION, INCIDENCE OF; TAXATION, MAXIMS OF, *q.v.*). There are, however, some financial principles applicable to the subject of revenue as a whole, which may best be considered here.

One very important rule has been expressed by the word "sufficiency," *i.e.* the public revenue should be large enough to meet the public wants (Wagner, *Finanzwissenschaft*, vol. ii. p. 307, 2nd ed.). No methods of taxation or fiscal management generally—no matter how perfect in other respects—are financially sound unless they provide funds sufficient to meet all usual expenses, and thus obviate the creation of a DEFICIT (*q.v.*). Productivity is therefore one of the essential qualities of a good tax system, and the net amount produced is a most material element in determining the imposition or remission of a tax. As a corollary from the principles on which the foregoing rule is based, it may be said that excessive revenue is not desirable. A large surplus leads to waste and profusion. As Prof. Adams (*Public Debts*, pp. 81, 82) remarks, "The full realisation of self-government requires a delicate adjustment of budgetary machinery, but surplus revenue acts as a weight which throws that machinery out of balance." Thus the ideal system is one in which receipts and outlay are completely balanced, provision for repaying debt being regarded as normal expenditure.

Closely connected with the rule of "sufficiency" is that of "elasticity." Adjustment of revenue in accordance with changes in expenditure should always be within easy reach. Were this not so it would be impossible, owing to the fluctuating nature of public expenditure, to secure the desired balance. For this purpose the best expedient is the general INCOME TAX (*q.v.*) at a movable rate, as in England. The return from such a tax can be predicted within narrow limits, and the yield "begins almost at once" (Blunden, *Econ. Journal*, vol. ii. p. 642). Increase of duty on lightly-taxed articles in general consumption supplies the best substitute for, or (where a large increase in revenue is wanted) the best auxiliary to, the income tax. Abnormal pressure that cannot be easily met by state agencies must be discharged for the time by borrowing (see DEBTS, PUBLIC) which is practically a distribution of the burden over a longer period.

In addition to these requirements of financial policy, it is further desirable that the rules of "generality" and "equality" should be as far as possible observed. The former—flagrantly violated in the case of the privileged classes in France under the *ancien régime*—prescribes that all citizens should contribute to the public services. "Every privilege that tends to exemption from that contribution is" says Vauban, "unjust and abusive" (*Dîme Royale*, ed. Daire, p. 48). The latter rule, though admitting of various interpretations (see TAXATION, MAXIMS OF), lays down that: "The subjects of every state ought to contribute towards the support of the government as nearly as possible in proportion to their respective abilities" (Adam Smith, *Wealth of Nations*, ed. Nicholson, p. 347). Quite apart from ethical or political reasons, it is financially advantageous to secure the contributions of all citizens, and to avoid placing an undue burden—or even what may plausibly be regarded as such—on any individual or class.

Given the foregoing general principles as guiding rules in organising a financial system, it becomes a question of art to duly apply them in the most effective way. First it must be decided whether a SINGLE TAX (*q.v.*) will obtain the needed amount, and if so what form it should take; whether on land, on Revenue, or on Capital (see TAXATION). As, however, both theorists and practical men are agreed in favouring the use of more than one tax or form of tax, the selection and combination of the most suitable classes of imposts have to be considered. To what extent INDIRECT TAXATION (*q.v.*) should be employed; how it should be counterbalanced by DIRECT TAXATION (*q.v.*), and the supplementing of these main categories of revenue by other taxes, are the most important points for notice. At first, and even now to a great degree, indirect taxation in the shape of duties on commodities (CONSUMPTION, TAXES ON, *q.v.*) was the prevailing method. Imported goods were subject to

CUSTOMS DUTIES (*q.v.*), and the European monarchies generally employed the EXCISE (*q.v.*). Customs and excise combined furnish by far the largest part of the revenue of the UNITED KINGDOM (FINANCES OF), of the UNITED STATES (FINANCES OF), and of most other countries. In the first-named they are confined to a very small number of articles, but being laid exclusively for revenue, their yield is high. Elsewhere the inclusion of a much greater number does not give any substantial increase in the return, partly because customs duties are arranged with the design of giving PROTECTION (*q.v.*) to native industry, partly in consequence of the limited consumption of minor articles, the DEMAND (*q.v.*) for which is besides more elastic, and therefore easily reduced by taxation. Good policy, moreover, requires the freedom from taxation of certain classes of articles. Thus taxes on raw materials, and on absolutely necessary articles of food, are not levied in England; as the former would hamper industry, and the latter trench on the MINIMUM OF SUBSISTENCE (*q.v.*). Articles of luxury, particularly if hurtful, have since the time of Bodin been regarded as specially suitable objects for fiscal treatment, as the almost universal heavy taxation of alcohol and tobacco bears witness. Co-ordination between the excise and customs is desirable in order to avoid diversion of the course of industry or disturbance of the natural movements of consumption. The use of protective import duties or excises unbalanced by corresponding customs is equally a violation of this condition. Nor should articles for which substitutes free from duty are obtainable be subjected to taxation, and the actual duties imposed should be suitably arranged in respect to objects of interchangeable use, as *e.g.* beers, wines, and spirits, or tea, coffee, and cocoa.

Direct taxation is gradually taking a large place in the financial system. The English INCOME TAX (*q.v.*), at first extraordinary and exceptional, has become in practice permanent. The DEATH DUTIES have been increased and are much more productive. The extended use of the income tax on the continent, as in Prussia and the other German states, and in Holland, with in many cases a progressive form (see PROGRESSIVE TAXATION) are instances of the same tendency. Taxes on property, as in Switzerland, the "state" taxation of the American Union, and quite recently in Prussia, may be further cited. On the whole it appears that both income and realised wealth, especially when passing by succession, are being made to bear a greater proportion of the increased public expenditure of modern societies. By this change a partial shifting of the burden involved in supporting the state from the consumers of ordinary commodities to the recipients of the higher grades of income and the holders of realised wealth is being gradually produced.

Some other kinds of contribution are employed by the financier. By the agency of stamps, various legal and commercial transactions are charged. Of the same character are the fees for legal formalities, and more generally for services rendered by the public departments, which in some degree differ from taxes, since they are paid for service done. In their case the rates of charge have to be fixed on other than purely financial grounds.

In the working of finance it is difficult and indeed practically impossible to avoid excess of expenditure over income in periods of great pressure. Hence the growth of Public Debts (see DEBTS, PUBLIC), and the need of providing for their support and ultimate discharge (see AMORTISATION; SINKING FUND).

The systematic treatment of national finance is facilitated by the exhibition of its true position at definite intervals, and its consideration by the legislature. This is secured by the BUDGET (*q.v.*), round which has gathered a mass of conventional rules as in England, or strict legal enactments as in France, designed to secure publicity and responsibility. A thorough system of audit, verifying both the reality of alleged expenditure and its conformity to the legalised appropriations, is an additional and valuable guarantee for the sound management of the public finances.

Lastly the existence of a complementary system connected with the numerous local bodies both urban and rural must be noticed. Each of the several heads touched on above—expenditure, revenue, indebtedness, and administration—has its counterpart, though with instructive differences in LOCAL FINANCE (*q.v.*). But it is the reciprocal action of the tax system that requires to have special emphasis placed on it. When estimating the legitimacy of outlay, the distribution and proper forms of taxation, the weight of public debt, or any similar questions, it is absolutely necessary to take both general and local finance into account. Otherwise a true judgment on such points will be impossible, as some elements essential for its attainment will have been omitted.

[The literature of finance is quite overwhelming in amount. Nearly all text-books of political economy deal more or less with financial questions. There is also a mass of special works. In addition to those quoted in the text or given in the various articles referred to, the following manuals may be mentioned. M'Culloch, *Taxation and the Funding System*, 1845, 3rd ed. (revised) 1863.—Thorold Rogers, art. "Finance" in 9th edition of *Encyclopædia Britannica*.—P. Leroy-Beaulieu, *Traité de la Science des Finances*, 2 vols., Paris (5th ed.), 1892.—W. Roscher, *Finanzwissenschaft*, the 4th vol. of his *System der Volkswirthschaft*, 3rd ed., Stuttgart, 1889.—G. Cohn, *Finanzwissenschaft*, (translated into English), Stuttgart, 1889.—C. F. Bastable *Public Finance*, 1903.

Among brief introductory text-books the most

convenient are L. Cossa, *Scienza delle Finanze*, 6th ed. 1893, the 3rd ed. translated into English under title *Taxation*, New York, 1888.—G. Ricca-Salerno, *Scienza delle Finanze*, Florence, 1888.—K. J. Eheberg, *Grundriss der Finanzwissenschaft*, 3rd ed. Leipzig, 1891.] C. F. B.

UNITED KINGDOM. In the articles on the BUDGET; EXCISE; and FINANCE, GENERAL PRINCIPLES OF, reference has been made to the historical development of the British financial system. Those on IMPORT DUTIES and the MERCANTILE SYSTEM explain its connection with the industrial development of the nation. The purpose of this article is to state broadly existing facts, and the principles on which the finance of the United Kingdom is at present based.

I. IMPERIAL FINANCE.

The following table indicates the growth of the resources of the kingdom since the beginning of modern finance—the time of the corn law repeal. It should be compared with the general growth of the nation's wealth—*e.g.* with the IMPORTS and EXPORTS. About 1887 a check seems to have come to the then sources of revenue; and the great increase in amounts appearing in more recent years is due to extra taxation.

	Revenue.	Expenditure.
1842	£46,965,630	£50,945,169
1847	51,546,264	54,502,948
1852	53,210,071	50,792,512
1857	72,787,965	76,042,570[1]
1862	69,674,479	72,086,485
1867	69,434,568	66,780,396
1872	74,708,314	71,490,020
1877	78,565,036	78,125,228
1882	83,955,229	83,605,503
1886–7	90,772,758	89,996,752
1891–2	90,994,786	89,927,773
1896–7	103,949,885	101,476,669
1901–2	142,797,999	195,522,215

[1] War expenditure.

a. Revenue.

The approximate percentages in the revenue table are:—

	Yield in 1904-5.	Per cent of whole, approx.
Customs . . .	£35,730,000	24¾
Inland Revenue—		
Excise . . .	30,750,000	21¼
Estate Duties, etc. .	12,350,000	9
Stamps . . .	7,700,000	5½
Land Tax, etc. .	2,750,000	2
Property and Income Tax . . .	31,250,000	21½
Postal and Telegraphic	19,930,000	14
Crown Lands . .	470,000	⅓
Miscellaneous . .	2,440,404	1⅔
	£143,370,404	100

Though the actual receipt of this revenue is, of course, not so simple as might appear from this table, it is immeasurably more so than in any foreign country of which we are aware. Taking the heads in order, we may bring out a few further details.

The customs (import) duties are raised on about seven chief articles:—

Tea	which gave in	1904-5	£8,271,866
Coffee	,,	,,	179,485
Spirits	,,	,,	3,822,196
Wines	,,	,,	1,185,508
Tobacco, etc.	,,	,,	13,184,767
Currants, etc.	,,	,,	442,062
Sugar	,,	,,	6,106,387

The process by which this purely revenue tariff has been attained will be found sketched in the articles on COMMERCE; FREE TRADE; and IMPORT DUTIES. For about twenty years it remained much the same and produced annually about £20,000,000. Its recent increase may be described as due to the war taxation, and is in great measure the result of the duty re-imposed on sugar in 1901.

The excise remained fairly constant, varying from £25,000,000 to £27,000,000 for many years; it has been increased lately. The chief items in 1904-5 were—

Spirits . . .	£17,306,983
Beer . . .	12,678,832
Railway Tax . .	354,891

The spirit and other licenses, which up to 1889 produced £3,500,000 for general revenue, were in that year, all but a small portion, handed over to the local authorities. It is only since 1881 that an excise duty has been levied direct on beer—previously it was imposed on the materials used for brewing.

The death duties, since 1894, when Sir W. Harcourt recast and increased them, have been separated from "stamps"—producing a large revenue. The property and income taxes and the inhabited house duties are amongst the most important items in the national taxation. The income tax is at once the most convenient and the most notoriously unfair. Originally imposed as a temporary expedient, it has become one of the chief engines in the hands of the chancellor of the exchequer. A penny in the pound on the income tax produces a sum which may now be put at £2,500,000, but tends to increase with the wealth of the country, and the care taken in collecting the tax. The principle of the tax is excellent, but, as levied, it excites a good deal of grumbling and invites evasion. If it were arranged on a scientific basis, it would be more satisfactory and productive. The main burdens on houses and land belong to local finance.

The revenue of the postal and telegraph services are the other large items in the public revenue. They are rather to be considered as

returns for services rendered. The net revenue on this account, after deducting expenses, averaged over £4,000,000 for five years past: obtained almost entirely on the inland post.

The incidence of the above taxation, which is an important point for the financier, will be found on examination to be in a marked degree heaviest on the middle classes, *i.e.* persons of moderate means: it bears much more lightly on the working classes and the very wealthy.

Before passing to expenditure, it is well to explain that the term CONSOLIDATED FUND (*q.v.*), originally used in its proper sense, has, owing to the great changes in the raising of revenue, come to be practically a term earmarking that expenditure which was originally assigned to the fund—notably, the charges of debt and the salaries of the judges.

b. Expenditure.

The expenditure may be classified under the heads—

Charges of Debt	£27,000,000	in 1904-5 or	19%
Civil Administration	14,607,902	„	10%
Payments to Local Accounts	1,156,867	„	¾%
Education	14,235,728	„	10%
Naval and Military	66,270,000	„	47%
Collection of Revenue	3,093,000	„	2¼%
Postal, etc., Services	15,593,000	„	11%
	£141,956,497		100

The article on DEBTS, PUBLIC, gives a sufficient view of the history of the English debt. The chief points for the financier to consider are the weight of its burthen and the permanency of its charge. Sir R. Giffen, some years ago (*Essays in Finance*), pointed out that it would not require an insupportable effort to pay off, in a few years, a burthen which is less than half the national income. But English financiers have preferred more gradual measures. The annual charge was diminished by about £4,000,000, through Mr. Goschen's conversion in 1888, and again by the falling in of terminable annuities in 1900. But the South African War brought it up again. Taking debt as the cost of past wars, and our naval and military expenditure as the cost of insurance against the future, we have the enormous sum of £93,270,000 annually as the result of national jealousies—about double the charges of administration.

Of the fighting expenditure the army took materially more than the navy up to 1894; in 1904-5 it took £29,000,000 against £36,830,000. This expenditure is one of the most anxious subjects with which the chancellor of the exchequer has to deal, the economy of British administration in this respect having been seriously impugned. Of civil administration the chief items on the accounts for 1903-4 were—

Public Works and Buildings	£2,554,645
Civil Departments	3,006,366
Law, Police, Prisons, etc.	4,552,030
Diplomatic Service, etc.	619,639
Colonial grants in aid	1,514,144

From this it will be seen that the administration as a rule is fairly economical, though it has risen enormously in the last ten years: the expenditure in connection with the colonial empire has been multiplied ten times owing to the African protectorates, for most of the British colonies are altogether self-supporting. On the other items we need only remark that education is an annually increasing charge—it has almost trebled in fifteen years—and that the cost of collection of revenue is moderate.

The control of this expenditure is secured by the audit department, and by the annual investigation of the public accounts committee appointed by the House of Commons.

A word may be given to the actual financing of the United Kingdom. Although a large balance is kept in the exchequer, it is constantly necessary to borrow in advance of revenue for short terms, in order to meet the regular demands of expenditure. This necessarily gives rise to EXCHEQUER BILLS, etc.

II. LOCAL FINANCE.

Some years ago Mr. Goschen described the local finance of the United Kingdom as a complete chaos. The chief sources of receipt for the purposes of local expenditure are the rates on houses and property, reimbursements for gas and water supplied, and various tolls and dues in markets and otherwise. Some of these last, *e.g.* the toll on fish coming into Billingsgate Market, are objectionable as being practically an *octroi* on food.

The total receipts of local authorities have more than doubled since 1892; for 1902-3, exclusive of loans from or under the control of the central government, they were £93,935,417, of which more than half, £50,328,412, was from rates; the amount of government contributions was £12,782,803.

The expenditure of these sums fell under the following chief heads:—

Poor Relief in the Parishes	£13,609,870
Municipalities—Police and General Administration	79,995,031
Counties—Police and General Administration	7,735,530
School Boards, etc.	13,488,433
Highway Boards, etc.	2,183,270
Harbour, Pilotage, etc.	4,819,498

These amounts include loan expenditure.

The average annual expenditure on local purposes has grown till it approaches that of the general government, so that the total burthen of public expenditure on the people of

Great Britain is at present about £235,000,000. (For further details see LOCAL FINANCE.)

[The great parliamentary return 366 and 366-1 of 1868-69, often called *Chisholm's Analysis.*—The *Statistical Abstract of the United Kingdom.* —Reports of the Public Accounts Committee, etc., etc.] C. A. H.

COLONIAL AND INDIAN. Finance is a wide term, somewhat indefinitely used; and in a short article it will not be possible to do more than indicate briefly the basis on which the finances rest in the British possessions. The general objects of the public expenditure of all these possessions are much the same: civil and judicial administration requires a considerable fund; public works are usually the most important item apart from this; services for the public benefit, such as post offices and railways, in some cases form a large item. In many colonies and India the charge for debt is heavy. The point of view from which it is most interesting to examine the finances of each possession is that of the method of raising the revenues; and the different methods in vogue lend themselves to a rough classification.

(1) Import duties have a very decided preponderance in many colonies: *e.g.* Canada, Newfoundland, the West African Colonies, the West Indian Colonies; also West Australia.

This is illustrated by the following figures:—

	Total Revenue, 1903-4.	Revenue from Customs.
Canada (Dominion) .	£14,526,573	£8,366,647
Newfoundland . .	516,691	464,157
West African Colonies .	1,387,096	809,234
Jamaica . . .	883,450	349,576
West Australia . .	3,978,468	1,094,845

This method of raising revenue was usually the easiest and adopted first (see IMPORT DUTIES): in colonies where great natural resources have not recently been developed, the customs revenue still remains the mainstay of the financier, and in most temporary emergencies the resource is an addition to the customs duties, often merely to the *ad valorem* duties. In the West Indian colonies there have from time to time been proposals to lighten the customs dues and replace them to that extent by direct taxation; but these proposals have had little success.

(2) In several of the colonies, while the customs revenue forms a very important item, there are others which run it close in point of yield. Such are almost all the Australian colonies, the Cape, the Mauritius, Falkland Islands, and Fiji. The competing items vary so much that it would be difficult to make a classification which was not cumbrous. Excise and liquor licenses in some cases, and land revenue of different kinds in others, are the chief sources. Indeed, it is true of many colonies in the first group above indicated that excise is an important item.

(3) In a few colonies, the chief of which are the Australian, land and royalties on minerals and timber contribute a substantial amount to the annual revenue; in the Falkland Islands the rental of crown lands produces nearly half; in India the land revenue is the mainstay of the finances, producing in 1903-4 over £20,000,000 out of £83,750,000, and more if the indirect sources of revenue from land, as timber royalties, etc., be included.

(4) Revenue from public works, generally railways, swells the total considerably in many colonies. Natal is perhaps the best instance, where under this head the accounts have almost £2,500,000 out of £4,160,145 in 1903-4. But the item requires careful scrutiny in all cases, in the light of the corresponding expenditure under the other side of the account, and very often of the charge of debt. It may be said generally that in no place at present is there a net revenue from such works.

The most satisfactory form of revenue is doubtless that derived from land. It is on this ground that Strachey (*Finances of India*, ch. i.) claims that India is one of the least heavily burdened countries in the world. It is a good policy to keep the land as far as possible in the hands of the state or under some sort of state control, and in her colonies, England, applying traditions from her own history, has only slowly realised this. Most colonial governments have parted with the freehold of the land, and have sold, or granted, rather than rented it; afterwards, when fresh need of revenue has arisen, they have had recourse to taxation.

Various methods of raising revenue in the British possessions have of late years been the object of attack in this country—notably the opium and salt revenues of India, and the paddy tax in Ceylon. For the controversies which have raged round the import duties, see article on IMPORT DUTIES. Tonnage dues are generally disappearing. Besides the customs, the most thoroughly established methods of raising revenue are by excise, spirit and still licenses, stamps, and taxes on land and houses,—all of which are very general.

An important factor in the finance of all countries is their public debt; in nearly all the colonies the debt has been contracted for works of public improvement, which should eventually not only pay the charges of debt, but yield a revenue beyond; in the case of the crown colonies the debts will be repaid within a limited period, leaving the colonists with valuable assets in the completed works for which the loans were raised. In some of the more important colonies, especially the Australian, the charge for debt is large even in proportion to revenue and population; in the smaller colonies it has been kept comparatively light.

In India, Mauritius, the eastern colonies, and some others, the presence of a silver currency has introduced special difficulties of finance.

The control of finance is entirely in the hands of the local government in colonies with responsible government; in the other colonies it is supervised generally, and in the crown colonies very carefully, by the imperial colonial office. C. A. H.

BELGIUM. (Amounts in francs converted as 25 = £1.) According to the thirty-fifth volume of the *Annuaire Statistique de la Belgique*, published by the ministry of the interior, the total actual receipts of the state in 1903 were subdivided as follows:—

	Millions of francs.	£
Taxation (*a*)	239	9,560,000
Péages (tolls) (*b*)	241	9,640,000
Income of State Property	18	720,000
Reimbursements	6	240,000
	504	£20,160,000
Extraordinary and Special Resources	123	4,920,000
	627	£25,080,000

(*a*) Taxation.—The principal items are—

	Millions of francs.	£
Contribution foncière (on real property)	26	1,040,000
Contribution personnelle	22	880,000
Patentes (Trade Licenses)	10	400,000
Customs	42	1,680,000
Excise[1]	71	2,840,000
Registration, Stamps, etc.	41	1,640,000
Donation and Death Duties	22	880,000

(*b*) *Péages* (tolls) comprise the gross proceeds of the State Railway

	213	8,520,000
Post Office	18	720,000
Telegraphs	10	400,000

The extraordinary receipts consist mainly in the proceeds of public loans.

For the same year the actual expenditure was—

	Millions of francs.	£
Interest on Public Debt	136	5,440,000
Dotations (Civil List)	5	200,000
Ministry of Foreign Affairs	3	120,000
Ministry of Agriculture	12	480,000
Ministry of Railways, Post and Telegraph	165	6,600,000
Ministry of Finance and Public Works	36	1,440,000
Ministry of War	62	2,480,000
Ministry of the Interior and Public Instruction (the latter 21 millions, £840,000)	33	1,320,000
Ministry of Justice (includes 7 millions for religious endowment)	27	1,080,000
Ministry of Labour and Industry	17	680,000
Sundries	4	160,000
	500	£20,000,000
Special Services	114	4,560,000
	614	£24,560,000

[1] Includes Foreign wines 5 (£200,000), alcohol 45 (£1,800,000), beer and vinegar 12 (£480,000), sugar 6 millions of francs (£240,000).

Special services include public works executed at the expense of the state; thus, from 1834 to the end of 1903, 2099 millions of francs (£84,000,000) have been spent on railways owned by the state.

The subdivision of administrative functions between the different ministries is not exactly the same as in France; the separate ministry of railways was created in 1884, and is justified by the fact that the Belgian state owns the greater part of the railway lines—4025 kilometers, or say 2500 miles against 531 kilometers, or 330 miles worked by companies in 1903.

The Belgian financial system has much the same basis as the French system (see below). Taxation, however, is much lighter, since the net proceeds of the state railways ought to be deducted and the amount paid per head in taxation is not one-half of what it is in France. State monopolies do not exist; there is no tax on the income, and the custom duties are generally arranged with a purely fiscal aim.

Belgium has no *universal* budget, and its finance presents one particular feature. Since 1859, the *octrois* or municipal duties on consumption levied at the entrance of the towns (see OCTROI) have been suppressed, and a special fund, called the *Fonds Communal*, instituted to compensate the loss to the municipalities. This fund is provided for by a fixed percentage on the proceeds of the postal receipts and of certain excise or custom duties (sugar, coffee, alcohol, wine, and beer). This distinct attribution to local purposes of a specified part of the general national revenue constitutes an exceptional departure from the leading principles in Belgian and also French finance.

The Belgian public debt amounts to about 3000 millions of francs (say £120,000,000 sterling).

[Apart from official publications such as the *Annuaire Statistique* already mentioned, the *Moniteur Belge*, and the *Comptes Généraux de l'Administration des Finances*, much information concerning Belgian finance will be found scattered over M. P. Leroy-Beaulieu's *Traité de la Science des Finances*, and also occasionally in the French official *Bulletin de Statistique*. For the period 1830-70, a general sketch was published in the *Patria Belgica* (vol. ii. *Belgique Politique et Sociale*, pp. 865-903), Brussels, 1873. The English reader may be referred to Messrs. Le Hardy de Beaulieu, and Couvreur's contributions to the *Correspondence relating to the Budgets* published by the Cobden Club. See also Ernest Dubois, *Étude sur le système belge en matière de budget de l'État*, Paris and Brussels, 1904.] E. Ca.

FRANCE. (Amounts in francs converted as 25 = £1.) Practically it is only since the time of Napoleon I. (first consul 1799, proclaimed emperor 1804), that regular estimates of receipts and expenditure have been yearly prepared; and only since the restoration of

the Bourbons (1814), that these have been submitted to the effective preliminary approval of the French parliament. The *Budget des Voies et Moyens* (ways and means) is drawn up by the minister of finance; the *Budget des Dépenses* (expenditure) by each minister for his own department; it is divided into chapters, corresponding to each particular branch of the service, and since 1871 each chapter must be voted separately. The vote opens a *crédit* (supply) to the minister, who is now no longer allowed, as under the second empire, to effect transfers (*virements*) from one chapter to another. In case of need, *additional credits* are granted after the vote of the *budget;* these sometimes reach a considerable amount (15 millions sterling in 1885), and are a permanent cause of instability in the financial equilibrium. The whole of the expenditure and receipts must be voted yearly, and first by the lower chamber.

RECEIPTS.—In the *Rapport sur le projet de loi portant fixation du budget général de l'Exercice 1906*, the total estimates amount to 3704 millions of francs (£148,160,000). The main elements of this revenue are given as follows in millions of francs and round numbers:—

	francs	£
Direct taxation	554 mill.	22,160,000
Indirect taxation	2044 ,,	81,760,000
State monopolies and manufactures	842 ,,	33,680,000
State property	61 ,,	2,440,000
	3501 mill.	140,040,000

The words "direct" and "indirect taxation" are, of course, used in their French administrative and purely empirical sense, without regard to the ultimate incidence of the tax itself.

Direct taxation includes, for instance, taxes on clubs, royalties paid by mines and collieries, and the *contribution des Patentes*, or "trade licences."

The principal direct taxes are the—

		francs	£
Contribution foncière (Tax on real property)	Buildings	92 mill.	3,680,000
	Land	105 ,,	4,200,000
Contribution personnelle et mobilière (personal taxes and on house-rent)		101 ,,	4,040,000
Doors and windows		66 ,,	2,640,000
Patentes (trade licences)		138 ,,	552,000

It may perhaps be as well to notice here parenthetically that these four direct contributions provide indirectly the means for local expenditure. To the principal of these are added *centimes additionnels*, or an additional percentage, the greatest part of which is handed over to the local authorities, departmental or municipal. The former may be considered as having no other revenue. The municipalities' share amounts to 214 millions (£8,560,000); and in towns, the OCTROI (*q.v.*) or municipal duties on consumption yielded in 1904 about 271 million francs (£10,840,000).

The legislature at the time of the outbreak of the great revolution was eager to follow the teachings of the PHYSIOCRATS and to repeal indirect taxation. But necessity compelled the reversal of their plan, and direct taxation now scarcely provides one-sixth of the receipts, whilst indirect taxation, under which head are included stamp and registration duties, provides about two-thirds.

The revenue derived from indirect taxation may be summarised thus:

	francs	£
1. Registration duties	594 mill.	say £23,760,000

The principal branches of these duties yield—

	francs	£
Registration on transfer of real property	133 mill.	5,320,000
Death duties	243 ,,	9,720,000
Duties on donations (mostly marriage settlements)	22 ,,	880,000
Transfer of personal property	72 ,,	2,880,000
Fixed duties on judicial acts	23 ,,	920,000
Mortgages ,, ,, ,,	11 ,,	440,000
2. Stamps (on commercial bills and cheques 41 mill. of francs (£1,640,000))	186 ,,	say 7,440,000
3. Tax of 4 per cent on the dividends of joint-stock shares and bonds	84 ,,	say 3,360,000

[The interest on the French national debt, mortgages, private loans, and commercial profits of private partnerships remain free.]

	francs	£
4. Customs (Of this 386 mill. (£15,440,000) on imports)	436 mill.	17,440,000
5. Sugar	150 ,,	6,000,000
Other "Contributions indirectes," or excise	608 ,,	24,320,000
Alcohol	358 mill.	14,320,000
Wine and cider	65 ,,	2,600,000
Beer	14 ,,	560,000

State duties on the so-called hygienic drinks —wine, cider, and beer—have been reduced. Salt pays to the customs and excise together 34 millions of francs (£1,360,000). The *Contributions Indirectes* also comprise the duties on transport and communications by rail, the latter 67 millions of francs (£2,680,000).

In the next division of the budget of receipts appear the gross proceeds of state monopolies and state manufactures for a total amount of 842 millions of francs (£33,680,000), subdivided in the following way:—

	francs	francs	£
Matches	35 mill.	498 mill.	19,920,000
Tobacco	446 ,,		
Gunpowder	17 ,,		
Post Office	246 ,,	326 ,,	1,304,000
Telegraphs	45 ,,		
Telephones	35 ,,		
Net revenue of railway lines belonging to the state	14 ,,		560,000

The working expenses or cost of production come in under sundry headings in the *Budget des Dépenses* (expenditure). The net revenue of the post and telegraphs is generally taken at about 50 millions of francs (£2,000,000); and tobacco is calculated to yield net more than 300 millions (£12,000,000).

Of the 61 millions of francs (£2,440,000) derived from the state property, more than one-half is derived from forests owned by the state. The present property of the state plays thus a very secondary part in French finance, but towards the middle of the 20th century it will vastly increase, as between 1950 and 1960 the *concessions* of most of the railway companies will expire, and their lines and buildings become the property of the state. About 50,000 kilometres (30,000 miles) are worked at the present time, and yield a revenue of 687 millions of francs (£27,480,000).

EXPENDITURE.—The following table gives the amount of the *crédits* or supplies granted to the different ministries :—

	francs	£
Ministry of finance . . . (1226 millions, or £49,040,000, for interest of the national debt)	1510 mill.	60,400,000
Ministry of justice . . .	37 ,,	1,480,000
Ministry of foreign affairs . .	17 ,,	680,000
Ministry of the interior . .	88 ,,	3,520,000
Ministry of the navy . .	325 ,,	13,000,000
Ministry of war	719 ,,	28,760,000
Ministry of the colonies . .	110 ,,	4,400,000
Ministry of public instruction, fine arts, and religious worship . . . . . (Instruction 250 mill., arts 14, religious worship 43)	307 ,,	12,280,000
Ministry of commerce, industry, post and telegraphs . . .	313 ,,	12,520,000
Ministry of agriculture . .	45 ,,	1,800,000
Ministry of public works .	230 ,,	9,200,000
Total expenditure	3701 ,,	£148,040,000

Owing to the voted separation of church and state, the religious expenses will in future budgets be reduced to temporary pensions and repairs to historical monuments.

The budget of Algeria is, since 1900, detached from the budget of France proper.

In appearance the budget of 1906 is thus brought into a state of strict equilibrium ; but even assuming that the actual receipts will reach the amount of estimates, and although the principle of the *universality* of the budget of expenditure, namely, that it ought to comprise the whole of the foreseen expenses, has been constantly acknowledged in theory, it is in fact often disregarded, neither is sufficient account taken of future expenditure entailed by previous legislation. The creation of *extraordinary budgets* and funds (*caisses*), supposed to deal with temporary and special expenditure, has been the expedient resorted to. The creation of the *Compte de Liquidation* immediately after the disastrous war of 1870, when France had to pay an enormous war indemnity and to reconstruct the whole of its military establishment, was no doubt perfectly justified. But, principally after 1882, the institution of such funds has had for its object the concealment of real deficiencies, over 28 millions sterling in 1883, incurred on account of public works undertaken on a gigantic scale, and rather premature reductions of taxation. However, since that time there has been a steady and laudable tendency towards financial honesty ; and the subsidies to railway companies, under the form of guarantee of a minimum rate of interest on capital invested, are now included in the general budget.

It cannot be said that any definite method has been adopted towards assessing taxation so as to divide its burden between property and income. Only about 40 millions of francs (£1,600,000) are levied directly on what may be called luxuries, but affluence is indirectly, though effectively, reached through the duty on house-rent.

No such thing exists as a general income-tax on the English model ; professional incomes contribute through the operation of the *patentes*, (trade licences), and the income derived from securities other than the national debt or mortgage, through the tax of 4 per cent on the dividends of *valeurs mobilières* (transferable securities), but other incomes generally escape taxation. After the events of 1870-71, 750 millions of francs, 30 million sterling, of new taxes were suddenly wanted, and the aim of the government was to find out the line of least resistance, a circumstance which explains, and more or less excuses, the absence of methodical foresight. Whenever the necessity of levying an increased amount of taxation occurs, the want is felt of a form of tax, such as the English income-tax, which can be easily adjusted to the exigencies of the moment. New taxes are devised almost at hap-hazard, sometimes according to the crotchets of influential members of the lower house, who unhappily too often and too freely indulge their initiative power in financial matters. In France, customs-duties, it is well known, are as much a protectionist as a fiscal machinery.

After the Franco-German war, a large annual provision (200 millions of francs or 8 million sterling) was carefully made for the paying off of the national debt ; but for several years scarcely any other reduction has been made except the paying off of annual quotas of the terminable debt, *rente amortissable*, instituted in 1878 when the extensive scheme of public works known as the *plan Freycinet* was launched. This terminable debt scarcely represents one-eighth of the national liabilities. Some, however, contend that at the expiration of the *concessions* of the railway companies already mentioned, the net proceeds of these lines will cover the interest on consolidated debt, but this appears exaggerated.

No special quota of the general revenue is reserved for local expenditure, although the state largely contributes to several of its branches.

To conclude, a summary view of the state of French finance is here given:

	francs	£
Budget (1906)	3,704 mill.	148,160,000
Public debt	32,000 ,,	1,128,000,000
General taxation	2,900 ,,	116,000,000
Local taxation	800 ,,	32,000,000

In 1869, the last normal year before the war, the parallel figures were:

	francs	£
Budget of expenditure	2,014 mill.	80,560,000
Public debt	12,000 ,,	480,000,000

[A clear and handy summary of the budget of 1893 is given in M. Bidoire's *Tableau résumé du Budget de 1893* (Paris, 1892). For general works see the *Dictionnaire des Finances* (Paris, 1888) published under the direction of M. Léon Say.—The *Nouveau Dictionnaire d'Économie Politique* (1892).—Paul Leroy Beaulieu, *Traité de la Science des Finances* (7th edition, 1905).—René Stourm, *Le Budget.*—Bidoire et Simonin, *Les Budgets Français, étude analytique et pratique*, 3 vols., Paris (1895-1897).—A. Neymarck, *Finances contemporaines* (1872-1904), 3 vols.—Richard de Kaufmann, *Les Finances de la France* (translated from the German into French).—Henri Germain, *Discours Parlementaires sur les Finances.*—D'Audiffret, *Système financier de la France.*—Boileau, *Fortune Publique et Finances de la France.* For modern times.—Esquirol de Parieu, *Traité des Impôts*, 4 vols., Paris, 1877.—K. J. von Hock, *Die Finanzverwaltung Frankreichs*, 1887 (translated into French under the title *L'Administration financière de la France*, 1859).—Ad. Wagner, *Finanzwissenschaft*, vol. iii.—Charles Gomel, *Histoire Financière de l'Assemblée Constituante, de l'Assemblée Législative et de la Convention*, 3 vols., Paris, 1896-1902.—The *Bulletin de Statistique*, published by the ministry of finance, is a rich source of statistical *data*, and the English reader will find a great quantity of condensed and well-digested information on French finance in Professor Bastable's *Public Finance* (1892).

For French finance prior to the Revolution of 1789 see Fromenteau, *Le Secret des Finances*, 1851.—Moreau de Beaumont, *Mémoires Concernant les Impositions et droits en Europe et en France*, 5 vols., 1768-1789.—Le Febvre de Bellande, *Dictionnaire Général des Aides*, Paris, 1760.—Necker, *De l'Administration des Finances*, 3 vols., 1784.—Clamageran, *Histoire de l'Impôt en France*, 3 vols., 1867-76.—René Stourm, *Les Finances de l'ancien Régime* (1885); and an article under the same title in the *Nouveau Dictionnaire d'Économie Politique.*—Bouchard, *Le Système Financier de l'ancien Régime* (1891).—3 vols. in the *Encyclopédie Méthodique* (1784-1787).—Vuitry, *Études sur le Régime Financier de la France avant 1789* (from the 11th to the 15th century).—Jacqueton, *Documents relatifs à l'histoire financière en France (1449-1523).*—Forbonnais, *Recherches et Considérations sur les Finances de la France depuis 1598 jusqu'en 1721* (Bâle, 1758), and the bibliography published by M. Stourm, *Bibliographie historique des Finances de la France au 18me siècle*, 1895.] E. Ca.

GERMAN EMPIRE and PRUSSIA (Amounts in marks converted as 20 = £1). In Germany the functions of government are partly performed by the confederation of all the individual states, the German empire, and partly belong to these individual states themselves. These are (Elsass-Lothringen included), twenty-six in number and extremely different in size, ranging between 30,000,000 and only 39,000 inhabitants. Besides, there exists in Germany as elsewhere the local finance connected with the cities and country districts which defray their expenses independently.

I. THE FINANCES OF THE EMPIRE.—The chief expenditure is that for the army and navy, the organisation of which belongs to the confederation, not to the particular states. The Bavarian army only has in time of peace its separate financial administration; but the money spent by the Bavarian government on its army is paid to it in a lump from the exchequer of the empire. Among other expenses are those of the foreign office, including diplomatic service, the high court of judicature, to which under certain conditions appeals lie from the courts of the individual states both in civil and criminal cases, and the imperial home department. Among the expenses of the latter department are those for the economic interests of the country, such as the subvention of mercantile shipping, and workmen's insurance, etc. The fiscal year runs, as in England, from 1st April to 31st March. The amount of the expenditure is voted yearly by the federal council and the parliament. Among the expenditure a distinction is made between recurring and exceptional items. Among the last named, a further distinction has been made for some years between "exceptional expenditure of the ordinary budget," and "exceptional expenditure of the extraordinary budget." The expenditure of the former description is that which, like the recurring expenditure, is defrayed out of the ordinary revenue, while, on the other hand, the "exceptional expenditure of the extraordinary budget" is raised by loans or from special funds. In reality the whole difference between recurring and exceptional expenditure is very slight, because though the special occasion calling for any particular exceptional expenditure does not recur in every year, the total amount even of this class of expenditure does not vary much from year to year.

The consolidated debt of the empire is £94,000,000.

For the fiscal year 1894-1895 the following expenses of the Empire have been voted:—

(The statement does not include the expenditure for the postal service—which is deducted from the revenue under the same head—see p. 73—nor the part of the expenditure for pensions derived from the income of the Invalid Fund.)

Expenses, Empire of Germany.

Item of Expenditure.	Recurring.	Exceptional.		Total.
		Ordinary Budget.	Extra-ordinary Budget.	
	£	£	£	£
Chancellor's office and Imperial Diet and Foreign office . .	544,000	238,000	..	782,000
Home Department .	1,360,000	215,000	1,036,000	2,611,000
Army	24,001,000	1,917,000	4,636,000	30,554,000
Navy	2,535,000	950,000	212,000	3,697,000
Administration of Justice . . .	103,000	50,000	..	153,000
Finance Department .	254,000	8,000	..	262,000
Railway Department .	17,000	..	630,000	647,000
Imperial Debt Service .	3,587,000	..	..	3,587,000
Audit Department	32 000	..	..	32,000
Pensions, etc. (chiefly Military, but not including pensions derived from Income of Invalid Fund) . .	2,428,000	..	..	2,428,000
	£34,861,000	£3,378,000	£6,514,000	£44,753,000

The means adopted by the empire to raise this amount are the following:—

1. *Revenue arising from the property of the state.*

(*a*) The empire reserved out of the French war indemnity several large sums which produce interest. If necessary, besides the interest, the principal itself is gradually applied to certain objects which have to be carried out by the state. The largest of these reserved capitals is the "Invalidenfond." At its foundation it was appropriated only to the payment of pensions to the invalids and the widows of the soldiers who fell in the French war. Afterwards some further payments for military pensions were assigned to it. The amount of the fund originally was £28,050,000; up to 30th June 1891 (the date of the last report published), £4,900,000 of this capital, had been spent besides the interest; the amount remaining was therefore £23,150,000.

(*b*) The empire is the proprietor of the railways in Alsace-Lorraine (Elsass-Lothringen); their original purchase-money, together with the sum afterwards spent on them, was upwards of £25,000,000. The net revenue arising to the exchequer is estimated for 1893-94 at £1,037,500, and nearly as high for 1894-95.

(*c*) The empire takes the revenue arising from the post and telegraphs outside of Bavaria and Wurtemberg, which for 1894-95 is estimated at £989,000.

(*d*) The empire owns a printing-office which works both for the public and for private customers; the net revenue is estimated at £58,600, and for 1894-95, £68,300.

2. *Customs.* The whole territory of Germany is included in one customs-frontier with the exception of some inconsiderable parts of Baden, Prussia, and Hamburg; on the other hand Luxemburg, though not belonging to the confederation, is also within this same frontier. But the customs revenue does not entirely fall to the empire. Since 1878, according to the Frankenstein-clause (so called after the name of the deputy who moved it in the Reichstag), the empire only takes yearly from the customs revenue, together with the duty on home-grown tobacco, £6,500,000, the whole surplus being distributed among the individual states. The total customs revenue for 1893-94 is estimated at £17,056,100, and for 1894-95 at £17,485,000.

3. *Excise.*

(*a*) The salt duty, being 6 marks on every cwt. of salt produced in the empire and destined for human consumption within the country, brings about £2,137,000 for 1894-95. The duty on foreign salt imported is naturally included in the customs revenue, and is between £100,000 and £150,000; hence the salt duty in Germany amounts to about 11d. per head of the population.

(*b*) The sugar duty is 18s. for every two cwts. of sugar produced and consumed within the country, the sugar reserved for export remaining duty free, and even receiving a bounty. This latter is now—for raw sugar 1s. 3d. for every two cwts., for candy 2s., for other refined sorts 1s. 8d. These bounties and the drawbacks on confectionery exported amount to £525,000. The estimated net revenue to the empire for 1894-95 after deduction of this sum is £3,770,000.

(*c*) Tobacco, if grown within the empire, is taxed at £2 : 5s. for every two cwts. of dried produce; the amount of the tax is estimated for 1894-95 at £554,000. But the exchequer of the empire does not receive this sum, because the internal tax on tobacco, as far as, together with the surplus of the customs duties, it is above £6,500,000 yearly, is distributed among the individual states. The revenue from imported tobacco, which is much larger than that derived from home-grown tobacco, is included in the customs revenues. It was in 1891-92 more than £2,150,000. Great alterations in the tobacco duty were contemplated (November 1893); and the tax on the raw produce of the country was to be abolished, the customs duty reduced, and the product ready for consumption taxed at the manufacturer's, but this scheme has been dropped for the present.

(*d*) The beer duty is raised as a federal duty in the northern part of the empire only; whilst in Bavaria, Wurtemberg, Baden, and Elsass-Lothringen the beer taxes are a revenue of the individual state, levied according to its separate legislation. The federal duty is laid on the malt, or the substitutes for malt, when brought

to the brewery; it is 4s. for two cwts. on all descriptions of grain, and for substitutes in proportion. The beer coming from the southern states to those in which the empire receives the tax on production has to pay an import-duty to the empire. The beer duty and this internal import-duty are estimated, in the revenue of the empire for 1894-95, at £1,243,000.

(*e*) The duty on spirits has been levied since 1st October 1887, throughout the whole empire. It consists of two parts—of a tax on the production of spirits, and of a tax on consumption. For the purposes of the tax on production three classes of distilleries are distinguished: 1st, such as employ grain as material, and are at the same time part of agricultural undertakings (called agricultural distilleries); 2nd, such as employ sugar or sacchariferous materials; 3rd, such as employ grain but are not altogether part of agricultural undertakings (called industrial distilleries). The tax on the production of the first class of works is levied on the space which the mash fills in the fermenting vats; it is 1s. 4d. for every hectoliter of the contents of the tub. In the second class, if sugar or similar substances—*e.g.* fruits—form the materials, the substances employed are to be taxed according to their weight and kind. The industrial distilleries, finally, pay an addition of £1 per hectoliter on the tax on consumption. The smaller establishments among all the classes are allowed some reduction on the normal rate of the duties. The amount of the duty on consumption is fixed in the following manner. For a quantity of 4½ liter per head of the population in northern Germany, and of 3 liter per head of the population in the south, the tax on consumption is 6d. the liter; for any excess in the consumption of the country the duty is 8½d. the liter. The total quantity allowed to be produced at the lower rate is allotted to the individual distilleries according to their size.

Of these different duties on spirits only the tax on production remains to the empire. The tax on consumption and the tax on the ready-made produce in the industrial distilleries are distributed to the individual states according to the number of their inhabitants. For 1894-95 the taxes on spirits remaining to the empire were estimated at £899,000, those to be distributed among the states at £5,005,000.

4. *Stamp duties.*

(*a*) A tax on bills of exchange of 6d. for every £50 drawn; but amounts below £50 are taxed somewhat lower. The revenue is estimated for 1894-95 at £379,000.

(*b*) A tax on playing-cards, estimated for 1894-95 at £62,800.

(*c*) Taxes on—1st, the issue of stock exchange securities; 2nd, on every sale of such securities. The former duty is estimated for 1894-95 at £221,000, the latter at £552,000. These sums are to be distributed among the individual states. An act passed in 1894 imposes a higher *ad valorem* scale.

(*d*) A tax on public and private lotteries, producing in 1894-95 £452,000. This tax also does not accrue to the empire, but is divided among the states according to their population.

(*e*) A statistical duty on the goods exported and imported, levied with the receipt of the declarations relating to the quantities, the origin, and destination of the goods. It produces for 1894-95 £34,000.

5. Share of profits from the imperial bank, and tax from other banks of issue, amounting, according to the estimate for 1894-95, to £362,000.

6. *Contributions by the Individual States.* There can never be a deficit in the imperial budget because any excess of expenditure over the imperial taxes is covered by these contributions which are called matricular contributions, and are distributed among the states in proportion to their respective populations, additional contributions being imposed on those states which have a separate postal administration, and also on those in which no federal beer duty is levied. The total amount of these contributions, as fixed for 1894-1895, is £19,875,000, but this sum is of course subject to a deduction of £17,772,000, being the amount of the above-mentioned duties and taxes collected by or on behalf of the empire for the benefit of the individual states. The matricular contributions form an element of uncertainty in the state budgets, and a bill has in consequence been brought forward by the imperial government providing that the amount of matricular contributions shall in future be at least £2,000,000 below the amount of taxes and duties collected for the individual states, and that any deficiency thus caused must be covered by imperial taxation. It is very doubtful whether this proposal will be carried through.

For the fiscal year 1894-1895 the following revenue of the empire has been voted:—

Revenue—Empire of Germany.

Item of Revenue.		Amount.
Balance from last year		£69,000
Revenue from State property (not including revenue from Invalid Fund, and deducting extraordinary expenses incurred in respect of Postal Department)		2,207,000
Customs		17,485,000
Excise		13,612,000
Stamps		1,702,000
Revenue from Imperial Bank, etc.		362,000
Sale of land		70,000
Miscellaneous Revenue		629,000
Matricular Contributions	£19,875,000	
Less amounts payable to individual States	17,772,000	2,103,000
		38,239,000
Revenue raised by loans and from special funds		6,514,000
		£44,753,000

II. The expenditure of the individual states for their own purposes is about equal to the expenditure of the empire for federal purposes. Thus the Prussian expenditure for 1894-1895—as shown below (after deduction of the amount required for the service of the public debt which must be set off against the revenue from state property) amounted to about £22,000,000 (=50 per cent of the expenditure of the empire), the Prussian population representing about 60 per cent of the whole population of Germany, and similarly Bavaria (having a population of about 11 per cent, of the whole German population) spends a yearly sum amounting (after deduction of the interest on the railway debt, which is about equal to the income from the railways) to £5,100,000 (=11½ per cent of the imperial expenditure).

Prussian Expenditure, 1894-95.

Civil List Recurring Expenditure	£786,000
Houses of Parliament	69,000
Chief Government Department and Audit Department	130,000
Foreign Affairs	26,000
Financial Administration, Inland Revenue Department, and Provincial Government	3,509,000
Public Works, etc.	1,034,000
Trade Department (including subventions to technical education and technical industry)	231,000
Administration of Justice (after deduction of Court fees)	1,550,000
Home Department (including Local Government Expenditure, Prisons, and Police)	2,099,000
Agricultural Department	669,000
Education: (Elementary and Higher as well as University) and Public Worship	5,138,000
Pensions and Miscellaneous	3,841,000
Service of Public Debt	14,101,000
Exceptional Expenditure	2,893,000
	36,076,000
Contribution to Empire	12,399,000
	£48,475,000

Prussian Revenue, 1894-95.

Government Lands and Forests		£2,636,000
,, Mines and Smelting Works		814,000
,, Railways		18,372,000
,, Lottery		488,000
,, Bank (Seehandlung)		94,000
Taxes—		
Direct	£8,827,000	22,404,000
Indirect	1,982,000	
		10,809,000
Miscellaneous Revenue (including Return of Taxes collected by Empire)		11,752,000
To be raised by the issue of a Loan		3,510,000
		£48,475,000

The indirect taxes in the German states which do not levy a state duty on beer are of no great importance. A wine duty exists in some of the southern states, and in Saxony and Baden a duty on meat. As to the direct taxes they are of two kinds: taxes on property or income levied at the source (objective taxes), and personal income-tax. In the southern states, especially in Bavaria and Wurtemberg, objective taxation prevails, whilst in the northern states, as Prussia, Saxony, the personal income tax is of greater importance. Baden and Hesse are between these extremes.

A complete system of objective taxes comprises: (1) a land tax; (2) a house tax; (3) a tax on trades; (4) a tax on income from stocks and shares; (5) a tax on wages and salaries. All these five taxes are to be found in Bavaria and Wurtemberg; the tax on wages and salaries is not levied in Baden and Hesse; while Saxony has only a so-called land tax; Prussia has the three first named objective taxes, but they have been repealed as from the 1st April 1895. In Bavaria, of the direct taxes for 1892 or 1893, the land tax is estimated as £575,000, the house tax £262,500, the tax on trades £325,000, the tax on loans £208,330, that on wages and salaries £100,000. In Prussia up to this date the land tax produces about £2,000,000, the house tax £1,825,000, the tax on trades £1,125,000.

The income-tax in Prussia has lately been rearranged by the law of 24th June 1891. Incomes under £45 are free. The rate on small incomes is below 1 per cent; for incomes of £150, 2 per cent; for incomes of £400, about 3 per cent; and incomes of £5000 and above pay 4 per cent. The produce of the tax is about £6,250,000. In Saxony £15 is the limit of exemption and the rate does not rise higher than 3 per cent. The produce of the tax for 1893 is estimated at £962,500. In Baden the income-tax has been during recent years 2 per cent on the estimated income. But an abatement is allowed for smaller incomes, only those of £1500 and upwards paying the full tax. The produce of the tax thus assessed was about £200,000. In 1894 the percentage to be levied from the higher incomes has been increased.

A new personal tax, viz. a tax of $\frac{1}{20}$th per cent of the capital value of each taxpayer's real and personal property has been introduced in Prussia as from the 1st April 1895; its produce is estimated at £1,750,000. Persons of small means are exempt, and real property situate outside of Prussia is not included in the assessment.

III. Of great importance also is the local finance. In Prussia the parish rates in 1884 were £8,600,000, and the district rates £1,150,000. Among the expenses of the parishes the most considerable are those for the poor, for the roads and for education. In Prussia, 1883-84, out of a total of £18,550,000 the expenditure on roads was £2,500,000 (13 per cent), for the poor £2,450,000 (13 per cent), for education £4,250,000 (23 per cent). Part of these expenses is covered by revenue from property and by profitable undertakings, as gas and water works. In Baden the net value of the property of the parishes was estimated, 1st January 1887,

at £15,500,000. In Prussia in the rural districts the parishes cover 20 per cent of their expenses in this way, in the towns 11·6 per cent. The taxation is chiefly a direct one, consisting of an addition to the taxes assessed and levied by the state for its purposes. In the towns of the southern states indirect taxes of some importance exist, such as additions to the state taxes on consumption—the wine, beer, meat duties—and an octroi duty on various necessaries and conveniences brought to the town—coal, flour, meat, fish, etc. In Bavaria, 1878, the direct local taxes were £850,000, the indirect taxes in the twelve largest towns £250,000. In Baden, 1888, the direct taxes of the communes not considered as towns were £466,666, those of the towns nearly £175,000, together £637,500, the indirect taxes in the towns only £450,000 to £500,000. In Prussia the towns raised in 1883-84 local taxes per head of the population 12s. 4d., the rural districts 5s. 10d.; in Baden the towns, 16s. 9d., the rural districts, 7s. In Baden in 1889 the direct local taxes add on average 50 per cent to the corresponding state taxes.

The above states the position of matters in 1895. In 1904-5 the estimated revenue of the empire was £101,624,000, while the expenditure was £100,093,000. The customs revenue was £25,543,000 and the excise duties £16,637,000, while the expenditure on behalf of the army and navy was £32,335,000 and £11,428,000 respectively. The public debt was £146,812,000.

[Gustav Cohn, *System der Finanzwissenschaft*, Stuttgart, 1889, bk. iii. pp. 532-669.—Schönberg, *Handbuch der politischen Oekonomie*, vol. iii., Tübingen, 1891.—Laband, *Staatsrecht des deutschen Reichs*, Freiburg, 1888-91, vol. i. 379 *seq.*, ii. 42 *seq.*, 839-1037.—G. Meyer, *Lehrbuch des deutschen Staatsrechts*, Leipzig, 1885, p. 616-632—v. Mayr, art. "Reichsfinanzen" in *Handwörterbuch der Staatswissenschaften*, vol. v., Jena, 1893, pp. 384-403.—Rönne, *Staatsrecht der preussischen Monarchie*, vol. i., Leipzig, 1881, p. 590 *seq.*; iv., Leipzig, 1884, p. 737 *seq.*—Stockar von Neuforn, *Handbuch der gesammten Finanzverwaltung im Königreich Bayern*, 3rd ed. by T. Hock, 3 vols., Bamberg, 1881-1885.—Riecke, Der wurttembergische Staatshaushalt, in *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirthschaft*, vol. vii., Leipzig, 1883, p. 193-230.—Philippovich, *Der badische Finanzhaushalt in den Jahren 1868-1889*, Freiburg, 1889.—Zeller, *Handbuch der Verfassung und Verwaltung im Grossherzogthum Hessen*, Darmstadt, 1885-86, i. 78-118, ii. 343-422.—Löbe, *Der Staatshaushalt des Königreichs Sachsen*, Leipzig, 1889.—Eheberg, art. Gemeindefinanzen in *Handwörterbuch der Staatswissenschaften*, vol. iii., Jena, 1892, pp. 760-785.—Schanz, *Finanz-Archiv*, Stuttgart, appearing since 1884.] E. L.

THE NETHERLANDS. (Amounts converted at 12 guilders = £1.) The finances of the Netherlands are in a sound condition. Whilst fifty-five years ago, in 1850, with a population of barely 3,000,000 and a budget of about £6,000,000 sterling, the capital of the national debt amounted to over £100,000,000 sterling with an annual interest-charge of £3,000,000; nowadays, with a population of about 5,500,000 and a budget of more than double the amount of 1850, the capital of the national debt is only £95,400,000 with about £2,660,000 annual interest-charge. The exact figures of the national debt are—

	Nominal Capital.	Annual Interest.
1850	£102,637,700	£3,020,155
1905	£95,413,435	£2,667,450

From 1850 until 1905 inclusive, a total amount of £27,416,651 has been expended on amortisation of debt. In some years, however, the debt has increased again, namely, up to 1892, by a total amount of £16,145,600. But against this increase of debt stands expenditure on remunerative public works for an amount vastly superior. Up to 1902 the total expenditure on the railroads alone amounted to £29,805,000.

Again, whilst formerly the East India colony, namely Java, contributed a rather important amount to the revenue of the Netherlands, since 1877 this contribution has ceased entirely. From 1850-1877 these contributions amounted in all to £48,975,600. It was, in fact, these contributions which, from 1850 until the middle of 1870, enabled the government to amortise the debt for such an important amount (it may be useful to add that for a large amount the debt had been contracted previously in behalf of the colonies also) devoting at the same time very large sums to public works.

At first, when these colonial contributions to the revenue of the Netherlands had to be given up this caused some embarrassment, the more so as about the same time there was a considerable increase in the expenditure principally for public schools. The consequence was that for some years after 1880 the expenditure was not entirely covered by the revenue. But within a few years, by raising new taxes and other measures, the situation was modified and there was an end to the deficits. The cessation of the colonial contribution arose partly from the increase of expenditure in Java to which the war with Atchin contributed, but most of all from a change in the colonial policy of the government, the colonies being nowadays governed only for their own benefit, no tribute whatever being exacted from them on behalf of the Netherlands; more than this, the expenditure made by the Netherlands indirectly on behalf of the colonies (part of the home-charges) is not even repaid from the revenue of the colonies.

The fiscal system, however, had for many years been in serious want of some reform. This was not undertaken until quite recently, namely under the late government—finance-minister M. Pierson—which came into power

in 1891, but the government having again been turned out of power early in 1894, this reform was interrupted. Unfortunately the financial result of the property tax, levied since May 1893, has been somewhat disappointing. It was expected to bring in £716,666, but the proceeds were not higher than £566,666 the first year.

The revenue for 1894 was derived from the following sources :—

Direct taxes	Land tax	£981,450
	Personal tax	967,583
	Droit de patente (till 1st May 1894)	121,333
	Tax on incomes not arising from property (after 1st May 1894)	255,583
	Property tax	566,666
Indirect taxes	Excise	3,495,833
	Registration duties	370,833
	Succession duties	966,000
	Stamps, etc.	302,916
	Import duties	480,104
Domains		194,583
Post and telegraphs		744,416
Railways		329,166
Other items		912,176
	Total	£10,688,642

The land tax is levied on the ratable yearly value of land and houses ; the state levies 6 per cent on the net rateable rent from land not built upon, and 5·2 per cent on the gross rateable rent from houses.

The personal tax, a tax on expenditure, is calculated principally on the letting value of the dwelling occupied, the value of the furniture, and the number of servants. There is a universal agreement that this tax needs revision.

Real property, besides being subject to the land tax, is also subject to the property tax. The object of this tax is to levy a percentage on the income from property, but the percentage is computed not on the income itself, but on the capital value of the property. The tax is slightly progressive. For every 1000 guilders (£83 : 6 : 8) above 10,000 (£833 : 6 : 8) the tax is 1·25 guilders, but if the property amounts to more than 200,000 guilders, (£16,666 : 13 : 4) 2 guilders per 1000 are paid on the surplus.

On 1st May 1894 the *droit de patente*, or tax on occupations, was replaced by a tax on business profits, and on all incomes from labour, assessed in such a manner that, in connection with the property tax, it will have the effect of a general income tax. This tax also is slightly progressive ; for the incomes below 8200 guilders per annum, it is 2 per cent, for higher amounts 3·20 per cent on the surplus is added. The property tax being levied at the rate of 1½ and 2 per mille on the capital, the tax on business profits is 36 per cent less than the tax on incomes derived from property only —on the hypothesis adopted by the government that the income from property averages 4 per cent. Property up to 13,000 guilders (£1083 : 6 : 8) is free from property tax, and income up to 650 guilders (£54 : 3 : 4) from the tax on profits and wages.

The succession duties are not progressive ; they differ according to the degree of relationship between the deceased and his successors. From parents to children the duty is 1·38 per cent ; husband and wife pay the same amount, if they inherit one from the other, when there are descendants from their union ; if parents inherit from their children, the duty is 4·14 per cent ; between brothers and sisters, or between husband and wife, if there are no descendants, it is 5·52 per cent ; between uncle and niece, or inversely, 8·28 per cent ; and between all others 13·8 per cent. In so far as the property inherited consists of stock, bonds, stock-exchange securities and other interest-bearing securities, there is levied, besides the succession duties referred to, a special succession duty, varying from 0·345 to 2·76 per cent. The total amount of the succession duties rises in this way from 1·725 per cent in the first degree of relationship, to 16·56 per cent from distant relatives or strangers.

The excise on spirits is high, £5 : 5s. on every hectoliter (22 gallons) ; from spirits alone a revenue of £2,166,000 annually is raised. The fiscal law concerning the sugar duties until 1903 gave a bounty to the producers.

The Netherlands are a free-trade country, food and raw produce enter without duty, manufactured goods generally pay 5 per cent of the declared value. Measures were taken in 1895 for securing that the proper percentage is really paid.

The state-railroads are leased to private companies ; the rents they pay form the greater portion of the receipts under this head. The miscellaneous receipts include various payments to the treasury which are distributed over the several departments : repayments, reimbursements, legal fees, etc. ; and also (*a*) £62,500 payment by the Netherlands Bank for the right of issue of banknotes, which payment depends from the amount of the bank's profits of the year ; (*b*) £154,500 reimbursement by the colonial treasury for interest on debt—£3,806,250—contracted in 1883 by the home government on behalf of the East Indian colonies.

The expenditure for 1894 is divided as in the following table :—

Civil list	£67,000
Parliament	55,625
Foreign affairs	65,410
Justice	452,681
Home Office	1,069,717
Carry forward	£1,710,433

Brought forward .	£1,710,433
Marine	1,301,761
National debt	2,910,719
Finances	1,595,904
War	1,856,560
"Waterstaat," commerce and industry	1,837,337
Colonies	113,434
Unforeseen	4,166
Total .	£11,330,314

The item finances includes: (*a*) £714,288 payment by the government treasury to the municipal governments on account of the personal tax in virtue of an arrangement that was made in 1865 when the municipal excise-taxes were abolished; (*b*) £164,280 payments to the clergy of the Reformed, Roman Catholic, and Jewish churches by the state; (*c*) £125,671 pensions; and further, the expenditure of collecting revenue and the general expenditure of the department of the treasury and also of administration of debt.

The item Waterstaat includes the expenditure for post and telegraphs, amounting to £710,000; and the expenditure on embankments and other defence against the sea's encroachments, on canals and rivers, and also almost annually a certain amount of expenditure for remunerative public works.

It will be observed that the total of the expenditure for 1894 is

	£11,330,314
Against total revenue	10,688,642
Leaving a deficit of	£641,672

But the expenditure includes this year disbursements for remunerative public works for a total amount of £221,750, and besides it is calculated that the credits opened in the budget for general expenditure exceed regularly the real expenditure for an amount of, at least, £250,000. Deducting these two items, the deficit is reduced to about £180,000. This deficit is the consequence of the proceeds of the property tax not having been as high as it was expected they would be. Towards meeting this the then finance-minister proposed to modify the mode of levying the import-duties, which are said to be at least £150,000 short through frauds.

THE BUDGET FOR 1906.—*Revenue.*—Land tax, £1,147,000; personal tax, £829,166; property tax, £707,916; tax on other incomes, £636,666; excise, £4,506,666; import duties, £950,000; other indirect taxes, £2,011,791; post and telegraphs, £1,385,750; railways, £349,011; other items, £1,762,058—total, £14,286,024.

Expenditure.—Civil list, £82,500; parliament, £58,266; foreign affairs, £84,113; justice, £602,847; home office, £2,093,950; marine, £1,438,927; national debt, £3,058,284; finances, £1,944,112; war, £2,276,023; "waterstaat," £2,887,504; agriculture, industry, and commerce, £322,887; colonies, £289,269; unforeseen, £4166 — total, £15,142,851. Deducting £559,871 extraordinary expenditure, a deficit of £296,956 remains.

[Annual Reports on Dutch finance in *Consular Series.*—Fiscal reform in Holland, in the *Economic Journal*, 1893; *Bescheiden betreffende de geldmiddelen*; *Statistick der zijksintromsten*, 1905.—G. M. Boissevain, *Die neueste Steuer-reform in den Niederlander im Anschluss an die Finanzgeschichte des Landes seit der Verfassungs-revision im Jahre 1848*, Aus den "Finanzarchiv," herausg. von. G. Schanz.] H. B. G.

THE UNITED STATES. NATIONAL FINANCE. (The $ converted as 5 = £1 in this statement.)

I. REVENUE—(*a*) *Import Duties.*—The main source of national revenue has always been from the customs. The first tariff of import duties was enacted immediately after the formation of the government under the present constitution in 1789. At first chiefly a revenue measure, with increasing rates to yield larger revenues, the tariff gradually became a system of avowed protection to American industry. The rates varied with the successive domination of political parties, but the yield increased steadily from decade to decade. At the outbreak of the civil war the rates were largely augmented, the largest revenue under the war rates being $216,000,000 (*£43,200,000*) in 1872. The crisis of 1873 reduced the revenue to $130,000,000 (*£26,000,000*) in 1877, and it was not until 1882 that the preceding greatest yield was reached and even slightly exceeded. Since the civil war there have been several changes, generally in the direction of higher protective duties, which diminished the revenue for several years at a time. The tariff of 1883 reduced the revenue from $220,000,000 (*£44,000,000*) in 1882 to $181,000,000 (*£36,200,000*) in 1885; the tariff of 1890 reduced the revenue from $230,000,000 (*£46,000,000*) in 1890 to $177,000,000 (*£35,400,000*) in 1892.

The highly protective M'Kinley Tariff (1890) increased duties on raw materials and articles manufactured in the United States, particularly on raw wool, goods manufactured of cotton, linen, and silk, on iron and steel manufactures, on barley, hemp, and flax. This act also instituted a bounty on sugar, the raw sugar duties having been repealed, and introduced the principle of commercial reciprocity, empowering the President to levy duties on certain raw materials imported from any country raising unfair duties against the United States. The Wilson Tariff (1894), intended to recast the protective system, only remained in force three years, being regarded by the Republican party on their return to power as causing the large annual deficit in the Treasury. The Dingley Tariff (1897), while the needs of the Treasury

were kept in view, was entirely protective. It revived the principle of reciprocity of 1890, together with many of the duties then imposed such as that on wool, while those on linen, cotton, woollen and silk manufactures, on certain iron and steel goods, and machinery, were increased. The duties on raw iron and steel remained unchanged. The duty on sugar was increased for revenue and for protective purposes. Bacon, cheese, butter, wheat, and rice are also taxed. The customs receipts for 1904 were $261,274,564 (*£52,254,913*), being $23,000,000 (£4,600,000) less than in 1903. This, though largely due to high returns in 1903, was partly accounted for by the abolition of the War Tax on tea, of the countervailing duty on sugar, and by the reciprocity treaty with Cuba, causing a loss to the revenue on sugar and tobacco.

(*b*) *Internal Revenue.*—Internal Revenue taxes were tried in the last decade of the 18th century, and again during the war with England of 1812. The present system is an outgrowth of the civil war. Most of the taxes then adopted were repealed before 1872, and many of the others reduced or repealed in 1883 and 1890; but to meet the expense of the Spanish War of 1898 new duties were levied, those on tobacco and fermented liquors, except spirits, being doubled. Stamp taxes were laid on cheques, drafts, and many business operations, on patent medicines, etc.; an excise duty was levied on refiners of sugar or petroleum; a legacy duty imposed; banks and brokers, and places of amusement taxed. The tax on national banks is not technically included in the internal revenue. There is also a tax on oleomargarine, and a prohibitory tax on opium manufactured in the United States. Recently large sums have been paid by the treasury for redemption of stamps and refunding of taxes.

The maximum yield of the internal revenue in 1866, when it included an immense complex of all imaginable taxes, was $309,000,000 (*£61,800,000*). Reductions in 1872 and earlier decreased the revenue in 1874 to $102,000,000 (*£20,400,000*). The reductions of 1883 diminished the revenue from $146,000,000 (*£29,200,000*) in 1882 to $112,000,000 (*£22,400,000*) in 1886; notwithstanding the reductions of 1890 the revenue increased from $140,000,000 (*£28,000,000*) in 1890 to $154,000,000 (*£30,800,000*) in 1892. The additions in 1898 caused a rise from $171,000,000 (*£34,200,000*) in 1898 to $273,000,000 (*£54,600,000*) in 1899, and $307,000,000 (*£61,400,000*) in 1901.

The income from internal revenue during 1904 was $233,000,000 (*£46,600,000*), divided as follows:—

Distilled spirits .	$135,810,015	£27,162,003
Fermented liquors .	49,083,458	9,816,691
Tobacco . . .	44,655,808	8,931,161
Oleomargarine .	$484,097	£96,819
Miscellaneous .	2,870,623	574,124

The cost of collection was 1·94 per cent.

(*c*) *Other Sources of Revenue.*—The customs and internal revenue form the great bulk of the entire receipts of the national government, amounting in 1904 to $494,178,684 (*£98,835,737*) out of $684,214,373 (*£136,842,875*). The proportion is even larger than it appears, because the postal service, which is almost self sustaining, is counted on both sides of the balance sheet, the receipts and expenditures for the post office being $143,582,624 (*£28,716,525*). The policy of the national government is to reduce postal rates rather than to make profits. In 1904 the deficiency in postal revenues was $6,502,530 (*£1,300,506*). Moreover, the budget of the district of Columbia, in which the city of Washington lies, is included in the federal budget. The receipts from this alone in 1904 amounted to almost $5,454,344 (*£1,090,869*).

The remaining $40,998,722 (*£8,199,744*) of revenue were derived from sales of public lands, fees, profits of coinage, sinking fund for Pacific railways, tax on national banks, and a number of minor miscellaneous sources. The profits on coinage were very much swollen between 1878 and 1891, owing to the difference between the market price and the mint price of the silver dollars issued under the Bland bill, amounting in some years to 25 or 30 per cent of the entire amount coined. Under the Bland bill 378,166,793 silver dollars were coined between 1878 and 1891, on which the seignorage, or profit, to the government was $71,952,392 (*£14,390,478*). This profit is now unimportant. During the sixties the government loaned the Central and Union Pacific Railway Companies about $64,000,000 (*£12,800,000*). The law of 1878 provided for a sinking fund and gradual repayment of the debt. During 1904 the revenues from this source were $7,481,624 (*£1,496,325*). The *tax on national banks* is ½ of 1 per cent on the circulation. The *immigrant fund* is composed of a small tax on each immigrant since 1882; and the *tax on sealskins* is paid by the corporation to which the Alaska seal fisheries are farmed out. The Trust Funds (Department of State) provide a considerable sum, in 1904 $1,791,741 (*£358,348*). Some items are temporary, as the repayment of the loan to the Louisiana Purchase Exposition Company and the Spanish Indemnity.

II. EXPENDITURE.—The striking features in the national expenditure during recent years have been the increased naval and military outlay, the growth of the pension list, and the decrease of the interest charge for the public debt. From the end of the civil war to 1880 the *pensions* to survivors or their families varied annually from twenty

to thirty-five million dollars (*£4,000,000* to *£7,000,000*). In 1880 the classes were enlarged and the pensions jumped to $56,000,000 (*£11,200,000*). For the next eight years they varied from fifty to seventy millions of dollars, (*£10,000,000* to *£14,000,000*). In 1889 the old law was more liberally construed, in 1890 a new "dependent pension" law was enacted, and the pensions increased from $88,000,000 (*£17,600,000*) in 1889 to $107,000,000 (*£21,400,000*) in 1890, and to $159,000,000 (*£31,800,000*) in 1893. For 1904 they were $142,500,000 (*£28,500,000*). During the years 1898-1901, comprising the Spanish War, the

REVENUE FOR 1904.

From customs	$261,274,564	£52,254,913
From internal revenue	232,904,119	46,580,824
From sales on public lands	7,453,479	1,490,696
From profits on coinage, bullion deposits, &c.	6,373,396	1,254,679
From revenues of the District of Columbia	5,454,344	1,090,869
From fees—consular, letters patent, and lands	4,202,730	840,546
From sales of Indian lands, proceeds of Indian labour, &c.	3,112,720	622,544
From navy pension, navy hospital funds, &c.	2,570,073	514,015
From tax on circulation of national banks	1,836,639	367,328
From payment of interest by Pacific railways	1,782,469	356,494
From trust funds, Department of State	1,791,741	358,348
From immigrant fund	1,662,835	332,567
From customs and navigation fees, fines, penalties, &c.	831,572	166,314
From Soldiers' Home, permanent fund	687,653	137,531
From sales of government property	547,774	109,555
From judicial fees, fines, penalties, &c.	407,252	81,450
From sale of lands, buildings, &c.	252,549	50,510
From deposits for surveying public lands	205,757	41,151
From tax on sealskins	197,261	39,452
From reimbursement of loan to Louisiana Purchase Exposition Company	195,057	39,011
From licence fees, territory of Alaska	168,975	33,795
From sales of ordnance material	129,843	25,969
From depredations on public lands	101,128	20,225
From Spanish indemnity	57,000	11,400
From part payment Central Pacific railroad indebtedness	5,699,156	1,139,831
From miscellaneous sources	731,654	146,331
From post revenues	143,582,624	28,716,525
Total receipts	$684,214,373	£136,842,874

The expenditure for 1904 was—

For the civil establishment, including foreign intercourse, public buildings, Panama Canal, collecting the revenues, district of Columbia, and other miscellaneous expenses	$186,766,702	£37,353,340
For the military establishment, including rivers and harbours, forts, arsenals, sea-coast defences, and expenses of war with Spain and in the Philippines	115,035,410	23,007,082
For the naval establishment, including construction of new vessels, machinery, armament, equipment, improvement at navy-yards, and expenses of war with Spain and in the Philippines	102,956,101	20,591,220
For Indian service	10,438,350	2,087,670
For pensions	142,559,266	28,511,853
For interest on the public debt	24,646,490	4,929,298
For postal service	143,582,625	28,716,525
Total expenditure	$725,984,945	£145,196,989
Showing a deficit of	$41,770,572	£8,354,115

restoration of peace in the Philippines, and the campaign in China, 1900, military and naval expenses increased enormously, the former rising from $49,000,000 (*£9,800,000*) in 1897 to $230,000,000 (*£46,000,000*) in 1899, and the latter from $34,500,000 (*£6,900,000*) in 1897 to $64,000,000 (*£12,800,000*) in 1899. For 1898-1901 a total of $603,000,000 (*£120,600,000*) was expended on the army, and $238,000,000 (*£47,600,000*) on the navy. A result of the war will be to make expenditure for the army and navy permanently larger, and pensions also are likely to increase. For 1902-1904 the army cost $346,000,000 (*£69,200,000*), and the navy $253,000,000 (*£50,600,000*). On the other hand, the *interest charge* on the public debt has greatly diminished, in 1867 it was $143,781,592 (*£28,756,318*), and in 1904, $24,600,000 (*£4,920,000*).

The figures of receipts and expenditures for the fiscal year, 1904, are appended.

III. THE DEBT.—*The total funded debt* at the close of the civil war amounted to $1,109,568,191 (*£221,913,638*). In addition there was a large unfunded debt, funded during the next few years, which brought the total debt to a sum exceeding $2,800,000,000 (*£560,000,000*). The great refunding acts were those of 1870, 1881, and 1900. In 1870 the interest bearing debt consisted almost entirely of $1,934,696,750 (*£386,939,350*) 5 per cent and 6 per cent bonds. Under the act of 1881, all the 6 per cent bonds were redeemed by 1903 (except $26,466,000 (*£5,293,000*) Pacific railway bonds which are still outstanding); the 5 per cents were converted into 3½ per cents, then into 3 per cents, and finally redeemed in 1887; the 4½ per cents were re-

deemed in 1891, but $25,364,500 (*£5,072,900*) continued at 2 per cent till 1900; the 3 per cent navy pension bonds were redeemed in 1891. By the act of 1900 the 3 per cents of 1908 (Spanish War loan), the 4 per cents due in 1907, and the 5 per cents due in 1904, a total of $839,000,000 (*£167,800,000*), were refunded into new thirty-year 2 per cent gold bonds. The present interest bearing debt (September 1904) is as follows:—

2 per cent bonds, Redeemable 1930	$542,909,950	£108,581,990
3 per cent bonds, Redeemable 1908	77,135,360	15,427,072
4 per cent bonds, Redeemable 1907	156,593,650	31,318,730
Refunding Certificates, 4 per cent	28,770	5,754
4 per cent bonds, Redeemable 1925	118,489,900	23,697,980
	$895,157,630	£179,031,526

The debt on which interest has ceased since maturity is $1,662,220 (*£332,444*).

The Unfunded Debt.—The debt bearing no interest is—

United States notes	$346,681,016	£69,336,203
Old Demand notes	53,847	10,769
National Bank notes, Redemption Account	33,373,135	6,674,627
Fractional Currency (nominally outstanding)	6,869,250	1,373,850
	$386,977,248	£77,395,449

In addition to this the outstanding certificates and notes, issued on deposits of coin and purchases of silver, are—

Gold Certificates (acts of 1863 and 1882)	$528,491,969	£105,698,394
Silver Certificates (act of 1878)	474,322,000	94,864,400
Treasury notes (act of 1890)	11,966,000	2,393,200
	$1014,779,969	£202,955,994

The aggregate debt is thus: $2,298,577,068 (*£459,715,413*); against which the treasury holds in cash (money and bullion) $1,218,071,759 (*£243,614,351*); making a net debt of $1,080,505,309 (*£216,101,061*).

State and Local Finance.

(*a*) *Debts.*—In addition to the national debt there are three kinds of debt: state, county, and municipal debts. The *state debts* arose chiefly in the period 1830-1840, and were contracted for public works. During the past two decades the commonwealths have been diminishing their debts very quickly, and a considerable number are now entirely out of debt. Some still have a nominal debt, consisting of their own state bonds invested in so-called trust funds, the interest of which is devoted to education and other purposes. These states also are virtually out of debt. The few debts of any importance which still exist are found in the southern states, as a result of the civil war and reconstruction period. In 1890, the debt of the states and territories, over and above all resources, was $132,336,689 (*£26,467,338*) against $204,500,674 (*£40,900,135*) in 1880. The debt, less sinking fund alone, in 1890 was $223,107,883 (*£44,621,576*), of which $150,194,322 (*£30,038,864*) was owed by the southern states.

The *county debt* has somewhat increased, owing chiefly to the number of new counties. The county gross debt in 1890 was $145,693,840 (*£29,138,768*) as against $125,621,455 (*£25,124,291*) in 1880. The county net debt in 1890 was $115,224,885 (*£23,044,977*).

The *municipal debt* has also increased. But extravagant increase has been rendered impossible by the provisions in most of the state constitutions which limit local debts to a certain percentage—varying from 5 to 15 per cent—of the assessed valuation property. The debts can thus never increase faster than the wealth of the country. The gross municipal debt in 1903 was $1,425,841,585 (*£285,168,317*) as against $745,949,786 (*£149,189,957*) in 1890, and $695,494,741 (*£139,098,948*) in 1880. The sinking fund increased from $115,158,742 (*£23,031,748*) in 1880 to $147,181,191 (*£29,436,238*) in 1890, and to $291,396,061 (*£58,279,212*) in 1903. The net debt was $633,427,824 (*£126,685,565*) larger in 1903 than in 1880. The annual interest charge on combined state and local funded debts in 1890 was $65,541,776 (*£13,108,355*) or 5·29 per cent, as against $68,935,807 (*£13,787,161*), or 6·17 per cent in 1880.

(*b*) *Revenue and Expenditure.*—Owing to the separation of governmental functions, the expenses of the states are far less than those of the municipalities or the national government. The state expenses are mainly for education, charity, salaries of state officers, and militia. In the southern states we must add pensions, and in a few states expenses for public works. In the cities the expenses are far greater. The six largest states spent in 1890 $28,859,010 (*£5,771,802*). New York city alone spent $244,000,000 (*£48,800,000*) in city government in 1903. In 1902 the 175 largest cities, containing more than three-fourths of the urban population, paid $683,000,000 (*£136,000,000*) for ordinary expenses.

The state and local revenues are derived chiefly from taxation. Some of the states, as Texas, obtain a slight revenue from land sales. Many municipalities own their water works, and a few own gas and electric light works; but, except in one or two cities, no attempt is made to derive net revenues therefrom.

The system of taxation is based almost everywhere on the general property tax. In the southern states, and to a less extent in three or four northern and western states, we also find a comprehensive system of "license" or "privilege taxes" on most occupations. Income and stamp taxes are found in a few cases,

but the receipts are everywhere insignificant except in Pennsylvania, where the stamp taxes yield a fair revenue. Collateral inheritance taxes are found in a few of the eastern states, and a direct succession tax exists in New York. Special and general taxes on private corporations abound.

While the great tax is the general property tax, personal property has to a great extent slipped out of the assessment lists, and the tax falls principally on real estate. Thus in New York state personalty pays less than 10 per cent, and realty more than 90 per cent. The system, moreover, is greatly confused by the lack of uniformity in the different state tax laws. In some states debts are exempted, in others not; in some states mortgages are exempted, in others not. Real estate is generally taxed where it is situated; but personalty is taxed sometimes where it is situated, sometimes where the owner resides, sometimes in both places, and often in neither place. During recent years the difficulty of reaching personalty has led to a variety of new plans. These are as follows:—

1. *To enforce the personal property tax by more vigorous measures.* The so-called *listing system* requires every tax-payer to make a complete list of every article of his personalty under oath. This plan is much favoured by the farmers and has been introduced in several states. But it has not been very successful.

2. *To reach intangible personalty by a system of registration.* This has been adopted by Connecticut. Any one owning securities may have them registered in the treasurer's office, and by paying the "investment tax" will then be exempt from other taxation on the securities. This has been fairly successful; but is, of course, only a partial solution.

3. *To reach mortgages by declaring them to be realty, not personalty, for purposes of taxation.* This plan has been adopted in California, Oregon, Massachusetts, and Michigan. In these states mortgages do not follow the person of the holder according to the rule, *mobilia personam sequuntur*, but are taxable where the land is situate. The landowner is taxed on the value of the land less the mortgage; the owner of the mortgage is taxed on the value of the mortgage.

4. *To abolish the personal property tax and put the whole weight on real estate.* This plan is favoured chiefly by the followers of Henry George, who desires all taxes to be put on land values. It was tried in Hyattsville, Maryland, but was pronounced unconstitutional.

5. *To abolish the personal property tax, and to substitute for it the income tax.* This is a plan favoured by a few writers and officials. But the income taxes already existing, as in Massachusetts, Virginia, etc., are mere farces, and there is no likelihood of their being extended.

6. *To abolish the personal property tax and to replace it by state taxation of corporations and inheritances, leaving the real estate tax to the local divisions.* To this plan many of the states are gravitating. The general tax on corporations has been most fully developed in Pennsylvania and New York, but exists in whole or in part in many other states. Collateral inheritance taxes are found in several states, and the direct tax on successions to personalty has recently been introduced in New York. No satisfactory solution of the tax problems can be expected until joint measures are adopted by the commonwealths to regulate inter-state relations, and thus avoid double taxation. For most of the difficulties are referable to this source.

To state the entire burden of taxation resting on the American people is difficult. It depends on whether we include the fees from postal service, waterworks, licences, etc., among taxes. They certainly represent a charge upon the people. The figures of the twelfth census for the total ordinary receipts of the states and local divisions are published; and the work of the Census Bureau, established by the act of March 3, 1899, gives further information. According to a recent census bulletin the ordinary receipts of 175 principal cities in 1903 were $345,000,000 (*£69,000,000*). It may be assumed that the total city and town receipts in the United States in 1903 amounted to $430,000,000 (*£86,000,000*). The receipts of the federal government were $684,000,000 (*£137,000,000*). The commonwealth and county ordinary receipts were probably between $170,000,000 (*£34,000,000*) and $220,000,000 (*£44,000,000*). The total may be about $1,500,000,000 (*£300,000,000*), roughly representing the annual burden resting on the people.

The incidence of these charges is likewise difficult to determine. The bulk of the federal taxation would, however, rest on the consumer; while the bulk of the local and state taxation would rest on the owners of real estate. Local taxation consists largely of the tax on personalty and license taxes. For these points, with especial reference to American conditions, see Seligman, *The Shifting and Incidence of Taxation* (1892).

[Annual reports of secretary of the treasury, Washington. Annual and biennial reports of state treasurers, auditors, comptrollers, and city comptrollers. Publications of the Bureau of the Census Department of Commerce and Labour, Washington. Seligman, *Finance Statistics of the American Commonwealth* (1889).—Dewey, *Finance History of the United States* (1903).—Ely, *Taxation in American States and Cities* (1887).—Seligman, "The General Property Tax," and "The Taxation of Corporations," in *Political Science Quarterly*, vol. v. (also separately).—Adams, *Public Debts* (1888). Rosewater, *Special*

Assessments (*Columbia College Studies in History, Economics, and Public Law*, vol. ii., No. 3, 1893).

Among the reports of special commissioners on taxation may be mentioned those of New York (First and Second Reports, 1871-1872), Massachusetts (1875), West Virginia (1884), Illinois (1886), Connecticut (1887), Maryland (1888), Pennsylvania (1889), Maine (1890), Boston (1889 and 1891), New York (1893).] E. R. A. S.

FINE. 1. A payment to be made by way of punishment for an offence.

2. A payment to be made to a feudal lord on the alienation of land,—such payments still occur in the case of copyhold lands or freehold lands held of a manor.

3. A proceeding which, similarly to the proceeding by RECOVERY (*q.v.*), was formerly used for the purpose of barring an entail (see FEE TAIL). The act for the abolition of fines and recoveries (1833), which enables tenants in tail to recover the entail by the execution and enrolment of a disentailing deed, has abolished this procedure. E. S.

FINENESS OF COINS. The amount of pure or "fine" metal contained in a coin is expressed either by means of the ancient "carat pound" system or by the more modern millesimal method.

The *carat pound system* consists in recording the alloy as being so much better or worse than standard, and is founded on an ideal unit, the carat pound, which is divided into 24 parts called carats. British standard gold contains 22 carats of gold and 2 carats of copper or other alloying metal in every 24 parts. The carat is further subdivided into 4 "carat grains," and the carat grain into 8 parts, the smallest division of the carat scale being thus $\frac{1}{8}$th of a carat grain, or the $\frac{1}{7\,\frac{1}{8}}$th part of the carat pound. In order to attain a still greater degree of minuteness, the eighth part of a carat grain is further subdivided into $7\frac{1}{2}$ parts, or "excess grains." Each of these final divisions is thus the $\frac{1}{67\,\frac{1}{2}\,\frac{1}{0}}$th of the carat pound, and, as the troy pound also contains 5760 grains, each "excess grain" of gold beyond the last eighth in the assay report is reported as an "excess grain of gold in the troy pound."

Snelling, writing in 1766, says, in his *Doctrine of Gold and Silver Computations*, that, "by the word silver we understand not only the metal so called, pure and unmixed, but also when in a mass with copper; and if but one half, two-thirds, or any other proportional part of it be silver, yet the whole bears that name. The same is to be understood of gold, when by itself or in a mass with silver and copper together, or with either of them alone." . . . "This is the reason that inquiries are not made what quantity of fine gold or fine silver is contained in any mixture, which seems to be the most natural inquiry, but how much standard it holds." . . . "The assay master, in reporting the result of an assay, does not give the absolute fineness or the quantity of fine silver or fine gold present, but only the relative quantity or fineness, that is, how much the mixture is more or less than standard. In the case of gold of 20 carats fine (20 parts of pure gold in 24 parts of the alloy) the assayer puts down Wo ij., [which means *worse* (than 22) by 2 carats], and if it is 23 carats $3\frac{1}{2}$ grains fine, he puts down Br j. iij. ob," [which means *better* (than 22) by 1 carat $3\frac{1}{2}$ grains]. The sign *ob* represents an obolus or half a carat grain. In modern times, however, the final division has been $\frac{1}{0}$ of a carat grain. The carat pound system was in use at the royal mint till so recently as the year 1882, when the *millesimal method* of expressing the fineness of the precious metals was adopted. According to this system the metal is considered as being divided into 1000 parts, the proportion of fine to alloy metal being expressed in thousandths. Thus sterling standard gold, which was formerly referred to as containing 22 carats fine and 2 carats alloy, becomes "916·6 fine," and sterling standard silver is reported by the assayer as "925 fine."

Prior to the reign of Henry III. the only gold coins in use in England were pieces of pure metal known as byzants (coming originally from Byzantium), and florences (originally struck in Florence). The coins struck by Henry III. were also of pure gold. In the reign of Edward III. the standard was altered to 23 carats $3\frac{1}{2}$ grains fine and $\frac{1}{2}$ a grain of alloy. It was again reduced by Henry VIII. to 20 carats of gold and 4 of alloy. In his reign, however, crowns were coined of the standard of 22 carats of gold and 2 of alloy. This standard, known as "crown gold," was, in the reign of Charles II., finally adopted by act of parliament as the sole standard, and it has not since been altered.

The present standard of fineness for silver coins, 11 oz. 2 dwts. of silver and 18 dwts. of alloy (925 fine), was probably first introduced by the Saxons, but it has been subject to many changes. Henry VIII. greatly debased it, reducing it first to 10 ozs. silver and 2 ozs. alloy, and subsequently to 4 ozs. silver and 8 ozs. alloy. Edward VI. at first still further debased the silver coinage by reducing the silver to 3 ozs. only in the 12. Towards the end of this reign, however, the standard was slightly improved, and Elizabeth, in the second year of her reign, restored the fineness to its original standard, which has been maintained without alteration from that time to the present day.

The following list gives the fineness, expressed millesimally, of the standard coins of the principal countries of the world:—

(The coins which form the standard of value in France, Belgium, Italy, and Switzerland, will be found recorded under the head of the Latin Union.)

Country.	Gold Coins.	Silver Coins.	Fineness.
Argentine Republic	5 Pesos (dollars)	..	900
Austria-Hungary	Ducat	..	986⅓
	20-Crown piece	..	900
		2 Florins	900
Brazil	20 Milreis	..	917
British India	Mohur	..	916·6
		Rupee	916·6
Bulgaria	..	5 Levs (frs.)	900
Chile	Condor (20 dollars)	..	916·6
Colombia	20 Pesos	..	900
Egypt	Egyptian Pound	..	875
		20 Piastres	833·3
Germany	20 Marks	..	900
Great Britain	Sovereign	..	916·6
Greece	100 Drachmas	..	900
		5 drachmas (frs.)	900
Holland	Ducat	..	983
	10 Gulden	..	900
		Rixdaler	945
Japan	20 Yen (dollars)	..	900
"Latin Union" France, Italy, Belgium, Switzerland	Italy (Lire) 20 Francs	..	900
		5 Francs	900
Mexico	20 Pesos (dollars)	..	875
		1 Peso (dollar)	902·7
Persia	Thoman	..	900
Peru	Libra (10 Sols)	..	916·6
		1 Sol (dollar)	900
Portugal	Milreis	..	916·6
		1000 Reis	916·6
Roumania	20 Leis (frs.)	..	900
		5 Leis (frs.)	900
Russia	Imperial	..	900
		Rouble	900
Scandinavia Sweden Norway Denmark	20 Crowns	..	900
		Crown	800
Servia	20 Dinars (frs.)	..	900
		5 Dinars (frs.)	900
Spain	100 Pesetas	..	900
		5 Pesetas (frs.)	900
Turkey	500 Piastres	..	916·6
		20 Piastres	830
United States	Eagle	..	900
		Dollar	900
Venezuela	100 Bolivars	..	900
		5 Bolivars	900
Zanzibar	5 Dollars	..	900
		Dollar	900

See ASSAY; MINT. W. R.-A.

FINESCHI, F. VINCENZO (18th century), a Dominican, was keeper of the records in the convent of S. Maria Novella at Florence, and wrote on early famines in that city.

Istoria compendiata di alcune antiche carestie e dovizie di grano occorse in Firenze, cavate da un Diario MS. in cartapecora del secolo XIV. Firenze, Pietro Gaetano Viviani, 1767. A. B.

FINLAISON, JOHN (1783-1860), born and educated in Scotland, a civil servant and statistician of ability almost amounting to genius. He studied for the Scotch bar, but gave up the law and was employed by the admiralty from 1805 to 1822. In this service he effected a great saving by the reform of the system of accounts, and invented a system of digesting and indexing the admiralty records and correspondence—which had been almost inaccessible for want of arrangement—so perfect that it still continues in use, and has been adopted by several foreign governments. He also drew up an account of the French forces, 1811, the first navy list, 1814, and a register of all the officers in the navy, with their antecedents, for the use of the department. From 1822 to 1851 he was employed by the treasury as actuary and principal accountant of the check department of the national debt office, and his investigations into the subject of life annuities, which were being granted at a price much below their value, saved, it has been estimated, £3,000,000 to the country. In addition to the immense amount of labour entailed by his official work he was mainly instrumental in establishing pensions for widows and orphans in the civil departments of the navy, 1812 to 1819. His close study of the principles of life assurance, his most original work, carried on during these years, led to his help being sought in the formation of many friendly and assurance societies, which would not otherwise have been placed upon a sound footing. In connection with the compensation to slave-owners at the emancipation of slaves, 1833, he made computations of the duration of slave and creole life; in 1835 to 1837 he drew up reports for the ecclesiastical commissioners on church leases, church rates, and other similar subjects; and he was consulted on the system of registering births, marriages, and deaths established in 1837. From 1847 until his death he was president of the institute of actuaries; yet, in spite of such appreciation his incredible industry and invariable uprightness did not always save him from calumny and neglect.

Finlaison wrote a continuation of Sir R. Yorke's *Naval History* down to 1780.

[*Assurance Magazine*, April 1862, gives the fullest account.—Southwood Smith's *Philosophy of Health.*—Walford's *Insurance Cyclopædia*, vol. iii.—*Dictionary of National Biography.*—*Times*, 23rd April 1860.—For Finlaison's views on the organisation and management of insurance societies, see his *Evidence before the Select Committee on Assurance Associations*, 1853.] E. G. P.

FIORENTINO, NICOLA, a Neapolitan, wrote (18th cent.) on the utility and importance of agriculture, and against protective duties, especially in an agricultural nation, where town industries ought not to be encouraged more than country ones, as foreign competition compels manufacturers to improve, and supplies the funds needed by agriculture.

Riflessioni sul Regno di Napoli, di Nicola Fiorentino, Napoli, presso de Bonis, 1794. A. B.

FIRE INSURANCE. See INSURANCE.

FIRM. "Partners are called collectively a firm. . . . Commercial men and accountants are apt to look upon a firm . . . as a body distinct from the members composing it. Hence in keeping the partnership accounts the *firm* is made debtor to each partner for what he brings

into the common stock, and each partner is made debtor to the *firm* for all he takes out of the stock. . . . In taking partnership accounts and in administering partnership assets, courts have to some extent adopted the mercantile view, and actions may now be brought by or against partners in the name of their firms; but speaking generally the firm as such has no legal recognition. The law, ignoring the firm, looks to the partners composing it. Any change amongst them destroys the identity of the firm; what is called the property of the firm is their property; and what are called the debts and liabilities of the firm are their debts and their liabilities. In point of law a partner may be the debtor or the creditor of his co-partners, but he cannot be either debtor or creditor of the firm of which he is himself a member" (Lindley on *Partnership*, 7th ed. pp. 127, 128).

In addition to the difference between the mercantile and legal conception of a firm pointed out as above by Lord Lindley, there is a difference as to the use of the term between lawyers and traders which must be borne in mind. While to a lawyer the word "firm" is the collective designation of partners trading together (see Partnership Act, 1890, § 4), laymen generally employ it for the purpose of describing the name under which a business is carried on, and which in legal language is called the "firm name" (Partnership Act, 1890, *ibid.*) Thus in ordinary language we may speak of the firm of a single trader while, according to legal terminology, there can be no firm, unless two persons at least are trading together. The word "firm" in Scotland and the German word *firma* is used in the sense of trade-name, both in legal and mercantile language ("the firm of a trader is the name under which he trades, and which he uses for his signature in the course of his business"—German Mercantile Code, § 17). The French word *raison sociale* only applies to partnerships; and in Italian there are two distinct words—*ditta*, which is the trade name of a person trading without any partners, and *ragione sociale*, which is used in the case of partnerships.

It would be a great convenience for bankers and traders generally if there were a public register of firms (in the sense of trade names) as in other countries, it being often most difficult to find out who carries on business under a given name—a circumstance which has frequently been taken advantage of for fraudulent purposes. A register of firms is more necessary in this country than on the continent (where it generally exists), because there is much greater freedom here than elsewhere in the choice of trade names, inasmuch as traders may at their option carry on business under their own names or under those of other persons, or under entirely fictitious names, subject to the one condition only that they do not interfere with any existing right. The question as to the circumstances under which the use of a firm name is deemed an interference with existing rights is too complicated to be discussed in this place; the following recent cases throw light on the subject: Levy *v.* Walker, 10 Chancery Division, 436; Gray *v.* Smith, 43 Chancery Division, 208; Thynne *v.* Shore, 45 Chancery Division, 577) (see PARTNERSHIP; STYLE OR TRADE NAME). According to Scotch law a partnership forms a separate legal person like a corporation.

E. S.

FIRMIN, THOMAS (1632-1697), son of Henry Firmin and Prudence his wife, was born at Ipswich. He started business with a capital of £100, and twenty years later (1676) he is said to have been worth £9000. His philanthropic schemes are of some importance in the economic history of England for the light they throw upon the condition of the working classes at the end of the 17th century. After the Fire of London, Firmin built a warehouse for storing corn and coal, to be supplied to the poor at reasonable rates,—a scheme which recalls the practice of the city companies during the 15th and 16th centuries. His most important undertaking, however, was his "workhouse" which he built in Little Britain for the employment of the poor in the linen manufacture. The broad outlines of this scheme were suggested by a similar one which had been tried by B. GOUGE in the parish of St. Sepulchre. Two years later (1678) Firmin unfolded his plans for dealing with poverty in his pamphlet, *Some Proposals for the employment of the Poor and for the prevention of Idleness and the consequence thereof, Begging, etc., in a letter to a Friend by T. F.*, London, 4to, 2nd edition, 1681, 8vo, reprinted in 1787 in a collection of pamphlets on the poor.

Firmin's proposals were (1) to set up in every parish a school "in the nature of a workhouse" in which the children of the poor should be taught spinning, weaving, silk-winding, stocking-knitting, etc.; (2) to provide home work of the same kind for poor women; (3) to erect workhouses for the reception of the aged poor; (4) in addition to the churchwardens, to appoint "fathers of the poor" in every parish to administer poor relief. In his own "workhouse" the children began work at 5 or 6 years of age. He found that they had to work 16 hours a day to earn 6d., and instead of recreation two hours were spent on their "education." Firmin was of opinion that "poor children that must be put out to poor trades, where they must work hard and fare hardly," should not be fed with white bread or taught farther than was necessary for such trades. He supplemented the miserable earnings of those employed in his workhouse, sometimes from 1600 to 1700 in number, with gifts of food and clothes. His scheme involved him in heavy losses. In 1690

it was taken up by the patentees of the linen manufacture, who appointed him overseer. But they were unsuccessful and unable even to pay Firmin his promised salary. He therefore took up the cause again and is said to have made it "bear its own charges." According to his partner he might have left an estate of at least £20,000, if he had not bestowed so much upon public and private charities. These reduced it to one-sixth of that amount. In addition to his "workhouse," Firmin took great interest in the relief of poor debtors and other philanthropic schemes.

[Full details of Firmin's life are given in the *Dictionary of National Biography*. There is an interesting account of his workhouse in *The Life of Mr. Thomas Firmin, late citizen of London. Written by one of his most intimate acquaintance. With a sermon on Luke x. 36, 37. Preached on the occasion of his death.* London, 1698, reprinted 1791, 12mo. *Vide* also M'Culloch's *Literature of Pol. Econ.*—Eden's *State of the Poor*, vol. i.]

W. A. S. H.

FIRST-FRUITS AND TENTHS. At the time when the papal authority was at its height, the popes laid on the clergy the taxes known as first-fruits and tenths. The first-fruits were the first year's income of a benefice paid by the new incumbent. They were also known as ANNATES (Lat. *annus* a year). The tenths were 10 per cent of the income of the benefice paid in subsequent years. After Henry VIII. had quarrelled with the pope, the first-fruits and tenths payable by the English clergy were transferred to the crown by an act of 1534. The annual produce of these taxes then amounted to £14,000. It was expended on secular objects until the reign of Queen Anne, who was persuaded by Gilbert Burnet, the celebrated bishop of Salisbury, to devote it to the augmentation of poor livings. An act of 1703 empowered the queen to incorporate the persons whom she should appoint to be trustees of the fund, and relieved them from the restraints imposed by the statute of mortmain, thus enabling them to receive gifts of land.

The tenths and first-fruits continue to be levied upon the ancient valuation, so that their proceeds have not increased. Since 1703 the fund has been augmented by parliamentary grants and by private liberality, but it is still known as Queen Anne's Bounty. F. C. M.

FISCAL SYSTEMS. See TAXATION.

FISC, a name sometimes given in modern states to the national as well as to the private royal treasury, though derived from the Latin *fiscus*, which was originally the Roman treasury under imperial control, as distinct from the *ærarium* or state-chest under control of the senate. (See FISCUS.)

In the feudal language of the middle ages the domain of the crown was sometimes called *fiscus regius*.

[Madvig, *l'Etat Romain*, transl. Morel, tome 4.—Smith, *Dictionary of Greek and Roman Antiquities*.—Wright, *Universal Pronouncing Dictionary*.] E. G. P.

FISCUS. The treasury of the Roman emperor. Under Augustus and the early emperors the administration was divided between the senate, representing the *populus*, and the emperor. Consequently there were two treasuries, the *Ærarium Populi*, an institution of the free republic, and the *Fiscus Cæsaris*, established by Augustus. When the empire grew into an autocratic form of government, the *Fiscus Cæsaris* became the only treasury of the Roman state. E. A. W.

FISH-SILVER, probably a commuted payment for fish due in feudal times to the lord of the manor. Seebohm (*English Village Community*, pp. 44, 58), has mention of a "fish-penny" and a "fish-fee."

[Vinogradoff, *Villainage in England*, 1892, p. 291.] E. G. P.

FITZHERBERT, SIR ANTHONY (1470-1538), was a son of Ralph Fitzherbert of Norbury, Derbyshire, and of Elizabeth, daughter of John Marshall of Upton, Leicestershire (Nichols, *Leicestershire*, IV. ii. 957). According to Anthony Wood he went to Oxford, and then to Gray's Inn; 18th November 1510 he was called to the degree of sergeant-at-law, 24th November 1516 was appointed king's sergeant, and in 1516 became a justice in the court of Common Pleas. From 1509 to 1512 he was Recorder of Coventry, when pressure of work forced him to resign that post (*Coventry Leet Book*, ff. 304 b, 309, 311). Anthony Wood states that he was knighted about 1516, but gives no authority, and the earliest mention of *Sir* A. Fitzherbert seems to be in a State Paper of February 1522, and is not found again until the close of 1524, after which he is more commonly described as a knight. From 1509 to his death frequent mention is made in the State Papers of his appointment to serve on commissions of the peace, and of gaol delivery, for the northern and midland circuits, as well as on special commissions, and it is from these papers that the outline of his career must be drawn.

In 1514 he was sent as commissioner to Ireland together with Dr. Denton, dean of Lichfield, and Sir Ralph Egerton, to attempt a settlement of affairs, a work which seemed at the time so successfully accomplished that the commissioners received Henry VIII.'s hearty thanks on their return in the autumn. In June 1529 Fitzherbert formed a member of the commission appointed "to hear and determine causes moved before the king in Chancery, and committed to them by Thomas, Cardinal of York" (*Letters and Papers Hen. VIII.*, iv. iii. 2502), while on 1st December 1529 he signed the articles preferred against Wolsey by the Lords.

one indictment in which was that Wolsey had "removed into Chancery indictments against his officers for taking 12d. in the pound for probation of wills, and rebuking Mr. Justice Fitzherbert" (*Letters and Papers Hen. VIII.* iv. iii. 2713). Fitzherbert was among the judges who attended Anne Boleyn's coronation on 1st June 1533 (*ib.* vi. 263), and in July Cromwell addressed a letter to him concerning "the title of Antony Stydolffe, my ward," which he fears "may be prejudicial to me," and requires Fitzherbert "to stay the trial till he has further knowledge" (*ib.* vi. 380). In November of the same year he is mentioned as a member of the Council at Ludlow with a yearly fee of £10.

In June 1535 he sat on the tribunal by which Bishop Fisher and three Charterhouse monks were tried and convicted of high treason (*ib.* viii. p. 350), and in July took part in the trial of Sir Thomas More. Again on 13th May 1536 Sir Anthony was one of those who received a mandate to return all indictments found against Anne Boleyn and Lord Rocheford (*ib.* x. p. 361). He was written to about the Northern Rebellion, and was at Warrington in February 1537 for the trial of cases connected with it, while about the same time he took part in the business connected with the surrender of the monasteries of Whalley and Furness. His activity in the North was so great that he was "highly commended for his diligence" by Sussex, who wrote to Cromwell that "he cannot be spared from hence."—We hear of him next on the king's Council in Wales (*ib.* xii. ii. 321), but shortly after, while still in active service as a judge, he died 27th May 1538, and was buried at Norbury.

Fitzherbert married 1st, Dorothy, daughter of Sir Henry Willoughby of Woolaton, Notts.; 2nd, Matilda, daughter and co-heiress of Richard Cotton of Hempstall Ridware, Staffs., by whom he had five sons and five daughters, according to an epitaph preserved in the Le Neve collection (Harl. MSS. 3609). Although Fitzherbert did not enter into possession of the manor of Norbury until the death of his brother John in 1531, he certainly held land in the counties of Stafford, Warwick, Oxford and Northampton acquired by purchase and through his wife from 1503 onwards (unpublished family papers). From the notices scattered through the State Papers, Fitzherbert seems to have been a man of weight in practical matters, but he is best known to us as a legal writer. His chief works are (1) *La Graunde Abridgement*, first published by Pynson in 1514, an attempt to systematise existing law in the form of a digest of the year-books; (2) *La Novelle natura breuium* (1534); (3) *L'office et auctoryté des Justyces de peas*, first published by R. Redman in 1538, who also issued a translation of it known as the *Newe Boke of Justices of the peas* by A. F. K. That part which treats of "l'office de visconts bailiffes escheators constables, coroners" appeared later as a separate tract (Middleton, 1545; R. Crompton, 1583); (4) *Diversite de courtes et lour jurisdictions et alia necessaria.* (Redman, 1523; Pynson, 1526, though Coke, *Institutes*, iv. c. ix. ascribes it to 21 Hen. VIII.) But beside these and possibly other legal writings, two works on agriculture are generally, and probably with reason, ascribed to Fitzherbert.

(1) *The Boke of Husbandrie* (Pynson, 1523; Treuerys, 1525?; Berthelet, 1532, 1534, 1546, 1548; Walle, 1555?; M. Marshe, 1560?; Awdeley, 1562, 1576; White, 1598; Bathurst and Newbery, 1767; Trübner, 1882) was a practical manual for the working farmer, and the numerous editions through which it passed during the 16th century afford some evidence of the estimation in which it was held, and of the need it supplied. It is generally considered the earliest treatise in English on agriculture, if we except the translation of Walter of Henley's *Husbandry*, attributed to Grosseteste.

(2) *The Boke of surueyinge and improuements* (Pynson, 1523; Berthelet, 1539, 1546, 1567; Marshe, 1587; Bathurst and Newbery, 1767) was a more technical work, based upon the statute *Extenta Manerii*, and written for the benefit of lords of manors. It describes how the survey of a manor should be taken, how its resources might be increased, and in what relations lord and tenants stand to one another. The stress laid on the advantages of enclosures, the minute directions concerning the management of sheep, the warning against the raising of rents, the incidental notices marking an increase in general prosperity, and the plea for the abolition of the still existing evil of villainage are interesting points on which a student of Tudor times may learn much from Fitzherbert, while a comparison between his experience and the practice of the 13th century, as described by Walter of Henley, is of value.

Some writers have maintained that these works on agriculture were not written by Sir Anthony Fitzherbert, but by his brother John, though the latter is not known to have written anything else. It is said that Sir Anthony's professional engagements could not have allowed him to "exercise husbandry forty years" as alleged in the *Boke of Husbandrie*. Fitzherbert as a judge must, however, have had much leisure time, which he may well have given to agricultural pursuits; and family papers show that he added considerably to his landed possessions. The difficulty presented by a comparison of his age with the date of publication of the *Boke of Husbandrie* (1523) is lessened when we remember that Fitzherbert himself merely says that he has been "an householder this forty years and more." It is Berthelet, the printer, who says that he had "exercised husbandry forty years." The fact

that he is called "mayster" instead of "Sir Anthony" in the printer's note also seems an objection of little weight. It is not known exactly when he was knighted, it was certainly before February 1522, but since, as already noticed, the State Papers, with one exception use the title "Mr." until the close of 1524, and frequently afterwards, it is not surprising to find that a printer does the same when the title "Sir" would have been more correct.

The technical character of the *Boke of Surueyinge* points to its authorship by a man intimately acquainted with the law, while various indications in the *Boke of Husbandrie* show that the writer was something more than a farmer; he was clearly a country gentleman who could make experiments, and a man of scholarly tastes who could quote the Scriptures and the Fathers as readily as the statute book.

Professor Skeat, who has discussed the matter fully in the introduction to his edition of the *Boke of Husbandrie*, may safely be followed in his conclusion that Sir Anthony Fitzherbert was the author of these books, until more convincing arguments to the contrary are forthcoming.

[Copy of brass on tomb, Brit. Mus. Harl. MSS. 3609.—Wood's *Athenæ Oxon.* (Bliss).—Nichols's *Leicestershire*, iv. pt. ii.—Douthwaite's *Gray's Inn.—Notes and Queries*, 6th ser. ii. iii. iv.—Ames's *Typogr. Antig.* (Dibdin), ii. iii. iv.—Dugdale's *Orig. Jurid.—Letters and Papers For. and Dom. of the reign of Hen. VIII.*—Skeat's *Introduction to the Boke of Husbandry* (Trübner, 1882).—*Coventry Leet Book* (Town Clerk's Office, Coventry).] E. A. M.

FIVE-FRANC PIECE. Standard gold as well as silver coin of the countries forming the "Latin" Monetary Union (France, Belgium, Italy, Switzerland, and Greece). *Gold*: weight, 24·89 grains; fineness, 900; value in gold (916·6 fine at £3 : 17 : 10½ an ounce), 3s. 11½d. *Silver:* weight, 385·81 grains; fineness, 900; value in silver (925 fine at 5s. 6d. an ounce), 4s. 3½d. F. E. A.

FIVE-POUND PIECE. English standard gold coin, provided for in the first schedule to the Coinage Act, 1870, but not actually coined for circulation until 1887, on the occasion of the jubilee of Queen Victoria; weight, 616·37 grains; fineness, 916·6. A further issue of these coins was made in 1893, and another with the effigy of King Edward VII. in 1902. F. E. A.

FIX, Théodore (1800-1846) born at Soleure (Switzerland), died at Paris. He migrated at an early age into France, where he first carried on the profession of a land surveyor, and then occupied himself with translating German works into French. This last-mentioned employment led to his forming a taste for economic science. He obeyed this call and founded, in July 1833, the *Revue mensuelle d'économie politique*, which was the forerunner of the *Journal des économistes*. Fix's review, however, was very coldly received by the public—though he had the assistance of Buret, Blanqui, Rossi, Sismondi, and others. This periodical came to an end at the close of the year 1836. Fix then worked on several journals, the *Siècle*, the *Quotidienne*, the *Constitutionnel*, and especially on the *Journal des économistes*. In 1840 his essay, called *Un mémoire sur l'association des douanes allemandes*, won him a prize from the Academy of the moral and political sciences. After this, Fix, though never elected a member of the Institute, was employed in working on the report on the progress of sciences since the Revolution—a work which the Institute had undertaken. Finally, in March 1846, but a few months before his death, Fix completed and sent to the printer his *Observations sur l'état des classes ouvrières*, 1 vol. 8vo, a very solid and well-written monograph, full both of common-sense and of learning, and distinguished by a high standard of enlightened intelligence. It may be read at the present day with pleasure.

[See also J. A. Blanqui, *Histoire de l'économie politique en Europe, depuis les anciens jusqu'à nos jours.*] A. C. f.

FIXED AND FLOATING CAPITAL. Adam Smith drew a distinction between capital which yielded a profit without passing from one owner to another, and capital which did not. This distinction—which is really one between food and fuel for the support of labour and all other kinds—was modified by Ricardo into one between "goods of slow consumption" and those which "require to be frequently reproduced"; a discrimination which does not, on the face of it, profess to be scientific, and about the usefulness of which he himself was dubious. Mill, following the same train of thought, formulated the recognised classical division between fixed and circulating capital in these terms: "Capital which fulfils the whole of its office, in the production of which it is engaged, by a single use, is called circulating capital; capital which exists in any durable shape, and the return to which is spread over a period of corresponding duration, is called fixed capital." According to these definitions fixed capital is practically invested capital, and comprehends machinery, houses, public works, railways, canals, improvements to land, and anything productive which exists in a durable shape. Circulating capital, on the other hand, comprehends raw material, metals and minerals, the actual produce of land, and all that is set aside for the sustenance of labourers. Money can hardly be placed in either class; it is generally placed in the latter, although it does not fall within Mill's definition. The term "circulating" is not a very happy designation for this sort of capital; because by hypothesis it does not circulate, but is, on the contrary, consumed in a single use. The term "floating capital'

seems to be better adapted in describing the class of commodities in question.

There are two other divisions of capital, both of which ought to be noticed, as they run on lines very nearly similar to that which discriminates between fixed and floating capital. One is that between capital which directly sustains labourers, called wage-capital, and capital which only indirectly aids labourers, called auxiliary capital. The only practical difference between wage-capital and floating capital is that the latter includes raw material, which is classed as auxiliary. The other division of capital is that into specialised and non-specialised capital. Fixed capital, with the exception of houses, is generally properly to be classed as specialised; but the line of demarcation between these last-mentioned classes of capital is not to be defined with accuracy, any more than that between specialised and non-specialised labour. There is little to choose between these three classifications of capital; but that which forms the subject of the present article has come down from the earlier English economists, and is the most commonly employed.

The progress of industry is, speaking generally, marked by the increasing ratio which fixed capital bears to floating. Fixed capital really represents the saving, or foresight, which is of the essence of the creation of nearly every form of capital. On pasture and agriculture there was formerly little fixed capital employed, but this gradually increases; and in all other industries the tendency to increase the quantity of fixed capital is very great. The most striking result of this progress is, that the proportion of industries which exist for the purpose of constructing fixed capital—*i.e.* making raw material (floating capital) into machinery—constantly increases. It is this, along with other causes springing essentially from the same source, that assists the phenomenon of the slow depletion of rural districts and growth of towns and large villages. There is therefore, while the process is going on, a gradual but continuous displacement of labour which in normal periods passes unnoticed and creates little disturbance. A sudden conversion of floating into fixed capital on a large scale, however, has always a very serious effect, at least temporarily, on labour; and this at many periods has caused new machinery to be unpopular with the working classes. There are two ways in which a conversion such as that mentioned affects labour. If a large quantity of capital is withdrawn from agriculture, and invested in machinery on permanent works, (the illustration given by Professor Fawcett, *Manual of Political Economy*, ch. iv.), there is not the same quantity of the annual return from the converted capital available for consumption. It must be remarked that this result can only be temporary. In the long run, floating capital is increased by the growth of fixed capital, but at a much slower rate, and it is liable to great fluctuations, as it depends on the continued existence and success of the industries in which the fixed capital is invested. The other manner in which labour is affected by a great conversion of floating capital is this: such a change means in effect the specialisation of a quantity of capital, and as specialised capital generally employs specialised labour, the workmen have to learn to change their business if they want to get employment. The demand for skilled labour increases suddenly, and the unskilled man suffers.

A country which possesses a great stock of fixed capital has the main element of financial strength, and the chief contributor to national credit. It may be observed, however, that when a country comes to be the scene of a war, its loss, and the consequent distress of its inhabitants, are greater where much fixed capital exists. The destruction of a harvest is the destruction of a year's agricultural income; the breaking-up of machinery and works is a breach made in national capital.

[Adam Smith, *Wealth of Nations*, bk. ii. ch. i.—Mill's *Principles*, and *Unsettled Questions in Political Economy*, essays iii. and v.—Marshall's *Principles of Economics*.—Marx, *Das Kapital*.—Cairnes, *Leading Principles*.] M. G. D.

FIXED INCOMES do not afford a constant benefit to the recipients when the value of money changes. Incomes may be thus classified according to the degree in which they are affected by a change in the value of money (Jevons, *Currency and Finance*, p. 96). (1) Incomes derived from funds, annuities, mortgages, etc., where the whole loss or gain consequent on depreciation or appreciation falls upon the holder. (2) Incomes made up of "fixed charges established by law or custom or convenience, such as the fees of lawyers, physicians, etc." The increase of business consequent on a virtual reduction of charge may here make some compensation, as in the case of traffic increasing with the diminution of tolls. (3) Incomes "entirely independent of the value of gold," such as those of manufacturers, merchants, artisans, etc.; from which class, however, must be excepted salaries and wages which, though not fixed, are slow to move.

To correct the evils incident to the fixity of incomes—the loss to the recipient in case of depreciation, to the community in case of appreciation—is one of the objects proposed by schemes designed to obviate the change in the value of money, as CORN RENTS, and a TABULAR STANDARD. (See also INDEX NUMBERS.)

F. Y. E.

FIXTURES. The older law, both of England and Scotland, allowed no exception to the maxim that whatever was fixed to the soil went with it. Accordingly, every object, even

though originally movable in character, that had once been fixed to land or to a building, became a part of that land or building, and could not be removed at the will of the person who had fixed it. It thus became a fixture, the property of the landlord in the same sense as the rest of the land or building. But between things fixed to the soil, so as to render the premises complete and ensure the appropriate use of them; things difficult to move on account of their weight; and things temporarily attached for convenience' sake, with no intention of transferring the property in them, it became difficult to distinguish, and the maxim was unduly harsh in its operation. The early rules of law remain on the whole in force in questions between heirs-at-law and personal representatives, except in particular cases where such objects as mirrors, pictures, tapestries, and the like have been held not to have been fixtures, and between personal creditors and mortgagees. As between lessors and lessees, however, there has been a considerable relaxation of the older rules; and the rule seems now clear in England, not quite so clear in Scotland, that fixtures put up for trade purposes or for domestic use may, as against the lessor, be removed by the lessee, or severed from the tenement, and that they thereupon regain their character as movables and as the personal property of the lessee; provided that what he so does he must do during the term or during the continuance of his possession as tenant, and that the tenement is not to be injured or impaired in its use by the removal. Such fixtures are called "Tenants' Fixtures," while those which must remain attached to the Freehold are called "Landlords' Fixtures." This relaxation was not effectively extended to agricultural tenancies until the passing of the Agricultural Holdings Act of 1883, by which it was provided that agricultural fixtures or buildings, for which the tenant was not entitled to compensation under the act, or which he was not bound by his agreement to put up, or had not put up instead of some fixture or building belonging to the landlord, might be removed by the tenant before the end of his tenancy, on condition that he had paid his rent, etc.; that no avoidable damage was done; that any actual damage was made good, and that notice was given and an option given to the landlord to purchase the fixtures or buildings at a valuation. A. D.

FLEETWOOD, WILLIAM (1656-1723),—the first English collector of statistics of prices,—became fellow of King's College, Cambridge; gained reputation as a preacher with strong Whig sympathies, and was appointed successively canon of Windsor (1702), bishop of St. Asaph (1708), and bishop of Ely (1714).

In 1707 Fleetwood published anonymously his *Chronicon Preciosum; or an Account of English Money, the Price of Corn and other Commodities for the last 600 years; in a Letter to a Student in the University of Oxford.* The question had been presented to him how far the statutes of a certain college (founded between 1440 and 1460), which vacated a Fellowship if the Fellow had an estate in land of inheritance, or a perpetual pension, of five pounds per annum, were binding in conscience. Fleetwood answered that this rule must be interpreted according to the changed value of money; and the purpose of his book was to determine what that change had been. He concluded that "£5 two hundred and sixty years ago, was equivalent to £28 or £30 now." But his treatise took a wider range; it brought together all the information he could find on the values of money and the prices of commodities during the Middle Ages in England; and it is still well worth consulting. His figures were taken almost exclusively from chronicles; but he clearly foretold such inquiries as those of Mr. Thorold Rogers. "The Gentlemen of each University," he remarked, "will have it in their Hands to make what Amendments they shall see good, out of their old *Rolls* and *Bursars' Accounts;* which I look upon as the most sure Guides in Enquiries of this Nature; because our General Histories do mostly give us the Prices of Things which are *Extraordinary*, either for *Cheapness* or for *Dearness.* Whereas the *College Accounts* deliver faithfully the *ordinary* and *common* Price of most Commodities and Provisions."

Fleetwood's sermons frequently dealt with subjects of current interest. Thus in 1694 he preached a *Sermon against Clipping* before the Lord Mayor at Guildhall Chapel, wherein he considered "First, The Use and Necessity of Money to the carrying on the Trade and Commerce of the World; Secondly, the Mischiefs of corrupting and debasing Money, the Coining of bad Metal, or the clipping and stealing from good; Thirdly, the Reasonableness and Justice of the Laws which punish such Offenders. So also he published in 1720 (during the South Sea Panic) a *Sermon*, preached some years before to a City congregation, *On the Justice of Paying Debts.*

A Complete Collection of the Sermons, Tracts, and Pieces of all kinds that were written by . . . Dr. William Fleetwood, was published by subscription in 1737. W. J. A.

FLETCHER, ANDREW (1655-1716), of Saltoun, published a remarkable discussion of pauperism in Scotland at the end of the 17th century (*vide* the *Second Discourse*, etc. in *Two Discourses concerning the affairs of Scotland*, Edinburgh, 1698; reprinted in Fletcher's *Political Works*, London, 1737, 8vo). He points out that the bad seasons of 1695-1698 were a special cause of poverty, but he attributes its origin to the church, "which encouraged setting slaves at liberty." . . . "Provisions by hospitals, almshouses, and the contributions of

churches or parishes, have by experience been found to increase the numbers of those that live by them. And the liberty every idle and lazy person has of burdening the society in which he lives, with his maintenance, has increased the numbers to the weakening and impoverishing of it: for he needs only to say that he cannot get work, and then he must be maintained by charity" [p. 129]. Then, regarding "not names, but things," Fletcher expresses the opinion that slavery is preferable to a bad system of workhouses. While he does not defend "any of those bad and cruel regulations about slaves," he "proceeds to explain under what conditions they might be both good and useful, as well as I think they are necessary in a well-regulated government." According to his scheme the master is not to have power over the slave's life, or for mutilation or torture. The slave, his wife and children, are to be provided with clothes, food, and lodging, to be educated at the master's expense, and to have Sunday holidays. Except in matters relating to their duty as servants they are to be under the protection of the law and not subject to the will of their masters. They are not to possess property, and they may be sold, *i.e.* Fletcher explains, their services may be alienated without their consent. He proposes to compel "every man of a certain estate" to take a proportionate number of vagabonds on those conditions and to set them to work. Under such a system he maintains that they would be better off than those who "having a power to possess all things, are very often in want of everything."

[A full life of Fletcher is given in the *Dictionary of National Biography*, vol. xix.] W. A. S. H.

FLEYLAND is satisfactorily explained by Vinogradoff (*Villainage in England*, p. 170) as land held by the villein tenure of agricultural work (*ad furcam et flagellum, i.e.* by pitchfork and flail), not by payment of rent. E. G. P.

FLOATING CHARGE is the name given to the general charge of the undertaking of a company frequently given in favour of debenture holders (see DEBENTURE; DEBENTURE STOCK). The expression "*floating* charge" implies that it does not attach to any specific property but to all the property held by the company at any particular moment subject to the company's right to dispose of it in the ordinary course of their business. It is only in case of default or liquidation proceedings that the charge becomes effective. A receiver may then be appointed who takes possession of all the assets, and the general creditors will be shut out. A floating charge, like all other mortgages, ought to be registered in the company's register of charges (Comp. Act, 1862-73), but as the omission to register does not entail any consequences except the payment of certain penalties by the parties responsible for the omission (Wright *v.* Horton, 12 Appeal Cases, 371), the creditors of a company can never know whether, in the case of a winding up, their claims will not be frustrated by debenture holders, the legislature having given additional facilities for the creation of secret charges by declaring that the Bill of Sale Act of 1882 (see BILL OF SALE) does not apply to the debentures of a company. Up to recent times creditors who were secured by a specific mortgage of any part of a company's property were comparatively safe, but the ingenuity of company lawyers has found a new method of defeating their claims, as well as those of unsecured creditors, by inserting an additional clause in debentures by which the company undertakes "not to create any mortgage or charge in priority" to the debentures in question. E. S.

FLOATING DEBT. The expression "Floating Debt" in state finance is used as equivalent to "unfunded" and opposed to "funded debt." The floating debt of a state is generally intended to be repaid within a comparatively short period, but it may also be raised in that form in order to be converted into funded debt at a subsequent period. A part of the floating debt of the United Kingdom consists of temporary advances required for the supply services in anticipation of revenue payable at a later period within the same financial year, but it also happens that expenditure is incurred for objects for which an addition to the funded debt does not seem justified, but which cannot conveniently be raised out of one year's revenue, and in such cases the creation of a floating debt repayable within a fixed number of years is a useful expedient. Thus for instance the Naval Defence Act 1889 provides that the sums required for the purpose of building certain vessels may be raised by the creation of floating debt repayable within seven years.

A good recent instance of the creation of floating debt, subsequently converted into funded debt, was the issue of exchequer bonds, for the purpose of paying off holders of consols who were unwilling to convert under Mr. Goschen's Act; their bonds were afterwards, through the operation of the National Debt (Conversion of Exchequer Bonds) Act 1892, exchanged against a charge in favour of the holders which now forms part of the funded debt. The effect of the operation will be seen by comparing on the table given below the respective amounts of funded and unfunded debt for 1892 and 1893.

The floating debt consists of advances made by the Bank of England, exchequer bonds repayable within a fixed number of years, interest being payable at fixed intervals in the meantime, and treasury bills repayable at much shorter periods and issued at a discount in the same way as mercantile bills. Terminable annuities are also in a certain sense part of the floating debt; they are partly used like

exchequer bonds for the purpose of spreading expenditure over a number of years, and partly also for the purpose of paying off funded debt. As the National Debt is to a great extent held by public bodies, a conversion of funded into unfunded debt for the purpose of ultimate repayment can always be easily arranged if the state of the finances allows such an operation. The proportion of floating to funded debt is shown below. The unfunded debt rose greatly after the South African War (1899-1903):—

Year.	Funded debt.	Capital value of terminable annuities.	Unfunded debt.
	£	£	£
1836	760,295,000	60,698,000	30,083,000
1843	774,859,000	48,112,000	18,684,000
1853	764,541,000	31,862,000	17,743,000
1863	787,423,000	18,074,000	16,495,000
1873	727,374,000	47,019,000	4,829,100
1883	712,699,000	27,571,000	14,185,000
1892	577,945,000	64,422,000	35,313,000
1903	640,085,726	55,560,036	75,133,000
1905	635,682,863	47,756,246	71,633,000

The annual interest charge on the unfunded debt in 1893-94 was £486,000.

The disadvantage of a floating debt, especially in the shape of short treasury bills which have frequently to be renewed, is that in a moment of financial crisis it might be difficult to find new takers, when current bills fall due; but when it is remembered that a considerable part of the amount granted by parliament for the service of the debt is used for the repayment of capital, and that, in case of necessity the commissioners, instead of purchasing consols, may use the sinking fund for the repayment of treasury bills, this risk in view of the comparative smallness of the amount does not seem a serious one.

The expression floating debt is also used in the case of large mercantile and industrial undertakings, more especially in the case of railways, to distinguish trade debts and debts borrowed from banks for temporary purposes from debts incurred by the issue of DEBENTURES (*q.v.*) or DEBENTURE STOCK (*q.v.*). The priorities as between the debenture-holders and the other creditors depend on the special circumstances of each case and the law of the country in which the debtor's undertaking is situate.

[As to the theoretical aspects of the subject of floating debt in state finance, see Roscher, *Finanzwissenschaft*, § 143.] E. S.

FLOATING POLICY (Marine Insurance). A floating policy is a policy which designates the subject matter insured in general terms, and leaves the name of the ship, the particular subject matter, and the value of it to be defined by subsequent declarations. The declarations may be made by indorsement on the policy or in other customary manner, but the general rule is that they must be made in order of shipment and with reasonable diligence. When a declaration of value is not made until after notice of loss, the policy must be treated as an open, and not as valued policy, as regards the subject matter of that declaration.

[See Arnould's *Marine Insurance*, ed. 6, p. 337.] M. D. C.

FLOREZ ESTRADA, ALVARO (1765-1853), entered early the financial administration of Spain, and was appointed in 1798 *procurador general de las Asturias*. As such he contributed powerfully to the organisation of the resistance to Napoleon, and was promoted, in 1813, *asistente* in Seville: his jurisdiction extended over the whole of Andaluzia. During the troubled reign of Ferdinand VII. he was twice obliged to take shelter in England, where he devoted himself to the study of political economy. After the establishment of the constitutional monarchy during the minority of Queen Isabella, he returned to Spain and was appointed a member of the senate, over which he presided. In 1851 he was elected a corresponding member of the French *Académie des Sciences morales et politiques*.

Florez Estrada is considered the most distinguished Spanish economist of the first half of this century. He published in 1814, in Madrid, his *Examen imparcial de las disensiones de America*, in which he advocated the emancipation of the Spanish colonies of the New World. Later on, he wrote a pamphlet entitled *Efectos producidos en Europa por la Baja en el producto de las minas de plata* (London, 1824), on the effects of the reduced production of the silver mines and his *Examen de la Crisis Comercial de la Inglatierra*, translated into French under the title: *Réflexions sur la Détresse Commerciale de la Grande Bretagne* (Paris, 1826). But his principal work is his treatise of political economy, of which different editions were issued in London (1828), Paris (1831), and Madrid (1841 and 1848), sometimes under the title of *Tratado* and sometimes of *Curso de Economía Política*. A French translation under the appropriate heading of *Cours Éclectique d'Économie Politique* appeared in Paris and London in 1833 (3 vols. 8vo). In fact, Florez Estrada was not, and expressly disclaims being, an original writer, whilst he candidly confesses his obligations to Ricardo, M'Culloch, and James Mill. But he is by no means their undiscriminating follower, and, for instance, freely criticises some of their views on the advantages of a paper currency. He insists on the necessity of what is now called a high standard of life for the working classes; "nations cannot prosper if the working classes are not active, intelligent, and industrious; this is impossible if their wages are not

high enough to secure them a comfortable and agreeable life" (p. 375, edit. 1831). The most original part is to be found in the chapters concerning taxation. They are written from the point of view of an experienced and enlightened Spanish official, who ascribes the decay of his country to its defective financial and economic government and to the undue and excessive imposition of taxes on consumption. He energetically rejects the policy of meeting current expenses by public loans, and recommends the introduction into Spain of a moderate land-tax, leaving untouched the profits derived from investments in the improvement of land.

E. Ca.

FLORIDA-BLANCA, José Moñino, Count of (1728-1808), appointed in 1766 *fiscal* and in the following year member of the council of Castile, was sent on a mission to Rome to obtain from the Pope the suppression of the order of the Jesuits. As a reward for his success Charles III. of Spain gave him, in 1773, the title of count of Florida-Blanca and appointed him, in 1776, minister of state and later on of grace and justice. After his disgrace under Charles IV. in 1792, he retired to a convent in Murcia, his native place, where he remained until the rising against Napoleon, when his popularity caused him to be put at the head of the national government as president of the supreme governing *junta*. He died shortly afterwards.

Before his elevation to the ministry he had already made known his reforming tendencies on the question of the supply of corn for Madrid, and by his protest against the privileges of the Mesta (*q.v.*) or right of passage allowed to herds of cattle (*Respuesta fiscal . . . contra los ganaderos trashumantes*, 1770).

As a minister, he distinguished himself by his unification of the Spanish import tariff, which was different in the different kingdoms of the monarchy, and by raising the revenue derived from customs from 60 to 130 millions of reales (£600,000 to £1,300,000), although he had lowered the taxes on raw materials and machinery. He also reduced the *alcavala* or tax on every sale from 14 to about 6 per cent, and remitted it on all sales of goods by the manufacturer himself (see Alcavala). He built about 600 miles of new roads, improved the sea-ports, and gave an active impulse to irrigation. At the same time he took stringent measures for the repression of beggary and vagrancy by the establishment of the *fondo pio beneficial* or poor fund for the endowment of hospitals and orphanages, to be supplied by a fixed charge on all ecclesiastical benefices.

In the *Memorial* presented in 1788 to Charles III., Florida-Blanca sets forth the result of his endeavours and his views for the future. Some of the latter are rather striking; he intends to put down the excess of entails by submitting henceforth their creation to the royal approbation, and by authorising the municipal *junta* to sell for building purposes any unoccupied land in the neighbourhood of towns. On the other hand he is willing to declare the life owner of an entailed estate full owner of the value of all the improvements he has effected in the way of irrigating, planting, or clearing unbroken fields.

The *Memorial* has been published, with most other works of Florida-Blanca, in Rivadeneyra's *Biblioteca de Autores Españoles*, vol. 59 (Madrid, 1867), and has been given in French in Muriel's translation of Coxe's work on Spain under the house of Bourbon (*L'Espagne sous les rois de la maison de Bourbon*, vol. vi. p. 257.)

E. Ca.

FLORIN.

Florin, History of the English Gold, p. 92; Florin, English (Gold and Silver), p. 92; Florin, Austrian, p. 93; Florin, Dutch, p. 93.

Florin, History of the English Gold. A gold coin of the reign of Edward III., so called from a Florentine coin, the *fiorino*, first issued in 1252, which derived its name from the fact of its having upon it a lily (*fiore*, flower). The English coin was sometimes called a florence; it was, however, equal in weight to two of the Italian coins. The issue of florins authorised by parliament of 1343 and made current by proclamation dated 27th January (o.s.) of the same year, was the second attempt since the 9th century to introduce a gold coinage into England, the first attempt, Henry III.'s gold pennies, having failed. The florins were to be current at 6s., to weigh 108 grains, to be of the same fineness as the Florentine coin, 23 carats, 3½ grains of gold to ¼ grain of alloy, and to be made and current equally in England and in Flanders, for the facilitation of trade. Half and quarter florins were issued at the same time. In 1344, however, it having been found that they had been overvalued in proportion to silver, the florins were, according to Kenyon, made "no longer current without the consent of the receiver, but they were to be considered as bullion and taken according to their value as such," and a coinage of the Noble took their place. Thus they were not called in but demonetised, and left to take their place as bullion. Only two specimens of the English florin, two of the half, and three of the quarter florin are extant.

[Kenyon, *Gold Coins of England*, 1884.]

E. G. P.

Florin (English), *Gold.* A coin struck in the reign of Edward III. and issued at the rate of 6s. sterling. There was only one coinage of these pieces, the exact date of which is uncertain, but it was either in 1343 or 1344. Weight, 115·25 grains; fineness, 994·8. Value in gold (916·6 fine at £3 : 17 : 10½ an ounce), £1 : 0 : 3.

Silver. Token coin of the nominal value of 2s., and legal tender to the amount of £2. First struck in the year 1849; weight, 174·54

grains; fineness, 925. Value in silver francs (900 fine), 2·32 francs.

[Henfrey's *English Coins*, 1885.—Ruding's *Annals of the Coinage.*] F. E. A.

FLORIN (AUSTRIAN), OR GULDEN. Silver standard coin, 900 fine, weighing 190·53 grains. Also double florins of proportionate weight and same fineness. Value of the florin in silver (925 fine at 5s. 6d. an ounce), 2s. 1½d.; in silver francs (900 fine), 2·47 francs.

Austrian florins were last coined in 1892. On the 2nd of August of that year, a law was passed establishing a gold standard and a new metallic currency, with a gold crown, of the weight of ·3387 grammes of gold nine-tenths fine, as the unit of value. The crown is divided into 100 hellers.

The coins of the new "crown system," which were first struck in 1893, are as follows:—

STANDARD COINS.

	Grammes.	Fine.	Sterling value (gold 916·6 fine, at £3:17:10½ an oz.).
Gold—Twenty crowns	6·775	900	16/8
Ten crowns .	3·387	900	8/4

SUBSIDIARY COINS.

	Grammes.	Fine.	Nominal value in sterling.
Silver—Crowns . .	5·000	835	10d.
Nickel—Twenty hellers	4·000	..	2d.
Ten hellers .	3·000	..	1d.
Bronze—Two hellers .	3·333	..	0·2
Hellers . .	1·666	..	0·1

It will be seen that the smallest standard coin is the ten-crown piece; the silver, nickel, and bronze pieces being merely tokens. The crown is equal in value to half of the florin of the former currency. F. E. A.

FLORIN (DUTCH), OR GULDEN. Silver standard coin, 945 fine, weighing 154·32 grains, and divided into 100 cents. The 50 cent piece is 945 fine and proportionate in weight. The 25, 10, and 5 cent pieces, 640 fine, are tokens only. Value of the florin in silver (925 fine at 5s. 6d. an ounce), 1s. 7·82d.; in francs (900 fine), 2·1 francs. F. E. A.

FLOTSAM AND JETSAM. These legal terms may be defined as follows—*flotsam* comprehends all floating articles which once formed part of a wreck or of her cargo; *jetsam* comprehends all things cast overboard (Fr. *jetter*) in a storm or shipwreck. Under the common law the crown became proprietor of all flotsam and jetsam. But the right to flotsam and jetsam was frequently conferred by the crown upon the owners of manors abutting on the sea. The right whether of the crown or of the lord of the manor is now limited by the right of the original owner to reclaim his property within a year. (See Stephen's *Commentaries*, vol. ii. pp. 552-555.) F. C. M.

FLOW OF CAPITAL. It may be said that of the three agents of production known to classical economics capital is the one pre-eminently distinguished by mobility. Land is immovable, labour is movable, but frequently with difficulty and under disadvantages; nor does it necessarily tend to become more easily transferred, in spite of the increasing knowledge of the labourers and the spread of means of conveyance, because these elements are to a large extent counterbalanced by the highly-specialised character which modern labour tends to assume. Capital, however, since the early hunter of the text-books took to canoe-building, has become continuously more movable, and is now extremely sensitive to the exigencies of supply and demand; so that, notwithstanding the enormous quantity of capital invested in such a way as to preclude the possibility of immediate conversion, the flow of capital is far more continuous, whether between different trades, districts, or countries, than formerly. The flow of capital may be examined under three phases: (1) international, (2) local, and (3) industrial. The first of these terms designates the migration of capital from one country to another; the second the same migration from one district to another within the same country; and the third the transference of capital from one trade or industry to another. All these movements are greatly facilitated by a well-organised system of banking.

1. *International.*—As capital, like labour, finds its most natural employment at home, it is only where there is capital relatively to spare in a country that any appreciable portion of it goes abroad. Moreover, as it is only free capital that can be sent out of the country, the flow of capital from one country to another is determined chiefly by the amount of capital of this sort. When free capital exists in any great quantity, as it does in England, it competes against itself so as to lower the rate of interest at home; and the low rate of interest encourages the owners of such capital to attempt to gain a higher rate by investing where capital is more scarce.

2. *Local.*—The movements of capital within a country differ chiefly from the international movements in this that the rate of interest plays no part in them, as it may be assumed that it is the same throughout the whole country. Probably the most important attraction to capital that we find in a country such as England is the discovery of fields of minerals hitherto unwrought. It would be difficult to trace the gradual changes in the locality which capital seems to favour; the establishment of an industry, once fairly begun, almost always has the effect of drawing other industries related to and depending upon it, into

the immediate neighbourhood. Railways are great factors in the local flow of capital. A railway established between two large centres of industry must necessarily pass through the intervening country, and it encourages men to set up factories or other industrial undertakings near it, which in time attract capital. Lancashire and the West Riding of Yorkshire, and, in a minor degree, Lanarkshire, have come to possess the enormous amount of fixed capital they can lay claim to from such causes as these. On the other hand foreign tariffs may cause a flow of capital in the home country, though this is more properly industrial than local. Protracted struggles between employers and labourers are also credited with a certain quantity of force in driving capital from the locality in which they occur.

3. *Industrial.* — This is the form of the movement of capital which causes the greatest disorganisation of labour, and the most acute hardship, though it is, according to some, most generally beneficial in the end. The introduction of machinery and the comparative depletion of the rural districts are phenomena traceable to it, as they involve the conversion of floating capital into fixed.

Foreign tariffs and inventions assist the natural forces of supply and demand to promote the flow of capital from one trade to another. Capital will flow readily into those channels where for the time being the price gives an extra profit because of great demand; but where the transference is necessitated by over-production of some commodity, there cannot fail to be a temporary loss, and a permanent loss to the individual capitalist. The withdrawal of agricultural capital in England during the last three decades must have involved those whose capital was formerly invested in land in very serious loss; and similarly the transference of capital from the sugar industry to others cannot be effected without severe loss, and is not due to the large profits to be made elsewhere, but to the diminution of profits in the refining trade, owing to foreign bounties.

[Walker's *Political Economy*, pt. ii. ch. iii.—*Wealth of Nations*, bk. ii. ch. i.—Mill's *Principles of Political Economy;* and *Unsettled Questions in Political Economy*, Essays 3 and 5.—Cairnes's *Leading Principles.*—Marshall's *Principles of Economics.*—Marx's *Capital.*] M. G. D.

F. O. B. An abbreviation for *free on board.* Goods shipped from one country to another are generally sold either *f. o. b.*,—in which case the purchaser must pay freight and insurance; *c. and f.*,—cost and freight, in which case the vendor has to pay the freight; or *c. i. f.*,—cost, insurance, freight, in which case the vendor has to pay both insurance and freight. E. S.

FŒNUS NAUTICUM. The requirements of maritime commerce induced the Romans to adopt from Greece a peculiar kind of contract of loan. This originally consisted in borrowing a sum of money to be taken by sea to a particular place for the purpose of buying merchandise there, the condition on which the contract depended being that, if the money was lost on the voyage by accidental perils of the sea, the borrower should not be bound to repay the lender. Money lent on such terms is called *trajecticia pecunia*, because of its being carried over the sea (*quia trans mare vehitur*). Subsequently the contract was extended, so that *trajecticia pecunia* included money lent to buy goods for export to a port agreed on, the repayment of the loan depending on the safe arrival of the goods there. Such goods were frequently pledged to the lender as security for the debt, but this was not necessary. Loans made for the purpose of repairing a ship, or for paying the crew their wages, were also brought under the same rule, the condition of repayment being the safe arrival of the ship at the port of destination. As in this contract the risk of accidental loss was on the lender, not on the borrower, as in ordinary cases, he was allowed to charge more than the ordinary legal rate of interest on money loans. The maximum rate of interest on account of *trajecticia pecunia* was fixed by Justinian at 12 per cent. The technical term for interest on such a loan is *fœnus nauticum* (see Bottomry). It was treated as innocent even by the Canon Law. E. A. W.

FOLKES, Martin (died 1754), wrote *Tables of English Gold and Silver Coins, with their Weights, Intrinsic Values*, etc., London, 1745.

"A new and much improved edition of these valuable tables, illustrated with numerous plates of coins, edited by Dr. Andrew Gifford, was published in London, 1763." M'Culloch's *Lit. Pol. Ec.*

FOLKLAND was the surplus land which was not distributed to the free or dependent village communities when the English tribes conquered and settled in Britain. It must be carefully distinguished from the common lands which belonged to a community, but were not distributed among individuals (see Alod). The folkland was regarded as the property of the tribe, and after the union of the tribes to the nation, it could be alienated to individuals by *boc* or charter granted by the king and his witan (see Bocland). It could also be let out to individuals on payment of a rent usually in kind, and these rents were collected by the sheriffs and formed part of the royal revenue. The above view has been held by all the chief authorities on the early constitutional history of England. But Prof. Vinogradoff, in an article in the *English Historical Review* for January 1893, has argued, with great force, that folkland does not mean the land of the folk, but land held by folkright, *i.e.* that it is the same as what the older authorities call alod or ethel (see Feormfultum).

[Stubbs's *Constitutional History*, i.—Kemble, *Saxons in England.*] R. L.

FONFRÈDE, Henri (1788-1840), the son of a well-known Girondist member of the convention, was one of the most active journalistic writers of France during the first half of this century. His articles and essays, scattered in five or six different Bordeaux and Paris newspapers, were collected after his death and published in ten volumes (*Œuvres de Henri Fonfrède*, Paris and Bordeaux, 1844-48). The volumes seven and eight, entitled *Questions d'Économie Publique*, contain his economic writings, and one of them, *Le Système Prohibitif*, a luminous and incisive plea in favour of free trade, was republished as a pamphlet in 1846 by the *Association pour la Liberté des Échanges.* Fonfrède, very independent in his views, remained throughout his life a steady opponent of the conversion of public debts ("there is no more reason for a *maximum* price of 100 francs for public stock than for the same *maximum* price for coffee"—vi. p. 227), of sinking funds ("is it not mere folly to pay off in order to borrow, and to borrow in order to pay off?" *Système Prohib.*, p. 61), of Algerian colonisation, of commercial and administrative centralisation in Paris, and of government measures proposed to facilitate the raising of money on landed securities ("Every attempt to render land more fluid is an intense political and economic mistake. Land must be made easy to divide, not easy to mobilise."—vii. p. 231). E. Ca.

FONTANELLI, Carlo (died 1886, at Florence), was professor of political economy at the Scuola di Scienze Sociali in Florence. Author of—

Manuale popolare di Economia sociale, Firenze, 1870, 2nd ed. 1881; *Gli scioperi*, Napoli, 1874-75. A. B.

FONTEYRAUD, Alcide (1822-1849), born in the island of Mauritius, died at Paris. He became at a very early age a teacher in the higher commercial school under Blanqui, whose pupil he had been. Political economy soon absorbed him, and after March 1845 he was placed on the staff of the *Journal des économistes.* In January 1846, the *Revue britannique* published an article by him entitled "La ligue anglaise" (Anti-corn law league), which brought him into the notice he so well deserved. After this Messrs. Guillaumin entrusted him with annotating and preparing for publication the works of David Ricardo (vol. xiii. *Collection des Principaux Économistes*), which appeared in 1847. Fonteyraud was enabled, through his perfect knowledge of the English language, to translate the works of that economist, which up to that time had never appeared in French, and also to revise the translation made by Constancio. Fonteyraud wrote at the commencement of this volume, which is occupied entirely with the works of Ricardo and notes made on them by J. B. Say and others, a brilliant and interesting notice of the great English economist, who up to that time had been but little understood on the continent. He also translated the *Definitions in Political Economy* by Malthus. He finally wrote for the collection *Encyclopédie des connaissances utiles, Principes d'économie politique* (8vo, 1849). L. Wolowski had no hesitation in endorsing the opinions expressed in this volume. Fonteyraud was removed by cholera at the age of twenty-seven years from the study of that science to which, had it not been for his premature death, he would doubtless have rendered signal services. His principal works were collected by Joseph Garnier and published with a notice from the pen of that writer, under the title of *Mélanges d'économie politique*, 1 vol. 8vo, 1853. A. C. f.

FOOD-RENTS existed in Anglo-Saxon and earlier manorial times side by side with rents in labour and in money. They were included under the general name of *gafol*, tribute, which comprised other payments of produce besides actual food; and they were payable by freemen as well as serfs, in contradistinction to the labour services known as week-work which were usually a mark of villein status. The food-rents paid to the lord of the manor may be connected in origin with the Feorm-fultum and the later Purveyance (*q.v.*), payable for the use of the king and his court; they may perhaps be considered as taxes or exactions rather than as economic rents. Owing to the frequent absence of the lord these rents would be commuted for money earlier than labour rents, which could be paid just as conveniently in the lord's absence as during his residence on the manor; and it is pretty certain that the free tenants who paid rents in kind did become money-paying tenants earlier than the serfs who owed week-work as well as produce. The commutation was general by the 14th century, but the dates of the stages of the process cannot be exactly given as payments in kind are found mixed, apparently without system, with original and commuted money payments in most statements of manorial services and rent drawn up before that time. The commonest articles of food paid by the tenants were poultry and eggs, but oats, barley, malt, ale, sheep, pigs, meat, loaves, honey, occur often; evidently the manorial household expected to be provisioned by the tenants, and it was not uncommon for a definite part of the estate, the lands, for instance, of a monastic house, to undertake such provisioning for a week, a fortnight, or some other fixed time. The growing need for money helped to put an end to such rents as well as to labour dues.

[Seebohm, *English Village Community*, 1883.—Vinogradoff, *Villainage in England*, 1892.] E. G. P.

FOOD, Taxes on. These were common in

the 18th century, in the form of duties on flour, bread, and meat (*Wealth of Nations*, bk. v. ch. ii. pt. ii. art. iv.). They have now disappeared as general internal taxes, the last instance being the Italian Grist Tax (see MACINATO). They still exist as CUSTOMS DUTIES (see also CORN LAWS), and also make a part of local taxation in France and Italy (see OCTROI; SALT DUTIES). In theory they may be treated as one division of taxes on necessaries. The general discussion of their effect belongs to TAXATION (*q.v.*). C. F. B.

FORBONNAIS, FRANÇOIS VÉRON DE (1722-1800), born at Mans, died at Paris. Though he never occupied any official position or received any appointment equal to his merits, Forbonnais exercised a great influence over his contemporaries. He came of a respectable business family, and began life in retail trade; he then travelled for five years, and afterwards improved his knowledge of affairs by studying the workings of business on a large scale at Nantes for the same period of time. By 1752 he considered his economic education sufficiently advanced to justify him in preparing a memorial on the position of public affairs which he then presented to the controller-general of Finance, an office filled at that time by J. B. de Machault, a financier of high ability. Through an unfortunate accident his memorial was not read, and its author became discouraged. Forbonnais then resolved to address himself directly to the public, and he printed a great number of works of which we can only mention the most important. These are *Considérations sur les finances d'Espagne*, 1753, 1 vol. 12mo; *Éléments du commerce*, 1754 and 1796, 2 vols. 12mo; *Recherches et considérations sur les finances de France depuis 1595 jusqu'en 1721*; Bâle, 2 vols. 4to, and Liège, 6 vols. 12mo, 1750; *Principes et observations économiques*, 1767, 2 vols. 12mo (reproduced in Guillaumin's collection of the principal economists); and finally *Observations succinctes sur l'émission de deux milliards d'assignats* 1790, 1 vol. in 12mo. Forbonnais was never able to free himself from the errors of the mercantile system, and shows himself favourable to the theory of the balance of trade. Besides this he was a protectionist, although he considered that the rate of duty, beyond which no branch of industry had any rights to existence at the cost of the consumer, should be limited to 15 per cent. How many ministers in our own days would be excused by the supporters of free trade if they would only restrict their demands to this scale! Forbonnais, however, showed himself in other respects so sound an economist and financier, and so distinctly opposed to all crotchets, that he has left behind him a well-deserved reputation. His works are read and quoted even at the present day. He was consulted by all the influential politicians, and by all the great administrators of his time. Silhouette placed him at the head of his office in 1759; Forbonnais had at that time filled the office of inspector-general of the mint for three years. Causes which were entirely honourable to himself led to disagreements between him and Madame de Pompadour, and he was sent to reside in exile on his estates. One of his unquestioned merits consists in having endeavoured to apportion the incidence of public taxation equally among all classes. Forbonnais did not solicit office in 1789, contenting himself with writing many detached papers, still in manuscript, on economic subjects. He controverted the doctrines of the physiocrats, but, it must be admitted, without seriously impugning their arguments. Forbonnais was admitted to the Institute in 1794 and died six years after, leaving behind him the reputation of a man conscientious and sincere, whose judgment was of the highest delicacy, who was an indefatigable worker of a frank and vigorous temperament. A. C. f.

FORCED CURRENCY usually implies two attributes: it must be received as legal tender; it need not be cashed on presentation. As Prof. Walker points out, the character of force may exist even in the absence of the first attribute,—for instance, money "may not be made legal tender, but all remedy at law may be taken away from creditors who refuse to receive it." It is argued that the silver currency of India is in this position at the present time (1894).

For other incidents, and for examples of forced currency, see INCONVERTIBLE CURRENCY. F. Y. E.

FORCED LABOUR, COMMON CHARACTERISTICS OF. In the articles on CONSCRIPTION; CORVÉE; ENFRANCHISEMENT; IMPRESSMENT; MANOR; SERF; SLAVERY, will be found details relating to the principal ways in which forced labour has come into prominence at various stages in the history of society. Here it is proposed only to deal with the common characteristics of these systems of labour. One classification may divide the subject into two branches. Forced labour may be either an industrial phenomenon or a financial one. Slavery and the kindred institution of serfdom arise in the relations between individuals; corvée and conscription, and all other methods by which the state exacts unpaid labour from the citizen, are, apart from political considerations, rather in the nature of financial expedients. Similar economic disadvantages are found in both these classes, although the second is to some extent free from the moral stigma attached to the first class. An important disadvantage is that the labour is more inefficient than paid labour, and less susceptible of control and organisation. The labourer naturally treats the doing of the

work, and not the efficiency of it, as the main thing that concerns him, and any relaxation in the method of compulsion employed may result in the labourer's abandoning his task altogether. The *Report of the Poor Law Commissioners of* 1834, ch. iv., shows how difficult it was found to compel the paupers to work on the roads by way of task work. Many authorities have insisted upon the greater cost of slave labour as compared with free, and the necessity of supervision and management entailed by its use. Even in the case of the forced labour exacted from jurymen, the quality of the work is found to be inferior, in spite of the fact that an effort is made to impress the juror with a sense not only of the responsibility but also of the dignity of his position. Where, however, a moderate degree of labour is demanded for purposes of obvious public advantage from fairly enlightened citizens the system may succeed. In the early history of the Canadian colonies the statute labour exacted for the repair and construction of roads was willingly contributed, and men were even found ready to work beyond the time demanded of them. It need scarcely be pointed out that these conditions are not likely to be often discovered in any ordinary industrial system based upon forced labour.

Forced labour has been employed in many countries for penal purposes; and in England it is frequently used in the administration of the poor law as a test of real destitution. Secondary effects have been supposed to be produced in this way on the labour market, and it has been alleged that the wages of unskilled labour have been depressed by the competition of prisons in the same trade; for the questions arising hence see PRISON LABOUR; WORKHOUSES. C. G. C.

FORCED LABOUR, instances of. Egypt affords in the Great Pyramid the earliest example of the employment of such labour. According to Herodotus (bk. ii. ch. 124), Cheops "closed the temples, and forbade the Egyptians to offer sacrifice, compelling them instead to labour, one and all, in his service . . . 100,000 men laboured constantly, and were relieved every three months by a fresh lot. It took ten years' oppression of the people to make the causeway for the conveyance of the stones. . . . The Pyramid itself was twenty years in building." But if we accept the conjecture of Mr. W. M. Flinders Petrie (*The Pyramids and Temples of Gizeh*, 1885), that the work of transport of the stones had only to be performed each year during the three months of inundation, when the land was under water and the inhabitants were necessarily almost idle, the hardship of thus requisitioning the labour of the people in a great measure disappears.

Coming to modern times, we find in the CORVÉE (*q.v.*) the general application of forced labour to the construction and maintenance of roads. In England, statute labour, as it was called, finally disappeared in 1835, but in France the *corvée*, in its modified form of PRESTATION (*q.v.*), still exists as an effective working system. The municipal council having, in exercise of the law of 21st May 1836, voted three days' *prestation*, every inhabitant of the commune between the ages of eighteen and sixty who has elected to work in lieu of making a money payment, is called on to attend at a convenient period fixed by the prefect. The work, usually breaking and carrying stone, may be performed by the day or piece, the latter method being favoured by the authorities as giving more satisfactory results. The money payment, which may be substituted for *prestation en nature*, is fixed annually by the departmental assemblies, and is always below the real value of a day's work. But the peasants for the most part prefer to give their labour rather than their money, 65 per cent of the total value (57,000,000 frs.—say £2,280,000) of the three days' *prestation* in 1888 being acquitted *en nature*. The proportion thus acquitted has, however, steadily decreased from 81 per cent, the average for the decade 1837-46. It is estimated that one-tenth of the cost of the work is saved by the system of *prestation* as compared with the employment of contractors. The system is often attacked as a survival of the hated *corvée*, but in 1888 sixty-seven of the departmental assemblies were in favour of its maintenance (Say et Chailley, *Nouveau Dictionnaire d'Économie Politique*, 1891).

If we except the system of *prestation* now existing in France, we must turn to Egypt for the last as well as the first chapter in the history of forced labour. From the earliest time it is probable that the irrigation canals were made and kept in repair by the forced unpaid labour of the Egyptian people. Theoretically speaking, there was no great objection to this, for the very life of the country has always depended on the maintenance of the means of irrigation. Until the nineteenth century only one crop a year was yielded, sown as the Nile water receded in November, and requiring little attention till reaped in April. The agricultural labourer had little to do at other seasons, and could not be better employed than in clearing out the canals leading to his fields and repairing the Nile embankments which defended him from inundation. Therefore, though it cannot be supposed that the burden of the *corvée* was fairly apportioned, or that the rich took their just share with the poor, the evil was not a very crying one. But the introduction of cotton and sugar-cane cultivation caused an important change. These crops require to be moderately watered all round the year, and for their culture a system of summer canals had to be dug, so deep as to take in

water at the lowest Nile. These canals were yearly choked with the mud deposit of the Nile flood, and for miles of their course had to be cleared, the depth of silt being as great as from 6 to 10 feet. For this purpose, the *corvée* was annually called out, and as the Khedive and other large proprietors generally evaded their liability to furnish men, the burden of the work, which was far heavier than any previously required, fell on the poor, and this at a period of the year when their time had become valuable to themselves. Thousands of persons were forced to work for five or six months in the year, without pay or any provision of food, without proper tools, often far away from their homes, and on canals from which they could themselves derive no advantage. In the years 1878, 1879, and 1880, it is estimated that 188,000 men were summoned to the works. In 1883, the *corvée* was equivalent to an army of 202,650 men working for 100 days. This was the last year of the old *régime*, for in 1884 the irrigation service was placed in the hands of English engineers. Partly owing to improved methods of regulating the Nile waters, whereby the quantity of silt was diminished, and partly to the expenditure of £73,461 in payment for work done by contract, the *corvée* in 1884 was reduced to the equivalent of 165,000 men for 100 days, and in 1885, with an outlay of £116,535, a further reduction to 125,936 men was effected. Part of this last-mentioned sum was provided under a scheme, whereby the *corvéables* in certain districts were allowed to redeem themselves by a money payment. An immense increase in the cotton cultivated in these villages followed.

The evils of the *corvée* system, and the great economic advantages that would ensue from its abolition, were so strongly recognised by the new Ministry of Public Works that in 1885 they proposed that a sum of £250,000 net, which had been decreed for the reduction of the land tax, should be applied instead in abolishing the *corvée* as far as possible, such an application being considered as really the best method of relieving the burdens on land. It was estimated that the whole work of clearing the canals would cost, by contract, about £400,000 a year, so that a moderate *corvée* would still be necessary after expending the available sum. The proposal was adopted; the numbers employed were reduced to 95,093 in 1886, 87,120 in 1887, and 58,788 in 1888. The beneficial effects of the change were so apparent that the total abolition of the *corvée* was at once generally demanded. A further sum of £150,000 was required, and in December 1889 the National Assembly, although composed almost entirely of landlords, without a dissentient voice passed a measure imposing a special tax on land to raise that amount. The new tax was, as a matter of fact, never levied, the needful fund being eventually provided ou of savings from conversion of debt.

In 1890 the *corvée* in Egypt, as a regula system of forced labour for the execution c public works, thus ceased to exist. A larg but gradually diminishing annual levy of men it is true, is still made to guard and, in th event of a breach, to repair the Nile bank during the season of flood; but every fella feels a direct interest in this duty, and th obligation to perform it is not a hardship a all comparable to the tremendous labour c clearing the canals, to say nothing of the hundre and one illegitimate objects for which th *corvée*, now suppressed, was formerly employe (Milner's *England in Egypt*.—Blue Book, Egypt No. 1, 1902).

The Suez Canal having been projected at time when the *corvée* was in full operation i Egypt, it is not surprising that forced labou should have been largely employed in its con struction. By a contract entered into witl M. de Lesseps in July 1856, the Viceroy Mohammed-Saïd Pasha, engaged that workme should be supplied by the Egyptian govern ment, on the demand of the chief engineers o the canal, at wages to be fixed according to th average rate paid in the country by privat individuals. The wages actually paid being however, far below the market value of th work, the arrangement was very economical a far as the company was concerned, and betwee 20,000 and 30,000 men (at one time 80,000 were pressed into the service. This compulsor employment of the natives gave rise to remon strances in the English House of Commons based on humanitarian grounds, and partly o this account and partly because the men wer withdrawn from cultivating his own lands the successor to Saïd Pasha, Ismaïl, was anxiou to retire from the obligation of finding force labour for the company. Consequently, b diplomatic note of 6th April 1863, the Porte "seeing in the stipulations for the providin of workmen a contravention of the laws unde which the Ottoman Empire is governed," de clared its opposition to the continuance of th works. This determination was a great blo to the company, which now had to engag European labour as well as the voluntar services of the natives. The result was t more than treble the cost of excavation. A compensation for the loss entailed by the with drawal of the forced labour, the Egyptia government, on the award of the Emperor c the French acting as arbitrator, paid the com pany 38,000,000 frs. (say £1,520,000). I may be added that the note of the Porte did no prevent the Viceroy from continuing the long established custom of employing forced labou without pay in the cultivation of the vic regal lands, and that the gross abuses arisin under this system only came to an end whe

under the British occupation, the lands themselves passed from the control of the Viceroy (Percy Fitzgerald, *The Great Canal at Suez*, 1876).

The history of forced labour in Egypt illustrates in a striking manner the theoretical justification of the system, its economical advantages when legitimately used, and the economic loss arising from its abuse. It is capable of defence on the same grounds as compulsory military service, when used for purposes with which the vital interests of the nation are bound up. Where money is scarce, it may be less burdensome than taxation to effect the same objects, and certainly is so where the labourers subject to it would otherwise be idle. But the system becomes oppressive and economically wasteful when the burden falls on a busy population, and the service entails the removal of the labourer, especially for a lengthened period, from his own proper work. Generally speaking, a man's labour in his own fields and at his own direction is economically more valuable than the same labour applied to objects in which his interest is less direct and in which he is under official control. There is no doubt that where forced labour, even for indispensable public works, involves a considerable interruption of the natural course of industry, it is in the long run more costly than taxation to ensure the same purposes [see CORVÉE; PRESTATION]. F. A.

FORD, SIR EDWARD (1605-1670), proposed the issue of exchequer bills in *Experimented Proposals how the King may have Money to pay and maintain his Fleets with ease to his People*, etc., London, 1666, 8vo, reprinted in the *Harleian Misc.*, 1744 (vol. iv.) and 1808 (vol. vii. 8vo, and vol. iv. 4to). He also published *A Demonstration that Farthings are as necessary as bread for most of the People; And that Farthings of an intrinsic value are useless and deceitful.* n.d. and *A design for bringing a navigable river from Rickmanswort in Hartfordshire to St. Gyles in the fields*, etc., London, 1641, 4to. Sir W. Roberts published in the same year an *Answer to Mr. Ford's book entitled a Designe*, etc. and both pamphlets were reprinted in 1720.

[Full details of Ford's life are given in the *Dictionary of National Biography.*] W. A. S. H.

FORECLOSURE. The extinguishment by the decree of a court of an equity of redemption (see EQUITY OF REDEMPTION). J. E. C. M.

FOREIGN DIVIDENDS is a term correlative to FOREIGN INVESTMENTS (*q.v.*). By a dividend something more than mere interest is implied: it may be held to cover some special risk as well as what are constructively earnings of management (cp. Professor Marshall's *Economics of Industry*, VI. vi. § 4 *seq.* on net and gross interest). Under "foreign," in this connection, we include every dividend earned by members of a community in places external to the community. We include the interest on private investments abroad as well as that on shares of public companies and government loans. In the case of England we should include dividends accruing from the colonies as well as those accruing from foreign countries. There is no country in which such dividends are so important as the United Kingdom. This fact goes a long way towards explaining our excess of imports (cp. article on COMMERCE). In 1891, when the excess of imports was £126,327,546, the amounts due to us from abroad were from £75,000,000 to £85,000,000.

A little consideration will show that all such dividends must eventually be paid by means of the importation of commodities. They are distributed by the agency of banks and financial houses, which are placed in funds by bills of exchange. The fact that importers have these bills to sell implies that they have to pay for commodities coming from abroad; or, to put it perhaps more accurately, parties abroad who have to pay interest on borrowed capital can only pay it by shipping bullion or commodities, and they use the ordinary methods of adjusting mercantile accounts. There is no real difference between the bill of exchange used for these payments and that used for settling ordinary debts between merchants. In the latter case the bills practically pass from importers to exporters or *vice versa*. In the case of dividend payments they pass from the importers to the bankers, as representative of the sources of invested capital. The actual payments are by commodities, of which bullion is only a small fraction. On an average of three years, ending with 1904, the annual importation of bullion and specie was £38,641,665, its exportation £37,220,425. It is generally asserted that the dividends receivable on the foreign investments of England may be placed at least at £75,000,000. This is sufficient to prove our point.

In a book called *The Redemption of Labour* (C. B. Phipson), vol. ii., there is an attempt to distinguish between true and spurious dividends. The reasoning is undermined with fallacies, and the conclusions cannot be accepted. However, one point of some value is suggested, viz.: that the majority of payments received from abroad are raised by taxation and not earned as dividends proper,—a distinction which hardly concerns the receiving country; although there is no doubt that the objects of British colonial loans are more and more scrutinised as each issue is made, since there is a very definite sense amongst investors that productive expenditure of the loan is a guarantee of their dividends. C. A. H.

FOREIGN EXCHANGES, see EXCHANGES, FOREIGN.

FOREIGN INVESTMENTS. In this connection we use "foreign" in its original sense as meaning outside the territorial area which, for the time being, is under discussion. Probably few countries are without some investment of capital outside their own limits. We do not include capital taken out of the country by the

settler, which is his own property; that becomes part of the capital of the community to which it is transferred. The term indicates capital belonging to persons resident in any given territory but employed by other persons outside that territory; and it includes, of course, the acknowledgments for capital which has been so employed, and forms a debt from those who enjoyed its use to the lenders. Thus the debts of foreign states, as well as the capital of companies operating abroad, and capital lent by individuals to persons at work abroad, form the sum total of foreign investments.

No country in the world has such a mass of outside investments as the United Kingdom—whether in its own dependencies, or in foreign countries usually so called. The following table gives some idea of their amount:—

Colonial Government Securities .	£225,000,000
Foreign Stocks and Bonds . .	525,000,000
Railways in British Possessions .	75,000,000
„ India . . .	65,000,000
„ America . . .	120,500,000
„ Foreign Countries .	127,500,000
Banks Operating Abroad . .	50,000,000
Foreign Breweries . . .	3,500,000
Colonial and Foreign Corporation Stocks	20,000,000
Gas Companies Operating Abroad	6,500,000
Iron Companies Operating Abroad	500,000
Land and Mortgage Companies .	100,000,000
Tea Companies	2,500,000
Telegraph Companies . .	10,000,000
Waterworks Companies Operating Abroad	3,000,000
Tramway Companies Operating Abroad	4,000,000
Mines—Colonial and Foreign .	30,000,000
Miscellaneous Companies—Colonial and Foreign	30,000,000
Bank Deposits, say . . .	50,000,000
Private Investments . . .	250,000,000
Total .	£1,698,000,000

The amounts above given, except the last item, are arrived at from the stock exchange daily list (for January 1893, and ten years have not greatly altered the facts), by estimating what proportion of each class of security is held in this country. For this purpose the best expert information was sought. The proportion varies in several cases. About seven-eighths of the colonial stocks are held in Great Britain; of some foreign stocks hardly any, but on the whole range of those quoted in London it has been thought safe to estimate three-fourths as held here; of American railways, beyond the gold bonds, in spite of occasional bouts of speculation, but a small proportion is held in England, although more than we were at first inclined to think. As a general rule, it may be stated that from two-thirds to three-fourths of the other classes of securities quoted on the London stock exchange are held in this country. Only a small proportion of bank deposits in the colonies and elsewhere is taken as belonging to this country; the greater part probably belongs to *bona fide* colonists or is not actually invested.

To private investments we have less guide. We know generally that large sums are invested in the management of estates and the conduct of businesses, and by way of mortgage and otherwise, throughout all the colonies as well as in foreign countries. We have Sir N. Lubbock's estimate of West Indian property alone, almost all of which is held in England, as over £30,000,000. Sir R. Giffen placed the foreign investments which escaped income tax in 1885 at £500,000,000. It is clear that this figure includes many public companies, but he speaks of "immense investment in private channels." It is highly probable that the amount is not less than the aggregate of banking deposits, land companies, and miscellaneous companies, and that half of Sir R. Giffen's figure, above quoted, is a very modest computation.

In his *Growth of Capital*, which we quote, Sir R. Giffen speaks of the foreign investments of Great Britain in 1885 as being £1,300,000,000, but his detailed estimate of the income of the nation derived from public sources abroad, above £85,000,000, implies a higher figure, for at fifteen years' purchase this would give nearly £1,300,000,000 for public investment alone, and twenty years' purchase is the rate he elsewhere adopts for capitalising this income. However, capitalising the £85,000,000 at fifteen years' purchase, and adding £200,000,000 for private investments, we should make the amount of foreign investments in 1885 to be over £1,475,000,000. Consequently our figure of £1,700,000,000 for 1892 may be considered moderate, showing an increase of only £225,000,000 in seven years. This figure gives the same annual rate of increase as that adopted by Sir R. Giffen in another part of his book, and we should have expected a higher proportionate rate.

Interesting statistics as to the growth of foreign indebtedness to England will be found in *Fenn on the Funds*. The editor states that between 1862 and 1872 the external borrowings of foreign states quadrupled, and that the mass of these loans was raised in London or Paris; and some index to the growth of the obligation is found in the capital amounts of foreign securities quoted in successive decades in the stock exchange, viz.:—

January 1862 . .	£143,930,000
„ 1872 . .	600,000,000
„ 1882 . .	830,000,000

Similarly, Sir R. Giffen computes that from 1865 to 1875 miscellaneous foreign investments increased fourfold, and he makes the increase in those which pay income-tax between 1875 and 1885 at least £320,000,000, explain-

ing that, in the latter decade, the actual new issues of colonial and foreign government loans, municipal loans, and railways, amounted to £361,800,000. It is hardly wise to give more than such indications of growth. To approximate to an accurate proportion of the annual increase in the past it would be necessary to have figures for many years back made up exactly on the same principle. These hardly exist, except, perhaps, in Sir R. Giffen's hands, but we may accept, as a minimum, that some £30,000,000 a year are invested abroad.

In our estimate above, of course, no notice has been taken of lost capital, which has a very large place in the history of foreign investment. We have regarded only that which has at least the potentiality of a dividend. We reckon that it is fair to compute the interest at 4½ per cent on the average. This would give an annual produce of £76,500,000, a figure which comes curiously near to the £75,000,000 assumed in the article on COMMERCE (*q.v.*) as the proportion of the excess of imports represented by the interest on capital invested abroad. (See also INVESTMENTS.)

[See Giffen's *Growth of Capital*, 1889, pp. 26, 27, 40, 41 app.—Burdett's *Official Intelligencer*, iv. p. 13.—*Investor's Monthly Manual*, etc. Cp. a note at p. 99 of *Parly. Paper* 1761 of 1903.] C. A. H.

FOREIGN LABOUR. International migration of labour on a large scale is a marked characteristic of the present day. This movement was never contemplated by the older writers on political economy. Capital and labour alike were believed to be extremely tenacious of their native soil and averse to transplantation into foreign lands. But in our time capital and labour display a wonderful mobility, and the economic situation has in some instances been gravely affected by the transfer of vast bodies of producing agents from one country to another. The figures in the Report of the Royal Commission on Alien Immigration (1903) show how large an amount of labour is now migratory in character. By reason of the proportions it has attained, various states have of late taken steps to regulate the immigrant labour-market, and in some instances have imposed on it harsh and inhospitable restraints. The evidence contained in the Report above referred to and the mass of material collected by the Committee of the House of Lords on the Sweating System (cp. Blue-Book on Sweating System, 1888-89) supply much useful information regarding the amount of immigrant labour and its effect on domestic industry. For further details see *Labour and Life of the People*, London (East), edited by Mr. Charles Booth, 1889.

It is not proposed here to investigate the number of aliens that arrive in this country, as that subject will be more fitly considered under the head of IMMIGRATION (*q.v.*).

The better class of immigrant only crosses this country on the way to other lands. Large bodies of aliens arrive every year, for example, *en route* for America. But the poorest and worst type of foreigner remains here, either permanently or for a considerable period.

The trades which these foreign workmen chiefly undertake are baking, boot and shoe making, cabinetmaking, tailoring, and also such minor industries as cigar-making, fur-cap making, and ostrich-feather cleaning. Moreover, fifty thousand aliens—including lascars and Asiatics in the Indian trade—are said to be working in vessels that fly the British flag, and to be in demand as being more sober and amenable to discipline than Englishmen (see Mr. Glover's paper before Statistical Society, March 1892, "Tonnage Statistics of the Decade 1880-1890"). And a considerable number of Germans are engaged as domestic servants. To appreciate the economic situation, it will be necessary to see in what branches of the principal industries foreign and domestic labour come into contact.

Baking.—No trustworthy statistics exist at present regarding the number either of natives or aliens employed in the provinces, but in London the master bakers are estimated at three thousand, and the operatives at ten thousand or more, one half of the masters and fully that proportion of the men being Germans. The evidence given before the Royal Commission of Labour, Group C, 12th August 1892, showed that in many cases the foreign immigrant was boarded and lodged by a fellow-countryman and taught the trade, until, by thrift and perseverance, he himself became a small master. The better class of immigrant works in bakeries where "Vienna" bread is made, earns good wages, and holds aloof from trade societies. A lower type of alien supplies foreigners and Jews in East London, and often belongs to the Amalgamated Union of Bakers and Confectioners. Few foreigners, if any, compete in the wholesale business, nor does foreign competition seem to have seriously affected wages throughout the trade.

Boot and Shoe making.—In the boot and shoe trade of East London 25 per cent of those engaged are stated to be foreigners, and in number over ten thousand persons. No statistics are available as to the proportion of aliens now at work in other parts of the kingdom.

In the machine-sewn trade, the greater portion of what is known as "finishing" is in the metropolis monopolised by foreign workmen. For details see Mr. Booth's book above cited, pp. 274 *seq.* Mr. David F. Schloss, an authority on the subject, maintains that the unskilled labour of the "sweated" Jews in the "finishing" department leads to a considerable increase of employment on the part of a large body of well-paid and skilled English workers.

The boot clickers and closers, for example, the tanners and others employed in the leather trade, are all Englishmen in receipt of fairly good wages and subject to reasonable hours of work.

In the class of goods known as "sew-rounds," *i.e.* fancy shoes and slippers, the better class of work is almost entirely in English hands, but the inferior work is made chiefly by Jewish work-people. Speaking generally it is alleged that, within the last ten or fifteen years, foreign Jews have gradually secured the commoner class of work in which native workmen generally learnt their trade. Further allegations are made in statements quoted in official publications and elsewhere, to the effect that we are being injured in our foreign markets by the stuff produced by this cheap labour, a great portion of it being made of cardboard and composition. The statistics of the exports of boots and shoes from this country do not, however, bear out this contention.

Cabinetmaking.—It is said that of 23,000 persons employed in this trade in London 4000 are foreigners. Here there can be little doubt that the pressure of foreign immigration has not yet become acute. Although the average wages earned by the alien are somewhat lower than those of domestic labour, yet he has not imported into this industry a standard of life or of work economically degrading (for details, cp. Booth, p. 360 *seq.*)

Tailoring.—The ready-made clothing trade is very largely adopted by the immigrants, and Mr. Burnett, the labour correspondent of the Board of Trade, contemplates the time when this department will be entirely in their hands (cp. his Report on Sweating System, 1887). Eighteen or twenty thousand of them are stated by this authority to be employed in the manufacture of cheap clothing or "slops" in East London. Nor is the increase of foreign employment in the tailoring trade confined to London only; it is proceeding likewise in Birmingham, Leeds, Manchester, Newcastle-on-Tyne, and Glasgow. The majority of these aliens are Russian, German, or Polish Jews, working, for the most part, under a Jewish contractor. Conflicting views prevail as to the extent to which this trade has been invaded by foreigners, and, in the absence of any recent census returns, all statements on this head must be received with caution. There is also a conflict of opinion whether the immigrants engaged in the cheap clothing business compete with English labour or not, some competent observers alleging that they chiefly compete with one another, and that if they compete at all with native workers it is in a trade which they themselves have created. The best opinion seems to be that, as regards the supply of ready-made clothing to wholesale houses, the actual competition lies between the staff of the Jewish contractor and domestic female labour employed in provincial factories. These factories, however, make little headway against the particular industry of "coat-making," a department of wholesale business which the Jewish operative practically monopolises. In this branch we find no contractors on a large scale, but a multitude of small masters who avail themselves of the necessities of the immigrant "greener"—as the alien is termed on his first arrival—to secure from him a day's work of indefinite duration at merely nominal wages. The social surroundings of these operatives are often deplorable, and the prices at which work is taken are constantly reduced by the fact that the alien hands have little desire or capacity for labour or trade combination, with a standard of life that admits of an enormous amount of toil under the worst possible conditions (cp. Booth's work, *supra*, p. 224 *seq.*).

We have now cleared the ground for the consideration of the attitude of economists towards foreign labour. The subject naturally falls into two branches.

a. First, the competition between native workers and foreigners, who work for a fair wage, with abilities equal and a social status not inferior to those whom they displace.

b. Next we are confronted with cheap labour supplied by aliens, who arrive in a more or less impoverished condition, and whose standard of existence is very low.

As to the class of competitors under head *a*, there can be no objection consistently raised, from an economic point of view, by those who are in favour of commercial freedom. Mr. Fawcett, in his treatise on *Free Trade and Protection*, 3rd ed., deprecates any attempt to restrict this class of worker. Where no moral disadvantage can result from the settlement amongst us of such workmen, an employer would undoubtedly be justified in making use of their services. To interfere with the importation of such labour would be opposed to all the best instincts of free trade. Can any distinction be drawn economically between the competition of labour and the competition of the products of labour? Why should freedom to buy and sell be denied to those who have labour to dispose of? Moreover, the denial of such a right would injuriously affect not only the parties immediately concerned, but also the public who purchase the industrial product.

Again the foreigner is often engaged on account of his superior qualifications, and not only because he is willing to sell his services at a cheaper rate. Thus German scientific men are secured by some of our large manufacturers, and so are German clerks, owing to their linguistic attainments; while German bakers, whose knowledge of the processes of fermentation often exceeds that of Englishmen, readily find employment in English houses. Skilled

mechanics from France and Italy have invaded some of our textile industries. So far from any valid objection lying against the importation of such workers, it is probable that they give a distinct spur and impetus to the advance of education in this country.

As an exception, however, to the general rule of non-interference, take the instance of labourers imported under contract to perform certain services in a foreign country. Here it has been argued that the native workman is injuriously affected, because the immigrant may be ignorant of the conditions prevailing in the labour market he is about to enter. Advantage may be taken of his ignorance to extort terms unfair both to him and to domestic labour. The government of the United States has passed a law to prevent contracts of this nature being enforced. Such action must not be viewed as an attempt to restrict immigration, but as an endeavour to protect the alien against the consequences of his own heedlessness, and to provide that the native worker shall not thereby suffer loss.

Passing on to head *b*, what attitude should the economist assume towards any attempt to fetter the introduction of cheap labour? The advocates of *laissez-faire* base their attitude of non-intervention on the ground that "natural liberty" conduces best to the production of wealth. The business of the employer, they say, is to buy his labour in the cheapest market. If, by engaging Russian or Polish Jews, he lowers the cost of production, he ought to have full liberty to do so. Government should interfere as little as possible with the distribution of wealth resulting from free competition, because any such interference must tend to impair aggregate production more than it could increase the utility of the produce by a better distribution (cp. Sidgwick, *Principles of Political Economy*, 2nd ed. bk. iii. ch. ii., where this view of the question is stated). Enlightened self-interest on the part of the consumer will lead him to demand the commodities that are most useful to society, while self-interest will induce the producer to turn out these commodities at the least cost.

Setting aside for the moment the question of free competition and the alleged right of the consumer to secure at all hazards the cheapest article, a less sordid argument may be advanced in favour of non-interference with existing industrial conditions. The argument, it is true, only applies to one branch of trade, but it may be regarded as a representative one. A large section of the tailoring industry has, within the last thirty years, been transformed from a retail to a wholesale business. This transformation has rendered it impossible for the English journeyman tailor, apart altogether from the question of price, to compete with the contractor for orders from wholesale houses. The organisers of Jewish labour in the metropolis are able to meet the demand of these houses—coming into competition, it is true, with provincial factories in certain directions, but, so far as the wholesale coat manufacture is concerned, supplying a want that under existing circumstances could not be otherwise satisfied, as pointed out in Mr. Booth's book, p. 235 *seq.* In connection with this aspect of the case attention should be paid to the enormous volume of export trade in ready-made clothing that has gradually been developed under the present system. The total export of the country under the head of "apparel and slops" has doubled itself within the last twenty years, and as regards the port of London, is 2½ times what it was. In 1868 the exports of these articles from the United Kingdom were £2,313,000, and from London only, £1,233,000. In 1888 the figures are: from the United Kingdom £4,658,000, from London only, £3,091,000. Now it may be taken for granted that, in default of her supply of cheap foreign labour, England, under prevailing industrial conditions, would be unable to keep up this export trade, and legislation by way of restriction upon immigration would simply have the result, to use the words of Mr. David F. Schloss, "of making a gift of our exports of 'slop' clothes to Germany, which already carries on a considerable foreign trade in these articles, and which, while her protective system excludes English material from the German market, would be only too ready to supplant us in all markets of the world by the substitution for English goods of garments made in Germany, by German cheap labour, and of German cloth." Is it better, in fine, to buy cheap clothes from the Continent or to make them here cheap, and export the surplus that you do not need? Unless you forbid both the entry of cheap goods and cheap labour you will be in a worse plight than now, for, if you only forbid cheap labour, you may throw the cheap goods trade into other hands.

Let us now examine the position from another standpoint, whether the free competition of cheap immigrant labour with native workers may not diminish the volume of that aggregate industrial production to which all economists rightly attach so much importance. Mr. Gunton discusses in *Wealth and Progress*, 1887, ch. viii., at some detail, the action of wages on productive power. His conclusions, which should perhaps for the present be accepted with reserve until the question is more thoroughly considered, are that high wages in the long-run mean cheap products and low wages dear products. That high wages conduce to large consumption and large consumption introduces a more extensive use of capital with improved methods of production, and as a consequence always reduces prices. In a com-

parative table that deals with Great Britain and the principal continental countries, Mr. Gunton shows that wages are 84 per cent higher, the use of steam 117 per cent greater, and the cost of productive power 37 per cent less in England than on the average in continental countries. Moreover, this writer contends that a considerable amount of the social advance noticeable in Great Britain is due to her short-time industrial policy, and he enforces this proposition by a further table showing that in England—despite of shorter hours of toil—the increase in the average wages has been greater than in any nation of the Continent. Should these conclusions be sound, they will go far to sustain objections that have been made against the influx of cheap labour on the ground of its tending to impair the productive power of the community. May not the economist condemn the foreign colony in our midst as forming a barrier against the advance of a more productive industrial system? (cp. Mr. David A. Wells, *Practical Economics*, New York, 1885). As an example of the way in which high-class machinery brings in its train high wages for operatives, reference is made by that writer to the action of certain English shoe-manufacturers, who have introduced American machinery, and who find that it pays them better to work these machines at wages which are at least double those paid to the shoemaker under the old hand-system. So also it appears that in Nottingham the introduction of more complex and costly machines for lace-making has, while economising labour, augmented wages to the extent of over 100 per cent.

From this aspect the influx of cheap foreign labour may be deemed to have had an evil effect in retarding the advent of more favourable conditions of production.

In justice to the impoverished immigrant, it is but fair to state that there is nothing definite to show that he tends directly to become a burden on the community. Even in Whitechapel—the portion of the metropolis where they chiefly reside—the number of aliens in receipt of parochial aid is infinitesimal. There is, however, evidence from certain localities, such as Hackney and Shoreditch, of an increase of pauperism due to the crowding out of English labour by foreign immigration. Moreover, the industrial position of the small Jew workshops tends to that irregularity of work which is by far the most serious trial under which the people of London suffer; for the smaller the capital involved, and the less the permanent fixed charge for working a business, the better suited is it for irregular employment. The man who engages only two or three others in a workshop or in his own house, as is frequently the case with the petty Jew master, can, if work fails, send them all adrift to pick up a precarious living, but a large factory cannot stop at all without serious loss.

In attempting to estimate the effect of th influx of needy aliens on the social and mora condition of domestic workers, the followin points present themselves.

The evidence contained in the blue-book above referred to shows that a large proportio of the Russian and Polish immigrants ar exceedingly poor when they reach this country Their mode of life here is wretched in th extreme, their houses being in a most insanitar state and their food of a scanty nature. The are generally an inoffensive race, moral i their habits, and capable of hard work in spit of an inferior physique. They are ver industrious, toiling for long hours at low wages and maintaining existence on much less tha an English workman. Such are their char acteristics, and we find it stated by the com mittee of the House of Commons that, in thos trades which they follow, there has been, i consequence of their competition, a marked fal in wages and a tendency to reduce still lowe than at present the social and material condi tion of our own poor.

It is alleged, moreover, that the lowest clas of alien labourer exhibits an incapacity for, o an aversion to, anything in the shape of trad organisation. His early training, his socia surroundings and subservient position, rende the German, Russian, or Polish Jew generall unfitted for free combination, and he forms a serious obstacle to the onward march of labou in the industries affected by his immigration Now increased combination amongst the worker stands first among the needs of the time Trades unions have undoubtedly put the Eng lish workman on a better footing as regard his employers. In many cases they have raise the standard of comfort and increased th efficiency of the labourer. And it is claime for them that their moral effects have been a surprising as their economical. To all thi these aliens are for the most part indifferent and they constitute an inert mass that bars th progress of reform in the inferior grades of th trades concerned.

It should be stated, however, that recen efforts to organise the Jewish aliens at work i the boot trade have met with some success, an two Jewish branches of the National Union o Boot and Shoe Operatives, viz. the "Londo City" and "London East," are now establishe in the metropolis.

To sum up the situation regarding foreig labour in this country, we arrive at the follow ing conclusions. That against the better clas of workmen, who take fair wages and compet on an equal footing with domestic labour, n valid objection exists. That, as regards th wholesale coat-industry, it cannot be justl demurred to on the ground of its competin with native produce, but lies open to th reproach of barring the path of industria

reform. That in the retail tailoring department the immigrants do injuriously affect the earnings of both English men and women. That in the lower class of boot and shoe making, the immigrants have appropriated work formerly executed by native operatives, but that it is open to doubt whether the aggregate domestic industry has suffered. That in cabinetmaking and the other minor trades in which they are found, the foreigners have not exercised any appreciable effect. Still there are grave objections from both an economic and social point of view to any large influx of impecunious aliens, with a low standard of living. This has found expression in the Aliens Immigration Act of 1905, designed to hinder the influx of undesirable foreigners.

[The bibliography of foreign labour is exceedingly scanty.

The evidence given before the Royal Commission on Labour (1891-92) and that contained in the blue-book on *Emigration and Immigration of Foreigners* (1888-89), and on *The Sweating System* (1888-89) will repay careful perusal.—In Mr. Charles Booth's *Labour and Life of the People*, London, East (1889), the bearing of foreign labour upon certain selected trades is examined. Interesting details again are given in the *Report on the Sweating System*, 1887, compiled by Mr. Burnett. —Fawcett, in *Free Trade and Protection*, briefly alludes to imported labour, and so does Mr. Sidgwick in his *Principles of Political Economy*, pt. iii.—Mr. Gunton's *Wealth and Progress*, 1887, and Mr. David A. Wells's *Practical Economics*, New York, 1885, present many economic questions connected with the subject in a new light.

See also *Economic Journal*, vol. xv. p. 317. Report of the Royal Commission on Alien Immigration (1903), and Dilke, *Problems of Greater Britain*, (1890). For American views cp. Report of Bureau of Statistics of Labour for the State of New York (1885). Also Report of the Bureau of Industrial Statistics . . . for State of Pennsylvania (1884), part iii. Industrial Statistics, and First Biennial Report of the Bureau of Labour Statistics of California, 1883-84.

Alien Immigration. Reports to the Board of Trade on Alien Immigration, Burnett and Schloss [c. 7113], 1893.] S. N. F.

FOREIGN LAW IN ENGLISH COURTS. There are many occasions on which English courts have to consider foreign law. This may occur with reference (1) to questions of personal status; (2) to contracts; (3) to questions as to the devolution of property after death; (4) to questions relating to real property situate outside of England.

(1) Questions as to personal status (legitimacy, majority, guardianship, marriage and divorce) depend upon the DOMICILE (*q.v.*) of the person concerned, but this is subject to the condition that the "status" described in a certain way in a foreign country is really the same as the "status" described in the same way in England. Thus "a marriage which is not that of one man and one woman, to the exclusion of all others, though it may pass by the name of a marriage, is not the status which the English law contemplates when dealing with the subject of marriage" (Sir Charles Butt in Brinkley *v.* Attorney-General, 15 Probate Division, on p. 79).

(2) The question what law governs a contract is frequently one of great difficulty. The general rule is that the law of the place where the contract is made ought to prevail in the absence of circumstances indicating a different intention (in *re* Missouri Steamship Co., 42 Ch. D. 321-326). As regards contracts of affreightment the well-known case of Lloyd *v.* Guibert (L. R. L. and B. 115) has established the rule that any questions relating to sea damage and its incidents are, subject to any contrary agreement between the parties, governed by the law of the country to which the ship belongs (see *The August* [91] Probate, 328).

(3) The devolution of personal property on death is regulated by the law of the testator's or intestate's DOMICILE (*q.v.*) at the time of his death; on the other hand the devolution of real property is regulated by the law of the country in which it is situate. Thus an English court, in dealing with the personal property left by a domiciled Scotchman, will have to consider the claims of his wife and children before having regard to the dispositions made by his will, as, according to Scotch law, these rights to a share of the residuary estate cannot be defeated by any testamentary dispositions.

(4) The law of the country where real property is situate must be considered in any questions as to priorities of mortgages, transmutation of possession, and rights of execution creditors. English courts have of course no direct jurisdiction as to foreign land, but by their control over the person of a defendant residing within the jurisdiction, they may indirectly obtain the same results as would have been obtained directly by a judgment affecting the land (Penn *v.* Lord Baltimore, i. Vesey, sr. 444). When an English court has to decide any point according to foreign law, "the opinions of experts who in their profession are acquainted with such law are the only admissible evidence thereof" (Stephen, *Digest of the Law of Evidence*, art. 49). It should be borne in mind that the provisions of the foreign law are considered with the sole object of ascertaining the mutual rights of the parties, but that as regards the remedies for the enforcement of such rights English law must always prevail, *e.g.* a contract for personal services could according to some systems of foreign law be specifically enforced, but nothing beyond damages could be obtained in an English court in respect of such a contract. It must also be pointed out that an English court "will

not enforce a contract against the public policy of this country, wherever it may be made" (Rousillon *v.* Rousillon, 14 Ch. D. 351, 369). For this reason a contract in restraint of trade, though it may be governed by French law and be valid according to French law, will, if void according to English law, not be enforced by an English court (see RESTRAINT OF TRADE).

[Von Bar, *International Law*, translated by Gillespie, 2nd ed. 1892.—Foote, *Private International Jurisprudence*, 3rd ed. 1904.—Westlake, *International Law*, 4th ed. 1905.—Dicey, *Conflict of Laws*, 1896.—Nelson, *Cases in Private International Law*, 1889.] E. S.

FOREIGN TRADE, REGULATIONS OF. See TRADE, FOREIGN REGULATIONS of.

FOREIGN TRADERS AND THEIR RIGHTS.—In England, as in all countries in the middle ages, the position of the foreign trader landing on her shores was precarious. As a stranger he had no rights in the view of the ordinary law of the country unless specially protected by royal license. Such licenses were granted in some cases to individuals, in others to the subjects of certain sovereigns or the inhabitants of certain cities or countries. Of the former nature was the general treaty entered into by Offa and Charles the Great (797) providing that the subjects of each should be held worthy of justice. Still later we find licenses granted with the apparent desire of encouraging foreign merchants, and even of foreign settlers. Thus John granted foreign merchants protection in coming and going both for themselves and for their wares, while among the provisions of the Magna Carta there are two (cc. 41, 42), which deal with their safe conduct and their necessary freedom from *mala tolta*. Under Henry I. colonies of Flemish weavers appear to have been settled in different parts of the land. Toward the end of the 11th and beginning of the 12th centuries two definite policies with reference to the treatment of foreign merchants had gradually developed themselves. The king and the nobles on the one hand saw that it was to the advantage of the kingdom to be brought into connection with the industries and activities of foreign nations. It is possible that they were assisted to the perception of this by the benefits obviously accruing to themselves. On the other hand the English traders resented the intrusion of their foreign rivals within the country. As a matter of fact at one time much of the internal trade of the country seemed likely to slip out of native and into foreign hands. As the towns grew in size and power it was only natural that these views should find more forcible expression. During the struggle between Henry III. and Simon de Montfort, the cause of the towns was warmly espoused by the latter, who, seeing farther into the future, urged that the nation should strive to make itself self-supporting by wearing cloth wrought within the country, and staying its exports of wool to Flanders. After the victory of the royalists the towns suffered a period of reverse.

During this period, extending with intermissions from 1272 to 1376, the foreign trader was treated with all possible consideration and even encouragement. The period may be divided into two parts, during the earlier of which (viz. in the reign of Edward I.) foreign traders were encouraged without any particular attempt being made to encourage the trade and industry of the country itself. No doubt Edward was partly actuated by hostility to the towns, and especially to London, on account of the opposition encountered from them both by his father and himself. Their complaints and requests were alike set aside. Their main demands were these (1) That the foreign traders should dwell in the house of a citizen. (2) That retail trade should be prohibited to them. (3) That their term of residence should be limited to forty days. These points, except the last, were refused by Edward I., who definitely supported the foreigners and assured them security. The Carta Mercatoria (1303) is practically a judgment in favour of the foreign traders on all counts. During the weak rule of Edward II. the towns were able to reassert themselves and to obtain the acknowledgment of their claims. But when Edward III. began his effective reign the position changed. During this, the second, part of the period referred to, security and free rights etc. are guaranteed to the foreigners, but at the same time the policy of the king in encouraging home industry by prohibition on the export of wool and the import of foreign cloth, and by the settlement of foreign weavers in England who might instruct the English by their skill and example, averted the evil consequences which had seemed likely to ensue from the position which the foreign merchants had held and endeavoured to retain. England was ceasing to be merely a buyer of foreign goods and a source of supply for the wool required in foreign industries.

With the next period (1376-1461) a reaction in favour of the exclusive policy of the towns set in. In 1376 Edward III. made his peace with them by virtually affirming their demands in the points mentioned above, a course in which he is followed by his successors. The Lancastrians could ill afford to alienate popular support. In addition to legislation (as for instance 18 H. VI. c. 4) in the directions indicated, they added one provision of great interest in view of the later trade policy. Under Henry IV. (5 H. IV. c. 7), it was ordained that merchant strangers must spend what they obtain from the sale of the goods they bring on English goods of export. They are to export wares and not gold. Under Henry VI. (18 H. VI. c. 4) the foreign merchant was compelled to reside with an official host, who

was responsible for his employing his receipts in purchasing English commodities. (Jones, *Pol. Econ.*, ed. Whewell, p. 310.)

Gradually much of the legislation with regard to merchant strangers became obsolete in practice. It was frequently re-enacted but difficult to maintain. The real danger against which it was aimed had passed by. Not only had English industry become strong but the enterprises of the staplers and the merchant adventurers (see ADVENTURERS, MERCHANTS; STAPLE) had enabled the English to carry the war, as it were, into the country of the foreigners. They were pressing on to take their rightful share in the commerce of the world. From these and other causes the struggle of the later period under Richard III. and the early Tudors is not so much a struggle against the foreign trade in the more strict sense of the word, but against the intrusion of the stranger into the domain of industry.

[Schanz, *Engl. Handelspolitik.*—Macpherson, *Annals of Commerce;—Statutes at Large.*—Rymer's *Fœdera.*] E. C. K. G.

FORESHORE. That part of the shore which lies between ordinary and low water mark, that is to say, between high and low water mark at the time of neap tide. Till the reign of Queen Elizabeth no distinction seems to have been made between foreshore and seashore above high-water mark. About 1568 a certain Thomas Digges wrote a treatise entitled *Proof of the Queen's Interest in lands left by the Sea and the salt shores thereof*, in which he maintained the crown's right, in virtue of the royal prerogative, to all the foreshore; a right which could not be alienated except by express grant. On this theory the crown lawyers acted till the beginning of the 18th century, when the claims of the crown were gradually allowed to die. They were revived in 1830, when Hall published his *Essay on the rights of the Crown and the Privileges of the Subject in the Seashores of the Realm.* The law at present seems to be that foreshore may be parcel of an estate or manor, that title to it may be shown by prescription, and that possession or enjoyment for sixty years displaces whatever rights the crown may have.

[S. A. Moore, *History and Law of the Foreshore and Seashore*, London, 1888.] A. E. S.

FORESTALL. In the stock-exchange sense this verb, which is practically obsolete and is seldom used, is almost synonymous with the verb to bull, meaning the act of speculation for the rise. A speculator, or band of speculators, may foresee a rise in the price of certain securities or commodities. The operation begins by the quiet buying up of such securities or commodities in order to forestall the rise which is expected to take place, in consequence of the buying of the operators, backed up or not, as the case may be, by favouring events. A forestaller in this sense is simply a BULL (*q.v.*), but opinion is divided as to the fairness of his operations. A. E.

FORESTALLERS AND REGRATORS. Together with regrating and engrossing, this signified the undue intervention of a middleman between the producer and consumer. Forestallers, regrators, and engrossers were viewed with disfavour, and their practices prohibited, because they were regarded as raising the price of commodities without adding to their value. In the act of 1551-52 (5 & 6 Edw. VI.), they are defined in the following terms: forestallers as "persons buying goods or victuals on their way to a market or port, or contracting to buy the same before actually brought for sale, or endeavouring by these or other means to enhance the price or prevent the supply"; regrators as "persons buying corn or other victuals, and reselling the same in the same market-place or in any other fair or market within four miles"; engrossers as "any buying corn growing, or any other corn, grain, butter, cheese, fish, or other dead victual, with intent to resell the same again." With regard to the foregoing definitions, the last names while describing the practice of the time, incorrectly restricts, so far as earlier times were concerned, the action of the engrosser to dealing with certain commodities. Regrating must be taken as the complete action embracing both forestalling and engrossing, which were particular stages in the action; but it is doubtful if any very definite discrimination was shown so far as the 13th and 14th centuries, in the use of the three terms. The practice they signify was condemned both because it might lead to monopoly, which was combated in its many forms, and because it resulted in unrighteous gains and enhancement of price. E. C. K. G.

Numerous English, Scotch, and Irish statutes have imposed heavy punishments on these offences, partly generally, partly in so far as they affect particular commodities (victuals, wines, cattle, butter and cheese, etc.), one of the earliest being the Statute of the Pillory of Henry III. (51 Hen. III. § 6—A.D. 1266), but they did not prove effectual, and some of the later English acts were, in 1772, repealed by 12 Geo. III. c. 71. As the older acts remained in force, and the judges, moreover, held that forestalling was an offence at common law as well as by statute, prosecutions continued down to 1800, in which year a person who, in the corn-market, bought wheat at 41s. and resold it to another dealer at 43s., was tried before Lord Kenyon and a jury (R. *v.* Rusby—Peake, Additional Nisi Prius Cases, 189). The judge refers to Adam Smith's observations on the subject, and holds that if that author "had lived to hear the evidence of to-day" he "would have seen whether such an offence exists and whether it is to be dreaded." It appears, however, that already in that case the judges were divided in opinion, and that no subsequent prosecutions took place. In 1844

"the offences of forestalling, regrating, and engrossing" were abolished by 7 & 8 Vict. c. 24, and cannot now form the subject of a prosecution in any part of the United Kingdom.

[*Statutes of the Realm.*—Macpherson, *Annals.*—Account of practice in Ashley's *Economic History.*—Cunningham, *Growth of English Industry and Commerce.*—Girdler, *Observns. on Forestalling, Regrating, and Ingrossing* (1800).—Dugald Stewart, *Political Economy.*—Stephen, *History of the Criminal Law*, iii. p. 200, and for a list of the repealed statutes, see 7 & 8 Vict. c. 24, § 2.] E. S.

FORESTS.

Forests have influenced the economic condition of countries and of their inhabitants in such widely different manners that it is desirable to indicate some of the leading branches of this subject.

As the hunting-grounds of monarchs and great nobles they were, during early and mediæval times, the occasion of severe and oppressive laws which lingered long in Europe, and vestiges of which may even now be traced at the present time. The article on FOREST, MEDIÆVAL, describes this part of the subject.

On the other hand the influence of forests on the climate of a country is very great. The article on FORESTS, ECONOMIC INFLUENCE OF, deals with this part of the question.

Forests, whether on hills or plains, are believed to promote the deposition of moisture from the atmosphere; and they are certainly most beneficial in preventing the rapid evaporation of what is deposited. Vast areas of the globe, in both tropical and temperate zones, have been rendered more or less sterile through the destruction of these forests, being hence exposed to destructive floods in the rainy season and to excessive droughts in the dry.

As an illustration of this, reference may be made to the remarks of Gibbon (*Decline and Fall*, vol. i.) on the extent of woodland in Germany, temp. Cæsar and Tacitus, and its striking effect on the climate, which supported reindeer and elks. He draws an ingenious analogy with Canada on the same parallels as London but icebound and forest-covered, and argues that clearing the soil will enable the sun to penetrate it and fertilise it.

FORESTS, MEDIÆVAL (English forests as typical of mediæval forests generally).

The DIALOGUS DE SCACCARIO (i. 12) defines the king's forest as "a safe mansion for wild beasts; not of any sort, but bred in the woods; not in any places, but particular and proper ones for this purpose; whence it is called forest, by changing the letter E into O, as *ferest*: that is, a station for wild beasts." The king has not a forest in every county, but "only in the wooded ones, where there are the best coverts and most fertile feedings for the beasts: neither does it matter to whom the woods belong, whether to the king or the nobles of the kingdom; for the beasts are at their liberty to range uncontrolled over every part of them" (ed. Madox, p. 29).

According to Manwood, there are four chi properties of a forest—vert, venison, particula laws, and proper officers, but he quotes Cok as giving eight—soil, covert, laws, court judges, officers, game, bounds (4 *Inst.* 289).

Forest Courts. Under the Norman kings thes seem to have been held by the foresters or keeper In later times there were three forest courts, th court of Attachments, the Swanimote, and th Justice Seat.

I. *The Court of Attachments* is so called becaus it was held *ad videndum attachiamenta.* Th Charter of the Forest (1217) provided that should be held every forty days, and therefore is sometimes called the Forty Days' Court. Befor the charter, it was held very often at the will c the chief forest officers, and was called the Wood mote, in Shropshire, the Woodplea Court. At th court, which only dealt with injuries to vert c venison, the foresters brought attachments to th verderers who enrolled them. Cases were als referred from this court to the Swanimote.

Attachments in the Forest were of three kinds 1. By goods and chattels. 2. By the body wit pledges and mainprise. 3. By the body withou pledges.

II. *The Swanimote.* The pleas in this court wer called pleas of the forest, and the verderers wer the proper judges. Before the Charter of th Forest the chief wardens and foresters held it a any time, and oppressed the people greatly b compelling them to attend it. By the Charter c the Forest (c. 8) it was to be held only thre times in the year. 1. Fifteen days befor Michaelmas, when the agistors of the king's wood met to take agistments. 2. About St. Martin' Day in winter, when they received pannage. I these two courts only the foresters, verderers, an agistors had jurisdiction. 3. Fifteen days befor St. John Baptist's Day, when the agistors met t fawn the deer. The foresters and verderers onl had jurisdiction in this court. But by the Ordin ance of the Forest, 1 (34 Edw. I.), presentment of offences in vert and venison were to be made a the next Swanimote before the foresters, verderers regarders, agistors, and other forest officers. I early times it appears that all freeholders living i the forest, and the four men and reeve of ever village, had to be present to hold inquisitions an serve on juries on pain of amercement by the chie warden. Among the offences inquired into a this court, besides offences in vert and venison were those of narrowing church-ways in th forest, digging for mines without licence, extor tions by forest officers. The regarders presente what mastiffs were kept in the forest unexpeditated Offenders indicted in the Swanimote in the words "Quod sunt communes malefactores de venation Domini Regis in foresta," might be outlawed.

III. *The Justice Seat* was held every third yea (4 *Inst.* 291), after forty days' notice by the sheriff proclamation. A jury of twenty-four, twenty, c eighteen was chosen from the freeholders an others in court, and the rolls of offences, seale with the verderer's seal at the Court of Attach ments and Swanimote, were presented.

Forest Officers.—Besides the *Custos totiu Forestæ* (mentioned Stat. 1 Edw. III. cap. 3) an

the *Supervisor Forestariorum*, there were six classes of forest officers,—stewards, verderers, foresters, regarders, agistors, woodwards. No one could hold more than one office at a time. By the Ordinance of the Forest, 34 Edw. I. c. 3 (1306), forest officers were exempt from attending assizes, juries, and inquests, without the forest.

Verderers were judicial officers of the king's forest chosen *in pleno comitatu* by his writ to the sheriff *de viridario eligendo*, and sworn. They were judges in the Swanimote, and directors of the other forest officers. They reviewed and enrolled attachments and presentments of trespass in vert and venison, and held inquisitions "by the four townships nearest to the forest" (Assize of the Forest, art. 7). The verderers, of whom there were usually four, were esquires or men of good estate.

Foresters were officers sworn to preserve vert and venison. They attached offenders and presented them at the forest courts. Foresters were appointed by the king's letters patent and held office sometimes for life, sometimes during pleasure. In some cases they paid fee-farm rents to the king, and a man might be a forester in fee *in jure uxoris*. That a woman might be a forester, but had to appoint a deputy, is shown by the sheriff's return to a writ of summons to the Justice Seat in Pickering Forest 8 Edw. III. (4 *Inst.* 310). Foresters might pursue offenders with fresh pursuit within their view out of the forest, but might not wound, beat, or kill them there as in some cases it was lawful (Stat. 21 Edw. I. of trespassers in parks, etc.) for them to do within the forest. They had the right of topping trees in another man's ground for browse (Assize of Pickering, 8 Edw. III., fo. 19). Those holding land in the forest paid yearly to the foresters at their scotale 5s. or one sheep or lamb, and when the forest and officers had been in existence time out of mind, the foresters were entitled by prescription to 1½d. a day, or to all windfall wood, shoulders and skin of deer, etc. They could neither hawk nor hunt nor license others to do so. Every forester had to appear at the Justice Seat and present his horn on his knees to the chief justice in eyre, who delivered it to the marshall. It was returned to the forester on payment of a fine of 6s. 8d.

Regarders were instituted by the Assize of the Forest, (c. 4) 1184. They were twelve knights who viewed and inquired into offences in vert and venison, concealments and defaults of other forest officers. They were appointed (1) by the king's letters patent or by the justice in eyre, for life, or in fee (4 *Inst.* 291). (2) On the king's writ to the sheriff to summon a *regard* of the forest. Vacancies by death were filled by the sheriff's election in the county court. In this case the office was held during the king's pleasure. (3) The chief justice in eyre appointed a substitute for a regarder to attend the Swanimote, *pro hac vice tantum*. It was necessary thus to keep up the number because the twelve had to agree concerning offences.

Regards, formerly called *visitatio memorum*, were held once in three years without a new writ, by regarders, foresters, and woodwards (Assize of the Forest, c. 10). The regarders appointed as many foresters for this as they thought fit. They surveyed wastes, assarts, and purprestures, and entered them on a roll. This they brought to the Court of Attachments on the Swanimote, when it was sealed and signed and was presented at the next Justice Seat. Woods within the forest metes but not part of the forest were out of regard.

Agistors were four officers appointed by letters patent. They took the beasts to pasture in the forest, presented trespasses done by cattle, looked after the demesne woods and lands enclosed, and received the cattle and payments of those living in the forest who had common in the unenclosed ground there. The king's demesne woods and lands were agisted by his foresters, verderers, and agistors, who met at the Swanimotes for this purpose, and to receive the money (Charter of the Forest, c. 8). The verderers' rolls of the Swanimote, on which the foresters' and verderers' agistments were enrolled, was the king's record to charge the agistors with the receipt, and they alone were answerable for it. (Assize of Pickering, 8 Edw. III., fo. 7, 8, 9.) They brought to the Justice Seat an account of the money received for pannage. The agistors, foresters, and verderers certified the chief justice in eyre when it was time to agist the king's demesne woods and lands, and he directed a commission to them to be returned at the next Justice Seat.

Agistment is the pasture or herbage of any ground, or the money taken for it. It is of two kinds. (1) Herbage—of woods, lands, and pastures. (2) Pannage—of woods alone, *i.e.* the mast of trees. The time of agistment in the king's demesne woods and lands for herbage, for commonable beasts, was from the Swanimote fifteen days before St. John the Baptist's Day until Holy Rood Day (14th September). (Charter of the Forest, c. 8). This was the fence month. The agistment for pannage, which might be for beasts not commonable (swine and hogs), lasted for forty days from the Swanimote fifteen days before Michaelmas until about St. Martin's Day.

Woodwards were officers who had the care of the woods and vert and presented offences at the Court of Attachments. If a subject had wood in the forest and his woodward did not appear at the justice seat to present his hatchet to the chief justice, his wood was seized to the king until he replevied it and paid a fine. If not replevied in a year, it remained in the king's hands for ever. An owner who appointed a woodward where there was not one before was fineable (Assize of Pickering, 8 Edw. III. fo. 8).

Assart, Purpresture, and Waste:

Assart. To assart "is to destroy any covert by the rooting it up and to make it plain ground" (Manwood). The word comes from the French *assartir* (*essarter*, Coke) or from the Latin *exuro* or possibly from *ad sero*, it being sometimes spelt *assertare*. The *Dialogus de Scaccario* (I. 13) says, "What you find called *occasiones* by Isidorus are generally said to be *estrepement;* that is, when the woods and brambles of the forest are occasionally cut down for food and coverts; after the cutting down of which, and the roots pulled up, the land is turned up and cultivated. But if the woods were cut down in such a manner

that scarcely the stock of an oak, or any other tree, remained standing in those parts where they had been cutting, and five could be found cut down together in one place, they looked upon it as waste" (Madox, p. 29). Forest land might not be assarted without the king's warrant, and land thus wrongfully assarted was seized into the king's hands and was redeemable by a fine. If this was not paid by the owner or his heir, the king continued to hold the land for ever. The fine for assarting was not fixed by the forest laws, but was levied at the discretion of the king or chief justice in eyre, usually according to the number and value of the acres assarted. A man found making assart or purpresture, if in the king's woods, was committed for the first offence without bail until he paid the fine to the king, if in the woods of a subject, he was bailable for the two first offences (see *State of Realm*, i. 243).

Restold, sheriff of Oxfordshire, in the reign of Henry I. owed seven pounds ten shillings "for the king's woods, which are so destroyed that no village can pay the farm for them." Robert, Earl of Leicester, "once on the eve of a visitation of the woods, generally called a survey, made every three years, procured the king's writ to be free from those sums of money that were demanded out of his land for waste, putting in the number arising out of them, which, being carried and read in public at the exchequer, all were amazed and astonished, saying does not this earl weaken our liberty" (*Dialogus*, i. 2; Madox, p. 28). Whole counties are found in the Pipe Rolls, *in misericordia pro foresta*. Wood rents paid for forest land, converted by the king's license into pasture, were not included in the farm of the crown lands on account of the fluctuation in their value.

Purpresture is thus described by the *Dialogus* (ii. 10): "It sometimes happens through the sheriff's negligence, or his officers', or by a long continuance of war, whereby those who lived near the estates appropriated to the crown, usurped part of them, and annexed them to their own possessions. But when the itinerant justices, by the oath of lawful men, discovered them, they rated them separately from the ferme of the county, and delivered them to the sheriff to be answered for separately; and these are called purprestures or seizures; which, when they are discovered, are taken as was said, from the possessors of them, and hence fall to the treasury. But if he from whom the seizure is taken committed the fact, he shall at the same time be punished by a very heavy fine, unless the king thinks proper to forgive it him; if he did not commit the fact, but is his heir, the recalling of the estate is held sufficient punishment" (Madox, p. 45). No man might enclose any ground in the forest to the hurt of the deer, and if he had a license to enclose he might not do it with a high hedge and ditch or a high paling, for this was against the Assize of the Forest (c. 10). A man might not build a house on his own free land in the forest without license, and a house so built was to be pulled down before a certain day, or a yearly rent paid to the king for it (Assize of Lancaster, 12 Edw. III., fo. 6). By the Assize of Clarendon c. 7 (1166) gaols might be built out of the king's woods.

Waste. "To fell or cut down any woods which grow scattering, or any thick covert in the forest, though on a man's own inheritance, yet if done without license of the chief justice in eyre, or view of the foresters, 'tis *waste*" (Manwood). The wood or place wasted was seized into th king's hand until the owner or his heir paid a fin assessed by the chief justice in eyre according t the number and value of the acres wasted (Assiz of Pickering, 8 Edw. III., fol. 22).

Purview was certain territory, adjoining th forest, bounded with unmovable boundaries an known by matter of record only. It was onc forest-land and disafforested by the perambulation made in 1218.

Forest Beasts. A forest was not a privilege place for all wild beasts and fowls, but only fo those of the forest, chase, and warren. The beast of the forest were, the hart, hind, and hare, an later, the boar and the wolf. But wolves wer almost destroyed by Edgar, and no care wa afterwards taken to preserve them. As late a Edward I.'s time there were many wolves i England, for, in 1281, Peter Corbet was commis sioned to destroy them in Gloucestershire, Wor cestershire, Herefordshire, Shropshire, and Staf fordshire: "Lupos cum hominibus, canibus, e ingeniis suis capiat et destruat modis omnibu quibus viderit expedire" (Rymer, i. 591).

Beasts of the chase were the buck, doe, and fox and formerly the marten and roe. Those of th warren were the hare, cony, pheasant, and part ridge. The difference between beasts of the fores and of the chase is that forest beasts frequen woods and coverts, and those of the chase ar field beasts. Each had its season, and there ar many interesting terms in this connection.

The so-called laws of Canute established th king's right to have forest "wherever I shall wis to have it." From this time until the granting of the Forest Charter in 1217, the king issued a commission under the great seal declaring hi will to make a forest in any place, and commanding that a perambulation be made. When this i returned and certified the king is entitled to th forest by matter of record. A writ was then issue to the sheriff commanding him to proclaim throug the county that the king had appointed such groun to be a forest, and that no one might hunt there after a certain day. But this made it only a chas until the king appointed the officers.

Strictly speaking, only the king could hold a forest, because he alone had power to appoint a justice in eyre of the forest. Forests were granted to subjects by letters patent, and all th officers remained except the justice in eyre.

A *Park* equally with a chase is a place of privileg for wild beasts of venery, and also for other wil beasts that are beasts of the forest and of th chase. It must be enclosed, and if open might b seized into the king's hands as a free chase Parks were held by subjects by license to impark The monastery of St. Albans appears to have ha a park in the vill adjoining. (Dom. i. 135 b. Domesday mentions sixteen subjects who hel parks. From the time of Edward I. most grea men had parks and chases, and the Patent Roll contain many licenses to impark.

A *Chase* is a harbour for wild beasts, usuall smaller than a forest and not having so man liberties, and larger and with a greater diversit of beasts than a park. The officers were keeper and woodwards. A chase differs from a forest i

that it may be in the hands of a subject, and from a park in that it is not enclosed.

A *Warren* is a franchise or place privileged either by prescription or by a grant from the king to keep beasts and fowls of warren. A free warren cannot be seized, though unenclosed.

Offenders in parks, chases, and warrens were punishable at common law, and by stat. 21 Edw. III. *De Malefactoribus in parcis et chaceis*, etc.

Haia is a hedge, sometimes a park or enclosure. Beasts were caught by driving them into a hedged or paled part of a wood or forest called a *haia*. The haias mentioned in Domesday were chiefly in Worcestershire, Herefordshire, Shropshire, and Cheshire. They occur in the Pipe Rolls as royal preserves. Edward III. had a chapel in his haia of Kingesle.

Names and Extent.—The woods mentioned in Saxon charters are mostly very small and are only in a few counties, but in early Saxon times the whole country between Tyne and Tees was a vast forest, the home of wild beasts. Only four forests are mentioned as such in Domesday besides the New Forest. These are Windsor Forest in Berkshire, Gravelinges Forest in Wiltshire, Winburne Forest in Dorsetshire, and Hucheuuode or Whichwood Forest in Oxfordshire. Neither Middlesex nor Essex forests are mentioned, though they must have existed, but *Forestarius de silva regis* occurs under Writtle in Essex (ii. 5 b). There are evident notices of forest land in Worcestershire, a forest is alluded to under Langebridge Hundred, Gloucestershire, and another in Herefordshire, but not by name (i. 179 b. 181, 184, 186). The forest of Dean is evidently alluded to under Dene (i. 167 b.), and under the lands of William de Ow in Wigheiete, Gloucestershire occurs this entry: "Alestan tenuit T. R. E. nunc est jussu Regis in foresta sua." In making the New Forest, William I. afforested portions of manors which were already woods. At least 17,000 acres were afforested in Hampshire between the reign of Edward the Confessor and the Domesday survey. Most of this land appears to have been on the borders of an older forest called by several writers Ytene. Names of parts of the forest ending in "ham," "ton," and "tune" show that they were sites of manors or villages. The royal demesnes in the reign of William I. are usually said to have consisted of 1422 manors, 30 chases, 781 parks, and 67 forests, but this is probably inaccurate (Stubbs, i. 403). From a passage in Abingdon cartulary, William seems to have extended the limits of Windsor Forest by four hides from Winckefeld towards Wildeshoram. Forests were probably at their greatest extent in John's reign, and until this time the whole of Cornwall, one of the least wooded counties, was under forest laws. The whole of Essex seems to have been afforested by John (Rot. de Oblatis, p. 102). The largest forest in England began to be destroyed when ironworks were established on a large scale in Sussex in the thirteenth century. Coke says that the newest forest in England is Hampton Court forest, made by act of parliament 31 Henry VIII. c. 5 (4 *Inst.* 301).

The forests of England are contemporary with the royal demesne, and both are supposed to have had their origin in the folc-land, but this view is rather shaken by the recent researches of Professor Vinogradoff (*Eng. Hist. Rev.* viij. 1). Gradually, as the king became looked on as more fully representative of the nation, the folc-land disappeared before the *terra regis* which we find in Domesday. The forests, a source of pleasure as well as of wealth, were considered as especially a royal possession. Among the Anglo-Saxons there were two chases, the higher reserved for the king, and the lower enjoyed by the holder of the land.

A great industry of the Anglo-Saxons was keeping pigs, and woodland was very valuable not only for deer, for fuel, and for wood for building, but chiefly for the support of pigs. A "wood of so many pigs," is a frequent entry in Domesday. In Ine's laws (A.D. 690) the worth of a tree is estimated by the number of swine that can stand under it. These laws forbade the felling and burning of trees, and imposed a fine of 60s. for burning a log in a wood, lest in this way woods should be destroyed. By Cnut's laws, cutting brushwood in the king's forest is forbidden, and the fine for destroying a tree which the beasts eat is 20s. Even in Henry I.'s time, Herbert Losinga, Bishop of Norwich, refused to give fuel from a wood at Thorpe to the sick, and preferred to give money, saying, "Tu vero custodi sylvam sanctæ Trinitatis sicut vis custodiri a sancta Trinitate" (Epis. viij.). Forests were sometimes waste land, *terra non lucrabilis*, often mentioned in the Pipe Rolls, and the preservation of game included, besides deer, boars, wolves, otters, and water-fowl, the fishing of rivers and coursing in great plains. An ancient privilege of the citizens of London confirmed by charter of Henry I. was coursing in Middlesex, Wiltshire and Surrey. In the so-called laws of Edward the Confessor, now known to be dated about 1217 (Liebermann, *Leges Anglorum*), public as well as royal rights were protected; any one claiming a private fishery or preserve for wild fowl without royal charter was fined by the jurors of the hundred, and a mill or weir made on a river was removed and the trespasser fined. The fence of the great rivers was removed by Magna Carta, cc. 47. By the forest laws attributed to Cnut, which are now known to be forgeries (Stubbs, *Select Charters*, 156; Liebermann, *Instituta Cnuti*, ed. R. Hist. Soc., p. 90), four thanes were appointed in every province to administer justice, and received a yearly salary of two hundred silver shillings. Under them were four inferior thanes (lesthegenes) who had the care of vert and venison, at a salary of sixty silver shillings, and under each of these were two men who watched at night and did the more servile work, receiving fifteen silver shillings yearly. They were all provided with horses and arms. Those of the two lower classes were tried for offences by the superior thanes, who were answerable only to the king. Harts, bisons, hares, and rabbits were enclosed, and the service of enclosing and stalling was imposed on the villeins and burghers. All men were allowed to shoot wolves and foxes outside the enclosure, and every two villeins had to keep a dog. Domesday mentions a class of royal huntsmen who seem to have all been English, and to have passed into

the service of William, and an elaborate establishment of the Royal Hunt is given in the *Constitutio Domus Regis* in the red book of the exchequer, which is now known to be as old as Henry I.'s time. After the Conquest all the remaining unenclosed folc-land was reserved to the crown, and the crown-land was further increased by the property of those who had fought in defence of England at Hastings.

William I. introduced the idea that hunting was the pastime of kings, to be followed simply for their pleasure and rigorously kept from their subjects.

In making the New Forest, villages and churches were destroyed with the one purpose of promoting the king's pleasure. Entries in Domesday show how the properties of individuals dwindled under the king whose fatherly affection was greater for the "tall deer" than for his people. The nature of the Conqueror's forest laws is known from later notices and from the complaints of chroniclers. "His great men bewailed it, and the poor men murmured thereat; but he was so obdurate that he recked not of the hatred of them all; but they must wholly follow the king's will, if they would live or have property, land, or even his peace." (*A. S. Chron.*, Rolls Series, p. 190). Under William II. these laws were probably enforced with increased severity, the greatest sufferers naturally being Englishmen who still kept some of their old property. Fifty such men were charged with breaking the Conqueror's forest laws, and proved their innocence by ordeal. William I. first attached the punishment of mutilation to offences against the forest laws: William II. punished such offences with death, even when the offenders were Normans of high rank and his own relations. But it must be remembered that William I. substituted mutilation for capital punishment in every case; in the forest laws it took the place of the fine imposed by Cnut and led the way to the still heavier penalty.

In the charter granted by Henry I. early in his reign, he says that by common consent of his barons he has kept the forests in his own hand as his father had them. He probably issued forest laws of great severity and extended their jurisdiction within all franchises, so keeping to himself the right of hunting throughout the kingdom. So greatly did he care for the deer for the sake of the delights of hunting, that he scarcely made a distinction between the slaying of deer and the slaying of men (William of Newburgh, i. 3.).

Stephen came to the throne anxious to conciliate the barons and full of concessions. He promised that he would not keep other men's woods in his hands "as King Henry had done, who every year impleaded them if they took venison in their own woods, or if they destroyed or lessened them for their own needs." In the charter granted at his first great council he promised to restore to the churches and the nation the forests added by Henry I., retaining those held by William I. and William II. He did not keep his promise (Stubbs, i. 403). But that it should have been made at such a time, and accepted by the barons, shows that in this direction the crown was becoming stronger; for the forests made by William II. which Henry I. had given up are now added to those of William I. In the unsettled times of Henry I. and Stephen encroachments and trespasses were made in the king's forests.

From the accession of Henry II. the administration of the forests occupies a very important and clearly-defined position, side by side with the common law. Early in his reign he appointed justices who visited the forests when the justices itinerant were on circuit. The general visitation of 1166, after the council of Clarendon, when two justices visited the whole country, was followed the next year by a survey of the forests, and this again by a circuit of the shires. Again in 1175 Henry himself held a great visitation of the forests at Nottingham, and in spite of the expostulations of the justiciary, he exacted large fines for the destruction of vert and venison which he had himself authorised in the war. Just before this, he had hanged four knights at Lichfield for the murder of a forester. The assize of Woodstock (A.D. 1184) is the first forest code now extant. The punishments were probably not quite so severe as those enforced by Henry I. The archbishops, bishops, earls, barons, knights, free tenants, and all other men were to attend the court of the forest justice at the summons of the chief forester (art. 11). This was enforced by Richard I., and repealed by the great charter (art. 44), and the charter of the forest (art. 2). By the connivance of the legate, Hugo Pierleoni, even the clergy, whom the common law could not touch, were to be subject to the law of the forests; the foresters were strictly enjoined not to hesitate to lay hands on them if they found them trespassing (art. 9). No one was to cut his own wood in the king's forest except for fuel, and even this, subject to the view of the forester (art. 3). Every one twelve years of age living within the forest bounds was to swear to the king's peace (art. 13).

In 1198, when Geoffrey Fitz-Peter succeeded Hubert Walter as justiciar, one of his first measures was to hold a visitation of the forests. He enlarged the assize of Woodstock, and attendance at the session of the forest justice, required by article 11, was enforced as rigorously as attendance at the shire and hundred courts. Fitz-Peter, however, was equally severe in other branches of the administration.

Forest Charter. The first forest charter is that of Henry III., issued by the earl marshall on 6th November 1217. Formerly a charter of John dated 1216 was cited on the authority of Matthew Paris, but this is really the charter of 1217 (Stubbs, i. 403). In a recently discovered charter of liberties, supposed to be a French forgery of 1216, references to the forests occur which seem to anticipate the charter of 1217 (*Eng. Hist. Rev.*, April 1894). All the forests made by Richard I. and John were to be at once disafforested (c. 3), but those of Henry II. only if they were to the damage of the owners of the woods afforested (c. 1). No one was to lose life or limb for offences in venison, but to be heavily fined. If he could not pay this fine he was to be imprisoned for a year and a day, and then in default of sureties was to be banished (art. 10). An archbishop, bishop, earl, or baron, going through

the forest, was to be free to take two beasts by view of the forester. If he was not present they were to cause a horn to be blown that they might not seem to be stealing the king's deer (c. 11). Only foresters in fee were to take tolls. Thus some of the abuses pressing most heavily on the people were removed, and this charter was to the forest administration very much what the great charter was to the constitution at large. In both cases tyranny led to a definition and assurance of liberties, thus making them more secure for the future than they would otherwise have been. In 1218, the year following the issue of the charter, a perambulation of the forests was held to determine their extent for all time. By an ordinance of the same year, Henry III. was restricted from making grants in perpetuity until he should be of age, and in 1227, when he attained his majority, this ordinance was said to invalidate all former grants unless they were now renewed on payment. At the parliament of Oxford the barons had again to seek redress against the encroachments of the king, who had re-afforested woods and lands disafforested by perambulation (art. 7), and had given warrens in forests disafforested by charter (c. 9).

In 1299, when Edward I. was in urgent need of money for the French war, he confirmed the great charter and the charter of the forest in return for a grant of one-eighth from the barons and knights. In the case of the forests, the phrase "salvo jure coronæ nostræ" was inserted, but a second confirmation was demanded and granted two months later, without this clause. In consequence of delay in carrying out disafforestations under the charter of the forest, twenty articles called "Articuli super Cartas" were passed the next year by the first complete parliament since 1296. Infringements of the charters were to be inquired into, and severe measures taken with regard to forest administration. A perambulation was held in 1301, and Edward confirmed the charters again at the parliament of Lincoln. In 1305, Clement V. granted him absolution from his oath, and this he only used to evade the forest articles which he had been compelled to grant in 1299 and 1301. The people still complained of the oppressions of forest officers. Their grievances were (1) Accusations and indictments were not made by lawful inquests, but by command of one or two foresters or verderers in order to extort money. (2) The great number of forest officers who were obliged to live near the forest, and to sell the wood and deer for their means of livelihood. These complaints were met in 1306 by the ordinance of the forest. One of its six articles provided that no forest officer was to take part in any assize, jury, or inquest without the forest (c. 3).

From the reign of Edward III. the hold of the crown on the forests became gradually weaker. Elizabeth and James I. alienated much of the forest territory, letting it on lease or in fee-farm, and great dissatisfaction was caused in 1641 by the attempts of Charles I. to reclaim this land. The king's title was found by inquisition, but by a jury acting under prejudiced direction. The Earl of Holland held a court as chief justice in eyre of the forests almost every year, though the old custom had been once in three years. The royal forests in Essex were so enlarged that they were said to include the whole county as in John's time. The Earl of Salisbury was nearly ruined by the loss of his estate near the New Forest. The boundaries of Rockingham Forest were extended from six to sixty miles, and enormous fines imposed on the trespassers. Thus the Earl of Salisbury was fined £2000, the Earl of Westmoreland, £19,000, and Sir Charles Hatton, £12,000. It is probable, however, that these fines were not exacted in full. The king obtained Richmond Park by depriving many of his subjects both of their freehold lands and their rights of common, but they probably received compensation. In 1641 the Act for the Limitation of the Forests determined for ever the extent of the royal forests according to their boundaries in 20 James I.

[*Dialogus de Scaccario*, ed. Madox, 1768.—Manwood's *Forest Laws*, ed. Nelson, 1717.—Stubbs, *Const. Hist.* i., *Select Charters.*—Ellis, *Int. to Domesday*, i.—Freeman, *Norman Conquest.*—Hall, *Court Life under the Plantagenets.*—Pearson, *Hist. Maps of England.*—Lappenberg (trans. Thorpe), *Hist. of England under the A. S. Kings.*—Cowell, *Interpreter.*—*Statutes of the Realm* (2nd edition) for Charters and Statutes of the Forest after 1215.—Gardiner, *Select Documents of the Puritan Revolution.*] M. T. M.

FOREST, BEASTS OF. See FOREST, MEDIÆVAL, p. 110.

FOREST CHARTER. See FOREST, MEDIÆVAL, p. 112.

FOREST, COURTS OF. See FOREST, MEDIÆVAL, p. 108.

FOREST, NAMES AND EXTENT OF. See FOREST, MEDIÆVAL, p. 111.

FOREST, OFFICERS OF. See FOREST, MEDIÆVAL, p. 108.

FORESTERS. See FOREST, MEDIÆVAL, p. 109.

FORESTS, ECONOMIC ASPECTS OF. History shows that, except in arctic regions, there was once a natural covering of woodlands over the greater part of the globe. In the writings of Tacitus and Cæsar distinct evidence is given of the general distribution and character of these woodlands throughout France, Germany, and Britain; and in those parts of the world, such as the backwoods of America and the jungles of Burma, where increase in the population is only now gradually necessitating the clearance of the primeval forests in order to permit of the extension of arable and pasture land, the same processes may at the present day be seen as took place centuries ago in the more civilised and settled portions of the globe.

In many of the countries of Europe the processes by which the present ratio of woodland to total area has been attained are clearly traceable. To detail them or to examine into their causes is beyond the scope of this article. According to the Government Statistical Returns for 1905, the utilisation of the soil is as follows throughout most of the European countries:—

Country.	Latest data available for.	Total Area (acres), Lakes, Rivers, etc.	Total Acreage (approximate) under			
			Corn Crops.	Grass and Clover.	All other Crops.	Woodlands.
United Kingdom	1903	77,642,099	8,393,000	34,636,665	4,688,388	3,029,360
Germany	1900	133,585,000	38,177,789	27,759,244	14,741,693	34,569,794
France	1903	130,374,482	33,496,803	31,371,872	10,298,049	22,224,134
Russia in Europe (excl. Poland)	1902	1,244,867,351	174,592,143	72,646,845	21,379,220	425,564,842
Austria	1903	74,102,001	16,651,757	16,949,479	4,904,884	24,157,672
Hungary	1903	80,979,000	24,721,609	9,781,455	7,722,527	22,274,033
Sweden	1900	101,565,000	4,218,217	6,547,303	1,629,074	51,146,579
Italy	1895	70,787,286	20,518,000	17,922,000	13,442,000	10,266,310
Denmark	1901	9,500,000	2,366,899	2,827,284	1,045,767	682,823
Holland	1902	8,038,000	1,837,589	3,091,679	1,059,756	625,352
Belgium	1903	7,277,000	1,899,516	990,275	1,776,209	1,250,000

If we compare the most civilised countries of Europe, the following ratios will exhibit themselves :—

Country.	Percentage of Total Area under		
	Forest.	Tillage.	Pasturage.
United Kingdom	3¼	24½	36¾
France	17	48	17
Germany	25¼	48¼	16
Austria and Hungary	30	42	17

The proportion in which woodlands should be retained for climatic, national-economic considerations can never be stated in anything like an authoritative manner. Thanks to our insular position, and more particularly to the beneficial influence exerted on the climate of Britain by the Gulf Stream, the woodland area has with impunity been restricted to so low a ratio as would undoubtedly have entailed agricultural disaster in the interior of the continent of Europe. It is not merely the proportion of woodland to the total area that must be taken into account, but also the manner in which it is distributed over the surface of the country. Thus India, with a total area of 737,703,322 acres, has, according to the *Statistical Abstract for British India* for 1905, state forests aggregating 67,136,162 acres, or 9·5 per cent of the whole, without reckoning the unclassed jungles covering many thousands of square miles throughout the thinly-populated provinces of Burma and Assam ; but as these are not equally distributed over the length and breadth of the land, certain portions of Bengal, Madras, and Upper Burma are in particular now and again liable to famine when the south-west monsoon fails to deposit the normal quantities of moisture in any year.

In Britain the clearance of the forests was throughout the middle ages not only unchecked but directly encouraged, so that as early as the reign of Henry VII. the woodlands covered only about one-third of the total area ; in Ireland, too, so late as the 17th century the policy of clearance of forests was urged on by James I., Charles I., and Cromwell. On the continent, on the other hand, legal action was taken as early as the beginning of the 14th century to restrict clearance of woodlands. Thus in Germany in 1304 the first edict was issued forbidding fresh clearances in a part of Alsace, and ordering land to be replanted which had been cleared without permission. Similar edicts were issued in France by Charles IX. and Henry IV. in the 16th century, and a more stringent law on the subject was the celebrated *ordonnance des forêts* of 1669. At the time of the revolution this was practically set aside by a decree of 1790, but the impetus thus given to excessive clearance was so soon productive of evil results that a prohibition had to be issued from the consulate prohibiting further clearances. At the present day all circumstances relative to the clearance of woodland are provided for in the *code forestier*, framed for the better administration of the national, communal, and private forests.

The Climatic Influence of Forests is discussed by Humboldt, who in the *Aspects of Nature* laments that the wants and restless activity of man "gradually despoil the face of the earth of the refreshing shades which still rejoice the eye in Northern and Middle Europe, and which, even more than any historic documents, prove the recent date and youth of our civilisation." The subject was never studied seriously until 1867, when observations were begun by Prof. E. Ebermayer of Munich, of which the first results were published in 1873 in his celebrated work *Die physicalischen Einwirkungen des Waldes auf Luft und Boden*. Since then, however, more extended observations conducted throughout Germany, France, and Switzerland have in many ways caused his deductions to be modified. The best *résumé* of the work accomplished in this direction is to be found in Prof. R. Weber's *Die Aufgaben der Forstwirthschaft*, forming the opening portion of Prof. J. Lorey's *Handbuch der Forstwissenschaft*, 1886, from which the following results are taken.

1. *As regards Atmospheric Temperature.* The average results of observations made during ten years (1875-85) in different kinds of forest at heights varying from 10 to 3000 feet above the sea-level, and at latitudes between 47½° to 55¼° N., showed that in general the mean atmospheric temperature in woodlands is cooler than in the open, as shown in the following table :—

Temperature of Woodland Air, compared with that of Air in the Open.		
In ° Fahr.	At 5 feet above the ground.	In the Tree-crown.
Spring . . .	1·24° cooler	0·57° cooler
Summer . . .	2·55° ,,	1·47° ,,
Autumn . . .	1·13° ,,	0·41° ,,
Winter . . .	0·61° ,,	0·03° warmer
Annual Average of all recorded Observations.	1·044° cooler	0·414° cooler

The annual average temperature in woods growing in closed canopy is found to be lower than in the open, although the crowns of the trees are on the whole a little warmer in winter. The difference is greatest in summer, least in winter, and about midway between these extremes in spring and autumn; but the mean annual difference seldom amounts to over 1° Fahr. near the ground, and to scarcely ½° in the crown. The prevention of insolation of the soil during the long hot days of summer, and the rapid transpiration of the foliage, exert greater influence on the atmospheric temperature than can be ascribed to shelter from wind and decrease of nocturnal radiation.

Observations made in southern Germany established the fact that in the forests it is cooler during the day, and warmer during the night than in the open. During the day the shade afforded by the crowns of the trees keeps the air cool, whilst the leafy canopy interferes with the radiation of warmth during the night. These equalising influences are naturally strongest during spring, summer, and autumn, when foliage is most abundant, whilst in winter the coniferous woods with evergreen canopy are milder than deciduous forests. Owing to these differences in temperature, beneficial currents of air set in between the woodlands and the open country, in the same manner as land and sea breezes are formed. During the day the cooler and moister air of the forest flows out to the open, to take the place of the heated air ascending; at night a current sets in from the open, cooled by radiation, towards the forest. The immediate action of forests is, therefore, to modify the daily maxima and minima of atmospheric temperature, hence it may be deduced that a comparison of the absolute extremes of temperature during the year must exhibit the sum total of the influence exerted by woodlands on atmospheric temperature. As extremes of temperature are bad alike for man and beast, and for agricultural operations, this modifying effect can sometimes be of immense importance from a national-economic point of view, for many places that were once fertile are now little better than barren wastes in consequence of the reckless denudation of forest. The German observations yielded the following results on this point:—

Average difference of temperature in the forest and in the open at 5 feet above the ground.	
Exhibited by maxima of July	Exhibited by minima of January
6·82° Fahr. cooler in forest	2·05° Fahr. warmer in forest

In making these observations it was found that geographical position, exposure to winds, and the nature of the forest exerted modifying influences to a certain, and often not inconsiderable extent.

2. *As regards soil temperature*, observations in southern Germany gave the following results:—

Average soil temperature in the forest compared with that in the open.
−=cooler by. +=warmer by.

In ° Fahr.	At surface	At 1 ft. depth	At 2 ft depth	At 3 ft. depth	At 4 ft. depth
Spring	−4·08°	−3·08°	−3·24°	−2·79°	−2·32°
Summer	−6·10°	−6·71°	−7·07°	−6·86°	−6·53°
Autumn	−1·85°	−2·16°	−3·04°	−3·26°	−3·58°
Winter.....	−0·23°	+0·43°	−0·45°	−0·22°	−0·34°
Annual average	−3·15°	−2·88°	−3·45°	−3·28°	−3·19°

Thus the mean annual temperature of the soil in woods is at all these depths of observation cooler than in the open. The differences are greatest in summer, least in winter, and about the mean in spring and autumn. In countries with warm summers this reduction of soil temperature over large areas by means of woods has a decidedly beneficial tendency.

3. *As regards the Degree of Atmospheric Humidity.*—Observations throughout Germany and Switzerland have shown that as regards the *absolute humidity of the air*, forests have no appreciable climatic effect, although they of course exert very great influence on its *relative humidity*. Taking all the observations together, the results arrived at show that the mean annual relative humidity of woodland air is from 3½ to 10 per cent greater than that of air in the open, but that the difference varies greatly according to the season of the year, being greatest in summer and autumn and least in winter and spring.

4. *As regards the Precipitation of Aqueous Vapour.*—As has above been stated, woodland air is cooler than that in the open, whilst the trees themselves are also cooler, especially in summer, hence when a current of air is wafted from the open into the forest its temperature falls and it approaches nearer to the point of saturation, *i.e.* its relative humidity increases. If it were already near the point of saturation, the formation of dew must take place. Woodlands, therefore, act as condensers of atmospheric moisture, and decrease the absolute humidity of the air whilst increasing its relative humidity; at the same time they also add to the humidity of the air by transpiration. Very

careful observations made for the purpose have as yet failed to establish the actual effect of forests in the precipitation of dew and rainfall. Corrections of such various sorts have to be made for the correlation of readings at different points in the forest and in the open, as to make the deductions open to serious objections. Thus readings at 192 points of observation in Germany, corrected as carefully as possible with reference to causes of difference, lead to no other trustworthy inference than that at high altitudes large extents of woodland must considerably increase the local rainfall. But as nearly one-fourth of the rainfall is actually intercepted by the crowns and stems of the trees, forest growth offers great mechanical advantages in preventing the scouring and washing away of soil in mountainous tracts. Although it is a generally accepted dictum that rainfall is greater near large forests than in the open under similar physical conditions, this has not yet been proved by scientific observers. But owing to their lower temperature, their greater relative humidity, and the mechanical obstruction they offer to currents of air, forests certainly act as condensers of aqueous vapour, though their influence in this respect is much greater in mountainous tracts than on plains.

5. *As regards Evaporation of Soil-moisture.*—Observations made in Germany and Austria during ten years (1875-85) proved that, even in the vicinity of the forest, evaporation in the open was considerably greater than within the woods. The results are as follows:—

	Water evaporated.
In the Open	20·9 inches
In the Forest	9·5 „
Lower in forest than the open by	11·4 inches
Evaporation in forest expressed in the percentage of that in the open . .	46 %

The practical importance of this will be at once seen when it is recollected that the mineral food-supplies can only be taken up from the soil by the rootlets of plants when presented in the form of *soluble* salts.

6. *As regards the Feeding of Streams and the Protection of the Soil.* The action of forests is to retain in the soil a large proportion of the rainfall, which, by percolation to the lower layers and the subsoil, tends to feed the streams perennially, and to maintain a constant supply of moisture. That the mechanical action of rain in regard to washing away soil on steep slopes is interfered with by the crowns and stems of trees, has already been noted. But by the decomposition of dead foliage, etc., to form *humus* or mould, a strongly hygroscopic admixture is conveyed to the upper layer of the soil, thereby enabling it to imbibe and retain moisture with sponge-like capacity, and giving the latter time to percolate instead of running off rapidly on sloping ground. The evaporating action of sun and wind is counteracted by the leaf-canopy, which also prevents radiation of warmth at night. When large tracts of country are denuded of forest, increase of temperature during the days of summer, rapid radiation of warmth by night, diminished dew-formation in spring and summer, and unchecked evaporation of moisture (through insolation and the free play of winds), must be the inevitable results. Such consequences, involving serious agricultural disasters, might easily be pointed out in many parts of continental Europe, Western Asia, and India; references may, however, be made on these matters to the articles in the *National Review*, "Forest Science," July 1889, p. 691, and the *Edinburgh Review*, "The Penury of Russia," January 1893. The latter instance is a terrible object-lesson regarding the indiscriminate clearing of woodlands; in the nine years ending in 1887 a decrease of no less than 101,861,668 acres took place in the area returned as woodlands, a great deal of which has simply become waste land. Forests tend to break the violence of the rainfall, retain temporarily a large proportion on the stem and branches, from which it trickles to the ground, bind the soil by means of their roots and the humus layer formed by the dead foliage, and imbibe and retain the moisture till it can gradually percolate to the lower strata for the maintenance of the beneficial perennial streams. In the alpine districts of southern Europe "ban-forests" are subject to special laws, being retained as protection against landslips, avalanches, etc.

7. *As regards General Hygienic Effect on the Atmosphere.*—Whilst fresh clearance of forest tracts, especially in tropical and sub-tropical countries, induces fever and ague, the re-planting of feverish localities, like the Campagna di Roma and the Tuscan marshes, has improved their climate. But these effects are more likely due to the degree of direct insolation, freely accorded in the one case, and counteracted in the other, than to any hygienic property inherent in tree-growth. In the latter case the evaporation of stagnating soil-moisture owing to the transpiration through the foliage would of itself go far to remove causes of insalubrity.

Ebermayer's experiments showed that woodland air had most ozone in winter, which proves that the amount of ozone it retains can not be due to any chemical action of the foliage, for even the evergreen conifers only transpire during the winter period of rest. But as in the decomposition of the carbonic acid of the air by tree-foliage from spring to autumn, the carbon is absorbed and oxygen set free, and as during the period of active vegetation the hours of sunlight far outnumber those of

darkness—when oxygen is imbibed by the foliage, and carbon set free—it follows that, apart from their invaluable æsthetic influence, the planting of trees in towns and cities decidedly tends towards the purification of the air from its excess of carbonic acid; trees and forests act like filters in fact.

The Monetary Value of Forests and of Forest Produce.—In actuarial calculations affecting woodlands a somewhat lower rate of interest must be adopted than is obtainable on ordinary investments, owing mainly to the social prestige which usually accompanies large wooded estates with good shooting, and also to the fact that timber and forest produce have hitherto steadily appreciated in value whilst other commodities have relatively depreciated; this matter is well stated in Prof. G. Heyer's *Einleitung zur Waldwerthrechnung*, 1883, pp. 3-16. What rates of interest should be fixed on for a comparison of the *rentability* of the agricultural or the sylvicultural utilisation of any soil depends on varying local conditions. Considering the much longer period elapsing between the formation and the realisation of timber crops, and the greater dangers to which they are meanwhile exposed from wind, fire, insects, etc., a higher rate of interest might naturally be looked for; but in most civilised countries, as a matter of fact, woodlands are practically confined to tracts which, either from poverty of soil or other physical causes, are unsuited for agricultural occupation, or pay better under timber. According to Heyer, whilst the ordinary rate of interest was from 4 to 4½ per cent throughout Germany, the rate of interest for calculations relating to agricultural soils was 2 to 3 per cent, and that prescribed for sylvicultural calculations in the state forests was from 2½ to 3 per cent. The economic importance of the *steady appreciation in the market value of forest produce* is a feature that deserves attention, for this is bound to be accentuated in the future, seeing that whilst population and demands for timber, etc., are constantly increasing, the woodland area, and therefore the possibility of satisfying these demands easily, are constantly decreasing throughout the whole world.

Prof. K. Gayer, in his rectorial address before the university of Munich in 1889, *Der Wald im Wechsel der Zeiten*, page 15, states that the 34½ millions of acres of woodland in Germany annually produce about 60,000,000 cubic meters of timber and fuel, and yield annually about £20,000,000 to £22,500,000, which at 2 per cent would make their capital value about £1,000,000,000. And, according to Weber, *op. cit.* page 85, it was found in 1875 that no less than 583,000 persons were engaged in industries directly dependent on the timber trade, in addition to £4,150,000 being annually disbursed for various manipulations before the produce reached the buyer, and without reckoning costs of transport thereafter.

The most valuable forests in the British empire are undoubtedly those of India, which yielded a revenue of £1,481,116 during the year 1903-1904. Even accepting 2 per cent as the rate of interest obtained, this would make their capital value about £74,000,000; but it is probably more.

Even the 3,029,360 acres of woodland in the United Kingdom represent a very considerable capital. Taking the average period of rotation of the timber crops at 90 years, the rental of the land at 5s. per acre per annum, the cost of planting, etc., at £2 an acre, and the rate of interest at which the landowner is content to work as 2½ per cent, their actual cost at the present moment (treating them as ranging normally up to 90 years) would amount to $(3,029,360 \times £2 : 5s.)\, 1{\cdot}025^{45} = £20,652,661$. But the timber and minor forest produce of home growth is entirely inadequate to supply the demands existing in Britain, as may be seen from the following statement showing the quantities of the chief imports during 1903, and the countries whence they were obtained:—

Imports. All kinds of Wood, Timber.	Value. 1903.
From Russia .	£6,639,469
,, Sweden .	5,053,309
,, Norway . . .	3,224,344
,, Germany . . .	1,365,283
,, United States . .	5,214,730
,, British East India .	687,430
,, ,, North America	4,888,000
,, other counties . .	2,395,699
Total value of Imports	£29,468,218
Deduct value of Exports .	569,477
Excess value of Imports over Exports . .	£28,898,741

Value of the different kinds of Forest produce imported into the United Kingdom, 1903:—

Wood and Timber—	
Hewn—	
Pit wood or Pit props .	£2,535,365
Fir, other than Pit wood or Pit props .	1,542,168
Oak . .	1,184,442
Teak	887,431
Unenumerated . .	230,548
Sawn or Split—	
Fir . . .	17,414,734
Unenumerated .	777,785
Staves	570,859
Furniture Woods and Hardwoods—	
Mahogany . .	797,125
Unenumerated . .	1,182,499
Cabinet and Joiners' work	1,176,641
Woodware and Turnery .	1,168,621
Total .	£29,468,218

These do not include the imports of cutch, gambier, caoutchouc, gutta-percha, etc., amounting to nearly £8,000,000 more.

It would of course be a physical impossibility to produce the greater part of these imports in Britain, but there is no climatic reason why, at any rate, a considerable portion of the following timber should not be home grown :—

Imported from	Russia . . .	£6,639,469
,,	,, Sweden and Norway	8,277,653
,,	,, Germany . .	1,365,233
	Total .	£16,282,355

Before enumerating the more important literature touching on the economic aspects of forests, special and prominent mention must be given to the very masterly and complete short treatise on the history of forestry, and the national-economic importance of forests and of forest-produce, which is comprised in the three articles on *Forsten*, contributed by Prof. M. Endres of Tübingen to the *Handwörterbuch der Staatswissenchaften*, edited by Conrad, Elster, Lexis and Löening, 1898-1901.

[Rau, *Lehrbuch der Polit. Oekonomie*, article "Forstwirthschaft," by Wagner-Nasse.—Schönberg, *Handbuch der Polit. Oekonomie*, art, "Forstwirthschaft," by J. v. Helferich.—Lorey, *Handbuch der Forstwissenschaft*, 1886, art, "Forstpolitik," by J. Lehr.—*Encyclopædia Britannica*, art, "Forests."—W. Schlich, *Manual of Forestry*, 1887, vol. i. pp. 13-96.—*Nineteenth Century*, art, "Woodlands," July 1891.—*Edinburgh Review*, art, "The Penury of Russia," January 1893.—J. Nisbet, *British Forest Trees*, 1893, Preface and Introduction.—Roscher, *Nationalökonomie des Ackerbaues*, etc., bk. iii. ch. iii.—*Ein nationalökonomisches Hauptprinzip der Forstwirthschaft*, 9th ed., 1878.—B. E. Fernon, *Forest Influences*, U.S.A., 1893.—Professor Isaac Bayley Balfour, *Address on Forestry at the British Association*, § D. (Biology), Oxford, 9th August 1894.] J. N.

FORETHOUGHT. Forethought may be defined as that species of imagination which enables a man to realise at any given time his probable wants in the future. What is not immediately present to the senses cannot excite intense fear or desire unless it be vividly realised by the imagination. Without forethought, therefore, it would be impossible for a man to deny himself now in order that he might enjoy hereafter. He might desire riches as the means of instant enjoyment; but he would not accumulate riches as the means either of enjoyment or of production in the future. Thus forethought is the necessary condition of all saving, and therefore of the formation of capital.

The degree of forethought possessed by any race or individual is determined by causes too numerous and too obscure for complete enumeration. Among the more obvious of these causes is climate. In some countries the climate is so benign as to provide the means of life and of pleasure almost without any assistance from man, in others the climate is so rigorous that, with the most pinching parsimony, only a bare existence can be gained. In neither case can we expect much forethought from the inhabitants. In the one case they are comfortable without forethought, in the other case no forethought could make them comfortable. Moreover a luxurious climate relaxes, and a frozen climate benumbs the intellectual powers. It is in the intermediate climates that man can do most to better his condition and has most mental energy to conceive and to desire improvement.

Another influence which affects forethought is religion. Some religions have stimulated, others have repressed the natural instinct to enjoy the present which so often operates against forethought. It is true that the ascetic temper which condemns pleasure condemns also the pursuit of riches. Yet no communities have developed a higher degree of forethought than Scotland and New England, where an austere religion has been all but universally accepted. In such communities the enjoyment of the passing hour is doubly difficult, and the mind even of the ordinary man is forced to direct itself upon the future. A third influence is government. Men will not deny themselves in order to attain a remote object unless they have fair grounds for hoping that their self-denial will bear fruit. Such grounds they can have only under a tolerably good government. A government which takes an undue proportion of the national means to fill its treasury, or which permits its servants to practise extortion, or which fails to defend public order against foreign assailants or domestic criminals, or which maintains the thoughtless in comfort at the charge of the provident—still more a government which commits many of these faults—will effectually weaken forethought, and may in time reduce the richest country to penury. On the other hand a good and orderly government will stimulate forethought to such an extent as to cause a steady accumulation of capital. Another influence is education. In so far as education weakens the force of momentary appetite, and strengthens the reflective and imaginative powers, it tends to increase forethought.

Yet another influence affecting forethought is the opportunity for safe and profitable investment of savings. The motives to save are stronger where savings can be not merely hoarded but so employed as to produce an immediate return. In this way the modern development of joint-stock companies has done much to diffuse forethought. But where forethought is general the accumulation of capital will gradually lower the rate of interest and profit obtainable. Whether this process will ultimately weaken forethought by lessening its returns is a question which we are hardly in a

position to solve. We have not sufficient materials for judging the effect of a very low rate of interest continued for a very long time. As yet the rate even in the richest countries appears sufficient to stimulate forethought. A certain amount of saving has always been prompted by the need of a reserve fund against old age, sickness, or other calamity, and has therefore been independent of the attraction of interest, indeed where the rate of interest is low more must be saved for these purposes and for the benefit of children, to produce the same income. But such saving as is prompted by the desire to better one's condition, to increase one's income, must be discouraged as the future return to a given exertion of immediate self-denial becomes less and less. Saving of this kind was narrowly restricted in those states of society in which there were few modes of safe and lucrative investment. Much that would now be saved was then spent upon stately houses, large retinues, massive plate, and gay clothing. It is at all events possible that, as investments become less profitable, the taste for unproductive expenditure may become stronger. Taking mankind as a whole, it may safely be said that they are deficient in forethought. Yet there are many individuals whose forethought is excessive. Forethought is not, like truth or justice, a virtue of which one cannot have too much. It is a faculty which needs to be balanced by other faculties. Men defective in a healthy power of enjoyment or constitutionally timid or stunted in feeling by early privation do frequently over-estimate the future in comparison with the present, and persevere in this error until they are ready to descend into the grave. In such men the habit of looking to the future has become a disease fatal to happiness and pernicious to their higher nature. Nay, it sometimes goes so far as to defeat its own object, the accumulation of riches. For the miser will deny himself the recreation and even the food needful to his full efficiency as a producer. The firm and tranquil temper which can duly balance the future with the present may not always tend to the greatest individual accumulation, but it is most conducive to the general well-being.

[Adam Smith, *Wealth of Nations*, bk. ii. ch. iii., Of the Accumulation of Capital.—Mill, *Principles of Political Economy*, bk. i. ch. xi. ; On the Law of the Increase of Capital.—Marshall, *Principles of Economics*, bk. iv. ch. vii., On the Growth of Wealth.—Bagehot, *Economic Studies*.]

F. C. M.

FORFEITURE is the loss of property or of rights in consequence of some act or omission on the part of the owner of the property or of the person in whom the right was vested. Forfeiture of leasehold property in consequence of a breach of covenant on the part of the lessor is now comparatively rare, as recent legislation enables the lessee in most cases to remedy the breach before the lessor can enforce his right (see ENTRY, RIGHT OF). Forfeiture may occur through the non-observance of a condition imposed by the will or settlement under which property is held (*e.g.* when property is given over to a third person in the event of the tenant for life, remarrying, or changing his religion or his name, or becoming a bankrupt, etc.). E. S.

Formerly, when a man was convicted of treason or felony, he forfeited all his property both real and personal. By a barbarous legal fiction his blood was said to be corrupted so that descent could not be traced through him, and upon his execution his children had no claim to his land. It therefore escheated to the lord in cases of felony and to the crown in cases of treason. It was thus that the demesne of the crown was so often enlarged when great landowners suffered for treason. The personal property, whether of the traitor or of the felon, passed to the crown immediately upon his conviction. This aggravation of punishment was objectionable on many grounds. If the felon or traitor actually suffered death, any further punishment was unnecessary. Forfeiture of property in such a case bore most hardly on the innocent widow and children. If the punishment of death were remitted there was the further inconvenience of taking away a man's livelihood and adding to his temptations as soon as he was set at large. Lastly the penalty of forfeiture acted as a temptation to rulers to seek the conviction of a wealthy accused person. For these reasons it had often been condemned by theoretical writers before it was abolished by the act 33 & 34 Vict. c. 23. Under this act, however, a person convicted of felony and sentenced to twelve months' imprisonment or upwards is still liable to forfeit any office under the crown, any ecclesiastical benefice, any place in a corporation, or any pension which he may hold.

Another case of forfeiture occurs when the lessee of land breaks a covenant in his lease to which a proviso for re-entry is attached. In such a case the lessor could formerly sue on the covenant without more ado. But by the Conveyancing and Law of Property Act of 1881 (44 & 45 Vict. c. 41) he must now serve on the lessee a notice specifying the particular breach complained of, and require him to remedy the breach or make compensation. Only if the lessee fails to comply within a reasonable time can he enforce his right of re-entry, and even then the court has full discretion to grant the lessee relief on reasonable terms. These provisions do not apply to the breach of a covenant against underletting, or to the case of non-payment of rent. Indeed they are only intended to protect the lessee against forfeiture in cases where it is an excessive penalty, and thus to increase his reasonable security.

Under the feudal land law a freehold tenant might forfeit his land by certain breaches of the conditions on which he held it.

Smugglers are still liable to forfeiture of the goods smuggled, in addition to other penalties.

The Post Office Savings Bank regulations decree the forfeiture of deposits in other savings banks which are concealed at the time the Post Office account is opened, in spite of the depositor's declaration to the contrary. Partial forfeiture to the National Debt Commissioners under this rule are of constant occurrence.

[Sir James Stephen's *History of the Criminal Law of England*, vol. i. pp. 487-489.—Goodeve, *Modern Law of Real Property.*—Williams, *Law of Real Property.*—Woodfall, *Law of Landlord and Tenant.*—*The Conveyancing and Law of Property Act*, 1881, ed. Clark and Brett or ed. Wolstenholme.] F. C. M.

FORGED TRANSFER. The risk to which buyers of shares, stock, or debentures transferable by deed of transfer were formerly exposed, owing to the possibility of the vendor's signature on the transfer being forged, has been considerably reduced by the Forged Transfer Acts of 1891 and 1892. These acts enable companies and local authorities to make compensation to persons to whom certificates have been issued in pursuance of such forged transfers, and have already been very widely adopted. It must, however, be borne in mind that the adoption of the acts is purely voluntary, and that in the case of companies who refuse to recognise the rights of defrauded purchasers, the old state of things continues. E. S.

FORGERY. "There is," says Mr. Justice Stephen (*History of the Criminal Law*, vol. iii. p. 186), "no statutory definition of forgery. The common law definition is making a false document with intent to defraud." Making includes, not merely the composition of an entire document, but also altering a document or signing it in the name of another person. Intent to defraud is presumed to exist if at the time of making there was in existence a specific person capable of being defrauded thereby. There are as many kinds of forgery as there are instruments which can be forged. Forgery was a misdemeanour at common law.

The first severe statute directed against forgery is the 5 Eliz. c. 14. In the 18th century the use of paper money and the increase of trade gave an impetus to forgery which it was sought to counteract by statutes making many forms of forgery capital. The law was mitigated by the Act 11 Geo. IV. and 1 Will. IV. c. 66, and again by the Act 7 Will. IV. and 1 Vict. c. 84, but forgery of the great seal remained treason and capital until 1861, in which year the statute law relating to forgery was consolidated by the Forgery Act 1861 (24 & 25 Vict. c. 98). Forgery of the great seal, of securities in the public funds, of bank-notes, bills of exchange, wills, and certain other documents, is punishable by penal servitude for life. Other kinds of forgery are punishable with maximum terms of fourteen and seventeen years' penal servitude respectively. Forgery of a trade mark makes the offender liable to two years' imprisonment with hard labour. The making or possessing of instruments or paper for forging bank-notes is also severely punished. In general the uttering of a forged document, *i.e.* the offering or disposing of a forged document knowing it to be forged, is punishable as severely as the act of forging. The scope of forgery increases with the multiplication of documents consequent on the advance of civilisation, and the progress of science perhaps affords as many new expedients to the forger as safeguards to the public. These considerations may perhaps justify the great severity of even the modern law of forgery.

[For the present state of the law of forgery see Stephen, *Digest of the Criminal Law*, Arts. 355-366, and for its development see Stephen, *History of the Criminal Law*, vol. iii. pp. 180-188.] F. C. M.

FORMALEONI, Vincenzo (18th cent.), a man of much learning, born and lived at Venice.

Saggio sulla Nautica dei Veneziani, con una illustrazione di alcune carte idrografiche della Biblioteca di S. Marco in Venezia, dimostranti l'Isole Antille prima della scoperta di Cristoforo Colombo, Venezia, 1785 (translated into French by Chev. Dr. Hénier, Venise, 1788).—*Storia filosofica e politica della Navigazione, del commercio e delle colonie degli antichi, nel Mar Nero*, Venezia, 1788 (id. id., Venise, 1791). A. B.

FORMARIAGE, Droit de. This was a feudal right of the French lords to exact a payment from a female serf when she married either a freeman or the serf of another lord. R. L.

FORONDA, Valentin de. In his *Miscelánea* (Madrid, 1787), in his *Cartas sobre los asuntos mas exquisitos de la economia política.* (Letters on the most interesting questions of Political Economy) (Madrid, 1794), and in his *Cartas sobre la policía* (Letters on Policy). (Madrid, 1801). Foronda was one of the first to popularise the new economic ideas in Spain. He advocates commercial and industrial *laissez-faire*, and opposed all measures contrary to free trade, "the pole star which ought always to be kept in sight."

[Colmeiro's *Biblioteca de los Economistas Españoles*, p. 87.] E. Ca.

FORONDA, Valentino—name used by Fabbroni, Giovanni, in publishing his letters:

Della prosperità nazionale, dell' equilibrio del commercio e dell' istituzione delle dogane, Firenze, Tofani, 1789. (*v.* T. I° of the *Scritti di Pubblica Economia di Giovanni Fabbroni*, pp.83-110). A. B.

FORSTER, Nathaniel, D.D. (1726 or 1727-1790), rector of All Saints, Colchester.

Besides some sermons and a pamphlet on Wilkes, he wrote *An Enquiry into the causes of the Present High Price of Provisions*, 1767, and an *Answer to Sir John Dalrymple's pamphlet upon the Exportation of Wool*, 1783. Perhaps the best parts of the *Enquiry* are the arguments against breeding horses instead of oxen for farm work, and an explanation of the effect of enclosures upon the price of pigs, poultry, and eggs. The economic arguments are weakened by his neglect of the rate of wages, and by his treatment of wealth and money as synonymous. In his pamphlet on wool he strongly objects to the exportation of raw wool, on account of home manufactures, which, he argues, would in consequence rise in price and be undersold by foreign goods.

[*European Magazine*, vol. xvii., 320.—*Dictionary of National Biography*.—M'Culloch, *Literature of Political Economy*.] E. G. P.

FORTI, E., was, from 1875 to 1878, editor of the *Giornale degli Economisti*, at Padua, and a strong supporter of the "socialists of the chair."

L' Azione economica del Parlamento, dal 23 Nov. 1874 al 20 Giugno 1875, e dal 15 Nov. 1875 al 26 Luglio 1876.—*Giorn. degli Economisti*, Padova, 1875 e 1876. A. B.

FORTREY, SAMUEL (1622-1681), author of *England's Interest and Improvement consisting in the increase of the Store and Trade of this Kingdom*, Cambridge, 1663, was gentleman of the chamber to Charles II., clerk of the deliveries of the ordnance in the Tower, and a bailiff in the Corporation of the Great Level. He belonged to a family of Flemish refugees, who had settled as merchants in London. In his tract he writes in favour of immigration, inclosure, and a reform of the coinage, and urges that the king should set the fashion of preferring English-made goods to foreign manufactures, which should further be discouraged by high import duties. Subsequent mercantilist writers very frequently quoted an account which Fortrey says he obtained from a "particular not long since delivered in to the king of France." This gives a detailed list of the English imports into France, and the French exports to England, making the total value of the imports from England £1,000,000, and that of the exports to England £2,600,000. Fortrey and his followers concluded that this showed that England lost £1,600,000 a year by her trade with France. The tract was reprinted in 1673, 1713, 1744, in Whitworth's *Tracts on Trade and Commerce*, 1778, and in Lord Overstone's *Select Tracts* (vol. on "Commerce") 1856.

[*Dictionary of National Biography*.] E. C.

FORTUNATO, NICOLO (living at Naples in end of 18th century), was one of those writers who, after studying carefully the evils then afflicting the kingdom of Naples, and the true sources of its wealth, pointed out the proper remedies and the way in which to put theory into practice. According to him economics are a part of philosophy, and may be divided between public economy (proper to a prince), and private (proper to families), which is limited to individuals. Fortunato dwelt on the true sources of public wealth, pointing out England as the example in this, the principles of economic science being well known there, and practised by the encouragement of agriculture, by permitting free exports of produce, by keeping the carrying trade to the national shipping, etc. He criticised the system of taxation then maintained in the kingdom of Naples, and proposed an equitable basis of custom-house duties, the abolition of internal tolls, and a uniform assessment for the taxes. He showed the necessity of a census of the population, and supported—like Gianni and Neri in Tuscany, though less fortunate than they, as they saw their ideas put into practice—the free export of corn.

Riflessioni intorno al commercio antico e moderno del Regno di Napoli, di Nicola Fortunato, Napoli, 1760. A. B.

FORTUNE, E. F. THOMAS, stockbroker, author of *Epitome of the Stocks and Public Funds*, 1796, which ran to seventeen editions; of *A Concise and Authentic History of the Bank of England, with Dissertations on Metals and Coin, Bank Notes and Bills of Exchange*, 1797 (translated into French 1798? a third edition issued in 1802) intended to defend the bank against adverse rumours caused by a temporary stoppage of cash payments ordered by government and sanctioned by parliament; and of *National Life Annuities, comprising all the Tables and every necessary information contained in the act of Parliament for granting the same*, 1808.

[*Brit. Mus. Catalogue*.—*Biographical Dictionary of Living Authors*, 1816.] E. G. P.

FOSSOMBRONI, VITTORIO, Count (about 1800), professor in the university of Pavia.

Idee sui vincoli commerciali. Lettera d' un professore dell' Universita di Pavia (1 Giugno 1804). (*v.* Fabroni's *Scritti*, etc., pp. 336-417.) A. B.

FOSTER, JOHN LESLIE (*d.* 1842), grandson of Anthony Foster, lord chief baron of Ireland, was an Irish judge, and member of parliament on the Tory side for Dublin University 1807-1812, for Yarmouth, Isle of Wight, 1816, for Armagh 1818-1820, for Louth 1824, 1826. He spoke frequently (see Hansard under above years) chiefly on Irish subjects, such as Catholic Relief, Irish Grand Juries, and the Irish Insurrection Bill. He wrote an *Essay on the Principle of Commercial Exchanges, more particularly on the Relations between England and Ireland*, 1804. Through an argument against the old theory that the wealth of a nation is proportionate to the excess of its exports over its imports, in which he shows that the balance of debt is distinct from the balance of trade, he

proceeds to a discussion of the financial relations then subsisting between England and Ireland; he describes, in an original way, the loss suffered by Ireland through remittances to absentees and the interest of her debt payable in England, which caused an increase of imports and a decrease of exports; and he concludes with an argument to show that the rate of exchange does not depend on the balance of debt but on the cost of transmitting specie, and with a description of the monetary evils caused by bank restriction. The first chapter treats of the general principles governing the balance of trade, showing that foreign expenditure and other international financial relations help to produce the balance of *debt* of which the balance of *trade* forms only a part, if the larger part; that the balance of trade, whether favourable or unfavourable, can never be permanent, as the varying value of the circulating medium, which is here treated on the same footing as any other commodity, will always restore the equilibrium. The old theory that the wealth of a nation is proportionate to the excess of exports over imports is replaced by an argument to show that such excess is a loss to the nation, being the payment without return for foreign expenditure. The following proposition sums up the argument: "If the exports to all the world could be added to the amount of specie exported, they would be found equal to the amount of imports and of foreign expenditure." The rest of the essay is devoted to the financial relations of Ireland with England, and deals less with general principles than with existing facts. Ireland's foreign expenditure is shown to be a loss to her: remittances to absentees cause industry, but, the produce of this industry being exported without return, Ireland, though not being ruined, cannot accumulate capital but spends her savings on the absentees; while the raising of Irish loans in England interferes, by introducing an unnatural supply of specie into Ireland, with the natural relation between exports and imports and specie. Irish imports are increased and exports diminished in proportion to the balance of debt. The effects of bank restriction are then adversely discussed, and the rates of exchange explained as depending on the cost of transmitting specie, not, as hitherto generally believed, on the balance of debt. In the case of Ireland the rate of exchange is unfavourable, owing to English trade regulations which increase the cost of transmission, though the balance of debt is favourable. The essay closes with a detailed view of the causes of and the remedies for the excessive issue of paper money in Ireland, shows that only inconvertible paper can be issued in excess, and recommends the regulation of the issue by law. The whole essay is distinguished by clearness of style, by lucid reasoning, and by enlightened views.

[*Times*, July 13, 1842.—See M'Culloch's *Literature of Political Economy* for notice of remarks on Irish absentees.] E. G. P.

FOSTERLAND. Land set apart to provide a sustenance for a particular person or persons. [Cowel's *Interpreter*.] A. E. S.

FOTHER. See Measures and Weights.

FOUAGE, or Feuage, the French equivalent of our hearth-tax. The most famous, though not the earliest, imposition of this tax was under Charles V., when it provoked numerous revolts, and Charles was induced to abolish it on his deathbed. But the *fouage* remained a provincial impost in Brittany, and the extraordinary injustice of its assessment was the great subject of discussion at the meeting of estates of Brittany in 1788, where, according to some writers, the Revolution really began.

[For the *fouage* in Brittany, see Bertrand de Moleville, *Mémoires Particuliers*, i. p. 36.] R. L.

FOUCQUET, Nicolas (1615-1680), began public life under the auspices of Richelieu, and, after the death of the Cardinal, continued to enjoy the protection of his successor Mazarin, and was created Marquis of Belle Isle. He was successively made minister of state, superintendent of finance, and general attorney in the parliament of Paris; finally he was arrested in 1661 on a charge of embezzlement. The question of his culpability is doubtful: he had incurred the persistent aversion of Louis XIV., acting under the hostile influence of Colbert, and was sentenced to the confiscation of all his property and to perpetual banishment, which the king "commuted" into perpetual confinement. Foucquet died in 1680, after fifteen years' captivity, during which he composed several works of piety and the *Défenses de M. Foucquet* (15 vols. 1665-1667). Some of his old friends, among others La Fontaine and Madame de Sévigné, remained faithful to him until the end.

The study of his trial is interesting on account of the light it sheds on the management, and also the mismanagement, of French finance under Louis XIV.

[Chéruel, *Mémoires sur la vie publique et privée de Foucquet* 2 vols.—Pierre Clément, *Histoire de Colbert.—Nicolas Foucquet* (2 vols. 1890) by M. Lair, who has printed several unpublished documents on this subject. A very complete account, based on M. Lair's book, will be found in the *Revue des Deux Mondes* (1st and 15th December 1890).] E. Ca.

FOUNDLING HOSPITALS. These institutions illustrate the dangers of attempting to gratify charitable impulses without due regard to consequences. Foundling hospitals relieve after more or less of inquiry, and with more or less of restriction, children whose parents cannot or will not support them. Sometimes they are voluntary institutions, sometimes maintained and directed by the state, sometimes they receive only illegitimate children, as is

the case with the Foundling Hospital in London, sometimes children born in wedlock as well. Their object is threefold, viz. (1) that child-murder and exposure may be prevented, as being without excuse; (2) that a better training and education may be given to the children than would be given by the parents; (3) that a retreat may be found for the victims of seduction. What are their effects?

Malthus has pointed out the excessive mortality which the system occasions. He found that in the Maison des Enfants Trouvés at St. Petersburg, in spite of every precaution, the number of deaths was almost incredibly high. At the London Foundling Hospital, in the middle of the last century, the system was adopted of taking all comers; as a result, in a little less than four years 14,934 were received, of whom but 4400 lived to be apprenticed; and, as a further result, large numbers died whilst being carried to the hospital from every part of England by unscrupulous contractors. The same writer has shown that they infallibly give encouragement to vice. Not only do they remove one of the most powerful motives to conduct, viz. a dread of public opinion, but they also guarantee an escape from the responsibilities of paternity; thus marriage is discouraged and illicit unions are encouraged. Lastly, they help to lower wages, "by artificially increasing the number of apprentices," for "the demand for labour among the legitimate part of the society must be proportionally diminished, the difficulty of supporting a family increased, and the best encouragement to marriage removed." In answer to the argument that they diminish exposure and infanticide, Malthus remarks, "An occasional child-murder from false shame is saved at a very high price, if it can only be done by the sacrifice of some of the best and most useful feelings of the human heart, in a great part of the nation."

These criticisms on a system of foundling hospitals are borne out by a consideration of the history of these institutions in England and France. The London Foundling Hospital was established in 1741 by Captain Coram for the "maintenance and education of exposed and deserted young children." At first admission was restricted owing to want of funds, but by a resolution of parliament, 5th April 1756, the maintenance of the hospital was undertaken by the nation, and the gates were thrown open to receive all children who should be offered. On the first day 117 were admitted, in the next three years and ten months no fewer than 14,934, at the end of which time parliament withdrew its subsidy. The present practice of the hospital is to admit only illegitimate children, under one year old, who are not paupers, are the first-born of their mothers, and whose fathers are unknown or not, from whatever cause, liable for their maintenance. A total of 504 children is received, of whom the younger are put out to nurse in the country, and 330 are educated in the hospital itself.

France differs from England, fundamentally, in the fact that desertion is not an offence in that country, unless it be accompanied by injury or risk to the child. By the decree of 18th January 1811, every *arrondissement* was to contain a *hospice* for foundlings, and to every *hospice* was to be attached one of the famous *tours* for their reception. In these *tours* any child might be placed without risk of identification, and become henceforward the ward of the state. As a result, in 1833 no fewer than 136,943 children were maintained at the public expense, which led to successive acts of the legislature reducing the number of *tours*, and the facilities for desertion, till in 1858 the figure stood at 76,520. The *tours* are now abolished, but all children are received *à bureau ouvert* without restriction.

[The criticisms of Malthus may be seen in his *Principles of Population*.—The *History of the London Foundling Hospital* has been written by Brownlow (1858).—The various provisions, etc., for *Enfants Trouvés* in France are set forth in *Régime et Législation de l'Assistance Publique et Privée en France*, by Léon Béquet, *Die Armengesetzgebung Frankreichs*, by the Freiherr v. Reitzenstein (Schmoller's *Staats- und socialwissenschaftliche Forschungen*, vi. 4), and *Législation Charitable*, by A. de Watteville.] L. R. P.

FOURIER, CHARLES (1772-1837) born at Besançon, died at Paris. He was one of the best-known French socialists, the founder of the school which takes its name from him (*École fouriériste sociétaire ou phalanstérienne*). Personally he was mild and sympathetic, possessing a singularly rich vein of imagination. His father was a linen-draper, and he himself was ruined when the city of Lyons was besieged by Chalier in October 1793. He had joined, like Jacquard, the army of the Count de Precy, who defended that city against the Convention. Fourier was fortunate enough to escape the scaffold, but he had to enlist, and passed two years under the colours. Having retired from active service, he started in life afresh in 1799, at Marseilles, as a commercial traveller attached to a house of business, and after that time was never out of employment, though this might be in a very humble capacity, living in the most quiet manner, his only amusements being the dreams on which the doctrines of his school were based. Fourier's disposition was gentle and conciliatory, and though his system might call up a smile, it never provoked hostility either before or after his death. Fourier commenced thinking out his system as early as 1799, but it was not till 1808 that his first work, a single volume in 8vo, appeared, entitled *Théorie des quatre mouvements et des destinées générales* (2nd ed. 1841). This

contains what he proudly called his discovery. He sets forth in this that our planet is destined to exist for 80,000 years, of which 40,000 are occupied with ascending, and 40,000 equally with descending vibrations. The first 5000 years are occupied with the movement upwards out of chaos. They contain seven successive periods of retrogression: (*a*) the series of confusion (shadowing—happiness); (*b*) the savage state; (*c*) the patriarchal; (*d*) barbarism—of progress; (*e*) civilisation (that in which we live); (*f*) *garantisme* (a state in which we are under protection); finally (*g*) series merely sketched out (the twilight of happiness). The 35,000 years which follow are designated "the ascending harmonies." They contain nine periods: first, the series of simple combinations (the *dawn* of happiness); then seven composite ascending series; finally, one entitled "First septigenesic creation, advancing to perfection." The world will then enter (in 35,000 or 38,000 years) into the *apogee* of happiness. This is to last about 8000 years. After this the descending period (40,000 years) is to commence, which is to be passed through in an order symmetrically corresponding with the ascending period. Then the author, with a boldness of conception which disdains to indicate the course of the investigations which led him to this marvellous discovery, foresees, in an epoch comparatively nearer to our own, that is to say about 10,000 years distant, the advent of a "Northern Crown" (resembling the ring of Saturn) which, "through the influence of this crown, will usher in the disinfecting the oceans, and the perfuming them by means of the boreal fluid and an aromatic dew." This blessed result will last about 40,000 years, for the author, whose exactness is most conscientious, lets us know that all these figures respecting periods are based on the division of the whole into eighths. It is true that when the 40,000 years of the ascending period are added to the 40,000 years of the descending period, the 8000 years which form "a central or amphiharmonic period," and occupy the very centre of the existence of the earth, are omitted. It is indeed sad that this should be the case, for this period, 8000 years of perfect felicity, is the apogee of happiness.

But all will desire to know what the four Movements are which Fourier indicates. These are "the social, the animal, the organic, and the material." Ten years later Fourier perceived that he had omitted one, which he describes as "the Aromatic," that is to say, "the system of the distribution of the aromas which sway men and animals, and form the germs of winds and epidemics, governing the sexual relations of the stars, and furnishing the specific characters of the different species." It should not be forgotten that Fourier regards the stars as having a life of their own. They are born and die. The moon is a dead planet, a corpse. Our own planet, as has been seen, will live for 80,000 years (more or less, within an eighth) and then will die. Fourier explains the way the stars come into existence in a note. A star may be generated: (1) Self-generated from a simple star through its north and south poles; (2) from another star through the contrasting poles; (3) from intermediaries, as the tuberose comes into existence from three aromas (*Terre-sud*, *Herschell-nord*, and *Soleil-sud*). To return to our poor planet which has to wait 38,000 years for complete happiness. The most eminent disciples of Fourier (V. Considérant, H. Renaud, and Hennequin, for example) have not followed him in his description of the future of the universe. They have contented themselves with accepting the organisation of society heralded by their leader. What is this organisation of society? Fourier starts from the position that neither passions nor inclinations are evil in themselves. What renders them so is the medium through which they develop. In a complete condition of harmony—it is thus that Fourier designates the final end to be attained—every passion will contribute its share to the general good, a prosperity so perfect that those who are the most difficult to please will be satisfied a hundredfold. In his system there is no appeal to self-devotion, but to the most unrestrained desires, to the most unbridled passions. Men and women are to be classified in accordance with their inclinations. Fourier expects to raise work from mere drudgery, as it is under our miserable state of civilisation, to being pleasant and attractive. To attain this he would have for the motive-power, not a sense of duty, nor even self-interest, but the passions. If every one only works as his fancy and his inclinations lead him all will be well. In order to reach this result he divides the workers into series and groups, and utilises their defects. Even their vices become, when arranged in harmony, useful stimulants. It would be somewhat tedious to follow Fourier through all the details of an organisation of society which, while most original, yet unfortunately panders to the physical appetites in a manner which renders his writings sometimes of dubious propriety. He extends the idea of the family in a singular manner. Thus a woman was to be allowed several husbands—a spouse, a father to her children, and a favourite, besides mere possessors—under different titles and with different rights, but all variable, according to taste or caprice. The man also is not in these matters bound to a very strict life. According to Fourier this liberty of love is to make an end to the vice and the hypocrisy of our civilisation. But would not this condition of things be itself a state of vice? According to our socialist this would not be the case, for in the state of harmony that which is vice to us

becomes virtue, and *vice versa*. As will be seen, Fourier has treated morality in the same easy-going style that he has treated natural science.

From the point of view of an economist and an administrator, Fourier organises the *Phalange*, which was to take the place of the *Commune*. The *Phalange* has for its centre (dwelling, workshop, school, town hall, and everything else) the *Phalanstery*, in which a life in common is carried on under certain rules which recall those of our early monasteries. The workers of each phalange, divided into series, groups, or sub-groups, according to their inclinations, are to go out to work as soldiers go out to drill. The individual disappears, and is replaced by the groups. Thanks to this marvellous organisation which through its perfection foresees everything, and provides for every want, prosperity replaces poverty, cheerfulness replaces all cares and troubles, good order and morality, as interpreted by Fourier, vice and crime. The chief of each phalange is entitled the *Unarque;* three or four phalanges when united are placed under the charge of a *Duarque*, twelve phalanges under that of *Triarque*, and thus onwards to *Tetrarques*, *Pentarques*, *Exarques*, up to the *Omniarque* who governs the entire system of the phalanges (Fourier makes their number 2,985,984, neither more nor less). The omniarch is the sole ruler of our globe, and decides to live at Constantinople, which is to become the capital city of this world. He has to look after all these dignitaries, both small and great, the elected commissioners, etc. etc. The group or sub-group ought to be composed of at least nine persons; the series includes from twenty-four to thirty-two groups or sub-groups. The number of the series of each phalange is not fixed. In this happy community there are neither to be courts of justice nor judges. How could these be needed since every error or crime, as we might term it, is a useful motive power. There is to be a division of profits in each phalange, as profits are to reach the consumer by means of exchanges, and not through any authoritative distribution. Capital is to be preserved in this stage, and the profits in the phalanges to go by shares. The division was to be between capital four-twelfths, labour five-twelfths, and ability three-twelfths. But how can consumption regulate production in this medium in which there is nothing to direct any one to useful labour except his instincts, his feelings, or his passions? Fourier has omitted to inform us. One has to feel that in working through all this detail our author has never troubled himself about any crisis, whether caused by Man or Nature. All that we have stated and a vast deal more is to be found with but few exceptions in the work he wrote when launching his scheme, which bears the title of the *Théorie des quatre mouvements.*

[Fourier, however, went into more circumstantial details in other works, as *Le traité de l'association domestique agricole ou attraction industrielle*, 2 vols. 8vo, 1822; reprinted in 1841-43 in 4 volumes under the title of *Théorie de l'unité universelle*, *Le nouveau monde industriel et sociétaire* etc., 1 vol. 8vo, 1829. Two other editions have followed, the last (the 3rd) in 1848.—*Pièges et charlatanisme des sectes de Saint Simon et d'Owen*, 8vo, 1831, and finally *La fausse industrie morcelée, répugnante, mensongère, et l'antidote l'industrie naturelle, combinée, attrayante, véridique*, etc., 1835-36, 1 vol. of 840 pages. Periodical journals were also established to spread a knowledge of the societary doctrine. (1) *Le Phalanstère*, 1832-34, which became (2) *La Phalange*, 1835-1843, transformed after the death of Fourier into (3) *La démocratie pacifique.* This was the best known of all. It was suppressed by the *coup d'état* of 2nd December 1851. Fourier has been followed by many disciples both in France and in other countries, and a larger number still have adopted his ideas of social organisation. The best known of these is M. Victor Considérant, still vigorous at the age of eighty-five (written in 1893), hardy mountaineer as he is. All of Fourier's disciples have followed peaceful methods of propagating their ideas, and like their master, have lived generally respected. Attempts to establish phalansteries have been made at various times, but without success. At Condé-sur-Vesgres, and in 1832-33 at the expense of MM. Baudet-Dudlary and Devay brothers, who were disciples of the school, at Citeaux, in the buildings of the old abbey (a good choice so far). This last effort, under the guidance and at the expense of the brothers Young, was made in Algeria, l'Union du Sig, which afterwards was transformed into an ordinary business enterprise. In Texas, the colony was under the management of M. Victor Considérant. The FAMILISTÈRE (*q.v.*) at Guise borrows part of its regulations from Fourier. But these appear to be based on those laws which Fourier in his turn had borrowed from that natural organisation which political economy describes, see Ch. Gide's "Charles Fourier" in Guillaumin's *Petite Bibliothèque Écon.;* also J. S. Mill's *Principles of Pol. Econ.*, vol. i. bk. ii. chap. i. §§ 3, 4.] A. C. f.

"Communism," Professor H. Sidgwick remarks (*Principles of Pol. Econ.*, bk. iii. ch. vii.), "is generally regarded as an extreme form of socialism, in which the most thoroughgoing antagonism to the institution of private property is manifested. . . . The proposal to organise society on a communistic plan, so as to distribute the annual produce of the labour and capital of the community either in equal shares, or in shares varying not according to the deserts, but according to the needs of the recipient, is one of which the serious interest has now passed away; though a generation ago it had not a few adherents, and was supported with earnestness and ability by more than one competent writer."

FOURPENCE OR GROAT. The first English silver coin of greater value than the penny; called a groat or grosse because of its size.

Reign.	Year.	Weight grains.	Fineness.	Value.	
				In silver 925 fine at 5/6 an ounce.	In silver francs 900 fine.
				d.	franc
Edward III.	*1351*	72	925	10	·96
Henry IV.	*1412*	60	,,	8½	·80
Edward IV.	*1464*	48	,,	6¾	·64
Henry VIII.	*1527*	42·5	,,	5¾	·57
Do.	*1543*	40	,,	5¼	·53
Mary	*1553*	32	,,	4½	·43
Elizabeth	*1601*	31	,,	4¼	·41
Charles II.	*1663*	Discontinued			
Victoria	*1836*	Recommenced			
Do.	*1836*	29·09	925	4	·39
Do.	*1856*	Again discontinued			
Do.	*1888*	Struck for use in the Colony of British Guiana only			
Do.	*1891*	Special coinage bearing the inscription "British Guiana and West Indies."			
Edward VII.	*1903*				

Groats struck at the present time bear the word "Fourpence" on the reverse. The coinage of Maundy fourpences was not discontinued in 1663, but these coins have been struck each year from that date till the present time (1906). F. E. A.

FRACHETTA, Girolamo (16th century), a statesman who, writing on financial matters, in reference to the duties of a ruler, considers it incumbent on him "to maintain abundance." He argued that for this purpose the nobility should bear their share of the public burdens, contributing, proportionately to their wealth, to the taxes paid by the common people.

Il Principe, di Girolamo Frachetta, 1597, Venetia. 2ª ediz. riveduta et in molti luochi ampliata dall' autore medesimo, Venetia, 1599. 3ª ediz. 1647. A. B.

FRACTIONAL CURRENCY. In countries using metallic currency, a considerable supply of small change is required in order to carry on the daily transactions of retail trade. This want is generally met by the use of token coins, authorised by law to be received as equal to a certain fraction of the standard of value, although not actually worth so much. Such coins are usually legal tender for comparatively small sums only (*e.g.* British silver coins are not legal tender for a greater sum than 40s.), and are occasionally limited in number to so many per head of the population. Fractional coins need not necessarily be mere tokens, and, indeed, are not always such; but in view of the fact that they are only required for convenience in conducting small transactions within the country of their issue, and are not used internationally, there does not appear to be sufficient reason for losing the profit which accrues on the issue of tokens (see Billon).

F. E. A.

FRANC, History of. The origin of this name, as applied to a coin, is derived from the striking of a gold coin in 1360, on which was represented the king, John II., *the Good*, on horseback, with the legend Johannes Dei gracia Francorum Rex. These *francs à cheval*, as they were called, disappear after the middle of the 15th century. The *franc d'argent* from the first was equivalent to the *livre tournois*, and was worth twenty sous. French writers use the terms *francs* and *livres* almost without distinction, except that usage prescribed the use of *francs* only for even sums. It was possible to say either quatre francs or quatre livres, but not to say quatre francs cinq sols (now sous), the correct phrase being quatre livres cinq sols. The modern franc is the unit of the decimal coinage of France and the Latin Union.

R. L.

FRANC, Coin. The unit of value, as well as the money of account, in the countries forming the Latin monetary union is, in France, Belgium, and Switzerland, called the franc. In Italy it bears the name lire, and in Greece drachma. The franc is divided into 100 centimes, the lire into 100 centesimi, and the drachma into 100 lepta.

The franc may consist of either 4·98 grains of gold 900 fine, or 77·16 grains of silver of the same fineness; the ratio between gold and silver being thus taken at 15½ : 1.

The value of the gold franc in sterling (gold (916·6 fine at £3 : 17 : 10½ an oz.), 9·52d. That of the silver franc is in English standard silver (925 fine at 5s. 6d. an oz.) 10·32d.; but with silver at the price of 30¼d. per ounce (January 1906) the melting value of a standard silver franc is slightly less than 4·8d.

There is no *standard* French coin of the value of one franc, the silver coin bearing that name being a token composed of silver 835 fine, and of the value only of ·93 of a standard silver franc.

The smallest standard coin in gold, and the only one in silver, is of the value of five francs.

F. E. A.

FRANCE, Bank of. See Banks.

FRANCFIEF, Droit de. This was a payment made by a Roturier (*q.v.*) on acquiring lands previously held by a noble. The payment was originally made to the immediate lord, but in the 14th century it was claimed by the crown, and henceforth forms part of the domain revenue. The *droit de francfief* was of great importance in emphasising and maintaining the rigid division of classes in France.

[De Tocqueville, *L'Ancien Régime.*] R. L.

FRANCHI, Carlo (end of 18th century), a Neapolitan lawyer. There had been much discussion in the kingdom of Naples about redeeming the *arrendamenti*—that is, the public income, which had formerly been given to the creditors of the state. This transaction—which would now be termed a conversion of the public debt—had been proposed already by Pompeo Neri in Tuscany, and steps had been taken towards it in the kingdom of Naples by the institution of a council (*Giunta per la*

ricompera degli arrendamenti, 1751), which proposed to reduce the interest to 4 per cent, or to pay off the money lent, principal and interest, with 7 per cent. The latter proposal was accepted, but many difficulties arose about the redemption of taxes; for, as the creditors had received these as their absolute property, they denied the right to take them back. Legal proceedings followed; and it was only in 1753 that the tribunal pronounced a judgment in favour of the government. During this BROGGIA proposed redemption at the current price, which was below the original one. On the other hand, Franchi strenuously defended the creditors in a memoir which Cossa thinks superior for its style to that of Broggia (*Introduzione allo studio dell' Economia Politica*, 1892, p. 251).

[*Memoria da umiliarsi a S. Maestà, in nome dei consegnatari dell' arrendamento dei Sali di Puglia*, 1750.] A. B.

FRANCHISE. (*a*) Any privilege granted by the crown to exercise a right not otherwise exercisable by a subject, *e.g.* the right to have a forest or the right of manorial jurisdiction. The most conspicuous franchise in modern times is the right to hold a market (see MARKET). Franchises are termed "incorporeal hereditaments." (*b*) The right to vote at parliamentary elections. The parliamentary franchise in the United Kingdom has been simplified by the Representation of the People Act of 1884, but is still very complicated. The great bulk of the population vote as householders or lodgers in boroughs or counties. In England a person not otherwise disqualified is entitled to be put on the register as voter in respect of the household franchise:

(1) If he has for twelve calendar months before 31st July in the year in which he claims to be placed on the list, been a resident occupier, as owner or tenant, or by virtue of any office or employment of any dwelling-house within the borough or county for which he claims a vote;
(2) If the premises so occupied have been rated to the poor rate during the time of such occupation;
(3) If the rates payable up to the preceding 5th January have been paid before 20th July of the same year.

Any person not otherwise disqualified is in England entitled to be placed on the register as a lodger if he has for twelve calendar months before the 31st July resided in lodgings in the same house within the borough or county for which he claims a vote, such lodgings being, if occupied by the claimant alone, of the yearly value of £10 (if let unfurnished), and if occupied by the claimant jointly with others, of a yearly value equal to £10 for each lodger (if let unfurnished).

The household and lodger qualifications in Scotland and Ireland are of a similar nature.

Besides this franchise which depends on residence, there is one which depends on occupation of any land or house or part of a house of a clear yearly value of not less than £10—within the borough or county. The conditions as to time of occupation and payment of rates are similar to those to which the household franchise is subject. In English and Scotch boroughs residence within seven miles of the borough is a further condition, but in counties throughout the United Kingdom and in Irish boroughs no condition as to residence is attached to the occupation franchise.

Another kind of franchise is the property franchise, which depends on the ownership of land irrespectively of occupation or residence. The land in respect of which the right is available may be freehold, copyhold, or leasehold; but as regards the last mentioned kind of property the original length of the lease must have been at least fourteen years in Ireland, nineteen years in Scotland, and twenty years in England. The conditions as to yearly value vary between £2 and £5 in the case of freeholds; between £5 and £10 in the case of long leases, and between £20 and £50 in the case of short leases. The ownership of a rent-charge does not, since 1884, entitle to a vote, and in the case of joint tenants only one is now entitled to be placed on the register. In this way two easy methods of creating faggot votes have ceased to be available.

In addition to these general franchises some special franchises exist, viz. the franchise of the freemen or burgesses in certain ancient boroughs, and the university franchise.

In all cases the franchise is confined to adult men who are British subjects. Peers and certain public officers are disqualified, as well as convicts and persons in receipt of parochial relief other than surgical or medical assistance. Persons guilty of certain offences under the Corrupt Practices Act may be disenfranchised for a period which varies according to the nature of the offence.

There are substantial reasons for the agitation for a removal of the numerous anomalies connected with the parliamentary franchise, and much can be said for the principle embodied in the maxim "one man one vote." The usual argument that the present system gives a certain preponderance to property and education which it would be undesirable to remove, is open to many objections. As regards property it will be seen that only landed property is favoured, and only such landed property as happens to be situated in districts in which the owner does not reside. As regards education it is very doubtful whether it has any advantage under the present system. Considering how long education has been compulsory, it is now time for the "illiterate voter" to be removed from the register. As a general rule men belonging

to the educated classes become householders much later in life than uneducated persons, and if they carry on any profession or business, it depends on merely accidental circumstances whether they have one vote or several votes or none at all. A barrister, not otherwise qualified, who has chambers in Lincoln's Inn and resides in Kensington, has two votes; one who resides in Richmond has only one vote; and one who during the summer months has lodgings in Richmond and during the winter months lodges in Kensington can take no part in parliamentary elections. A small tradesman may have a vote in respect of his place of business, and if he has shops in several districts, may have a number of votes, but the manager of a large joint-stock company has no similar privilege. A country banker not otherwise qualified, whose residence is within the borough in which his bank is situated, has one vote; if he lives outside the borough but less than seven miles away from it he has two, if more than seven miles one. Similar instances showing that electoral power does not depend on education may be easily multiplied, and prove that the demand for further reform is not unreasonable. But the maxim "one vote one value" is closely connected with "one man one vote" and the consideration of this would take us beyond the limits to which this notice must be confined.

The qualifications for the franchise in continental countries vary considerably. In several countries the upper house is elective as well as the lower house, and the voters for the first-named chamber are taken from a more limited sphere than those for the other house: this was the plan adopted by Mr. Gladstone in his Home Rule Bill of 1893. By the new Belgian Constitution universal franchise is recognised, but certain classes of voters are to have a larger voting power. The German Reichstag is elected by universal suffrage—every male person having attained the age of twenty-five has a vote—but in the individual German states the franchise varies. In Prussia the voters are divided into three classes according to the taxes which they pay; each class elects an equal number of electors, and a majority of the chosen electors elect the members. As the first class is naturally much less numerous than the second, and the second less numerous than the third, a considerable advantage is given to the wealthier classes.

[Anson, *Law and Custom of the Constitution*, vol. i. pp. 89-112.] E. S.

FRANCIS, JOHN (1810-1886), entered the service of the bank of England 1833, became chief accountant 1870, retired 1875. Francis was author of the works named below, which form rather anecdotic than historical contributions to the analysis of the economic "anatomy" of the middle of the 19th century. In (*a*) the writer introduces his main inquiry by a sketch of the history of interest and banking; in (*b*) he gives an outline of financial history and speculation, and describes the establishment and growth of the royal and stock exchanges; (*c*) is both historical and statistical; (*d*) includes a history of the practice of life assurance from Roman times, with some account of the origins of statistical science and of the modern application of the theory of probabilities to vital statistics.

(*a*) *History of the Bank of England; its Times and Traditions*, London, 1848.—(*b*) *Chronicles and Characters of the Stock Exchange*, London, 1849.—(*c*) *A History of the English Railway; its social Relations and Revelations*, 1820-1845, London, 1851.—(*d*) *Annals, Anecdotes, and Legends: a Chronicle of Life Assurance*, London, 1853. C. A. F.

FRANCIS, PHILIP (1740-1818). Francis, son of the translator of Horace, was born at Dublin, educated in England first by his father, and then (1753-56) at St. Paul's school; went from school to a clerkship in a government office; was private secretary to General Bligh in the expedition to Cherbourg, 1758, and secretary of the embassy to Portugal, 1760. In 1762, Townshend procured him a clerkship in the war office, and he then began his career as a political writer. *The Letters of Junius*, which appeared 1769 to 1772, are now generally acknowledged to be his. In 1773 he went to India as member of the council of Bengal, and distinguished himself by persistent opposition to Warren Hastings. Returning in 1780, he represented Yarmouth (Isle of Wight), and sided with the opposition. He took a keen interest, if not an active part, in politics, even to the latest years of his life.

If we except the few remarks in the first Letter of Junius (*To the Printer of the Public Advertiser*, 21st January 1769), on the Public Debt, and Public Lotteries, there is little or nothing of economics in the famous *Letters*. Francis appears as an economist first (*a*) in a *Letter to Sir James Steuart on the Indian Currency*, dated Calcutta, 20th November 1776, and published in vol. v. of *Steuart's Collected Works*, ed. 1805, pp. 121-133. "On the 30th August 1771, Warren Hastings ordered that rupees of the eleventh, twelfth, and fifteenth years of Shah-Alam should pass on an equality with those of the nineteenth, and that thereafter all future issues should bear this date" (Mr. F. C. Harrison in *Econ. Journal*, 1893, p. 53). Steuart had communicated his opinion on this measure to the council; and Francis defends the decision of the council. In 1810 (*b*) Francis published his *Reflections on the Abundance of Paper in Circulation, and the Scarcity of Specie*, with the motto, "*Ad tempora quibus nec vitia nostra nec remedia pati possumus perventum est.*" He writes before the report of the bullion committee (June 1810).

He describes the disease; there is hardly any gold coin in the country; it has all gone to pay our foreign creditors. Indeed there is hardly any silver coin. "There is none other than that of Birmingham for common change, and lately a few dollars. . . . They are all alike birds of passage. A lame dollar [slow to fly] will be as much a curiosity as a woodcock in August, for the dollars go just like the guineas" (p. 23). In spite of bank notes, we are falling into bankruptcy and beggary.

Where is the remedy? There is none but a change of regimen. We must stop our foreign expenses, and give up useless wars like that in defence of Portugal (26, 27), and dismiss our present ministers, under whom "peace is not to be had with honour and security" (28).

He fortifies his position by quotations from Locke, from Sir John Moore's dispatches, and from a speech of his own on "the exorbitant paper circulation," delivered in the House of Commons, 31st March 1806. "Though it has been long in print, I see no reason to suspect that anybody has hitherto perused it but myself" (p. 41). It is worth noting, that in the said speech he had quoted from his old correspondent Steuart, on French Finance (p. 42). J. B.

The work of PINTO (*q.v.*) on *Circulation and Credit* was translated in 1774 by "Rev. S. Baggs," a pseudonym for Philip Francis, who feared by using his own name to offend Lord North and the ministry, and therefore borrowed his cousin's (M'Culloch, *Catalogue of the Library of a Political Economist*, 1862, p. 280. M'Culloch's authority is Joseph Parker).

FRANKALMOIGN, or *libera eleemosyna*, was applied, not to clerical tenure in general, but to a particular kind of it. A tenant held land in frankalmoign, when he was bound to say masses for the donor and his family, but was freed from the ordinary incidents of lay tenure. Frankalmoign corresponds somewhat to lay tenure by serjeanty, and both were maintained by the statute of 1660, which abolished feudal incidents (Kenelm Digby, *Hist. of Law of Real Property*, 1884). (See FREEHOLD.) R. L.

FRANKLIN, BENJAMIN (1706-1790), was a son of Josiah Franklin, a tallow chandler of Boston, Massachusetts. He was apprenticed to the printing business at the age of thirteen, but, restless and ambitious, he sought, in 1723, against his father's will, his fortunes in Philadelphia. In 1729 he established a newspaper, and soon became a leading spirit in colonial affairs. From 1736 to 1749 he was clerk to the General Assembly; in 1737 he was appointed postmaster of Philadelphia, and in 1753 postmaster-general of the colonies. In 1754 he drew up a plan of union of the colonies, which, however, was not ratified. He was repeatedly engaged in diplomatic service, especially in France, both before and during the revolution of 1789.

Throughout his life Franklin contributed to newspapers essays on moral, philosophical, and political topics. Indolent, though fond of public affairs, he never devoted himself earnestly or persistently to any one department of knowledge, or he would undoubtedly have made a marked name in literature. On the subjects of commerce and money he displayed considerable originality. In 1729 he wrote *A Modest Inquiry into the Nature and Necessity of a Paper Currency*, in which he favoured an issue of paper money based upon land—a contribution to the land-bank controversy of the period. The security of these bills would constantly improve as the increase of population would cause the land to rise in value. This first essay was followed by many others.

Although he confused capital and money he understood quite clearly the essential uses of the latter: "Money as a currency has an additional value by so much time and labour as it saves in the exchange of commodities." When he emphasised the advantages of a paper currency he had in mind paper money which was "well founded." In the latter part of his life he opposed the bill favoured by Congress authorising the first issue of bills of credit, and afterwards urged the substitution of loans. He favoured freedom of trade, deplored the evils of the mercantile system, and declared that industry is stimulated afresh when a country has to an inconvenient degree parted with its gold and silver. In the judgment of Dugald Stewart, "the expressions *laissez-faire* and *pas trop gouverner* are indebted chiefly for their extensive circulation to the short and luminous comments of Franklin, which had so extraordinary an influence on public opinion both in the old and new world." The circulation of his views on trade and industry was largely aided by the publication of *Richard's Almanac*, beginning in 1732. He reflected with more than usual acuteness upon the laws of population, and perceived that population was limited by definite checks; see *Observations concerning the Increase of Mankind, Peopling of Countries*, etc., 1751. He was the first to estimate that the population of the American colonies doubled every twenty years. He condemned the English poor laws, and denounced any imitation of them by the colonies. In *Reflections on the Augmentation of Wages* he discriminated between cheap and low-priced labour, showing that high wages may be cheap labour.

Franklin was influenced by the writings of the French economists, which had considerable circulation in America, and in 1769 he followed the physiocratic doctrine of the unproductiveness of manufactures in *Positions to be Examined Concerning National Wealth*. His economic writings are conveniently collected in *Works of Benjamin Franklin* (Spark's ed.), Boston, 1836,

vol. ii. pp. 253-521, annotated by Willard Phillips; or may be found in the several volumes of the last and best edition (edited by J. Bigelow, New York, 1887, 10 vols.), by consulting the index. A bibliography of his numerous writings is found in *Life of Benjamin Franklin*, by John Bigelow, Philadelphia, 1874, vol. iii. pp. 491-512.

D. R. D.

FRANKPLEDGE. There being no police system among the Anglo-Saxons, its place was supplied by the *frithborh*, or mutual responsibility. Every freeman had to have a *borh*, who was responsible for producing him if he was charged of crime, and whose property could be seized if the accused failed to appear. Under the Normans this practice grew into the more highly-organised frankpledge. The whole community was divided into bodies of ten men, who were responsible for bringing to justice any of their members. The visits of the sheriff to the hundred courts to see that this system was kept up were called the view of frankpledge.

R. L.

FRAUD. English judges have always been loth to bind themselves down to any hard and fast definition of fraud, lest the restless ingenuity of the dishonest should evade the wholesome restraint of the law. Fraud may be described roughly as any deceit practised by one person on another to the prejudice or intended prejudice of the latter. If the guilty party relies on a fraudulent transaction (for instance, a fictitious sale to defraud an execution-creditor), the transaction may be set aside though no one has been actually prejudiced, but if one person sets up fraud as a ground of relief against another, he must show that he was in fact deceived and prejudiced by the fraud. It consists essentially in a false representation, or its equivalent by active concealment as opposed to a mere non-disclosure of material facts. The false representation may be made by means of conduct as well as by words, written or spoken; and it is not necessary that any particular person should be contemplated as the victim of the fraud. For instance, if two persons agree to draw and accept fictitious bills of exchange, in order to defraud the acceptors' creditors in bankruptcy, whoever they may be, the transaction is a fraud.

It was formerly thought that there was a distinction between "legal" and "moral" fraud, and that a man might be guilty of legal fraud if he made a false representation, to the detriment of some other person, without reasonable grounds for believing his representation to be true. But it is now finally settled that there is no *tertium quid* between good faith on the one hand, and bad faith or fraud on the other. It is not essential that the person making the false representation should know it to be false. A reckless false statement, made without regard to its truth or falsehood, may amount to a fraud, for if a man asserts that he knows a thing to be true without knowing whether it is true or false, he is simply telling a lie. It is of course necessary that the false statement should be believed and acted upon by the person to whose detriment it operates. A lie, known to be such, does not come within the legal scope of fraud. It is at most an attempt to defraud. It follows from what has been already said that there may be various untrue representations which do not constitute frauds. The contract of sale may be taken as affording a good illustration. First, a representation made by the seller may form part of the contract, and amount to a warranty. In that case he is held to the truth of it whether he believed it to be true or not. Secondly, the representation may be a mere expression of opinion or commendation by the seller of his wares. In that case it is inoperative, for the rule is, *simplex commendatio non obligat*. Thirdly, the representation may constitute part of the description of the thing sold. In that case the seller's knowledge is immaterial, for if the representation be not true, the parties were never at one as to the subject matter of the contract. Fourthly, the representation may be false and fraudulent. In that case, even if the representation only goes to part of the consideration, the whole transaction may be vitiated thereby.

A contract induced by fraud is voidable, not void. It is in the option of the party defrauded, when he finds out the fraud, either to affirm the transaction, holding the guilty party to the truth of his statements, and claiming compensation if necessary, or to set up the fraud. If the contract has not been performed, the party guilty of the fraud cannot enforce it. If the contract has been performed, wholly or in part, the party defrauded may still repudiate the contract, unless it has become impossible to restore the parties to the position in which they would have been if the contract had not been made, or unless the rights of innocent third parties have intervened. If restitution be impossible, the party defrauded is driven to his remedy by action for damages, in respect of the injury he has suffered. Formerly this action was known as the "action of deceit," but it is now commonly described as an action for false and fraudulent representations.

Various specific frauds are punished by the criminal law, and it is to be noted that any combination of two or more persons to defraud the public, or a third person, constitutes an indictable conspiracy.

[Anson on *Contracts*, 5th ed. (1888).—Pollock on *Contracts*, 5th ed. (1889).—Stephen's *Digest of the Criminal Law*, 3rd ed. (1883).] M. D. C.

FRAUDS, The Statute of. This statute, 29 Charles II. c. 3, is entitled in the statutes at large "an act for prevention of frauds and perjuries." It was passed in the year 1678, as

explained in the preamble, "for the prevention of many fraudulent practices, which are commonly endeavoured to be upheld by perjury and subornation of perjury." It guards against these evils by providing for certain important transactions an obligatory form consisting of a writing and signature. But a brief analysis is necessary for the proper understanding of the statute.

The statute consists of twenty-five short sections roughly drafted and arranged in a very loose order. It deals with the following subjects:—(1) contracts; (2) leases; (3) creations and assignments of trusts; (4) wills; (5) judgments.

1. *Contracts.*—The sections relating to contracts are: § 4 requires a memorandum in writing signed by the party who is to be made liable, or by the agent of such party, for any contract of the five following kinds:—

(*a*) Promise by an executor or administrator to make good out of his own estate damages recoverable out of the estate of the deceased.

(*b*) Promise amounting to guarantee or undertaking to go surety.

(*c*) Promise made upon consideration of marriage (explained not to mean a promise of marriage).

(*d*) Agreement for sale of real property or of any interest therein.

(*e*) Agreement not to be performed within the space of a year from the making thereof.

§ 17 requires for a contract for the sale of goods for the price of £10 or upwards, either

(*a*) part acceptance of goods sold, or

(*b*) payment of earnest or part payment of price, or

(*c*) a memorandum in writing made and signed by *both* parties to the contract or by their agents.

Lord Justice Brett in the case of Britain *v.* Rossiter, and Lord Blackburn in the case of Maddison *v.* Alderson, have laid down that the effect of failure to comply with the provisions of either of these sections, in a case to which they are applicable, is not to prevent the formation of a contract, but to render proof of the contract inadmissible. But these sections cannot be correctly understood without reference to text-books on contract, and to the reported cases, amounting to many hundreds, which elucidate them. Their utility has been the subject of the most contradictory opinions by experts. Their intent was to ensure proper evidence of important contracts. The objections to these sections are briefly as follows:—

(*a*) "Restrictions on contracts so wide and general as are prescribed by this act are peculiar to the English law and the American, which has derived them from the English" (Leake, *Papers of Juridical Society*, vol. i. No. 14).

(*b*) As the existence of these restrictions is not generally known to men of business, the statute has introduced insecurity into business transactions. Thus a verbal contract for the sale of goods over the value of £10, where there has not been part payment of the price or part acceptance of the goods, cannot be enforced because of the statute, although of frequent occurrence in business. Although it has hindered the perpetration of fraud through a feigned contract established by perjury, it has enabled dishonest men to elude agreements which they were morally bound to keep.

(*c*) The evils against which these sections were originally directed have been much lessened since parties were allowed to be witnesses in their own causes. (See 14 & 15 Vict. c. 99, § 2, etc.)

(*d*) These sections being roughly drafted have "introduced great confusion and uncertainty into the law of contract," so that "it is universally admitted that no enactment of any legislature ever became the subject of so much litigation" (Leake).

The 17th section appears to have fallen practically into disuse. Mr. Justice Stephen says that he has hardly ever been called upon to decide a case under it, and is informed that in some large towns mercantile men repudiate it in practice.

2. *Leases.*—The sections relating to leases are §§ 1, 2, and 3. They require (*a*) that every lease shall be in writing signed by the parties or their agents, except leases not exceeding the term of three years, and in which the rent reserved to the landlord amounts to at least two-thirds of the full improved value of the property demised. A lease which fails to comply with this requirement creates only a tenancy at will.

(*b*) That every assignment, grant, or surrender of a leasehold interest shall be in writing signed by the parties or their agents.

In cases where the statute of frauds requires a writing for the creation or assignment of a leasehold interest, the Act 8 & 9 Vict. c. 106 requires a deed. But a lease invalid for non-compliance with these statutes may yet be valid as an agreement to grant a lease. Such agreements come under the provision of § 4 respecting agreements for the sale of interests in land.

(3) *Creations and Assignments of Trusts.*—The sections relating to trusts are—

§ 7 requires that every creation of a trust in real estate shall be proved by some writing signed by the party creating the trust or by his last will in writing.

§ 8 excepts from the operation of the statute trusts arising not from the act of any party, but from an implication of law in case of certain transactions.

§ 9 requires that every assignment of a trust, not in real estate only, shall be in writing

signed by the party assigning, or by his last will in writing.

§§ 10 and 11 enact that real estate held upon trust for any person shall be regarded as forming part of that person's assets both in his own hands and in those of his heir.

These sections continue in force, but have not occasioned much criticism.

4. *Wills.*—The sections relating to wills are no longer in force. They provided as follows:—

§ 5 required every will of real estate to be in writing signed by the testator or by some other person in his presence, and by his express direction, and attested and subscribed by three or four credible witnesses.

§ 6 provided that no will of real estate should be revoked otherwise than by (*a*) a subsequent will or codicil or some other writing executed as above, or by (*b*) burning, tearing, or obliterating by the testator, or in his presence by his direction.

§§ 19, 20, 21 imposed restrictions on the validity of nuncupative wills (wills made by word of mouth).

§ 22 rendered null and void the alteration, by word of mouth only, of a written will of personal property.

§ 23 made an exception for the nuncupative will of a soldier on service or sailor at sea.

§§ 24 and 25 do not call for notice here.

The above were the first enactments which imposed an obligatory form upon wills. The objections to such a requirement made in the case of contracts certainly do not apply in the case of wills. But this part of the statute of frauds has been wholly superseded by the Wills Act, 1 Vict. c. 26, which requires every will other than that of a soldier on service or a sailor at sea to be in writing signed by the testator and attested by two witnesses, and requires for the revocation of a will either a writing executed with these forms or the destroying of the will by the testator or in his presence and by his direction.

5. *Judgments.*—The sections relating to judgments—

§§ 13, 14, 15 provide that a judgment as against purchasers, *bona fide*, of real estate, liable under the judgment, shall take effect only from the time when the judgment is signed. Formerly judgments had taken effect as against such purchasers from the first day of the term wherein they were entered, or some other time prior to the one thus fixed. Now no judgment affects any land until such land shall have been actually delivered in execution in pursuance of the judgment, 27 & 28 Vict. c. 112.

§ 16 provides that a writ of execution against goods shall take effect only from the time when the writ is delivered to the sheriff for execution. Formerly such writs took effect against such purchasers from the first day of the term in which they were issued. Now they do not take effect until the goods have been actually seized, 19 & 20 Vict. c. 97.

[For further information respecting the statute of frauds, consult text of statute and the following authorities:—Pollock, *Principles of Contract.*—Leake, *Digest of the Law of Contract.*—Williams on *Personal Property;* Williams on *Real Property*, and the cases referred to in these works. For general criticism of the statute consult No. 14 in the first volume of *Papers of the Juridical Society* (by Mr. Leake), and an article on "Section Seventeen of the Statute of Frauds," contributed by Mr. Justice Stephen and Sir Frederick Pollock to the *Law Quarterly Review*, January 1885.] F. C. M.

FRAUDULENT CONVEYANCE. These words are generally used with reference to conveyances pronounced to be void by the statutes 13 Elizabeth c. 5, and 27 Elizabeth c. 4. The first-named act avoids, as against *creditors*, all conveyances of landed estates and goods for the purpose of "delaying, hindering, or defrauding" such creditors, unless made on valuable consideration to any person not having any notice of such fraud. As the Bankruptcy Act 1883, subjects all voluntary settlements within ten years of a bankruptcy to the possibility of being declared void, it is seldom necessary to have recourse to the act of Elizabeth, but this may be necessary in cases where property has been given away by an insolvent debtor without being settled, or when the voluntary conveyance was more than ten years old at the date of the bankruptcy. The act of the 27th year of Elizabeth is applicable to *real* property only, and was intended to meet the case of a vendor who, previously to conveying land to a purchaser for value, had fraudulently conveyed it to another person, who by virtue of his priority had acquired the whole property; but judicial interpretation has extended its scope, and until 1893 all voluntary conveyances of land were void as between the original donee and a subsequent purchaser for value. The Voluntary Conveyances Act of 1893 has repealed this extension of the act of Elizabeth, and the operation of the act will in future be confined to such voluntary conveyances as are fraudulent in the real sense of the word. E. S.

FRAUDULENT PREFERENCE (IN BANKRUPTCY). The main object of the bankruptcy laws is to secure the equal distribution of the debtor's assets amongst his various creditors. From the time when the trustee's title accrues, the debtor is no longer free to select the order in which he will pay his debts. Under § 43 of the Bankruptcy Act 1883, the title of the trustee relates back to the earliest act of bankruptcy within three months of the petition, and this provision is supplemented by § 48, which enacts that "every conveyance or transfer of property or charge thereon made, every obligation incurred, every payment made,

and every judicial proceeding taken or suffered by any person unable to pay his debts as they become due from his own money, in favour of any creditor, or in trust for any creditor, *with a view of giving such creditor a preference over the other creditors*" shall, if the debtor be adjudged bankrupt on a petition presented within three months of the date of the transaction in question, be deemed fraudulent and void as against the trustee. Under the act of 1869 the transaction was protected if the creditor acted in good faith and without notice of any act of bankruptcy. The present act disallows the exception. The only question for consideration is the motive of the debtor in making the transfer or payment.

Fraudulent preference in bankruptcy must be distinguished from fraudulent conveyance under the statute 13 Elizabeth, c. 5. The act of Elizabeth operates whether there be a bankruptcy or not,—it contains no provision as to time, and its general scope is somewhat different. It strikes at collusive transactions by which creditors may be defeated or delayed, but does not prohibit the honest preference of one creditor over another. M. D. C.

FREE BANKING is the term applied in the United States to a system under which (1) banking powers are granted to all applicants under certain prescribed conditions, and (2) bank-notes issued under such authority are protected by a deposit of security held by the government which establishes the system. The earlier banks in the United States, whether established by congress or by the state legislatures, were organised under special charters. Various expedients were resorted to for the prevention of unsound issues, with various degrees of success, but without arriving at any generally acceptable method. The suspension of specie payments in May 1837, and the extraordinary confusion of the paper currency which ensued, finally brought the general discontent to a climax in New York, and the legislature of that state, in June 1838, passed an act for the free organisation of banks issuing a secured currency. Under this act, as amended and revised, any group of persons proposing to form a banking association, and contributing a capital in no case less than $25,000, say £5000, can be incorporated with full banking powers, subject to uniform regulations as to the conduct of their business, its supervision by the state, and their corporate liabilities and duties. Individual bankers and firms, who use the name "bank," are also required to conform to the system, although they may remain unincorporated. The right of issue is given to any association or individual coming under the system. The notes are prepared and registered by a public officer, are delivered to the issuing bank only after the deposit of security of a prescribed kind and amount, and must be signed by the officers of the bank before issue. Banks organised upon such a system are called free banks.

Free banking does not imply, then, an unrestricted management of the business, or complete liberty in the issue of notes. Such a system is called free because the right to organise, upon compliance with fixed conditions, is extended to all, free from any requirement of special legislation. It is not essential that there should be any engagement by the state to make the notes good, if the security, of which the state is trustee, proves insufficient. Neither does the deposit of security for the ultimate payment of the notes answer the question as to proper provision for daily redemption. As the provision for secured notes gave promise of insuring the ultimate solvency of bank notes, it settled the one banking question as to which the public were most sensitive, and enabled the legislature to renounce the task of deciding upon applications for special charters. The system adopted by New York was copied by many other states before the civil war, but in some cases with relaxations which impaired its safety. In 1861 the New York free banks, having on deposit stocks of the United States and other solid securities, met the strain of war with success. In several states, where the law was less rigid, many free banks went down, and their notes, secured in some cases chiefly by bonds of seceded states and others in low credit, caused heavy losses to the holders. Two years later congress adopted the free banking system on a great scale, by a law providing for national banks, to be organised on application under a general act, and to issue notes with United States bonds as the only admissible security. In 1865 congress laid a tax of ten per cent on all bank notes other than national, thus excluding from the field all issues authorised by the states. Several of the states, however, still retain their laws as to circulation, although these have been entirely dormant since 1866. Free banking under the national system was for some years seriously limited, by the provision that the aggregate of notes issued by all the national banks should not exceed $300,000,000, afterwards $354,000,000 (say £60,000,000, and £70,800,000) although the organisation of banks was still free to all. The act of 1875, for resuming specie payments, removed the limit of aggregate circulation, and thus completely established free banking under the national government. The rapid rise in price of United States bonds, and the low return yielded by an investment in them, have since put a new check upon the system; and if the use of bank-notes is to continue, the alternative may soon be presented, of either finding for deposit by national banks some other security than United States bonds, or removing the prohibitory tax upon issues authorised by the states. In the

latter case free banking would be likely to be adopted by the states more widely than before, and with provisions exhibiting great variety of detail, unless some arrangement should be devised for the regulation of local issues by national authority upon a common plan.

[*Report of the Comptroller of the Currency* (United States), 1876.—*Public Statutes of Massachusetts*, 1880.—*Revised Statutes of New York*, 1889.—C. F. Dunbar, *Chapters on the Theory and History of Banking; and Laws of the United States relating to Currency, Finance, and Banking from 1789 to 1891.*—Andrews, *Institutes of Economics*, 1889, pt. iii.] C. F. D.

FREE BENCH. A widow's dower out of lands held by customary tenure for customary estates of inheritance. It is generally one-third for life, but varies from a portion of the profits to the whole inheritance. The right to free bench does not arise until the death of the husband, and therefore it only affects land of which he was donor at the time of his death (Challis, on *Real Property*, London, 1885).

J. E. C. M.

FREE COINAGE. In its fullest sense a right enjoyed by all persons to bring gold or silver bullion, or both, to a mint and to receive it back in the form of coin, no deduction being made to defray the expenses of manufacture, alloy metal, etc. The conversion at a mint of bullion belonging to a private holder into coin at a low fixed charge, as in Austria, may however be considered *free* when compared with such a system as that in force in this country in regard to the silver currency. For in this latter case the government purchases bullion at the market price, always issuing it at a circulating value of 5s. 6d. per troy ounce of standard metal.

In this country until towards the end of the 17th century, any person was permitted to bring bullion, both gold and silver, to the mint and receive it back in the form of coin, less a certain deduction which was paid to the king as a SEIGNORAGE (*q.v.*), or was employed to defray the expenses of the mint, see BRASSAGE. In 1666 perfect freedom of coinage for both metals was established. An "Act for encouraging of Coynage" (18 Chas. II. c. v.) was passed whereby it was enacted that "Whatsoever person or persons, Native or Foreigner, Alien or Stranger, shall from and after the twentieth day of December, one thousand six hundred sixty and six, bring any Foreign Coyn, Plate or Bullion of Gold or Silver, in Mass, Molten or Allayed, or any sort of Manufacture of Gold or Silver into His Majesties Mint or Mints within the Kingdom of England, to be there melted down and Coyned into the current Coyns of this Kingdom, shall have the same there Assayed, Melted down and Coyned with all convenient speed, without any defalcation, diminution, or charge for the Assaying Coynage or waste in Coynage." This important change was proposed in consequence of the great scarcity of currency owing to the common practice of melting and exporting coins, and the act was to remain in force for a period of seven years only. It was, however, renewed at seven-year intervals without intermission until 1768, and then made perpetual. The continuing acts make frequent reference to the desirability of renewing the grant to the king of rates, duties, and impositions "upon the importation of Wines, Vinegar, Cyder, Beer, Brandy, and Strong Waters," which were set aside for the maintenance of the mints, lest "this Kingdom be deprived for the future of so great a good as it hath for so many years last past enjoyed." It is clear, from the currency literature of the period, especially that published towards the end of the 17th century, that this latter opinion was far from being universally held. Sir Dudley NORTH, for example, writes in 1691, in reference to the melting of newly-coined money by private persons, "Thus the Nation hath been abused and made to pay for the twisting of Straw for Asses to eat," and the imposition of a charge sufficient to defray the expenses of the mint has been advocated by Adam SMITH, J. S. MILL, RICARDO, and many other economists of note.

The free coinage of silver was suspended in 1798, in consequence of the low price of bullion, and finally abolished in 1816, when our present currency was introduced, although the right was then reserved to the king to authorise the receipt of silver for coinage at the mint, subject to a deduction on account of seignorage of 4s. from every pound weight of sixty-six shillings. This right has, however, never been exercised.

When in 1869 the chancellor of the exchequer, Mr. Lowe, afterwards Lord Sherbrooke, proposed to meet the expenses of coinage by deducting one grain of gold from the weight of each sovereign issued, the subject of free coinage was exhaustively discussed in parliament and the press, and it is curious to note that, whereas two centuries previously free coinage had been adopted "for the encouragement of the bringing of Gold and Silver into the Realm," the main argument urged against Mr. Lowe's proposal was that it would have a disastrous effect on British commerce by interfering with the free use of the sovereign in commercial transactions abroad.

In no other country is the coinage of gold as absolutely free as it is in England, but in the United States all charges have been abolished since 1875, except that for the alloying metal. In France, and the other States forming the "Latin" Union, the charge imposed amounts to 6·70 fr. per kilog. of gold of standard 900 (value 3,100 fr.) or 0·216 per cent; in Germany the charge is 6 marks for coining 1 kilog. of

gold, that is 0·215 per cent, or nearly the same as in France.

Free coinage of silver, even in the more restricted sense, has now been generally abolished. Up to June, 1893, silver was coined for private persons at the Indian mints at a charge of 2·1 per cent, but this liberty was then withdrawn. No European State undertakes the coinage of silver except on government account, and the same is the case in the United States, where the law requiring the purchase by the government of a definite quantity of the metal has now been repealed. In Mexico the export of uncoined silver bullion is prohibited; all silver intended for export must, therefore, pass through one of the mints, where a coinage charge amounting to $4\frac{3}{4}$ per cent is imposed. Most of the Central and South American states impose a charge for the coinage of silver, which amounts, in Peru, to as much as 9·86 per cent.

[*Report of the Royal Commission on International Coinage*, 1868, p. 320.—*The Times* and other newspapers, Aug. to Oct. 1869.—S. Dana Horton, *The Silver Pound*, 1887.—Lord Liverpool's *Letter to the King on the Coins of the Realm*, 1805.—*The Gold Coinage Controversy*, 1869 (privately printed by the Bank of England).—"Seigneurage and Mint Charges," by J. B. Martin, *Journ. Inst. Bankers*, vol. v. (1884), p. 171.] E. R.

The Bank of England is bound by law to purchase at the rate of £3 : 17 : 9 an ounce any gold bullion of the legal standard brought to it by the public for sale. Private persons may likewise bring bullion to the mint, and receive back the full amount (at £3 : 17 : $10\frac{1}{2}$ an ounce) converted into coin, free of any charge for loss or manufacture; but as there may be considerable delay, the public prefer to sell their bullion to the bank and receive their value at once (see article on Mint, *Ency. Brit.*, 9th ed., vol. xvi. p. 485). The payment to the bank thus does not represent any charge on the coinage, but only remuneration for trouble and loss of time.

FREEDOM IN THE MIDDLE AGES. Though there was not an absolutely fixed line in the middle ages between those who were possessed of freedom, and those who were not, yet the division between these two classes was for many purposes very distinctly marked. The following article on the FREEDOM OF THE CITY OF LONDON will serve as an example of the rights and privileges conferred by obtaining freedom in a city. For other branches of the subject see articles on ENFRANCHISEMENT, FREEMAN, FREE TOWNS, SERF, SERFDOM, SERVITUDE, and VILLEIN.

FREEDOM OF THE CITY OF LONDON. The right to share in the duties and privileges of citizenship in London seems in the earliest times to have been extended to all holders of tenements, who were in SCOT AND LOT (*q.v.*), and who were therefore called upon to contribute to common civic burdens and to fill leet offices. Even to-day "inhabitancy as a householder is still termed the common law qualification of burghers, and the scot and lot householder, when admitted a freeman, remains the only true and efficient citizen for *all* civic purposes" (Norton, *Commentaries*, pp. 100, 101), although others have in later times been admitted with certain qualifications to the enjoyment of some of his rights. After the grant of a corporation, *temp.* Richard I. (1189-1199), *enrolment* into the civic freedom was required of all freemen. Norton suggests that this step was taken "very soon after, if not immediately upon, the foundation of the corporation itself," and that enrolment took place in the hustings court, urging that such admissions are referred to as common in the reigns of Edward I. (1272-1307) and Edward II. (1307-1327). It would seem, however, that the practice of enrolment can be definitely traced to the year 1275, when it was provided that the names of apprentices and of all who wished to buy the freedom should be inscribed "in papirio camere gildaulæ" (Brit. Mus. *Cott. MSS., Otho*, B iii. transcribed in *Add. MSS.*, 5444, f. 90; Brandon, *Inquiry into the Freedom of the City of London*, p. 15). In that same year the methods of acquiring the freedom would seem to correspond to those in vogue to-day. It is stated in the MS. above quoted that there are three ways, (1) by birth; (2) by apprenticeship, and that for a term of not less than seven years—an interesting and possibly the earliest notice of this custom of London; (3) by taking it up "before the mayor and other aldermen in the chamber of the city." In Edward II.'s reign a mercantile qualification becomes an important feature. By a charter of 12 Edw. II. inhabitants and others, being of any certain mystery or trade, might be admitted into the freedom only "by surety of six honest and sufficient men of the mystery or trade that he shall be of, who is so to be admitted," and that in the hustings courts. If, however, they were strangers and not of some certain mystery, they could not be admitted into the freedom without the assent of the commonalty; "saving always, that concerning apprentices the ancient manner and form of the said city be observed" (Cp. Birch, *Hist. Charters*, p. 47). Somewhat later it was ordained that no one should be admitted into the freedom of the city, unless the wardens of a company gave their consent and certified that he was a member of their body (Brandon, p. 19, quoting *Liber Dunthorne*, f. 101 b). This restriction remained in force until by a resolution of common council, 17th March 1835, it was decided to confer freedom on certain terms through the city chamberlain irrespective of the great trading companies (Minutes of Common Council, 17th March 1835).

(1) The most ordinary form of acquiring

freedom was by serving an apprenticeship to a freeman, free both of a company and of the city, until an act of common council (9th March 1836) sanctioned the binding of apprentices to freemen of the City who had not taken up the freedom of any company (Minutes). The term of service in London was for seven years until 1889, when it was reduced to four years (Act of Common Council, 14th March 1889). While, however, apprenticeship for a varying term of years (until 5 Eliz. c. 4, fixed the minimum at seven)—came in most English towns to be the one method by which citizenship was acquired, in London, although very usual, it never became the sole qualification.

(2) Freedom by patrimony has, as shown above, conferred civic freedom from early times; all children male and female of a freeman born after his admission can claim their freedom at the age of twenty-one years.

(3) Freedom by redemption or purchase. This is possible (*a*) where the apprenticeship indentures have, for some good reason, been only imperfectly executed; (*b*) where persons, not aliens, are admitted by grace and favour; (*c*) where the presentment is by the chamberlain, or some person entitled by grant to confer freedom (Reports, 1837, xxv. p. 61). The commission on municipal corporations issued a report in 1835 which excluded London, a subject which was dealt with in a special report issued in 1837. In this the important resolution and the act of common council (17th March 1835; 9th March 1836) are left out of account, and an additional case of freedom by redemption is quoted as possible, though not very common; (*d*) this was where an individual, entitled to admission through one company, desired to be admitted through another. The majority of cases by redemption are simple purchases, the buyers being presented to the Court of Aldermen and admitted upon the payment of certain fees (Pulling, *Customs*, p. 64), though the consent of the Court of Common Council is required in the case of aliens. And to-day, practically any one can buy the freedom, although such a purchase does not confer *all* the privileges of citizenship (*City of London Directory*, 1893).

Females may obtain the freedom by patrimony or by apprenticeship, taking an oath, similar to that of a freeman, as a "free sister." As such they may take male apprentices and enjoy various privileges, though these are suspended by marriage. Widows of freemen are deemed *free by courtesy* during the period of widowhood (Reports, 1837, xxv. 61, 63).

The fines payable on admission seem to have been very arbitrary, and to have varied considerably at different times, the exact sum being fixed at the discretion of the aldermen and chamberlain (Brandon, p. 20).

From early times exceptional privileges have been granted by the crown to the citizens of London in a series of charters, while ancient customs have been confirmed or amended by city ordinances (Charter, 15 Edw. III.; Norton, p. 364); in case of necessity these are recorded "by the mouth of the recorder" before the king's justices without the intervention of a jury (Charter, 2 Edw. IV.; Birch, p. 76). For a detailed account of the privileges, careful examination of many documents is essential, and it may be sufficient to indicate such as are noticed by the chief authorities on the subject, and which have dealt with the trade and government of the city. The right to engage in retail trade could be enjoyed by all freemen whether resident or not, and by them alone, until an act of common council in 1856 admitted all, whether free of the city or not, to retail trade. On the question of wholesale trade there has been much difference of opinion. It would seem that though strangers, *i.e.* non-freemen, might engage in wholesale trade, they might deal only with freemen and not with other strangers; the commissioners of 1837 stated however that, though not enforced, wholesale trading should, strictly speaking, be limited to freemen. Freemen have always been held exempt from all tolls and customs held by the crown throughout the country when Henry I.'s charter was granted, non-resident freemen being merely free from city tolls and port dues. They were free from impressment as soldiers or sailors (Charter, 15 Edw. II.), nor could they be forced to plead without the city. The right to share in the government of the city, directly or indirectly, has also from early times been restricted to freemen; they alone can enjoy appointments in the gift of the common council, though this rule is suspended in the case of barristers (Reports, 1837, xxv. 38); and the highest civic officials, *e.g.* lord mayor, sheriffs, etc., even to-day must be liverymen of some company. For centuries the freemen paying scot and bearing lot elected the members of the common council, the aldermen, and ward officers, until, indeed, by 30 Vict. c. 1, the right was extended to occupiers and lodgers who were not freemen of the corporation (Norton, pp. 244, 251). By a civic ordinance of 49 Edw. III., the trading companies were empowered to nominate a certain number of freemen to vote in the elections of lord mayor, sheriffs, corporation officials, and parliamentary representatives, and from these the mayor selected the voters (Norton, p. 245). But by ordinance of 15 Edw. IV. the nomination was left entirely in the hands of the companies, the members of which, then and for long afterwards, were all traders and therefore almost necessarily householders. They were directed to send some of their more important members to take part in elections, attired in a distinctive dress or livery. And from this dates the appearance of the livery men as a superior class within the companies,

to whom was entrusted the elective franchise in the common hall; this they exercised until 11 Geo. II. c. 18 extended it to liverymen, free of the city, but not necessarily residents (Norton, 107). And this remains to-day the qualification of electors to corporate offices in common hall (*ib.* 251); the number of liverymen thus qualified was 7603 in 1893 (*City of London Directory*, 198). The various reform bills of this century have extended the parliamentary franchise to others than freemen, although a liveryman and freeman of London by birth or servitude, and residing within twenty-five miles, can still claim a vote.

The right to benefit by certain charities, and of appointment to certain civic offices, and to the election of certain municipal and parliamentary representatives, are perhaps the most obvious and the most important of those which may be enjoyed by freemen and liverymen to-day, although the ancient "custom" still holds good where it has not been expressly given up.

[Norton, G., *Commentaries, etc., on London* (1869).—Pulling, A., *Laws, Customs, etc., of London* (1854).—Brandon, W., *Enquiry into the Freedom of City of London* (1850).—Extracts (*Brit. Mus.*, 6425, cc. 19).—Austin, E., *Law Relating to Apprentices* (1890).—Birch, W. de Gray, *Historical Documents and Charters, etc., of London* (1887).—Bohun, W., *Privilegia Londini* (1702).—Welch, C., *Leaves from History of Gilds, etc., in Newbery House Magazine* (1892, 1893).—Merewether, H. A., and Stephens, A. J., *History of Boroughs and Municipal Corporations.—Second Report of Commissioners appointed to enquire into Municipal Corporations in England and Wales* (1837, xxv.). Also *Reports*, 1854, vi.—*Acts and Minutes of Court of Common Council.—Liber Albus.—City of London Directory* (1893).] E. A. M.

FREE ENTERPRISE. See LAISSEZ-FAIRE.

FREEHOLD, HISTORICAL. The term "freehold" we owe to the mediæval law of real property. It is used to describe such tenures as were considered worthy of a freeman. According to the theory of feudalism the political and civil rights of the individual depended on his relation to the land. In a feudal society developed according to strict logic the freeholder alone would have been a freeman, and only the freeman would have been a freeholder. But in no European country, least of all in England, was the feudal principle worked out to all its logical consequences. Only the freeman could be a freeholder. But even in the feudal period freemen frequently held land by tenures other than freehold, by tenures technically regarded as base or servile.

The term "freehold" appears to have come into use about the end of the eleventh or the beginning of the twelfth century. "Some time before the reign of Henry II., but apparently not so early as Domesday, the expression *liberum tenementum* was introduced to designate land held by a freeman by a free tenure" (Kenelm Digby, *History of the Law of Real Property*, p. 49). But the thing had been developed long before the name had been found for it.

Some characteristics are common to all freehold tenures. (1) The indefinite duration of the freeholder's interest in his land. An estate to a man for his life (a life estate), an estate to a man and his descendants (estate tail), an estate to a man and his heirs (fee simple estate) are all freehold estates. They are likely to differ much in point of duration. But they are all alike in this that the moment of determination is uncertain. A lease of land for 999 years does not give a freehold estate to the lessee. It is not likely that this consideration would have led any free man to prefer an estate for life to an estate for 999 years. But when the theory of freehold tenures grew up, long leases were unknown and leases of whatever duration were uncommon. (2) The obligation of fealty. The freehold tenant did homage to the lord for his land and took an oath of fealty. (3) The liability to forfeiture and escheat. Upon the tenant's failure to perform any of the conditions on which he received his land, he incurred the penalty of forfeiture and his land might be resumed by the lord. Upon the failure of the tenant's line either for want of heirs or through corruption of blood consequent upon his conviction for felony the land reverted to the lord in virtue of his right of escheat (see FORFEITURE). (4) Suit of court. The tenant was bound to appear as an assessor in the lord's feudal court of justice, and for some purposes to submit himself to the jurisdiction of that court.

In general the services which the various classes of freehold tenants had to render to their lords were only such as appeared consistent with the dignity of a free man. But they differed so much in character that they must be considered separately with reference to each species of freehold tenure.

I. Tenure by chivalry or by knight service. On this tenure land was held by the military tenants of the crown and also by the military tenants of earls and barons. Its distinguishing characteristic was the obligation to render military service, if called upon, for forty days in each year, with a number of fully-armed horsemen proportioned to the size of the estate. From the time of Henry II. onwards this obligation was frequently commuted for a money payment known as scutage (shield-money). But this tenure involved other burthensome obligations. The principal were as follows:—

(*a*) The liability to aids or payments made to the lord upon certain important occasions, the knighting of his eldest son, the marriage of his eldest daughter, or the ransoming of his person from captivity. (*b*) The liability to reliefs or payments made to the lord by the heirs of deceased tenants upon coming into

their estates. (*c*) Wardship or the right of the lord to administer the estate during the minority of his tenant without having to render any account when the tenant came of age. (*d*) Marriage, or the right of the lord to choose a husband for a female tenant who was his ward, and to receive a payment from the favoured suitor. Those burthens were regulated by Magna Charta in the year 1215. But they remained so onerous that under James I. it was proposed to commute them for a permanent revenue to be settled on the crown. Under Charles II. they were so commuted by the act for the abolition of military tenures (12 Car. ii. c. 24).

II. Tenure by grand sergeantry. On this tenure land was held direct from the crown for service rendered in person to the king, such as carrying the royal banner when he went to war. This tenure still exists, but is extremely rare and of no consequence save as a legal curiosity.

III. Tenure by free or common socage. The etymology of the term "socage" is doubtful. It has been derived from an English word "soc," a privilege, as in the phrase "sac and soc," and from a French word "soc," meaning a ploughshare. "Sochemanni" form one class of the population as enumerated in Domesday Book, and are probably the representatives of the class of free landed proprietors other than thegns or churchmen previous to the Norman Conquest. Persons holding land by socage tenure were free from some of the most oppressive burthens incidental to military tenure. They owed no military service for their land although they were liable, as were all freemen, to serve in the national militia when necessary. They were accordingly exempt from scutage, the money payment in lieu of military service. They were exempt from the annoyances incidental to wardship and marriage. For the lawful guardian of a minor holding land by this tenure was not his lord, but the nearest of kin not capable of inheriting the land. And such a guardian was not allowed to make any profit by the marriage of his ward. The tenant in socage was obliged to make certain money payments, aids, reliefs, rent, etc., or to render his lord certain agricultural services strictly defined beforehand. On account of the advantageous character of socage tenure it was provided by the act 12 Car. ii. c. 24, that all land formerly held on military tenure should thenceforwards be held on socage tenure. Thus by far the greater part of the land of England is now held in socage. In the course of time the burthens of socage tenure have become almost nominal. For by the statute *Quia Emptores* of 1290 (18 Ed. I. c. 1) sub-infeudation was forbidden. Thenceforwards any person taking a transfer of freehold lands stepped into the place of his predecessor and became liable only to those obligations to which his predecessor had been liable. Thus the freeholder of to-day has to make only such feudal payments for his land as had been settled before the year 1290 and these have become nominal in consequence of the fall in the value of money and the rise in the value of land. As society became more settled the lord lost his motive for exacting the oath of fealty, which has long since become obsolete. The feudal courts having dwindled to mere forms, the obligation to suit and service now means nothing. Corruption of blood and escheat of lands upon the tenant's conviction for felony are no longer enforced by law. The enlarged power of testamentary disposition has made escheat for lack of heirs to the tenant a very rare occurrence. Finally, the rights of the lord having lost all their value have in many cases been allowed to fall into utter desuetude. The record of them has frequently perished. Thus many freeholders cannot be shown to have any lord under the crown, and the freeholder has come to regard himself, and is regarded by others, as full proprietor of his land.

Socage tenure, being a product of customary law, has sometimes assumed peculiar forms. In one form, known as petty sergeantry, the tenant held his land of the king on condition of rendering him every year some object of use in war, such as a pair of gilt spurs. Other forms, known as burgage tenure and gavelkind tenure, are distinguished by peculiar rules of succession, when the tenant dies intestate (see DESCENT OF PROPERTY).

It remains to mention a free tenure of land so distinct from those which have been mentioned as hardly to admit of being classed with them. This is FRANKALMOIGN or free alms (Lat. *libera eleemosyna*). On this tenure land was and is held by ecclesiastical corporations. The service rendered for land thus held was spiritual, consisting simply in prayer and performance of the rites of religion. The holders paid no rent in money or in kind. They were not subject to aids or reliefs. They were not subject (being corporations and therefore immortal) to escheat or forfeiture. They were not capable of military service. Thus their tenure approached more nearly than any other tenure recognised by English law to a full ownership.

[For further information see FREEHOLD (Legal) and the articles therein referred to.

Goodeve, *The Law of Real Property.*—Williams, *The Law of Real Property.*—Kenelm Digby, *History of the Law of Real Property.*—Pollock, *Land Laws.*—Hallam, *History of the Middle Ages.*—Stubbs, *Constitutional History of England.*]

F. C. M.

FREEHOLD, LEGAL. A freehold tenure of land meant formerly a tenure which obliged the tenant only to such services as were worthy of a freeman (see FREEHOLD, HISTORI-

CAL). In course of time these services have either wholly disappeared or have become insignificant. A quit-rent of nominal amount is still payable in some cases to the lord of the manor, and when an heir succeeds to the freehold he has to pay a relief amounting to one year's value of this quit-rent. Where a manor is still existent the freeholder is still bound to attend the court baron held by the lord. But the court baron is practically never held. An oath of fealty to the lord, where there is a lord, is still due in theory but in practice is never exacted. In short the freeholder has practically the full enjoyment of his land unencumbered by any real duties towards a lord. He therefore approaches much more nearly than a leaseholder or a copyholder to the character of an absolute owner.

But the interest of a freeholder in his land differs in extent accordingly; as it is (1) an estate for life; (2) an estate in tail; (3) an estate in fee simple. (For the nature and peculiarities of these different estates, see ESTATE.) If a man have an estate in tail or in fee simple, he has an interest in the land which extends beyond his own life. This interest descends to his heirs according to the peculiar rules governing the devolution of real estate (see DESCENT OF PROPERTY). In many cases a family settlement (see ESTATE) provides for the creation of life estates or estates tail in remainder, which come into possession as the preceding life estate or estate tail expires. But the power of thus controlling the devolution of the land is restricted by law (see PERPETUITIES).

Owing to the gradual enfranchisement of copyhold land (see COPYHOLD), an increasing proportion of the land of England is held as freehold, and at no distant date the whole will be so held (see also LEASEHOLD). F. C. M.

FREE LIST is a term arising out of the prevalence of unwieldy tariffs of import duties in foreign countries and many British colonies. It denotes the schedule of commodities exempted from payment of duty on the importation into any given country. C. A. H.

FREEMAN. Modern conceptions of the distinction between freedom and non-freedom can be applied only with caution to ancient and mediæval history. As applied to the middle ages they are particularly misleading; for the most characteristic feature of the social conditions of the time was the existence of the intermediate position now commonly spoken of as SERFDOM (*q.v.*). Thus, under the later Roman empire, the large class of *coloni* were distinctly free by condition, with all the civil rights of other freemen, and even the power of suing their masters; they were nevertheless bound to the soil, and subject to burdensome duties from which they could not escape. A law of the fifth century distinguishes "the bond of colonate," *nexus colonarius*, from "the condition of slavery," *conditio servitutis;* and yet another, somewhat earlier, remarks that "though the *coloni* are of course free by condition, they must be looked upon as the slaves of the land on which they are born." Moreover the slave proper, during this period, by no means obtained that independence towards his former master, when he received manumission, which was gained by a modern freedman. He remained in close dependence upon him, usually as the cultivator of a holding on very onerous terms.

The question of the condition of the rural population in England in the earlier Saxon centuries is still undecided. But it is generally agreed that the position of the cultivators of the soil for at least two centuries before the Norman Conquest was substantially the same as that of the villeins and cotters after that event. If these cultivators were as a class identical with the *ceorls*, as is almost certain, they were doubtless technically free, though held in strict economic subjection, and bound to labour two or three days every week, and in busy seasons almost every day, for the lord of whom they held their land. Hence the Domesday survey, while it registers only some 12,000 persons (=heads of households) as freemen, *liberi homines*, and 23,000 as SOCMEN (*q.v.*) (persons, in all probability, in much the same position)—the "free men" being almost exclusively in Norfolk and Suffolk; and on the other hand notices 25,000 as slaves, *servi;* gives about 200,000 as falling into the classes of the VILLEIN and COTTIERS (*q.v.*), whose status between that of the LIBER HOMO and that of the SERVUS (*q.v.*) it leaves undetermined.

The introduction of the feudal jurisprudence after the Norman Conquest led to a greater importance being attached to the nature of tenure; and for the next four centuries the questions of tenure and personal condition were almost inextricably confused. The class of "free tenants," LIBERE TENENTES (*q.v.*), which grew so rapidly after the 11th century, was practically coextensive with that of "free men." But as to what exactly constituted free tenure the courts did not maintain a consistent doctrine. A very widely spread idea was that inability to give a daughter in marriage, or to sell an ox or a horse without the lord's consent, was a certain mark of servile tenure. On the other hand, exemption from the more laborious dues known as WEEK-WORK (*q.v.*) was frequently regarded as constituting free tenure; and villeins relieved from these obligations tended to rise to the class of freeholders. It is possible that in their desire to place the whole population in one of the two classes of free and non-free, the lawyers of the 13th and 14th centuries came at last to deny freedom to persons in a position which in Saxon times would have been regarded as free. But this more rigid

application of mutually exclusive terms did not necessarily involve any material degradation of the class in question, and was not inconsistent with a material elevation.

The legal identification of villeinage with non-freedom was probably beneficial to the class of chattel slaves which certainly existed in the 11th century. The servile stigma, attached to so large a part of the nation, ceased to involve any peculiar disabilities even in the case of the descendants of actual slaves, who became merged in the class of customary holders and copyholders. Slavery had long been forgotten when, in 1772, Lord Mansfield declared, in the case of the negro Sommerset, that slavery could not exist in England,—"a decision which did more credit to the hearts of the judges than to their knowledge of history." —The terms "freedom," and "franchise," were also applied to the possession of the rights of a burgher, and to membership of the city companies.

[For the Roman colonate see Fustel de Coulanges, *Recherches sur quelques problèmes d'histoire* (1885), espec. pp. 98 *seq.* The best introduction to the discussion on Saxon ranks will be found in note iii. to ch. viii. in Hallam's *Middle Ages*. For post-Saxon conditions in England the most important treatises, from very different points of view, are F. Seebohm, *English Village Community* (1883), espec. pp. 86 *seq.*, and P. Vinogradoff, *Villainage in England*, 1892 (summing-up pp. 217 *seq.*), whereon see also the criticism by Seebohm in *Eng. Hist. Rev.*, July 1892; by Ashley in *Econ. Rev.*, April 1893; and by Leadam in *Pol. Sci. Qu.*, Dec. 1893. On the disappearance of slavery, cp. Freeman, *Norman Conquest*, v. p. 140.

Reference may also be made to Sommerset's case in Broom's *Constitutional Law*, where the historical and juristic aspect of slavery is discussed with much learning.] W. J. A.

FREE TOWNS. In the article on mediæval cities (see CITY, MEDIÆVAL), it was pointed out that, though they had many features in common, in whatever part of western, southern, and central Europe they were established, yet their powers and privileges differed greatly according to their surrounding circumstances. In England and France, the growing predominance of the monarchical *régime* tended inevitably to curtail the rights of civic self-government, and it was only in those countries where the traditions of the old Roman empire were still strong, or the power of the new monarchical principle weak, that *free cities*, in the sense of more or less self-governing communities, were really established. They may be defined as cities possessing independent governments of their own, each virtually forming a state by itself; many were republics. It is, therefore, in Italy, Spain, the Netherlands, Germany, and Switzerland, that we find the historic examples of true civic liberty, though even in these cases the prestige of a feudal aristocracy, or hereditary oligarchy, or again the rise of a loose federation, or the proximity of an imperial suzerainty tended inevitably to modify the primitive features of that liberty. Italy is the historic ground of the free cities of the middle ages. There, owing to the weakness of the imperial sovereignty, whether emanating from Constantinople or Germany, the towns, especially in the northern portion of the peninsula, were able to raise themselves to the proud position of independent states, not only exercising complete control over their internal affairs, but waging war, making peace, and entering into alliances with each other, like the city-states of ancient Greece and Italy. Inland, Milan, Florence, Verona, and other cities contended with each other for empire over the fertile plains of Lombardy; while on the seaboard, Pisa, Genoa, and Venice raised themselves into great sea-powers in the east and west Mediterranean waters; and lesser cities, like Naples and Amalfi, scattered on the Italian coasts, followed their example with greater or less success. The enterprise and energy of all these cities alike was largely due to the fact that the fierce feudal aristocracy, that had sprung from the loins of barbaric invaders, had with its absorption into the civic life instilled the spirit of war into the workshop. The territory originally subjected, after the disruption of the Roman empire, to the count or bishop of these cities, had been reduced by concessions to the rural nobility, but after a while the cities began to reassert their sovereignty. Sometimes they besieged the strongholds of the nobility, sometimes they purchased feudal suzerainties, and finally by the 12th century there could hardly be found a single nobleman, except the marquis of Montferrat, and some noble families like those of Este and Malaspina, who had not given in their submission. The rural nobility, having lost its power outside the cities, strove to recover it inside, and by the erection of strongholds within the cities established a basis of further political and military operations. Hence a fierce belligerency at home and abroad is the chief feature of Italian republicanism; resulting in a striking development of the arts of war alongside those of peace, a development in some towns crowned with the laurels of an art and literature that recalled the palmy days of ancient Athens and Rome. Among the Lombard cities, Milan was most conspicuous for its wealth and wide-reaching power. By its warlike policy, shown in its ruthless conquest of neighbouring towns, like Lodi and Como, it drew on it the resentment of the imperial power in the person of Frederick Barbarossa, who in 1158 reduced the city, and handed it over to the vengeance of its enemies. He then proceeded to restore the imperial authority over the other towns of Lombardy, but his savage treatment led to a general insurrection in which

for a time local feuds were forgotten. After the victory of Legnano in 1176, the Lombard republics regained their independence, but the rivalry between the imperial and papal powers, taken up by their respective partisans the Ghibelines and Guelfs, introduced a new element of contention into the already stormy politics of northern Italy. Leagues were formed again and again between different cities on the new lines of cleavage, and, as was natural in a state war, under the cover of great principles various self-seeking tyrannies were established. During the 13th century there were four great groups of city-states to be found in northern Italy. The first included the cities of central Lombardy, Milan, Cremona, Pavia, Brescia, Bergamo, Parma, Piacenza, Mantua, Lodi, Alessandria, and others less known. The second group consisted of Verona, Vicenza, Padua, and Treviso. Another group was composed of the cities in Romagna, Bologna, Modena, Imola, Faenza, Ferrara, and others less important. The fourth cluster comprehended the whole of Tuscany, headed by Florence and Pisa. Sometimes the Ghibeline faction, sometimes the Guelf faction got the upper hand, and, according to the rise and fall of each, fresh wars and fresh alliances were entered into. We have an interesting account of the condition of Milan in 1288, from Galvaneus Flamma, a Milanese writer. The inhabitants are reckoned at 200,000, and the private houses at 13,000; the nobility alone dwelt in 60 streets, 8000 gentlemen or heavy cavalry might be mustered from the city and its district, and 240,000 men capable of bearing arms. In the district were 150 castles with their adjoining villages. The wealth and enterprise of the Milanese was astonishing, as was shown especially in the construction of the canal from the Tesino to the city, and the architectural splendour of the buildings. Their military ardour and commercial activity were equally conspicuous. The government of Milan and of the other Italian city-states was subject to continual change. In most of them the magistrates, elected after they threw off the rule, in the 10th and 11th centuries, of the count or imperial official or bishop, were styled in Roman fashion consuls. They were chosen annually, and generally from the ranks of the nobility; and they formed the responsible civil and military executive. There were besides legislative and deliberative councils. A council of trust and secrecy, consisting of a small number of persons, formed the advisers of the consuls; but the decision of high state affairs, such as treaties of alliance and declarations of war, the choice of consuls and ambassadors, rested with the general council of a more or less democratic type. About the end of the 12th century, as a result of the imperial intervention of Frederick Barbarossa, the custom arose in many cities of appointing, as a kind of temporary dictator, a citizen of some neighbouring state, though invariably a man of noble birth. He was called *podestà*, and held office for a year, though re-eligible. He received a fixed salary, and was compelled to remain in the city after expiration of office for answering charges brought against him. He could neither marry a native of the city nor have any relation resident in the city, nor even—so great was the fear of his being involved in the feuds and factions of the city—eat or drink in the house of any citizen. He was regarded as the highest arbitrator in all disputes, and sometimes superseded the consuls and commanded in war. There was great need of such an arbitrator in the Italian cities, where there were continual quarrels between the various noble families, and between them and the commonalty. The latter, composed of the artisans, were generally arranged into companies according to their occupations; and these fraternal guild associations were set over against the alliances of the nobility. The quarrels between social classes were further intermingled with the quarrels between political partisans, looking to the German emperor or the pope as their respective heads; while both kinds of quarrel were further embittered by personal outrages such as we read of in Dante and Shakespeare. Whoever conquered in these intestine conflicts, the state suffered from the merciless revenge of the conquering party, till at last the cities of Italy, like those of ancient Greece, were glad to be controlled by the strong though often cruel hand of some one family which established a quasi-hereditary despotism. At Milan, first the Torriani and then the Visconti raised themselves to power, and the latter gradually extended their sway over central Lombardy, overthrowing the reigning nobility in surrounding cities, and finally forming alliances with the French monarchy which in turn invaded and conquered north Italy. The history of the Tuscan is similar to that of the Lombard cities. Florence played the part of Milan. There too there was originally a more or less democratic constitution. The population was divided into fourteen companies or *arts*, the seven greater arts each electing a council of its own, with a chief magistrate or consul for civil jurisdiction, and a *gonfalonière* for military affairs. Criminal justice was administered by a *podestà* and a *capitano del populo*. But gradually, after many trials of various constitutions, political power became centred in the hands of some powerful family, till at last, in the 15th century, the famous Medici ruled supreme.

While Milan and Florence were gradually asserting their supremacy over the territory of northern and central Italy, three maritime cities, Pisa, Genoa, and Venice, were pushing their conquests over the Mediterranean Sea. It was these Italian cities that, after the general

disturbance of Europe caused by the irruption of the various tribes of barbarians and the devastating conquests of the Mohammedans, first succeeded in reviving the commerce of the Mediterranean world. As early as the age of Charlemagne, they had begun to carry on trade with the Greek cities, and imported to their own countries the rich commodities of Asia. In the 10th century the Venetians had formed a connection with Alexandria in Egypt, and the inhabitants of Amalfi and Pisa had also extended their trade to the same port. Later on, the crusades had poured riches into the laps of Venice, Genoa, and Pisa alike. These cities provided the necessary transports, and received enormous sums for their services as carriers. The crusaders also contracted with them for military stores and provisions, and the fleets of these cities kept on the coast, while the armies advanced by land, and during that advance sought every opportunity of promoting their commercial interests. Charters were granted to them, whereby they soon secured most extensive privileges in various settlements made by the crusaders in Asia. The property of entire suburbs in some, and of large streets in others, was vested in them, and the right of appointing their own magistrates assigned. When the crusaders seized Constantinople, the Venetians secured a part of it, and also part of the Peloponnesus in Greece and some of the islands of the Archipelago. With the conquest of many important maritime points in the eastern Mediterranean, trade with Asia revived. The Italian cities not only imported Indian commodities, but established manufactures of delicate fabrics in their own country, especially of silk. Silk weavers were kidnapped from the east of Europe, and settled in Italy, and silk stuffs gradually spread through Europe. The sugar-cane, indigenous in the east, was likewise imported into and cultivated in the west, whence it was eventually transported to America. After the decline of Pisa, partly owing to the rivalry of Genoa and the growing power of Florence, which conquered it early in the 15th century, Genoa contended with Venice for the commercial supremacy of the Mediterranean. Genoa had more especially command of the western Mediterranean and the northern part of the Archipelago and the Bosphorus. Caffa, a famous seaport on the Black Sea, and the port of Azov on the mouth of the Don, belonged to the Genoese, and served as *entrepôts* for their overland commerce with China and the Indies. Smyrna in Asia Minor, and the suburbs of Pera and Galatz at Constantinople, and the isles of Scio and Tenedos were ceded to them by the Greek emperors, and at one time they had the kings of Cyprus as their tributaries. Venice, starting from a more secure position in the lagunes of the northern Adriatic, pushed its conquests on the adjoining coasts of Dalmatia, Albania, Greece, and the Morea, and gradually secured settlements in Corfu, Cephalonia, and Crete. Genoa and Venice inevitably came into collision in the 14th century; and in the war of Chioggia, 1376-82, the famous Genoese admiral Peter Doria nearly succeeded in capturing Venice, which was only saved by the courage and energy of the Venetian admiral Vittorio Pisani. After this victory, Venice more and more secured her ascendency on the Syrian and Egyptian coasts, and the consequent trade with the east, till the discovery of the new sea route by the Cape of Good Hope handed over the oriental trade to the Portuguese and Dutch. The Italian traders naturally proceeded to find markets in western, central, and northern Europe, and to exchange their own commodities with those of other European countries. They were allowed the most extensive immunities in France in the 13th century, even greater than those granted to native inhabitants. As the Lombards, a name generally given to the Italian merchants, engrossed the chief trade of Europe, they became the chief bankers of Europe. By the church their money-lending was denounced as sinful and criminal, and, as a consequence, the interest charged was all the higher on account of the insecurity of their dealings, reaching even to 20 per cent. The chief northern mart for Italian goods was at Bruges. The sea voyage from the Mediterranean to the Baltic being of too prolonged a nature to be carried on in one summer, it was necessary to find some entrepôt or halfway centre for trade, and this was placed at Bruges. Here they exchanged the wool of England, the linen of the Netherlands, the furs, fish, and hemp of the Baltic for the silks, and spices, and silver of the south. The great galiasses, in which they carried their goods were the wonder of the north. At the beginning of the 13th century Bruges was famed as the greatest emporium of northern Europe, and the Hanseatic league of the Baltic cities established also their centre there, while Ghent and Ypres looked to it as their most powerful ally in their struggles with feudalism. For two centuries Bruges held its place, but the gradual closing of its channels, side by side with the increase of the size of trading ships, finally gave the supremacy to Antwerp. During the 15th and 16th centuries Antwerp surpassed all the ports of Europe in its commerce, and in 1568 its population reached 103,000; a civic population only exceeded by that of Paris. Its supremacy was destined in the following centuries to pass to London.

In Spain, although the cities, owing to the strength of the feudal nobility and the growth of the monarchy, never reached the complete independence of the Italian and German towns; yet in very early times, owing to the exigencies of the struggle with the Moors, the towns

of Castile and Aragon were invested with very important privileges or charters, on the condition of protecting their country. They had the right of appointing their own magistrates and common councils, which exercised civil and criminal jurisdiction over the inhabitants not only of the towns but also of extensive areas round them. They were bound in turn to pay certain sums and provide a certain force of armed men, horse and foot. Toledo, Saragossa, Valladolid, and others, became noted for their splendid enterprise. Barcelona, as a seaport, attained a special height of prosperity and power, and vied with the Italian cities on the seaboard in trade with Alexandria and the east. Its maritime laws are among the earliest mercantile jurisprudence of modern times, and were adopted by the Italian states. With other Spanish cities it secured special privileges in France, similar to those of the Italian towns; and Spanish silk and woollen goods, and the spices, drugs, and perfumes, imported from the east, spread far and wide in Spanish bottoms. See Prescott (*Ferdinand and Isabella*), vol. i. pp. 64-68.

Since the beginning of the 10th century, towns had been growing up in northern, southern, and western Germany, especially where the sea or rivers formed the easiest and safest means of communication, or where the traditions of Roman colonies had been handed down through the times of barbaric invasion. Lübeck, Hamburg, Bremen, and Frankfort, Cologne, Treves, Mainz, Strasburg, Worms, Speyer, Nuremberg, Ulm, Regensburg and Augsburg, and others gradually became places of importance, resting on the protection of imperial authority, and ready to fight for further privileges with the ecclesiastical or feudal oligarchy. During the 11th and 12th centuries these powers more and more extended under imperial encouragement, and towards the end of the latter century we find them electing councils of citizens, and in the following century appointing their own magistrates. The growing weakness of the empire naturally led to greater independence, and when, towards the end of the 13th century, the Hapsburg family succeeded to the imperial throne, we find the cities taking their place in the diet side by side with the feudal and ecclesiastical princes. In their struggle for freedom the cities found it necessary to form alliances. In the north there arose, about 1241, the famous HANSEATIC LEAGUE (*q.v.*), initiated by the cities of Lübeck and Hamburg. Their example was followed in 1255 by sixty cities forming the League of the Rhine. In 1370 this league was extended for a time by the adhesion of the cities of Swabia, while farther south the Swiss cities of Lucerne, Zurich, Glarus, Zug, and Berne joined with the three famous cantons of Uri, Schwyz, and Unterwalden in winning republican independence. Each of these German and Swiss towns formed rallying centres for the victims of feudal oppression, and kept alive the spirit of civic and industrial freedom.

[Adam Smith, *Wealth of Nations*, bk. iii. ch. iii. and iv.—Anderson, *Commercial History.*—Bryce, *Holy Roman Empire.*—Freeman, *Essays*, vol. ii.—Gibbon, *Roman Empire.*—Guizot, *Civilization of Europe.*—Hallam, *Middle Ages.*—Koch, *History of Europe.*—Marshall, *Political Economy.*—Motley, *The Rise of the Dutch Republic.*—Prescott, *Ferdinand and Isabella, Charles V.*—Sismondi, *Fall of Roman Empire, Histoire des Républiques Italiennes du Moyen Age.*—Zimmern, *Hanse Towns.*—*Ency. Brit.*, 9th ed., art. on "Hanseatic League" by R. Lodge.] A. K. C.

FREE TRADE, THEORY OF. The term "free trade," or freedom of trade, at first used somewhat vaguely to denote absence of restraint in general, has now acquired a definite specialised sense. To MISSELDEN (*q.v.*), 1622, it meant "the free export of bullion"; to the opponents of the ADVENTURERS, MERCHANT (*q.v.*) "the abolition of the monopoly held by that body"; in the time of Sir Walter Scott "free-traders" meant smugglers (see *Guy Mannering*), at the opening of the 18th century, and in 1782 in Ireland, "the right to export freely." Adam Smith's authority, and the direction given by him to economic thought, have caused its limitation to that system of commercial policy which draws no distinction between domestic and foreign commodities, and, therefore, neither imposes additional burdens on the latter nor grants any special favours to the former. Free trade in this now well-established sense does not require the removal of all duties on commodities; it only insists that they shall be levied exclusively for revenue, not at all for PROTECTION (*q.v.*). "Our object," said Cobden, "is not to take away the queen's officers from the custom-house, but to take those officers away who sit at the receipt of custom to take tithe and toll for the benefit of particular classes" (*Speeches*, pop. ed. p. 41).

Free trade as a practical policy is based on the economic theory of INTERNATIONAL TRADE (*q.v.*), which explains the nature of the benefits obtained through foreign commerce, and shows that it is only carried on so long as it yields a gain to those concerned. But "if," as Cairnes urges, "nations only engage in trade when an advantage arises from their doing so, any interference with their free action in trading can only have the effect of debarring them from an advantage" (*Leading Prin.*, pt. iii. ch. iv. § 1). Foreign trade is a particular form or species of EXCHANGE (*q.v.*), and its utility is therefore at a maximum when impediments to its action are completely removed. The free trade doctrine thus rests on the most elementary economic facts, and is so simple as almost to appear trivial. The operation of free trade is negative; by removing obstacles it affords room for the

working of the normal and beneficent forces of commerce.

Again, free trade—to slightly change the point of view—has a reactive effect on production. DIVISION OF LABOUR (*q.v.*) only becomes possible by means of exchange, which permits each industrial group to confine its efforts to the most profitable employment, and to satisfy its various wants by exchange with other bodies. Elaborate and efficient production almost necessarily implies a developed system of trade. This is particularly true where specialisation of industry is due to local advantages. "The territorial division of labour," which forms no small part of the general movement, is in great measure dependent on facilities for foreign commerce, and is therefore promoted by the establishment of free trade. Each country can devote itself to those forms of production in which it has a comparative advantage (see INTERNATIONAL TRADE), and obtain from foreigners all other commodities. Individuals "find it for their interest to employ their industry in a way in which they have some advantage over their neighbours"; and, as Adam Smith proceeds to observe, "what is prudence in the conduct of every private family can scarce be folly in that of a great kingdom" (*Wealth of Nations*, ed. Nicholson, p. 185). Thus regarded, free trade appears to be an obvious dictate of common sense rather than the product of refined and difficult theory, a circumstance which accounts for the somewhat scornful tone that many advocates of commercial liberty have used towards opponents. There are, however, some complicating conditions which render the argument from division of labour harder to follow in foreign than in domestic trade. The individual producer has little difficulty in perceiving that a special line of work is more profitable to him than the attempt to directly supply all his wants by his own exertions. To the nation the first effect of foreign trade seems to be the displacement of so much home industry, with resulting loss to the supplanted producers. Hence the necessity for showing that an "imported commodity is always paid for directly or indirectly with the produce of our own industry," and "that the alternative is not between employing our own people and foreigners, but between employing one class and another of our own people" (Mill, *Principles*, bk. v. ch. x. § 1). Imported goods must undoubtedly be paid for, and, normally speaking, be paid for by the export of native products; but some power of analysis is needed to realise this truth amidst the complications of trade. Adam Smith meets the difficulty by insisting that "the general industry of the society never can exceed what the capital of the society can employ" (*Wealth of Nations*, p. 183), and that therefore regulations of commerce can only divert a part of that capital into an artificial direction. The individual is, however, able to determine the most profitable direction for the employment of his capital far better than the "statesman or lawgiver"; and he is urged to so use it by the stimulus of self-interest. Mill's "first fundamental proposition," viz. "that industry is limited by capital," with its corollary, that "demand for commodities is not a demand for labour," serves the same purpose (*Principles*, bk. v. ch. x. § 1). The optimistic doctrine of the *Wealth of Nations*, with its belief in the guidance of "an invisible hand" (bk. iv. ch. ii.), is replaced by the Ricardian theory of foreign trade, which assumes both the domestic mobility and the international immobility of labour and capital (cp. Bagehot, *Economic Studies*, p. 67), but either suffices as a basis for the free-trade position. Nor is it essentially altered by modern developments of the theory of WAGES (*q.v.*). Even if capital is not the sole limit to industry, and if efficiency in work is also to be taken into account; still as free trade tends to increase general efficiency, it follows that the "produce theory" of wages gives quite as valid a support to the policy of freedom. This general argument is strengthened by reference to the statistics of trade, and by consideration of the elements that make up international indebtedness (see COMMERCE), from which it appears that imports and exports stand in a definite relation to each other. The intervention of MONEY (*q.v.*), a potent cause of economic fallacies, further obscures the case; but the cardinal principle, that foreign like domestic trade is fundamentally barter in which goods are exchanged for goods, throws light on this side of the question. It is shown that a permanently favourable BALANCE OF TRADE (*q.v.*) is an impossibility, and even were it attainable, that it would not be advantageous, since the undue accumulation of the precious metals means the locking up of what would otherwise be productive capital.

By the analysis and exposure of the fallacies connected with (1) the sources of employment, and (2) the nature of the circulating medium, the argument for freedom of trade as a general rule has become a part of practical economics, and has been largely accepted by the educated public, and even recognised as the ultimate goal by such representative protectionists as LIST and CAREY. But its admission in the vague shape of an "abstract principle" or "theory" has not hindered the existence of widespread dissent to its reduction to "practice," a hostility not wholly due to ignorance and the influence of particular interests. Exceptions to free trade may be urged either on the ground of special economic conditions or by appealing to wider considerations than those relating to material wealth. Cases of both kinds are to be found in the *Wealth of Nations* (bk. iv. ch. ii.). Of the former the most important is that of temporary protection in order to encourage the development of infant industries, which, feeble

at first, will ultimately become self-supporting. This case requires the balancing of present against future advantage: immediate gain is to be sacrificed for a larger one at a later time. Such a policy applied to manufactures in general is the "industrial protective system" of List, regarded by him as suited for a particular stage of economic development. Its validity—with, however, stringent limitations—is conceded by Mill (*loc. cit.*), and more unreservedly by Prof. Sidgwick (*Pol. Economy*, bk. iii. ch. v. § 1), and Roscher (*System*, vol. iii. § 138). Adam Smith's contention that individual enterprise is a better guide for industry than the dictates of governments, seems, as he himself held, to be fully applicable here. The difficulties in selecting the industries to be encouraged, and the amount of protection required by each, have been justly dwelt on by free traders (see especially Wise, *Industrial Freedom*, pt. iv. ch. ii. and app. ii.) who have further asked without much result for evidence of the successful use of protection for this purpose. Thus, while it is theoretically possible that the temporary protection of a particular industry might yield a surplus of advantage, it is plain that the discovery of such an instance will be much rarer than the injurious employment of the same instrument in unsuitable cases (see BOUNTIES).

Protection may also be sought on like grounds, for older industries become for the moment unprofitable through a temporary disturbance in trade conditions (Sidgwick, *Pol. Econ.*, bk. iii. ch. v. § i.), and should be tried by the same tests.

The foregoing argument has some affinity with the plea that diversity of industry is economically beneficial, especially in a new country, and therefore deserving of encouragement. The advantages of the "home market" as affording a steady demand, and saving the cost of transport, have been unduly emphasised by protectionists with curious disregard of the fact that cost of carriage is a natural protection to the home producer, and only overcome by the greater benefit of foreign trade. Experience, besides, does not confirm the belief that fluctuations are less frequent in a limited market, nor does it show that diversity of industry is incompatible with complete freedom of trade.

In like manner the possibility of enlarging the national market by causing immigration of labour and capital, or of hindering its contraction by checking their efflux, has been alleged as a good reason for the use of protection, and the claim has been theoretically admitted by some economists (*e.g.* Prof. Sidgwick, *Pol. Econ.*, bk. iii. ch. v. § 3). Unless, however, in the case of a country possessing the sole or chief market for a commodity, it is hard to see how the imposition of duties will even tend to draw in labour, as the cost of living will almost certainly be higher, while the investment of foreign capital will depend on the prospect of a high return, which is not likely to be increased by the adoption of protection.

A much more plausible argument for departing from the free-trade rule is that based on the idea of preserving national resources. A country's mineral stores form a stock which is being gradually worked out, and it may be held that protective duties on imports will act as a check to their too rapid use (*cp.* Jevons, *Coal Question*, Preface). Again, as Carey urges, food-exporting countries may exhaust the fertility of their soil—or to take a further step in refinement of the doctrine—may find the Margin of Cultivation pushed to a lower point. Thus the community experiences the same effects that would follow from an increased population at home (*cp.* S. N. Patten, *Economic Basis of Protection*, pp. 47, 48). On the other hand, the gain to the landowners, and therefore to the revenue of the society from an increase in rent must be taken into account as well as the cheaper terms on which imports are obtained under free trade; and on the balance it is probable that even in so peculiar a case the advantage would be on the side of freedom.

On the border between economic and political exceptions is the proposal to make freedom of trade dependent on reciprocity. If based on the belief that trade to be advantageous must be free on both sides, the idea is clearly fallacious, but where it simply aims at removing foreign protective duties and thus securing wider freedom of trade in the future, it "may be good policy," as Adam Smith (*Wealth of Nations*, p. 190) asserts, since "the recovery of a great foreign market will more than compensate the transitory inconvenience" of retaliation. Here, however, as in respect to infant industries, the probability of success is much smaller than that of failure, owing to the inevitable irritation produced in foreign countries by retaliation, which leads to increase rather than reduction of protective duties.

All the preceding cases have often been supported on non-economic grounds, but chief stress has been laid on the economic gain to be sooner or later derived. Different in kind is the preference of national security to increase of wealth, which formed the strongest argument in support of the CORN LAWS and the NAVIGATION LAWS, and which actually won for the latter the favourable judgment of Adam Smith (bk. iv. ch. ii.), and of J. S. Mill, who, however, approved of their repeal. In such instances the question is one for the statesman rather than the practical economist, but in making a calculation the economic loss, though not of itself decisive, should never be dropped out of sight, as opulence is one of the chief elements of political and military power.

Social protective duties (*sociale Schutzzölle*) have been advocated in order to hinder the degradation of labour, in consequence of the pressure of foreign competitors working under inferior conditions of life, and in countries with stringent FACTORY LAWS (see also FACTORY ACTS) the plea has in certain cases an apparent force. In its more extreme form, as in the United States, where protection against the "pauper labour" of Europe is a popular cry with the opponents of free trade, it is only a repetition of the fallacy already noticed that free trade reduces the amount of employment, and it also erroneously assumes that with unrestricted commerce wages will everywhere fall to the lowest existing level, though it is obvious that IMMIGRATION of poorly-paid foreign labour, which is the real cause of lowered wages, may happen under, and even be stimulated by, the most rigid protection.

On the whole it does not appear that the various exceptions suggested to the broad canon of free trade have much practical weight, at least in the present stage of social development, though they suggest some interesting qualifications of economic theory. Some of them are connected with the possible evils that accompany extended division of labour—evils not sufficiently recognised by the older English writers, but nevertheless of serious social import. They further bring out the varying consequences that follow from the action of industrial effort according as it is placed under the law of INCREASING RETURNS or under the law of DIMINISHING RETURNS, and show, as Mill had briefly noticed (*Principles*, bk. v. ch. x. § 1), that agricultural and manufacturing communities are not affected in the same way by free trade. The "infant industry" argument gains its force from the consideration of time; it appeals to the future as against the present. The real nature of national interest, and its possible divergence from the individual interests of producers and consumers, have been brought into stronger relief, without, however, invalidating the proposition that in the main the interest of the community is served by the widest freedom.

The result then is that the practical policy of free trade is a sound deduction from established economic doctrines, and that any proposed exception must be clearly made out by its advocates, on whom the burden of proof rests, and who are bound not merely to adduce special circumstances that appear to favour the claim, but to take into account all the surrounding conditions, and to give due weight to each. Submitted to such a test, the most plausible cases for interference with the normal course of trade turn out to be theoretical subtleties, not practicable or advisable expedients.

[The literature of the subject is too extensive for adequate notice. Adam Smith, *Wealth of Nations*, bk. iv., is the source of the most effective free-trade arguments. The petition of the merchants of London, 1820 (in *Wealth of Nations*, ed. M'Culloch, note 15), drawn up by Thos. Tooke (Tooke and Newmarch, *History of Prices*, vol. vi. p. 335), summarised them most concisely.—F. Bastiat, *Sophismes Économiques*, Œuvres, tomes iv. and v., contain the most brilliant exposure of popular fallacies.—W. G. Sumner, *Protectionism*, New York, 1883, and B. R. Wise, *Industrial Freedom*, 1892, deal with the latest phases of the controversy. See also references given above, and for writers who have opposed, see articles on A. A. COURNOT; and PROTECTION.] C. F. B.

FREE TRADE, EARLY HISTORY OF. The free-trade agitation of the 19th century, itself only one phase of the growth of the competitive system, was the last though not the final stage of a great movement extending over several centuries. As we may expect, therefore, the expression "free trade" has different meanings at different periods in the economic history of the country. The foreign merchants of the middle ages who desired to obtain a footing in England on a free-trade basis, meant by this expression that, subject to the payment of the usual customs, they should be allowed to exercise their calling in English ports and mart towns without let or hindrance; that they should not be subjected to unreasonable exactions; that their ships and goods should not be arrested without due cause, etc. The English "free trader" of the latter part of the 16th century wished to see the revival of the regulations of the STAPLE system, and the withdrawal of the privileges of exclusive trading companies, such as the Merchant Adventurers. In the 17th century he meant the broadening of the basis of the companies, so that all who desired might obtain admission on easy terms. There were also some writers, such as Roger COKE (*q.v.*), who clearly perceived the advantages of free importation, of the repeal of the navigation acts, and of the acts restricting certain trades, such as the cattle and woollen trades of Ireland, and who advocated the more enlightened policy of the Dutch in the regulation of commerce. The free trader of the 18th century advocated the removal or reduction of duties on imports and exports, but at this time he seldom belonged to the commercial classes. It is impossible, therefore, to understand the significance of the various phases of the free-trade movement, apart from the general economic conditions which prevailed when each phase became prominent. From the standpoint of to-day, for example, the elaborate regulations of Edward III.'s great Ordinance of the Staples appear unwise and oppressive. But the experiment of dispensing with staple towns had been tried and had led to bad results. In the policy he adopted with regard to foreign merchants, he was singularly favourable to their claims; and many of his statutes were intended to give security to

traders, to repress lawlessness, to provide means of settling disputes, or to place the collection of customs on a satisfactory basis. These elaborate regulations, so far from being a restraint on trade, were frequently the means which made trade possible. Moreover it does not appear to have been difficult to obtain exemption from the staple acts when it could be shown that such a course was advantageous, and throughout the middle ages there were numerous bodies of merchants, such as the Hanse merchants, the merchants of Florence, Venice, etc., who enjoyed such privileges. So also, the elaborate commercial treaties of the 14th and 15th centuries have been too hastily condemned by some writers. If they had been arbitrarily imposed by governments on unwilling communities where there had formerly been free exchange of commodities, and where there were all the conditions requisite for peaceful and uninterrupted commerce, they would have been an unwarrantable interference with the course of trade. But these assumptions would be incorrect. Though unwise regulations were frequently adopted, the effect of the commercial treaties was to assimilate the conditions of different countries and communities, to build up the fabric of international law, and to extend trade far beyond the limits which would have been possible in a state of perfect freedom. With the growth of capital and industry, the rise of a manufacturing class, and the development of a national foreign trade which took place in the 15th century, the prevailing hostility to foreigners became more strongly marked. The demand arose for the encouragement of native commerce, and the protection of English industries. The reign of Edward IV. is full of acts of parliament passed with this object, and from this time onwards we can note the gradual development of the great protective system which was not overthrown till our own day. The privileges enjoyed by foreign merchants were restricted. Those of the Hanse merchants, who attained their greatest influence in England in the 15th century, were suspended by Edward VI., and after a partial renewal under Mary and Elizabeth, were finally withdrawn by the latter. English trading companies were incorporated, protective tariffs imposed, corn laws and navigation acts were passed, and the country was apparently getting deeper and deeper into a narrow national policy. We cannot here discuss the question how far the mercantile system achieved the objects which its advocates had in view (*vide* ENGLISH EARLY ECONOMIC HISTORY; HANSEATIC LEAGUE; MERCANTILE SYSTEM; NAVIGATION ACTS). The period which saw its growth saw also the growth of the forces which led to its final overthrow. Throughout their history the policy of confining the foreign trade of the country to exclusive trading companies was subjected to much hostile criticism. It was assailed in Parliament, and in the works of economic writers. The regulations of some of the companies were modified to meet the claims of outsiders; Cromwell tried the experiment of a free and open trade with the East Indies; privileges were granted to bodies of merchants in contravention of the charters of the companies; in a great debate at the committee on trade in 1657, only two persons were favourable to the Merchants Adventurers, while all the other members were for the free merchants. There were many men like Ralph GARDINER (*q.v.*), who were willing to suffer much in the struggle against monopoly; and after the revolution of 1655, few of the old companies are of great practical importance except the EAST INDIA COMPANY (*q.v.*), which itself was reorganised on a national basis. With the 18th century the movement for the removal or reduction of duties on imports and exports becomes important. It can best be traced in the history of the commercial treaties of the period and the negotiations which led up to them, *e.g.* the METHUEN TREATY with Portugal (1703), the Treaty of Utrecht (1713), the commercial clauses of which were drafted by Arthur Moore, and W. PITT'S commercial treaty with France (1786). In the first we have a typical treaty framed on the principles of the mercantile system. "The Methuen Treaty" said Fox in 1786, "had justly been considered as the commercial idol of England." The eighth and ninth clauses of the Treaty of Utrecht raised a storm amongst the commercial classes, for they were an attempt to move in the direction of free trade with France. It was found impossible to carry them, though the principles they embodied were most ably advocated chiefly by Arthur Moore in Parliament, and by Defoe in *Mercator*. Pitt's treaty, avowedly an attempt to carry into effect the teaching of Adam Smith, was passed without serious opposition,—"No great manufacturing body of men" said Pitt, "had taken alarm,"—and during the short period of its operation before the outbreak of the war with France it was very successful. Many other illustrations of the growth of free-trade principles during the 18th century may be given, such as Walpole's commercial and colonial policy, Pitt's Irish propositions, etc. The principal obstacle in their way was the bitter hostility of the commercial classes. But there can scarcely be any doubt that but for the French revolutionary war, and the difficulties into which it plunged the country, Pitt would have anticipated by fifty years the later free-trade movement.

W. A. S. H.

Free trade principles were early maintained in France by the economists, being a natural deduction from their principle of *laissez-faire* and a necessary corollary to their doctrine

that freedom in exchange, an absolutely unshackled use of the wealth of individuals, could not be dissociated from the full enjoyment of the rights of private property (see DUPONT DE NEMOURS; ÉCONOMISTES; ÉPHÉMÉRIDES; PHYSIOCRATS; QUESNAY and TURGOT).

FREE TRADE,—MODERN HISTORY OF. The history of the modern movement in favour of free trade practically begins with the year 1786, when Pitt concluded a commercial treaty with France which abolished many of the protective duties between the two countries. Ten years before, however, a great impetus had been given to free-trade doctrines by the publication of Adam Smith's *Wealth of Nations*. Yet the protective system was so interwoven with our commercial policy at home and abroad, that no really successful assault could be made upon it until nearly forty years after the passing of Pitt's French treaty. With the appointment of WILLIAM HUSKISSON (*q.v.*) as president of the board of trade in 1823, a complete change came over the commercial policy of England, and the bulwarks of protection began to give way. In the session of 1823 Huskisson carried his Reciprocity of Duties Bill, a measure which largely modified the effects of the NAVIGATION ACTS (*q.v.*), by freeing English and foreign shipping. He next reduced the duty on raw and spun silk, and lowered the import and export duty on wool. The right of free emigration was restored to artisans, and the laws controlling the combinations of either masters or workmen were repealed. "These were the beginnings of free trade; but a further development of political liberty was essential to the triumph of that generous and fruitful policy" (Lord Farnborough's *Constitutional History of England*, vol. ii.).

Various efforts to regulate the price of corn by act of parliament were made in 1773, 1791, 1804, 1815, and 1822; but in consequence of the ill effects of such legislation in 1825-26—years of severe commercial panic—the privy council was authorised to issue orders to suspend the operation of the acts, and to permit the importation of foreign corn under circumstances of necessity. Grave doubts now arose as to the soundness of a protective policy and the beneficial operation of the corn laws; and during the brief administration of George Canning in 1827, that brilliant and progressive statesman carried resolutions in the House of Commons pointing to a more liberal policy. A relief bill based on the resolutions passed the Lower House, but owing to Canning's death and the opposition of the Duke of Wellington in the Lords, the measure was lost. In 1828, when the Duke had assumed office, with Peel and Huskisson among his colleagues, the duties on foreign corn were regulated in accordance with a new sliding scale. By an act passed on the 15th of July the import duty on wheat was to be 25s. 8d. per quarter when the average price in England was under 62s.; 24s. 8d. when from 62s. to 63s.; and so to be gradually reduced to 1s. when the average price was 73s. and upwards.

Catholic emancipation and parliamentary reform now absorbed public attention for some years, and nothing further was done to remedy the grievance of the corn laws. The abundant harvest of 1835 came as a slight relief by making bread cheaper for the people, and the year 1836 witnessed no direct action in parliament on free-trade questions. But early in 1837, in consequence of the deficient harvest in the previous autumn, followed by a commercial collapse, an anti-corn law association was formed in London. On the committee were twenty-two members of parliament, including George Grote the historian, J. Silk Buckingham, founder of the *Athenæum*, T. S. Duncombe, Joseph Brotherton, W. Clay, Joseph Hume, J. A. Roebuck, Colonel Perronet Thompson, and Sir W. Molesworth. Three popular writers and poets—Thomas Campbell, Ebenezer Elliott, and William Howitt—were also upon the committee. In the House of Commons, Mr. Clay endeavoured to procure a modification of the corn laws. He moved the adoption of a fixed impost of 10s. per quarter on wheat, in lieu of the sliding scale of duties, but his resolution was lost by 223 votes to 89. In September 1838, Dr. (afterwards Sir John) Bowring addressed a meeting of fiscal reformers at Manchester, which had been hastily called together by Mr. A. Prentice. A proposition to form an anti-corn law association was welcomed with enthusiasm. A preliminary meeting, attended by seven earnest reformers, was held on the 24th of September, and on the 13th of October there was published in the *Manchester Times* a list of thirty-eight gentlemen, as a "Provisional Committee of the Manchester Anti-Corn Law Association." The name of John Bright appeared in this first list, and that of Richard Cobden in the second list, issued a week later. A young medical student named Paulton delivered eloquent lectures in various towns on the advantages of free trade, and Lancashire was soon stirred to action. On the motion of Mr. Cobden, the Manchester chamber of commerce petitioned parliament against the corn laws. The free-trade organisation assumed a larger character in 1839, and became formally known as the National Anti-Corn Law League. A journal entitled the *Anti-Corn Law Circular* was established to advocate the movement. Mr. C. P. Villiers, one of the earliest pioneers of the advancing cause (still living, 1895), now took the lead in parliament, and annually brought forward his resolution in favour of free trade. In March 1839 his motion for a committee on the corn laws was rejected by

342 to 195, and in 1840 by 300 to 177. Lord Fitzwilliam's resolutions in the House of Lords condemnatory of the corn laws were rejected in 1839 by 224 votes to 24, and in 1840 by 194 to 42. During the debate in the Lords on 14th March 1839, the premier, Lord Melbourne, said, "To leave the whole agricultural interest without protection, I declare before God I think it the wildest and maddest scheme that has ever entered into the imagination of man to conceive." In the session of 1840, 763 petitions, with 775,840 signatures, were presented to the House of Commons against the obnoxious laws. In the session of 1841 ministers proposed a fixed duty of 8s., but no measure was brought in owing to the dissolution. Sir Robert PEEL (*q.v.*) came into power in September, and in the ensuing winter there was such terrible distress in all the great centres of population that a conviction gained ground of the absolute necessity for some change in the restrictive laws which pressed so heavily upon the community.

Early in 1842 Mr. Bright stepped into the front rank of the repealers, and created much effect by his earnest eloquence. With Cobden, Villiers, and Wilson, he was instrumental in forming many provincial branches of the league. The government was now moved to action, and in the session of 1842 Peel carried his new sliding scale. By this, there was to be 20s. duty when the price was at 51s., decreasing to 12s. at 60s., and 1s. at 73s.; the duty was not to exceed 20s. when the price fell below 51s. An amendment in favour of a fixed duty, proposed by Lord John Russell in the Commons, was rejected by 349 to 226, and a similar amendment proposed by Lord Melbourne in the Upper House was lost by 207 to 71; an amendment in favour of total repeal proposed by Mr. Villiers in the Commons was rejected by 393 to 90, and a similar amendment brought forward by Lord Brougham in the Peers was lost by 109 to 5. The second reading of the Sliding-scale Bill in the Lords was carried by 119 to 17. To meet the growing deficit in the revenue, which had now become very serious, Peel brought in a bill for the imposition of an income tax of 7d. in the pound, to be levied for three years. But in order to alleviate the new burden, he either partially or wholly abolished the duties on numerous important articles, such as drugs, butter, eggs, cheese, lard, dye-woods, cattle, sheep, pigs, and salted meat. The Manchester Free Trade Hall, built by the repealers on the site of the Peterloo massacre, was opened 30th January 1843. At the inaugural meeting subscriptions of £40,600 to the league fund were announced. In February, the House of Commons was invited by Lord Howick to discuss the question of free trade on a side issue, when his lordship moved for a committee to inquire into the distress of the country. During the debate a strange scene occurred. After a powerful speech by Mr. Cobden in favour of repeal, Sir Robert Peel rose, and in his excitement indirectly insinuated that Mr. Cobden was inclined to favour his assassination. The unhappy incident arose out of a misinterpretation put upon certain words by Mr. Cobden. The premier's overwrought feelings were further intensified by the attempt upon himself which had resulted in the death of his secretary Mr. Drummond. The affair passed over, and Lord Howick's motion was rejected by 306 to 191 votes. Votes of sympathy with Mr. Cobden were passed at various public meetings. In the spring of 1843 the league held a series of demonstrations in Drury Lane Theatre. Lords Russell and Monteagle brought forward motions in parliament to inquire into the effects of Peel's sliding scale, but they were rejected in the Commons and Lords respectively by 244 votes to 145, and 200 to 78. Mr. Villiers's motion for total repeal was rejected this year by 381 to 125, but in the minority were several prominent and ex-official whigs. The council of the league distributed, in 1843, tracts, and publications, etc., to the number of 9,026,000. It was also determined now to raise a fund of £100,000 to further the objects of the league. In March 1844 Mr. Cobden moved for a committee of the House of Commons to inquire into the effects of protective duties on agricultural tenants and labourers, but he was defeated by 224 to 133. Mr. Villiers's annual motion was subsequently brought forward and lost by 328 to 124, but Mr. Bright predicted that either Sir Robert Peel would abolish the corn laws or his government would be overthrown. At a great meeting held in Covent Garden Theatre, Mr. Cobden announced that they would petition the existing House of Commons no more, but would memorialise the Queen direct in favour of the immediate dissolution of parliament.

Sir Robert Peel brought forward the Budget for 1845 on the 14th of February. There was a surplus of £3,409,000, which he proposed to devote to the reduction of the sugar duty, the abolition of the duty on glass, cotton, wool, and on the importation of Baltic staves. He also proposed to abolish the duty on all those articles which merely yielded nominal amounts, a step which would sweep away 430 articles from the tariff. The budget was not thorough enough for the friends of the league, who complained that it took away with one hand what it gave with the other. On the 7th of March Mr. Cobden moved for a select committee to inquire into the causes and extent of the existing agricultural distress, and into the effects of legislative protection upon the interests of landowners, tenant farmers, and farm labourers. The motion was lost by 213 to 121.

Early in May a great bazaar in connection with the league was held in Covent Garden Theatre. On the 26th of May, Lord John Russell brought forward eight resolutions in parliament in the hope of forcing on the question, and shortly afterwards Mr. Villiers repeated, for the last time, his annual motion for the abolition of the corn laws. On this occasion Mr. Bright said that Sir Robert Peel knew well enough what the country wanted, and he ought to do it, being the only statesman competent for the task. The premier brushed aside Lord John Russell's resolutions, and, in replying to the motion of Mr. Villiers, said that he could not see his way to apply the principle of free trade completely to agriculture and the total abolition of the corn laws. But there were signs of wavering and perplexity in the premier's mind. When the House rose on the 8th of August there were grave apprehensions as to the approaching harvest, and it was felt that the question of the continuance of the corn laws was mainly dependent upon the variations of the barometer. That which actually occurred was worse than the anticipation. The harvest was deficient in Great Britain, while in Ireland the potato crop, the staple sustenance of the population, failed entirely. Terrible suffering ensued, and at a mass meeting at Manchester on the 28th of October, Mr. Cobden called on Sir Robert Peel to save the country, which was menaced by famine. The cabinet met frequently, being much discomposed at the aspect of affairs; but even in this narrow circle there were strong differences of opinion as to the measures required. On the 22nd of November Lord John Russell issued a manifesto to the electors of the City of London declaring for the abolition of the corn laws. "Let us unite," wrote his lordship, "to put an end to a system which has been proved to be the blight of commerce, the bane of agriculture, the source of bitter divisions among classes, the cause of penury, fever, mortality, and crime among the people." This address precipitated matters, and it was followed by similar declarations from Lord Morpeth at Leeds, and Mr. (afterwards Lord) Macaulay at Edinburgh. The cabinet met on 25th November, and the crisis was now felt to be most urgent. The ministerial discussions lasted for several days. At length the Duke of Wellington gave way, and on the 3rd of December the *Times* made the startling announcement—received in many quarters with incredulity—that the abolition of the corn laws had been resolved upon, and that parliament was to meet at once to consider the question. As Lord Stanley, however, and some other ministers absolutely declined to support complete abolition, the premier resigned. Lord John Russell endeavoured to form a government, but his negotiations fell through, and Peel was recalled. Foreseeing that he could carry abolition through the combined efforts of his own friends and the whigs and free-traders, he consented to resume office, and Lord Stanley was replaced in the government by Mr. Gladstone.

Meanwhile, the anti-corn law league did not relax its efforts. An important meeting was held at Manchester on 23rd December, when it was resolved to raise a fund of £250,000 for the purpose of promoting free-trade principles in the existing emergency. Upwards of £60,000 was subscribed in the room in an hour and a half—the largest sum ever subscribed in the same space of time for any cause. On the 27th of January 1846 Peel brought forward his measure for the abolition of the corn laws before a crowded House of Commons. Prolonged debates took place at each stage of the bill, but eventually, on the 16th of May, the third reading was carried by a majority of 98 in a house of 556. The list of 327 members who voted in favour of the bill included 104 conservatives, and 223 whigs and liberals; the minority of 229, with the exception of seven votes, was composed exclusively of conservatives. Partly through the arguments and influence of the Duke of Wellington, the House of Lords passed the second reading of the bill by a majority of 47 votes, and the measure became law on the 25th of June. On the same day the Peel ministry fell upon the Irish Coercion Bill. The premier, in his speech on leaving office, delivered on the 29th, reviewed the course and policy of his government, paid a warm tribute to Mr. Cobden, and closed with these memorable words—"It may be that I shall leave a name sometimes remembered with expressions of goodwill in the abodes of those whose lot it is to labour, and to earn their daily bread by the sweat of their brow, when they shall recruit their exhausted strength with abundant and untaxed food, the sweeter because it is no longer leavened by a sense of injustice." The measure for abolishing the corn laws provided that from the passing of the act, and until the 1st of February 1849, the maximum duty would be 10s., exigible when the price was under 48s., and it was to fall a shilling with every shilling of rise in the price till the latter reached 53s. or upwards, when the duty was to remain at the minimum of 4s. The duties on barley and oats would undergo an alteration proportionally the same; while all grain from British colonies was to be admitted free of duty, and maize or Indian corn was to be admitted, immediately after the passing of the act, at a nominal duty. Other articles in the tariff, under the heads of articles of food, agriculture, manufacture, etc., were dealt with to the number of several hundreds, in the way of duties repealed or reduced. The duty on corn was to cease in 1849, with the exception of a registration duty of 1s. a quarter, abolished in 1869. This was resumed for one year, 1902-1903.

The Anti-Corn Law League was dissolved on the 2nd of July 1846, its work having been practically accomplished. It had a temporary revival, however, in 1852, when there was some fear that the brief administration of Lord Derby would return to a protectionist policy. After the abolition of the corn laws other restrictions upon the freedom of trade were gradually removed. The navigation laws were repealed in 1849, and in 1853 Mr. Gladstone greatly relieved the tariff by the reduction or total remission of imposts on 133 articles. Further steps in abolishing protective impediments were taken in 1860, 1869, 1874, etc. The policy of free trade in the United Kingdom has been justified by its effects on the prosperity of the country; for just as the free-trade system has enabled us to take the utmost possible advantage of periods of prosperity, so it has enabled us to meet phases of reaction and adversity with less strain on our resources than any of the protected countries. The British tariff is now virtually one for revenue only, and under this system we have secured a great expansion of both home and foreign trade. As the tendency of all our recent financial legislation has been towards the general abolition and diminution of duties in order to liberate trade, our commerce has shown in consequence a remarkable elasticity and power of recuperation in depression. (See MANCHESTER SCHOOL.)

[*History of the Anti-Corn Law League*, by Archibald Prentice, 2 vols. 1853.—*Free Trade and Protection*, by Henry Fawcett, 1878.—*Free Trade* v. *Fair Trade*, by Sir Thomas H. Farrer, 1885.—*Life of Richard Cobden*, by John Morley, 2 vols. 1881.—*Life and Speeches of John Bright*, by G. Barnett Smith, 2 vols. 1881.—*History of the Free Trade Movement in England*, by Augustus Mongredien, 1881.] G. B. S.

FREGIER, A. (1789; died soon after 1850), an official of the prefecture of the department of the Seine, was from 1824 to 1830 secretary of the *Conseil de Préfecture*, and from 1830 to 1843 head of the *Bureau du Domaine* (state property) in Paris. He wrote principally on subjects connected with the dangerous classes in large towns:—*Des Classes Dangereuses dans les grandes Villes* (Paris, 2 vols. 1839-40), and *Histoire de l'Administration de la Police à Paris depuis Philippe Auguste* (Paris, 2 vols. 1850). His pamphlet, *Solution Nouvelle du Problème de la Misère* (Paris, 1851), is in favour of a *minimum* rate of wages, to be fixed by the local authorities according to the cost of food and lodgings, coupled with an interdiction of employing *married* women in factories (p. 37), and of erecting new factories in large towns (p. 44). These rules were only to be applied to manufacturers employing more than twenty workmen. E. Ca.

FREIGHT is the reward paid by the owner of goods to the shipowner for the service of transporting merchandise from the agreed place of shipment to the agreed place of delivery. It accrues usually under written contracts called charter-parties or bills of lading. When an entire ship is hired for service a charter-party is made. When a part cargo is laden in what is called a "liner," a "berth" ship, or sometimes, a "general cargo" ship, no charter-party is made between the owner of the goods and the shipowner, but a bill of lading is issued to each shipper for his own parcel of goods, and the cost of freight as well as all the other conditions of the contract are set forth therein. In the latter class of cases freight is generally prepaid, the payment being made in exchange for the bill of lading. In the former class—where a charter-party is drawn up, and the whole ship is hired, the method of payment varies very much. Sometimes the freight is paid partly in advance at the time of shipment, but most frequently it is paid at the time and place of delivery. If in either case the goods are not delivered at the agreed port of destination, and the freight has not been paid in advance, no freight becomes due, no matter what portion of the voyage may have been accomplished. By the laws of some Continental States what is called "distance freight" is due to the ship when an accident prevents the vessel carrying the goods to the agreed destination, except in the case of total loss; but English law does not recognise any freight to be due which the charter-party makes payable at the port of destination on due delivery of the goods until the goods are so delivered. In the absence, however, of express stipulation to the contrary, freight, once prepaid in accordance with the terms of either charter-party or bill of lading, is not recoverable from the shipowner if, through the occurrence of some sea peril, the vessel fails to make delivery at the port of destination. The theory in this case is, that such prepayment of freight is added to the value of the goods shipped, and that the insurable interest in the amount prepaid vests in the owner of the goods, the value of which is enhanced by this prepayment. The shipowner has not always an insurable interest in prepaid freight. It is not at sea-risk, from the fact that it is paid. The shipowner has it, and no sea peril makes him liable to return the money if the goods are not delivered. The incidents of freight no longer attach to the money so paid.

The word "freight" covers a good many variations, such as chartered freight, bill-of-lading freight, owners' freight, charterers' freight, lump-sum freight, and dead freight, indicating various contract relations to the thing itself. Lump-sum freight means an agreed amount for a voyage, irrespective of the number of tons delivered, so that, unless otherwise provided, the lump sum is payable at destina-

tion, even although part of the cargo may have been lost from sea perils during the voyage. Dead freight is money due to the shipowner in respect of goods agreed to be shipped but not shipped by the person who has failed to make the shipment according to his contract to do so. It may also be observed that the word freight has a more exclusive significance between the shipowner and an underwriter in a policy of insurance than it has between the shipowner and the owner of the goods under charter-parties and bills of lading.

When freight is payable on right delivery at the agreed port of destination, the shipowner is entitled to payment even if the goods are delivered damaged, but the shipowner incurs liability for the value of non-delivered goods stated by bill of lading to have been shipped, or for which a receipt has been given; a claim against the shipowner for damaged goods also holds good where fault or negligence is proved. Shipowners contract themselves out of liability to pay for damaged goods in certain specified cases, and if the goods arrive in specie freight is always payable.

Many disputes occur as to where freight is payable. It has been held that the captain should deliver the goods first and claim payment afterwards. This, however, conflicts with two important conditions. The first results from the common-law dictum, which gives the carrier a lien for freight on the goods he carries. Obviously, his lien lasts so long as the goods are in his custody, and cannot be exercised after they have passed into the premises or possession of the person by whom the freight is payable. To be available against him, payment before getting possession is essential. The second results from a condition now frequently inserted in charter-parties, by which the charterer stipulates that after the cargo is once shipped his liability under the contract shall absolutely cease, and that the shipowner shall look to, in other words, exercise his lien on, the cargo to secure payment of the agreed freight; so that if he fails to do so, and, from any cause cannot, after delivery, get the freight from the receiver of the goods, he shall have no right to come back on the original charterer and enforce payment against him under the charter. In business language this is called the "cesser-clause." The shipowner, therefore, has lien both by common law and by special contract, and, in consideration of the latter, generally gives specific release from liability to the original charterer, after he has once shipped the cargo on which the shipowner's lien for freight is to accrue. In consequence of these two conditions it has been held that the master should deliver and the consignee receive the goods at the ship's side, and that on such delivery the master ceases to be responsible for the goods, and to have any lien, so that he is justified in refusing to proceed with the delivery unless the freight is paid. These considerations secure that delivery and freight payment are, as nearly as possible, coincident, and have the effect of preventing shipowners from making bad debts on the one hand, and, on the other, of saving charterers from paying freight twice over, both being equally objectionable. In practice they work easily although this description makes them look rather elaborate.

Freight has become, in recent years, an object of greatly increased interest to the inhabitants of the United Kingdom. Three-quarters of a century ago we could generally feed ourselves by our own productions. Since then the population has increased more than 50 per cent. And the economic condition of the larger population is so much improved that the scale of consumption is much larger than in former times. Less than half the commodities consumed now are produced here, and it is certain that of our daily bread, less than a fourth part is grown at home. The carriage of these vast supplies of food, in addition to the raw materials for our manufactures, makes the question of freight of interest to every inhabitant of the kingdom. Our food cannot come here without sea-carriage; this cannot be provided without the payment of adequate freights. It is, therefore, matter of common interest to inquire—what must freight cover? what items do really enter into its cost? and what has the payment called freight to provide?

In the first place, freight has to provide for the building, maintenance, depreciation, and ultimate loss of the ship itself. If freight were not adequate for all these purposes, sea-carrying would not be continued as a trade. No capitalist would invest money in the building or buying of ships unless he expected on the ultimate loss or sale of the vessel to find his original capital in hand, plus something more than 3 per cent interest for the time of the investment, otherwise the money had better have been put into consols or railway debentures. No one invests in very troublesome and precarious trades but for the hope that at the end of the adventure they would find not the capital only, but interest at a higher rate than that yielded by investments which give no trouble, and are practically without risk.

In the second place, a ship is only a tool; a tool moreover which demands the constant employment of labour for its use. It must be prepared and outfitted for every voyage. To the outfit of stores and provisions nearly every trade makes contributions. To load cargo, docks and harbours are necessary; their cost must largely be provided out of freight. Captains, mates, engineers, firemen, and seamen, all must be paid wages, and fed while at

sea. The light and pilotage services round our coasts are also paid for out of freight, these being special charges on shipping. When the vessel comes back with her cargo, the same charges have all to be paid again. Freight, therefore, may be said in one sense to be a very large employer of labour. Large classes of labourers on shore, as well as the seamen afloat, live out of it, and freight must be sufficient to bear the cost of all these charges.

The student of economic facts will be prepared to hear that great changes have taken place with regard to all these elements in the cost of freight in late years. Ships were formerly built of wood, then of iron, now almost exclusively of steel. Steam propulsion, excepting in the very long trade voyages, is rapidly superseding the use of sails. To build wooden ships we had to depend on imported timber. For iron and steel ships, the raw material in vast quantities lies under our feet in the iron and coal measures, a percentage only of iron in the ore or plates being imported. The cost of shipbuilding is less than formerly. That of maintenance is about the same. That of structural depreciation is not less. It used to be thought that iron structures would last indefinitely. But the vicissitudes of climate and other things have modified this opinion. Since the early years of steam changes in requirements of size, type, and speed have rendered many vessels useless, in an economic sense, long before they were worn out. To cover the risk of becoming obsolete, inevitable outlays on surveys, on new boilers in the case of steamships, and depreciation between old and new, about 10 per cent of the original cost must be set aside annually to secure replacement of capital with reasonable interest. This, of course, must be borne by freight. Since the introduction of triple expansion engines about 1885, no improvement of the first importance has been made in steam, and it may be assumed that, excluding the possible advent of some invention as far reaching in its effects as triple expansion, a depreciation of 4 per cent to 5 per cent is now sufficient.

It is probable that the costs of navigation have decreased. Wages are higher both for seamen and on shore; but so much steam is used to economise labour, that in spite of higher pay to the men actually employed, it is probable that this item in the cost of freight is less than formerly. Insurance is probably cheaper, in most cases it certainly is so.

None of these items, however, are so changed as to explain the largely reduced cost of freight. Limiting our view to the last forty years, which mark the time within which steam began to be used for ordinary cargo-carrying, the reduction is very large. It is difficult to state it in figures. The short-voyage trades necessarily show the least reduction, because freight on these includes the labour of loading and unloading, of light and harbour dues, etc., so frequently; and these items are higher than formerly. But in the long-voyage trades reductions to below a third of the former rates of freight are quite common. If the comparison be extended to sixty or seventy years ago, many freights would be found at less than one-fourth what they were then. They still fluctuate much, with variations in crops and seasons, and are affected sometimes by wars and famines; but apart altogether from such exceptional causes, the permanent level of freight is lower in the proportion stated. Two causes have led to this: (1) The shortened time of voyages by the use of steam. Coasting voyages which frequently occupied a month now occupy less than a week. Mediterranean voyages that used to occupy five or six months are now completed in two. Indian voyayes, *via* the Cape, by sailing ships, which frequently occupied ten, eleven, and twelve months, are now frequently performed by cargo steamers in three, and seldom exceed four months. (2) The greatly increased size of the vessels. Cargoes of 4000 tons are as common now as those of 1000 tons before the use of steam; and cargoes of 5000 to 7000 tons are becoming frequent. These larger bulks can be carried at greatly reduced rates. The large steam vessels of to-day can make profits out of rates of freight on which either the small steamships or the large sailing ships of former times would have made large losses. These two are the chief factors in this great reduction in the cost of freight. Steam has saved time, and the growth of business has made it economically possible to carry in larger bulks.

We have recently been passing through a remarkable revolution in all that related to freight. The material of the vessels, the method of propulsion, the speed, the size, have all changed, and all have conduced to the reduction in the cost of freight already mentioned.

The economic effects of this change are very considerable already, but are probably more far-reaching than anything apparent yet. Men used to live where their food was grown, and were limited in their numbers to the local means of subsistence. Cheapened freight has made maritime distance of very small account so that millions of human beings in these islands are living thousands of miles away from the localities in which their daily bread is grown, without any sense of risk or insecurity. Indeed, they are better off than their fathers, who had to live on what was locally grown, whether it was a bad crop or a good one; but now, if the local crop is either bad or short, it makes very little difference in the price though a great difference to the grower, so cheap and good and constant is the over-sea supply. Cheapened freight, therefore, may be said to have modified

the operation of the Malthusian law in an important degree, for the time at all events, by bringing the surplus food production of the most distant countries to our markets, at constantly decreasing prices, 42,000 000 of people in these islands, being now fed with far cheaper, and generally better bread, than half the number formerly.

This would be an important matter if it affected our own state only. But other states are following in our steps, and in spite of duties more or less prohibitory, find it impossible to keep out of their ports the cheaply produced grain of distant lands, carried by English steamers at little more than nominal freight. There is no record of these transactions between foreign states in our board of trade and navigation returns; but the quantities of food carried under our flag to Germany, Holland, France, Belgium, Norway, Sweden, Spain, and Italy are very large indeed. When the sea freight has come to be less in many cases than the cost of inland transport from one part to another part of the same kingdom, it is easy to see how large coast populations begin to draw on the over-sea supplies, which are found cheaper than the home-grown food.

Whether such a state of affairs will last it is impossible to say. Will men go to live where the food is grown? or will they continue to depend on cheap freight for bringing the treasures of other climes to consumers here. This is a new state of things, and one of the very remarkable effects of cheap ocean carriage.

It is only necessary to allude to one other fact connected with freight. Though so much cheaper than in earlier years, the transactions are so large as to have furnished economists with one of the chief factors in making up the difference between the apparent value of our imports and exports. Twenty years ago there was much concern at the growing gulf between these two values. We were reminded of the dividends the United Kingdom had to receive from abroad as partly explaining the difference, but they were not an adequate explanation. All further anxiety on the matter was disposed of when it was shown that the import value included the freight, and had to be reduced by the amount thereof, also that the export value, in most cases, also required that the freight should be added, because both freights were earned so largely by the English flag, *i.e.* by Englishmen working in English ships, and constituted as real an export value as any other item of export that appeared in the trade returns. It was happily called "an invisible export," the value of which being duly deducted from imports and added to exports, explained the manner in which the apparent excess of imports was paid for. J. G.

FREIGHT, Dead, and other terms. See Freight.

FREIGHT IS THE MOTHER OF WAGES. This maxim, which means that unless a ship earns freight the sailors are not entitled to wages, has ceased to be applicable in the United Kingdom since 1854, by the Merchant Shipping Act of that year, providing by § 183 that "no right to wages shall be dependent on the earning of freight," subject, however, to the reservation that a sailor's claim is to be barred if it can be proved "that he has not exerted himself to the utmost to save the ship, cargo, and stores." Any attempted modification of this provision by private agreement is wholly inoperative (see § 182). Previously to the statutory abrogation of the old rule, the Courts had already engrafted many exceptions on it, and it was never applied to the master of a ship (see Hawkins v. Twizell, 25 Law Journal (Q. B.) 160); but it seems strange that a rule so inhuman and unjust should have been allowed to remain law for such a long period.

According to French and Italian law a sailor was not entitled to wages in case of capture or total loss of the ship and goods (Code de Commerce, § 258 [unamended]; Codice di Commercio, § 235), but as regards France this rule was, in 1885, altered in favour of the sailors; and in the case of loss of freight for other reasons, the codes of both countries always upheld the sailors' claims in the absence of express stipulations to the contrary.

According to German law, a sailor belonging to a ship which has been lost is entitled, not only to the wages earned up to the date of the loss, but also to the expenses incurred in returning to the port from which the vessel started on its voyage.

[As to the present state of English law on the subject, see Maclachlan, *Law of Merchant Shipping*, 4th ed. 1892. — Abbott, *Law of Merchant Ships and Seamen*, 14th ed., 1901 (see also the report of Cutter v. Powell in Smith's *Leading Cases*).] E. S.

FRENCH SCHOOL OF POLITICAL ECONOMY.

Period I., p. 154; Period II., p. 156; Period III., p. 157; Period IV., p. 158.

A survey of the French school, from its commencement to the present time, will show that it has passed through four successive phases, which are clearly marked off one from the other, and form the natural subdivisions of this article.

Period I. (1615-1803).

During this first period, which may be termed the period of the foundation of economic science, France may assuredly be said to have taken a more important part than any other country. With the increasing interest felt by economists in the history of economic doctrines, and with the greater amount of study they bestow upon the older authors, more and more ample justice is paid by them to the great ser-

vices rendered in the past by the French school. It might be said that nowhere else has political economy had a larger number of precursors.

It is now generally agreed that it was in France that political economy first saw the light and even received its name; for the first book bearing the title of *Économie Politique* is that by Antoine de MONTCHRÉTIEN, *Traicté d'Économie politique*, 1615. (This fact is specially admitted by Cossa, on page 61 of his *Introduction to the study of Political Economy*, English translation). Unfortunately the title of Montchrétien's book is practically the only portion that has deserved to survive, but that was certainly a beginning. What, however, may be held to be the first systematic treatise on political economy is the *Essai sur la Nature du Commerce*, by Richard CANTILLON, which, although not published till 1755, was obviously written before 1734, since that was the year of his death. In this work nearly all the subject-matter of modern political economy is dealt with in a most clear and definite manner. A new edition has just appeared, with a preface by Mr. Higgs, who, in the *Quarterly Journal of Economics* (July 1892), writes that "good reasons might be given for regarding him as the father of political economy without putting any strained interpretation upon the phrase."

Questions concerning money and taxation greatly attracted the attention of the early French economists, probably by way of reaction against the debasement of the coinage habitually practised by the kings of France, and against the unjust privileges in respect to taxation which characterised the old régime. Thus, long antecedent to Antoine de Montchrétien, deep in the middle ages, just half way through the 14th century, Nicolas ORESME, bishop of Lisieux, the tutor of Charles V., wrote a treatise entitled *Tractatus de Origine, Natura, Jure, et Mutationibus Monetarum*, of which Professor Ingram has been able to say that it "contains a theory of money which is almost entirely correct according to the views of the 19th century" (Ingram, *History of Political Economy*, p. 36). In this Bishop Oresme protests boldly against the alterations in the value of money made by the king—these he terms a "fraudulent act" (*actio fraudulenta*). In the same way two centuries later, during the time of the serious rise in prices which characterised this epoch, BODIN was the first to give the scientific explanation of the causes which led to this, in a memorandum written in 1568, showing that the enormous importation of gold and silver in Europe depreciated the value both of the precious metals and of the money. Finally BOISGUILBERT, in the *Détail de la France* (1692), made this bold statement respecting money: "It is very certain that money is not a value in itself, and that its quantity adds nothing to the wealth of a country." With regard to taxation, those writers whom we have just mentioned, Bodin and Boisguilbert, both insisted that taxation should be proportional, and that the exemptions in favour of the nobility and clergy should be suppressed. We must join with these the illustrious Marshal VAUBAN, who in *La Dîme Royale* (1707) proposed the abolition of all the existing taxes, and the replacing them by one single tax "charged proportionally on all who possessed an income." In writing on these subjects Vauban was the first to employ statistical documents; these had been collected by himself, and are almost the only ones we possess referring to that epoch.

A short time before the date of the PHYSIOCRATS, a man who is perhaps best known to us by the encomium pronounced by TURGOT on him, Vincent de GOURNAY (who died in 1759), drew up the programme of the "liberal school." To him also has been attributed that famous saying *laisser-faire, laisser-passer*. Whether this is true or false, it is certain that it was he who promulgated the view that, since private interests concurred with public interests, the best thing, from the point of view of the advantage of the public, was to let every one follow his own way in life.

Full justice, too, is nowadays awarded to the genius of QUESNAY and to the merits of his disciples MERCIER DE LA RIVIÈRE; DUPONT DE NEMOURS; LE TRÔSNE; TURGOT (see all these), that illustrious body of men who first bore the name of ECONOMISTES, and were in the main much in advance of their time. Universal tribute is paid to their praiseworthy endeavours to form a vast synthesis of economic facts, and to their skill in deducing from a few principles a large concourse of individual items of knowledge, the very characteristic of the formation of a new science. Although they did much to make plain the notion of wealth, still it was not "wealth" but the "natural order of society" that they regarded as the subject of the new science; perhaps, indeed, their conception was more correct than that of Adam SMITH. There is no need here to analyse the physiocratic system, for that will be treated of in a special article in this Dictionary. All that is required here is to assign to the physiocrats their place in the history of the French schools (see EPHEMERIDES; PHYSIOCRATS).

Great indeed was their influence over Europe: every one knows their relations with the Margrave of Baden (whose correspondence with MIRABEAU and Dupont has lately been published) (see KARL FRIEDRICH); with Leopold, Grand Duke of Tuscany, afterwards Emperor of Austria; with Gustavus III. of Sweden; with Stanislaus, King of Poland; and even with the Empress Catherine of Russia. Moreover, these relations were not purely literary, but also had

a beneficial influence over the laws of the countries above mentioned. In France, their influence on legislation might have been expected to have been even greater, seeing that one of the most illustrious of their number, Turgot, was minister of state. As a matter of fact, in his edicts with regard to the abolition of the restrictions on the movement of grain, of the exclusive trade corporations and of forced labour, Turgot did not fail to apply in all their integrity the principles of the physiocrats. However, most of these reforms came to nothing—perhaps because he applied these principles too hastily, or as a philosopher rather than as a statesman; or because the resistance to them was too powerful for the weak hands of Louis XVI. to overcome.

The Catholic school has bitterly reproached the physiocrats for having by their teaching prepared the way for the French Revolution; it might be more correct to say that had these doctrines been applied, there would have been no necessity for the revolution. The influence of the physiocrats has been less powerful in the sphere of science than in the region of legislation, partly because the glory of Adam Smith caused them to be forgotten, partly because even in France their successors have treated them with excessive disdain. But their influence over Adam Smith, and through him, indirectly, upon the general evolution of the science, cannot be gainsaid, though even now not sufficient light has been thrown upon it. The classical school, at its first introduction, encountered two important opponents—both heretics in the opinion of those who held to the doctrines of the school—the first one, FORBONNAIS (*Principes Économiques*, 1767), who defended the protectionist system, the other the philosopher CONDILLAC, who in his book on *Le Commerce et le Gouvernement* (1770) criticised several of the doctrines of the physiocrats, notably that on value, as to which he develops for the first time a psychological theory closely approaching the one so celebrated at the present day under the name of the theory of "FINAL UTILITY."

A place amongst the founders of political economy must be reserved for Jean Baptiste SAY, not indeed on account of the originality or depth of his ideas, but simply because he was the author of the first really popular work on political economy. His *Traité d'Économie politique* (1803), which was wonderfully well arranged and lucid, was translated into many languages, and thus made the new science accessible to all classes of society. Nor was he simply a mere populariser; he gave economic science its present form and its definitions;—from his categories, his vocabulary (*e.g.* the term "ENTREPRENEUR," which has been borrowed by most other languages), and his great divisions of the science, has been constructed the scale it was henceforward to work by. The classifications which he planned, the impress he stamped on the science has been reproduced in every text-book published during this century.

PERIOD II. (1803-1848).

In this second period the series of economists received a strange interruption. During more than forty years economic science in France underwent an almost total eclipse. From Jean Baptiste Say's work (1803), which we have just referred to, up to DUNOYER's publication (in 1845) of his book on *La Liberté du Travail*, no economist can be mentioned who created a school. No doubt there were several works of some merit, but they dealt rather with subjects bordering on political economy than with the science itself. Amongst these are the treatises of DESTUTT DE TRACY (1823) and of Joseph DROZ (1829), which were strictly speaking the writings of a philosopher and a moralist; the *Systèmes de Culture* of Hippolyte PASSY (1846), which treated of rural economy; COURNOT's even more important work, *Recherches sur les principes mathématiques de la théorie des richesses* (1838), which is an early instance of the application of mathematics to political economy,[1] and VILLERME's *Tableau de l'état physique et moral des ouvriers* (1840); this last is an excellent statistical study. There was a sudden break in the series of great didactic works, while contemporaneously it continued in England. No account can be taken here of STORCH (*Cours d'Économie politique*, 1815, and *Considérations sur la nature du revenu national*, 1824), since his work lay outside France; of ROSSI (*Cours d'Économie politique*, 1840), since he was an Italian; or of SISMONDI (*Nouveaux principes d'économie politique*, 1819), since he was a Swiss; indeed the latter could in no case be counted as an economist of the classical school, inasmuch as he was their vigorous opponent.

In truth, if the classical economists disappeared from sight in the period now under review, the reason was that they were replaced by their foes, the socialists. The period is filled with the names of Saint-SIMON, FOURIER, PROUDHON, Louis BLANC, and of such writers, less known than they deserve, as BAZARD, ENFANTIN, LEROUX, BUCHEZ, VIDAL, and CABET. These men attracted general attention and drew the thoughts of all men towards them. It is the fashion nowadays, especially with

[1] Cournot "taught that it is necessary to face the difficulty of regarding the various elements of an economic problem—not as determining one another in a chain of causation, *A* determining *B*, *B* determining *C*, and so on—but as all mutually determining one another. Nature's action is complex, and nothing is gained in the long run by pretending that it is simple, and trying to describe it in a series of elementary propositions."

[Marshall, *Principles of Economics*, vol. i., in his preface to the first edition bears a high tribute to the ability of Cournot . . . "Cournot's genius must give a new mental activity to everyone who passes through his hands," p. xv. Macmillan, 2nd ed., 1891.]

socialists of the German school, notwithstanding their obligations to it, to turn this socialism, which they term "utopian," into ridicule. But in my opinion, when the history of socialism and of its first beginnings receives the same amount of attention as the history and origins of political economy have received, the French school will be found to have taken, in the creation of contemporary socialism, a share equal, or even superior, to that which it had in the formation of economic science. No doubt there was much that was utopian in the exuberant blossoming of ideas that characterised this period; but many of them have borne fruit and have taken their place in what is now called scientific socialism. The notion that man, as a member of society, has functions to fulfil rather than rights to exercise (in direct opposition to the revolutionary programme of the "Rights of Man"), forms the basis of the teachings of Saint-Simon. In the writings of his follower, Bazard (*Doctrine de Saint-Simon*, 1828-29), there is a perfectly clear exposition both of the social question of the present day, *i.e.* the separation of the labourer from the instruments of his labour, and of the solution proposed by the collectivist school, *i.e.* the nationalisation of the instruments of production. Again, never have the advantages of co-operative association for purposes of consumption been analysed with more precision, and never have the disadvantages of the increase of "middlemen" been more vigorously assailed, than in the works of Fourier (*Association Domestique Agricole*, 1822). The theory of the "Iron Law" (*loi d'airain*), and the proposition destined to become so terrible a weapon in the hands of the Marxists, namely, that wealth is the product of the *labour of others*, are plainly set forth in Vidal's *Répartition des Richesses* (1846). In 1831, twelve years before the Rochdale Pioneers, Buchez founded the first co-operative society for production, as a means of social transformation, and suggested as the aim of the working classes that system of *collective saving* in the shape of a reserve fund, in preference to the method of individual saving, which is the characteristic feature of trades unions. Of the unreadable writings of Leroux but one word survives; yet it, the term *solidarity*, shines out as a guiding star. Proudhon's confused and vehement reasonings (*Qu'est-ce que la Propriété?* 1840;—*Système des Contradictions Économiques ou Philosophie de la Misère*, 1848) have been, perhaps, of little special value to the doctrine of socialism; but they have rendered a very real service to economic science by obliging it to examine and to consolidate the foundations of political economy, which till then had been regarded as unshakable. The *Système*, however, is memorable as having called forth Karl Marx's taunting reply *La Misère de la Philosophie*.

Auguste Comte, also, should not be counted as a socialist, but at any rate he must be placed amongst the opponents of the economists; they have never forgiven him for the contempt he poured on them and for his assertion of the absolute uselessness and irrationality of endeavouring to make political economy an independent science. Perhaps Mr. Ingram goes a little too far in saying that Comte, the founder of sociology, was also the founder of the historical school of political economy.

Never has France, and Paris in particular, shone more brightly in the world, or exerted more influence over the socialistic movement, than in the period which ended in the Revolution of 1848, an event, indeed, that nearly set all Europe in a blaze. That influence spread on the one side to America, where communities were founded after the fashion of Fourier's phalanstery, and in the other direction to Russia, exiles from which country, the future chiefs of anarchism (*e.g.* Herzen and Bakounine), came to Paris for instruction.

Period III. (1848-1878).

This third period is in striking contrast to its predecessor. The socialists vanish from the scene and are not again spoken of; never before has any school of thought seemed smitten by so sudden a death. The following passage occurred in the article on the "Socialists" in the *Dictionnaire d'Économie politique* which appeared in 1853: "When we state that socialism, at any rate in its recent shape, is altogether extinguished, there is no fear of our assertion being falsified either by the course of time or by future events." A sufficient explanation of the phenomenon lies in the failure of the revolution of 1848 and its replacement by the second empire.

On the other hand, the classical school of economists, who had never been heard of during the second period, sprang up on every side. This fresh movement had already been begun by Charles Dunoyer's book in 1845, but the liberal and optimistic traditions of the French school were first renewed, with remarkable energy, by Frédéric Bastiat in his *Harmonies Économiques*, published in 1850, the year of his death. The final triumph of the orthodox and liberal school was effected by many authors. Mention may be made of the numerous writings of M. Michel Chevalier, the series of which had commenced in the preceding period with his *Cours d'Économie politique* (1842-1844), and comprised *La Monnaie* (1850), *Le Système protecteur* (1853), and *La Baisse probable de l'Or* (1859). In 1852 and 1853, MM. Coquelin and Garnier issued the *Dictionnaire d'Économie politique;* in 1855 came M. de Molinari's *Cours d'Économie politique;* in 1857 M. Baudrillart's *Manuel;* in 1858 M. Courcelle Seneuil's *Traité d'Économie politique;* in 1861 M. Frédéric

Passy's *Leçons d'Économie politique;* and in 1867 M. Levasseur's *Précis d'Économie politique.* Indeed, all those liberal ideas which had been proscribed by Napoleon III. appear to have taken refuge in political economy, and to have breathed into it a new life.

The opinions of the economists of this period do not differ materially from the tenets of the "MANCHESTER SCHOOL," *i.e.* free trade, distrust of state interference, and monometallism. However, Stanley JEVONS observes that the French school is less dogmatic in its ways than the English school, and with reference to "the doctrine of wages," for example, he observes, that the true doctrine may be more or less clearly traced through the writings of a succession of great French economists, from Condillac, Baudeau, and Le Trôsne, through J. B. Say, Destutt de Tracy, Storch, and others, down to Bastiat and Courcelle-Seneuil. "The truth is with the French school."

Indeed, in the hands of the French school political economy becomes a natural rather than a deductive science. In spite of their disinclination to acknowledge their debt, French economists have remained faithful to the traditions left them by the physiocrats. They frequently take a delight in contrasting the generous and idealistic spirit of their school with the egoism and mercantile tendency of the English school. Perhaps this contrast is less real than they suppose it to be. As a matter of fact their egoism is as great as that of the Manchester school, the difference being that their temperament is light-hearted, whereas that of the English economists may be regarded as sombre; in short, the latter are pessimists, the former are optimists. OPTIMISM, indeed, has been the characteristic feature of the French school ever since the days of the physiocrats even to our own time; the fullest expression of this is found in Bastiat. It may be defined as a belief in a natural order which regulates human society, and, though not exempt from certain disorders, is still, human nature being as it is, the best possible. Moreover, this natural order of things is capable of indefinite improvement through the unfettered action of liberty and of competition. Beyond this lies the conviction that no attempt to modify the machinery of the system should be made, and that all that is necessary is the removal of the obstacles that might impede its due working.

And if this school in a general way rejects the English theories respecting rent, wages, and population, this arises from the idea (*idée a priori*) that the discouraging consequences of these theories enhance the difficulty of the justification of the existing social order.

During this period there were but two dissentient economists. The first of these, WOLOWSKI, indeed, separated himself from the school only on a question of detail, *i.e.* bimetallism, which he warmly advocated in his *Liberté des Banques* (1864), and in his *L'or et l'argent* (1870). The other was LE PLAY, who wrote *Ouvriers Européens* (1855), and *La Réforme Sociale* (1864), and founded a school,—the first, indeed, to branch off from the parent stock. Still, Le Play, and his followers in a marked degree, continued to adhere to the liberal school in their distrust of state interference, and in their apologies for the "essential principles" of our present social organisation, including competition. Le Play, however, abandons the optimistic standpoint and the deductive method; he desires a "reform," and strives to find the elements of such a reform in the observation of facts, especially in the study of the family life of the working classes.

During this period the influence of the economists was so great that it could not fail to penetrate into the sphere of legislation. It is well known that Michel Chevalier negotiated, together with COBDEN, the famous treaty of commerce of 1860 between France and England, which inaugurated an era of modified free trade not only for France but also for the rest of Europe.

Protection was believed to be as completely stamped out as socialism. The conviction of this double victory contributed largely to the maintenance of the proud self-confidence of the orthodox school. Credit may also be given them for the law of 1864, which abolished the penalties attaching to the right of combination between workmen. In accordance with their principles the economists had always admitted that combination was "the natural, regular, and legitimate means of resistance afforded to the working classes by the system of free competition" (*Dictionnaire d'Économie politique, sub voce* "Coalition"). They had also no small share in the development of the French railway system (the conventions of 1859) and of joint-stock companies (the Act of 1867), and in the formation of the great international exhibitions of 1855 and 1867, in which important parts were played by Michel Chevalier and Le Play. Further, Le Play endeavoured to procure the enactment of a measure granting freedom of disposition of property by will, at least up to a certain point; but in spite of the support of Napoleon III., the bill failed to pass through the Chamber, for it was in too flagrant contradiction with the "principles of '89."

In this period the liberal French school reached its apogee, but it was also approaching the commencement of its decline, or at any rate, the end of its uncontested supremacy. The conflict between the liberal school and its rivals occupies the fourth and last period, on which we are about to enter.

PERIOD IV. (1878-1892).

The date from which this last period should

be reckoned is necessarily to some extent undetermined; the year 1878 has been chosen, since it marks an important event that we shall presently discuss, that is to say, the rupture between university education and the orthodox school.

During the time we are now considering, most of the leading economists of the preceding period still bore on high the banner of the liberal school, MM. de Molinari, Frédéric Passy, and Levasseur. Michel Chevalier, Baudrillart, and Courcelle-Seneuil have gone, but their places have been filled by MM. Leroy-Beaulieu, Block, Léon Say, and De Foville, and taking all in all, the liberal school contains as many men of high ability as ever it did. This school is in exclusive occupation of the benches of the Institute and of the professorial chairs at the various schools of Paris. The venerable *Journal des Économistes* has received as companions the *Économiste français* (1873), edited by M. Paul Leroy-Beaulieu, and the *Monde Économique* (1891), edited by M. Beauregard, Professor in the Faculty of Law at Paris; both of these organs uphold the same cause. A new *Dictionnaire d'Économie politique* (1890-1892) has appeared under the care of MM. Léon Say and Chailley; it is written in the same spirit as the former one. To all outward appearance, therefore, things would seem to be as they were; but in reality there have been great changes. The liberal school has lost the public ear and the legislative support that it possessed in the preceding period. It is hated by the working classes, who upbraid it for its quietism; by the agriculturists and manufacturers, who have never forgiven it for free trade; by the Catholics, who regard it as the embodiment of the principles of the Revolution, and whom the very name of liberalism irritates; and, last of all, by the radicals, who are hastening on towards state socialism. From every side rival schools are rising, all of which are preparing for the conflict by starting their own "Reviews."

Le Play's school, which grew in importance after the disasters of 1870, formed groups in all parts of France termed *Unions de la Paix Sociale*, and in 1881 founded a fortnightly review, the *Réforme Sociale*, which abstains from all theoretical subjects, but is one of the best publications for the discussion of all questions relating to economic legislation. Its chief representative in France was M. Claudio JANNET, whose most important work is *Le Socialisme d'État et la Réforme Sociale*. M. Demolins, author of *À quoi tient la supériorité des Anglo-Saxons*, and editor of the review *La Science Sociale*, also claims to be a direct disciple of Le Play, though disowned by the main body of the school. For all this, Le Play's school is a rival rather than an enemy of the liberal school; indeed, it is almost as liberal, but its apologies are made less for things as they are than for things as they were.

But by the side of Le Play's followers another Roman Catholic school has risen, of a far more pronounced religious character, which is the representative of what we have now agreed to call Christian socialism, in spite of its energetic repudiation of the epithet "socialistic." It is very bitter, as vehement indeed as the socialists themselves, in its criticisms of the economic organisation of the present day, especially of *laisser-faire* and competition, and is much inclined to fall back upon the State, which it terms the "Minister of God." Its organ is *L'Association Catholique*, a monthly review that was founded in 1876, and its most eloquent spokesman is the Comte de Mun, a member of the Chamber of Deputies. Further information on the subject may be found in M. Urbain Guérin's *L'Évolution Sociale* (1891).

Again, a new lease of life had been taken by the socialist school after the termination of the Paris Commune of 1871, and around this revolution a great "socialist legend" grew up, its two chief apostles being Jules Guesde and Lafargue, Karl Marx's son-in-law, who were for some years members of the Chamber of Deputies. These two represent collectivism of the Marxist variety. M. Benoit MALON, the editor of the *Revue Socialiste* (started in 1885), author of a number of books, the chief of which is *Socialisme Intégral* (1890-1892), clings more closely to the traditions of the socialism of the French species, which is less materialistic, and holds that the matter of "filling one's belly" does not exhaust the whole social question, and has to-day for leader M. Jaurés of the Chamber of Deputies.

In 1878 the event occurred that I here referred to as the starting-point of a new period, namely, the institution, at all the universities in France, strictly speaking, in their faculties of law, of professorial chairs or lectureships of political economy, which duly appear on the official schedule of education and examination. Till then political economy had been taught only in the special schools at Paris, and at the Collège de France. Instruction in this subject was given entirely by a small number of economists, all of the same school, sometimes of the same family, and lecturing in the same city. Naturally, therefore, the teaching of political economy became a sort of monopoly and received that restricted and almost sectarian tendency which has thrown it into discredit. When in the year 1825 Jean Baptiste Say wrote in the preface to the *Traité d'Économie politique*—"Nowadays political economy is taught wherever knowledge is valued. It has already had professors in the universities of Germany, Scotland, and Italy";[1] little did he think that as far as regards French universities his

[1] In speaking of Scotland Say was thinking, no doubt, of Adam Smith, Dugald Stewart, etc. The "chair" of Edinburgh is of later date (established in 1871).

wish would take more than half a century to realise.

The new professors of political economy in the faculties of law did not all of them secede from the orthodox school; for instance, M. JOURDAN (who died in 1891) and M. Villey still adhered to the principles of the liberal school, but in some instances the rupture was immediate. This was especially the case with M. Cauwès, who lectured on political economy in the faculty of law at Paris, and who occasioned much commotion by the publication in this very year, 1878, of his *Cours d'Économie politique*. The cause of irritation lay in his avowing the same scepticism as De LAVELEYE with regard to natural laws, and his inculcation of LIST'S theories on protection. In 1887 one of the new professors (Prof. Gide) took the lead in founding the *Revue d'Économie politique*, which received the support of all the professors in the various faculties of law, and of a large number of professors at foreign universities, particularly in Germany, who till then had received practically no hearing in France. The aim which the founders of this organ had in view was not exactly to form a new school, but merely, to use their own words, "to open out a neutral territory on which both doctrines and facts might be studied and compared with one another." As a matter of fact, they are being more and more drawn into the sphere of attraction of the historical school, and also of state socialism.

Further details on this last period may be found in the writer's article on "The Economic School in France," in the *Political Science Quarterly* (vol. v. No. 4).

Our survey would be incomplete if we failed to mention a large number of publications that propagate either socialistic ideas or protectionist principles; such notions are not confined to special organs, but are set forth in a whole host of political newspapers. To these might be added purely literary works, such as those of Zola, Cladel, and Rosny, which resemble the writings of George Sand and Eugène Sue half a century ago, in spreading socialistic ideas far and wide.

Naturally enough legislation has been affected by this change of front by the French school. The treaties of commerce which were negotiated between 1860 and 1870, under the auspices of the free trade school, have now been denounced by French lawgivers, and an exceedingly protectionist customs tariff has been imposed. Concurrently with this large numbers of bills, most clearly marked with state socialism, have been laid before parliament, sometimes by private members, sometimes by the government. One bill, which has become law, limits the hours of labour for children and women. Others purpose a great superannuation fund for workmen; to grant certain privileges to workmen's syndicates, such as the dispensing of the giving of securities in competing for public works; other proposals forbid employers, under severe penalties, to dismiss any workman on the ground that he is a member of a union; to compel contractors for the execution of public works to introduce profit-sharing; another subjects the companies which work the coal mines to the rigorous supervision of delegates elected by workmen. The most recent school of socialism is that of *Solidarisme*, which seeks to hold the middle place between INDIVIDUALISM and COLLECTIVISM (see SOLIDARITY).

In this historical sketch of the French school we must not omit a reference to a special branch of political economy, in which this school has perhaps most successfully displayed its characteristic qualities—precision, order, and clearness, that is in treatises relating to finance and taxation. M. de Parieu's *Traité des Impôts* (1862) and M. Paul Leroy-Beaulieu's *Traité de la Science des Finances;* R. Stourm, *Le Budget;* Léon Say, *La Solution démocratique de la question des impôts;—Le Dictionnaire des Finances;* have deservedly attained the position of classical works throughout Europe. C. G.

FRENCH TREATY OF 1860. See COMMERCIAL TREATIES.

FRICTION IN ECONOMICS. In economic investigation, according to the classical view of it, abstraction is made from the mass of general human motives; and the effect of a selected few, or, as some have held, only *one*, of them is traced out first of all. One by one thereafter the elements, from which abstraction was made at the beginning, are restored to their place, and the conjoint effects of the conjoined causes are traced out with so much of accuracy as the case allows. But the degree of accuracy is not high, economic factors occurring as a rule in the midst of a very complex plurality of causes.

The disturbing effects of causes that are not economic, on the action of the causes that are strictly so called, may be regarded as an "economic friction."

Examples may be drawn not only from distribution and exchange but from production itself, especially if "laws of population" are to be included under that head. Not only the customs, but the vices, follies, and mistakes of men are accountable for economic friction. Economic tendencies, too, may be counteracted deliberately and advisedly by principles of morality, statesmanship, art, religion, or pedagogics. The favourite example of economic friction is perhaps taxation. If it be true (see Thorold Rogers, *Local Taxation*, Cobden Club pamphlet, 1886, p. 12), that taxes tend to stay where they are put, instead of being shifted where economic principles by themselves would have carried them at once, this is an undoubted case of economic friction. There is least of such friction perhaps in the

distribution of currency, and in the movements of capital on a great scale in modern business (see Bagehot's *Lombard Street*). There is probably most of it in wages and salaries, even in modern business, and in the agricultural rents and burdens of all backward countries and backward districts of advanced countries. Marshall's view of "long and short periods" (*Principles of Economics*, 1890, *passim*) would seem to involve that over a long period, in the major sense of "long," friction might be neglected. Some such conclusion is also implied in the view of Loria and others that in all history economical causes are supreme over all others. [Cp. Keynes, *Scope and Method of Pol. Econ.*, ch. iv. pp. 124 *seq.*, 1891; Loria, *La Constitution Sociale* (1893).] J. B.

Economic friction may further be described as the opposition encountered by the movements of capital and the inability of labour to meet readily the demand for work; and generally by all the circumstances which prevent economic forces from bringing about their natural effects the instant they come into operation. It is, for instance, matter of common observation that, though prices are affected by changes in supply and demand, they are not necessarily altered by these changes at once; and even when the effect on price can be detected, it is often not instantaneous, but gradual. The causes of friction are various, chief among them being the want of accurate knowledge. In the case of the demand for and supply of labour, this is an exceedingly important consideration, as also is the frequent immobility of labour. In the friction which affects the price of goods, want of knowledge often increases the delay experienced before matters are adjusted to meet new conditions. CUSTOM and HABIT, also, are factors in producing economic friction; prices, especially of valuable articles, where competition is restricted, do not move readily, no matter what change there may have been in the conditions of production or in the state of supply and demand. It is due, no doubt, to habit, or prejudice, that the effect of a new tax, or of the remission of an old one, though matters of universal knowledge, do not always reach the persons intended. The salesman and the manufacturer cannot always pass on an indirect tax to the consumer; nor can the owner of property always exact the full amount of a new rate from his tenant.

M. G. D.

FRIEDRICH, MARGRAVE KARL. See KARL FRIEDRICH.

FRIENDLY SOCIETIES. Friendly societies may be defined as insurance societies based on mutual principles: they are the means by which small tradesmen and the working class provide against sickness, old age, and the expenses of burial. They may possibly be traced to the gilds of the middle ages, or, at any rate, the disappearance of the gilds nearly coincides with the rise of friendly societies; but practically they first became popular and important in this country at the beginning of the present century. The early history of friendly societies is a melancholy record of failures. They were constantly dissolved or becoming insolvent, through mismanagement, dishonesty, or other irregularity on the part of officers and members. So late as 1882 there were in workhouses in England no fewer than 3913 persons who had been members of friendly societies which had disappeared. But gradually a reform took place which may be summarised by saying that a system of premiums was substituted for a system of levies. These words call for explanation. A society on the levy system looks to its annual income to cover its annual expenditure, and any deficit is made up by a levy or contribution among its members. Now as the benefits of a society are mainly prospective, and as, therefore, the charges are lighter at first than after some years, this system clearly is not likely to secure permanence. On the premium system the probable charges in the future are calculated, and the annual payments scaled accordingly. The sheet anchor of this system is the valuation, which is made at intervals, generally of five years, and consists of an elaborate review of present position and liabilities of a society. It might be thought that the collection of averages of longevity and periods of sickness would by this time be sufficiently large to give an almost infallible guide; but, as a matter of fact, the circumstances vary widely in different cases. The prospects of a society depend on a vast number of conditions, as the habits of a population, the character of an occupation, etc.; so much so that it is the actual experience of the society which gives the best clue to its future. On the results of such a valuation the table of premiums is constructed and revised from time to time.

The simplest form of friendly society is that in which each member pays a weekly sum, and in return is supported during sickness, whilst at the end of every year the funds of the society, less a sum for a reserve fund, are divided amongst the members. Such a society clearly lacks most of the elements of permanence, but at the same time it serves a valuable purpose as an educator in habits of thrift. The ordinary "village club" goes a step farther, and aims at extending its advantages over a longer period. There is no division of funds yearly, and hence a greater stability, but this is often purchased at a considerable cost. The very permanence of the club invites a ruinous competition on the part of other clubs, with the result that premiums are lowered below the point required for solvency, whilst young men tend to form clubs of their own, thus breaking the succession which is essential to the con-

tinuance of a club: again, greater opportunities are given for dishonesty on the part of officers. It is not necessary to dwell on the various kinds of object, etc., which distinguish village clubs, some of which tend to become savings-banks rather than friendly societies. The difficulties in the way of the success of such clubs are partly met by county clubs. Of these the area is the county, and the management is generally in the hands of the clergy, magistrates, and others, with rules and premiums carefully framed to guarantee solvency. But these advantages entail considerable sacrifices. There is far less of the social element, which has a high educational value in the village clubs; the area is too large for any common interest in the management, and therefore there is none of the political training which self-governing societies give; it is too large also to ensure that thorough supervision by neighbours, which is essential in all cases of persons drawing sick allowances, to prevent malingering. As a result county clubs are not able to offer sufficient advantages to their members to compete with other clubs. The difficulty of finding an area sufficiently small to insure good supervision, neighbourly relations, and self-government, and yet large enough to secure good business capacity at the head of affairs, and sound general principles, is met by the affiliated orders, the largest of which are the Foresters and the Manchester Unity of Odd-fellows. The unit here is the lodge, which may consist of any number of members, is generally on a local basis, has its own officers, rules, etc., is independent both of control and of support. Above the lodge comes the district, a geographical grouping of lodges, and above the district the order, which comprises a general committee of management, elected by the various districts and lodges, officers of the order, etc. The relations between the order and the lodges differ in different societies. In some cases the order formulates principles, tables of premiums, etc., in others it takes certain business, *e.g.* life insurance or pensions, and treats it as a central rather than a local matter; in all cases it is ready with advice in the formation and management of a lodge, and the fact of such a body with large experience bringing pressure to bear on ill-managed lodges, being ready with friendly help in times of stress, and having an indirect control does much to promote sound management. In some cases the name of friendly society is applied to companies which for a fixed payment, weekly or monthly guarantee a sum in the event of death, and are commonly known as 'Collecting Societies." They differ from friendly societies in the following points: (1) They give no relief in sickness; (2) they have no common bond of union amongst the insured; (3) they have paid collectors and a hierarchy of officers, as agents and inspectors, but no self-government. In them, it has been said, "the officials are everything, the members are nothing." But although these societies do not fulfil the objects of friendly societies, we must be careful to avoid underrating their usefulness.

The history of the laws affecting friendly societies illustrates the attitude of government in this country towards combined independent effort. The original Friendly Societies' Act of 1793 (33 Geo. III. c. 54) was of a permissive kind. It granted certain advantages to such societies as had exhibited their rules at quarter sessions and had them approved. In 1829 by 10 Geo. IV. c. 56 the justices were supplemented by a barrister-at-law appointed for the purpose, to whom all societies seeking registration were to exhibit their rules for approval. In 1846 by 9 & 10 Vict. c. 27 the barrister was given the title of Registrar of Friendly Societies, and the justices were relieved of their duties in registration. In 1850 (13 & 14 Vict. c. 113) an attempt was made to give some certificate of solvency, but the distinction between "certified" and "registered" societies was abolished in 1855. In 1875 an act was passed (38 & 39 Vict. c. 60) as the result of a commission of inquiry which, with some amendments, is still law. By this act the definition of a friendly society is made as wide as possible, registration is facilitated, and the powers of the registrar are enlarged. The registrar can not only refuse to register, suspend, or cancel registration, but, at the request of the members of a society, he can interfere in its management, can order an examination of its affairs, and, if he think fit, dissolve it. He can also act as arbitrator in disputes between a society and its individual members. But his powers and his sphere of activity are strictly limited. The fact is still often overlooked, but should always be borne in mind, that registration is no guarantee of the soundness of a society. It ensures publicity and publicity only. It does not even imply that the tables, etc., of a society are after an approved model—the government have always declined the responsibility of putting out such a model. In the case of registered societies the government insists that certain rules should be carried out, that *e.g.* the management should be separated from the benefit branch, that annual returns and quinquennial valuations by skilled persons should be sent to the registrar, and failure to comply with these rules renders the officers of a society liable to prosecution, and the society itself to have its registration suspended or cancelled. Indirectly this cannot but operate strongly in favour of sound management, but the limitations of the central office may be gathered from the statement of the late chief registrar that he held himself precluded from communicating to a member of a society the fact of its insolvency, and from

taking any step to publish the fact. Briefly, the advantages of registration to a society are these:—It can hold property, can sue and be sued, can proceed against fraudulent officers summarily, has a first claim upon the estates of deceased officers, can invest in government securities, can be easily and cheaply dissolved, is exempt from certain, now inconsiderable, stamp-duties. Against these privileges must be set the following restrictions:—The rules must be according to an authorised pattern, must approximate *i.e.* to a prescribed type, the field of investment is narrowly limited, elaborate returns must be made to the chief office. The habit of registration is *growing*, the number of accurate returns increases steadily, the total number of societies now registered is in Great Britain and Ireland 29,543, but it is impossible to say what proportion this forms of the whole.

The relations of the state to friendly societies in this country have been of a uniformly permissive character. The state has never insisted upon registration, or upon uniformity of management, premiums, etc., among the registered societies, and it has given up the attempt to guarantee their solvency. It has assisted them in a variety of ways. It has always been ready to advise as to management, to facilitate procedure in prosecutions for fraud. It has given exemptions from taxation and pecuniary aid in the form of a rate of interest above the normal, but these have gradually lost importance. The chief assistance which it has given of late years has been the conduct of a rival institution in the annuity or insurance branch of the post-office, the development of which is strongly urged in some quarters. In France and Germany the action of the state has been far more extended. The tendency in France is to interfere with independent societies by legislation, in Germany to take over the whole business of insurance against sickness, funeral expenses, etc., and constitute a department of the administration to conduct it.

[Hardwick, *History of Friendly Societies.*—Wilkinson, Rev. J. F., *The Friendly Society Movement*, 1876.—Bärnreither, J. M., *English Associations of Working Men*, English ed., 1889.—Ludlow, J. M., and Loyd Jones, *Progress of the Working Class*, 1867.—Neison, F. G. P., *The Manchester Unity of Oddfellows*, 1869.—*Chief Registrar of Friendly Societies, Reports of*, 1857-91.—Pratt, *Laws Relating to Friendly Societies*, 11th ed., by Brabrook, 1888.—*Royal Commission on Friendly Societies, Report of*, 1874.—*Select Committee H.C. on Friendly Societies, Report of*, 1888.—*Select Committee H. C. on National Provident Insurance*, 1886.] L. R. P.

FRIENDLY SOCIETIES, THEIR NUMBERS AND CONSTITUTION. The statement of the successive enactments affecting friendly societies contained in the previous article shows that, however they may have varied in detail, the main principles of legislation have never been departed from since 1793. Thus there has been for more than one hundred years a recognition by the state of these voluntary bodies as worthy of encouragement, and in some sort of protection; but there has never yet been any attempt to restrain the free association of citizens for the purpose of mutual aid. The suggestion has often been made—why should societies be allowed to exist if they will not comply with certain conditions? but the wisdom of the legislature has always hitherto consistently rejected it. Hence registration has always implied the granting of facilities and privileges upon certain easy conditions, rather than the imposing restrictions and penalties; and the swing of the pendulum from one side to the other has been marked by an increase or diminution respectively in the number of societies registered. The act of 1793 was purely enabling; that of 1819 restrictive; that of 1829, and still more that of 1834, enabling; that of 1846, and still more that of 1850, restrictive; that of 1855 enabling, and that of 1875 somewhat restrictive. Under the enabling acts, registrations have been numerous; under the restricting acts they have been few. There is no doubt, however, that the formation of friendly societies goes on irrespectively of legislation; and that unregistered friendly societies abound during the periods of restriction. The act of 1875 still, in substance, regulates these societies, the Friendly Societies Act and the Collecting Societies and Industrial Assurance Companies Act, 1896, altering it in form only.

In the county of Middlesex alone nearly 1000 societies were enrolled within a very few years after the passing of the act of 1793, and the number in some other counties was almost as great. Altogether, between 1793 and 1855 as many as 26,034 societies had been enrolled. The act of the last-mentioned year provided for making annual returns to the registrar, and directed him to make an annual report to parliament. It was then ascertained that more than 800 of these societies had been dissolved, and that more than 700 were not for the purpose of assuring sick pay. Of the remaining 24,500 societies, nearly 3000 could not be found, leaving about 21,500 societies as presumably still in existence. An attempt was made to ascertain how long the various societies had been established; but only 3073 answered the question. Of these it appeared that more than 100 had existed for many years before the act of 1793, and that as many as 20 societies claimed to be centenarians by the middle of the 19th century.

Of the 21,500 societies, about 2800 were in Middlesex; 2045 in Lancashire; 993 in Staffordshire; 979 in Yorkshire; 874 in Warwickshire; 752 in Surrey; 681 in Devon; and 642 in Kent. They are thus found to have been distributed among the manufacturing and

agricultural districts; and in fact to have overspread the country, and to have met the wants of all classes of its working population.

A considerable number of the societies which existed before 1793, and took advantage of the act of that year to enrol their rules, are still in existence. They have in general only a small number of members; indeed, it was not unusual in the early days of friendly societies to limit the number. This was of great advantage in maintaining the friendly feeling which it was one of the main purposes of these societies to encourage among their members; and it gave rise to a sentiment very common among them, that the benefit of sick pay and even of funeral money should not be claimed except in case of necessity. By this means, many societies whose contributions would not have been sufficient to provide the benefits, as a matter of insurance, were able not only to meet all claims which the members cared to make upon them, but also to accumulate funds from year to year. In some of these societies members would introduce their sons, and the society would continue from generation to generation among members of the same families. This is particularly marked in the very interesting group of societies founded among the Huguenot settlers. Some of them were formed by a number of persons coming from the same town or village, as the society of Lintot, which originally consisted wholly of persons deriving their family origin from Lintot, and still contains many members who can trace their descent back to the original settlers from that district. Those excellent, laborious, and thrifty men, who created new industries for us, and gave the British workman many valuable lessons, were largely pioneers in the good work of establishing friendly societies also.

In the twenty years from 1855 to 1875 as many as 21,875 societies were registered, or an average of 1094 per annum. Some allowance has to be made, however, for duplicate registrations; when a society sent up for registration a complete set of rules, it was not always easy to ascertain whether the society had been previously registered or not. Under the act of 1855 all branches of societies were registered as separate societies. The act of 1875 has made a clear distinction between them, and contains various provisions against duplicate registry. Under that act, from 1876 to 1892, 4240 societies and 7995 branches were registered, being an average of 249 societies and 470 branches each year. There was thus a certain diminution in the new registrations, which became more significant when closely looked into; for a large proportion of the registrations of new societies were such as were exempt from the obligation of making a quinquennial valuation, the onerous but most beneficial provision which the act of 1875 introduced. Many were dividing societies; others were juvenile societies; and from both these classes valuations are not required. A dividing society, as it does not seek to accumulate funds, but to distribute them, does not look forward to the future, but contents itself with provision for the wants of the immediate present. A juvenile society, which consists wholly of members above one and under twenty-one years of age, is a mere resting-place on the way to membership of an adult society, and ought not to be permitted to accumulate funds, though many juvenile societies show a strong tendency to do so.

The efforts of the registrar have been directed, since the passing of the Act of 1875, to the gradual enforcement of its provisions relating to valuation, without bearing with undue severity on the societies. For this purpose, it has been necessary, after fair warning, to suspend and ultimately to cancel the registration of many societies, and to take proceedings against others and recover penalties. The result of these measures has been, that in each period of five years the number of valuations received and the number of grants of dispensation from valuation added together, have tended more nearly to reach the total number of registered societies known to be in existence. The results of the valuations have been such as to excite serious anxiety in the friends of the societies. Of 14,988 valuations, only 3122 showed a surplus; the aggregate of such surpluses amounting to £1,781,319, while 11,866 showed a deficiency; the aggregate of such deficiencies amounting to £10,734,515. This statement must not be misunderstood. It does not mean that it is necessary to raise more than ten millions of hard cash to make friendly societies solvent. It means that each society must materially diminish the benefits it promises to its members, and materially increase the contributions it exacts from them, besides raising a certain sum in cash, in order to make both ends meet. Assuming that the 11,866 societies in question had something more than 3,000,000 members, a contribution of £1 from each member, would raise about one-third of the deficiency, leaving the other two-thirds to be met by reduction of benefits and increase of contributions. It must be remembered, moreover, that the valuations themselves are mere estimates, founded on a great variety of hypotheses as to the liability to sickness and mortality and the rate of interest, and that a valuer who wishes to make things pleasant for a society may adjust his hypothesis to that view; while another may exaggerate the valuation deficiency by omitting to take into account favourable considerations that are essential to the true view of the society's position.

The societies with branches, commonly called the affiliated orders, though showing very considerable deficiencies, appear to be in a some-

what better position than the independent societies, in which latter term, however, are included many societies which are really branches of affiliated orders, but have done nothing since the act of 1875 was passed to constitute themselves legally so. The registered branches were then 11,242: of these, 2281 showed surpluses amounting to £874,679; and 8961 showed deficiencies amounting to £6,716,838. The societies registered as independent were 3717, of which 827 showed surpluses amounting to £658,252 and 2890 deficiencies amounting to £3,901,435. The collecting societies are not included in these figures. In speaking of branches, it should be understood that the insurances effected by each branch are not guaranteed by the central bodies of the orders, and that for financial purposes they are in the same position as the independent societies. This is almost universally true as regards the insurance of sick pay. For insurance of funeral money, branches are grouped into districts. In the largest and most progressive of the orders, the Manchester Unity of Oddfellows, an arrangement exists by which a lodge in distress may seek help from the district to which it belongs, and a district in distress from the central body of the Order. Other orders are also making strenuous exertions to reduce the deficiencies shown by the valuations of their courts and lodges. These bodies possess great advantages in their annual meetings for conference and discussion. To be the chief of an organisation having 600,000 members, and to be called upon to preside over meetings constituted of their delegates, is a distinction much coveted and an honour highly prized.

The following is a summary of Registered Provident Societies in Great Britain and Ireland at 31st December 1903:—

	No. of Returns.	No. of Members.	Funds.
BUILDING SOCIETIES—			£
Incorporated Societies	2,062	547,049	*51,250,058*
Unincorporated Societies	62	54,155	*14,947,169*
	2,124	601,204	*66,197,227*
FRIENDLY SOCIETIES, ETC.—			
Ordinary Friendly Societies	6,924	3,059,107	*15,877,330*
Societies having Branches	20,845	2,613,552	*22,542,147*
Collecting Friendly Societies	43	6,973,136	*7,220,932*
Benevolent Societies	73	24,964	*322,551*
Working Men's Clubs	870	224,882	*320,688*
Specially Authorised Societies	124	77,383	*586,660*
Specially Authorised Loan Societies	506	101,816	*711,789*
Medical Societies	96	325,057	*61,000*
Cattle Insurance Societies	56	3,667	*7,840*
Shop Clubs	6	10,618	*1,181*
	29,543	13,414,182	*47,666,118*
CO-OPERATIVE SOCIETIES—			£
Industries and Trades	2,086	2,091,978	*43,404,269*
Businesses	245	62,531	*816,214*
Land Societies	129	17,133	*1,149,408*
	2,460	2,171,642	*45,369,891*
Trade Unions	672	1,575,375	*5,260,186*
Workmen's Compensation Scheme	54	117,619	*181,432*
Friends of Labour Loan Societies	255	33,590	*258,303*
Total Registered Provident Societies	35,108	17,913,612	*164,933,157*

From statistics of about 1890 it appears that while the average contribution per member in an independent society, assuring both sick pay and funeral money, is about £1, in a branch it rises to about £1:11s., which seems to show that the affiliated orders are seeking to raise their contributions more nearly to the amount required to meet the benefits assured, and that they are able to give greater benefits than the independent societies. Of the £1:11s., about 4s. goes for management, or about 12½ per cent, which is a moderate proportion, and it implies that in general the officers receive a very low rate of remuneration. If it be assumed that the £1:11s. represents from one to one-and-a-half week's income of the member, it must be admitted that he obtains a considerable benefit by way of insurance at a sacrifice of a comparatively small portion of his revenue.

The relation of friendly societies to provisions for old age is a matter that has recently received much consideration. Statistics have been sought of the number of paupers who have been members of friendly societies, with a view to throw discredit on the societies by implying that they have failed in their purpose of preventing pauperism. The result is very small, when compared either with the whole number of paupers or with the whole number of members of friendly societies, and the inference drawn is not a sound one. The primary object of a friendly society is not the preventing pauperism in old age, but the providing relief to a man generally able to work, yet momentarily prevented from doing so by sickness. Some societies, it is true, have tables under which a definite annuity in old age can be purchased; and where that is the case, such tables are required by law to be certified by an actuary; hence these societies are in general well able to fulfil their contracts, and their members are not those who are found in workhouses. The other societies, which do not pretend to assure against old age, do not affect to provide against

pauperism, and are therefore liable to no reproach if their members become paupers. Many societies, however, without insuring old-age pay, insure sick pay throughout the whole of life; and by a lax interpretation, inspired by a benevolent sentiment, promise their members what is in effect a pension, though usually very small in amount. Such societies actually pay this pension under the name of permanent sick pay, until it is claimed by so many members, and so persistently, that the funds will not support the burden; and it is these societies which swell the number of failures. Sounder views on this point are being entertained by the leaders of friendly society opinion.

Of 3202 valuation returns received, 595 were from friendly and collecting societies, showing the following results:—

	Assets.	Liabilities.
	£	£
Number of members, 307,418.		
Funds	1,513,118	....
Present value of benefits	....	*4,749,353*
Present value of contributions	3,074,459	....
Other liabilities	....	*487,677*
Other assets	104,693	....
Aggregate of estimated surpluses in 168 societies	....	*169,653*
Aggregate of estimated deficiencies in 427 societies	714,913	....
Total	5,407,183	*5,407,183*

It will be observed from the above figures that of the total number of valuations received during the year from friendly societies, 72 per cent disclosed deficiencies, as against 28 per cent showing surpluses, and that the aggregate net deficiency amounted to £545,260. Hence it appears that the assets are less than the liabilities by 10·4 per cent. That is to say, taken collectively, the societies were, at date of valuation, in a position to pay 17s. 11d. in the £ of their estimated future liabilities.

In the collecting societies the rates of premium charged are high enough to allow of an inordinate expenditure, approaching and sometimes exceeding 50 per cent, so that a member pays away 1d. to the officers and collectors for their remuneration for every 1d. he invests for his own benefit. The collection of small sums periodically is necessarily a costly affair, and until the working classes can be persuaded to dispense with the services of the collector they must be prepared to pay him for the work he does. On the present system, the pay is so high that a collecting-book is a valuable commodity and is often passed from hand to hand for a considerable sum.

The privileges granted to friendly societies by the existing Acts may be briefly summed up as follows:—

1. The right to hold land.
2. The summary remedy in case of misapplication of funds.
3. Priority of claim on estates of deceased or bankrupt officers.
4. Transfer of stock by direction of the chief registrar.
5. Exemption from stamp duty on all documents of the society.
6. Permission to admit persons under twenty-one years of age as members.
7. Reduction of the fee for certificates of birth and death.
8. Power to invest with the National Debt Commissioners.
9. Admission of trustees to copyhold property at a single fine.
10. Discharge of mortgages by endorsed receipt without reconveyance.
11. Power to call officers to account and recover property from them.
12. Power to settle disputes in the manner the rules provide.
13. Power to insure the funeral expenses of members' wives and children.
14. Power to members to nominate for sums at death up to £100.
15. Power to pay sums under £100 without administration.
16. The services of a public auditor at a fixed scale of fees.
17. The recording of its documents in the office of the registrar.

In order to restrict these privileges to societies whose members are mainly of the working class, it is enacted that no society shall insure more than £200 on a death or other event, or more than £50 by way of annuity. In fact, these limits are rarely reached. Several wealthy and prosperous mutual assurance societies were originally established as friendly societies, but by an act passed in 1854, they were discharged from the provision of the Friendly Societies Acts, except so far as relates to the registration of trustees, which still takes place with regard to some of them, and is the only relic of their original constitution.

E. W. B.

FRITH-GILDS, see GILDS.

FRUGALITY, see THRIFT.

FUGÆ WARRANT (Scotland). A warrant to apprehend a debtor, foreigner or native, who meditates or is reasonably believed to meditate flight from Scotland. It is granted by a magistrate, usually the sheriff; the creditor applies for the warrant, giving upon oath or affirmation his claim of debt, which may be even a contingent debt, and his grounds for believing that the debtor means to fly from the country; the magistrate makes inquiry into the facts; he may then grant a warrant to arrest the debtor for examination; and this may be followed by a warrant to commit the debtor to prison until he finds security to appear in court. The creditor is liable in damages if his statements are unfounded. The sheriff's warrant may be executed in any Scottish county, if backed, but has no force outside Scotland. A. D.

FUGGERS. A well-known German merchant family, and an interesting example of hereditary enterprise and success. They came originally from Suabia; at least as early as the 14th century they settled at Augsburg. The first known by name, Hans Fugger, was a poor weaver. His descendants became traders as well as artisans, Ulrich carrying on trade early in the 16th century in the Baltic and the Mediterranean, and Jacob importing goods direct from India instead of by way of Venice. A little later they added banking to their other undertakings, though hitherto none but Jews and Lombards had traded in money; Alexander (died 1560) even set up counting-houses in India and Venezuela. Their willingness to lend immense sums of money to the emperors Frederick III. and the impecunious Maximilian, to Charles V. and to Philip II. of Spain, fixed the family fortunes. Lands and mines, first given as security, were retained in full ownership when the loans were not repaid. To estates titles were added; by marriage and purchase new lands were continually acquired; at the same time the family trade was kept up. "Rich as a Fugger" became a proverb. With liberality proportioned to their wealth they were foremost in public spirit; they were founders of religious and charitable institutions, they were patrons of art and learning; one collected antiquities, another brought together a fine library of books and MSS. Some branches of the family are still in existence.

[Von Stetten, *Geschichte der adelichen Geschlechter in der freien Reichs-Stadt Augsburg.*—Say et Chailley, *Dictionnaire d'Économie Politique.* Genealogy in Hübner's *Gen. Tabellen der Reichs-Gräflichen Familien.*—Portraits in *Pinacotheca Fuggerorum S. R. I. comitum ac baronum in Kierchperg* (Kirchberg) *et Weissenhorn*, by Custos and L. and W. Kilian, 1754.—Coins in Kull's book, *Die Münzen des gräflichen und fürstlichen Hauses Fugger*, 1882.—The mining operations of the Fuggers are described in Jacob, *On the Precious Metals*, i. 276.] E. G. P.

FULLARTON, John (*c.* 1780-1849), writer on currency. After having been an assistant surgeon in Bengal from 1802 to 1813, Fullarton became partner in a bank at Calcutta; and, having there acquired a fortune, retired to England. He contributed some articles to the *Quarterly Review* at the time of the reform. But he is principally remembered for his book on *The Regulation of Currencies* (1844), a work "of exceeding ability" in Prof. Walker's words.

An uncompromising assailant of the Currency Principle (*q.v.*), Fullarton maintains the impossibility of over-issuing a convertible currency (ch. v.). "The self-regulating principle of a convertible currency operates in every such case with the precision of clock-work" (*Ibid.*). Mill places Fullarton with Tooke as one of "the most prominent representatives" of the "counter-theory," which is the extreme opposite of the currency principle; quotes an important passage from him, and adds: "I believe that the theory grounded by Mr. Fullarton upon this fact [the action of the country bankers] contains a large portion of truth, and is far nearer to being the expression of the whole truth than any form whatever of the currency theory" (*Political Economy*, bk. iii. ch. xxiv. §§ 1, 2) Prof. Walker strikes the balance of judgment less favourably to Fullarton's views (*Money*, p. 426 *et seq.*). For a very unfavourable estimate of Fullarton's book see Col. Torrens, *Principles and Practical Operation of Sir Robt. Peel's Bill of 1844 explained and defended against the objections of Tooke, Fullarton, and Wilson* (1848).

Besides the main thesis of Fullarton's work, there are in it important minor contributions to monetary science. Thus at p. 23 (ed. 1845) he attributed to an inconvertible currency much the same defects as Mill afterwards did (*Pol. Econ.*, bk. iii. ch. xiii.); with this additional remark as to the supposed possibility of regulating the paper currency by the price of bullion: "it is quite a mistake to suppose that the market prices of the precious metals would observe the same range of fluctuation, when those metals should be reduced to a common footing with other commodities, which they observe when constituting the circulating medium of a country"; in proof of which he adduces the fluctuations in the price of gold during "the hundred days." Many other interesting historical allusions occur.

On the regulation of Currencies, being an examination of the principles on which it is proposed to restrict within certain fixed limits the future issues on credit of the Bank of England and of the other banking establishments throughout the country, 1st ed. 1844, 2nd ed. 1845.

[Mill, *Political Economy*, bk. iii. ch. xxiv.—Walker, *Money*, *sub voce* Fullarton.—Wagner, *Beiträge zur Lehre von den Banken*, ch. v.—*Athenæum*, 3rd Nov. 1849, *Economist*, 28th Sept. 1844].

See also Currency Principle. F. Y. E.

FUMAGE. See Hearth Tax.

FUNCTIONS. When two quantities are so selected that any variation in one is attended with some variation in the other, the latter is said to be a function of the former; and is called the dependent variable—dependent on the other variable which is called independent. In symbols: $y=f(x)$, where y is the dependent, and x the independent variable. For the symbol f some other letter, usually of cognate sound, as ϕ or ψ, is often used. The following are particular examples; $y=a+bx$; $y=a+bx+cx^2$; $y=a+\log(b+cx)$; where a, b, c are *constants*. One of the most important properties of a function is the rate at which it increases or decreases as the independent variable is increased. This rate is measured by another

function which is called the derived function, or differential co-efficient: in symbols $f'(x)$ or $\frac{dy}{dx}$. Thus, if y, the original function is $\log(a+bx)$; it is found that the derived function is $\frac{b}{a+bx}$, supposing that "natural" (or Napierian) logarithms are used; otherwise the expression in the text must be multiplied by a certain constant. Whence it appears that the rate at which y increases with an increase of x is less for larger values of x. A derived function has its own derivee, called, with reference to the primary function, the second derived function or second differential co-efficient. Thus, in symbols $f''(x)$, or $\frac{d_2y}{dx^2}$ the second differential of $\log(a+bx)$ is $\frac{-b^2}{(a+bx)^2}$; denoting that the rate of increase measured by the first differential diminishes at a rate which is slower for larger values of x. This notation and conception is extended to the case of two (or more) independent variables. The symbols $z=f(x, y)$ denote that any variation in either of the independent variables x or y is attended with some variation in the dependent variable z. The rate of variation due to change in each variable may be separately measured. The measure is called the differential co-efficient with respect to either x or y as the case may be; in symbols $\frac{df(xy)}{dx}$ and $\frac{df(xy)}{dy}$; or more shortly $\frac{df}{dx}$ and $\frac{df}{dy}$. An important inquiry with respect to any function is: what are the values of the independent variables for which the dependent variable is a maximum or minimum. The solution of this problem, in the case of a function of a single variable, is given by the equation $f'(x)\left[\text{or } \frac{dy}{dx}\right]=0$.[1] Thus the value of x, for which the function $\log(a+bx)-cx$ is a maximum, is found by equating to zero the first differential of that function namely, $\frac{b}{a+bx}-c$.[2] Whence the value of x is found to be $\frac{b-ac}{bc}$. In the case of two (and *mutatis mutandis* more) independent variables there are two simultaneous equations of the form $\frac{df}{dx}=0\frac{df}{dy}=0$, to determine the values of x and y for which z the independent variable is a maximum or minimum.

These mathematical principles have important applications to political economy. The propositions in virtue of which economics may claim to be an exact science, involve the ideas of a function and its variation. The Law of Diminishing Returns (*q.v.*) may be thus stated: $y=f(x)$, where x is the amount of outlay (on a given portion of land), y is the corresponding return, and f is such a function that f'' continually decreases as x increases: or, in other words f'' is always negative. The logarithm, as has been shown above, is such a function; and, accordingly, this simple function was used by Malthus to express the relation between increasing population and subsistence; for such is the import of his statement, that the one increases in arithmetical, the other in geometrical, progression. The vain disputes to which this dictum has given rise illustrate the advantage of using the general language of symbols. A similar notation may be employed to represent the analogous Law of Diminishing Utility (see Utility). The Law of Increasing Returns (*q.v.*) might be represented by a function, like $a+bx+cx^2$, whose first differential, $a+b+2cx$, continually increases with the increase of x. It has been well said that every theory in economics may be regarded as the solution of a problem in the calculus of maxima and minima: to obtain the greatest satisfaction with the least effort and sacrifice being the aim of the economic man. The language of that calculus is the mother tongue of abstract economics. The simplest economic problem, the case of one commodity x being exchanged against another y in a perfect market, is governed by the principle that each party seeks to maximise his advantage considered as a function of the amount which he obtains of one commodity, and parts with of the other. The equations which determine the position of maximum are given by Jevons (*Theory of Political Economy*, ch. iv.; cp. Marshall, *Principles of Economics*, 2nd ed. Mathematical Appendix, note xii. *sub finem*). Especially where the number of variables is considerable the use of functions is required; since in that case geometrical illustration is not available. The difficult theory which Prof. Marshall formulates as the Law of Substitution (*Principles of Economics*, passages referred to in Index, *sub voce*) is perhaps most easily deduced by regarding the profit of the entrepreneur as a function of the amounts of each agent of production which he employs. Say $z=f(x_1, x_2, x_3 \text{ etc.})$ The condition that z should be a maximum gives the equations $\frac{df}{dx_1}=0$; $\frac{df}{dx_2}=0$, etc. This is the equivalent of the proposition that "the tendency of every one to select the best means for obtaining his own ends . . . would have caused each several kind of labour or machinery, or other agent of production to be used for each several purpose until its further use was no longer remunerative; the employment of each several agent in each branch of production would have been extended until full advantage has been taken of its special fitness for the work" (*Prin-*

[1] To discriminate a maximum from a minimum, a second condition is required; and is afforded by the *sign* of the second differential co-efficient.

[2] See note 1.

ciples of Economics, 2nd ed. p. 559, cp. Mathematical Appendix, note xiv.). Still more generally we may regard the "net advantages" of the economic man as a function of two sets of variables, corresponding to his efforts and sacrifices, and his consumption. The position of equilibrium is then determined by two sets of equations of the form,

$$\frac{df}{dx_1}=0\,\frac{df}{dx_2}=0, \text{ etc}$$
$$\frac{df}{dy_1}=0\,\frac{df}{dy_2}=0, \text{ etc.}$$

In the light of such general theories the dispute whether normal or natural value is determined by utility or cost of production appears nugatory. You might as well ask whether, when two unknown quantities, x and y, are determined by two simultaneous equations, x or y contributes more to the solution.

[A knowledge of the theory of functions sufficient for the economist is afforded by the introduction to the second edition of Prof. Walras's *Eléments d'Economie Politique Pure.*—Pantaleoni, *Econ. Pura;* and by Mr. Wicksteed's *Alphabet of Economic Science.*] F. Y. E.

FUNDED DEBT. This expression was originally used as a description of debt, the service of which was secured by a special fund (*e.g.* the produce of a certain tax) but gradually the meaning acquired by the term was that of debt raised for permanent purposes and either repayable at a distant date or not repayable at any definite date. The funded debt of the United Kingdom belongs to the latter class but the government have the right to redeem after a fixed period; *e.g.* the local loans stock is redeemable from 1912, the new consols (Goschen's) from 1923. This does not, however, prevent a gradual reduction of the funded debt before the periods named; this is accomplished in the following way. A fixed yearly sum, 25 millions since 1889, is applied to the service of the debt, and any amount not required for payment of interest is used by the National Debt Commissioners for the purchase and subsequent extinction of parts of the funded debt. Another mode of reducing the debt is the conversion of consols into TERMINABLE ANNUITIES (*q.v.*). The funded debts of foreign countries are frequently repayable at fixed dates either gradually, by yearly purchases or drawings, the funds being supplied by a regular sinking fund, or by simultaneous repayment of the whole issue. The consolidation of the funded debt of a country into one stock is convenient for many reasons. [For unfunded debt, see FLOATING DEBT. For general history, see NATIONAL DEBT.] E. S.

FUND, SINKING. See SINKING FUND.

FUNDING SYSTEM. This expression, which properly denotes the system of creating FUNDED DEBT, came to refer specially to a particular abuse of the system. (See NATIONAL DEBT.) C. A. H.

FUNDS, THE PUBLIC. See DEBTS, PUBLIC.

FUNGIBLES—a term borrowed by the mediæval economists from the Roman lawyers, *res quæ mutuâ vice funguntur* (are interchangeable). By both it is opposed to CONSUMPTIBLES (*q.v.*), but whereas in law fungibles are those things which, when borrowed, have to be returned not *in specie*, but *in genere*, in economics the term is employed to denote things of which the use is prolonged, as, *e.g.*, a house. For these interest was permissible, whereas to exact interest for the former was to sell a thing and also to charge for its use, consequently it was unjust. Money was classed as a *consumptible*, and usury declared to be wrong (see CANON LAW).

[Thomas Aquinas, *Summ. Theol. Secunda Secundæ*, lxxviii.—Ashley, *Economic History*, vol. i. ch. iii.—Böhm-Bawerk, *Kapital und Kapitalzins.*—Block, *Les Progrès de la Science Economique*, vol. ii. p. 332 (for a revival of the controversy by Pothier and Turgot).] L. R. P.

FUOCO, FRANCESCO, who died at Naples, 1841, passed his life under the pressure of want, a long exile, and even the necessity of selling some of his works, for which other and ignorant persons got the credit. He possessed above any of his contemporaries a keen spirit, apt to study, suited to economic investigation; but never enjoyed the comfort of seeing his works valued in their true light. To SCIALOJA (1840) and MOHL (1844) is due the honour of reviving his fame by their eulogies; Professor Ricca-Salerno (*Storia delle Dottrine Finanziarie in Italia*, Roma, 1881), and T. Fornari (*Delle Teorie economiche nelle Prov. Napoletane dal 1735 al 1830*, Milano, 1888) wrote later and at greater length on his theories.

Fuoco treated all the most important theories of economic science. The *theory of method* in his opinion should be positive, using mathematical formulæ. The *theory of value* he analyses with a peculiar insight, supporting in general the doctrine which bases the value of things on their utility, and derives the measure of value from the comparison of quantity and quality. He was the first in Italy to acknowledge the importance of Ricardo's theory of rent,—which he fully supports, particularly fixing attention on the rent derived through *situation*. He wrote on population, industry, and other social matters, arguing as a final thesis that moral and economic principles are reducible to a common basis. He also discussed coinage and bank questions, especially in one of those works (*La magia del credito svelata*) which he sold under the burden of want, to Giuseppe de Welz of Como, who published it under his own name. Fuoco had written this work to support the financial policy of the minister Medici. In this work he proved, with great brilliancy, that credit multiplies capital—a thesis which was afterwards considered from

another side and with a more severe logic by Francesco Ferrara, the greatest economist of our modern days in Italy (see *Biblioteca dell' Economista*, ii. S. vol. vi., Torino, 1857, Introduzione).

[*Saggio sui mezzi da moltiplicare prontamente le ricchezze della Sicilia* (G. de Welz), Parigi, Stamperia Firmin Didot, 1822.—*Comento di comento, ossia lettere critiche del Sig. F. N. sul Saggio del Sig. G. de Welz riprodotto dal Sig. Dr. in medicina*, Giuseppe Indelicato, Napoli, Stamp. Francese, 1823.—*La magia del credito svelata*, Napoli, Stamperia Francese, 1824, 2 vols. (G. de Welz).—*Saggi economici*, Pisa, Stamp. Nistri, 1825-27, 2 vols.—*Introduzione allo studio della Economia industriale, o principî di Economia civile applicati all' uso delle forze*, Napoli, Stamp. Trani, 1829.—*Le Banche e l'Industria*, Napoli, Stamp. Severino, 1834.] A. B.

FÜRSTENAU, KARL GOTTFRIED (1734-1803), a theologian and lecturer on economics, Hebrew, general literature, and logic in the University of Rinteln (East Prussia), his native town, where in 1786 he became *primarius* of the Faculty of Philosophy. In 1779 was published, at Cassel, his *Apologie des physiocratischen Systems*, highly esteemed by his contemporaries. Fürstenau, although a firm adherent of the doctrine of the physiocrats, did not conceal his opinion that it was impossible to apply its practical conclusions in old countries, organised on an antagonistic basis.

E. Ca.

FUSTEL DE COULANGES, NUMA DENIS (1830-1889). The aim of the most important works of M. Fustel de Coulanges is to establish a bridge over the obscure gap which separates the institutions of Roman Gaul from those of mediæval France; in particular, he has very carefully worked out a theory of the origin of feudalism and the manor, which is in many respects worthy of study even by those who differ from the results at which he arrives.

Though not the first published of the author's works, the *Recherches sur quelques problèmes d'histoire* is in many ways the first in order. It consists of four essays entitled *Le colonat Romain*, *Du régime des terres en Germanie*, *De la marche Germanique*, and *L'organisation judiciaire dans le royaume des Francs*. The first three essays are directly connected with the third volume of the *Histoire des institutions politiques de l'ancienne France*, which has for sub-title *L'alleu et le domaine rural*, and may be treated of with that work. Together they contain the author's theory of the manor, and demand a fuller treatment than his other work, inasmuch as they deal with questions which touch economics more nearly.

The starting-point of the history of the manor is to be found, according to M. Fustel de Coulanges, in the institutions of the Roman empire. The system then existing was one of complete private ownership of land with certain peculiar characteristics. The country was divided into estates or "domains," each normally under one proprietor, who had full powers of alienation and bequest. Each estate was, as a rule, compact, and possessed a name by which it was known and which adhered to it. One proprietor might own many such estates not contiguous. But the estate in itself remained an organised unit never divided and rarely uniting with another to form a new unit. The cultivation of such an estate in the later empire was carried on partly by slave labour employed upon land retained in the owner's own possession. But side by side with this another system had grown up. Certain slaves were allowed as a privilege to become tenants-at-will of parts of the estate, paying for their land partly at any rate in services performed on the remaining land. The tenure, legally speaking, was of course wholly at the will of the owner, but the action of the officers of the Roman treasury began to give it a species of stability. From the end of the 3rd century the names of slaves holding under this tenure were noted in the surveys made for the purpose of taxation, and this action did something to make this kind of tenure more permanent. The freed slaves of the owner probably occupied a similar position on the estate. But in addition to these servile cultivators, there was another class, the "coloni," *i.e.* free cultivators attached to the estate and incapable of quitting it, paying for their land in services and rent, both being fixed for each estate by local custom. The management of this system was in the hands of officers who looked after the collection of rents, and directed the employment of the labour of the tenants on the part of the estate reserved to the owner. For the estate was divided into two parts, the part let out to the free or semi-servile cultivators, and the part retained in the owners' hands. In the same way on each estate there was the "villa" for the proprietor, and the barracks ("ergastula") where the real slaves were housed, and elsewhere the separate dwellings of the other cultivators. This seems to have been the state of things in France, as in other parts of the Roman empire at the time of the German invasions. In the first two volumes of the series the character of the invasion is discussed, and there and in several essays the author deals with the character of landed property in Germany before the invasion. His conclusion on the latter point is that there is no ground for supposing that any common ownership of land existed in Germany outside the limits of the family. This conclusion is perhaps not unassailable, but the author's attack on Maurer's well-known theory of the mark community in the essay entitled "Le problème des origines de la propriété foncière" (*Revue des Questions Historiques*, April 1889) certainly makes out a formidable indictment against that scholar's theory.

The character of the estate has been described as it existed just before the German invasion. But during the period of conquest and after the conquest is complete the estate can be discovered existing in the same form. The method of cultivation is the same. The estate retains its old name and often its old owner. The new German settlers added, in fact, nothing to the land system they found, and took nothing from it. The manor sprang not from a Teutonic mark community, but from a Roman "domain" under the influence of Roman law and custom. The "Saltus Buritanus" noticed in the essay on the Roman colonies is to all intents and purposes a manor existing in the time of the Emperor Trajan in a province of Africa out of the reach of Teutonic influence. Nor can this estate have been a solitary instance. In one point the theory is open to criticism. It accounts for the existence of the manor court, as will be seen on reference to the chapter on "L'immunité" in the fifth volume of the *Histoire des Institutions;* but it does not account for the peculiar system of cultivation known as the THREE-FIELD SYSTEM (*q.v.*), which is so closely associated with the MANOR in many countries. No allusion to this point occurs indeed in the volumes whose argument has been summarised above.

The fourth and fifth volumes of the series deal with problems of politics and government; in the volume entitled *La Monarchie Franque* the author lays down that during the rule of the Merovingian dynasty the dominant power in the state was the king. He succeeded in fact to the position of the Roman emperor. There was no popular assembly to oppose him, and only the elements of a nobility. The Roman bureaucracy, which remained after the fall of the empire, became his instruments of government. The administration of justice was carried on by the king's officers, and there are only traces to be noticed of the growth of local jurisdictions. Even the financial system remained almost unaltered. The invading Germans had expelled the Roman governors but not their method of government; and there is no authority for tracing to their influence either the popular assemblies of later times or the military system known as feudalism. The history of the origin and growth of feudalism is the subject of the last volume of the series. The sources of this, according to the author, are three in number. In the first place he considers the history of the subordination of land; that is to say, the custom of holding land belonging not to the holder but to a superior. This he traces to the Roman custom of holding land "precariously," *i.e.* not in full property but at the will of the real owner, who permitted what was in the eye of the law an usurpation; this tenure gradually grew to be for the life of the tenant, and was on his death renewed for his heir on his making a formal request for its continuance. Hence sprang the early form of the "fief." The second source is the relation of patron and client, a relation common to Rome, Gaul, and Germany, which familiarised men's minds with the notion of "fealty." It only needed local independence to complete the scheme of a non-military feudalism. This was supplied by the "immunities" which the Merovingian kings not unfrequently granted. A lord who received such a grant became possessed of full power over his lands. The king's officers could not enter; justice was administered solely by the lord; and the local independence of the district and its complete subjection to its owner followed. The military character of the services rendered was only one phase of the militarism of the period. But military service, historically speaking, is of later growth than feudalism.

The concluding volume of the series deals with the complete establishment of feudalism, and traces the gradual fall of the Merovingian kings before the new organisation of society which they had allowed to grow up. The crown lost its power of legislation, its power of taxation, and its control over the army; and with these the administrative system inherited from the Roman empire also disappeared. With Pepin a new form of monarchy based upon feudalism begins.

Something must be said of the method of study which led the author to his conclusions. The only evidence he accepted is documentary evidence, and to the study of this evidence he brought an unrivalled knowledge of the documents and of their language. Few scholars have ever approached him in knowledge of the variations in meaning through which a word in mediæval Latin may pass. In particular his study of the word "marca" in the essay referred to above is well worth notice. That all his conclusions will stand the test of criticism is hardly to be expected, but the publication of his books has certainly been an epoch in the history of mediæval scholarship.

His life was passed in teaching, first as professor at Strasbourg, and afterwards in similar posts at Paris.

La cité Antique, 1864.—*Histoire des Institutions de l'ancienne France*, vol. i.—*La Gaule Romaine*, 1891; vol. ii., *L'invasion Germanique*, 1891. [First published in one volume in 1875; reprinted, 1877; now republished with large additions.]—Vol. iii. *La Monarchie Franque*, 1888.—Vol. iv. *L'alleu et le domaine rural pendant l'époque Mérovingienne*, 1889.—Vol. v. *Les origines du système féodal*, 1890.—Vol. vi. *Les transformations de la royauté pendant l'époque Carolingienne*, 1892. [Vols. i. ii. v. and vi. were published after the author's death, under the editorship of M. Camille Jullian].—*Recherches sur quelques problèmes d'histoire*, 1885.—*Nouvelles recherches sur quelques problèmes d'histoire*, 1893.

—*Questions Historiques*, 1893. [These two volumes contain reprints of the more important articles contributed by the author to the *Revue des deux Mondes;* the *Revue des questions historiques; the Revue historique de droit Français et Etranger*, and other periodicals. Among them are essays on the law of property in ancient Greece, on Polybius, on the island of Chios, and other classical subjects, and an essay on the origin of property in land (translated into English by Margaret Ashley, 1891,—Sonnenschein).]

C. G. C.

FUTURE GOODS AND SERVICES. Terms that have acquired a technical meaning and importance in recent economic theory; primarily in that of the AUSTRIAN SCHOOL, and particularly in the writings of v. Böhm-Bawerk, where they connote differentiations of economic phenomena in time; secondarily, in the writings of American economists, where they have begun to connote also the dynamic phases of economic phenomena, for which "time" is a mere abstraction. Future goods and future services must be carefully distinguished from certain other economic factors with which they are often confounded, and they must then be observed in their relations to the phenomena of subjective value, of objective value in exchange and distribution, of consumption and production.

In this article the term "goods" always means those concrete physical objects that render what Böhm-Bawerk has called "material services" through redistributions of matter and energy. "Services" are useful actions, efforts, or changes that are immaterial, personal, or social in character. The same laws govern the values of future goods and future services, and it is therefore quite unnecessary to treat them separately, except when it is desired to emphasise the fact that services are often more transient in useful action than goods. But this is by no means always true. Certain immaterial utilities, *e.g.* legal rights, may endure through periods of time compared to which the economic life of a vast majority of material goods is insignificant. (See also GOODS, CLASSIFICATION OF; GOODS, ECONOMIC.)

Future goods and services are not identical with Menger's category: "goods of the second order," *i.e.* instruments of production. Not only do future goods include prospective consumers' goods, but producers' goods now existing are not future goods, though frequently so called. Strictly speaking, they are present equivalents of future goods. In accurate analysis we must remember the possibilities of cross-classification. Future goods may be primary—*i.e.* consumers' goods, or secondary —*i.e.* producers' goods. Consumers' goods or producers' goods may be present or future.

Future goods comprise all economic goods not now existent or complete, but which, it is practically certain, will be existent and ready for use at any designated future time. They include all goods in process of production which will doubtless be finished and put in market. As communities provide more adequately for their future, future goods become an increasingly important economic category. They become "as much objects of economical dealing as present goods." They are produced, valued, bought, and sold.

In the market, future goods are of less value than present goods of like kind and number. According to the theory that derives market or objective value from subjective valuations, we have to seek the reason for this phenomenon in the lower marginal utility of future goods. Marginal utility, in turn, is not an ultimate fact, and Böhm-Bawerk names three co-operating causes of the relatively low marginal utility of future goods. These are (1) the better provision for future want; *i.e.* the reasonable assurance that future want will be more adequately met by supply than present want; (2) men's usual under-estimation of the future; (3) the technical superiority of present goods. The second cause is resolved into three factors; namely (*a*) imperfect imagination of future conditions, (*b*) weakness of will, attributable in part no doubt to imperfect imagination, (*c*) the uncertainty of life. The technical superiority of present goods is the group of circumstances: (*a*) that a surplus of consumers' goods enables men to spend time in making such producers' goods as tools and machinery; (*b*) that these in turn co-ordinate natural energies in useful ways, enormously multiplying productive power; and (*c*) that as these processes take time, the sooner they are begun the greater the gain. It is obvious that human progress tends to correct the under-estimation of the future, and therefore to emphasise the relative importance of (1) and (3) as permanent causes of the under-valuation of future goods. In the view of the present writer, Böhm-Bawerk has not sufficiently developed the underlying connection of the better provision for future want with the technical superiority of present goods, and has therefore failed to discover the ultimate and permanent economic cause of the under-valuation of future goods, and consequently the true cause of interest, in the relatively low cost of production of future, the relatively high cost of production of present, goods. This phase of the question will be referred to again.

The unequal values of present and future goods affect two great classes of transactions. One is the exchange of future consumers' goods, FUNGIBLES, for present CONSUMERS' GOODS, and the agio takes the form of loan interest. The other is the exchange of consumers' goods for producers' goods of various ranks—mills, machinery, tools, materials in all stages of production, and of labour, both skilled and unskilled. In transactions of this latter kind producers' goods are equivalents of future

consumers' goods and must be valued in terms of such. The dealers are capitalist-undertakers, and the differential value of the present goods which they are constantly exchanging for future goods, though essentially the same thing as interest, is merged with such other elements as gains of speculation, rent of ability, wages of superintendence, etc., in the gross profits of production.

The economic phenomenon here described has found expression in the ambiguous formula that "the value of means of production lags behind the value of finished products." The intended meaning is that the value of means of production equals the value of the future finished products which they will bring forth, and is therefore less than the value of present finished products of like kind and number. In the modern world the phenomena have become exceedingly complicated through a double use of innumerable kinds of goods, which, at any moment, may be devoted to consumption or to the furtherance of production. Since cattle exactly alike will not sell in the same market for different prices simply because some of them are to be kept for breeding and others butchered for beef, the formula quoted above seems to be contradicted. The Austrian reconciliation is through recourse to the doctrine that the value of the whole stock of any commodity which admits of different uses is determined by the marginal use. If there are nine possible uses, present and future, for 500 pieces of goods, in groups of 100 pieces each, only five uses can be actually chosen, and these will be the five of highest utility. The lowest utility of these five will determine the value of the entire 500 pieces. Let this be *a* utility of present consumption. Then, since the utilities realisable in the future are greater, the pieces devoted to future use may undergo a present discounting of their future value, and yet sell at the same price per piece as the pieces devoted to present use. This explanation is consistent with the intended meaning of the formula that "the value of means of production lags behind the value of finished products" on one condition only, namely, that the future value of finished products to be obtained by means of 100 units of present goods used productively shall be greater than the present value of 100 units of exactly similar goods now used in consumption. The mere "ripening" of the value of so many units of goods productively employed until their future value exactly equals the present value of goods of like kind and number, consumed in present time, does not at all satisfy the conditions of this problem. The alternative is exactly that kind of productivity of capital which Böhm-Bawerk has stoutly denied. Economists generally have not followed him in rejecting the productivity theory of interest, and it would seem that his own "positive" theory, so far from being inconsistent with it, is in fact built upon it in a disguised form. Capital invested in productive means must be not only "technically" productive of "more goods," but economically productive of "more value" to realise the following combination, which the modern industrial world does actually present, namely, (*a*) goods available indifferently for consumption or production; (*b*) selling for either purpose for the same price in the same market; but (*c*), if used productively, equal in value now only to the present value of the consumers' goods that they will make available at the end of a production period; yet (*d*) of less value now as producers' goods than are present consumers' goods, equal in quality and quantity to the future consumers' goods to be brought forth by these given producers' goods at the end of the given production period.

These phenomena of the unequal values of present and future goods affect all the phenomena of distribution. All shares in distribution must be reckoned in terms of present values. This is a principle of fundamental importance, unrecognised in earlier discussions, which compels us now to correct many of the classical formulas. All co-operating parties or factors in production who take their shares in future goods will get, in the normal course of things, at the end of their waiting, a greater quantity of goods of any given kind than can be obtained by those whose needs or desires must be met immediately. Those who can take their pay wholly or in part in producers' goods will in the long run have more to show for their labour than those who must get consumers' goods at once. This, as Böhm-Bawerk says, is the true secret of the dependence of the labourer on the capitalist. It is also the element of truth in the WAGES-FUND doctrine. To the extent that a labouring population is employed on distant results, but is unable to take its pay in the ownership of future goods, must its wages be limited by disposable present goods, the free or remuneratory capital of the English economists. The value of these is the means of measurement of what Professor Clark has called pure capital, since the fund of available value invested in producers' goods must always be measured in terms of present goods. Wages can never exceed the concrete free capital of the older nomenclature except as labourers become capitalists and take part of their reward in the pure capital invested in productive instruments, or in materials in process of advancement towards future consumers' goods. If then, denying the wages-fund doctrine, we affirm that wages are drawn from product and measured by product, we must add that to the extent that our modern production is capitalistic in its methods, wages are drawn from capitalised product and are measured only by product in terms of capital.

So far our account of future goods has adhered rather closely, though not strictly, to the Austrian exposition. The relation of future goods to the theory of consumption and to cost of production has been worked out chiefly by American writers. Professor Patten, who was among the first to point out the importance of present and future in wage theories, has given attention chiefly to the phenomena of consumption. In a discussion of Marshall's doctrine of consumers' rent he denies the possibility of consumers' surplus from producers' goods. For example, we cannot get consumers' surplus from ploughs and from wheat produced by means of ploughs. The value of the ploughs is "imputed" to them by the future consumers' goods, wheat, etc., and their value, in turn, must be converted into the value of present wheat, which alone, therefore, yields a true consumers' surplus.

Of greater importance, however, is Professor Patten's theory of the dynamic action of changes in consumption itself. These affect all values, subjective and objective, and react on production and distribution. Consumption is governed in its evolution by (*a*) the psychological law that a harmonious combination of many moderate but varied pleasures will make up a larger total of subjective utility than will a few intense pleasures, and (*b*) the objective fact that, because of diminishing returns on the one hand and the variety of nature's resources on the other, it costs less to enlarge a harmonious group of many moderate pleasures than to intensify a few. The consumption of a progressive community is a progressive adjustment to these conditions. Irrespective of increasing population, it becomes more varied, and the uses of particular kinds of goods are multiplied as they enter into new combinations. Therefore, we have no right to conclude that if future goods of any given kind are more abundant than present goods of like kind, they must be less valuable per unit. Demand for just these goods may increase as fast as supply, or faster, and the ground disappears on which rested the criticism of productivity theories of interest.

Professor J. B. Clark develops this thought even farther. He denies that in one important class of cases—the very class most often appealed to in the Austrian argument—there is any comparison whatever between present goods and future goods of like *kind*. When men save, they are either postponing the consumption of wealth or they are for ever renouncing consumption and converting wealth for all time into producers' goods. The latter only is permanent capitalisation. Postponement of enjoyment, as in provision for future travel, or for an education of culture merely, or for old age, is temporary capitalisation to be followed by decapitalisation. In permanent capitalisation we certainly do not compare present goods with future goods of like kind only, if any changes in consumption or in methods of production are contemplated, and, in fact, changes of both kinds always are contemplated, and capitalisation would not occur if they were not. Much less do we compare present and future goods of like kind when we merely postpone enjoyment. When the time for consumption comes, we shall have changed subjectively, and the conditions of life will have changed objectively. Our consumption will not be the same that it would be to-day, and, in fact, we do not expect or wish it to be. We deliberately exchange a group of pleasures that we could enjoy now for a different group that we can enjoy only in the future. Therefore the unequal values of present and future goods of like kind and number cannot be explained by subjective comparisons in the mind of the same individual.

If these conclusions are accepted, it follows that the value of future goods is always determined by comparisons of present goods of one kind with future goods of another kind, and that the difference in value per unit between present and future goods of the same kind is a resultant of many such comparisons by different persons. It is, in short, a phenomenon of objective or market value only. The under-estimation of the future disappears from our list of causes of interest, and we have left the purely objective fact that present goods are strictly limited in quantity, while, owing to the technical superiority, or productive potentiality, of present goods, and the progressive development of invention, future goods are relatively abundant. The value of future goods is determined, like any other value in any actual market, solely by the demand for and the supply of concrete goods.

If this is true, the relative quantities of present and future goods ought to be explained in terms of their cost of production. Like all commodities continuously produced, they should be found to have a normal as well as a market value. Cairnes showed that wages are not a cost, but that they correspond to and repay a cost, and but for the cost would fall to zero. In like manner, interest is not a cost, but it corresponds to and repays a cost, and but for the cost would wholly disappear. The attempt to show these relations has been made by the present writer. Future goods being always in relatively abundant supply, for reasons already given, he affirms that their conversion into present goods can always be hastened if desired, thus increasing the relative supply of present goods and diminishing their relative value. But hastened production is more costly than production at a usual or normal rate. It involves overtime or intensified labour, which is labour of diminishing return. This is the

whole significance of the "fatal lapse of time between the beginning and the end of the lengthy capitalist process" that Böhm-Bawerk speaks of. The process can be shortened, but shortening is costly. This extra cost, therefore, normally prevents the lowering of value of present as compared with the value of future goods which otherwise would be possible through an abnormal acceleration of production. The abnormal cost of hastened production is the normal measure of the difference in value between present and future goods and the normal measure of interest.

[For details of the views here presented consult *Capital and Interest*, and *The Positive Theory of Capital*, by Dr. E. v. Böhm-Bawerk, translated by Wm. Smart. A sketch is given in *Quart. Jour. of Econ.*, April 1889, by J. Bonar.—Francis A. Walker, "Dr. Böhm-Bawerk's Theory of Interest," in *Quarterly Journal of Economics*, vol. vi. No. 4, July 1892.—Simon N. Patten, "The Dynamic Theory of Economics."—President Walker's "Theory of Distribution," in *Quarterly Journal of Economics*, vol. iv.—No. 1, October 1889.—"Cost and Expense," in *Annals of the American Academy of Political and Social Science*, vol. iii. No. 6, May 1893.—John B. Clark, "Capital and its Earnings," in *Publications of the American Economic Association*, vol. iii. No. 2, May 1888.—and "Distribution as Determined by a Law of Rent," in *Quarterly Journal of Economics*, vol. v. No. 3, April 1891.—F. H. Giddings, three articles in the *Quarterly Journal of Economics*, namely, "The Cost of Production of Capital," vol. iii. No. 4, July 1889; "The Theory of Capital, vol. iv. No. 2, January 1890, and "The Growth of Capital and Cause of Interest," vol. v. No. 2, January 1891. The important remark of Professor Clark, that the same individual does not exchange present for future goods of like kind, is from his paper in the *Yale Review*, November 1893.—Consult also the English economists, the elder John Rae, N. W. Senior, J. S. Mill, Jevons, Sidgwick, and Marshall; the Italian economist Loria and the German Dietzel for criticisms; and of the Austrians, Menger, Sax, and Wieser.] F. H. G.

FUTURES. Dealings in "futures" take place in almost every large market. On the London Stock Exchange, transactions are for a settling day, fixed, or to be fixed (see SETTLING DAY), and a large proportion of the bargains are made in the expectation, on one side at least, of their outset by a future transaction (see also OPTIONS, PUT AND CALL). In many kinds of commodities bargains also are made for delivery at future dates, whether delivery may ultimately be taken, or the right thereto be sold. In the United States, dealings in "futures" are the chief feature in the wheat trade. In London, "futures" in silver, tea, coffee, sugar, and wheat are largely dealt in through the London Produce Clearing House, which guarantees to buyers and sellers the due performance of the contracts, bargains being made for delivery at any time up to six months, against a deposit of 5 per cent of the value (see MARGIN). The power to purchase "futures" is sometimes an important part of a manufacturer's arrangements, enabling him safely to take extensive contracts by ensuring a continued supply of raw material at a definite price. On the other hand, a large proportion of such dealings is purely gambling, and upon this ground their suppression by law has been advocated. Besides these objections upon moral grounds, it has been urged that the sale of "futures" has a direct effect upon prices, equal to that of a large increase of supply, and has, in the case of wheat at least, caused a prolonged depression of price beyond the minimum cost of production. (On this last point see *Commercial Gambling the Principal Cause of Depression in Agriculture and Trade*, by C. W. Smith, 1893.) R. W. B.

FUTURES IN COTTON will supply an example of dealing in "futures." The term is applied to contracts made for future delivery of cotton, transactions of this nature forming by far the larger proportion of business done in the Liverpool market; a fact which is self-evident when we reflect that almost every bale of American cotton imported into Liverpool is hedged by a sale of distant futures, whilst spinners also find this a convenient method of covering forward orders taken for yarns; and speculators, it is needless to add, resort almost entirely to this mode of doing business, involving, as it does, no outlay of capital beyond a margin to be agreed upon at time of contract, or a payment of weekly differences as customary by the rules of the cotton association.

The "future" market is also largely used for "straddling" purposes between Liverpool and New York, when the difference in price between the two markets is such as to permit of a commission being earned by a simultaneous purchase and sale.

Differences, unless otherwise stipulated at time of contract, are settled weekly, through the medium of the cotton CLEARING (*q.v.*), the price of settlement being struck each Monday at 11 A.M. and payment exacted on the Thursday following, and some idea of the magnitude of the business may be formed from the fact that in a single week it is estimated £1,500,000 at least has passed through the clearing-house for differences during that period only. R. C. B.

FYRD was the Anglo-Saxon militia. There was very little taxation before the Norman Conquest, because most of the expenses were defrayed by local obligation. Every freeman was subject to the *trinoda necessitas*, *i.e.* service at his own expense when summoned by the king (*fyrdung*), the repair of fortifications (*burhbot*), and the repair of bridges (*bricbot*). R. I.

GABELLE. This term, originally applied to any tax upon commodities, was gradually limited to the tax upon salt, perhaps the most odious and inequitable impost in France. Not only did the state reserve to itself the monopoly of the trade in salt, but it actually compelled the purchase of a minimum amount for every individual over eight years of age. This was called the *sel du devoir*. Originally the tax was uniform throughout France, but as time went on the most extraordinary inequalities grew up. The country was divided into five groups of provinces according to the price at which salt was sold by the GRENIERS À SEL (*q.v.*). These were (1) the *pays de grandes gabelles*, where the price was 62 francs the quintal; (2) the *pays de petites gabelles*, where the price was 33 francs 12 sous; (3) the *pays de salines*, where it sold for 21 francs 12 sous, and the tax was levied on the extraction of salt from the salt marshes; (4) the *pays redimés*, which had purchased exemption in 1549; (5) the *pays exempts*, which were exempted from the tax by the terms of their union with the monarchy. Many individuals received the privilege of being on the list of *franc-salé*, which included all hospitals, religious communities, and magistrates. The inevitable result of these inequalities was to give rise to a regular smuggling trade, and this in turn to a harsh and expensive system of police, often assisted by the troops. Necker says, "Thousands of men, attracted by the prospect of easy gain, devote themselves to a commerce contrary to the laws. Agriculture is abandoned for a career which promises greater and more speedy returns, and children are trained under the eyes of their parents to forget their duties to the state." The fact was that ever since 1548 the *gabelle*, like the other indirect taxes, had been farmed out to speculative companies. The net revenue from the *gabelle* is reckoned by Necker at 54,000,000 francs. The tax was condemned by all advocates of reform, from Vauban to Turgot, but it was not abolished until 1790. The Gabelle had the effect of seriously diminishing the consumption of salt, which was only half as much per head in the *pays de grandes gabelles* as in the exempted provinces.

[A. Smith, *W. of N.*, bk. v. ch. ii.—Gasquet, *Précis des Institutions Politiques de l'ancienne France.*—Necker, *Compte Rendu.*—Clamagéran, *Histoire de l'Impôt en France.* (See also SALT TAX; INDIRECT TAXATION.)] R. L.

GABLATORES, servile tenants, who paid rent either in money or kind in lieu of actual service. Such rent, *gafol* or *gablum*, occurs frequently in Domesday; seven gablatores are mentioned on the manor of Cheddar, part of the *terra regis* in Somerset, as paying seventeen shillings yearly to the king. By the 14th century such commutation was becoming general, and led to the formation of a class of tenants at money rents (see GEBUR).

[Cunningham, *Growth of English Industry and Commerce, Early and Middle Ages*, 1890, p. 160.—Round, *Danegeld and the Finance of Domesday*, in *Domesday Studies*, 1888, vol. i.] E. G. P.

GAËTA, DUKE OF, MARTIN MICHEL CHARLES GAUDIN (1756-1841), born at Saint Denis (Seine), died at Paris. He was placed at the age of seventeen in the office of the ministry of finance. In 1791 he was appointed one of the six commissioners of the national treasury. He resigned office on the breaking out of the Reign of Terror, and refused the portfolio of finance under the Directory, contenting himself with being the general commissioner of the post office, but accepted it after the 18th Brumaire from the hands of the First Consul. He continued to hold this office up to the fall of the empire, and during the Hundred Days. He assisted in the reorganisation of the administration of the system of finance. In this reorganisation the system of the *ancien régime* was taken for a model, of which he was, unfortunately, only too faithful a follower. For he thus recalled to life that spirit of bureaucracy which, while painstaking and order-loving, as we freely admit, was over-exact to a fault, treating the people as if they were children, incapable of understanding and managing their own interests, and especially of foreseeing what would serve those interests best. Absolutely honest and unassuming, acting always with the most perfect good faith, he earned and deserved the respect of the government of the Restoration, which appointed him (he was deputy for the department of the Aisne from 1815 to 1819) governor of the Bank of France in 1820, a post which he held till 1834. He declined a seat in the chamber of peers. A. C. f.

"He was," writes Napoleon from St. Helena, "an honest and orderly administrator, who knew how to be on good terms with his inferiors and to progress with a demure but steady step. Everything he did and projected from the beginning, he maintained and perfected during fifteen years of a wise administration." In his *Mémoires relatifs à la Révolution, à l'Empire et à la Restauration* (Paris, 2 vols. 1826), Gaëta himself explained the principle which guided him throughout life in the following terms:—"The spirit of order is the first desideratum in financial administration: it applies to everything and embraces both men and things."

In his *Notice Historique sur les Finances de la France* (1818), published to defend his financial administration against attacks from the more ardent among the Legitimists, the Duke of Gaëta states that when he first entered the ministry, the treasury only possessed in cash the miserable sum of 177,000 francs (say

£7080). "The *Assemblée Constituante*, with the best possible intentions, had decreed the ruin of our finances on the day when sacrificing true principles and the warnings of experience to vain abstractions, it had decreed the suppression of all taxes on consumption." In a note (p. 3) he adds that "indirect taxation is one of the *necessary* elements of a system of finance, capable of adaptation to all circumstances and to all wants." He adds (pp. 225 *et seq.*) that on principle and from the first day he assumed office he pursued two main objects: "first, to improve and consolidate (the national) credit by looking carefully after the interests of the creditors of the state; and second, to bring the ordinary revenue to the necessary level by taxes on consumption." . . . He also successfully organised the system of collecting the taxes and the execution of the general land survey (*Cadastre*) by the law of the 15th of September 1807, which is due to him, following in this the principle of the law of September 1791 (see CADASTRAL SURVEY). Gaudin ranks as the author of the modern system of French financial administration, acting on the opinion he had expressed in his *Notice historique* (p. 6) that, at the time of the outbreak of the revolution, the national assembly "might easily have *ameliorated* the older system instead of *destroying* it." The italics are his own.

Apart from the above mentioned works, the Duke of Gaëta published; *Observations et éclaircissements sur le paragraphe concernant les finances dans l'Exposé de la situation du Royaume présenté à la Chambre des Pairs* (1814).—*Opinion préliminaire sur les Finances* (1815).—*Mémoire sur le Cadastre* (1817).—*Aperçu théorique sur les Emprunts, suivi de quelques observations . . . sur l'ouvrage de M. Ganilh* (1817).—*Observations sur la proposition faite de réduire le crédit pour les travaux du Cadastre* (1820).—*Considérations sur la Dette publique de France, sur l'emprunt et sur l'amortissement* (1828).—*Considération sur l'Exposé des Motifs de la Loi du 17 Mai 1837 portant création d'un fonds extraordinaire pour les Travaux Publics* (1837).—*Des Conséquences du rejet par la Chambre des Pairs du projet de loi concernant la Conversion de la rente 5 per cent* (1840).

[See also *Essai sur la Vie et l'Administration du duc de Gaëte, ministre des Finances de l'Empire*, by Aug. Portalis (Paris, 1842).] E. CA.

GAFOL, GABEL, or GABLE, "payments in kind or in money, in labour, service in the field defined or undefined" (Gneist, *English Constitution*, translation, 1886, 1, 4). It was the least servile of the incidents of serfdom, paid by the GEBUR or villein, less fully by the cottier (Seebohm, *Village Community*, 1884, 141, 142). Vinogradoff (*Villainage in England*, 1891, 184) considers *gafol* to be an original, not a commuted payment, "the old Saxon rent in money or in kind," but admits exceptions, as in Kent (cp. GAVELKIND), where it may be unconnected with any base or villein service (p. 187). The word occurs in combination, *e.g.* gafol-earth, *i.e.* ploughing over and above the week-work, gafol-æle, etc. Seebohm (pp. 318-327) attempts to trace it to the dues paid by the Roman *coloni*.

[Kemble, *Saxons in England*, vol. i. ch. xi.—Round, *Domesday Studies*, vol. i. p. 132, and *Eng. Hist. Review*, January 1887, p. 103.—Stevenson, *Eng. Hist. Review*, April 1887, p. 336.] E. G. P.

GAINAGE or WAINAGE. The oxen, horses, ploughs, and other instruments used in carrying on the work of a farm.

[Cowel's *Interpreter*, ed. 1727, arts. "Gainagium" and "Gainage."] A. E. S.

GAITO, GIOVANNI DOMENICO (at Naples in 17th century); wrote a comprehensive treatise on transactions of credit, in which, like other writers, especially the Roman Sigismondo Scaccia, without openly endeavouring to modify the ideas of theologians and jurists, he proved the lawfulness of interest on money. It is interesting to observe the effort made in it to overcome the prejudice, existing at that time, to consider money as being an unfruitful property, without, however, venturing to oppose this opinion openly.

Tractatus absolutissimus de credito, Venetiis, 1626. A. B.

GALANTI, GIUSEPPE M. (1743-1799), born at Campobasso in one of the Neapolitan states on the south-east coast, of which in 1781 he wrote a description. His father destined him for the bar, which he gave up early to study literature and rural matters closely, a choice fostered in him by GENOVESI, whom he greatly admired, and on whose death in 1772 he composed *Elogio storico del Sig. Abate Genovesi*.

Galanti was invited by the government in 1786 to write the *Descrizione geografica e politica della Sicilia*, Napoli (translated into French and German, abridged in English). In this work, much esteemed at the time, Galanti expresses his opinions on the means proper to improve the national wealth. Following many Neapolitan writers before him, he, though eclectic, supports mercantilism. In his *Testamento forense*, Venezia, 1806, based on the arguments of Delfico, he supported the abolition of the feudal system on which the crown estates were still carried on at that date, maintaining that the general prosperity would have been more increased by selling or farming them, and agriculture improved by the consequent adoption of better methods. Galanti was a supporter of the single tax on land, admitting indirect taxes only when really needed and not weighing unduly on goods of first necessity; he deplored the existence of privileged classes, exempted from the payment of taxes, for taxes ought to be paid proportionately to property. Writing on population, he developed such sound principles as to be justly considered by Prof. Fornari, *Delle teorie economiche nelle Prov. Napoletane*, vol. ii., the forerunner of Malthus. A. B.

GALDI, MATTEO (18th century) a Neapolitan jurist. In his lifetime the laws regu-

lating the property in land were much discussed. He was of opinion that these should be as liberal as possible, and that in order to attain the greatest public prosperity, the number of proprietors should be as large as possible in every nation. Every legal institution which tended to prevent the free distribution of a great part of the territory of a nation should be abrogated.

Analisi ragionata del Codice Ferdinandino . . . Napoli, 1790. A. B.

GALE, AND HANGING GALE. An expression used in Ireland for an instalment of rent. Gale day is the day on which rent is payable.

The word is connected with *Gabellum*, gavel (see GAFOL). The "hanging gale" is the half-year's rent in respect to which the tenants on many estates were allowed to remain in arrear. C. F. B.

GALEON. The Spanish name of the ships *flotas y galeones* engaged in the officially authorised trade between Spain and America. Charles V. in 1526 and again Philip II. in 1561 decreed that the whole of this trade was to be monopolised by these *galeones* sailing every year or eighteen months and under military convoy from Seville to Carthagena and Portobello or Porto Rico and Vera Cruz. Occasionally a few ships, *navios de registro*, obtained licenses to sail by themselves or from other Spanish ports, but with such delays and formalities that these licenses were almost useless. In America the goods imported from Spain were sold at fairs and at previously fixed prices, which left profits ranging from 100 to 500 per cent. On their journey home, the *galeones* were also bound to unload their cargoes of precious metals in Seville (from 1717, Cadiz). The whole system resulted in an enormous premium to smuggling, and lasted until the middle of the 18th century, when it had greatly declined in importance.

[Colmeiro, *Historica de la Economía Política en España*, ii. pp. 401-421.] E. Ca.

GALIANI, FERDINANDO (1728-1787), born at Chieti, south-east coast of Italy. He lived at Naples and became an ecclesiastic and eventually a monsignore. From his youth upwards he showed high intellectual power, and reached high office, being a member of the supreme board of trade at Naples. In 1759 he was appointed secretary to the Neapolitan embassy at Paris, and soon after an envoy. He went to London, where he lived a long time and published his *Dialogues sur le commerce des blés*, Londres (Paris), 1770, which made him known throughout Europe, and drew forth vigorous replies. In 1773 he was recalled to Naples, and employed in high public office, which he filled to the entire satisfaction of the king.

The writings of Galiani were highly useful, especially his work *Sui doveri dei principi neutrali verso i principi belligerenti*, published during the Seven Years' War, during which the kingdom of Naples stood neutral. He investigated, with much originality, the fundamental problems of economic science, opening the way to its future progress. In his able work, *Della Moneta* (anonymous 1750, 2nd ed. with his name, 1780), he analysed the phenomenon of value, forming a theory which may have a little in common in its details with the other systems known in his time, but differing essentially from them in its theory of the basis of value. Galiani placed this in the concrete utility of single quantities of wealth—a utility which, according to him, is determined by the different degrees of demand; he remarks on the influence of time and the reciprocal influence of demand on value, which, in its turn, influences the former. This theory of the limit of utility forms a complete and regular system in which the several elements are first ascertained and then reduced to one alone. This element is neither labour nor rarity, separately considered, nor even utility itself. According to Galiani, the law regarding normal value is a mixture of several elements, all tending to give the idea of utility in its widest sense, and differently distinguished in degree and demand. Galiani's system has nothing in common with that of Locke and Cantillon, then generally accepted. It anticipates the theories of Jevons and Menger. In the work, *Della Moneta*, he defends charging interest. The chapter on the course of exchange, though imbued with *mercantilist* opinions, and showing some inconsistencies in the remarks on international trade, has great merits. His eight dialogues, *Dialoghi sul commercio dei grani* were translated into French by Diderot, January 1770, and are the most brilliant writings published up to that time in support of practical economics. The author declares himself in them the follower of no school; according to him in the corn trade the only system to be followed is to follow none. As he wrote subsequently in his *Corrispondenza*, the dialogues were never completed, he having intended to add one more (IX.), which was never published. Pecchio, *Storia dell' Econ. pubbl. in Italia*, Lugano, 1819, pp. 95-96, has given copious extracts and a short analysis of the dialogues. In the *Dialoghi*, Galiani does not speak of agriculture as the sole basis of wealth, as the physiocrats do, because several states have territories quite insufficient for their requirements. He praises the edict of 1764, which established free trade in corn in France, but he does not do this through an absolute conviction of the correctness of the theory. Every nation, every age, requires, according to him, different laws; it is absurd to resolve the problems of economical legislation by reference to abstract and absolute principle, because consideration must be had of an indefinite quantity which cannot be determined,—that is man, who may be entirely modified by habits. Many objections were raised to these opinions, and all the *économistes* opposed Galiani. Further, the French government gave MORELLET the task of refuting him. The attempt was published three years later.

In the history of economic doctrines, Galiani has the great merit to have remarked in the 2nd edition of *Della Moneta* (1780) on the great importance of the work of Antonio SERRA, *Breve trattato delle cause che possono fare abbondare i*

regni d'oro e d'argento dove non sono miniere, Napoli, 1613, which every one had unjustly forgotten. A. B.

GALITZIN, DIMITRI, Prince (1730-1803). From 1765 to 1772 he was Russian ambassador in Paris, where he met on friendly terms QUESNAY and other members of the school of the PHYSIOCRATS. On leaving Paris he occupied the Russian embassy in the Netherlands, and retired to Germany, where he died, after the outbreak of the French Revolution.

To vindicate the memory of his former friends, Galitzin published, in 1796, at Brunswick, a book entitled *De l'Esprit des Économistes ou les Économistes justifiés d'avoir posé par leurs principes les bases de la Révolution française* (The spirit of the Economists, or the Economists not guilty of having laid, by means of their principles, the foundation of the French Revolution). E. Ca.

GALLATIN, ALBERT (1761-1849), an American statesman and writer, was born at Geneva in Switzerland, and emigrated to the United States in 1780. He was active in the state (Pennsylvania) and federal legislatures from 1789 to 1801, and became secretary of the treasury in 1801. He served in that capacity with distinguished success until 1813. In 1814 he took a leading part in negotiating the treaty of Ghent, by which the war between the United States and Great Britain was brought to an end. From 1816 to 1823 he was minister to France, and in 1826-27, minister to England. In the later years of his life he was president of a bank in New York, where he died. His character was singularly pure and noble, and his career marked by unfailing public spirit combined with rare good sense.

Gallatin's official writings on economic and financial subjects are voluminous, consisting of his reports as secretary of the treasury, and of other state papers and speeches. All are marked by sound judgment and perfect accuracy of statement, and are material of high value on the industrial and financial history of the United States. The same qualities appear in his un-official writings, a list of the more important of which is subjoined. In the two pamphlets on currency and banking, published in 1831 and 1841, he gave sketches of the currency history of the country, which are the best sources of information on that period; and he urged strongly the maintenance of specie payments. It is noteworthy that the function and importance of deposit banking as virtually supplying currency received adequate recognition at his hands. In the memorial which he drew up in 1832 on behalf of a free-trade convention, he presented with force the argument in favour of free trade, showing in his treatment of the subject signs of the influence of the Ricardian school.

Gallatin's life has been fully written by Mr. Henry Adams (*Life of Gallatin*, Philadelphia, 1879). The same author edited at the same time three volumes of Gallatin's works, the third of which contains most of those enumerated below, and gives also a complete list of all Gallatin's public and private writings. The more important of his unofficial writings are:—*A Sketch of the Finances of the United States*, New York, 1796. —*Views of the Public Debt, Receipts, and Expenditures of the United States*, Philadelphia, 1800.—*Considerations on the Currency and Banking Systems of the United States*, Philadelphia, 1831.—*Memorial of the Free Trade Convention*, New York, 1832.—*Suggestions on the Banks and Currency of the several United States, in reference principally to the suspension of specie payments*, New York, 1841. F. W. T.

GAMBRINI, FRANCESCO (early 19th century), born at Asti in Piedmont.

In his work, *Delle Leggi Frumentarie in Italia*, 1819, Gambrini defended free trade in corn and free trade in general, opposing the system of protection to manufactures by forbidding the export of raw materials and imposing heavy duties on the import of manufactured articles. Nevertheless he considered a protective system justified if it prepared domestic manufactures against a time when they could compete with foreign countries. *Osservazioni sulla proibita estrazione della seta greggia dal Piemonte* (*Racc. di opere di Econ. Pol. di Aut. Piem.*, p. 144). A. B.

GAME LAWS. These laws are an artificial arrangement for the purpose of securing to owners of land the game on their estates, which, by the common law, is not, while living, capable of being property. In this respect the common law is founded on the civil or Roman law. In the view of Roman lawyers, wild or undomesticated animals were *res nullius*, the property of no one, until killed or captured, when they became the property of the captor, no matter on whose land they might have been taken (Inst. II. 2). If they were caught and confined they became property only so long as they were in actual detention, but if they recovered their liberty they again became *res nullius*. Even if tamed, animals *feræ naturæ* were the subject of property so long only as they were either on the owner's estate, or retained an *animus revertendi* to it, and if that did not exist, they became subject to the right of appropriation as if wild. These rules were carried still further by the Anglo-Saxons, whose presumption in favour of equality of rights led to the prohibition of keeping wild animals in confinement for purposes of pleasure, because by so doing they were abstracted from the common right of all to kill them. But the Norman love of sport, and their introduction of the feudal principle, gave a new development to these doctrines. Game continued to be in law not a subject of property, but the right to pursue it became a privilege vested only in the landowner, and pre-eminently in the sovereign as lord paramount. In particular the right to confine animals of

chase within certain bounds was limited to the sovereign and to those private individuals on whom he bestowed the right—by grant of privilege of a "forest," in which the forest laws prevailed; of a "chase," where game might be preserved, but without protection of the forest laws; or a "park," in which game might be confined by a fence. The "forest laws" were a code established by the arbitrary decree of the Conqueror and his immediate successors, which inflicted fines, mutilation, and death on all who might hunt within the limits in which it applied. The severity of this code caused deep murmuring, and it was restrained both by the Great Charter and by the *Charta de Foresta* (1217). (See FORESTS, MEDIÆVAL.)

A series of game laws gradually took the place of this code of privilege, and these were consolidated by the Night and Day Poaching Acts, 9 Geo. IV. c. 69, 1 & 2 Will. IV. c. 32, and 2 & 3 Will. IV. c. 68, which now form the principal enactments framed for preservation of game. These still proceed on the basis that game is not property, and therefore the taking of it alive is not theft. But they convert trespass, which by itself is not criminal, but only gives room for a civil action for damages, into a criminal offence, if it is for the purpose of taking game. The offence during day is punishable only by fine, but the taking of game by night is punishable by imprisonment with hard labour for three months, six months, and two years, or even penal servitude for seven years for a first, second, and third offence. There are further penalties for aggravation by resistance, etc., and the 7 & 8 Vict. c. 29 applies the rule to highways. The game thus protected by night are hares, pheasants, partridges, grouse, heath or moor game, black game (these two latter are the same), and bustards. The Day Act applies, in addition to these, to deer, roe, woodcock, snipes, quails, landrails, wild ducks, and conies. The 25 & 26 Vict. c. 114 entitles policemen to apprehend and search any person suspected of having game in his possession. In addition to these restraints it was formerly unlawful for any one to kill game, even on his own ground, unless he were possessed in England of an estate of £100 a year (22 & 23 Car. II. c. 25), and in Scotland of a "ploughgate" of land. But the necessity of a qualification was abolished by 1 Will. IV. c. 32, and in its place was substituted the requirement to take out a licence. The present statute is the 23 & 24 Vict. c. 90. The 11 & 12 Vict. c. 29 relieved occupiers of this obligation as regards the killing of hares, and as regards both hares and rabbits the Ground Game Act, 1880, declares that the tenant of lands shall have a right of killing which he cannot contract himself out of. There is also a close time appointed by 13 Geo. III. c. 54, during which the killing and selling of game is illegal.

Such are the leading provisions which constitute the code of game laws. As there is no moral question involved in their principle, whatever may arise out of their exercise, the policy must be judged on grounds of expedience and public advantage. Two arguments may be stated in their favour. In the first place they adapt to modern conditions ancient rules of law which have ceased to be applicable. In a sparsely-inhabited country the doctrine that wild animals are no man's property is reasonable. But when every inch of ground has its owner, and every plant is private property, it is pedantic to affirm that animals which live and die on private land, and are wholly fed on private property, become public because they have the power of flying or leaping over the fences which separate one private property from another. Common sense would suggest that they should be recognised as part of the property of the landowner on whose territory they are for the moment, and that their being taken by another person is as much stealing as the appropriation of a sheep or turkey. But in the second place there is the plea in favour of the game laws that by encouraging sport they encourage the residence of owners on their estates; the advantage of which to the community cannot be disputed. But these arguments are met by others of undeniable force. Human nature has not confined the love of sport to the breasts of landowners, or of rich men who can hire their rights. It exists as deeply in the hearts of poor men; and no enactments can convince them that its indulgence is a crime. Further, the excessive preservation of game, which the game laws foster, makes poaching a very profitable pursuit. At the same time the valuable animals thus multiplied are somewhat in the position of a shopkeeper's goods exposed outside his door instead of within his window: they are not in a place of safe custody, watched over by regular attendants, so that the temptation to take them is enhanced by apparent negligence and the prospect of carrying them off without detection. It is against public policy to foster in this manner temptations to crime, and most of all to offences which are artificially created by law. The impolicy is heightened by the fact that those yielding to the temptation are often brought into situations where in self-defence they commit murder or are themselves murdered.

The economic effects of preservation of game have been often exaggerated on both sides. The advocates of the system urge that a large amount of food is produced and a great deal of employment given. The opponents insist that crops are destroyed, land thrown out of cultivation in order to form preserves, and agricultural employment diminished. Excluding deer forests from view for the present, the mischiefs on both sides have been practically much re-

duced in amount by the effect of recent agricultural depression. This fact has given to tenants in general an increased power of making their own conditions, among which moderation in the preservation of game is not one of the least essential. There are probably not now many farms in which any considerable amount of damage to crops arises from game. The actual preserves are mostly within parks, partly grazed by cattle and sheep; and in woods, which under present circumstances return as much profit from timber as the land would if under cultivation. Nor can any reasonable person think it desirable that sylvan scenery should be utterly abolished in England, even if a small addition to the supply of human food were thereby attained. The number of keepers is also not greatly less than the number of agricultural labourers would be.

The case of deer forests (which are really treeless tracts of mountain heath) is, however, peculiar in its circumstances. If the deer were limited to the higher ranges, in which culture is unprofitable, the small number of sheep and cattle which they would displace would be scarcely worth computation. But of late years rich strangers have offered tempting rents for immense ranges of country, including a proportion of fertile glens, with the view of driving out the existing population on the pretence that their presence frightens the deer away. The pretence is unfounded, for deer soon become reconciled to the sight of those who do not molest them. But even if it were true it would be contrary to sound national policy to allow a wide district to be depopulated for the sake of yielding sport to a rich man. A royal commission in 1895 investigated the extent of land suitable for crofter holdings or common pasture, which it stated at 1,700,000 acres, but there does not appear to be any statement of the total area comprised in deer forests.

[Rich. Griffiths Welford, *The Influences of the Game Laws*, 1846 (Extracts from Evidence before House of Commons Committee, Speech of Bright, etc.).—Shaw Lefevre, *Freedom of Land*, 1880.—*Report of Highlands and Islands Commission*, 1895. J. B. K.

GAMING CONTRACTS. A gaming or wagering contract "is one by which two persons professing to hold opposite views touching a future uncertain event mutually agree that, dependent upon that event, one shall receive from the other, and the other shall pay or hand over to him, a sum of money or other stake; neither of the contracting parties having any other interest in that contract than the sum or stake he will so win or lose, there being no other real consideration for the making of such contract by either of the parties." (Justice Hawkins in Carlill *v.* Carbolic Smoke Ball Company (1892) Queen's Bench 484). Contracts of this description are declared to be null and void by an act passed during the present reign (8 & 9 Vict. c. 109, p. 18). Notwithstanding this act it was held that a betting agent who had paid the amount due by his principal on the loss of a bet was entitled to recover the same from the latter (Read *v.* Anderson, 10 Queen's Bench Division 100; 13 Queen's Bench Division 779), but this indirect recognition of betting transactions has lately been set aside by the Gaming Act of 1892, which enacts that no action shall be brought to recover any sum of money paid in respect of any gaming or wagering contract. The subject of gaming contracts has recently been discussed with reference to the "missing word competitions" organised by certain newspapers, which were held to be illegal, as the result did not depend on skill and judgment but upon mere chance (Barclay *v.* Pearson—1893—2 Chancery 154). The principle of the statute against gaming and wagering contracts was, to a certain extent, already recognised by the statute of 14 Geo. III. c. 48, which forbids the insurance of a life in which the insurer has no interest, and which is still in force.

Much discussion has taken place both in England and abroad on the question whether certain time bargains on the stock exchange and in the produce markets are to be considered as partaking of the nature of wagers, and the result of the decisions seems to be that a contract is not enforceable where it can be proved that it was not the intention of the parties to deliver or receive a certain quantity of securities or produce at a certain price, but that the payment of the difference between the price at which the bargain was made and the market price at the time fixed for the completion of the bargain was the sole object of the transaction; in the absence of such proof the parties must be presumed to have intended a real sale (Grizewood *v.* Blane, 11 Common Bench 526; Thacker *v.* Hardy, 4 Queen's Bench Division 685—see also the decision of the German *Reichsoberhandelsgericht*, vol. 6, p. 224, and of the German *Reichsgericht Entsch. in Civilsachen*, vol. 12, p. 16, and vol. 30, p. 214).

In France time bargains are not always considered gaming contracts (see the decision of the Court of Appeal at Dijon, dated 18th May 1891, reported *Dalloz Recueil périodique*, 1891, II. 384) (cp. also LOTTERIES). See Vercamer, *Étude Historique et Critique sur les Jeux de Bourse et Marchés à Terme*, Paris, 1903. E. S.

GANGS, AGRICULTURAL, also called "public gangs," are to be distinguished from "private gangs," organised by the farmer himself who employs them, and superintended by one of his own men who works with them. The public gangs are engaged by an independent gang-master, who makes his own terms with the women or boys who compose them, and sees a certain amount of agricultural work executed for a farmer, who pays by the piece. The system is to be found throughout the Fen district. In 1865 it existed in the counties of

Cambridgeshire, Huntingdonshire, Lincolnshire, Nottinghamshire, Norfolk, and Suffolk, and was the direct result of the enclosure of wild land without providing an adequate number of cottages for resident cultivators. This enclosure went on with great rapidity in the two last decades of the reign of George III., and, combined with the unreformed poor law, which rated the parish rather than, as now, the union of parishes, and therefore discouraged landowners from keeping cottages, lest, as was said, they should become "nests for beggars' brats," made it necessary for occupiers of land to look elsewhere for the labour they needed. The Poor Law Union Chargeability Act (1865) altered the condition of affairs to a certain extent, but the expenses of cottage-building and repair have partially replaced the evil then removed. The moral evils to which these gangs led, particularly in a part of England which, being exceptionally free from fences or hedges, admitted of a strict look-out being kept by the culprits against observation, and the physical ruin caused to the employees, were so great that in 1865 Lord Shaftesbury, supported by the then Bishop of Lincoln (Dr. Jackson) and Earl Granville, carried an address from the House of Lords to the Queen for including agricultural child-labourers in the scope of inquiry by the children's labour commission, appointed in 1862, and then sitting. They reported in 1867 that under the public gang system the payment of children according to their age and abilities, and the adjustments of work to their powers, were studied to a great nicety. There were, however, many children employed far too young, and the distances they had to travel on foot led to appalling cruelty. The preponderance of evidence as to a well-regulated system, however, showed that the exercise was good for the health of the elder children, and many medical men said the same also of the effect on the women. On the other hand the gross immorality and general coarsening of character, the obscenity and uncleanliness grafted on the young women by the irregularity and vagrancy of the life, were testified to almost universally by labourers, farmers, and ministers of the Gospel. The report of the commissioners startled the public with its revelations. The result was the passing, 20th August 1867, of an act which forbade the employment of any child under eight years old, of any female in the same gang with males, and since 1894 of any female under a male gang-master unless a licensed gang-mistress were also present. Gang-masters must be licensed by district councils, and may not hold a liquor license. The distances to be travelled on foot by the gang are to be fixed by the councils, and each license must be renewed every six months. These enactments have been made more stringent by the Education Act 1870, which forbids the employment of any child under the age of ten, or under fourteen without a certificate of school proficiency. The work done with the gang varies with the different months, and ceases during harvest time. It consists principally of weeding, picking twitch, singling turnips, gathering stones, spreading manure, setting potatoes, selecting seeds. The advantages of the system are the training of the young to agricultural work, the securing of occasional extra hands for the farmer, and of extra wages for the cottage home, and in the case of the boys at any rate, the healthy effect of outdoor exercise. What disadvantages remain since the regulation by the act of 1867 are the usual mischiefs arising from the herding of twenty to thirty children together, and their possible subjection to an excessive amount of labour where it is the interest of their employer to "drive" them too fast; the danger to women's health in particular, from cold and exposure, and strain, and the harm arising to their homes by their absence; and possibly the discouragement of adult male labour by the competition of the gangs. Happily the general improvement in education and refinement among agricultural labourers' families is gradually causing all women, except widows who have no breadwinner, to refuse such labour, the conditions of which are quite unlike the annual hiring of whole families to work together, as in Northumberland. When, however, the councils really exercise their right of choice, and appoint as gang-master only a man who is at once skilled in the treatment of land, firm in command, and gentle in discipline, gangs seem to form a basis for just that technical training which is needed in our rural districts. The Education Acts wisely prevent parents from withdrawing their sons from school till they have learnt to read and write. The literary education thus being guarded, the state may possibly find in the gang system the nucleus of a technical education which, bringing in a little to the home, would not be unpopular. It is far otherwise with the employment of the future wives and mothers of England in labour which unfits them for domesticity. There are (1905) in Norfolk 14 licensed gang-masters, 2 gang-mistresses; in the Isle of Ely (1905) 10 such licenses issued by Wisbech Rural District Council.

[For much valuable evidence, see *Children's Employment Commission*, sixth report, 1867; for the history, Hodder's *Life of Lord Shaftesbury*; and for references Fred Clifford's *Agricultural Look-out*, p. 296.—Thorold Rogers, *Six Centuries of Work and Wages*, p. 511.—Prothero's *Pioneers of English Farming*, p. 225, comp. "Sachsengängerei" in *Jahrb. für Gesetzgebung*.—Kebbel, *Agricultural Labourer*. For private gangs, see *Children's Employment Commission*, appendix part ii., Fourth Report, 1870.] H. L. W.

GANILH, CHARLES (1758-1836), a French economist and financial writer, was born in Allanche (Cantal) and moved early to Paris. During the period of the Revolution and the

subsequent rule of Napoleon he held various public offices.

He was a mercantilist with considerable modifications, due no doubt largely to his extensive acquaintance with the economic literature of his own time, of which he wrote a history, probably his most important work.

Among his writings were : *Essai sur les revenus des peuples depuis l'antiquité* (1806).—*Des systèmes d'Économie politique* (1809).—*Réflexions sur le budget de 1814* (1814) ; *Théorie de l'économie politique, fondée sur les faits recueillis en France et en Angleterre*, etc. (1815).—*Considérations générales sur la situation financière de la France en 1815* (1815).—*Considérations générales sur la situation financière de la France en 1816* (1816).—*De la législation, de l'administration et de la Comptabilité des finances de la France depuis la restauration* (1817). E. C. K. G.

Ganilh also wrote a *Dictionnaire analytique d'Économie politique*, published at Paris and Brussels 1826. This work is very restricted both in its range of subjects and in its method. *Exportations* has only two pages allotted to it, while *Demande* and *Offre*, which form two separate articles, have scarcely more than one page between them. Perhaps the main use of the volume to the modern reader is to remind him of the subjects most under public notice at the time when it was written. M'Culloch refers to this book slightingly in his *Literature of Political Economy*.

GARBLED COIN. A term used by bankers to indicate coins which have been sorted out from those in general use. To "garble" coin means to select from a number of coins those pieces which are required for a particular purpose, such as, for instance, to melt into bullion or to send to a mint for recoinage. F. E. A.

GARDINER, OR GARDNER, RALPH (*b.* 1625), son of Devereux Gardiner of Newcastle-on-Tyne. His father appears to have been an attorney, but failing in this profession, he became writing master at Queen Elizabeth's Grammar School, Newcastle. In 1650, Ralph Gardiner was established as a brewer at North Shields, and so infringed the monopoly of the Company of Brewers and Bakers of Newcastle. He maintained that the charters which conferred their privileges were contrary to the statute-law of the kingdom, and therefore of no authority. Throughout his life he carried on a struggle with the companies in defence of this principle. In 1650-51 the bakers and brewers warned him to cease brewing and brought several actions against him. Gardiner, however, took no notice of them, and in August 1652 he was arrested, "actions being laid for nine hundred pounds, when twenty pound could not be recovered, and he kept lockt up in a prison, from all comforts, in a tower above 36 foot high." His bail was at first accepted, but afterwards refused, and he was not allowed to defend his own cause. In February 1653 he escaped from prison ; in the following August he was again arrested by the constables of Newcastle corporation, but rescued by the sailors. Shortly afterwards he was imprisoned, and on 29th Sept. 1653 he addressed to parliament a petition which was referred (5th Oct.) to the committee on trade, and (18th Oct.) ordered to be taken into consideration on 15th Nov. The mayor and burgesses of Newcastle, however, asked for a delay of fourteen days, which was granted ; but on 18th Nov. many of the witnesses were examined. On the application of Samuel Hartlib, solicitor to the corporation, proceedings were deferred until the 13th Dec. Unfortunately for Gardiner, Cromwell dismissed the long parliament on 12th Dec., and so his case was not heard. He was at this time still in gaol, but shortly afterwards appears to have regained his freedom. On 15th Dec. 1656 a committee of the common council was appointed to consider his charges against the corporation. A certain Ralph Gardner, hanged at York for coining on 30th March 1661, has been identified with the subject of this notice. But there can be no foundation for the charge, for Gardiner was still carrying on his business in 1662-63.

Gardiner published *Englands Grievance Discovered in relation to the Coal Trade ; the tyrannical oppression of the Magistrates of Newcastle ; their Charters and Grants ; the several Tryals, Depositions, and Judgments obtained against them*, etc., London 1655, 4to. Much of this work was written in prison. It contains much useful information on the Newcastle coal trade and the conservatorship of the Tyne ; but it is chiefly valuable as a record of the relations between the exclusive corporations of the 17th century and the private trader. *The Plea and Defence of the Magistrates of Newcastle against the allegations of Ralph Gardiner, as exhibited by him before Parliament in 1653*, published in 1848 in vol. iii. of Richardson's Reprints of Rare Tracts. *Englands Grievance*, etc. was republished in 1796, and again, at North Shields, in 1849, when a life of Gardiner and copious notes were added.

[Life of Gardiner in the North Shields edition of *Englands Grievance.—Memoirs of Ambrose Barnes* (Surtees Society), pp. 215, 369.]

W. A. S. H.

GARELLI DELLA MOREA, GIUSTO EMANUELE (died 1893), an economist and jurisconsult, and professor at the university of Turin; an able writer, well known in Italy for his school compendiums. He supported liberal principles and the theories of the classical economists.

His most important works are *Principii di Economia Politica*, Roma, 1881, 2nd ed.—*Scienza delle Finanze*, Torino, 1888. A. B.

GARFIELD, JAMES ABRAM (1831-1881) was born in Orange, Ohio. He entered political life in which he rapidly advanced, and was elected president of the United States in 1880 ; he was assassinated while in office. His speeches, which reflect the economic opinions of the Republican party between the Civil War and

1880, have been collected: *The Works of James Abram Garfield*, edited by Burke A. Hinsdale, 2 vols., Boston, 1882. Garfield had a special interest in the success of the ninth (1870) census, for which see his *Speeches*, 6th April and 16th December 1869. He also contributed an article on the "Census" to the first edition of *Johnson's New Universal Encyclopædia*; republished in *The Works*, etc., vol. ii. pp. 185-217. The same subject, *The American Census*, is treated in a paper read before the American Soc. Sci. Assoc., published in *Transactions*, No. 2, 1870, pp. 31-55, also more exhaustively in *Report of the Committee on the Ninth Census*, House of Rep. 41st Cong. 2nd Sess., 18th January 1870, pp. 120. D. R. D.

GARNIER, Comte Germain (1754-1821), was born at Auxerre and died at Paris. Up to the date of the revolution he had given no sign of being the economist he afterwards became. An Anacreontic poet, he was well known through his society verses, some of which are among the classics of that order of poetry. It was not till 1790 that he began life in earnest. He declared himself a warm supporter of the monarchy, and in that character won the confidence of Louis XVI., who offered him office, which he declined to accept. After the 10th August 1792 he emigrated to Switzerland, and did not return to France till 1795. A year later he published his *Abrégé des principes de l'économie politique*, 1 vol. 12mo, a work which, considering its date, is not without merit. His adhesion to the *coup d'état* of the 18th Brumaire gained him the prefecture of the departments of Seine and Oise, a post which he exchanged in 1804 for a seat in the senate; and he was president of that body from 1809-1811. We need not dwell on other official posts which he held; these, though lucrative, were rather dignified than laborious. It may be mentioned that he employed the time which they left at his disposal in his favourite studies of economics and finance. He was thus led to publish in 1805 his translation of Adam Smith's *Wealth of Nations*, 5 vols. 8vo, the best in the French language. It should be added that a second edition of this translation appeared in 1822, 6 vols. in 8vo, one volume being notes, the object of which is to refute Adam Smith from the point of view of the physiocrats. A third edition was published by Guillaumin, under the care of Adolphe Blanqui and of Eugène Buret, 2 vols. gr. in 8vo, 1843. Garnier's feelings of gratitude towards the imperial regime did not hinder him from voting in 1814 for the deposition of Napoleon I. This led to his being appointed a peer of France by Louis XVIII. He held aloof during the Hundred Days, and was, in consequence, appointed a minister and a member of the council of state as soon as the king returned to France. The empire had made him a count; the restoration made him a marquis. Justice to the memory of Garnier requires us to remember that he defended free trade in corn, and the freedom of the press in the chamber of peers. The other works of Garnier did not rise to the level of his translation of Adam Smith; though interesting, considering the time when they were written, they did not maintain the reputation which that work had won for him. The following are the titles of the most important: *Théorie des banques d'escompte*, 1806, pamphlet, 8vo, and a *Histoire de la monnaie*, tracing this subject from the earliest ages to the time of Charlemagne, 2 vols. 8vo, 1818. This last work was composed by putting together various papers read at the Institute in 1817 and 1818. As a peer of France, he wrote several reports, ephemeral in character, dealing with subjects of the day. A. C. f.

GARNIER, Joseph (1813-1881), was born at Beuil (*Alpes maritimes*) and died at Paris. Sprung from a family engaged in agriculture, who were comfortably off, he made his way to Paris a short time before the revolution of 1830. He was on the point of entering the banking house of Jacques Laffitte, when, being warmly received by Adolphe Blanqui, who had just taken in hand the direction of the *Superior School of Commerce*, founded in 1820, he determined to enter that model institution, in which he was successively pupil, secretary to the governing body, assistant master, and finally professor. His energy led him to seek a wider field, and he became a contributor in 1835 to the *National*, managed at that time by Armand Carrel, and the scientific bulletin of that journal was entrusted to him. He also contributed, between 1835 and 1839, to the *Dictionnaire du commerce et des marchandises*, published by Guillaumin. He continued his contributions to this work, which became in 1861 the *Dictionnaire universel du commerce et de la navigation*. He attended regularly the lectures of Blanqui in the *Conservatoire des arts et métiers*, and reproduced the course with the assistance of Ad. Blaise (of the Vosges) between November 1836 and August 1838. They formed three volumes 8vo of a collection the fourth volume of which was entirely from the pen of his fellow-labourer. After this he established in 1838 a technical school of trade and manufactures. He had, however, no special aptitude for this work, and on it he expended, fruitlessly, six years of his life. The failure of this effort weighed heavily, from a pecuniary point of view, on the years which followed. But Garnier set himself with courage and determination to wipe out all traces of this unsuccessful step. He returned to his favourite occupations, and in November 1842 founded, with the assistance of other rising economists, the *Société d'économie politique*. In 1843 Garnier commenced a course of lectures on political economy at the

Athénée (rue de Valois), an institution similar in character to the existing polytechnic and philotechnic associations in France.

After this date the productions of Garnier's pen were numerous. These works were of various forms, some being his own individual productions, while some were written in concert with others; but all of them equally were devoted to the explanation of the theory or the practical application of political economy. He edited the *Annuaire de l'économie politique et de la statistique*, which had been established by Messrs. Guillaumin in 1844, from that year till 1855. In 1845 he became the principal editor of the *Journal des économistes* (established in 1842), which post he did not quit till 1855, resuming it in 1866 and retaining it thenceforward till his death. In 1853 he undertook the management of the *Nouveau journal des connaissances utiles*, but gave it up in 1860. We have thus described the principal works which Garnier undertook in connection with others in the course of his busy literary life. We will now revert to those which are exclusively personal to himself. He published, in 1845, the 1st edition of his *Éléments d'économie politique*, the title of which, after the 4th edition in 1860, was altered to the *Traité d'économie politique*, now in its 9th edition (1889). This work alone would have made the name of Garnier famous. It forms in reality an encyclopædia of economic science; methodical order and deep knowledge of the subject being alike conspicuous in it. And it should be added that the author has shown a perfect power of appreciating those opinions which are opposed to his scientific convictions. Garnier grafted on this treatise other works more or less distinctly connected with it. Thus he wrote his work *Du principe de la population* (1857), the 2nd edition of which appeared in 1885 after the writer's death; *Les éléments des finances* (1858), which was developed, after the 2nd edition (1862), into *Le traité des finances*, the 4th edition having been published in 1883, also after his death; followed by *L'Abrégé des éléments de l'économie politique* (1859), a very succinct compendium of his great treatise. This had reached in 1884 its 6th edition. His last work was *Notes et petits traités* (1865), a collection containing among other things the 3rd edition of his *Éléments de statistique*.

It was Garnier to whom Guillaumin entrusted in 1845 the work of annotating his edition of the *Principles of Population* by Malthus. In 1848 Garnier also collected in one volume all the speeches made and the opinions expressed on the subject of the *Droit au travail*, a point of doctrine dear to the socialists. Garnier was able to prove, by a simple and impartial reproduction of the opposite opinions expressed concerning it, that there was no sound basis for this doctrine. Besides these works his *Traité complet d'arithmétique théorique et pratique*, the foundation of which was laid when he commenced work in the school of Blanqui, bears testimony to his constant desire to be of service, in however humble a manner, to the cause of commercial teaching. This work reached its 4th edition in 1887. In 1846 a professorship of political economy was established for him at the *École des ponts et chaussées*. He held this till his death, as he did also the similar professorships at the *École supérieure de commerce*, at the *École commerciale de l'Avenue Trudaine*, and at the *Collège Chaptal*, etc. Garnier's reputation was European. Several of his writings, especially his most important work, his *Treatise*, were translated into Italian, Spanish, and into Russian, and are employed as the basis of economic teaching. He became, 24th May 1873, a member of the Institute (*Académie des sciences morales et politiques*), in succession to Baron Charles Dupin, and in 1876 the department in which he was born elected him a senator. During the last year of his life he became, by seniority, the president of the *Société d'économie politique* without giving up the duties of permanent secretary, an office which he had held since its establishment in 1845. A. C. f.

GARNISHEE. When a judgment recovered by a creditor against a debtor remains unsatisfied and a debt is due to the debtor from a third party, the creditor can obtain an order from the court requiring the third party to show cause why he should not pay the debt to the creditor. The third party is called the "garnishee" and the order a "garnishee order."

[*Rules of the Supreme Court*, Order xlv.]

J. E. C. M.

GARRATI, MARTINO (c. 15th century), born at Lodi, near Milan. He studied under Bartolo da Sassoferrato, the ablest jurisconsult of his time (1313-1359), and was the best lawyer and scholar among his pupils. He wrote on "Money." Cossa gives the date as 1438.

M. Garrati's dissertation was printed with similar treatises in the compilation *De Monetis*, made by M. Boyss (1574), and R. Budelius (1591), and by G. Tesauro (1609).

"All these writers begin by showing a lively appreciation of the intrinsic value (*bonitas intrinseca*) of coins, which leads to an energetic description of the economic disasters involved in their debasement, and to urgent protests against such practices addressed to the heads of states. But after all they are sure that the value of coins is attached to them by arbitrary enactment (*valor impositus*), and end by defending in cases of necessity a resort to the device of debasing the currency."—Luigi Cossa, *An Introduction to the Study of Political Economy*, 1893, tr. by Louis Dyer, M.A., p. 170. A. B.

GARVE, CHRISTIAN (1742-1798), was appointed in 1768 extraordinary professor of philosophy in Leipsic; owing to his bad health he resigned this office in 1772, and retired to Breslau, his native town, where he resided until the time of his death.

Garve published in 1794-96 the first good German translation of Adam Smith's *Wealth of Nations*, besides several other translations, viz. of Cicero, *De Officiis*, Macfarlane's *Inquiries concerning the Poor*, Aristotle's *Politics*, and Paley's *Moral and Political Philosophy*. He was very fond of translating, and used to say that his own thoughts were only excited when he commented on the thoughts of other writers.

Garve's original (economic) writings comprise various essays on the character of the German peasantry and their relation towards the landlords (*Ueber den Charakter der Bauern und ihr Verhältniss gegen die Gutsherren*, Breslau, 1786), on the relation between moral philosophy and politics (*Abhandlung über die Verbindung der Moral mit der Politik*, 1788), on literary, moral, and social subjects (*Versuche über verschiedene Gegenstände aus der Moral, der Litteratur und dem gesellschaftlichen Leben*, Breslau, 1792-1802), and descriptive contributions on the spirit, character, and government of Frederick II. (*Fragmente zur Schilderung des Geistes, des Charakters und der Regierung Friedrichs II.*, 1788-91).

Garve was a great admirer of Scotch philosophy and Scotch philosophers; he declares HUTCHESON to be a really great philosopher, and FERGUSON'S and SMITH'S books to be "real masterpieces"; still, in accordance with his own views "on the practical dangers of all general maxims," he states his opinion that several of Smith's generalisations only apply to England and France. A man of a quiet and evenly-balanced temper, Garve was adverse to all sudden reforms; for the improvement of the condition of the German peasantry, he expected more from the better and higher education of the landlords than from sweeping state measures. He distinguishes three stages of industrial development: in the first, all men are equally unskilled, and on nearly the same low level; in the second, great local differences arise from the fact that progress is always due to individuals; in the third and higher stage, the tendency is again in favour of equality.

On the subject of trade, Garve expresses the opinion that a completely developed and firmly established trade tends to foster superior morality, because it leaves less room for suspicion and overreaching, as all goods are then exchanged in large quantities and by men thoroughly acquainted with each other's business.

Many of Garve's views are to be found in the introductions which he wrote for his translations; his original compositions supply useful historical information on the state of Germany towards the close of the last century.

[Roscher, *Geschichte der Nat. Oekonomik in Deutschland*, pp. 603-608.] E. Ca.

GASKELL, P. (19th century), author of *Artisans and Machinery*, London, 8vo, 1836, a reprint with some additions of *The Manufacturing Population of England*, London, 8vo, 1833, by the same author. It contains an interesting and apparently trustworthy account of the physical and social condition of the cotton operatives. The writer, as a medical man, speaks with some authority, but is hardly to be followed in his indignation at the regulation of child labour by the FACTORY ACT 1833, or in his prophecy that the time was rapidly approaching when the labour of men would be almost entirely superseded by machinery.

[*The Manufacturing Population of England* is referred to in Plener's *English Factory Legislation*, Eng. trans. London, 1873, 8vo, p. 12 note.] H. E. E.

GASPARIN, ADRIEN ÉTIENNE PIERRE, Count of (1783-1862), began life as a soldier, but abandoned the military service in consequence of a wound he received in 1806, and devoted himself to the cultivation of his extensive landed property in the neighbourhood of Avignon. Under Louis Philippe he was successively made a prefect, minister of the interior, and minister of agriculture; in 1850 he organised, as director, the *Institut Agronomique* of Versailles which was suppressed by the second empire. His principal works are—*Des petites Propriétés considérées dans leurs rapports avec l'Agriculture et le sort des ouvriers* (Paris, 1821); *Recueil de Mémoires d'Agriculture et d'Économie Rurale*, Paris, 1829-41, 3 vols., the first volume being a handbook for the owners of property farmed at a rent, the second on *Métayage*, and the third on the introduction of silkworms into Europe,—the *Coup d'œil sur l'Agriculture en Sicile* (1832), and his *Cours d'Agriculture* (5 vols. 1843-49). The last volume of his *Cours d'Agriculture* gives the substance of his views, opinions, and experiences, embracing both theoretical questions, such as the theory of rent of Ricardo, which he attempts to complete, and purely practical questions, such as the calculation of the cost of production in agriculture, the yield of manures, methods of agricultural book-keeping, etc.

M. de Gasparin is one of the most distinguished modern French agriculturists; his opinions are those of a practical man, looking carefully and objectively at every aspect of a question. Thus, on small and large properties, he writes: "If we have to pronounce on the advisability of large or small properties in a country, let us first remember that, like all other industries, agriculture wants capital, and that the size of an estate must everywhere be proportionate to the average available capital of the tenants (*Cours d'Agriculture*, v. p. 253)." He considers FARMING as superior to MÉTAYAGE, because "the exact and complete distinction between the interests of the landowner and of the farmer affords the powerful stimulus which

has brought cultivation to its degree of perfection. The proprietor is obliged steadily to ameliorate the value of his estate in order to maintain or raise his rent at the expiration of the lease, and the farmer, impelled by competition to pay the highest possible rent, . . . makes use of the largest possible circulating capital and the more advanced methods to secure a profit in his undertaking (*Cours d'Agriculture*, v. p. 302)." Still Gasparin had stated in his *Recueil de Mémoires* (ii. p. 105) that "métayage is not an arbitrary arrangement independent of social conditions, but a necessary contract, wherever the rural population is not in possession of capital," and in his *Cours d'Agriculture*, (v. p. 324) he points out that under this system "both the owner and the tenant have an inheritance to transmit to their family, the former his land, the second his tenure. . . . Inferior to farming as a system of cultivation, *métayage* is superior in many other respects."

Strongly impressed with the importance of the cultivator being sufficiently paid, M. de Gasparin insisted, in his first publication (*Des petites Propriétés*), on the advantage of high agricultural wages: "In countries where the peasant is well fed, high wages are only high in appearance; their high rate is compensated by the strength and energy of the worker" (p. 9). E. Ca.

GASPARINO, Bartolomeo (17th century), a Bolognese theologian.

Gasparino wrote on the measures by which the government in the pontifical states sought to regulate the corn trade. He devoted the first part of his work to the theory of price, and collected the doctrines of the canonists on the Justum Pretium. The altered circumstances of the times induced him to adopt different principles. According to him, price is founded on utility, as well as on supply; therefore he declares the *legitimate price* to be an untrue price when established without considering such circumstances, and when it is not regulated in such a manner as to bring prosperity both to buyer and seller, replacing to the latter the cost of production.

De legitimo et naturali rerum venalium pretio præsertim circa frumenta, Forolivii, 1634.

A. B.

GASSER, Simon Peter (1676-1745). After having studied at Leipsic and Halle, he lectured on law at Halle, and was called by King Frederick William I. of Prussia to the first chair of economy founded in the Prussian dominions, at the university of Halle, in 1727. It is known how intensely the king was devoted to the economic development of his states, according to the methods of the mercantilists. Gasser's purely practical tendencies, and his disinclination to theory, were in strict concordance with the king's personal aims. His writings on law are all in Latin, but he published in German his introduction to the economic, political, and cameralistic sciences (*Einleitung zu den oekonomischen, politischen, und Kameralwissenschaften*, 1729), although he never went beyond the first part, in which he successively deals with state domains, royal dues, taxes, cattle-breeding and rights of pasture, minor agriculture, peasant services and dues, forestry, etc. The book is dedicated to king Frederick William I., "the great *Œconomus*, and still greater soldier."

Gasser is at heart a matter-of-fact man of his time, with no anticipation of a still remote future. The revenue derived from the state domains and royal dues was to cover the civil expenditure; taxation proper, the military expenses. He deems the voting of taxes by assemblies quite useless, as the existing services are well acquainted with what the land can bear, and are better able to remonstrate in case of need. Still he is no blind admirer of the king's favourite *Plus* (bonus) policy, as he knows "things which cannot be estimated in money."

He observes of theoretical rules, that in their application a great deal always depends on personal skill and ability, and judiciously lays stress on the fact that the various parts of the kingdom being very unequally developed, each must be dealt with according to the level it has reached. His clear practical insight also leads him to take a discriminating view of the relative merits and demerits of extensive and intensive agriculture: tillage with oxen is cheapest and safest in some places and with horses in others. He has a strong bias in favour of large family estates and trusts (*fideicommissa*) (see Fideicommissum), and although he confesses that the peasantry were heavily burdened, he objects to a policy of alleviation of their burdens, and prefers to leave things as they were.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 371-376.] E. Ca.

GAUDIN, Martin Michel Charles. See Gaëta, Duke of.

GAUGER, the name by which the exciseman was some years ago not unfrequently known, is a term of considerable antiquity. It occurs in 5 & 6 Edw. VI. ch. 16, and again in 12 Car. II. c. 23; so that it was legally recognised as an official title: it was used as such in the old form of commission to officers of excise. It is obviously derived from the duty of gauging or measuring casks of wine or spirits which was first established by 27 Edw. III. (1352). It is found in Scott *passim*, and was used by Burns, but it appears to have fallen into disuse since the passing of the Act 12 Vict. c. 1.

C. A. H.

GAUTIER, Jules (1781-1858), was born at Bordeaux and died at Paris. He began life in trade, and became a deputy for the Gironde in 1823. He was one of those who signed the "address of the 221" at the breaking out of the revolution of 1830. He became a peer of France in 1832, and sub-governor of the Bank of France in 1833. He was minister of finance for some months (from the 31st March to the 11th May

1839), and finally became a senator in 1852. He was the author of a considerable number of official reports, but the work which won him his greatest reputation as a liberal economic thinker—liberal, considering the period when he lived—is his book *Des banques et des institutions de crédit en Amérique et en Europe*, 1839, 1 vol. large 8vo. "A system of free competition is no doubt more favourable than any other to the progress of trade. The absence of every fetter and restraint, absolute liberty in fact, marks the soil in which commerce grows the quickest and flourishes the best. It is especially to prudent self-interest that recourse must be had to avoid the dangers with which the course of credit is beset." It was a deputy-governor of the Bank of France who wrote these sentences, and during the time when he held that office. A. C. f.

GAVELKIND. Before the Norman Conquest this term was applied to lands which paid GAFOL or rent, either in money or in kind. The Norman Conquest generally introduced feudal tenures into England. But in some parts of the country land is still held by the customs of gavelkind. In the county of Kent this survival of old customs is the rule, and land is held to be gavel-kind unless it can be proved either that it was never subject to this tenure, or that it has been disgavelled by custom or otherwise. Outside Kent this tenure is a rare exception. The chief peculiarities of gavelkind are as follows :—(1) if the holder died intestate his lands passed to all his sons as co-heirs, without any preference for the eldest; (2) the tenant can alienate at the age of fifteen; (3) estates were deviseable by will at a date when other lands are not subject to testamentary disposition; (4) lands never escheated on conviction of felony.

[Elton, *Tenures of Kent.*—Digby, *History of the Law of Real Property.*] R. L.

GAZETTE. Announcements of an official nature are, in England, made in the *London Gazette;* in Scotland, in the *Edinburgh Gazette;* in Ireland, in the *Dublin Gazette*. Such announcements are evidence as to any matters in which the crown or the government is concerned (see King *v.* Holt, 5 Term Reports, 436), but in the absence of express statutory provisions, they are not in themselves evidence of matters concerning private interests only. As to the dissolution of partnerships, etc., the Partnership Act, 1890, provides (§ 36) that "an advertisement in the *London Gazette* as to a firm whose principal place of business is in England or Wales, in the *Edinburgh Gazette* as to a firm whose principal place of business is in Scotland, and in the *Dublin Gazette* as to a firm whose principal place of business is in Ireland, shall be notice as to persons who had not dealings with the firm before the date of the dissolution or change so advertised." As to the bankruptcy proceedings in England, it is enacted by the Bankruptcy Act 1883, § 132, that "the production of a copy of the *London Gazette* containing any notice of a receiving order, or of an order adjudging a debtor bankrupt, shall be conclusive evidence in all legal proceedings of the order having been duly made, and of its date." E. S.

GEBUR (modern *boor*), an Anglo-Saxon term for a villein. The *Rectitudines Singularum Personarum*, of the 10th century, describes him as doing service, week-work, and paying rent (*gafol* or *gablum*). Vinogradoff thinks that in Norman times the word was inexactly used and becoming obsolete (see GABLATORES).

[Seebohm, *English Village Community.*—Kemble, *Saxons in England*, vol. i.—Vinogradoff, *Villainage in England.*] E. G. P.

GEE, JOSHUA, a merchant, known only by his writings on commerce and manufactures, published 1725-50. In these he expressed a keen anxiety to see the government of Great Britain, in the face of decaying agriculture, declining woollen industry, and Gallicised tastes, intervene more actively to foster and regulate trade and manufacture; that this kingdom is capable of raising within itself, and its colonies, materials for employing all our poor in those manufactures, which we now import from such of our neighbours who refuse the admission of ours. Influenced by Petty, he gave a descriptive analysis of England's foreign trade and also an historical sketch of legislation affecting wool. He proposed that the export of wool be absolutely prohibited, but in a second pamphlet expressed a preference, in order to prevent overproduction and increase of smuggling, for a limited export regulated by a system of local registration. A reply, in general terms, may be read in Defoe's *A Plan of the English Commerce*, pt. ii., with some account of the commodities each country we trade with take from us, and what we take from them, with observations on the balance.

Gee was no mercantilist of the somewhat mythical sort who were supposed to care only for the retention and increase of bullion as such. His great solicitude was to see agriculture and manufactures occupying with profit all the available manual stock in England, a considerable part of which in his day was infesting town and country as beggars and vagabonds. He held this could be at least more promptly and efficiently brought about by protective legislation. The *specific* motive for immediate legislation lay he thought in the fact of Louis XIV. having compelled "The wearing of French manufactures" in France, "which before used to be supplied from England, and turned the trade so much against us"; also in the effect produced by the peace between England and France early in the 18th century, namely, a great influx of English into France, and a consequent diffusion of taste for French fashions and French goods in England.

Gee was a contributor to the *British Merchant*, and is the author of the following :—

The Trade and Navigation of Great Britain considered; showing that the surest way for a nation to increase in riches is to prevent the importation of such foreign commodities as may be raised at home, London, 1729, 8vo.—*An Impartial Enquiry into the Importance and Present State of the Woollen Manufactures of Great Britain, as likewise the Improvements they are capable of receiving*, Lincoln and London, 1742, 8vo.—*The Grazier's Advocate, or Free Thoughts of Wool and the Woollen Trade*, London, 1742, 8vo.

C. A. F.

GEIJER, Eric Gustav (1783-1847), an eminent Swedish historian and poet; appointed professor of history at the university of Upsala in 1817. His principal writings are *Annals of the Kingdom of Sweden* (*Svea Rikes Häfder*, Upsala, 1825), and *History of the Swedish People* (*Svenska Folkets Historia*, Örebrö, 1832); neither of them brought down to his own time. The latter has been translated into English by J. H. Turner (London, 1845). Geijer wrote besides many political and philosophical essays, especially in the *Litteratur-bladet*, a monthly journal edited by himself (1838-39). A series of articles in this journal, on *The Poor-laws and their Bearing on Society*, have been reprinted in English, and published separately (Stockholm, 1840). The "chief purport" of the treatise "is to vindicate the freedom of labour." Geijer traces the causes of the growth of poverty from ancient times, and deals especially with the poor laws of Sweden, but poverty in England is also discussed, and the Poor Law of 1834 is favourably criticised.

[Turner, Introduction to *History of the Swedes*, translated by J. H. Turner, London, 1845; Geijer, *Minnen*, Upsala, 1834.] R. H. H.

GEMELLI, Francesco (1700), a Piedmontese eclectic writer.

He considered agriculture the most important industry in every country. He agreed with Filangieri in theory; he did not go far enough to follow him in complete free trade, though he was willing to admit free trade in corn at home, and to allow a perfect free trade in corn to avoid famine in Europe; but, since an agreement on this point is not probable, he thinks that every sovereign should study the peculiar conditions of his own state. Hence he praises the reforms in Tuscany since it has access to the open sea; he praises the policy followed in England, because the price of corn there is regularly higher than elsewhere.

Rifiorimento della Sardegna, proposto nel miglioramento di sua agricoltura, Turin, 1776.

A. B.

GÉNÉRALITÉ. In 1551 the French king, Henri II., appointed sixteen *trésoriers généraux* to supervise the collection of taxes throughout the kingdom. The district assigned to each of these officials was called a *généralité*. When Richelieu set himself in the 17th century to break down the traditional independence of the provinces, he made use of the *généralités* as the administrative districts of his intendants. Henceforward, until the creation of departments in 1790, the district thus designated was the chief unit of local administration, and when the states-general were summoned for the last time in 1788, the deputies were elected from each *généralité*, instead of from the *bailliage* or *sénéchaussée*. In the 18th century France contained twenty-six *généralités*, and there were also seven intendancies in provinces which had been added to France since the time of Richelieu.

[Gasquet, *Précis des institutions politiques et sociales de l'ancienne France.*] R. L.

GENOA, BANK OF. See Banks.

GENOVESI, Antonio (1712-1769), born near Salerno and died at Naples, took holy orders in 1736. In 1741 he taught metaphysics at the university of Naples. He was intimately acquainted with Bartolomeo Intieri, who induced him to follow Broggia and Galiani in the study of economics; and when, in 1754, by the advice of Intieri and with funds liberally supplied by him, the teaching of economics, then termed mechanics and commerce, was established at Naples, Genovesi was called to the chair. He was "the most distinguished and the most moderate of all Italian mercantilists. . . . Commerce was for him not an end only, but also a means by which the products of industry at large were brought to the right market. He, moreover, distinguished between useful commerce which exported manufactured goods and brought back in return raw material, and harmful commerce which exported raw material and imported foreign goods; he also insisted that useful commerce calls rather for liberty than for protection, while upon harmful commerce the strictest embargo should be laid, or at least it should as far as possible be bound hand and foot" (Cossa, *Introduction to Pol. Ec.*, translation, p. 235).

These ideas, neither new nor original even in his time, were maintained by Genovesi in many of his works, and brought together, but without any systematic order, in his *Lezioni di Commercio ossia di Economia Civile* (Napoli, 1765, e. ii. ediz. 1768-70, 2 vols.). Though the *Lezioni* do not form a regular treatise, they contain the author's opinions on the mercantilist system and the most important principles of economics, which he terms *Civile* "*la scienza che abbraccia le regole per rendere la sottoposta nazione popolata, potente, saggia, polita*" (the science which embraces the laws which make a nation populous, powerful, wise, and cultured), limiting thus the science to the increase of population and the production of wealth.

As to population, Genovesi follows the mistaken principle of his times, exaggerating the advantage of a large population, proposing that government should encourage marriages by granting privileges and honours. He says that the population ought not only to be numerous but supplied with comforts, and he sees the relation between population and means of subsistence or production of wealth.

As a writer he is a mercantilist, though he does not regard money as the only form of riches; he says that the wealth of a nation is quite apart from the quantity of money treasured up.

He derives the idea of value from demand, distinguishing different degrees of demand according to their abstract importance in several categories, maintaining that a thing which satisfies a want repeatedly has a higher value than what satisfies only a few wants or the same only sometimes (*può soddisfare ad un bisogno più volte, ha maggior prezzo che non quella, la quale o non può soddisfare che pochi bisogni o al medesimo qualche volta*). What is able to satisfy a great want is of more value than what satisfies a small want (*una cosa fatta a soddisfare il maggior bisogno si apprezza più che quella la quale non è fatta che a soddisfare ad un minore*); and further he asserts that the quality of things influences the value. Graziani (*Storia della teoria del valore in Italia*, Milano, 1889, p. 108) justly remarks that in this Genovesi approaches the important question which GALIANI answered: namely, why do luxuries generally cost more than necessaries? In this he is obliged to have recourse to the element of scarcity, a line of argument which he does not know how to reconcile with those previously mentioned. Genovesi's want of originality is obvious, as F. Ferrara has shown (*Bibl. dell' Econo.*, 1ª. S. vol. iii. Introduz.) in contradistinction to the exaggerated opinion which Bianchini held respecting him (*La scienza del ben vivere sociale*), since the SOCIALISTS OF THE CHAIR persist, erroneously, in considering him as a precursor of their opinions. This tendency is also attributed to Genovesi, as well as to BECCARIA, VERRI, and ROMAGNOSI by the French socialist B. MALON; which is a further example of the errors of the socialists in their historical criticism of political economy.

"According to Gobbi the Neapolitans FORTUNATO (1760), Strongoli (1783), and VENTURI (1798), belonged to Genovesi's school, and then there was also ZANON of Udine (*Lettere*, 1756-67), Todeschi of Ferrara (*Opere*, 1784) and Marcello Marchesini of Istria (*Saggio d'Econ. Pol.*, Napoli, 1793)."—Cossa, *Introduction to Pol. Ec.*, translation, p. 236.

Besides his philosophical works, Genovesi wrote: *Ragionamento intorno all' agricoltura, con applicazione al Regno di Napoli* 1769 (Scrittori classici italiani di Ec. Pol. Custodi, p. ii. vol. ix.).—*Altro Ragionamento*, ed. (ibid.).—*Ragionamento sul commercio in generale* 1750 (id. vol. x.).—*Ragionamento sulle manifatture* (ibid.).—*Ragionamento sullo spirito della Pubblica Economia* (ibid.).—*Digressioni Economiche* (ibid.).

[For the works of Ferrara, see A. Bertolini, *La Vita e il Pensiero di Francesco Ferrara*, 1895.] A. B.

GENTLEMAN, TOBIAS (fl. 1614), was "born a fisherman's son by the sea-side and spent his youthful time at sea about fisher affairs." He published *England's Way to win Wealth, and to employ Ships and Marriners*, etc. London, 1614, 8vo, Reprinted in the *Harleian Miscellany* (1809), vol. viii. This pamphlet was the result of a conference between the author and John Keymor, whose *Observation made upon the Dutch Fishing about the year 1601*, was printed from the original manuscript, for Sir Edward Ford, in 1664. *England's Way*, etc. evidently owes much to Keymor's investigations. It contains a good description of Dutch fishing in English waters and of the ports on the east coast. The author urges the importance of developing the herring fishery, and attributes the prosperity of the Dutch to their activity in this respect. His tract is frequently quoted with approval by 17th century writers, *e.g.* MALYNES, who gives an abridgment of it (*Lex Mercatoria*, c. xlvii.). W. A. S. H.

GENTZ, FRIEDRICH VON (1764-1832), an eminent German publicist, was born at Breslau. His father was an official of the mint there; through his mother he was connected with the family of the minister Ancillon. He studied at the Joachimsthal Gymnasium at Berlin, to which city his father had been transferred, and afterwards at Königsberg, where he came under the influence of KANT. In 1786 he was appointed secretary of the general directory, and afterwards became Kriegsrath. His life at Berlin seems to have been for some time a dissipated and aimless one; an illness led him to change his course and follow more serious pursuits; and the outbreak of the French Revolution still further awakened his intellectual activity. He was an ardent admirer and well-wisher of the Revolution till repelled by its excesses, when he became its determined opponent, and a warm advocate of the English constitutional system. This change in his opinions is indicated by his translation—a masterpiece in its kind—of Burke's *Reflections* and of the anti-revolutionary writings of MALLET DU PAN and Mounier. He discussed political events and handled financial questions with great ability in several journals—amongst others in the *Neue Deutsche Monatschrift*, a periodical which he founded, and for some years conducted. He also published in 1797 a German version of D'IVERNOIS' work on French financial administration, and in 1801 (in French) an *Essai sur l'état actuel de l'administration des finances et de la richesse nationale de la Grande Bretagne*. The economic views in favour of free industry, which he had learned from Adam Smith, are exhibited in his letter (1797) on the accession of Frederick William III., which is said to have offended the king and hindered Gentz's promotion. He was believed to be in the pay of the British Government, as he warmly applauded their policy; but there can be no doubt that the writings by which he earned their gifts expressed his genuine convictions. What made such pecuniary aid almost necessary to him was the extremely expensive and wasteful management of his private affairs, which kept him in difficulties all his life. He had domestic troubles, due, it is said, chiefly to his own conduct; and, such advancement as was suitable to his powers being no longer open to him in Prussia, he left that country in 1802, and, after residing some months in Dresden where he entered into relations with Metternich, went in the same year to Vienna, where he

became a member of the imperial council. Before settling finally in Austria he paid a visit to England, made the personal acquaintance of Pitt and other leading politicians there, and obtained a regular pension from the British government. We cannot here follow in detail the course of his general political action, which is indissolubly connected with the history of Germany. Up to 1812 he fought, as a literary volunteer, side by side with STEIN as a relentless enemy of Napoleon and his system, and an earnest and uncompromising advocate of German independence. He drew up a number of vigorous and telling memoirs directed against the oppressive policy of France, which, however, for a long time failed to rouse the energies of the Austrian court or to impress upon it the necessity of joint action with Prussia. All through the course of the wars with Napoleon, and in the negotiations which followed them, his ready and powerful pen was in frequent requisition, and all the most important state-papers of the allies were his work. After the peace he exercised much influence on the internal politics of Austria; his tendencies then became retrograde, and he contradicted the principles of his earlier years. He seems to have been affrighted by the growth of revolutionary ideas, and especially by the excesses of democratic journalism; and devoted himself to the support of existing governments, and the maintenance of the restored states-system of Europe. He was employed to draw up the protocols at many congresses of princes and ministers, and became the favoured and richly-rewarded champion of reigning powers, and a resolute antagonist of the spirit of the age. But he felt that this spirit would be too strong for all opposing forces, and towards the end of his career endeavoured to reconcile the principles of legitimacy with the dogma of the sovereignty of the people. To the end he remained true to the liberal economic doctrines he had imbibed from the *Wealth of Nations*.

[Editions of selected writings of Gentz have been published by W. Weich, 5 vols. 1836-38, and by G. Schlesier, 5 vols. 1838-40. His Correspondence with Johannes v. Müller and others has been edited by Prokesch-Osten, Schlesier, and Mendelssohn-Bartholdy. The last-named has also published a biography of Gentz, 1867. In addition to such of his writings as have been already named may be mentioned his *Politische Parodien*, 1799; *Ueber den Ursprung und Charakter des Kriegs gegen die französische Rev.*, 1801; and *Fragmente aus der Geschichte des politischen Gleichgewichts in Europa*, 1804; which last, for the glowing patriotism which it breathes, has been compared to Fichte's *Reden an die deutsche Nation*.] J. K. I.

GEOGRAPHY, COMMERCIAL (CONNECTED WITH GREAT BRITAIN). During the 19th century the world has been passing through an economic revolution utterly without precedent. In spite of the commercial enterprise shown by various European nations in bringing distant countries into touch with each other, up to the end of the 18th century and even during the earlier part of the 19th century each country remained for the most part self-sufficing as regards the chief necessities of existence. The wants of the great mass of slowly expanding populations were supplied through the medium of a vast number of local markets, serving as depôts for the corn and raw material for clothing produced in the surrounding districts. Agriculture and home industries of every description were carried on side by side; it was only the finer species of manufactured articles that found an outlet in foreign markets. Prices varied largely in different districts, according to the varying supplies of the local market. Proximity to a sea-coast, or navigable river, or canal, enlarged the area of supply, but, as a rule, each locality produced what it required for ordinary consumption, and the growth of population was necessarily limited by the enormous difficulty, in the existing state of communications, of drawing its food supplies from a distance. Foreign goods, such as the precious metals, tea, sugar, tobacco, spices, wine, silks, and muslins, which might bear the cost of expensive transport, formed part of the market wares of every European country which had distant commercial dealings, but such foreign products formed but a small portion of the local trade compared with the indigenous products. Even in the United Kingdom, where there were greater facilities for internal movement than in the rest of Europe, land-transport met with almost insurmountable obstacles. A broad-wheeled waggon drawn by eight horses, and attended by two men, took three weeks to carry four tons of goods between London and Edinburgh (*Wealth of Nations*, bk. i. ch. iii.), while a coach took a week or more to go the same distance. Under such conditions, prevailing even in the most progressive countries, stationariness of production and population alike remained the prevailing feature of the economic world. During the present century the ever-increasing application of steam-power to industry has tended more and more to transform the old condition of things; by facilitating the transport of the heavier agricultural products it has brought the interior of every country into touch with the coast, and therefore extended the whole range of commercial dealings. Chicago, for instance, at a distance of 4000 miles, is now much nearer to London than Edinburgh was sixty years ago, and the carriage of a quarter of wheat from Delhi to Liverpool costs now only a little more than half a sovereign. The local market for all the ordinary necessities of life has more and more become part and parcel of the world's market. The poorest British

household may now find its wants satisfied by every quarter of the globe. Its flour may have come from India, its meat from Canada or New Zealand, and the raw material of its clothes from America or Australia.

In effecting this great economic revolution Great Britain has been the chief agency. Her prolonged struggle with the naval and military forces of Europe, organised by the genius of Napoleon, left her burdened with an enormous national debt, but it left her mistress of the seas, able to appropriate the results of the commercial enterprise of Europe, and to augment it with an energy all her own. Without the risk of any European rivalry, she was allowed a free hand in consolidating her Indian Empire, developing her Canadian colony, founding new settlements in Australia and New Zealand, and paving the way for an African protectorate. During the last seventy years she has made good use of her great mineral resources—coal and iron—to establish markets in every quarter of the world. The area of the British Empire, including dependencies, colonies, and spheres of influence, is now estimated by Mr. J. Scott Keltie at about 11,391,000 square miles, more than one-fifth of the whole land area of the globe. It is three times the size of Europe, nearly three million square miles larger than the whole of the Russian empire in Europe and Asia, nearly nine times the size of the German empire at home and abroad; nine million square miles more than the whole of the French dominions, and just about as large as the whole of Africa. This immense territory is inhabited by something like 383,000,000 souls, embracing almost every type of humanity, about the same population as that of all Europe, and constituting from one-fourth to one-fifth of the population of the world. Its products are of infinite variety, and the only supplies which at present its population must draw largely from foreign countries are corn and cotton. The trade of the empire is valued at about £1,700,000,000, about one-third of the trade of all other civilised countries put together. Of this total the trade of the United Kingdom is £1,014,000,000 while £686,000,000 is to be credited to the empire beyond our shores. Of these £686,000,000, about £352,000,000 belong to the 7,000,000 odd square miles of colonies proper, with a population of nearly 14,000,000, mostly whites; and £334,000,000 to the tropical and sub-tropical possessions covering an area of only about 4,096,000 square miles, but with a population of 326,000,000, chiefly coloured. In order to protect the carriage of commodities that circulate between the most distant portions of this widely-scattered empire, Great Britain has found it necessary to hold certain points of vantage along the main sea-routes. Along the quickest route to our Indian empire are to be found the strongly-fortified stations of Gibraltar, Malta, and Aden, the latter garrisoned by Indian troops. The magnitude of our commercial interests in this direction is proved by the fact that the transit trade of Malta amounts to nearly £50,000,000, and that, out of the total number of ships (4257) that passed through the Suez Canal in 1904, 2679 were British, the gross tonnage being respectively 18,661,092 and 12,164,591. The danger to which these interests are exposed from the hostility of Russia or the rivalry of France, has been held to justify the occupation of Cyprus and Egypt.

In India and Ceylon, British shipping has the protection of Bombay and Trincomalee, and in a lesser degree of Kurrachee, Colombo, and Calcutta; and it has been proposed to add to the number of fortified stations. Farther east, Singapore commands the entrance to the Chinese seas, while in those seas Hong-Kong forms the central stronghold of British power. If we take the alternative route to the east round Africa, a similar series of fortified stations at convenient distances from each other is to be seen,—Sierra Leone, St. Helena, Cape Town, and Mauritius. The importance of Cape Town to British commerce cannot be over-estimated. It has been calculated by Lord Brassey that £90,000,000 of commerce centres at or passes this point every year, including £20,000,000 of outward trade to Australia, £13,000,000 to the Cape itself, and portions of the Indian, Chinese, and other eastern trade. But if, as might well happen in the event of a European war, the Suez Canal were to be closed, at least £150,000,000, and possibly £200,000,000 of British trade would be forced to go round the Cape. At the converging points of the two great eastern routes we find the important Australasian stations of King George's Sound, Thursday Island, Melbourne, Sydney, and Auckland. Going westward across the Atlantic we find fortified stations in Halifax, Bermuda, St. Lucia, and Jamaica, and farther south the Falkland Islands, lying on the route round Cape Horn. In the Pacific, Esquimault and Vancouver will conveniently form the basis of protection for the routes opened up to the east by the completion of the Canadian Pacific railway, while the Fiji Islands, supplied by nature with excellent harbours, lie across the path of ships sailing either from British Columbia or round South America to the Antipodes.

The existence of these well-selected stations on all the chief lines of communication is the greatest element of strength in the naval supremacy of Great Britain, and upon their safety in time of war would depend the preservation of British commerce. From these stations would have to be drawn those supplies of coal without which no modern fleet can keep the sea for more than a few weeks. And inasmuch as Great Britain has, in all the ports of the world directly under the control of its government,

adopted the policy of free-trade, and is favoured by no differential tariffs, even where its self-governing colonies have adopted a protective system, it may fairly claim, while guarding its own commerce, to be guarding that of the world at large.

To appreciate the absolute dependence of Great Britain on its commercial relations with the rest of the world, we have only to look at the economic features of its existence. Sixty years ago one-third of its working population consisted of agricultural labourers and one-third of artisans. Now only one-tenth are agricultural labourers, and three-fourths are artisans. As a consequence of this change, Great Britain can no longer feed itself. She has now (1906) to draw more than three-quarters of her supplies of corn and flour from abroad. The United States, Canada, India, Russia, Argentina, Australia, and New Zealand send her corn, maize, and rice. It is the same with her meat supplies. It has been calculated that the quantity of meat food at any time in the United Kingdom is only sufficient for three months. Hundreds of thousands of live cattle and many hundred thousands of tons of meat have to be imported into the country every year from across the sea, the United States, Canada, South America, Australia and New Zealand; even the home supply of eggs, butter, and cheese has to be supplemented from abroad; while the ordinary comforts of every breakfast-table—tea, coffee, cocoa, and sugar, are entirely supplied from each of the four great continents. For these articles of daily existence alone Great Britain has to pay over £190,000,000 to the rest of the world, and if she were cut off from the outside world for even a few days, every household would feel the pressure of a sudden rise in prices. But not merely does Great Britain depend for its daily food on foreign supplies; it largely depends on the same source for its daily wage. With the exception of coal and iron, the raw material of British industry comes chiefly from abroad. Wool is imported to the value of over £20,000,000 from Australia, New Zealand, Africa, South America; cotton to the value of £41,000,000 from America, India, Egypt; wood to the value of £25,000,000 from Canada, Russia, Scandinavia, United States, Honduras; flax, hemp, and jute, to the value of £10,000,000, from Russia, India, and other countries. But it is not sufficient for Great Britain to import food and the raw material of her industries; she has to have access to markets for her manufactured products. About one-half of the British exports consists of more or less manufactured fabrics. The export of cotton manufactures reaches £72,000,000, of woollen manufactures £20,000,000, and of linen and jute £8,700,000; of metals, hardware, and cutlery the exports amount to about £35,000,000, and of machinery to over £18,700,000.

The trade of the United Kingdom itself, excluding exports of foreign and colonial produce, may (1903) be divided into four great portions:—

	Imports.	Exports.
	£	£
With Europe . . .	246,000,000	123,000,000
,, United States . .	128,000,000	21,000,000
,, British Possessions .	151,000,000	127,000,000
,, Other foreign countries	71,000,000	75,000,000
	596,000,000	346,000,000

Great Britain's export trade with Europe is to a very great extent made up of woollen, cotton, and linen manufactures, metals—especially iron and copper—coal, and machinery. To a lesser degree she sends leather, hardware, and chemicals. Her European imports show every possible variety. She takes corn from Russia, Germany, Austria, Turkey, France, Roumania; cattle and meat from Belgium, Holland, Denmark; butter, poultry, eggs from Belgium, Denmark, Russia, Holland, Germany, Sweden, France, Italy; cheese and milk from Switzerland, Holland, Belgium, France. From France, Germany, Italy, Spain, and Portugal she takes sugar, wine, oil, fruit; of the raw material of industry she imports flax, hemp, and wool from Belgium, Italy, Russia; timber from Norway, Sweden, Germany, Russia; lead and iron from Belgium and Spain; of manufactured fabrics she takes silk and woollen from France, Belgium, and the Netherlands.

The commerce between Great Britain and the United States is much less varied in nature than that between Great Britain and Europe. It is almost entirely the exchange of manufactured articles for food or the raw material of industry. The United States sent Great Britain, in 1902, corn and cotton to the value respectively of about £21,700,000 and £29,000,000, and meat (dead and alive) to the value of about £26,000,000. She took in exchange iron, cotton, linen, woollen, flax, hemp, and jute manufactures. The only articles of food she takes from Great Britain are delicacies such as biscuits, pickles, sauces, and marmalade, though she imports sugar and tea from British possessions. The total export and import trade of the United States now amounts to about £542,000,000 sterling, of which about £168,000,000 is with the United Kingdom.

But the trade between the United Kingdom and the United States, though far exceeding the proportions of that between the United Kingdom and any one foreign country, is itself largely surpassed by that between Great Britain and the British empire, amounting to over £276,000,000. At the head of the list stands British India. Great Britain finds there her largest market for cotton goods and yarn, of which the average import amounts to over £18,000,000.

Iron, copper, and machinery make up another £7,000,000, out of the total value of British imports of about £41,000,000. From India Great Britain takes in exchange cotton, jute, seeds, tea, coffee, rice, and indigo. In 1902 one-twelfth of the foreign wheat came from India, and of the tea, which used to come almost entirely from China, more than seven-eighths came in 1902 from India and Ceylon. Of the total trade of India nearly half is with the United Kingdom. The total trade of Ceylon is £15,897,000, and the British share is about £5,793,000. The chief exports, besides tea, are coffee, cinchona, plumbago, and cocoa-nut products.

The trade of Straits Settlements—consisting of Singapore, Penang, and Malacca—is largely a transit trade, but there is also a considerable local trade in the exchange of tin, spices, cutch, gambier, gutta-percha, with the cotton and iron goods of the United Kingdom. The total trade amounts to about £143,000,000 sterling annually, but of this England's share is only between £21,000,000, and £22,000,000. The total number of vessels that cleared at the ports during 1903, exclusive of native craft, was 9519, with a tonnage of 9,213,846 tons. Hong-Kong is the farthest point east in the British Empire, and is the great centre of British commerce with China and Japan. Its trade amounts to about £11,000,000, and of that about £5,600,000 is with Great Britain. The trade of Hong-Kong, like that of Singapore, is chiefly a transit trade carried on by over 23,000 vessels and nearly 16,000 junks.

The commercial intercourse of China is largely with the United Kingdom and the British colonies, and is carried on through the thirty-nine trading ports of the Empire. The exports to and imports from Great Britain amounted in 1903 to over £12,000,000, the former being chiefly of tea and silk, and the latter of cotton, iron, and woollen goods. The import of cotton goods from Bombay is rapidly growing, while that of Indian opium is falling off, though it still remains, next to cotton, the chief import, valued at about £6,000,000. The trade of Japan is of a somewhat similar character to that of China, but its exports are rather more varied. It takes £4,592,000, chiefly cotton and woollen fabrics, iron, and machinery, from Great Britain, but it only exports to it about £2,300,000. Its chief export trade is with the United States and with China.

Turning south, we come to the tropical British dependency of North Borneo, administered by a chartered company, chiefly producing sago, rice, gums, coffee, timber, spices, gambier, gutta-percha, tapioca, and tobacco. Adjacent to it on the north-west are the sultanate of Brunei and the district of Sarawak, which, in addition to their specially tropical products, are said to be rich in minerals, especially coal. Off the coast of Borneo lies the little island of Labuan, which seems likely to become an important naval station in the East Indian Archipelago. Last among our purely tropical settlements in the eastern seas must be mentioned New Guinea, with its still undeveloped resources, waiting the help of coloured labour.

Passing across the Pacific we find many islands belonging to the British empire. There is an export trade with these in copra, guano, sugar, and fruit, and an import trade in hardware, machinery, drapery, bread-stuffs, and timber, principally with Great Britain and her colonies, which has been encouraged by the new sea-route between Vancouver and Australia and New Zealand. In view of the piercing of Central America by a canal, our West India possessions are admirably placed for sharing in the transit trade that would spring up. The competition of the beet-sugar of Europe rendered these islands less valuable than they were, but the removal of the sugar bounties has given them more hope. Besides sugar they export cocoa, cinchona, tea, coffee, and fibres, while their trade in fruit is rapidly developing. The total trade of British West India amounts to about £12,000,000, one-third being with Great Britain. On the South American continent there is only one piece of country under the British flag—British Guiana, and it is the only part of South America secure against disorder. Its trade, similar to that of the West Indies, amounts to about three and a half millions sterling—£1,500,000 with the mother country. With the whole of South America the trade of Great Britain was in 1903 about £55,000,000, having increased considerably during the last decade. The chief exports are animal products and wheat, in exchange for cottons, woollens, iron, and machinery.

We come last to the three great colonial settlements of the British empire in the proper sense of the term—Canada, Australasia, and South Africa. Canada covers an area of 3,745,000 square miles, but the northern portions of it can hardly be regarded as habitable by people of European extraction. Its population is about 5,370,000, and since the opening up of the western portions it has been rapidly growing, swollen as it is by an annual addition of about 80,000 to 100,000 emigrants. Its total trade has now reached the amount of £94,000,000, Great Britain and the United States both sharing in it largely. Its chief exports are timber, cattle, agricultural produce, fish, and minerals, including gold. Its imports are largely manufactured articles, of which it took in 1903 from Great Britain about £12,000,000. Off the coast of Canada is the oldest British colony, Newfoundland. It has only one industry of any commercial value, and that is fishing. Its exports are almost entirely marine produce, amounting to over £1,800,000

sterling. Compared with Canada, the commercial development of Australasia has been remarkably rapid. With a population of only 4,549,000 it has a trade of £174,000,000, of which about £62,000,000 is with the United Kingdom. The British imports into Australasia embrace nearly every article of home manufacture, iron (wrought and unwrought), cutlery, woollen goods, apparel, haberdashery, cotton and linen goods, machinery, paper, books, chemicals, and spirits. In exchange Australasia exports gold, copper, lead, wool, meat, wheat, hides, sugar, butter, and wine. Australasia is the great supplier of wool for the textile industries of Great Britain. Of the total imports of wool into the United Kingdom in 1903 amounting to 604,961,364 lbs., 378,510,995 lbs. came from Australasia.

Africa, though on its northern shores for centuries past taking an important share in the trade of the Mediterranean, has only begun to develop commercially of recent years. Settlements have been made by various European nations along its western and eastern coasts, and in all that portion of the interior which is suited for European colonisation. Great Britain has now, since the war of 1899-1902, the greater part of the continent south of lat. 10°, including Cape Colony, Natal, the Orange River Colony, the Transvaal, and an extensive territory north and west of these. The external commerce of Cape Colony amounted in 1903 to £60,400,000, of which £43,200,000 was with the United Kingdom; while that of Natal, the Orange River Colony, and the Transvaal together was over £57,000,000, more than £34,000,000 being with the mother country. The principal exports of this region are gold, diamonds, wool, hair, hides, ostrich feathers, and sugar. We also hold Nigeria, the Gold Coast, Lagos, Gambia, and Sierra Leone in the north-west, with a trade amounting to about £10,000,000; while our large settlement in the east, including the protectorate of Uganda, Somaliland, and Zanzibar, provides, with Walfisch Bay in the south-west, the remainder of the total export and import trade of British Africa, excluding Egypt, roughly estimated at over £130,000,000, of which more than two-thirds is with the United Kingdom, and a large part with other British possessions. The trade of the territories along the Mediterranean shore is also important. The exports and imports of Egypt amount to about £42,000,000: the export of cotton and cotton seed being about £19,000,000; cereals, beans, and sugar making up the other chief commodities. The trade of Tunis, Algeria, and Morocco makes up another £38,000 000; cereals, wine, sheep, and cattle being the chief exports. The rest of the trade on the east and west coasts may be roughly estimated at £21,000,000.

Of all this vast commerce circulating in the world, England is the centre. Not merely does she pass through her ports a larger proportion of that commerce than any other country, but her ships carry more commerce than those of all the other countries of the world put together. She has also supplied most of the capital for developing railway communications in India, Canada, South Africa, and Australasia, and thereby brought vast territories into touch with commercial enterprise. England has no doubt had great natural advantages. Her climate has facilitated continuous work, her soil supplied her mineral wealth, her insular position safeguarded her; but it is the intelligence, energy, and courage of her people that have won for her in the past a commercial supremacy unique in the world's history (see COMMERCE, BRITISH; COMMERCE). This supremacy is now, however, threatened, and attention is being earnestly directed towards maintaining it, better commercial education and tariff reform being discussed with that object.

[Brassey's *Naval Annual.*—Cotton and Payne, *Colonies and Dependencies.*—Dilke, *Problems of Greater Britain.*—Keltie, J. S., *Applied Geography.*—Mahan, Capt. A. T., *The Influence of Sea Power upon History* and *The Influence of Sea Power upon French Revolution and Empire.*—Parkin, G. R., *Imperial Federation.*—Payne, E. J., *History of European Colonies.*—Lucas, *Hist. Geography of the British Colonies.*—Gonner, *Commercial Geography.*—Reclus, E., *Geographie Universelle.*—Seeley, J., *Expansion of England.*—*Statesman's Year Book.*—Strachey, Sir J., *India.*—G. G. Chisholm, *Commercial Geography.*—Zehden, *Commercial Geography,* tr. F. Muirhead.] A. K. C.

GEOMETRICAL RATIO OR PROGRESSION. Three or more quantities are in geometrical progression when, as in cases of sums of money at compound interest, each after the first is equal to the preceding one multiplied by some constant factor. For example, 1, 3, 9, 27, when the constant factor or "common ratio," as it is called, is 3, and 100, 101, $102\frac{1}{100}$, $103\frac{3}{100}\frac{1}{0}$, when the common ratio is $1\frac{1}{100}$, are in geometrical progression. Malthus, who maintained that food could only be increased in an ARITHMETICAL RATIO (*q.v.*), observed that since any number of pairs of human beings can each have as many children as one pair, the population of a country, if it were regulated by procreative power alone, would be multiplied in each successive equal interval of time by a constant factor, or, to put it more shortly, would "increase in a geometrical ratio." The point of Malthus's comparison of the two ratios lies in the fact that if food could only be increased in an arithmetical progression, the addition which could be made to its production in a given period would never grow, while if population increased in a geometrical progression, the addition which would be made to the number of mouths in the same period would constantly be growing. For eighty years after Malthus first wrote, the population of Great

Britain continued to grow in a geometrical progression, the censuses showing that, roughly speaking, it multiplied itself by $1\frac{3}{100}$ every ten years.

[Todhunter's *Algebra*.—Malthus, *Essay on the Principle of Population*, bk. i. ch. i. and elsewhere throughout. Though Malthus was doubtless the first to apply the phrase "arithmetical progression" to the increase of food, he was not, of course, the first to apply the phrase "geometrical progression" to the growth of population. It is *e.g.* suggested by the opening of the article on population in the *Encyclopédie*, and is actually used by Voltaire (*Dictionnaire philosophique* in *Œuvres complètes*, vol. xx., p. 253).] E. C.

GÉRANDO, Joseph Maria, Baron de (1772-1842), was born at Lyons and died at Paris. His life, especially in his youth, was full of dramatic incidents. He was on the eve of taking orders when the massacres of September 1792 deterred him from this step. He retired to Lyons and sided against the Convention when that city was besieged in 1793. Wounded, imprisoned, and condemned to death, he still contrived to escape and to find a refuge in Savoy. He returned to France after the amnesty, and joined the army as a private (*chasseur à cheval*). While he was in garrison at Colmar he competed (in 1799) for a prize offered by the Institute. He gained the prize; and the jury, astonished that a common soldier should have won such a distinction, begged, with success, that he might be transferred to Paris. He rapidly rose to high position; he became secretary-general in the office of the ministry of the interior. In this post he remained eight years; he then became a counsellor of state—a dignity of which the Restoration did not deprive him—and in 1830 a peer of France. In 1819 and 1820 he had given a course of lectures on administrative law. Moral science was the study which he preferred. In 1806 he had been elected to the Academy of moral and political science; and when, in 1832, this section of the Institute, which had been suppressed in 1816, was reconstituted, he was restored to the position in it he had formerly held. We shall pass by his philosophical works, and even those connected with the moral sciences, and shall refer only to the one of them which deals with political economy, that entitled *De la bienfaisance publique*, 4 vols. 8vo, 1839, a powerful book, dealing with a wide range of subjects but somewhat diffuse, the writer having covered too much ground in his work. There was no question that he was competent to deal with these subjects, having administered the Blind Asylum for thirty-five years. He had also taken part in many charitable associations, for savings, mutual help, etc., in which his assistance had been very valuable.

His other works of the same class were: *Tableau des sociétés et des institutions religieuses, charitables et de bien public de Londres*, 1 vol. 12mo, 1824.—*Le visiteur des pauvres*, 1820-1837. Of this there have been several editions, and the work received the *prix Montyon* from the French Academy.—*De l'éducation des sourds-muets de naissance*, 2 vols. 8vo, 1827, and finally *Des progrès de l'industrie dans leur rapport avec le bien-être, physique et moral, de la classe ouvrière*, which received a prize from the *Société industrielle* of Mulhouse, 1841-45, and has gone through several editions. A. C. f.

GERMAN SCHOOL OF POLITICAL ECONOMY. "Political economy in Germany up to the present time has been a foreign science. . . . It was imported from England and France as a ready-made commodity, and the German professors and those who taught it remained no more than scholars." This oft-quoted expression from Karl Marx's *Das Kapital* (vol. i. appendix) is on the whole justified, if applied to the period since Adam Smith, but does not correctly apply to pre-Smithian times, when the economic precepts termed collectively "the cameral sciences" (see Cameralistic Science) formed a distinct doctrine not till later affected by any foreign influence.

The "cameral sciences" (from *camera*, chamber, in particular the chamber in which the revenue and expenditure of the sovereign were administered) had a wider scope than the political, or "national" economy (*Volkswirthschaftslehre*) of the present day. In the narrower sense, as cameral science proper, the study comprised merely the financial administration just mentioned; in its wider sense it embraced not only the doctrines relating to the administrative measures for the public welfare, but also the technical side of production, *e.g.* agriculture, mining, technology, commerce, etc. The immediate object of the cameral sciences was to educate a competent staff of state officials. When absolute government was supplanted by English constitutional ideas the cameral sciences retreated in their turn before political economy as represented by Adam Smith. Survivals of them exist nevertheless in Germany up to the present day. Established as it was by the Golden Bull of 1356, territorial sovereignty in Germany did not attain to full development till after the peace of Westphalia (1648). Hence it was only since this last date that cameral science came forward as an independent body of doctrine. In more ancient times it is treated as a supplement to jurisprudence.

Hence also it results that the history of political economy in Germany falls into three main sections:—I. the period before the end of the Thirty Years' War; II. the interval between the Thirty Years' War and Adam Smith; III. from Adam Smith up to the present day.

I. *The period before the end of the Thirty Years' War* (1648).—Germany during the middle ages presents a state of affairs re-

sembling that of other European countries. It is only among the exponents of CANON LAW that we meet with disquisitions on economic relations. The standpoint corresponds to the theological basis of the main doctrine. Natural economics are more pleasing in the sight of God than economics based on money. The encroachments of the latter are to be opposed by severe usury laws (see INTEREST). Germany has no teacher in this line who overtops his fellows, as, for example, France has in her Bishop ORESME (died 1382).

With the approach of modern times and the victorious advance of monetary economics, a change also took place in theory. The Humanists (see HUMANISM), as adherents of absolute government copied from classic ideals, discussed the means by which that system of government, as opposed to the feudal organisation of society, could be established, putting forward views akin to the mercantilism of a later age (see MERCANTILE SYSTEM). This holds good for the *Institutio principis christiani* of Erasmus, translated under the title of *Unterweisung eines frummen und christlichen Fürsten* (1521), which is the first independent work on these matters. It is dedicated to Charles V. and culminates in the advice that a sovereign should follow a thrifty régime, and, in the event of his needing a tribute, should in the first place levy it on the goods of foreign merchants. There can be no doubt that this work was a material incentive to the scheme brought forward in the imperial diet in the winter of 1522-23 for consolidating the imperial customs. It proposed to encircle the empire, including the Netherlands but excluding Switzerland, with a customs line and a duty of 4 per cent *ad valorem* on imports and exports. The project was defeated through the opposition of the mercantile interest in the imperial towns.

The reformers, especially LUTHER, contribute with more or less discursiveness to the discussion of the economic situation, without, however, showing any marked originality. They hold a kind of middle position between the standpoint of canon law and that of the mercantilism of territorial sovereignty.

A somewhat lively literary controversy, chiefly conducted by jurists, arose towards the middle of the 16th century respecting the currency. The question whether coins should be minted at their full nominal value, or at less than their full nominal value in metal, was the apple of discord in a semi-official paper war, which became celebrated, between the two branches, Ernestian and Albertian, of the princely house of Saxony (1530). The reign of the most remarkable territorial sovereign of his time, the Elector Augustus of Saxony (1553-86), soon after gave occasion for several more important economic works, notably Von OSSA's *Prudentia regnativa* (written 1556, published 1607). More than a century later (1717) it was republished by THOMASIUS and made the basis of his economic lectures.

Special mention under this period may further be made of OBRECHT, professor of law at Strassburg, with his posthumous work (1617) entitled *Fünff unterschiedliche* secreta politica *von Anstellung und Vermehrung guter Policey*, etc., in which he urges the necessity of a fund of money (*ærarium sanctum*) for the sovereign, and proposes to connect with it a system of fire insurance. He also discusses a special institution to provide for children (*ærarium liberorum*) on almost modern insurance principles. The names of the chief originator of the so-called "*Hausvœter* literature" of rural economy — T. Colerus (*Œconomia ruralis et domestica*, 1591-1605), of the jurist T. Bornitz (*De rerum sufficientia in republica et civitate procuranda*, 1625), and of the professor of law at Tübingen and subsequently at Ingolstadt, Chr. BESOLD (*De ærario*, 1620), also deserve mention, the two latter being more or less encyclopædic in treatment. A transition between this and the next period is afforded by K. KLOCK, whose book *De contributionibus* (1634), written during the Thirty Years' War, contains a detailed and rather advanced theory of taxation, in which some attempt is made to construct a progressive system.

II. *The period between the Thirty Years' War and Adam Smith* (1648-1790).—Seldom has it ever befallen a nation to experience an overthrow, both in its internal and external relations, similar to that which Germany sustained between 1618 and 1648. Prosperity was annihilated and the nation lacerated to death. The lead in politics and culture was henceforward, for centuries, surrendered to the western states of Europe. It was no easy task which confronted territorial sovereignty, the principle of which had, since the peace of Westphalia, been made one of the essential parts of the imperial constitution. The land laid waste had to be brought into cultivation again, and, for this purpose, had to be re-populated, and the state debt incurred by the war to be liquidated. Scientific skill was called in to help. The theory of administration or cameral science, which at that period was attaining its full development, thus became on one side a theory of agriculture; on another, a policy of population; on a third, a science of state revenue, or finance. And hence there grew up the composite title under which, from the beginning of the 18th century, these subjects were taught at the universities, viz. "economic, police, and especially cameral science" (*Oekonomische Polizei- und* (besondere) *Cameral-wissenschaft*).

The science split into two "confessions," corresponding to the religious dualism of the empire. There was a Catholic branch, group-

ing itself around the house of the Hapsburgs; and a Protestant branch, the central force of which gradually developed together with the growing ascendency of the Hohenzollerns.

In the Catholic group the sectarian character is less prominent. It starts with J. J. BECHER (*q.v.*), whose brilliant work, *Politischer Discurs von den eigentlichen Ursachen des Auf- und Abnehmens der Reiche, Städte und Republiken*, etc. (1668), might even to-day be read with profit. Dedicated, in the second edition, to the emperor, Leopold I., it maintains that "*die volkreiche und nahrhafte Gemeine*," a populous and well nourished community, should be the aim of territorial administrative policy. Without the means of subsistence there is no population; the converse also holds good that without an adequate population there can be no proper means of subsistence, since human beings are dependent on each other. Hence the statesman has impartially to keep in view both these poles on which the welfare of the state turns. In so doing he must guard against the three cardinal foes of well-being, namely *monopolium* (monopolies); *polypolium* (industrial anarchy); and *propolium* (usurious forestalling). Becher's proposals for preventive organisation border more or less on socialism. He detested merchants who imported from abroad goods that may also be produced at home, and abused them roundly as the real "propolists." On the other hand, men of business who invested their capital in the promotion of native industry seemed to him the "pillars" of society. The whole political system ought to be based on true religion (Catholicism). Nevertheless the clergy has to stand within, and not without, the state, and must be subject to civil law. The development of Becher's ideas is continued by F. W. HORNECK'S *Oesterreich über alles wann es nur will* (1684). One proposition in it has become celebrated, viz. "it were better to give two thalers for a commodity and keep them in the country, than to give only one which leaves the country." Horneck attaches cardinal importance to the industrial independence of his country, and especially with regard to France. To compass this he would prohibit in general all foreign manufactures, and do this without waiting till all the corresponding industries were started in the country, inasmuch as they would at once spring up out of the earth. The third of this group was W. von SCHRÖDER, author of a book dedicated to the Emperor Leopold, *Fürstliche Schatz- und Rent-Kammer* (1686). Here highest importance is ascribed to the financial interest of the ruler, which ultimately coincides with the national interest. The sentence, "that the wealth or the poverty of the country is caused, not by import and export of money, but by the equilibrium of manufacture" (cp. lix.), is characteristic of the writer's standpoint. This being so, Schröder should not be termed, as he is by many, *e.g.* by ROSCHER, a strict mercantilist in the sense of confounding wealth with metallic money. There is in fact no "strict" mercantilist in this sense amongst the German cameralists.[1]

The Protestant section presents a richer, if not exactly a more important, literature. At the head stands V. L. von SECKENDORFF (*q.v.*), whose work *Der teutsche Fürstenstaat* (1655) is written in a strictly Lutheran spirit. The Protestant disposition comes out yet more keenly in the later work *Der Christenstaat* (1685), which seeks to show "what things in church and state are Christian and right, and what can be reformed according to the principles of Christianity" (*i.e.* of Protestantism). Seckendorff had set himself the task of initiating young statesmen into the theory and art of government. His *Fürstenstaat* is, therefore, essentially didactic in character. The leading idea is the coincidence between the interest of sovereign and people, whom he wished to see as numerous as possible. "The greatest treasure of the country consists in numbers of well-nourished people." After he had spent the chief part of his life in the service of the Dukes of Gotha, he was appointed chancellor of the newly-founded university of Halle in the service of the Elector of Brandenburg, but died in the same year (1692). In the reign of the Great Elector of Brandenburg, Frederick William the Great (1640-1688), a violent paper controversy took place concerning the excise. It was opened by the work *Entdeckte Goldgrube in der Accise*, by Chr. Teutophilus (pseudonym for Tenzel), 1685. In it the Great Elector is extolled for keeping on foot a standing army (*miles perpetuus*) for the maintenance of his Protestant supremacy, for which the "sweet-tempered, gently-flowing excise" was a far more fitting fiscal means than the "violent levy." This advice, as we know, was not unheeded by the prince.

Cameral studies underwent an important development during the reign of king Frederick William I. of Prussia (1713-1740). Although

[1] The statement that "wealth is money" I have come across but once in the economic literature of Germany, viz. in the second of the three pamphlets concerned with the currency controversy between the two branches of the ruling house of Saxony mentioned above (1530). (See pp. 66 and 70 of the new edition prepared by W. Lotz, Leipzig, 1893.) This little tract, put together merely for controversial purposes, *Das Münz-Belangende Antwort und Bericht*, etc., is justly stigmatised by Roscher as being "strikingly ill-written" and "sophistical," and can in no case rank as representing a prevailing tendency of thought. It is much more common, in cameralistic literature, to find sentences apparently postulating identity between wealth and population. Yet it would again be incorrect to regard this view as especially characteristic of cameralism. On closer inspection the two notions, wealth and population, are found to be distinct, while they are related as reciprocally cause and effect. The wealth or well-being of the nation consists in the equilibrium, conditioned by progress, of both elements. A. O.

no friend to the university system, he held that in connection with his reorganisation of the Prussian civil service the establishment of cameralistic chairs was necessary. The professorship at Halle university was given to GASSER, till then professor of law, while that at Frankfurt on the Oder was bestowed on Dithmar the historian (1727). From the date of the latter's book, *Einleitung in die Oekonomische Polizei- und Cameralwissenschaft* (1731), the division of subjects indicated by its title remained unchanged till the time of SONNENFELS. Dithmar also was the first to start an economic journal in Germany under the title *Oekonomische Fama* (from 1729).

From this date also specialised treatises began to appear. J. R. von ROHR (1688-1742) set forth "economic" science, *i.e.* the theory of rural economy, in his *Compendiöse Haushaltungsbibliothek*. Through his work *Silvicultura œconomica* (1713), H. C. von Carlowitz became the father of the economics of forestry. P. T. MARPERGER (1656-1730) achieved in his own writings an entire literature of commerce. The theory of population found its classic representative in T. P. SÜSSMILCH (*q.v.*), whose famous work, *Die göttliche Ordnung in den Veränderungen des menschlichen Geschlechts* (1742), which appeared in the reign of Frederick the Great (1740-1786), may be looked upon as the programme of that monarch as regards the politics of population. Süssmilch takes as his text the scriptural injunction, "Be fruitful and multiply." The king considered it as "un axiome certain, que le nombre des peuples fait la richesse des États."

Two side channels, one philosophical and one statistical, now flow parallel to the main stream of the Protestant branch of cameral science.

At the head of the former stands LEIBNITZ, who, in his *Bedenken von Aufrichtung einer Societät in Deutschland zur Aufnahme der Künste und Wissenschaften* (1669), expresses opinions in essential agreement with Becher's economic ideas. G. MORHOF, professor at Kiel, reviving the old Greek division of practical philosophy into ethics, politics, and economics, in his large work, *Polyhistor* (1688 and 1692), treated comprehensively of the literature and history of the last-named subject. Chr. THOMASIUS of Halle, in his popular philosophical lectures, dealt fully with economic matters, taking as his basis the writings of Ossa and Seckendorff. Political economy is specially appreciated by Chr. WOLFF, at first in his *Vernünftige Gedanken vom gesellschaftlichen Leben der Menschen* (1721), and then in his *Œconomica methodo scientifico pertractata* (1754), the standpoint being throughout a moderate mercantilism.

The statistical parallel line takes its origin in the writings of the father of the history of German law, H. CONRING (*q.v.*) of Helmstedt (d. 1681). It is continued by G. SCHMEIZEL (d. 1747), who included in his university lectures at Jena and Halle a *collegium politico-statisticum*, and received further development from his pupil, G. ACHENWALL (*q.v.*, d. 1772) at Göttingen, and gained for him, though inappropriately, the sobriquet of a "father of statistics." He was followed at Göttingen by A. SCHLÖZER, the author of the well-known definition, "Statistics are stationary history, and history is continuous statistics." In contrast to the English "political arithmeticians," such as PETTY, GRAUNT, HALLEY, and others, the chief strength of his method lies not in the figures "Zahlen," but in the description in words "Wortbeschreibung." This "Staatenzustandskunde" (science of the condition of states), in its geographical aspects—is further developed by BÜSCHING (d. 1793).

It was thus that matters stood in Germany when foreign science began to exercise an influence on cameral science, which till then had moved entirely within its own national limits. The movement began in the work of the diplomatist and friend of Frederick the Great, T. F. von Bielfeld — *Institutions politiques* (1760; German edition entitled *Lehrbegriff der Staatskunst*, 1761). This, though destitute of originality, was an epoch-making book for Germany, inasmuch as it dealt with matters entirely outside the range of the cameral sciences of that day, and, as it was written in French, is exclusively based on French economic works. For the first time the German reading public became acquainted with such authors as VAUBAN, MELON, DUTOT, FORBONNAIS, etc. From that time the influence of foreign writings on cameralistic literature became permanent.

The merit of having united into one systematic whole the collected antecedent tendencies of the Catholic and Protestant sections as well as of the later foreign influences, belongs to J. H. G. von JUSTI (d. 1771). Justi had been in the employ both of Austria and of Prussia, as well as for a time in that of Hanover (Göttingen). The earliest of his principal works is *Staatswirthschaft* (1st ed. 1750); his later writings are but more comprehensive expositions of it. Justi follows in general the divisions of Dithmar, but he establishes the science of trade or commerce, as a separate sub-division to be detached from the science of political administration. To Justi can be traced the scheme, which was subsequently carried out in various places, of establishing in the German universities, not only separate chairs, but entire faculties of political economy, with six or seven professors. His saying that a state can never be over-peopled is well known. In political philosophy his model is MONTESQUIEU, with whose preference for the English constitution he is in sympathy. English economic literature, on the other hand, was almost entirely unknown to him. It was reserved for a British citizen, Sir J. STEUART

(*q.v.*), a partisan of the house of Stuart, to introduce a knowledge of it into Germany. He fled to the Continent after the battle of Culloden (1746), and for a time enjoyed the hospitality of the courts of Baden and Wurtemberg. During this period Steuart composed the celebrated *Inquiry*, etc., the English edition appearing in 1767, the German translation (in two versions), 1769. The work made a great stir, but its influence was soon weakened by the intrusion of the doctrines of the French Physiocrats.

The system of the physiocrats could find no soil so favourable as that of Germany. What proved its special attraction in that country was its metaphysical element. At many of the smaller German universities, some of which are now closed, the chair of philosophy was united to that of the cameral sciences. QUESNAY'S theories, professing to form a philosophical system based on economics, were in striking correspondence to this arrangement. Great enthusiasm arose for the *science nouvelle*, which became known chiefly through the *Éphémérides du citoyen*, published from 1767 onwards (see ÉPHÉMÉRIDES).

At the head of its adherents stood A. SCHLETTWEIN (*q.v.*), formerly *Privatdocent* at Jena, and in 1763 taken into the service of the Margrave KARL FRIEDRICH of Baden. Both these men entered on the experiment of introducing the IMPÔT UNIQUE (*q.v.*) into some villages of Baden (see MIRABEAU, V. R., Marquis de). The margrave, moreover, was the author of the celebrated *Abrégé des principes d'économie politique*, which was revised by DU PONT and Quesnay, and appeared in the issue for 1772 of the *Éphémérides du citoyen*. Schlettwein's zeal was equalled by that of the state secretary of Basle, Isaak ISELIN (*q.v.*) whose periodical, *Ephemeriden der Menschheit* was started in 1776 as a pendant to the Parisian organ similarly named. A prominent position among German economists belongs to the professor of military construction at Kassel, J. MAUVILLON (*q.v.*) of French descent. In his *Sammlung von Aufsätzen über Gegenstände aus der Staatskunst, Staatswirthschaft und neuesten Staatengeschichte*, published in 1776, occurs the first use of the terms "physiocrat" and physiocratic system," which were derived from the word "physiocratie," chosen by Du Pont as the title of a collection of essays published by him; Mauvillon challenged any opponents to a public contest. The glove was taken up by more than one, the first to respond being the Kassel professor, C. W. Dohm, in an article which appeared in the *Deutsches Museum* for 1778, entitled *Ueber das physiokratische System*, followed in 1780 by Von PFEIFER'S *Der Anti-physiokrat*, etc. On behalf of the system then appeared K. F. FÜRSTENAU *Versuch einer Apologie des physiokratischen Systems* (1779); E. SPRINGER *Ueber das physiokratische System* (1780); also Mauvillon's own *Physiokratische Briefe an den Herrn Professor Dohm* (1780). A middle position was taken up by G. A. WILL, *Versuch über die Physiokratie, deren Geschichte, Literatur, Inhalt und Werth* (1782). The contest, which was conducted in the most chivalrous manner, had no favourable issue for the system. Its fall was brought about less by the arguments of its opponents than by the rapidly increasing preponderance of the doctrine of Adam Smith.

Specially noteworthy among the opponents of the Physiocrats is J. von SONNENFELS (*q.v.*), professor of financial and political science at Vienna from 1763. He borrowed his arguments from Quesnay's vehement French opponent, FORBONNAIS, and entered the lists more especially against the IMPÔT UNIQUE. The belief in the desirability of the maximum increase of population, which had been, by the teaching of the Physiocrats, thrust more into the background, emerges with renewed energy in Sonnenfels. The measure of the population in a state is set, not by the means of subsistence, but by the opportunities for employment. The increase of the latter is accordingly the duty of the statesman. Sonnenfels distinguished two kinds of balance in trade, the "numerical," or monetary, balance, and "the balance of advantage," *i.e.* the balance of employment. The one can be active while the other is passive. If *e.g.* Austria and Portugal exchange linen to the value of £2,500,000 for diamonds to the value of only £2,000,000, the numerical balance is unfavourable to Austria, but the balance of advantage is favourable. To Sonnenfels also is due a new classification of economic subjects, indicated already in the title of his principal work—*Grundsätze der Polizei, Handlung und Finanz* (Principles of Police, Commerce, and Finance, 1st ed. 1765). The science of police was to detach the branch dealing with the measures for the public welfare, and to confine itself to the doctrines relating to the maintenance of the public safety. The former should be included in the science of commerce, by which arrangement that science is made to embrace approximately the same subjects which in our days are dealt with by political economy. What was hitherto cameral science proper became the science of finance. This is essentially the classification as now used in the German universities.

Towards the end of the 18th century political economy in Germany becomes a chaos first cleared in the 19th century by the victorious advance of the doctrines of Adam Smith. Original thinkers like Justus MÖSER went their own way, but without producing any abiding influence. Others, such as J. BECKMANN of Göttingen (*q.v.*), JUNG-STILLING of Heidelberg (subsequently of Marburg), kept firm to the old cameralistic pattern, setting forth the doctrine in its completeness, *i.e.* inclusive of

technical methods of production, such as the theory of rural economy, forestry, mining, technology, and trade, and for this purpose compiling countless text-books. Others again followed Sonnenfels. The remainder were divided into adherents of the Physiocrats, and adherents of Adam Smith. The teaching of the latter in particular made irresistible progress through its popularisation in the translated treatises of the French writer J. B. Say.

Cameral science, nevertheless, as already stated, has even at the present day not disappeared from Germany. In the south German states the cameralistic career is still a separate career in the state service, and for the preparation of its candidates the universities of Munich and Tübingen have special independent economic faculties; while elsewhere the subjects in question come under the jurisdiction of the faculties of philosophy or jurisprudence. The technological branches moreover are studied at polytechnical academies, as well as at special schools for agriculture, forestry, mining, and commerce. Modern political economy in Germany shows, however, still many traces of its past. Even though the epigonous attempt of Th. Schmalz, professor at Berlin, to infuse new life into cameral science by infusing physiocratic doctrine into it failed (*Encyclopädie der Kameralwissenschaft*, 2nd ed. 1819), yet the manuals of Rau of Heidelberg (d. 1870) stand with one foot in the old cameral science and the other in Adam Smith's doctrine. This also holds good as to Baumstark of Greifswald (d. 1889), who has been called "the last of the cameralists" (*Kameralistische Encyclopädie*, 1835). At the present time, however, during the 19th century, the Smith-Say tendency has prevailed in academic chairs and in the opinion of the public at large, and accordingly Karl Marx's assertion, quoted at the introduction to this article, respecting this period is, upon the whole, correct. During quite recent years political economy in Germany and Austria has taken an independent flight, and has exercised a most powerful influence over modern thought in other countries.

[Julius Kautz, *Die geschichtliche Entwicklung der National-Oekonomik und ihrer Literatur*, Wien, 1860.—Wilhelm Roscher, *Geschichte der National-Oekonomik in Deutschland*, München, 1874.—Gustav Marchet, *Studien über die Entwicklung der Verwaltungslehre in Deutschland von der zweiten Hälfte des 17 bis zum Ende des 18 Jahrhunderts*, München, 1885. Also the other standard works on the history of political economy.] A. O.

III. *The period from Adam Smith* (1790) *to the present day.*—Though the *Wealth of Nations* was translated[1] into German by Johann Friedrich Schiller (not the poet) as soon as it appeared, its influence in Germany and Austria was very inconsiderable till the end of the century. The most enlightened university of the day was that of Göttingen in Hanover; and the *Göttinger Gelehrten Anzeigen* (10th March and 5th April 1777), while it declared the book to be of great value, pronounced against its chief conclusions, especially in regard to economic policy. The statesmen of the time, when they troubled themselves about economic principles at all, inclined to the Physiocrats, till the shock of the French Revolution discredited everything French. But in 1817 Adam Müller, whose bias was against Adam Smith, speaks of him notwithstanding as "the greatest writer of all times in political economy"; and Müller nine years before had written against him in the tone of one who recognises his great and increasing power. Under Adam Smith, he says, "the science of national economy was no longer directed to a speculative examination of the resources of the state, but to a continual increase of the same in practice." In fact the man and the book were in Germany identified with the active pursuit of wealth as an end in itself. The condition of things described in Fichte's *Closed State* (1800), the eager competition for material riches all the world over, is regarded as Smith's ideal and aim. Garve, the popular philosopher, had popularised Adam Smith by presenting the public with a new translation (1794), and the Scottish economist was already creating a school in Germany. He had become to economics what Kant was to philosophy. The Prussian statesmen of the war of liberation were his followers to a great extent in finance. Many professors were with him. Professor Christian Jakob Kraus of Königsberg (1753-1807) carried his devotion even to the copying of literary peculiarities. Professor Georg Sartorius of Göttingen (1766-1828) departed from his master mainly in the matter of economic policy; he insisted on a number of exceptions to the principle of "natural liberty." Professor August Ferdinand Lüder (1760-1819) at first contented himself with discursive illustration of Smith's doctrines from books of travel and statistics, with too little regard to the facts of his own country, but fell by degrees into a scepticism which was as exaggerated as his earlier faith. Hufeland (1760-1817), Lotz (1771-1838), Soden (1754-1831), and Jakob (1759-1827), were little more than intelligent popularisers. As Garve's economics were connected with the philosophy of Wolff, the economics of Jakob were connected with the philosophy of Kant, of which he was an ardent defender. The influence of Fichte and Hegel on the progress of economics was slow to reveal itself.

The melancholy which accompanied the political depression of Germany in the early years of the 19th century, and which is shown

[1] This translation is in 2 vols. Vol. i. 1776; ii. 1778.

not only by Fichte's *Closed State* (1800), but by books like *Der gesunkene Menschenwerth* (anon. 1804), gave place to a manlier spirit after the war of liberation; there is an improved tone even in economics. The text-book of RAU, the Heidelberg professor (1792-1870), showed an activity of mind which was above mere reproduction of English writings, while the said writings, not only of Smith but of his successors, were really better known and better utilised than before. So important was Rau's *Lehrbuch* (1826) that it may be said to have held the field in spite of much criticism till Professor Adolf Wagner in our own time attempted to re-edit it, and then found he must re-write it. The features characteristic of German economics in its early period are not altogether absent in Rau. Economic books were largely written for the practical statesmen of Germany and not for the economic students, or even the statesmen of the world in general. Rau's book is partly written, like the old *kameralistische Lehrbücher*, for working politicians and diplomatists. But it contains also theoretical economics of a wider range; and its criticisms of the past are largely founded on really economic arguments, not as in what is called the "romantic" school largely on appeals to sentiment. At the same time it seems hardly fair to attach the name romantic to the works of men like Adam MÜLLER (1779-1829), when we consider that the romantic school in literature is on the whole in sympathy with the ideas of the French Revolution, and this "romantic school" in economics is in reaction against them.

From the peace of 1815 we may trace three lines of development in German economics, the theoretical, the historical, and the socialistic, though the lines sometimes cross each other. After Rau on the field of theory the work of Von THÜNEN (1780-1850) is most important. In *Der isolirte Staat* (1826) Von Thünen published investigations on the theory of rent substantially at one with the theory of RICARDO, but worked out independently. His conception is not, as the title might suggest, that of an ideal state, but of a theoretical simplification of the conditions of inquiry. The effect is shown, theoretically, of the distance of equally fertile zones of land from the town as their centre, when all outside influences are conceived to be removed. The influence of situation on rent is thus presented in a figure which shows how nearly the abstract method may approach the pictorial. Von Thünen himself attached even more importance to his theory of natural wages, described by him mathematically as the square root of ap where a is the necessaries of life and p the product of capital and labour. Wages are not simply necessaries, but should increase with the product. Von Thünen is sometimes claimed as a socialist, but his attitude was rather that of a landowner, who was very advanced in his social programme, but could not altogether forget his own order.

HERMANN (1795-1868), the Bavarian minister, was in one respect more worthy than even Von Thünen to rank beside the great English and French economists. His *Staatswirthschaftliche Untersuchungen* (1832) cover all branches of purely economic theory, and there is hardly any part of the subject on which he has not left fruitful suggestion. Like Von Thünen, he showed how a practical man could reason abstractly, though it may perhaps be a sign of a practical bent that in his book he devotes most space to production. He makes a clear distinction between matters technical and matters economical. He dwells on "subjective" aspects of goods and wealth that were afterwards brought into prominence by the Austrian school. The distinction of consumer's capital from productive capital, and joint action from collective action, the analysis of the various elements in cost, and of employer's profits, and the relation of cost to price and to value, are very characteristic. The second half of his book is indeed largely a treatise on value, as was said of the *whole* of Ricardo's. There is perhaps no single German economic work that leaves on its readers so deep an impression of strength as Hermann's; and yet it would be hard to say in what particular his work effected a profound change in economic speculation. Until Professor Marshall paid him due recognition, Hermann's name was little known by English economists, BANFIELD being in this respect a notable exception.

Since Hermann, there has no doubt been much theoretical work done in Germany, but it has as a rule taken the shape of monographs, as of MANGOLDT on *Unternehmergewinn*, Schäffle on *Ausschliesende Absatzverhältnisse*, or else it has occurred incidentally in the course of a treatise perhaps headed *Volkswirthschaftslehre*, but containing more of history, statistics, and politics than of abstract reasoning. In Austria, on the contrary, excellent theoretical work of the old type is being done, and it began in a reaction against the German historical school of political economy. Between this historical school and the theoretical we may take men like LIST as occupying a midway position. After NEBENIUS (1784-1857), LIST (1789-1846) has the chief merit of persuading the states, and sections of states, to adopt free trade within their borders and a uniform tariff outwards,—to institute in other words a customs union (ZOLLVEREIN). Baden, and more effectively Prussia, led the way; and between 1828 and 1852 the Zollverein had drawn nearly all the minor states into its fold.

This movement is in many ways to be compared with the English agitation against the

corn laws and for free trade. Yet the Zollverein secured only what England had possessed for some centuries, and the United Kingdom since 1707 and 1800; there was to be free trade within, and a uniformity in the protective duties against the foreigner. List was a powerful advocate of both domestic free trade and protection against the foreigner. He agreed with COBDEN and BRIGHT in desiring that "political economy should descend from the studies of the learned, from the chairs of the professors, from the cabinets of the statesmen, into the counting-houses of the men of business, the offices of public servants, the dwellings of the landowners, the county meetings of the agriculturists, — to become the common property of all educated citizens" (*National-System*). But this must not be the ruling political economy, which deals with the whole world, as if the universal peace had been already established. Till political strife has ceased, it will be needful for political economy to be national and not cosmopolitan. A protective system will develop the "productive powers" of each several nation, and fit it better for the ultimate state of brotherhood and peace and universal free trade. Political economy should be much more the study of these productive forces than, as hitherto, the study of exchange and value. Like A. COMTE, List had his *law of the three stages*, and he made some show of justifying it from history.

List was, however, not a good representative of the rising historical school. The historical school, of which the main position is that all economical doctrine is relative to the particular epochs in which it appears, and has nothing in it permanent or true for all times, was better represented by SCHÖN, HILDEBRAND, Schäffle, ROSCHER, and Knies. Whether it can claim descent from SAVIGNY and the jurists, or only from Gervinus and the historians, is a question which need not be decided here. It is discussed by Prof. C. Menger (*Methode der Socialwissenschaften*, 1883, bk. iv. ch. iii.) (see HISTORICAL SCHOOL).

Since the time of Hermann some of the best work done in Germany, even in theory, has been done by adherents of this school, and this shows the elasticity of their chief principle. Schäffle has written on *Exclusive rights of Sale* (1867), L. von STEIN on finance and administration (1860), Knies on money (1873 *seq.*). Very significant too is the presence in such a book as Roscher's Political Economy of the old economic discussions of capital, wages, profits, rent, and taxation. Even the extreme section treat the theory of the currency and money as comparatively fixed and permanent, and the Malthusian law of population is so treated on the whole by Roscher, RÜMELIN, and Wagner. There are in fact at least three groups, which may be called a right, a left, and a centre. Roscher and Schäffle, belonging to the right, use deduction freely; RÖSLER, HELD, NASSE, less often; Schmoller and Brentano would fain avoid it altogether, though (like Thorold ROGERS in our own country) they are not able to preserve complete consistency. As was said above (article A. COMTE and ENGLISH EARLY ECONOMIC HISTORY), the historical economists are really historians who have studied economics rather than economists *pur sang;* and this appears especially in the left and centre, — in the historical work of Schmoller, Ochenkowsky, and Nasse.

The difficulty of preserving the threefold classification of German economists appears when we come to deal with the SOCIALISTS OF THE CHAIR. Such a prominent writer as Professor Adolf Wagner or Professor Cohn or Professor Rümelin might find a place among either the socialists or the historical economists. The same might be said of LANGE, who has written the best book on John S. MILL yet published, Mill being known in Germany much better by his *Logic* than by his *Political Economy*. Wagner's work, besides his discussions of taxation and finance, owes much of its value to his constant sense of the bearings of law and philosophy on economical questions. He does not go so far as Schäffle and others in claiming that economics itself should be an ethical science; and his recent commendations of Marshall's *Principles* would show that he is not far from the purely theoretical point of view. In fact the division into three schools is logically defective, though practically convenient. It may serve to point out (1) the men, comparatively few in Germany, who have confined themselves mainly to abstract theory; (2) the men who, without entirely abandoning theory, have looked more to concrete economic facts, especially of past ages; and (3) the men who use both history and theory to support a political scheme—the active intervention of the state in economic movements. Instead of being exclusive, the principles of the three classes are tenable together.

SOCIALISM, as representing not only a conflict of doctrine with doctrine in universities and in the book mart, but almost necessarily a struggle with the government of the day, has had a much more exciting history than orthodox and historical economics. Fichte, who was, with reservations, a socialist (see FICHTE), contrived to avoid this political conflict; and his philosophical successors were even farther from danger. But the Hegelians of the left,—MARX, LASSALLE, Engels, more particularly,—took an active part in political agitation on the side of socialism; and their combination of political and intellectual audacity made them a formidable power.

As the school of abstract theory drew inspiration from Adam Smith and his followers,

the socialists were inspired by the writings of OWEN and READ, THOMPSON and GRAY, but not to the same extent. The influence of the French revolution of 1848, and of the corresponding movements in Germany, was probably much greater; and the intellectual armoury of the socialists was furnished very largely by RICARDO, already known to the Germans in BAUMSTARK'S translation (1837).

Karl MARX, in his *Manifest* (1848) and *Lohnarbeit* (1849), maintained the doctrine that wages are, and must be, simply the cost price of living, and—though this is more clearly brought out in the *Kapital* (1867)—that the gains of capital are due to a production by the labourer for which no wages are paid. That wages mean bare necessaries, and value is cost price, are doctrines that may be drawn from Ricardo with a fair appearance of reason. On this foundation Marx raises his doctrine of surplus value: it means that under threat of starvation workmen produce for the employer more than is enough for their maintenance, but this extra-product goes not to them but to him as the master of the situation. Without the imposing apparatus of illustration from English bluebooks with which *Das Kapital* is provided, Marx would not have made so strong an impression on economists. His contemporary, RODBERTUS (1805-75) had the advantage in power of hard reasoning. Like Von Thünen, he talked like Ricardo, with little or no knowledge of the English writer. He had the disadvantage of being averse from much political agitation, and not disinclined to political compromise. On the other hand, his doctrines on the subject of wages, the normal working day, and capital, are so like those of Marx that the question of priority has been often debated. The famous "iron law," so often identified with German socialism, is strictly speaking the formula of neither Marx nor Rodbertus but of LASSALLE, the gifted and scholarly but too rhetorical and impulsive agitator (1825-64). Lassalle organised the German socialists into a formidable political party; and it is he who is to be specially credited with the creation of state socialism (see SOCIALISM), in its modern form. He threw scorn on SCHULZE-DELITSCH, and his attempt to regenerate society by means of co-operation; but only because he desired co-operation to be subsidised and promoted by the state itself.

The "socialists of the chair," who become noticeable, name and thing, especially after the Austro-Prussian war, are described by one of themselves, Professor Nasse, as owing something of their influence as moderate state socialists to the success of the Prussian bureaucracy at a time when it was a political necessity; and traces of the connection are readily to be seen.

The economists of the present generation may perhaps be better classed under six than under three heads. There are (1) the "Epigoni" or successors of the old classical school, including such men as Karl Braun, Treitschke, Max Wirth, as earlier they included PRINCE SMITH and MICHAELIS. They are usually identified with the MANCHESTER SCHOOL of English politicians. They are still of considerable weight in the journals and on the platforms of the country as well as in parliament.

There are (2) the men of what has been called the "theoretical renaissance," among whom Philippovich and the mathematical economists Launhardt, Auspitz, and Lieben are to be reckoned. They are more or less closely associated with the Austrians (see AUSTRIAN SCHOOL). We can hardly count Dühring and other revivers or transplanters of CAREY'S doctrines, among them; but Dietzel, though a keen critic of the Austrians, must have a place.

(3) In the third place we have the historical school with its various groups; and (4) fourth the socialists of the chair, among whom Wagner and Schmoller, and (earlier) Held, are to be included. Schäffle must have a place, though his recent writings against social democracy have accentuated the difference between his very moderate state socialism and socialism pure and simple. Samter, though sometimes reckoned *Katheder-Socialist*, is almost to be reckoned among the socialists pure and simple. The latter (5) have Bebel and Liebknecht for their chief political champions. Even with his pen Bebel is by no means a mean adversary. Engels, though he lived in England, is to be reckoned as of this school, and in many respects the most powerful writer in it, though Kautsky is not far behind him. The description of the organisation of the party, and the history of its various congresses and journals, belong rather to politics than to economics. The repressive law of October 1878, which lasted above ten years, gave socialism the benefit of persecution. The social democrats of Germany polled 1,700,000 votes in 1893, and returned forty-three members to the Reichstag. The insurance laws of 1883 (sickness), 1884 (accidents), and 1889 (old age) showed that the government had determined to outbid their opponents. It is well known too that Bismarck, who was then in power, had not disdained to learn something from Lassalle. (6) The Christian socialists, under Döllinger, Bishop Ketteler of Mainz and Canon Moufang of Mainz, as Roman Catholics, and latterly Todt, Stöcker, and other Protestants, have no claim to independent economic doctrine; but as social reformers they have, like the socialists of the chair, rivalled the social democrats or socialists pure and simple, and they have contributed to socialistic politics the new element of religion.

The chief associations and journals connected more or less with economics may be mentioned briefly. The free traders have their "economic

congress" (*Volkswirthschaftlicher Kongress*) and Economic Society founded in 1858; and they have done much to remove feudal obstructions and keep the extreme protectionists in check. Something more positive was wanted, however; and in 1872 Schmoller convened a meeting at Eisenach, which issued in the institution of the union for social politics (*Verein für Sozial-politik*) (1873). The union may justly claim a share in the making of the insurance laws; and it has from the first acted in avowed rivalry with the social democrats. It meets for discussion once a year, publishes transactions, and is in many ways like the economic section of the British Association with the addition of a directly practical aim. It has included such men as Nasse, Roscher, Held, Knapp, Mithoff, Conrad, Engel the statistician, Brentano, Wagner, Philippovich, Schönberg, and Miaskowski.

The leading economic journals of Germany represent very clearly the state of economics in that country. The *Jahrbücher für National-ökonomie und Statistik* (edited by Conrad, and frequently called "Conrad's *Jahrbücher*") admit chiefly theoretical, statistical, and descriptive articles without respect of schools. The *Jahrbuch für Gesetzgebung* ("Schmoller's *Jahrbuch*") is more closely allied with law and history. The *Vierteljahrsschrift für Volks-wirthschaft und Kulturgeschichte* is the organ of the free traders; the *Archiv für Soziale Gesetzgebung und Statistik* (Berlin), edited by Braun, deals chiefly with social reform, and also the *Sozial-politisches Wochenblatt*, formerly brought out by the same editor. The *Zeitschrift für Sozial-und Wirthschafts-geschichte* (Freiburg), is the organ of the purely historical economists. Some of Professor Oncken's best historical work has appeared there. The *Zeitschrift für die gesammte Staatswissenschaft* (Tübingen) has been edited by Fricker, Schäffle, and Schönberg, and is fairly catholic. The most temperate and valuable of the socialistic periodicals is *Die Neue Zeit* (Stuttgart). Good economical writing is frequently to be found in the *Preussische Jahrbücher* and *Göttingische Gelehrten Anzeigen*, while it occasionally happens, though more seldom than in England or America, that important articles on economic subjects find their way into journals that are printed for the general reader. In Germany, more than elsewhere, the writing of elaborate articles on economical or social topics has come to be regarded as a kind of condition precedent of a government appointment; and the result is a tendency towards over-production of such articles (see BOUNTIES).

The production of books on economical subjects goes on also without ceasing; but as yet economic theory, if not neglected altogether, is treated by most writers very eclectically, and economics may be more truly described as being in a state of transition in Germany than in England or America. This is shown not only by the minute divisions of schools, which recall the political particularism of old Germany, but by the variety of points of view adopted in such a collection of economical treatises as Schönberg's *Handbuch* (1882) or in such a work as the *Handwörterbuch der Staatswissenschaften*, completed 1894 under the editorship of Conrad, Elster, Lexis, and Loening.

It ought to be added that among the valuable monographs published in Germany in the present generation, not a few, like those of Lange, Hasbach, Walcker, and Leser, deal with English economists; and the intercourse between English and German economists was probably never so close as it is now. This is the more welcome as the conditions of life in the two countries are tending to become more and more similar, and the same problems will face the thinkers and legislators in both of them. The influence on economical speculation of the condition of the particular country where it is carried on is always considerable. It is not by accident that the weight of economic opinion in Germany is in favour of Malthus and in France against him. The success, too, or failure of particular social schemes, as co-operative banking, or labour colonies, has helped to influence the views of the learned concerning theoretical possibilities. The same kind of lesson has been taught by the changes in currency. The adoption of a gold standard, after the war of 1870, has led to an active discussion of questions of currency; and the effects that followed the change have made German economists cautious in their theoretical decisions on the subject of the standard. A commission was convened in 1894, but brought no such thorough sifting of opinion in the matter, such as was effected two years before in Austria (1892) by the great currency commission. It remains to be said that the change, so far as it introduced a uniform coinage throughout the German empire, is admitted on all hands to have been a valuable reform.

[Held (Adolf), *Principienstreit in der National-ökonomie*, 1872 (from *Preussische Jahrbücher*, July 1872).—Cohn (Gustav), *Fortnightly Review*, Sept. 1873, "Political Economy in Germany" [written with too evident a bias], and *History of Political Economy* (pub. by American Acad. of Pol. Science, 1894).—Roscher (Wilhelm), *National-ökonomik in Deutschland* (1874) (an English summary is given by Ingram, *History of Pol. Econ.*, 1888, pp. 184 *seq.*)—Cliffe Leslie, T. E., *Fortnightly Review*, July 1875, a review of Roscher, reprinted in *Essays in Political and Moral Philosophy*, 1879, pp. 167 *seq.*, under the title "The History of German Political Economy."—Contzen (Heinrich), *Geschichte der Literatur und Bedeutung der Nationalökonomie oder Volkswirthschaftslehre*, 1881 (2nd ed.) [somewhat didactic].—Resch (Peter), *Geschichte der*

deutschen Nationalökonomie im 19ten Jahrhunderte (1889) [too meagre].—Eisenhart (Hugo), *Geschichte der Nationalökonomik*, 2nd ed., 1891 [the best general history]. — Nasse (Erwin), *Quarterly Journal of Economics* (Harvard) i. (1886), 498 *seq.*—Cossa (Luigi), *Introduction to the Study of Pol. Econ.* (Eng. transl., 1893), pp. 399 *seq.*—Rae John), *Contemporary Socialism* (2nd ed., 1891) "The Economic Movement in Germany."—Dawson (W. H.), *German Socialism and Ferdinand Lassalle*, a biographical history of German socialistic movements during this century, 1888, and *Germany and the Germans*, 1894.—Schmoller (Gustav), *Zur Litteraturgeschichte der Staats- und Socialwissenschaften* (1888) (On Fichte, List, Carey, Stein, etc., down to Hertzka and Menger).—Hasbach (Wilhelm), *Economic Journal*, i. 509 *seq.* (Sept. 1891), "Recent Contributions to Economic History in Germany."—Philippovich (Eugen), *Quarterly Journal of Economics*, v. pp. 220 *seq.* (January 1891), "The Verein für Sozialpolitik." A good account of the new insurance laws is in the *Forum* for October 1889, by Prof. Taussig: who also gives a good account of the theory of wages as it has developed in Germany since Hermann, *Quarterly Journal of Economics*, Oct. 1894. In the *Edinburgh Review* for Sept. 1828, there is an article by M'Culloch headed "Prussian Political Economy;" but it is a mere review of a French translation of Schmalz's *Political Economy*, and notes the free-trade doctrines of that physiocratic Epigonos, without any general survey of his contemporaries. For other remarks on modern German school, especially on Wagner, see Marshall's, *Principles of Economics*, 3rd ed. vol. i.] J. B.

GERSON, Jean Charlier de (1363-1429), of the village of Gerson near Rheims, the famous chancellor of the university of Paris, contributed in the wide range of his written sermons and tractates to the theological economics of scholasticism. He is especially interesting as one who by his breadth of view and eminent gifts of piety and statesmanship, was drawn in opposite directions when dealing with economic ethics, now upholding the scholastic theories of "divine and natural law" (see Jus Divinum, Humanum, Naturale), now driven to compromise by the teaching of experience; forced to conclude that the former might, because of the hardness of men's hearts, never be so imperative as not to permit the advisableness, and sanction the validity, of some less absolute code of civil rules. Thus in his sermon *De reddendo debito* he approves of the assize of "wine and bread and the like," inasmuch as no amount of sermons, or multiplication of preachers would ever be sufficient to correct the fraudulent and excessive prices demanded by self-perjuring tradesmen. Again Usury is repeatedly and utterly condemned by him as contrary to divine and natural law, essentially bad and not to be made good. Yet he admitted its contingent benefits, approved of a legal (low) rate of usury as likely to check abuse of it, and at the council of Constance, when a sweeping measure to abolish usury was called for, he quashed the motion by demanding that a distinction between a fair and a usurious contract should first be made out.

The *Tractatus de Contractibus, de Venditione, et Emptione* contains essentially his contribution to the analysis of Exchange together with his chief disquisition on usury. In it he describes the various forms of contract, and defines it as a kind of mutual justice and a legitimate exchange of property, not to be condemned because the bargain may incline to the relatively greater advantage now of buyer, now of seller. He discusses also the function of the state in relation to contracts, recognising its right to modify them, but resenting multiplication of statutes and penalties as an intolerable yoke. Against usury he adduces the usual arguments, scriptural and classical. He also endeavours to prove that, since to use money is to consume it, none but the owner of it can use it. Hence the "iniquity of the usurer" in receiving back what has ceased to be his, and more into the bargain, or rather "out of the bargain." And generally it is rather the mutual injustice imputed to lending on interest that moved Gerson. Taking advantage of the credulity of the buyer, or the urgency of his need, is to him usurious business equally with receiving money *ultra sortem* (*i.e.* as interest). And in the "accidental" circumstance of a *commutativa justitia* attending lending at interest he saw grounds for mitigating his condemnation. The loan might avert ruin or crime in the case of the borrower. Hence it might be tolerated, "lest a worse thing befall us." In all cases the decision lay between the "dual tribunal of intrinsic and extrinsic conscience, the one of the church, the other of secular politics."

[Charlier de Gersonii, *Opera*, Parisiis, 1606, esp. vol. ii.—Funk, *Geschichte des kirchlichen Zinsverbotes*, Tübingen (Universitätsschriften), 1876.]

C. A. F.

GHENT, Henry of (1217 ?-93), schoolman, born in that city at the commencement of the 13th century, was the son or descendant of a tailor. He was educated at Tournai, where he was a canon in 1267, and archdeacon in 1278. He was known as "Doctor Solemnis," and besides many theological and metaphysical works, is believed to have written *Quodlibetum de Mercimoniis et Negotiationibus*, of which the only copy in MS. was formerly in the abbey of St. Val Sainte Marie near Valenciennes (Val. Andreæ, *Bibliotheca Belgica*, London, 1643, p. 345). This book is now lost, but Cossa considers that the author appears to have shown in it "a somewhat juster understanding of commerce, its lawfulness and utility, than most of his contemporaries" (Cossa, *Introduction*, etc., 2nd ed. Eng. Translation, p. 147).

[F. Huet, *Recherches sur Henri de Gand*, 1838.—B. Hauréau, *De la Philosophie Scolastique*, t. ii.—*Histoire Littéraire de la France*, t. xxii.,

1842, pp. 144-203.—F. Ehrle, *Recherches critiques sur Henri de Gand*, 1887.—N. de Pauw, *Dernières découvertes concernant Henri de Gand*, 1889.]

H. R. T.

GHETTI, Ludovico, was one of the humanist philosophers who flourished in Florence and Tuscany during the 15th century. Ghetti applied himself to finance, and the system of taxation, a problem much discussed at that time in Florence, where very different methods had been tried.

"Savonarola, the Christian reformer, was in favour of the rating of real property; Guicciardini gives a scheme for levying taxes on a sliding or proportionate scale" (Cossa, *Introduction to Pol. Econ.*, translation, p. 156). Ghetti advocated the Impôt Unique (*q.v.*).

[For the history of the influence of the humanists on political economy, see Cossa, *Introduction to Pol. Econ.*, translation, p. 157.—And for fuller detail, Toniolo, E., *Scolastica ed umanismo nelle dottrine economiche al tempo del risorgimento in Toscana*, Pisa, 1887.]

A. B.

GIANNI, Francesco Maria (1728-1821) born at Florence. His works on economics do not mark any progress in science, but his great reputation rests on his sagacious co-operation in the great economic reforms of Leopold II. of Tuscany. In carrying these out, perhaps assisted by a study of the works of Bandini, he advocated free trade in corn. This step, proposed after 1756, led on to complete free trade in grain and food in Tuscany (1767).

In his *Meditazione sulla teoria e sulla pratica delle Imposizioni e Tasse pubbliche*, Gianni considers custom-houses as means to obtain the equilibrium and sometimes a surplus on the balance of international trade; but when he speaks of the grain trade, with a singular contradiction he evinces himself a regular free-trader. Firm in his opinions, after having triumphed in the liberal reforms of 1767, he opposed by several *Memorie* the edict of 1792, which deprived Tuscany of its free government.

He maintains that liberty alone can produce prosperity, and trade needs no restraints to enable it to thrive, as clearly shown in Tuscany during twenty-four years.

Gianni did not write a treatise on this question; even in his *Memorie Speciali*, which deal with the subject, he never discusses theory as Fabroni did, but his arguments are supported by facts, which render them far more convincing.

[Gianni's *Memorie*, his speeches, and other writings are carefully collected in the *Raccolte degli Economisti toscani* (Firenze, 1847-49, 4 vols.) which contain Gianni's and Fabroni's works.]

A. B.

GIBBONS, James Sloan (19th century), was born in Wilmington, Delaware, in 1810. He was a merchant in Philadelphia, and removed to New York in 1835, where he became identified with banking interests. He wrote *Banks of New York, their Dealers, the Clearing House, and the Panic of 1857*, New York, 1859 (reprinted 1870), pp. 399. Gibbons gives in this a detailed and vivid description of the administration of banks, and discusses the causes of the panic of 1857, attributing it to the expansion of bank credit. He also wrote *The public Debt of the United States: its Organisation; its Liquidation; Administration of the Treasury; the Financial System*, New York, 1867, pp. xii. 276, in which he condemns the loose administration of the national finances, and the heavy taxes upon labour.

D. R. D.

GIFT in its modern sense means a voluntary transfer of property. According to Roman law an agreement to make a gift may be a valid contract, but English law does not enforce promises of that nature unless made by deed under seal. On the other hand English law does not restrict the power to deal with property by way of gift, while Roman law and some modern systems of law contain such restrictions. According to French law a person leaving on his decease one child or other descendant may not dispose of more than one-half of his property by way of gift, and if he leaves two children or other descendants his gifts may not exceed one-third (if three or more, one-fourth) of his property (*Code Civil*, art. 913). An English donor need not consider the claims of his family, but the law to a certain extent protects his creditors, inasmuch as it allows gifts to be set aside in certain cases, either by virtue of the provisions of the Bankruptcy Act or under one of the statutes of Elizabeth against voluntary conveyances (see Legislation, Elizabethan; Donatio Mortis Causa).

E. S.

GIGINTA, Miguel de (16th century), a canon of Elna in Roussillon, and author of several works on the treatment of the poor: *Tratado de Remedio de Pobres* (A Treatise on the Remedy for Poverty), Coïmbra, 1579; *Exhortacion á la Compasion de los Pobres*, Madrid, and Saragossa, 1584; *Cadena de Oro del Remedio de los Pobres* (A Golden Chain of the Remedy, etc.), Perpignan, 1584; and *Atalaya de Caridad* (A Watchtower of Charity), Saragossa, 1587. In a *Memorial* approved by the cortes of Madrid in 1586, and inserted by Don Firmin Iglesias in his *Beneficencia en España* (Madrid, 1876, vol. ii. p. 1169, Appendix ix.), Giginta insists upon the necessity of establishing *Casas de Misericordia* (Houses of Mercy) to be kept distinct from hospitals for the sick. The test of labour was to be applied under penalty of a diminution in the allowance of food. As the stubborn poor will thus be impelled to leave the house, the author hopes that charitable persons will deny all help to such vagrants, and reserve their alms for the well-conducted poor duly appointed by the house to collect alms at the gates of churches, or market-places, etc. The houses of mercy were thus to be supported by pious donations and foundations. The cortes

petitioned King Philip in favour of this scheme, but with scanty success.

[Iglesias, *Beneficencia en España* (vol. i. p. 256).—Colmeiro, *Historia de la Economía Política en España* (vol. ii. p. 37).] E. Ca.

GILBART, James William (1794-1863), was of Cornish descent, though born in London. He was at first in a London bank, until it stopped payment in 1825; in 1827 he went as manager, first to the Kilkenny, and afterwards to the Waterford branch of the Provincial Bank of Ireland. On the formation of the London and Westminster Bank in 1834, Gilbart became its manager. He did much to secure the successful establishment of joint-stock banks. In 1836 the Bank of England procured an injunction against his bank "prohibiting their accepting any bills drawn at less than six months after date." Gilbart evaded the difficulty by inducing the country banks corresponding with the London and Westminster to draw bills upon it "without acceptance." Gilbart also gave evidence before various parliamentary committees, and secured the insertion of a clause in the renewal of the Bank Charter Act in 1844, granting to joint-stock banks the power "to sue and be sued by their public officers," and also the right of accepting bills at less than six months' date. He became F.R.S. in 1846. Much of his leisure was devoted to the promotion of literary and scientific institutions among the middle and working classes. He was the author of several useful works on banking—the principal treatises being devoted to familiarising the public with the methods and advantages of banks. He also wrote on logic. He bequeathed a sum of £1250 to King's College as an endowment for an annual course of lectures on banking. The *Gilbart Lectures* were commenced in 1872, and are continued to the present time.

Gilbart's works, besides some essays, are (the dates applying in all cases to the first edition):

A Practical Treatise on Banking, 1827.—*History and Principles of Banking*, 1834.—*History of Banking in Ireland*, 1836.—*History of Banking in America*, 1837.—*An Inquiry into the Causes of the Pressure on the Money Market in 1839*, 1840.—*The London Bankers*, 1845.—*Lectures on the History and Principles of Ancient Commerce*, 1847.—*Logic for the Million*, 1851.—*Elements of Banking*, 1852.—*The Laws of the Currency*, 1855.—*The Moral and Religious Duties of Public Companies*, 1856.—*Logic of Banking*, 1859.—*Social Effects of the Reformation*, 1860. An edition of Gilbart's works was issued after his death, London, 6 vols. 1865, but it does not include all the above-mentioned works.

[*Dictionary of National Biography*; Biographical Notice prefixed to the collection of Gilbart's works, 1865.] R. H. H.

GILBERT, Thomas (1720-98), son of Thomas Gilbert of Cotton, Staffordshire; barrister in 1744; land agent to Lord Gower, M.P. for Newcastle-under-Lyne, 1763-68; and Lichfield, 1768-95, wrote on Poor Law Reform; promoter of Gilbert's Act (*q.v.*).

GILBERT'S ACT. The act 22 Geo. III. c. 83, for the better relief and employment of the poor, was commonly known as Gilbert's Act, from the name of its proposer, who represented Lichfield in parliament. The preamble states that the sufferings and distress of the poor are great from two causes, viz. (1) the incapacity of overseers, who misapply funds and favour litigation; (2) the want of proper regulation and management of workhouses. To remedy these evils it makes the following changes in the law. The provisions of 9 Geo. I., which had allowed of the union of small parishes for certain purposes, are extended. Parishes, not more than ten miles apart may combine together, when two-thirds of the ratepayers assessed at £5 and upwards desire it, may build a common workhouse, and borrow money on joint credit. In all such cases, the churchwardens and overseers are released from the duty (imposed by 14 Car. II. c. 12) of relieving the poor, but continue to be responsible for the collection of the rate. The relief of the poor is entrusted to three persons nominated by the justices of the peace, viz. the guardian, who represents his parish at the monthly board, and may be paid up to £10 yearly; the governor, who is charged with the management and discipline of the workhouse; the visitor, who inspects the workhouse, checks accounts, and is generally charged with supervision. In all parishes, whether incorporated or not, the workhouse is to be used only for the aged, sick, and infirm. Able-bodied labourers are to be found work, and the wages they earn to go towards their maintenance. In any case in which the guardians refuse relief, an appeal may lie to the justices.

The act was repealed by the act 34 & 35 Vict. c. 116. It was avowedly an experiment, and contained the germs of much good and much evil. Under the former head we may put (1) the enlargement of the area of administration, a principle made general in 1834; (2) the attempt to improve the status of administrators; (3) the permission to board out children. Under the second (1) the large powers given to the justices, which were soon abused; (2) the granting of relief in aid of wages, which developed into the allowance system (see Allowance System); (3) the practical abolition of the workhouse-test imposed by 9 Geo. I.

In 1834, when the Poor Law was remodelled, there were 67 incorporations under this act containing 924 parishes; in 1853, 14 containing 203; all have now disappeared.

[Nicholls, *History of Poor Law*, vol. ii. ch. xi.—Aschrott, *The English Poor-Law System* (Engl. trans.) pt. i. § 5.—Fowle, *The Poor Law*, English Citizen series.] L. R. P.

GILDS.

Early History, p. 209; Religious Gilds, p. 210; The Gild Merchant, p. 210; Craft Gilds, p. 211; Gilds of Newcastle-upon-Tyne, p. 213; Gild System in Spain, p. 213.

Early History.—Mediæval gilds were voluntary associations established for mutual assistance. Various theories have been advanced concerning their origin. Some writers, especially Coote and Lambert, regard them as a continuation of the Roman *collegia* and *sodalitates*. There are certainly striking analogies between Roman and Germanic fraternities, but there is little evidence to prove their unbroken continuity of existence.

A more prevalent theory derives gilds wholly or in part from the early Germanic or Scandinavian sacrificial banquets, or drinking bouts. Brentano, Hegel, Wilda, and others, ascribe considerable influence to this heathen element. Sacrifice and banquet are indeed two of the earliest meanings of gild; but when a word has a variety of meanings, and may therefore refer to different things, those things have not necessarily an historical connection. It matters little whether the earliest signification of gild is sacrifice, expiation, penalty, feast, or payment; the solution of the question of verbal derivation does not necessarily affect the origin of gild in the sense of fraternity or society. The heathen sacrificial carousals lack two of the most essential elements of the later institution, namely, corporative solidarity, or permanent association, and the spirit of fraternal co-operation or Christian brotherhood. This last conception included a mixture of worldly and religious ideals—the support of the body and the salvation of the soul.

Another theory has recently been advanced by Dr. Pappenheim. He ascribes the origin of Germanic gilds to the northern "foster-brotherhood," or "sworn-brotherhood,"—an artificial bond of union generally between two persons, sometimes between more than two. After the performance of peculiar ceremonies, such as the intermingling of their blood in the earth, the contracting parties grasped hands, and each took the oath of brotherhood, swearing to avenge any injury done to the other. We cannot here state all the objections to this view (see Hegel, *Städte*, i. 250-253). It will suffice to say that the foster-brotherhood seems to have been unknown to the Franks and the Anglo-Saxons, the nations in which mediæval gilds first appear; and hence Dr. Pappenheim's conclusions, if tenable at all, apply only to Denmark or Scandinavia.

No theory on this subject can be satisfactory which wholly ignores the influence of the Christian church. Imbued with the idea of the brotherhood of man, the church naturally fostered the early growth of gilds, and tried to make them displace or absorb the old heathen banquets. While conceding the influence of Christianity upon the early development of gilds, we must not, however, ascribe their origin to this source. The work of the church was directive rather than creative. Gilds were a natural growth of civilisation, a natural manifestation of the associative spirit which is inherent in mankind. The same needs produce similar associations in different ages. While all such associations have striking resemblances, those of each age have peculiarities which indicate a spontaneous growth. It is not necessary to seek the germ of gilds in any antecedent age or institution. When the old kin-bond—the *maegth* or *sippe*—was dissolving, and the state was still undeveloped, individuals naturally united for mutual help.

The earliest references to gilds are found in the Carolingian capitularies of 779 and 789, and in the enactments made by the synod of Nantes, early in the 9th century, which last are repeated in the ecclesiastical ordinances of Hincmar of Rheims (A.D. 852). There are also vague references to sworn associations of some sort in the capitularies of 805 and 821. The Carolingians, like the Roman emperors, seem to have regarded such unions as dangerous to the state. The gilds of Norway, Denmark, and Sweden are first mentioned in the 11th, 12th, and 13th centuries respectively; those of France and the Netherlands in the 11th. In England they are not clearly referred to before the second half of the 9th century, though many writers believe that they were already in existence in the reign of Ine. We have little information concerning Anglo-Saxon gilds before the 11th century. To the first half of that century belong the statutes of the fraternities of Cambridge, Abbotsbury, and Exeter—the oldest gild ordinances of Europe. The object of the thanes' gild at Cambridge was to provide for the payment of the *wergeld*, in case a member killed any one, and to afford help in blood-feuds. In Orcy's gild at Abbotsbury, and in the brotherhood at Exeter, the religious element is more prominent, the chief object of the brethren's solicitude being the salvation of their souls. The fraternity at Exeter also extended assistance in case of conflagration. Feasting, prayers for the dead, attendance at funerals of members, the solemn entrance oath, fines for neglect of duty and for unseemly behaviour, contributions to a common purse, mutual assistance in distress, the gild-hall, periodical meetings—in short, all the characteristic features of later gilds already appear in the statutes of the Anglo-Saxon fraternities. Continental historians have made conjectural data concerning Anglo-Saxon gilds the basis of important deductions regarding the origin of municipal government throughout western Europe. Hence it is important clearly to sum up all that is known concerning this whole subject. The following three pro-

positions seem incontrovertible. (1) In the second half of the Anglo-Saxon period the gild is a well-known institution, but its prevalence has been greatly exaggerated. (2) There is no evidence to show that there was any organic or official connection between gilds and municipal government, much less that the latter emanated from the former. (3) There is no trace of the existence of either craft or merchant gilds before the Norman Conquest. Commerce and industry were not yet sufficiently developed to call for the creation of such associations.

It is difficult to classify gilds. We have already indicated the three chief classes: religious or benevolent, merchant, and craft or artisan gilds. Those thus far specifically mentioned belong to the first category. The last two categories, which do not become prominent anywhere in Europe until the 12th century, had, like all gilds, a religious tinge, but their aims were primarily worldly. They are, furthermore, distinguished from religious fraternities by being generally confined to a particular occupation or class of persons. We must now examine the later history of religious gilds, and then pass to the other two categories.

Religious Gilds.—After the Norman Conquest religious gilds multiplied in England. They were particularly numerous in the boroughs. Their ordinances and customs were similar to those of the above-mentioned Anglo-Saxon fraternities. The brethren were aided in old age, sickness, and poverty, often also in cases of loss by robbery, shipwreck, and conflagration,—for example, the gild of St. Katherine, Aldersgate, assisted any member if he "falle in poverte, or be aneantised thorwz (through) elde or thorw fyr oder water, theves or syknesse." Alms were often given even to non-gildsmen; lights were supported at certain altars; feasts and processions were held periodically; attendance at funerals of brethren, and at masses for the dead, was required. Some such functions appear in the ordinances of all kinds of gilds, but they are especially prominent in those of the religious brotherhoods. Some of these fraternities came to be closely connected with the municipal government; but, as a rule, they were simply private societies with a limited sphere of activity. They played an important rôle in the social life of England, especially as eleemosynary institutions, down to the time of their suppression in 1547. Religious gilds also flourished on the continent throughout the middle ages, and closely resembled those of England.

The Gild Merchant.—Students of political science are particularly interested in merchant and craft fraternities. The gild merchant came into existence in England soon after the Norman Conquest, as a result of the increasing importance of trade. Whether it was of indigenous growth or a transplantation from Normandy, it is difficult to determine. Until clear evidence of foreign influence is forthcoming, it may be safer to regard it simply as a new application of the old gild principle. But this new application may have been stimulated by continental example. The evidence seems to indicate the pre-existence of the gild merchant in Normandy, though it is not mentioned anywhere on the continent before the 11th century. It spread rapidly in England, being regarded by the townsmen as one of their most important chartered privileges; in the reign of John it was a well-known institution common to many English boroughs. But in some prominent towns it did not exist, notable examples of its absence are found in London, Colchester, Norwich, and the Cinque Ports. The smaller the town in which it existed the more conspicuous was the rôle it played. Its chief function was to regulate the trade monopoly conveyed to the borough by the royal grant of *gilda mercatoria.* The gildsman had the right to trade freely in the town, and to impose payments and restrictions upon others who desired to exercise that privilege. The ordinances of the fraternity thus aim to protect the brethren from the commercial competition of strangers or non-gildsmen. More freedom of trade was allowed at all times in the selling of goods by wholesale; and also in retail dealings during the time of markets and fairs. The ordinances were enforced by an alderman with the assistance of two or more deputies, or by one or two masters, wardens, or keepers. At the *morwenspeches*, or periodical meetings of the society, there was feasting and merry-making, new ordinances were made, members admitted, officers elected, and other business transacted.

Many writers assert that the gild merchant and the borough were identical, and that the former was the basis of the whole municipal constitution. But the records in the local archives show clearly that gild and borough, gildsmen and burgesses, were originally distinct conceptions; and they continued to be discriminated in most towns throughout the middle ages. Admission to the society was not restricted to burgesses; nor did the brethren form an aristocratic body controlling the whole municipal government. No good evidence has, moreover, been advanced to prove that this or any other kind of gild was the germ of the burghal constitution. On the other hand, the gild merchant was certainly an official organ or department of the borough administration; and its influence upon the economic and corporative growth of English municipalities was considerable.

The early relations of the craftsmen and their fraternities to the gild merchant are not clearly indicated in the meagre sources at our disposal. Many artisans seem to have been

admitted to the mercantile fraternity. They bought raw material and sold the manufactured commodity; hence they were regarded as merchants; no sharp line of demarcation was drawn between the two classes in the 12th and 13th centuries. Separate societies of craftsmen were formed in England soon after the gild merchant; but at first they were few in number and of much less importance than the general mercantile fraternity. The origin of the former is not to be attributed to the latter; there was seemingly no organic connection between the two classes of gilds, though many artisans probably belonged both to their own craft fraternity and to the gild merchant, and the latter, owing to its great power in the town, seems to have exercised some sort of supervision over the craftsmen and their societies. When any single body of artisans, such as the weavers or tanners, received from the king the right to have a gild, they secured the monopoly of working and trading in their branch of industry. Thus, with every creation of a craft fraternity the gild merchant was weakened, and its sphere of activity was diminished, though the new bodies were subsidiary to the older and larger fraternity. The greater the commercial and industrial prosperity of a town, the more rapidly did this process of subdivision into craft gilds proceed, keeping pace with the increased division of labour. In the smaller towns, in which agriculture continued a prominent element, few or no craft gilds were formed; and hence the old gild merchant remained longest intact and powerful in that class of boroughs. The period of the three Edwards constitutes an important epoch in the history of industry and gilds. With the rapid development and specialisation of industry, particularly under Edward III., craft fraternities multiplied and grew in power, many master craftsmen became wealthy employers of labour, dealing extensively in the wares which they produced. The class of dealers or merchants, as distinguished from trading artisans, also greatly increased, and established separate fraternities. When these various unions of dealers and of craftsmen embraced all the trades and branches of production in the town, little or no vitality remained in the old gild merchant; it was deprived of its independent sphere of activity. In short, the function of guarding and supervising the trade monopoly had become split up into various fragments, the aggregate of the crafts superseding the old gild merchant. A natural process of elimination, the absorption of its powers by other bodies, had rendered the old organisation superfluous. This transference of authority from the ancient general gild merchant to a number of distinct bodies, and the consequent disintegration and decay of the former, was a gradual spontaneous movement, which, generally speaking, may be assigned to the 14th and 15th centuries, the very period in which the craft gilds attained the zenith of their power. As the present writer's views on this subject appear to have been misinterpreted, it may be well to add that the gild merchant did not give birth to craft fraternities or have anything to do with their origin; nor did it delegate its authority to them. The development was one of slow displacement, or natural growth and decay, due to the play of economic forces.

The history of the English gild merchant is mainly of antiquarian interest. In some places it long survived either as a religious fraternity, shorn of its old functions, or as a periodical feast, or as a vague term applied to the whole municipal corporation. In most towns the name and organisation disappeared toward the close of the middle ages, and the institution was represented by the aggregate of the crafts.

The mediæval gild merchant played a less important rôle on the continent than in England. On the continent it occupies a less prominent place in the town charters and in the municipal polity, and generally corresponds to the later fraternities of English dealers, established either for foreign commerce or to regulate a particular part of the local trade monopoly. Its place in the civic government was in such cases similar to that of many later craft associations.

Craft Gilds.—The bond of union in a craft gild was at first that of common occupation; a craft fraternity comprised all the artisans in a single branch of industry in a particular town. In the 15th and 16th centuries "mistery" and "company" were the most common names for craft societies, though the old term "gild" continued to be used. Craft gilds first appear in England and on the continent early in the 12th century. Their origin was similar to that of the gild merchant; it was occasioned by the expansion of trade and industry, which increased the number of artisans. In banding together for mutual protection they simply followed a natural tendency of the age. It is not necessary to elaborate any more profound theory regarding the origin of these societies. As the trade of England continued to expand in the 13th century their number increased. In the 14th they were fully developed and in a flourishing condition; by that time each branch of industry in every large town had its gild.

The members elected officers who were most commonly called wardens. The chief function of the latter was to supervise the quality of the wares produced, so as to secure honest and excellent workmanship. Hence the hours of labour and the terms of admission to the society, including apprenticeship, were regulated. Members were also expected to make periodical payments to a common fund, and to participate in certain common religious observances, festivities,

and pageants. But the regulation of industry was always paramount to social and religious aims; the chief object of the fraternity was to supervise the processes of manufacture and the monopoly of working and dealing in a particular branch of industry. The organisation and the aims of the craft societies of the continent were similar to those of England.

There was at no time a general struggle in England between the gild merchant and the craft gilds, though in a few towns there may have been some friction between merchants and artisans. There was no conflict in England like that between these two classes in Scotland in the 16th century. Nor is there any close parallel in England to the great continental revolution of the 13th and 14th centuries, by which the crafts threw off the yoke of patrician government and secured more independence in the management of their own affairs and some participation in the civic administration—in certain cases even a monopoly of the latter, the civic constitution being remodelled with the craft fraternities as a basis. Such a conflict was easily avoided in a country where royalty was potent enough to suppress local dissensions and to exact obedience from the towns, and where borough government was mainly democratic until the 15th century. True, there were popular uprisings in England; but they were generally class conflicts between the poor and the rich, the crafts as such seldom taking part in these tumults. While many continental municipalities were drifting from an aristocratic to a more democratic *régime* in the 14th century, those of England were drifting in the reverse direction, toward oligarchy, toward government by a close "select body." As a rule the craft gilds obtained no paramount influence in the boroughs of England, but continued to be subordinate to the town government. Whatever power they did secure, whether as potent subsidiary organs of the municipal polity for the regulation of trade, or as the chief or sole medium for the acquisition of citizenship, or as integral parts of the common council, was, generally speaking, the logical sequence of a gradual economic development, and not the outgrowth of a revolutionary movement by which oppressed craftsmen endeavoured to throw off the yoke of an arrogant patrician gild merchant.

With the expansion of commerce and industry in the 14th century, though the organisation of most crafts was not greatly changed, two new kinds of fraternities appeared, and in the 15th century they became more prominent, namely, the merchants' and the journeymen's companies. The misteries or companies of merchants traded in one or more kinds of wares. They were pre-eminently dealers, who sold what others produced. They are not, however, to be confused with the old gild merchant, which originally comprised both merchants and artisans, and had the whole monopoly of trade in the town. The company of merchants was, in most cases, simply one of the many craft unions, or misteries, which superseded the gild merchant.

The appearance of journeymen, or yeomen, fraternities marks a differentiation or cleft within the ranks of some particular class of artisans, a conflict or divergence of interests between employers, or master artisans, and workmen,—an organised struggle which foreshadows modern strikes. The journeymen combined to protect their special interests—rates of wages, etc. But in most cases the new English fraternities, after struggling a while for complete independence, seem to have become subsidiary and affiliated organs of the older craft gilds. The movement assumed large proportions on the continent, and probably was wide-spread in England, though the published sources give us little information concerning the subject.

One more phenomenon in connection with the organisation of crafts is of considerable interest, namely, their tendency to amalgamate, which is occasionally visible in the 15th century, and still more frequently in the 16th and 17th. Several fraternities—old gilds or new companies—with their respective cognate or heterogeneous branches of industry and trade, were fused into one body. In some towns all the crafts were thus consolidated into a single fraternity; in this case a body was reproduced which regulated the whole trade monopoly of the borough, and hence bore some resemblance to the old gild merchant. It is interesting to observe that already in the 14th century a similar tendency toward the union of crafts is visible in some continental cities, notably in the Netherlands and in Westphalia.

A notable feature in the history of gilds during the Tudor period was the policy of the crown to bring them under public or national control. Laws were passed, for example in 1503, requiring new ordinances of crafts to be approved by the justices of assizes; and the authority of the companies to fix the prices of wares was thus restricted. The statute of 5 Elizabeth, c. 4, also curtailed their jurisdiction over journeymen and apprentices.

The statute of 1547 (1 Edward VI.) did not suppress the craft fraternities. They were expressly excepted from its general operation. Such portions of their revenues as were devoted to definite religious observances were, however, appropriated by the crown. The revenues confiscated were those used for "the finding, maintenance, or sustentation of any priest or of any anniversary, or obit, lamp, light, or other such things." Professor Ashley aptly calls this "the disendowment of the religion of the misteries." Thus Edward VI.'s statute marks no break of continuity in the life of the com-

panies or craft fraternities. But signs of decay had already begun to appear even before the Reformation, and these multiplied in the 16th and 17th centuries. The old gild organisation was breaking down under the action of new economic forces; its dissolution was due especially to the appearance of new industries, organised on a more modern basis, and to the extension of the domestic system of manufacture. The companies gradually lost control over the regulation of industry, though they still retained their old monopoly in the 17th century, and in many cases even in the 18th. The mediæval form of association was incompatible with the new ideas of individual liberty and free competition, with the separation of capital and industry, employers and workmen, and with the introduction of the factory system and mechanical improvements.

In the second half of the 18th century many craft fraternities still survived, but their usefulness had disappeared. Oblivious of their duties to the community, and intent only on self-interest, they had become an unmitigated evil. "They were," as Dr. Held aptly remarks, "ruins which hindered the building of new edifices; the old stones could not even be used in the new structures." There seems to be no evidence of lineal descent or organic connection between them and trades unions. The privileges of the old fraternities were not formally abolished until 1835; and the substantial remains or spectral forms of some are still visible in other towns besides London.

[Wilda, *Gildenwesen*, 1831.—Fortuyn, *De gildarum historia*, 1834, especially for Holland.—Pappenheim, *Alt-dänische Schutzgilden*, 1885.—Hegel, *Städte und Gilden der germanischen Völker*, 1891.—Toulmin Smith, *English Gilds*, with Brentano's introductory essay on *The History and Development of Gilds*, 1870.—Von Ochenkowski, *Englands wirthschaftliche Entwickelung*, 1879.—Gross, *Gild Merchant*, 1890.—Ashley's *Economic History*, bks. i.-ii. 1888-93, contains the best general account of English craft gilds. The following works are also useful: W. Cunningham, *Growth of English Industry and Commerce*, 1890-1892.—Walford, *Gilds*, 1888.—Salvioni, *Gilde Inglesi*, 1883.—Seligman, *Mediæval Guilds*, 1887.—Lambert, *Two Thousand Years of Gild Life*, 1891.—Levasseur, *Histoire des classes ouvrières en France*, 1859. There is a bibliography of German gilds in Schönberg's *Handbuch der politischen Oeconomie*, vol. ii. 3rd ed. 1890, and a bibliography of French gilds in *Parliamentary Papers*, 1884, vol. xxxix. pt. v. p. 390. See also CORPORATIONS OF ARTS AND TRADES, especially for continental gilds.—A. Doren, *Untersuchungen zur Geschichte der Kaufmannsgilden*, 1893.] C. GR.

GILDS OF NEWCASTLE-UPON-TYNE. At Newcastle the ancient gilds have survived probably more distinctly than in most other cities of England. Three of the most important of them, the Merchant Adventurers, the Hoastmen, and the Masters and Mariners, have a corporate existence under royal charters. The Merchant Adventurers claim to represent the merchant gild granted to Newcastle by King John in 1215. They received their charter of incorporation in 1546 from Edward VI. under the name of the Merchant Adventurers of Newcastle-upon-Tyne, and the benefit of the charter is confined in express terms to merchants inhabiting Newcastle-upon-Tyne, who then belonged to the Society of Merchant Venturers in the parts of Brabant beyond the seas—a title by which the London Company of the Merchant Adventurers of England, who had branches at Newcastle, Yarmouth, and other maritime towns, were then known. Both before and after receiving the charter, they controlled, as a merchant gild, the foreign and domestic trade of the town. They were subdivided into three distinct fellowships: the drapers or merchants of woollen cloth, the mercers or merchants of silk, and the boothmen or merchants of corn. The Hoastmen, a gild for loading and disposing of coal and stones, were incorporated 1600 by Queen Elizabeth. The Masters and Mariners were incorporated 1536 by King Henry VIII.

Of the other existing gilds, about twenty-nine in number, two or three claim a corporate existence under early charters from the crown, but most of them are unincorporated fraternities constituted by ordinances granted to them by the borough corporation of Newcastle-upon-Tyne. In most of the companies the members no longer follow the trades or occupations designated, and in none of them do the companies exercise any control or influence over these trades or crafts; they principally exist to administer the property they have inherited or acquired. The stewards of the companies are the statutory representatives of the freemen of Newcastle, in whom the exclusive right of grazing the town moor, locally called the "eatage," is still vested.

[Some information as to these gilds may be found in Walker and Richardson's *Armorial Bearings of the Incorporated Companies of Newcastle-upon-Tyne*, 1824.—Brand's *History of Newcastle*, 1789.—Brown's *Short Account of the Customs and Franchises of the Freemen of Newcastle*, 1823.—Gibson's *Newcastle-upon-Tyne Improvement Acts*, 1881, and in *Extracts from the Records of the Merchant Adventurers of Newcastle-upon-Tyne*, published by the Surtees Society in 1895.—Mackenzie's *History of Newcastle*, 1827.—Walford on *Gilds*, 1888, which contains a chapter on Newcastle gilds.]

GILD SYSTEM IN SPAIN. GREMIOS or CRAFT-GILDS arose in Spain during the middle ages under the influence of the same causes as in the rest of Europe. Each separate kingdom of the Spanish monarchy had its own separate laws on the subject, but in all it was strictly kept in hand by the royal prerogative. In Barcelona alone, the *gremios* were exclusively

subordinate to the municipal authorities, even in matter of statutes and legislation, and the royal judges had no jurisdiction over them.

The first opposition against the exclusiveness of the *gremios* arose in Aragon towards the end of the 17th century, but the general opinion remained favourable to their existence for a century more, notwithstanding the striking abuses to which they had given rise. Thus in 1763 the five *Gremios Mayores* of Madrid (silk-weavers, clothiers, hosiers, grocers, and jewellers) succeeded in farming the royal revenue and in founding a privileged company, trading with its own vessels and owning factories in different parts of Spain. The *Gremios* preserved a legal standing up to 1834, although in 1775 CAMPOMANES (*q.v.*) had already proposed their reform in his *Discurso sobre la Educacion Popular*, and, ten years later, JOVELLANOS (*q.v.*) advocated their suppression in his report on the liberty of industry (*Informe sobre la libertad de las Artes*) submitted to the general council of commerce.

[Colmeiro, *Historia de la Economía Política en España*, vol. ii. pp. 237-251. For the regulations of the *Gremios Mayores* see LARRUGA, *Memorias Políticas* (1787), vol. i. pp. 105-169 and 283-314.]

E. Ca.

GIOGALLI, SIMONE (17th century), though not an economist, holds a distinguished place in the history of economic doctrine in Italy. He was a clever Venetian merchant, highly esteemed for a memoir presented to the board of enquiry for trade of the Venetian republic.

When consulted as to the causes of the falling away of the trade of Venice, once so prosperous, and the remedies for this, Giogalli presented the paper mentioned above (*Scrittura inedita di Simone Giogalli, negoziante veneto del sec. xvii.* Venezia, 1856), containing principles of economic liberty.

Giogalli's ideas certainly do not go beyond the narrow boundaries of his republic, but his aim was to foster the commerce of Venice through liberty, in order to establish competition with other markets. However far this was from an international free trade, it is remarkable considering that monoply, privileges, and heavy taxes were then the basis of national economic government.

A. B.

GIOJA, MELCHIORRE (1767-1829), born at Piacenza, died at Milan, studied first theology, then mathematics, economics, and statistics, to which last he applied himself steadily. The political vicissitudes towards the end of the last and the beginning of the present century involved his life: he was imprisoned several times, held and lost various positions, including that of director of the statistical office at Milan under the French; and on returning to that city after a short exile his writings were his sole means of support.

Gioja's works are on public economy, statistics, morals, education, and logic. "He could work hard, and his knowledge was extensive. Analysis was his strong point, but not criticism, where he showed himself captious and unbridled. Not a few of Gioja's observations are equally subtle and original, particularly in his theory of the association of labour of various kinds; but once get him with one of his tabulated statements in hand, and he is the very genius of pedantry" (Cossa, *Introduction to Pol. Econ.*, translation, p. 488). Gioja's greatest work, *Nuovo prospetto delle scienze economiche* (serie i. "Teoria." Milano, 1815-17, vols. i.-iv.) sums up what had been written on *economics, finance, and administration*: he opposed the price fixed for bread by authority (*calmieri*), and favoured large properties; he preferred the arts to agriculture, great manufactures to small ones, great merchants to small merchants, and large towns to small ones.

But while Gioja partly adopted the teaching of the English economists, he contributed to hinder the progress of economic science by a narrow harsh system of protection and government interference, in support of which he wrote *Discorso popolare sulle manifatture nazionali e tariffe daziarie dei commestibili ed il caro prezzo del vitto*, Milano, 1802.

Still he deserves praise for his acute observations on the theory of *associazione dei travagli*. He studies there all the advantages derived from these, justly considering them a cause of improvement in production. He also initiated with CUSTODI and ROMAGNOSI the *Annali universali di Statistica* (1824-1871), continued by Sacchi, which form one of the best collections of economic, statistical, and social studies which Italy can boast of. Among the many works of this author, besides the numerous writings in the *Annali* and his economic papers of local interest may be noted:—*Del merito e delle ricompense*, etc., Milano, 1818.—*Filosofia della Statistica*, Milano, 1826.—*Indole, estensione e vantaggi della Statistica*, Milano, 1809.—*Logica Statistica*, Milano, 1808.—*Tavole Statistiche*, etc., Milano, 1808.

A. B.

GIRARDIN, ÉMILE DE (1806-1886), born and died at Paris, was a man who carried everything to extremes. An unscrupulous speculator, an original and impartial thinker, a devoted friend, active in business, eminent as a man of letters, and constantly seeking notoriety, he loved discussion above all things, though it should only end in paradox. He was proud, rash, brave, and chivalrous. The natural son of Alexander Comte de Girardin, he accepted his lot in life with courage, almost glorying in it. He was appointed inspector-general of the *Beaux Arts* in 1828. Two years later he founded the journal *Le Voleur* afterwards *La Mode*. After the revolution of 1830 he warmly took up the cause of cheap periodical literature. This of all the acts of his life was the one which brought him the best deserved reputation.

He proposed to Casimir Périer to apply that system to the *Moniteur universel*, then the official journal, and to reduce its price to one sou. The minister refused, with a smile of contempt—he was not far-sighted enough to perceive what a force the cheap press might become. Girardin, repulsed by him, founded

the *Journal des connaissances utiles* at the price of four frs. a year. This obtained 130,000 subscribers. He next became the champion of savings banks, freely spending his own money, though he was then not wealthy, to encourage them. Next he established the *Musée des familles*, a periodical which was a formidable competitor to the *Magasin pittoresque*. After founding other periodicals, he plunged into such speculations as the mines of Saint Bérain. After this Girardin commenced his first important attempt to establish a cheap daily paper. On the 1st July 1836, *La Presse* appeared, a journal costing forty frs. a year, while all the other great newspapers were charging eighty frs. Success attended this bold enterprise. It brought on, however, a duel with Armand Carrel, in which Girardin had the misfortune to kill his opponent. He made a vow never to fight a duel again, this last had been his fourth, and, whatsoever the provocation, kept his oath. In 1834 he became a deputy, and retained his seat till 1848. He professed at that time to belong to no political party, and to be attached to no form of government, declaring himself on different occasions in favour of absolute liberty. The revolution of 1848 came on, and notwithstanding all that he had said he took up a side, warmly professing confidence in the new order of things. But this state of feeling did not last long. He was annoyed at not being elected a member of the constituent assembly, and was embittered by an illegal imprisonment which he suffered. He sacrificed his political sympathies to his personal animosity against General Cavaignac. He took an active part in the presidential elections of the 10th December 1848 in favour of Louis Napoléon Bonaparte, who knew his character so little that he omitted to appoint him one of his ministers—ministerial position being at this time the height of Girardin's ambition. The unsteadiness of his principles and the force of public opinion drove him into isolation—the undisciplined character of his mind retained him in that condition. At last a district of the department of the *Bas-Rhin* sent him to parliament only a short time before its violent dispersion. The second of December drove him into exile, whence he speedily returned, connected himself again with *La Presse*, left it, returned to it, quitted it again, then bought the newspaper *La Liberté*. His fertile pen revived the prosperity of that journal. Shortly after this Girardin got into favour at court and was named a senator, unhappily in time to urge his country into the war of 1870 so fatal for France. He then founded the paper *La France*, supported the government of Thiers, and energetically attacked Marshal MacMahon. The last ten years of his life were scarcely less active than those which had preceded, but the public paid no further attention to him.

Among the great mass of his works a good many were concerned with political economy, the following being the more important: *De l'instruction publique en France*, 1838.—*De la liberté du commerce et de la protection de l'industrie.* Letters exchanged between Ad. Blanqui and Émile de Girardin, Paris, 1846-47, 8vo.—*L'abolition de la misère par l'élévation des salaires*, 1850, 8vo.—*L'Impôt*, 8vo, 1853. In this last work he declared himself in favour of a single tax, which he proposes to make the basis of an insurance against those risks which disturb owners in the enjoyment of their possessions.—*Questions administratives et financières*, 1858. A. C. f.

GIUSTINIANI, D. Bernardo, was a priest (17th century). He is known in connection with a dispute as to lawful and unlawful forms of exchange. The application of the then existing theories of the canonists on usury led to difficulties in the new contracts entered into by dealers in the different kinds of exchange. According to the canonists, profit on exchange was lawful, provided it was real and did not conceal usury. The *cambio colla rincorsa*, as it was called, which Padre Giustiniani opposed, was practised in order to conceal usury. He describes it thus: "Titius, an inhabitant of Genoa, requires 1000 scudi, and asks Cajo, a money-lender, to supply them; saying to him, 'Arrange this for me on bills on Piacenza.' This is done as follows:—Cajo writes to his agent in Piacenza telling him to pay the sum to himself, crediting himself and debiting Titius, and after computing the charge to remit the debt and credit to Genoa—and thus it is done." In this manner money was borrowed in the kingdom of Naples, and as much as 30 per cent per annum paid. Giustiniani shows clearly that all this is merely a semblance of an exchange operation entered into to conceal a loan of money on usury. Some money-lenders even told him that they did not really send letters of exchange, but only made notes in their books. Starting from the principle, prevalent in those days, that usurious loans of money are wrong, Giustiniani's reasoning is sound. *Breve trattato delle continuationi dei Cambi*, Genoa, 1619.

[Gobbi, *L'economia politica negli Scrittori italiani del Secolo XVI.-XVII.*, Milan, Hoepli, 1889.] U. R.

GLANVILL, Ranulf (died 1190, at the siege of Acre), sheriff, judge, and chief justiciar, 1180, under Henry II. He fought for the king against the Scots in the rebellion of 1174; in 1185 he took the cross, which perhaps accounts for his being deprived of the justiciarship on the accession of Richard I. He took a large part in carrying out Henry's legal and judicial reforms, especially in organising the *Curia Regis*—the later king's bench. A collection of the laws of England was drawn up by him (Hoveden, end of 1180), and he wrote a treatise, *De Legibus et Consuetudinibus Regni Angliæ*, which "deals principally with procedure or the mode of

enforcing legal rights, but incidentally also with the rights themselves" (Digby, *Real Property*, 68). Incidentally therefore, apart from the invaluable information concerning the legal practice of the time, much light is thrown upon the tenure of land through all classes, and upon the status, both legal and economic, of the serfs. If his account is too much coloured by legal theory and maxims of the Roman law, giving no hint of the variety of rights and customs ascertained by historical research, Glanvill remains valuable as the earliest writer who has left any definite description of the land economy of his time.

[Roger of Hoveden (Stubbs), ii. Pref. xxii. and iii. Pref. xxiii.—Kate Norgate, *Angevin Kings*, ii. 279 and notes.—Extracts in Stubbs's *Select Charters*, and Digby's *Hist. of the Law of Real Property*.] E. G. P.

GLEBE LAND. Church land. The endowments of the church have consisted mainly of land from very early times: to each parish church belonged a number of pieces of land varying in size and position according to the nature of the soil and the manner of cultivation, and these have been added to by more recent gifts. The word glebe, which meant simply farm, has become restricted in meaning, and now means land belonging to a parish church, which the parson may farm himself or let for a short term of years, forming, with tithes, etc, the endowment of the church.

[Jacob's *Law Lexicon*.—T. M. Dale, *Clergyman's Legal Handbook*, London, 1858.—Canon Isaac Taylor in *Domesday Studies*, London, 1888.] A. E. S.

GLOCK or GLOCKE, see KLOCK, KASPAR.

GLUT is a name (cp. glutton) given to abundance by those who, for any reason good or bad, look on it as pernicious.

An unusual abundance of a particular commodity often reduces its price so much that it is injurious to the interests of those who produce the commodity for sale, *i.e.* in order to exchange it for other commodities. These persons accordingly say that there is a glut, or that the market is glutted, whenever there is so much of the commodity they sell that it cannot be disposed of at prices fairly remunerative to them. Purchasers on the other hand merely say that the commodity is plentiful and cheap.

Ricardo (Principles, ch. xxi., in *Works*, p. 176), following J. B. Say (*Traité*, L. i. ch. xv.) and James Mill (*Commerce Defended*, p. 81), denies the possibility of a "universal glut"—a glut, that is, of all commodities taken together simultaneously. Malthus, following Sismondi (*Nouveaux Principes*, L. iv. ch. iv.), holds in his *Political Economy* (p. 353 ff.) that a "general glut" is possible, and in his *Definitions* (p. 247) he says "a glut is said to be general when either from superabundance of supply or diminution of demand, a considerable mass of commodities falls below the elementary costs of production." [For a discussion of this question see DÉBOUCHÉS, THÉORIE DES; OVER-PRODUCTION.] E. C.

GODFREY, MICHAEL (d. 1695), brother of Sir Edmundbury Godfrey, was a financier and closely connected with Paterson in the formation of the Bank of England, of which he became the first deputy-governor in 1694. Macaulay states that he was one of the ablest, most upright, and opulent of the merchant princes of London of his day. He appears also to have been connected with Heathcote and PATERSON in their opposition to the monopoly possessed by the East India Company. Godfrey was killed in the trenches before Namur, whither he had been sent to the king in reference to money matters. His death caused a fall of two per cent in the price of bank stock. He was author of *A short account of the Bank of England*, London, 1694. The formation of the bank called forth strong opposition, and this tract of twelve pages was written in its defence, pointing out the advantages to be derived from it, especially as regards the lowering of the rate of interest throughout the country, and answering the objections made by its opponents. These, according to Godfrey, were chiefly goldsmiths and others who foresaw that their exorbitant gains were likely to be reduced.

[Thorold Rogers, *The first nine years of the Bank of England*, Oxford, 1887.—Macaulay, *History of England*.—Saxe-Bannister, *Writings of William Paterson*, 1859, vol. ii.] R. H. H.

GODIN, JEAN BAPTISTE ANDRÉ (1817-1888), was born at Esquéhéries, Aisne, France, and died at Guise, Aisne, after a life of beneficent activity as a captain of industry. The son of an artisan, he was but poorly educated, and in his twelfth year left school to join his father in the ironworks. At seventeen he started on a tour of France as a journeyman. The industrial revolution and the ideas of FOURIER and SAINT SIMON combined to dissatisfy him with the wages system as he saw it, and he determined that if ever he rose to be an employer of labour he would endeavour to raise the level of the workman's life and make it more pleasant and less laborious. In 1837 he returned to his native village, and after his marriage in 1840 opened a small factory for apparatus for heating, with one or two assistants. Employing the process of casting for portions of stoves, etc., not hitherto made in that way, he soon succeeded in increasing his business, until in 1846 he employed some thirty hands, and found the lack of communication at Esquéhéries becoming a serious drawback. He therefore removed his factory to Guise, on the river Oise. At the time of Godin's death in 1888 the annual output of his works exceeded in value four millions of francs (£160,000), of which nearly one half was

paid out for wages to upwards of one thousand workpeople.

Godin proved a model employer. His constant solicitude for the comfort of his workmen, with whom he kept in the closest touch as their colleague rather than their master, exhibited itself in his encouragement of benefit and insurance and co-operative societies, his establishment of free schools, nurseries, libraries, theatres, clubs, etc. in his social palace or FAMILISTÈRE, founded in 1859, and in the gradual introduction of a system of profit-sharing, developing through industrial partnership into a co-operative company on a broad basis, which should continue to work smoothly even after its founders had personally passed away. This well-built and well-organised CITÉ OUVRIÈRE offers many collective facilities for comfort and enjoyment rarely within the reach of individual workmen elsewhere; and the solidarity of its members in their social and industrial relations constitutes a guarantee of continued stability.

After the revolution of 1848 Godin subscribed £4000 (at that time the third of his fortune) towards the ill-starred expedition of Considérant to form a Fourierist community in Texas. The failure of this expedition was in some sense a disillusion to Godin. With his more practical intelligence he laid the plans of his own *Familistère*, and successfully carried them out. In 1870 he was elected *conseiller-général* by the republican party, and as president of the municipal commission of Guise, during the military occupation of that town by the Germans, he inspired it to refuse to pay any contribution to the victorious army—a refusal which the Germans were unable to overcome. In 1871 Godin was elected deputy for his department, and remained a member of the Chamber till 1876, when he withdrew from practical politics to devote the rest of his life to the management of the *Familistère*, the publication of its journal, *Le Devoir*, and the elaboration of his industrial and political ideas in the writings mentioned below. In 1882 he was created a knight of the legion of honour. In 1886 he married his second wife, who had for twenty-five years acted as his secretary, and has since edited his posthumous work, *La République du Travail et la Réforme Parlementaire*, 1889.

The other principal writings of Godin are: *Solutions Sociales*, 1871.—*La Richesse au Service du Peuple.*—*Les Socialistes et les Droits du Travail.*—*La Politique du Travail et la Politique des Privilèges.*—*La Souveraineté et les Droits du Peuple.*—*Mutualité Sociale*, 1880.—*Le Gouvernement: ce qu'il a été, ce qu'il doit être*, 1883. In these works he exhibits the bold and original qualities which distinguished him as a man of affairs, but shows the limitations of an untrained mind. He proposed the abolition of inheritance by intestacy, except by direct descent, and graduated death-duties rising from 1 per cent on £80 or less to 50 per cent on £200,000, the state devoting the proceeds to the payment of its expenses, to the exclusion of all other forms of taxation. By this means he considered all members of the community would be provided with equality of opportunity. He urged peace between nations, and between the industrial classes of a nation, the latter result to be attained by the legal association of masters and men into groups of common interest.

[See the articles CITÉ OUVRIÈRE and FAMILISTÈRE, and the works there referred to.] H. H.

GODWIN, WILLIAM (1756-1836), author of *Enquiry concerning Political Justice*, London, 1793, 4to, the 2nd edition with material alterations, 1796, 8vo. The great doctrine of the treatise was declared by Godwin himself, *Thoughts on Dr. Parr's Spital Sermon*, 1801, to be the perfectibility of man. The characters of men are blanks, which their external circumstances, and, above all, political institutions, fill in. Justice is a general appellation for all human duty. Government is an evil, but necessary; "it finds our rights invaded, and substitutes an invasion less mischievous for one that is more so." It is perpetuated "by the infantine and uninstructed confidence of the many"; but its action should be circumscribed within narrow limits. Society can only declare and interpret, it cannot enact. Private property in the labour of others is unjust, but is not therefore to be violently uprooted. Still, the goal must be complete equality of conditions. In treating of the benefits of a system of equality, Godwin is confronted with the objection from the principle of population. His answer is the conjecture of Franklin that "mind will one day become omnipotent over matter." The speculations of Godwin—in the essay on "Avarice and Profusion" in *The Enquirer*, 1797, 8vo—provoked the *Essay on Population* (see MALTHUS). In the *Thoughts on Dr. Parr's Spital Sermon*, pp. 54-77 are devoted to the essay, but, at that time, the main proposition of the argument appeared to Godwin "no less conclusive than new." He only complained of the limitation of the checks to misery and vice, so that the inclusion of the prudential checks, in later editions of the essay, may be in part due to Godwin. As time went on, however, and the views of the essay became more generally adopted, the attitude of Godwin grew more hostile, until in 1820 he published his work *Of Population*, which had taken two years in writing, and which purports to be a complete refutation of the essay.

[Godwin's argument will be found ably criticised in Mr. Bonar's *Malthus*, London, 1885, pp. 364-371; see also *William Godwin*, etc., by C. Kegan Paul, 2 vols. 1876; and the article in the *Dictionary of National Biography*, vol. xxii. p. 64, by Leslie Stephen.] H. E. E.

In his *Enquirer*, a series of essays (1797), there is an essay on "Riches and Poverty"

(pt. ii. essay i.), in which amongst other things Godwin maintains that one evil result of poverty is the absence of leisure entailed on the poor man. He looks forward to a time when the economy of resources, better division of labour, and better division of wealth. will make it unnecessary for any one to give more than one-tenth or even one-twentieth part of the labour now bestowed on the earning of a livelihood (cp. More, Owen).

Another essay, on "Avarice and Profusion," deals with the question of luxury in the manner of Tolstoi. If the rich would relieve the poor, they must *share* their labour, not by inventing new luxuries set the poor new tasks. Human wants need to be diminished rather than increased. Equality is always Godwin's chief aspiration. A third essay, on "Beggars," is adverse to indiscriminate charity as creating professional beggars, "the most abject thing upon the face of the earth"; but the course of the author's reflections on this matter does not run smooth. He insists that our feelings of humanity demand some indulgence.

Anarchism has never, on the whole, been so consistently, so patiently and so peaceably worked out into its details as in Godwin's *Political Justice* (1793). The use of violence in any form, even in penal laws, is absolutely condemned. The spread of intellectual enlightenment is to work the whole change. War is treated as due to the too limited intercourse between individual citizens of one nation and those of another, governments and diplomatists having too much power (cp. Cobden).

Yet Godwin's allusions to the economists are not complimentary. He refers to the famous example of division of labour in the *Wealth of Nations* (pin-making), only to sneer at it; "The division of labour, as it has been developed by commercial writers, is the offspring of avarice" (*Pol. Justice*, vii. viii.).

At a later period of his life, when Malthus seemed to have convinced even Godwin's friends, the *Essay on Population* naturally became the object of Godwin's special enmity. With the aid of his friend Booth, he attacked its principles and its figures with all the force he could muster. The geometrical and arithmetical ratios are rejected. The increase in the American population is declared to be exceptional. He sums up his reasoning in three arguments:—(1) Population in many states is not increasing at all; (2) every new improvement enables the two ratios to start at par; (3) the excess must begin with the infants, and infants need comparatively little food and give us fair warning. Positively he contends that in all cases where there is excess the cause lies in political institutions (Godwin, *Population*, 1820, pp. 485 *seq.*). He was too sanguine in believing he had routed his opponent; many admirers of the *Political Justice* and *Caleb Williams*, will regret that the author of these remarkable books should have written so much that was of little merit.

J. B.

GOGEL, Isaac Jan Alexander (1765-1821), born at Vugt (North Brabant), member of a business house at Amsterdam, played a great part in the revolutionary and French period of 1795-1815, being a warm adherent of the patriotic (anti-Orangist) party. He was the head of the department of finance, first from 1798-1801, then under the Pensionary Schimmelpenninck (1805), under King Louis Napoleon (1806-1808), and the French government (1810-1813), when he was also a member of the French *Conseil d'État*. After the restoration he undertook a manufactory of blue at Overveen near Haarlem, and lived there until his death (1821). He was an economist especially in a practical sense. The present Dutch system of taxes is to a large extent his work. His ideas on this subject may be learned best by studying that system itself as it existed in the years 1805-1810, and his work: *Memoriën en Correspondentiën betrekkelijh den Staat van 's Rijks geldmiddelen* (Memorials and Correspondence on the State of the Finances of the Kingdom), written by the order of King William I., first published 1844, by the author's son. His principles are these: Taxes should be proportional to the wealth of the contributors, and to the measure of protection they stand in need of. Direct taxes are to be preferred to indirect, the latter being only allowable for fiscal ends, and to draw contributions from the less wealthy classes. Yet he is an opponent of an income-tax because he does not believe in the possibility of obtaining the necessary information. The mode of levying ought to be simple, the laws clear; he recommends few functionaries, centralisation, and special judges.

When a director of the Amsterdam loan-bank (1801), he proposed the creation of a general bank of issue and deposit, intended to be a private concern under government control. This plan was strongly opposed, but a few years later (in 1814) it became the basis of the charter granted to the Netherland Bank.

Gogel was a staunch adherent to the rule of *laissez-faire* in matters of trade and commerce. He disapproved of duties on articles of export, *e.g.* tobacco, in opposition to the Emperor Napoleon I., and vigorously opposed a measure proposed by Louis Napoleon containing a new regulation of gilds (1808). A. F. v. L.

GOLD

Gold as consumed in Industry, p. 218; Gold as Standard, p. 220; Gold Bullion, as a Commodity at the Mints, p. 224; Gold, Distribution and Production of, p. 225; Gold Certificates, p. 226; Gold Notes, p. 226; Gold Points in Foreign Exchanges, p. 226.

Gold, as consumed in Industry. Gold was probably employed for ornament before

it came into use as money, although in the earliest records the monetary use is mentioned as much as the other. Its application to ornamental purposes was probably very ancient. There are instances of its having been applied to industrial purposes among savages who were unacquainted with iron and other metals. Its employment in the arts, so far as our records go, appears to have originated in the east, probably in India. It is now chiefly used for watch-cases, chains, rings, and other articles of jewellery; for plate and similar ornaments; for gilding, as gold-leaf and wire; in dentistry, etc., etc.

It is very difficult to form an estimate of the amount used for purposes other than coinage; and in all serious calculations of this quantity no opinion is expressed as to the requirements of Asia. A very great deal of gold is undoubtedly consumed in the arts in India, more, probably, indeed, than in any other single country. Mr. S. Pixley estimated very tentatively, in giving evidence before the Gold and Silver Commission in 1886, that £5,000,000 of gold were annually exported to India for this purpose alone; but as the total annual imports of gold into India are now less than that sum, there is doubtless some over-estimate here.

As regards former centuries, JACOB has endeavoured to arrive at an approximate idea of the proportion of the precious metals applied to industrial uses; but we have no means of judging how far he was correct, even for the time when he wrote. He considered that the proportion of the precious metals (gold and silver) applied to purposes other than coin was one-tenth of the whole quantity produced in the 16th century, and one-fifth in the 17th; while he concludes that in the 110 years, 1700-1810, "the quantity of gold and silver which was converted into other objects than coin amounted to two-thirds of that which was left in Europe, after the part which was conveyed to Asia is subtracted from the total produce of the mines." But Jacob's estimate of the quantity of gold annually consumed in industry about 1830 is undoubtedly much too high, although he was at considerable pains to make careful inquiries. A better estimate is that of A. von HUMBOLDT, who supposes the European consumption in 1824 to have been about 9200 kilogrammes.

The only official inquiries on this subject are those instituted in recent years by the director of the United States mint. In that country a return is now annually furnished by the state and by private firms of the amount of gold used for industrial purposes. A certain amount, estimated recently at from $1,500,000 (£300,000) to $3,500,000 (£700,000), is then added as the value of coin melted down by jewellers and others for repairs and similar requirements. The whole amount appears by these returns to have increased considerably of late years, being about $11,000,000 (£2,200,000) in 1880, $19,000,000 (£3,800,000) in 1892, and $29,000,000 (£5,800,000) in 1903. But these estimates are considered by English statisticians to be too high.

For the civilised world—*i.e.* Europe and the United States—the best estimates are undoubtedly those of the late Dr. A. SOETBEER. These are based on careful computations, and are deduced mainly from official returns of the quantities stamped by government in each country, these quantities being subjected to various corrections, and estimates being made of the amount which escapes stamping, or which is old material melted down, etc. His estimates are, for the period 1831-40, about 18,000 kilogrammes annually, and, in 1871-80, about 84,000 kilogrammes annually, while he puts the whole quantity of gold used in industry during the period 1831-1880 at 2,070,000 kilogrammes. These are the net quantities—*i.e.* a deduction has been made on account of old material re-melted, but gold melted from coin is included. For 1883 he considers the gross consumption to have been 110,000 kilogrammes, less 20,000 kilogrammes for old material, or 90,000 kilogrammes net. Since then the requirements have still further increased, and the net consumption, following Soetbeer's calculations, must be put, in 1890, at between 100,000 and 120,000 kilogrammes. It is impossible to say how much of this represents coin melted down. In making the above calculations Soetbeer accepts the estimate of the director of the United States mint for that country. English economists generally hold Soetbeer's figures to be slightly too high, this being possibly due to his incorporation of the American values.

As regards the quantities consumed in different countries, Soetbeer gives the following (annual average, about the year 1885):—

	Gross Use.	£ mill.	Subtract for old Material.	Net Use.	£ mill.
	kg.		per cent.	kg.	
United States	21,700	*2·71*	*10*	19,500	*2·44*
Great Britain	20,000	*2·50*	*15*	17,000	*2·12*
France	21,000	*2·62*	*20*	16,800	*2·10*
Germany	15,000	*1·87*	*20*	12,000	*1·50*
Switzerland	15,000	*1·87*	*30*	10,500	*1·31*
Holland and Belgium	3,200	*·40*	*20*	2,500	*·31*
Austria-Hungary	2,800	*·35*	*15*	2,400	*·30*
Italy	6,000	*·75*	*25*	4,500	*·56*
Russia	3,000	*·38*	*20*	2,400	*·30*
Other countries (Europe)	2,300	*·29*		2,000	*·25*
Total	110,000	*13·75*	..	89,600	*11·20*

No opinion can be given of the stock of gold actually in existence in a form other than bullion or coin.

A point still to be considered is, what proportion do these quantities bear to the whole amount of gold annually produced? According

to the statement of the United States Mint Report, combined with the earlier estimates of Dr. Adolf Soetbeer, the value of the production of gold in the world since 1860 is £1,305,000,000. It is estimated that 30 per cent of this, £390,000,000, is employed in the arts and industry. Deducting this, we have a value of £915,000,000 to be added to the coinage of the world.

The weight of this is stated as 315,000,000 ounces of fine gold. Of this, there may be estimated as 95,000,000 ounces employed in industry. It is impossible to estimate the amount of old material employed in this manner. The figures for 1903 were, according to the same report, 3,690,000 ounces, valued at £15,000,000, new material only being taken into account.

[W. Jacob, *History of the Precious Metals*, 2 vols., London, 1831.—A. Soetbeer, (1) *Verwendung des Goldes und Silbers*, in *Conrad's Jahrbücher für National-ökonomie und Statistik*, Neue Folge, band iii., Jena, 1881; (2) *Edelmetallgewinnung und Verwendung, 1881-90*, ib. dritte Folge, band i., 1891; (3) *Materialien zur Erläuterung und Beurteilung der wirtschaftlichen Edelmetallverhältnisse*, 2nd ed., Berlin, 1886 (translated for the use of the Gold and Silver Commission)—*Annual Reports of the Director of the United States Mint*, Washington.—*Reports and Evidence of the Gold and Silver Commission*, London, 1887-1888; *Parl. Papers*, Nos. C., 5099, 5248, 5512.—Dr. S. M'C. Lindsay, *Preisbewegung der Edelmetalle seit, 1850*, Jena, 1893.] R. H. H.

GOLD AS STANDARD. In history gold appears first as a valuable commodity. Thus in the new world the Peruvians, at the time of the Spanish invasion, valued, used, and treasured the metal, but do not appear to have employed it as a medium of exchange. Rare and highly esteemed, portable, durable, readily divisible, homogeneous, and easily worked, it soon came into use independently among many nations, and at early stages of civilisation, as a medium of exchange, to facilitate the process of barter. Thus the Mexicans used quills of gold dust for this purpose at the time of Cortes. And in the old world, among the Anglo-Saxons of the 9th century, rings of gold, the chief treasure of the kings, seem to have served as a medium of exchange, and by weight as a rough measure of value (Beowulf). These two functions of the metal are not in fact easily separated. The next great stage in the adaptation of the metal as an exact measure of value was the introduction of coinage—an invention which appears to have had a single origin to the east of the Mediterranean, and was adopted by different peoples at different chronological epochs, though at nearly the same stage of economic development. Among the Greeks its progress may be traced almost from its beginnings by extant coins.

Uncoined gold may be a measure of value, but it can hardly be a standard. A measure of value may be said to become a standard when recognised and defined by law, when legal payments are estimated in legal units appointed for that purpose. Thus oxen may be said to be recognised in some Germanic codes as a standard of value, side by side with gold and silver coins. When a piece of gold received the stamp of a king or a city it was thereby effectively declared to be such a unit.

It is unnecessary to enter on the barren discussion whether value can really be measured. Accurately or inaccurately, it is measured in millions of daily transactions, and the attempt to devise an accurate standard measure begins almost with the beginning of history. The definition of value "as power in exchange," though it leaves much to be desired in lucidity and theoretical completeness, may be accepted for the purposes of discussion. The object whose power in exchange is most nearly constant with all persons and at all times will make the best standard measure of value.

Since very early times gold coins have been used as a standard of value, but gold itself can hardly be said to serve as a standard of value until mint regulations have been devised to secure that the value of gold coins shall exactly conform to the value of the gold contained in them. The necessary regulations are these: (1) Gold coins of a certain stamp may only deviate within narrow and fixed limits from a well-known standard of weight and fineness (see REMEDY). To secure this end, means must be taken to withdraw periodically from circulation coins that have become light through wear and tear. (2) All who bring gold bullion to the mint must have the right to receive in return an equivalent in the form of coins. If the coinage of gold is not *free*, the action of the government may tend to a restriction of the coinage, and *pro tanto* raise its value above bullion level. The custom of coining for government profit, usual in ancient and mediæval times, and not altogether unknown in our own, tends to this result. Again, if coinage is not *gratuitous*, there is a margin of possible variation between the value of gold as bullion, and the same *plus* the charge for seigniorage (see SEIGNIORAGE). (3) Exportation and melting of coins must be permitted without restriction. Otherwise the supply of coins may from time to time exceed the needs of the community, and the value of the coins will fall below bullion level.

If the government of any country enacts that gold coins issued under the above conditions shall be unlimited legal tender in payment of debts contracted in the terms of the customary measure of value, gold is in that country a standard of value. Given these conditions, gold will be the sole standard of value, if the issue

of other legal tenders is so regulated and limited that their value shall always conform to the value of the gold coins, of which they represent a definite multiple or fraction.

If both gold and silver are freely coined, and are unlimited legal tender in payment of all debts, at a fixed rate, a certain number of silver units being treated as equivalent to one gold unit, we have a joint or bimetallic standard of value. Gold is still a standard, so long as it circulates in the country at all on these terms, but it is a standard jointly with the other metal: the two standards are inseparable so long as the system works. This system, with all the conditions necessary to the maintenance of a joint standard, was in force in France from 1803-1874. A similar system is of high antiquity. It would appear that coins of gold and silver circulated at a fixed rate in Greek cities: the rate being $12\frac{1}{2}$ to 1. Philip of Macedon seems to have made both his gold and his silver coins full legal tender, at this fixed rate, and his gold coins had a wide circulation even outside the Macedonian empire. Under the Roman republic and early empire gold and silver coins circulated at a fixed rate, the unit of value being the silver DENARIUS, or the SESTERTIUS (money of account). Under Constantine the gold SOLIDUS became the chief unit of value; the denarius a subordinate unit. But we do not know enough about the mint regulations of the Greek and Roman states to say with any certainty whether gold or silver was the standard; or, if there was a true joint standard. It seems more probable that neither metal was the standard, but that the coins were a joint standard at a fixed rate, circulating at a price considerably above their bullion value.

Professor Soetbeer's researches appear to make it probable that the ratio of $12\frac{1}{2}$ to 1, as between silver and gold coins, was preserved throughout the Græco-Roman period by the custom of mint artificers and mint authorities; but we know nothing about the market for bullion. (See Mommsen, *Hist. of Rome*, on these points.)

Throughout the middle ages, and indeed till recent times, silver coins were the standard generally in Europe. The position of gold was undefined and anomalous.

Under another system, sometimes known as unrated BIMETALLISM, both gold and silver are freely coined and circulate at no fixed rate. It naturally results that one metal is by consent though not by law adopted as the standard of value, the relative value of the other metal being settled by private agreement for each case. This is not a true bimetallic system, the conditions of legal tender being confused; and may arise from circumstances such as existed in England between 1660 and 1717, when guineas of the nominal value of 20s. were freely coined, and also silver coins 20 shillings to the pound, the pound (money of account) being the unit of value. This system aimed at rated bimetallism—a guinea = a pound. But the silver coins were so overrated, mainly owing to their worn and clipped condition, that no one would give guineas at the legal rate,—guineas were accepted at a rate varying from 22s. to 30s. The standard of value, as is theoretically possible in a bimetallic community, was in effect a single metal—silver: or perhaps it would be more correct to say the silver coins,—which were also unlimited legal tender.

When the treasury in 1698 fixed 21s. 6d. as the highest rate at which guineas would be accepted by government in payment of taxes, a step was taken in the direction of true bimetallism, which was rendered possible by the recoinage of the silver currency in the latter years of the reign of William III. The last step was taken in 1717 (Newton's Reform), when guineas were made full and unlimited legal tender at 21s. This rate (about $15\frac{1}{2}$ to 1) was above the market rate, and occasioned a great influx of gold to the mint; the silver coinage having returned to its silver value. Nevertheless the bimetallic standard was maintained without serious difficulty until 1775, when a limit was placed for legal tender of silver coins by tale. In 1797 the Bank suspended gold payments, and the country was for some twenty years confined to the use of inconvertible paper. In 1816, with a view to the return to cash payments, gold was established as the sole unlimited legal tender and standard. The free coinage of silver, which had been suspended since 1798, was no longer permitted, and the legal tender of silver was limited to 40s.

The study of monetary science has led in the last two centuries to the adoption of mint regulations and improvements in coinage without which a true metallic standard cannot exist. The influence of Lord LIVERPOOL (father and son, *q.v.*) led to the adoption by this country in 1816 of gold as the sole standard. Since 1872 the chief countries of the civilised world have followed the example of England. It is important therefore to be able to observe and estimate any variations in the value of gold; and for this purpose it is necessary that the laws and circumstances which affect its value should be clearly understood.

The value of gold depends on interaction of demand and supply. Demand for gold is (*a*) demand for currency; (*b*) demand for the arts (see GOLD AS CONSUMED IN INDUSTRY); (*c*) demand for hoarding, which tends theoretically to vary inversely with the value of gold—a smaller hoard of dearer metal being equivalent to a larger hoard of the cheaper (see HOARDING). Alterations in the legal standard of any country will affect this demand in so far as they increase the amount of gold required for daily use in that country, which need not necessarily be the case.

If the value of gold falls or rises, more or less gold will be required to do the same work as currency. (*d*) Demand for banking reserves. This demand is to a certain extent alternative to the demand for currency (see RESERVES, BANKING).

The existence of an effective bimetallic area of considerable extent tends to keep the value of gold in all civilised countries at a bimetallic level. During the period 1803-1873, if gold appreciated in relation to silver, the demand for silver in France increased, and gold was exported. Similarly during the period of enormous gold production in California and Australia, 1850-1865, France was taking gold and exporting silver, and thus no serious deviation in the proportion between the values of the two metals from the standard of $15\frac{1}{2}$ to 1 was felt. 1853-1860 France coined £155,000,000 sterling in gold, and meanwhile exported great quantities of silver, especially to the east.

Of changes in the demand for gold the most important are those that may arise from alterations in the standard of any country. When Germany in 1872 adopted a gold standard, she at once proceeded to sell silver coins and buy gold for coinage. Between 1872 and 1878 inclusive, about £80,000,000 sterling of gold were coined in Germany. Austria-Hungary prepared for the adoption of a gold standard by the accumulation of a reserve of some £30,000,000 sterling, and Italy secured about £20,000,000 for the same purpose. Between 1873 and 1881 the United States coined nearly £100,000,000; which may be taken approximately as the additional demand due to the adoption of a gold standard by that country in 1878.

It will thus be seen that every country, by altering its mint regulations, has power to alter the metallic standard of value *pro tanto* in every other country using a metallic standard; and from this point of view the contention of those who desire to make currency arrangements a matter of international agreement may be accepted.

The demand for gold and silver as currency has until recent times been alternative. If more silver was used as currency, less gold, and *vice versa*. Recent changes have interfered with this substitution. The international measure of value, gold, has been more and more isolated; silver has been becoming a commodity like other commodities; any increase of supply of gold or any diminution of supply acts with full force upon the standard of value; there is no longer a question of the proportion of any new demand or supply to the total stock of gold and silver, but of its proportion to the total stock of gold alone.

This general change in the currency of the civilised world has been rendered possible partly by the enormous increase in the production of gold during the last fifty years, partly by the extension of the banking system, and the greater use of banking facilities, which enable a given amount of metallic currency to effect the exchange of a much greater amount of commodities. Gold, the international standard of value, still circulates in considerable quantities; but it chiefly serves as a reserve to support the fiduciary currency and the book-entry transactions which to a large extent replace it in ordinary use. But this system has its disadvantages. Any sudden demand on the available supply of gold may remove in one country or in many the support on which the fiduciary currency rests. Promises to pay may cease to be current; gold may be eagerly appropriated and jealously held; hence follow temporary fluctuations in the standard of value through increased demand, which disturb for a time all commercial relations.

On the side of supply the value of gold depends, primarily, on the stock in existence. The stock in existence can hardly be estimated at less than £1,500,000,000 sterling; it may well be more. Annual additions have little power to affect the value of so large a stock. But a great increase in production, extended over a long period, as has been the case since 1850, may considerably affect the value.

Some writers on economics have assumed that the value of gold depends solely on cost of production. Others have boldly stated that gold is always produced at a loss. It is probably true that some gold is always produced at a loss. The question with regard to gold is not one of the margin of profitable production, but of unprofitable production. When alluvial gold deposits are being worked this margin is very low. Many claims are worked at a loss under the incentive of gains secured in others. When gold is found in the quartz, at present the chief source of gold production, much capital is wasted in sinking shafts and erecting machinery for unprofitable mines. But no mine will long continue to be worked that does not produce enough to pay current expenses. Circumstances vary, and fluctuations are great. It is, however, certain that gold may continue to be worked below the marginal cost of production.

Such are the conditions that affect the value of gold—the most general and international standard of value. Under these complicated influences it would be surprising if the value of gold remained stable over long periods of time For short periods this value has great stability owing to the high proportion that the total stock of gold bears to any possible sudden changes in the amount demanded or supplied. An exception may perhaps be made in cases where inflated credit is suddenly shaken. The fall in prices that then occurs, accompanied by

an exceptional demand for gold, is in one aspect the result of a sudden and temporary variation in the standard.

But over long periods great changes have taken place in the value of gold. These changes have been on the whole in the direction of depreciation, but there have been long periods of progressive appreciation. Such changes are very difficult to measure. No certain and unalterable test of value can be applied. The price of wheat, and the money wages of unskilled labour, are useful tests, but leave much to be desired on the score of accuracy. But such questions, however interesting, have only academic importance in so far as they relate to remote periods. The attempt to estimate the fluctuations of gold within a lifetime or a generation is one that must be made, and has often been made. It involves the most important consequences for trade and social relations.

An appreciating standard of value benefits the creditor at the expense of the debtor. A depreciating standard benefits the debtor at the expense of the creditor. It is often argued that if instability is unavoidable, it is better that the debtor should gain than that the creditor should. The masters of industry and commerce are debtors on a large scale. If the money values of their commodities are constantly rising by small increments, trade and industry are affected by a constant stimulus, such as is believed to have affected them between 1850 and 1866, and to have been succeeded, about 1875, by a continuous and progressive depression in all countries that use the gold standard. The burden of government debt is also increased by a rise in the value of gold. The social effects are more obscure though not less certain than those which appear in industry, trade, and taxation. To estimate such changes in the standard the following tests may be applied. The prices of commodities may be studied. If a general rise of prices, lasting over a considerable period, can be substantiated, a fall in the standard may be suspected. If a similar fall in prices appears, then a rise in the standard may be suggested as a possible explanation. But we must see if there be not some general cause or causes affecting commodities that will account for such fluctuations.

The wages earned by labour at different times may also be compared, especially those of unskilled labour. But here the changes affecting efficiency, supply, and demand are more obscure, and their results very difficult to estimate.

Finally, we may observe the causes affecting the supply of, and demand for, the metal or metals established as the standard of value. If two or all of these tests give a similar result, we may consider the change of the standard as sufficiently proved; but it cannot be measured accurately.

To take the recent period 1850-1905: Throughout this period the supply of gold has been largely in excess of all known previous epochs. That increase was largest in the period 1897-1905. Again in the period 1851-1866 no great new demand for gold coinage arose, except in France; which liberated a corresponding amount of silver for use as currency elsewhere. The increased demand for currency must in great measure have been met by the constant extension of banking facilities.

A study of the general prices of commodities by means of index-numbers establishes for the period 1850-1870 a considerable rise. Comparing the depressed year 1850 with the depressed year 1869 by means of Mr. Sauerbeck's figures, we get a rise of prices of about 27 per cent, and other methods (those of Dr. Giffen, Prof. Soetbeer, Mr. Inglis Palgrave, the *Economist*), give very similar results, though the exact proportion is differently estimated. And this in a period when improvements in methods of production, and transport, and exploitation of new countries might have been expected to cause a general fall in prices.

A general rise in money wages between 1850 and 1869 can hardly be denied. Thus the fact of a fall in the standard of value between 1850 and 1870 seems proved; and 20 per cent is the most moderate estimate that can be accepted.

On the other hand, between 1870 and 1893, although the production of gold was still very great, it was less than in the previous twenty years. Great new demands on the stock of gold for currency were made by Germany, the United States, Italy, and Austria-Hungary. The consumption of gold for the arts increased, and has been very roughly estimated by Professor Soetbeer at 11½ millions sterling, nearly one half of the total annual production. The hoards of gold for war treasure by the great continental nations grew. The demand for gold in India (a new demand, specially important in the decade 1860-1870) continued, and absorbed, in the years 1870-1904, over £125,000,000. The bulk of trade over the whole world increased steadily, and a larger proportion of it was conducted on a gold basis.

The general prices of commodities which had previously risen showed during this period a considerable net fall; bringing them lower than they had been in 1850. The general level of wages was probably as low in 1905 as in 1870; though the fact of the fall, and especially its amount, is not so certain as the fall in commodities. This case is more uncertain than the other. The circumstances of demand and supply lead us to expect a rise in the standard; though, considering the great and continuous production of gold, it could not, on this ground alone, be certainly affirmed. The fall in commodities is a certain fact. But some such fall might have been anticipated from the

continued improvement of machinery, methods, and transport, and the development of new agricultural areas. And the wages of labour have not fallen in anything like the same proportion. The estimates of the appreciation of gold since 1873 and the corresponding depreciation of commodities have varied so much that it is hardly practicable to include them here—especially as at the present time (1905) the process appears to continue. Any estimate of this description must be very uncertain.

[This subject is so closely connected with that of bimetallism that a general reference may be made to the list given above under that head. The Report of the Indian Currency Committee, 1893, is the most valuable recent contribution to the literature of the subject. The following works may also be mentioned: Adolph Soetbeer, *Edelmetallproduktion und Werthverhältniss zwischen Gold und Silber*, 1493-1875, in Petermann's *Geographische Mittheilungen*, Gotha, 1879.—Dana Horton, *The Silver Pound*, London, 1887.—Del Mar, *A History of the Precious Metals*, London, 1880.—*A History of Money in Ancient Countries*, London, 1885.] S. M. L.

GOLD BULLION, AS A COMMODITY AT THE MINTS (see PRECIOUS METALS for bullion as an article of commerce, and GOLD AS CONSUMED IN INDUSTRY for use under that head). So many interesting and peculiar phenomena in the gold bullion trade, and so large a part of the status which it holds in relation to the standard of value, are due to the position in which gold stands at the mints of the world that, without trespassing upon its position in commerce and industry, or without touching upon the metallurgical and mechanical processes through which it passes before it appears clothed with the stamp of authority, a word may be said upon the treatment it receives as a commodity at the hands of the world's coining establishments.

All the mints of the civilised world are open to-day to this commodity in unlimited quantities at a fixed rate or price determined by law. The minor regulations differ in different countries, but the peculiar economic fact—an unlimited demand at a fixed and known rate—holds good for all alike. In England the royal mint, according to the act of 1870, must receive gold bullion when sent in parcels of not less than £100 nominal value. The master of the mint may refuse to receive, assay, or coin it if the standard value of the whole of the bullion is less than its gross weight, requiring a portion of it to be refined in order to bring it to standard fineness; and if the assay reports show that any of the ingots are brittle or contain iridium they will be returned to the depositor. For purposes of convenience it is customary to require intending depositors to give the deputy master of the mint two days' notice, and to furnish in duplicate forms, supplied at the mint, a statement of the mark and assay report on each ingot, and the name of the assayer on whose assay they purchased it. The ingots are then weighed by the proper officer of the mint, and a statement of their weights is added to each copy of the aforesaid forms, one of which is kept by the mint and depositor respectively. If the report of the mint's assayer differs from that furnished by the depositor, and is disputed by the latter, the consulting assayer of the mint makes a new assay, and his decision is final. When these conditions are complied with, and the bullion found to be 916·6, or eleven-twelfths fine, the full mint rate, £3 : 17 : 10½ per ounce, is paid without making any charge for coinage, but notice is not sent to the depositor, nor is the money actually paid, until the coinage of the bullion is completed.[1] This causes, therefore, a loss of time and interest on the value of the deposit to the depositor. He consequently prefers to take his bullion to the Bank of England, where he always receives its value immediately upon announcement of the results of the bank's assay, at a rate of £3 : 17 : 9, or 1½d. per ounce less than the mint rate. Thus as a matter of fact the English mint has in recent years dealt solely with the Bank of England for its gold bullion. When the Bank has a large stock in hand it requests the mint to take it and resume coinage of gold, and likewise when the mint desires to commence coinage of gold it sends notice to the Bank, which immediately furnishes or procures the bullion. The Coinage Act of 1870 in England has been modified in one particular by the Coinage Act of 1891, whereby light-weight coins, within the limits of reasonable wear and tear prescribed by law, will be received at the mint at their face value, whereas formerly they were dealt with merely as bullion and received according to weight. The injustice whereby the last holder had to bear the whole cost of loss by wear during the entire life of the coin has thus been removed, and the cost of recoinage is now charged to mint account. An exactly similar relation to that existing between the English mint and the Bank of England exists in Germany between the German mints and the Reichsbank. The present regulations governing the gold coinage of Germany are to be found in the order of the chancellor of June 8, 1875, and the Reichsbank law of

[1] England is the only country in which the price for gold is not quoted for the weight of the fine metal but for the "standard" weight—viz. for a quantity containing 11 parts gold and 1 part alloy, which is the proportion used for English gold coins, whilst in German, French, and American gold coins the proportion is 9 parts gold and 1 part alloy. Any deviations from the standard proportion in England are accounted for by deductions or additions to the weight brought into account, and in the same way in other countries the deviations from absolute fineness are accounted for by deduction, but, as a general rule, bars are not accepted unless they have a certain degree of fineness.

March 14, 1875, whereby 2784 marks are paid for every kilogram of fine gold, and the same is then coined into 2790 marks, thus allowing the mint a profit of 0·215 per cent to meet expenses of coinage. The Reichsbank pays exactly the same rate, and that immediately on ascertaining the weight and fineness, so that the mint is entirely dependent on the bank for the gold bullion it uses. The system in France and Italy, which countries are members of the Latin Union, differs somewhat from that of Germany and England. There gold bullion may be brought to the mints to be coined, and returned in coin of the realm upon completion of the work, usually within a period of ten to thirty days, but less a charge for coinage amounting to 6 francs 70 centimes per kilogram fine. In the United States of America the system is again quite different. Gold bullion is received at any mint or assay office. Of the former there are three, one each at Philadelphia, San Francisco, and New Orleans, and the assay offices are plentifully scattered over the country. The bullion is paid for at once upon ascertaining weight and fineness, generally within two days after deposit, at the rate of $20.67 per fine ounce. If the bullion is not of desired fineness, and requires parting and refining, a charge is made for the operation, and in addition an alloy charge for the necessary amount of copper to bring it to a standard of 900 fine.

With this review of the conditions upon which gold bullion may be deposited, or sold to the principal mints of the world, it will be readily seen that there is little inducement for the actual miner or producer of gold to take his product direct to the mints, and as a matter of fact, with the exception of small quantities at times brought direct to the assay offices of the United States in the western states, the gold received at the mints usually comes from refining companies through the hands of bankers and brokers. The man who possesses gold in a crude state rarely has it at the desired degree of fineness demanded by the mints. He, therefore, except in the United States, must go to a refining company where he usually sells outright at a somewhat lower figure than the mint rate, instead of employing the company to do the work on his account. The refining company turns out the gold in stamped ingots of standard fineness, and again passes over the commodity into the hands of bankers or brokers at a small discount rather than comply with mint regulations and lose interest on capital invested while awaiting the return. In the United States, however, where the return is immediately made, much more gold proportionally is deposited directly by refining companies than by bankers and brokers. However, it matters not through whose hands gold bullion may pass, or what road it may travel, there remains a remarkable economic phenomenon, not to be found in the case of any other commodity. There is always an open market or recipient, absolutely bound by law to accept this commodity in unlimited quantities at a known, and fixed, mint value or price; for value and price are here the same, there being no room for the subjective or time elements to enter in except in so far as the national laws of the different countries might be changed. If a man parts with his gold to any one else, or uses it for commercial or industrial purposes rather than take it to the mints, it is because his return is equal to the known mint rate, or because the difference is, in his eyes, equivalent to complying with some of the minor conditions, such as transporting the product to a mint receiving office, or waiting for his money return. Thus also, to whatever use gold may be put, its value can but slightly vary from that stated by law by the principal commercial nations of the world.

S. MCL. L.

GOLD, DISCOVERIES OF. See PRECIOUS METALS, DISCOVERIES OF.

GOLD, DISTRIBUTION AND PRODUCTION OF. The economic distribution of gold as a medium of exchange is widely different from its geographical distribution as a metal. The United States of America, the United Kingdom, France, Germany, and the western countries of Europe generally, use the largest quantities of gold either for coinage or ornament. The United States are only in part an exception to the statement, as the gold-using states are not the gold-bearing states. Gold is to be found in small quantities in almost every country of the world. In the early ages of the world it probably came mostly from the East,—very likely from the present mines of India: it was next discovered in considerable quantities in South America; then at the beginning of this century in Siberia, in 1847 in California, and in 1851 in Australia. The rediscovery of the Indian mines, and the opening of those in Queensland, were important factors in the production of recent years, but hardly amount to the addition of a fresh area: British Guiana is in the same category; the recently-opened goldfields of South Africa and Canada have added to the known supply.

In 1903, according to tables compiled from U.S.A. mint reports (see *Statesman's Year Book* 1905), the yield of the different areas in order of fertility was as follows:

	Tons.	£ Mill.
Australia	160·54	*17·8*
United States	132·44	*14·7*
Africa	122·37	*13·6*
Russia	44·32	*4·9*
Canada	33·89	*3·8*
	493·56	*54·8*
From all other sources	92·22	*10·3*

The five areas enumerated now provide about five-sixths of the world's annual consumption of gold. South America, once the leading source of supply, is at present quite a minor area; the yield from South Africa increases.

Respecting the amount produced in the past, computations have been made by Dr. Soetbeer which are probably as trustworthy as any such figures can be. He places the production of gold "up to 1600" at 750 tons, and up to 1880 at 10,355 tons, and the stock of gold in the world in 1880 as 9500 tons. But Soetbeer's figures give the total production between 1493 (when America had been discovered) and 1600 as over 745 tons, and there must have been a considerable stock previous to this. The following table exhibits the increase of production of gold.

Annual Average.	Tons.	£ Mill.
1493-1520	5·80	·74
1601-1620	8·39	1·06
1701-1720	12·62	1·60
1801-1810	17·50	2·22
1841-1850	53·89	6·83
1851-1855	194·39	24·64
1856-1860	202·80	25·71
1861-1865	182·20	23·10
1866-1870	188·87	23·95
1871-1875	167·98	21·29
1876-1880	169·69	21·51
1881-1885	152·52	19·33
1886-1890	167	21·17
1891-1895	293·21	32·58
1896-1900	463·05	51·46
1901-1903	530·64	58·97

The annual averages fluctuate considerably. After 1830, when the Russian supply became important, the production increased nearly 50 per cent. In the ten years after 1840 it increased more than threefold: in the next decade, when California and Australia had been opened up, it had been increased again fourfold. There was a tendency in the supply to fall off steadily from that time for more than thirty years; but lately it has again been increased. The output for 1891, over 183 tons, was about equal to that of 1861, and it has since steadily increased to being, in 1903, over 585 tons. As further discoveries are being made in New South Wales, Western Australia, and British Guiana, the supply is not likely to diminish at present. The average annual production since 1848 has probably not been far short of one-tenth of the total production of gold in the preceding 350 years taken together.

Another interesting feature in the production of gold is the comparative fertility of the different areas of supply. Mulhall, taking 500 years to 1880, assigns 21·5 per cent of the total product to Spanish America, 19·7 to the United States, and 17·8 to Australia. But each year alters those proportions, and in 1903 about 23 per cent came from the United States, 27 per cent from Australia, 7 per cent from Russia, over 20 per cent from Africa, as will be seen by the table above.

[The First Report of the Gold and Silver Commission, C. 5099, 1887, quotes Soetbeer's table, and contains the evidence of Mr. Inglis Palgrave and Sir. R. Giffen. The figures for Australia can be found carefully collected in the *Victorian Year-Book* for 1892, pp. 333 *seq.*—Suess, *Zukunft des Goldes* and *Zukunft des Silbers.*] C. A. H.

GOLD AND SILVER WARE. (See HALL MARKING.)

GOLD CERTIFICATES. Twice in recent history the issue of gold certificates has been authorised in the United States. Power was given to the treasury department under the act of 3rd March 1863. They were discontinued by act of 1st December 1878, but again authorised 12th July 1882. These certificates are issued against deposits of gold in denominations of not less than $20 each, and are designed especially for use as bank reserves, and the settlement of clearing-house balances. The issue of these certificates is suspended whenever the gold in the treasury falls below $100,000,000.

[*Finance Report of the United States* for 1882, p. 171.—Compare Blue Book, *Committee on Indian Currency* (Gairdner's Evidence).—C. F. Dunbar, *Chapters on the Theory and History of Banking*, 1891.] D. R. D.

GOLD MINING ROYALTIES. (See ROYALTY.)

GOLD NOTES. On account of the popular prejudice in California to paper money of any kind, banks were permitted to be organised in the United States by the act of 12th July 1870, under the national banking law whose issues were to be redeemed in gold coin alone instead of in legal tender which included greenbacks and silver. In all other principal points, however, these institutions were similar to the national banks found throughout the United States. These banks, of which there were never many, were known as gold banks. By the act of 14th February 1880 authority was given to convert these institutions into national banks of the usual form.

[*Finance Report of the United States*, for 1875, p. 219; also for 1877, p. 155.] D. R. D.

GOLD POINTS IN FOREIGN EXCHANGES. The rates of exchange quoted between any two countries are for drafts or bills of exchange, and the price includes, besides the actual equivalent of the standard coin (*a*), some allowance for interest, according to the tenor of the draft, and (*b*) a premium which the seller demands for the economy and superior convenience of his draft, as compared with a remittance in bullion. This premium is greater or less, conversely to the amount of drafts in the market as compared with the demand for them, but it cannot, in any case, rise much above the cost of remitting coin, nor can it at all exceed that amount for any considerable time. The cost of remitting gold between London and Paris is somewhere about one-half per cent, or 4 per mille, Berlin about 5 per mille, and New York about 5 per mille. Therefore by

adding or deducting this rate to or from the MINT PAR (*q.v.*), we have a rate which is called the "gold point," or "bullion point," and at which bullion will be remitted one way or the other. The gold points on the London exchange with some of the principal countries are (1906)—

London on	Mint Par.	Gold Exports.	Gold Imports.
Paris . .	Fcs. 25·22½	25·12½	25·32½
Berlin . .	Mks. 20·43	20·33	20·52
Amsterdam .	Fl. . 12·10	12·04	12·15
Copenhagen .	Kr. 18·16	18·07	18·23
New York .	$. 4·827	4·867	4·89

These are the rates at which bullion remittances become generally profitable, but, as a matter of fact, gold movements begin before these points are reached, as some business houses with special facilities, or undertaking large transactions, find a profit in remitting gold at much closer rates.

In comparing these with current quotations, regard should be had to the other factor (*a*) referred to above—the allowance for interest. On the London exchange, rates, as usually given, are for three months' or ninety days' drafts, the only exchanges quoted "short" being those with Paris, Amsterdam, New York, and Calcutta.

Care must also be taken to distinguish between rates quoted in foreign money and those quoted in sterling. With France, Belgium, Italy, Germany, Austria, Holland, and the Scandinavian Union, exchanges are quoted in foreign money, at so many francs, marks, florins, etc., to the pound sterling; and, in these cases, the *higher* the quotation the more favourable it is to this country—*i.e.* the greater the amount of foreign money we have to receive. The *lower* gold point is that at which bullion will leave this country. With Spain, Portugal, Russia, India, and China, exchanges are quoted in sterling, at so many pence per dollar, milreis, rouble, or rupee, and the *lower* the quotation the more favourable it is to this country, whilst the *upper* gold point will mark bullion exports.

At some times and places, where a gold standard nominally exists, and the currency consists of inconvertible paper and of subsidiary coinage that is useless for export, the movements of the exchanges are independent of the "gold points," or, it should rather be said that new and fluctuating gold points are set up, governed by the cost of obtaining gold as well as of remitting it. R. W. B.

GOLD, QUEEN. See QUEEN GOLD.

GOLDSMITHS; GOLDSMITHS' NOTES. The date (namely about 1645) at which English goldsmiths extended their operations, from trading in money and the precious metals to a regular system of private banking, can be approximately fixed through a pamphlet entitled *The Mystery of the Newfashioned Goldsmiths or Bankers discovered* (London, 1676). This pamphlet informs us that the goldsmiths had extended their previous business to lending money and to most of the operations of modern banking, their largest advances being made to the king upon the security of the taxes. The goldsmiths allowed interest to those who placed money with them, and the receipts which they gave for these deposits passed from hand to hand as currency in much the same manner as Bank of England notes do now. That this business soon grew considerably is evident from the testimony of Sir Dudley NORTH in 1680, who, on returning from abroad after many years, was greatly astonished at the new practice of merchants and others making payments by drawing bills on bankers, *i.e.* goldsmiths. Hence it will be seen that the goldsmiths, from the middle of the 17th century onwards, assisted greatly to accustom people to the use of a paper currency. As instances of this it may be cited that the Long Parliament in 1649 agreed to accept Goldsmiths' Hall bills, as well as ready money, in payment for the bishops' lands (Scobell's *Acts*, ii. 86); and that in 1696 during the recoinage "all great dealings were transacted by tallies, bank bills, and goldsmiths' notes" (Davenant, *Discourses*, ii. 161). The English goldsmiths of the 17th century in issuing their notes acted on quite a different principle from the continental banks of that date. Most of the continental banks, for example the BANK OF AMSTERDAM (*q.v.*), professed to be merely banks of deposit of coin or bullion, and to hold in this form the full value of the bills issued against these deposits. Our goldsmiths, and the Bank of England following them, purported to give in their bills the equivalent of what they had received, but never pretended to take the deposit for any other purpose than that of trading with it. They did not make their issues square exactly with the deposits of coin and bullion entrusted to them, "but coined their own credit into money." This resulted occasionally in difficulties. The first recorded run on the private banks, or goldsmiths, was in 1667 after the disastrous defeat suffered by the English fleet at the hands of the Dutch at Chatham. Then the stoppage of the exchequer in 1672 seriously affected their credit; even their honesty was impugned; and in course of time it was found that paper money issued on the security of a small number of individuals, could not circulate profitably in competition with that of a powerful joint-stock corporation, such as the Bank of England became in spite of the goldsmith's opposition.

[The most interesting information as to the general banking business of goldsmiths is given in

the pamphlet of 1676 already mentioned (London, 4to, 8 pp.), which is quoted with additional remarks by Anderson, *Chron. Deduct. of Commerce*, year 1645. Also another pamphlet, *England's Glory in the Great Improvement by Banking and Trade*, London, 1694.—W. Cunningham, *Growth of English Industry and Commerce*, ii. 105, 222, 224.—Thorold Rogers, *First Nine Years of the Bank of England*, pp. 6, 21, 70.—Macaulay, *Hist. of England*, ch. xx.—Davenant, *Discourses on the Public Revenues and Trade of England* (1698), i. 265, and ii. 161.—*Mystery of the New-Fashioned Goldsmiths or Bankers Discovered*, 1676, reprinted in *Quart. Journ. of Economics*, Boston, Jan., 1888.] H. de B. G.

GOOD. This word forms a term sometimes used in the British colonies for a paper acknowledgment of a debt—something of the nature of an I.O.U. We have met several instances of such acknowledgments being deposited in cases of unauthorised borrowing from funds under the control of the borrower.

But the most distinctive use of the word was to denote government notes in British Guiana: it takes the form "good-for" in the currency history of the Cape Colony. In the case of Berbice in 1800 and 1809 the Court of Policy issued these notes of various amounts in guilders. Similarly in 1806 in Demerara "goods" secured on the colonial revenue were made a legal tender, and those of private persons competed with them in circulation. In the Cape the term "good-for" was confined apparently to the private note which competed with government paper up to the year 1822. Compare French *Bon, Bon pour*, etc.

[Chalmers's *History of Currency in the Colonies*, *s.v.*] C. A. H.

GOOD DELIVERY. An expression used on the stock exchange. A stock exchange security is not a "good delivery" if it has any defects on its face, *e.g.* mutilation, absence of the proper coupons or of any necessary revenue stamps, irregularity in the number; the name of the owner written on the document when payable only to bearer, etc., and in such a case a purchaser is entitled to refuse acceptance. In cases of dispute the decision of the committee of the stock exchange is conclusive. E. S.

GOOD-FOR. See Good.

GOOD FOR TRADE. "It is good for trade" is a very common popular answer to any condemnation of wasteful consumption or extravagant expenditure. That consumption, whether extravagant or not, of the produce of any particular trade is profitable to the persons actually engaged in that trade is obvious; no one doubts for instance that to break a window is good for the trade of the glaziers. It is hastily inferred from this that extravagant consumption is "good for trade" in general, or profitable to the whole body of producers. But so long as the amount of labour performed and its productiveness remain unchanged, an increased consumption of one sort of produce must be accompanied either by a decreased consumption of another sort of produce or by a decrease of savings. Consequently the expenditure which is "good" for one trade is equally bad for other trades. Whether the extra consumption of one kind of produce is made up for by a less consumption of other kinds or by a decrease of savings makes no difference. Diminished saving is just as "bad" for some trades as diminished consumption is for others; saving is "good" for the trade of all those who produce the kind of commodities which are saved and added to the capital of the country, *e.g.* machinery, factories, railways, ships, and houses. That unusual expenditure in one direction only benefits one set of trades at the expense of others was clearly recognised by many traders after the jubilee rejoicings in 1887, when they found that the extra consumption of the products of other trades was being compensated for by a diminished consumption of the products of their own.

[Comp. Bastiat, *Sophismes Économiques, ce qu'on voit et ce qu'on ne voit pas;* 1. La Vitre cassée.] E. C.

GOODS AND CHATTELS. An ambiguous expression like the word Effects (*q.v.*) which, if used in a will, is generally construed as including the testator's whole personal estate unless the context requires a more restricted meaning. E. S.

GOODS OF THE FIRST ORDER; GOODS OF THE SECOND ORDER. See Production, Instruments of.

GOODS, CLASSIFICATION OF.

(1) Material Goods and Personal Goods, p. 229; (2) Durable Goods (Accumulable or Potential) and Transient Goods (Unaccumulable or Actual), p. 229; (3) Consumption Goods and Production Goods, p. 229; (4) Gratuitous Goods (or Natural) and Onerous Goods (or Acquired), p. 229; (5) Appropriable Goods and Unappropriable Goods, p. 229; (6) Transferable Goods and Non-Transferable Goods, p. 230.

The term goods has been used in a very general sense to denote any object of human desire. One of the purposes of a classification of goods is to provide the data for determining a definition of wealth adapted to economic science. But as hardly any of the objects of human pursuit are without some bearing on the science, there is a more important use in classifying them; namely, to bring out the different relations in which these various objects stand to economic activities. For this purpose it is necessary to consider such distinctions as are important in each of the different branches of the science. Accordingly, goods may be classified (1) from a general point of view; (2) from the point of view of production and consumption; (3) from the point of view of distribution and exchange. Under (1) goods may be divided into material and personal, and into durable and transient; under (2) into consumption

goods and production goods, and into gratuitous goods and onerous goods; under (3) into appropriable and un-appropriable, and into transferable and non-transferable.

1. *Material* goods and *personal* goods.

Material goods are those that depend on the properties and positions of material objects, not including human beings (*e.g.* food, climate, shelter provided by houses, transport of commodities). Personal goods consist of (i) attributes of individual persons (*e.g.* strength, knowledge, skill, a good conscience); (ii) relations between persons (*e.g.* social organisations, the esteem or trust felt by one person for another); and (iii) those benefits conferred by persons on themselves or others which do not involve any palpable change in the properties or positions of material bodies (*e.g.* advice, entertainment, protection, instruction). The act of rendering a utility to a person is called a *service*: a service is material so far as it effects an alteration in material things (*e.g.* cooking of food, cleaning and repairing household goods); while a service is personal which creates a personal utility (*e.g.* advice, instruction). The services of domestic servants are partly personal and partly material.

2. *Durable* (accumulable or potential) goods and *transient* (unaccumulable or actual) goods.

Durable goods are those which, being comparatively permanent, are capable of affording utility or a series of utilities at some future time; while transient goods are the actually realised utilities themselves. Among durable material goods are to be included houses and machines; and among durable personal goods, abilities and knowledge. Transient material goods would include warmth from fires; and transient personal goods would include professional advice and hearing of lectures. Durable goods may generally be regarded as the *potential* sources of *actual* or transient goods. But it is obvious that most of the things that are distinguished as transient goods (*e.g.* instruction) may produce more or less *durable* results; and, on the other hand, that durable goods (*e.g.* coal and food which are destroyed in use) may produce more or less *transient* results.

3. *Consumption* goods and *production* goods.

Man can create or destroy only utilities, not matter. The ultimate object of all economic activity is what may be called the *enjoyment* of utilities. On the other hand, some *sacrifice* of utility in the form of labour or effort is in general a necessary condition for creating utilities. Hence economic science has to take note of two antitheses: viz. (1) between the *destruction* and the *creation* of utilities; (2) between the *enjoyment* and the *sacrifice* of utility. The terms consumption and production would naturally be used to indicate the former antithesis; but, as a matter of fact, they have come to be used with more special reference to the latter. In other words, consumption implies *enjoyment*, whether this is or is not attended by the destruction of utility; and production implies the *sacrifice* of utility, provided this is undergone with the purpose of creating utility. Hence we have the following important division of goods into consumption goods and production goods. Consumption goods (*i.e.* enjoyment goods) are those which, being in the hands of the person destined to enjoy them, can be directly utilised for enjoyment without further expenditure of labour. Production goods, or auxiliary goods, are the unfinished products or instruments intended to be employed in aid of labour which can only be utilised by further expenditure of labour. According to these definitions, commodities in the hands of dealers, though otherwise completely adapted for direct enjoyment, are to be classed as production goods, because they are not in the hands of those destined to enjoy them, and, moreover, are only to be utilised by the labour of shop-attendants, errand boys, etc. On the other hand, a house of residence, even though occupied by some one other than the proprietor, is to be called a consumption good. Of course any durable consumption good is productive in the sense of affording, from time to time, many utilities; and, on this account, such durable consumption goods have been called "consumers' capital." But since the utilities afforded by a place of residence, for example, are direct and not indirect, it is called a consumption good, though in order to preserve its capacity for yielding utilities, it may require repairs and cleaning from time to time. Consumption goods are also called *goods of the first order*; while *goods of the second order* are those used for the direct production of goods of the first order, and so on. These distinctions are, however, not easily applicable (see PRODUCTION, INSTRUMENTS OF).

4. *Gratuitous* (or natural) goods and *onerous* (or acquired) goods.

Goods have also been distinguished according as their capacity to yield utilities is or is not due to human effort. The latter, being gifts of nature, have been called gratuitous; and the former, being acquired by labour, have been called onerous. Thus Ricardo speaks of "the original and indestructible powers of the soil." But it is obviously not easy to draw the line between what is in this sense original and what is due to labour and industrial organisation. For many purposes it would be more convenient to distinguish as gratuitous those goods which have been handed down to the present industrial generation without effort on their part, *e.g.* permanent properties of the soil and inherited personal aptitudes. But in any case the distinction would be difficult to apply with any exactness.

5. *Appropriable* goods and *unappropriable* goods.

In using the term appropriable, it should be explained that what is appropriated in any case is the *opportunity* of benefiting from goods; and this opportunity may or may not be secured by legal authority. Appropriation implies some *limitation* of opportunity; *i.e.* while a single individual or a set of individuals can enjoy the opportunity, others are excluded from it. Possession by an entire political community would, however, not generally be called appropriation. In this sense, such material goods as climate and air, and such personal goods as political and industrial

organisations, may be classed as unappropriable. Some appropriable goods (*e.g.* public roads and buildings, rivers and seas, commons, etc.) are actually unappropriated. Hence among appropriable goods we must make a further subdivision into appropriated and unappropriated.

6. *Transferable* goods and *non-transferable* goods.

Appropriable goods have further to be subdivided into *transferable* and *non-transferable*. The means and limits of transferability depend on legal as well as physical conditions. If one person A is in a position to choose whether he shall confer a benefit on B or on C, such a service may be called *transferable*, whether the transference is effected by contract between A and B or between B and C. Non-transferable appropriated goods are either material (*e.g.* opportunities of using public property or natural gifts) or personal (*e.g.* personal attributes, relations of esteem or trust, titles, honours, and other privileges). Transferable appropriated goods are also either material (*e.g.* opportunities of using goods in perpetuity or temporarily) or personal (*e.g.* benefits directly conferred by one man on another).

[Marshall's *Principles of Economics*, 2nd ed. bk. ii. ch. ii. iii. iv.—Sidgwick's *Principles of Political Economy*, bk. i. ch. iii. iv. v. These two works are specially instructive in regard to economic distinctions of goods. In addition should be mentioned the economic works of J. S. Mill, Senior, Hermann, Bastiat, Wagner, and Nicholson.] W. E. J.

GOODS, Economic. In English the singular noun Good is usually abstract and psychical; it is usefulness, benefit, or blessing. But by the plural (Goods) is denoted concrete embodiments of usefulness, in short, "commodities" (see Commodity), the singular of which word is employed by economists to represent the missing singular of "goods."

As political economy is usually defined by its relation to wealth, and as wealth is defined as a sum of goods, it is clear that the precise definition and the classification of goods are matters of great theoretical importance. The discussions, growing no doubt out of the remarks of Adam Smith on the physiocrats, between Malthus, Ricardo, James Mill, Bailey, Say, and others on the proper line of distinction between productive and unproductive labour, took in later times the form of a debate on the propriety of including "immaterial goods," services, and legal rights among economic goods. The simplest and most intelligible definition of a commodity, a material means, not unlimited in supply, of satisfying human wants, excludes too much; and there is general assent only to the element of limitation, as it seems obvious that goods of which no "economy" is needed are not economic goods.

To consider this question would be in reality to write a treatise on the whole theory of the fundamental notions of political economy, and it will be enough to refer to the authorities below.

[Marshall, *Principles of Economics*, bk. ii. ch. ii. 1890.—Hermann, F. B. W., *Staatswirthschaftliche Untersuchungen*, 1832, ch. iii.; *Die Güter.*—Schäffle, A., *Mensch und Gut*, 1861.—Wagner, A., *Allgem. Volkswirthschaftslehre, Grundlegung*, 2nd ed., 1879, pp. 12-30.—Menger, Carl, *Volkswirthschaftslehre*, 1871, ch. i. and ii.—Böhm-Bawerk, E., *Rechte und Verhältnisse vom Standpunkte der Volkswirthschaftlichen Güterlehre*, 1881.—Wieser, F., Article "Gut" in the *Handwörterbuch der Staatswissenschaften.*—Say, J. B., *Cours complet d'écon. pol.*, 2nd ed., 1840, pt. i. p. 31, ch. i.; *De nos besoins et de nos biens.*] J. B.

GOODWILL,—the expectancy of a continuance, to the advantage of a successor in an established business, of the personal confidence, or of the habit of recurring to the place or premises or to the known business house or firm, on the part of a circle or connection of clients or customers. This expectancy is found to have a marketable value, and may arise from, or be raised in value by, several circumstances, such as the acquisition by the assignee of the sole ownership of the premises in which the old business had been carried on, the assignation to him of existing stipulations in behalf of the vendor, or agreement on the part of the vendor to recommend his successor or to abstain from competition with him. But goodwill in the legal sense, "goodwill without more," or goodwill in the sense of the bankruptcy acts, is restricted to such rights as may pass at law by an assignment of the goodwill without any special stipulation. Under this head will fall the exclusive rights to carry on the old business and to represent that it is the old business which is being carried on, which carry with them the exclusive right to the trade name—if the use of it be not likely to mislead, or be not so used as to mislead the public into a belief that it is the same person who carries on the business or that any of the old members are still in the business—to the trade marks, and any restrictions on others in favour of the business, so long as these are not merely personal, in favour of the original trader. Transfer of the goodwill in the absence of express stipulations leaves the original trader in the same position as any member of the public, free, so long as he does not profess to carry on the old business, to set up a business similar to the one sold, in his own name, where he likes and as he likes, to compete and to solicit old customers publicly or privately, and to represent that he had been a member of the old firm. Goodwill may be voluntarily assigned *inter vivos* as well as bequeathed by will; it is also liable to involuntary alienation upon bankruptcy or insolvency. Where compensation is paid for compulsory purchase of business premises under railway acts and the like, the compensation includes not only the value of the premises, but also as a general rule a sum representing the Goodwill.

[Charles E. Allan, *The Law relating to Goodwill*, London, Stevens and Sons, 1889. Compare Schäffle, *Ausschliessende Rechte;* Böhm Bawerk, *Rechte und Verhältnisse.*] A. D.

GOOGE, BARNABY (1540-1594), published *Foure Bookes of Husbandry, collected by M. Conradus Heresbachius, Councellour to the high and mightie Prince, the Duke of Cleve*, etc., newly Englished and encreased by Barnaby Googe, Esq., London, 1577, 4to. This work was in the main a translation of Heresbachius's *Rei Rusticæ libri quatuor*, etc., Colon, 1570, 8vo; Spiræ, 1595, 8vo; Heidelb., 1603, 8vo. Editions of Googe's work were published in 1578, 1586, 1596, 1601, and 1614, and it became the basis of *The Whole Art of Husbandry in foure bookes*, etc., by Captain Gervase Markham, London, 1631, 4to.

[See notice of Googe, *Dictionary of National Biography*, vol. xxii.] W. A. S. H.

GOSSEN, HERMANN HEINRICH (1810-1858), was born at Düren, then a French village. His father and grandfather were government officials, and he followed the same career, with a want of success which is attributed to his predilection for abstract studies. He is described as amiable and unpractical. He retired into private life 1847; occupying himself first with a project of universal insurance, afterwards with his book entitled *Entwickelung der Gesetze des menschlichen Verkehrs und der daraus flies-senden Regeln für menschliches Handeln*, which was published at Brunswick in 1854.

This work, which had been generally overlooked even in Germany, and is not mentioned in Roscher's History, was brought to light by Professor Adamson, and an account of it was given by Jevons in the preface to the 2nd edition of his *Theory of Political Economy*. It was extremely rare; there probably did not exist a copy in England except one in the library of the British Museum. It was reprinted at Berlin, Prager, in 1889. The work is an attempt to found economics on a mathematical basis, and the author regarded his services in the reform of the method of the science as similar to those of Copernicus in astronomy. We are told by Jevons that Gossen, who had been entirely unknown to him, had "completely anticipated him as regards the general principles and method of the theory of economics," but had been unfortunate in his development of that theory. J. K. I.

Gossen's book contains two elements of unequal value: a somewhat narrow and pedantic application of utilitarian philosophy to politics and ethics, and a very original formulation of the principle of final utility in economics. He starts from the epicurean or utilitarian first principle, "Man wishes to enjoy his life and makes it the aim of his life to raise the enjoyment of his life to the highest possible degree." Gossen maintains in the spirit of Bentham that the object of all men is to obtain the greatest sum of pleasure; in the spirit of Butler that, because this purpose is universal, it must be the design of the Creator. The true revelation given by the Creator is the command, "Man discover the laws of my creation and act according to those laws."

In obedience to this precept we have to investigate the laws of pleasure. They are two. (1) The magnitude of a pleasure continually diminishes up to the point of satiety, the longer we apply a stimulus or pleasure-giving object of constant quantity without cessation (*wenn wir mit Bereitung des Genusses ununterbrochen fortfahren*). (2) There occurs a similar diminution of the pleasure when we repeat the conditions of a pleasure enjoyed before. The initial magnitude of pleasure is less, and the period of enjoyment up to the moment of satiety is shorter.

These laws of our sentient nature are illustrated by diagrams closely resembling those which Jevons independently constructed, except that Gossen prefers to use the simplest form of "curve," viz. the right line. Thus, in the accompanying figure, time is represented by the abscissa (*e.g.* *ad*), and the corresponding magnitude of pleasure by the corresponding ordinate (*de*).

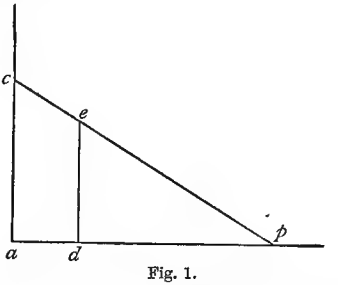


Fig. 1.

The geometrical representation of psychical quantities is defended by the analogy of astronomy, in which science we compute distances of which the direct measurement is impossible. This exaggerated estimate of the mathematical method should be compared with the remarks in the Preface; where Gossen compares his work to that of Copernicus.

Gossen goes on to consider the most advantageous method of employing a given time upon different kinds of enjoyment. He finds that it will be best to leave off each pleasure at a point such that the terminal magnitude of pleasure is the same for each species of enjoyment. This simple principle is worked out by Gossen in considerable detail. Assuming for the sake of illustration the relation between utility and time to be of the simplest, the *linear*, species, he assigns actual numbers, and constructs an imaginary table for the best

employment of a given time (pp. 17-20). He may seem somewhat deficient in the quality of mathematical elegance.

To carry out the purpose of our life we require a knowledge, not only of the laws of pleasure which have been enunciated, but also of the outer world in its relation to our happiness (p. 23). From this point of view there is presented a threefold division of goods (pp. 25-27). The first class denotes articles ready for consumption, *e.g.* an apple, or a coat. The second class denotes materials which require to be worked up before they take a place in the first class, *e.g.* wheat and cloth; also such articles as a pipe, useless without tobacco, a stove, without coal. A third class denotes objects which are altogether of the nature of means; such as fuel used for machines, everything used for production which does not subsist and enure in the finished product.

The law of diminishing utility which was first enounced with respect to time becomes applicable to commodities, primarily those of the first class, and indirectly also those of the second and third classes—if we take quantity of commodity as the independent variable or abscissa, as in the diagram above; the dependent variable or ordinate being, as before, magnitude of pleasure.

We have next to take into account the labour required to produce goods. Gossen's theory of labour is equivalent to that of Jevons, but worked out in greater detail. If, in the

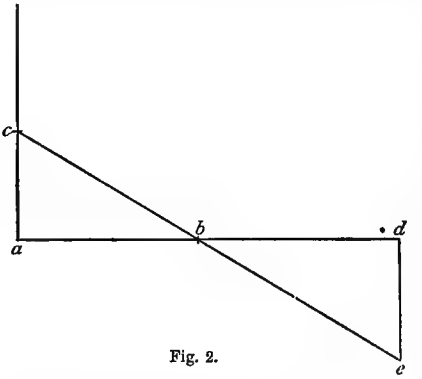


Fig. 2.

accompanying figure (Fig. 2), the abscissa *ad* represents the time during which force is uniformly put forth, the ordinates represent the corresponding utility, beginning with positive pleasure and descending to the pain of fatigue. The same figure serves to illustrate the relation between the quantity produced and the pleasures or pains of production; provided that a constant number of days, or hours, of work goes to a unit of product. But this identity is destroyed, and an additional figure is required when there is a change in what Gossen calls "skill" (*Geschicklichkeit*) or productivity of labour (pp. 40, 42, etc.). The relation between this "skill" and another coefficient described as "capacity for work" (*Arbeitskraft*) forms a nice question of interpretation (cp. pp. 40-42, 48, 53, 58, 64, 73, 108).

The separate representations of the feelings attending production and consumption are ingeniously combined by Gossen. He superposes on the pleasure of consumption the pleasure or pain of work by *reversing* the figure proper to the latter (our Fig. 2); laying down the positive ordinates underneath, not above, the abscissa. The ordinates of the curve *ce* in our Fig. 3 (*Gossen*, p. 39) represent as before pleasure in the way of consumption. The

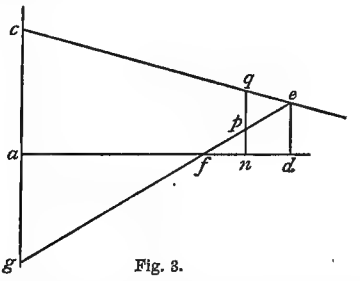


Fig. 3.

ordinates of the curve *ge measured downwards* now represent the pleasure of labour. Thus *ag* is the positive pleasure of production at an initial stage. At the point *f* there is neither pain nor pleasure. To the objective quantity *an* corresponds the negative pleasure, the pain of labour *np*. Hence the total satisfaction derived from *an* is represented by the figure *gegp*. This area is a maximum when the abscissa is *ad*.

This illustration relates primarily to a single product. But it may be extended to illustrate the most advantageous distribution of labour over a variety of employments, the ordinate representing no longer the utility derived from a single source, but from a whole set of objects, in the proportions prescribed by the theory of final utility.

This theory of economic equilibrium, as we might call it, is worked out in immense detail (pp. 40-80). Conclusions tolerably obvious to common sense are enounced with respect to a great number of supposed cases; the enhancement of an existing pleasure (higher pleasure corresponding to the same amount of means), the addition of a new pleasure, either requiring no exertion or derived from labour, a change in "skill," or in "capacity for work," and so forth. Gossen illustrates the conclusions by numerical examples with his usual exhaustiveness.

So far we have investigated the laws according to which the solitary economic man would

regulate his work and pleasures. But in a regime of division of labour there arises the need of exchange. Gossen employs curves of the sort represented in our Fig. 1 in the exposition of a theory of exchange which bears comparison with the constructions of the mathematical economists who have succeeded him. He prettily illustrates the advantages of exchange by the case of two children, one of whom has more bread and butter, the other more milk than he wants (p. 80). Observing that the sum total of utility will vary according to the terms of the exchange, he is led to investigate the arrangement which is productive of "greatest happiness," of which the condition is that the final utility due to the last increment of a commodity should be the same for all persons; a proportion which is extended so as to apply to the distribution of labour as well as commodities. This utilitarian distribution, according to which "each obtains the amount which he can justly claim," tends to be realised in virtue of the correspondence between private and public interest. This sort of "harmony" has not been described more extravagantly by Bastiat (90-100). The realisation of the true paradise is the removal of hindrances to the free play of self-interest.

Before showing how these hindrances are to be removed, Gossen prefixes several miscellaneous theories, some of which may be noticed in the order in which they occur—not a very lucid order.

The theory of rent is investigated by Gossen in some not very inviting symbols. The effects produced on rent by the addition of a pleasure requiring no exertion, by the increase of "skill," and other changes above adverted to, are formulated with characteristic elaborateness (pp. 103-114).

A consideration of the future value of rent leads to a theory of capitalisation, which has some affinities to those which have been propounded by Jevons and by Professor Marshall (pp. 114-118).

Gossen next inquires what are the independent variables, the determining factors of, as we should say, economic equilibrium. His fourfold division of the ultimate elements deserves attention (pp. 120-121).

The next subject which comes up is the measurement of pleasure. Gossen is as sanguine as Jevons about the possibility of constructing demand-curves. He thinks that the mean results thus obtained might serve as a guide to the individual in his efforts to maximise his own pleasure (p. 127).

Among the miscellaneous remarks which follow may be noticed a distinction between necessaries and luxuries: with a fall in price the total expenditure on a necessary decreases, —on a luxury, increases (p. 133 *et seq.*).

Gossen occupies some pages with "verifications," among which he places the proposition that rent does not depend on cost of production. There follows an extensive series of commonplaces (p. 148 *et seq.*) under the head "errors of statesmen and economists."

The "errors" of the moralists are more piquant. Gossen complains that they have disparaged the principle of self-interest. Failing to perceive that "the creation is perfect," they have neglected the motive-power provided by the Creator for his machine. The true religion of the Creator aims at maximising the sum of happiness on the earth. The priests of the true religion are scientific discoverers; its sacraments physical and chemical experiments.

The pedagogues are next arraigned for stereotyping the system of classical education (p. 190).

It remains only to show how to remove the impediments which prevent the law of pleasure being carried out, and earth being turned into a paradise. The "impediments in man himself" are to be removed by a perfect education, of which Gossen prescribes the model. Among artificial or external hindrances is a bad currency, a subject on which Gossen has much to say. He recommends that the state should guarantee the fineness only, not the weight, of the coinage. He disapproves of a legalised rate between gold and silver, speaking with reference to a single state.

Freedom from hindrance does not imply abolition of property (p. 228). But the action of the state must be kept at a minimum. The true church, which is the school, would require no protection.

A system of state-credit or national loan-fund (pp. 239-250), and the nationalisation of land (p. 250), are also recommended.

In conclusion (p. 273) Gossen dwells on the benefits to be expected from the adoption of his recommendations: "*Nothing more is wanted to make earth a paradise*" (italicised in the original).

These speculations appear to be, as Jevons says, of inferior merit. Gossen is guilty of a fallacy to which mathematical economists are peculiarly liable: what may be called the "illicit process" from the principle of utility in economics to utilitarianism in the philosophy of conduct. The logical error is aggravated in the case of Gossen by a certain pedantry and want of humour. His strength lay only in the more mechanical portions of the mathematical theory. He was a man of one idea; but that was an immortal one.

[Preface to the second edition of Jevons's *Theory of Political Economy*, 1879.—*Journal des Économistes*, 4th series, vol. xxx., 1885, p. 68.—*Un Économiste Inconnu*, by Prof. Léon Walras; containing a biographical notice supplied by Gossen's nephew.] F. Y. E.

GOTHENBURG SYSTEM, THE. Spirits are now sold in Sweden, largely also in Norway and Finland, under the "Gothenburg System." From the beginning of the century, the right of distilling brandy had been so identified with land cultivation that a sort of monopoly of a very deadly kind came into existence. Until 1824 there was "unchecked distillation for use of the household." This turned every peasant's home into a centre for the widest and easiest distribution of a very powerful liquor. The results of this "freedom of a necessary industry" were such as to create alarm in every class. In 1830 the long struggle began which resulted in the famous law of January 1855, by which this free household distillation was practically checked. The minimum quantity to be distilled daily at an authorised still must be 300 kans. (The kan = ·5756 gall.) Legal, medical, clerical officials were prohibited from having any advantageous connection with the manufacture, and to the community was given the right to forbid non-licensed traffic in retail form. No liquor legislation ever had greater or more instant effect. In 1853 between 33,000 and 34,000 distilleries were producing above 35 millions of "kans." In 1855 the stills had been reduced to 3481, with a production of less than 10 millions of kans. Further enactments made debts incurred for brandy not recoverable by law, forbade "drinking on credit," etc. Almost every separate provision of the "Gothenburg System" is here *except one*. Each year's reports from country and town made it clearer that the essential parts of this new legislation could be defeated so long as the sale was controlled by private individuals whose profits depended upon the widest possible distribution of brandy. The Gothenburg System meets this difficulty by giving the entire control into the hands of a company that makes no profit from the sales. In October 1865 the first company began its work. The fact that all gains from liquor sales were taken from the private individual and given to the community enabled the authorities to carry out the previous provisions of the law. Sales on credit or for pawn were stopped. Sales on Sundays and holidays were forbidden, also to youths. Food, and a variety of wholesome drinks upon which the seller *can* make profit, must be on hand. The express motive of this legislation to use the profits for the public good is shown in the erection of reading-rooms and coffee-houses in which latter not even beer is sold. The company is steadily extending these benefits beyond the letter of the law. Legally, spirits may be sold to youths of fifteen. The company has extended the age to eighteen. The hours of closing have been reduced from 10 P.M. to 7 in winter, 8 in summer. It does not use all its licenses, nor allow places of sale to be opened in the new quarters of the town. It has reduced the strength of the alcohol from 46 to 40 per cent.

A weakness of the system is the temptation of the commune to use the revenues simply for fiscal purposes. Friends and opponents therefore now demand that the profits of the brandy sales should go direct to the government to be used for the objects which are most closely connected with the evils of intemperance. Norway, especially, has recognised this danger, and is showing interesting results. It is, however, conceded that though "brandy is checked, beer and wine go on apace." The spread of beer drinking, especially in the country, is now so serious as to have brought about an agitation for the company control of beer and wine. A leading Norwegian authority, Director Berner, believes that this final step is only a question of time. Though the "Gothenburg System" has been praised far beyond its deserts, the evidence is irresistible that a very distinct social advantage has been won under its influence.

[Reports that have been published since 1885 by Dr. S. Wieselgrin of Stockholm, now general director of prisons, are of great value, as he is one of the few writers upon this much debated subject who speak without passionate prejudices. An entire summary of his opinions may be found in the *Bericht des III. Congresses gegen den Missbrauch geistiger Getränke*, Christiania, Sept. 1890. This report also contains an admirable paper by H. G. Berner, showing the development of this system in Norway. Both articles are followed by a discussion by those who represent friendly and hostile attitudes toward the system. Important matter may also be found (pp. 55, 61, 66, 116, 121, 156, 383) in the bound vol. of the *Internationale Monatschrift zur Bekämpfung der Trinksitten*, 1891. *Erster Jahrgang*, Bremerhafen, C. G. Tienken.—See *Local Option in Norway*, T. M. Wilson, C.E., Bergen, 1890.—Also Dr. Baer, *Der Alkoholismus*, pp. 442 *et seq.*—Dr. Martins, *Handbuch der Trinker und Trunksuchtsfrage*, pp. 387, Gotha.—Dr. Siegfried Wieselgrin's papers are published in German under the title, *Die Entwickelung der Schwedischen Branntwein-Gesetzgebung von 1835-1885*, Emil Strauss, Bonn. —Special *Report* by J. G. Brooks to Massachusetts Govt. 1894.—*Report of Massachusetts Commission* (House Document No. 192, 1894). Obtainable from members of the legislature.—Dr. Gould's *Report on the Gothenburg System*, Department of Labour. Obtainable from the Hon. Carroll D. Wright, Washington D.C.—Articles in *Forum*, December 1892, Mr. Brooks, and March 1894, Dr. Gould.—Article in *Atlantic Monthly*, December 1893, Dr. Gould.—Article in *Arena*, April 1894, Mr. John Koren.—Bishop of Chester, in *North American Review*, May 1894. Article in *Economic Journal* (British Association), June 1894, Mr. Brooks. For a different view of this question, see articles in Jan. and Feb. numbers (1892) of *Internationale Monatschrift.*] J. G. B.

GOUGE, WILLIAM M. (1796-1863), was born in Philadelphia. He became editor of the

Philadelphia *Gazette* and other journals, and for many years was connected with the treasury department at Washington, and died at Trenton, N.J. He gave special attention to the subject of American money and banking, and his works still remain a principal source of information. He wrote *Short History of paper money and banking in the United States, to which is prefixed an inquiry into the principles of the system, with considerations of its effects on morals and happiness*, Philadelphia, 1833, 2nd ed. 1835, pp. xii., 140, 240. The historical sketch is valuable for the details concerning the organisation of American state banks, and the frauds and abuses associated with their management during a period when there was very lax legislative control. Gouge advised the withdrawal of bank-note issues, and the separation of the fiscal concerns of the government from the banking interest. A portion of this work was republished in England by William Cobbett under the title of *The Curse of Paper Money*. Gouge also wrote *An Inquiry into the expediency of dispensing with Bank Agency and Bank Paper in the fiscal concerns of the United States*, Philadelphia, 1837, pp. 56, in which he advised the establishment of a system of subtreasury offices; and *The Fiscal History of Texas, embracing an account of its Revenues, Debts, and Currency from the commencement of the Revolution in 1834 to 1851-52, with remarks on American Debts*, Philadelphia, 1852, pp. 327. See also in the *Banker's Magazine*, v. 14, July 1859, "The Banks of the United States," pp. 3-9, in which he still insists upon restricting banks to the work of deposit, transfer, discount, and exchange. While employed in the treasury department under Mr. Woodbury, secretary of the treasury, he compiled several valuable reports. D. R. D.

GOULD, Sir Nathaniel (*d.* 1728), merchant of London, was knighted on 14th April 1721. He was a director of the bank of England and member of parliament for New Shoreham, Sussex, from 1700 until his death. He published (1) *An Essay on the Publick Debts of this Kingdom . . . To which is subjoined, An Enquiry into the General Convenience of reducing farther the Interest of our Publick Debts below 4 per cent per annum, in a Letter to a Member of the House of Commons*, London, 1726, 8vo; 2nd ed., 1727; reprinted in 1782, and in Lord Overstone's *Collection of Tracts on the National Debt*, edited by M'Culloch, London, 1857, 8vo. In this pamphlet Gould discussed the sinking fund, showing by the application of the principle of compound interest that it would in course of time more than suffice to pay off the national debt. Gould's work is one of the first in which this argument, which Dr. Price afterwards made famous, is met with. Gould also showed that the debt had been considerably reduced since 1716. His statements were attacked in *A state of the National Debt as it stood Dec. 24, 1716, with the payments made towards the discharge of it out of the sinking fund, etc., compared with the debt at Michaelmas, 1725* [Attributed to William Pulteney and to Archibald Hutcheson], London, 1727, 4to; reprinted in the Overstone collection; and in *Remarks on a late book, entitled, An Essay, etc., In which the evil tendency of that Book, and the Design of its Author, are fully detected and exposed, etc., in a letter to a Member of the House of Commons*, London, 1727, 8vo. Gould replied to his critics in (2) *A Defence of an Essay on the Publick Debts of this Kingdom*, etc., London, 1727, 8vo; reprinted in the Overstone collection. The controversy attracted considerable attention, and was alluded to in the House of Commons, 23rd Feb. 1727-28.

[*Treasury Papers*, lxxiv. 11; lxxxv. 116.—Horsfield, *Hist. of Sussex*, vol. ii. appendix, p. 55.—*Catalogue of Knights.—Return of Members of Parliament*, pt. i. 590, 597, 605; pt. ii. 6, 24, 33, 45, 56, 68.] W. A. S. H.

GOURDE. Standard silver coin of Hayti (divided into 100 cents) of the same weight and fineness as the five-franc piece (see Five-franc Piece). F. E. A.

GOURNAY, Jean Claude Marie Vincent de (1712-1759), the son of a rich merchant of Saint Malo, was sent by his father to Cadiz in 1729 and remained there until 1744, engaged in trade. But the young man's mind was not wholly absorbed in his business; and according to his *Éloge*, by Turgot, the fullest account we have of his life, his time was divided between study and his professional occupations and personal relations. From 1744 to 1746 he travelled in England, Germany, and Holland, carefully noting commercial and naval matters and keeping up a steady correspondence with M. de Maurepas, the French minister of navy. In 1746 his partner died and bequeathed him the whole of his fortune, including the estate of Gournay, from which the title under which he is known is derived. In 1748 Gournay returned definitively to France, purchased in 1749 a *charge* of councillor of commerce, and was appointed in 1751 one of the *intendants* of commerce. Having experienced heavy losses in 1758, he resigned, keeping the honorary title, and died in the following year.

Turgot accompanied him in some of his numerous tours of inspection through France, and sums up the opinions on commerce of his master in the following terms: "M. de Gournay concluded that the only object of the administration should be (1) to give to all branches of commerce that precious liberty . . . which they have lost; (2) to favour industry . . . by promoting the greatest possible competition . . . resulting in the greatest perfection in production and the cheapest price for the buyer; (3) to give at the same time to

the latter the greatest possible number of competitors, by opening to the seller all the markets for his produce" (*Éloge*, p. 19, by Turgot, see *Petite Bibliothèque Économique*). "He deemed it impossible that, in commerce left alone, private interest would not be conducive to the general interest" . . . (p. 12). "He was convinced that the money-trade, whose price is the interest paid on money, can only regulate this price with equity . . . by competition and reciprocal liberty" (p. 21). It is with these views, according to Turgot, that Gournay translated the works of Sir J. CHILD and Thomas CULPEPER (Paris, 1754), adding comments which have been lost. Gournay is generally considered as having embodied the "*Laissez nous faire*" of Legendre addressing COLBERT, in the well-known maxim, "*laissez faire, laissez passer*," but Dr. Aug. Oncken in his *Die Maxime Laissez Faire et Laissez Passer* (Berne, 1886, pp. 60-76) ascribes to the Marquis Voyer d'ARGENSON the first half of the formula. Dr. Oncken also refuses to follow DUPONT de Nemours in ascribing to Gournay considerable influence in the development of the physiocratic system (p. 99) and in considering him as a thoroughgoing free trader (p. 109); in fact the *Observations* which are printed along (pp. 72-90) with FORBONNAIS' *Examen des avantages et des désavantages de la Prohibition des Toiles Peintes* (Marseilles, 1755), and which are thought to be written by Gournay himself, though very strong against prohibition, wind up with the proposal of a tax of 10 to 12 per cent on all printed calicoes imported into the kingdom (pp. 87-89). Still it must be allowed that the transition from absolute prohibition to a duty of 12 per cent means something more than "liberal mercantilism" (*Maxime*, p. 109). Excepting his translations, we possess no authentic writings of Gournay. Several are stated to have been written under his direction. This is undoubtedly true of the pp. 254-268 in the first volume of the *Corps d'observations de la Société d'Agriculture de Bretagne* (Rennes, 1760, see note p. 263). Dupont de Nemours is said to have affirmed that the *Considérations sur le Commerce et particulièrement sur les Compagnies, Sociétés, et Maîtrises*, Amsterdam, in 12mo, 1758) were composed by Clicquot Bervache under "the eyes and with the advice of Gournay," and the copy in the Bibliothèque Nationale in Paris bears the MS. note "par De Gournay" in a handwriting of the last century; but M. de Vroil, who inserts a copious analysis of this pamphlet in his *Étude sur Clicquot Bervache* (Paris, 1870), does not support this opinion. E. Ca.

For Gournay's administrative career see *l'administration du commerce au xviiie siècle* in app. to Biollay's *Pacte de Famine*. Paris, 1885.

GOVERNMENT, ECONOMIC EFFECTS OF. The economic effects of government on society are extraordinarily complex and elusive. In an organic body it is well-nigh impossible to determine exactly the effect which any one organ exerts upon the others and upon the whole. For all the others react upon it. We may ascribe the progress of wealth or of poverty to the working of government, but we cannot be sure how far the government as well as the economic condition of that society is the result of national characteristics and natural conditions. Every general statement respecting the economic effects of different kinds of government must be regarded merely as a rude approximation. Subject to this caution, it may be said that government affects the economic condition of society chiefly in two ways, the one direct the other indirect. The direct economic influence of government is exerted in legislation, in executive action, in the administration of justice, and in foreign and colonial policy. The indirect economic influence of government is the result of its influence upon the character of the people.

I. *Direct economic influence of Government.* —(1) Legislation. Scarcely any law can be framed which will not by a short or long chain of cause and effect produce some economic modification. But a direct economic influence attaches to legislation upon any of the following topics:

(*a*) The law of property determining the modes in which property may be acquired, the restraints imposed on its alienation, the rules of intestate succession, the limits of testamentary power, the degree to which ownership may be subdivided, the incidents of mortgage, the possible kinds of servitudes, the registration of title, and many other subjects.

(*b*) Commercial law, which regulates the making of contracts, the formation and dissolution of partnerships and joint-stock companies, the procedure in bankruptcy, the peculiarities of bills of lading and negotiable instruments, the rights and liabilities of bankers, the protection of patents, trade marks, and copyrights.

(*c*) The law of procedure, which determines in what manner redress for civil or punishment for criminal wrongs must be sought. Its economic influence will vary as it is more or less conducive to obtaining justice in a reasonable time and at a moderate expense.

(*d*) The criminal law, which, by defending liberty of person and security of property, makes industry and commerce on a large scale possible. Its economic usefulness will depend on its being complete, explicit, and severe enough to deter from crime without being so severe as to awaken general sympathy for criminals.

(*e*) Administrative law, which defines the objects of administration, creates the administrative bodies, and regulates their powers and procedure. Under this head may be placed all the laws which deal with national defence, the army and navy, public health, education, the relief of the poor, and the regulation of industry,

whether to protect the producer or to ensure the quality of the product.

(*f*) Financial and fiscal legislation, including all laws determining the standard and denominations of the currency, the incidence of taxation, imposing duties or granting bounties for the encouragement of native industry.

In dealing with the subjects above enumerated the legislator is obliged to consider (1) how much he will bring within the scope of his laws and how much he will leave to individual prudence or virtue; (2) when he is satisfied that legislation is expedient, how much weight should be allowed to purely economic as opposed to moral or political considerations,—in other words, when he should sacrifice the greatest immediate increase of national wealth to promote national security or moral and intellectual progress. The most judicious economists will not maintain that they possess any special knowledge enabling them to give dogmatic answers to these questions. Practical sagacity and political knowledge must determine at any given time the best limit to legislation. Arguments for non-interference based on the natural right of every man to do what he likes, and arguments for interference based on the organic character of the state, do not afford much assistance. The really strong argument for state interference is that co-operation is power, and that the state is the only, or at least the most powerful, co-operative organisation which can be used for certain purposes. The really strong argument against state interference is that it increases the power, in any case enormous, of governments which, under every constitution, monarchic, aristocratic, or popular, are usually composed of very ordinary men, subject to error, to indolence, and to sinister interests.

So, likewise, the choice between the greatest immediate addition to national wealth and some great moral or political gain must be decided, not by the special knowledge of experts, but by broad practical wisdom. But when the legislator wants to ascertain the causes which have resulted in the actual economic condition of society and the extent to which it may be ameliorated by new laws, he may with advantage take counsel of the economist. For such is the complexity of economic phenomena that a new tariff, a new poor-law, or a new regulation of the hours of labour, frequently produces results which its authors never expected and certainly never desired. In order to predict, so far as it is possible, the consequences of economic innovations, special knowledge and habits of scientific analysis are of the utmost value.

(2) *Executive.*—The various forms of administrative organisation and their principal economic effects have been described in another article (see ADMINISTRATION). Here only a few general observations need be added. It is an English tendency to underrate the importance of administration as compared with legislation. For this there are several reasons. Parliament, the assembly which makes laws, is much the noisiest and most conspicuous part of the great machine of government. The administration of national and local affairs has for a long time past been tolerably pure and efficient. Lastly, many things which are elsewhere done by the public administration are here done by private enterprise. Thus we are prevented from realising how much depends on the integrity and efficiency of the administrative body, how terrible may be the consequences where the administrator is inert, corrupt or timid.

(3) *Administration of justice.*—Although the form of the law and the constitution of the courts are settled by the legislature, the quality of the justice actually administered depends on the integrity of the judges, their immunity from intimidation, and their power to enforce their decrees. We hardly realise the importance of the first of these conditions because with us it has been so long fulfilled. But where justice is venal all commercial transactions are affected with uncertainty. There is one law for those who can and will bribe; for those who cannot or will not bribe there is another law. The wrong-doer can escape retribution by dividing his spoil with the judge, and the injured man submits to a loss when he cannot afford to purchase redress. Such a pollution of justice destroys confidence and hope, the mainsprings of industry; and the misery thus engendered may be measured by the eagerness of orientals to find an upright judge. Immunity from intimidation is not less essential than integrity to the righteous dispensation of justice. Judges have at different times been liable to intimidation by powerful individuals —not rare in mediæval England, or by an arbitrary government—as in the reigns of the Stuarts, or by popular agitation, which is the only mode of intimidating that need be feared in western Europe at the present day. In all three cases the result is the same,—the operation of the law is rendered uncertain and the sense of security is deeply wounded. Lastly, there will be little benefit derivable from the integrity or the courage of the courts if they cannot enforce their decrees. Yet this elementary condition of order and economic progress has not been and even now is not universally satisfied in many parts of the civilised world.

(4) *Foreign and Colonial Policy.*—As there is no commonwealth of nations in which each is protected and controlled by an irresistible government, every state must trust to its own strength for the defence of its interests and even of its life. Thus political power is a primary condition of economic development. But nations do not grow into power sleeping. Only by unceasing vigilance, by untiring energy, and

by stubborn fighting courage, can a nation hope to become powerful. War always involves an interruption of industry and a destruction of wealth. But war does not always involve an ultimate economic loss. It may be the only means of securing an economic gain. It has been said that the seven great wars which England waged between 1688 and 1815 left no permanent result except the national debt. It would be far truer to say that the cost of these wars has been returned to England one-hundredfold. They procured for England the free development of her institutions, the supremacy of the seas, the largest share in the carrying trade, a colonial and an Indian empire, —all essential conditions of her economic progress. As founders of English prosperity Wolfe and Clive, Nelson and Wellington, rank with Hargreaves and Arkwright, with Watt and Stephenson. On the other hand, no permanent economic advantage resulted to France from her brilliant victories and European supremacy in the time of the first Napoleon. She sustained grave economic injury in the slaughter of so many of her bravest and most adventurous citizens, in the violent dislocation of her commerce, and in the false direction given to her energies. Thus there is no simple *a priori* rule for determining the economic effect of a foreign policy. Even if such a rule could be found, it would not be sufficient for our guidance apart from moral and political considerations. Colonial policy likewise has an influence upon national prosperity too extensive to be examined here.

II. *Indirect Economic Influence of Government.*—Whatever strengthens the national character and intelligence is economically beneficial. Therefore a political constitution which tends to develop the intelligence and character of the people tends to make them prosperous. In certain stages of civilisation this benefit is conferred by a powerful autocratic government which represses local feuds, breaks down the barriers of local prejudice, and compels a rude population to orderly industry. In other stages of civilisation the same benefit is derived from a large measure of political liberty. Political liberty is indeed a vague term. It means sometimes freedom from foreign domination, sometimes comparative freedom from interference by the national government, sometimes the possession of a vote in deciding who shall govern, and sometimes the right to take an active personal part in administration. But in any or all of these senses it is a means of prosperity to those who are fit to enjoy it.

Foreign domination involves the transference of a certain amount of wealth from the subject to the sovereign community, whether as mere tribute or in discharge of the cost of government and defence; it often involves considerable interference with the commerce and industry of the subject for the benefit of the sovereign community, and it often depresses energy and intelligence by closing or at least narrowing the possibilities of a great career. These disadvantages, however, may be partly lessened, partly compensated, if the dominant people have much to impart to the conquered, whether in better laws and institutions or in improved mechanical appliances or in general intellectual cultivation. The subjugation of barbarous by civilised nations has been one of the principal means of human improvement.

Personal independence, the freedom of the individual, especially the freedom to associate with other individuals for common ends, is essential to the highest economic development. For that development cannot be attained except by a daring, inventive, and original people. Such a people will not submit to unreasonable and vexatious interference, or if it does, it will lose its most valuable qualities. It may continue to be noted for a plodding industry and a minute thrift, but these virtues are not enough to maintain its pre-eminence. The saying that England has been made by her adventurers will be found more or less true of every great commercial community. But even when personal independence has been too much restricted, the possession of a vote and the imagination that one can change the government whenever one has a mind, mitigate the sense of constraint and the consequent loss of energy. Lastly political freedom in the sense of the right to an active participation in public affairs would be highly stimulating to intelligence and character if men generally availed themselves of it. But this is rarely the case in civilised countries, where business, study, and pleasure absorb the energies of ninety-nine citizens in a hundred. It is a common complaint among ourselves that the composition even of the most important local assemblies tends to become worse rather than better. We cannot here consider how far this complaint is well founded. If such a deterioration were real and long continued, it would reduce self-government to an empty form.

[Adam Smith, *Wealth of Nations*, cp. bks. iv. and v.—J. S. Mill, *Principles of Political Economy*, bk. v. and on *Liberty* and on *Representative Government.*—Tocqueville, *Democratie en Amérique*, passim.—Stephen, *Liberty, Fraternity, and Equality.*—H. Spencer, *The Man versus the State.*—Ritchie, *Principles of State Interference.*—Jevons, *The State in relation to Labour.*—Montague, *Individual Liberty.*—Dicey, *Law of the Constitution.*—Sidgwick, *Politics* and *Ethics.*—The literature of Free Trade and Protection generally; and the authorities referred to in the articles on ADMINISTRATION; BUREAUCRACY; CENTRALISATION; LAISSEZ-FAIRE.] F. C. M.

GOVERNMENT REGULATION OF INDUSTRY.

Earlier History, p. 239; In the 19th Century, p. 242.

Earlier History.—It will be convenient for the discussion of this topic to divide the survey into three main periods: (1) From the Norman Conquest to the time of Edward I.; (2) from Edward I. to Elizabeth; (3) from the days of Elizabeth to the decay of the mercantile system at the close of the 18th century.[1] In the first of these epochs interference with industry on the part of the government was considerably less than in either of the other two; the regulation of industry was left largely to local and municipal authorities, and that which emanated from the government may be described as of a personal nature, proceeding chiefly from the initiative of the sovereign. In the second period the whole field of national industry is regarded as under the supervision of the government, though much is still left to local municipal or corporate authority. Regulations became national and even international in character, being enacted for a distinctly national purpose; while in the third period the subordination both of industry and commerce to national purposes and national ends is more and more definitely aimed at. Of course in every period the influence of particular classes, whether landowners, merchants, or manufacturers, must be taken into account, as each class endeavours to modify legislation in accordance with its own particular interests.

I. Before the Norman Conquest, which is here taken as our starting-point, legislation on and interference with industry or commerce were only fragmentary in character. Such regulations as existed were chiefly framed by the king to secure the safety of merchants travelling in his dominions, to promote intercommunication and the proper conduct of trade generally (Cunningham, i. 75, and *Laws of Alfred and Ine*). To suffice for themselves in all industrial pursuits was the aim of the various villages, towns, or districts, though "there is no evidence that the early English villages valued their condition of self-sufficiency so highly as to try to check the development of trade, as had been done by German and Indian communities." Moreover it was perceived, at least by Alfred (*Boethius*, i. c. 17), that the common good depended on the interdependence of the various occupations of industry, and on their harmonious development and working. Royal control consisted chiefly in attempting to secure adequate protection for person and property so that this development of commerce and industry might be efficiently carried on. This royal control, however, became more powerful in many ways with the consolidation of the feudal system in England after the Norman Conquest. That system rested almost entirely on royal authority; industry and commerce were regulated largely, when regulated at all, by royal decisions. The distinguishing mark of feudalism as regards industry is that royal authority supports local and traditional custom, while that custom left very little opportunity for the development of individual enterprise. Agricultural industry was hampered by the manorial system and collective ownership of land (see MANOR; AGRICULTURE IN ENGLAND), while prices both of agricultural and manufactured products were regulated by authority, *e.g.* by the ASSIZE OF BREAD AND BEER, which is considerably older than the reign of Henry II., and by the assize of cloth, which, though found in operation in the 13th century, even then refers to the "old assize of the mystery." The development of industry upon anything like a capitalistic basis was interfered with by the system of taxation, which practically discouraged accumulation by the operation of tallages, aids, and fines levied to swell the royal revenue. It should, however, be noted that at this period industry was only affected indirectly by taxation, for the taxes were (i.) not regular, but levied for special occasions of royal need, and (ii.) they fell not on regular incomes derived from industry or trade, or upon industry itself, but on the hoards of wealth accumulated by the rich in whatever walk of life. Also (iii.) in the case of tolls they represented payment given for royal protection. In other matters the whole conduct of industry was subjected to regulations of a local or private character emanating from the gilds (see GILDS and APPRENTICESHIP), or from municipal authority. Almost the only *general* regulation applying to the whole kingdom may be summed up in the arrangement of a uniformity of weights and measures (see ASSIZE OF WEIGHTS AND MEASURES), the assizes of bread, ale, and cloth, and other points in which the king and his court were directly interested as large consumers.

II. The reign of Edward I., inaugurating as it did the system of government, to some small extent at least, by the aid of the representatives of the nation—the first parliament in which all these representatives were summoned together in *one assembly* met in 1295—also inaugurates, as a result of this change in the method of government, a period when the regulation of industry becomes a matter of national and not merely local concern (see Cunningham, *Growth of English Industry and Commerce*, i. 265). It seems to have been the wish of the government of that day that industry should be regulated in the interests of the nation as a whole; not so much in order to gain national power as to increase the national wealth and to afford plenty to

[1] For later period, see FACTORY ACTS; GOVERNMENT REGULATION OF INDUSTRY IN THE 19TH CENTURY.

the people. There seems to have been also a wish to have definiteness and uniformity in prices and in taxation. In taxation, *e.g.*, fixed customs were levied, the half-mark on each sack of wool and on the *prisa recta* of two tuns on each shipload of wine. Anything beyond this was regarded as an occasional subsidy for a special purpose. This taxation interfered, however, to some extent with industry, for, chiefly in order to facilitate the collection of the customs, the export trade was regulated by the "staple" system (see STAPLE). The export of wool, *e.g.*, was hereby forced into definite channels and allowed only at certain ports by Edwards I. and III., who thus asserted the royal right of controlling trade. In other points it may be said that the Edwards legislated for industry with a view rather to the interests of the consumer than of anybody else, though Edward III.'s encouragement of Flemish immigration, in 1331 and other years, seems to point to a definite plan of increasing national wealth by promoting new industries; and his general legislation for the wool trade is a series of attempts to keep up a high price of wool to foreigners—an attempt largely successful, owing to the almost complete monopoly which England possessed in this commodity. The interference with industry that is marked in the reign of Edward III. by the historically famous First Statute of Labourers (the 25 Ed. III. c. i., A.D. 1351) is strictly in accordance with the spirit of the age in which that statute was enacted. It was the custom of the time to regulate prices by authority, and this interference on the part of the government did not cause discontent. Hence parliament was not enforcing a novelty when, in this First Statute of Labourers, and in many subsequent ones, it endeavoured to regulate the price of labour as well as of provisions and cloth. At the same time it cannot be denied that, owing to the peculiar circumstances of the period succeeding the Black Death (see BLACK DEATH), the legislation in regard to wages of workmen and their right to combine tended to become partisan legislation in the interest of the landowning classes who made the laws. Still we must be careful to observe that these statutes are in the main a fair attempt to regulate prices and wages *together*, so that one should follow the other. Another important object of all labour legislation from the 25 Edward III. c. 1 and the 12 Richard II. c. 4, was to secure a sufficient amount of labour for agriculture, as being the most important industry in the country, and also as being that in which the landowning legislators were most nearly concerned. (For a useful summary of the various statutes of labourers, cp. Thorold Rogers, *Economic Interpretation of History*, ch. ii.). In non-agricultural industries we may notice that in the period from Edward I. to, say, Henry VII., government interference becomes more and more marked, as it is more and more needed, owing to the unsatisfactory manner in which the gild system was now beginning to work, and owing to the great development of the manufacturing industries. In the reign of Richard II. this interference begins to assume the character that afterwards developed into the MERCANTILE SYSTEM (*q.v.*) of Elizabeth and the Stuarts, for it becomes an axiom that commerce and industry are to be regulated with the object of promoting national power through national wealth. Hence we find numerous statutes framed to encourage native shipping—the 5 Rich. II. st. I. c. 3 may be called our earliest navigation act—to attract bullion into our merchants' hands (5 Rich. II. st. I. c. 2), and to protect native industry against aliens (as by the 33 Hen. VI. c. 5 and the 22 Ed. IV. c. 3). Now, too, begins more definitely the era of the CORN LAWS (*q.v.*), whereby government tried to encourage arable farming as against the growing practice of sheep-farming for the sake of wool (cp. 12 Rich. II. cc. 3-7), to secure a large agricultural population (7 Hen. IV. c. 17), and to promote corn-growing by allowing the export of English corn (17 Rich. II. c. 7 and 15 Hen. VI. c. 2), and forbidding the import of foreign grain (3 Ed. IV. c. 2 and 23 Hen. VI. c. 5). In the Tudor period this feeling of a national policy grows stronger, and it is felt that the interest of the individual must be sacrificed to that of the nation, if, by so doing, national power will be increased. As national power seemed to depend upon the growth (1) of shipping, as a feeder to the navy; (2) of population, and especially agricultural population, as a feeder to the army; and (3) of treasure, we naturally find (1) the series of navigation acts continued (*e.g.* 23 Hen. VIII. c. 7, 2 & 3 Ed. VI. c. 19), and (2) the statutes of labourers kept up (*e.g.* 11 Hen. VII. c. 22), and the depopulation of rural districts through sheep-farming or migration to towns severely checked (4 Hen. VII. c. 16 applying to the Isle of Wight). Also (3) numerous acts were passed to secure a large supply of bullion for this country (cp. Cunningham, *Growth of Eng. Industry and Commerce*, i. 387). As the gilds were now decaying and their usefulness decreasing, we find the government reducing them more and more under its authority (1 Hen. VII. c. 5) till Somerset, following the policy of Hen. VIII., completed their ruin by confiscating their lands (1 Ed. VI. c. 14, A.D. 1547). At the same time the power of the gilds, especially of those which represented the working classes, being an object of jealousy to the Tudors, the government was by no means loth to interfere with them (cp. also the re-enactment of laws against combinations of workmen by the 2 & 3 Ed. VI. c. 15, and see COMBINATION LAWS).

III. In the Elizabethan code of regulations for industry we find government interference and the desire for the development of national power very strong. So distinctly was this the case that private interests came to be looked upon almost with disfavour, especially in the case of combinations of workmen (see COMBINATION LAWS). Legislation continues much on the old lines in (1) the Navigation Acts of 1 Eliz. c. 13, 5 Eliz. c. 5, and the more famous Acts of 1651 and 1660; (2) the Corn Laws of 13 Eliz. c. 13, of 15 Charles II. c. 7, encouraging the growth and export of corn, and again by the 35 Eliz. c. 7, which endeavours to force all surplus labour into agriculture, and by all the legislation which followed (see CORN LAWS); (3) the protection and encouragement of native manufactures by prohibiting foreign imports (5 Eliz. c. 7) and restricting the export of raw materials that might be worked up at home (as of wool and live sheep, in 8 Eliz. c. 3), while the consumption of native manufactures is to be encouraged, as by the law 13 Eliz. c. 19, providing that men must wear caps of English make. As regards interference with (4) labour and wages, the legislation of Elizabeth has well been termed monumental, and it continued to operate with practically little change till well into the 19th century. The famous Statute of Apprentices of 1563, the 5 Eliz. c. 4 (see APPRENTICESHIP) had for its objects to regulate wages in accordance with prices by assessment, to encourage good service by checking migration from one employer to another, to secure good work by making apprenticeship compulsory—seven years for artisans and longer for husbandry—and to encourage agriculture by making all those who were not otherwise employed serve in husbandry. It was meant to improve rather than to depress the condition of the labourer, and though afterwards much misused by employers, is a curious monument of kindly meant paternal legislation. This act did not apply to new trades that came into existence after 1563, and therefore these were regulated generally by provisions in the patents given to those who started them. In this code of legislation, however, no provision was made for supervising the quality of manufactures, as had been done in previous times (*e.g.* by the aulnager for cloth; see AULNAGER). Hence we find the state now re-organising companies like the old craft-gilds (cp. Cunningham, as above, ii. 48) or granting to *patentees* rights of search and supervision of particular goods throughout the whole kingdom. This naturally led to monopolies being granted to individuals (see MONOPOLY), and monopolies again came to be a source of revenue to the crown. It must be said, however, in favour of the much-abused monopoly system, so prominent under the Stuarts, that theoretically at least it provided for the government a check upon developments of trade that might prove detrimental to national interests.

The policy of the government in its interferences with industry after the Stuart period, and especially after the revolution of 1688, was to develop the industries of the country in every possible way. In the endeavour to carry out this policy England was only following the example of her continental neighbours, the Dutch and the French, for navigation acts and the protection of native industries were not by any means confined to England. The chief points aimed at by English statesmen of the 18th century were (1) the provision of a sufficient supply of raw material (*e.g.* of wool, and even of woollen yarn, 12 Geo. II. 21), by encouraging imports of such commodities and preventing their export; (2) the prohibition of the import of finished goods into British markets, while *e.g.* even Indian muslins and calicoes were subjected to strict regulations lest they should interfere with our linen trade (see 11 & 12 Will. III. c. 10); and (3) attempts were made to encourage the consumption of home manufactures, partly by sumptuary laws (*e.g.* by the 18 Geo. II. c. 38, and 21 Geo. II. c. 26, which imposed penalties for wearing French cambric or lawn), and partly by compelling the use of British commodities in certain cases (*e.g.* sail-cloth, 19 Geo. II. c. 27). The woollen cloth trade in particular was most carefully encouraged (see Cunningham, ii. 340), though both in manufactures and in agriculture the policy pursued tended to foster merely class interests. But if certain classes persuaded parliament to legislate in their own private interests, as one class in particular constantly did, parliament still believed that it was doing its best for the country. This was specially the case when the landed interest was the largest in the kingdom and when, as in the 17th and 18th centuries, agriculture was the foremost of our industries. But when the industrial revolution made itself felt in George III.'s reign, and the new manufacturing interests became more dominant, English industry outgrew very quickly the various regulations and restrictions originally intended for its benefit. The ASSIZE OF BREAD AND BEER, for instance, had even in 1709 to be revised (8 Anne, c. 18); the assessment of wages was fast becoming inoperative, and by 1795 seems almost to have been forgotten (Cunningham, ii. 359). In fact "the introduction of machinery brought about the collapse of the industrial system of Elizabeth"—a system of wonderful comprehensiveness that had gathered up the tentative legislation of previous centuries and left its mark, both for good and ill, on that of centuries that followed it.

[Cunningham, *Growth of English Industry and Commerce*, Cambridge, 1892, *passim*, the works of J. E. Thorold Rogers.—Ashley, *Economic History*, i. pt. 2. See also articles in this Dictionary on

APPRENTICESHIP; ASSIZE OF BREAD AND BEER; MERCANTILE SYSTEM; MONOPOLY.]

H. de B. G.

GOVERNMENT REGULATION OF INDUSTRY IN THE 19TH CENTURY. The history of state action in England, during the present century, may be divided into two periods. In the earlier, the legislature was anxious to avoid interference with the economic and industrial action of individuals. In the later period, the legislature has become more and more disposed to regulate their activity. It must not be supposed that either tendency has operated at any one time wholly unchecked by the opposite tendency. The repeal of old and the enactment of new regulations have been, to a large extent, simultaneous. Nevertheless, there has been a marked change in public opinion, and in legislation on industrial questions. This change, being necessarily gradual and irregular, cannot be assigned to any one year. But the repeal of the Corn Laws in 1846 may be regarded as the last great achievement of the policy of LAISSEZ-FAIRE. Since then the policy of state interference has been gaining the ascendency. The circumstances of England, in the beginning of the 19th century, were propitious to the policy of removing all restraints on the economic action of individuals. The improvement of machinery was revolutionising commerce and manufactures. This revolution rendered the ancient system of regulation, dating chiefly from the reign of Elizabeth, totally inapplicable. The attempt to control prices and wages, to ensure a proper training of the workman, or a satisfactory quality of products, became more hopeless than ever. The incessant change and expansion of industry impressed reflective minds as some vast natural phenomenon which could not be guided or controlled. The middle class, which had gained so much in wealth and in political power by the industrial revolution, was instinctively averse to state control. Confident in its talent for business, its energy, and accumulated capital, It felt that, with freedom, it was more than a match for all competitors. The current philosophy fell in with the instinct of business men. It was deeply tinged by the optimism of the 18th century. The economic theory of Adam SMITH, and the legislative theory of BENTHAM, are alike pervaded by a belief in the beneficence of nature or of Providence. Nature or Providence, according to these theories, so orders human life that the endeavour of each to secure his own happiness produces, automatically, the happiness of all. It follows then, that, in almost every case, the state does most for the general welfare by allowing everybody to do the best he can for himself. And thus, in the first half of the 19th century, the economic facts of the time, the instinct of the class which was acquiring political predominance, and the philosophical theories generally received among thinkers and statesmen, all tended to reduce the action of the state within the narrowest possible bounds.

The result was seen in legislation. The apprenticeship and combination laws were repealed. The exclusive privileges of corporate towns were abolished. The poor law, which had been expanded into a system of supplementing wages out of rates, was reformed, and became merely a provision for the destitute. The protective tariff was gradually abolished. But whilst the old forms of state regulation were disappearing, the course of events and of speculation were bringing about a reaction in favour of state interference. For, as the new industrial system developed, it was found to produce evils which individual action could not remedy. These evils led to legislation, for workers in factories, as early as the year 1802 (see FACTORY ACTS). The wage-earning class, which has gradually acquired the largest share of political power, has always felt that its strength lies in combined action—not in individual enterprise—and has usually favoured the principle of state regulation. At the same time, philosophical reflection has taken new forms. The belief in the beneficence of nature has given place to the doctrine of the struggle for existence. This doctrine is incompatible with the notion that the general interest is best secured by everybody's endeavour to promote his own interest. Thus philosophers have become more willing to accept the deliberate regulation of industry by an authority which, at all events, professes to represent the whole community. The reaction towards mediæval ideas, expressed in the high church movement, and in the writings of Carlyle and Ruskin, has also contributed to lessen the value formerly attached to individual responsibility and individual freedom. A third influence, favourable to the extension of state control, may be found in the literature and philosophy of the most civilised continental peoples—especially of the Germans. At the beginning of this century the English people, isolated by its long war with France, and proud of its achievements in that war, had touched the highest point of arrogant self-confidence. Englishmen were inclined to regard all imported theories with suspicion, and, if they related to commerce or industry, with contempt as well. All this has been changed. The material progress of other nations has raised their standing in English eyes. The political and economic pre-eminence of England has been much reduced. Increased facilities for travel and transmission of intelligence have made the Englishman more cosmopolitan. The vast space which the action of government fills in such countries as France or Germany, and the audacious theories which it has generated, have made a deep impression on the English mind.

Lastly, the benevolent despotism which we have established in India, with at least a wonderful apparent success, has re-acted on English political ideas, and has recommended state action to many who would not have been accessible to speculative arguments.

The practical result of the change in public opinion, insensibly produced by all these agencies, is seen in the sweeping legislation of the last forty years. During that time the state has extended its activity in every direction. Following up its first hesitating interference on behalf of children employed in factories, the state has taken steps to secure the safety, health, and comfort of persons engaged in almost every dangerous or unwholesome occupation, whether in mines, in ships, or in factories. It has provided a complete system of gratuitous elementary education. In Wales it has organised secondary education, and everywhere it has begun to promote technical education. It has established an elaborate sanitary administration. It has increased the functions of the post-office, acquired the telegraphs, and re-adjusted the rates charged for the carriage of goods by railways. It has augmented the burthen of taxes, and the number of workmen and officials whom it employs. It has enlarged both the duties and the revenues of local authorities. But all that the state has done is little in comparison with that which it is incessantly called upon to do. It is invited to appropriate the "unearned increment" of the land, or the land itself, at least in towns; to acquire all mines; to regulate the hours of labour for all workmen; to secure to them and their families good lodgings at low rents; to feed their children whilst at school; to cater for their amusement; to provide them with pensions when past work; to take over one branch of industry after another, as fast as it can find the requisite capital and organise the requisite staff; in short, to enter upon a course of development which would finally make state action co-extensive with the life of society.

It would be difficult, if not impossible, to attempt an exact estimate of what has hitherto been done in extending the action of the state, or to criticise the proposals for its further extension. Few reasonable men will be disposed to agree with the extreme doctrine of *laissez-faire* inculcated by Mr. Herbert Spencer. They will rather incline to judge each new proposal for state interference upon its merits, testing it especially by means of recorded experience. At the same time they will remember that human nature, whilst capable of gradual modification within certain limits, is, in its main attributes, unchangeable. They will remember that the action of the state is, after all, the action of a number of rather commonplace human beings, and they will be slow to accept any political scheme which puts an enormous strain upon the industry, intelligence, or honesty of those who administer the commonwealth.

[Mill on *Liberty*.—Herbert Spencer, *The Man Versus the State*.—Jevons, *The State in Relation to Labour* (English Citizen Series).—Ritchie, *Principles of State Interference*.—Cunningham, *Growth of English Industry and Commerce in Modern Times*.—Toynbee, *Industrial Revolution*.]

F. C. M.

GRACE, DAYS OF. See DAYS OF GRACE; BILL OF EXCHANGE, LAW OF.

GRADING. In many markets dealings take place without inspection either of samples or bulk, but upon the basis of certain standard qualities or values, and for this a properly organised system of grading is necessary. Whether the bargains are for consumption or speculation it is equally necessary that sellers and buyers should know exactly what it is they undertake to deliver or receive. In the metal trades the requisite uniformity is obtained by assay. Dealings in bullion on the London market are on the basis of the mint standards. The bars delivered are usually fine, but are reduced to uniformity by calculation on assay. In copper most bargains are in "G. M. B." bars—"good merchantable brands" of about 96 per cent, with allowances for difference in deliveries. In pig-iron there are recognised qualities with different prices for brands of different makers. Raw or thrown silk and wool are capable of containing a considerable amount of moisture, which is not apparent to sight or touch, and which materially affects the value in proportion to weight. It is therefore usual to require a certificate from one of the conditioning houses (see CONDITIONING), as to the proper degree of dryness of every parcel. In mineral oils, quality is tested by special associations, and the certificates of the Petroleum Association in London, and of the United Pipe Line in the United States, are the customary basis of transactions.

In proportion as the articles dealt in are less modified by art, the possibility of bringing them to a fixed basis is diminished, and it becomes necessary to grade them by comparison of their actual condition with some more or less definite standard. Thus the great wheat deals in the States are made in No. 1, 2, or 3 quality, and it is alleged that the arbitrary manner in which a farmer's produce may be graded opens a way to great injustice and fraud. Grading or some means of insuring uniformity of quality is essential in all dealings that are to be settled through a clearing house, as all clearing systems are founded upon the principle that delivery by the first seller is acceptable to the last buyer (see also CLEARING SYSTEM, LONDON; PRODUCE CLEARING).

R. W. B.

GRADUATED TAXATION

Meaning of terms, p. 244; History of, in different countries, p. 244; Athens, Florence, Holland, Great Britain, Switzerland, Australasia, New Zealand, Canada, p. 244; Theory of, p. 246; Arguments for, p. 246; Arguments against, p. 248.

GRADUATED TAXATION, TERM. The term "graduated taxation" is commonly used in contrast to "proportional taxation." Proportional taxation implies the same rate on all amounts of the thing taxed, whether it be property, income, or anything else. Graduated taxation generally means that the rate increases as the amount of property, income, etc., increases. More accurate is the term *progressive taxation*. For in a graduated tax the gradation may be either upward or downward. If the gradation is upward we have progressive taxation; but if the gradation is downward, that is, if the tax rate decreases as the income increases, we have what is technically known as *regressive* taxation, or what the French call upside-down progressive taxation (*progression à rebours*). When the tax rate increases up to a certain point, but remains constant beyond that point, the technical term is *degressive* taxation. That is, the proportional rate is regarded as the normal rate, but on all sums counted downward below this limit the rate diminishes. In one sense it is immaterial whether we call the tax progressive or degressive. But in degressive taxation the proportional rate begins at a comparatively low figure and is considered the normal rate, concessions being made for the smaller amounts; while in progressive taxation the point at which proportion begins is generally put higher up, so that most of the assessments are made at varying rates. The term "graduated taxation" is commonly understood to imply progressive taxation. Strictly speaking the English income tax, with its system of exemptions and abatements below £500, is an example of degressive taxation, and therefore of graduation. But when we speak of the income tax being "graduated," we commonly mean not the present system of degression, but a development of the progressive principle. While graduated taxation therefore technically includes progression, degression, and regression, the term will be here used in the sense of progressive taxation.

Another possible source of confusion must be avoided. If a different rate of tax is levied on different kinds of property or income, we speak not of a graduation but of a differentiation of the tax. But if different rates are levied on inheritances or bequests according to the degree of relationship of the heir or successor, the tax is also called a *graduated* or *progressive* tax. In ordinary cases "graduation" denotes a changed rate for altered amounts; in this case it denotes changed rates for the same amounts going to different persons. In the following discussion the term will be confined to the first and more important case.

History of Graduated Taxation.—The earliest example of graduated taxation is found in Athens. The direct tax (*εἰσφορά*), as levied by Solon (B.C. 596), was an extraordinary property tax divided into four classes. The graduation was introduced not by changing the legal rate, but by changing the assessable portions of the property. Thus the highest class was assessed at the full valuation; in the second class only five-sixths of the property was assessed; in the third class only five-ninths of the property was assessed; while the lowest class was entirely exempt. When we hear of the tax again in the time of Nausinicus (B.C. 380) the principle of graduation was still observed, although in a slightly modified form. In Rome we have no knowledge of any graduated taxation.

In the middle ages there are several examples, due to the growth of the democratic spirit, especially in the towns. There are but few cases of graduation in the general state taxes. In France the principle of *le fort portant le faible* brought about an application of the graduated scale to the poll and hearth taxes in the 14th century. But the assessors generally inverted the legal principle and made the poor pay higher rates than the rich. Based on these French laws were the English graduated poll taxes of 1379 and 1380, repeated in 1513 and 1641; and the graduated income taxes of 1435 and 1449. In the German empire a progressive property tax was imposed in 1512 in order "that the poor should not be so grievously burdened."

It is chiefly in the mediæval towns that graduated taxation was employed. We have full accounts of its history in Basel and other German towns during the earlier centuries of their existence. But the originally democratic character of the towns was soon modified by aristocratic and feudal influences; and the system soon actually became one of real inequality, pressing more heavily on the poorer classes. We know that this was the case on the continent; and when the history of English local finance comes to be written, it will probably be found to be the case here also. In some places, however, the democratic spirit asserted itself more radically. This is especially true of the Italian republics, whose condition at the period of their great commercial prosperity resembled those of modern cities very closely. The Italian cities, and especially Florence, are the chief examples of graduated taxation in the middle ages.

In Florence at first a general property tax (the ESTIMO, *q.v.*) was employed. In 1427 this was supplanted by the CATASTO (*q.v.*), or tax on the capitalised value of incomes from movables and immovables, which itself gradually gave way to the *decima*, or tenth, a tax on the income from immovables only (see DÉCIMES).

The principle of graduation was first applied to the *catasto* in 1443, under the name of *scala* or scale. One of the chief reasons of its introduction was the evasion of the proportional tax on personal property by the wealthy, and the hope to re-establish the balance in some sort in this way. But the Medici eagerly seized on this course of reasoning, and soon converted the graduated tax into an engine for ruining their wealthy rivals. The rates varied at different times during the 15th century; some of the more extreme scales were 4 to 33⅓ per cent of the income, and 8 to 50 per cent. The *decima scalata* was one of the causes of Florence's downfall. But it is to be noted that what was begun by the Medici was continued by the democratic government, and that Canestrini, the historian of the tax, expressly tells us that the fault lay not so much in the graduation as in the frequency and burdensomeness of the taxes, and the utter arbitrariness of the whole tax administration. The graduated tax was levied for the last time in 1529.

During the 17th century we hear but little of graduated taxation. In the 18th century we find more frequent examples, until the revolution of 1789 and especially that of 1848 gave the signal for a far more wide-spread application of the principle during the present century.

In 1742 we find a classified income tax in Holland, a progressive income tax (from 1 to 8 per cent) in Prussia. In Geneva the *taxe des grades* of 1789 was levied on a slightly graduated scale. In England Lord North's tax on inhabited houses in 1778 was graduated. This tax was repealed in 1834; reimposed without graduation in 1851. Graduation on a degressive plan was introduced into it again in 1890. The French tax on rental values of 1791 was also graduated, as was the United States national tax on dwelling houses in 1798. In Holland, Austria, Baden, and Prussia we find extraordinary property or income taxes levied on the same principle during the first two decades of this century. The graduated principle was also applied in a modified form in Great Britain in the Triple Assessment of 1798 and in the income tax of 1799, the full charge beginning only with incomes of £200 (after 1803, £150).

From about the middle of this century dates a more decided movement toward graduated taxation in the continental countries of Europe, and the last decade or two have witnessed a decided extension of the movement in other parts of the world, including Australia and America. While important examples of graduated taxation are found in the monarchic countries of Europe, the most radical attempts to carry out the principle are found in democracies like those of Switzerland, and Australasia.

In Germany graduation is found both in commonwealth and in local finance. The new Prussian income tax varies from $\frac{6}{100}$ per cent on incomes of 900-1050 marks to 4 per cent on incomes above 100,000 marks. In Prussia, as well as Saxony and other German states, incomes are divided into a large number of classes, and a definite amount of tax is payable for each class. The rate, therefore, varies slightly between the highest and lowest limit of each class. In Baden the system of *Steueranschläge* is followed, according to which only a portion of the actual assessed income is taxable in each class. In the lowest class (500-600 marks) one-fifth of the lowest income is taxable, while the total income is taxable only when it exceeds 30,000 marks. This is the same principle as that of Solon's tax in Athens. In many of the German towns there also exist graduated income taxes, ranging from 1 per cent to 4 or 5 per cent, and in some cases even to 10 or 12 per cent of the income. The municipal income tax, as a general rule, is based on the same assessment and the same principles as the state tax. There is no separate system of graduation.

In Switzerland graduated taxation of property or income exists in some form in sixteen of the twenty-five cantons, while the progressive inheritance tax is found in six cantons, graduated taxation of some kind existing in eighteen out of the twenty-five cantons. In regard to graduated taxation of property or income there are three classes of cantons: (1) Cantons with proportional property tax but graduated income tax, Ticino, St. Gallen, Thurgau, and Oberwalden. The highest rate of the income tax does not here exceed 4 per cent. (2) Cantons with graduated property tax, Geneva and Glarus. (3) Cantons with graduated property and income taxes. Most of the cantons with a property tax levy an income tax on income not derived from property (Baselstadt and Baselland levy it on other incomes also). The graduation is generally much sharper in the income tax than in the property tax, and the rate is in some cases almost 10 per cent.

In so far as the technique of administration is concerned, the cantons may be divided into four classes: (1) Those where different proportions of the assessed income or property are taxable in each class, as in Zürich. (2) Those where the income is capitalised at different rates in each class, as in Solothurn. (3) Those which change the rate for each class, or fix upon a definite sum to be paid by each class. This is true of most cantons. In general a definite rate or sum is charged upon the entire income or property. But a few cantons, like Basel, Zug, Schaffhausen, Aargau, and Vaud, assess the stipulated rate upon each successive increment of the entire amount.

There are many interesting but minor points of difference which it is impracticable to dwell

upon here. But the tendency is toward the spread of the principle of graduation and the increase in the scale. The graduated inheritance taxes are found in Bern, Solothurn, Thurgau, Zürich, Uri, and Schaffhausen.

Graduated income taxes are found also in the local taxes of Belgium and Holland, in the national income tax in Holland, and to a certain extent in Denmark and Sweden. In England outside of the degression in the income tax, graduation is found only in the death duties (see DEATH DUTIES; TAXATION), and in the present INHABITED HOUSE DUTY. In France and Austria the chief instance of graduation is seen in the rental or occupancy tax.

In Australasia we find in most of the colonies graduated inheritance taxes, ranging from 1 per cent to 10 per cent (and in Queensland even to 20 per cent). Here are seen not only the highest graduated inheritance taxes in the world, but also the highest graduated property and income taxes. The most recent act is that of 1891 in New Zealand, which, as lately amended, graduates the land tax from 1d. to 3d. in the pound, according to the value. Graduated property taxes are found also in some of the other colonies.

In the United States the income taxes levied during the civil war were sharply graduated, ranging up to 10 per cent. The income taxes levied by the Confederacy ranged from 5 to 15 per cent, and, in the case of corporate incomes, to 16⅔ per cent. Graduated income taxes were also formerly levied in Virginia. To-day a slightly graduated income tax is still levied in North Carolina. The taxes on corporations are graduated in several of the states, as in Maine (where the excise tax on railways varies from ¼ of 1 per cent to 3¼ per cent of the earnings), Vermont, Wisconsin, Michigan, etc. There is now a strong movement looking toward the adoption of the graduated principle in inheritance taxes, and bills to that effect are pending in several states. In Canada graduated inheritance taxes have recently been introduced in Ontario and Nova Scotia.

Theory of Graduated Taxation.—Graduated taxation has been upheld on three grounds which may be termed, for want of better names, the socialistic, the compensatory, and the economic arguments. The socialistic theory has been advanced, not only by socialists proper, but by economists of repute, like Adolf Wagner, who are opponents of socialism in general, but who propound this particular argument under the name of the socio-political theory. They distinguish between the "fiscal" and the "socio-political" periods in public finance. In the last period, which is now beginning, government must regard it as a duty to bring about a more equitable distribution of wealth, and therefore to interfere with the so-called rights of private property. It is the ethical or social reasons which justify graduated taxation. This argument may, however, be unconditionally rejected. Although in all fiscal policy there is an undoubtedly social element, this must not be confounded with the socio-political or socialistic element. From the principle that the state may modify its strict fiscal policy by considerations of general national utility to the principle that it is the duty of the state to redress all inequalities of fortune is a long and dangerous step. If the equalising of fortunes were an acknowledged function of government, it would be useless to construct any science of finance. There would be only one simple principle: confiscate the property of the rich and give it to the poor. This argument for graduated taxation is not very strong.

What is called the compensatory argument has been advanced by writers like Royer in France and General Walker in the United States. The latter, *e.g.*, states that differences in wealth are due in no small degree to the failure of the state in its duty of protecting men against violence and fraud; and that they are in a measure due to the acts of the state itself for a political purpose. Since therefore inequality of wealth is in a measure due to the state's acts of omission or commission, allowance should be made for it in the tax system; and this can best be done, theoretically at least, through graduated taxation. The objection to this theory is that it furnishes no standard. If graduation is *per se* unequal, it is impossible to correct one inequality by another unless it can be shown that the second will in every respect fit into and counterbalance the first. The test is impracticable.

Similar to this, but of somewhat greater force, is what may be called the "special compensatory" argument. This upholds graduation in some one particular tax, on the ground of its acting as a counterpoise to other taxes. Indirect taxes, *e.g.*, it is claimed, often hit the poor harder than the rich; hence the regressive indirect taxes must be counterbalanced by progressive direct taxes, like a graduated rental tax, or a graduated income tax, etc. Proportional taxation is still the ideal, but the departure from proportion in one direction must be met by an equal departure in the opposite direction. Some ultra-conservatives, like Leroy-Beaulieu, advocate graduated taxes for this reason.

Arguments for Graduated Taxation.—The most important of these are what may be called the economic arguments. They turn about the general theories as to the basis of taxation. The older doctrine of taxation was that of benefits. Since protection was deemed the chief benefit conferred by government, taxes were regarded as insurance premiums paid for enjoyment of security. Hence, it was argued, taxation should be proportional to the property or income protected. Some writers, however, maintain

that the benefits to the individual increase faster than his property or income, since most public expenses are incurred to protect the rich against the poor, and therefore that the rich ought to pay not only absolutely but relatively more. Others have said that certain state expenses confer a proportional benefit on all, but that many kinds of governmental outlay have a special value for the rich. Others confessed that the benefits of state action are theoretically enjoyed by all, but maintained that practically the benefits accrue only to the wealthier classes. Others finally tried to prove mathematically that protection increases faster than property or income. A million pounds belonging to one man is in greater risk of being stolen than the same amount distributed among ten men. Hence the insurance premium ought to be higher. All these writers, arch-individualists as they were, therefore were forced to demand graduated taxation, which other individualists branded as arch-socialism.

These arguments for progressive taxation are not very strong, and if there were space it might easily be argued that if protection or benefit is to be the test of taxation, the scale should be graduated downward not upward. But it is unnecessary to do this, because the whole benefit theory of taxation has almost everywhere been abandoned in favour of the faculty or ability theory. Since individuals do not pay taxes in the ratio of the protection of the state, the arguments, whether of proportion or of graduation, founded on this theory are equally inconclusive. The give-and-take theory of taxation has been replaced by the faculty theory.

According to the faculty or ability theory, every man should contribute to the public burdens according to his ability. But does ability connote a proportional or a graduated tax? Originally taxation of faculty denoted a proportional tax on property, then a proportional tax on income. Already in the 18th century, however, the so-called "clear income" theory was developed, according to which only that part of income which exceeded what was necessary for existence was declared taxable. The minimum of existence was exempted. It is readily seen that if a definite sum is always exempt, the resulting tax would not be strictly proportional, but graduated, as to the whole income, although it would be proportional to a certain excess of income.

The original concession was soon broadened. Not only the satisfaction of absolutely necessary wants but the satisfaction of all wants now became the watchword. In other words, the idea of burden or sacrifice was introduced. Faculty or ability to pay taxes was declared to be measured by that proportion of income the loss of which would impose upon the individual an equal burden or sacrifice with his neighbour. All wants vary from the absolutely pressing wants of mere subsistence to the less urgent wants which can be satisfied by luxuries. The sacrifice involved in giving up a portion of what enables us to satisfy our necessary wants is very different from the sacrifice involved in giving up a portion of what enables us to satisfy our less urgent wants. In order to impose equal sacrifices we must tax the rich not only absolutely, but relatively, more than the poor. That is, the tax must be not proportional but progressive. It is simply an application of the final utility theory of value to taxation.

It may indeed be confessed that this theory does not logically result in any mathematically exact scale of taxation. The imposition of equal sacrifice on all tax-payers must always remain an ideal impossible of actual realisation. Sacrifice bears no absolutely definite relation to amount of commodities. No calculus of pains and pleasures can suffice. Moreover, the sacrifice occasioned by a tax, even if it were absolutely measurable, is only one factor in the problem, and may in individual cases be a minor factor. So that it is utterly impossible to say whether the identical tax on people of identical income will produce the same relative pressure or occasion an equal sacrifice. The attempt to ascertain a mathematical scale of progression must necessarily fail.

Nevertheless graduated taxation may be upheld on the faculty theory. For the elements of faculty are twofold, those connected with acquisition or production, and those connected with outlay or consumption. Now as regards the first set of elements, the possession of large fortunes or large incomes in itself affords the possessor a decided advantage in augmenting his possessions. A rich man may be said to be subject in some sense to the law of increasing returns. The more he has, the easier it is for him to acquire still more. From this point of view faculty may be said to increase faster than fortune or income. This element of taxable capacity would not illogically result in a more than proportional rate of taxation.

On the other hand, the elements of faculty which are connected with outlay or consumption bring us back to the sacrifice theory. Now while the sacrifice theory is not sufficient to make us demand any fixed scale of graduation, it cannot be claimed that it leads necessarily to a fixed proportion. If we never can reach an ideal, there is no good reason why we should not strive to get as close to it as possible. Equality of sacrifice, indeed, we can never attain absolutely or exactly, because of the diversity of individual wants; but it is nevertheless most probable that in the majority of normal and typical cases we shall be getting closer to the desired equality by some departure from pro-

portional taxation. If we take a general view and treat of the average man—and the state can deal only with classes, that is with average men—it seems probable that on the whole less injustice will be done by adopting some form of graduation than by accepting the universal rule of proportion. A strictly proportional rate will make no allowance for the exemption of the minimum of subsistence. It will be a heavier burden on the typical average poor man than on the typical average rich man. It will probably be more severely felt, relatively speaking, by the average man who has only a small surplus above socially necessary expenses, than by the average man who has a proportionally larger surplus.

Hence if we base our doctrine of the equities of taxation on the theory of faculty, both the production and the consumption sides of the theory seem to point to graduated taxation, as at all events lacking in neither logic nor justice.

Arguments against Graduated Taxation.— The arguments against graduated taxation are of two classes—theoretical and practical. In the first class the following are frequently urged :—

1. Graduated taxation is arbitrary and uncertain. This is true in a sense, but it proves too much. For an uncertain rate, if it be in the general direction of justice, is nevertheless preferable to a rate which may be more certain but less equitable. A stability which is unjust is not preferable to an instability which works in the general direction of what is recognised as justice. It is possible that the ostensible certainty of proportion may involve a really greater arbitrariness.

2. Graduated taxation is confiscation, because it must end by swallowing up the whole capital. This objection may be completely obviated by making the graduation itself degressive, so that it would become impossible to reach 100 per cent or any like percentage of large fortunes.

3. Graduated taxation is unprofitable, for the yield will be no greater than with proportional taxation. This, even if true, is no valid objection. For it assumes that the state desires to obtain larger revenues, whereas in reality it desires simply to attain greater justice. If graduation is theoretically more equitable than proportion, the given amount ought to be raised by the first rather than by the second method. If indeed graduation involved a positive loss of revenue, the case would be different. But this has been claimed by no one.

4. Graduated taxation acts as a check to industry and saving. This objection would apply only to such an excessive scale as would swallow up the entire surplus of income—and such a scale has never been known or even proposed. For if the receiver of the larger profits, after paying the graduated tax, is still in possession of a larger net income than his neighbour who with a less product pays relatively less taxes, there is no reason why he should cease to produce or accumulate. He will indeed be less wealthy than before, but his surplus will still be greater than if he stopped production. The objection is applicable to the abuse, not the use, of the principle.

The practical objections to graduated taxation are of greater weight. These are :—

1. Graduated taxation tends to augment fraud. Even under the proportional system property and income taxes in most countries, as actually administered, are honeycombed with fraud. The larger the property or income, the greater the opportunity and inducement to undervalue and conceal. The increase of the rates through graduation is apt to greatly accentuate the tendency. The greater the ostensible equality, the greater the real inequality.

2. Graduated taxation will lead to an exodus of capital. This is true only on the assumption that the system is not a universal but a particular one. If a graduated scale is applied in one town only, or in one province or commonwealth only, the tendency toward migration of capital to a neighbouring town or province will be perceptible. The larger the area of the tax system, the less the inducement to migration. But the tendency is always present although its force has often been exaggerated.

3. Graduated taxation, unless applied to the entire property or income, may work practical injustice. In the English local rates, *e.g.*, holding A may be worth more than holding B, but A may be owned by two persons and B by only one. Or the owner of the smaller holding B may have a hundred other small holdings in other parts of the town or country, while the owner of A has only that one. A higher tax on A, because it is the larger holding, would make the poorer man pay more than the richer man. Graduated taxation of property would here involve absolute injustice. The same would be true of many land taxes, of the property tax as administered in the United States, and of the income taxes in those countries where the assessment is made not on the entire income, but, as in England, separately in different schedules. This objection would not apply to cases of actual general income, or general property, or general inheritance taxes. And it is therefore chiefly in these forms of taxation that the most recent application of the graduated principle has been made. But whenever the tax is of a partial character—and this is frequently the case—graduation would be inadmissible and practically dangerous.

While, therefore, graduated taxation is on the whole defensible as an ideal, and as the expression of the theoretical demand for shaping taxes

to the test of individual faculty, it is a matter of considerable difficulty to decide how far, or in what manner, the principle ought to be carried out in practice. Theory itself cannot determine any definite scale of graduation. And considerations of expediency, as well as the uncertainty of the inter-relations between various parts of the entire tax system, should tend to render us cautious in advocating any general application of the principle.

[All the general works on the science of finance discuss this problem. For special studies see Seligman, "The Theory of Progressive Taxation" in *Political Science Quarterly*, vol. viii. No. 2.—more fully, Seligman, *Progressive Taxation in Theory and Practice*, 1894, where a complete bibliography may be found.—Cp. also Sax, "Die Progressivsteuer" in *Zeitschrift für Volkswirthschaft, Socialpolitik und Verwaltung*, 1892; Condorcet, *Sur l'Impôt progressif*, 1792.—Meyer, *Die Principien der gerechten Besteuerung*, 1883.—Neumann, F. J., *Die progressive Einkommensteuer*, 1874.—Scheel, *Die progressive Besteuerung*, in Zeitschrift für die gesammte Staatswissenschaft, vol. 31 (1875).—Vauthier, *De l'Impôt Progressif*, 1851.—Cohen-Stuart, A. J., *Bijdrage tot de Theorie der progressieve Inkomstenbelasting*, 1891.—Bastable, C. F., *Public Finance*, 1892, bk. iii. ch. iii. "The Distribution of Taxation." For the United Kingdom and the alteration in graduation of the death duties made by Sir W. Harcourt's Budget of 1894, see TAXATION.

For Switzerland in particular, see R. H. Inglis Palgrave, "Progressive Taxation as levied in Switzerland," in *Journal of the Royal Statistical Society*, 41-225, 1888).—Foreign Office Report No. 267, Miscellaneous Series, 1892, *Report on the different systems of graduated Taxation in Force in Switzerland.*—"Text of Property Tax of Canton Vaud" in *Quart. Journal of Econ.*, 1887-88.—Cohn, "Income and Property Taxes in Switzerland," *Pol. Sci. Quart.*, 1889.—Schanz, *Die Steuern der Schweiz*, five vols. 1890.—Prof. Greven, "Fiscal Reform in Holland," *The Economic Journal*, 534-540, 1893.] E. R. A. S.

GRAHAM, SIR JAMES GEORGE ROBERT (1792-1861), was born at Netherby, in Cumberland. He was educated at Westminster and Christ Church, Oxford; and in 1813, as private secretary to the British minister in Sicily, took part in the negotiations with Murat at Naples. After his return to England he entered upon a political career, and was returned for Hull in the whig interest in 1818. He was a close student of political economy, and now translated its principles into practical action on his father's estate. In the civilisation of the borderland and the improvement of agriculture, he did excellent work. Small tenants, who mainly lived by poaching, were replaced by thrifty industrious farmers; the breed of stock was vastly improved; cottages and farm buildings were rebuilt, and drains were introduced, large tracts of marshy land being thereby reclaimed. Under young Graham's guidance, Netherby farming gained a high reputation among agriculturists. As the result of his studies in political economy, Graham published in 1826 his pamphlet entitled *Corn and Currency*. In this treatise, which gained wide circulation, the writer demonstrated the futility of the efforts made by government to regulate by law the price of money and the price of goods. He also showed that there was an intimate relation between the corn laws and the currency, and his conclusions, as a whole, favoured free trade and free banking. He also took an active part in reforming the system of county finance. Graham succeeded to the baronetcy in 1824, and in 1826 was elected liberal member for Carlisle. In the ensuing year he was returned for Cumberland, and in matters of finance and commercial legislation associated himself with the enlightened policy of Huskisson. Economical reform early attracted his attention, and in 1830 he made his mark in the House of Commons by his motion for the reduction of official salaries, his reputation being further increased by an attack on the salaries received by privy councillors. As an advanced reformer, he was offered by Lord Grey the post of first lord of the admiralty, which he accepted, and was one of the committee of four to whom was entrusted the preparation of the first Reform Bill. While at the admiralty, Graham rendered essential service in reforming the finances of the department. Soon after this, however, he began to recede from his position as a reformer. His last attempt at economical reform was the introduction of a bill for reforming the exchequer office, which was rejected in committee. Graham's abandonment of liberal principles lost him his seat for Cumberland, but he found a refuge at Pembroke. Joining the conservatives, in 1841 he became home secretary under Sir Robert Peel. While retrograde in many matters, Graham cordially supported the free-trade policy of Sir Robert Peel. He expressed his conviction that the duty on imported corn must be abandoned, adding that "the sliding scale would neither slide nor move, and this was its condemnation." Graham supervised the measures adopted for the relief of the Irish famine, and particularly the administration of the poor law. He went out of office with Peel in 1846, and in the succeeding year was returned to the new parliament for Ripon. After the death of Peel in 1850, Graham was the leader of the small but distinguished band of Peelites, and he consistently opposed the tory efforts to restore protection. In 1852 he was elected for Carlisle, and on the formation of Lord Aberdeen's coalition ministry he returned to his old post at the admiralty. He again set himself to the task of securing administrative efficiency and economy. After the fall of the Aberdeen government Graham retained his office in the

ministry as reconstituted under Lord Palmerston, but he resigned in February 1855. Graham was haughty in demeanour, and his speeches, though sometimes brilliant, lacked spontaneity; but he was an able administrator and a model chairman of parliamentary committees.

[Torrens's *Life and Times of Sir James Graham*, 1863.—*The Times*, 26th October 1861.—*Annual Register*, 1861.] G. B. S.

GRAMONT, SCIPION DE, seigneur de Saint Germain, born in Provence during the 16th century, died, it is believed, in Venice about 1638. He was ordinary secretary of the royal closet under Louis XIII.

His *Denier Royal, traicté curieux de l'Or et de l'Argent* (Paris, 1620) is dedicated to M. de Schonberg, superintendent of the finance of France, and is written to prove that "France is one of the least oppressed (*foulé*) kingdoms of the world, and that the king does not so much burden his people as the general outcry might induce people to suppose" (p. 199). His main position is that "gold and silver, which measure the price of all things, have lost much of their former price and value by the great plenty of them which we now have" (p. 72). "The price of money, although it measures the price of other things, is not itself fixed and stable, but changes, rises and falls according to its plenty or scarcity" (p. 119). "It must be admitted that within the last century more than nine hundred millions of gold and silver have passed through the gate of Spain and entered Europe, spreading as they were attracted by the labour and industry of the different nations" (p. 136). Gramont's conclusion is that if the taxes are nominally higher than in former times, they are not so really, for "as the great quantity of gold and silver . . . has lowered their price, it is necessary that the number (of coins) should compensate (their loss of) value" (p. 262).

Gramont also clearly sees that "debtors have won what their creditors have lost" (p. 125). He, however, clings to the traditional opinion that "money does not take its value from the material out of which it is made, but from its form, which is the mark of the prince, and which could bestow value on any vile and abject matter" (p. 13). This opinion, repeated p. 18, does not agree very well with the rest of his argument.

[See Cossa, *Introduction to the Study of Political Economy* (Eng. Trans., p. 175, ed. 1893).] E. Ca.

GRAND LIVRE (Fr.). The register of the public debt of France, created under a decree of the 24th August 1793, in 229 articles, by which all the existing debts at that time were consolidated in a five per cent stock. The Great Book was to form the sole and fundamental title of the creditors of the state, and holders of scrip of all public debts—national, provincial, or communal—were required within a given time to produce their claims, the amount of which was inscribed to their credit nominatively and alphabetically. All titles to bearer were suppressed, and the measure facilitated the confiscation of the property of the church and the *emigrés*. Art. 24 of the decree declared that the interest or *rentes* due to the churches were suppressed to the profit of the republic, which would thenceforth provide for the expenses of public worship. Art. 94 ordered the extinction of all sums due to *emigrés* after payment of claims of their creditors. The total amount of the debt consolidated was 2,556,060,000 frs. in capital, and 127,803,000 frs. in *rentes* or interest. A new *Grand Livre* was created in 1797, when two-thirds of the debt were virtually repudiated, holders receiving a fresh inscription of consolidated thirds, the other two-thirds being paid off in assignats or national bonds of fictitious value. After this operation the inscribed debt, further reduced by annullations, amounted to only 40,216,000 frs. in *rentes*. Subsequent borrowings down to the present time have necessitated the opening of other sets of books, but the formula is still retained and loan bills invariably commence with the words, "The minister of finance is authorised to enter on the *Grand Livre* a sum of *rentes* sufficient to produce a capital of," etc. (see RENTE). T. L.

GRANGERS AND GRANGER LAWS. In 1867 a national secret organisation, known as the Patrons of Husbandry, was formed in the United States. Although its membership was nominally confined to those engaged in agriculture, it grew very rapidly. A local society was called a "grange"—whence the generic term. As granges, these bodies were forbidden by their constitution to engage in political discussions, but were encouraged to advance the interests of farmers along the lines of co-operation, economies in purchases, and an increase in the diversification of crops. In the south and west the Grange movement became active, and established banks, insurance companies, co-operative stores, grain elevators, and warehouses. Although a non-political organisation, it promoted anti-monopoly legislation, particularly against railroads, with a view to lower freight-rates, thus securing as was thought, a freer market for grain. Laws fixing maxima freight and passenger rates were passed in Illinois, Iowa, and Minnesota, popularly known as Granger laws. Although subject to much criticism on the ground that they were unconstitutional, they were sustained by the United States supreme court. The Granger movement declined after 1875, and the granges have retained little influence, save in some sections as social centres in farming villages. (See FARMERS' ORGANISATIONS IN THE U.S.)

[The early history is described by C. F. Adams, Jr., in the *North American Review*, 120 (1875): 394, and the later history by C. W. Pierson, in the *Popular Science Monthly*, 32 (1887): 199, 368.] D. B. D.

GRANT, JAMES (later part 18th century), entered the service of the East India Company in 1769, was made chief sherishtadar, keeper of records, under the board of revenue of Bengal in 1786, and in 1799 was still in the company's service. He wrote *An Inquiry into the Nature of Zemindary Tenures in the Landed Property of Bengal*, 1790, to show that zemindars were officials, not proprietors of the lands which they held, as payment for their services in collecting dues from the peasants, of the sovereign, the sole landowner. His views, though new at the time, have been accepted in the main.

Grant was an expert in local revenue questions, and wrote an *Historical and Comparative Analysis of the Finances of the Subah of Bengal*,—an *Historical Analysis of the Revenues of the Northern Circars*, and an *Historical Analysis of the Revenue of Bengal* (see Appendix to *Fifth Report of Select Committee of the House of Commons on the affairs of the East India Company*).

[Appendices to 2nd edition of *Zemindary Tenures*, 1791.—*List of the company Civil Servants*, 1799.—*Extracts from Harington's Analysis of the Bengal Regulations*.—Grenville's *British India Analysed*.—M'Culloch's *Literature of Political Economy*.] E. G. P.

GRANT, SIR ROBERT (1779-1838), son of Charles Grant the East Indian Director, was a barrister, a member of parliament in 1826, 1830, and 1831, judge advocate general in 1832, and governor of Bombay in 1834. A man of great and versatile ability, he wrote (1) *The Expediency Maintained of Continuing the System by which the Trade and Government of India are now regulated*, and (2) *A Sketch of the History of the East-Indian Company from its first Formation to the Passing of the Regulating Act of 1773*, both published in 1813; and (3) *A View of the System and Merits of the East-India College at Haileybury*, a speech published in 1826. The first of these works is an account of the company's government, and an argument adverse, on political and commercial grounds, to its abolition.

[*Gent. Mag.*, Dec. 1858 (age incorrect).—*Dict. of National Biography*.—*East India Register*, 1835, ii.—*Times*, Oct. 19 and 23, 1838.] E. G. P.

GRAPHICAL OR GRAPHIC METHOD. We have shown in the article on DIAGRAMS how a table of statistical figures may be represented by a curve.

This method of representation, which is much used by engineers and by experimental scientists generally, is now thoroughly established in statistical investigations of economic phenomena.

As was well said by Playfair, the earliest writer to employ this method systematically (who declares his indebtedness to his brother for its conception), when publishing his first book in 1785, we may compare the clearness of expression thus obtained, as contrasted with the difficulty experienced in grasping the same facts when expressed in a table of figures, with a map of the course of a river. This method gives, as is obvious, a much clearer idea of the country traversed than would be afforded by even the most detailed schedules of the latitude and longitude of places through which it flows.

The accompanying diagram (fig. 1) which was published in the *Times* of 2nd February 1893 shows how the fall in the price of wheat during the year 1892 is represented graphically. A single glance at this curve is sufficient to enable the mind to grasp not only the general fact of a fall in price, but also the varying rapidity of that fall in different months, and the slight temporary checks in its course.

It is clear, on a very slight consideration, that no greater accuracy can be obtained in the graphic representation than is afforded by the tables of figures on which it is based, and indeed the curve is less accurate than the statistical tables, unless it be drawn both on a large scale and with great care.

In spite of this, however, it is likely to prove far more fruitful in directing the attention to the salient features of the phenomena represented than the method of tabulating the results in schedules of figures.

In considering such a curve as that which represents the changes in the price of wheat (fig. 2) during a long period of years, the suggestion is obvious that the repeated rise and fall may be due to the operation of causes varying in intensity in different years, but recurring at regular intervals.

If the intervals between successive maxima or minima were of equal length, this conclusion would be a fair one, and it might be possible to extend the curve hypothetically so as to foretell with some degree of certainty future variations.

Such regularity is not to be found in general, owing probably to the intermingling of the effects of many causes recurring in periods of different duration.

It is possible, however, to eliminate some of the fluctuations by drawing a second curve in the manner shown in fig. 2.

In this figure the heavy line shows the variation of the annual average price of wheat, while the thin line gives the six year averages of the same prices.

If there be any cause recurring at intervals of six years, and in that period producing variations of equal amount evenly distributed on either side of the average, so that its effects, if plotted out by themselves, would give a curve regularly repeated at six-yearly intervals, the process of averaging would entirely eliminate these effects, and would leave a curve showing the effects of all other causes when this one

Fig. 1.—Price of wheat per quarter in 1892.

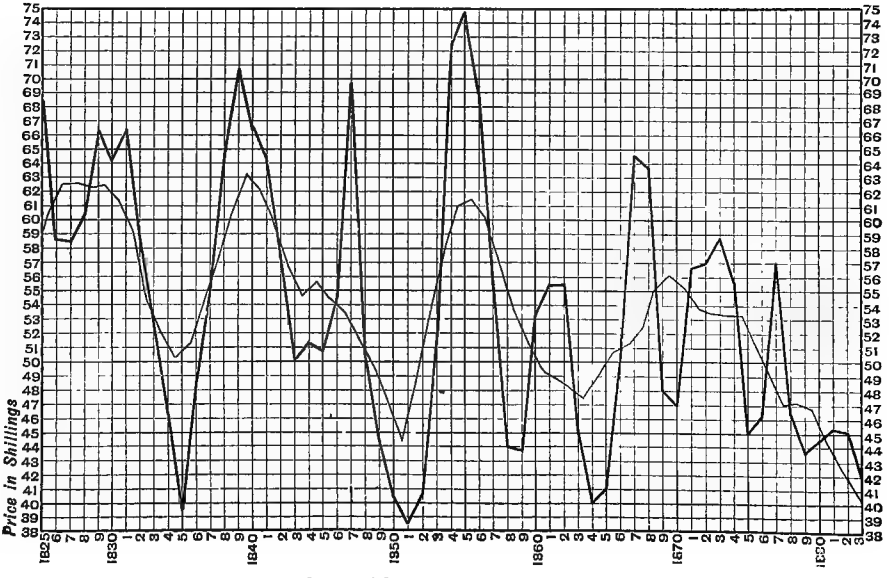


Fig. 2.—Annual and sexennial average price of wheat per quarter, 1825-93.

was omitted. Fluctuations in other periods would be represented on a reduced scale, and those, if there be any, whose period was nearly six years, would be almost completely unrepresented. A three-year or ten-year average would similarly eliminate the effects of other causes repeated at corresponding intervals.

Since the whole variation may be regarded as compounded of variations due to many periodic causes, the repeated application of this device may afford valuable information as to the nature of this complex mixture.

This subject has been carefully investigated by Prof. Poynting, whose paper on the subject in the *Statistical Society's Journal* for March 1884 is most valuable and instructive.

One obvious advantage of this smoothing process is illustrated in the above diagram, where the somewhat violent rise of price in 1847, which was not maintained, and may have been due to extraordinary causes of a temporary nature, is productive of but slight effect in the sexennial average curve, and similarly for the sudden fall in 1870, and for the rise in 1860-62.

The fluctuations of the thin curve are much less irregular than those of the thick line, and suggest a regular variation of longer period. A triennial or decennial average might afford further evidence of such a variation, which is masked in the annual average.

The comparison of two or more curves showing the variations of different phenomena, some-

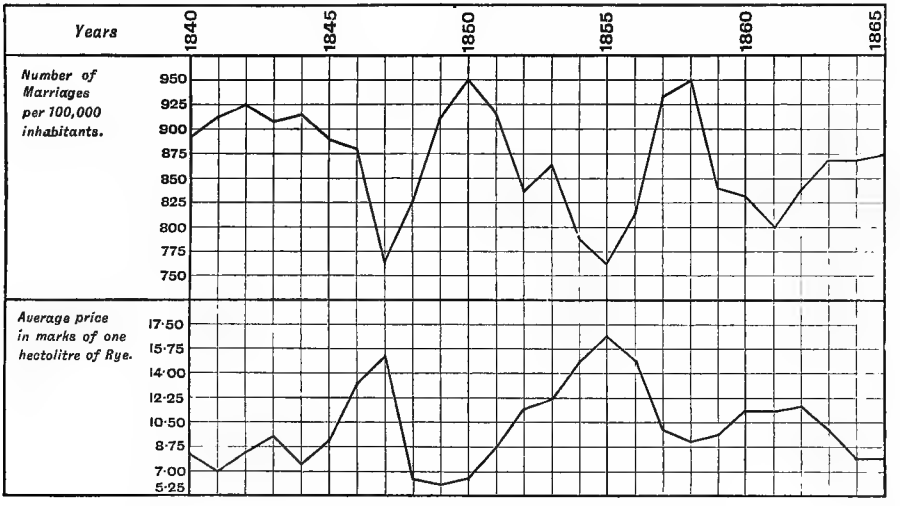


Fig. 3.—Marriage-rate and price of rye in Prussia compared, 1840-65.

times reveals a striking similarity between such variations.

Fig. 3 is a case of such comparison, which is given in Meitzen's work on statistics. In looking at the two curves side by side, it is difficult to avoid the conclusion that in Prussia, during the period 1840-65, the price of so prominent an article of food as rye, regulated in a very powerful measure the possibilities of marriage among the peasants. In other countries, and at other times, the price of food appears to have been but one among several influences of importance, and the agreement between the corresponding curves is in general less marked.

The method of comparison here illustrated has been employed by numerous investigators. Jevons's work on *Commercial Crises and Sun Spots* (in his *Investigations in Currency and Finance*) is one of those best known, and a remarkable agreement is shown between the variations of commercial prosperity and the maxima and minima of spots on the solar surface. Jevons suggested that the terrestrial weather was affected by these sun spots, and thus, through variations in the harvest, the business world was subject to their influence. It is, perhaps, hardly possible at present either to affirm or deny the truth of the connection, and it is necessary to remark that variations in different phenomena due to entirely unconnected causes may show, for considerable periods, a marked resemblance, which resemblance may be found to entirely disappear in the further history of the facts compared.

Very interesting comparisons between the changes in the prices of wheat, cotton, and silver have also been made, regarding which it should be noticed that, assuming the variations to be similar, the conclusion may be that all are due to causes so connected as to produce effects similar in kind or degree, while, on the other hand, it may be that the variation in one has been the cause of the variations in the others.

In making comparisons between two curves

such as those just referred to, it is desirable to choose such a scale for each that the range of variation is similar in both, otherwise the correspondence may be entirely overlooked. As an example of this we may take the diagram (Fig. 4) given by Prof. Marshall in the jubilee volume of the *Journal of the Statistical Society*, comparing the consumption per head of tea and sugar in the United Kingdom for the years 1860 to 1883. The consumption of sugar is represented in pounds, while that of tea is represented in two curves in pounds and ounces respectively. The comparison of the consumption in pounds would appear to indicate a much more rapid increase in the use of sugar than in that of tea, while the close correspondence between the two rates of increase is evident on comparing the consumption of tea in ounces with that of sugar in pounds.

The method we have illustrated up to the present of representing statistical tables, though that most generally employed for economic purposes, is by no means the only one used. For representing the frequency of winds in different directions, lines may be drawn from a point of such length as to represent, on a scale

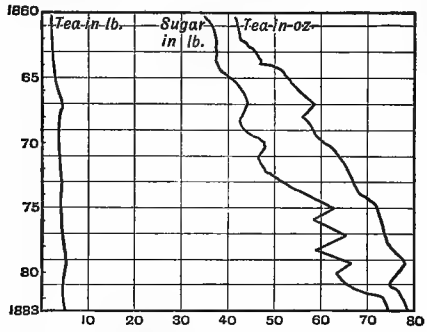


Fig. 4.—Consumption of tea and sugar per head of population in United Kingdom.

agreed on, either the frequency or the intensity of winds from that quarter. The curve which connects the extremities of these lines will express the facts required in a manner hardly possible by such curves as we have used above.

A similar mode of representation may be used to express other facts, as is illustrated in Fig. 5, which is a curve due to M. Janssens, expressing the variations in the death-rate, at Brussels, of children less than a year old and of those less than a month old.

The latter rate is represented by the small inner curve, the former by the outer one. The circle in each case expresses the average for the whole year, and where the curve falls inside it, the rate is less than the average, while in the blackened part, outside of this circle, we have represented the death-rates in excess of the average. The mode of representing time is

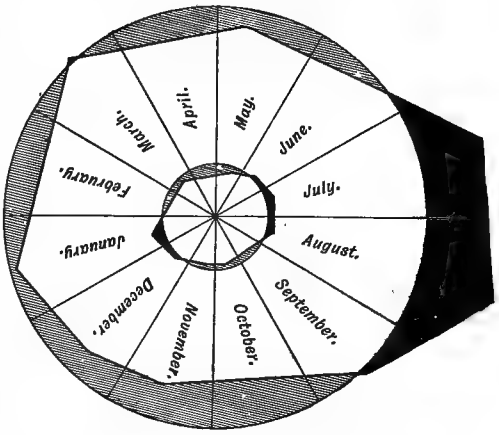


Fig. 5.—Infant mortality in Brussels.

clear from the figure, which shows that the latter part of the summer is that in which the infant mortality of Brussels is highest among children of less than one year old, while the rate exceeds the average among the very young infants both in the winter months and in the middle of summer.

It appears that this method should be especially suitable for the representation of phenomena which recur with some regularity year by year, and should enable the comparison between successive years to be made with much greater ease than is afforded by the curves of the early part of this article.

It is clear that the methods of representation referred to thus far are only adapted to display the simultaneous variations of two quantities, *e.g.* time and price. If it be required to represent the variations of one phenomenon with those of each of two co-existent causes, a surface is the suitable representation, rather than a curve on a plane.

The construction of such surfaces is so difficult that, in general, we are compelled to satisfy ourselves with a series of sections taken parallel to one or other of the three planes of reference.

A very ingenious attempt to represent the changes of economic phenomena, by the use of suitably-shaped figures having three dimensions in space, has recently been made by Dr. Irving Fisher called Stereograms. The description of the devices of this writer would require more space than can be given here, and the reader must be referred to the memoir entitled "Mathematical Investigations in the Theory of Value and Prices" in the *Transactions of the Connecticut Academy*, vol. ix., July 1892.

We can only say here that Dr. Fisher has devised a mechanical apparatus for showing how various prices are altered by a change in the supply of purchasing power, or by a change in the conditions of demand or supply of one of the commodities concerned.

Among modes of representing on a plane the shape of a solid figure, besides that of drawing a series of sections, we have the method of employing a graded series of tints or colours, the deepest tints corresponding to the highest parts of the surface or to its lowest parts at choice.

This method is now very commonly employed for the construction of maps. It is easy to see that a plan of a town which shows every street and house will, by the larger or smaller proportion of its surface occupied by lines indicating the presence of houses, reveal at a glance the comparative degree of crowding of dwellings in its different parts, and a reduced copy, so small as not to show the independent tenements, would still, by the variations in shading, show the varying density of population, so far as the crowding together of dwellings represents that density. The grading of tints shown by such a plan, may be employed for other purposes. Professor Ashley, for example, in his *Economic History*, vol. i. pt. ii. p. 304, employs such a map to show the localities which were more or less extensively occupied by enclosures in the 15th and 16th centuries.

It is obvious that differing tints of the same colour may be replaced by different colours, should such a mode of representation appear more desirable, the significance of each colour being indicated in the margin of the map or diagram.

Another method is to draw contour lines through those points on the plane where the surface, were it constructed, would always stand at the same height above the plane. A series of such contour lines gives a very fairly accurate representation of the shape of the surface. The lines of equal barometric pressure or of equal temperature on weather charts, or the lines where the soundings show equal depth on a chart of a sea or lake, are examples of the mode of representation here referred to.

Charts or maps which show, by any of the methods just named, the statistical variations of the physical or social phenomena of the districts represented, are known as CARTOGRAMS. A simpler though less effective method of indicating such variation, is to place the actual numbers referring to each district in the centre of the space on the map which represents it.

To the comparison of various quantities by drawing squares, circles, triangles, or other figures of such sizes as to be proportional in magnitude to the quantities to be compared, reference has already been made in the article on DIAGRAMS. In regard to these later modes of graphic representation, which are here discussed very briefly inasmuch as their theory is not a matter of difficulty, and in reference to the whole subject, the articles and books quoted may be consulted, and also, among other writings, the articles "La Statistique Graphique," by M. Levasseur, and "On the Graphic Method of Statistics," by Prof. Marshall, in the jubilee volume of the Statistical Society;[1] also Marey, *La Méthode Graphique*. Wm. Playfair, *Lineal Arithmetic, a Real Statement of the Finances and Resources of Great Britain*, etc.,—*Lineal Arithmetic or Charts of Commerce and Revenue*.

A. W. F.

GRASLIN, LOUIS FRANÇOIS DE (1727-1790), was from 1757 *Receveur Général des Fermes* in Nantes, where he left behind him the reputation of an enlightened and zealous administrator. His name, in token of public gratitude, has been given to one of the *places* in that town.

Graslin was a steady and consistent opponent of the tenets of the PHYSIOCRATS on the subject of the PRODUIT NET (*q.v.*) and the consequences they deduced from this principle and applied to taxation. His first work, *Sur l'influence de l'impôt indirect sur les biens fonds*, was written in 1767 in answer to a prize question put, under the influence of Turgot, by the *Société Royale d'Agriculture* of Limoges; the first prize was awarded to M. de PÉRAVY,—who was a follower of the physiocrats in their doctrine on the *produit net*,—and a *mention très honorable* was given to Graslin. Turgot answered by a criticism of Graslin's essay which has been reprinted in the large edition of his *Œuvres* (Paris, 1844, vol. i. p. 439).

Graslin also published his *Essai Analytique sur la Richesse et sur l'Impôt*, Londres, 1767, designed to prove two propositions: "the first, that the produce of land is wealth even when there is no *produit net*, namely when the cost of cultivation is equal to the value of the produce, and the second, that industry, which employs raw material produced by land, is wealth intrinsically, as well as land in its productive capacity" (p. 11). On the subject of taxation he writes: "Not only do the taxes which are improperly called *indirect* [meaning those which are not assessed on the rent of land] not necessarily fall on the landowners, but it is even possible that a tax directly levied on land may be indirectly paid by other contributors" (p. 230). He often quotes the example of Holland, and proclaims the superiority over real and personal taxes of taxes on consumption (p. 303), although he admits that things of first necessity ought never to be taxed (p. 310).

Graslin is by no means a despicable controversialist, but, as was observed by Dupont de Nemours (*Œuvres de Turgot*, i. p. 416, ed. 1844), he spoils his work by "a slight affecta-

[1] For a good example see *Return with Diagrams showing the Consumption, from 1861 up to the latest date, of Tea, Coffee, Cocoa, and Chicory, of Alcoholic Beverages, and of Tobacco, compared with the increase of population*, 329, Treasury, 1894. See also reference to stereogram in MARRIAGE RATE, also to diagram in MATHEMATICAL METHOD OF POLITICAL ECONOMY.

tion of metaphysics," and his language is often wanting in precision and accuracy.

As Graslin's work preceded the *Wealth of Nations* by nine years, it has been thought that he might have attended the course of lectures delivered by A. Smith in Edinburgh from 1751 to 1754. There is, however, no proof that this had been the case. The fact that his work bears *Londres* on the title-page does not even render it certain that he had ever been in London.

[*Correspondance Contradictoire entre M. Graslin, de l'Académie Économique de Saint Pétersbourg . . . et M. l'Abbé Baudeau, auteur des Ephémérides du Citoyen, sur un des Principes fondamentaux de la Doctrine des Économistes* (London, 1779).]

E. Ca.

GRASWINCKEL, Dirck, born 1600, studied law, became, 1645, "advocaat-fiscaal der grafelykheids-domeinen in Holland" (advocate-fiscal of the count's domains in Holland), died 1660 at Mechelen (Malines). Besides his political writings he gained great renown by his economical work: *Placaetboek op het stuk van de Leeftocht* (Collections of Edicts on the subject of Food), Leyden, 1651. The 1st part is merely historical, the 2nd, critical; it deals principally with (*a*) the question of export of corn, whether this should ever be forbidden or not. Government, he says, has a right to forbid it in periods of very high prices and famine, when every country has to take care of itself in the first place; but in other cases export ought to be free; (*b*) the question of forestalling. Though dealing in corn is to be permitted, forestalling should not be allowed.

His love for free trade in respect of exports does not prevent him from advocating import duties as a means of raising the price of corn. Like Boisguillebert, he looks on a high price of corn, although resulting from this cause, as a sign of national well-being. A. F. v. L.

GRATUITOUS UTILITY. Bastiat divides utilities into those which are *gratuitous* and those which are *onerous*, the former being free gifts of nature, while the latter directly or indirectly involve effort in their acquisition (see Goods, Classification of). It is assumed that whatever is gratuitous in the above sense is also common to all. This distinction leads up to Bastiat's characteristic doctrine that value is the relation of two services exchanged. Very briefly the argument is as follows. No one will give anything in exchange for that which can be obtained gratuitously by a mere act of appropriation; hence the phenomenon of exchange-value can arise only in connection with onerous utility. But the recipient of an onerous utility is saved an effort, and when an effort is saved a service is rendered. Hence any exchange of onerous utilities is in effect an exchange of services. This position that the source and measure of value are to be found entirely in the *services* which are embodied in onerous utilities has, as Cairnes observes in his well-known essay on *Bastiat*, "the unmistakable ring of an axiom of natural justice." "*Services pour services*"—what can be more just? We have a manifest "economic harmony." Unfortunately the term *service*, as used by Bastiat, is highly ambiguous. There is throughout more or less confusion as to whether services are to be measured by the effort exerted by the man who performs the service, by the effort saved to the purchaser, or by the usefulness of the service; and this constitutes a fatal flaw in the argument. Another fundamental distinction of Bastiat's—that, namely, between value and wealth—is based upon the distinction between gratuitous and onerous utilities. Gratuitous utilities cannot from their nature possess exchange-value. They are, however, regarded by Bastiat as very important constituents of wealth. The counter theory, which identifies wealth with value, is declared by him to be the glorification of obstacles; since, if through some revolution in nature those things which are now produced with toil and sacrifice could be obtained gratuitously, they would on this view cease thereby to be wealth. This is not the place in which to discuss the question here raised, which is one of admitted difficulty, particularly in connection with the measurement of wealth (see Sidgwick, *Principles of Political Economy*, bk. i. ch. 3). It may, however, be pointed out that whatever definition of wealth be adopted, political economy has comparatively little concern with gratuitous utilities. To a great extent they do not admit of appropriation, at any rate by individuals; if appropriated, they are still not made the subject of exchange; and they are not the produce of human labour. Hence there arise no economic problems relating either to their production or their distribution. But, on the other hand, even if they are technically excluded from wealth, the economist is bound to attach importance to gratuitous utilities whether as factors in the production of onerous utilities or as rendering the production of onerous utilities needless.

[On the subject of this article, see Bastiat's *Harmonies of Political Economy*, translated by P. J. Stirling, 1860.] J. N. K.

GRAUMANN, Johann Philip (1690-1762), who in the year 1750 became master of the mint of Frederick the Great of Prussia, had formerly been a merchant in Holland, and carried into his official capacity a shrewd, business-like turn of mind. He established the Prussian monetary system, *preussisch Courant*, of coining fourteen instead of twelve thalers out of one mark of pure silver, in order to prevent the outflow of Prussian currency. In his *Versammelte Briefe von dem Gelde, Wechsel und dessen Curs, von der Proportion zwischen Gold und Silber, von dem Pari des Geldes und den Münzwesen verschiedener Voelker*,

besonders von dem Englischen (Collected Letters on Money, Bills, and the rate of Exchange, the proportion between Gold and Silver, and the monetary systems of various Nations, chiefly of England), which were published in the year of his death, Graumann displays an unmitigated contempt both for "mere savants" and for "mere masters of the mint," although he uses the learned terminology of the former, even in the simplest questions, and generally has in view the aims of the latter. Graumann points out that it is not by any means a matter of indifference whether the rate of exchange is against or in favour of a nation. He finds only three faults in the English monetary system: the abolition of seigniorage, the prohibition to export English coins, and the over valuation of gold.

[See Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 420, also Dana Horton, *Sir Isaac Newton and England's Restrictive Policy towards Silver.*]

E. Ca.

GRAUNT, JOHN (1620-1674), statistician, was one of the earliest English writers to perceive the importance of vital statistics, and to deduce therefrom by scientific methods propositions with regard to the social and economic condition of the country. In 1662 he published a pamphlet in 4to (pp. 16 and 85) which immediately attracted much notice and commendation. It was entitled *Natural and Political Observations, mentioned in a Following Index, and made upon the Bills of Mortality*, by John Graunt, citizen of London. *With Reference to the Government, Religion, Trade, Growth, Ayre, Diseases, and the several Changes of the said City.* He tells us (see *First Ep. Ded.*) that he had "reduced several great confused volumes [of the *Bills of Mortality*] into a few perspicuous tables and abridged such observations as naturally flowed from them into a few succinct paragraphs, without any long series of multiloquious deductions." On the publication of his work, which bore on its title-page the modest epigraph: Non me ut miretur turba, laboro, Contentus paucis lectoribus, it was at once recognised that Graunt had opened up a new and fruitful field of investigation, and, at the king's suggestion, he was elected F.R.S. On 30th June 1665 the council of the Royal Society ordered that the book should be printed for the use of its members. Accordingly a third edition (London, 1665, 8vo) and a "fourth impression" (Oxford, 1665, 8vo) were published. Two years after Graunt's death in 1674, Sir William PETTY brought out a new and enlarged edition (London, 1676, 8vo), a fact which may perhaps in some measure account for the mistake of Evelyn, Burnet, and Stoughton, that Petty was the real author of the work. It was reprinted by Birch in 1759. Graunt especially deserves notice as one of the "beginners of an art not yet polish'd, and which time" would "bring to more perfection" (Davenant). He also published *Observations on the advance of Excise.*

[Graunt's Life, *Dictionary of National Biography.*—The *Assurance Mag.* and *Journal of Inst. of Actuaries* contains a discussion as to the attribution of Graunt's researches to Sir W. Petty. *Vide* articles by Professor de Morgan, and Mr. W. B. Hodge; and by Mr. F. Hendriks *s.v.* Tontines; W. A. Bevan's "Sir W. Petty," *Am. Econ. Assoc.* 1894, review in *Econ. Journal*, March 1895.—Lord Ed. Fitzmaurice, *Life of Sir Wm. Petty*, 1895.]

W. A. S. H.

GRAY, JOHN, LL.D. (18th cent.), assistant private secretary to the Duke of Northumberland in Ireland in 1763-64, wrote *The Essential Principles of the Wealth of Nations*, etc., 1797, noticed in the *Monthly Review; Practical Observations on the Union*, London, 1800, 8vo; and *The Income Tax scrutinised*, London, 1802, 8vo. In the latter, called forth by Pitt's income tax, land is maintained to be the proper object of taxation, and land banks are advocated, with state development of agriculture and the fishing industry. H. E. E.

GRAY, JOHN (19th cent.) of Galashiels and Edinburgh, author of the *Social System, a Treatise on the Principle of Exchange*, 1831 and 1842; *Remedy for the Distress of Nations*, 1842, and *Money*, 1848. His remedy for distress is a change in the monetary system, founded on the principles that production is the cause of demand and labour is the only measure of value. There is a good deal of useful suggestion with criticisms of contemporary economists and statesmen.

GRAY, SIMON (18th and 19th cents. wrote also under pseudonym of George Purves), of the war office, a writer on economics of great pretensions but of less success. He wrote in 1804 his *Happiness of States*, published 1815, including some letters of J. B. SAY (an ed. with additions, 4to, 1819), an attack on the French PHYSIOCRATS and Adam SMITH, whom he misunderstands. It clearly fell flat, for in 1817 he published, under the assumed name of George Purves, *All Classes Productive of National Wealth*, and in 1818, under same name, *The Principles of Population and Production investigated*, the object of both being to advertise the original work, which is constantly quoted and approved. His radical fallacies are the confusion of income with wealth, of the element of price, "chargeability," with productiveness, of expenditure with employment of labour. A few of his statements may serve as examples: "Paper money is the source of new capital, equal to the whole amount in circulation"; "the working classes consume more bread when it is dear than when it is cheap"; a national debt and high taxes enrich a nation; a rapidly increasing population makes future famine unlikely. On the other hand he saw that Adam Smith did not realise the importance of consumption in his scheme of economics, and inveighed against his distinction between productive and unproductive labour.[1]

[1] Later economists have endorsed Gray's opinion on this point (see Marshall, *Principles of Economics*, 2nd ed. bk. ii. ch. iii.). Had Gray been less critical and negative, his remarks might have found fuller acceptance in his own time (refer to Cunningham, *Growth of English Industry and Commerce*, ed. 1892, vol. ii. p. 439).

He also wrote *Remarks on the Production of Wealth*, in a letter to the Rev. T. R. Malthus, 1820—and, under his assumed name, *The Grazier's Ready Reckoner*.—See also Anton Menger, *Das Recht auf den vollen Arbeitsertrag* (2nd ed., 1891). —Roscher, *Pol. Econ.*, trans. Lalor, vol. ii. § 243.

E. G. P.

GREAT TITHES. See TITHES.

GREELEY, HORACE (1811-1872), was born in Amherst, New Hampshire. He was the son of a farmer of limited means; self-educated, and at an early age apprenticed as a printer, he finally settled in New York, where in 1841 he established the *Tribune*, of which he was the editor until his death. He was an important counsellor in the whig and republican parties, until dissatisfaction with the administration of President Grant led him to join a revolt and to organise the liberal republican party. By this he was nominated for president in 1871. Greeley was an ardent and consistent protectionist; and no journal did more than the *Tribune* in familiarising the north, and especially the farmer class, with this doctrine. In addition to his editorial work and frequent speeches upon the tariff, mention may be made of an *Introduction*, treating of the present state of the science of political economy and the adaptation of its principles to the condition of our own country, of *Principles of Political Economy*, by William Atkinson, New York, 1843 (Introduction, pp. i.-xv.); and of *Essays designed to elucidate the Science of Political Economy, while serving to explain and defend the Policy of Protection to Home Industry, as a System of National Co-operation for the Elevation of Labour*, Boston, 1870, pp. 384. In the latter, political economy is regarded as an art, "the chief end of a true political economy is the conversion of idlers and useless exchangers or traffickers into habitual effective producers of wealth"; "protection is another name for labour-saving through co-operation." The work is valuable as representing the views of a large part of the more intelligent agricultural population of the northern part of the United States, 1840-1870. See also in *Recollections of a Busy Life*, pp. 528-553, *The Grounds of Protection*. About 1840, Greeley came under the influence of Fourierism; and the doctrine of "association" was often referred to with favour in the *Tribune*. In 1846 occurred a discussion between Greeley and Henry J. Raymond of the *Courier and Enquirer*, running through twenty-four articles. For an abstract, see *Life of Horace Greeley*, by James Parton, New York, 1855, ch. xvi., *The Tribune and Fourierism*. In 1848-1850 Greeley wrote several articles to show how working men may become their own employers and share in profits; in 1850 he published *Hints toward Reforms*, New York, composed of eleven lectures and twenty essays, largely devoted to the emancipation of labour. This phase of his life is referred to in *Recollections of a Busy Life*, by Horace Greeley, New York, 1868, pp. 144-158.

D. R. D.

GREENBACK. This term refers to the legal-tender notes issued by the government of the United States, and so called because the backs of the bills are printed in green ink. They are equivalent to the "legal-tenders" or the treasury notes of the civil war period, as distinguished from the new treasury notes issued under the law of 1890, based upon purchases of silver. There were three issues of greenbacks: Feb. 25, 1862, $150,000,000; July 11, 1862, $150,000,000; and March 3, 1863, $150,000,000 (£30,000,000 each; £90,000,000 in all, converting the $ at 5 = £1). They were at first issued as a war measure, the government at that time being engaged in suppressing the rebellion in the southern states. Many at the time thought that the issue was unconstitutional, and none of the notes issued previous to the civil war had ever been made legal tender. The supreme court, however, has held that congress has power to impress upon the treasury notes the quality of legal tender not only in times of war but also in times of peace. At the close of the war a portion of the issue was withdrawn, but there was a strong popular opposition to the contraction of the currency, and consequently by the act of March 31, 1878, the treasury department was forbidden to reduce the amount then current in circulation, $346,681,016.

The term "greenback" was also given to a political party which appeared in 1874, and was hostile to the national banks. It opposed the withdrawal of the greenbacks, and in part advocated the payment of the United States debt in greenbacks instead of in gold.

After the early issues the government was obliged to suspend their payment, and the greenbacks circulated at a discount until 1879. For an accurate history of the greenback issues, see *History of United States Notes*, by John Jay Knox.

D. R. D.

GREENLAND COMPANY. During the reign of James I. the whale fisheries first came into notice. After being noted as sources of considerable profit for some time, a period of decay seems to have set in, for in 1693 complaint was made of their fall from their former high position. It was urged that the only available means of revival lay in the formation of a joint-stock company. Accordingly, on 1st October 1693, Sir William Scawen and forty-one others were incorporated as a company of merchants of London trading to Greenland. Their exclusive rights were to cease after the lapse of fourteen years from the date of the incorporation. The enterprise was not a success, and no application was made for the renewal. After the failure of the company various other expedients, as, for instance,

bounties to private traders, were employed for the purpose of stimulating the whale fisheries.

[Macpherson, *Annals of Commerce.*—Cunningham, *History of Industry and Commerce*, vol. ii.]

E. C. K. G.

GREG, WILLIAM RATHBONE (1809-1881), born at Manchester, was educated at Bristol under Dr. Lant Carpenter, and at the university of Edinburgh. In 1832 he entered business, from which, however, he retired in 1850. In 1856 he was appointed one of the commissioners of customs, and in 1864 comptroller of the Stationery Office, a position which he held till 1877.

Though Greg's writings contain no positive contributions to economic knowledge, they are full of suggestive criticism and written in a frank easy style. The various subjects of which he treats are canvassed from all points of view, and the theories relative to them explained with the object of discovering the truth or rather the error which they contain. Though he did not deny the advance which had been made in general economic comfort, Greg was more acutely conscious of the difficulties in the way of sound economic and social progress. These he rather overestimates, while on the other hand he underestimates the importance of those economic influences of society which insensibly control the economic individual and modify the evils menaced by a too exclusive devotion to self-interest. His views on Malthusianism deserve mention.

Greg sometimes used the pseudonym of *Cassandra*. His chief writings relating to economic or semi-economic subjects were, *Political Problems of our Age and Country* (1870).—*Enigmas of Life* (1872).—*Rocks Ahead* (1874).—*Mistaken Aims and Attainable Ideals of the Working Classes* (1876).

E. C. K. G.

GRENIERS À SEL. These were established in France in 1342 for levying and collecting the GABELLE (*q.v.*), or tax upon salt. All salt manufactured in France had to be taken to the *grenier* of the province under penalty of confiscation. The *grenier* fixed the producer's price, and sold the salt at a much increased rate to the retail dealers, who were called *regrattiers*. The *grenier* was also a court of justice to decide all disputes arising in connection with the *gabelle*. In the 18th century there were seventeen *greniers à sel*, which were all abolished with the *gabelle* in 1790.

[Clamagéran, *Histoire de l'Impôt en France.*]

R. L.

GRENIERS D'ABONDANCE (France). At all periods of French history it has been the custom to create reserves of the surplus production of corn in years of abundance to meet the deficit in years of scarcity. Such stores were usually formed by the religious communities, but in 1577 a royal ordinance enjoined the local authorities to establish public granaries (*greniers d'abondance*) to hold a minimum of three months' consumption, and authorised them to borrow money at interest for the purpose. No records exist, however, of the extent to which the measure was carried out. Under Louis XV. difficulties appear to have arisen in ensuring a regular supply of bread to the capital, for the government then purchased the great mills and storehouses at Corbeil near Paris to hold a permanent reserve of 25,000 sacks of flour. During the revolutionary period the government had again to intervene in the food supply of Paris by the purchase of 1200 to 1500 sacks of flour daily, which were sold to the bakers at 10 to 15 per cent below their cost price. One effect of that measure was that merchants ceased entirely to send corn to the market, and the bakers became wholly dependent on the government for their supplies; another consequence was that the inhabitants of the region around the capital flocked to Paris to purchase bread. Stringent measures were adopted against the intruders, but bread was nevertheless sold to them secretly, and the consumption in Paris rose from 1500 to 1900 sacks of flour daily. A first step was taken to compel citizens to obtain a card without which bread would not be delivered to them, and this was followed by a decree fixing rations according to the number of the family. M. Thiers describes in his *History of the French Revolution* the scene at the bakeries at the time. A long rope was stretched out from the door to be held by the hand by the people as they waited for their turn; the women would sometimes cut the cord and there was then a rush and a struggle, and armed force had to be called in to restore order. Various other measures were adopted as the necessity for them arose. In 1793 the National Convention ordered the creation of public granaries in each district of Paris, and voted a sum of 100,000,000 livres to stock them. In 1807 Napoleon I. commenced the construction of the immense range of buildings called the *grenier d'abondance* on the south bank of the river at the eastern end of Paris. It covered a space of two acres, and was intended to be six stories high, with mills worked by water power from the Seine in the basement. This magazine was to contain a three months' supply of 180,000 sacks of flour, constantly renewed. The service was, however, never organised, nor was the building ever terminated. Lofts were raised over the ground floor and roofed in, and the whole served for a long time as a warehouse for the stores the bakers were bound to keep as a condition of their privileges, the trade having become a monopoly with the number of shops limited in proportion to the number of inhabitants. The building was burnt during the fighting in Paris on the suppression of the commune, and was not rebuilt. The use for it had ceased, as the trade had been made free in 1863, and all the-

regulations relating to the compulsory reserves abolished. That the magazine was wilfully destroyed was proved by a document afterwards found in one of the mairies, in which the colonel of one of the insurgent legions reports, "I have set fire to the *grenier d'abondance*." All that now remains of the former restraints on freedom of trade in food supplies are Art. 420 of the Penal Code, which punishes by two months' to two years' imprisonment, and fines of from one to twenty thousand francs, all manœuvres or coalitions to raise or reduce the prices of corn, flour, or bread; and Art. 30 of the Municipal Law of 1791, which empowers the mayors of communes to fix the prices of bread and meat, while, however, expressly forbidding the regulation of the price of corn or cattle. This law is still applied in many localities, and attempts to revive it at Marseilles in 1893, and more recently at St. Denis, led to strikes of the bakers, who closed their shops for several days rather than submit to it. T. L.

GRENVILLE, GEORGE (1712-1770), was the son of Richard Grenville of Wotton, and his wife Hester, Countess Temple. He was educated at Eton and Christchurch, Oxford, and trained for the bar. Forsaking the law for politics, he was elected M.P. for Buckingham in 1741, and continued to represent that constituency until his death. After holding minor appointments, in 1754 he became treasurer of the navy. In this capacity he effected a useful reform by passing the Navy Bill, which provided for the speedy and punctual payment of seamen's wages. In May 1762 Grenville was appointed secretary of state; he already held the leadership of the House of Commons. Five months later, however, he was compelled to resign the leadership and the seals, and accepted the post of first lord of the admiralty. He supported Dashwood's unpopular cider tax, on the ground that the profusion with which the late war had been carried on necessitated the imposition of fresh taxes. Grenville became first lord of the treasury and chancellor of the exchequer in April 1763. His fiscal policy precipitated the disastrous war with America, while he lost popularity by the prosecution of John Wilkes. When the famous "No. 45" of the *North Briton* appeared, he caused Wilkes to be arrested under a general warrant. The constitutional struggle which ensued involved ministers in an expenditure of £100,000, besides bringing upon them much odium. In the session of 1764 Grenville brought forward a series of resolutions asserting the right of the imperial legislature to impose taxation on the colonies. The proceeds of these duties were to be paid into the imperial exchequer, and to be applied under the direction of parliament "towards defraying the necessary expenses of defending, protecting, and securing the British colonies and plantations." The Commons also resolved that "it may be proper to charge certain stamp duties" in America. Grenville allowed a year to elapse before embodying the resolutions in a bill; but in 1765, in spite of the unanimous protests of the American colonies, the Stamp Act was carried, imposing customs duties upon the importation into the colonies of various foreign products. The act excited such discontent in America that the matter was again forced upon the attention of parliament in 1766. Pitt, in one of his most brilliant speeches, insisted that taxation without representation was illegal, but while he urged the immediate repeal of the tax, he proposed to uphold the dignity of the mother country by asserting the general legislative authority of parliament over the colonies. Grenville defended his ill-fated measure with vigour, but in the end the Stamp Act was repealed, while several of the obnoxious duties imposed in 1764 were withdrawn, and others modified. As Grenville had blundered over the Regency Bill, and was generally distasteful to the king, he was dismissed from the premiership in July 1765. Townshend, the chancellor of the exchequer, having proposed in 1767 to continue the land-tax for one year at 4s. in the £, Grenville carried a motion reducing the tax to 3s., by which the budget sustained a loss of £500,000. It is stated that this was the first occasion since the revolution on which a minister had been defeated upon any financial measure. As the result of his study of economical questions, Grenville wrote in conjunction with William Knox a treatise on *The Present State of the Nation; particularly with respect to its Trade, Finances, etc. etc., addressed to the King and both Houses of Parliament* (1768). This pamphlet was noticed by A. Smith, *Wealth of Nations*, bk. iv. ch. i., and drew a reply from Burke. Grenville had taken a leading part in the early measures against Wilkes, but being convinced of the futility of a struggle between the House and the electors of Middlesex, he opposed his expulsion from the House of Commons in 1769, in a speech which was the most effective delivered in favour of the constitutional rights of electors. To remedy the evils connected with the trial of election petitions, early in 1770 Grenville introduced his celebrated measure, known as the Grenville Act, which forms "a landmark in parliamentary history" (May's *Constitutional History*). This admirable reforming measure transferred the trial of election petitions from the House at large to a select committee, empowered to examine witnesses upon oath. The act was in the outset passed for one year only, but it was renewed from time to time, and made perpetual in 1774. This act is now repealed, and election petitions referred to judges who report to the house. Grenville attended parliament through the session of 1770, but died on the 20th of November in that year. He was a

capable statesman, had a thorough knowledge of the constitution, and exhibited much financial ability; but he was stern in manner, extremely obstinate, destitute of tact, and governed by a boundless ambition.

[*Parliamentary History.*—*Grenville Papers.*—Walpole's *Memoirs.*—The *Histories* of Stanhope Lecky, and May (Lord Farnborough).—M'Culloch, *Literature of Pol. Econ.*] G. B. S.

GRENVILLE, William Wyndham, Baron Grenville (1759-1834) was the youngest son of George Grenville by his wife Elizabeth, daughter of Sir William Wyndham, Bart. He was educated at Eton and Christ Church, Oxford. Elected M.P. for Buckingham in 1782, in the ensuing year he accompanied his brother Earl Temple to Ireland, as private secretary. Appointed paymaster-general in December 1783, he now gave his cousin Pitt valuable aid in the House of Commons. He devoted himself to the study of financial and commercial questions, was made one of the commissioners of the newly-created board of control, and in September 1786 vice-president of the committee of trade. For a few months of 1789 Grenville filled the position of speaker, resigning the office to become home secretary. In March 1790 he became president of the board of control, and in the following November was created Baron Grenville. He had the conduct of the government business in the House of Lords. He was appointed foreign secretary in 1791, in which office he continued for ten years, resigning his seat at the board of control in 1793. Grenville thoroughly carried out Pitt's foreign policy, and rejected all the overtures of the revolutionary government of France. In 1792 he introduced the Alien Act for the registration and supervision of all foreigners in the country, and in 1795 the Treasonable Practices Act and the Seditious Meetings Act. In 1799 he moved the resolutions for the Union with Ireland in a speech occupying four hours, "putting the arguments on strong grounds of detailed political necessity" (Lord Colchester's *Diary*). With regard to his position as a political economist he wrote a letter to Pitt in October 1800, protesting against tampering with the laws of supply and demand, and reminding him that "we in truth formed our opinions on the subject together, and I was not more convinced than you were of the soundness of Adam Smith's principles of political economy till Lord Liverpool lured you from our arms into all the mazes of the old system" (Stanhope's *Life of Pitt*). Grenville was a warm supporter of the Roman Catholic claims, and having drawn up an emancipation scheme which was rejected by the king, he resigned with several other members of the cabinet (February 1801). On the downfall of Addington in 1804, Grenville formed with Fox the Ministry of "All the Talents." In 1807 Grenville carried an act for the abolition of the slave trade, and it received the royal assent the very day ministers went out of office on the Roman Catholic question (25th March 1807). As auditor of the exchequer Grenville refused to issue public money during the incapacity of George III. Parliament was appealed to, and both Houses passed a resolution authorising and commanding the auditor and officers of the exchequer to pay obedience to treasury warrants for the issue of such sums as had been appropriated for the services of the army and navy, as well as money issuable under a vote of credit for £3,000,000. The money was paid, but a protest was entered in the Lords' journals, signed by twenty-one peers, affirming the measure to be unconstitutional, and one that might have been avoided, without injury to the public service, by an address to the Prince of Wales. Grenville strongly opposed the Corn Importation Bill of 1815, and with nine other peers signed a protest drawn up by himself and Lord Wellesley, declaring their opinion that "public prosperity is best promoted by leaving uncontrolled the free currents of national industry" (see Rogers's *Protests of the Lords* and M'Culloch's ed. *Wealth of Nations*, 1853, p. 523, for the protest). Grenville resisted various overtures to take office, as his high sense of honour prevented him from doing so except in a cabinet pledged to deal with Roman Catholic emancipation. His last speech in the House of Lords (21st June 1822) was in support of the Duke of Portland's Roman Catholic Peers Relief Bill. In 1828 Grenville wrote an *Essay on the supposed advantages of a Sinking Fund*, of which only the first part was printed, and privately issued. Grenville died at Dropmore in Buckinghamshire, on 12th January 1834. As a statesman he was distinguished for industry, honesty, and an unusual capacity for business; and as a speaker he was weighty, lucid, and argumentative.

[*Parliamentary Debates.*—The various *Memoirs* of George III. and George IV.—Sir G. C. Lewis's *Administrations of Great Britain*, 1783-1830.—Lord Colchester's *Diary.*—Yonge's *Life of Lord Liverpool.*—Brougham's *Statesmen of George III.*] G. B. S.

GRESHAM, Sir Thomas, *c.* 1519-1579, was the second son of Sir Richard Gresham, merchant; he was educated at Gonville Hall, Cambridge, apprenticed to his uncle Sir John Gresham, also a merchant, and admitted a member of the Mercers' company in 1543. In 1551 or 1552 he became royal agent or king's factor at Antwerp, in which post he received twenty shillings a day, and which he retained with few intervals during three reigns until 1574, employed in spite of his Protestant views even by Mary. His business was to negotiate royal loans with Flemish merchants, to buy arms and military stores, and to smuggle into England as much bullion as possible. He succeeded in raising the rate of exchange from

16s. to 22s. in the £, and is said to have saved in this way 100,000 marks to the crown and 300,000 to the nation. His operations greatly benefited English trade and credit, though the government could not be induced to pay its debts as punctually as Gresham would have liked. He did not hesitate to remonstrate with and advise Elizabeth and Cecil; but he was so useful and trustworthy that he was never seriously out of favour, except just after Mary's accession. On Mary's death he advised Elizabeth to restore the base money, to contract little foreign debt, and to keep up her credit, especially with English merchants. Later he taught her how to make use of these English merchants when political troubles in the Netherlands curtailed her foreign resources; at his suggestion the Merchant Adventurers and Staplers were forced by detention of their fleets to advance money to the state; but as they obtained interest at 12 per cent instead of the legal maximum of 10, and the interest no longer went abroad, the transaction proved advantageous to all parties and increased Gresham's favour. His journeys to and from Antwerp were very frequent, but in his later years he entrusted most of his public work to his agent, and is not known to have been at Antwerp after 1567. In 1554 he was sent to Spain to procure bullion, a very difficult task in which he was only partially successful; and in 1559 he was employed as ambassador to the Duchess of Parma, regent of the Netherlands; it was on this occasion that he was knighted.

In addition to his public services he continued throughout his life to do the work of "the greatest merchant in London." He was, in the language of the day, a banker and goldsmith, with a shop in Lombard Street, as well as a mercer; but he was a considerable country gentleman besides, with estates, chiefly in Norfolk, where his father held considerable property (see Blomefield, *Norfolk*), and with several country houses besides the house in Bishopsgate which he built and bequeathed to London as Gresham College. He twice entertained Queen Elizabeth as his guest. His wealth was mainly earned by his private business, but he cannot be acquitted of enriching himself at the public expense by at least one dishonourable manœuvre; and he habitually forwarded his schemes by bribery. The money so gained he applied to public uses, his only son having died young: the foundation of the royal exchange, of Gresham College, and of eight almshouses, and the establishment of the earliest English paper-mills on his estate at Osterley, show the breadth of his interests, his liberality, his charity, his culture, and his commercial enterprise (see EXCHANGE as BOURSE; GRESHAM'S LAW).

[Burgon, *Life and Times of Sir Thomas Gresham.*—*Dictionary of National Biography.*—Fuller's *Worthies*, Norfolk, p. 259.—Holinshed, 1808, iv. 426.—Hall, *Society in the Elizabethan Age*, ch. v. and appendix, for financial character and position.—Fox Bourne, *English Merchants.*—Will of Sir Th. Gresham.] E. G. P.

GRESHAM'S LAW. This familiar term was introduced by MacLeod in 1858 (*Elements of Political Economy*), and has since been generally accepted by economists.

It denotes that well-ascertained principle of currency which is forcibly though not quite adequately expressed in the dictum—"bad money drives out good." It has also not infrequently been explained by the statement that where two media of exchange come into circulation together the more valuable will tend to disappear. The principle in its broadest form may be stated as follows:—Where by legal enactment a government assigns the same nominal value to two or more forms of circulatory medium whose intrinsic values differ, payments will always, as far as possible, be made in that medium of which the cost of production is least, and the more valuable medium will tend to disappear from circulation; in the case where the combined amount in circulation is not sufficient to satisfy the demand for currency, the more valuable medium will simply run to a premium.

This is a principle which obviously has its roots in the ordinary instincts of commercial life, and the cases in which it has asserted itself may be divided into those where (1) of two media intrinsically good, one is by error undervalued; where (2) it is sought to keep a debased metallic currency in circulation on a par with that of a better metal; where (3) an inconvertible paper has been made to run by the side of a metallic currency. The reference to paper suggests the observation that the circulation of convertible paper side by side with, and as "the shadow of" gold, is explained by reference to a different principle.

The dictum above quoted appears to have been used first in the proclamation of 1560 respecting the decrial of the base silver coin; and we know that Sir Thomas Gresham took a prominent part in advising Queen Elizabeth and Cecil on the reform of the currency. (See Burgon's *Life and Times of Sir Thomas Gresham.*) We do not, however, find the principle stated in his own handwriting.

The actual instances of the operation of the law are numerous, and we shall cite only a few. MacLeod quotes Aristophanes, *Frogs*, as the earliest instance of its recognition. Amongst many in the history of the United Kingdom, besides the prevalence of debased silver which formed the occasion of Gresham's dictum, we may cite the following from Lord Liverpool, referring to the over-valuation of silver prior to the reign of James I.

"It is certain that the rise in the value of

Gold made by James I. in the 2nd and 3rd year of his reign was rendered necessary by the exportation of the Gold Coin, which had for some time been experienced, and by the very small quantity of it that was then left in circulation. This rise . . . produced a partial and temporary relief . . . but [Stowe] confesses that this plenty of Gold coin did not continue in circulation for any length of time, and that it afterwards began to be exported. It soon became evident that the last-mentioned rise of the value of Gold in the Coins of this Kingdom was not sufficient to make it equal to the relative value of Gold to Silver at the market."

In Mr. Chalmers's recent work on the *History of Colonial Currency*, we have without difficulty noted eighteen instances, and there are many more. In a pamphlet of 1740 on the *Currencies of the British Plantations in America*, we have the following:—"In sundry of our Colonies were enacted laws against passing of light Pieces of Eight. These laws not being put into execution, heavy and light Pieces of Eight passed promiscuously; and, as it always happens, a bad currency drove away the good currency; heavy Pieces of Eight were shipped off." And on this Mr. Chalmers comments as follows:—"Imitating the practices familiar to them in England, dishonest persons traded on the desire of the young communities for a metallic currency, by circulating clipped money at the full rate; and this malpractice was condoned by the Colonies when it was found that the light money was more apt to stay with them than 'broad' pieces." So that throughout the 17th and 18th centuries in the American and West Indian colonies we constantly find a debased currency in possession of the field. Again, when the Treasury tried to introduce sterling into the colonies in 1838, and wrongly valued the dollar for concurrent circulation with the shilling, "by a familiar law, the over-rating of the dollar sufficed to drive out the shillings" which had been shipped from Great Britain.

In the case of the United States we have excellent instances both in the effect of the legislation of 1837 as driving out silver dollars, and in the way in which the inconvertible "greenbacks" formed the chief part of the currency from 1864 to 1879.

[*Elements of Political Economy*, H. D. MacLeod, London, 8vo, 1858, p. 477.—Bi-metallism, id. *ibid.*, 1893. Essay by Dr. Giffen in *Economic Journal*, vol. i. p. 304, explaining common misinterpretation of Gresham's Law.] C. A. H.

GRIFFITH'S VALUATION is the name popularly given to the government valuation of Ireland from Sir R. Griffith under whose directions it was carried out. The first act, passed in 1826 (7 Geo. IV. c. 62), laid down a scale of prices as a basis for valuation, which was by townlands.[1] Subsequent measures, partly necessitated by the introduction of the poor law in 1838, amended the original system, but the existing valuation, commencing with Munster in 1848 and ending with Armagh in 1865, was at first carried out under an act of 1846 (9 & 10 Vict. c. 110), and later on under one of 1852 (15 & 16 Vict. c. 63), which last revised the very low scale of prices fixed in 1826 and hitherto retained. The authority of Griffith's valuation—at one time highly esteemed—is now completely discredited not only as a guide for fixing rents, which it was not intended to be, but even as a standard for taxation. The prices assumed by it are not those now existing; no adequate account is taken of the yield of land, and the different bases of the acts of 1846 and 1852 make the valuation unfair as between the localities affected.

[For origin of system see Seebohm, *Village Comm.*, ch. vii.] C. F. B.

[1] The smallest local division. There were 60,644 townlands in Ireland in 1881.

GRIST TAX. See MACINATO.

GROAT. See FOURPENCE.

GROSCHEN (COIN). In German countries the word groschen was originally applied to any large or thick coin. Record exists of gold groschen having been coined as early as the year 1232. The name was, however, more commonly applied to silver coins. The value of the silver groschen varied considerably, as, in addition to there being several kinds of these coins, the weight and fineness of each particular kind was not constant. Their history, in fact, presents a record of more or less continuous debasement, similar to that so frequently met with in tracing the life of coins which have been in use for centuries (*e.g.* crown, denier, groat, livre, penny). The greed or the pecuniary difficulties of successive rulers led to the lowering of the coins either in weight or fineness, until a coin which was, as already mentioned, at one time made of gold, ended its career as one of the smallest silver coins of Germany, with a value of only $\frac{1}{90}$th of a thaler (or approximately $1\frac{1}{8}$th of a penny).

No indication of the nominal value of groschen is to be found on the older coins, though it is generally placed on the more modern pieces.

Silver groschen are not now struck. The following list, however, gives the particulars of those in use in Prussia, Saxony, and Austria during comparatively recent years.

PRUSSIA.

(*Under the Law of 30th September 1821.*)

Silver Coin.	Weight (grammes).	Millesimal Fineness.	Value in German Marks.
Groschen ($\frac{1}{30}$ thaler) . .	2·1924	222·222	0·0877
Half-groschen ($\frac{1}{60}$ thaler) . .	1·0962	222·222	0·0438

(*Under the Law of 4th May 1857.*)

Silver Coin.	Weight (grammes).	Millesimal Fineness.	Value in German Marks.
Groschen ($\frac{1}{30}$ thaler) . .	2·1959	220	0·0870
Half-groschen ($\frac{1}{60}$ thaler) . .	1·0979	220	0·0435

On the introduction in 1873, under the act of the 9th July of that year, of the imperial German coinage, with the gold mark as the standard of value, the coinage of groschen was discontinued. The new law, however, provided for the coinage of nickel pieces of the nominal value of 10 pfennige (0·1 mark), and these coins, which have taken the place of the old silver pieces, are commonly spoken of as groschen.

SAXONY.

(*Under the Law of 20th July 1840.*)

Silver Coin.	Weight (grammes).	Millesimal Fineness.	Value in German Marks.
Two new groschen ($\frac{1}{15}$ thaler) .	3·1181	312·500	0·1754
New groschen ($\frac{1}{30}$ thaler) . .	2·1260	229·167	0·0877
Half new groschen ($\frac{1}{60}$ thaler) .	1·0630	229·167	0·0438

(*Under the Law of the 19th May 1857.*)

Silver Coin.	Weight (grammes).	Millesimal Fineness.	Value in German Marks.
Two new groschen ($\frac{1}{15}$ thaler) .	3·2206	300	0·1739
New groschen ($\frac{1}{30}$ thaler) . .	2·1004	230	0·0870
Half new groschen[1] ($\frac{1}{60}$ thaler) .	1·0502	230	0·0435

Prior to 1840 the groschen represented $\frac{1}{24}$th of a thaler. The coin weighed 1·9856 grammes, and was composed of silver of the millesimal fineness of 368. Its value in modern German marks is equal to 0·1315 mark.

AUSTRIA.

(*Under the Convention of 21st September 1753.*)

Silver Coin.	Weight (grammes).	Millesimal Fineness.	Value in German Marks.
Kaisergroschen, or 3-kreutzer piece	170·10	343·750	0·1053

No provision was made in the currency law of 29th April 1852 for the coinage of silver groschen; the smallest Austrian silver coin issued under that law being a ten-kreutzer piece.

[1] The coinage of these pieces was discontinued in 1861, when their place was taken by the copper 5-pfennige piece.

[Friedrich Noback, *Münz, Mass, und Gewichtsbuch*, Leipzig, 1879.—*Groschen-Cabinet*, Leipzig, 1749.] F. E. A.

GROSS AND NET. The word "gross" has sometimes been used by economists as a synonym of "total" or "aggregate." J. S. Mill, for instance, often means by "gross produce" total or aggregate produce as opposed to average or *per capita* produce (see, *e.g.*, *Principles*, I. xiii. § 2 *ad fin.*), and by "gross profit" the absolute amount of profits as opposed to the rate of profit (*e.g.*, *Essays on some Unsettled Questions*, etc., p. 92; *Principles*, iv. iii. § 3). Generally, however, "gross" has been used as a correlative of "net"—the net profits, rent, and produce being what is left of the gross profits, rent, and produce after certain deductions have been made. In the case of profits the terms are not properly applicable, since profits are themselves net receipts, *i.e.*, what is left of the gross receipts after all the cost of obtaining them has been deducted. Consequently the term "gross profits" has never attained any precise sense; it must be variously interpreted according to the context in which it appears. "Gross rent" is the amount of rent paid to the landlord by the tenant, and net rent is the amount left to the landlord after he has paid all expenses of management and repairs (*Wealth of Nations*, II. ii.); "rent" alone usually means in economic works the net rent, while in statistics it means the gross rent. As to the proper application of the terms gross and net produce there was formerly considerable difference of opinion. The PHYSIOCRATS (*q.v.*) held that rent was the only net produce of a country, and looked on profits and wages as merely a part of the necessary expenses of obtaining this net produce. Adam Smith defined "gross revenue" as the whole annual produce, and "net revenue" as what remains of this after deducting the expense of maintaining fixed and circulating capital; by this definition "net revenue" is made to include the whole of profits, wages, and rent. But Ricardo in his *Principles*, ch. xxvi. "on gross and net revenue," excluded wages from net revenue, apparently on the ground that they consist entirely of necessaries, so that no contributions to the state nor additions to capital can be made from them. James Mill (*Elements*, ch. iv. § 1) adopted the same view in spite of a protest by Malthus (*Political Economy*, 1st ed. pp. 423-425) against it. J. S. Mill (*Essays*, pp. 88, 89) calls it the usual doctrine, and suggests that it should be amended by including in the "net produce" so much of wages as is over and above the smallest amount necessary for maintaining the existing number of workers. Later writers seldom use the terms gross and net produce or revenue, but treat the unqualified "produce" and "revenue" as equivalent to Adam Smith's net revenue. E. C.

GROTIUS, HUGO (Huig van Groot, 1583-

1645), was born at Delft; at the age of eleven he became a student of the university of Leyden, and early distinguished himself as a classical scholar. At fifteen he entered public life, accompanying an embassy to the French court. On his return he practised law, and was made advocate-general of the FISC for the provinces of Holland and Zeeland in 1607, and pensionary of Rotterdam in 1613. In the religious and political disputes of his country, Grotius supported the party of the "Remonstrants," the party of Arminianism and toleration in religion, and of oligarchic republicanism in politics. In 1618 he was arrested along with J. van Olden Barneveldt, the leader of the Remonstrants, and while the latter was put to death, Grotius was sentenced to imprisonment in a fortress for life. Escaping by the stratagem of his wife, who had him carried out in a chest supposed to contain his books and dirty linen, he crossed the frontier in disguise and made his way to Paris in 1621. He received a pension, nominally at least, of 3000 livres from the King Louis XIII. In 1634 he was appointed Swedish ambassador at the French court. In 1645 he resigned this post and retired to Stockholm; but dissatisfied with life there, he crossed over to Germany and died at Rostock in the same year. Grotius was distinguished as an historian, a scholar, an elegant writer of Latin verse, and a tolerant theologian who sought to reconcile Catholic and Protestant, and wrote commentaries on the Scriptures in the spirit of scholarship rather than of dogmatic theology. His *De Veritate Christianæ Religionis* was published in 1627; his *Annotationes* on the Old and New Testaments between 1641 and 1646. But his greatest fame was won in jurisprudence. Already in 1604 he had written a book *De Jure Prædæ*, which he did not publish, the MS. of which was only discovered in 1868. This work was suggested by his practical experience: he had had to argue for the lawfulness of the capture of a Portuguese galleon by the Dutch East India Company. The short treatise called *Mare Liberum* (printed in 1609) was a chapter of this work: against the Portuguese claim to the eastern waters, he asserted that the ocean was free to all. When disputes about the control of the sea arose afterwards between the Dutch and the English, Selden wrote his *Mare Clausum* (published in 1635) in answer to Grotius. The *De Jure Prædæ* was the germ out of which grew the *De Jure Belli et Pacis*, published at Paris in 1625. Grotius himself tells us that the license which he saw prevailing throughout the Christian world both in the making and in the carrying on of war—it was the time of the Thirty Years' War—was the motive which induced him to undertake his great work (*De Jure Belli*, Proleg. 3, § 28). Parts of the subject he admits had previously been treated of by some of the schoolmen, and by more recent theologians and lawyers; but his chief predecessors were, as he says, Albericus Gentilis (*De Jure Belli*, 1589), and Balthazar Ayala (*De Jure et Officiis Bellicis*, 1597). But Grotius may be said to have practically created a new science, "the law of nature and of nations," which in his own lifetime became a subject of academic teaching, and to have written a book on this subject which has attained greater fame than any that has been written on it since. BENTHAM, who attacked the idea of a law of nature, introduced for the law of nations the term "INTERNATIONAL LAW" (*q.v.*). Throughout the 17th and 18th centuries the treatise of Grotius exercised an enormous influence on ethical and legal thought. It came to be less studied only when many of its main principles had been accepted by the more civilised nations, and when the sometimes irrelevant erudition and elaborate citations from ancient authors, which were the fashion of the early 17th century, made it distasteful to a later age. Grotius himself defended his use of the testimonies of philosophers and historians on the ground that they supply evidence of that consent of mankind to which writers on the *jus naturæ* and *jus gentium* were in the habit of appealing; he admits that his quotations from poets and orators are introduced rather for purposes of ornament. Grotius, while professedly basing his theories on reason and on fact, has still much of the scholastic reverence for authorities—Aristotle, the Bible, the Fathers, the Roman Jurists, the schoolmen themselves; though he has departed from the scholastic minuteness of argumentation and is saturated with the "classical" learning of the Renaissance. It may be said of Grotius and of his less literary follower Pufendorf that for the Protestant countries of Europe they took the place which the great schoolmen from AQUINAS to Suarez occupied in the Roman Catholic world. When the inevitable reaction against the authority of the name of Grotius began, his critics, such as Paley and Dugald Stewart, forgot that Grotius did not profess to write a complete treatise on ethics and jurisprudence, and that he expressly disclaimed treating the subject of politics. His professed subject is what his title indicates: and the order of the words in the title is also significant,—the phrase, it may be noted, is incidentally used in a passage Grotius quotes from Cicero. But it is only the last part of his third book and the last few chapters of his second that deal strictly with the subjects of international law, *i.e.* with the principles regulating the intercourse of nations in war and in peace. The rest of the work is all intended to lead up to this subject. In bk. i. he treats of the origin of rights and laws in general, discusses the question raised by some Christian writers whether any war is just, deciding that some wars are not contrary to the law of nature or

even to the positive divine law. In order to distinguish between public and private war he explains the nature of sovereignty with its different forms and degrees. He then goes on to consider the duty of subjects to superiors, denying the doctrine that the people is everywhere sovereign and that everywhere subjects may be justified in rebelling (see ALTHUSIUS). Grotius qualifies his precept of non-resistance only in cases where the rulers have by the constitution a limited power, or where a legally absolute ruler uses extreme cruelty or practically abdicates (see HOBBES). In bk. ii., in order to discuss all the causes from which war may arise, he examines what things are common, what are property, what is the right of persons over persons, what obligations arise from ownership, what are the rules of royal succession, what rights are obtained by pact or contract, what is the force and interpretation of treaties and of oaths, what is due for damage done, what is the sacredness of ambassadors, the right of burying the dead, and the nature of punishments. Bk. iii. "has for its subject, first, what is lawful in war: and when it has drawn a distinction between what is done with impunity and may even in dealing with foreigners be defended as consistent with justice (*jus externum*) and that which is really free from fault (is in accordance with *jus internum*), it then comes to treat of the kinds of peace and convention in war." It will be obvious even from this brief enumeration of contents, adapted from Grotius's own summary (Proleg. 4, §§ 33-35), that though recognising the distinctions, Grotius has not separated law from ethics nor public from private law.

Of economic questions he does not directly treat. His interest for the economist, apart from his reference to such questions as property, usury, etc., comes mainly from the direct and indirect effect of his conception of the law of nature (see JUS NATURALE). In his use of the term *jus gentium*, Grotius combined the original Roman meaning of it, the customs and principles of right common to different political societies, with a use of the term which was not Roman, as =*jus inter gentes*, the usages recognised as right between independent political societies as quasi-persons, —a confusion of meanings theoretically very misleading, but practically beneficial, since it enabled Grotius to read into questions of international intercourse the humane principles of the Roman *jus gentium* as modified by philosophical ideas about a law of nature.

Grotius, influenced partly by the biblical narrative, partly by classical traditions, and partly by what he had heard of the simple life of barbarous races—such as "certain peoples of America,"—imagined a primitive state in which everything was common. Departure from primitive simplicity and innocence and the growth of agriculture and other arts made private property necessary. It originated by a certain pact, either express, as by division, or tacit, as by occupation (ii. 2, § 2). "Original acquisition might of old, when the human race could meet together, be made by division: nowadays it is only made by occupation" (ii. 3, § 1). Thus for all practical purposes Grotius follows the Roman jurists in basing the right of property on occupation. The suggestion of the jurist Paulus that property may also arise from the making of new things — an anticipation of LOCKE (*q.v.*), who bases property on labour— Grotius puts aside on the ground that "making" presupposes either previous ownership of the material, or acquisition of it by occupation: otherwise what we make is not ours (ii. 3, § 3). With regard to the ocean, the reason why communism was given up does not exist: it is great enough to suffice for all people (ii. 2, § 3), and moreover it cannot properly be occupied, as lakes or even rivers can, and being largely unknown at the first division of the earth, it could not be divided, and so could only become property now by occupation. So far as small portions of the sea — *e.g.*, bays, estuaries, straits,—can be occupied, they may by the law of nature become the property of nations, and even of individuals, or may be divided between several (ii. 3, § 8); but even such ownership may be contrary to the law of nations—*i.e.* consent or custom (ii. 3, § 10). Thus it was part of the Roman *jus gentium* that the sea was common to all men (*ib.* § 9).

In his chapter "On Contracts" (ii. 12) Grotius does not advance beyond ARISTOTLE (*q.v.*) in his views about value or money, except in so far as he recognises that deferment of payment and other such "accidents capable of being valued" may affect the price (§ 14)—a principle of importance among casuists in regard to the question of interest. Not all monopolies, he holds, are contrary to the law of nature: they may be permitted by a government for a just cause, as in the case of Joseph in Egypt. But a combination to raise prices or prevent by fraud or force the importation of a large quantity of a commodity is wrong (§ 16).

Contrary to the more received opinion, Grotius holds that usury is not forbidden by the law of nature, and points out the fallacies of the usual arguments about the barrenness of money, etc.; but since the divine law forbade Hebrew to lend to Hebrew money on usury, and "since precepts of this sort bind Christians also as being called to a higher pitch of virtue," and since what was a duty towards a fellow-countryman then is for Christians a duty towards all men, usury seems forbidden to Christians by the positive divine law (ii. 12, § 20). But for Grotius, as for the mediæval casuists, there are distinctions between the usury which is forbidden and a taking of interest which is

permissible. "Human laws," he says, "which allow something to be covenanted for the use of money, if the rate lie within a due compensation, are not opposed to natural or divine law,—as in Holland it has long been granted to persons in general to require 8 per cent per annum, and to merchants 12 per cent. If they exceed that standard, laws may afford impunity, but they cannot give a right" (*Ibid.* § 22).

[The *De Jure Belli et Pacis* has been edited by Whewell, with an English translation which omits some of the superfluous quotations. 3 vols., Cambr., 1853. The translation was also published separately. There is a careful analysis of the whole work in Hallam's *Introd. to the Literature of Europe*, vol. ii. The accounts of it in Janet's *Histoire de la Science Politique*, in Bluntschli's *Geschichte der neueren Staatswissenschaft*, and in Erdmann's *History of Philosophy* (translated) are much more meagre.—Art. "Grotius" in *Encycl. Brit.* by Mark Pattison.—See also many important references in Maine's *Ancient Law* and *International Law.*—Austin's *Jurisprudence.*—Hall's *International Law*, and in Dr. Bonar's chapter in his *Philosophy and Political Economy.*] D. G. R.

GROUND-ANNUAL (Scotland) a yearly revenue or perpetual annuity payable out of land. (1) In lands originally church lands the superiority or lordship is in many cases in the crown, the vassal holding by tenure direct of the crown at a nominal rent, but paying an annual sum or "ground-annual" to the crown grantee of the revenues of the church lands. (2) In modern practice the building-land speculator, for example, takes land on feu, and, where sub-infeudation is not prohibited at law or by agreement, he sublets to builders at an enhanced Feu-Duty (see FEU); but where sub-infeudation is prohibited, he dispones or grants the land to be held not of himself, but of the superior or overlord, subject to a reserved perpetual annual charge or "ground-annual," to be paid to himself his heirs and assignees. This reserved charge, which in its nature is similar to the chief rents frequently affecting freehold land in the North of England, is made a burden affecting the land itself; and usually the grantee executes a bond, in which he dispones the land back to the granter, but only as a security for the annual payment, for which he also becomes personally liable under the so-called "bond and disposition in security." The documents in the transaction are recorded in the land registers. A. D.

GROUND RENTS. The expression ground rent is generally used in connection with building leases. It is sometimes said or believed that the ground rent represents the yearly value of the ground as distinguished from the value of the building, but this is not necessarily the case. The lessor may prefer to let the land for a lump sum payable at once and to take no rent (a "peppercorn rent"), or a merely nominal annual sum, in which case the ground rent is of course much less than the yearly value of the land. On the other hand annual payments are called ground rents in many cases, in which case they really represent part of the annual value of the building. This arises more especially in the case of "improved ground rents." A builder, having taken a building lease at an annual rent of £10, and having built a house costing £2000, may deal with the property in a great variety of ways. He may assign the lease to an occupying tenant for a price exceeding £2000, the purchaser undertaking to pay the original ground rent; he may let the house on a short lease for a yearly rent representing the full yearly value, in which case the rent is called the rack rent; or he may, in consideration of a premium of £2000, grant an underlease for the whole term at an increased ground rent, the increase representing the profit on the transaction. In the last mentioned case the rent is called an "improved ground rent." In order to make the purchase look attractive he may charge a smaller premium than £2000, which will of course necessitate a further increase in the improved ground rent, but in such a case, which in practice occurs pretty frequently, the so-called ground rent partly represents the interest and sinking-fund for the cost of the building, and to that extent exceeds the annual value of the ground. It is sometimes said that ground rents do not pay local rates, but this is a fallacy. The rates are charged on the rack rents, that is to say on the full value, which, of course, includes the ground rent. No doubt the rates are, as a rule, paid by the occupying tenant, but this is generally a condition of the lease, and the tenant, knowing that he has to pay the rates, pays so much less rent (see FINANCE, GENERAL PRINCIPLES OF; TAXATION).

In the language of auctioneers and others the expression ground rents is frequently used to describe property let on building leases, but this is, of course, inaccurate. The expression "ground landlord" which is often used for the ultimate recipient of ground rents, is also misleading and connected with the popular idea that the lessor owns the land and the lessee the house. During the continuance of the lease the lessor has a merely reversionary interest in the land and the house, the lessee being, subject to the conditions of the lease, their temporary owner. The ownership of the house cannot in any sense be severed from the ownership of the land, and the benefit of an increase in the value of the land in the case of a long lease accrues to the lessee, and not to the lessor, at least not before the expiration of the lease. This fact is also frequently lost sight of when new schemes of taxation are discussed. German writers use the word *Grund-rente* in the sense of economical rent.

[Much interesting information on these subjects

can be found in Mr. C. H. Sargant's books, *Ground Rents and Building Leases*, and *Urban Rating*.—For a different view see B. Costelloe, *Incidence of Taxation* (1893).—*Rep. of Sel. Comm. H. of C. on Town Holdings.*] E. S.

GROWING CROPS, though not severed from the land, and therefore, strictly speaking, part of the land, are for some purposes looked upon as things not partaking of the nature of real property (see EMBLEMENTS). For the purpose of the Bills of Sale Act (see BILL OF SALE), growing crops, when separately assigned or charged, are deemed to be personal chattels; but when they are assigned or charged together with any interest in the land on which they grow, they are looked upon as part of the land, and the document embodying the assignment or charge need not be registered as a bill of sale. E. S.

GROWTH, PROPORTIONATE, may be defined as the increase of a quantity relative to its initial value. For instance the export of coal from England being 23·6 million tons in 1880 and 38·2 million in 1890, the proportionate growth of the export during the period 1880-90 is $(38{\cdot}2 - 23{\cdot}6) \div 23{\cdot}6 = \frac{14}{23}\frac{6}{6}$ or nearly 62 per cent. In general terms, if x_0 be the value of the quantity at the beginning of the period under consideration and x_1 at the end, the proportionate growth during that period is $(x_1 - x_0) \div x_0$. If in a second period the quantity changes from x_1 back to x_0, the proportionate growth downwards, or decrease, is by parity $-(x_1 - x_0) \div x_1$—not the mere negative of the growth upwards, as might seem natural. An attempt to obviate this anomaly is made by Mr. Cooley in "Observations on the Measure of Change" in the *Journal of the American Statistical Association* for March 1893. It may be observed that the difficulty disappears when the growth is *small*.

Proportionate growth may be considered as relative to, or dependent on, some variable other than *time*. Thus the proportionate growth of the demand for a commodity corresponding to a small proportional growth or percentage increment of its price is the measure of Elasticity of Demand (see DEMAND).

The conception of the proportional growth of a quantity being independent of the particular scale or unit employed in measuring the quantity, is particularly appropriate when we want to compare the increase of different things. The ordinary graphic representations of *absolute* growth are not so well suited for this purpose. Thus suppose that, to quote Prof. Marshall, "the consumption per head of tea and sugar in the United Kingdom for the years 1860 to 1883 is represented to the same scale in pounds" in two ordinary curves. "The danger of the popular use of statistical curves is illustrated by the fact that an orator might perhaps carry his audience with him, while he argued that they showed a much more rapid growth of the consumption of sugar than of tea. But, really, there is very little difference between the two as is seen on comparing 'two curves' in which a pound of sugar is compared against, not a pound, but an ounce of tea" (see GRAPHIC METHOD in connection with Fig. 4).

(Marshall, *Principles of Economics*, bk. iii. ch. iv. p. 160 *et seq.*—*Journal of the Statistical Society*, Jubilee vol. 1885, p. 257 *et seq.*)

F. Y. E.

GRUNDLER, CHRISTIAN GOTTLOB (latter half of 18th century), merchant in Berlin, author of various treatises on commercial subjects.

Ueber den grossen Nachtheil der Monopolien gegen freye Manufakturen (1787).—*Allgemeine Beiträge zur Handlung* (Berlin, 1788).—*Ueber die Messe zu Frankfurt a. O.* (Berlin, 1807).

R. H. H.

GUARANTEE. A contract by which one person—called the surety—undertakes to be liable for the debt of another person—called the principal debtor. A contract of this nature must, in accordance with § 4 of the Statute of Frauds, be in writing; but § 3 of the Mercantile Law Amendment Act provides that it shall not be necessary for the consideration to be set out in writing. This does not, of course, dispense with the necessity of a consideration in all cases where the contract is not made by deed, but the granting or continuing of a loan to the principal debtor is in itself a sufficient consideration to support the promise of the surety.

It is frequently doubtful whether a guarantee is intended to be a continuing one or whether it is merely intended to refer to a special transaction, and the surrounding circumstances may be considered in order to ascertain the intention of the parties (see, for instance, Leathley *v.* Spyer, L. R. 5 C. P. 595). A contract of guarantee must be distinguished from a contract of indemnity, which may be valid though not in writing. The distinction is shown in the well-known case of Birkmyr *v.* Darnell (1 Smith, Leading Cases, 8th ed., p. 326), and expressed in the following words: "If two come to a shop and one buys and the other, to gain him credit, promises the seller: *If he does not pay you, I will*, this is a collateral undertaking, and void without writing by the Statute of Frauds. But if he says: *Let him have the goods, I will be your paymaster*, or *I will see you paid*, this is an undertaking as for himself, and he shall be intended to be the very buyer, and the other to act as but his servant," but it is often very difficult to decide what was the intention of the parties as to these points (see *in re* Hoyle (1893), 1 Ch. 84).

A creditor who is secured by a guarantee must be careful not to alter the terms of his arrangement with the principal debtor without the concurrence of the surety, as a disregard of

this rule may have the effect of discharging the surety.

A surety, after having satisfied the creditor, is entitled to an assignment of all securities held by the creditor in respect of such debt, and to use all remedies of the creditor in order to obtain from the principal debtor or any co-surety repayment of the sums expended by him.

[De Colyar, *Law of Guarantees*, 3rd ed., 1897.]

E. S.

GUARANTYISM, a term introduced by WILLIAM ELDER (*q.v.*) to denote the various charitable, savings, and philanthropic agencies organised to promote thrift.

GUARD RENTS, CASTLE-GUARD RENTS. Castle-guard or castle-ward was a form of military service which seems to have been more common in the south and east of England than elsewhere. The tenants, who held lands in virtue of this service, did not follow their lord to war; their duty was the defence of his castle, where they were obliged to assemble on the approach of an enemy, and remain to assist the regular garrison till the danger was over. In later years this service was compounded for by an annual money payment called castle-guard rent. A long list of guard-rents, in connection with Dover Castle, dated 46 Henry III. is preserved in the *Red Book of the Exchequer*. There is a similar list at the public record office, dating from about 1680. This species of rent is not yet obsolete, for the Earl of Chichester, as owner of Hastings Castle, still receives guard-rents from tenants in the Rape of Hastings.

[C. I. Elton, *The Tenures of Kent*, London, 1867.—*Archæological Review*, i. 57, London, 1888.—*Red Book of the Exchequer*, folios 194 d. and 195.—*Public Record Office Calendars and Indexes*, No. 83.]

A. E. S.

GUARDIANS OF THE POOR. The title and office of guardian appear in Gilbert's Act of 1782 (22 Geo. III. c. 83). Where an incorporation of parishes was formed (see GILBERT'S ACT) the relief of the poor was to be administered by paid guardians, nominated by the justices of the peace, one to represent each of the incorporated parishes. The Poor Law Amendment Act (4 & 5 Will. IV. c. 76) combined parishes into unions for poor-law purposes, and gave the administration of the law to guardians of the poor. Guardians were of two kinds, (1) elected by the several parishes of a union, or by the several divisions of a parish. They were elected annually, or in an increasing number of cases triennially, by owners and occupiers under Sturges Bourne's Act, by which every £50 of rateable value gives a vote up to six; (2) *ex-officio* guardians, viz. justices of the peace for the particular county, riding, or division, who resided in the respective unions. There were in 1893, 20,687 elected and 7412 *ex-officio* guardians in England and Wales. The qualifications, election, and tenure of office have been greatly modified by the Local Government Act of 1894 (56 & 57 Vict. c. 73). Under this act *ex-officio* guardians are abolished. Henceforth every person who represents a parish as guardian will be chosen for three years by the parliamentary and county council electors. The qualification for a guardian is to be an elector or to have resided for twelve months. Sex and marriage are no disqualification. A chairman, vice-chairman, and two members, may be co-opted from persons qualified to be guardians. The duty of guardians is threefold: (1) to hear and decide applications for relief; (2) control the various establishments, workhouses, schools, etc.; (3) appoint and control the various officers. The office of guardian is unpaid and voluntary, but one of the most important in the whole range of local government. The effect of a good or bad administration of the poor law is immediately felt over a wide area, and the happiness or misery of thousands depends directly or indirectly upon the action of guardians. Further it is difficult to overstate the importance of the office as a political training.

[Glen, *Poor Law Orders*.—Aschrott, *English Poor Law*.—Nicholls, *History of the Poor Law*.]

L. R. P.

GUARINI, G. B. His claim to recognition lies in the fact that he translated, by direction of Eleanor of Aragon, Duchess of Ferrara, the celebrated work of CARAFA (written originally in Italian between 1469-1482), into Latin, *De regis et boni principis officio*. This translation was printed in 1668 (see Cossa, *Introduction to Political Economy*, translation, p. 158).

A. B.

GUÉRARD, BENJAMIN (1797-1854), a member of the French Institute, rendered invaluable services both to French and Western economic history of the Carolingian period by his able editions of the *Polyptyque* (1836-1844), or census of the Abbot Irminon of Saint Germain des Prés and of the *Polyptyque* of the abbey of Saint Remi in Rheims (1853), and also by his masterly preface (*Prolégomènes*) to the former. In this he explained the condition and status of persons and of land from the time of the invasions of the barbarians to the rise of communal institutions.

[See Dr. Seebohm on "French Peasant Proprietorship under the open field System of Husbandry" in the *Economic Journal*, vol. i. pp. 62-66.]

E. Ca.

GUERRY DE CHAMPNEUF, JACQUES (1788-1852), first a barrister at Poitiers, then public prosecutor, and about 1820 advocate-general of the *Cour Royale*, was in 1824 appointed director of criminal prosecutions and pardons in the ministry of justice, and in this capacity instituted in 1825 the first annual criminal statistics known under the name of *Compte Général de l'Administration de la Justice Criminelle en France*. He lost his post at the revolution of 1830 and returned to the bar;

but his delicate health and want of leisure never allowed him to publish the results of his juridical and economic studies. E. Ca.

GUICCIARDINI, Francesco (1482-1540), was born at Florence, and distinguished himself as an advocate, as a diplomatist, as a civil administrator under pope Leo X. and his two successors, and as lieutenant-general of the papal forces at the defence of Parma. In 1534 he retired to his native city, where he proved a friend to the Medici, and was at the head of the party which brought back Cosmo in 1537.

The fame of Guicciardini will, however, rest on his *History of Italy* from 1492 to 1532. This includes valuable information as to the great trading republics at an interesting epoch. The best edition is that of 1810 by Rosini. A. P. Goddard's translation, London, 1763, is from an incomplete text. R. H.

GUICCIARDINI, Luigi (1523-1589), nephew of Francesco Guicciardini, the famous historian. He spent a great part of his life in the Netherlands, where he was at first favoured, but afterwards imprisoned by the Duke of Alva.

Among other works, L. Guicciardini published in 1567 his *Descrizione di tutti i Paesi Bassi*, a detailed geographical and topographical account of the Netherlands, showing the condition, resources, and trade of the country. A third edition, revised by the author, was published at Antwerp (Plantin Press) in 1588. R. H.

GUILDER. See Florin (Dutch).

GUILDS. For all subjects under this heading—Craft Guilds, Frith Guilds, Merchant Guilds, Town Guilds, etc., see Gilds.

GUILDS, System in Spain. See Gilds, System in Spain.

GUILLARD, Achille (1799-1876), was born at Marsigny (Saone-et-Loire). He was an eminent statistician, and also much devoted to the study of natural science, particularly of botany. The most important economic work by Guillard is his valuable and laborious *Éléments de statistique humaine ou démographie comparée*, 8vo, 1855. A. C. f.

GUILLAUMIN, Urbain Gilbert (1801-1864), was born at Couleuvre near Moulins, and died at Paris. He was a very intelligent publisher, and in that capacity greatly contributed, through the influence of the many important works which were issued from his house, to extending the knowledge of political economy in France. As a young man he had to suffer much hardship. He came to Paris in 1819, and went into business. In politics he sided with the opposition, and went so far as to become a *Carbonaro* (see Carbonari). He was a friend of Béranger, and started at first as a political publisher; but becoming acquainted with Adolphe Blanqui, and with Joseph Garnier, he was led to turn his energy towards a speciality which won him great and well-deserved renown. Horace Say, son of Jean Baptiste Say, and father of M. Léon Say, aided him by his advice, and gave him also a pecuniary support which was a strong testimony to the character of both men. Guillaumin's two daughters, of whom the eldest, Félicité, died in 1885 at the age of fifty-six, inherited both his administrative ability and his devotion to economic science. The following are the best known publications of this house:

Dictionnaire du commerce et des marchandises, 1835.—*Dictionnaire de l'économie politique*, 1852.—*Dictionnaire du commerce et de la navigation.*—*Journal des économistes* (monthly), since 1842.—*Annuaire de l'économie politique et de la statistique* (yearly), since 1844.—*Collection des principaux économistes*, 16 vol. large 8vo, 1842.—*Économistes et publicistes contemporains*, 93 vols. 8vo.—*Bibliothèque des sciences morales et politiques*, 64 vols. 18mo, etc. A. C. f.

GUINEA, Introduction and Rating of. Soon after his accession, Charles II. issued a proclamation dated 26th August 1661, under which the older Unites of James I.—that is to say, those issued prior to 1619, and valued at 22s. (1 lb. troy = £40 : 18 : 4)—were to pass current at 23s. 6d.; and all unites of subsequent dates, which up to this period passed at 20s., were to be valued at 21s. 4d.

The legal weights of these coins and their fine gold contents were as follows:—

Unite or Laurel (Value of), 1604-1661.

Name.	Number of pieces in the lb. troy.	Value of lb. troy by tale.			Legal weight in grains.	Fine gold content in grains.
		£	s.	d.		
Unite of 1604, rated at 20s. till 1612 .	$37\frac{1}{5}$	37	4	0	$154\frac{26}{31}$	$141\frac{29}{31}$
Unite of 1604, rated at 22s. from 1612 to 1619 . . .	$37\frac{13}{64}$	40	18	4	$154\frac{418}{491}$	$141\frac{459}{491}$
I. Unite or Laurel of 1619, rated at 20s. till 1661 . .	$40\frac{11}{12}$	40	18	4	$140\frac{380}{491}$	$129\frac{31}{491}$
II. Another Unite or Laurel of 1619 rated at 20s. till 1661 .	41	41	0	0	$140\frac{20}{41}$	$128\frac{32}{41}$

As the standard weight and fineness of these coins were not modified during the reign of Charles I., or during the Commonwealth, it will be seen that the principal coins of crown gold, containing 22 carats gold and 2 carats alloy, were as shown in this table when the proclamation of 1661 above referred to was issued.

When in 1663 steps were taken to amend the coinage by adopting more modern methods of manufacture, new gold coins were ordered to be struck having current values of 100s., 40s., 20s., and 10s. These twenty-shilling pieces were for the most part struck from gold obtained in Guinea and imported by the African Company, from which circumstance they derived their name, and they bore the device of a

"little elephant," the stamp of that company. It is hardly necessary to state that gold pieces of the value of 20s. had long been used, having been first struck by Henry VII. in 1489; but from the accession of Charles II. the guinea at once took its place as the principal gold coin in this country, a position which it maintained until the great currency reform of 1816.

The weight of the "guinea" being based on that of the second unite of 1619, with a currency value of 21s. 4d., it follows that, as the pound troy produced forty-one of these latter pieces, each twenty-shilling piece weighed 131$\frac{4}{11}$ grains, and the pound of gold was valued at £43 : 14 : 8. In 1670, a fresh indenture directed that the pound should be coined into £44 : 10s.—that is to say, that the weight of each "guinea" should be 129$\frac{1}{8}\frac{1}{8}$th grains, which is identical with the weight of gold of the old standard (994·8) which passed current for 20s., under the indenture made by Charles I. in 1626. Although variations were frequently made in the official rating of the guinea, it may be noted that, in the hundred and fifty years during which it continued to be the principal gold coin of this country, no further change was made in regard either to its weight or its fineness.

During the twenty-five years from 1670 to 1695 the silver currency was gradually reduced, by clipping and other forms of fraud, to such an unsatisfactory state that, although no legal change had been made in the valuation of the guinea, it was impossible for its equivalence to twenty shillings in silver to be maintained; and in the latter year, in consequence of a memorial received from merchants and others, which showed that the guinea commonly passed for 30s., the House of Commons resolved, on the 15th February 1695, that this coin should not pass above a rating of 28s. Within a fortnight—that is to say, on the 28th February—an act was passed by which the rating was further reduced to 26s. from and after the 25th March 1696; and by a later act of the same session it was directed that from the 10th April 1696 the rating should not exceed 22s. The recoinage of silver, which was now being seriously taken in hand, greatly aided the steps taken to regulate the currency of the guinea; and towards the latter end of 1698, the silver recoinage being then well advanced, a report was presented to the House of Commons by LOCKE and others pointing out that, by fixing its value at 22s., gold was overvalued in this country as compared with Holland, and recommending that the rate should be reduced to 21s. 6d. The House resolved, therefore, "that, under the Act 7 and 8 William III. c. 19, no person is obliged to take guineas at twenty-two shillings apiece," and they were generally received at the lower rate of 21s. 6d. The value thus determined upon was maintained for several years, and, although Sir Isaac NEWTON, in a report to the Lord High Treasurer in 1711-12, pointed out that "gold is over-valued in England in proportion to silver by at least 9d. or 10d. in a guinea," no action was taken with a view to revise the rating until the 12th August, 1717, when Sir Isaac Newton was directed by the Lords Commissioners of His Majesty's Revenue to lay before them "a state of the gold and silver coin of this Kingdom in weight and fineness, and the value of gold in proportion to silver," etc. In the classic report which he prepared, dated 21st September, 1717, he showed that the intrinsic value of the guinea, as deduced from the ratio of silver to gold in all the principal trading nations of Europe, was about 20s. 8d., so that the legal rating was 10d. in excess of the value of the coin. This over-valuation naturally led to large quantities of the silver currency being withdrawn from circulation; and the inconveniences thus occasioned were set forth in an address from the House of Commons to the King, who issued a royal proclamation on the 22nd December 1717, forbidding all persons "to utter or receive any of the pieces of gold coin of this kingdom commonly called guineas at any greater or higher rate or value than one and twenty shillings for each guinea." The valuation thus fixed was maintained unaltered throughout the century which elapsed before gold was made the sole standard of value in 1816; and it was on this basis that the weight of the present principal gold coin, the sovereign, introduced in the following year, was determined. E. R.

GUINEA TRADE. Englishmen are first known to have traded with Guinea in 1530, for ivory, and not many years later for gold, though the gold from which guineas were coined was first imported by the Royal African Company formed in 1672 (see AFRICAN COMPANIES, EARLY). English trade in negroes began in 1562; they were carried to Hispaniola, and there exchanged for goods for the English market; and ten years later the right of England to share in the Guinea trade was acknowledged by the Portuguese, who frequently hired our ships to carry their slaves to Brazil. It was not until 1662 that the direct English trade in negroes for the supply of the American plantations began. Besides slaves, its staple product, Guinea supplied the merchants with ivory, gum arabic, gum senegal, camwood and other woods, bees' wax, cotton, ostrich feathers, ginger, pepper, rice, and palm oil, in exchange for gunpowder, arms and ammunition, lead and iron goods, brass, copper, tobacco, salt, cocoa, woollen, cotton, and linen goods, bugles, and Bengal goods. In most of these articles trade still continues (see AFRICAN COMPANIES, EARLY).

[Macpherson, *Annals of Commerce.—Gazetteer of the World*, art. "Guinea."—Reclus, *Nouvelle Géographie Universelle*, 1887, tom. 12.—Horton, *The Silver Pound*, 1887.] E. G. P.

HABIT. The economic influence of habit is defined by Prof. H. Sidgwick (*Principles of Pol. Econ.*, bk. ii. ch. xii.), as "the tendency to do as one has done before.' This, while it continually presents obstacles "to the adoption of economic improvement," yet on the other hand "has its counterpart in the tendency to expect to be treated as one has hitherto been treated." . . . "Some claims generated in this way have legal validity; as when a right of way is established without express permission of the landowner."

For the economic effect of the tendency to do as others do, see CUSTOM.

HAGEN, KARL HEINRICH (1785-1856), son of a professor of medicine, was born at Königsberg. After studying political science under HOFFMANN, he entered the government service, and in 1811 became professor of political science and political economy (*Staatswissenschaften und Gewerbekunde*) at Königsberg, which appointment he retained till 1849, when he sank into a lingering illness.

Hagen's principal work appears to be the one entitled *Von der Staatslehre und von der Vorbereitung zum Dienste in der Staatsverwaltung*, 1839. Of the seven sections into which this work is divided, the second, fifth, and sixth, entitled respectively Sketch of the Science of Political Economy, the Theory of Finance, and the Study of the Functions of Government (*Cameralwissenschaften*), may be recommended to the economist. The first-mentioned of these has been translated by PRINCE-SMITH, under the title of a *System of Political Economy* (1844). It is enriched with notes derived from Hagen's other writings and from his lectures, and by additions to the text which the author himself contributed. It is divided into several inquiries, of which the third, relating to value, seems the most interesting. From one of the notes to this part (p. 28), it appears that Hagen had made some advance towards the construction of what would now be called a "demand schedule" (Marshall) or DEMAND-CURVE. But the particular formulæ proposed by Hagen are fanciful.

The general conception was employed by him in an interesting attempt to prove the expediency of free trade by mathematical reasoning: *Die Nothwendigkeit der Handelsfreiheit für das Naturaleinkommen mathematisch nachgewiesen*, 1844. The argument appears to be vitiated by not including wages, as well as profits, in the measure of the advantage to the community. It may be worth alluding to the demonstration that, on the assumptions made, a slight degree of protection might produce a slight advantage, which turns into a disadvantage as the tariff is increased. Considerable interest attaches to the criticism of COURNOT'S theories of international trade, in a note at the end of the brochure, to which Cournot replies in his *Principes* of 1863. Hagen seems to fall short of Cournot with respect to the assumption above indicated; but to have the advantage in another respect. In estimating the change in the national revenue due to a new import (and *mutatis mutandis* a new export) Hagen takes account of the circumstance that the native labour displaced by the importation is apt to be employed in some other industry. He also professes to take account of the advantage which consumers of the imported commodity derive from a fall in its price. But, like Cournot, he misses the proper conception of CONSUMERS' RENT.

Besides the two works mentioned, Hagen is also the author of some articles in *Beiträge zur Kunde Preussens*, 1803-24; and of the following works: *On Platina Coin* (mentioned without date in the note to the *System of Political Economy* above referred to).—*Observationes œconomico-politicæ in Æschinis dialogum qui Eryxias inscribitur*, 1822.—*Ueber Einrichtung des Creditvereins von Gutsbesitzern im Königreich Bayern*, 1825.—*Aufklärung ueber das Sinken des Werthes des Geldes; aus dem Englischen*, 1839. Of these writings none except the first-named and the works referred to in the text have come under the eye of the present writer. [*Allgemeine Deutsche Biographie.* — Article by Prof. Edgeworth on "International Values," *Economic Journal*, vol. iv. p. 629.] F. Y. E.

HAIA. See FORESTS, MEDIÆVAL.

HAINES, RICHARD (17th century), is said to have been a Sussex gentleman (*Bread for the Poor*, by Philo-Anglicus, 1678, p. 4); he was evidently a royalist in his opinions, and speaks in one place (end of *England's Weal and Prosperity*) as if he were a member of parliament, but his name does not appear in the lists in Cobbett's *Parliamentary History*.

Haines wrote the following pamphlets, all very similar, to advocate his favourite remedies for social and economic evils:

The Prevention of Poverty, or a Discourse of the causes of the Decay of Trade, etc., 1674.—*Proposals for building in every County a Working-Alms-House or Hospital*, 1677 (reprinted in the *Harlean Miscellany*, 1810, vol. viii.)—*New Lords, New Laws, or a discovery of a grand usurpation*, etc., 1674. (Matthew Caffin replied to this pamphlet, *Envy's Bitterness corrected with the Rod of Shame*), 1674.—*Provision for the Poor*, etc., 1678.—*A Model of Government for the Good of the Poor and Wealth of the Nation*, 1678.—*A Method of the Government for such Public Working-Alms-Houses as may be erected in every County for bringing all Idle Hands to Industry*, 1679.—*A Breviat of some Proposals prepared to be offered to the Great Wisdom of the Nation*, 1679.—*England's Weal and prosperity Proposed*, 1681.

His sovereign remedy for decrease of exports and increase of imports, for mendicancy and pauperism, was the erection of great factories,

locally governed and established by rates, where the unemployed poor, whom he computed at 200,000, and even criminals, might be set to make linen or woollen cloth, for wages low enough to enable England to undersell foreign goods. The plan is not very carefully thought out; many of the difficulties which would arise being wholly overlooked. In the second pamphlet he mentions, without explanation, his invention of a plan by which "one man may turn fifty spinning wheels which shall serve a hundred persons to spin with at once; so that the spinners shall have nothing to do but employ both hands to draw tire from the distaff"; and also of "an engine by which fifty men may, without striking a stroke, beat as much hemp in one day as a hundred shall do in two days." E. G. P.

HALE, Sir Matthew (1609-1676), a native of Alderley in Gloucestershire, entered at Lincoln's Inn in 1629, and practised successfully at the bar. Though decidedly royalist in views he took no active part in politics, even during the civil war, and accepted a judgeship from Cromwell in 1653. He represented Gloucestershire in the parliament of 1654, Oxford university in that of 1658, and Gloucestershire again in the convention parliament which restored Charles II. in 1660. The same year he was made lord chief baron, and was knighted, and in 1671 he became lord chief justice. Ill-health induced him to resign this post early in 1676, and he died at the end of the year.

In addition to several legal and scientific and many religious works, Hale wrote *Primitive Origination of Mankind*, 1677, some chapters of which have been published separately as an *Essay on Population*, 1782, but are not very valuable; *De Successionibus apud Anglos; The law of Hereditary Descents;* and *Touching Provision for the Poor*, printed in 1683. In this he summed up existing laws, pointed out their defects, and suggested remedies. As the only radical cure for mendicancy and poverty he proposed the establishment of workhouses, for which purpose parishes should be grouped in unions; after their erection by means of the rates they were to become self-supporting — places of industrial education for children and of employment for the poor, especially when other work was scarce.

[*Life and death of Sir Matthew Hale*, by Bishop Burnet, 1682.—Wood's *Athenæ Oxonienses*, 1817, vol. iii.—*Memoirs of the Life, Character, and Writings of Sir Matthew Hale*, by J. B. Williams, 1835.—*Dict. of National Biography* (this gives some of the dates one year later than the other accounts). Campbell, in *Lives of Chief Justices*, dwells at length on Hale's political position.]

E. G. P.

HALE, Nathan, LL.D. (1784-1863), was born in Westhampton, Mass., graduated at Williams College in 1804, and became a journalist and the editor of the Boston *Advertiser* in 1814. He was among the first to encourage the construction of railways in New England. He wrote *Remarks on the Banks and Currency of the New England States, in which an Attempt is made to show the Public Benefits resulting from the System pursued by the Allied Banks of Boston*, Boston, 1826, pp. 40, in commendation of the Suffolk bank system. This was a system devised for the more prompt redemption of state bank bills—bills which were often depreciated in value, and regarded with suspicion in localities other than the place of issue. This practice was introduced to a limited extent in Boston in 1813, but not fully developed until 1825. The work of assorting and returning the notes to the place of issue was finally undertaken by the Suffolk bank of Boston, from which this policy took its name. It was confined, however, to New England banks, but aided much in giving a sounder banking administration.

He also wrote *The American System; or the Effects of High Duties on Imports designed for the encouragement of Domestic Industry*, Boston, 1828, pp. 56. He objected to extending the American system of high duties, and questioned the expediency of a warehousing system. It is a strong argument, and is said to have done much to bring about the compromise tariff of 1833. D. R. D.

HALES, John (16th century), was connected with the well-known Kentish family. He does not appear to have been at any university, but he was a man of wide and varied learning, and founded the grammar school at Coventry. He was clerk of the hanaper in the time of Edward VI. and sat for a time in parliament as member for Preston. The chief economic interest connected with him is due to the active part he took in the commission on enclosures in 1548. His elaborate defence of himself and some other papers have been recently printed in full (*Discourse of Common Weal*, Introduction), and amplify the information in the extracts given by Strype.

Recently good reason has been shown for attributing to Hales the well-known *Examination of Complaints* of which W. S. claimed to be the author. Miss Lamond has shown that during his life he was regarded by some people as its author, and has adduced strong reasons from internal evidence in support of this view. Since she published her essay (*English Historical Review*, April 1891), it has received general acceptance. The full evidence, with many biographical details, will be found in her edition of the dialogue published in 1893 under the title *A Discourse of the Common Weal of thys Realm of England*.

If this view be correct it at once appears that Hales was, as an economist, much ahead of contemporary opinion. His views on the evils of a debased currency, on the balance of trade, on exclusive corporations, and on other subjects are extremely interesting. Hales may well get the credit of having expressed them well and clearly, though there seems to be some reason to believe that he had not thought out these opinions for

himself, but was chiefly the mouthpiece of Hugh Latimer (see LATIMER). On the economics of the dialogue, compare the review of the discourse in the *Economic Journal*, December 1893. W. C.

HALF-CROWN. English coin struck both in gold and silver, concurrently with the gold and silver crown pieces, of the same fineness and of proportionate weight to those coins respectively (see CROWN). F. E. A.

HALF-IMPERIAL (see IMPERIAL).

HALFPENNY. English coin, struck in silver, copper, and bronze.

Silver Halfpenny:

Reign.	Year.	Weight (grains).	Fineness.	Value. In silver 925 fine, at 5s. 6d. an oz.	Value. In standard silver francs, 900 fine.
				d.	franc.
Edward I. .	*1300*	11	925	1·512	·146
,, III. .	*1344*	10	,,	1·375	·133
,, III. .	*1351*	9	,,	1·237	·120
Henry IV. .	*1412*	7·5	,,	1·031	·099
Edward IV. .	*1464*	6	,,	·825	·080
Henry VIII. .	*1527*	5	,,	·687	·065
Edward VI. .	*1552*	11	,,	1·512	·146
Mary . .	*1553*	12	,,	1·650	·159
Elizabeth . .	*1560*	4	,,	·550	·053
,, . .	*1601*	3·75	,,	·516	·049

Copper halfpence were first struck in Charles II.'s reign, and *bronze* halfpence in 1860, on the first adoption of bronze coinage in England. *See* COPPER MONEY (England). F. E. A.

HALF-SOVEREIGN. English gold coin.

Reign.	Year.	Rating.	Weight (grains).	Fineness.	Value in gold 916·6 fine, at £3:17:10½ an oz.
		s.			£ s. d.
Henry VII. . .	*1485*	10	128·00	994·8	1 2 6½
,, VIII. .	*1543*	,,	100·00	916·6	0 16 3
,, VIII. .	*1545*	,,	96·00	,,	0 15 7
Edward VI. . .	*1549*	,,	84·625	,,	0 13 8
,, VI. . .	*1550*	12	120·00	994·8	1 1 1½
,, VI. . .	*1551*	10	87·25	916·6	0 14 2
Elizabeth . .	*1558*	,,	,,	,,	0 14 2
,, . . .	*1601*	,,	86·00	,,	0 13 11½
George III. (and subsequently) .	*1817*	,,	61·63	,,	0 10 0

The value of the current half-sovereign in gold francs, 900 fine, is 12·61 fr. (see POUND STERLING). F. E. A.

HALIFAX, CHARLES MONTAGUE, Earl of (1661-1715), the distinguished statesman and financier, was educated at Westminster School, and at Trinity College, Cambridge, where he formed a lifelong friendship with Sir Isaac Newton. Entering upon a political career, he signed the invitation to the Prince of Orange, was returned to parliament for Malden, and sat in the convention. Quickly developing a remarkable talent for financial business, he was made, in 1691, one of the commissioners of the treasury, and called to the privy council. In December 1692 he proposed, in the House of Commons, to raise a million sterling by way of a loan. William III. required money for his wars; the moneyed classes desired sounder investments than bubble companies; the landed proprietors were hard pressed by the weight of taxation, and some new financial expedient was necessary. Montague's loan bill was consequently accepted, and it passed both Houses without opposition. Thus was laid the foundation of the national debt. "By this memorable law," says Macaulay (*History of England*), "new duties were imposed on beer and other liquors. These duties were to be kept in the exchequer separate from all other receipts, and were to form a fund on the credit of which a million was to be raised by life annuities. As the annuitants dropped off, their annuities were to be divided among the survivors, till the number of survivors was reduced to seven. After that time, whatever fell in was to go to the public. It was therefore certain that the 18th century would be far advanced before the debt would be finally extinguished; and, in fact, long after King George the Third was on the throne, a few aged men were receiving large incomes from the state in return for a little money which had been advanced to King William on their account when they were children. The rate of interest was to be 10 per cent till the year 1700, and after that year 7 per cent."

By the spring of 1694 it became again absolutely necessary to find some new mode of defraying the war charges. Three years before, William Paterson, an ingenious Scotsman, had propounded a plan for a national bank. The scheme was favourably regarded, but nothing was done. Montague, however, now furthered the plan, and engaged to carry it through the House of Commons, while Michael GODFREY, an upright and opulent merchant, agreed to manage the city. An approving vote was obtained from the committee of ways and means, and Montague introduced a bill whose title gave rise to much comment and sarcasm. "It was indeed not easy to guess that a bill, which purported only to impose a new duty on tonnage for the benefit of such persons as should advance money towards carrying on the war, was really a bill creating the greatest commercial institution that the world had ever seen. The plan was that £1,200,000 should be borrowed by the government on what was then considered as the moderate interest of 8 per cent. In order to induce capitalists to advance the money promptly on terms so favourable to the public, the subscribers were to be incorporated by the name of the Governor and Company of the Bank of England. The corporation was to have no exclusive privilege, and was to be restricted from trading in anything but bills of exchange, bullion, and forfeited pledges" (Macaulay's *England*). In order, however, that the bank should not have the power over the national purse, a clause was inserted in the

act which inhibited the bank from advancing money to the crown without the authority of parliament. So popular was the scheme that the whole sum which the new corporation was bound to lend to the state was paid into the exchequer before the first instalment was due, and the Bank of England was successfully launched upon its career.

Montague was now such an acknowledged master of finance that in 1694 he was appointed chancellor of the exchequer. In the ensuing year he carried out his plan for re-coining the money of the kingdom. The new currency was to be of the old standard both in weight and fineness; all the new pieces were to be milled; the loss on the clipped pieces was to be borne by the public; a time was fixed after which no clipped money was to pass, except in payments to the Government; and a still later time was fixed after which no clipped money was to pass at all. The scheme was carried; Newton was appointed warden of the mint: and to meet the loss on the coinage a tax on windows was imposed instead of that obnoxious impost the Hearth-money. In 1696, however, the general distress and monetary confusion throughout the country were such that Montague introduced the system of Exchequer Bills (*q.v.*). He had already succeeded in engrafting on Harley's Land Bank Bill a clause which empowered the government to issue negotiable paper, bearing interest at the rate of threepence per day on one hundred pounds. Accordingly, exchequer bills drawn for various amounts from a hundred pounds down to five pounds, were now issued, and rapidly distributed over the kingdom. Montague also projected the scheme for a general fund, which gave rise to the sinking fund, afterwards established by Sir Robert Walpole. He further devised a method to raise the sinking credit of the Bank of England by a second subscription, and his general mortgage plan was warmly welcomed. The authority which the chancellor of the exchequer now wielded in financial matters was unprecedented, and he was publicly thanked by the House of Commons. In 1697 he became premier, but, owing to his vanity and arrogance, his popularity began to wane, and he was obliged to accept the auditorship of the exchequer, and to withdraw from the House of Commons with the title of Baron Halifax. In 1698 he founded a new East India Company, in the interests of greater freedom of trade, and to diminish the power and monopoly of the old company, but both institutions were eventually consolidated in 1708, under the title of "The United Company of Merchants of England trading to the East Indies." The Commons impeached Lord Halifax for breach of trust in 1701, and again in 1703, but the Lords threw out the articles. In 1706 Halifax took a leading part in negotiating the union with Scotland. On the death of Queen Anne he was appointed one of the council of regency, and when George I. took possession of the throne he was created Earl of Halifax, and became first commissioner. Disappointed at not becoming lord high treasurer, he intrigued with the tory leaders, but his schemes and his life ended suddenly on the 19th May 1715.

[Chalmers's *Biographical Dictionary*.—Coxe's *Memoirs of Walpole and Marlborough*.—*Life and Works of the Earl of Halifax*, 1715.—Macaulay's *History of England*.—Thorold Rogers, *First Nine Years of the Bank of England*, 1887.]

G. B. S.

HALL, Charles, M.D. (1745?-1825?) author of *The Effects of Civilisation in European States*, London, 1805, republished in J. M. Morgan's Phœnix Library, 1850. After a general view of the ills of society, which anticipates Henry George and the later socialists, wherein landed property is stated to be "the basis, source, and substance of all wealth," into which "all must be resolved," it is curious to find the remedies advocated are the abolition of primogeniture and the repression or at least the severe taxation, of "refined manufactures." Hall afterwards, however, suggests a form of state ownership of the land, coupled with individual ownership of the produce. In Morgan's *Hampden in the 19th Century*, London, 1850, Hall is mentioned as having died in the Fleet prison at eighty. "His conversation was particularly animated and intelligent." Hall states that his experience as a doctor led him to consider the sufferings of the poor. He writes from Tavistock. Much stress is laid on the importance of Hall's book, as anticipating the later socialists, by Anton Menger, who, in his *Recht auf den vollen Arbeitsertrag*, 2nd ed., 1891, devotes a section, pp. 57-60, to an analysis of its arguments.

[*Dictionary of National Biography*, vol. xxiv. p. 60.]

H. E. E.

HALL, VAN. See Van Hall.

HALL-MARKING. Hall-marks are impressions made at a public assay office upon gold and silver wares to indicate the fineness of the metal of which they are composed.

Hall-marking was first introduced in the year 1300, when, at the instigation of the English Gild of Gold and Silver Smiths, the system was enforced by Royal Command, and by the provisions of Stat. 3, cap. 30, of Ed. I. it was necessary to impress upon each piece of plate assayed the effigy of a leopard or a lion's head crowned. This was called the *king's mark*. A second mark, known as the *maker's mark*, was added in 1363 (37 Ed. III., cap. 7); and subsequently a third was introduced called the *assayer's mark* or *year letter*, consisting of a letter of an alphabet used for each year; when one type of letter was exhausted another was adopted. This system of indicating the date is still in use.

The marks used in England in recent times are five in number.

1. The *maker's mark*, the initials of the maker's name.

2. The *standard mark*, or mark to indicate the fineness of the metal.

For gold wares this is as follows :—

For gold 22 carats fine—22 surmounted by a crown.
„ 18 „ 18 „ „
„ 15 „ 15 and ·625.
„ 12 „ 12 and ·5.
„ 9 „ 9 and ·375.

For silver wares as follows :—

For silver 11 oz. 2 dwt. fine, 18 „ alloy } or 925 fine—a lion passant.
„ 11 oz. 10 „ fine, 10 „ alloy } or 958·3 fine—Britannia.

3. The mark of the *assay office*.

For London—a leopard's head.
„ Birmingham—an anchor.
„ Sheffield—a crown.
„ Chester—a dagger and three wheat sheaves.
„ Exeter—a castle with three towers.
„ Newcastle—three castles.
„ Edinburgh—a castle.
„ Glasgow—a tree, a fish, and a bell.
„ Dublin—Hibernia.

4. The *year letter* or date mark (described above).

5. The *duty mark*, the head of the reigning sovereign. This mark, which was introduced in 1784, and was continued till the early part of Queen Victoria's reign, is not now used.

Report of Select Committee on Hall-marking with proceedings, evidence, and appendix of acts, etc., 1878 (House of Commons, 328). F. E. A.

HALLER, KARL LUDWIG VON (1768-1854), born in Bern, entered the State Office (*Staats Kanzlei*) of the republic of Bern at the early age of sixteen, and was wont to congratulate himself on having never attended the lectures of a university, "as he was thus obliged to think for himself." He was sent as secretary on several foreign missions, and after the occupation of Bern by the French republican armies, was admitted into the Austrian civil service. Appointed professor of law in the academy of Bern in 1806, and member of the sovereign council in 1814, he was compelled to resign his professorship in 1817, when he became a Roman Catholic; up to the year 1830 he chiefly lived in Paris, writing in legitimist papers and living amongst the reactionary society of the French metropolis. After the revolution of 1830, he returned to Switzerland and resided in Soleure, where he died in 1854.

In 1808 he published his *Handbuch der allgemeinen Staatenkunde* which may be considered as the kernel of his large work: *Restauration der Staatswissenschaft oder Theorie des natürlich-geselligen Zustands der Chimäre des künstlich-bürgerlichen entgegengesetzt* (Winterthur, 6 vols., 1820) of which he himself wrote an (incomplete) French translation under the title of *Restauration de la Science Politique ou Théorie de l'État social naturel opposé à la fiction d'un État civil factice* (Lyons, 3 vols., 1830) in which he shows himself a warm admirer of the Middle Ages and an uncompromising opponent of the theory of the social contract and of constitutional government. The heading of the 13th chapter of vol. i. strikes the keynote of his doctrine: *Natürliche Ueberlegenheit ist der Grund aller Herrschaft, Bedürfniss der Grund aller Abhängigkeit und Dienstbarkeit* (Natural Superiority is the Basis of all Sovereignty, Want the Basis of every State of Dependence and Subjection). The domination of the strongest is for him the universal law of nature. He is essentially a writer on political subjects; but he deals in vol. ii. with economic questions, still always in the light of his mediæval leanings. Ownership in land (ii. pp. 36-60)' is a natural institution. The prince ought to live on his private income; if taxes are needed, they ought to be demanded, but always freely granted. The property and disposal of the proceeds of taxation belong to the prince, if not otherwise specified at the time they were granted. Taxes may be infinitely varied; a perfect proportional equality is impossible to reach. All have their faults; the best are those which come nearest to voluntary contributions (pp. 272-354); the foundation of charitable, scientific, and literary institutions is the outcome of moral duty; it has no compulsory and imperative character. It is dangerous to make them completely the prince's affair; they are often best provided for by private individuals or associations (pp. 359-366).

[For a critical account of Haller, see Mohl, *Geschichte und Litteratur der Staatswissenschaften*, ii. pp. 529-560 and *Zeitschrift für Staatswissenschaft*, Tübingen, 1870, vol. xxvi. pp. 93-105; as also Roscher, *Gesch. der Nat. Oek.*, pp. 779-788.] E. Ca.

HALLEY, EDMUND, LL.D., F.R.S. (1656-1742), the well-known astronomer, author of numerous astronomical and mathematical works, was the inventor of life tables of mortality. He was elected a fellow of the Royal Society in 1678, and became its secretary in 1713; was appointed Savilian professor of geometry at Oxford in 1703, and astronomer-royal in 1721. He was the friend of Sir Isaac Newton, in the publication of whose *Principia* he took an important part.

Halley's *Tables of Mortality from Observations made at Breslau*, read before the Royal Society in 1692, and published in the same year in the *Phil. Trans.*, No. 196, though they passed unnoticed at the time, except perhaps in Germany, served as a pattern for future calculators. They have been reprinted in vol. xviii. of the *Assurance Magazine*. "They show the annual movement of a population, the probability of survivorship, the average duration of one or more lives and the money values depending thereon" (*Assurance Magazine*, vol. vi. p. 138). [Walford, *Insurance Cyclopædia.—Dict. of National Biography.*—Graetzer, *E. Halley und Caspar Neumann*, 1883.—Lalande, *Préface Historique aux Tables de Halley*, 1759.—Delisle's *Lettres sur les Tables de Halley*, 1749.—R. Boeckh *Halley als Statistiker*, 1893.] E. G. P.

HAMBURG, BANK OF. See BANKS.

HAMILTON, ALEXANDER (1757-1804), was born in Nevis, West Indies. At the age of fifteen he was sent to New York to be educated. He sided with the colonists in the dispute with the mother country, which was rapidly approaching a crisis, and soon by his activity and vigorous writing attracted the attention of the older leaders. Hamilton was entrusted with responsible positions, and from 1776 to 1781 served as aide-de-camp on Washington's staff. Although occupied with military and political duties, he found time at this period to read widely in history, political economy, and finance. His notebooks and letters display a wonderful comprehension of financial problems, generally to be obtained only by actual experience. In 1781 he entered upon the study of the law, and was appointed continental receiver of taxes for New York. During 1782-1783 he was member of Congress, and wrote a *Report on the Import Duty*, 16th Dec. 1782, works, ed. 1851, vol. ii. 213-223. Hamilton recognised the weakness of the existing form of government, and laboured earnestly to secure the establishment of a strongly centralised government, through the convention of 1787. To secure the adoption of the constitution he co-operated with Madison and Jay in writing the *Federalist*. Upon the establishment of the present form of government in 1789, he was selected, at the age of thirty-two, by President Washington, to take charge of and organise as secretary the treasury department. Rarely has any financier had so many difficult problems presented to him to be solved in so brief a period. Among his many reports the five following are most important: Public Credit, 9th Jan. 1790; National Bank, 13th Dec. 1790; Establishment of a Mint, 28th Jan. 1791; Encouragement and Protection of Manufactures, 5th Dec., 1791; and Public Credit 16th Jan., 1795. These are found in J. C. Hamilton's ed., New York, 1851, vol. iii.; H. C. Lodge's ed., New York, 1885, vol. ii. Finance and Taxation; vol. iii. Finance, Taxation, and Commercial Relations; and in *American State Papers*, vol. i. The first four were issued in a period of less than two years. Besides these reports, Hamilton wrote many others, to be found in the above volumes. All of Hamilton's writings relate to concrete and practical questions of government policy. His state papers are regarded as the ablest issued from the treasury department, showing a remarkable genius in the treatment of finance. As he left, however, no systematic treatise from which his final conclusions may be judged, there has grown up since Hamilton's time a considerable divergence of opinion concerning his real views as to political economy. He differed from R. Morris as to the adoption of a money unit of account for the new coinage, favouring the dollar instead of the pound or any proportionate part. Although he preferred gold to silver, as more stable, yet, under existing circumstances, he did not regard it wise to contract the quantity of circulating medium, and consequently favoured bi-metallism. In advising the current ratio of one to fifteen, he did not perceive the influence then at work to lower the value of gold, and consequently underestimated silver. He advised a moderate seignorage. He was convinced of the advantages of a "full circulation," and offered this as one of the reasons for the establishment of a national bank. The active capital would be augmented through the operation of credit. This advantage also strengthened his conclusions as to funding the debt. Stock would pass current as specie. Although he favoured bank notes, he opposed treasury notes; his condemnation of the latter was in words often quoted: "The wisdom of the government will be shown in never trusting itself with the use of so seductive and dangerous an experiment. In times of tranquillity it might have no ill consequence, it might even perhaps be managed in a way productive of good, but in great and trying emergencies there is almost a moral certainty of its becoming mischievous. If it should not even be carried so far as to be rendered an absolute bubble, it would at least be likely to be extended to a degree which would occasion an inflated and artificial state of things incompatible with the regular and prosperous course of the political economy." In advising protective tariff duties, Hamilton argued largely from political considerations. He saw the necessity of immediately strengthening the general government. His economic arguments are as follows: Manufacturing establishments not only occasion a positive augmentation of the produce and revenue of the society, but they contribute essentially to render them greater than they could possibly be without such establishments. This follows because it occasions and affords opportunity for the division of labour, an extensive use of machinery, employment to classes, such as women and children, not generally employed, emigration from foreign countries, greater scope for diversity of talents, and securing a more steady demand for the surplus produce of the soil. Hamilton does not state definitely that these considerations should be controlling factors if it were possible to procure from abroad, on good terms, all the fabrics which it may need. He found nowhere a perfect liberty to industry and commerce—expediency, therefore, must be the principle of action for the United States. He did not believe that industry, if left to itself, would flow in the most profitable channel, for custom was a powerful influence. Hamilton was an active federalist, and, in the cabinet, opposed the influence of Jefferson. He resigned 31st

January 1795, and returned to the practice of the law in New York. He still remained an adviser of President Washington, and frequently engaged in political discussions. For two years he held the position of Inspector-General of the army. In 1804 he engaged in a bitter political controversy with Burr, who challenged him, and Hamilton was mortally wounded in the duel fought 11th July 1804.

[For Hamilton's financial administration, see his *Works* referred to, also *Life of Alexander Hamilton* by John T. Morse, jun., Boston, 1876, vol. i. ch. viii.-xi.—*Alexander Hamilton*, by Henry Cabot Lodge, Boston, 1882, ch. v.—For complete bibliography, see *Bibliotheca Hamiltoniana*, by P. L. Ford, New York, 1886.] D. R. D.

HAMILTON, Robert, LL.D. (1743-1829). He studied at Edinburgh, making unusual progress in mathematics under Matthew Stewart, but, though desirous of a literary career, was obliged to enter a bank in order to obtain a knowledge of business, and afterwards to take charge of a paper-mill. In 1769, however, he became rector of the academy at Perth, and in 1779 professor of natural philosophy in Marischal College, Aberdeen. By a private arrangement he taught the mathematical classes instead of his own, and in 1817 obtained the chair of mathematics, which he held until his death.

Besides some mathematical text-books Hamilton wrote an *Introduction to Merchandise*, 1777; three essays on *Peace and War*, 1790, *Government*, and the *Management of the Poor*, 1822; which show enlightened views on economic subjects, *e.g.* bounties, taxes on necessaries, and poor-relief, but a somewhat limited grasp of political matters; and an *Inquiry concerning the Rise and Progress, the Redemption and present State, and the Management of the National Debt of Great Britain and Ireland*, 1813, on which his fame chiefly rests. He was the first not to discover, but successfully to expose, the fallacy underlying Pitt's sinking fund; he proved that "the excess of revenue above expenditure is the only real sinking fund by which public debt can be discharged," and he showed that the existing system was not merely useless, but actually harmful, entailing a high rate of interest and increased cost of management. The *Progress of Society*, 1830, a posthumous publication, treats in simple language of the theories of political economy; the chapters, for example, on value and price are of considerable merit.

[Memoir prefixed to *Progress of Society*.—Chambers's *Biographical Dictionary of Eminent Scotsmen*.—*Dictionary of National Biography*.—M'Culloch, *Literature of Pol. Economy*.] E. G. P.

HANAPER. An ancient office or department of the chancery, so called from the hamper (*hanaperium*) in which certain records were deposited (cp. Petty Bag). It was the duty of the clerk of the hanaper to take account of all patents, commissions, and grants under the great seal, and to collect and administer the fees arising from the same. The office was abolished in 1842.

[S. R. Scargill-Bird, *A Guide to the Public Records*, 1891.] A. E. S.

HANCOCK, William Neilson (1820-1888), was the son of Lord Lurgan's land-agent, and was born at Lisburn, county Antrim. He was called to the Irish bar in 1844, was Whately professor of political economy at Dublin University from 1846 to 1851, and professor of jurisprudence and political economy at Queen's College, Belfast, from 1849 to 1853. From 1851 to 1853 he was secretary to the Dublin University Commission, in 1854 to the Endowed Schools of Ireland Commission, and later to several other commissions on Irish subjects. From 1855 to 1866 with a year's interval he was clerk of the custody of papers in matters of idiots and lunatics in the Court of Chancery, and in 1882 he became clerk of the crown and hanaper. He was the chief founder of the Dublin Statistical Society, 1847, and of the Belfast Social Inquiry Society, 1851. Throughout his active life he put forward his economic and social opinions in writing in the form of articles or pamphlets, all marked by knowledge, discernment, and impartiality.

Hancock's works are: *The Tenant-right of Ulster considered economically*, 1845.—*Impediments to the Prosperity of Ireland*, published 1850.—*What are the causes of the Prosperous Agriculture of the Lothians of Scotland?* and, *What are the causes of the distressed state of the Highlands of Scotland?* 1852, all aim at proving, either directly or by comparison with Scotland, that Irish agricultural distress was due not to the race, religion, perversity, or ignorance of the Irish peasant, but to defective land-laws, and mainly to the want of some equivalent to the Ulster tenant-right.—*Three Lectures on the Questions, Should the Principles of Political Economy be disregarded at the present Crisis? and if not, How can they be applied towards the discovery of Measures of Relief?* 1847, discuss the potato famine, deprecating the artificial lowering of prices, and advocating a uniform system of relief in money.—The *Report on the supposed progressive decline of Irish Prosperity*. 1863, brought forward various statistics to disprove such decline, and attributed the increase of emigration to older and deeper-rooted causes than the potato famine.—The question, *Is there really a want of Capital in Ireland?* 1851 (see *Prosperous Agriculture in the Lothians*, p. 16), he answered in the negative.—His *Duties of the Public with regard to Charitable Savings Banks*, 1852, and *The Present State of the Savings Bank Question*, 1855, exposed, by an Irish example, the evils of the existing system, which allowed limited liability and minimised responsibility by dividing it between government and the managers; and advised the abolition of charitable in favour of government or private joint-stock banks.—He also wrote an article on *Local Government and Taxation, Ireland*, 1875, and edited the first two volumes of the *Ancient Laws of Ireland*, 1865.—In some un-

published essays he treated of *The Use of the Doctrine of Laissez-Faire in investigating the Economic Resources of Ireland*, 1847, in which he recommended the alteration of such laws as interfered with economic development; and of *The Workhouse as a mode of Relief for Widows and Orphans*, 1855, in which he advocated the boarding-out system and outdoor relief for these classes of the poor.

[*Memoir* by J. K. Ingram, LL.D., unpublished, read before the Statistical and Social Inquiry Society of Ireland.—*Dublin University Calendar.* —*Belfast Queen's College Calendar.*] E. G. P.

HANDICRAFT. See HOME INDUSTRIES.

HANDSAL. See AUNCEL.

HANSARDS. One of the English names for merchants of the Hanseatic League, EASTERLINGS being the other. Hansard appears as an English surname in 1254. (Mat. Paris, v. 427). R. H.

[The honourable connection of the *Hansard* family of printers with the publication of parliamentary debates need not be commented on here.]

HANSE OF LONDON. This hanse, which had no organic connection with the Hanseatic League, was an association for foreign commerce consisting originally of merchants of Flemish towns. It was established for the promotion and security of trade between Flanders and England. It is a well-known fact that Flanders was dependent upon England for her supply of wool; the *Libell of Englishe Policye* says—

> By draping of oure wolle in substaunce
> Liven her comons, this is her governaunce.

Hence it was natural that a society or league should be formed in Flanders for the protection of her trade with England. As its chief seat or centre of commerce was in London, it was called *hansa Londoniensis;* other names applied to it were *hansa Flandrensis* and "the seventeen towns." Little is known concerning the origin of the association. Though not clearly mentioned before 1240, it seems to have been formed in the second half of the 12th century by seventeen towns of Flanders,—Bruges, Ypres, Lille, Damme, Ardenburg, etc. There is some evidence that a small hanse at Bruges was its original nucleus or starting-point. In the 13th century the number of towns connected with the hanse of London was gradually increased, though the old name, *les dix-sept villes*, was retained. Bourquelot gives a list of fifty-six such towns, many of which were in Hainault and North France,—Ghent, Douai, Arras, Cambrai, Abbeville, St. Omer, Beauvais, Caen, Troyes, Amiens, Rheims, etc.

The hanse of London had the monopoly of commerce with England. Its officers could seize the property of any of their countrymen of Flanders, not belonging to the society, who undertook to trade in England. Besides exercising this monopoly, the hanse protected its members against dishonest dealings; they ceased to have commercial intercourse with any Englishman who had been guilty of fraud in selling wares, or who had acted unjustly toward any one of them. They also traded at the great fairs of Champagne (see MEDIÆVAL FAIRS); the prosperity of these marts was, in fact, largely dependent upon the hanse of London.

Concerning the organisation of the society, the information furnished by its statutes and by other sources is meagre. Its chief officer, "the count of the hanse," was elected by the merchants of Bruges. He presided over its meetings and courts, and was assisted by the standard-bearer, *scildraca*, who was generally a merchant of Ypres. These two officers also acted as treasurers. The statutes mention, moreover, a clerk, or secretary, and *inventores*, or *arbitri*. The *inventores* were judgment-finders or judges who tried cases falling within the jurisdiction of the hanse; eight of these judicial delegates came from Bruges, four from Ypres, and one or two from each of the other towns of the league.

New members were admitted at Bruges and in England. To gain admittance a person had to pay an entrance fee, the amount of which varied according as the applicant was the son of a member or not. Most artisans and retail dealers were excluded from membership, especially weavers, fullers, shearers, carpenters, shoemakers, wool-beaters, dyers "who dye with their own hands and have blue nails," skinners "who work with their hands," tinkers "who go crying through the streets," cheesemongers, buttermongers, and all who sell by the pound. Such persons could become members only by renouncing their craft or trade, and then, after waiting a year and a day, by paying a high entrance fee. They were, moreover, required to bring a certificate from their town showing that they had been admitted to its *caritas*, or mercantile brotherhood, on payment of the fee required by the municipal authorities. The hanse was evidently made up mainly of wholesale dealers, though some prosperous craftsmen seem to have obtained admission.

There was a close connection between the hanse and the towns to which its merchants belonged. The higher municipal officers had to be members of the society; and before being admitted into the hanse, a person had to join the mercantile gild of his town. Hence the hanse of London may be regarded as a loose municipal league, as well as a society of merchants.

The count of Flanders seems to have exercised no direct supervision or authority over the hanse; but, in some cases, there was probably an appeal from the decisions of its court to a superior commercial tribunal of Flanders consisting of delegates from five important towns.

The exact date of its dissolution is shrouded

in as much obscurity as that of its creation. It still flourished in 1349. There seem, however, to be no references to it in the second half of the 14th century, and in 1426 the town authorities of Bruges stated that the regulations of the hanse had long been in abeyance. Its period of life thus covered about two hundred years.

[The best account of the hanse of London will be found in Carl Koehne's *Hansgrafenamt*, 1893, pp. 205-245.—See also Bourquelot, *Foires de Champagne*, 1865, vol. i. pp. 134-139.—Varenbergh, *Histoire des Relations diplomatiques entre la Flandre et l'Angleterre*, 1874, pp. 145-155.—Hegel, *Städte und Gilden der germanischen Völker*, 1891, vol. ii. pp. 185-188.—Ashley, *James and Philip van Artevelde*, 1883, pp. 17-20, 141.] C. GR.

HANSE TOWNS. The number of towns which belonged for a longer or shorter time to the Hanseatic League is uncertain, as the merchants carefully abstained from furnishing complete details, and the names must be gleaned from records. In documents which mention a considerable number, the classification is geographical. The treaty, for example, with King Magnus in 1372 (*Recesse*, ii. 45), though it omits the Westphalian towns, ranges the others under the headings: *Civitates Maritimæ; Civitates Livoniæ, Prussiæ, de Mari Australi* (Zuyder Zee), *Zelandiæ*, *Hollandiæ*, *Gelriæ* (Guelders). It is usually stated that the towns in the 14th century were divided into three groups or circles (see HANSEATIC LEAGUE, p. 283).

The following list of 115 is founded on one in the *Hansische Geschichtsblätter* for 1871, collated with the Hanseatic map in Prof. Droysen's Historical Atlas and other lists, and the results have also been compared with the names of the towns represented at the various Diets up to 1476. These appear, a few at a time, in the official *Recesse*, and form an absolute test of the right of a town to a place on the roll. Those which are now for the first time added on this authority are marked with an asterisk.

Amsterdam	Elburg	*Kokenhusen
Anklam	Emmerich	Kolberg
*Arnemuiden	*Enkhuizen	Köln a. d. Spree
Arnheim	*Fellin	Königsberg
Aschersleben	Frankfurt a. d. O.	Kulm
*Barth	Gardelegen	Lemgo
Berlin	Gollnow	*Lemsal
Bielefeld	Goslar	Lippstadt
Bolsward	Göttingen	Loitz
Brandenburg	Greifswald	Lübeck
Braunsberg	Grimmen	Lüneburg
Bremen	Groningen	Magdeburg
Breslau	Guben	Middelburg
Briel	Halberstadt	Minden
Brunswick	Halle	Münster
Buxtehude	Hameln	Nordheim
Cologne (Köln a. R).	Hamburg	Nymwegen
	Hamm	Osnabrück
Cracow	Hanover	Osterburg
Danzig	Harderwyk	Osterode
*Demmin	Hasselt	Paderborn
Deventer	Helmstedt	Pernau
Dordrecht	Herford	Quedlinburg
Dorpat	Hildesheim	Reval
Dortmund	*Hindeloopen	Riga
Duisburg	Kampen	Roermonde
Eimbeck	Kiel	Rostock
Elbing	Koesfeld	Rügenwalde
Salzwedel	Tangermünde	Wernigerode
Seehausen	Thiel	Wesel
Soest	Thorn	*Wieringen
Soltbomel	Treptow	*Windau
Stade	Tribsees	Wisby
Stargard	Uelzen	Wismar
Staveren	Unna	*Wolmar
Stendal	Utrecht	Zierixee
Stettin	Venlo	Zutphen
Stolpe	Warburg	Zwolle
Stralsund	*Wenden	

Kneiphof, though only one of the quarters of Königsberg, was separately represented at more than one diet at which a representative of Königsberg was also present. It cannot, however, be included in a list of towns.

Official documents give good reason for believing that the following were also Hanse Towns:

Erfurt	Kalmar	Pritzwalk
Greiffenberg	Kyritz	Werben
Havelberg	Nordhausen	
Höxter	Perleberg	

Many other towns are mentioned in the *Recesse* in a way which shows that they were in some degree connected with the Hansa; but it is not possible to give a satisfactory list of them.

The *Kontor* towns were:

Bergen Bruges London Novgorod

To these may be added the following, in which the Hansa either had smaller factories or special privileges:

Antwerp	Helsingborg	Roeskilde
Ardenburg	Helsingör	Skanör
Boston	Hull	Stockholm
Bristol	Ipswich	Svendborg
Copenhagen	Kowno	Warberg (Sweden)
Damme	Lisbon	Yarmouth
Dinant	Lynn	York
Falsterbo	Malmö	Ypres
Flensburg	Norwich	
Ghent	Pleskow	

This list could be much extended, but the question of inclusion or exclusion is one of degree, as the league had dealings far and wide. R. H.

HANSEATIC LEAGUE. An association of German towns which, during the 13th and 14th centuries, secured the entire trade of the countries surrounding the Baltic, exporting their produce to Germany, England, and the marts of western Europe, and carrying back the manufactured goods of the west and the special products of warmer climates.

The word *hansa* is of Mœso-Gothic origin, and denotes an association of a militant character; it also appears in early documents in the sense of a payment (*Hans. Urk.*, i. No. 33). In 1266 the Hamburg merchants were allowed to have *hansam suam . . . per totum regnum* by Henry III.; but the expression *mercatores de hansa Almaniæ* first occurs as a designation of the famous league in the agreement of June 1282 with the city of London, now in the archives of Lübeck.

Monopoly was the watchword of the Hanseatics from beginning to end of their career; but while their policy enabled them, in the infancy of the European nations, to amass wealth and gain power, their blind adherence to the same aims and methods in face of the

discoveries, new economic views, and developed political life of the 16th century, led to the final destruction of their organisation.

No date can be assigned for the first beginnings of the Hansa. No charter or treaty exists to which historians can point as a foundation statute until the year 1367, though, as the Hansa had at that date become the political arbiter of northern Europe, the deficiency is not due to the absence of strong bonds of association at a much earlier period.

There were anomalies in the position of the Hansa. As a power it treated on even terms with princes; it was also a secret society. On paper it was the obsequious servant of the German emperor; but, conscious of the weakness of the central authority, then wasting its strength in Italy, the league never condescended to obey the imperial decrees, and indeed was itself a standing contravention of the Golden Bull of 1356, which forbade all such associations. It could raise fleets and armies—one of twelve thousand men is spoken of—and levy large war-contributions, but it never permitted a complete list to be given of the towns which it included. It sufficed that the Hansa should know its own aims and methods, and it was best that its outlying members should not be too surely recognised by those who held them individually in their power. The Hansa assumed an absolute sway over its members, beheading the four burgomasters of Halberstadt in 1425 (*Contin. Chron. Engelhus.*, Leibnitz, ii. p. 84), and almost ruining those towns which, like Brunswick in 1375 (*Recesse*, ii. No. 93), were for a time expelled; or, like Bremen in 1285 (*Rec.*, i. 34, § 2), unhansed themselves; yet it had no visible executive.

Some of the earliest traces of that which was destined to become the Hansa are found in England, though in reality the league sprang from two centres of growth—the Cologne trade with England and the Lübeck trade with the Baltic.

The calling of a merchant in the 13th and earlier centuries required physical courage and endurance. Mediæval traders travelled with their goods, and were regarded, in foreign countries, with a jealousy largely due to their persistent attempts to work outside the towns and enter into direct commercial communication with producers, thus carrying away with them the profits which, had they traded under municipal restrictions, would have accrued to the native merchant. This was not only an English feeling; its counterpart was found abroad, and it was a cardinal point in the policy of the Hansa to enforce far stricter limitations on English merchants on the continent than those which, in spite of the *Carta Mercatoria* of 1303, were imposed on ordinary foreign merchants in England up to the middle of the 14th century. Partnerships between foreign merchants and its own members were absolutely forbidden by the Hansa, and the celibacy to which the *Kontor* and factory agents were bound was intended to prevent the growth of family agencies.

Usually a foreign merchant had to pay much higher customs dues than a native. He had to buy, or combine to buy, from rulers the right to travel anywhere, and sell in any market; and when, as in the case of the Hansa, these privileges were obtained, he became the hated rival of the native trader, who gladly enforced, when possible, the rough justice of reprisal then in vogue. This system is conveniently illustrated by the letter from Stralsund in the *Literæ Cantuarienses* (Rolls Series, iii. 91), and it will be seen that if a previous merchant, from the same place as the trader himself, had proved a defaulter, or his own city or country had ill-treated merchants of the kingdom he was visiting, his goods or his person might be seized in compensation. Again the roads were not infested by ordinary robbers only, for a duke of Brunswick could condescend to plunder merchants so shamelessly as to force the league to vengeance (*Chron. S. Ægid.*, Leibnitz, iii. 598); and local magnates exacted so many tolls (see INTERNAL CUSTOMS AND TOLLS) that a Hanseatic merchant, travelling from Thorn to Lemberg, a distance of perhaps 360 miles, was forced to pay tolls sixteen times, the toll per horse amounting to over 31 groats (*Hans. Urk.*, iii. 312).

To these vexations were added the natural perils of the sea and the brutality of pirates and wreckers, for so barbarous were the times that a prince, while agreeing to protect merchants from other plunderers, could stipulate for a share of stranded cargoes for himself.

There must have been heavy profits to induce men to run such risks, and it was but natural that they should seek by combination to make these profits more secure, and obtain comfort and mutual assistance when, as frequently happened, they were compelled to winter far from home. These combinations abroad, among men whose temporary sojourn at a distance in no way impaired their ties of citizenship, led to federations at home between the towns, in which the merchant class was then the controlling element. This was a foregone conclusion, for, during the period of the rise of the Hansa, there was no national commerce in Europe; towns everywhere dealt with other towns, and merchants having the same aims and methods tended to frequent the same spheres of activity.

Traces have come down from remote times of a great trade in the Baltic before the 11th century. In 975, for example, Otto II. granted a charter to Magdeburg (*Hans. Urk.*, No. 1), which, by referring to the wanderings of German merchants into barbarous countries, clearly alludes to Russia and the North; and Adam of Bremen, in the 11th century, mentions that the now-vanished city of Julin, or Jumne, was *mercibus omnium Septentrionalium nationum locuples* (Pertz, viii. 312, ll. 15, 22). In Gothland, too, coins of so many Anglo-Saxon kings have been found that the collection made thence is the second best in Europe; and mingled with these tokens of western trade are coins of the caliphs of more than a thousand different types, testifying to the constant communications with the East by the

Caspian Sea, by the Volga, and the other great rivers of Russia. Gothland, and Wisby its chief town, had thus long been marked out as the central depôt of Baltic produce, and in 1163, but five years after the second foundation of Lübeck, we find a rescript of Henry the Lion (*Lüb. Urk.*, p. 4) respecting the behaviour of the natives and the Lübeckers settled in Gothland; while in 1199 Germans and Gothlanders were allowed free commercial access to the principality of Novgorod, which stretched in a north-easterly direction along the Baltic and the frontier of Sweden. Their trade was largely in herrings, which, from the beginning of the 12th century up to the middle of the 16th, seldom failed to drive in shoals through the Sound to spawn in the Baltic; and a hook of land, jutting out from Scania into the Sound, was then the place at which the fish could be best intercepted. There, accordingly, on Danish soil at Skanör and Falsterbo, the Lübeckers had their *vittæ*, or curing establishments, under privileges granted before 1209 by Waldemar II. of Denmark (*Lüb. Urk.*, p. 20). Matthew Paris, however, notes, under the year 1238, that the Gothlanders and Frisians were in the habit of coming each year to Yarmouth to buy herrings (iii. p. 488).

The early Lübeck records contain few traces of other Hanse towns; but in 1225 there are incidental references to the *Lubecenses, Hamburgenses et ceteri . . . mercatores . . . Daciam frequentare volentes*, to assistance given to certain princes in war, to an agreement with Hamburg in 1226 as to mutual privileges, and to the freedom from tolls granted to men of the Baltic shore in the Lübeck customs tariff (*Lüb. Urk.*, pp. 35-38).

The charter conferring mint privileges and the freedom of the empire on Lübeck in 1226 (*ib.* p. 45) refers to merchants trading thence to England, and frees them from the tolls exacted by Cologne and Thiel; but the records are strangely reticent, and under the year 1227, when the *Lubecenses* defeated the Danes at Bornhöved (Langebek, i. 122, 286), there is no Lübeck document clearly alluding to the war except an agreement with Riga and the Germans in Livonia not to make a separate peace. In the *Hansisches Urkundenbuch* (i. 232, 303, 345, 650) are documents of 1229 and later dates which seem to presuppose a league, but though the record evidence is not distinct, the existence of a far-reaching bond of union is apparent from public results of most decided character.

In 1249 it is recorded that Eric VI. of Denmark assailed the *Lubicenses in Scania piscantes* (Langebek, i. 123), and that in revenge they burned Copenhagen. Still no mention of other towns is made by the chronicler; but in 1285 the annalist of the Franciscans of Wisby (Langebek, i. 255) notes that there was war *inter Noricos et Lubycenses ac alias civitates maritimas* which was concluded by the peace of Kalmar; and the chronicler thus uses the actual official title of the Hansa, whose common seal bore the legend: *Signum civitatum maritimarum*. His words are interpreted by the record of the arbitration in the *Hansisches Urkundenbuch* (i. 993), and by the *Annales Lubicenses* (Pertz, xvi. 411-429) which mention, under 1285, Lübeck, Wismar, Rostock, Stralsund, Greifswald, Riga, Wisby, and two Netherland towns, Kampen and Staveren, as those concerned.

The same annals show, under the year 1310, an association between Greifswald, Stralsund, Rostock, and Wismar, which Lübeck declined to join (*Hans. Urk.*, ii. No. 175); and the northern chronicles (Langebek, vi. 222; i. 258) mention the burning of Helsingoër and Skanör by the *civitates stagnales*, or Hanse towns, in 1312, and the siege of Stralsund in 1316. They then proceed to give weary evidence of smouldering warfare up to 1361, when Waldemar III. of Denmark began an attack on the league which really led to its final organisation. At this date the merchants had a very long seaboard open to attack, for they had followed in the wake of the Teutonic knights, and had founded fourteen cities along the Baltic shore as far as Reval and a great factory farther away at Novgorod, so that the time had visibly come for firmly banding together all who had a common aim.

Turning now to the western half of Europe, the Laws of Æthelred (A.D. 978-1016) show the *homines imperatoris* coming to England in their own ships and enjoying special privileges; and William of Malmesbury, writing before 1142, describes London as being crowded with German merchants (*De Gest. Pont.*, ii. § 1). In 1157, too, there is a charter of Henry II. referring to the *gildhalla* of the Cologne merchants in London, followed by Richard's charter given to the same merchants at Louvain in 1194 (*Hans. Urk.*, i. 14, 40); but probably the earliest direct evidence of a western league is furnished by the charter of 1252 granted to the merchants of Cologne, Dortmund, Soest, and Münster *et aliis cum iisdem concordantibus* (*Hans. Urk.*, i. 428). The history of this branch of the Hansa is intimately connected with the history of English commerce (see STEELYARD), though it is certain that the Baltic merchants were also in constant communication with London, Lynn, and the eastern ports. The Cologne or Westphalian association presents, however, few historical features of interest until the eventful year in which, as stated above, the great war with Denmark began. Waldemar III., who had long endeavoured to free his kingdom from foreign influences, struck, in 1361, a treacherous blow at the league by sacking the town of Wisby in time of peace (Langebek, i. 259). At once negotiating an alliance with Norway, the merchants laid a tax on all the exported goods of their league, equipped a fleet, and plundered

Copenhagen. They were besieging Helsingborg when Waldemar, surprising their ships, compelled them to retreat (*Recesse*, i. 374, § 10). Negotiations followed, but the war broke out again, and on the 11th of November 1367, a general council of seventy-seven towns was held in Cologne, at which the *nuncii civitatum de Hanza Theotonica* (*Recesse*, i. 412, 416) drew up the Act of the Cologne Confederation, which was thenceforward regarded as the foundation-statute of the avowed Hanseatic League.

It was to these deputies (Langebek, vi. 228) that king Waldemar addressed his mocking quatrain beginning,

Seuen und Seuentigh Hensen
Hefft seuen und seuentigh Gensen.

But in the year following they had driven Waldemar from Denmark, and the peace of Stralsund was concluded in 1370 during his banishment (*Recesse*, i. 523). By it the Hansa obtained for fifteen years the castles and the bulk of the revenues of Scania, freedom from all tolls in the Sound, and a control over the succession to the Danish crown (*Rec.*, i. 524, l. 33).

This great change in the position of the Hansa was marked by a state visit in 1375 of the emperor Charles IV. to Lübeck as the chief of the confederated towns. He sought political aid in vain from the new power, which had reached its highest level, but he was loaded with gifts instead.

The extant records of the league now begin to assume a different character. The series of minutes of diets begin with those of the Wismar diet about 1260. These early *Recesse* must not, however, be supposed to relate to the league as a whole. No general assembly is known to have taken place before that in 1367, referred to above, and it is certain that small associations of towns sometimes took separate action (Pertz, xvi. 421). The early series of *Recesse* is broken, being not continuous until about 1364; but neither then, nor afterwards do the records reveal any standing council or high officials, though such may have existed, for the chronicle in Langebek (v. 235) states that in 1428 the *communitas urbium* rebelled and created for themselves *novum concilium et senatum*. Another sign of organisation, not connected with the filiation of towns, is observable in the earliest *Recess*, which refers to statutes made for the benefit of all merchants *qui jure Lubicensi gaudent et reguntur*. When they became annual these diets were frequently held at Lübeck, then admittedly the leading city, and one of its burgomasters usually presided.

The correspondence, the treaties, and the *Recesse* themselves disclose the names of the Hanse towns a few at a time (see HANSE TOWNS). It is usually stated that they were divided into three groups, Lübeck leading the Wendish, Pomeranian, and Saxon towns; Wisby the Gothland and Livonian; and Cologne the Westphalian; but a document of 1366 (*Rec.*, i. 381) shows a *terciana Lubecensis*, a *terciana Wisbicensis*, and a *terciana* consisting of Prussian towns. Certainly Cologne formed a fourth *terciana*, so the word cannot be taken in its ordinary sense. The truer classification is perhaps shown by a letter of 1372 (*Rec.*, ii. 45), though it omits Cologne. At a later date Lübeck, Brunswick, Danzig, and Cologne were leaders of regions or circles. For a time Wisby had held a great position in the Baltic, and the dues from the Hanse towns were paid into a common treasury chest there under the care of four aldermen from Wisby, Lübeck, Soest, and Dortmund; but after the sacking of Wisby in 1361, every sign of leadership passed to Lübeck. In the 14th century Lübeck began to coin gold, twenty shillings of twelve groats each being equal to one easterling pound (see EASTERLINGS), and a large banking business sprang up there, bills of exchange being generally payable at Lübeck or at Bruges.

The lists of towns attending these diets reveal the broad fact that the coast towns from Reval to Middelburg were the really active members of the Hansa, and on them fell the brunt of fighting and negotiation. Even after 1367, Cologne, proudly reluctant to cede precedence to Lübeck, seldom sent representatives, while the rest of the inland towns were almost equally backward. Sometimes the diet, in fixing a place for the next meeting, would require towns to send their deputies to answer complaints; but often only those of four or five seaports appeared, though at crises the list became much longer.

The business of the diets was varied. Fines were received from recalcitrant members; letters were written to foreign princes demanding redress for merchants; questions of peace and war and of alliances had to be decided, war expenses apportioned, old privileges maintained, and others won by negotiation. Laws, too, were made touching commercial conduct, and even the morals of the merchants (*Recesse*, i. 9). Letters on these matters may be read in the Lübeck *Recess* of 1366 (i. 376); and it may be remarked that these documents have a special interest in connection with the growth of the LAW MERCHANT (*q.v.*). The trade of the Easterlings was not speculative. Transactions were settled by barter or by cash payments on the transfer of actual commodities, and credit was almost entirely prohibited. Resolute selfishness marks all the acts and writings of the Hansa. It had fixed aims which it pursued untiringly, the chief being to gain absolute control over the Belt and the Sound. The league's desire was that no ship but a Hanseatic ship should pass in or out of the Baltic, or trade anywhere in that sea; and, broadly speaking, the will of the Hansa prevailed up to the beginning of the 16th century, though the English ADVENTURERS, MERCHANTS could not be wholly shut out. So jealously guarded was this region that the early cartographers, who could delineate Africa and show the position of Japan, had to rely on the Ptolemy maps for Europe above N. lat. 53°. This policy of exclusion proved, of course, unendurable to Sweden and Denmark; and with the latter power, which held the Sound, the Hansa was involved in many wars.

About 115 towns were, at one time or another, included in the Hansa, and the position of a few

more is uncertain. It had four great *Kontore* or organised establishments, Novgorod, Bruges, London, and Bergen, and about twenty-eight factories in foreign countries which enjoyed special privileges.

These *comptoirs*, of which the STEELYARD was the most important, differed somewhat according to the nature of the countries in which they were established. The one at Novgorod formed a separate quarter of the town, clustered round a church. Here the merchants lived, as they sought to do everywhere, under their own *Skra* or code of laws (*Lüb. Urk.*, i. p. 700), and maintained a celibate establishment under an elected alderman —a kind of merchant abbot over a commercial monastery, which, like some other early monasteries, had also the characteristics of a fortress. At Bergen about 3000 persons thus lived together in one community, though subdivided according to the towns they represented. By unscrupulous methods they ousted the Norwegians from the whole of the harbour, and even limited the number of Hanse cities which should share the trade. The expenses of these factories were paid mainly by duties on ships ; but each town defrayed the cost of the maintenance of its own staff. In all the *Kontor* towns the Hansa had gained great privileges in the way of remission of customs dues. Even as late as the 29th year of Henry VIII., the Hansards were so favoured that, for instance, they exported 33,778 pieces of cloth as against 4608 by other foreign merchants ; whereas in 31 Henry VIII., when the latter were allowed to pay "Englische custome" only, the totals were 27,260 for the Hansa, and 24,566 for the others (Cott. MS., Claud. E. vii. *f.* 99).

Notwithstanding fierce quarrels with Denmark, the Hansa obtained thence grain and cattle ; and the merchants derived from their own curing establishments on Danish soil in Scania the herrings which they carried to Germany and western Europe. From Sweden the Hansa exported wood, furs, iron, copper, fish, cattle, and corn ; importing, among other things, silk stuffs, cotton, hops, salt, spices, and wines. Until the days of Gustavus Vasa, the entire trade of the country was in the hands of the league ; and the same may be said of the Russian trade, until the early part of the 16th century, when Ivan the Terrible sacked Novgorod. Even after that, the Hansa sought to revive the monopoly ; but the English, the Netherlanders, and the Danes had forced themselves into the Russian trade, and could not be driven out again. While their advantage lasted, the Hansa had exported from Russia furs, leather, wax, honey, tallow, hair, gold, and silver ; bringing for Russian use, corn, flour, smoked meats, herrings, beer, wine, Dutch and English cloth, thread, furriery and mercery, copper, zinc, and lead. In Norway, the Hansa had swooped down on the long-established trade of Bergen with Greenland, Iceland, and the Arctic seas, and thrusting aside the natives, had taken to itself, as far as English enterprise allowed, the entire produce of the whale and seal fisheries, the furs, tallow, cod, herrings, and other products of the north. Western and southern Europe formed the opposite pole of the Hanseatic trade, and all the produce of the north and east which was not absorbed in Germany came by sea to Bruges or to London (see STEELYARD). In Bruges, the Hansa merchants met the produce and manufactures of England, Flanders, Spain, Italy, the Levant, and the East, and transacted business with men of all nations. The customs tariff of Bruges in 1380, recorded in the archives of Hamburgh (*Rec.*, ii. 209), shows that the following were the less ordinary articles of commerce which the Easterlings might obtain at Bruges to carry back to the Baltic :—alum, sulphur, tartar, saltpetre, borax, zedoary, saffron, cubebs, rhubarb, tansy ; silver, tin, quicksilver, verdigris, vermilion, lapis-lazuli, indigo ; almonds, liquorice, caraway, anise, pepper, long pepper, ginger, grains of paradise, cinnamon, nutmegs, cloves, mace, cardamoms, rice, loaf sugar, figs, dates, raisins ; Spanish wax, boxwood, frankincense, cotton, and paper. A tariff of 1252 shows swords, shields, armour, copper utensils, boots, cork floats, cloth of many kinds, wood, linen, beer, wine, peltry, and other goods useful in countries like Norway, Sweden, and Russia, which then had absolutely no manufactures of any kind.

Similar information may be obtained from the inventories of the cargoes of two ships, one of which belonged to Thorn. It contained a surprising amount of gold and silver, and some silk (*Hans. Urk.*, iii. 63, 260).

Such was the power of the Hansa, that it compelled all ships, except those bound for England or the Baltic, to stop at Bruges ; thus obtaining the chance of being the first buyers of any coveted product. But this prosperity was too great to last. Late in the 15th century, the insolence of the men of Bruges had brought ruin on their own city, and the Hansa, when too late, transferred its factory to Antwerp, only however to find there failure and disappointment.

With France, the league had comparatively little direct dealing. A large part of the French coast was for long periods in English hands ; France had, through Marseilles and other southern ports, direct access to the vast trading centres of the Mediterranean ; her northern boundaries ran close to the great Flemish towns ; and finally, during the 13th and much of the 14th centuries, Amiens, Rheims, Caen, Beauvais, and other towns were included in the HANSE OF LONDON, and had little inducement to join the league.

At Lisbon, the league had a factory through which it obtained Levantine and Oriental goods ; but the principal part of the trade with the Italian cities passed overland to Augsburg, Nuremberg, Ulm, and other south German cities which formed a collateral Hansa, and had a factory at Venice.

The great trade with England was mainly concentrated in London ; though there were establishments also at Bristol, Ipswich, Yarmouth, Norwich, Hull, and York, and Hanse houses at Boston and Lynn (see Lappenberg's *History of the Steelyard*). Roll No. 268 in the *Miscellanea of the Exchequer* at the Public Record Office, is the account of the customs dues at Lynn for 1286-87, and shows a duty of 6s. 8d. on each sack of wool weighing 2 cwts. Hides and leather were likewise exported. In the roll for 1302, cotton thread, silk, sugar, and spices appear among imports ; while cloth, dyed and undyed, was exported by the Easterlings, though

there was direct English trade with Norway as well. Of trade with Scotland there are many traces in the *Recesse* and in the Nuremberg *Chronicle*. An interesting letter of invitation to traders from Sir William Wallace, in 1297, is preserved in the archives of Lübeck.

The Hansa did not remain long at the high level of prosperity attained in the second half of the 14th century. The end of the first quarter of the 15th saw the beginning of the decline. The Hansa had grown into a league at a period when Europe generally contained a servile population, no middle class, except in the towns, and few manufactures; but the feudal and the manorial systems had both collapsed in England; the new race of tenant farmers had appeared in the country; and a manufacturing population controlled by craft gilds (see CORPORATIONS OF ARTS AND TRADES; GILDS), had sprung up in the towns; meanwhile the nation, unified by parliamentary representation, was fast developing a national policy as regards trade, and awakening to a consciousness of vigour and of resources which it could not allow to be controlled by a selfish company of foreigners.

Changes had also been taking place all over Europe; even in the Baltic the trade created by the Hansa had been elevating the once simple races. Unseen natural forces, too, were joined against the merchants, and the herrings, which had been perhaps their greatest source of wealth had begun to change their annual course, to the lasting benefit of the Netherlands.

Europe began to see that the Easterlings, or *Ostrelins*, as the French called them, were little more than mere carriers of products, representing neither industrial population nor manufacturing centres. The western and northern nations began to insist on not being excluded any longer from direct trading relations with each other; yet to threaten the monopoly of the Hansa was still to bring the sword of the confederated cities from its scabbard, and offenders found themselves confronted either by open war, by secretly encouraged raids of pirates, or by the disfavour of sovereigns whom Hanseatic bribes and loans had won over in spite of their better judgment. The once peaceful Hansa now appeared as a tyrant desperately endeavouring to keep up an effete system of privileges and monopolies by threats and violence. The Dutch, once members of the Hansa, had had a fierce war with Lübeck in 1438, and again seceded from the league at the end of the 15th century, boldly coming forward as its commercial opponents. They soon developed such a trade that it was a fleet of no less than 250 sail upon which the Lübeckers fell in 1511 as it was leaving the Baltic; and when at the opening of the 16th century, Charles V. found himself at the head of an empire with larger interests than those of the Hansa, he wisely favoured the energetic Netherlanders, and looked coldly on the allied cities so threateningly independent of his power.

The discovery of America, and of the new passage to the East Indies round the Cape, had begun to draw trade into other channels; while the printing press, which quickly found its way to Sweden and Denmark, was undermining a power largely dependent on the ignorance of the nations it traded with. The Hansa, in fact, was bound to give way in the presence of an altered world; but it declined to do so, and blindly refused to change its ideas and methods.

Within the league, too, there was dissension, and the inland towns began to find that their interests no longer coincided with those of the coast towns, whose carrying trade was beginning to slip away.

Reverting, however, to the chronological series of events, the annals show that for many years after the conclusion of the peace of Stralsund, in 1370, the Hansa was in an almost continuous state of warfare. First the piratical *Vitalienbrüder* had to be suppressed (*Recesse*, iv. 279, 330, etc.), a work not ended until 1402; then a long and bloody war ensued with Eric the Pomeranian, ruler of the three Scandinavian countries, lasting up to 1435. Five-and-thirty years afterwards the Hansa, at variance since 1452 with the English, was, as Philip de Commines states, at war both with England and France, and came nigh to changing the course of English history by the capture of Edward IV. at sea off Alkmar. The war was concluded by the peace of Utrecht in February 1474, which restored to the Hansards all their privileges in England, and delusively promised reciprocity to the English merchants in the league towns. Cologne had taken the side of England in these quarrels, and had receded from the Hansa, but was re-admitted in 1476 (*Fœdera*, xii. 36).

A war in 1518, between Christian II. of Denmark and Sweden, which enabled the merchants to play once more the part of king-makers, proved disastrous to them; for Frederick and Gustavus Vasa, to whom they had given thrones, identified themselves with the interests of their newly-gained kingdoms, and with splendid ingratitude determined to break the power of the Hansa. The war which ensued is connected with the spread of Lutheran doctrines, and with the endeavours of Jürgen Wullenweber of Lübeck to gain actual possession of the Sound. He failed, and the outcome of the war in 1534 was the total loss of Scania to the Hansa.

The three Scandinavian nations were now able to trade openly on their own account, while the voyage of Richard Chancellor to Archangel in 1553, and the establishment in England of the RUSSIA COMPANY, turned the flank of the Hanseatic trade with Russia. Other heavy blows, too, now fell on the league. The Czar, Ivan IV., saw that the time was ripe for a descent on Livonia, and no effective resistance being made either by the Teutonic knights or by the Hansa, the country was divided in 1561 between Russia, Sweden, and Poland.

Soon afterwards Lübeck, allying herself with Denmark, entered on a protracted war against Sweden, only ended in 1570. No benefit

accrued from these exhausting efforts; the seizure of Bornholm by the Danes, a serious loss to the league, followed in 1576. A worse event happened when, after a lengthy quarrel with the Hansa respecting its failure to carry out the provisions of the treaty of Utrecht, Queen Elizabeth answered the Emperor Rudolph's expulsion of the Merchant Adventurers in 1597 by closing the Steelyard in February 1598. A naval power that had beaten the Armada, could not be excluded from any sea or from any market; it was indeed wonderful that the Hansa had maintained its ground so long in face of the Mercantilist ideas then dominant in England (see MERCANTILE SYSTEM).

In 1586 the Czar Feodor Ivanovitch restored the factories of Novgorod and Pleskow, but the Swedes and the Poles, no less than the English, Danes, and Netherlanders, interfered with the trade; and when in 1603 the Czar Boris refused to recognise any Hanseatic town except Lübeck, internal dissensions were added to the difficulties which the Baltic powers threw in the way of the league.

In no quarter of Europe was there any ray of hope for the now obsolete Hansa; and, when the Thirty Years' War began, dissolution came with it very speedily, and the material prosperity of Germany, the results of the laborious industry of her merchants, was entirely lost.

The last minutes of a diet are of that in 1628, though another was held in 1630; and after the peace of Westphalia, in 1648, only Lübeck, Bremen, and Hamburg remained to make an unsuccessful effort to revive the league. A number of deputies met in 1669, but dispersed again without having effected anything. The three great cities, as free cities, were recognised by the treaty of Vienna in 1815, and as free cities and sovereign states now form part of the German Empire.

[*Urkundenbuch der Stadt Lübeck*, 8 vols., 1843-1889.—*Hansische Geschichtsblätter*, Leipsic.—*Hansische Geschichtsquellen.*—Verein für Hansische Geschichte, Lübeck, *Hanserecesse*, 1256-1476 (quoted as *Recesse*), 13 vols., 1876-92.—C. Höhlbaum, *Hansisches Urkundenbuch*, 3 vols.—J. M. Lappenberg, *Urkundliche Geschichte des Hansischen Stahlhofes zu London*, Hamburg, 1851.—Calendar of State Papers (foreign series).—Langebek, *Scriptores Rerum Danicarum*, 1786.—Leibnitz, *Scriptores Rerum Brunsvicensium.*—Pertz, *Monumenta Germaniæ Historica.*—Rymer, *Fœdera*, viii.-xii.—A. Krantz, *Chronica Regn. Aquilon.* 1562.—J. A. Werdenhagen, *De Rebus-publicis Hanseaticis*, Frankfort, 1641.—Macpherson, *Annals of Commerce*, 1805.—Sartorius von Waltershausen, *Urkundliche Geschichte des Ursprunges der deutschen Hanse*, ed. Lappenberg—D. Schäfer, *Die Hansestädte und König Waldemar*, 1879.—E. Worms, *Histoire Commerciale de la Ligue Hanséatique*, 1864.—H. Zimmern, *The Hansa Towns* (The Story of the Nations Series), 1889.—J. de la Gravière, *Les Marins du XVe. siècle*, 1879.—Article on "Hanseatic League," R. Lodge, *Encyc. Brit.*, ed. ix.] R. H.

HANWAY, JONAS (1712-1786), was a merchant and philanthropist. Apprenticed at Lisbon, he began his mercantile life there, but soon returned to London, and in 1743 went to St. Petersburg, where he entered into partnership with an English merchant, and was commissioned by the Russia Company to carry on the attempt begun by John Elton to establish a British trade in wool in Persia and on the Caspian Sea. After more than a year of strenuous effort and perilous adventure he returned to St. Petersburg; the new trade did not prosper, mainly on account of Elton's behaviour. In 1750 Hanway left Russia and began a life of active benevolence in London, where he was the first man to use an umbrella, a chief promoter of the Marine Society, of the Magdalen Hospital, of plans for benefiting chimney-sweepers, for paving the streets, for reforming the Foundling Hospital, for establishing Sunday schools, and, above all, for preserving the lives of "parish infants," among whom the mortality was then extraordinarily high. In 1762, at the instance of some London citizens, he was appointed a commissioner of the victualling office, in recognition of his public usefulness.

Hanway's writings, seventy-four in number, chiefly occasioned by his philanthropic schemes, are, like his work, miscellaneous and humane. Only the following need be mentioned:—The *Essay on Tea*, known through Dr. Johnson's review of it.—*Historical Account of the British Trade over the Caspian Sea*, etc., to which is appended *The Revolutions of Persia*, a detailed and interesting account of his travels and observations, and *Letters on the Importance of the Rising Generation of the labouring part of our fellow-subjects*, containing plans for increasing the population by preserving infant life, with some account of the London death-rate and an estimate of the expectation of life at different ages.

[Pugh's *Remarkable Occurrences in the Life of Jonas Hanway, Esq.*, 1787 (abridged in 1798).—*Gentleman's Magazine*, 1786, p. 812.—*Dict. of National Biography.*] E. G. P.

HARCOURT, FRANÇOIS EUGÈNE GABRIEL, Duke of (1786-1865), was from his youth a steady and brilliant champion of liberalism under its different shapes, and the defender of the Greek and Polish national causes. He became a member of the French house of deputies, and of the house of peers (from 1837); he was also sent as French ambassador to Madrid (1831), shortly afterwards to Constantinople, and in 1848 to Rome, where he succeeded Rossi. In 1849 he resigned the latter embassy, and lived in retirement on his estates until his death.

In 1846, he accepted the presidency of the *Association pour la Liberté des Échanges*, with Bastiat as secretary; his *Discours en faveur de la Liberté du Commerce* (in the French parliament) were published 1846, in Paris. He insists mainly on the argument that private interests

ought never to be privileged at the expense of the general welfare, and that free competition is the only available method to secure this end. E. Ca.

HARD-DOLLAR (or *peso duro*). Old Spanish silver coin.

Year.	Weight.		Fineness.	Value.	
	grains.	grammes.		In silver 925 fine at 5s. 6d. an oz.	In standard silver francs 900 fine.
				s. d.	francs.
1707-1728	423·89	27·468	930·50	4 10½	5·68
1728-1772	417·74	27·064	909·72	4 8½	5·47
1772 [1]	,,	,,	902·78	4 8	5·43
1848	405·75	26·291	900·00	4 6¼	5·26
1850	402·87	26·105	,,	4 6	5·22
1854-68	400·64	25·960	,,	4 5½	5·19

The subdivisions were all of proportionate weight and fineness until the year 1864, when the escudo (or half-duro) only was of the same fineness, the other fractional coins becoming merely tokens of the fineness of 810, though retaining weights proportionate to the dollar.

In 1868 the coinage of pesetas (francs) was commenced in Spain, and has since been continued. F. E. A.

HARD MONEY. This term is locally applied in the United States to metallic money as distinguished from paper issues. The advocates of hard money are in general opposed to the Soft Money or Greenback party. The term came into frequent use during the political discussions in the decade 1870-80, in favour of the resumption of specie payments. D. R. D.

HARDENBERG, Karl August, Prinz von (1750-1822), an eminent Prussian statesman, was born at Essenrode in Brunswick-Lüneburg. He belonged to an old Hanoverian family. In 1766 he went to the university of Göttingen, and in 1768 to that of Leipzig,—in the latter making the acquaintance of Goethe. Returning to Göttingen, he there pursued the study of jurisprudence; and in 1770 entered the civil service of Hanover. In the course of some travels in Germany in 1772-73 he stayed for a time in the house of the Freiherr von Stein, father of his future colleague. He conceived an affection for a daughter of the family, but by the influence of his relatives was led to marry, in 1775, a Countess von Reventlow, who by her subsequent conduct ruined his domestic life. During a residence in England in the neighbourhood of Windsor in 1781 he discovered a liaison of his wife with the Prince of Wales which had already created a good deal of public scandal; he quitted, in consequence, the Hanoverian service, and entered, in the following year, that of the Duke of Brunswick. In 1787 he divorced his wife, and married another who seems to have been little more reputable. The Margrave of Ansbach and Bayreuth, who belonged to the house of Hohenzollern, being soon after desirous of getting rid of his principal ministers, asked the king of Prussia to send him new advisers; and amongst these Hardenberg was appointed. The Margrave, weary of the task of governing, resolved before long to abdicate in favour of Prussia, to which power on his death his territories were to fall; and thus Hardenberg, in 1791, became a Prussian official, and was charged with the entire administration of the two provinces,—which he conducted with great ability. He was employed in 1795 to negotiate with France the treaty of Basel, by which the apparently prudent, but ignoble and ultimately disastrous, neutrality of Prussia was established. From this time his biography is inseparably bound up with the political history of Prussia. He was a member of the supreme finance directory, and during the frequent absences of Haugwitz from Berlin took his place in the conduct of foreign affairs, though the policies of the two ministers were different—Haugwitz favouring subserviency to Napoleon, and Hardenberg advising close relations with Russia and hostility to France. Haugwitz had to resign office in 1806, and was succeeded as foreign minister by Zastrow. The latter retired in February 1807, and after a time Hardenberg took his place, with a kind of dictatorial position. He already saw that a radical reform of the Prussian state was necessary—in fact, a revolution like the French, but one to be effected by peaceful means. At the darkest hour of the reign of Frederick William III. he said, "The question now is of discovering additional resources to save ourselves; later it will be of a thorough regeneration." But he was soon compelled to quit office. Napoleon, finding in him an obstacle to his designs, after the battle of Friedland insisted on his removal, which the king was not in a position to refuse; and accordingly on the eve of the peace of Tilsit he retired to Riga; and Stein, who had been dismissed some months before, was recalled and entrusted, as Hardenberg had been, with a sort of dictatorship. At Riga, whither he was accompanied by Altenstein and Niebuhr, Hardenberg drew up a memoir on the reorganisation of the Prussian state, which is sometimes spoken of, though not very appropriately, as his political testament. In this memorable document he distinctly indicates, and even insists on, all the measures afterwards embodied in what is known as the Stein-Hardenberg legislation (which will be found described in detail in the article on Stein); and also suggests the abolition of gilds and a movement in the direction of a representative constitution. These measures were, of course, not devised by Hardenberg alone: they were partly the fruit of the matured convictions of the ablest German thinkers, who had converted the great majority of the nation to similar views, and were directly the result

[1] Same as the Mexican dollar.

of the deliberations of the Immediate Commission formed during Hardenberg's tenure of office, of which Altenstein, Schön, Niebuhr, and Stägemann were members. But he cordially adopted the plan—to which he had probably himself largely contributed,—supported it with all the weight of his influence, and loyally urged upon the king the necessity of confiding in Stein as the man most able to deal with the crisis.

When Stein, denounced and proscribed by Napoleon, was forced to leave Prussia, Hardenberg returned to office (June 1810), with the title of chancellor of state; and this position he held to the end of his life. He continued the work of social and economic reform which had been done under the leadership of Stein; indeed, in his agrarian legislation his measures were too radical to receive the approval of Stein, who was less mastered by the modern spirit, and more disposed to preserve and improve old German institutions than to follow what were then called "French models." By his foreign policy, cautious or energetic as circumstances dictated, Hardenberg piloted Prussia successfully through the stormy period which intervened between his return to power and the fall of Napoleon. Because he remained in office during the evil days of 1811-12, he was often accused of acquiescing in the degradation of his country. But he was really all through faithful to Prussia, and his temporary attitude of submission to France seemed to him imposed by the necessities of the situation. He was one of those who signed the peace of Paris in 1814, and on its conclusion was raised to the dignity of prince. He attended the congress of Vienna, and, some years later, those of Aix-la-Chapelle and Verona. He procured from the king, in May 1815, an edict promising the establishment of a system of popular representation; but under the influence of the reaction which prevailed in Germany in 1818 and 1819, this promise was broken, and instead of a states-general, the plan of provincial estates was adopted, which subsisted till 1847. Hardenberg was placed in a false position by continuing to hold the chancellorship when reaction was dominant; and though he was to the last in feeling and principle a reformer, his policy became so indeterminate and ambiguous that when he died, on his return journey from the congress of Verona, Stein declared his disappearance to be a happy event for the Prussian monarchy. But this was a harsh, not to say unjust, judgment, inspired, doubtless, in a great degree by the gross irregularities of the deceased statesman's private life. Be this as it may, Stein and he are indissolubly associated as fellow-workers in a great cause; and, as Ranke has said, whatever weaknesses or sins may be chargeable to Hardenberg, his name is written in imperishable characters on the history of Prussia.

[The materials for Hardenberg's biography used to be drawn from the *Mémoires d'un homme d'état, '92-'15*, which were popularly supposed to be his work. It is now known that this idea was unfounded. His genuine memoirs were edited by Leopold v. Ranke in 1877; they deal, however, only with the years 1804-7. Ranke also published a work of his own, supplementary to the Memoirs, *Denkwürdigkeiten des Staatskanzlers Fürsten von Hardenberg*, 3 vols., 1877. Much information respecting Hardenberg will be found in the late Sir J. Seeley's *Life and Times of Stein*, 3 vols., 1878, which has been largely used in the foregoing sketch.] J. K. I.

HARMONIES OF ECONOMICS. The theory that individual interests consciously pursued as such are naturally harmonious was early suggested by many writers, but it was first definitely stated by Henry C. Carey in America, and Frederic Bastiat in France, two writers whose works appeared within a year of each other, and whose conflicting claims to originality have never been satisfactorily decided. They sharply antagonise the English school, especially as represented by Ricardo and Malthus. The most important of these conclusions to which exception is taken are thus summed up by Bastiat in his *Harmonies Économiques*, published in 1850.

(1) *The Theory of Value.*—While claiming that value originates in labour, they had agreed in attributing value to natural agents, including land, on which no labour had been expended. These goods, which had cost nothing, were none the less appropriated and made to command for their owners the labour of other men. This Bastiat characterises as "evident injustice."

(2) *The Ricardian Theory of Rent*, according to which the price of the products of the soil is determined by the labour needed to produce them on the least productive soils in cultivation. The excess produced on the more productive soils goes to the landowner as rent and increases in absolute and relative amount as the poorer lands are called into cultivation. The result of this law is stated thus: "Increasing opulence for men of leisure; increasing misery for men of toil; in a word, foreordained inequality."

(3) *The Malthusian Theory of Population.* Population tends to increase more rapidly than subsistence, and this tendency, so disastrous to well-being, can be counteracted only by self-control, which "no one thinks of," or by vice, misery, war, pestilence, famine, etc. The conclusion of this law is stated as "inevitable pauperism."

Against this trio of "evident injustice," "foreordained inequality," and "inevitable pauperism," which together constitute a "theory of discord," Bastiat protests with fervid eloquence rather than with severe logic, or observation of life. He undertakes to prove: (1) That value is due wholly to labour, or

more exactly to services rendered to one person by another; (2) that natural agents as such—"the gifts that God had lavished gratis upon his creatures"—are not and cannot be appropriated; that land values represent only the labour which would be necessary with present methods to bring land from a wild state to its present condition; (3) that the return to capital increases absolutely but decreases relatively as capital is increased in amount; (4) that the return to labour increases both relatively and absolutely as capital increases; (5) that "other things being equal, the increasing density of population is matched by an increasing facility of production."

This "theory of harmony" promises increasing prosperity to all the factors of production on one condition on which Bastiat is never weary of insisting,—namely, *liberty*. Since self-interest, when pursued ever so eagerly, or with ever so great indifference to other men's interests, works good to all, all interference with its action is necessarily detrimental. The state should absolutely limit its function to the maintenance of "justice" (a most ambiguous limitation). Laws restricting the exchange of commodities or otherwise interfering with industrial liberty under pretext of securing harmony of interests are not only destructive to that harmony which can only coexist with liberty, but they are a violation of natural right. This 18th-century argument is one to which Bastiat continually recurs. In logical consistency with his system, he carries the doctrine of *laissez-faire* to its utmost extreme.

Bastiat's proof of the proposition mentioned is peculiar. His one method of argument is that of illustration, a method no doubt legitimate, but usually inadequate and always liable to abuse. Bastiat certainly abused it. It is easy to find cases where value is proportioned closely to labour expended, and a long enumeration has great power over the mind, but when the value of a diamond accidentally picked up is attributed to the labour of appropriation, the argument is strained, to say the least. Still less satisfactory is his treatment of rent. His somewhat piquant imaginary conversations, between a landowner and a would-be purchaser of his products, or his land, completely ignore the fact on which Ricardo's whole theory is based, namely, the unequal productivity of different soils. Disregarding this inequality, Bastiat, as Loria nowadays, asserts that rent is impossible while free land remains. His brilliant language hides his argumentative weakness. While not denying the tendency of population to increase, he sets off against it the constant improvement of production, and assumes that the tendency is innocuous. He thus of course denies the law of diminishing returns, a law which is at best but modified by the facts he adduces. His theory of capital is in accord with the known tendency of the rate of interest to fall as capital increases, and is little more than a statement of this fact.

Bastiat's optimism is unrivalled in its *naïveté*, and his propositions, even if proved, by no means justify it. Granting that rent is but the payment for services rendered by the land owner "*or his forefathers*," is there no possible "injustice" in a law of unmitigated inheritance complicated by the vicissitudes of conquest, and sharp bargaining? If capital obtained a relatively smaller share of the product as its amount increases, there still remains the tendency of capital to accumulate in few hands, and thus the relative importance of the *capitalist* may be constantly increasing. The ENTREPRENEUR is ignored by Bastiat, and still more the factor of MONOPOLY, which seems to appear on the scene as naturally as any other factor.

The wide divergence between Bastiat's theory of harmony and the facts of life under every variety of industrial *régime* suggests the fundamental fallacy of his system. It rests upon a false theory of nature. The involuntarily social activities of men are assumed to be natural; the voluntary activities are artificial and *un*-natural. Nature, thus narrowly conceived, is held to be ordained by a beneficent creator; the artificial, simply because it is contrary to "nature," violates the divine law and natural right, and is pernicious. This was the philosophy of ROUSSEAU and the 18th century.

Henry C. CAREY (in *Harmony of Interests*, published 1849) agrees with Bastiat, if indeed he did not furnish his fundamental propositions. Unlike Bastiat, however, he appreciated the value of arguments from real life; and while making large use of fanciful illustration, he contributed other arguments of more importance. The chief of these is his argument on rent. Ricardo assumes that men begin cultivation on the best lands, and then descend to the poorer. But Carey tries to prove from history that the opposite has been the case. The evidence adduced is worthy of consideration, though hardly conclusive. Aside from this, however, Carey seems to have overlooked the fact that the chronological order of settlement was an accident of Ricardo's formula, not its essence. When soils of unequal productivity are once in cultivation, the disparity gives rise to rent, whichever was cultivated first.

A more noteworthy result of Carey's observation was his conversion to the theory of PROTECTION. Realising that the agricultural and manufacturing interests are complementary and necessary to each other, he was impressed by the fact that the development of one in the United States, and the other in England, largely destroyed that mutual helpfulness, so great was the barrier of distance and the cost of transportation. American interests plainly required the development of both

together. A study of the shifting commercial policy of the United States led him to conclude that a policy of protection was necessary for this. To the promotion of this policy he therefore devoted nearly the whole of his first book, the *Harmony of Interests*. Advocacy of state intervention thus became as pronounced with Carey as that of *laissez-faire* with Bastiat. Thus, while the two agree in rejecting the "theory of discord" of Ricardo and Malthus, and in emphasising the harmony and beneficence of the natural order, Carey freely recognises as belonging to that order forces which Bastiat had denounced as destructive of liberty and so of harmony. Under either form the theory of harmony of interests is optimistic—more so, it will seem to many, than the facts will warrant; but, as stated by Carey, it at least stands for juster premises, broader recognition of facts, and sounder methods of inquiry, than with Bastiat. Neither writer has had disciples of note, though extensive use has of course been made of their arguments.

[In addition to Bastiat's *Harmonies économiques* and Carey's *Harmony of Interests* already mentioned, may be cited Carey's larger work, *Principles of Social Science;* also criticisms of their theories in Ingram's *History of Political Economy*, Walker's *Land and its Rent*, and especially Böhm-Bawerk's *Capital and Interest*, Smart's translation. Bernard de MANDEVILLE advances the theory that selfish interests advance the public welfare, in his *Fable of the Bees or Private Vices Publick Benefits*, published in 1714. The belief in a harmonious natural order also pervades the writings of Quesnay and the physiocrats generally, as well as those of Adam Smith and Rousseau, underlying their optimism on the one hand, and the doctrine of *laissez-faire* on the other. See also Lassalle's *Bastiat. Schulze von Delitzsch.*]

H. H. P.

HARMONIES OF INDUSTRIES. See HARMONIES OF ECONOMICS.

HARMONISTS. See COMMUNISM.

HARRINGTON, JAMES (1611-1677), an eminent political writer, was the son of Sir Sapcote Harrington of Exton, in Rutlandshire. He studied at Oxford under Chillingworth, and then spent some years on the continent. He was greatly impressed by the flourishing condition of Holland, admiring its commerce, its social developments, and its political liberty. It was here he began his studies in political economy and government; and he was frequently heard to say that, "before he left England, he knew no more of anarchy, monarchy, aristocracy, democracy, oligarchy, or the like, than as hard words whose signification he found in his dictionary." Although a republican by conviction, Harrington was appointed in 1646 one of the personal attendants of Charles I. That unfortunate monarch delighted in his company, finding him to be very ingenious. "They had often discourses concerning government; but when they happened to talk of a commonwealth, the King seemed not to endure it" (Wood's *Athenæ Oxonienses*). Harrington became strongly attached to the king, and accompanied him to the scaffold. His execution affected him so much that he retired to his library and his literary pursuits. But to convince his friends that his grief was personal and not political, he produced his *Oceana*. This celebrated work—half romance, half treatise—on political philosophy, was written for the purpose of setting forth the best form of government for a commonwealth. The author's elaboration of his ideal republic was something in the same style as Sir Thomas More's *Utopia*. Harrington's idea was that government should be established upon an equal agrarian basis, rising into the superstructure of three orders—the senate debating and proposing, the people resolving, and the magistracy executing by an equal rotation through the suffrage of the people. The chief political doctrines inculcated in the work are these: the real basis of power is property, especially landed property; accordingly landed property should be distributed and held in such a way that no one person should derive from it more than a fixed amount of revenue; the rulers of the commonwealth should be changed every three years, their successors being elected by ballot. The *Oceana* was published in 1656, and excited much controversy. England figured as Oceana, Scotland as Marpesia, Ireland as Panopæa, Henry VII. as Panurgus, Henry VIII. as Coraunus, Queen Elizabeth as Parthenia, Cromwell as Megaletor, etc. The work was dedicated to Cromwell, who read it, but characteristically declared that "what he had won by the sword, he would not suffer himself to be scribbled out of."

Harrington not only endeavoured to propagate his republican opinions by writing, but with the same object formed a society of gentlemen called the Rota, who met at Miles's coffee-house, Westminster, and indulged in able and brilliant discussions concerning government and the ordering of the commonwealth. They had a ballot-box, and this being a novel form of voting in England, it attracted great attention. The society continued to meet until General Monk paved the way for the return of Charles II. After the restoration, Harrington lived more privately, but he was still regarded as a dangerous person, who maintained and propagated principles which could never be reconciled with monarchical government. He employed himself now in reducing his politics into short and easy aphorisms methodically digested, and freely communicated his views to all who visited him. While engaged in completing his system, he was arrested at the close of 1661, and committed to the Tower of London for treasonable designs

and practices. He suffered a long and severe imprisonment, in the course of which he lost his reason. In his latter years he wrote severely against the Stuarts, especially condemning Charles I., whom he had once strongly admired, for his consummate and obstinate tyranny. He also wrote various essays and papers in defence of his great work. His writings were edited by Toland in 1700, and the *Oceana* was partly reprinted as recently as 1887. Harrington died of palsy at Westminster.

[Chalmers's *Biographical Dictionary*.—Toland's *Life and Works of James Harrington*, 1700.—Birch's edition, 1737.—*Oceana*, as reprinted by Henry Morley, 1887.—Bonar's *Philosophy and Pol. Econ.*, 1893.] G. B. S.

HARRIS, Joseph (1702-1764), said to have begun life as a blacksmith at Talgarth, in Breconshire, his native place, was appointed assay master of the mint in 1748. Besides several works on navigation, trigonometry, optics, and astronomy, he wrote an *Essay on Money and Coins*, in two parts, published in 1757 and 1758. He introduced the first part by an enlightened statement of some leading principles of political economy, still worth reading; he dwelt particularly on the relation of the minimum standard of subsistence to the cost of production; and he treated the whole subject of money and of foreign exchanges with singular clearness both of view and of style. He was perfectly free from the mercantile theory of wealth, and not very far from free-trade principles. His monometallism was pronounced, and he doubted whether the existing silver standard could be exchanged for a gold standard. The second part is a vigorous demonstration of the evils which must follow any debasement of the coinage, with an historical account of the variations in the standard before his time.

[*Dict. of National Biography*.—R. Williams, *Dict. of Eminent Welshmen*.—See also references in M'Culloch, *Literature of Political Economy*, and in Jevons's article on Cantillon, *Contemp. Review*, January 1881]. E. G. P.

HARRISON, William (1534-1593), clerk in holy orders, is a writer of economic importance through the inclusion in his *Description of England* of many valuable details as to the economic condition of Elizabethan England. Thus he acquaints us with the fact that wine was a home product at that time. In part ii. of the above work he urges that the action of the merchants in procuring the prohibition of foreign bottoms has led to a rise in prices. As this was part of the popular navigation policy, his attack on it shows considerable independence of thought.

In addition to the above work, Harrison left two MSS., one dealing with contemporary weights and measures (1587), the other a chronology.

[Ashley, *Economic History*, vol. i. pt. ii.] E. C. K. G.

HARTE, Rev. Walter (1709-1774), a friend of Pope, travelling tutor to Lord Chesterfield's son, and vicar of St. Austell and St. Blazey in Cornwall, 1750. Besides miscellaneous essays and poems and an unsuccessful history of Gustavus Adolphus, he wrote two *Essays on Husbandry*, 1764, the first on agriculture in general, the second on the cultivation of lucerne. The former, a literary eulogy of agriculture as the basis and support of all flourishing communities, is rambling and wholly unscientific in its treatment of the subject, but enterprising and suggestive of many foreign, even American and Asiatic, plants and methods which might be introduced into England.

[Chalmers's *Biog. Dict.*; the dates in this account may be corrected by Foster's *Alumni Oxonienses*, 1715-1886.—*Dict. of National Biography*.—*Gent. Mag.* 1774.] E. G. P.

HARTLIB, Samuel (fl. 1630-1660), the friend of Milton and Sir W. Petty, published or edited, sometimes with additions of his own, many valuable works on agriculture and kindred subjects. Amongst these may be mentioned, 1. *A Discourse of Husbandrie used in Brabant and Flanders*, etc. (by Sir Richard Weston), London, 1650, 4to, 2nd ed.; corrected and enlarged, London, 4to, 1652. When the first edition was published, Hartlib did not know the name of the author. 2. *An Invention of Engines in motion*, etc. (by Cressy Dymock), London, 4to, 1651; Reprinted, with a biography of Dymock, in Dirck's *Memoir of Hartlib*. 3. *An Essay for the advancement of husbandry learning; or propositions for the erecting a College of Husbandry; and in order thereunto for the taking in of pupils or apprentices. And also friends or fellowes of the same Colledge or Society*. 4. *The Reformed Husbandman; or a brief Treatise of the errors, defects, and inconveniences of our English Husbandry*, etc., London, 4to, 1651. 5. *Samuel Hartlib, his Legacie; or an Enlargement of the Discourse of Husbandry used in Brabant and Flanders*, etc., London, 4to, 1651. This work consists of Hartlib's address, Sir Richard Weston's "legacy" to his sons, and "a large letter" to Hartlib (by Cressy Dymock or Robert Child). The third edition (1655) is a much larger work, and has the title *Samuel Hartlib, his Legacy of Husbandry. Wherein are bequeathed to the commonwealth of England, not only Brabant and Flanders, but also many more outlandish and domestick experiments and secrets (of Gabriel Plats and others)*. 6. *A designe for Plentie, by an universall planting of Fruit-trees*, etc., London, 4to, 1652. Hartlib did not know the author of this work, which was given to a friend of his by Colonel John Barkstead. 7. *A discoverie for division or setting out of land as to the best form*, etc., 1653. This consists mainly of a letter from Cressy Dymock. 8. *The Compleat Husbandman; or*

a discourse of the whole art of Husbandry, both Forraign and Domestick, etc. Unto which is added, A particular discourse of the Naturall History and Husbandry of Ireland. Two parts, London, 4to, 1659. The second part consists of an appendix to the "Legacie," with the date 1652. 9. *An Essay upon Master W. Potter's Designe; concerning a Bank of Lands to be erected throughout this commonwealth*, etc., London (*n. d.*) 8vo.

[For an account of Hartlib's life and other publications, see *Dictionary of National Biography.*] W. A. S. H.

HASSIA, Henricus de. See Langenstein.

HAWKINS, Edward (1780-1867), numismatist and antiquarian, was born at Macclesfield, and educated partly at the grammar school there, partly by private tuition. After being in the Macclesfield bank for a time, he entered into partnership with his father in a bank at Swansea, and together they managed the copper works at Neath Abbey (*Dict. Nat. Biog.*). In 1806 he was elected fellow of the Linnean, in 1821 fellow of the Royal Society, in 1826 fellow of the Society of Antiquaries, and president in 1850 of the Numismatic Society. In 1825 he acted as deputy for Taylor Combe, keeper of antiquities and coins in the British Museum; upon his death in 1826, Hawkins was appointed to the post, which he occupied until 1861 (*Stat. and Rules of Brit. Mus.*, pp. 41, 43; *Medallic Illustrations*, i. vi.). From an early age he had devoted much attention to the study of coins, and amassed a very complete series of English medals, while his collection of English political caricatures was the finest known. Both collections were purchased by the trustees of the British Museum—the medals in 1860, and the prints in 1868 (*Medallic Illustr.*, i. vi.).

Hawkins's most important contributions to numismatic literature, in addition to valuable papers published in the *Transactions* of the Numismatic Society and the Society of Antiquaries, are (1) *The Silver Coins of England* (1841). This, with necessary alterations and additions, has since been edited by his grandson, R. D. Kenyon (1876, 1887), and remains the standard work on the subject. (2) He also collected materials for a work on medals. It was intended to issue this as a Museum publication, but when the portion completed to the close of the reign of William III., was printed and submitted to the trustees in 1852, they declined to pass it, in consequence of the expression of certain political opinions which they considered undesirable in a government publication (*Hansard*, 3rd July 1854; *Medall. Illustr.*, i. vi.). After some years the historical notes were, with Hawkins's sanction, revised by his successor, W. S. Vaux, and by Sir A. W. Franks. Further matter, which resulted from inspection of various foreign collections unvisited by Hawkins, led to certain modifications of opinion, and to the addition of many fresh illustrations. The work, brought down to the death of George II., was eventually edited by Sir A. W. Franks (now keeper of Brit. and Med. Antiquities); and by H. A. Grueber (now assistant keeper of coins and medals), as a Museum publication in 1885, under the title of *Medallic Illustrations of the History of Great Britain and Ireland.* (3) *Description of Anglo-Gallic Coins in Brit. Mus.*, begun by Taylor Combe, was completed by Hawkins (1826). In addition to these, Hawkins completed Combe's work in *Description of Ancient Marbles in Brit. Mus.*, v. (1826), and edited parts vii., x. (1839, 1842, 1845). His many valuable memoranda on his collection of prints were purchased by the Museum, and incorporated, after revision, in the *Catalogue of Prints and Drawings in Brit. Mus.*, iii. pt. i. prepared by F. G. Stephens (1877). For the Chetham Society, Hawkins edited *Sir W. Brereton's Travels* (1844), and *The Holy Lyfe and History of Seynt Werburge* (1848).

[See Ward, T. H., *Men of the Reign*, 1885.—*Proc. of Antiq. Soc.*, 23rd April 1868.—*Numismatic Chronicle, N.S.*, vii. (1867).—*Athenæum*, 15th June 1867.—Introductions to the various works already mentioned.] E. A. M.

HAWKINS, Sir John (1719-89). The son of a carpenter, who was afterwards a surveyor, Hawkins was originally brought up to his father's trade, but abandoned it in favour of the law, and became an attorney. He married a Miss Storer, who brought him a large dowry which enabled him to retire from business; and he became chairman of the Middlesex justices. He was knighted in 1772, in recognition of his services in suppressing the election riots at Brentford in 1768, and the Moorfield riots in 1769. His experience of the bad condition of the roads led him to publish his *Observations on the State of the Highways, and on the Laws for amending them and keeping them in Repair* (Lond., 1763), subjoining to them the draft of a bill consolidating former acts for the maintenance of the highways. The act based on this was so skilfully drawn that for many years it did not require amendment. The treatise takes up the history of various acts of parliament on this head, and shows how they had fallen into disuse, with some remarks on the practical difficulty of legally enforcing the acts in many cases. Hawkins's observations do not apply to turnpike roads, which were in good condition. He also expatiates on the fact that the rich paid proportionately far less than the poor towards the maintenance of the highways. Hawkins had given much attention to music, and also published a *Life and Works of Dr. Johnson* (Lond., 1787), with whom he had been intimate. Boswell, in his *Life of Johnson*, is consistently unjust to Hawkins, who, however, appears to have been a somewhat coarse man. He was buried in Westminster Abbey.

[Chalmers, *Biographical Dictionary* (from information supplied by the family), Lond., 1812-1817.—Boswell, *Life of Johnson*, edited by J. W.

Croker, Lond., 1848.—Sir G. Grove, *Dictionary of Music*, Lond., 1879-88.] R. H. H.

HAYES, JOHN L. (1813-1887), born in Maine; died in Cambridge, Mass. For the last twenty-five years of his life he was actively identified with the tariff discussions in the United States, particularly defending protective duties in favour of the woollen interests. In 1865 he became secretary of the National Association of Wool Manufacturers, and edited their quarterly publication. He was president of the tariff commission of 1882, and was largely responsible for the report of that body. His writings were voluminous, and for the most part may be found in the several volumes of the *Bulletin* referred to, which is exceedingly valuable as reflecting the protectionist sentiment of the period.

Among his pamphlets may be mentioned *The Fleece and the Loom*, 1866.—*Wools of the United States*, 1872.—*Sheep Industry in the South*, 1878.—*The Farmers' Question*, 1880; and various writings on Reciprocity. See "Memoir" by G. B. Stebbins in *Bulletin of Wool Manufacturers*, vol. xviii. p. 97. D. R. D.

*HAYNE, SAMUEL (fl. 1660-1697), surveyor of customs, was born probably in Devonshire in 1645. For seven years he was clerk assistant to Joseph Ash, collector of the customs of Plymouth and Cornwall. He then became an "adventurer at sea"; during the Dutch war of 1672, was employed in the prize office and the admiralty; engaged afterwards in the trade with France; and in 1680 was appointed riding surveyor of the customs and surveyor for the Navigation Act in Devon and Cornwall.

Hayne published: 1. *An abstract of all the statutes made concerning aliens trading in England. . . . Also, of all the laws made for securing our plantation trade to ourselves, with observations thereon, proving that the Jews (in their practical way of trade at this time) break them all, to the great damage of the king in his customs, etc. . . . Together with the hardships and difficulties the author hath already met with, in his endeavouring to find out and detect the ways and methods they take to effect it*, London, 4to, 1685. 2. *The manifesto of near one hundred and fifty Knights, . . . Merchants and citizens of London, against the Jews now in England. . . .*, London, 1697, fol. W. A. S. H.

HAYNES, CHRISTOPHER (fl. 1713), merchant, was apparently engaged in the trade with Spain. During the controversy on the 8th and 9th clauses of the treaty of Utrecht (1713) he contributed "many useful pieces" on that subject to the *British Merchant* (see KING, CHARLES). W. A. S. H.

HAYNES, JOHN (fl. 1706-1715), wool factor, published: 1. *A view of the present state of the clothing trade in England, with remarks on the causes of . . . its decay, and a scheme of proper remedies for the recovery of it*, etc., London, 1706, 8vo. 2. *Great Britain's glory, or an account of the great number of poor employed in the woollen and silk manufacturies; . . . with the reasons of the decay of these trades*, etc., London, 1715, 8vo. (The latter is little more than a new edition of the former; it is apparently cited by M'Culloch (*Literature of Political Economy*, p. 237), as *Provision for the Poor*.) 3. *Proposals for the more effectual preventing the exportation of wool* (*n. d.*). He proposed the prohibition of water-carriage of wool, the registration of all wool produced in the country, prosecutions for infringement of the statutes dealing with the wool trade by special commissions appointed for that purpose, and other measures which he thought would prevent the exportation of wool. He is probably identical with the "John Haines" who addressed a memorial to the government in 1702, asking to be appointed "general supervisor" in Hampshire and Dorset for the prevention of the exportation of wool. His request was refused on the ground that the commissioners of customs could not advise the appointment of such an officer, or recommend a person "who had received the censure of the House of Commons on his knees."

[*Treasury Papers*, lxxxii. 26.] W. A. S. H.

HAXTHAUSEN, AUGUST FRANZ, Freiherr von (1792-1866), was born at Bökendorf in Westphalia. From 1808 to 1813 he studied at the school of mining at Clausthal. He served for some time as a volunteer in the Hanoverian army, and then went to the university of Göttingen to study law. He was there associated with a circle interested in art and poetry, from which proceeded a periodical to which Arnim, Brentano, and the brothers Grimm were contributors; and occupied himself much in the collection of German popular songs and sagas. In 1819 he returned to his native place, and devoted himself during several years to an earnest study of the agrarian condition of North Germany. He published, in 1829, the results of his researches in relation to the principalities of Paderborn and Corvey. This work attracted the notice of the then crown prince, afterwards King Frederick William IV.; the author was invited to Berlin, and was entrusted with the mission of examining in the respective localities the agrarian systems of the several Prussian provinces, and communicating the results of his inquiries to the ministry. To give him the necessary influence with the provincial officials, he was made a privy councillor. He travelled for nine years through the Prussian dominions, and collected ample materials for the great work which was projected. He published, however, only one volume, which dealt with the provinces of East and West Prussia (1839). A second volume, relating to Pomerania, was published twenty-two years later by A Padberg (1861); this branch of the subject had been partially handled by Haxthausen in a brief treatise on the formerly Slavic districts of

Germany (1842). An article of his in a German periodical on the Russian ukase of 1842 regulating the contracts between the landlords and peasants in that country, attracted much attention; it was reprinted by the *Allgemeine Zeitung*, the *Débats*, and the *Times*, who all interpreted the signature A. v. H. as being that of Alexander von Humboldt. This article led to Haxthausen's appointment by the Emperor Nicholas to conduct investigations in his dominions similar to those on which he had been employed in Prussia. He travelled extensively in Russia during 1843-44, the king of Prussia continuing his salary during his absence, and so making him independent of the Russian authorities. The fruit of his inquiries appeared in the following publications: —*Studien über die inneren Zustände, das Volksleben, und insbesondere die ländlichen Einrichtungen Russlands* (3 vols. 1847-1852), also published in French with the title *Études sur la situation intérieure, la vie nationale, et les institutions de la Russie* (1848-1853). An English translation by Robert Faris was published in 1856, with the title of *The Russian Empire—Transcaucasia:* this was an account of the family and communal life, and social condition of certain populations between the Black and Caspian Seas (1856); an English translation, by John Edward Taylor, appeared in 1854, before the German original was published. There appeared besides in English, by the same translator, as a kind of supplement to the foregoing, *The Tribes of the Caucasus, with an account of Schamyl and the Murids* (1855). We have also from Haxthausen's pen the following: *De l'abolition par voie législative du partage égal et temporaire des terres dans les communes russes* (1858); and *Die ländliche Verfassung Russlands, ihre Entwickelung und Feststellung in der Gesetzgebung von 1861* (1866).

Haxthausen was a member of the United Diet in 1847, and also for a short time a member of the first Prussian chamber. The practical objects which Haxthausen had in view in his treatment of the agrarian condition of North Germany, were the liberation of the soil from the power of capital, and the reform of the constitution of the provincial estates (*Ständische Verfassung*). Roscher regards him as one of the best of the group of conservative writers who at this period treated German economical questions, and who, both as owners of landed property and as state functionaries, understood many things better than the abstract liberal economists. He considers him, in particular, to have thrown new light on the question of the village communities of the middle ages. The same eminent critic speaks highly of his power of accurate observation, as evidenced by his Russian investigations; but remarks that he shows the usual "pseudo-historical" weakness of reactionaries in recommending the maintenance by the Russians of their *Feldgemeinschaft*, even after the abolition of serfdom, thus confounding the transitory peculiarity of a particular stage of culture with a permanent trait of the national character.

[Lippert in the *Handwörterbuch der Staatswissenschaften*, edited by Conrad and others (vol. iv. 1892).—Reifferscheid in the *Allgemeine Deutsche Biographie* (vol. xi. 1880).—Roscher, *Geschichte der N. O.*, p. 1027.] J. K. I.

HEARN, William Edward (1826-1888), born in the county of Cavan, and educated at Trinity College, Dublin, was, after having been professor of Greek at Queen's College, Galway, from 1849 to 1854, appointed in the latter year professor of political economy and other subjects at the university of Melbourne. Later he became a member of the legislative council of Victoria, and took an active part in the affairs of the colony up to his death.

Hearn's principal contribution to economics, the happily-named *Plutology* (1st ed. 1864, 2nd, 1878), is a model of the style which may be called classical. Like Hermann or Ricardo, Hearn holds an intermediate course between the highest abstractions and mere information; neither soaring to mathematical analysis, nor creeping among historical details. As one among many specimens of this method, the chapter on exchange (*Plutology*, ch. xiv.) may be referred to, presenting as it does all the relations of price to utility and cost of production, except those which can hardly be expressed without mathematics. So the chapter on the circumstances which determine the extent of capital may seem to fall short of perfection only by the want of a more quantitatively exact analysis of the influence of Distance in Time (*q.v.*) on value. It is justly said by Prof. Marshall: "Hearn's *Plutology* . . . is at once simple and profound: it affords an admirable example of the way in which detailed analysis may be applied to afford a training of a very high order for the young, and to give them an intelligent acquaintance with the economic conditions of life, without forcing upon them any particular solution of those more difficult problems on which they are not yet able to form an independent judgment." Among other high testimonies to the excellence of this work may be cited Jevons's reference, in the "Concluding remarks" of his *Theory*, to "Professor Hearn's views." Hearn wrote several other works, cited below, relating to social science, and was also a frequent contributor to the local press of Melbourne.

The Cassell Prize Essay on the Condition of Ireland, 1851 [In three chapters: (1) investigates the causes of the existing evils; (2) estimates the industrial resources of Ireland; (3) proposes remedies for such distress,—mostly simple legal reforms.]

The Aryan Household, its Structure and its Development: an Introduction to Comparative Jurisprudence, 1879.—*The Government of England, its Structure and its Development*, 1887.

F. Y. E.

HEARTH-MONEY OR HEARTH-TAX. The earliest such tax in England, "a fumage, or tax of smoke farthings," was levied in Anglo-Saxon times, probably as a customary payment to the king from all hearths but those of the poor.

In 1662 a tax of 2s. was levied on every hearth or stone in all dwelling-houses, except those of the poor who were exempt from church-rate and poor-rate, or fulfilled certain other conditions. In 1689, though the tax produced £170,000 a year, it was repealed on account of its unpopularity: it reached a poorer class than the old subsidies which it had superseded; it was farmed; and the inquisitorial visits of the inspectors, or "chimneymen," were deeply resented (see HALIFAX, EARL OF).

[Dowell's *Hist. of Taxation and Taxes in England*, vols. i., ii., iii.] E. G. P.

HEATHFIELD, RICHARD (c. 1775-1859), accountant. He proposed a tax of 15 per cent on all property, to pay off the national debt, and endeavoured to explain the advantages which would accrue from this proceeding The same expedient had been suggested by A. HUTCHESON in 1717, when the debt was only some £50,000,000. The suggestion derives its chief importance from having had the approval of RICARDO, and from having been proposed in parliament by General Palmer in 1832. Heathfield also wrote other tracts embodying the same proposals.

Elements of a Plan for the Liquidation of the Public Debt of the United Kingdom (Lond., 1819), and *Further Observations on the Practicability and Expediency of liquidating the Public Debt of the United Kingdom, including some Considerations on Population and the Poor* (Lond., 1820).

R. H. H.

HEDGMINT. A word used by Malynes, the existence of which sets before us the frequent manufacture of false money by persons in authority (see POLLARDS and CROCKARDS). "If any Hedgmint (for so doe the States of the Vnited Provinces of the Netherlands call the Mints of pettie Lords, which by falsified standards do imitate to coyne the money of other Princes)" . . .

[Malynes, *Lex Mercatoria*, 1622, p. 489.]

HEDONISM. This term, derived from the Greek *hédoné* (ἡδονή)=pleasure, is used to describe that philosophy which makes the attainment of pleasure and the avoidance of pain the supreme end of action,—in other words, defines virtue to be that course of conduct which produces the largest sum of happiness. Hedonism is thus the same as epicureanism in the proper sense of that term. Utilitarianism is hedonism modified by the substitution of the happiness of mankind for the happiness of the individual as the aim of virtuous conduct. Political economy has no necessary connection with either the selfish or the unselfish form of hedonism. Since, however, the one or the other has been very widely accepted in the 18th and 19th centuries, it is natural that many eminent economists should have been hedonists in their moral theories. See MORALITY, SYSTEMS OF, IN RELATION TO POLITICAL ECONOMY and the writers there referred to. F. C. M.

HEEREN, ARNOLD HERMANN LUDWIG (1760-1842), studied in the university of Göttingen, where he became in 1787 professor of philosophy, and in 1801, of history. As an author, he remained several years uncertain whether to devote himself to philosophy or history; his first publications were editions of the *De Encomiis* of the rhetorician Menander, and the *Eclogae physicae et ethicae* of Stobæus. His most important contributions to historical studies have been collected in his *Historische Werke* (15 vols. Göttingen, 1821-26), among which ought to be mentioned here vol. vii., *Handbuch der Geschichte des Alterthums mit besonderer Rücksicht auf Verfassungen, Handel und Colonien*, and vols. viii. and ix.; *Handbuch der Geschichte des Europäischen Staatensystems und seiner Colonien*. But the work which from the moment of its appearance conferred celebrity on his name (vols. x. to xv. of the *Historische Werke*), and which has been translated into most European languages after having been recast in successive editions, is the *Ideen über die Politik, Verkehr und Handel der vornehmsten Völker der alten Welt*.

Heeren himself explains his object in the Preface (*Vorrede*): "I write neither a history of ancient nations, nor a general history of political systems and trade. . . . My plan is limited, excepting preliminary general views, to isolated pictures of various nations (p. iv. 2nd ed. 1805). I have no hypothesis to found, no favourite tenets to demonstrate, no opponent to overthrow. . . . I state what I have found as I found it; what is certain as certain; what is probable as simply probable" (p. vi.).

Heeren may be considered as one of the earliest opponents to what has been called *Manchesterthum* in Germany. He writes in his chapter *Ueber Griechische Staatswirthschaft*: "Perhaps the Greeks were not fully aware of the importance of the division of labour, but they were free from the modern school philosophy which would gladly transform nations into mere wealth-producing herds. They felt, of course, that to live, man must produce; still it never struck them that man only lives to produce (vol. iii. p. 272). . . . Every high and divine feeling must be trampled down before there is room for such theories as degrade Socrates and Christ to the unproductive (*stérile*) class (p. 274). . . . It is possible to live happily in Otaheit

without regard to the system of Adam Smith" (p. 322).

Nevertheless he had accepted some of the teaching of the new school, especially respecting mercantilism: "Their aim (the Greeks') was not to keep the stock of minted coins inviolate, or to increase it; nothing was heard about the balance of trade, and the resulting high-handed (*gewaltsame*) regulations. They paid taxes, but without the modern object of directing industrial activity by means of the exclusion of this or that class of goods. The export of raw material was not prohibited, manufactures were not favoured at the expense of agriculture. In this sense, industry, commerce, and trade were free" (p. 283).

Heeren's history is perhaps deficient from the standpoint of modern minute criticism of texts, but its fluent and elegant style, its clear statement of facts, and judicial honesty in controversy, account for its former popularity. It has been translated into most European languages (into French in 1830-34, 6 vols. 8vo, and into English: *Historical Researches into the Politics, Intercourse, and Trade of the Principal Nations of Antiquity*, 3 vols. 8vo, Oxford, 1833). [See Notice in M'Culloch's *Literature of Pol. Econ.*, 1845, p. 151.] E. Ca.

HEGEL, G. W. F. (1770-1831), was educated at the Stuttgart gymnasium and Tübingen university. After some years' private tutorship in Switzerland and Frankfurt, and studious leisure in Jena, he became professor in Jena, 1805; for eight years rector of Nürnberg gymnasium, 1808-1816; professor at Heidelberg, 1816; and then at Berlin, 1818, where he remained till his death.

Hegel's leading characteristics are (*a*) his notion of development, and (*b*) his bold and thorough application of it to every phase of life and being. Development is to him a progress through conflict of opposites. Like Heraclitus, he finds that change is the essence of things; and his resemblance to the philosopher of Ephesus is undoubted, however fallacious it may be to find, with Lassalle, an almost complete Hegelian system in the sayings of the ancient philosopher. He finds that not only in our thoughts but in the nature of things, there is a constant process from one extreme to another, and then to a reconciling third, which in its turn becomes an extreme, and finds its own opposite, to be conquered by it and then to lie down with it within the fold of a new third reconciler, the fate of which is in due course the same. But the change is not simply flux and destruction; it is true development. Each third stage is more concrete than the last; each third stage contains in it all that has gone before. Hegel finds this notion most clearly realised in life, and especially in the most concrete forms of human life. Instead of treating law and morality as separate and separable, he finds these notions to be abstract and false when separated, and to be true and concrete only when viewed together in the family, civil society, and state. Civil society, more particularly, is the domain of what the older economists called "natural liberty," where there is pursuit of private gain obeying laws of which the private persons are unconscious. So far Hegel vindicates to political economy its claim to a realm of its own, civil society. But the limits of it at once appear. Civil society, as it itself grew out of the family, must itself pass into the state, where there is a conscious union of regard for rights with regard for duties, and the public good is deliberately sought. The development of civil society into the state, a development which, in Hegel as in Aristotle, is to be taken logically, not historically, takes place through associations, commercial, professional, and otherwise. Finally the state itself is not an ultimate end; states are individual members of larger groups, and all groups are members of the one humanity. The progress of the human race from generation to generation and age to age is the subject of the philosophy of history; and there is the same relentless process there as in the case of the single society. As Dr. Weryho well expresses it, *mors immortalis* is taken for the law of life.

This idea of development, as a *mors immortalis*, was retained by the Hegelians Marx, Engels, and Lassalle, when they created the new German socialism. They retained little else, for it became an axiom with them that all that is, is material; and spirit, that was to Hegel not only the roof and crown of things but the very essence of all things, was disowned altogether.

Their materialistic view of history marks a further alteration. Not only is there, to them, no spirit in Hegel's sense; but there is no progress except by changes in economic facts. The state of human societies as regards wealth—and especially the means and modes of producing wealth—is held to determine their condition in respect of all other features, hitherto supposed to be independent. Law, religion, and political institutions are thus supposed to be due to economical causes. This view, recently expounded by Professor Loria with even fewer reservations than by the Germans, would need a separate discussion. It receives no support from Hegel, and cannot be traced to his influence.

Hegel's influence, in fact, on political economy has been much less profound and direct than on philosophy. In no part of his voluminous writings does he give much space to economic discussion; and the keen interest shown by his contemporary Fichte in the condition of the people is absent in Hegel. Yet he deserves mention in the history of political economy, for it was a group of his disciples

that first fairly planted the philosophical idea of development in the soil of economics. The Young Hegelians, Marx, Engels, Ruge, taught at Paris, in the *Deutsch-Französische Jahrbücher* (1844), a revolutionary socialism founded on a notion of development derived from Hegel's, though confessedly unlike its parent in many important particulars. Proudhon's attempt to apply Hegelian formulas more literally, in the same direction, was not so skilful, as the controversy between Proudhon and Marx (1846-47) brought out very clearly. No doubt the connection between Hegel's principles and the application of them by this group of his followers did not become closer; German socialism soon became more economic than philosophical. But the attraction possessed by such a book as Hegel's *Philosophy of Right* for such men as Engels and Marx is a significant fact both for philosophers and economists. (See also LASSALLE; MARX; PROUDHON; RUGE).

Hegel's Works were edited by Marheineke, Schulze, Gans, Hotho, Michelet, Förster, Rosenkranz in 18 vols. (1832-40), to which is to be added a 19th vol. (1887), edited by his son Karl Hegel, and containing his correspondence.

[His Life by Rosenkranz was published in 1844. The *Philosophy of Right* is vol. 8 of Works. A summary is given in Bonar's *Philosophy and Political Economy* (1893), bk. iv., ch. iv., "Hegel." Another account, professedly from unpublished MSS. of Hegel, is given by Dr. Georg Mollat, *System der Sittlichkeit von Hegel* (Osterwieck), 1893, and Dr. Mollat has also published Hegel's *Essay on the German Constitution* (1893). For the relation of Marx to Hegel see Bonar *loc. cit.*, and also Barth's *Geschichtsphilosophie Hegels* (Leipzig, 1890), and L. Weryho's *Marx als Philosoph* (Bern and Leipzig, 1894). For the relation of Lassalle to Hegel, see especially Lassalle's *Die Philosophie Heracleitos des Dunkeln*, etc. (1858), and his *Erworbene Rechte* (1861).] J. B.

HEIR. In popular language this expression is generally used for any one who inherits, sometimes also, more especially in the plural form, in the sense of next of kin. The etymological equivalents of the word in the continental languages (*héritier*, *erede*, *Erbe*, etc.) are generally used in the sense of the Latin word "heres," which designated a person who by reason of his parentage or of a testamentary appointment became the universal successor of a deceased person, and whilst taking over all the predecessor's property, was personally liable for his debts and legacies (unless he had taken advantage of the BENEFICIUM INVENTARII) (*q.v.*). In English technical language the word "heir-at-law" is used for the person to whom freehold property descends in case of INTESTACY (*q.v.*); in the case of copyhold property the designation is "customary heir." The words "and his heirs," when added to the name of a person to whom land is conveyed in fee simple, indicate that he is to take an "estate of inheritance" and not a mere life estate, but they do not in any way prevent him from dealing with the property to the exclusion of his heir-at-law; the words "and the heirs *of his body*," on the other hand, indicate an estate tail (see ENTAIL, LAW OF). E. S.

HEIRLOOMS. In the correct use of the term heirlooms are those chattels which by the custom of particular places are attached to an estate of inheritance in land. They are not devisable by will but always descend with the estate. The term is, however, often used to denote chattels that are annexed to an estate of inheritance by the common law or by the terms of a will or settlement.

[Goodeve on *Real Property*, London, 4th ed. 1897.] J. E. C. M.

HELD, ADOLF VON (1844-1880), a distinguished economist, was born at Würzburg, where his father, Dr. Joseph von Held, was professor of jurisprudence. He pursued the study of political science at his native place, at Munich, and at Berlin. In 1872 he was appointed professor at Bonn, and in 1880 at Berlin; and in the same year his career, which had so far been one of brilliant promise, was cut short by his death from accidental drowning in the lake of Thun. He had been secretary, and an active member, of the *Verein für Sozialpolitik*. His first publication was *Carey's Socialwissenschaft und das Mercantilsystem*, 1866. Roscher praises his article on Adam Smith in Hildebrand's *Jahrb.*, 1867, as containing one of the most unprejudiced and altogether excellent appreciations of the great Scotchman anywhere produced.

The principal writings of Held were *Die Einkommensteuer*, 1872.—*Die deutsche Arbeiterpresse der Gegenwart*, 1873.—*Sozialismus, Sozialdemokratie und Sozialpolitik*, 1877 (which may be described as a manifesto of the principles and policy of the *Kathedersozialisten*); and *Grundriss für Vorlesungen über National-Oekonomie* (2nd edit. 1878).—He left behind him in MS. *Zwei Bücher zur sozialen Geschichte Englands*, a portion of a great work, for which he had prepared himself by studies in London during June, July, and August 1875. This highly interesting fragment was edited in 1881 by G. F. Knapp.

[Roscher, *Gesch. der N.O.*, p. 1045.—Lippert in the *Handw. der Staatswissenschaften*.] J. K. I.

Held, though one of the earliest supporters of the *Verein für Sozialpolitik*, founded 1872, and himself a moderate state-socialist, could not refrain from a gibe at "socialists of the chair." Their very name, he said, implied that to become like Bebel and Liebknecht they only wanted courage (see the account of the *Verein* by Prof. Philippovich, *Quart. Journ. of Econ.*, January 1891, p. 228). His *Sociale Geschichte Englands* was certainly one of the causes of the revival in England itself of the study of the history of English industry and the study of the surroundings in which the classical

economists produced their works. The first part, containing the industrial and literary history of the fifty-six years from the *Wealth of Nations* to the Reform Bill is of more permanent value than the second which treats of the earlier history of English industry and the growth of modern manufacture. But even in the latter he calls attention to many sources of evidence, especially blue-books, on the condition of the labouring classes, that had been too long neglected by our own countrymen.

In his estimates of writers, statesmen, and popular leaders he is sometimes misled by his bias against Classical Economics, but he has an evident desire to be truthful, and we have always to remember that his book appeared without his final revision.

His theoretical principles were stated in two papers especially. First in his *Rede über die Sociale Frage, gehalten auf der freien kirchlichen Versammlung evangelischer Männer in der Garnisons-Kirche zu Berlin 12ten Oktober 1871* (reprinted, Wiegand, Berlin, 1872). He rejects the abstract method of the classical economists, their undue emphasis on self-interest, their negative view of the state as a mere policeman, their way of opposing self-help and state-help. He admits that we have learned from the socialists to pay due attention to the distribution of wealth. He approves of progressive taxation and interference with the right of bequest.

In his second paper *Ueber den gegenwärtigen Principienstreit in der Nationalökonomie, Preuss. Jahrb., Juli 1872*, he addresses not a popular but a learned audience. He goes a little way into economic history, but deals chiefly with questions of the day. We have, he says, to deal with a new phenomenon—the rise of a school of *Kathedersozialisten* in opposition to *Manchesterthum*, in that very year 1872. Individualism pure and simple has, Held says, no answer to Marx; and *Kathedersozialismus* is the only safeguard against the "red spectre."

It may be remarked that in this paper as elsewhere Held regards MARX as the teacher and LASSALLE as only the pupil. J. B.

HELFERICH, JOHANNES A RENATUS VON (1818-1892), was a pupil of F. B. HERMANN, whom he succeeded in the chair of political economy at Munich. Helferich shares with D. G. Mayr the honour of having re-edited Hermann's *Staatswirthschaftliche Untersuchungen*. Helferich was for some forty years one of the editors of the *Tübinger Zeitschrift*, to which from time to time he contributed articles on a variety of subjects; such as the "Unity of German Currency" (1850), "Sugar-duties" (1852), "The Austrian paper currency" (1855-67), "Éloge of Hermann" (1878). Helferich's principal work on the *Periodic Oscillations of the Precious Metals since the discovery of America to the year 1830* is remarkable on account of its polemic against the Quantity Theory of currency, which the author regards as "*durchaus unrichtig*." The quantity is but one among the circumstances of supply and demand which govern the value of gold. This value, when once established, is preserved by a certain *vis inertiæ* (p. 38). "The price of goods is dependent on their own value-determination" (*von der eigenen Werthbestimmung abhängig*). The price of goods determines rather than is determined by the quantity of gold (a *sub finem* statement which may perhaps be compared with that made by Mr. Giffen in the *Nineteenth Century* for Nov. 1889). True to his principles, Helferich regards the rise in prices in the period from the discovery of America to 1550 as in the main not due to the influx of gold. He has to admit, indeed, that at a subsequent period quantity is a dominant factor. He made a good use of the historical material available when he wrote. His remarks on the method of measuring the value of money may be read with advantage (see MONEY).

Von den periodischen Schwankungen im Werth der edeln Metalle, von der Entdeckung Amerikas bis zum Jahr 1830. Nürnberg, 1843.—*Zeitschrift für die gesammte Staatswissenschaft*, Tübingen, *passim.* Articles on Taxation, and 'Forstwirthschaft' in Schönberg's *Handbuch.* F. Y. E.

HELLER. By the provisions of a law passed in August 1892, a gold crown of a hundred hellers has been adopted as the standard of value for Austria-Hungary. This crown, which is money of account, being equal to ·0417 of a pound sterling (or ten pence), the heller is of the value of one tenth of a penny. The coin bearing the name heller is a bronze piece weighing 1·6 grammes. There is also a 2-heller piece in bronze, and 10 and 20 heller pieces made of pure nickel.

Formerly in South Germany four hellers were equal to a kreutzer, and 60 kreutzers to a gulden. F. E. A.

HELVETIUS (1715-1771), the son of the first physician of the queen of France; owed to this high protection the post of farmer-general at the early age of twenty-three. He resigned in 1751, and devoted himself to literary pursuits; his house had always been a centre of the polite and philosophic society of the time. His principal books are the treatises *De l'Esprit* (1758) and *De l'Homme, de ses facultés intellectuelles et de son éducation* (1776), which was published after his death, and in which he endeavoured to explain the parts of his first book which, after a previous period of brilliant popularity, had given offence in the philosophic circles of Paris.

The main position of Helvetius may be summed up as follows: man is a purely sentient animal only differing from other animals by a higher degree of physical sentiency.[1] Human

[1] For the use of this word see Herbert Spencer. "Once more let me emphasise the truth that since a society in its corporate capacity is not *sentient*, and since the sentiency dwells exclusively in its units, the sole reason for subordinating the sentient lives of its units to the unsentient life of the society, is that, etc." (Herbert Spencer, *Justice*, ch. xxix. § 187, ch. entitled, "The Limits of State Duties Concluded").

passions are nothing else but the various modes of manifestation of this physical sentiency, which is the only motor of human actions; pleasure or pain are their unavoidable results: to pursue the former and to evade the latter is to conform to the only natural law. "He is a virtuous man whose strongest passion is so connected with the general good that for him virtue is in almost every case a matter of necessity." Hence our passions must be, not constrained, but educated: education and consequently legislation are all-powerful, since all men are born with the same physical constitution. To previous bad education and legislation are due the prevailing vices and excessive inequality in the distribution of wealth. Helvetius is thus in some respects a forerunner of modern utilitarianism and hedonism. "This man," Madame du Deffand used to say, "has told everybody's secret."

[See reference to Helvetius in Dugald Stewart, *Lectures on Pol. Econ.*, ed. 1856, vol. ii. p. 390; and in Rae, *Life of Adam Smith*, p. 200.]

E. Ca.

HENLEY, Walter of (c. 1200-1250). The only internal evidence which the treatise of *Husbandry* affords regarding its author is the incidental statement that he had served the office of bailiff. The title of a Cambridge MS. (Univ. Lib. Dd., vii. 6) gives the additional information that he was a knight and subsequently became a Dominican. It appears probable that he flourished in the time of Henry III., and wrote the interesting tract on estate management and the practice of farming which bears his name. It was the best known of several treatises on this subject which were written in England at this time, in Norman French: they are a remarkable group, more especially as there does not seem to be any corresponding literature of the kind at this date in other parts of Christendom. Transcribers were sometimes guilty of making curious confusions among, and rearrangements of these books, but they have been separated out, and translated by Miss Lamond, as Walter of Henley's *Husbandry*, *Seneschaucie*, an anonymous *Husbandry*, and Grosseteste's *Rules*. Walter of Henley's treatise survives in a large number of MSS.,—besides the twenty-one examples enumerated in the Introduction to Royal Historical Society edition, there is a copy in Corpus Library at Cambridge. The book was evidently much used as a handbook, and it was found in many monastic libraries. Several copies of it were made at Christ Church, Canterbury, and one, of a somewhat different text, at St. Augustine's. It held its own as the standard treatise on agriculture till the 16th century, when it was superseded by the work of Sir A. Fitzherbert, who treated similar topics, but — despite the commonly expressed opinion to the contrary — in all probability independently. The treatise renders many points of mediæval agriculture clear, *e.g.* the relative expense of cultivation on the Three Field and Two Field system; the practical hints which it gives, are a great assistance to any one who is anxious to get a clear understanding of the tillage of former days. W. C.

HENRY OF GHENT. See Ghent, Henry of.

HERBERT, Claude-Jacques (1700-1758), farmer-general of the royal mail coaches, mentioned by Adam Smith as a "very faithful, diligent, and laborious collector" of the prices of corn, has sometimes been credited as being the first in date of the advocates of free trade in corn in France. He himself lays no claim to such priority, and in his anonymous *Essai sur la police des grains* (London 1754, Berlin 1755, the London edition is incomplete), he expressly states that the same views had been entertained so far back as 1695 by Boisguillebert in his *Détail de la France*, and, closer to his own time, in 1748 in a *Mémoire sur les Bleds* (*vide* Dupin). Herbert belongs to the physiocratic school ("All the goods we possess flow from the cultivation of land," p. 2, Berlin edition). His main argument is that free trade in corn will develop the growing of corn. "It is not the obstinate storing of our corn, but its successive and annual production which will feed us. . . . Cultivation is the inexhaustible stock of our supply" (pp. 104 and 105). He rejects, as leading to jobbery, the system of "permissions to export and the erection of store-houses, either by government or by companies." Opposed to import duties, he admits a sort of sliding scale of export duties, which will be "a sufficient counterpoise to keep corn within the kingdom in case of need" (p. 192).

Barbier (*Dict. des Anonymes*) ascribes also to Herbert the authorship of a pamphlet of sixty pages, *Observations sur la Liberté du Commerce des Grains*, which was published the year after his death. The internal evidence renders this rather doubtful. E. Ca.

HEREDITAMENT. An expression used in legal documents for any real property whether consisting of land, buildings, or rights attaching to land (*e.g.* advowsons, rights of common, etc.) The latter are called "incorporeal" hereditaments. E. S.

HEREDITAS, the entire property of a deceased person, to which his universal successor or *heres* succeeded, whether under a will or *ab intestato*. The *heres*, as successor to the deceased, was liable for his debts. E. A. W.

HEREDITY. The persistence of the same character through many generations of a family or a people is a fact often observed and of the utmost importance for economics. The persistence of a peculiar artistic faculty has preserved to some cities, *e.g.* to Lyons, the supremacy in certain manufactures, which, so far as external

conditions are concerned, might have flourished equally well in many other places. The persistence of financial skill has made the Jews everywhere the bankers of hostile races and creeds. Persistent energy has made Holland and Lancashire rich; persistent idleness has made Naples and Andalusia poor. The principal causes of this permanence of character are not hard to find. They appear to be four—blood, education, civilisation, and natural environment. As to the first, only physical science can attempt to determine the extent to which physical peculiarities—above all, peculiarities of the brain and the nervous system, are transmitted from one generation to another. Even now there is no agreement among experts as to the mode or extent of such transmission. That it does take place somehow or other few men of common sense will doubt. But it is not only in giving the child a certain physical constitution that the parents' influence on its character and intelligence are so momentous. Education in that larger sense which includes the modelling of feelings, habits, and occupations has always been, and must continue to be, for the most part the work of the father and mother. Although the formal division of castes is unknown in Europe, most occupations are to a great extent hereditary. The child imitates the parent. The parent finds it easier to train his child to his own calling than to any other. To the child the parent imparts much useful knowledge which could not be learnt at school, and many habitual aptitudes indispensable for success in any calling. It thus becomes impossible to compute how much of the child's resemblance to the parent is due to strictly physical causes, how much to subsequent educational influence. Again it is not merely parentage or education, but also inherited civilisation, which contributes to mould the individual on the pattern of his ancestors. An old and deep-rooted civilisation exercises the most penetrating power on all who come within its sphere, whether by birth or by immigration, whether as conquerors or as subjects. Thus successive races of invaders have been permeated by the civilisation of Italy and China, and the older types of thought have endured in spite of infusions of alien blood. Lastly, the effect of natural environment, the conditions of soil, scenery, and above all, climate, tend to maintain physical and moral uniformity through age after age, and favour the illusion that the present inhabitants of a given country are all lineal descendants of those who inhabited it in the earliest period of history. These natural agencies have no doubt contributed much to the assimilation of foreign conquerors by the conquered natives. The joint influence of a peculiar climate and a peculiar civilisation in rendering men subjected to their action like one another and unlike everybody else is well illustrated in the United States of America. The mixed crowd of European immigrants who disembark every year on the shores of the United States are rapidly transformed into the likeness of the older settlers, and their offspring can hardly be distinguished from the offspring of three or four generations of American citizens. But the pure-blooded Yankee who is proud of his descent from the Puritans is a very different man from his English ancestor or cousin. The converse truth is illustrated by the remarkable transformation which many races have undergone when removed to a new home and exposed to new influences. Thus the Jews in their own country were mainly an agricultural and pastoral people; since their dispersion they have lived chiefly in towns and have busied themselves in trading and money-lending. It thus appears that the continuity of national character is the result in varying proportions of unbroken descent by blood, of education, of inherited civilisation, and of unchanged natural conditions. The relative potency of these agencies in any given instance may be roughly conjectured, but can never be exactly determined. Such determination is not, however, necessary for economic purposes. It is enough for economical investigation to know that tribes and nations have certain striking characteristics which may indeed be modified in the long lapse of time or by violent revolutions, but which are in the main permanent. It should, however, be remembered that this permanence is not the same in every stage of civilisation. It is most conspicuous in the earlier, the tribal or at most the national stage. It is less conspicuous in the later, the cosmopolitan stage. Thus in the ancient world the hereditary peculiarities of the Greek and the Jew, the Phœnician and the Roman, the Gaul and the Egyptian, were all strongly marked, whilst they retained their independence, but became somewhat blurred when they were merged in one universal empire. At the present day the different nations of Europe impart to each other their arts, their discoveries, their inventions, their luxuries, and their vices. Each people learns something from its neighbours and abates something of its own peculiarities. But this process of assimilation is in great measure superficial, and leaves the hereditary distinctions of temperament and character almost unchanged.

[F. Galton, *Hereditary Genius; Natural Inheritance.*—E. B. Poulton, *Theories of Heredity.*—Weissmann, *Essays upon Heredity and Kindred Biological Subjects.*—Kindere, *De la Race et de sa part d'influence dans les diverses manifestations de l'activité des peuples.*—Ribot, *Heredity, a Psychological Study of its Phenomena, Laws, Causes, and Consequences.*—J. B. Haycraft, *Darwinism and Race Progress* (1895).] F. C. M.

HERIOT. When a gesith or thegn received a grant of BOCLAND (*q.v.*) it was customary for

the lord to make him a gift of arms and equipment. On the thegn's death this gift was repaid in whole or part from his chattels by the heir, and this repayment, at first customary and then compulsory, is called the heriot. The Norman lawyers confused the heriot with the feudal relief, which was paid by the heir on succeeding to his father's lands. But the two things are perfectly distinct. The relief is directly connected with the tenure of land; until it is paid the estate returns to the overlord, who only grants possession to the heir when the customary payment has been paid. But the heriot has no connection with the land, which passes unconditionally to the heir. It is in fact not so much a charge upon the heir as a payment from the dead man to his lord.

[Stubbs, *Constitutional History*, i. 261.] R. L.

Heriot still survives as a manorial right subsisting on copyhold land in many parts of England, and also in certain places, more particularly in Kent, on freehold land held of a manor. It consists in the right of the lord, on the death of a tenant, and in some cases also on alienation, to seize the best beast, *e.g.* a valuable race-horse, on every tenement held by such tenants. On some manors the best chattel, *e.g.* a diamond necklace, may be taken by the lord. It is frequently difficult to ascertain whether land is subject to heriots or not, as the occasions for making use of the right may only occur at long intervals; and, as the statute of limitations, though it could bar a particular exercise of the right of heriot, could not bar the general right (see Zouche *v.* Dalbiac, L. R. 10 Ex. 172), a continuous non-exercise of the right would, however, tend to extinguish it. The compulsory extinguishment of heriots may, under § 7 of the Copyhold Act 1887, be claimed either by the lord or the tenant, and the compensation payable to the lord is, in such a case, ascertained in the same way as in the case of the enfranchisement of copyhold land.

Heriots, though a picturesque reminder of a past age, have nothing in their favour from an economical point of view. They cause an inconvenience to the tenant out of proportion to the advantage they confer on the lord; their real or assumed existence frequently creates difficulties on the sale of land, and, in many instances, they have caused fruitless and expensive litigation. It would be most desirable for the legislature to fix a period within which compensation for them and similar manorial rights might be claimed by the lords, and to declare that after the lapse of such period all such rights should cease.

[As to the present law relating to heriots, see Elton, *Copyholds*, 2nd edition, 198-210.] E. S.

HERITABLE AND MOVEABLE (Scots Law). Correspond very nearly, with some exceptions, such as teinds or tithes, liferents or estates for life in land, mortgage debts, and others, to real and personal as applied to property in English law, particularly with reference to the respective rights of the heir and the personal representative. In Scots law there are, however, more numerous instances than in English in which property is considered heritable (or real) for one purpose and moveable (or personal) for others: and there are some leading differences of principle, such as that rights in their own nature moveable, but having a tract (or prospective course) of future time, as for example, leases, annuities, and life interests in money, are heritable, and not moveable or personal only.

[For enumerations of heritable and moveable rights, see Bell's *Commentaries*, vol. ii. p. 1, *et seq.*] A. D.

HERITABLE SECURITIES (Scots Law). A generic term, including all forms of real securities, or securities on land or buildings. The most ordinary form in use is a bond and disposition in security, a combination of a personal bond with a redeemable conveyance or mortgage, with power of sale by public auction and of granting an absolute title upon such sale.

[See Craigie's *Digest of Scottish Conveyancing* (*Heritable*).] A. D.

HERMANN, Friedrich Benedict Wilhelm (1795-1868), one of the most eminent of German economists and statisticians, was born at Dinkelsbühl in Bavaria. He studied at Erlangen and Würzburg. He was afterwards (1821) teacher of mathematics at Erlangen, and (1825) professor of that science in the Polytechnic school of Nuremberg. In 1827 he was appointed extraordinary professor of technology and political economy in the university of Munich. His great work, *Staatswirthschaftliche Untersuchungen* (1832), made his reputation, and procured for him the position of ordinary professor in his university. He was employed by the government as inspector of institutions for technical instruction, and was commissioned to visit, in 1839, the Paris exhibition, of which he published an account (*Die Industrie-Ausstellung zu Paris*). He was also appointed a member of the statistical bureau, and in the capacity of its head he issued, from 1850 to 1867, his contributions to the statistics of Bavaria. He filled from time to time different important posts in the ministries of the interior and of finance. At several conferences of representatives of the German states on taxation, he worked earnestly for the creation of one national system of customs duties. He organised a *Grossdeutsche Partei*, whose motto was "Kein Deutschland ohne Oesterreich." He held that a union without Austria would produce not a lesser Germany, but a larger Prussia. He represented in 1848 the city of Munich in the National Assembly at Frankfort, and voted as a member of the Left Centre. In 1855 he retired from political life, and devoted himself to

his professorial duties and to scientific research. He was seized with inflammation of the lungs on 20th November 1868, and, aware of his approaching end, dictated to his son, as long as his strength permitted, the alterations to be introduced into a new edition of his *Untersuchungen*. He died on the 23rd of the same month.

[Roscher, *Gesch. der N.O.*, p. 860.—Cossa, *Introd. to the study of P.E.*, English trans., Macmillan, 1893, p. 406.—Kautz, *Nationalökonomie*, ii. p. 633.] J. K. I.

Hermann in his *Staatswirthschaftliche Untersuchungen* (Munich, 1832, and, enlarged afterwards from his notes, 1870) has left one of the most permanently valuable books on economics in the German language. It covers nearly the whole ground of a text-book, and such a text-book as might have been expected a generation later. Like Schäffle, he says much at the outset on human wants, the notion of "goods," and other psychological aspects of his subject. He lays stress on the distinction of technical from economical, the first relating to the production of certain physical effects by the use of certain physical causes, the second to the disposal of quantities of goods, on the principle of greatest benefit at least sacrifice. He distinguishes the economy of an individual, of a family, and of a larger group. He points out that joint action is not necessarily collective action; a school may be started by the joint action of several fathers for the training of their own several children, but it is not a public or collective institution unless it is created by a union of citizens not specially for themselves but for the general advantage (ed. 1870, p. 95).

His illustrations from education are frequent. As a public man, he took a keen interest in public instruction. He draws also in many other ways on his special knowledge of public affairs in Prussia, and especially in Bavaria. The later edition refers in this connection to his report for the Zollverein's commission on the London Exhibition of 1851 (ed. 1870, p. 214, cp. 426, 466-467). In theory, he is a shrewd and close reasoner. He expressly adopts the abstract method (120, 168, cp. 378). He works out mainly on conservative lines the theory of value, price, demand, etc. He thinks income of consumers is the true wages-fund. He has a wide knowledge even of the minor English and American economists (*e.g.* 203, 259, 266). Some of his distinctions are not perhaps very happy. For example *Nutz-capital*, as distinguished from *Productiv-capital* (221 *seq.*), is on the whole a metaphor, and not to be embraced with the latter under one definition of capital. The distinction, again, of *Hilfstoff* from *Hauptstoff* (320) seems rather technical than economical. But, open him where you will, you find mature wisdom and clear reasoning.

Banfield, in his *Organization of Industry* (1845), acknowledges his debt to Hermann (*e.g.* Preface and pp. 20, 28). But Banfield, who had studied Rau, Von Thünen, and List, had special opportunities in his own travels, official and unofficial, of knowing the Germans. Hermann had little further notice, till Professor Marshall, in his *Principles* (1890), made him full amends for previous English neglect (see esp. p. 106 n., 492, etc.) [see also Banfield; German School]. J. B.

HERRENSCHWAND (—). This writer on political economy has often been mistaken for his brother Johann Friedrich, a Swiss physician, who died in Bern in 1796. He is believed to have been a judge in the Swiss regiments in the French service, and according to the *Nouvelle Biographie Générale* (vol. 24, p. 463) was in 1805 an old man living in Paris. Nothing else is known about him.

He is a turgid and diffuse writer, always professing to set forth the will of the "Creator," or of the "Universe." Blanqui in the bibliography annexed to his *Histoire de l'Économie Politique* (ii. p. 350, ed. 1860) mentions him as a connecting link between Quesnay and Smith. In common with the former, Herrenschwand has a general predilection for agriculture and a state of equilibrium between production and consumption; and in common with the second, he remarks on the beneficial influence of high wages, but his opinions on the evils of foreign trade, and on the usefulness of the accumulation of the precious metals, are quite contrary to their views. His favourite remedy is the multiplication of absolutely independent consumers (*consommateurs indépendants par excellence*), and the increase in their hands of coined precious metals (*Du vrai Gouvernement des Peuples de la Terre*, London and Paris, 1801-1802, p. 89).

His works, although written in French, were published in London; *De l'Économie Politique Moderne. Discours fondamental sur la Population* (London, 1786, and Paris, 1795).—*Discours sur le Crédit Public des Nations de l'Europe* (1786).—*Discours sur la Division des Terres* (1788).—*De l'Économie Politique et Morale de l'Espèce Humaine* (2 vols., 1786).—*Du vrai Principe actif de l'Économie Politique* (1797). Arthur Young, *Travels through France* (2nd ed. vol. i. p. 481), writing on his own studies and those of Sir James Stuart, on the subject of "Population," refers thus to Herrenschwand; "other writers have arisen who have viewed the subject in its right light; and of these none have equalled Mons. Herenschwandt, who in his *Économie Politique Moderne*, 1786; and his *Discours sur la Division des Terres*, 1788, has almost exhausted the subject." E. Ca.

HERRERA, Cristobal Perez de (end of 16th and early 17th century), physician of the royal navy of Spain and of Philip II., wrote several works on the poor, among which may be mentioned his several *Discursos del Amparo de los legítimos Pobres* (Discourses on the Pro-

tection of the well-conducted Poor), Madrid, 1595, 1598, and 1608. He recommends the erection of special houses (*Albergues*), which are to be supported by the church, the municipal authorities, and private charity; but unlike his predecessor GIGINTA (*q.v.*), he does not in his *Replica* (Reply) to the objections opposed to his discourses, appear to be willing to enforce work on the well-conducted poor, and only considers it as a mode of correction for vagrants and women of bad character; he would even allow the well-conducted poor, whilst inmates of the house, to go out begging on their own account.

More favourable to Herrera's endeavours than to Giginta's, King Philip III. in 1596, ordered, his plan to be executed in fifty towns and rural places; but owing probably to the absence of the test of work suggested by Giginta, its effects were rather favourable to than restrictive of the extension of pauperism.

[Colmeiro, *Historia de la Economia Politica en España* (vol. ii. pp. 29 and 38), *Biblioteca de los Economistas Españoles* (p. 135).—Iglesias, *La Beneficencia en España* (vol. i. p. 257).] E. CA.

HERRIES, JOHN CHARLES (1778-1855), statesman and financier, was the son of a London merchant. In 1798 he entered the public service as junior clerk in the treasury, but was soon promoted to a place in the revenue department, where he so distinguished himself that Pitt employed him to draw up his counter-resolutions against Tierney's financial proposals. He further received the thanks of the prime minister in 1803 for his pamphlet in reply to the financial strictures of Cobbett and Lord Grenville. Herries acted for some time as secretary to Vansittart, and afterwards to Spencer Perceval, and in 1811 he was despatched to Ireland to assist Wellesley-Pole, the Irish chancellor of the exchequer. The same year he was appointed to the arduous office of commissary-in-chief, in which post he did much to cope with the jobbery everywhere prevalent. He had now a great reputation as a political economist, and in 1813, in conjunction with Nathan Meyer Rothschild, he succeeded in carrying out a plan for the collection of French specie for the use of Wellington's army. But owing to the continued dearth of specie in 1815, a large number of 20-franc pieces were, at Herries's suggestion, coined at the mint for the use of the army. The office of commissary-in-chief having been abolished in 1816, Herries retired on a pension; but he was soon appointed to the new office of auditor of the civil list. In 1821 he was appointed one of the commissioners for inquiring into the collection and management of the revenue in Ireland. He was named financial secretary to the treasury in 1823, being returned to parliament during the same year for Harwich. It was under his direction that the consolidation of the customs laws was effected. When Lord Goderich (Earl of Ripon), became prime minister on the death of Canning, Herries was appointed chancellor of the exchequer at the king's special request. Ministerial complications ensued, the result of which was that Herries left the exchequer and became master of the mint. He served on the finance committee of 1828, and was the first financier to "make the public accounts intelligible." In 1830 he became president of the board of trade, but resigned both his offices when Lord Grey acceded to office. In the session of 1832 Herries made a severe and damaging attack upon the government in connection with the Russian-Dutch loan. He was secretary at war in Peel's ministry of 1834-35. Appointed in 1838 one of the committee on metropolitan improvements, he drew up the greater portion of its second report. He strongly attacked the financial and commercial policy of the Whig government in 1841, but the same year lost his seat in the house. Having retired from Harwich at the dissolution, he unsuccessfully contested Ipswich. He now remained out of parliament for six years. Returned in 1847 for Stamford in the protectionist interest, he strongly opposed the repeal of the navigation laws. In the Derby ministry of 1852 he held the office of president of the board of control, but that ministry was overthrown in December (1852), and in the ensuing year Herries retired altogether from parliamentary life. Herries was not a great statesman or a brilliant speaker, but he acquired the reputation of an able financier and an assiduous public servant.

[E. Herries, *Memoir of the Public Life of J. C. Herries.*—Bulwer, *Life of Lord Palmerston.*—Walpole, *History of England.*—*Annual Register*, 1855.—Art. "Herries, J. C.," *Dictionary of National Biography.*

Herries has recently been appealed to by Mr. W. H. Smith, Mr. Gladstone, and Sir. W. Harcourt, as an authority upon the probability of panic in the event of bimetallism. Mr. Arthur Balfour expressed a very different view of his abilities. "Speech at Bimetallic Conference," London, 1895.] G. B. S.

HEUSCHLING, PHILIPP F. XAVIER THEODORE (1802-1883). An eminent official of the ministry of the interior in Brussels, was a frequent contributor on statistical subjects to the *Journal des Économistes.*—*La Belgique Judiciaire,*—*Revue de l'Administration et du Droit Administratif en Belgique.*—*Bulletin de la Commission de Statistique de Belgique*, etc.

The list of his publications extends over three pages of the Belgian *Bibliographie Nationale* (Brussels, 2 vols. 1888). Among them ought to be mentioned: *Essai sur la Statistique générale de la Belgique* (1838).—*Bibliographie historique de la Statistique en Allemagne* (1845).—*Manuel de Statistique ethnographique universelle* (1847).—*Le Congrès Général de Statistique tenu à Bruxelles en 1853* (Paris, 1853).—*Résumé de la Statistique*

Générale de Belgique de 1841 à 1850 (1853).—*L'Empire de Turquie* (1860). He wrote in conjunction with M. Block: *Das Kaiserthum Frankreich und das Königreich Belgien* (Leipzig, 1871), and collected under the title of *L'Impôt sur le Revenu* (1873), several of his scattered pamphlets and review articles advocating an income tax to take the place of indirect taxation and license duties (*patentes*). He assisted QUETELET (*q.v.*) in the publication of the *Comptes Rendus des Travaux de la Commission Centrale de Statistique*, and Bivort in bringing out the *Annales Législatives de la Belgique*, and trans. *Princ. of Stat.* of B. HILDEBRAND (*q.v.*). E. Ca.

HEYSHAM, JOHN, M.D. Edin. (1753-1834), is best known through his statistical observations, extending from 1779 to 1787, on the bills of mortality at Carlisle, in which town he followed his profession of physician. His tables include the number of deaths according to age, sex, and conjugal condition, and are accompanied by general observations on the vital statistics of Carlisle, including some remarks, with statistical illustrations, concerning the value of inoculating for smallpox. His figures formed the basis of Joshua Milne's *Carlisle Life Table*, which from its greater accuracy very generally superseded the Northampton table previously used, though the mortality at Carlisle was somewhat lower than that of England. Heysham took a census of the town in 1780 and in 1788, and calls attention to the large increase in the number of the inhabitants, due to manufactories.

An abridgment of *Observations on the Bills of Mortality in Carlisle 1779-87*, Carlisle, 1797.—*An Account of the Jail Fever at Carlisle in 1781*. Lond., 1782.

[Dr. H. Lonsdale, *Life of John Heysham, M.D.*, Lond., 1870.—Concerning the Carlisle Table, see also Joshua Milne, *Treatise on the Valuation of Annuities*, 2 vols., Lond., 1815, and C. Walford, *Insurance Cyclopædia*, s.v. *Carlisle Table of Mortality*, Lond., 1871.] R. H. H.

HIDAGE. The earliest tax in English history, the DANEGELD (*q.v.*), was a tax of a varying number of shillings on the hide of land. The original reason for this imposition was to buy off the Danish invasions under Ethelred II. But long after this pretext had disappeared, even after the Norman Conquest, the danegeld continued to be levied from time to time under the same name. But after 1163 it disappears from the rolls, and historians have often supposed that it was never again levied. But precisely the same charge on land continues to be made by Henry II. and Richard I. under the name of hidage, and in the 13th century as carucage. Hidage therefore is really the same as danegeld, though it only appears as a technical term after the latter had fallen into disuse. R. L.

HIDE. In the original distribution of land among the English settlers in Britain the portion allotted to each free man, *i.e.* the homestead with a share in the arable and pasture lands of the township (see ALOD), was called a hide. From this use came its later meaning as a measure of area. By the laws of Edward the Elder a ceorl who had fully five hides of land with other qualifications could become a thegn. But it is impossible to determine the measurement denoted by a hide in Anglo-Saxon times, and it is certain that this varied very much in different localities. After the Norman Conquest a hide means the same as a carucate, *i.e.* the land that can be ploughed by a single team. This, originally a varying area, is fixed in the twelfth century at 100 or 120 acres.

[Kemble, *Saxons in England*, i. 88.—*Dialogus de Scaccario*, i. 17.—E. W. Robertson, *Historical Essays*.—Stubbs, *Constitutional History*, i. 74.] R. L.

The *hide* or *higid* appears to have meant, in primitive times, the amount of land which sufficed for a family; it consisted of arable land with pasture rights, and has been generally regarded as the share allotted to each free warrior (ALOD). Charters quoted by Mr. Round seem to prove that the hide was an area of 120 acres.

In Domesday Book the term is used as a unit of assessment for purposes of calculating the Danegeld. Like the term *carucato* (properly 160 or 180 acres, see CARUCAGE) it ceases, in this great record, to be a direct measure of area; for a large expanse of barren heath, and a comparatively small but fertile arable holding, might each be rated as a hide. The principle of *beneficial hidation*, or the favourable rating of certain estates or districts (as *e.g.* the archiepiscopal land in Surrey) was so far operative that it is quite impossible to deduce the area of an estate from the Domesday hides.

HIGGLING of the market is described by Adam Smith as a process by which "exchangeable value" is adjusted to its measure "quantity of labour."

"It is often difficult to ascertain the proportion between two different quantities of labour . . . it is not easy to find any accurate measure either of hardship or ingenuity. In exchanging, indeed, the different productions of different sorts of labour for one another, some allowance is commonly made for both. It is adjusted, however, not by any accurate measure, but by the higgling and bargaining of the market, according to that rough equality which, though not exact, is sufficient for carrying on the business of common life" (*Wealth of Nations*, bk. i. ch. v.).

Compare FLEEMING JENKIN: "The higgling of the market, ascertaining the result of the relative demand and supply in that market, does not in the long run determine the price of either eggs or tea; it simply finds out the price which had

been already determined by quite different means" ("Time-Labour System," *Papers, Literary, Scientific*, etc., p. 139). It is possible to accept the writer's account of the *market process* (*Ibid.* p. 123) without contrasting so strongly the determination of price by demand and supply and by cost of production (cp. Prof. Marshall, *Principles*, Preface, p. xi.). Prof. Marshall at the beginning, when treating of the theory of the equilibrium of demand and supply, gives an excellent type of the action of a market (*Ibid.* bk. v. § 2). See also his note on barter at the end of the chapter referred to, and his mathematical note xii. The subject can hardly be apprehended without mathematical conceptions. Thus Mill, in his description of the play of demand and supply (*Pol. Econ.*, bk. iii. ch. ii. § 4), in the absence of the idea of a demand-curve or function, may seem to use the phrases "demand increases," "demand diminishes," loosely. A more distinct idea is thus expressed by Fleeming Jenkin in his *Graphic Representations*. "If every man were openly to write down beforehand exactly what he would sell or buy at each price, the market price might be computed immediately." A similar idea is presented by Prof. Walras (*Éléments d'Économie Pure*, art. 50). In some later passages he has formulated the higgling of the market more elaborately. The present writer, criticising these passages (*Revue d'Économie politique*, Jan. 1891), has maintained that even if the dispositions of all the parties were known beforehand, there could be predicted only the position of equilibrium, not the particular course by which it is reached. Of course special observation may supply the defects of theory. For instance there may be evidence of the incident which Cantillon attributes to the "altercation" of a market, namely the predominant influence of a few buyers or sellers; "le prix réglé par quelques uns est ordinairement suivi par les autres" (*Essai*, part ii. ch. ii. Des prix des Marchés). Compare Condillac: "Aussitôt que quelques uns seront d'accord sur la proportion à suivre dans leurs échanges les autres prendront cette proportion pour règle" (*Le Commerce et le Gouvernement*, ch. iv. *Des marchés*).

"Higgling" is not always qualified as "of a market." The term may be used in much the same sense as the "art of bargaining" is used by Jevons, with reference to a transaction between two individuals, in the absence of competition (*Theory*, p. 124, 3rd ed.). Thus Professor Marshall, in an important passage relating to the case in which agents of production are held by two monopolists, says that there is "nothing but 'higgling and bargaining'" to settle the proportions in which a certain surplus will be divided between the two (*Principles of Economics*, bk. v. ch. x. end). Moses, in the *Vicar of Wakefield*, did not require a fair for the exercise of the skill which is thus attributed to him: "He always stands out and higgles and actually tires them till he gets a bargain." F. Y. E.

HIGHWAY RATES. See RATES.

HILDEBRAND, BRUNO (1812-1878), a German economist of the historical school who won an enviable reputation among his contemporaries by his scholarly contributions to the science, and especially by a rare administrative power that found its happiest expression in the establishment and editorial management of the *Jahrbücher für Nationalökonomie und Statistik*, was born at Naumburg, a small town on the Saale river, where his father was clerk of the court. In 1836 he began an academic career as privatdocent or lecturer in history at the university of Breslau. Like G. Kries and Carl Knies, however, he soon specialised in political economy. The instructorship developed three years later into an assistant professorship, and in 1841 Hildebrand was made full professor of political science at the university of Marburg. While in this position he represented Marburg in the Paulskirche Conference at Frankfort, and in 1849-50 he sat as representative for the city of Bockenheim in the Hessian parliament. It was in this latter body in September 1850 that Hildebrand moved and carried a motion to refuse the additional grants asked for by the government in the annual budget. A dissolution of the House followed and Hildebrand lost his position as professor at Marburg in consequence of his action. He then went to Switzerland and was made professor of political science, first at Zurich and then at Berne, where he founded the first cantonal statistical bureau. In 1861 he was called to the chair of political economy at the university of Jena, where he remained until his death. It was here that he started the publication of the *Jahrbücher*, which he edited alone until 1873, when Prof. Johann Conrad, a former pupil, became associate editor. Prof. Conrad succeeded to the chief editorship in 1878. In 1864 Hildebrand was made director of the statistical bureau of the United Thuringian States, in which position he published many valuable statistical researches. His chief work, however, was his book entitled "Political Economy of the present and future" *Die Nationalökonomie der Gegenwart und Zukunft*, the first volume of which appeared in 1848. Much material on the industrial condition of labour and manufactures, gathered during a long stay in England in 1846, was utilised in this work. He criticises the different schools from the historical point of view and treats the laws of economic development in modern times ethically and politically. Perhaps his best and severest criticisms are those of Engels, Proudhon, and the theoretical parts of Fried. List's doctrines, although Hildebrand was himself a moderate protectionist. In spite of the fact that this book was welcomed as an

important contribution to that stream of literature begun by the historical school, a second volume never appeared, possibly because of disinclination to go further on the same lines, but more probably because of absorption in more practical work.

Hildebrand was a man of great energy and organising power, with a good hold on practical life, and always successful in collecting economic facts from all classes of people. His practical activity occupied itself in the organisation of two small railways in Zurich and Bern, and of a short railway in the Saale valley starting from Jena. He also established several friendly societies in the towns in which he lived. As a university lecturer he was not particularly brilliant, in the form or contents of his lectures; he usually spoke without notes and in a somewhat disconnected manner, but he laid great stress upon personal work with his students, and his influence on them, especially by way of suggestion and supervision, was peculiarly successful. Criticism and the development of a critical spirit among his students was ever with him a hobby. His chief writings in the order of their appearance are as follows:

Xenophontis et Aristotelis de œconomia publica doctrinæ illustratæ, 2 Teile, Marburg, 1845.—*Die Nationalökonomie der Gegenwart und Zukunft*, I (einziger) Bd. Frankfort a. M. 1848.—*Statistische Mitteilungen über die volkswirthschaftlichen Zustände Kurhessens*, Berlin, 1853.—*Beiträge zur Statistik des Kantons Bern*. Bd. I. 1 Hälfte, Bern, 1860.—*Die Kurhessische Finanzverwaltung*, Kassel, 1860.—*Untersuchungen über die Bevölkerung des alten Italiens* (*Artikel im Neuen Schweizerischen Museum*, 1861.)—*De antiquissimæ agri romani distributionis fide*, Jena, 1862.—*Statistik Thüringens, Mitteilungen des statist. Bureaus Vereinigter Thüringischer Staaten*, 2 Bde, Jena, 1867-78.—*Principes de statistique administrative, enseignés à l'Université de Jéna. Traduit de l'allemand sur les cahiers du professeur et résumés par X. Heuschling*, Brussels and Paris, 1872. [This was an unauthorised translation of a college student's note book which appeared in the *Bulletin de la Commission centrale de statistique*, vol. xii.]

Many valuable articles upon various economic topics in his *Jahrbücher*. S. M'C. L.

HILDRETH, Richard (1807-1867), was born in Deerfield, Mass.; he became a lawyer and editor in Boston, and was the author of a standard history of the United States. He published many works on history and moral and political philosophy, among which is, *The History of Banks, to which is added a Demonstration of the Advantage and Necessity of free Competition in the Business of Banking*, Boston, 1837, pp. 142. Hildreth argued that bank-notes should be subject to the same kind of legislation as bills of exchange. D. R. D.

HILL, Sir Rowland (1795-1879), was the founder of penny postage in England. In 1819 he established Hazelwood School, near Birmingham, and in 1822 brought out, in conjunction with his brother, Matthew Davenport Hill, a treatise on public education. With the hope that the government might be induced to examine into the home colonies of Holland, which seemed to afford valuable suggestions for our own poor-law administration, he wrote a pamphlet on *Home Colonies* in 1832. In 1835 he was appointed secretary to the commissioners for the colonisation of South Australia, and in that capacity suggested a plan for municipal government which is believed to contain the first scheme ever put forward for proportional representation. In 1837 his pamphlet appeared on *Post Office Reform: its Importance and Practicability*, urging the substitution of a uniform charge—preferably the minimum then in use, one penny—for the complicated system of "rating" then practised. This led to considerable popular agitation, which induced the government to appoint a committee of enquiry in 1838, and to introduce a Penny Postage Bill in 1838, going into effect in 1840. To assist in carrying out the contemplated reforms, Hill was appointed in 1839 to a position in the Treasury. The term for which he was appointed having expired, he was dismissed by the new ministry in 1842; and thereupon turned his attention to railway management, as director and then chairman of the Brighton Company (1843-1846). In 1846 a national testimonial was presented to him in recognition of his services in postal reform, together with a subscription of £13,000. In the same year he was appointed to the newly-created office of secretary to the postmaster-general. In 1854 this office was combined in his person with the older office of secretary to the general post office; and he remained sole secretary till his resignation in 1864. He had been knighted in 1860; and on his retirement received a parliamentary grant of £20,000. He was buried in Westminster Abbey.

The principles of the modern postal service are so far-reaching that it may be well to state them in Rowland Hill's own words. His attention, he tells us in his autobiography, was first directed to the subject by his interest in the problems of taxation. He had come to the conclusion that the best tax was that whereof "the productiveness kept pace with the increasing number and prosperity of the nation." "This test brought the tax on the transmission of letters into bad pre-eminence, since during the previous twenty years the revenue derived from the post office . . . had even somewhat diminished." The suggestion, which he attributes to his father, Thomas Wright Hill, that "even for fiscal purposes postage was unwisely high," then occurred to him; and he "started" upon his work of investigation "with the simple notion that rates must be reduced." "The question to be decided therefore was, how far the total reduction might safely be carried; and this involved two preliminary in-

quiries ; first, what would be the probable increase of correspondence consequent upon such or such reduction ; secondly, what would be the augmentation of expense consequent upon such increase." As to the first he concluded from an observation of the cases of several commodities, not only that cheapening was followed by an increase in demand, but that "reduction in price, even if it does not increase the total expenditure on the article, seldom if ever permanently lowers its amount." As to the second, he saw that under the existing system many of the elements of expense "must increase in something like direct proportion to increase in the number of letters." But this he thought by no means necessary ; expense could be effectually reduced by simplicity of operation, and this could be obtained by "reducing the prodigious variety of rates, and adopting means to induce prepayment." "In considering how far the variety of rates might be reduced, I was led to inquire what proportion of postal expense proceeded from the conveyance of letters from town to town, and further how far such expense varied in relation to distance." "I found, first, that the cost of conveying a letter between post-town and post-town was exceedingly small ; secondly, that it had but little relation to distance ; and thirdly, that it depended much upon the number of letters conveyed by the particular mail ; and as the cost per letter would diminish with every increase in number, and such increase would certainly follow reduction of postage, it followed that, if a great reduction could be effected, the cost of conveyance per letter might be deemed absolutely insignificant. Hence I came to the conclusion that the practice of regulating the amount of postage by the distance over which a letter was conveyed . . . had no foundation in principle ; and that consequently the rates of postage should be irrespective of distance. This discovery, as startling to myself as it could be to any one else, was the basis of the plan which has made so great a change in postal affairs" [*The Life of Sir Rowland Hill and the History of Penny Postage*, by Sir Rowland Hill and his nephew G. B. Hill, 1880].

[Bastable, *Finance*, 1903, bk. ii. ch. iii. §§ 7, 8.]

W. J. A.

HILL-BURTON, JOHN, also known as BURTON, JOHN HILL (1809-1881), born at Aberdeen, was educated at Aberdeen university, and after trying in vain to practise at the Edinburgh bar, became a writer for the *Westminster* and *Edinburgh Review*. He helped Sir J. Bowring to edit Bentham's works. His first notable writing, if we except *Benthamiana*, 1843, is his *Life of Hume*, 1846, and *Letters of Eminent Persons to David Hume*, 1849. He edited the autobiography of Carlyle of Inveresk, 1860. His *Biographies of Lord Lovat and Duncan Forbes*, 1847, may be said to have given a foretaste of his *History of Scotland*, 1853, *seq.* which has the signal merits of being faithful to the sources, and thorough, candid, and judicial in the examination of them.

Hill-Burton's chief economical book is *Political and Social Economy, and its Practical Applications* (Chambers, Edinburgh, 1849). He addresses himself to a supposed need of "the acting and thinking man," to have the true political economy set before him as concretely and as attractively as the false, which was just then, through Louis Blanc and others, neglecting no means of making itself known. He had long hoped to write such a book, and on a larger scale than time now allowed him.

The book deals with applications and illustrations rather than first principles ; and it bears the marks of a time of transition. The writer stands midway between two epochs, and describes both, with no very distinct consciousness that the old political economy like the old régime is giving place to a new. He mentions Mill's *Principles*, 1848, with respect, but in a tone of disappointment (p. 42). He finds Mill's discussion of luxuries, for example, inadequate. On the other hand he himself states the WAGES FUND theory, without any misgivings (p. 54). His first section on production is largely a plea for piecework against time-work. He quotes Thiers against the French socialists on the rights of property (p. 60). His quotation of the remark that there must always be a worst-paid industry (p. 29), does not lead him to any innovations in theory. His allusions to current events, railways, colonies, pauperism, and epidemics, help to make his book at once readable and historically valuable, as enabling us to place ourselves at the point of view of an intelligent English citizen forty-five years ago.

Otherwise it is far inferior in interest to his historical works, and has little or nothing of the charm of his literary masterpiece, *The Book-Hunter*, 1860. It is perhaps not too much to say that he is of most service to economists when he is not writing directly on their subject.

Clear and wise as are the chapters of his *Emigrant's Guide*, 1851, they bear out this statement. Almost at starting he speaks of the colonists as to be "guided by the eternal laws of political economy, laws as eternal and beneficent as those of the mechanical powers and animal life, laws not easily found, often misconstrued, taxing men's intellects to the utmost, and far more liable than the laws of other sciences to the false direction of prejudice, yet existing in nature beyond doubt," *Em. G.* "Australia, etc.," part i. p. 7.

This is use and wont, and largely obsolete use and wont. There is more character in the description of those who should and those who should not emigrate, the contrasts of national character, the criticisms of Wakefield's plan of emigration (pp. 38 *seq.*), the sudden outburst against the tyranny of proprietors and capitalists (52), the proofs given of the necessity of the interference of the home government (73-88). The statistics of wages in the colonies, and the comments on slave compared with free labour, must also be mentioned (*Em. G.*, part ii.). "South Australia," etc. (pp. 8, 16, 25, 97, 136, 137, etc. America, p. 81, 182, 183).

But Hill-Burton is more at home in his *History of Scotland*, where his economical training often leads him to draw attention to incidents of which an ordinary historian would miss the significance.

Such are, for example, his notices in vol. ii. (2nd ed. 1873) of absentee landlords, and the effect, on

them, of an act forbidding exportation of goods or money from Scotland during war (1318), p. 306, in vol. iii. of the decreasing wealth of Scotland at the time of the Reformation, pp. 438, 448, of an early instance of a "consul" p. 438, of the currency at the end of the 15th cent., p. 441, of export duties yielding more than import, p. 448. There is no difficulty in adding to this list when we come to the later volumes. The economical element in the questions between England and Scotland when their union was discussed after James I.'s accession (vol. v. 404), and when it was arranged under Queen Anne (vol. viii. 121, 207, etc.), receives adequate though never prolix treatment.

The more laboured statement of the latter case in the special *History of Queen Anne* (1880 ed.) pp. 48 *seq.*, does not add much that is important, though there too the historian occasionally uses the eyes and the language of the economist. See esp. vol. iii. pp. 166 *seq.*, on scarcity of money in Ireland *circa* 1705, and iii. 312 on political economy as aided by statistics and "commercial book-keeping."

[*Life* by Mrs. Hill-Burton in *Book Hunter* (large paper ed. 1882).—Blackwood's *Magazine*, September 1881.—*Nat. Dict. of Biog.* (by Richard Garnett).] J. B.

HIRE is the name given to payments for the use of services or movable things other than money. In the usual economic division of income into rent of land, interest, and wages, net hire, like all other income derived from the possession of property other than land, comes under the head of interest. There is, however, an important characteristic in respect of which hire of things must be classed with rent. In the case of rent and hire, when the borrower returns the loan he returns the thing actually lent, while in the case of interest he only returns a similar thing, not the coins actually lent but similar coins. E. C.

HIRE AND PURCHASE AGREEMENTS. These agreements (of which the much-advertised purchases "on the three years hire system" are instances) are of interest to economists, as they represent a new form of credit, the application of which seems extending both in England and abroad. They are in reality purchasing agreements which stipulate the payment of the purchase price by instalments, but the purchase does not take effect until the last instalment has been paid, and in the meantime the instalments are dealt with as "rent for the hire and use" of the purchased articles. This enables the vendor to recover the goods in case of non-payment of any of the instalments without having had to go through the formality of registering a BILL OF SALE, and at the same time to retain the instalments previously paid. He is, however, exposed to the risk of the purchaser selling or pledging the goods to a third party who, if acting in good faith and without notice of the vendor's right, is entitled to treat the sale or pledge as valid (Factors Act 1889, § 2 and § 9; Lee *v.* Butler [1893] 2 Q. B. 318; Helby *v.* Matthews [1894] 2 Q. B. 262). There is something to be said in favour of these agreements, as they enable persons of small means to purchase sewing machines or other articles producing income or reducing expenditure, but on the other hand, as they impose no immediate great sacrifice on the purchaser and therefore appear to him much more favourable than they really are, they are frequently used for the purpose of disposing of unmarketable goods or of obtaining excessive prices. The forfeiture of the instalments paid before default also causes great hardship. The abuses of the purchase and hire system seem to be specially felt in Germany; an imperial act dealing with some of them was passed in 1894.

[For a complete analysis of hire and purchase and other similar transactions and full details as to their use in Germany, see Cohn, *Die volkswirtschaftliche Bedeutung des Abzahlungsgeschäfts.*] E. S.

HIRING. The contract of hiring (*locatio-conductio*) relates either to things or services. In the case of the hiring of things the hirer is entitled to the possession of the thing for the purpose stipulated, but acquires no property in it. In the case of the hiring of services, the worker is bound to render the service within the time agreed upon, exercising a proper degree of care and diligence on the work.

[Addison on *Contracts*, 10th ed. 1903.] J. E. C. M.

HISTORICAL METHOD. The historical method of economic study is commonly contrasted with the abstract and deductive methods. Such a contrast, however, is to some extent misleading. The study of economics might be concrete without being historical; and, on the other hand, the historical method may be to some extent deductive. The distinctive feature of the historical method is its recognition of *development* in economic life, and its consequent emphasis on the dynamical, as distinguished from the purely statical elements in industrial and commercial organisation. Such a method of study is generally concrete: for in dealing with a process of growth the interaction of the different elements of social life on one another cannot be overlooked. It is true that a certain amount of abstraction is possible even here. Particular lines of tendency may be traced in the development of industrial life, without any special attention being directed to the special circumstances of different countries or districts, or strata of society, by which the general movement is modified. Such abstraction as this is necessary in a scientific study of any kind. Indeed, even the history of a battle, or any other concrete event, is necessarily abstract, in the sense that it fastens upon certain salient features, and omits what are regarded as unessential details. And this is much more obviously the case when we are endeavouring to trace the history of a great movement, with

a view to the discovery of the broad principles by which it is governed. In this sense, then, even the historical method may be said to be to some extent abstract. Still, it may fairly enough be contrasted with the abstract method of economic study, inasmuch as the elements which the historical method omits are merely those that are regarded as too insignificant, or too limited in their sphere, to have any important influence on the concrete process of development as a whole; whereas, in the abstract method proper, the elements from which abstraction is made are sometimes confessedly of scarcely, if at all, less importance in the concrete life of a country than those to which attention is specially directed. The historical method may, therefore, be described as one particular way in which the concrete study of economics is pursued. It is not, however, the only way. The study of concrete facts at a particular time and place—*e.g.* such facts as those contained in Mr. Charles Booth's *Labour and Life of the People*—cannot properly be said to be an illustration of the historical method, except in so far as these facts are brought into comparison with corresponding facts at other times and places, so as to throw light on the process of historical development. The method of Le Play, on the other hand, in dealing with similar matters, is much more distinctly historical. Thus it appears that the method of economic study may be concrete without being definitely historical.

Again, the historical method is not necessarily inductive, in the sense at least in which the inductive method is sharply contrasted with the deductive. No doubt, any valuable historical generalisation must rest on a certain basis of inductive inquiry. But so also must all valuable generalisations with reference to the more statical conditions of human life. But after having, by some process of induction, reached certain general principles, the historical method, no less than the statical, may proceed largely in a deductive way. There may be laws or tendencies of historical development, as well as laws or tendencies operative under particular hypothetical conditions;[1] and if it is possible to formulate laws of the former kind, their consequences may be worked out deductively, just as the consequences of the latter kind of laws may be traced. The only qualification to this seems to be that laws of the former class are generally more complex in their character than those of the latter class; and it is more obviously necessary in the case of the former to take account of the particular circumstances by which their action is modified. Thus on the whole it remains true that the historical method tends to be more inductive than the statical method.

The prominence which has been given to the historical method in recent times is due to a variety of causes, but chiefly to the introduction of that new view of human society which is commonly described as the organic view. The more statical method of study was introduced at a time when the physical and mathematical sciences were predominant, and when human society tended to be thought of as a more or less mechanical system. With the growth of biological science, and especially with the introduction of the theory of development, a new point of view was made possible. Society came to be regarded, not as a mechanical compound of independent elements, but as an organic unity, composed of parts vitally related to one another, and undergoing a continuous process of development. Such writers as Montesquieu, Burke, Hegel, and Comte all contributed, in different ways, to the introduction of this conception; and wherever it has been introduced, it has made the statical method of study appear inadequate.

Any attempt to balance the importance of the historical method against others would be somewhat beyond the scope of such an article as this. There can be no doubt that some of its advocates have unduly depreciated what they regarded as rival methods. The more statical and the more abstract and the more deductive methods have their own place. The historical method, however, may claim to be the most comprehensive. Other methods have a place within it, rather than it within them. They supply material for it to use and synthesise.

It may be observed, in conclusion, that the adoption of the historical method necessarily brings economics into closer relation to other departments of study than that which belongs to it when it is treated in a more statical way. The influence of political institutions, religion, education, moral principles, etc., cannot be overlooked in dealing with social evolution, even when special emphasis is laid on its industrial side. Economics thus comes to be regarded as a special department of sociology or social philosophy, rather than a strictly independent science. This need not, of course, prevent the recognition of the possibility of making a special study of the industrial side of life, or even of gaining valuable light by confining the attention for a time to that side of life, or to some special aspect of that side. Further, the historical method of study leads us to regard the growth of social life as having reference to an end. A process of development is naturally thought of as a development towards something. The consideration of the ideal form of social order thus comes into prominence, and in this

[1] *Cp.* Keynes, *Scope and Method of Political Econ.*, pp. 303-4, 1st ed. As an illustration of laws of the former kind, reference may be made to the generalisation of List, in his *Theorie des Nationalen Systems der politischen Oekonomie*, with reference to the stages of economic development through which the nations of the temperate zone pass.

way the study of economic science is brought very closely into relation to ethics.

[For further discussions in connection with this subject, see also ABSTRACT POL. ECC.; ANALYTICAL METHOD; A POSTERIORI REASONING; A PRIORI REASONING; DEDUCTIVE METHOD; POL. ECON. AND SCIENCE; INDUCTIVE METHOD. For a list of books and articles dealing with economic method, see the close of the article on DEDUCTIVE METHOD. The best general treatment of the subject is Keynes's *Scope and Method of Political Economy*, 1st edition. Chaps. iv. and ix. bear especially on the subject of the present article. Bonar's *Philosophy and Political Economy in some of their Historical Relations* will be found useful, though it deals very slightly with the influence of Comte and the development of the historical school. Special reference may also be made to Knies's *Die politische Oekonomie vom geschichtlichen Standpunkte.*—Menger's *Die Irrthümer des Historismus in der deutschen Nationalökonomie.*—Mill's *Logic*, bk. v. ch. x. "Of the Inverse Deductive or Historical Method."—Cliffe Leslie's *Essays in Political and Moral Philosophy.*—The article on "Political Economy" by Professor Ingram in the ninth edition of the *Encyclopædia Britannica.*—Professor Sidgwick's article on "The Historical Method" in *Mind*, old series, vol. xi. No. 2.—Suggestive remarks will also be found in Prof. Sorley's essay on "The Historical Method" (*Essays in Philosophical Criticism*, pp. 102-125)—in Mr. D. G. Ritchie's article "What are Economic Laws" (*Economic Review*, vol. ii. No. 3, pp. 359-377); and in several other recent articles and discussions.] J. S. M.

HISTORICAL SCHOOL OF ECONOMISTS. This is the designation frequently given to a number of writers and teachers, whose work has been marked by certain common traits, and who have exercised an influence tending in general in the same direction. Their teaching, while in large part constructive, has yet been to an equally large extent critical of the methods and results of what is variously described as the "classical," "deductive," or "theoretic" school of economists (see CLASSICAL ECONOMICS; DEDUCTIVE METHOD). The "classical" school may be said to have remained up to the present dominant in England; it is strong in Austria and Italy; and it has included the names best known among the economists of the generation now passing away in France and America. Although, therefore, the historical school is now perhaps on the whole supreme in Germany, has representatives in all other important countries, including England, and is recognised as having done good service to economic science, the value of the movement as a whole cannot but be regarded as still *sub judice*. Moreover, even a colourless description of the movement as a whole would probably lead to misconception, owing to the marked divergencies between its representatives. The present article will, therefore, attempt only to trace the sequence and affiliation of ideas; and the reader will refer to separate articles for a fuller account of the personages referred to.

Cliffe LESLIE raised the cry: "Back to Adam Smith." But it can hardly be doubted that Smith's frame of mind was on the whole essentially unhistorical, and that historical narration and inductive reasoning were with him subordinate to a deductive movement of thought. Malthus adduced a wealth of historical information in support of his doctrine of population. But the historical school can hardly be said to have made its appearance until the "orthodox" or "abstract" structure had been completed in England by Ricardo (1817), and there popularised by the Epigoni, and until the facile expositions of J. B. SAY (*Traité*, 1803, *Cours*, 1828) had diffused over the civilised world the principles on which the whole edifice of orthodox theory rested. The immediate literary creator of the historical school was Wilhelm ROSCHER, writing in 1843. Two writers, however, were, in different senses, forerunners of the movement,—Jones and List; and another, who was contemporary with its beginnings, but exercised no influence on it until a much later stage, was Auguste Comte.

In the midst of the growing success of the Ricardian group, Richard JONES (*Essay on the Distribution of Wealth*, 1831), protested that its conclusions, especially those concerning rent, applied only to a very recent period and a very small area. He urged with excellent soberness the need for historical investigation; but his plea fell on deaf ears, and the only trace of his influence in economic literature for many years is to be found in J. S. Mill's treatment of peasant tenures. His German contemporary LIST (*National System of Pol. Econ.*, 1841), enormous as was his practical political influence in his own country, must as an economist be regarded as the prophet of a new movement rather than its initiator. His grouping of the economic history of the civilised nations of the temperate zone under five stages was a very rough and ready sketch, and, indeed, inaccurate; yet it threw into German thought the idea of historical evolution, the fruitful parent of more adequate formulæ.

Meanwhile A. COMTE (*Cours de Philosophie Positive*, 1839-42) was stating the same idea in more philosophical form. To him it seemed that economic phenomena were so intertwined with other social facts that a separate science of them was impossible. The all-inclusive science of society, SOCIOLOGY, he divided into social statics, dealing with facts of co-existence, and social dynamics, dealing with facts of sequence. For social statics the appropriate method was that of direct observation, for dynamics that of comparison,—which could only be effected by means of history. These ideas have of late penetrated into English economic circles through the writings of Dr.

Ingram; they are familiar to the German economists of to-day. But Comte's writings were altogether unknown to German economists forty years ago; and the historical school proper, in its earlier phases, was an entirely independent product of German thought.

The decisive word was spoken in the *Grundriss zu Vorlesungen über die Staatswirthschaft nach geschichtlicher Methode* issued by the then young Professor Wilhelm Roscher at Göttingen in 1843. He told his hearers that his teaching would be guided by the historical method, and that he "aimed at reaching for political economy a result somewhat similar to that reached in jurisprudence by the Savigny-Eichhorn method." Thus with Roscher the new inspiration was the direct result of the effect on contemporary German thought of the arguments of the historical school in jurisprudence. This school had argued that the legal institutions and ideas of a particular period and country were not to be regarded as eternal and necessary, but as the result of a long growth; and that earlier practices are not so much to be condemned from the modern standpoint as explained in their relation to environing conditions. These ideas were readily transferable to the economic sphere. Hence the historical "method" was, from the first, more than a method with Roscher. It seemed to bring with it, as self-evident, the principle of relativity. This he explained in the well-known and oft-quoted *Preface*. The shape which, in his opinion, political economy ought to assume is indicated in his description of it as the doctrine (*Lehre*) of the laws of development (*Entwickelungsgesetze*) of the national economy (*Volkswirthschaft*). By the side of this phrase, and as equivalent to it, he placed in his later writings what he called the "fine definition" of Von Mangoldt,—"the philosophy of economic history."

Roscher has in recent years been criticised, by some approvingly by others disapprovingly, for his supposed failure to make any effort to reach his own ideal. It is true that his *Grundlagen*, the only volume of his great *System* that has been translated into English, is constructed very much on the old lines, and has been not inaptly described as Mill's *Principles* annotated with citations from the history of economic literature. But this is scientifically the least important of his works. In his *Essays* on particular subjects he was constantly under the influence of the thought of historical movement, though it found unsatisfactory expression in his use of such terms as "higher and lower stages of civilisation," "youth," "maturity," and "old age"; and he was curiously possessed by the thought that all civilised nations have to run through a like experience. It must be remembered, however, that in spite of his fondness for "*Entwickelung*," Roscher had received his historical training in an old-fashioned, pre-evolutionary, school. His best work is to be seen in the volumes on *Ackerbau* (Agriculture, 1st ed. 1859; 12th ed. 1888), and *Handels- und Gewerbefleiss* (Trade and Industry, 1st ed. 1881; 6th ed. 1892), in his *System*. Here he traces the growth and varying shapes of concrete economic institutions,—the bony framework of society; and these two volumes, when compared with the space given to the same topics in the *Grundriss*, were clearly from the first intended to form the main body of his great treatise. They set an example now generally followed in German universities, but hitherto exercising little influence in other lands. The criticism to which Roscher's *System* is open—and, in their measure, such university courses of instruction also as follow in its footsteps,—is that the separation between the *Grundlagen* and the subsequent parts keeps matters asunder which need to be considered together. It is unsatisfactory, for instance, that the theory of wages and the history of trades unions should each be dealt with in isolation, and that they should be brought into no sort of vital relation with one another.

Soon after the appearance of Roscher's *Grundriss*, the movement to which it gave rise was reinforced by the advent of two other writers, who have since been justly regarded as joint-founders with Roscher of the historical school—Bruno HILDEBRAND, and Karl Knies. Hildebrand's *Nationalökonomie der Gegenwart und Zukunft* (1848) was never completed; and the first and only volume was chiefly critical. It is from this that the current German criticisms of Adam SMITH have been chiefly drawn. Hildebrand's ultimate object, as declared in his Preface, seems but an echo of Roscher; it is "to transform political economy into a doctrine (or teaching) of the laws of the economic development of nations." But he held to this conception much more firmly than Roscher did, and expressed it in far more attractive language. Perhaps the best statement of it is presented in the prefatory announcement with which he began the publication of his *Jahrbücher für Nationalökonomie und Statistik* in 1863: "The economy of nations is, like their language, literature, law, and art, a branch of their civilisation; like these other branches it moves within certain limits set by natural law; but within these limits it is a product of freedom and of the labour of the human spirit. Accordingly the science which deals with it is no abstract science, like the natural sciences stating the same law for all relations in time and space, and measuring everything by the same measure. On the contrary, it has for its object to investigate the movement of historical evolution, from stage to stage, alike in the case of individual peoples and in the case of mankind at large, and so to discover the link which the labour of

the present generation is to add to the chain of social development. The economic history of civilisation, and with it general political and legal history and statistics, are the only sure foundations whereupon may be erected any useful further construction of economic science. But history must not be the excuse for indifference, or divert men of science from the practical problem of the time. The understanding of the present is most vitally bound up with the understanding of the past; and he can have no right understanding of history to whom the conditions and needs of his own time are unknown."

Towards the end which he proposed Hildebrand's contribution was twofold. To him is due the distinction between *Natural-, Geld-, und Credit-wirthschaft* (incidentally in his book of 1848; elaborately worked out in his *Jahrbuch*, vol. ii. 1864), which has proved so useful a formula in subsequent historical writing; and the *Jahrbuch* founded by him was the first to furnish a medium for monographs by younger men on economic history.

Professor Knies is undoubtedly a scholar of far deeper philosophic insight than Roscher or Hildebrand. And his work *Die Politische Oekonomie vom Standpuncte der geschichtlichen Methode* (1853) was an elaborate and penetrating criticism of current ideas which even men like Roscher and Hildebrand had handled with scanty discrimination. Thus, as has been well said by Professor Schmoller, his book might almost be called "Prolegomena to a whole scientific epoch." "Whoever," remarks the same writer, "began his economic studies in the decade 1850-1860, knows how deep its influence has been, and how in certain respects it served as a confession of faith to the whole German school."

The thought on which Knies laid most stress was that of the development of economic *opinion* parallel with the development of economic conditions. The idea of the relativity of *doctrine*, already brought forward by Roscher, peculiarly interested him. And, although he encouraged historical study, and was ready to utilise its results, his book probably tended to turn some younger men from pursuing the path opened to them by Roscher and Hildebrand—the search for laws of economic evolution. On the other hand, he had no sympathy with the view which even Roscher had held that the classical doctrine, perhaps in some modified form, could be regarded as an "Allgemeiner Theil," or "Grundlagen," to be studied first. He urged that it rested on conceptions of property, contract, etc., which were themselves the result of history, and which were inextricably bound up with shifting conditions of time and place. That part of the theory which was composed of propositions of absolutely general validity, like the propositions of natural science, would be found to be small indeed.

Until about 1870 the waves of thought set flowing by these three writers, Roscher in Leipzig, Hildebrand in Jena, and Knies in Heidelberg, quietly spread over Germany, and took possession of the universities with but little opposition. With divergencies already indicated, the new movement had everywhere the characteristics of insisting—(1) on the relativity of economic theory, (2) on the desirability of the study of economic history—including therein the empirical and statistical observation of the present. Much detail work was done in these latter directions. Outside the country itself, the movement was unknown.

The foundation of the *Verein für Sozial-Politik* at the Eisenach Congress of economists and public men in 1872, gave the signal for an outburst of controversy. Hitherto the professional economists had not made themselves heard in practical politics: now they united in recognising the existence of a "social question," and in invoking the action of the state towards its solution. They thus incurred the enmity of a great many journalists and politicians; and as most of them were the disciples of Roscher, or Hildebrand, or Knies, the "historical school" became a synonym for the SOCIALISTS OF THE CHAIR. Even among economists themselves, the term was used to shelter all who were in any way dissatisfied with the classical economists and their German followers—to include the "inductive," the "realistic," and the "ethical" within its embrace. Roscher himself in 1874, in his *Geschichte der National-Oekonomik in Deutschland*, seemed to imply that the "realistic," the "historical," and the "ethical" directions were all much the same. But as soon as men of ability, thus for the time brought together in one camp, got beyond the utterance of generalities, divergencies were sure to make themselves felt. Professor Adolph Wagner of Berlin began about 1877, in the *Allgemeine oder Theoretische Volkswirthschaftslehre*, forming the first volume of a great *Lehrbuch*, the construction of a new edifice of economic theory to replace that of the PHYSIOCRATS and Adam SMITH. Professor Gustav Schmoller of Strasburg (since of Berlin) maintained, on the contrary, that the time had not come for such an attempt, and that it should be preceded by a period of empirical, statistical, and historical inquiry. He established a series of *Staats- und sozialwissenschaftliche Forschungen*, wherein, under his guidance, his pupils have published a series of valuable investigations. It was perhaps hardly made sufficiently clear that the generalisations or "laws" at which such historical work was ultimately aiming were not so much laws of coexistence as laws of sequence; to use Comte's phrase, "dynamic" rather than "static." When the AUSTRIAN SCHOOL (*q.v.*) made itself heard, Professor Schmoller and those who agreed with him lamented—not so

much that a fresh resort should be made to abstraction and deduction, and that attention should be concentrated anew by some thinkers on the problem of value—but that this problem should be declared the main problem of economics, and those methods its most appropriate ones. On the other hand it became the practice of those who agreed either with Professor Wagner or Professor Menger to speak of Professor Schmoller as an example of "extreme *Historismus*." But it is not clear that Professor Schmoller and his disciples have gone beyond the positions assumed by the founders of the school. In his recent article on *Volkswirthschaft, Volkswirthschaftslehre und -methode* (Conrad's *Handwörterbuch*, 1894), Schmoller writes: "The more inquiry is limited to a particular state of economic affairs, and this is provisionally treated as stable—certainly an allowable methodological device,—the easier it is to grasp the dominant psychical and other causes, to derive therefrom typical forms of organisation, and to explain the elementary and typical economic processes. Whether these are called 'laws' or 'hypothetical truths,' they are, when used with due limitation, the great instruments of knowledge, and the bases of right economic policy." Schmoller goes on, indeed, to say that "they are not ultimate truths. It is necessary to carry through a deeper investigation of the changing causes, and the changing economic forms and processes. This investigation will be threefold—(1) into the shaping of the psychological causes, (2) into the history of economic organisation, (3) into the progress of humanity as a whole." For the first, Schmoller urges a psychological study which shall be wider than the somewhat antiquated balancing of pleasures and pains or utilities; as to the second, he remarks that the older historical economics pointed to the goal, and recent work in economic history has begun to collect and interpret the necessary material; and dangerous as the third may be, entering as it does into the fields of the philosophy of history, of teleology, of hopes and prophecies, such bold syntheses will always be necessary to guide us in practical action.

Meanwhile in England, as far back as 1866, Thorold Rogers had set the example of thorough investigation into the economic life of the past in his *History of Agriculture and Prices in England* (vols. i. and ii., 1866). It was Cliffe Leslie, however, who first introduced to English thought the ideas which had long been making their way in Germany. In his essay on *The Political Economy of Adam Smith* (1870), Cliffe Leslie criticised the conception then common in England that political economy was a body of necessary and universal truth; and in that *On the Philosophical Method of Political Economy* (1876), he argued that "the whole economy of every nation is the result of a long evolution in which there has been both continuity and change, and of which the economical side is only a particular aspect or phase. And the laws of which it is the result must be sought in history and the general laws of society and social evolution." Cliffe Leslie was thus the first to bring together and unite the teaching of Knies, and Comte; this has been since done more thoroughly, and with a more complete acceptance of Comte's social philosophy by Dr. Ingram in his *History of Political Economy* (in *Ency. Brit.*, 1885; separately 1888). Cliffe Leslie's criticism has resulted in a more careful statement of their "postulates," by most English writers since,—as by Bagehot, in *Economic Studies*, 1879. But, as in Germany, so in England, there was urgent need that a beginning should be made in the detailed study and systematic teaching of economic history; in England it was from Dr. William Cunningham that the impulse was given in this direction, both by his writings (*Growth of English Industry and Commerce*, 1882; a new and much larger work under the same title, vol. i. 1890, vol. ii. 1892), and by his academic activity in Cambridge. A little later Arnold Toynbee directed the attention of students at Oxford to the "Industrial Revolution of the 18th century" (lectures published in 1884). And interest in the subject has since been stimulated from the historical and legal side by the works of Mr. Seebohm, (*English Village Communities*, 1883; *Tribal System*, 1895); Professor Maitland (*Select Pleas in Manorial Courts*, 1889); and Professor Vinogradoff (*Villainage in England*, 1892); from the statistical side by Mr. Charles Booth's *Labour and Life of the People* (1889); and from the evolutionary socialistic side by the writings of Mr. Sidney Webb (*History of Trade Unionism*, 1894), and others. It has begun to find a place in the requirements of Oxford and Cambridge examinations; in America, courses of lectures are regularly delivered upon it in most of the important universities and colleges, usually in connection with departments of economics, but sometimes in connection with departments of history; and in Harvard a professorial chair has been created with this object. Those who are engaged in this work differ, however, widely from one another in their attitude towards the current English theoretic teaching.

The position of the historical school in the three countries, Germany, England, and America, is affected very largely by academic organisation. In Germany there is a recognised distinction between the "Grundlegung" or "Allgemeiner Theil" and other departments of economics. The historical school are in practice to be distinguished from various theoretic schools—(1) by their insistence on the vital importance of a thorough study of economic history *after* the "Grundlegung";

(2) by the comparatively small compass into which they would compress the "Grundlegung"; (3) by the comparatively slight attention they would give to the psychology of "value" as a part of the "Grundlegung"; (4) by surrounding the individualist economics of self-interest there stated by general anthropological and historico-philosophical considerations. In England there is no such recognised distinction between the "Grundlegung" and other parts. Indeed, economic teaching in that country seldom includes more than the "Grundlegung." In America, following the example of Harvard, the tendency is to appoint teachers of economic history side by side with teachers of economic theory and finance; to make each "course" independent; and to leave each teacher to define his own relations to economic science as he pleases.

[There is no account of the historical school at all complete; and the student cannot dispense with reference to the actual writings of the leading authors mentioned above. Roscher's *Preface* of 1843 is translated in full in the *Quarterly Journal of Economics*, October 1894.—The best account, though sympathetic, is that of Dr. Ingram in *Hist. of Pol. Econ.*, ch. vi.—Professor Schmoller's essays on *Roscher* and *Knies* (*Zur Litteraturgeschichte der Staats und Socialwissenschaften*, 1888), are brilliant and illuminating surveys of parts of the field.—For a somewhat more partisan presentation of some of the questions at issue than would be suitable here, reference may be made to Ashley, *Econ. Hist.*, i. Preface (1888), and an introductory lecture *On the study of Economic History* in the *Quarterly Journal of Economics*, January 1893. — For a different point of view, see Marshall, *Present Position of Economics* (1885), and Keynes, *Scope and Method of Pol. Econ.* (1904). See also Aug. COMTE; ENGLISH SCHOOL; FRENCH SCHOOL; GERMAN SCHOOL; HELD; Cliffe LESLIE.] W. J. A.

HISTORY OF PRICES. See PRICES.

HITCHCOCK, ROBERT (16th century), of Caversfield, Bucks, served in the Netherlands under Charles V. in 1553.

His chief work, *A Politic Plot for the honour of the Prince* (Lond. 1st Jan. 1580, reprinted in Arber's *English Garner*), was one of the many schemes for the employment of the numerous idle but able-bodied vagrants who caused constant trouble in Elizabeth's reign. Hitchcock proposed that they should be employed as seamen in vessels to be fitted out for the herring and other fisheries, so that the profits which Holland enjoyed from this source might be secured to England. Hitchcock also wrote *The English Army Rations in the time of Queen Elizabeth* (appended to W. Garrard's *The Art of Warre*, 1591), which contains statistics of the victuals necessary for soldiers in garrisons. He quotes from his own experience of the time when he was in charge of 200 pioneers at Berwick in 1551.

[W. Cunningham, *Growth of English Industry and Commerce, Modern Times*, 1893.] R. H. H.

HOARDING. When practised by a community, or by large numbers of its members, hoarding becomes an economic fact worthy of investigation. It may arise from commercial panic, from distrust of existing forms of investment, or from a want of any opportunity of investment. Or it may arise from misgovernment, and the consequent distrust of the holders of power.

In earlier times there was little or no industrial use for capital, except in agriculture or trade; and beyond the limited field of lending on mortgage, or at usury, to those who were oppressed by debt, there was no way of obtaining a return upon capital without entering into active trade. In England, almost up to the close of the 17th century, tradesmen or merchants retiring from business lived literally upon their savings. It is stated that the father of Pope, the poet, having amassed a fortune in trade in London, retired to the country about the time of the Revolution, carrying with him a strong box containing nearly £20,000, out of which he took from time to time whatever was required for household expenses. It was the opinion of writers about the same time, that very large sums were constantly kept hidden in secret places. Probably distrust was largely the cause of some of these cases; and from such or mixed motives these practices continued well into this century, until the growth of our system of banking, and the appreciation of its advantage and safety, together with the increase of joint-stock enterprises, has rendered hoarding no longer necessary. It still continues to be extensively practised in France, partly from the different condition of banking there, and partly from general distrust. The greater part of the war indemnity paid to Germany in 1871 was produced from the hoards of the French peasantry; and the same source supplied a large part of the gold required for the change of standard in Germany a few years later.

The most extensive system of hoarding of which there is any record is that which exists in India, and has been going on there for a very long period. This has undoubtedly arisen from the unscrupulous character of the former rulers of the country, and the habits induced by ages of misgovernment continue to influence the people in their present condition of security, and under their increased opportunities. Both gold and silver, in the form of bullion, of coin, and ornaments are hoarded by the natives of every class. Estimates as to the amount of wealth lying dormant in this way differ very widely, but the population is so numerous, and the habit so universal, that the amount must be very large. Enormous hoards are known to be in the possession of some of the native princes; and from the age of some of the coins contained among these treasures it is evident that the accumulation must have commenced hundreds of years ago.

Among the most civilised communities,

hoarding takes place at times of commercial panic. There is an almost universal distrust, and those who are able to obtain possession of coin or currency store it up, partly to enable them to meet their own impending obligations, and partly out of fear that later on they will not be able to obtain it. Direct evidence of this practice is not usually easy to obtain, but it is clearly indicated by the returns during the panic in London, in 1866. From the 21st March to the 30th May there was a steady decrease in the bullion at the Bank, amounting to £2,578,000 (see DRAIN OF BULLION). Yet at this time the country was gaining gold to much the same extent as usual, the net import during the three months April to June being more than 4 millions. During the same period the notes in circulation increased from 20½ millions to 26 millions, so that there must have been more than 12 millions, in notes and gold, withdrawn and hoarded.

The financial crisis in the United States in 1893 supplies another example, but no direct evidence of the fact is obtainable. The country had an ample supply of currency, not less than 100 millions of dollars (20 millions sterling) having been added thereto during the preceding three years, and their banking facilities were ample, yet there was for a while a perfect currency famine, and firms of the highest standing could scarcely obtain loans upon the most undoubted security.

[See report of Royal Commission on Gold and Silver, vol. i. 1887.—For hoarding in France and Germany: evidence of Mr. W. Fowler.—For hoarding in India: evidence of Sir D. Barbour.—For particulars of hoarding by Maharajah of Burdwan, see ibid. appendix v.—also letter in *Bankers Magazine*, London, 1893, vol. lvi. p. 205.—For currency crisis in U.S., see *Journal Inst. Bankers*, January 1894, vol. xv. pp. 37-42.—Blue book on Indian Currency, 1893.—J. M. Robertson, *The fallacy of Saving*.—Art. on SAVING.] R. W. B.

HOBBES, THOMAS (1588-1679), one of the most distinguished of English philosophers, was born at Malmesbury in Wiltshire, and died at Hardwick, a seat of the Earl of Devonshire. After attending a private school, he became a member of Magdalen Hall, Oxford, and took his B.A. degree in February 1608. Hobbes was recommended to the Earl of Devonshire as a tutor for his eldest son, and thus formed a connection with the great house of Cavendish which lasted to the end of his life, secured him from want, and gave him also the leisure necessary for meditation and study. Afraid that he had given offence by his writings on political philosophy, Hobbes left England at the time of the meeting of the Long Parliament in 1640, and spent eleven years in Paris. Here he made the acquaintance of the prince of Wales, afterwards Charles II. He returned to England in 1651, and from 1653 lived with the Cavendish family. His writings were denounced by some as hostile to liberty and by others as hostile to religion. He was also involved in several scientific controversies; but he never experienced actual persecution. In the course of his long life, almost entirely devoted to study and to composition, Hobbes wrote many works on a variety of subjects, philosophical, theological, mathematical, physical, and literary. A collected edition of his Latin writings in five, and of his English writings in eleven volumes, was published between 1839 and 1845 by Sir William Molesworth. None of these writings can strictly be termed economical. Ch. xxii. of Hobbes's best-known treatise of political philosophy, *Leviathan* (published 1651), entitled "Of Systems subject, Political and Private," contains, however, some remarks upon the nature and influence of "bodies politic for ordering of trade," *i.e.* those privileged companies which in the 17th century carried on so much of the foreign trade of England. "The end of their incorporating is to make their gain the greater; which is done in two ways—by sole buying and sole selling, both at home and abroad." Both are gainful to the privileged body because thereby they buy at lower and sell at higher rates. "Of this double monopoly one part is disadvantageous to the people at home, the other to foreigners." But Hobbes thinks that it would be very profitable for a commonwealth if its merchants were bound up into one body to buy in foreign markets, whilst at liberty at home every man to buy and sell at what price he could. For in this way their mutual competition would act only to cheapen the commodities which they sell at home, not to enhance the price of the commodities which they buy abroad. The suggestion is ingenious, although impracticable. The economic doctrine of the *Leviathan* is chiefly contained in ch. xxiv., "Of the Nutrition and Procreation of a Commonwealth." This figurative title is thus explained by the author: "The nutrition of a commonwealth consisted in the plenty and distribution of materials conducing to life; in concoction or preparation; and when concocted, in the conveyance of it by convenient conduits to the public use." The materials of nutrition—animal, vegetable, and mineral substances—are the gift of God; but, as they are partly natural partly foreign, a commonwealth must import that which it lacks "either by exchange or by just war or by labour. For a man's labour also is a commodity exchangeable for benefit as well as any other thing; and there have been commonwealths that, having no more territory than hath served them for habitation, have, nevertheless, not only maintained but also increased their power, partly by the labour of trading from one place to another, and partly by selling the manufactures whereof the materials were brought in from other places."

The distribution of the materials of nourishment "is the constitution of mine and thine and his; that is to say in one word propriety (property)." Hobbes is at pains to show that this distribution is entirely the work of the sovereign. This doctrine follows from his general conception of sovereign power as in every sense absolute, and the creator of all social arrangements. But the progress of historical knowledge has rendered his proposition unmeaning. Whilst dealing with distribution, Hobbes makes some very sensible remarks on the impracticability of setting aside any fixed fund or estate to defray the public expenses. It is impossible to prevent sovereign power from falling into extravagant hands; and besides, "commonwealths can endure no diet," since their expense is not limited by their own will, but by "external accidents and the appetites of their neighbours."

By concoction Hobbes understands "the reducing of all commodities which are not presently consumed, but reserved for nourishment in time to come, to something of equal value, and withal so portable as not to hinder the motion of men from place to place; to the end a man may have in what place soever such nourishment as the place affordeth. And this is nothing else but gold and silver and money." The natural advantages of gold and silver for this purpose are then explained clearly but incompletely.

Lastly the procreation of a commonwealth is explained as the sending out of plantations or colonies. But nothing is said respecting the economic effects of colonisation.

It may be regretted that a writer of so much analytical power as Hobbes should have bestowed so little attention upon economics. But the explanation is to be found in the circumstances of his time and in the objects of his writings, so far as they deal with political science. The period at which Hobbes published the *Leviathan* was one of political confusion ending in civil war. The original cause of discord was not, as in our time, economic but religious. Men were contending, not for a greater share of the means of material well-being, but for freedom to worship as suited their conscience, and for power to force their mode of worship on those with whose conscience it did not agree. Hobbes endeavoured to extirpate the principle of strife by showing that every species of sovereign is and ought to be absolute, so that resistance to the will of the sovereign, whether prompted by religious zeal or any other motive, is always illogical, immoral, and destructive to society. The real importance of Hobbes's political treatises is to be found not in any occasional remarks upon economic subjects, but in his theory of sovereignty, which was developed by Bentham and the followers of Bentham, and through their writings has passed into current English thought

[Life of Hobbes in the *Dictionary of National Biography*, and the collected edition of Hobbes's *Works, English and Latin*, by Sir William Molesworth, in 16 vols., London, 1839-1845.—Bonar, *Philosophy and Pol. Econ.*, 1893.—Roscher, *Zur Geschichte der Englischen Volkswirthschaftslehre* (1851), pp. 47-53.] F. C. M.

HOCK, Baron Karl von (1808-1869). Of Jewish descent, after having studied in the universities of Prague and Vienna, Von Hock entered the financial ministry of Austria and became director of the customs in Trieste and in Vienna. Later on (in 1867) the emperor made him a member of the upper house of the Austrian parliament. His first literary productions were novels, a book on *Descartes and his Opponents* (1835), and another on *Pope Sylvester II. and his Times* (1837), which has been translated into French. When director of the customs in Trieste, he wrote against List's system of national protection (*Der Handel Oesterreichs*, 1844); List, who recognised in him a worthy opponent, told him that with the increase of his practical knowledge of trade and industry he would come round to milder economic views, and Von Hock himself confessed in his *Oeffentliche Abgaben und Schulden* (Public Taxes and Debts), 1863, that he had indeed receded from his former unbending free-trading principles. This treatise is described by Professor Ad. Wagner as presenting "in its pregnant conciseness an almost perfect science of finance, and being by far the best on the technique of finance" (*Finanzwiss.* i. 52). Roscher considered that "it provides a fairly (*ziemlich*) complete science for highly cultivated states, although it reads more like the conversation of a highly-gifted and learned man than as a book intended for the use of teachers," but expressly praised Von Hock's "nice distinctions on the incidence and shifting of taxation" (*Gesch. der Nat. Oek. in Deutschland*, p. 1030). According to Professor Bastable, "it is specially good, as might have been expected from the production of a trained official, in its discussion of administrative points" (*Public Finance*, pp. 28-29, 3rd ed.)

Von Hock also published in 1857 *Die Finanzverwaltung Frankreich's* and in 1867 *Finanzen und Finanzengeschichte der Vereinigten Staaten von Amerika*. In the former, translated into French in 1859, the author has purely descriptive aims; although he expressly disclaims comparative criticism, he concludes his preface by holding up as a model the German system "with the simplicity of its organisation and the small number of its well-paid and independent officials." E. Ca.

HODGSKIN, Thomas (19th century), started, with J. Robertson, in 1823, the *Mechanics' Magazine*, and, in 1824, became joint hon. sec. of the London Mechanics' Institute, the predecessor of the present Birkbeck Institute. In 1826 he delivered a course of four lectures on *Popular Political Economy*, published 1827, with numerous additions, mainly of a controversial character,

The main drift of the book is to justify the natural laws which regulate the production of wealth as opposed to the political and social institutions of men. For this purpose the statement of Adam Smith that labour was the *original* producer of all wealth becomes converted into the proposition that "there is no wealth which is not the produce of labour," which carries the inference that private ownership of land is unrighteous. Stress is laid, following J. B. Say, on the influence of knowledge in adding to productive power. Knowledge is developed by the increasing need of it. "Necessity is the mother of invention, and the continual existence of necessity can only be explained by the continual increase of people." Thus, incidentally, the principle of the increase of knowledge, together with that of the division of labour, serves to refute Malthus (see MALTHUS). Hodgskin writes in a highly dogmatic style, *e.g.*: "There is and can be no other rule for determining the relative value of commodities than the quantity of labour required to produce them." "Accumulation of capital, in the present state of society, checks production, and consequently checks the progress of population . . . and of national wealth." The book does not appear to have met with much success, as a promised continuation was never issued.

The importance of Hodgskin lies in the influence of his writings on Karl Marx. [S. and B. Webb, *The History of Trade Unionism*, London, 1894, 8vo, p. 147.—Menger, Anton, *Recht auf den vollen Arbeitsertrag*, 2nd ed., 1891, p. 52 n]. In a letter to Lord Brougham, James Mill writes [Bain's *James Mill*, 1882, p. 363]: "The mad nonsense of our friend Hodgskin, which he has published as a system." In bibliography of *History of Trade Unionism*, an anon. tract, *Labour Defended against the Claims of Capital* . . . by a labourer, 1825, 12mo, is ascribed to Hodgskin [referred to by Böhm-Bawerk, *Capital and Interest*, p. 318, Eng. trans. 1890]; in Karl Marx's *Capital*, French ed., note on p. 335, another anon. work, *The Natural and Artificial Rights of Property* is further ascribed to him.

[Mention is made of Hodgskin in Goddard's *Life of Birkbeck*, London, 1884.] H. E. E.

HODGSON, JAMES, F.R.S. (1672-1755), mathematician, and an intimate friend of Flamsteed; author of *The Valuation of Annuities upon Lives deduced from the London Bills of Mortality* (Lond., 1747), besides some mathematical and astronomical works. R. H. H.

HODGSON, WILLIAM BALLANTYNE (1815-1880), was born in Edinburgh, where he was educated at the High School, and entered the university at the age of fourteen. After leaving college he devoted himself to lecturing on education, literature, and phrenology, and also to journalism. He was much influenced by George Combe's *Constitution of Man*, which, altogether apart from the phrenology, he considered a most valuable work. In 1839 he was appointed secretary to the Mechanics Institute, Liverpool, in which he had to control a large number of lectures, and in acknowledgment of his success he was appointed principal. In 1858 he was appointed one of the assistant commissioners to the Newcastle Commission on primary education. In 1870 the Merchant Company of Edinburgh were empowered to use part of their trust funds for the foundation of a chair of political economy in the university of Edinburgh, and Dr. Hodgson was appointed first professor in 1871. The appointment was for seven years only with a right of re-election. The limited tenure—annulled since (1892)—being different from that of all the other Scottish chairs, was such an annoyance that it was with great difficulty he was persuaded to accept re-election in 1878. He held the chair till his death. During his tenure he settled at the beautiful residential estate of Bonaly Tower, near Edinburgh, and here he accumulated a large library, his collection of economic works being presented on his death to the university of Edinburgh. He was twice married, and left by his second wife two sons and two daughters (the elder married to his successor Prof. J. Shield Nicholson).

Dr. Hodgson had a very wide circle of friends and acquaintances, and was a voluminous correspondent with many of the most eminent men of the time in education, literature, politics, and economics. Owing to the demands made upon his time by these and other social requirements, he unfortunately left no work worthy of his reputation. At the time of his death he was engaged on an English dictionary, and part of the materials were used as the basis of a popular work on *Errors in the Use of English* (Edinburgh, 1882), whilst another part of the materials has been incorporated in Dr. Murray's dictionary, now coming out. He wrote in an extremely lucid, attractive, and yet it may be said classical style, and he was an admirable speaker, and one of the best-known conversationalists of the day. In fact, it was by his personal influence mainly that his reputation was established as one of the foremost men in education and economics; and his literary remains give a very inadequate idea of his vast learning and of his remarkable powers of popularising difficult subjects. He may be described as an orthodox economist, but alike in matter and style to be ranked rather with Adam Smith than Ricardo. He was too widely read in many departments of literature and science to be affected by the narrowness of the traditional ultra-Ricardian school. His contributions to economic literature are reprints of lectures on *Competition* (1870).—*The True Scope of Economic Science* (1870).—*Importance of the Study of Economic Science as a Branch of Education for all Classes* (Royal Institution of Great Britain, 1854, third edition revised, Edinburgh, 1870).—*Economics of the Drink Manufacture* (1874).—*Inaugural Addresses at Edinburgh University* (1871 and 1878).—*Co-operative Congress* (1877).—The *Instruction of the Community, especially the Wage-Earning Classes, in*

Economic Science (Social Science Congress, 1877). He also translated CAVOUR's (*q.v.*) work on Ireland.

[J. M. D. Meiklejohn, *Life and Letters of W. B. Hodgson, LL.D.* of *Edinburgh*, 1883.—E. Woodhead, *Student Recollections of Professor Hodgson*, Edinburgh, 1883.—Prof. Nicholson, *Introductory Address at Edinburgh University*, 1881.]

J. S. N.

HOECK, JOHANN DANIEL ALBRECHT (1763-1839), was, during the year 1796, professor of philosophy and cameralistic science at Erlangen.

Previously he had been attached to the civil service, which he re-entered at the expiration of this single year of professorship, and became first a Prussian director of police with the rank of councillor of justice (*Justizrath*) and afterwards a councillor of government (*Regierungsrath*) in the Bavarian service.

Hoeck's works, *Grundlinien der Cameralpraxis* (1819), and *Materialien zur Finanzstatistik der deutschen Bundesstaaten* (1823), are distinguished by an extensive and practical knowledge of his subject, but are deficient in higher scientific qualities.

[*Allgemeine Deutsche Biographie.*] E. Ca.

HOFACKER, JOHANN DANIEL (1788-1828), doctor and professor at Tübingen. Besides medical publications, he was author of *Ueber die Eigenschaften, welche sich bei Menschen und Thieren von den Eltern auf die Nachkommen vererben, mit besonderer Rücksicht auf die Pferdezucht* (Tübingen, 1828), in which he maintained that in unions where the father is older than the mother, more males than females are born, and *vice versâ*.

[Conrad, *Handwörterbuch der Staatswissenschaften*, s.v., Jena, 1889, etc.] R. H. H.

HOFFMANN, JOHANN GOTTFRIED (1765-1847), statesman, statistician, and economist, was born at Breslau. He studied at Halle and afterwards at Leipzig. In 1798 he was a teacher in the Collegium Fredericianum at Königsberg. He was entrusted with several public employments through the influence of the President von Auerswald, and showed in all a high order of ability. Hence he was appointed in 1807 to the professorship of practical philosophy and cameral science at Königsberg, and in the following year was made councillor of state. He was made professor of political economy in the university of Berlin at its foundation in 1810. He directed the Prussian bureau of official statistics, which Stein had founded, from 1810 to 1844. He won the confidence of Hardenberg and became his principal adviser. He was at the headquarters of the allies in 1813, and was present at the conclusion of the peace of Paris and at the congress of Vienna, and accompanied Hardenberg on several of his diplomatic missions. After the peace, he held office in the ministry of foreign affairs, and resumed his duties at the university and the statistical board, which had for some time been necessarily suspended. In 1834 he resigned his professorship owing to failure of sight. He spent his last years in collecting and re-editing his numerous scattered essays and treatises. J. K. I.

The Prussian statistical bureau was completely remodelled in 1810, and Hoffmann, who may perhaps be considered as the founder of Prussian official statistics, was the first director under the new system. To him is due the radical change in the publication of the statistics of that country, which under his direction were issued as the well-known *Statistische Tabellen*, an official annual publication comprising very miscellaneous statistics. These tables in time became somewhat less comprehensive than at first. Most of Hoffmann's unofficial books were written late in life, after he had retired from office. Some are based on official figures collected by his department, and deal mainly with various aspects of population. His more individual and more strictly economic work is directed chiefly to questions of the freedom of labour and to finance. Generally speaking, his writings show approval of Prussian institutions, as then existing. He was the first who seriously advocated the adoption of the gold standard in Germany.

His most important works are :—*Das Interesse des Menschen und Bürgers bei den bestehenden Zunftverfassungen*, 1803.—*Die Lehre vom Gelde, [als Anleitung zu gründlichen Urtheilen über das Steuerwesen, mit besonderer Beziehung auf den Preussischen Staat,]* 1838.—*Die Bevölkerung des Preussischen Staates*, 1839.—*Die Lehre von den Steuern [als Anleitung zu gründlichen Urtheilen über das Geldwesen, mit besonderer Beziehung auf den Preussischen Staat,]* 1840.—*Die Befugniss zum Gewerbebetriebe [zur Berechtigung der Urtheile über Gewerbefreiheit und Gewerbezwang: mit besonderer Rücksicht auf den Preussischen Staat,]* 1841.—*Die Zeichen der Zeit im Deutschen Münzwesen [als Zugabe zu der Lehre vom Gelde und mit besonderer Rücksicht auf den Preussischen Staat,]* 1841.—*Das Verhältniss der Staatsgewalt zu den Vorstellungen ihrer Untergebenen*, 1842.—*Sammlung kleiner Schriften staatswirthschaftlichen Inhalts*, 1843.

[R. Böckh, *Die geschichtliche Entwicklung der amtlichen Statistik des preussischen Staats*, Berlin, 1863.—W. Roscher, *Geschichte der National Oekonomik in Deutschland*, München, 1874.]

R. H. H.

HOGENDORP, GYSBERT KAREL VAN (1762-1834), was born at Rotterdam. He first adopted a military career, afterwards studied law under Pestel at Leyden, graduated, and published at the same time an essay, *De æquabili descriptione subsidiorum inter gentes fœderatas*. He was appointed "pensionary" of Rotterdam during the revolutionary period (1795-1813), but he declined all public office and betook himself to trade as a member of the house Gysbert Karel van Hogendorp and Co. In 1813 he stood at the head of the movement

against Napoleon, and was a member of the provisional general government. After the return of the House of Orange he was invested with several high offices, but as he could not agree with the king's system of government he resigned them all, retaining only his seat in the second chamber of the states-general (the Dutch House of Commons), where he was almost the sole opposition member. In 1825 he returned to private life, and died 1834.

Hogendorp was in the first place a statesman, in the second an economist,—this is clearly shown by his works; he never gave a general statement of his principles, which therefore must be gathered from his writings on practical subjects.

In these he principally deals with the questions of taxation, national debts, free-trade, pauperism, and colonies. As to the general principles of taxation he shows himself in many respects a disciple of Adam Smith, like his contemporary Gogel (*q.v.*); from the latter, however, he widely differed, at least in his later period, by his views on the income-tax. In his *Lettres* he proposed such a tax on the basis of a classification of incomes. He approved of free-trade as conducing to national wealth. Government therefore should promote trade and industry only indirectly by good instruction, exhibitions, good roads, canals, etc. Yet he was not opposed to premiums on export, and low duties on the import of articles taxed at home. He did not regard pauperism as a necessary evil, and disagreed with Malthus's views on population. He early advocated the system of agricultural colonies. His ideas on colonial policy are very remarkable. The best means to promote the development of colonies, he thinks, is to keep political government entirely separate from trading, to let the inhabitants, natives as well as Europeans, obtain property in land, and to prohibit all monopolies.

[His principal economical works are these:—*Gedagten over 's Lands financiën, voorgedragen in Aanmerkingen op het Rapport tot een stelsel van algemeene belastingen, uitgebragt* 9 *Juli* 1800 (Thought on the Finances of the Country, being Comments on a Report on a System of General Taxation, dated 9th July 1800), Amsterdam, Wed. Doll., 1802.—*Verhandelingen over den Oost-Indischen handel* (Treatise on the East Indian Commerce), *Id.* 1802-3.—*Brieven aan een Participant in de O. I. Compagnie* (Letters to a Shareholder in the East Indian Company), *Id.* 1802-3.—*Missive over het Armenwezen* (Letter on Pauperism), *Id.* 1805.—*Bijdragen tot de huishouding van Staat in het Koningrijk der Nederlanden, verzameld ten dienste der Staten-Generaal* (Essays on the Economic Administration of the Kingdom of Holland, addressed to the States-General), the Hague, 1818-1825. A second edition, edited by the well-known statesman Thorbecke, was published at Zalt-Bommel in 1854.—*Lettres sur la prospérité publique, adressées à un Belge dans les années* 1828-1830. Amsterdam, Diederich frères. A Dutch translation, 1832.] A. F. v. L.

HOLDER OF A BILL OF EXCHANGE. The Bills of Exchange Act, 1882, defines a holder of a bill of exchange or promissory note as the "payee and indorsee who is in possession of it or the bearer"; and further defines a "holder in due course" as a holder "who has taken a bill complete and regular on the face of it under the following conditions: namely (*a*) that he became the holder of it before it was overdue, and without notice that it had previously been dishonoured, if such was the fact; (*b*) that he took the bill in good faith and for value, and that at the time the bill was negotiated to him he had no notice of any defect in the title of the person who negotiated it" (§ 29). A holder may sue in his own name, and if he is a "holder in due course," a defect of title in any of the prior parties does not affect his right, nor can any right of set-off or counterclaim available against any other party to the bill be exercised against him. If a holder, whose title is defective, obtains payment of the bill the person who pays him in due course is validly discharged (see § 38). If, for instance, a person steals a bill endorsed in blank, and obtains value for it from another person, who has no notice of any irregularity, the purchaser is entitled to payment, being "the holder in due course"; also if the thief obtains payment from the acceptor, the latter not having had any notice of the theft, he gets a valid discharge, having paid it to the "holder." It should, however, be pointed out that a person holding a bill, the chain of indorsements on which is interrupted by a forged indorsement, according to English law is not a "holder" in any sense, and is not entitled to payment though he gave value for the bill; also that a payment to a person holding such a bill is not a valid discharge—the only exception being payment in good faith by a banker of a bill payable on demand. English law, in this respect, materially differs from the law of other countries. According to German, Austrian, and Italian law a person, otherwise in the position of a holder in due course, is entitled to sue the acceptor and genuine indorsers though one of the indorsements through which he derives his title is not genuine (German Bill of exchange code, §§ 36, 76, see decision of supreme mercantile court reported Reichsoberhandelsgericht, vol. ii. p. 281; Italian Codice di Commercio, §§ 287, 327). French law confers no rights on the holder of such a bill, but declares the drawee discharged if he has paid the holder without having had notice of the loss of the bill (Code de Commerce, §§ 144, 149). As, according to § 72 of the English Act, the validity of an indorsement depends upon the law of the place where it was made, the provisions of foreign law referred to above may

frequently become applicable in the case of bills of exchange payable in England, and materially affect the rights of the holders of such bills. E. S.

HOLDINGS OF LAND (FLUCTUATIONS IN SIZE AND THEIR ECONOMIC EFFECTS). During the greater part of our history England has been a country of small agricultural holdings, though of large estates. In all probability there was little change in the distribution of land among the cultivators from Anglo-Saxon times until the 15th century, and it was not until the 18th century was well advanced that large holdings, except for sheep-farming, became common. Seebohm (*English Village Community*, p. 141) gives evidence to show that peasants before the conquest held land in parcels of the same size as those held by their successors under the Normans; a virgate or 30 acres (exclusive of pasture, wood, and waste) may be taken to have been the average, perhaps the normal, holding of the higher class of serf—the *villanus*, while the lower sort, the *bordarius* or *cotarius*, commonly held about 5 acres. Round thinks that pasture was allotted in the proportion of a little more than 3 statute roods to an acre of arable (*Domesday Studies*, 1888, vol. i.). The lord's demesne too, which may generally have comprised from a quarter or a third to a half of the manor (Brodrick, *English Lands and English Landlords*, 1881, p. 8, and Ashley, *Economic Hist.*, i. pt. 2, p. 267) was often let off to free tenants, whose holdings were considerably larger than those of the serfs. Sir H. Ellis's classification (*Introduction to Domesday*, vol. ii. p. 511) gives

Unfree Holders or Serfs.	Free Tenants.
82,609 *bordarii*	10,097 *liberi homines*
1,749 *cosceti*	2,041 ,, *commendati*
5,054 *cotarii*	
108,407 *villani*	23,072 *sochemanni*
369 *radmanni*	
749 *bovarii*	

If it is remembered that about a quarter of the arable land in the country was probably kept in the lords' hands, and that Northumberland, Cumberland, Westmoreland, Durham, and Lancashire, besides Monmouthshire and Wales, were not included in the survey of 1086, a rough idea may be formed of the proportion of the cultivated land of the country held by the different classes of cultivators. In Middlesex alone was any attempt made by the Domesday commissioners to record the size of the holdings as well as the number of holders; elsewhere the villeins were taken, not individually, but by classes.

Little change probably took place in this system before the Black Death of 1349, or even, according to Professor Ashley, before 1450 (*Econ. Hist.*, vol. i. pt. 2, p. 264); and it is very difficult to trace the progress or estimate the amount of such change as there was. The destruction of something like half the people by the Black Death, the frequent wars, the attractions of growing towns and of an extended trade, must all have helped to thin the rural population; but the central fact is the rapid increase of sheep-farming to meet a growing demand for English wool, and to avoid the expense of arable cultivation when labour was scanty and dear. From this time it is necessary to consider pasture and arable land separately, and the problem becomes more difficult. There is no doubt that the frequent enclosures of the end of the 15th and the first half of the 16th centuries affected both arable and pasture land, and that one result of the agrarian change was to consolidate some small holdings into larger ones; but many of the lands enclosed for sheep-farming were the demesne lands in the hands of the landlords. The legislative attempts to guide or check the change give some indication of its extent; *e.g.* an act of 4 Hen. VII. forbade farmhouses with 20 acres of arable to be pulled down; an Act of 24 Hen. VIII. ordered the keeping up of all farms from 30 to 50 acres, and an Act of the next year limited sheep-farmers to 2000 sheep, which would mean a legal maximum farm of about 500 acres. (The extent of the enclosures between 1470 and 1600 is roughly estimated with a map in Ashley's *Econ. Hist.*, i. pt. 2). There is abundant contemporary evidence that great numbers of the small farms disappeared, but there is no means of calculating how many remained; or in what proportion the land was divided among landlords cultivating their own demesne, freeholders, leaseholders, and copyholders; or what was the acreage held, collectively or individually, by any of these classes. Nor can the total population during this period be exactly stated. It is reckoned that it amounted to 2,000,000 at the time of the Domesday Survey; in 1377, twenty-eight years after the Black Death had destroyed one-third or perhaps one half of the people, 1,405,602 persons over fourteen years of age paid the poll-tax; in 1574-75 the roll of fighting men numbered 1,172,674.

With the 17th century our information becomes rather more definite, but is founded only upon contemporary estimates, not till the 19th century upon statistics.

Gregory King, writing in 1696 (*Natural and Political Observations and Conclusions*), estimates the numbers of the landed classes as follows:—

160 temporal lords	12,000 gentlemen
26 spiritual ,,	10,000 clergymen
800 baronets	40,000 freeholders
600 knights	140,000 ,,
3000 esquires	150,000 farmers

The whole country population he puts at 4,100,000, the town population at 1,400,000. In the former class leaseholders and copyholders are possibly reckoned together, the freeholders being separately counted, perhaps because they possessed the parliamentary franchise — certainly not because of any superiority in the size of their holdings, for the forty-shilling freeholder need not have possessed much land after the cheapening of silver from the discovery of American mines. As enclosures and other agrarian changes probably took place but slowly during the latter part of the 16th century and throughout the 17th, King's estimate may be taken to hold roughly good for the reign of Elizabeth. But it is not wholly trustworthy; the number of freeholders is generally considered too high (Gneist, *Eng. Const.*, vol. ii. p. 328; Toynbee, *Industrial Revolution*), and 150,000 can hardly account for all the non-freeholders who held land. For the copyholders had been numerous on every manor throughout the four centuries following Domesday, and cannot have decreased so fast as King's numbers would imply; and the tenant farmers had been a growing class since most lords of the manor gave up cultivating their demesne in the 14th and 15th centuries.

The annexed table shows the difference between the estimates made by Gregory King and those of Arthur Young about a hundred years later. Unfortunately the first applies to England and Wales, the second to England only.

Authority.	Date.	Population.	Acreage under cultivation.	Holdings.	
Gregory King .	End of 17th century	5,500,000[1]	Arable 11,000,000 Pasture 10,000,000	70 Acres and under, 200,000	Over 70 Acres, 4,000
Arthur Young .	End of 18th century	8,675,000	Arable 16,000,000[2] Pasture 16,000,000	Farmers, exclusive of those employing no labour, 2,800,000	

During the 18th century the process which converted England from a land of small to a land mainly of large holdings was carried on more quickly. The rise of a moneyed class desiring the political influence which was the monopoly of landowners created a demand for land, and at the same time supplied the capital without which enclosures and the other expensive agricultural improvements of the day could not be carried out. This was the second period of active enclosing, not now, as in the 16th century, mainly for sheep-farming, but for the conversion of the scattered arable strips in the mediæval common fields into separate farms enclosed with hedge or fence. Between 1710 and 1760 334,974 acres were enclosed (Toynbee, 1887, p. 38), and 7,350,577 more were enclosed between 1760 and 1849 (Porter, *Progress of the Nation*, 1851, p. 157). Much of this was of course waste land never before cultivated. Various opinions have been held as to the time and the speed at which the small freeholders disappeared; some causes for their disappearance are at any rate clear. Dr. Cunningham (*Industry and Commerce*, ii. 478) says "that the pressure of poor-rates was the determining cause which rendered the yeomanry willing to sell, while the high prices of the last year of the [French Revolution] war gave them the opportunity of selling advantageously." It is certain too that the decay of domestic industries after the great mechanical inventions of last century took from the less prosperous of the small farmers their only means of eking out a scanty living. Yet Arthur Young's language often implies the disappearance of many of these small freeholders before his day, and Arbuthnot, writing in 1773, regrets "the loss of that set of men who were called yeomen," though, while protesting, with Dr. Price, against great estates, he cordially approves of large farms (*Inquiry into the Connection between the Present Price of Provisions and the Size of Farms*). It is, however, important to notice that Arbuthnot, in defending large farmers against complaints of their comparative unproductiveness, takes 100 and 300 acres as typical instances of small and large farms respectively. It was in Norfolk, Essex, and on the Wiltshire Downs that Arthur Young, when on his tours, found the largest farms. Of 250 farms described by him in the North the average size was 284⅔ acres.

The 19th century has intensified the changes of the 18th. In 1833 small proprietors were selling even in Kent; speculation in land during the high war prices had led very generally to borrowing, and, when the unforeseen fall of prices came, to the ruin of many small landowners and the transfer of their land to more wealthy proprietors (*Report of Select Committee on Agriculture*, 1833, pp. x. 195). The first return of the number and size of agricultural holdings was obtained in 1880; for the "*New Domesday Book*"—the *Return of Landowners* of 1873—made no attempt to distinguish between estates and farms. The census, however, of 1851 (see *Encyclopædia Britannica*, 8th edition, art. "England"), carries our statistical information on the point farther back, but it is probably less exhaustive than later returns, particularly for small holdings.

[1] According to Finlaison's calculation for 1700, 5,184,516.

[2] Couling, in 1827, estimated that 25,632,000 acres were cultivated in England about 1801, and 3,117,000 in Wales.

The following table shows the statistics of recent years; it applies throughout to England and Wales. The size of 2558 farms was not stated in 1851.

It is clear that England is not even now wholly cultivated by large farmers, and that small holdings have of late shown a tendency to increase again. But some at any rate of the causes which produced large farming are still active, and some laws and legal customs combine with social and economic conditions (see CULTURE, LARGE AND SMALL; CONVERSION OF ARABLE INTO PASTURE; FARMING;) to make anything like peasant farming difficult in England. The expenses of conveyancing add appreciably to the sum required for purchase, especially in the case of small parcels of land (see Torrens, *Transfer of Land by Registration*, Cobden Club Essays, p. 38, and Kay, *Free Trade in Land;* but for another view, Jevons, *Fortnightly Review*, Mar. 1881). The development of "small culture," such as market-gardening, may be balanced against these adverse conditions, and allotment legislation (see ALLOTMENT) is a sign of reaction against the accumulation of the land in few hands.

The economic effects of the fluctuations in the size of agricultural holdings cannot easily

Date.	Population.	Acreage under cultivation.	Number of occupiers.	100 acres and under.		100 to 300.	300 to 1000.	Over 1000.	Average size of holdings.
1851	17,922,768		225,318	142,358		64,153	15,987	771	Eng. and Wales 111
1867	(1861) 20,066,224	Arable 13,528,000 Pasture 11,017,000 (round numbers)	390,660						Eng. 68 Wales 47·8
1875	(1871) 22,712,266	Arable 14,605,856 Pasture 12,202,596	470,000	(50 and under) 333,630	(50 to 100) 54,498	63,766	15,633	473	Eng. 57 Wales 47
1880	(1881) 25,974,439	Arable 14,096,176 Pasture 13,267,606	473,638	" 336,149	" 54,369	66,373	16,241	506	Eng. 59·2 Wales 47
1885	"	Arable 13,577,235 Pasture 14,122,478	475,140	(¼ acre to 5) 136,425	(5 to 100) 255,083	67,024	16,035	573	Eng. 59·9 Wales 46·8
				(50 and under) 336,571	(50 to 100) 54,937				
1890	(1891) 29,001,018	Arable 13,079,889 Pasture 14,792,439	494,835	(50 and under) 409,422					Eng. and Wales 56·3
1904	(1901) 32,526,075	Arable 11,761,090 Pasture 15,667,882	432,327	(1 to 5) 91,485	(5 to 50) 198,514	(50 to 300) 125,986		(over 300) 15,342	Eng. 66·2 Wales 46·4

be isolated from the results produced by other factors than mere size; and there has been no time when contemporary opinion was not divided upon the point. But the best writers have generally agreed as to the value of enclosures, which, from the 16th century at any rate, may be considered as *implying* the amalgamation of small holdings. Fitz-Herbert (*Surveying*) said in 1523 that if an acre of meadow "lie in severalty it is worth half as much again" as if "it lie at large in the common meadows." Tusser in 1557 strongly approved of enclosing not only pasture but arable:

"Good land that is severall, crops may have three,
In champion country it may not so be."

i.e. one-third of the champion land must lie fallow (*Five Hundred Points of Good Husbandry*, *Somers Tracts*, 1810, ch. 17). Blith, in 1649, alluding to enclosed pasture, speaks of the "disproportion betwixt the profits of one lordship in common, and the next adjoining to it inclosed. The one worth three hundred pounds in common, the other neere a thousand in pasture" (*The English Farmer*, p. 35). Fortrey in 1663 made the same calculation of comparative values. In the 18th century Arbuthnot in 1773 defended large farms against the charge of comparative unproductiveness by arguing that farmers of only 100 acres could not afford to keep the proper number of labourers and of horses, and that an arable farm of 300 acres employed more men than three 100-acre farms. Adam Smith believed that "after small proprietors, rich and great farmers are in all countries the greatest improvers." (*Wealth of Nations*, ed. M'Culloch, p. 76). Arthur Young, while alluding to contemporary complaints against large farms as depopulating and as raising prices, emphasised their connection with the expensive enclosures of his day: "How, in the name of common sense," he asked, "were such improvements to be wrought by little or even moderate farmers! Can such enclose wastes at a vast expense—cover them with an hundred loads an acre of marle? . . . No. It is to *GREAT FARMERS* you owe these" (*Political Arithmetic*, p. 155). Writers of this century are still divided, but perhaps the balance of expert opinion at the present time inclines, for England, to large farms with a moderate sprinkling of very small ones, not for corn or sheep, but for dairying, fruit-growing, and market-gardening.

[For the economic side of the question at the

present day see CULTURE, LARGE AND SMALL; FARMING.—Kebbel, *Agricultural Labourer*, 1893, where the views of various writers are summed up.—Craigie, "Size and Distribution of Agricultural Holdings," in *Journal of Statistical Soc.*, Mar. 1887.—Bear, "State-made Farmers," *Nineteenth Cent.*, April 1891.—Caird, "Agricultural Statistics," *Journal of Stat. Soc.*, Mar. 1869.—Leadam, *Agriculture and the Land Laws*, 1881.—Brodrick, *English Land and English Landlords*, 1881.—Prof. Ashley has paid much attention to enclosures in his *Econ. Hist.*, vol. i. pt. 2.—See also Boutmy, *Constitution d'Angleterre.*—For manorial agriculture Denton's *England in the 15th Century* may be referred to. For the 18th century see Arthur Young's *Tours*, especially *Six Months Tour through the North of England*, vol. iv. pp. 192, 198-267.—F. Forbes, *Improvement of Waste Lands and Dissertation on Great and Small Farms*, 1778. For peasant farming in the Channel Islands, Arnold's *Free Land*, 1880.—Abstracts of many of the Agricultural Statistics are to be found in the *Journal of the Statistical Society.*] E. G. P.

HOLIDAYS. The term holiday now signifies little more than a day on which no work is done. But the etymology points to the fact that particular days have been reserved from the performance of labour, usually from a religious motive. All religions have set apart certain days for the performance of religious duties. These duties, whether external as in the case of sacrifice, or internal as in the case of prayer and meditation, have always been deemed to require the undivided attention of those who wish to discharge them, and attention cannot be concentrated upon any act without an interval of leisure longer than is needed for its bare performance. The mind must be disconnected, as it were, from ordinary occupation before it can be devoted entirely to religious duties. The feeling of compassion, too, which may be traced in all the religions of civilised men, has tended to multiply occasions of rest and of enjoyment. In all the more primitive religions the rites necessary to express piety and conciliate the higher powers have been so many and complex that the holidays required for worship have also sufficed for rest. Such was the case with the nobler forms of polytheism, as in ancient Greece or Italy. Such also is or was the case with the Latin and Greek churches. Under these circumstances the demand for holidays merely as opportunities of rest does not occur. But in communities professing a simpler form of Christianity, or little influenced by religious feeling, the proportion of time set apart for religious observances is shorter. Strict Protestants have absolutely condemned all secular occupations on Sunday, but, with the reservation of Sundays, have left the whole year for labour. Hence a demand for holidays not of a religious character has been made by modern philanthropists and has been partially conceded, as in this country by Sir John Lubbock's Act creating four bank holidays in each year.

Considered merely on economic grounds, the necessity of a certain number of holidays in every year cannot be denied. It is proved by an overwhelming induction that incessant labour does not yield the largest net product. As productive labour cannot be continued for the whole twenty-four hours, so neither can it be continued for all days in the year. Moreover all reasonable economists will allow that welfare as well as wealth is desirable, and that even the greatest possible production of wealth in a given time would be too dearly bought by degeneration. But no absolute rule can be laid down as to the number of days in the year which should be reserved from industry. In different cases different periods of leisure are determined by difference (1) in national temperament; (2) in the character of occupations; (3) in the use generally made of holidays. Thus as regards (1) national temperament, certain races evolve an exceptional amount of energy in a given time, and so require longer periods for the restoration of vital force, whilst others evolve energy more slowly but more continuously, and so require more time to produce the same result. A comparison of the Englishman with the Hindu or Chinaman would probably illustrate this difference. (2) Difference in the character of occupations. Tending the machinery of a modern cotton mill is a more exhausting occupation than guiding a plough, and the occupation of the poet or the discoverer is more exhausting than the care of machinery. Purely intellectual occupations in the case of those who follow them assiduously are carried on more or less involuntarily. Much of the highest and most fruitful thinking may be described as unconscious cerebration. The born lawyer is for ever thinking over cases, the born inventor over mechanical improvements. This kind of labour is therefore not only intense but also difficult for the labourer to arrest. Even prolonged leisure may not give him repose unless accompanied by change of climate, scenery, or society. On the other hand the ploughman's labour ends when the plough stops, the bricklayer's when he has laid the last brick of the day. Thus it may be affirmed that the more intellectual the labour, the longer should be the intervals of rest. (3) The difference in the use generally made of holidays,—a holiday may be spent in a great variety of ways, each with a different economic result. It may be spent (*a*) in mere debauchery, in which case the cost of the holiday is great and the result of the holiday is diminished power of production; or (*b*) in wholesome pleasure; or (*c*) in mere vacancy, which, except for the overworked, is comparatively unprofitable; or (*d*) in religious and domestic quiet, as in the English Sunday at its best, with

the result of strengthening and concentrating character. The renewal of energy, the consolidation of character, are all of direct economic value; and the holiday which contributes in due proportion to all is the best holiday in an economic sense.

It is therefore clear that no rational economist will lay down any absolute rule as to the number of days in each year on which productive labour should be intermitted. He will only say that every class of producer should have as many holidays in the year as are necessary to the highest efficiency, which implies (1) that the faculties are fresh and vigorous, (2) that the habit of industry has not been enfeebled by too many or too long intervals of idleness. These conflicting considerations can be balanced only after an independent experimental inquiry for every calling.

[*Blue Book on Sunday Rest in Various Foreign Countries.* See remarks of Petty and Cantillon on the economic advantages of Protestantism as wasting fewer days in holidays than Roman Catholicism.] F. C. M.

HOLLAND, JOHN (*d.* 1722), the organiser and perhaps the founder of the Bank of Scotland, was a merchant of the STAPLE (Munk, *Roll of Roy. Coll. Phys.*, ii. 92), and connected with the East India Company. This may be gathered from his own words, for he says in reply to a statement that the East India Company's cashiers' notes passed currently in payment for the company's use that he "never saw or knew of such notes, although I was about eight years almost every day conversant in that Business, and for several years since, have had opportunity to know the Affairs and Methods of that Company" (*Discourse*, introduction). Elsewhere he mentions that he was sworn to the English East India Company (*ib.* 13). In 1693 he and several Scotch merchants in London obtained for seven years an exclusive right to manufacture in Scotland "Colchester Baises, and all other sort of Baises, which Baises will consume a great deall of wooll which cannot be otherways profitable" (Acts of Parl. of Scotland, ix. 313). Soon afterwards he and four others made various proposals to William III. for starting a bank and for supplying the government with money, but they came to nothing (*Ruine of the Bank of England*, 4, 5). In 1695, being requested by a Scotch friend to draft a scheme for a bank for Scotland, he with some hesitation did this, and his views were incorporated in the act "for erecting a publick Bank," passed July 1695, which authorised the creation of a bank possessing exclusive banking rights in Scotland for twenty-one years (Acts Parl. of Scotland, ix. 494). This institution differed in kind from any existing banks, for it was the "first instance in the world of a private joint-stock bank, formed by private persons, for the express purpose of making a trade of banking, dependent on their own private capital and wholly unconnected with the State" ("Banking in Scotland" in Macleod's *Dict. Pol. Econ.*, 124). And to Holland the credit of originating the idea as well as of drafting a workable scheme is in all probability due. Burton (*Hist. Scotland*, viii. 67) regards him as the organiser rather than as the founder of the bank, but gives no definite reason for his opinion. Holland and four of his associates in the baise manufactory—it would be interesting to know whether they were the four above mentioned—were among those empowered to receive the subscriptions, which were quickly taken up. In 1696 he was chosen as the first governor of the bank which he was invited to organise, being at his "own charge and expense," with the prospect of $\frac{1}{10}$ of any profits which might remain after the payment of 12 per cent interest to the subscribers (*Discourse*, 5). He was a gainer by the bargain, and speaks warmly of the justice and generosity which prevented him from losing by his work (*Ruine*, 6). He had to face great difficulties at the outset, for the Scotch knew nothing about banking, and only after some opposition did Holland succeed in obtaining the sanction of the directors to his suggested rules. He was exceedingly anxious that the rate of interest should be kept low, and that every facility should be given to borrowers, but his proposal that the statutable rate (6 per cent) should be reduced to 4 per cent met with much opposition. The African Company, in defiance of the privileges of the bank and with the object of ruining it, almost immediately set up the trade of banking as one of its many departments of work; but the discretion displayed by Holland and the directors enabled them to tide over the crisis until the collapse of the company left the bank without a rival. Holland, writing in 1715, states that though he had left off business for about twenty years, he could yet spend a good part of his time in doing the business of a bank, and that though living a perfect country life, he spent some time in contriving schemes which might be for the public good (*Ruine*, 6). And from his letters it would seem that his advice was sought in emergencies by the directors of the Bank of Scotland. In 1715 he brought forward a proposal for starting a company which should lend "money on land and for the relief of the poor of the kingdom" (*Directors of the Bank of England*, 6). The rate of interest was not to exceed 4 per cent, and as the possible lowering of the bank rate which might result might be an objection to those interested in the bank, Holland wrote various pamphlets and letters indicating the advantages of a low rate to the nation, and pointing out the ruin which, he considered, must overtake the Bank of England unless it modified its policy. A scheme and rules for the management of a bank in Ireland were also drafted by him and his son

Richard. He died at Brewood Hall, his residence in Staffordshire.

John Holland is known to have written the following pamphlets:—*A Short Discourse on the present temper of the Nation with respect to the Indian and African Company, and of the Bank of Scotland. Also of Mr. Paterson's pretended Fund of Credit* (1696).—*The Ruine of the Bank of England and all Publick-Credit inevitable, and the necessity, in a short time, of stopping the payments upon the several Funds to the Bank, South Sea Company, Lotteries, etc., if the Honourable House of Commons will not themselves be Judges of the means that may be offer'd to prevent it* (1715).—*The Directors of the Bank of England Enemies to the Great Interests of the Kingdom, and also not just to the trust reposed in them by the Adventurers, who chose them to do their best Endeavours, by all honest Means, for the Advantage of the Joint Stock* (1715).—*Some Letters relating to the Bank of Scotland* were published with explanatory remarks in a letter to the Proprietors, by his son Richard Holland in 1723.

[In addition to Holland's own writings, the following may be consulted: Chambers, R., *Domestic Annals of Scotland*, iii. (1861).—Munk, W., *Roll of the Royal College of Physicians*, iii. (1878).—Lawson, W. J., *History of Banking* (1850).—Macleod, H. D., *Dictionary of Pol. Economy* (1863).—Burton, J. H., *Hist. of Scotland*, viii.—*Historical Account of the Establishment, etc., of the Bank of Scotland* (1728).] E. A. M.

HOLOGRAPH. A term applied to a "deed" or writ written, wholly or in the essential parts, with the granter's own hand. A holograph document, such as a will in the testator's own handwriting, is held in Scots law as well as in French law, and the systems of law derived from French law, to be valid without witnesses. A document may be proved by extrinsic evidence to be a holograph one; and if it is stated in the body of it to have been written by the granter, the presumption of law is that it is so. But a holograph writing, other than a will or a mercantile document written in the course of trade, does not of itself prove its own date where the date is in dispute or of importance; this may be proved by other means. A. D.

HOME INDUSTRIES. This is the older form of industrial occupation, which was gradually, and not without much irritation, superseded by the FACTORY SYSTEM. In contradistinction to the latter, it may be accurately and simply described in the following words, which are taken from the report of the committee of the House of Commons on the woollen manufacture of England, 1806. "In the domestic system, . . . the manufacture is conducted by a multitude of master manufacturers, generally possessing a very small, and scarcely ever any great extent of capital. They buy the wool of the dealer; and, in their own homes, assisted by their wives and children, and from two or three to six or seven journeymen, they dye it, when dyeing is necessary, and through all the different stages work it up into undressed cloth."

Up to the time when the factory system began to be practised, all the industries may be said to have been of this nature. The prevailing feature of the system is the existence of the small capitalist, who provides work and livelihood only for himself and a meagre supply of subordinates. This system produced the crafts and GILDS (see also CORPORATIONS of ARTS AND TRADES) of the middle ages; and the questions of capital and labour to which it gave rise are exemplified in the famous statute of apprentices in our own country (see APPRENTICESHIP, STATUTE OF). It was undermined when the great inventions of last century, and the extension of the principle of division of labour, gave rise to the great organisations of workmen and the concentration of labour power. The savings effected by the large capitalist forced the small capitalists to compete in the only way open to them, viz. by combining their capital and forming one large unit in place of many small ones. Hence the progress of JOINT-STOCK COMPANIES, and the legislation of the present century for facilitating the formation of these. Notwithstanding this process of elimination, there are many scattered survivals of the older system, especially in the textile industries. As an economic system, that of the handicrafts is historically very interesting; from a social standpoint it contrasts in many ways so favourably with the factory system that many are inclined to regret its decadence and virtual annihilation in England.

[Rogers's *Six Centuries of Work and Wages*.—Ashley's *Economic History*.—Yeats's *Technical History of Commerce*.—Cunningham's *Growth of English Industry and Commerce*.—H. M. Hyndman's *Historical Basis of Socialism*. In Latimer's *Sermons* some interesting facts regarding English home industries in the middle ages may be found. J. L. Green, *The Rural Industries of England*, 1895.—Ad. Smith, "Of Shetland Stockings," *W. of N.*, bk. i. ch. x.] M. G. D.

HOMESTEAD AND EXEMPTION LAWS OF THE UNITED STATES. *Definition.*—Homestead is the house and land constituting a family residence. In law it is such residence exempt from forced sale.

Provision for the exemption of homesteads from levy for the payment of debts was not made in the common law, but is entirely statutory, being made on grounds of public policy only, because it is not well for the state that a family be deprived of its home: it should be protected against alienation of the home, especially through the improvidence or misfortune of the head of the family. Not only is such legislation modern, but it is even of recent date. The first law on the subject found in America was approved 26th January 1839, in Texas, at that time an independent republic,

At present, out of the forty-four states, four territories, and the district of Columbia, sixteen of the states have constitutional provisions for the exemption of homesteads, and all of them, with the exception of Delaware, Rhode Island, and the district of Columbia, provide for such exemption by statute. All of them exempt a certain amount of personal property, including primarily wearing apparel, furniture, tools, library, cattle, etc. Naturally the details of the laws vary much in the different states. Always the legal possessor of a homestead right must be the head of a family. Usually the owner of the homestead must be living on the property in question,—although in the state of Texas and in some few others the homestead right may be obtained as soon as the property is improved, so that the intent of acquiring a residence thereon is clear. In some states the homestead right is assumed from the fact of the head of a family occupying the property with his family. In other states the property so claimed for exemption must be openly declared at the time the property is made the homestead; and in still others there must be a recorded claim to the homestead in order to give it the right to exemption. The nature of the claim is that of an estate for life, although the wife and children of the owner have also an estate of inheritance, the children's rights lasting until they become of age. In some states, in order to give a clear title to the property if it is sold or mortgaged, the wife must freely sign the deed or the mortgage; and in some cases mention must be specifically made of the fact that by so doing she gives up her homestead rights. This provision has at times been used for fraudulent purposes, the wife signing the mortgage, but not specifically mentioning the homestead. Time and court decisions will, however, remedy such defects. The exemption of the homestead from sale on account of debts is not a complete one. In no case is the homestead claim good as against the state itself on a claim for taxes. Generally the right does not extend to exemption for payment of a debt made to purchase the property itself, nor against a mechanic's lien upon the property, nor to debts already existing when the estate was bought. The amount of the exemption varies greatly in the different states. In Maryland the value of the estate which is exempt, whether real or personal property, is limited to $100 (£20); whereas in Texas, California, North Dakota, South Dakota, and in some of the other states the value of the property exempted may amount to $5000 (£1000). In some of the states the amount of personal property that is exempt from levy is fixed; but the homestead may be a certain lot of ground,—for example, in Minnesota 80 acres or less in the country, or one lot to one half-acre in city or town; and in Kansas 160 acres in country, or 1 acre with improvements in town, regardless of its value. Under this law, if the homestead occupied but one lot of ground in a city, it might be almost palatial in nature and of great value, and still be exempt from levy. In Wisconsin and Iowa equal liberality is shown. In some of the newer states great hardship has often resulted from the fact that creditors could not collect from well-to-do debtors sums due to them, because they had been invested in a homestead. The rule of construction of the homestead and exemption statutes varies in the different states. For example, in Louisiana and Minnesota the construction is strict, the courts holding to the letter of the law; whereas in many of the other states—as, for example, in Michigan—the courts have decided that the construction of the law, on a number of grounds of public policy, should be liberal, and in favour of the owner of the homestead rather than of the creditor.

In the statutes of the federal government the expression Homestead Laws applies to the laws of congress which have provided for the free settlement of the public lands. Under the law of 20th May 1862, "every person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who has filed his declaration of intention to become such, as required by the naturalisation laws, shall be entitled to enter one quarter-section (160 acres) or a less quantity of (certain) unappropriated public lands," and file a homestead claim upon the lands. If he lives upon these lands and makes due improvements for five years, he may receive a clear title to the lands from the United States upon the payment of a small registration fee of 5 or 10 dollars (£1 or £2). If, after he has resided upon the land for three years, he can show that one acre out of every sixteen has been planted with trees, cultivated for not less than two years, and set not over twelve feet apart each way, he may at that time get a patent to his land without waiting for the expiration of the full period of five years. At any time before the expiration of the five years provided by law he may receive his patent upon the payment of the $1.25 (5s.) or the $2.50 (10s.) per acre provided under the regular pre-emption law. It is also provided in this homestead law that no such homestead shall become liable to the satisfaction of any debt contracted prior to the issue of the patent therefor. Under this homestead and pre-emption law nearly all of the free public domain of the United States has been already taken by actual settlers, to the great benefit of the country. To this law has been due, in great part, the immigration of the best of the foreign element now in the United States, as well as the enormous increase in the value of the western lands, and

the rapid advance in wealth and culture of the western states.

[The leading authorities on Homestead and Exemption laws in the United States are: Rufus Waples, *The Law of Homestead and Exemption*, 1893; Seymour D. Thompson, *On Homesteads and Exemptions*, 1878; and J. H. Smyth, *Homesteads and Exemptions*, 1875.—A very careful and complete discussion of the subject is found also in Washburn, *On Real Property*, 1887.—Of course the final authority must always be the statutes of the individual states and the legal decisions thereupon.]

The following table contains a very brief digest of the exemptions of real property and personal property in all of the states and territories of the United States, excepting Alaska. The table is modelled after the one prepared for Lalor's *Cyclopedia of Political Science, Political Economy, and of the Political History of the United States*, published in 1883; but it has been entirely revised and brought down to date, 1st January 1895. J. W. J.

States.	Real Property Exemption.	Personal Property Exemption.
Alabama	Homestead worth $2000 (£400) 160 acres in country, or one lot in city.	$1000 (£200) of personal property, wearing apparel and other articles.
Arkansas	Homestead to head of family of value of $2500 (£500) 160 acres in country or 1 acre in city, or at least 80 acres in country or one-fourth acre in city regardless of value.	To amount of $200 (£40) and clothing, if unmarried, or $500 (£100) and clothing to heads of families.
California	Homestead worth $5000 (£1000) to head of family, or $1000 (£200) to any person.	$200 (£40) worth of furniture and a multitude of special articles, and life insurance moneys where the annual premium did not exceed $500 (£100).
Colorado	Homestead not over $2000 (£400) in value.	Furniture $100 (£20) stock in trade to amount of $200 (£40) and various articles.
Connecticut	Homestead worth $1000 (£200).	Library, etc., $500 (£100); cattle, etc., $300 (£60) and wearing apparel to any person; to head of family:—many specific articles; horse, etc., $200 (£40) to physician; $200 (£40) boat, etc.
Delaware	No real estate exemption.	$75 (£15) tools, etc.; and books to any person; to head of family $200 (£40) worth of personal property additional; in Kent Co. $50 (£10) worth of tools to any person, and $150 (£30) worth of personal property to head of family; sewing machine.
Florida	160 acres of land in country, or ½ acre and residence in town.	To amount of $1000 (£200).
Georgia	Real estate or personalty to the value of $1600 (£320).	Real estate or personalty to the value of $1600 (£320).
Idaho	Homestead worth $5000 (£1000) to head of family, or $1000 (£200) to any person.	Desks, etc., $200 (£40); cabin of miner, etc., $500 (£100); life insurance moneys where premium did not exceed $250 (£50); library, etc., of physician, attorney, etc.; many other articles.
Illinois	Residence worth $1000 (£200) to a householder with family.	To any person $100 (£20) personal property; to head of family, $300 (£60) worth; to all wearing apparel, etc.
Indiana	To each householder $600 (£120), real or personal, or both.	Property real or personal to the amount of $600 (£120).
Iowa	Homestead to head of family of 40 acres in country or ½ acre in city or town, of the value of at least $500 (£100).	Presses, etc. of newspaper, $1200 (£240); household furniture, wearing apparel and many other articles; life insurance money to a beneficiary to amount of $5000 (£1000).
Kansas	160 acres in country, or 1 acre with improvements in town; value not limited.	$500 (£100) furniture; tools, etc. $400 (£80); stock, food, etc. $300 (£60); and other articles to head of family; to other person—tools, etc. $400 (£80) and other articles; pension money for three months.
Kentucky	Land with dwelling to value of $1000 (£200) to a householder.	$100 (£20) furniture, clothing and domestic animals.
Louisiana	Homestead and personal property limited to $2000 (£400).	Homestead and personal property limited to $2000 (£400).

States.	Real Property Exemption.	Personal Property Exemption.
Maine	Land and dwelling, value $500 (£100), to a householder.	$50 (£10) furniture, $150 (£30) library, $300 (£60) farm animals, clothing, tools, etc.
Maryland	Real or personal property of value of $100 (£20).	Wearing apparel, books, and many other articles.
Massachusetts	Homestead to value of $800 (£160) to householder having family.	$300 (£60) furniture; tools, etc. $100 (£20); stock, etc. $100 (£20); boat for fishing, $100 (£20); $100 (£20) sewing machine; and many other articles.
Michigan	40 acres in country, or city lot and residence to value of $1500 (£300).	$250 (£50) furniture, $250 (£50) stock in trade, $150 (£30) books, farm animals and minor articles; where judgment is for work, labour or services, not professional, only $500 (£100) worth of personal property is exempt.
Minnesota	Homestead to householder with family, 80 acres in country, or one lot to ½ acre in city or town.	$500 (£100) furniture, etc.; animals, etc.; $300 (£60) tools, etc.; $400 (£80) presses, etc. of newspaper; $2000 (£400) and $400 (£80) worth of stock in trade; and many other articles.
Mississippi	Homestead to householder with family, 160 acres in country, or residence, etc. in city of value of $2000 (£400).	$250 (£50) personal property or specific articles; library, $250 (£50); instruments, etc., $250 (£50), life insurance moneys $10,000 (£2000) to beneficiaries or $5000 (£1000) to executor or administrator for benefit of heirs or next of kin.
Missouri	160 acres, worth $1500 (£300) in country, or buildings in city to value of $1500 (£300) to $3000 (£600).	Furniture $100 (£20), provisions $100 (£20), domestic animals $150 (£30); or in lieu of all specified, $300 (£60) net exemptions.
Montana	Homestead to householder of 160 acres or ½ acre in city or town, of value of $2500 (£500).	Farming tools, etc., $600 (£120); $100 (£20) books, etc.; cabin of miner with appliances $500 (£100); articles specified.
Nebraska	Homestead not exceeding $2000 (£400) in value.	$500 (£100) exempted when no real estate is owned, and pension money or property purchased or improved with it to value of $2000 (£400).
Nevada	Homestead to head of family to value of $5000 (£1000) in gold coin.	Chairs, etc., $100 (£20); cabin of miner $500 (£100), and $500 (£100) tools, etc., $100 (£20) sewing machine; library, instruments, etc.; many other articles.
New Hampshire	Homestead worth $500 (£100), or so much thereof as does not exceed $500 (£100).	$100 (£20) furniture, $200 (£40) in library, $100 (£20) in tools, $50 (£10) in fuel and provisions, clothing, domestic animals.
New Jersey	Homestead to amount of $1000 (£200) to householder.	To amount of $200 (£40) and clothing.
New York	Homestead to value of $1000 (£200) to householders.	$250 (£50) in furniture, mechanics' tools, instruments, library, etc.
North Carolina	Homestead to value of $1000 (£200) to occupant of an estate.	To value of $500 (£100).
North Dakota	Homestead of value of $5000 (£1000) to head of family.	$100 (£20) books, etc.; wearing apparel; and $1500 (£300) worth of personal property additional.
Ohio	To amount of $1000 (£200) to heads of families only. If homestead sold under prior lien, $500 (£100) paid to widow or heirs.	Clothing, furniture, tools, etc., or $500 (£100) additional exemption if no real estate is owned.
Oregon	Homestead of 160 acres in country or one block in city or town, of value of $1500 (£300), or at least 20 acres in country or one lot in city or town regardless of value.	$300 (£60) in furniture, $100 (£20) clothing, or $50 (£10) for each member of family, $400 (£80) tools, etc.; farm animals.
Pennsylvania	Property, either real or personal, to the value of $300 (£60).	$300 (£60) value of property, either real or personal, besides wearing apparel; where the judgment is for wages of $100 (£20) or less, or board for four weeks or less, no exemption is allowed.

States.	Real Property Exemption.	Personal Property Exemption.
Rhode Island	No real estate exemption.	$200 (£40) tools, etc.; $300 (£60) furniture, etc.; books, etc., $300 (£60); many other articles.
South Carolina	Homestead worth $1000 (£200).	$500 (£100) worth of personal property.
South Dakota	Homestead to head of family of 160 acres in country or house and lots in city or 1 acre in city or town, of value of $5000 (£1000).	Books, wearing apparel, etc., to any person; to head of family $750 (£150) additional; to any person $300 (£60) additional; or in lieu thereof:—Books, etc., $200 (£40); $200 (£40) furniture; cattle, waggons, stock, etc., $1250 (£250); library, etc., $300 (£60).
Tennessee	Homestead worth $1000 (£200).	Clothing, furniture, and a long catalogue of miscellaneous articles.
Texas	200 acres with house in country, or lot worth $5000 (£1000), and residence in town, to a family.	Furniture, tools, and many other articles.
Vermont	Homestead worth $500 (£100) to any housekeeper.	Clothing, furniture, farm animals, and sundry stores, $250 (£50) in teams, $200 (£40) professional library, and tool chest of mechanic.
Virginia	$2000 (£400) in real or personal property to head of a family.	Clothing, furniture, library, domestic animals, besides $2000 (£400) real or personal.
Washington	Homestead to householder of value of $1000 (£200).	Wearing apparel; $500 (£100) private library; to householder; $500 (£100) furniture, etc.; cattle, etc., or $200 (£40) personal property; $500 (£100) farming utensils; $500 (£100) tools; $200 (£40) instruments of physician and $500 (£100) library; library of attorney or other professional man $1000 (£200) and $200 (£40) of furniture.
West Virginia	Homestead worth $1000 (£200) to head of a family.	Personal estate not exceeding $200 (£40) in value.
Wisconsin	40 acres with house in country, or house and ¼ acre in town.	$200 (£40) furniture, etc.; $200 (£40) farming utensils; $200 (£40) tools; $1500 (£300) presses, etc. of printer, or where judgment is for wages for services to defendant $400 (£80), many other articles.
Wyoming	Homestead to head of family of value of $1500 (£300).	$150 (£30) wearing apparel; to head of family:—$500 (£100) furniture; and other articles; $300 (£60) tools, etc.; $300 (£60) library, instruments, etc.
Territories.		
Arizona	Homestead to head of family of value of $4000 (£800).	Personal property to family of value of $1000 (£200) and other articles.
District of Columbia	No real estate exemption.	Clothing, furniture, etc. to value of $300 (£60); merchants' stock or mechanics' stock or mechanics' tools $200 (£40); family library $400 (£80); and other articles.
New Mexico	Homestead to head of family of value of $1000 (£200).	Wearing apparel, cattle, etc., books, etc., $200 (£40) furniture, and many other articles; to unmarried woman:—$150 (£30) wearing apparel and other articles; instruments, etc., $150 (£30); library of attorney, $500 (£100); many other articles; to head of family not an owner of homestead $500 (£100) real and personal property additional.
Oklahoma	Homestead to head of family of 160 acres and improvements; or 1 acre in city or town; or real or personal property of value of $600 (£120).	Wearing apparel, furniture, and many other articles.
Utah	Homestead to head of family of value of $1000 (£200), $500 (£100) additional for wife, and $250 (£50) additional for each member of family.	$200 (£40) chairs, etc.; $300 (£60) furniture, etc.; $300 (£60) farming utensils; $500 (£100) tools, etc.; instruments, etc.; $500 (£100) cabin of miner and $200 (£40), tools, etc.; many other articles.

J. W. J.

HOMOLOGATION (Fr.). Term employed for the formality by which an authority confirms certain acts or conventions between individuals or associations. It is most frequently used in relation to railway tariffs, general or special, which cannot be applied without the homologation in France of the minister of public works. The necessity for it was at first contested by the companies, which argued their absolute right to raise or reduce their rates within the limits fixed by their charters or acts of concession. The government maintained its prerogative of examining the proposed tariffs and imposing its veto by a refusal to homologate, as a measure of public policy, otherwise the established economic system of the country might be frustrated by differential rates in favour of foreign imports, particular merchandise, traders, or localities. The contention of the government prevailed, and all modifications of tariffs are now submitted to the department of public works for homologation. T. L.

HONOUR (liberty or franchise), a collection of manors, retaining their separate manorial organisation in most respects, even when one central court was held for all. These estates were developments of grants, made by Anglo-Saxon kings, of jurisdiction, with or without land, over large districts, even whole hundreds. None but lords of honours held courts over a district larger than a manor, and even such courts were really aggregations of manor-courts. As local jurisdiction and feudal organisation decayed the great lords might have succeeded in dividing the country among a few large landed proprietors but for the legal checks put upon their jurisdiction (Assize of Clarendon, 9, 11, Stat. of Marlborough), and upon the formation of new manors (Quia Emptores, 1290). Doubtless the caution of the kings helped to keep up the numbers, as well as to keep down the power, of the landed nobility and gentry.

[Stubbs, *Const. Hist.*, 1880, I. 106, 400.—Gneist, *Hist of Eng. Const.*, trans. 1886, p. 148, and ch. xi.—*Magna Carta*, 43.—Digby, *Real Property*, 1876, 52.] E. G. P.

HONOUR (Payment for). Where a bill of exchange has been noted or protested for non-payment, any person may intervene and pay it *supra* protest for the honour of any party liable thereon, or for the honour of the person for whose account the bill is drawn. Payment for honour is known in continental countries as payment by "intervention," a term which expresses its nature as a "negotiorum gestio." It thus constitutes an exception to the general rule of English law that payment by a stranger to the contract is ineffectual to liberate the debtor. Where a bill is paid *supra* protest the person who pays it is thereby subrogated to the rights and duties of the holder as regards the party for whose honour he pays, and all parties liable to that party.

[See § 68 of the Bills of Exchange Act, 1882; and Chalmers, *Bills of Exchange*, ed. 4, p. 230.] M. D. C.

HOOKE, Andrew (18th century), compared the capital wealth of the country with the amount of the national debt in order to show that the existence of the latter involved no danger to the state. He estimated the growth of capital between 1600 and 1750 by assuming the value of the personal stock to be twenty times as large as the amount of coin in circulation; to this he added the value of lands and houses; and thus arrived at a total of a thousand million pounds, or twelve and a half times the amount of the national debt in 1750. Such estimates must always be based on conjecture rather than on knowledge; and that made by Hooke was distinctly too high. Hooke also suggested a scheme for the discharge of the national debt.

An Essay on the National Debt and National Capital, or the Account truly stated, Debtor and Creditor, London, 1750.

[M. V. D. M. [Monsieur Vivant de Mézagues], *A General View of England from the Year 1600 to 1762 in a Letter to A. M. L. C. D.* Translated from the French, London, 1766.—Sir R. Giffen, in *The Growth of Capital*, London, 1889, p. 90, speaks highly of this publication, which supplies the means for a criticism of that of A. Hooke.] R. H. H.

HORN, Ignace Einhorn, also known as Edward Horn (1825-1875), was born at Vag-Ujhély (Hungary) and died at Pesth. Having taken a part in the insurrection of 1849, he was compelled to leave his country and went to Germany, where he published *Hungary before 1848* (in German) in 1851. The publication of this work brought on him a political prosecution. The severe sentence which followed compelled him to take refuge in Belgium, where he published, also in German, his *Statistisches Gemälde des Konigreichs Belgien*, 1853, and *Bevölkerungswissenshaftliche Studien aus Belgien*, 1854. In 1855 he established himself at Paris, where he was soon employed as a contributor on the *Journal des Économistes* and on the *Revue Contemporaine* as well as on the *Journal des Debats* and *La Presse*, and also published *Das Kreditwesen in Frankreich*, 1857, *John Law ein finanzgeschichtliche Versuch*, 1858, then *La crise cotonnière et les textiles indigènes* (8vo, 1863) as well as the speech made on his reception into the Institute of Egypt at Alexandria, *Du progrès économique en Égypte*, 1864. In 1866 he published *La Liberté des Banques*. In this work Horn argued against monopoly in banking matters. Horn's essay on Boisguillebert, for which he obtained a prize from the Institute, was published the next year under the title of *L'économie politique avant les physiocrates*, 8vo (these four in French). He also undertook a publication of the greatest value, the *Annuaire international du crédit public*. This was established by Horn with the assistance of other well-known writers in France and elsewhere, but

unfortunately it was only continued for the three years 1859, 1860, and 1861.

Horn took an important part during the year 1868 in the economic discussions going on in the public meetings permitted at that time. After this, Horn, who had been naturalised in France, unexpectedly returned to his native country, in which he was appointed to a post of much distinction. It should be added that he was greatly liked by all who knew him; that all his public occupations never made him a rich man; and that in the different countries where he took up his temporary abode he was much esteemed. This was particularly the case in France. A. C. f.

HORNE, ANDREW (d. 1328), an eminent lawyer, legal writer, and chamberlain of London, left two valuable compilations on law and procedure.

Liber Horne (preserved in the Guildhall of London).—*La Somme appelle Mirroir des Justices vel Speculum Justiciariorum*, to which Horne made many important additions, first pub. London, 1642.

[Sir E. Coke, *Prefaces to 9th and 10th Reports*, trans. by G. Wilson, London, 1777.—G. Crabb, *A History of English Law*, London, 1829.] R. H. H.

HORNECK (also written HORNICK and HŒRNINGK), PHILIPP WILHELM VON (about 1638-1713), a German economist, was born at Mainz. He came at an early age to Vienna with his father, who had been a physician in the Rhineland, and who, having become a convert to Catholicism, was ennobled and made an Austrian imperial councillor. The younger Horneck, about 1690, became private secretary of the prince bishop of Passau, who made him a privy councillor in 1695. His wife was a daughter of J. J. BECHER, and he seems to have derived some of his opinions from that economist, whose writings he often quotes. The work by which he is principally known is entitled *Oesterreich über alles, wann es nur will* (1684). It is an attempt to show how by a judicious economic policy the dominions of the House of Hapsburg, whose fortunes were then at a low ebb, might be raised to a higher and more independent position than any other European state. The author seeks to induce his fellow-countrymen to follow the economic methods of France, Holland, and England. The work is based on mercantilist principles; but, along with much that was erroneous or questionable, it contained many important suggestions for the development of the resources of the empire. It enjoyed a great popularity with the author's contemporaries and several succeeding generations, passed through many editions, and had considerable influence on Austrian policy in the 18th century; Joseph II., in particular, is said to have attached great weight to it.

[Roscher, *Gesch. der N. O.*, p. 289.] J. K. I.

HORNER, FRANCIS (1778-1817), born at Edinburgh, and educated at the university there, was called to the Scotch bar in 1800, but, dissatisfied with the law of his native country, removed to London in 1803, and was called to the English bar in 1807. He was appointed, in 1806, a member of the board of commissioners entrusted with the examination of the claims of the creditors of the Nabob of Arcot, but resigned this post in 1809. He entered parliament in 1806, remaining a member, except for one short period, until his early death, at Pisa. As a young man, Horner was remarkably studious, and, after entering parliament, very rapidly came to the front, so that at the time of his death he was one of the foremost of the Whigs, with a constantly-increasing reputation for oratory, sound knowledge, and remarkable integrity, combined with independence. In 1810 he was elected chairman of the Bullion Committee (see BULLION COMMITTEE, REPORT OF). The first part of this is from his pen: it is a concise exposition of the fallacy then generally held by the directors of the Bank of England and others, that the rise in the price of gold was caused by the foreign demand for that metal. Horner rightly attributed it to the over-issue of paper money. Though the resolutions moved by Horner in the House of Commons, in 1811, in favour of the resumption of cash payments, were defeated, and though the bullionists met with no better success in 1816, yet the effects of the Report, and of the controversy which ensued on its publication, were such, that the act for the resumption of specie payments was passed in 1819, following the lines of the recommendations of the committee. As regards other economic questions, Horner opposed the graduated duties on corn, urged the reduction of the peace establishment in 1816, and spoke against the Alien Bills.

Though originating no new theory in political economy, Horner possessed a very complete knowledge of the science—D. Stewart considered him his model pupil—and his critical acumen is well illustrated by his strictures on Adam Smith's deductions concerning the bounty on exported corn (*Edin. Review*, No. ix. pp. 190, etc.), and more particularly on Smith's theory of prices (*Letters, passim*): there exists also a letter from him to Malthus, attacking the latter's reasoning on the corn question. Apart from the *Report of the Bullion Committee* and *A Short Account of a late Short Administration* (Pitt's), his only writings are essays in the *Edinburgh Review*, of which he was one of the founders. These articles are all noticeable for his thorough knowledge of his subject, this being a characteristic trait in all that he undertook. The most important of these reviews are:—

Thornton's *Inquiry into the Nature and Effects of the Paper Credit of Great Britain* (Oct. 1802).—Canard's *Principes d'Économie politique* (Jan. 1803).—Lord King's *Thoughts on the Restriction of Payments in Specie at the Banks of England and Ireland* (July, 1803).—Miss Williams's *Political and Confidential Correspondence of Louis*

XVI. (Oct. 1803).—*Cursory Observations on the Act for Ascertaining the Bounties, and for Regulating the Exportation and Importation of Corn*, by an M.P. (Oct. 1804).—Stewart's *Short Statement of Facts Relative to the Late Election of a Mathematical Professor in the University of Edinburgh* (Oct. 1805).—*Earl of Selkirk's Observations on the Present State of the Highlands* (Oct. 1805).

[*Memoirs and Correspondence of Francis Horner, M.P.*, edited by L. Horner (1843).—*Edinburgh Review*, clviii. (1843), pp. 261-99.—Lord Cockburn, *Life of Lord Jeffrey* (Edin., 1852).—Lord Brougham, *Statesmen of the Times of George III.*, 2nd series (London, 1839).] R. H. H.

HORSLEY, W. (1701 ?-1776 ?), published, in 1744, a translation of a French *Treatise on Maritime Affairs*, and an adaptation of Frederick the Great's Anti-Machiavel entitled *Lord Theodore's Political Principles*. In 1746 appeared *The Political History of Europe*, containing a collection of public treaties and a curiously crude historical summary. Horsley is credited, in the British Museum and other catalogues with the *Universal Merchant*, London, 1753,[1] of which the real author was Nicolas MAGENS, written Meggens by Adam Smith in his "Digression Concerning the Variations of Silver," bk. i. *Wealth of Nations*.

Horsley is stated to have translated the work from the German; he contributed a dedication to Pelham.[2]

[Magens himself in *Further Explanations of some particular subjects contained in the Universal Merchant*, London, 1756, says, "I will add . . . to those, which I ventured to assert in a book upon this and other subjects, published by Mr. Horsley under the too pompous title of the *Universal Merchant*." The authority for the statement that the book was a translation from the German and the translator Horsley is Sir James Steuart, *Inquiry into the Principles of Political Economy*, vol. ii. p. 158, London, 1767, 4to. Otherwise there would be much to suggest that the book was written in English. For Horsley's connection with Magens, see, further, *Quarterly Journal of Economics*, vol. v. p. 356, *Annual Register*, xix. p. 123.] H. E. E.

[1] The title is as follows:—*The Universal Merchant*, containing, etc., London. Printed by C. Say, for W. Owen, at Homer's Head, near Temple Bar. MDCCLIII.

[2] To the Right Honourable Henry Pelham, Esq., etc. This Book, calculated for General Use, is with the Greatest Respect, etc., inscribed by William Horsley.

Sir—I have the Greater Pleasure in presenting this Work to your Consideration, as it is the Performance of a Foreigner resident among us who participates with us the Sweets of Liberty, and who gratefully makes us the best Returns in his Power, for the Benefit he receives from the due Execution of equal Laws. . . .

His views, in the reasoning Part, are to establish an universal social maxim. . . .

The Author, after reasoning the Reader into right Notions of Trade, where he falls into many of Mr. Wood's Sentiments, enters into an Enquiry. . . .

His manner of pursuing those Subjects is different from anything I have seen. . . .

—— the Performance in a particular manner claims your patronage, as the Author, though an *Alien* by birth, is a Englishman by Interest. . . .

HOSPITALS. See CHARITY.

HORTON, SAMUEL DANA (1844-1895), a leading American writer upon bimetallism, was born in Pomeroy, Ohio, and died in Washington. He graduated at Harvard University, in arts in 1864, and in law in 1868. After some foreign travel he began the practice of his profession in the Ohio courts, but was diverted from this after a few years to the study of monetary science, by the protracted discussions which preceded the resumption of specie payments by the federal government. As the son of Valentine B. Horton, who as a member of congress in the early part of the civil war secured wide reputation, but also the displeasure of his constituents, by a courageous opposition to paper money inflation, Dana Horton had an inherited interest in questions of currency. From the publication of *Silver and Gold* in 1876 until the end of his life the study of these were his absorbing pursuit. He was a commissioner for the United States in the International Monetary Conferences of 1878 and 1881, and became widely known in Europe and America as an advocate on scientific grounds of international bimetallism. The independent action of the United States in 1878 and 1890 he condemned. "We should offer Europe to take silver as money without stint when she does, but not take a dollar until she does so." Among the impatient or interested advocates of unrestricted silver coinage therefore he did not retain the authority to which his ability and learning entitled him. His researches in the history of the single and double standards of England and France respectively were fruitful and important. He was a frequent speaker and writer of great vigour, originality, and variety of resource, in a style sometimes striking, but often too involved and abstruse to be thoroughly effective.

Omitting many pamphlets, articles, and addresses, the following are the chief of Mr. Horton's publications, valuable for their research and the number of important original documents which they contain—

Silver and Gold, and their relation to the Problem of Resumption (1876, revised in 1877).—*Historical Material for the Study of Monetary Policy*, and *Contributions to the Study of Monetary Policy*, both prepared for the International Conference of 1878, printed with the proceedings of the Conference by the United States government 1879, and including a bibliography of money, and documents to illustrate the monetary history of France, England, and the United States—some here printed for the first time,—*Sir Isaac Newton and England's Prohibitive Tariff upon Silver Money*, being an open letter to Professor Jevons (1881).—*The British Standard of Value*, being an address before section F of the British Association (1885), with an appendix containing hitherto unnoticed reports by Locke and Newton.—*Silver before Congress in 1886*, in the *Quarterly Journal of Economics* (October 1886).—*The Silver Pound*

and England's Monetary Policy since the Restoration, together with the History of the Guinea, (1887). *Silver in Europe* (1890, revised in 1892). —*The Suspended Rupee and the Policy of Contraction* in the *Economic Journal* (September 1893). [See Obituary by Pres. E. A. Walker in *Economic Journal*, June 1895.] C. F. D.

HOTCHPOT. It frequently occurs in wills and settlements that power is given to a person to appoint a fund in such shares as he or she shall think fit among the members of a class, *e.g.* the children of a marriage; in such cases there is generally a direction that if the appointments made by the person to whom the power is given do not exhaust the fund, the unappointed part is to be divided in equal shares among all the members of the class. If nothing further were added injustice might easily result, and for that purpose a clause called the hotchpot clause is generally inserted, providing that no member of the class shall take a share of the unappointed part, without bringing the appointed share into "hotchpot," which means that for the purposes of the division the appointed share must be thrown back into the common fund. E. S.

HOUGHTON, JOHN, an apothecary and dealer in tea, coffee, and chocolate, was a fellow of the Royal Society and a friend of Halley and other distinguished men of the day. From 1692-1703 he edited a weekly paper called *A Collection for Improvement of Husbandry and Trade*, containing articles on "some matter of public interest in art or science or trade, a price list of corn and some other commodities, from many English market towns, and a number of advertisements" (Rogers, see below). From 17th August 1694 to 17th September 1703 he also kept a weekly register of the price of Bank of England stock, and often of other stock, especially of the East India, the Hudson's Bay, and the African companies; as well as of the "rate of exchange, especially with Amsterdam." He also drew up *An Account of the Acres and Houses, with the Proportional Tax . . . of each County in England and Wales*, 1693.

[Thorold Rogers, *The First Nine Years of the Bank of England*, Preface. The weekly prices of bank stock are prefixed to this book.—Andrew's *Hist. of Brit. Journalism.—Dict. of National Biography.*] E. G. P.

HOURS OF LABOUR. In strictness, economics are not concerned with the amount of the day which should be given to work. The capacity of the individual for valuable work varies enormously. By stress of facts a political question has arisen in most civilised countries as to the number of hours which the manual labourer should be required to give to his employer each day. The scope of the practical question has thus, whether rightly or not, been distinctly limited.

There are three points of view from which the question may be regarded—(1) that of the dependence of the labourer on his employer; (2) that of the improvement of the individual life and happiness; (3) that of the effects on the value of the labour given.

The first two have in turns been uppermost in the minds of those who have advocated the shortening of the hours of labour. The last point of view is one which has only recently attracted real attention in connection with the eight hours movement, though the earlier economists had some notion of it (*vide* J. S. Mill, bk. i.). Yet the most practical method of treating the question of the hours of labour is to establish, if possible, the fact that the work is so much better done on the shorter hours as to make up for the loss of mere time. Professor Thorold Rogers appears to have been the first to suggest this as a practical argument when he held that the excellence of the old masonry and other enduring work of the middle ages was only compatible with the prevalence of short hours. It has recently been asserted by Australian employers that the quality of work has vastly improved with the eight hours day. The most detailed attempt to prove the position is perhaps that of Mr. Rae (*Contemporary Review*, October 1891). It is clear that if the case be made out, the adoption of shorter hours will quickly follow; and it is obvious that greater leisure ought to be better for the individual workman, and that with a rising standard of life he must become more independent without being less useful.

In Great Britain the attempt to legislate on this subject seems to have been much earlier than on the continent. Putting aside Professor Rogers's theory just noted, and Sir Thomas MORE's proposed 6 hours for the Utopia, we have an act of Elizabeth prescribing a day of 12 hours with 2½ hours' rest, and we know that at the beginning of this century the usual working day was from 11 to 14 hours, and often longer, in the factories. The early factory acts were directed to the relief of young children and women. That of 1802 was the first, limiting the hours for children to 12 a day; that of 1819 placed the hours for children between the ages of nine and sixteen at 72 per week; and that of 1825 gave them a Saturday half-holiday. Sir John Hobhouse's act of 1831 reduced the hours for persons under eighteen to 69 per week. The reports of the factory commission (1832-33) took a wider view of the subject. They show that while the working day in many cases at that date ran to 13 hours, it often did not exceed 10 or 11, and was usually 12 to 12½. In Birmingham and Coventry, where the operatives worked, as they now do, chiefly at their own homes, and were independent, the day was usually less than 10 hours, often less than 9. It was about this time that Richard OASTLER and Lord Shaftesbury commenced to advocate a legal maximum of 48 hours per week, which

was adopted for children in the regulations for children under thirteen in the act of 1836. The Mines Regulation Act of 1842 was the next step in advance, and after the failure of a ten-hours bill for females in 1844, and of a similar bill for all persons in 1847, the legal day was made 10 hours in 1850. Apart from a certain agitation for further reduction, no advance was made on this till the Factory Act of 1874, which placed the limit at 56½ hours per week. The recent royal commission find that they have now a tendency to approximate to 54 a week. Recent efforts are dealt with in a separate article (EIGHT-HOURS MOVEMENT), but we may mention the Hours of Labour Bill in the session of 1891, and the Shop Hours Acts of 1892, under which no person under eighteen can be employed for more than 75 hours a week in shops.

In the British possessions there is little trace of a history similar to that of the FACTORY ACTS, but as a rule hours of labour are shorter than at home, and Australia is in advance of the whole world in this respect, as the eight hours system has there become thoroughly established since it was first adopted by the stonemasons of Victoria in 1856 (*vide* art. cit.). In Canada 10 hours is usual, but 9 hours not uncommon. At the Cape 9 hours is the usual length of the working day. In the tropics the style of labour is so different that the mention of any number of hours is hardly a fair criterion. The blue book of the recent royal commission on labour returns them at from 6 to 11 a day in the West Indies, and from 11 to 14 in India.

In most foreign countries there has been a slow growth of agitation in favour of a shorter working day, mostly following in the wake of English experience. Germany has had a special movement arising directly from the efforts of Karl MARX and his school. The United States have had the question settled almost without being raised, owing to the greater independence of labour and the greater profusion of apparent wealth amongst all classes.

In the same district we find different trades working different hours, even in our own country. There seems to be no regular principle determining this. Particular trades have obtained shorter hours by some special agitation often arising out of special events. Where, however, a direct service is rendered to the general public, as in tramcars and restaurants, hours tend to run to greater length.

And different reasons have conspired to bring about the shortening of hours in our own country and the colonies—*e.g.* in Australia climate was alleged as a factor.

[Hadfield and Gibbins, *A Shorter Working Day.*—Ricc. dalla Volta, *La Riduzione delle ore di lavoro e i sui effetti economici*, Florence, 1891.—Webb and Cox, *The Eight Hours Day*, 1891.—J. G Hobson in *Contemporary Review*, 1894-95.—*Report of the Royal Commission on Labour*—Parl. Paper C. 7421, 1894, p. 12, with the subsidiary reports and evidences especially, C. 6795-xi. f. 1893 (Colonial) and C. 7063, f. 1893-94 (Foreign), which form a very full account with full indexes in separate volumes *passim.*—*First Report of the Factory Commission of 1832.*—Schoenhof, *Economy of High Wages*, Putnams, 1892.—Rae, *Eight Hours' Day*, 1894.] C. A. H.

HOUSES, TAXES ON. See TAXATION.

HOWARD, JOHN (1727-1790), was the originator of the modern method of dealing with criminals. His career as a reformer dates from his appointment as high sheriff of Bedfordshire in 1773, when, struck with the abuses in the management of gaols, he was led to visit the prisons throughout the kingdom, and afterwards travelled several times over the whole of Europe, devoting his life to the inspection of prisons and hospitals. In his zeal to learn the true facts or to bring relief to prisoners, he never shrank from exposing himself to the infection of gaols, hospitals, and lazarettos; and ultimately died at Kherson of a fever which was raging there. The facts collected during these journeys were laid by him before the government, and many humane reforms were introduced on his suggestion, the most immediate of which were the two acts of parliament passed in 1774, for the relief of acquitted prisoners in the matter of fees, and for preserving the health of prisoners. He was also successful in introducing reforms in many foreign countries. Among those who most fully recognised his merits was Burke, whose eulogy of Howard, in his speech at Bristol in 1780, is well known. Howard's works include observations on the condition, both administrative and structural, of prisons, hospitals, lazarettos, etc., throughout Europe, together with proposed reforms. In preparing these for the press, he was greatly aided by his friend, Richard PRICE. Howard also paid much attention to the condition of the tenants on his estate at Cardington in Bedfordshire, providing sanitary cottages and schools.

The state of Prisons in England and Wales; with preliminary observations, and an Account of some Foreign Prisons and Hospitals, Warrington, 1777.—*An Account of the Principal Lazarettos in Europe, with various Papers relative to the Plague; together with further Observations on some Foreign Prisons and Hospitals; and Additional Remarks on the Present State of those in Great Britain and Ireland*, Warrington, 1789.

[J. Aikin, *A View of the Character and Public Services of the late J. Howard*, London, 1792.—W. A. Guy, "John Howard as Statist," *Journal of the Statistical Society*, vol. 36, and "John Howard's True Place in History"; *ib.* vol. 38.—Three *Prize Essays*, by A. Griffith, A. Rivière, and E. A. Cazalet, in *Actes du Congrès Pénitentiaire International* (1890), vol. v. St. Petersburg, 1892.]

R. H. H.

HOWE, JOHN BADLAM (1813-1882), born in Boston, Mass., died in Indiana.

He was the author of several works on money, as follows: *Monetary and Industrial Fallacies*, Boston, 1878, pp. 248.—*Political Economy of Great Britain, United States, and France, in the use of Money.—A New Science of Production and Exchange*, Boston, 1878, pp. 592.—*Monometallism and Bimetallism*, Boston, 1879.—*The Common Sense, the Mathematics, and the Metaphysics of Money*, Boston, 1881, pp. 329. The last of these is a summary of the others. D. R. D.

HOWLETT, JOHN (1731-1800), clerk in holy orders and statistician. Howlett's works merit attention on account of his independence of thought and careful investigation of fact. His researches brought him into considerable opposition to Dr. PRICE (*q.v.*) who—writing in 1779—concluded that the population of England and Wales must have decreased since the Revolution near a quarter, while Howlett showed that it must have increased. With reference to enclosures, at that time of great consequence, Howlett consistently maintained that they were rendered necessary by the increase in population, and resulted in agricultural improvement.

The nature of Howlett's interests can be gathered from the titles of his works:

An Examination of Dr. Price's Essay on the Population of England and Wales, 1781.—*An Inquiry into the influence which Enclosures have had upon the Population of England*, 1786.—*An Essay on the Population of Ireland*, 1786.—*Enclosures a cause of improved Agriculture*, 1787.—*The insufficiency of the causes to which the increase of our Poor and the Poor's Rates have been generally ascribed*, 1788.—At the end of Wood's *Account of the Shrewsbury House of Industry*, is a correspondence with Howlett, 1795.—*An Examination of Mr. Pitt's Speech in the House of Commons on 12th February 1796, relative to the condition of the Poor*, 1796.—*Dispersion of the present gloomy apprehensions of late repeatedly suggested by the decline of our Corn Trade*, 1798.—*The Monthly Reviewers reviewed*, 1798.—*An Inquiry concerning the influence of Tithes upon Agriculture.*

[See references in Dugald Stewart, *Lectures on Political Economy*. An article in the *Dictionary of National Biography* by the present writer gives more details with regard to Howlett's private life, etc.] E. C. K. G.

HÜBNER, OTTO (1818-1877), first a merchant, subsequently manager of one of the departments of the Austrian Lloyd Steam Boats Company, made himself prominent as one of the leaders of the German free-trading party. Exiled from Austria after the revolutionary events of 1848, he spent the remainder of his life in Berlin, and supervised, from 1852, the publication of his *Jahrbuch für Volkswirthschaft und Statistik* (Year-book of Public Economy and Statistics), and from 1869 the *Zolltarife aller Länder* (Customs Tariffs of all Countries).

In his book on *Banken* (1854) he maintained that paper currency ought always to be covered by an equal amount in cash. In 1864 he started with success a joint-stock insurance company destined to protect lenders on mortgage against the risks incurred in case of public sales of real estate given in guarantee of loans.

He also wrote a book on the *Finanzlage der Oesterreichischen Monarchie und ihre Hülfsquellen* (Financial Condition and Resources of the Austrian Monarchy) (1849). [See *Allg. Deutsche Biographie.*] E. Ca.

HUC, E., ABBÉ (1813-1860). After having resided in and travelled through China, Tartary, and Thibet during the years 1839-1846, this well-known French missionary published in 1850 his *Souvenirs d'un Voyage dans la Tartarie, au Thibet, et en Chine* (2 vols., 1850) with a sequel *L'Empire Chinois* (2 vols., 1857); the latter contains numerous notices and observations on trade, administration, navigation, etc. The fourth chapter of vol. ii. deals almost exclusively with these subjects, and gives some extracts from Chinese writers on the same topics. The same volume (pp. 72-83) presents us with a lively sketch of Wang-nan-Che, a Chinese socialist and harbinger of Mr. Henry George's views on the nationalisation of land, who lived in the 11th century after Christ.

The *Empire Chinois* obtained a prize from the French Academy, and has been translated into English; the Abbé Huc certainly does not belong to the class of "stupid" missionaries who excited the contempt of Adam Smith. E. Ca.

HUDSON'S BAY COMPANY. After the voyage of adventure and discovery of Captain Newland in 1669, a charter was granted (May 2, 1670) to the adventurers who had taken part in sending out that expedition, constituting them a company with exclusive trading rights in Hudson's Bay and the surrounding district, by the title of *The Governor and Company of Adventurers of England trading into Hudson's Bay*. Though after the revolution the power of exclusive trading based on royal charter came to an end in this and in other instances, the charter of the Hudson's Bay Company was confirmed by act of parliament for seven years; and the capital possessed by the company, with, in addition, the settlements and forts already founded practically secured it against competition. The company had, however, to endure the direct hostility of the French, who pressed into the territory traversed and worked by the company from Canada. By 1682 the company had five settlements, respectively at Albany River, Hay's Island, Rupert's River, New Severn, and Port Nelson, but with the exception of the last-named, these were all taken by the French in 1686. During the subsequent French war success fluctuated, inclining, however, to the side of the French. By the peace of Utrecht (1713) the forts were re-

stored to the company and reparation promised. This promise does not appear to have been satisfactorily fulfilled.

During the middle of the 18th century the company sustained a severe assault on its powers and privileges, as it was alleged that despite these it had done little or nothing to open up the territories under its control. Its trade was not great. A parliamentary inquiry instituted in 1749 reported at length but no action followed upon it. Over some of the lands the company had acquired definite legal rights, while throughout the whole country it claimed certain privileges.

In 1811 its rights came once more under dispute, and a considerable struggle took place between it and its chief competitor, which ultimately resulted in a coalition against all others.

The company still remains and carries on trade, though the purchase of its territory (1868) by the Dominion of Canada deprived it of any remaining claim to any powers beyond those of an ordinary trading company.

[Macpherson, *Annals of Commerce.*—Cunningham, *Growth of Engl. Industry and Commerce*, vol. ii.—Adam Smith, *Wealth of Nations*, bk. v. ch. i., as to the Trade of the Company.]

E. C. K. G.

HUET, François (1816-1865), the author of *Le règne social du Christianisme* (1853), a liberal Roman Catholic, the representative of what he terms ideal Catholicism, and a social idealist whose theories do not vary much from those of modern "social catholics" in France and Belgium (see Christianity and Economics). M. de Laveleye's high opinion of this writer's views was fully expressed on p. 137 of the 2nd edition of his *Socialisme Contemporain*. It is to F. Huet and J. S. Mill that De Laveleye dedicated his work on primitive property. Huet is equally opposed to individualism, as being founded on materialism, and to communism as the child of pantheism. He advocates liberal socialism as lying midway between the two extremes, and as resting on a theistic foundation or spiritualistic philosophy. Hence in the second book of his work he treats of "la Société spirituelle," in which the religious interest stands highest, whilst the third book is devoted to "la Société matérielle." In the latter he draws a distinction between "les biens patrimoniaux" and "biens acquis." The latter only was the result of individual labour, and as such can be claimed as private property. The former belong to society as a whole, such as land, etc., the gifts of the earth to which all have an equal right. These should return to the community, as public property, on the death of the present occupier. The first article of Huet's right of inheritance is as follows: Every year a division takes place of the *biens patrimoniaux* released by death. All young people of both sexes aged from fourteen to twenty-five have a share in it, the latter receiving twice the amount of the former. From this it will be seen that the standpoint of the author is that of an advanced Christian Socialist, whose endeavour it is to prove the identity of Christian liberty and the socialistic idea.

[F. Huet, *Le règne social du Christianisme;* cp. an article by G. Kriegmann in *Preussische Jahrbücher*, January 1887.]

M. K.

HUET, Pierre Daniel (1630-1721), member of the French academy, and tutor under Bossuet of the son of Louis XIV., directed the publication of the editions *ad usum Delphini* of classical authors, and enjoyed in his time a great celebrity for his erudition, which was rather wide than deep. He wrote several books of religious and philosophical controversy, autobiographical memoirs (in Latin, but since translated into French by M. Nisard), and a *Dissertation on Navigation under Solomon* (1698). Appointed bishop of Soissons in 1685, he had not yet taken possession of his see when he was transferred in 1689 to the bishoprick of Avranches. Shortly afterwards he retired to the abbey of Fontenay near Caen, to devote himself entirely to his learned researches. People wondered why the king had appointed a bishop who had not yet reached the end of his studies.

His *Histoire du Commerce et de la Navigation des Anciens* (1 vol., issued anonymously in 1716, and republished in Lyons in 1763, with the author's name) had been written at the request of Colbert, a long time before it appeared. Commencing at the creation, and including the Persians, Chinese, etc., this book is certainly a rather shallow production, but to be fair, we ought to remember what Huet himself stated in his dedication to Colbert: "Only such an authority as yours could draw me away from the studies which have always engrossed my attention, to direct it towards another so different. . . . No forerunner has opened the road for me, I had no guide to lead me, and no support on which I could lean" (See "Huet," in *Collected Essays*, by Rev. Mark Pattison, Oxford, 1889).

E. Ca.

HUFELAND, Gottlieb (1761-1817), a distinguished German economist, was born at Dantzic, studied at Leipzig, Göttingen, and Jena, and became in 1788 extraordinary, and in 1793 ordinary, professor in the university of the last-mentioned place. He passed in 1803 to the high school of Würzburg, and in 1806 to that of Landshut. From 1808 to 1812 he was bürgermeister of his native city, then republican; in the latter year he returned to Landshut, where he resumed his academic occupations, and in 1816 removed to Halle, where in 1817 he died. His principal economic publication—for he also wrote on jurisprudence—was *Neue Grundlegung der Staatswirthschaftskunst durch Prüfung und Berichtigung ihrer Hauptbegriffe*, vol. i., 1807; vol. ii., 1813.

The second volume appeared in a new edition, 1819, with the title *Die Lehre vom Gelde und Geldumlaufe*. His principles were essentially those of Adam Smith, of whom he speaks with warm admiration in the preface to his work; and he did much to extend the knowledge and acceptance of the English economist's doctrine in Germany.

[Roscher, *Gesch. der N.O.*, p. 654.] J. K. I.

HÜLLMANN, KARL DIETRICH (1765-1846). Appointed professor of history in 1797 at the university of Frankfurt on the Oder, and in 1808 of history and statistics at Königsberg, Hüllmann was sent in 1817 to Bonn, where he was the first rector of the then recently-inaugurated university; for years he acted as the confidential representative of the Prussian government. His literary activity was considerable, as appears from the long list of his historical works.

As an historian, Hüllmann had a decided conservative bias, modified however by the liberal tendencies of the times in which he lived. This appears very clearly from the address to the Germans (*Zuschrift an die Deutschen*), which serves as a preface to the second edition (1830) of his *Geschichte des Ursprungs der Stände in Deutschland* (Origin of the (political) Classes and States in Germany). His best-known work is the *Städtewesen des Mittelalters* (Town Life and Administration in the Middle Ages), 4 vols. Bonn, 1826; "This is still," writes Prof. Ashley in his *Ec. History* (vol. i. pt. ii. p. 5), "the most complete attempt to cover the whole ground of mediæval civic life, and it illustrates the general similarity of conditions all over Western Europe." His other works are *Deutsche Finanzgeschichte des Mittelalters* (1805), giving the history of the mediæval finances of the German empire, not of the various German states, with a supplement on the origin of regal dues (*Ursprung der Regalien in Deutschland*, 1806); *Geschichte der Domänenbenutzung in Deutschland*, 1807 (History of the Management of the State Domains in Germany); *Gesch. des Byzantinischen Handels* (Hist. of Byzantine Commerce), 1808; *Handelsgeschichte der Griechen* (Hist. of Greek Commerce), 1839; he also wrote on the Political Systems of the Ancients (*Staatsrecht des Alterthums*, 1820); the Origin of the Mediæval Ecclesiastical System (*Ursprünge der Kirchenverfassung des Mittelalters*, 1831); the Roman and the Jewish constitutions, etc. E. Ca.

HUMANISM, ITS INFLUENCE ON ECONOMICS. By humanism we mean that tendency of the earlier and later Renaissance which makes the culture of humanity its chief aim, and which in its anthropocentric view of life affects in a marked degree the course of economic theory and practice. As a revolt against the mediæval views of life, being pagan in its origin, it attaches supreme importance to human happiness here below, and puts temporal above spiritual interests. Humanism, in short, as Mr. Symonds defines it, "is an ardent interest in men as men." Hence the beauty of the human form as in classical art, of human virtue according to classical models, and human rights and liberty as conceived of in the republics of antiquity, are its ideals. Accordingly Roscher notes five points of contact between the progress of humanism and that of political economy. (1) As the classical writers represent a high state of civilisation, they raised the general standard of culture and tended to accelerate efforts in the division of labour and the economy of wealth as means thereto; (2) As the higher life of the ancients was mostly developed in the town, so a study of the classics would help in giving force and direction to civic industry of the rising towns towards the close of the middle ages; (3) The patriotism breathing in the classics would stimulate the consciousness of national life and thus encourage the centralising tendencies of "national" economy; (4) The mixed elements of imperialism and democracy reflected in the classical writers would on the other hand foster monarchical absolutism as in the mercantile system, and also its democratic counterpart in the *laissez-faire* doctrine of political economy; (5) The cultivation of the critical spirit of the humanist, which, undermining as it did the foundation of authoritative religion, tended to disparage the spiritualistic ideals of life held up by Christianity in favour of material aims and materialistic pursuits in the place of heavenly felicity. It will be convenient to consider the influence of humanism under these five heads:

1. *Classical culture*, with the revival of learning, brought into prominence the economical doctrines of ARISTOTLE and PLATO, the theory both of state and household economy (*πολιτικὴ ἐπιστήμη* and *οἰκονομία*) from which political economy derives its modern appellation. Aristotle's doctrine of wealth (*χρηματιστική*) and Plato's ideas of the division of labour, and his view of the danger of private property, contain the germs of the science. In a lesser degree this is true of Cicero, Seneca, and Pliny the elder, the first of these, as translator of the *Economics* of Xenophon, being among the earliest economists who show a decided preference for agriculture over manufactures and trade (see Professor Cossa's *Introduzione allo Studio dell' Economia Politica*, 1892, pp. 149 *seq.*; *ib.* 160-161, English edition 1893; *ib.* 129-140). Not only philosophers and jurists in the 14th century, but humanists such as GERSON, who paid much attention to the theory of value, follow Aristotle (*ib.* 102-105), whilst in the 15th century, when the progress of industry and literary culture were at their height, we find Erasmus platonising in his warnings against overestimating the accumulations of wealth, yet at the same time with Aristotle recognising the importance of commerce, and of money as a means of exchange. Another typical humanist, Ulrich von Hutten, inveighs against luxuries

and monopolies, whilst CAMERARIUS, one of the younger humanists, combated mediæval objections to payments of interest. MORE'S *Utopia*, like *The Christian Prince* by Erasmus, bears witness to the influence of classical modes of thought; the keynote in both is "that the object of nations and governments is the common weal of the whole people."

2. *Civic Industry.*—It was in Italian republics, in cities like Florence for example, that the spirit of the Renaissance found its fullest expression (see CITY, MEDIÆVAL); and here, too, the classical ideal of an urban or municipal republic was most closely approached. As the classical modes of industry were reproduced, so here, too, with heightened prosperity and luxurious refinement, we meet the same sharp contrast between rich and poor as of old. There are conflicts between the merchants and the craftsmen: and Savonarola, in one of his sermons, recommends the passing of a law for opening shops and providing work "for the populace now idling in the streets." In estimating the effect of humanistic studies on economic progress there is room for divergency of opinions. Thus, according to Mr. Symonds, "fresh value was given to the desires and aims, enjoyments and activities of man, considered as a noble member of the universal life" (*Revival of Learning*, pp. 46-47). On the other hand Mr. W. S. Lilly, *Nineteenth Century*, p. 5 (Jan. 1893), speaks thus disparagingly of the Renaissance: "It might with far greater truth be called a new birth into servitude. This it was assuredly, both in the political and *economic* order." It has been noticed, too, how in the Germanic towns the energising influence of revived and reformed Christianity, and its consecration of honoured labour, modified the enervating effects of the Renaissance and militated against the classical contempt of handicrafts. We might select as an illustrative instance of this the "city" of London with St. Paul's as the temple of the Renaissance, and the school close by founded by the humanist Dean Colet, with the Royal Exchange founded about the same time in the vicinity of Lombard Street, as bearing the various traces of a contemporary development of commerce, and culture, and religion, under the conjoint influence of the Reformation and Renaissance—an instance showing the truth of M. E. de Laveleye's dictum that "the countries which have embraced the Reformation are decidedly in advance of those which have stopped short at the Renaissance. . . The Renaissance was a return to antiquity, the Reformation a return to the gospel. The gospel being superior to the tradition of antiquity, was sure to yield better fruits" (*Protestantism and Catholicism in their bearing upon the liberty and prosperity of Nations*, p. 32).

3. *Patriotism.*—The pagan view of tribal morality, and its tendency to subordinate the interests of the individual to those of the community, and which as in the neo-paganism of our own time attempts to find in it a kind of substitute for religion, as an antidote against "de-ethicising" influences of scepticism, exercised an important influence on the development of economics in the humanistic era. For the growth of national sentiment stimulated national egoism, and on this is founded the MERCANTILE SYSTEM of political economy. In this respect the effects of the Renaissance were similar to those of the Reformation (see CHRISTIANITY AND ECONOMICS: "Influence of Protestant Thought").

4. *Imperialism and Democracy.*—The humanists, too, like the reformers, and, it might be added, like the rising towns, had a strong leaning towards royalty and regal protection in the struggle against the common enemy, the rude feudality and barbarian aristocracy of the day. Hence they encouraged royal absolutism. In economics this produced *Colbertism*, or the centralisation of trade and commerce and the establishment of royal monopolies. It also led to the creation of "state romances," or pictures of ideal commonwealths like Fénelon's *Voyage en Salente*, in which an important rôle is assigned to benevolent despotism in the economic management of the state. This is in strict correspondence with the classical conception that the head of the state like the head of the family has the *patria potestas*, hence the idea of patriarchal government as the representative of the state. Royalty, as Guizot puts it, was "la personnification de la souveraineté du droit," just as in imperial Rome the head of the state was "la personnification de l'État, l'héritière de la souveraineté et de la majesté du peuple romain" (*Histoire de la civilisation en Europe*, 6th edition, pp. 221 and 228). Thence were derived the earlier cameralistic and later bureaucratic methods of national economy culminating in the *Ancien Régime*, during which, "en pleine renaissance," to use the words of De Tocqueville, it was the fashion to consider "le droit de travailler comme un privilége que le roi peut vendre" (*Ancien Régime*, p. 154). The reaction against this was the individualism of the revolution, in which the opposite or democratic conception of individual rights finds its expression. "The whole movement of humanity from the Renaissance onward has tended in this direction, *i.e.* the Utopia of a modern world in which all men shall enjoy the same social, political, and intellectual advantages"—in short, "the organisation of society in harmony with democratic principles" (Symonds: *Renaissance in Italy*: I. *Age of the Despots*, p. 30). In the same way Rousseau's demand for a return to nature, where all are free and equal, has been traced to a revival of classical stoicism, and the passionate enthusiasm of French lawyers for "natural law," the *jus*

naturæ of Hobbes and Grotius, on which is founded the theory of the rights of men and the demand for natural liberty extended to commerce and economics. This was adopted by A. Smith from the physiocrats, whose chief dogma is to leave everything to nature and natural laws, and not to interfere with the play of natural forces; *i.e.* in the language of A. Smith, not to interfere with the obvious and simple system of natural liberty in the economic world. In this demand appeals are made constantly to the "ancients" by revolutionists in their cries for liberty and equality, as the article on political economy written for the *Encyclopædia* by Rousseau "rings with the names of ancient rulers and lawgivers" (see Morley's *Rousseau*, vol. i. 145 and 191 *seq.*), whilst one of the chief promoters of the doctrine of *laissez-faire*, the Marquis D'ARGENSON, looks to the ancient Greek republics as ideal communities where true liberty prevailed. But from this doctrine of "following nature" are derived other doctrines of "classical economy," such as the "natural increase of capital," and the "natural right of property," which produced in their turn great inequalities, and led on to the socialistic reaction in favour of collectivism and revolt against the power of "capitalism." The latter leans itself for support on the Roman law of private property, just as government direction of trade and commerce was an imitation of classical Cæsarism. Thus both the idea of individualism in the sense of personal liberty, and the collective individuality of the state, the leading doctrines of abstract and historical methods of political economy respectively, may be traced to the influence of classical conceptions revived by humanistic studies under the two-fold aspect of society as a collection of free citizens under the rule of popular sovereignty and a corporate personality with imperial power as the central organ of government, the two modern autonomies in politics and economics alike having for their object on the one hand the independence of man, and on the other the centralisation of society.

5. *Criticism.*— The critical spirit which humanistic studies and the contemporaneous progress in the natural sciences both in the 15th and 18th centuries called forth was antagonistic to the spiritualistic conceptions of Christianity. The epicureanism of the Novi Homines of the Renaissance and the naturalism of the Encyclopædists of the Revolution had for their aim either the culture of human nature, or the use of the newly-discovered forces of nature for the purpose of heightening the "splendid materiality" which captivated all minds then as now. In short, literature, art, and science were all to serve the purpose of terrestrial happiness. The effect of this on political economy as the science of wealth was stimulating. It directed all effort now set free towards the acquisition of material goods, as, also, it received a special impetus from the contemporaneous liberation of mind, and the growth of commercial enterprise owing to the revolution of prices in consequence of the discovery of America in the 15th, and the revolution of industry by steam and machinery in the 18th centuries. These combined in awakening both the spirit of curiosity and cupidity, the love of learning, and the lust of money as the result of the "outburst of new life, the carnival of liberty and energy." The development of the individual and the progress of society was the superstructure built, or attempted to be erected, on this material basis. Later on the philanthropic or humanitarian as distinguished from the purely humanistic elements of the earlier and later Renaissance are brought into prominence with the characteristic appearance of the "religion of humanity." A corresponding movement in political economy arises which seeks to incorporate it into the science of society, having for its paramount object the evolution of humanity. Henceforth the "economic man" is no longer considered merely in his relation to the community as in classical times, or as the "man as a machine" moved by self-interest and made what he is by the mechanism of natural laws, as in the natural revival of the last century; but he is now considered as a social unit in his relation to aggregate humanity, pursuing a higher ideal intellectually and morally, *i.e.* the highest development of man and society (see CARLYLE; CHRISTIAN SOCIALISM; A. COMTE).

[Refer to J. A. Symonds on the *Renaissance in Italy*, cited above.—W. ROSCHER, *Geschichte der Nationaloekonomik in Deutschland* (1874).—H. Eisenhart, *Geschichte der Nationaloekonomik* (1881).—A. Oncken, *Die Maxime laissez-faire et laissez passer, ihr Ursprung, ihr Werden* (1886); *Adam Smith in der Culturgeschichte* (1874).—H. von Scheel, *Geschichte der politischen Oekonomie in Handbuch der politischen Oekonomie*, 3rd ed. (1890).—Luigi Brentano, *Die klassische Oekonomie*, Vortrag (1888).] M. K.

HUMBOLDT, ALEXANDER VON, Baron (1769-1859). Besides his writings on natural sciences, the following works of this celebrated traveller, written in French and published in Paris, are entitled to be noticed from the economic standpoint: *Voyage aux régions équinoxiales du Nouveau Continent* (1807); *Essai politique sur la Nouvelle Espagne* (1811); and *Essai politique sur l'Ile de Cuba* (1826), as well as *l'Examen Critique de l'Histoire de la Géographie du Nouveau Continent et des Progrès de l'Astronomie Nautique aux XVe et XVIe Siècles* (1834). In 1848, the *Journal des Économistes* published a translation of his historical and statistical *Mémoire sur la Production de l'Or et de l'Argent considérée dans ses Fluctuations* (also printed separately, with a preface by M. Michel Chevalier) which had appeared several years before in a German quarterly review (*Ueber die Schwank-*

ungen der Goldproduktion in *Deutsche Vierteljahrschrift*, October 1838). It is interesting to notice that in this *mémoire* Humboldt predicts that new silver mines will one day be worked in northern America; he expects the future source of gold supply to be the Altai mountains in Central Asia. E. Ca.

HUMBOLDT, Wilhelm von (1767-1835), brother of Alexander von Humboldt, the traveller, was descended from a noble family in the Mark of Brandenburg. He was early associated with the celebrated Weimar circle, and much influenced by Goethe and Schiller. One of the foremost scholars of his age, renowned in literature, æsthetics, and the science of language, he fills a large space in the intellectual history of Germany. He ranks among economists by virtue of his work, written when he was still a young man, in 1792, *Ideen zu einem Versuch die Gränzen der Wirksamkeit des Staates zu bestimmen*, not published in full until after his death (by Dr. E. Cauer, Breslau, 1851), in which he pushes to the utmost extreme the limitations of the functions of the state. J. S. Mill in his book *On Liberty* highly commends this "excellent essay"; but, in fact, it so exaggerates the doctrine of objection to government interference as practically to refute it. The author restricts the action of the state to the preservation of external and internal security, and excludes from it all positive solicitude for the prosperity, nay, even the character and culture, of the nation. The immaturity of the ideas expressed in this essay is obvious. In his zeal for the supremacy of the individual, he proposes that marriage should be terminable at the will of either party, and without any allegation of reasons—a suggestion from which Mill thought it necessary to express his *partial* dissent. The most complete *ad hominem* answer to his doctrines is supplied by his own activity at a later date in the cause of educational reform in Prussia. In 1809, immediately after the retirement of Stein, and when Altenstein was minister, Humboldt returned from Rome, where he had been Prussian representative at the papal court, and was placed at the head of the section of public worship and instruction under Dohna, who had the general control of the department of the interior. In this capacity he devoted himself to the reform of education in the primary schools and high schools and crowned his work by the foundation of the university of Berlin, procuring for it a large public endowment. Afterwards we find him turning his attention to finance and public economy, a study in which he was encouraged by Stein, who recommended to him in particular the writings of Forbonnais and Ganilh. But his most conspicuous activity in later years was in the fields of politics and diplomacy, into which we cannot here follow him.

[Seeley's *Life and Times of Stein, passim.*—Dove in *Allg. Deutsche Biogr.*—Good account in R. Fester's *Rousseau und die deutsche Geschichtsphilosophie*, 1890, pp. 292-309.] J. K. I.

HUME, David (1711-76), philosopher, historian, and economist, was born at Edinburgh. He was "seized very early with a passion for literature." After fruitless efforts to apply himself to law and commerce, he paid, in 1734, a three years' visit to France, where he laid down his future plan of life. "To make a very rigid frugality supply my deficiency of fortune . . . and to regard every object as contemptible except the improvement of my talent in literature." In 1738 he published his *Treatise of Human Nature*, which contained, though in bald outline, the substance of the future philosophical writings; and in 1742 the first series of *Essays Moral and Political*, which was favourably received. After a twelve months' tutorship of Lord Annandale, he was appointed in 1746 secretary to General St. Clair, and in this capacity visited the courts of Vienna and Turin, wearing, according to Lord Charlemont, his uniform "like a grocer of the trained bands." *The Enquiry concerning the Human Understanding*, a recast of the first portion of the *Treatise*, was published in 1748. The years 1749 and 1750 were spent at his old home, Ninewells, in the composition of the *Political Discourses*; "The only work of mine that was successful on the first publication"; and in the recasting of another portion of the *Treatise* into the *Enquiry concerning the Principles of Morals*. "Of all my writings, in my own opinion . . . incomparably the best." In 1752, Hume became librarian to the Faculty of Advocates, and planned the *History of England*, successive portions of which appeared in 1754, 1756, 1759, and 1761. In 1753, he wrote the Essays *On Suicide* and *On the Immortality of the Soul*, which were printed, but promptly suppressed. *The Natural History of Religion* was finished in 1757, but was not published during Hume's life. In 1763 Hume accompanied Lord Hertford to Paris, where his stay was a continuous triumph. Among others who were brought to do him honour, were the future kings, Louis XVI. and Louis XVIII. Returning to England in 1766, he was appointed, in 1767, Under secretary of State, an office he held for a year. In 1769 he returned to Edinburgh, "very opulent." Six years later he was attacked by a mortal disease, and met death with the fortitude and cheerfulness of a philosopher. He appointed his friend Adam Smith his literary executor.

In Hume's own words, he was "a man of mild disposition, of command of temper, of an open, social, and cheerful humour . . . and of great moderation in all my passions." In justice, however, it must be added, that his letters display a less pleasing side of his character, and modify,

though they do not reverse, the above verdict. The intemperate extravagance with which everything English is continually condemned, the restless vanity that no praises can satisfy, show the other side to the shield.

It has been asked why the labours of Hume in philosophy came to so sudden an end? "His contributions to metaphysics were written by 1736, when he was five-and-twenty; his contribution to the philosophy of religion by 1750, when he was thirty-nine; and after this date, he added nothing." At least two answers may be given, each in itself perhaps sufficient. Hume dearly loved fame, and the *Essays* obtained what had been denied to the *Treatise*. Again, Hume had nothing in him of the martyr's temperament; he loved to stand well in the thoughts of the great and the respectable; for this purpose Tory politics were more profitable than heretical philosophy. Be this as it may, it is possible that Hume had already made his full contribution to metaphysics, while the gain to political philosophy has been great. *The History of England* need not detain us; if it is still read, it is merely on literary grounds. But the two sets of *Essays, Moral and Political*, the later of which was first published under the name of *Political Discourses*, are without doubt *κτήματα ἐς ἀεί*. The original essays, amidst much ephemeral matter, on *Standard of Taste*, etc. (wherein Bunyan and Addison are compared to a pond and the ocean), contain within them a system of political philosophy. The object of government is the distribution of justice; "in other words, the support of the twelve judges." There is a "perpetual intestine struggle" between authority and liberty, of which the former must be "acknowledged essential to the very existence of society," while the latter is "its perfection." Parliament, "while, from our very constitution, it must necessarily have as much power as it demands, and can only be confined by itself," is, in fact, restrained by the interest of the individuals composing it, differing from the interest of the body as a whole, inasmuch as they are individually amenable to the influence of the crown. Absolute monarchy is the "true Euthanasia of the British constitution," as being preferable to pure democracy.

In approaching Hume as economist, it must always be remembered that political economy grew out of political philosophy, and that Hume is still in the transition stage. Although he believes in the possibility of a science of economics, and describes its subject-matter, he does not use the term. The economic essays were published (1752) in a volume entitled *Political Discourses*, and the subjects discussed —commerce, refinement in the arts, money, interest, balance of trade, jealousy of trade, taxes, and public credit—are regarded largely from the statesman's standpoint. In his opposition to the views of the mercantilists, upon the BALANCE OF TRADE (*q.v.*), and the precious metals, he had been forestalled by BARBON and Sir Dudley NORTH. His description of wealth recalls the statement in Berkeley's *Querist*, that it consists "of the four elements, and man's labour therein." Even in his theory of interest, Hume had been anticipated by Barbon, and, more recently, by MASSIE. Nevertheless, the lucidity of his style, the subtlety with which the subjects of money and interest, in especial, are treated, and his connection with Adam SMITH, make Hume an important figure in the history of economics.

As an instance of his marvellous acuteness, may be noticed the letter addressed to A. Smith, on the appearance of the *Wealth of Nations*. After cordial congratulations, Hume proceeds at once to seize upon the points most open to criticism. "I cannot think that the rent of farms makes any part of the price of the produce, but that the price is determined altogether by the quantity and demand (*v.* RENT). It appears to me impossible that the king of France can take a seignorage of 8 per cent upon the coinage. Nobody would bring bullion to the mint, it would be all sent to Holland or England" (p. 286 in Rae's *Life of A. Smith*).

In tracing the development of wealth, Hume considers that the advance of agriculture promotes manufactures, by giving rise to superfluous hands. These must either find employment in manufactures or become soldiers. Sometimes the interests of the sovereign and the people are at issue, as to which the choice shall be. As a rule, however, even in the interests of the sovereign, it is well to have a manufacturing class, because they form a reserve fund upon which the state can draw in time of need. "Everything in the world is purchased by labour, and our passions are the only causes of labour." Hence, even avarice and luxury become spurs to industry. "The camp is loaded with a superfluous retinue, but the provisions flow in proportionally larger." MANDEVILLE (*q.v.*) is wrong, and vice, in itself, is never advantageous, but two opposite vices may be more advantageous than one alone. "By banishing *vicious* luxury, without curing sloth or indifference to others, you only diminish industry." Foreign commerce is justified upon similar grounds. "It increases the stock of labour." Imports furnish materials for new manufactures, and exports produce labour in commodities which could not be consumed at home. The acute remark is appended that foreign trade generally precedes refinement in the home manufactures, and gives birth to domestic luxury. In a noteworthy digression, Hume, following LOCKE, asserts strongly the claims of the labouring classes. A too great disproportion of property is a source of weakness. "Every person, if possible, ought to enjoy the fruits of his labour in a full possession of all the necessaries and many of the conveniences of life." The *power of the state* is thereby augmented, in its capacity to bear taxation.

In the *Essay on Money*, the error of those who held that money was more than a commodity is clearly demonstrated, but it is not clear how far Hume always kept himself free from the opposite error of holding it to be less. Money "is none of the wheels of trade; it is the oil which renders the motion of the wheels more smooth and easy." Men and commodities are the real strength of a community. In a single isolated country, the quantity of money can make no difference, while, in international commerce, the dearness of everything, including labour, which prevails in rich countries, ultimately enables poorer countries to undersell them in neutral markets. "It seems a maxim almost self-evident that the prices of everything depend on the proportion between commodities and money, and that any considerable alteration of either has the same effect, either heightening or lowering the price. Increase the commodities, they become cheaper; increase the money, they become dearer; as, on the other hand, a diminution of the former and that of the latter have contrary tendencies." Hence industrial preponderance is continually shifting. Modern improvements in transportation and labour-saving appliances may successfully check this tendency. But if a mere increase in the amount of money is not, in itself, a benefit, how comes it that it does, in fact, seem to promote prosperity? Hume's answer to this question is one of his most important contributions to economics. An increase in the amount of the precious metals is not followed at once by an advance in prices. "Though the high price of commodities be a necessary consequence of the increase of gold and silver, yet it follows not immediately upon that increase." It is only in the interval "between the acquisition of money and the rise of prices that the increasing quantity of gold and silver is favourable to industry" (*v. Money in its relations to Trade and Industry*, by F. A. Walker, London, 1880, pp. 84-87). Hume clearly points out that only circulating money and circulating commodities operate on prices. He does not, however, perhaps fully take into account the rapidity of circulation. Every absolute or relative increase in the amount of money need not produce a corresponding diminution in its value; the number of trade transactions may increase proportionally. In opposition to Locke and PETTY (*q.v.*), Hume demonstrates that low interest does not arise from plenty of money. High interest arises from a great demand for borrowing; little riches to supply that demand, and great profits from commerce. Low interest arises from the opposite circumstances. The class of landed proprietors is generally spendthrift, and, when it predominates, borrowers will be numerous, and the rate of interest high. Merchants on the other hand are generally frugal, and an increase of manufactures gives rise to a new lending class, and thereby lowers interest. Low interest and low profits mutually forward each other. It is idle to ask which is cause and which is effect; they both arise from an extensive commerce. "Interest is the barometer of the state, and its lowness an almost infallible sign of prosperity." Roscher finds in the essay on interest the first clear germ of the important doctrine that "a change in the channels of international trade, which in most countries is the only source of gold and silver, may make the price of the precious metals dearer in one place and cheaper in another, even while the conditions of the production of the mines remain entirely unaltered."

The essays of the *Balance and Jealousy of Trade* contain a clear statement of sound doctrine. "The more is exported of any commodity, the more will be raised at home, of which they themselves will always have the first offer." "I should as soon dread that all our springs and rivers should be exhausted, as that money should abandon a kingdom where there are people and industry." With his habitual caution, however, Hume safeguards himself. He approves of duties on foreign goods, which tend to encourage home manufactures. Still, the only commercial nations which need dread the improvements of their neighbours are such as flourish only by being brokers or carriers. With regard to taxes, the best are such as are levied upon consumption, especially those of luxuries, because these taxes are least felt. Hume denies that all taxes fall ultimately upon the land (see PHYSIOCRATS). If the artisan be taxed, he may be able to pay, by superior industry or by frugality, without raising the price of his labour. Before the spectacle of national indebtedness, Hume's usual optimism fails him. "Why should the case be so different between the public and an individual?" National debts enrich the capital at the expense of the provinces, put the country at the mercy of foreigners, and encourage an idle class of fund-holders. Public stocks are a kind of paper credit, and have all its disadvantages. The taxes, which the interest necessitates, either raise wages, or inflict hardships on the people. "Either the nation must destroy public credit, or public credit will destroy the nation . . . When I see princes and states fighting and quarrelling amidst their debts, funds, and public mortgages, it always brings to my mind a match of cudgel-playing fought in a china-shop." Repudiation would, however, soon be followed by a revival of credit. "Mankind are in all ages caught by the same baits: the same tricks . . . still trepan them. The heights of popularity and patriotism are still the beaten road to power and tyranny,

flattery to treachery, standing armies to arbitrary government, and the glory of God to the temporal interest of the clergy."

[The best edition of Hume's works is in four volumes, edited by T. H. Green and T. H. Grove, 1875, 8vo. The economic essays are in vol. i. of the two volumes of *Essays, Moral, Political, and Literary*.—J. Hill Burton, *Life and Correspondence*, 2 vols., Edinburgh, 1846, 8vo; and *Letters of Eminent Persons to D. Hume*, Edinburgh, 1849, 8vo, throw light on the economic side of Hume.—The chapter on Hume in J. Bonar's *Philosophy and Political Economy*, London, 1893, 8vo, brings out Hume's position in the history of economics.—Allusions to the essays will be found *passim* in the notes to Roscher's *Principles of Political Economy*, translated from the thirteenth edition by J. Lalor, New York, 1878, 8vo.—Walker's *Money*, New York, 1877, 8vo.—and Gibbs' *Colloquy on the Currency* are among the books which discuss his views on money and interest, London, 8vo.—John Rae, *Life of Adam Smith*, London, 1895, 8vo.—Prof. T. H. Huxley, *Hume*, in John Morley's Men of Letters series.] H. E. E.

HUME, James Deacon (1774-1842), entered the custom house at the age of sixteen. In 1822 he undertook the consolidation of the laws of the customs, which he completed in 1825. In his introduction, Hume states that he was "selected for this service for his supposed practical knowledge of the business of the department, and not for legal knowledge." This consolidation was termed by Huskisson "the perfection of codification." In 1815, according to the Custom Commissioners' Report of 1857, there were 1100 Custom Acts in force. All these, with the additions between 1815 and 1824, were repealed in 1825, by an act in which 443 statutes were enumerated, and the rest repealed by a general definition; thus sweeping away all the laws of the customs which had accumulated during the space of 550 years, and substituting eleven short plain acts contained in a volume of 411 pages. In 1823 Hume had been appointed controller of the customs, and in 1828 he was promoted to be secretary at the board of trade, a position he held till his resignation in 1840. In 1833 he contributed, under the initials H. B. T., some letters to the *Morning Chronicle*, "on the Corn Laws and on the Rights of the Working Classes," which were republished by him in the following year. He contributed articles in 1836 "on the Corn Laws" and "on the Timber Duties" to the *British and Foreign Quarterly Review*. He gave valuable evidence before the Committee of the House of Commons appointed in 1840 to inquire into the duties levied upon imports. In his evidence he stated that he disliked all treaties, except upon navigation. "I would take what I wanted and leave them (foreign nations) to find the value of our custom." He died in 1842, so that he did not live to see the final triumph of free trade. But there can be no question that, by the influence he exercised upon the mind and policy of Sir R. Peel, he did much to bring about that triumph. In the words of Sir James Graham, "the history of the board of trade from the time of Mr. Huskisson to the close of Mr. Deacon Hume's services at that board may be considered as the history of Mr. Deacon Hume himself."

Hume published *The Laws of the Customs*, 6 Geo. IV. c. 106-116, with notes, 1825-1832, 6 pts., 8vo.—*The Laws of the Customs*, 3 & 4 Will. IV., 50-60, with notes, 1833-36, 3 pts., 8vo.

[*Life of J. Deacon Hume*, by C. Badham, *Custom Commissioners' Report*, 1857, London, 1859, 8vo.] H. E. E.

M'Culloch, in his *Literature of Political Economy*, speaks somewhat slightingly of Deacon Hume's letters under the signature H. B. T., to the *Morning Chronicle*, which in his view "involve some very questionable and, as we think, wholly untenable positions," p. 80. Tooke, however, in *The History of Prices*, vol. iv. p. 106, speaks in a very different tone of these letters, and shows how accurate an observer Hume was "of events connected with the commerce of the country."

HUME, Joseph (1777-1855), was the son of a Montrose ship-master. He studied medicine, became a member of the College of Surgeons of Edinburgh, and in 1797 was appointed assistant-surgeon in the marine service of the East India Company. Later he was transferred to the land service of the company. Applying himself diligently to the study of the native languages and religions, he mastered Hindustani and Persian, and was employed by the administration in political duties. He filled in succession responsible posts in the offices of paymaster and postmaster of the forces, in the prize agencies, and in the commissariat. In 1807 he retired from the service, and returned to England with a fortune of £40,000. Hume now devoted himself to a study of the history and resources of Great Britain, and after visiting the whole of the agricultural and manufacturing centres of the United Kingdom, he spent some time on the continent, increasing his stores of political information.

In 1812 Hume entered parliament for Weymouth, having purchased two elections to the seat. He was at this time, and for a brief period subsequently, a tory. He opposed the Framework Knitters' Bill in the interest of the manufacturers. Upon the dissolution, in the autumn of 1812, the owners of the borough of Weymouth refused to re-elect him, when he took legal proceedings, and recovered a portion of the money he had deposited. While out of parliament he took a prominent part on the central committee of the Lancastrian schools, and closely studied the condition of the working classes, advocating the establishment of savings

banks. He essayed in vain to get elected upon the East India Board, but he was active in exposing abuses, and when the charter of 1793 expired he advocated freedom of trade with India, pointing out that it must result in an enormous expansion of commerce with the East. In 1818 Hume was elected as a liberal for the Border Burghs, and from this period until his death—with the exception of a brief interregnum—he held a seat in parliament, representing in succession the Border Burghs, Aberdeen, Middlesex, Kilkenny, and Montrose. During the whole of his career in the House of Commons he unflinchingly advocated financial and general reforms. He first drew attention to the enormously disproportionate cost of collecting the revenue, and compelled the appointment of a select committee, which reported in his favour. He opposed the scheme for the reduction of the pension charges, and in 1824 obtained a select committee on the combination acts. During the reform debates of 1831 he advocated the extension of representation to the colonies, and three years later he moved for the repeal of the corn laws. In 1835-36 he severely attacked the Orange Society, which was credited with a design to place the Duke of Cumberland on the throne after the death of William IV.

Hume was the sleepless watch-dog of finance, and mainly owing to his efforts the advanced radical party became known as the party of retrenchment. Every item in the returns of the public expenditure was subjected to his severe scrutiny—a task over which he expended much toil and money. He procured the abolition of the sinking fund, and it was he who reintroduced the fourpenny silver coin (see GROAT), which, however, has once more disappeared. He secured the repeal of the combination laws, as well as of those prohibiting the emigration of workmen and the exportation of machinery. He was an advocate of Catholic emancipation, of parliamentary reform, and of the repeal of the test and corporation acts. Hume was one of the trustees of the loan raised for the Greek insurgents, and was charged with jobbery in connection with it; but all that he did was to secure an advantageous liquidation of his holding when the loan was at a discount. He served on more committees of the House of Commons dealing with finance and the public service than any other member. Hume died, 20th February 1855; and Lord Palmerston, in alluding to the event in the House of Commons, observed that it was said of an eminent statesman (Burke) that he "gave up to party what was meant for mankind," whereas "the reverse might be said of Hume, who devoted himself first to his country and then to the general interests of mankind at large." A scholarship in political economy was founded in his memory at University College, London.

[Harris's *Radical Party in Parliament*.—Anderson's *Scottish Nation*.—*Dictionary of National Biography*, art. "Joseph Hume."—*Annual Register*, 1855.—*Gentleman's Magazine*, 1855.—Harriet Martineau's *History of the Thirty Years' Peace*.—Hansard's *Parliamentary Debates*.]

G. B. S.

HUNDRED. The origin of the administrative division called a hundred in England has given rise to endless discussion among historians. There is no documentary mention of it until the ordinance of Edgar in the 10th century, and hence some have considered it a creation of that king. A tradition, recorded by William of Malmesbury, attributes the formation of hundreds to Alfred. On the other hand, the evidence of Tacitus and the analogy of all other German peoples would lead us to expect the existence of an administrative unit larger than the township and smaller than the tribe or kingdom. Moreover, the ordinance of Edgar does not read at all like the starting of an innovation, but only as regulating the use of an existing institution. Probably the best conclusion is that the English brought over with them the organisation of the hundred, but this name was by no means in universal use till the 10th century. In the western conquests, made after Angles and Saxons became Christian, the organisation may not have been introduced, while it may have fallen into decay in the north and midlands during the Danish wars. The effect of Edgar's ordinance would thus be to revive the hundred system where it had fallen into disuse, to extend it to districts where it had never been introduced, and to definitely fix its uses and arrangements.

The origin of the name hundred is even more obscure than that of the district to which it has been applied. It must at some time have had a numerical significance, such as the settlement of a hundred families or the district which sent a hundred warriors to the host, but it is quite impossible to trace such a meaning in England. The court of the hundred, which met every four weeks, consisted of the freeholders of the district with the parish priests and the reeve and four men from each township. It was the primary court of criminal jurisdiction in Anglo-Saxon times. The hundred was also the basis of military assessment and of the system of mutual responsibility, which in those days served instead of police. The organisation of the hundred was carefully preserved by the Norman kings as a counterpoise to the growth of territorial jurisdiction in the hands of the great barons. But it steadily decayed in the 13th and 14th centuries, and its place was supplied by the rise of the justices of the peace.

[*Essays in Anglo-Saxon Law* (Boston, 1876).—Stubbs, *Select Charters*, pp. 68-70.—Stubbs, *Constitutional History*, i. pp. 96-99.]

R. L.

The geographical division of the counties into hundreds continued, however, and for some purposes is still of practical importance. Thus in several counties the liability of the hundred for the repair of bridges continues, and the county councils have power, under § 3 of the Local Government Act of 1888, to assess and levy hundred rates. Up to the passing of the Riot (Damages) Act, 1886, the inhabitants of a hundred were, under a statute of George IV., liable in certain cases to pay compensation for damage done to property within the area of such hundred in the course of any riotous proceedings (for a modern instance of a claim made under the provisions of the statute in question, see Drake *v.* Tootitt, 7 Q.B.D. 201 [1881]).

The organisation of the rural police, until a comparatively recent period, also conformed to the division of counties into hundreds. The "high constables," whose office was abolished in 1867, had jurisdiction over their respective hundreds in the same manner as the parish constables over their respective parishes, and the division of counties into hundreds had to be considered in the arrangement of petty sessional divisions (see 10 Geo. IV. c. 46).

In more recent times the areas of the poor-law unions have been found more convenient intermediate units for the purposes of local government, and the rural districts created by the Public Health Act 1875 (see § 9)—the importance of which has been considerably increased by the Local Government Act 1894—are generally coterminous with these areas.

E. S.

HUNDRED ROLLS. In 1274, soon after Edward I.'s return from the Holy Land, special commissioners were appointed to summon juries in the different districts throughout the country in order to inquire into the king's rights, royalties, and prerogatives, and into all frauds and abuses connected therewith, by which the crown suffered loss of revenue. This step had become necessary, for, owing to the encroachments of nobility and clergy during the troubles of the preceding reign, the resources of the crown had been seriously impaired. The results of the inquisitions held on this occasion make up the *Hundred Rolls*. These, therefore, contain particulars of (1) all demesne lands, and of manors which had been alienated from the crown; (2) tenants in capite and in demesne; (3) losses to the crown through sub-infeudations; (4) alienations to the church under pretext of FRANKALMOIGN; (5) wardships and other feudal rights withheld from the crown; (6) the crown's interest in fee farms, hundreds, wapentakes, and tythings; (7) *jura regalia*, such as wreck, free-chase, etc.; (8) illegal and excessive tolls on fairs, and for murage, pontage, etc.; (9) exactions and oppressions by crown officers; and (10) unlawful exportations of wool,—the whole forming one of the most valuable records ever compiled. The Hundred Rolls have been printed by the record commissioners in two large folio volumes with an introduction by W. Illingworth.

[Cunningham, *Growth of English Industry and Commerce*, bk. ii. ch. iii., Cambridge, 1890.]

A. E. S.

HUSBAND (AS TO WIFE'S PROPERTY). Husbands who were married before 1883 to wives possessed of property not settled upon them for their separate use, became entitled to extensive rights in respect of such property. All personal property actually in the wife's possession at the time of her marriage became the husband's property; debts owing to the wife became payable to the husband, if recovered within the wife's lifetime; if not recovered during the wife's lifetime the husband became entitled to them as administrator of his deceased wife's personal property. In addition to this, if any children were born during the marriage the husband acquired an indefeasible life interest in his wife's real property (he acquired "an estate by the curtesy"). All this has been materially altered by the Married Women's Property Act of 1882. Women who have married since the 1st January 1883 hold all their property as separate property, and the same rule is applied to property acquired after that date by women married before the commencement of the "Married Women's Property Act." A married woman may also dispose of her separate property by will without her husband's concurrence, and the only rights which remain to the husband are the absolute right to the wife's personal estate in case she dies intestate, and a life interest in her real estate in the same event, if there was a child of the marriage.

E. S.

HUSKISSON, WILLIAM (1770-1830), the son of William Huskisson and Elizabeth (*née* Rotton), and educated at schools at Brewood, Albrighton, and Appleby in Leicestershire. In 1783 he was taken to Paris by his uncle Dr. Gem, where he remained for a long time, becoming private secretary to Lord Gower, the English minister, in 1790. On his recall Huskisson returned to England, and in 1793 was appointed to consider the position of the numerous French refugees with regard to the requirements of the Alien Act. In 1795 he became under-secretary for war and colonies, and in the following year entered the House of Commons as member for Morpeth. On Pitt's resignation in 1801 he withdrew from office, only retaining his under-secretaryship for a few weeks after that minister's retirement for the convenience of the incoming secretary. In 1804 he was appointed secretary of the treasury, passed into opposition in 1806, and resumed the position of secretary of the treasury in 1807. In 1810 he resigned with Canning; in 1814 was appointed chief commissioner of

woods and forests, a position which he quitted in 1823 to become president of the board of trade. Having sat in succession for several constituencies, he refrained from seeking re-election at Chichester after his new appointment in order to become one of the representatives of Liverpool. The remaining facts of his official life are few. In 1827 he was appointed colonial secretary, an office resigned in 1828. His death was caused by an accident during the opening of the Liverpool and Manchester railway in 1830.

Throughout his career Huskisson was remarkable for his firm adherence to the principles of sound economic reform. He was a member of the Bullion Committee (see BULLION COMMITTEE, REPORT OF), and in the currency discussion he took an important part in the protest made against an inflated paper currency, both then and in his writings laying down most clearly and vigorously the principles upon which a sound monetary system must be based. During his tenure of office at the board of trade he was responsible for important changes in the economic policy of the country. In the first place he modified the navigation system as affecting the colonies and foreign nations; with regard to the former, introducing changes which permitted direct trade to take place between the colonies and foreign countries in either British ships or those of the foreign nations thus concerned, but reserved the trade between the colonies and England. With regard to the foreign nations he carried a measure in 1825, which enabled the king in council "to place the shipping of any other country on an equal footing with our own, when that country was prepared to grant a similar favour in return." By this act Huskisson prepared the way for the final abolition of the Navigation Act, which, however beneficial in former years, was at the time a serious obstacle to the development of the trade of the country.

In the second place Huskisson began the policy of tariff revision and simplification which was afterwards undertaken by Peel and completed by Mr. Gladstone. This course he entered upon in 1824. His policy was twofold, the removal of the custom duties affecting raw material, and the reduction of the duties imposed on the import of foreign manufactures.

In these instances, as in the other changes of an economic character for which he was responsible—as for instance the repeal of the statutes prohibiting combination in 1825,—Huskisson displayed great moderation and foresight. The changes he made fully answered his anticipations. Too much praise, indeed, cannot be given to Huskisson for the courage he displayed in administrative economics. His knowledge of the details was wide, his grasp of principle firm; and though his speaking was not of the order of high oratory, it was lucid and persuasive, in short of the kind most fitted to the subjects with which he had to deal.

[See especially Huskisson's *Speeches*, 3 vols. —*The Question concerning the Depreciation of our Currency stated and examined*, 1810.—A Paper on the currency 1826 in which he recommends a double standard for this country—silver as well as gold—lately reprinted by the Bimetallic League.] E. C. K. G.

HUTCHESON, ARCHIBALD (late 17th century to 1740), barrister of the Middle Temple and member for Hastings. He agitated upon the questions of the national debt and the South Sea scheme. Having spoken on the first of these subjects in the last parliament of Anne, in 1714, he laid his proposals for its discharge before George I., and in March 1716, before parliament. He suggested devoting to its payment "so much as shall be sufficient of the estates real and personal of all the inhabitants of Great Britain . . . ; or by raising of new sinking funds, . . . or by borrowing at lower interest."

He advocated a more frugal expenditure of the public revenue, proposed the abolition of the excise and customs duties, so as to relieve the government of the burden of their collection, and was eager for free and fair elections, frequent parliaments, and the abolition of bribery and corruption.

Hutcheson published:—*A Collection of Treatises relating to the Public Debts and Funds, etc.*; and also *A Collection . . . relating to the South Sea Stock and Scheme*, London, 1721, fol.—*An Abstract of all the Public Debts remaining due at Michaelmas, 1722, and an Estimate of the Annual Sinking Fund towards the Discharge of the same, etc.*, London, 1723, fol.—*An Abstract of an Account stated by some of the Clerks at the South Sea House, relating to the Estates of the late Directors, etc.—The case of Contracts for South Sea Stock in General, etc.* (By A. H.) 1720, fol.—*A Collection of Advertisements, etc. . . . relating to the Last Elections of Westminster and Hastings. . . .* London, 1722, 8vo.—*Copies of some letters . . . from Mr. Hutcheson to the late Earl of Sunderland.* T. Payne, London, 1722, 8vo.—*An Estimate of the Value of South Sea Stock*, 1720, fol.—*Some Computations and Remarks relating to the Money, Subscribers, and the Proprietors of the Public Debts, etc.*, London, 1720.—*A Speech made in the House of Commons, 24th April 1716 (by A. H.)*, 1716, 8vo, 2nd edit. 1722, 8vo. A. L.

HUTCHESON, FRANCIS (1694-1746). Born in Ireland, but of Scottish descent, Hutcheson was appointed to the chair of moral philosophy in the university of Glasgow in 1727, and was thus a predecessor of Adam Smith. It is chiefly on account of the influence his writings are supposed to have had upon Smith that he is classed as an economist. He was one of the earliest propounders of what is known as the utilitarian doctrine of ethics; and his teaching

in this matter may be regarded as the foundation of the corresponding theory of economics, whose supporters included Smith, Bentham, and James Mill, and in a modified degree J. S. Mill. The following quotation from his inquiry concerning moral good and evil (§ 3) contains the kernel of this doctrine, compressed into remarkably few words. "In equal degrees of happiness expected to proceed from an action, the virtue is in proportion to the number of persons to whom the happiness shall extend." Bentham's often quoted ideal, "the greatest happiness of the greatest number," is to be found in Hutcheson. In his principal work, *A System of Moral Philosophy* (1742), there are many passages which foreshadow the theories subsequently developed by his great successor in the *Wealth of Nations*. Bk. ii. ch. vii. is a discussion on public and private property, the latter of which Hutcheson explains and defends in a manner somewhat different from that commonly employed by modern economists. He also examines the origin of capital, very much as Smith does. Chapters viii. and ix. of the same book are an expansion of the same subject; in the latter he deals with the subjects of contract. W. R. Scott, *Francis Hutcheson: his Life, Teaching, and Position in the History of Philosophy*, 1900.—See also the Introduction to Cannan's edition of Smith's *Wealth of Nations*, 1904, vol. i. pp. xxxvi.-xliii. M. G. D.

HUTCHINSON, JOHN HELY (1724-1794), a well-known Irish lawyer and statesman. Upon his marriage with the niece and heiress of Richard Hutchinson, he adopted that name.

He first sat in 1759 as member for Lanesborough, but from 1761-90 for the city of Cork. To quiet his violent opposition, the government made him privy councillor, and for subsequent services he was successively appointed prime serjeant-at-law, alnager, and in 1777 chief secretary of state. In 1774 he also obtained the provostship of Trinity College. In 1785 he accepted a peerage for his wife, who accordingly became Baroness Donoughmore. His greed of money and place won him the title of "ready-money-voter," and it cannot be denied that on more than one occasion he stretched his authority and influence to further his own and family interests.

But apart from this he was an able, if an unpopular, provost, and a clever and far-sighted statesman. Where his private interests were not concerned he followed the promptings of patriotism and public spirit. He was a fearless advocate of independence, of Roman Catholic emancipation, and of free trade; and one of his last votes was in favour of parliamentary reform. Hutchinson is best known to economists as the author of *The Commercial Restraints of Ireland*, a work which originally consisted of a series of letters to the lord lieutenant, Lord Buckinghamshire. It was published anonymously in 1779, but condemned to be burnt by the common hangman for its seditious doctrines. The advocates of free trade, however, gave it high praise.

The author is at pains to discover the causes which had ruined and were still ruining Ireland; and traces it to the selfish, and as he endeavours to show, suicidal, policy of the English parliament of 1699, which absolutely prohibited the exportation of Irish woollen manufactures. Hutchinson, very moderately, points out that, apart from its injustice, this policy was injurious to English interests; that one third of the wealth of Ireland was possessed by England, and that she would receive more than half the benefit of the woollen trade, and even at that price Ireland would obtain some prosperity.

In 1785 he repudiated the accusation of playing into the hands of the government, by his *Letter from the Secretary of State to the Mayor of Cork*, in which he put the case for the Anglo-Irish trade very plainly before his constituents.

He shows that no two countries on the globe are more necessary to the happiness and welfare of each other than these two islands, and advocates a noble equality and reciprocity of commercial tariffs.

The following is a list of his writings:
The Commercial Restraints of Ireland considered, 1779, 1780, 8vo.—*A Letter . . . to the Mayor of Cork on the Subject of the Bill presented by Mr. Orde, on the 15th Aug. 1785, for effectuating the Intercourse and Commerce between Great Britain and Ireland on . . . Equitable Principles, etc.* Dublin, 1785, 8vo.—*Mr. Hutchinson's Letter to his Constituents at Cork*, 1786, 8vo.—*The Speech of . . . J. H. H. . . . made in the House of Commons on the 26th day of June 1793, on the Resolution . . . respecting the Regulations of the Treasury Board*, Dublin, 1793, 12mo. A. L.

HUYSERS, ARIEN (died in 1806). A Dutch merchant and clerk in the service of the (Dutch) Company of the East Indies. Besides the biography of one of its governors-general, R. de Klerk (Amsterdam, 1787), he published a description of their settlements (*Beschryving der Oost Indische Etablissementen*), Utrecht, 1789, and reprinted in Amsterdam in 1792.

[Frederiks en Van den Branden, *Biographisch Woordenboek*, Amsterdam, 1888.] E. Ca.

HYPOTHEC (Scots Law). A lien or right existing at law in some particular cases, in favour of a creditor, by way of security over property of his debtor, while that property continues to belong to the debtor and to be in his possession. Examples of this are: the landlord's hypothec for rent, over the crop and stock of his tenant in a pastoral or agricultural holding, this hypothec having now been abolished by the Hypothec Abolition Act, 1880, so far as regards land exceeding two acres in extent; his hypothec over household furniture, etc., in houses, for

the rent; the hypothec of a superior or overlord for the last or current feu-duty or annual payment to him, this hypothec being over the crop and moveable property on the land, and being preferred above the landlord's hypothec for his rent; the hypothec of seamen over the freight and the ship for their wages; that of the shipowners against the cargo for freight; that of freighters over the ship against the shipowners for loss through mismanagement; and that of ship-repairers over the ship for cost of repairs in a foreign port. The law-agent's right of retainer of documents until paid is also called, in Scotland, his hypothec (see LIEN). A. D.

HYPOTHECA, the right of pledge or mortgage of a thing, constituted by mere agreement without any transfer of possession of the thing to the creditor. It sometimes means the thing thus pledged or mortgaged (see PIGNUS).

E. A. W.

HYPOTHECATION. A general expression for all transactions by which some property is mortgaged or pledged by way of security for a debt. The expression "letter of hypothecation" is frequently used for the document by which goods, the bill of lading relating to which is attached to a bill of exchange, are mortgaged to the holder of the bill, by way of security for the acceptance or payment of the same. As such goods have sometimes to be landed or re-shipped, and during the time before warrants or new bills of lading are issued may be in the possession of the mortgager or his agent, there was a doubt whether the letter of hypothecation did not have the effect of a BILL OF SALE (*q.v.*) and ought to be registered accordingly, but the Bills of Sale Act 1890 has made it clear that the registration of such a document is unnecessary. E. S.

HYPOTHESIS.

(1) The Illustrative Hypothesis, p. 348; (2) The Approximate Hypothesis, p. 348; (3) The Tentative Hypothesis, p. 349; (4) The Explanatory Hypothesis, p. 350; (5) The Working Hypothesis, p. 350; (6) Relations between the different types of Hypothesis, p. 350.

The word hypothesis is used in science to denote any supposition put forward as a premiss from which deductions are to be drawn. Hypotheses, however, differ in their essential character according to the purposes for which they are constructed and the uses to which they are put. Most of these varieties of application are exemplified in the writings of political economists. It will be convenient to treat the various kinds of hypothesis under different heads, and to give examples under each head of the ways in which hypothesis has been applied in political economy.

(1) *The Illustrative Hypothesis.*—Hypotheses of the first kind are those used in the exposition of complex phenomena. The purpose here is primarily didactic; the writer having in view the need of familiarising students with the conceptions appropriate to the subject. It is very usual to begin the exposition of any branch of economic study by describing phenomena of a much simpler character than the corresponding phenomena of actual economic life. Simple conditions of a definitely assigned character are laid down for illustration, without any implication that these necessarily accord with reality. Such a use of hypothesis may be called *Illustrative.* One of the best examples of such hypothesis is that used by Professor Nicholson in *Money*, ch. v. § 3. He begins his exposition of general prices by assuming an artificially simplified case in which it is supposed that money consists of counters only of use to effect exchanges, that no exchanges are made without the passing of money from hand to hand at every transaction, and further, that there is a definitely assigned distribution of commodities and of money among a given number of traders. Hypotheses of a similarly illustrative character are used by Mill and Bastable in their expositions of the theory of international values. They begin by assuming that there are but two nations in existence, that these nations trade only in two commodities, and that there are no expenses of carriage, etc., between the nations, or other items of mutual indebtedness, besides exports and imports. We may add that a mathematical treatment of the pure theory of exchange or of distribution necessarily employs simple hypotheses for illustration or exposition, as for example in the works of Cournot and Jevons. Such instances are too numerous to be recounted. Simplifications of this kind, used merely for illustration, and not supposed, at least in their initial form, to accord completely with facts, are necessary for the rigorous exposition of complex phenomena. Sometimes indeed a hypothesis is propounded which does not profess to answer to any possible or probable state of affairs; as, for example, when an investigation is made of the consequences that would follow from supposing that the amount of coin in circulation is suddenly doubled or halved, or that all the fixed capital of a country is suddenly annihilated. The uses of such hypotheses and the limitations to which they are subject are very instructively treated by Dr. Venn, *Empirical Logic*, ch. xvi. Hypotheses of the illustrative type tend to pass over into hypotheses of a somewhat different kind, to which we may refer under our second head.

(2) *The Approximative Hypothesis.*—Hypotheses made primarily with the purpose of simplifying exposition are often secondarily applied under the supposition that they accord, at least approximately or in the long run, with the nature of the phenomena to be expounded. Indeed the most useful form of the illustrative hypothesis is that in which, after beginning the exposition with the simplest possible description

of conditions, we introduce step by step further conditions till it is believed that all the essential circumstances of the case are included. Nevertheless the point of view of the expository hypothesis is essentially different from that of the hypothesis now to be considered. The propounder of the hypothesis now adopts the position that it expresses a true tendency; that even if the conclusions derived from it do not appear to accord with observation, yet this is only because counteracting agencies have concealed its operation. We are supposed to be dealing, not with fictions, but with abstractions. The use of hypotheses of this kind has been formally justified by Mill, Cairnes, and Bagehot. Undoubtedly the method of hypothesis in this sense is the most fruitful and potent instrument in the hands of the deductive economist. In almost all cases, the risk of error is eliminated if care is taken to express explicitly the precise assumptions employed. In this respect the use of a mathematico-analytic method has a very marked advantage over arithmetical or even diagrammatic expositions; for in the former every assumption must be explicitly formulated, while in the latter we are liable to introduce unnoticed relations between the numbers or points chosen for illustration. An example of errors arising from this source is to be found in the treatment by Ricardo and Mill of the effect on rent of agricultural improvements (Ricardo, *Principles*, ch. ii. § 31; Mill, *Political Economy*, bk. iv. ch. iii. § 4). Hypotheses which profess to represent actually operative tendencies, and are therefore intended to yield results true approximately or in the long run, are often adopted more or less unconsciously. It is in this unconscious employment that their main danger lies. For in such cases the writers have really believed that they were taking into consideration all the essential circumstances of the case, and that the conclusions deduced could be applied in practice to real concrete phenomena. They have often passed unawares from the standpoint of exposition to that of practical application. Hence the use of hypotheses has been sometimes too vehemently attacked by opponents of the deductive school. We may give a few examples of cases in which assumptions have been made more or less consciously and applied perhaps without sufficient qualification to concrete economic facts. Ricardo has been charged with assuming in his theory of value a fixed standard of comfort of the labouring population, or at least a standard determined independently of the play of ordinary economic forces. Again, the same writer and some of his followers have tacitly or explicitly assumed perfect *mobility* of capital and labour in their treatment of distribution and cost of production in domestic trade; while, as regards foreign trade, their theory of international values has been based on the assumption of the practical *immobility* of capital and labour as between nation and nation. Again, adherents of the wages-fund theory have often based their arguments on the tacit assumption that "the amount of wages that will be paid in any country in, say, a year, is fixed absolutely by the amount of capital existing there at the time" (Marshall, *Princ. of Economics*, 2nd ed. p. 573). Similarly, in maintaining the proposition "Demand for commodities is not demand for labour," Mill in one part of his argument assumes that "the consumer who hires labour postpones the consumption of the fruits of that labour to a later date than he who with an equivalent portion of wealth purchases commodities." One other less important example may be cited from Ricardo, who, in discussing the effect on rent of agricultural improvements, assumes that the demand for corn is absolutely inelastic. As regards many hypotheses that are adopted either as true or as approximately true in application to facts, it should be noticed that their logical character is often likely to elude the reader. For they are sometimes the suppressed premisses of an elaborately constructed argument, in which the conclusion which professes to be proved is to all intents and purposes merely a formal or verbal equivalent of the premiss suppressed.

(3) *The Tentative Hypothesis.*—Hypotheses in either of the above forms, illustrative or approximative, are used in the process of deduction, in which the course of the exposition is from the abstract to the concrete. Hypotheses of an apparently opposite type are also used in inductions from specific experience or explanations of concrete phenomena. Here the starting-point is—not some accepted law of nature—but an observed fact. This leads us to consider a third use of hypothesis, where the scientific imagination is called into play, to find some general formula adopted conjecturally which shall connect an empirically observed set of occurrences with a known law of nature. Such a hypothesis is put forward at first merely tentatively, with the clear recognition that it requires verification. The best example that can be cited of such a tentatively adopted hypothesis is the suggestion of Jevons that the periodicity of commercial crises might be connected with that of the sun-spots. Such a suggestion obviously awaited deductive or inductive verification; and Jevons has shown how, in the course of his investigations, a certain amount of verification was gradually obtained. This case derives a special interest from the fact that Jevons, as a logician, had emphasised the necessity for such tentative guesses in all inductive inquiry. But it would be difficult to find many examples of the inductive hypothesis in its purely tentative stage, because investigators have not as a rule recorded

guesses afterwards found not to accord with facts. Indeed the tentative hypothesis has rather a psychological than a logical interest, as indicating the mental process that must be gone through by an individual whose aim is the discovery of truth and the enlargement of knowledge and insight. Nevertheless, it will not be irrelevant to remark that workers in the field of statistics must have often tentatively brought into comparison two sets of phenomena, such as variations in the price of corn and in the marriage rate, with the view of examining whether the one set of changes can be so harmonised with the other as to suggest causal connection. A very similar investigation is made by Jevons (*Theory of Political Economy*, pp. 167-172), where he adopts a conjectural formula for expressing the relations between the supply and price of wheat in accordance with the estimates known as Gregory King's. This formula has since been amended by Mr. Wicksteed in the *Quarterly Journal of Economics*, April 1889.

(4) *The Explanatory Hypothesis.*—A hypothesis which has been put forward at first tentatively, with a view to future verification or refutation, comes after a time to be adopted as an explanatory theory when it has received some degree of confirmation. Such a theory is spoken of as a hypothesis, because it is not affirmed categorically, but is regarded as a premiss from which conclusions can be deduced which coincide with empirically observed facts or uniformities. The explanatory hypothesis differs from the tentative hypothesis mainly in respect to the point of view from which they are regarded. The latter indicates a stage in the process of *discovery*, the former is concerned with the question of *proof*. For the explanatory hypothesis is a theory regarded as deriving some degree of probability from its accordance with observations of fact. It differs from a law guaranteed by stricter induction in being avowedly subject to more or less doubt. A hypothesis used in explanations falls into one or other of two classes. It may be that the facts put forward as explanatory are not themselves in dispute, but only their causal connection with the phenomena to be explained. Or it may be that the facts put forward as explanatory are themselves open to question, though it is not denied that if true they would be adequate to explain the effect observed. The following are a few examples of hypothesis used in explanation of economic facts. Malthus, observing that the two countries Norway and Sweden closely resembled one another in their general economic conditions, and yet that the average proportional mortality was considerably higher in Sweden than in Norway, inferred that the difference was to be explained by the superior force in Norway of preventive checks to the increase of population due to certain governmental regulations and national sentiment and customs. Similarly, the difference in the prosperity of two similarly situated countries has been often hypothetically explained as the effect of the maintenance of a policy of free trade or of protection as the case may be. Or again, the fall in the gold-value of silver since 1874 has been explained as effect of the German demonetisation of silver; and the present depression in trade as effect of a scarcity of gold. In Adam Smith many hypothetical explanations of observed facts are to be found. He, for example, suggested that the impossibility of separating the different branches of labour employed in agriculture is the probable reason why improvements in agriculture have not always kept pace with improvements in manufacture. He gave numerous hypothetical explanations of variations in profits, in wages, in riches, etc., gathered from observations extending over large ranges of time and place.

(5) *The Working Hypothesis.*—The expression working hypothesis is in common use, but it seems to bear no universally recognised meaning beyond what is implied by the word hypothesis alone. The word *working* implies that the value attributed to such a hypothesis is due to the expectation that true results can be deduced from it, though in itself it has no claims to be regarded as true or even probable. It is adopted, at a particular stage of scientific investigation, to assist the mind in realising a mass of complex phenomena. In the theory of electricity, the hypothesis of one and that of two fluids are examples of working hypotheses. Similarly, the *social contract* of HOBBES and ROUSSEAU may in the same sense be regarded as a convenient fiction which enables us to understand some of the aspects of social evolution. The working hypothesis, as thus defined, is midway between the illustrative and the explanatory hypothesis. It is not merely illustrative, since it leads to results that agree with experience; but it can hardly be called explanatory, since its use does not depend on any belief in its truth or even its probability.

(6) *Relations between the different types of Hypothesis.*—Though we have hitherto been concerned to bring out the distinctions between different kinds of hypothesis, yet it is equally important to point out the mutual connections between them and to show how they are to be correlated in economic science. The expository hypothesis is derived primarily from generally accepted and comparatively simple laws of nature. It is of value in proportion to the extent to which its results are confirmed by facts directly observed and by uniformities directly generalised from experience. Conversely, the explanatory hypothesis is derived primarily from data of observation; but it is of value in proportion to the degree with which it is confirmed by deductive reasoning from

acknowledged laws of human, social, or physical nature. A complete method, therefore, requires that the processes of induction and deduction should supplement one another, each serving as verification of what is arbitrary or uncertain in the other. The hypothesis used in deduction keeps as closely as possible to the simple laws of human nature known to be actually operative; but, since actual phenomena are due to the composition of many concurrent tendencies, we can never be sure that all these tendencies have been taken into account, or that their comparative force has been correctly estimated. Similarly the hypothesis used in induction keeps as closely as possible to the actual facts of economic life ascertained by direct observation; but, since no mere generalisation is acceptable unless its dependence on fundamental principles of human nature has been exhibited, we must verify any inductively suggested explanation by showing how it may be derived from such fundamental principles. The consilience of deductive and inductive inferences is thus the ultimate criterion by which the value of every sort of hypothesis is to be measured.

[Mill, *Unsettled Questions of Political Economy*, Essay v.—Cairnes, *Logical Method of Political Economy*, *passim*.—Bagehot, *Economic Studies*, Essays i. ii.—Keynes, *Scope and Method of Political Economy*, *passim*, see also DEDUCTIVE METHOD; EXAMPLES; INDUCTIVE METHOD.]

W. E. J.

ICARIA. See CABET, ÉTIENNE; COMMUNISM.

IDDESLEIGH, THE EARL OF (1818-1887), better known as Sir Stafford Northcote, came of an old Devonshire family, and was educated at Eton and Oxford. He was intended for the bar, and in 1841 became private secretary to Mr. Gladstone, whose liberal views on finance and political economy he imbibed. His general political opinions, however, were conservative. In 1845 he accepted a permanent post in the board of trade, and two years later he became legal secretary to the board. During the debates on the navigation laws he published an able pamphlet on the subject which convinced the Duke of Wellington of the necessity and expediency of removing this vestige of the old protective system. In 1851 Mr. Northcote succeeded his grandfather in the baronetcy, and in the following year he rendered signal assistance to the Prince Consort as one of the secretaries of the great exhibition. His labours at this time were so exhausting that his health was seriously impaired, and the first symptoms of that cardiac weakness which afterwards proved fatal were developed. Rest restored his health considerably, and his joint labours with Sir Charles E. Trevelyan in connection with the report on the civil establishments of the crown (1853-54) led eventually to the establishment of the civil service commission, and the throwing open of the civil service generally to public competition.

Sir Stafford Northcote first entered the House of Commons in 1855 as conservative member for Dudley; he sat for Stamford from 1858 to 1866; and for North Devon from 1866 until 1885, when he was raised to the peerage as Earl of Iddesleigh. In 1858 he was appointed financial secretary to the treasury, and when Lord Derby's third administration was formed in 1866, he became president of the board of trade, an office which he exchanged in the following year for that of secretary of state for India. In 1871 he was nominated by Mr. Gladstone one of the special commissioners for the negotiation of the treaty of Washington, which had for its principal object the final settlement of the Alabama claims. The treaty was successfully concluded, and the long and bitter controversy between Great Britain and the United States finally closed. In 1874 Sir Stafford Northcote was appointed chancellor of the exchequer, an office for which he was eminently fitted. He had already published his important work *Twenty Years of Financial Policy: a Summary of the chief financial measures passed between 1842 and 1861; with a Table of Budgets*. In this work—which is one of the best efforts of recent times to record the effects of taxation, including local taxes—the author declared himself a disciple of the financial school of Peel and Gladstone. As chancellor of the exchequer he upheld the doctrines of free trade; and his financial policy included the final extinction of the sugar duties, and a slight increase in the tax on tobacco; the temporary reduction of the income tax to twopence in the pound, the lowest point it had reached from the first imposition of the tax; and the establishment and maintenance of an effective sinking fund, maintained generally by his successors. While out of office, Sir Stafford Northcote acted as chairman of an important parliamentary committee on the income tax, which his report contributed largely to sustain against the attacks of its enemies. From 1876 to 1880 he was leader of the House of Commons, in succession to Lord Beaconsfield. Besides being called upon to deal with parliamentary obstruction as a system, he had to grapple with many critical events, including the Russo-Turkish war, the Berlin treaty, the Zulu war, the Afghan war, etc. From 1880 until 1885 he led the conservative opposition, but a more robust leadership was desired in certain quarters,

and he was ultimately elevated to the House of Lords. He became first lord of the treasury in Lord Salisbury's first government, and secretary of state for foreign affairs in the second Salisbury administration; and was chairman of the Royal Commission on the Depression of Trade and Industry (1885-1886). The principles of Lord Iddesleigh's financial policy were thus defined by himself in a letter to Sir Reginald Welby (1875):—"1. Prudent, but not deliberately *under* estimates. 2. The habitual retention of a substantial surplus. 3. The retention of the income-tax at a low fixed rate, not to be disturbed for anything short of a national emergency. 4. The appropriation of a fixed annual sum to the charge for debt. 5. The avoidance of new taxes. 6. As a corollary, the toleration of old ones. Parliament and the country ought really to make up their minds to deal frankly and courageously with these matters, to eschew sensationalism, and to act on steady principles."

[*Twenty Years of Financial Policy* (1842-1861), by Sir Stafford Northcote, 1862.—*The Times*, Jan. 13, 1887.—*Life, Letters, and Diaries of Sir Stafford Northcote, first Earl of Iddesleigh*, by Andrew Lang, 2 vols., 1890.] G. B. S.

IDEAL, The Economic. However much an economist may protest that political economy is a science, not an art, and that it is no business of his to tell people what they ought to do, he can scarcely help assuming that both they and he have some ideal towards the attainment of which a knowledge of political economy is expected to assist. In English political economy this ideal has usually been considered to be simply the greatest possible creation of wealth. Whether this is a satisfactory ideal or not depends entirely on the way the formula is interpreted. To make it satisfactory:

(1) "Wealth" must mean average or *per capita* wealth. If it be taken to mean simply aggregate wealth without any regard to the number of persons who have to share that aggregate, this would make the ideal of economic progress "a human ant-hill" (Leroy-Beaulieu, *Répartition des richesses*, p. 126). We no longer believe, with Paley, that "in comparing adjoining periods in the same country, the collective happiness will be nearly in the exact proportion of the numbers, that is, twice the number of inhabitants will produce double the quantity of happiness" (*Moral Philosophy*, bk. vi. ch. xi.). We speak of countries as rich or poor according to the wealth enjoyed by each inhabitant, not according to the wealth of all inhabitants taken collectively.

(2) The creation or "production" of wealth must not be understood in such a way that it is merely equivalent to the accumulation of instruments of production and means of enjoyment. It must mean the creation of income, not the creation of capital. Accumulation is only useful in so far as it increases consumable income. Economists of the school of which M'Culloch was the chief representative were apt to regard the mere heaping up of goods as an end, and men only as the instruments employed in effecting this purpose.

(3) "Wealth" must be taken in its original sense, in which it means material welfare (cp. *Book of Common Prayer*, Prayer for the Queen's Majesty), not in the sense which many definitions have endeavoured to affix to it, of things possessing exchange value. It is a state or condition of human beings, not a number of objects or even objects and services. If wealth were taken merely as things possessing exchange value, and were measured by exchange value, the ideal of the greatest possible creation of wealth would be an extremely unsatisfactory one for two reasons. (*a*) It would be equally nearly approached whatever the quantity of painful labour expended in producing the wealth; two communities each with an income of £40 per head would have to be considered as equally near the ideal state even if the one had to work twice as hard as the other to procure that income. (*b*) It would be equally nearly approached however the wealth was distributed; two communities with equal incomes per head would have to be considered as equally near the ideal state, even if in the one the whole income was distributed without great inequalities, while in the other three-fourths of the whole went to one man. E. C.

IDEALIST. Like most words which are constantly employed to express praise or blame, the word idealist may be said to have lost all definite meaning. If we are to speak with philosophical accuracy, all changes, great or small, good or bad, which are effected by human will, are due to idealism. They are due to the faculty which enables man to conceive as possible and desirable a state of things different from that which actually exists. In this sense everybody is an idealist. But in practice it is convenient to reserve that appellation for persons who possess an imaginative faculty beyond the common, especially for those who conceive of society and life as dominated by some one principle which in the actual world can never find perfectly free play. Men of this type are undoubtedly the most powerful impellers, although not the most skilful executants of moral, political, and economical changes. Their idealism may take the most varied and contradictory shapes, and may be wholesome or pernicious. The believers in absolutely free competition, the believers in all-pervading state regulation, the believers in universal suffrage, and the believers in philosophical despotism, are alike idealists, although they contradict and vilify one another. The value of idealism, however, will depend on the intellectual and

moral endowment of the idealist, and especially upon his power of comprehending the actual world which he wishes to reform. F. C. M.

IDEAL MONEY is a term applied to certain species of currency which do not consist of a material thing such as coin, or notes convertible into such things. The principal species of ideal money are — I. Money of Account, and II. Inconvertible Currency.

I. (1) The simplest kind of money of account is that which was employed by the older banks, such as those of Venice and Amsterdam (see BANKS, EARLY EUROPEAN), where the unit was in effect a certain quantity of a standard precious metal. Thus at Venice the ducat banco was equal to 1·2 the standard ducat of the currency. So in the monetary system which was introduced into India on the advice of Sir James Steuart, "an ideal coin was invented by which all rupees might be valued" (Sir W. Hunter, *Rural Bengal*, quoted by Prof. Walker, *Money*, *sub voce* "Ideal Money," p. 594). Since the unit represents a definite quantity of precious metal, "a money of account of such a character is not properly an ideal money" (Walker, p. 295).

(2) Yet the term is applied not inaptly by Sir James Steuart to a certain money of account proposed by him, of which the unit corresponds to a definite quantity not of one but of two precious metals (*Political Economy*, bk. iii. ch. i.; and ch. xv.—an obscure passage, as to the interpretation of which see Lauderdale, *Depreciation proved*, p. 70 *et seq.*).

(3) A still more "ideal" money of account would be one referring not to two commodities only but to many, a tabular standard based on an Index Number (see INDEX NUMBERS). As explained in the article on that subject, the unit of such a currency might ideally be conceived as a certain quantity either of utility or of labour.

II. Inconvertible paper-money is in one sense less "ideal" than money of account, in that it consists of a material substance. But in another sense it is less real, since its value, depending on the quantity of the paper-money and the demand for it, does not conform directly to that of objects having INTRINSIC VALUE (*q.v.*) such as the precious metals or commodities in general. The quantity of an inconvertible currency may indeed be regulated so as to be brought into conformity with such standards; either with the value of bullion as contemplated by the older economists (*e.g.* Mill, *Pol. Econ.*, bk. iii. "On Inconvertible Currency"), or with the index number of recent theory. Some hint of the latter plan may perhaps be gathered from the writers who, during the bank restriction, advocated an "abstract currency," or "ideal money," . . . "not formed of substantial and therefore variable materials" (Gloucester WILSON, and Perceval ELIOT, quoted by Prof. Walker in *Money*). Perhaps they did not deserve the unbounded contempt which was poured on them by orthodox economists, such as CANNING (in the *Quarterly Review*) and PEEL (speech on the Bank Charter Act). But no doubt in the pursuit of the monetary ideal they often wandered into the realms of "nonentity and nonsense" (Canning). F. Y. E.

IDEOLOGUE. A contemptuous epithet applied by the first Napoleon to the philosophic liberals who kept alive in France the ideas of the 18th century, and assailed the imperial system with literary and social weapons. Napoleon felt the contempt of a man of action for those who merely talked and wrote about politics. His experience of the French Revolution had inspired him with a profound dislike of system-makers and rhetoricians. It must be added that he could not endure frank and independent criticism of his grandiose but immoral and impracticable political schemes, his fatal endeavour to make France the tyrant of Europe, and his reckless continental blockade. Having silenced this criticism in the French parliament and press, he proceeded in 1803 to suppress the department of the moral and political sciences in the Institute, which included such well-known names as Volney, Chénier, Cabanis, and Daunou. They continued the contest with Napoleon in a periodical known as the *Décade philosophique* (see DESTUTT DE TRACY). F. C. M.

ILLEGAL CONTRACTS. Contracts infringing a statutory prohibition, or deemed illegal at common law, or considered contrary to public policy, cannot be enforced in any court of law. Wagering contracts, and contracts in undue restraint of trade, and contracts made for immoral objects, are among the best-known instances of illegal contracts. A policy on the life of any person in which the insured has no insurable interest is deemed a wagering, and hence an illegal, contract. Contracts that are in fraud of creditors or of the bankruptcy laws are not enforceable. A contract is unlawful where goods are sold by improper weights or measures.

[Pollock, *On Contracts*, 7th ed., 1902.] E. S.

ILLEGITIMACY. All children born out of wedlock are and remain illegitimate according to English law. The rule of the canon law which enables parents by their subsequent marriage to give the rights of legitimate children to their previous issue, and which is applied in Scotland and most continental countries, has never been introduced into England. English courts would recognise children as legitimate whose parents at the time of their birth and at the time of their subsequent marriage were domiciled in a country in which "legitimatio per subsequens matrimonium" is recognised. Such children could not, however, in any case inherit by descent land situate in England. E. S.

IMMATERIAL CAPITAL AND IMMATERIAL WEALTH. The word capital has been made, at one time or another, to include every concrete good known to economics, many material and immaterial objects of desire not usually classed as goods, and even abstract conceptions hardly to be reckoned as objects of desire. These classifications are considered under CAPITAL (*q.v.*). We have here to consider the inclusion of immaterial entities under capital and wealth.

The commonest of these is "skill." Its inclusion under capital has been due to two analogies: (1) Skill is productive, and those who emphasise the productivity of capital naturally place skill under this head; (2) skill is costly. The expense of training a labourer of a specified grade of skill may be determined almost as accurately as in the case of a horse. In productivity and cost therefore skill is closely analogous to capital.

Against these analogies must be offset certain contrasts. (1) Skill, like fertility in soil, is not wholly the result of development. The cultivated man like the cultivated farm owes much in the way of productivity to investment, but the element of natural productivity, however hard to disentangle, cannot be ignored. A more marked contrast consists in the disposition of society towards a human creature as a commodity. A trained labourer is, in an economic sense, comparable to a machine or productive commodity having certain qualities of value; but for reasons happily beyond the pale of economics, society draws a deep distinction between the two (see WAGES). This distinction is artificial, but its profound importance cannot be doubted. Skill therefore resembles capital in being productive and costly; it differs from it in standing in a different relation to exchange and in many other respects. Convenience is the only just criterion for determining our classification.

The question therefore arises, What is usage on this point? It seems plain that when men apply the term "capital" to skill they do so in a purely metaphorical way, and that few things are more deeply contrasted in men's minds than labour and capital. The majority of prominent economists are also opposed to the inclusion of labour under capital. This inclusion causes economic questions to be regarded from an absolutely wrong standpoint, a habit which leads men to speak of dear labour in the same way in which they speak of dear coal. To make the similarity between these the basis of classification is certain to make men forget that from the social standpoint these are phenomena of exactly opposite significance.

Finally, we have to ask whether skill can be properly called immaterial. Good-will, patents, and guaranteed industrial privileges generally are often reckoned as immaterial capital. When a business pays an income greater than normal interest on its invested capital, it acquires an additional value known as good-will, and roughly equal to the capital which would produce an equal sum at normal rates. In the case of many companies this is covered by an issue of stock. This stock, which becomes indistinguishable from the original issues, merely capitalises this extra dividend-earning power of the business. The sale of good-will is but a clumsier mode of transfer. Good-will, etc., may properly be called individual capital, but there is no propriety in calling it immaterial unless the latter term is extended to all stocks, mortgages, etc. These have more properly been called representative goods or capital, *i.e.* mere titles to the ownership of other goods material or otherwise.

[Schäffle, *Ausschliessende Handelsverhältnisse* and Böhm-Bawerk, *Recht und Verhältnisse.*]

We have still to consider a quite different theory. Some economists have maintained that capital does not consist of goods but of a quality corresponding to an immaterial essence contained in those goods. Thus M'Leod speaks of capital as "purchasing power" or "circulating power," and adds that it "does not represent commodities in any way whatever." Kühnast calls it "a complex of productive, material values." More explicit is J. B. Clark, who distinguishes between "capital goods," *i.e.* goods employed for acquisition or production, and "capital . . . a permanent fund of productive wealth, expressible in money, but not embodied in money." He adds: "There is a long list of assertions that are true of capital goods, and that directly contradict the truth, if they are made concerning true capital, or a permanent productive fund." It will be observed that he does not claim that capital is immaterial, and Kühnast speaks of it as "a complex of productive, *material* values," but it seems necessary to make capital immaterial if we are to distinguish it from goods. Otherwise the distinction vanishes or reduces itself to a mere difference in point of view. The last is probably Clark's meaning.

The first question is as before one of usage. Clark finds the double concept in popular and scientific use but unconsciously confused. Men recognise capital as a permanent fund expressed in money, while they recognise capital *goods* as constantly consumed and replaced. The distinction, however, is not certain. Men estimate capital in money, though it is composed of concrete goods, because heterogeneous goods have no other fact in common than value. When for other purposes people enumerate the items of their capital in a more exact way, this does not imply that they are talking of a different

thing. Nor does the fact that capital is spoken of as permanent, while goods are known to be transient, imply anything more fundamental. A herdsman, who buys and sells cattle continually, may say that he keeps a herd of a hundred cattle without implying anything else by the term herd than the shifting aggregate of cattle in his possession. A merchant who speaks of his stock would be surprised to learn that he is talking about something else than the goods in his shop.

The question whether there is utility in such a distinction if established is not easy to discuss. It has found no clear expression in popular speech, and few economists have used it. It is not clear that any important economic truth is dependent upon it or cleared up by it, though such a judgment may be premature. If unnecessary, a distinction so subtle should certainly be abandoned in the interest of simplicity. While it is important to recognise the constant consumption and replacement of capital on the one hand and its position as an aggregate permanency on the other, it is not clear that a redefinition of capital is desirable to that end.

[All important works on economics contain discussions of CAPITAL. See especially Mill, *Principles*, vol. i. bk. i. ch. iv. — Sidgwick, *Principles of Pol. Econ.*, bk. i. ch. v., 2nd ed. 1887.—Marshall, *Principles of Economics*, vol. i. bk. ii. ch. iv., 3rd ed. 1895.—Jevons, *Theory of Pol. Econ.*, ch. vii., 2nd ed. 1879.—Walker, *Political Economy*, pt. ii. ch. iii. 1883. By far the best general survey of the field of literature on this subject is found in Böhm-Bawerk, *Kapital und Kapitalzins*, admirably translated by Smart.]

H. H. P.

IMMATERIAL RIGHTS (see INCORPOREAL PROPERTY).

IMMEUBLES (Fr.) One of the two classes into which property is divided in France. The other is *meubles*. Those terms correspond in a measure to realty and personalty in England. The words immovables and movables do not apply strictly, as there are numerous exceptions on both hands. Properties are *immeubles* by reason of their nature, or the purpose for which they are intended, or on account of the subject-matter with which they are placed in relation (Civil Code, art. 517). The first category comprises land, houses, buildings, crops ungathered, etc.; the second includes animals attached to the farm, straw and manure, the inmates of rabbit-warrens, pigeon-cots, beehives and fish-ponds, implements and utensils for working farms and factories, etc.; the third, usufructs, right of way and other servitudes on *immeubles*. Art. 528 of the Civil Code classes as *meubles* by their nature properties that may be moved from one place to another, either by their own action, such as animals, or by extraneous force, like inanimate objects; thus ships are, by art. 531 of the Civil Code, and art. 190 of the Commercial Code, declared to be *meubles*, they may however be mortgaged under laws of 1874 and 1885, contrary to the provisions of art. 2119 of the Civil Code, which states that no right over *meubles* can be acquired by a *hypothèque* (mortgage) of property remaining in the debtor's possession. The procedure for the execution of judicial seizures differs for the two classes of property.

T. L.

IMMIGRATION. The early history of immigration corresponds to that of COLONIES and EMIGRATION, and reference is made to those articles. By immigration is meant that movement by which persons, on their own responsibility, seek settlement in new countries with the intention of becoming permanent residents there. There is also temporary immigration, as of Italians into France during the harvest season, of French Canadians into the United States during the building season; but these movements are of local importance and cannot be treated generally. Permanent immigration, on the other hand, is a demographic and economic phenomenon of great importance to new countries such as the United States, Canada, Australia, the Cape colonies, and the republics of South America.

Immigration differs from colonisation inasmuch as the immigrants do not form a new community themselves, but are projected, so to speak, into a state and social organisation already formed, where they undergo a process of absorption and assimilation. When the new country is an independent one (*e.g.* the United States), all political and to a large extent social connection with the country of emigration is broken off. And even where the emigrant seeks a colony of his native country, many of these colonies are in modern times so nearly autonomous that the political and economic influence is much the same as if he had changed his allegiance.

The importance of immigration lies in two directions—namely, in the effect upon the happiness and well-being of the immigrant himself, and in its effect upon the community which receives him. In the history of immigration there have doubtless been frequent abuses, many cases where the immigrant has been deceived by false representations, or has made a mistake, so that he has found himself worse off abroad than he was at home. In many cases he has been unable to cope with the difficulties of the new life, and has either returned home a sadder man or been overwhelmed by adversity. But in the great majority of cases the immigrants have prospered and attained a position of comfort which they would never have reached at home. A more difficult question is the influence of immigration upon the countries which receive the immigrants. In the early history of new countries, additions to the labour-force have always been welcomed as

so much aid in the great contest with nature involved in opening up and settling waste tracts of land, in making them accessible by roads and railways, and in carrying on the general work of improvement. Later on, as the community begins to be more self-sufficing, and to feel more self-conscious, questions arise as to the *quantity* and *quality* of the immigration, whether it can be readily assimilated, and whether its character is such as to change the type of civilisation already established and which the community values. This is the modern immigration problem. It can best be studied by the experience of the United States of America, where immigration has been going on for the longest time and on the greatest scale (see art. on EMIGRATION).

Statistics of Immigration to the United States.—Prior to 1820 there was no official record of immigration, but it is estimated that the total number of immigrants from the close of the revolutionary war to 1820 was 250,000. Prior to 1856 the records indicate the arrivals of alien passengers only, but it is estimated that 98 per cent of these were immigrants. The general course of the movement is shown by the following table:

Immigration by Decades.

Decade ending with	Aggregate arrivals.	Annual average.
1830 . . .	143,439	14,343
1840 . . .	599,125	59,912
1850 . . .	1,713,251	171,325
1860 . . .	2,598,214	259,821
1870 . . .	2,314,824	231,482
1880 . . .	2,812,191	281,219
1890 . . .	5,246,613	524,661
1900 . . .	3,844,420	384,442
1901-1904 . .	2,809,068	702,267
Total . .	22,081,145	

In the total number from 1820 to 1890, and from 1895-1904, the principal countries are represented as follows:

Country.	1820-1890.	1895-1904.
Germany . . .	4,504,128	276,246
British Isles . .	6,235,277	560,551
Norway, Sweden, and Denmark . .	1,067,548	384,932
Austria-Hungary .	434,488	1,018,376
Italy . . .	388,558	1,134,233
France . . .	366,346	33,788
Russia, Poland, and Finland . .	324,892	767,600
China . . .	290,655	19,237
Switzerland . .	171,269	very small
		1901-1903.
Japan . . .	...	39,507

The proportion from the different countries has varied. From 1821 to 1860 inclusive, over one-half of the whole immigration was from England and Ireland, the greater portion from Ireland. During 1861-70, 1871-80, 1881-90, 1895-1904, the proportions were as follows:

Country.	1861-1870.	1871-1880.	1881-1890.	1895-1904.
	Per cent.	Per cent.	Per cent.	Per cent.
England . .	24·54	16·88	12·53	12·11
Ireland . .	18·82	15·54	12·49	
Germany . .	34·02	25·54	27·70	5·96
Austria-Hungary	·34	2·60	6·74	21·98
Norway and Sweden . .	4·72	7·51	10·84	8·31[1]
Russia & Poland	·20	1·86	5·05	16·58[2]
Italy . . .	·51	1·98	5·86	24·48

[1] Includes Denmark. [2] Includes Finland.

Sex.—During the decade 1880-1890, 61·10 per cent of the immigrants were males and 38·90 per cent were females.

Country.	Total.	Males of total.	Females of total.
		Per cent.	Per cent.
Germany . .	1,452,970	57·6	42·4
Ireland . .	655,482	51·0	49·0
England . .	644,680	61·3	38·7
Sweden & Norway	568,362	61·0	39·0
Italy . . .	307,309	79·4	20·6
Russia including Poland .	265,088	65·8	34·2
Austria . .	226,038	62·9	37·1
Hungary . .	127,681	73·8	26·2
Scotland . .	149,869	61·6	38·4

1904.—Males, 67·6; females, 32·4.

Age.—Of the immigrants arriving in the United States during the 10 years from 1881 to 1890, 21·4 per cent were under 15 years of age, 68·1 per cent were from 15 to 40 years, and 10·6 per cent were over 40 years of age.

Country.	Under 15 years.	From 15 to 40 years.	Over 40 years.
	Per cent.	Per cent.	Per cent.
Germany . .	26·6	62·2	11·2
Ireland . .	14·1	78·6	7·3
England . .	23·5	65·2	11·3
Sweden & Norway	18·3	73·0	8·7
Italy . . .	15·3	69·2	15·5
Russia . .	24·7	65·9	9·4
Austria . .	22·1	66·3	11·6
Scotland . .	24·2	65·2	10·6
Hungary . .	14·7	74·9	10·4

Occupation.—The statistics show that only 10·35 per cent of the immigrants belong to the professional and skilled artisan classes. The remainder are unskilled labourers, women, children, or without occupation.

Causes.—Immigration varies considerably from year to year. Commercial distress in Europe drives immigrants to America, as after the Irish famine of 1846, and the German dearth

of 1853. Bad times in the United States discourage immigration, as during the civil war (in 1861 the immigration sank to 89,724), and the financial panic of 1873, after which the number sank steadily down to 1878, when it was only 138,469. The highest numbers were in 1882 when 788,992, and in 1903 when 857,046 immigrants landed in the United States. Aside from this general economic influence, there are two forces in constant operation which tend to keep up a regular stream of immigration. The first of these is the communication between immigrants and their friends at home. Thousands of letters are sent back annually urging their friends and acquaintances to follow them, and hundreds of thousands of dollars are remitted in order to pay the expense. The custom of the steamship companies in selling prepaid tickets greatly facilitates and encourages these efforts. This attractive force remains constant from year to year, although of course it is more active in good times when money is plentiful and places can be found for the new arrivals. A second powerful force in modern times is the activity of the great steamship companies. Enormous steamships sailing regularly every week must be filled. Competition is very keen, and hence each company has thousands of agents scattered through Europe for the purpose of inducing emigration, and thousands of agents scattered through America, selling prepaid tickets on commission. There is thus an artificial stimulation to immigration, inasmuch as the opportunity is given to all sorts of persons and the way made easy. In former times it required considerable energy and some money for a man to emigrate. At the present time it requires but little money and less energy. At various periods foreign governments, especially local authorities, have assisted criminals, paupers, and other undesirable persons to emigrate, but this has now generally ceased owing to protests from the side of the countries receiving the immigrants. So also at various periods new countries have sought to attract immigrants either by paying their passage or by giving them land and the means of settling; but this has generally ceased as the need for labour has become less pressing. The movement at the present time, therefore, is a purely commercial-industrial one, dependent, on the one hand, on the interests of transportation companies and, on the other hand, upon the supposed economic interests of the individual immigrant. It differs, therefore, from the movement of the 18th century, in which religious, political, and patriotic motives were more or less involved, and is to be treated principally from the economic standpoint. Immigration to the United States was affected by the cholera scare of 1892 and the panic of 1893. For the four years 1891 to 1894, and for the year 1904, the figures are as follows:

Year ending June 30th.	
1891	560,319
1892	623,084
1893	502,917
1894	314,467
1904	815,361

Such being the facts in regard to immigration we go on to inquire its effect on the population and economic condition of the United States.

Effect on Population.—It would seem that immigration must increase population by the number of immigrants and their descendants; and as the majority of the immigrants are in the most productive ages of manhood and womanhood, the natural increase of the population must be greatly accelerated. As, however, in the United States there is no complete registration of births and deaths, and as even in such registration as exists no distinction is made between natives and foreigners, we cannot determine what proportion of the present population is due to immigration since 1820. The census of 1900 returned 26,198,939 persons who were either foreign born or who had one or both parents foreign born. This represents approximately the population of foreign descent for two generations. But the immigrants of the earlier years are now represented by grandchildren or by great-grandchildren—that is, by the third and fourth generation, so that the above figure is entirely inadequate. If we should represent the survivors in the third and fourth generation by 5¾ millions, we should have the number 31,948,939 as representing the portion of the population due to immigration. A similar result is reached by taking the annual immigration since 1820, and applying to it the rate of natural increase for the whole population. We have no means of knowing, it is true, whether the rate of natural increase is the same for the foreign born as for the native born. It is probably greater, so that our result will be a minimum. Such a calculation gives us for 1900 about 32,000,000 descendants of immigrants, and 36,000,000 descendants of the white colonists.

It is sometimes denied that immigration has had any very decided effect in absolutely increasing the total population of the United States. It is said that the pressure of immigration has retarded the natural increase of the native population, so that the immigrants have simply taken the places which would otherwise have been filled by native-born Americans. The decreasing size of the American family is cited as proof of this tendency. We have no exact statistics upon this point. The census of Massachusetts (1885) showed indeed that the foreign-born women had a larger number of children than the native-born, but that there was a greater mortality among them. The just conclusion seems to be that while immigra-

tion is not a clear gain to the population, yet it acts as a powerful stimulus.

A more important result of immigration has been to introduce into the population of the United States great ethnical groups which are separated from each other either by race, by origin, or by parentage. The population of the United States consists now of the four groups shown in the following table:

Population of the United States according to colour, birthplace, and parentage, 1900.

Total population .	76,085,794	100·00%
Native White, native parents . .	41,046,467	53·94%
Coloured population.	8,840,388	11·62%
Foreign White . .	10,460,085	13·75%
Native White, foreign parents . .	15,738,854	20·69%

We have here four different elements entering into the population of the United States. The native Americans, that is, the native whites whose parents are native born, number a little over one-half of the total population. Upon this native American element is imposed three elements different either in race, or in birthplace, or in parentage. The first is the coloured, 11·62 per cent of the total population, composed principally of negroes. The second element, 13·75 per cent, is composed of white persons born abroad, that is, the survivors of the immigrants. This is the element by which the foreign influence on the institutions and people of the United States is exercised. The third element consists of native white persons whose parents, one or both, were foreign born. They may be called the second generation of the immigrants. It is evident that there may be, and probably is, an important difference between these last two classes. The native-born whites of foreign parentage are not to be regarded entirely as foreigners. Born in America, educated in the public schools, learning the English language, they have been subjected to the assimilating influence of American life. These assimilating influences are principally intermarriage, the exercise of political rights, common school education, and social intercourse with the native Americans. It is an important fact that in most of the states the second generation of the immigrants is already more numerous than the first. This indicates that the assimilating influences have a good field in which to work. On the other hand, there are also indications that the assimilating influences have thus far been effective. For otherwise we should certainly find great differences in language, customs, and laws in different portions of the United States, due to the different elements introduced into the population by immigration. The United States would seem to offer in this respect a unique opportunity to study the question of the mixture of races or of nationalities. This, however, is a complicated sociological study into which we cannot enter here.

Economic Effects.—There is no doubt that the rapid development of the material resources of the United States has been greatly aided by immigration. It has furnished the labour-force necessary for the arduous task of opening up a new country, building railways, digging canals, exploiting mines, starting factories, and founding cities. In 1880 nearly 10 per cent of all the persons engaged in agriculture, 25 per cent of those in trade and transportation, and nearly one-third of those employed in manufacturing, mechanical, and mining industries, were of foreign birth. The domestic servants were for the most part females of Irish, German, or Swedish birth. The ordinary craftsmen, such as bakers, butchers, blacksmiths, coopers, masons, plasterers, etc., were largely immigrants or their descendants. The same is true of the employees in cotton, woollen, iron and steel, leather and other factories. A curious fact is that while the immigrants are, upon their arrival, mostly common labourers or agricultural labourers, yet only 23·32 per cent were found employed in agriculture, while 34·89 per cent were employed in mechanical, manufacturing, and mining industry. Doubtless great numbers were employed in the merely mechanical branches of these industries, but the figures show that the unskilled labourer can be readily trained to factory work.

A corresponding fact is that while the immigrants are for the most part from the rural districts of Europe, they congregate after arrival in the larger cities. In 1900, 49·5 per cent of the foreign born were found in cities of 25,000 inhabitants and over. This movement is due partly to the ignorance, inertia, and poverty of many of the immigrants, which retain them in the cities of the east where they land, instead of pushing them forward to the unoccupied lands of the west; and partly to the modern preference for city rather than country life. It has important economic influence both for the immigrants and the country receiving them. It means a change of occupation and social environment for the immigrant, and an intensification of the movement towards cities which is one of the characteristics of modern civilisation. This movement in America has been accelerated by immigration.

Many attempts have been made to measure the direct economic gain to a country by immigration. There are two items to be considered; first, the money or capital which the immigrants bring with them; second, the economic value of the immigrants themselves. The amount of money brought by the immigrants to the United States is not large. For 152,360 immigrants landing at the port of New York during the first six months of 1892,

it was returned as $20.09 (£4) *per caput*. This is offset by the large amounts of money sent back to Europe by the immigrants to aid and support their friends or to assist them to emigrate. It has also been suggested that the amount of wealth brought by the immigrants is much less than the *per caput* wealth of the people of the United States, estimated at $1000.00 (£200), so that the average well-being is not increased.

The real economic gain to the United States by immigration consists in the value of the full-grown labour supplied to it by the countries of Europe. Various attempts have been made to estimate this in money. One way is to consider every full-grown immigrant as worth to the United States the cost of his bringing up to the age of fifteen. Estimating that at $1000 (say £200), the 315,054 immigrants in 1890 between the ages of fifteen and forty would represent an enormous sum, $315,054,000. A second method of estimating the economic value of the immigrant is to capitalise his future earnings over and above his future cost of subsistence, according to his probable after-life. This sum will represent the amount of wealth he may be expected to add to the community before he dies. Dr. Wm. Farr estimated the net future value of immigrants from Great Britain on this plan as £175 *per caput*. The money value of an annual immigration of 500,000 souls would be $437,000,000 (say £87,400,000). In fact, as wages are higher, and cost of living not proportionately greater in the States, the real gain would be considerably more.

All these attempts to put a money value on the economic gain by immigration are fallacious. An immigrant is worth the cost of bringing him up only if he becomes an honest, industrious, able-bodied labourer. If he is vicious, idle, or infirm, then he is only a care and a burden to the community that receives him. So, also, there is no real capitalised value of his future earnings unless there is a demand for his labour. Immigration is of economic value to a country if the immigrants can be usefully employed. That is not a matter for statistical computation, but for general observation. The considerations which are of importance from this point of view are as follows:

(*a*) The need of unskilled labour in the new countries is much less pressing than it was forty years ago. This is due partly to the increase of population, partly to the employment of machinery on a grand scale, and partly to the fact that the most productive lands have been occupied. We have the same complaints in regard to lack of employment in new countries as in old. The tendency of the immigrants to congregate in large cities instead of spreading over the country makes the congestion of labour still more acute. Immigration has passed beyond its first phase, where any and every sort of labour force was welcome for the purpose of opening up the country. A sign of this is seen in the general cessation of governmental efforts to stimulate immigration, and the indifference, not to say hostility, with which continued immigration is viewed.

(*b*) The immigration of criminals, paupers, persons diseased in mind or body, and persons unable to support themselves, is a direct economic and social detriment to the community. Since 1882 such persons have been refused admittance to the United States, and, when rejected, the steamship companies that brought them have been obliged to carry them back. Statistics for the United States show that the burden of public and private charity has been greatly increased by the indiscriminate admission of immigrants of all classes. No law of international comity is violated by the refusal to receive these unfortunates. They should be taken care of at home.

(*c*) Immigration sometimes increases the competition in the labour market, and thus lowers wages. It is often denounced by labour organisations on this account. One case is particularly aggravating, viz. when the employers import foreign labourers to take the place of their men who are on a strike. This renders all organisation of labour futile. The law of 1885 in the United States, commonly called the Labour Contract law, forbids the entrance of persons who are already under contract to labour there. But it is extremely difficult to prove the existence of such a contract. Outside of this particular case it does not appear that the ordinary competition due to immigration is felt by the labouring class in a new country where that competition is on the same plane of living.

(*d*) Immigration of masses of men accustomed to a lower standard of living than prevails in the new country may have a disastrous effect on the economic well-being of the community. An example of this is the Chinese immigration into the States (practically prohibited in 1882). The Chinese are industrious and thrifty, but they live in a way impossible for the American workmen to imitate. They never assimilate with the Americans or adopt western civilisation. Besides the social danger arising from the presence of such an alien element in a new country, there is the economic danger lest the standard of living of the whole labouring class should be brought down to their level. Some of the recent immigration from southern and eastern Europe raises the same question.

Restriction of Immigration.—Legislation in the United States has attempted to meet the dangers noted under the last three heads. The act of 1882 mentioned above has been

supplemented by the act of 1893, which provides for the exclusion of idiots and insane persons, paupers or persons likely to become a public charge, or suffering from a loathsome or dangerous contagious disease, convicts, polygamists, and contract labourers. The number excluded under the former acts was in 1890, 535, in 1891, 1026, and in 1892, 3732. The contract-labour law of 1885 excludes persons coming under contract to labour. The Chinese exclusion policy adopted in 1882 was made more severe by the act of 1888, which forbade the return to the United States of Chinese labourers who had left there, and by the Geary Act of 1892, compelling the registration of Chinese on pain of deportation. The latter act has not been enforced.

Future Policy in regard to Immigration.—There is no doubt of the political right of a country to restrict or prohibit the immigration of persons whom it considers undesirable. During mediæval times such restrictions were universal. They fell into disuse owing to the increased facilities of communication between countries and the modern spirit of individual liberty. But a state must be sovereign in its own territory, and hence must have the right to exclude persons whose presence it regards as detrimental to its civilisation. In fact, we may say that this is the highest duty of a state, viz. to preserve its standard of civilisation. International comity demands that trade and travel should not be unnecessarily embarrassed, and that prohibitions should be directed against individuals as such and not against nationalities or races, unless the race as a whole proves incapable of assimilation. Numerous political and social effects are connected with immigration which prevent its being treated simply as an economic question. In a democratic country like the United States rapid immigration and easy methods of naturalisation throw political power into the hands of the immigrants, who are often ignorant, unaccustomed to the exercise of political rights, and sometimes venal. The foreign-born males of twenty-one years of age and over constitute 23·78 per cent of all the males of that age. In some of the western states and in many cities they constitute more than one-half. The social effects are felt in the abnormal number of the foreign-born in the poor-houses, asylums, hospitals, and prisons. Their participation in crime is not so disproportioned to their number if we take into consideration that the immigrants are mostly adults. These social effects influence legislation, and in the future the restrictive policy will be more or less severe according as the pressure of immigration is more or less keenly felt by the labouring class, and increase of crime and pauperism, outbreaks of anarchism and other social evils, are attributed by public sentiment to immigration.

Other Countries.—In the British colonies the question of immigration seems to be in almost the same stage as in the United States, only the movement has been smaller and the evils less felt. In Australia we find the same prohibition on Chinese immigration, and the same jealousy of the working-classes in regard to competition in the labour market. The countries of South America welcome immigrants more gladly, but many complaints are heard of the way in which they are treated.

[Besides the Bibliography in Richmond Mayo-Smith, *Emigration and Immigration*, New York and London, 1890, the following recent publications may be mentioned: *Quarterly Reports of the Chief of the Bureau of Statistics*, Treasury Department (No. 2, 1892-93), Washington, 1893—*Report of the House Committee on Immigration and Naturalisation*, Washington, 1892.—*Correspondence relating to Chinese Immigration into the Australian Colonies*, Parl. Return, 1888.—*Indagini sulla Emigrazione Italiana all' Estero*, Roma, 1890.—Rossi, *Del Patronato degli Emigranti*, Roma, 1893.—Philippovich, "Die Vereinigten Staaten und die Europäische Auswanderung," in Braun's *Archiv für Sozialegesetzgebung*, etc., vol. vi. No. 2, Berlin, 1893.—Report by Burnett and Schloss on *Immigration into America*.]

R. M-S.

IMMORAL CONTRACT. See ILLEGAL CONTRACT.

IMMOVABLES. By "immovables" is primarily meant such things as lands and buildings that cannot be moved. The term is used in a secondary meaning as including rights over immovable things. "The only natural classification of the objects of enjoyment," says Sir Henry Maine (*Ancient Law*, London, 1861, p. 273), "the only classification which corresponds with an essential difference in the subject-matter, is that which divides them into movables and immovables."

[As regards the historical development of the distinction, see Maine's *Ancient Law*; as to the importance of the distinction in modern law, see Foote's *Private International Jurisprudence*, 3rd ed. 1904.] J. E. C. M.

IMPEACHMENT OF WASTE. A tenant for life of an estate—unless expressly declared to be "not impeachable for waste"—is not allowed to do any act, such as cutting down trees or opening mines, that would injure the inheritance. Such acts are called waste (see WASTE), and the tenant is said to be liable or impeachable for waste.

[Goodeve's *Real Property*, London, 1891.]

J. E. C. M.

IMPERIAL. Russian gold coin of the value of fifteen roubles. Weight, 199·1 grains; fineness, 900. Value (English standard) £1:11:8·79, (French standard) 40 francs. Half-imperials are of the same fineness, and of proportionate weight. Prior to 1886 the half-imperial was 916·6 fine and weighed 101 grains. F. E. A.

IMPORTS AND EXPORTS. Imports and exports are correlative terms; they denote the organic constituents of that which is known as commerce. Early opinion looked favourably on exports, regarding them as signs of successful trade.

In 1776 Adam Smith published his *Wealth of Nations;* in 1783 the first reference in parliament was made to that work; in the same year the younger Pitt became prime minister of England. This period may fairly be taken as the starting-point of the modern history of European trade. The closing years of the 18th century and opening years of the 19th saw almost universal war amongst civilised peoples; and the war was accompanied by extraordinary efforts to restrict and regulate the trade of the belligerents. It has been said that in the later years of the war Napoleon's chief object was to strike a fatal blow at English trade. The Berlin decree of 1807, and the counter-moves which it called forth, were evidence of the mischief he did to all (see CONTINENTAL SYSTEM). For thirty years, from 1785 to 1815, the trade of Europe was subjected to the double disturbance arising from constant war and from unreasoning interference of all descriptions. The next thirty years (1815-1845) represent a period of rest, and, as far at least as England was concerned, a period of transition. The remaining years of the century to our own time exhibit free-trade England dealing with a world mainly, almost universally, protectionist, and expanding her commerce to a degree of which the trade-reformers never dreamed.

A review of foreign legislation during this century shows that in varying degrees protection, sometimes contracting even to prohibition, has everywhere ruled abroad. Commercial treaties and the most favoured nation clause have been a palliative, but have not checked the inveterate evil. The establishment of the German ZOLLVEREIN in 1833 is a leading event in the period, but had little effect on external trade. The United States of America started the theory of absolute commercial independence as early as 1789; their consequent efforts at protection have not been uniform; they rose to their greatest height (before the recent Act) in the tariffs of 1824-28. In 1833 (the Clay tariff), and again in 1846 (the Walker tariff), opposite tendencies prevailed, but since 1860 there has been a gradual tightening of the cords.

The commercial history of Great Britain has been more interesting for this period than that of any other country. The closing years of the 18th century contained the germs of many changes. In 1784 England had parted definitely with her great colonies in the New World, and in 1788 she laid the foundations of Australia. About the same time Ireland was admitted to something like commercial equality; in 1801 came the union. In 1804 England obtained a lasting footing in South Africa. The East Indian empire was being gradually built up throughout the period; the Company's East Indian trade being thrown open in 1813, and its China monopoly coming to an end in 1833. Again in 1785 Arkwright's patent was thrown open, and the use of machinery began to spread in the woollen and cotton manufactures. But till past 1820 the national life was weighted with commercial restrictions. "Everything conceivable was taxed," says Rogers. Smuggling was rampant; the tariff and excise laws were "all but universally disregarded." In 1825 through HUSKISSON (*q.v.*) the first indications of a change came, and the theory of a close colonial trade was broken down. The repeal of the corn laws in 1846, and the freeing of the tariff in 1861, were the final scenes in the commercial emancipation.

The commercial history of the British colonies is more recent. Canada and most of the Australian colonies have tended more and more towards protection. In most of the other colonies the customs tariffs have been sufficiently heavy to operate as some check to trade, but they remain revenue tariffs nevertheless. The discovery of gold in Australia in 1851 gave a special impulse to the trade of those colonies (see COLONIES).

It would have been interesting to compare the gross value of the trade of the world at the end of last century with its value at the present time, but the apparent impossibility of obtaining satisfactory statistics of exports and imports, even of the leading European countries, at so early a date has prevented this attempt. For Great Britain fairly trustworthy figures exist, and the same is true of the United States, and we therefore give tables illustrating the development of the trade of these two leading commercial powers of the world. It is clear that any development of the trade of a single great commercial power is an index of a general development of some magnitude; as an increase of imports by that power postulates an increase of the exporting power of other parts of the world and *vice versa*. And in the case of Great Britain it can be shown that her trade has always been widely distributed, and that its growth represents a corresponding development of many countries.

At the beginning of the century, Pitt, in the House of Commons, in the course of his resolutions of the 28th July 1801, dealing with the public debt, stated the increase in the exports and imports of Great Britain as follows:

		Imports.	Exports.
Average of six years to	1784	£11,690,829	£8,616,660
"	1793	18,685,390	14,771,049
For the one year "	1799	29,945,808	24,084,000

The following table gives some idea of the growth of the foreign trade of the United Kingdom since Pitt's time.

Year.	Imports.	Exports.	Population.	Trade per Head.
	£	£		£ s. d.
1786	26,500,000	27,000,000	13,500,000	4 0 0
1800	53,250,000	52,000,000	15,000,000	7 0 0
1815	43,000,000	64,000,000	19,000,000	5 12 6
1830	58,000,000	45,000,000	24,000,000	4 6 0
1845	88,000,000	68,000,000	27,000,000	5 15 0
1860	210,580,873	164,521,851	28,900,000	13 0 0
1875	373,939,577	281,612,323	32,700,000	20 0 0
1890	420,691,997	328,252,118	37,800,000	19 16 3
1904	551,038,628	371,015,321	42,800,000	21 10 11

The figures of the earlier years, viz. from 1786 to 1845, are, so far as we know, the first attempt to give some idea of the actual value of exports and imports for those periods. The principles of the calculation are briefly indicated in the last paragraph of this article; it is enough to say here that the amounts have been calculated with great care and verified in different ways from the most authentic records. The trade between Ireland and Great Britain in 1786, 1800, and 1815 has been excluded, and the foreign trade of Ireland added; so that those years are on the same basis as the later ones. For figures which can only be approximate we purposely adopt round numbers.

The table justifies the following conclusions—

(1) In the first period, when invention was giving an impulse to industry, the exports and total foreign trade nearly doubled in amount and gave an increase of 75 per cent per head of population.

(2) The volume of foreign trade was practically stationary for the first thirty years of the century, but the amount of exports and imports fluctuated greatly as compared with each other.

(3) The turn for the better was coincident with free trade, and since 1845 the expansion of foreign trade has been continuous. The trade per head in 1860 was two and a quarter times as great as it was in 1845. It was more than half as large again in 1875. Since 1875, judging by the board of trade statistics, the average of the annual imports and exports per head of the population of the United Kingdom has, apart from an occasional drop, been fairly steady at £19 or £20.

(4) Imports have, as a rule, largely exceeded exports; the only year in which the exports materially exceeded imports being the year of Waterloo, and this fact agrees remarkably with the statement made by Macgregor that we paid our subsidies to the continent in that war in the goods of British origin for which, in spite of embargoes, there was such a demand on the continent. The theory of the excess of imports will be found fully treated in the article on COMMERCE.

That the trade of the United Kingdom has always been so diversified and widely ramified that its growth is a fair index of expansion in other parts of the world may be gathered from an inspection of the tables of trade with different foreign countries. For the trade of the present day there are the board of trade abstracts. But the same tale is told by an examination of old parliamentary returns. In 1786, for instance, the following countries participated as follows in English trade:

Germany—total trade with England		.	£1,763,952
Holland	,,	,, .	1,842,057
Russia	,,	,, .	1,717,604
United States	,,	,, .	2,443,574

and there was a large trade with our own possessions in Asia and the West Indies. A century later, in 1890, the total trade with the countries above mentioned, which we place here merely for comparison, was as follows:

Germany—total trade with England			£56,589,612
Holland	,,	,, .	45,245,007
Russia	,,	,, .	32,597,022
United States	,,	,, .	143,623,361

The comparison of such figures indicates the general growth of trade in the world.

The following figures exhibit the growth of the imports and exports of the United States.

Year.	Imports.	Exports.	Total per head of pop.
1840	$107,141,519	$132,086,000	$14·05
1848-50 aver. of 3 yrs.	160,331,562	150,563,652	14·34
1858-60 do.	327,835,845	360,518,736	21·54
1868-70 do.	432,578,609	551,544,737	27·67
1878-80 do.	666,966,641	833,229,300	30·07
1888-90 do.	793,558,886	814,880,892	27·40
1898-1900 do.	721,046,442	1,261,662,235	23·60

Mr. Farquhar (*Econom. and Industr. Delusions*) states that the total exports in 1806 and 1807 exceeded $100,000,000, and that this sum was not surpassed till 1834, and he shows that the amount per head of exported merchandise only, excluding specie, rose from $5½ in 1821 to more than $13½ in 1890, having been as high as $17½ *per caput*. This in spite of the unwise commercial policy which Mr. Farquhar seeks to expose. But steady as the progress of trade per head had been, it did little more than double itself between 1840 and 1880, whereas in that period, as we have seen above, British foreign trade was nearly quadrupled. At the present time the external trade of the States per head of population is not many more dollars than that of Great Britain is pounds sterling; and it seems to be declining.

As a further indication of the growth of trade in the world, we append a table showing the exports and imports of seven chief European countries up to 1890 during forty years; and we have added those of Mexico, Brazil, and Chili, as giving some indication of the development in Central and South America, to which so much European capital has of late years flowed. As far as possible bullion and specie

are omitted, but not for Holland, Spain, or the American States; it is impossible to obtain complete uniformity either of years or method; but the average results of the table are sufficiently correct to support general inferences.

IMPORTS.

	1850	1860	1870	1880	1890
	£	£	£	£	£
Austria	16,015,620	23,083,040	36,330,000	50,112,500	50,900,000
Belgium	16,500,000	39,850,000	49,500,000	98,464,000	127,526,400
France	46,309,250	106,290,526	111,259,720	196,300,680	175,932,000
Germany	27,537,292	no return	no return	no return	292,234,500
Holland	24,500,000	38,393,000	49,300,000	60,000,000	108,312,500
Russia	16,000,000	25,900,000	45,500,000	65,000,000	84,673,666
Spain	6,552,483	17,500,000	19,000,000	15,500,000	37,645,517
Mexico	no return	3,000,000	4,695,800	6,000,000	7,230,000
Brazil	7,500,000	13,200,000	19,000,000	25,000,000	23,342,000
Chili	2,800,000	4,990,000	5,200,000	4,550,000	8,850,000

EXPORTS.

	1850	1860	1870	1880	1890
	£	£	£	£	£
Austria	12,327,885	25,680,308	32,950,000	56,350,000	64,280,000
Belgium	16,000,000	35,712,500	49,000,000	85,500,000	117,926,073
France	65,186,500	125,920,000	114,406,280	136,024,560	150,120,000
Germany	26,357,000	no return	no return	no return	246,935,000
Holland	19,687,785	32,603,000	42,200,000	44,500,000	90,627,666
Russia	20,700,000	27,667,000	48,978,000	68,000,000	58,630,666
Spain	4,975,000	11,338,520	12,000,000	17,500,000	37,510,395
Mexico	no return	2,125,000	4,827,000	6,000,000	9,615,300
Brazil	6,826,777	13,700,000	22,500,000	30,900,000	26,500,000
Chili	2,457,260	5,650,000	6,000,000	8,500,000	10,000,000

The figures in the above table given under each year are usually the mean of two or more years around the year of the decade. It has been impossible, owing to imperfections in all the returns, to take the same years for each decade, or for all the countries in any one decade; but the variations are not material. The sterling amounts are mostly taken from board of trade returns.

It will be observed, that the volume of exports in all these countries increased at an even faster rate than those of England. Between 1850 and 1860 in this country exports rather more than doubled themselves, and between 1860 and 1890 they again did the same. But in the latter period those of Belgium and Spain were trebled, those of Holland rose to four and a half times their former amount; and the other countries selected except France increased their output as fast as our own country. Germany in the whole period increased its exports nine-fold. The growth of the imports is in much the same proportion. There has been no marked change in the figures of the above table during the last fifteen years, except the very large increase of trade which is found in the case of France and in a lesser degree Holland. The deductions remain broadly the same. So that without going into the rate of growth per head of population in each country, allowing for incorrectness of figures and divergence of method in returns, it may safely be inferred that everywhere increase of trade has been considerable. And this increase appears to have been hitherto largely independent of the trade policy of each particular country.

We shall now come back to Great Britain and examine the growth of its trade with its own colonies during a century past, and then compare its colonial trade with its foreign trade, as some considerable questions are centred in that comparison.

The following tables show the trade of Great Britain and Ireland with the rest of the empire at three periods. In the year 1815 the germs of the colonial empire of Great Britain as it now exists had been finally established. For 1855 careful returns are available in regard to the colonies; and the new trade policy of Great Britain was well settled. With these years we compare the figures of 1904, as representing the present extent of the trade.

	Imports into United Kingdom.		
	1815	1855	1904
	£	£	£
Channel Islands	97,595	244,501	1,586,243
Gibraltar	199,587	70,621	29,297
Malta		201,075	47,833
North American Colonies	368,873	4,693,065	23,137,682
West Indies and Guiana	8,527,019	5,470,212	2,387,655
British Honduras		492,781	173,577
Australasia	nil	4,500,200	36,310,428
Indian Empire	8,042,292	12,668,732	36,472,636
Straits Settlements		615,738	6,283,820
Ceylon		1,474,251	4,135,027
Hong-Kong		no figures	466,811
Mauritius	141,479	1,723,807	264,554
Cape and Natal	325,045	949,640	5,457,494
West Africa and Gold Coast		283,780	2,456,972
Other Possessions		3,323	808,367
Totals	17,701,890	33,391,726	120,018,406

	Exports from United Kingdom.		
	1815	1855	1904
	£	£	£
Channel Islands	328,581	601,122	1,320,912
Gibraltar	1,201,142	906,185	1,037,395
Malta	957,647	702,313	1,273,001
North American Colonies	3,461,742	3,089,170	12,805,943
West Indies and Guiana	7,225,807	1,982,061	3,222,071
British Honduras		173,521	198,994
Australasia	40,519	7,221,625	26,738,650
Indian Empire	2,891,416	10,353,475	41,544,494
Straits Settlements		691,299	3,183,329
Ceylon		325,897	1,466,143
Hong-Kong		no figures	4,574,767
Mauritius		317,945	472,477
Cape and Natal	210,654	836,750	19,053,123
West Africa and Gold Coast	123,188	381,368	3,035,418
Other Possessions		69,964	956,779
Totals	16,430,496	27,653,235	120,783,496

The figures for 1815 in this return should be somewhat, but not a great deal, higher, as it has been impossible to ascertain and add to them the separate trade of Ireland in that

year with the British colonies; the total, however, would probably not exceed £17,000,000. Both imports and exports came near to doubling themselves between 1815 and 1855, while the imports nearly, and the exports more than, quadrupled themselves between 1855 and 1904. The increase of the total trade has been remarkable: in the case of the Australasian colonies it has sprung from £40,000 to a value of nearly £63,000,000; in the case of South Africa the exports of the United Kingdom have increased over ninety-fold, although the imports have increased in a much smaller ratio. The increased figures for South and West Africa are in part due to transfers—in the former case through the conquest of the Boer republics. One striking fact is not of course brought out by the table: within the last ten years the trade with several of the colonies, notably Canada, has doubled; with Natal it has almost trebled. Another point of interest is that in 1815 the West Indian trade is seen to be the greater part of the whole; it is now but one-fortieth of the aggregate, India taking the first place, with Australia closely following.

We may now turn to the trade of the United Kingdom in 1904 with various foreign countries.

Country.	Imports.	Exports.	Total Trade.
	£	£	£
United States	119,227,802	39,272,433	158,500,235
France & Colonies	52,696,294	23,108,243	75,804,537
Germany	33,944,322	36,427,850	70,372,172
Holland & Colonies	36,046,795	16,389,381	52,436,176
Russia	31,402,838	15,285,157	46,687,995
Belgium	27,536,425	13,474,492	41,010,917
Sweden & Norway	15,351,917	8,852,276	24,204,193
Spain & Canary Islands	15,215,067	5,869,647	21,084,714
Italy	8,324,822	9,222,799	12,547,621
S. Amer. Republics	38,658,867	26,077,687	64,736,554
Other Places	57,615,073	56,251,860	113,866,933
Total	431,020,222	250,231,825	681,252,047

The table has been so arranged as to show the order of magnitude of our total trade with the United States of America and the chief European countries; and one thing which is obvious on the face of the two last returns is that the foreign trade of England is far more valuable at the present time than the trade with the British empire.[1] It is well to lay stress on this fact at a moment when Great Britain is often exhorted to let one trade perish so long as she holds the other. The imports from the United States alone are equal to those from the whole of the colonies and India; though the latter are thrice as good customers for our exports as the States. In the European countries enumerated we find a market at least as valuable as that of our own possessions. The sum total of our foreign trade is not so very far from three times as great as that of our colonial trade. Yet if we compare the trade per head of population in each case, the comparison is immeasurably in favour of our own possessions. Against this in turn we must remember the heavy debts which our colonies have contracted on the London market. In any case the figures are a sufficient warning as to the inevitable derangement which would result from hasty tampering with the course of our trade.

[1] Originally written in 1892.

We proceed to give some idea of the total trade of the world, and the rate of exports per head in each country. The original table for 1890 sufficiently represents existing facts.

Country.	Pop. in Millions.	Imports. £	Exports. £	Rate per head of Exports. £ s. d.
EUROPE—				
Un. Kgdom.	37·8	420,691,997	328,252,118	8 15 0
British Pos.	·39	574,195	2,252,942	5 14 0
France	38·3	179,480,000	150,120,000	4 0 0
Spain	18·0	37,645,517	37,510,395	2 1 4
Portugal	5·0	10,662,540	7,323,505	1 9 6
Italy	30·1	55,095,057	38,904,014	1 6 0
Switzerland	3·0	40,065,626	29,002,912	9 13 4
Belgium	6·1	127,526,400	117,926,073	19 10 0
Holland	4·5	108,312,500	90,627,666	22 10 0
Germ. Emp.	45·2	292,234,500	246,935,000	5 9 0
Aust.-Hung.	41·2	54,514,333	64,280,000	1 10 0
Servia	2·2	1,521,790	1,833,622	0 16 4
Roumania	5·5	14,511,640	11,038,320	2 0 0
Montenegro	·24	20,000	200,000	0 16 8
Bulgaria	3·15	3,381,220	2,802,045	0 18 0
Turk. Emp.	4·82	17,707,288	13,286,478	2 15 0
Greece	2·18	4,313,800	3,421,143	1 11 3
Russia	95·0	34,673,666	58,630,666	0 12 4
Finland	2·2	5,040,000	3,600,000	1 11 3
Sweden	4·78	18,500,000	15,400,000	3 4 6
Norway	1·98	11,592,155	7,283,140	3 13 0
Denmark	2·2	17,057,288	18,546,552	8 8 6
		1,458,121,512	1,249,176,591	
ASIA—				
Siberia	4·48	1,650,000	1,500,000	0 6 0
Turkish Asia	21·6	4,746,911	4,404,194	0 6 8
Oman	1·5	305,120	220,414	0 3 0
Persia	9·0	3,500,000	3,500,000	0 8 0
British India	220·5	64,765,418	70,586,570	0 6 6
Afghanistan	4·0	740,000	675,860	0 3 6
Bhutan	·03	14,280	14,410	0 9 0
Nepaul	2·0	954,000	1,063,400	0 10 6
China	402·6	35,775,725	23,576,395	0 1 0
Corea	10·0	727,360	546,227	0 1 0
Japan	40·0	13,610,000	9,300,000	0 4 6
Siam	6·0	2,631,020	3,209,621	0 10 6
British E. Ind.	4·63	22,280,252	27,163,872	5 17 0
Dutch do.	29·76	12,150,000	15,750,000	0 10 6
French do.	14·2	2,682,000	3,354,000	0 4 8
Spanish do.	7·12	3,500,000	4,000,000	0 11 3
		170,032,086	168,864,963	
AFRICA—				
Egypt	6·87	8,283,329	12,172,988	1 16 0
Tripoli	·80	250,000	387,500	0 9 6
Morocco	5·00	1,793,689	1,632,626	0 6 6
Algeria	4·00	10,400,000	10,400,000	2 12 0
Tunis	1·5	1,115,000	1,225,000	0 16 0
Liberia	1·06	971,259	971,051	0 18 0
Soudan, etc.	10·4	150,000	150,000	0 0 4½
Congo State	17·	no return	564,500	0 0 9
Brit. W. Africa	1·7	1,602,385	1,709,234	1 0 0
So. Af. Rep.	·68	5,500,000	5,000,000	7 7 0
Orange F. St.	·207	1,000,000	2,000,000	9 19 6
Natal	·36	4,417,085	1,379,657	3 16 0
Cape Colony	1·5	10,106,466	10,152,979	6 15 0
Madagascar	1·5	150,000	150,000	0 2 0
French Pos.	1·2	2,000,000	1,500,000	1 5 0
Mauritius	·37	1,229,690	2,000,432	5 8 0
		48,968,903	51,395,967	

Country.	Pop. in Millions.	Imports. £	Exports. £	Rate per head of Exports. £ s. d.
AMERICA—				
Greenland		27,000	20,000	
Canad. Dom.	4·8	24,662,150	19,907,228	4 2 10
Newfoundld.	·202	1,326,845	1,270,770	6 5 9
St. Pierre, etc.		574,000	725,000	
United States	62·6	173,760,000	179,258,175	2 17 0
Brit. W. I. and Guiana	1·68	8,977,255	10,009,710	5 19 0
Spanish do.	2·32	5,000,000	8,350,000	3 12 0
French do.	·366	2,262,000	2,143,000	5 16 6
Danish do.	·032	161,500	32,500	1 0 0
Dutch do.	·101	450,000	500,000	5 0 0
San Domingo	·65	354,770	310,580	0 9 6
Hayti	1·00	3,250,000	2,500,000	2 10 0
Mexico	11·39	7,230,400	9,615,800	0 16 10
Nicaragua	·313	375,475	300,000	0 19 0
Costa Rica	·238	975,000	1,583,200	6 12 6
Guatemala	1·432	1,174,745	2,215,544	1 10 0
Honduras	·432	461,506	461,500	1 0 0
San Salvador	·778	870,000	1,166,000	1 10 0
Brazil	14·75	23,342,000	26,500,000	1 16 0
Colombia	4·5	2,053,200	3,147,300	0 14 0
Venezuela	2·28	3,344,500	4,004,000	1 18 6
Peru	2·62	2,000,000	1,800,000	0 18 0
Ecuador	1·27	1,431,000	1,394,500	1 2 0
Bolivia	1·19	1,200,000	1,800,000	1 10 0
Chili	3·2	3,850,000	10,000,000	3 2 6
Uruguay	·68	6,886,000	6,188,400	9 0 0
Paraguay	·50	409,840	435,240	0 17 6
Argentina	4·08	42,800,250	21,000,000	5 3 0
		323,709,436	316,637,947	
AUSTRALASIA				
N. S. Wales	·751	22,615,004	22,045,937	29 6 8
Victoria	·862	22,954,015	13,266,222	15 6 0
Queensland	·226	5,066,700	8,544,512	37 16 0
S. Australia	·286	8,262,673	8,827,378	30 17 3
W. Australia	·029	874,447	617,811	21 5 0
Tasmania	·115	1,397,512	1,486,922	12 18 5
New Zealand	·489	6,260,525	9,811,720	20 1 3
New Guinea		15,833	8,134	
Fiji	·127	206,758	364,532	2 19 0
Hawaii	·089	1,392,400	2,604,600	28 18 0
Samoa	·036	43,626	20,509	0 11 6
N. Caledon.		532,000	372,000	
		70,121,493	67,970,277	

The materials at command do not admit of this table being perfect. There is a large balance of trade done in the world which is nowhere recorded. Many of the figures are rough averages. The conversion from foreign currencies into sterling admits new error. The varying methods in which returns are compiled is another difficulty. The case of transit trade is yet another, for the same goods may appear under two or three countries. Further, bullion and specie are omitted in most of the European returns, and as a rule are included in all others—but it has been impossible to reduce the returns to a fixed principle in this respect.

Yet with all these drawbacks it may be taken to show roughly that the exports of all the countries of the world amounted to £1,900,000,000 sterling in value in 1890; that 1,250 millions came from Europe, and only about a fourth of that amount, or 317 millions, from the whole of America; that the exports of Great Britain alone were equal to the whole of those of the American continent (comp. art. on COMMERCE).

Further, we observe that the imports generally exceed the exports; but in a large number of cases, particularly undeveloped countries, this result is not specially prominent. All those imports must be somewhere in the other column of the return as exports, but by the time they appear as imports their money-value has increased by the amount of freight and other charges.

In giving figures to show the comparative producing power of the different populations, we have confined ourselves to the rate per head of exports. The results of these figures are exceedingly interesting. Generally speaking, people in a backward state of civilisation give a low rate of production. Certain of the Australian colonies are at the head of the list, notably Queensland and South Australia, but Hawaii runs them close. Holland and Belgium stand very high, and the comparatively low position taken by Great Britain is remarkable. The United States have a very low rate per head. A little reflection shows that these figures cannot be taken by themselves as an index of a country's prosperity; one country may have an enormous internal trade, to which the exports are no index; another may have a large transit trade. The imports and exports of Malta, as given in the *Statesman's Year-Book*, are an instance of the latter case.

We have hitherto been concerned chiefly with the statistical side of our subject; we have used values as the most convenient form of indicating the wealth involved; comparative value of trade being some index also of comparative volume; although, when we have to do with specific deductions from these figures, there are many cases in which the quantities of commodities and their prices must be examined with care.

There is, however, quite another side of the subject, which is of no little importance, though it cannot here be dealt with at length. The economic lesson of tables of exports and imports—their teaching as to the life and occupation of the people—is one of the most important branches of the study, and one that is usually neglected. This must be shown by tables of the kinds of articles exported. We find in the case of Great Britain a complete change in the nature of its trade during the period under review in this article. Until some years later than 1750 England uniformly exported grain and rough woollen goods; with the closing years of the 18th century she was developing manufactures at home, and her mercantile marine was bringing in tea, sugar, spices, and other tropical produce from her colonies. This was the transition; to-day an examination of her trade-returns presents the picture of a country all but exclu-

sively dependent for her food supply on foreign nations; and exporting her manufactures to every part of the habitable globe. Carrying this economic examination of the returns to those of the colonies, we are struck by the capacity of the British empire to depend entirely on itself in case of need; distance, however, being the great difficulty in the way of a realisation of this imperial independence. No other country in the world, save Holland, stands in anything like the same position as to the imports of the necessaries of life; but the colonial empire of Holland, important as it is, is entirely different in character from that of the United Kingdom. If we turn to the table of the world's trade and treat it similarly, we shall be able to classify the countries of the world according to their production of the necessaries of life, of luxuries, of raw materials, of manufactured goods; and the classification will obviously form a basis for a further sociological examination of the condition of each people.

Another point which may be illustrated by figures of exports and imports is the effect of war on the interchange between nations. War may act in two ways: in checking production and in diverting the course of trade. A great falling off in exports and imports, or a sudden development of trade with a particular country, may equally be the result of a state of hostilities. The trade of the United Kingdom in 1815 and 1855, and the years around these points—the trade of the United States in 1860 and onwards—that of France in 1869-1872, all illustrate the principle.

It remains to consider briefly the value of the available figures representing the trade of various countries. In the length of time for which even approximately accurate figures can be obtained, Great Britain is far ahead of other countries. Probably the United States come next, although we have had great difficulty in tracing any figures at all in the early part of the century. It is a matter of serious doubt how far any set of figures represents what it professes to represent; thus the statement of the trade of the world above given is in the broadest sense provisional, for there are scarcely any countries which make their returns on the same basis. Even the British possessions vary from one another and from the correct system of calculation; they are not even always *bona-fide*. In 1883 a witness before an inter-departmental committee on the subject of the statistical returns of the British empire admitted that it was at one time a practice in the colony which he represented to cook the returns, so as to accord with the theory that exports should exceed imports. The divergence between official and real values in the figures of British trade prior to 1854 we have already mentioned (see also Declared and Real Values). The official figures up to that date were founded on valuations of products settled in 1694; these valuations probably held good well into the 18th century; but towards the close of it they had got very far out, and official reports began to recognise this. The inspector-general of imports and exports, after making his official return, would add a computation of the real values. For the adjustment of the imports we have to rely upon general inference from those computations, and upon the fact that in 1854, when the new system was introduced, the real value was found to exceed the official value by 22¾ per cent. In regard to the valuation of exports material for adjustment came in during 1798; from which date the declared value of British produce exported is found side by side with the official value; exceeding it by 68 per cent in the first year, and by a diminishing percentage until 1820, when the divergence went the other way, and official value rose from 5 per cent in excess to about 150 per cent at the date when the fictitious official value was finally discarded. It is obvious that any argument based on the official figures was misleading; and we have therefore in this article used all the material at command in adjusting the figures and checking the adjustment, until we obtained figures which, as nearly as it can ever be done, represented the course of the trade of Great Britain prior to 1854. It will, however, be many years before general correctness can be obtained and we can hope to have from every country exports calculated at their value at the port of shipment, and imports representing the value as exports *plus* the value of the freight, insurance, etc., while transit trade is carefully eliminated from importation for consumption. The variant practice as to bullion and specie also needs correction. The separation of these commodities from merchandise is usual in modern statistics and is adopted by the board of trade; it is due to some sort of recognition that they are often in the nature of a transit trade; but the analysis is very imperfect and probably as often wrong as right.

[There is no single work on the study of exports and imports which can be referred to. Sir R. Giffen's essay on the use of import and export statistics, published in the second series of his *Essays on Finance*, is quite the best summary of the theory of the matter.—In Marshall's *Statistics of the British Empire*, 1800-1833, there is a useful introduction to the tables of exports and imports, vitiated by the old fallacy as to official values.—*First Report of the Commissioners of Customs and Appendices* (1857).—The Board of Trade annual *Statistical Abstracts* of the trade of (1) the United Kingdom, and (2) the British possessions.—The similar abstracts of the trade of foreign countries from 1830 to 1860.—Various valuable returns laid before parliament.—The

Statesman's Year-Book and *Annuaire de la Statistique* summarise the returns published by foreign countries.—The *Consular Reports* published annually for Parliament give more detailed but partial information as to foreign countries.—Macpherson's *Annals of British Commerce, passim.*—Pitkin, *Statistics of the United States, New York*, 1817.—Porter's *Progress of the Nation*, 1847, § iii. ch. ix.—M'Culloch, *Account of the British Empire*, vol. ii. pt. iii. ch. v.—List, *System of National Economy* (translated, 1885).—S. Bourne, *Trade Population and Food*, 1880, chs. i., ii., iii., viii., ix., xi. See also COMMERCE and BALANCE OF TRADE.] C. A. H.

IMPORT DUTIES.

History of Import Duties, p. 367; Incidence of, p. 369; Specific *v. ad valorem*, p. 369; Amount of Duty, p. 369.

History of Import Duties.—A reference to the article on EXPORTS, DUTIES ON, will show that duties on imports, though now so much the more important, were instituted later in time, at any rate in England, than export duties. At first the two were not thought of as distinct forms of taxation: both were merely an impost on the trader. The custom called Scavage, which we find, in the reign of Henry III., levied on all sorts of merchandise brought from beyond seas, was akin to an import duty, and the PRISAGE on wine was practically one taken in kind. But the first real import duties date from 1304, under the name of *parva custuma:* they were levied on foreign merchants only, and in addition to other existing duties, as follows:

Wine, per dolium 2s.
General merchandise, 3d. in the £1 *ad valorem.*

On 20th August 1309 these duties were suspended with a view to seeing whether consumers would gain in the price; but on 2nd August 1310 they were re-imposed, as "no advantage had ensued either to the king or people." The duty on wine came to be called *tunnage*, and the *ad valorem* duty *poundage* (see TUNNAGE AND POUNDAGE); and these under the name of SUBSIDY became a regular part of the financial system of England. In 1548 the duty on wine was 3s. (except for Rhenish), and the poundage 12d. in the £1, or 5 per cent.

The progenitor of the modern tariff rose in the shape of the BOOK of RATES at a comparatively early period. This book, issued at first by the sole authority of the crown, enumerated the values which were to be assigned to different articles for the purposes of calculating the *ad valorem* duty just referred to. "These values were probably in the earliest instances the current prices of the articles imported." One of these rate-books was "imprinted in 1545." The principle of assessment was laid down ten years later (1555) as "to underrate the most necessary commodities that came into the realm, to draw them hither, and to overrate the superfluous commodities inwards to drive them away." James I. was not satisfied with this principle, and declared that everything required to be rated higher. He levied a new imposition in addition to the subsidy, thereby complicating the form in which duties were received, and in many cases doubling the revenue which parliament had intended him to derive. This gave rise in 1642 to the issue of a rate-book by the Houses of Parliament only. The book issued in 1662 enumerated 1139 articles inwards, and 212 outwards (see ENUMERATED COMMODITIES).

In the ensuing century it became a growing practice to impose fresh import duties by special acts in special emergencies; and by 1784 no fewer than 100 new heads of account referable to different funds—*e.g.* aggregate fund, sinking fund, general fund, etc.—had been opened in the customs department, under any or all of which any given article might be liable to duty. An example of this "bewildering and appalling chaos" is given on p. 18 of the First Report of the Customs Commissioners. Merchants hardly knew what they had to pay without expert assistance; even officers at the outports were sorely puzzled. The whole system hindered trade, and lent itself to smuggling; so that, in spite of the mercantile theory, which enforced the view that protective import duties were an encouragement to the country's trade, it became felt that the existing system was intolerable. The first step in the direction of reform was made by Pitt's Customs Consolidation Act in 1787. This rated 1200 articles for duty inwards; of these 300 were rated *ad valorem.* It also provided that all import duties should henceforward be carried to one fund, now known as the Consolidated Fund.

But in the moment that the collection of the import duties was simplified, the idea which assigned to them an important function in enhancing a nation's wealth appears to have gained new strength. For forty years thereafter the followers of ADAM SMITH made no impression on the idea. HUSKISSON, as chancellor of the exchequer in 1825, was the first statesman who showed the possibility of dispensing with a multiplicity of import duties. Sir Robert PEEL, in the tariff of 1841, made the next move; and with the triumph of the free-trade policy the numbers of articles subjected to duty rapidly diminished, as the following table will show:

Year.	Principal articles.	Subdivisions.	Total number.
1660	490	1140	1630
1787	290	1135	1425
1826	432	848	1280
1841	564	488	1052
1849	233	282	515
1855	153	261	414
1861	19	123	142
1876	10	32	42

At the same time the customs revenue showed no signs of decrease.

In 1855 it amounted to			£22,227,570
,, 1860	,,	,,	24,391,084
,, 1865	,,	,,	22,527,373
,, 1870	,,	,,	21,449,843

As a matter of fact there was a considerable expansion due to causes amongst which the progressive simplifications of the tariff had a considerable place. It is calculated that the customs duties remitted between 1855 and 1870 amounted to £14,872,331, and those imposed to £612,915, showing an estimated loss of revenue of £14,259,416, which never took place, as the figures above quoted have shown.

In 1860 there were duties levied on the importation of nineteen articles, in 1890 on ten only, excluding certain minor divisions under "spirits." The subjoined table shows those which had dropped out, and compares the produce for the two dates.

	1860	1890
Sugar, etc., producing	£6,100,288	abolished
Tea	5,444,157	£4,490,506
Coffee	445,999	172,832
Corn, etc.	751,046	abolished
Butter	23,881	do.
Currants	233,897	534,831
Raisins	103,196	
Wood	294,134	abolished
Tobacco, etc.	5,674,053	9,061,984
Wine	1,174,103	1,302,160
Spirits	2,413,919	4,681,225
Silk manufactures	16,576	abolished
Other articles	490,515	183,157

Since 1890 there have been two important changes in the tariff. In 1901 the sugar duty was reimposed, and in 1902 a duty on corn was imposed for one year as a temporary measure. The tariff of the United Kingdom, then, subjects the minimum number of commodities to taxation.

In the import duties of various British colonies we find considerable divergences, illustrating different phases of history. Those of the older colonies, especially the West Indies, have always borne the stamp of the old cumbrous régime; those of the Australian colonies began with a levy of *ad valorem* duties on a few imported articles; but developed, as in Canada, into an engine for protection. The hand of Canadian legislators has been forced by the proximity of the United States; after an effort in 1867 to work with moderate import duties, the colonial manufacturers overbore the liberal opposition; and the "national" policy of Sir J. Macdonald has, since 1879, been driving the Dominion into stricter forms of protection, chiefly directed against the United States. The tariff of Canada now fills twenty-seven closely-printed columns of a parliamentary return, and makes a respectable pamphlet by itself. Even Victoria's covers eleven only. The spirit of the new protection has caught all the Australian colonies except New South Wales. Their high duties are directed alike against the mother country and the foreigners. The Cape has been slowly tending to imitate Australia. The Eastern and West Indian colonies, with some exceptions, have tariffs which are in form a survival of the old mercantile system, but their duties are levied simply for revenue purposes, and their rates are rarely excessive. As most of these colonies are under the more immediate control of the crown, there has been a considerable effort made to simplify their tariffs, and remove the duties on food-stuffs and necessaries, but the success has been small; local opinion, particularly in the West Indies, argues that imported food-stuffs are to the negro or coolie a luxury, and that by giving up the duty on such articles, an easily-collected revenue would be lost without one whit improving the condition of the labourer (*cf.* COLONIES; COLONIAL POLICY).

India, following the lead of the imperial government, keeps to a small and purely revenue tariff of import duties.

The history of import duties in the European continental countries records a passage from restriction to moderate duties and a reaction to rigid protection. For the import duty is the engine of protection. France, down to 1860, had always adopted a system of jealous exclusion. Macgregor, in 1841, calls the commercial legislation of Spain "the most pernicious and restrictive of all the systems of trading exclusion." The same condemnation was accorded to the other European tariffs except, perhaps, that of the German customs union, which had conferred incalculable benefit on the states included in it by breaking down the barriers of import duties between them, and assigning more moderate duties on the importation of foreign goods. The adoption of free trade by England induced Holland and other countries to modify their import tariffs. The treaty of 1860 with France marked a new era; restriction gave way to duties which, though still protective, were comparatively low. A great increase both in imports and exports was the immediate result. Other nations followed this example, and for some years the import duties of European countries were in practice regulated by treaties in the general interest. Then came the protectionist reaction, which Prof. Bastable dates from the Franco-German war of 1870; war expenditure and national jealousy gave a bias towards a system of heavier duties as between the two rivals; other nations followed with an idea of protecting themselves.

The United States have passed through various stages of doubt; from 1824 to 1875 their import duties were alternately raised and lowered for two or three years at a time; here again the great rise took place in the war period from 1861-65, and subsequent efforts at reduction made no great impression. Since 1883 the tariff has been severely protective, ultimately culminating in the cumbrous McKinley tariff of 1890, which laid crushing duties on all foreign manufactures, though it freed certain commodities which were thought to be required for the home producer.

The South American states, influenced partly by the United States, and partly by European example, levy onerous duties.

To sum up: England stands practically alone in the world as a country with a simple and low tariff; in British colonies the tariffs are usually cumbrous, but fall into two classes, —the one where many import duties are merely the easiest way of getting revenue, the other where those duties are avowedly protective. Of foreign countries it may be said that, at the present day, all except Holland and Belgium which at a considerable interval followed England, have deserted the revenue and adopted the protective tariff.

Incidence of Import Duties.—The popularity of import duties as a source of revenue is usually and probably correctly ascribed to the fact that they are collected without application to any large number of the taxpayers. The question of their incidence has in England been settled for years; the accepted view being that all duties paid by the merchant on importation are added by him to the price of the commodity, and are thus eventually paid by the consumer. It is probable that in early days there was an idea that the foreign merchant paid the tax. But it soon came to be understood that they were at least usually paid by the consumer and not by the merchants; the order of 1309 (see page 367) seems to be clear evidence of this. The proposition that they are actually paid by the merchant himself has been advanced in recent controversies with some of the British colonies, more particularly those in the West Indies, where it is commonly held that an increase of 5 per cent in an *ad valorem* duty cannot be put on the price, but must be borne by the merchant, and, on the other hand, that a remission of duty benefits the merchant only, as price is not affected. This view, however, is difficult to support, and has been contradicted by its advocates in the course of their own arguments. An opposite view was held in the case of these very colonies in 1842 by both the parties to the controversy whether higher import duties were the best means of increasing the inducement to the negro to work (Earl Grey's *Colonial Policy*, vol. i. p. 80 *et seq.*). Again, it has been advanced, chiefly in the United States, that protective import duties are paid by the foreigner; but this cannot, properly speaking, be true for long, even when the foreigner's market is restricted to the nation which imposes the duty. The foreign producer, if the consumer declines to pay a higher price, may consent to forego for a time a part of his ordinary profits, and in this sense he may "pay the duty"; but eventually he will cease producing; if he is willing to accept a permanently lower rate of profit, this can hardly, in economics, be spoken of as paying the duty. As an illustration we may cite the case of the Bermuda onion-growers, who sent a deputation to New York in 1893, with a view of obtaining concessions in the matter of the import duty on onions. As interesting examples of the operation of certain import duties, we may refer to the old duties on sugar (*v.* M'Culloch, *Taxation*, p. 210), and those on corn (*v.* Leone Levi, *On Taxation*, pp. 77-79).

Specific v. *Ad valorem Duties.*—The question of specific or rated as against *ad valorem* duties is one that has been vigorously debated, and cannot be considered settled; there are still high practical authorities who state that it costs no greater trouble to collect the latter than the former. The better opinion is, however, that *ad valorem* rates are constantly unfair, and give rise to unnecessary friction between the customs staff and the merchants; Mr. Gladstone, in his budget speech of 1853, adopted this opinion; the customs commissioners in 1857 stated that the labour of their officers had been greatly reduced in consequence of the diminution in the number of *ad valorem* duties. This is equivalent to economy in the cost of collection. The legislation of Great Britain has been based on this opinion; in 1797 there were 300 *ad valorem* duties, in 1842 there were 156, in 1855 they had been reduced to 40: they have now disappeared. In the colonies they remain in full force, though the home government, where it has influence, is gradually obtaining a change to specific rates.

A plan of combining a specific with an *ad valorem* duty on the same commodity has been adopted in the United States, and has spread to Canada. It hampers trade and adds to the labour of collection. Nearly akin to it was the old plan, adopted in England in 1840 and rejected in 1853, of adding a general percentage to all duties. This was till lately a favourite mode of raising additional taxation in many of the British colonies.

Amount of Duty.—It is a question of some nicety whether import duties should be adjusted so as to represent as far as possible a uniform percentage on the value of the commodity. Mr. Gladstone apparently adopted the theory in 1853, and placed the percentage at 10 per cent. But the nature and use of a commodity, and the extent of the demand for

it, may render a much higher percentage an equally fair tax. The highest *ad valorem* rate in any British colony upon general merchandise is 25 per cent; it is usually far lower. Protective tariffs load imports with duties which are usually at least 30 per cent, and the general basis of the McKinley tariff was 50 per cent for all manufactures.

This article would not be complete without reference to drawbacks and the methods of facilitating the collection of duties. DRAWBACKS (*q.v.*) were the original method of relieving a merchant of the payment of part of the import duty when he desired to re-export a duty-paid article. The statute 12 Car. II. c. 4, first admitted this, reimbursing the whole duty in some cases, half in others. In 1788 a fourth of the gross revenue of the customs was returned by way of drawbacks. This system was first modified by permitting the importation of articles merely on a bond for the payment of the duty; this gave rise to constant fraud, and was the source of much risk and additional labour to the government. The warehousing system, or deposit of commodities in BONDED WAREHOUSES (*q.v.*) until such time as the duty is paid, has almost entirely done away with drawbacks. They still, however, form a common item of account in colonial budgets.

[See sources cited under EXPORTS, DUTIES ON, especially *First Report of Commissioners of Customs*, 1857.—Leone Levi, *On Taxation*, 1860.—Kippax's translation of Ustariz' *Theory etc. of Commerce*, Dublin, 1752.—Macgregor, *Commercial and Financial Legislation of Europe and America*, 1841.—Farquhar, *Economic and Industrial Delusions*, 1891, pp. 54-73.—Bastable, *Commerce of Nations*, chs. vi.-x.—*Returns of Colonial Tariffs*, c6402/91 and see c2337/04.—Hall, *Hist. of the Customs Revenue of England.*] C. A. H.

IMPORTS AND EXPORTS, FREEDOM AND RESTRAINT OF. We shall deal with Imports and Exports separately.

Free Imports.—This subject may be considered under two divisions.

(*a*) *General freedom of importation.* This matter may best be studied from the point of view of its converse (see below, IMPORTS, RESTRAINT ON): it is on the whole easier to show the results of moving contrary to natural laws, than to exhibit the working of a natural system. And though the general history of commerce seems to be the history of restriction, yet the natural impulse of commercial man is to exchange his products with others free from let and hindrance.

The leading commercial nations of the middle ages admitted imports free of duty, or at a low duty: and the leading commercial nation of the present day—Great Britain—admits almost all commodities free of duty. The Hanseatic towns, in an age of general exclusion, levied duties ranging from one-half to three-quarters per cent: and Holland for some two centuries, and all through the time of its greatness, kept its ports practically free to the importation of all sorts of merchandise from all parts of the world. It is somewhat surprising to find that the Turkish empire was the only other European power, till modern times, which kept its ports free for all imports, but the Turkish government spoiled their policy by prohibiting exports! Early in this century, and before England was converted to free trade, the Argentine republic endeavoured to remove all restrictions on importation; but it has now fallen under the influence of American example.

At the present time Great Britain and some of her dependencies, notably India, Hong-Kong, and the Straits Settlements, with Holland and Belgium, are the only examples of an importation generally free.

(*b*) *Free importation of special articles.* This is nowadays a usual feature even in countries which are strictly protectionist; it is usual to admit free of duty various articles which are expected to be of special advantage to the importing nation. These are included in a "free list" (see FREE LIST). C. A. H.

Free Exports.—As nearly all nations now encourage exportation, not only by refraining from the levy of duties but even by granting bounties, the expediency of leaving export trade generally free may be assumed. The articles on EXPORTS, DUTIES ON, and FREE TRADE will give some idea of the progress of the modern principle, and the cases in which it is still interfered with by duties. It will best be understood by considering the cases of its infraction.

Restraint on Exports.—The idea of prohibiting exports of certain commodities appears to have influenced communities earlier than the attempt to restrain imports. It is based on the idea of preventing—to quote the French statement of it—"all that may contribute to the development of foreign industry."

In the case of England it was first applied in 1261 to the export of wool—the subject of her great original industry. By 8 Eliz. c. 3, and later enactments, severe penalties were imposed on those who exported sheep and wool. But these severe laws failed to attain their end. By 13 & 14 Car. II. 7, hides and leather, by still older statutes, metals, as late as 7 & 8 Will. III. c. 20, instruments of industry, were made the subjects of prohibition. This has all now been reversed for fifty years.

Similar prohibitions, or discouragement of exportation by high duties, were common to most European countries. The French at the end of last century, in the words quoted above, laid down the principle publicly. The Spaniards prohibited the exports of corn up to 1820: Turkey prohibited all exportation till well on into this century. Greece, on her independence, was more moderate, simply imposing a duty of 6 per cent *ad valorem* on all exports. Sicily, in 1839, had recourse to a monopoly to limit the export of sulphur to a fixed annual amount.

The prohibition of the exportation of precious metals rested on a different shade of the idea,

and formed part of the MERCANTILE SYSTEM (*q.v.*), by which they were considered the sole source of wealth to be retained in the country at all hazards.

Prohibition on exportation to an enemy had a somewhat different basis, and still is recognised as perfectly legitimate in the case of munitions of war (see CONTRABAND).

[An excellent summary of the English history will be found in Adam Smith's *Wealth of Nations*, bk. iv. ch. viii.—Art. on BUDGET.—See also Macgregor's *Commercial and Financial Legislation of Europe*, and the works cited under EXPORTS, DUTIES ON.] C. A. H.

IMPORTS, RESTRAINT ON. This is a subject necessarily interwoven with the history of import duties and the theory of trade. The restriction of importation of foreign goods has, in the history of commerce, taken two forms—(1) absolute prohibition, (2) the imposition of heavy duties. It appears to have had its origin in the desire of keeping all production in the hands of the home-producer; and so far it is the ancestor of protection which Mill defines as "the prohibition, or the discouragement by heavy duties, of such foreign commodities as are capable of being produced at home": it was used later as a punishment to the foreigner. Its correlative is smuggling: when restriction is at its height, smuggling is rife.

It appears to be true that in modern history England was the first prominent example of a restrictive policy: this policy was carried out rather by the NAVIGATION LAWS (*q.v.*) and by complexity of customs laws than by direct prohibition or through the medium of heavy import duties; but as late as 1841 Macgregor (*Commercial and Financial Legislation of Europe and America*) could state that English legislation practically prohibited the importation of corn and of foreign sugars and coffee, and up to a recent date this was true of malt.

It was in France, however, that the use of direct prohibition and of the prohibitive duty was first developed. In 1664 Colbert introduced the principle of excluding foreign manufactures by raising the duties on them: the first absolute prohibitions of foreign commodities—woven clothes from India and the East—became law in 1686. The celebrated commercial treaty of 1786 gave a comparatively easy entrance to English manufactures; but the subsequent wars introduced a complete reversal of this more liberal policy. The episode of the prohibitions based on the Berlin and Milan decrees belongs rather to the story of the war than to ordinary commercial history; but it illustrated singularly well the futility of restrictions on trade: *viz.* the automatic tendency to defeat their own end. In spite of Napoleon's efforts to exclude English manufactures and thus ruin English commerce, these manufactures not only found their way into continental markets, but were brought into France with the connivance of the French ministers: "M. de Talleyrand . . . secretly countenanced the landing of British goods solely for the benefit of France" (Macgregor, work cited, p. 38 note). Prohibition remained a leading feature of the French tariff till the treaty of 1860 with England; and of late years French legislation has been retrograding in the old direction by imposing heavy protective duties (see IMPORT DUTIES).

In Spain a definite restrictive policy began almost contemporaneously with that of France, and has hardly ever seen any relaxation. The Spanish tariff, besides hampering trade by its complexity, loaded all foreign imports with duties varying from 50 to 100 per cent of value; and in the middle of the century it contained at least 500 total prohibitions. Holland, after an era of freedom, adopted a few fairly heavy duties in the course of this century, and some actual prohibitions, which were partly political. And, generally, all European nations have been wedded to systems of restraint more or less complete.

The leading modern example of a restrictive policy is the McKinley tariff, which became the law of the United States in 1891; it was avowedly a stringent protective tariff, aimed at making the States self-supporting and crushing out foreign competition; its duties amounted in many cases to 50 per cent of the value of the commodity on arrival, and this was sufficient in some articles to cause a complete transfer of the capital engaged in their production from England to the United States.

The evil effects of a restrictive system are (*a*) its expense to the consumer. Restriction could only be necessary to force a trade out of its natural channel, and that is always expensive. Other bad results appear to be felt more slowly than formerly, for (*b*) smuggling is more easily checked owing to facility of communication; (*c*) adulteration and counterfeiting are more difficult because of the general prevalence of minute inspection.

In particular cases evils more far-reaching have been traced, and are doubtless still traceable to restriction. Macgregor in 1841 attributed the heavy drudgery of the peasantry and especially the women in France, and the backwardness of cultivation, to dearness of iron consequent on prohibitions of foreign goods. The prohibition of corn has produced evils more patent still. A good illustration of this point occurred a few years back, when the government of Venezuela was forced to suspend its heavy import duties on food-stuffs owing to complete failure of the home crops.

The accepted opinion of economists is that all restraint on commerce is injurious: the whole theory of free trade is built up on that idea. It would hardly be necessary to refer to this, were it not that List and others have argued that

restriction at an early period of a nation's history is the source of ultimate wealth; and the commercial greatness of England has by some been traced to the self-sufficiency produced by past restrictions on foreign trade—that is, to protection in past ages. These reasoners have neglected the fact of England's geographical position and conformation, her comparatively early political freedom, the early invention of machinery, and other factors.

As regards new countries, however, the system has been in some measure justified by the high authority of Mill (bk. v. ch. x. § 1) (see PROTECTION).

There are certain cases in which the importation of special articles is prohibited or restricted on grounds of public safety or morality: obscene books and prints or dangerous explosives are instances which are common to most modern tariffs. The case of foreign reprints of copyright works—which are prohibited from importation into Great Britain and Ireland and also into the colonies unless certain special arrangements have been made for the benefit of the authors (see 5 & 6 Vict. c. 45, § 17; 25 & 26 Vict. c. 68, § 10), rests on conventional and quasi-moral grounds.

[Ad. Smith, *W. of N.*, bk. iv. ch. ii. and iii.—For facts see John Macgregor's *Commercial and Financial Legislation of Europe and America*, London, 1841.—See also, for America, Edward Atkinson's *Taxation and Work*, New York, 1892.]

C. A. H.

IMPÔT UNIQUE (or SINGLE TAX). The limited and restricted sense in which this term was used by the physiocratic school is best explained by the following quotations from the writings of Quesnay and his followers. "Taxation ought not to be destructive of nor out of proportion to the total income of the nation; . . . it must be levied directly on the net return (*produit net*) of land and not on wages, or on the [gross] produce, in which case it would increase the cost of production, be detrimental to trade, and destroy annually a part of the wealth of the nation" (Quesnay, p. 83, ed. Daire, Paris, 1846, p. 332, ed. Oncken). "Men are not at liberty to assess taxation according to their will; it has an *essential* basis and form settled by the order of nature. . . . Only the portion of crops called the *net product* (meaning after deduction of the outlay made by the agriculturist) should contribute to taxation. . . . Taxation is thus *essentially* a portion of the *net product* of land" (Dupont de Nemours, *Physiocrates*, p. 351, ed. Daire). This system Dupont, in his letters to J. B. Say (p. 405 same ed.), calls a *domanial constitution of finance based on the sharing of returns*. "What is only a portion of a net product can only be taken on a net product; . . . hence the essential form of the tax consists in taking taxation *directly* where it is present" (Mercier de la Rivière, *Ordre Naturel des Sociétés Politiques*, p. 474, ed. Daire). The Abbé Baudeau considers that a share of six twentieths of the *net product* may be allotted to the representatives of the sovereign (*Introduction à la Philosophie Économique*, p. 760, ed. Daire).

Viewed historically, the idea of the single tax is the result of a reaction against the crushing weight of a vexatious and omnipresent system of taxation. In France, as far back as 1576-1577, the states-general of Blois were asked to consider a motion of one of the members of the *Tiers État* to do away with all the existing taxes, and to establish instead an *impôt unique* described as the "*taille égalée*" (equalised tallage), assessed according to the means of the owner of each dwelling; it was in fact a kind of proportional hearth-money, from which, however, the nobility and clergy were to be exempted. This proposition was rejected, probably out of mistrust of the court (Clamagéran, *Histoire de l'Impôt*, ii. pp. 217-219). The system recommended by Vauban in his *Dîme Royale* (republished in Daire's *Économistes Financiers du XVIIIe Siècle*, and *Petite Bibliothèque Économique*) is well known, but was rejected by Mirabeau as "absolutely defective because this excellent man, having disregarded the principle that all wealth and income can only be derived from land, makes a muddle of his scheme by introducing an infinite number of double appropriations" (Knies, *Carl Friedrich von Baden's Brieflicher Verkehr mit Mirabeau*, i. p. 37, Heidelberg, 1892). In Italy, BANDINI (*q.v.*) entertained the same notions in his *Discorso Economico* presented in 1739 to the grand duke of Tuscany.

But owing to the unsoundness and iniquity of its financial system, Spain is the country where the single tax theory took the earliest and kept the most persistent hold both of the official and the speculative mind. Eager to defend the founder of its Austrian dynasty against the aspersions of Spanish writers, Mr. Konrad Haebler, in his *Wirtschaftliche Blüte Spaniens im 16. Jahrhundert* (p. 12), ascribes to Charles V. the first idea of a system of taxation based on the establishment of a single and direct tax. During the decay of the Spanish monarchy under the emperor's successors this idea was resumed under different forms: in 1573-75 and 1592-98, the cortes of Madrid proposed a single tax on grist levied when it left the mills, and this system was advocated at different times either by official bodies or private writers down to the middle of the last century. In 1646, Alcázar de Arriaga, in his *Nueva Declaracion de un medio universal para extinguir los tributos en Castilla* (New Declaration of a Universal Plan for Suppression of Taxes), advocated what he denominated the single ALCAVALA, a kind of general income tax of 2 per cent. In 1651 father Bautista DÁVILA proposed a single general and progressive capitation or poll-tax. Centani, however, is more than any one else entitled to be considered as a direct ancestor of the

French physiocrats. In a memorial entitled *Tierras* (Land), and submitted in 1671 to the king of Spain, Centani, taking up an opinion expressed a few years before by Juan de Castro, explicitly asserts that land is the only real wealth (*la tierra es la verdadera y fisica hacienda*), and insists on the removal of all indirect taxation in favour of a direct and territorial taxation founded on an exact and extensive CADASTRAL SURVEY. About half a century later, the minister ENSENADA gave orders to proceed with this survey in Castile on a plan which had been successfully carried out in Catalonia; and in 1770, Charles III. decreed the "*única contribucion*," which was, however, never actually put into force (Colmeiro, *Hist. de la Ec. Polit. en España*, ii. pp. 570-576).

In Baden, the margrave Carl Friedrich, prompted by purely theoretical views, decreed a similar experiment in three villages—Dallingen (district of Pforzheim), Bahlingen, and Theningen (district of Hochberg). Established in the years 1770 and 1771, it by degrees excited the discontent of the population, was gradually abandoned, and came to an end about the beginning of the present century. A good and clear account of this experiment is given in Conrad's *Jahrbücher für Nationaloekonomie u. Statistik*, 1872, vol. xix. (article by Emminghaus, *C. F. von Baden's Physiocratische Verbindungen*. See also Rodolphe Reuss, *Ch. de Butré*, Strasbourg, 1890).

In France, although the physiocratic doctrines always remained confined to theory, their influence may be traced in the steady aversion to indirect taxation of the representative assemblies at the time of the revolution of 1789. But after the space of a very few years, this aversion had to be overcome, for whatever may be its theoretical merits, no system of single taxation could possibly satisfy the ravenous appetites of our modern budgets.

[In addition to the works mentioned before, see Mirabeau's *Théorie de l'Impôt* (1761), various writings by Turgot collected by Daire in his edition under the heading of *Impôt* (vol. i. pp. 392-434), and Turgot's *Réflexions sur la Formation et la Distribution des Richesses*, in the first volume of *Mélanges* (ed. Daire).—Condillac, *Le Commerce et le Gouvernement* (pp. 355-359), also Cantillon, *Essai sur la nature du Commerce*, 1755 (pp. 55-61, Harvard reprint, 1892).—Saint Péravy, *Mémoire sur les Effets de l'Impôt Indirect* (1768), etc.

Among the opponents of the tax are Voltaire, *L'homme aux Quarante Écus*.—Forbonnais, *Principes Économiques* in Daire's *Mélanges* (p. 235 note, and p. 210, notes 1 and 2).—Mably, *Doutes proposées aux Économistes sur l'Ordre Naturel des Sociétés Politiques* (Paris, 1768, pp. 40-44).—GRASLIN (*q.v.*), *Essai Analytique sur la Richesse et sur l'Impôt* (London, 1767).—Rivière, *L'Ami de la Paix ou Réponse à la Théorie de l'Impôt du Marquis de Mirabeau* (1761).—Champalin, *Taxe-Personnelle et Unique* (1789).—Guiraudet, *Erreur des Économistes sur l'Impôt* (1790).

Consult also the valuable article by Dr. Stephan Bauer (*Zur Entstehung der Physiocratie* in Conrad's *Jahrbücher für Nat. Oek. u. Statistik*, Jena, 1890) and Professor A. Oncken (*Zur Geschichte der Physiocratie* in Schmoller's *Jahrbuch für Gesetzgebung*, Leipzig, 1893).] E. Ca.

(See ÉPHÉMÉRIDES; PHYSIOCRATS; SINGLE TAX.)

IMPOUND. An expression originally used in respect of distrained cattle only, which were placed into a "pound" by way of security. It is now used generally with respect to any objects which, with some ulterior purpose, are put into a place of security. Thus a judge may order documents to be impounded if he thinks they may furnish material for a criminal prosecution. As to the way in which such documents are to be dealt with, see Rules of the Supreme Court, Order 42, Rule 33A. E. S.

IMPRESSMENT. From the earliest times every free and able-bodied Englishman has been liable to military service, but only for purposes of defence. The service of the primitive FYRD, and of the later militia, was restricted to putting down rebellion and repelling invasion. The sovereign could not lawfully claim the service of the subject for the purpose of manning the fleet, or of forming armies to serve abroad. But voluntary enlistment did not always furnish men enough for these purposes. The Tudors and Stuarts, therefore, had recourse to impressment. Impressment may be defined as an irregular and arbitrary compulsion to serve. It differs from the modern CONSCRIPTION, which is also compulsory, but imposes uniform and definite liabilities either on the whole population or on large classes of the community. In England, sailors were liable to be pressed for naval service (see Alexander JUSTICE), and men of the lower classes generally were liable to be pressed for military service. The impressment of sailors for the navy fell upon so limited a class, and was so convenient as a means of securing the national safety, that in spite of the gross abuses which it involved, it was maintained down to the close of our great naval wars, and never elicited a serious protest either from the courts of law or from parliament. It was otherwise with impressment for military service. The hardships which it involved affected a much greater number of persons, and the military strength which it lent to the crown provoked the jealousy of the friends of constitutional freedom. The impressment of soldiers by Charles I. in the course of his conflict with the Scotch people led to the statutory declaration made in 16 Car. I. c. 28, that no subject ought to be impressed, or compelled, to go out of his country to serve as a soldier except in case of the sudden coming of strange enemies into the kingdom. But parliament regarded impressment as necessary upon occasion, for by this very act it sanctioned the pressing of soldiers to serve in the Irish war. Several acts of parliament in the course

of the last century sanctioned the pressing of vagrants, and of idle or disorderly persons. Since 1780 impressment of soldiers has been virtually unknown. Impressment of sailors became unnecessary after the close of the French wars, but has never been declared unlawful. Should voluntary enlistment hereafter fail to supply the needs of the army and navy, recourse will probably be had to some scheme of conscription. The old impressment was inequitable in principle and brutal in execution. Much may be said for the policy of recruiting the army from the least valuable class of citizens. But the pressing of vagrants and disorderly persons would be a feeble resource now that the size of armies has been so much increased.

[See Clode, *Military Forces of the Crown.*—Anson, *Law and Custom of the Constitution.*—Captain Marryat, R.N., *Suggestions for the abolition of the present System of Impressment in the Naval Service*, 1822.—*Edinburgh Review*, Nov. 1814.] F. C. M.

IMPREST in public accounts denotes an advance to a sub-accountant or individual, usually from an authorised vote, to be accounted for in detail after expenditure. C. A. H.

IMPRISONMENT FOR DEBT. See DEBT, IMPRISONMENT FOR.

INCOME may be defined as the wealth, measured in money, which is at the disposal of an individual, or a community, per year or other unit of time. This term is not easily freed from ambiguity. Does wealth imply materiality; as Mill decides in a passage (*Pol. Econ.*, bk. i. ch. iii. § 2) which has been severely criticised by Mr. Cannan with reference to that kind of wealth which constitutes income (*Production and Distribution*, p. 31). The attribute in question may seem to be the only logical ground for a distinction which has been drawn by high authorities: by DUDLEY BAXTER (*National Income*, ch. viii.) between "original earnings," namely, "the productive income from agriculture and manufacture," and the "second-hand income" "paid out of original earnings"; and by Leone LEVI (*Report of the British Association*, 1881, p. 274), between "income derived from independent sources of production" and an opposite kind including "professional incomes which really constitute the expenditure of other classes." Can "original" and "independent" here mean anything but *material?* Probably it is best not to take this distinction, and to understand the "aggregate of commodities material and immaterial, including services of all kinds," (Marshall) which have the character of wealth.

Among such objects a distinction is drawn between those which commonly fetch a price and those which, though exchangeable, are not commonly exchanged. If a mother hire another woman to watch her baby while she herself works at a factory, the amount of paid services is greater than it would be if the mother attended to her home and the other woman worked in the factory. But the "aggregate of commodities" may well be less. So "no account is commonly taken of the benefit he [a man] derives from the use of his furniture" (Marshall). The distinction between *possibly exchangeable* and *actually exchanged* must be attended to when we compare incomes in widely different states of society in one of which many gifts of nature are free, in another, appropriated. The difference between the "luxuries, conveniences, and necessities" enjoyed by the English labourer, now and in the age of the Tudors, cannot be calculated from the difference in the respective money-incomes.

Next, what is meant by "at disposal," or the term which some would prefer, "net"? It excludes that portion of incomings which is required to keep up capital, and other outgoings. Are we then to exclude from the income of the labourer the expenditure which is necessary for his efficiency? This view is taken in a masterly report on the *Common measure of value in direct taxation*, by a committee of the British Association, which included Farr and Jevons and Newmarch (*Report of the British Association* for 1878). They say: "As the horse has to be clothed and stabled, so the productive labourer has to be clothed and housed." But there is this difference, that the cart-horse's food and gear are not "goods of the first order," objects of human consumption.

Again, among outgoings, should we place that portion of earnings which forms compensation for *désagréments?* If the trade of a butcher "is in most places more profitable than the greater part of common trades" only because it is "an odious business" (Adam Smith), should we say that the real net income of the butcher is the same as that of his neighbour in a common trade?

The preceding ambiguities are common to individual and social income (which is the sum of the incomes of individuals); the following is peculiar to social income: "Is the richness of a nation to be measured by the aggregate money-income of its inhabitants, or by their average income"? Prof. Marshall, who asks this question, suggests that "a rough notion of the economic strength of a nation . . . may be got by multiplying the aggregate income of its inhabitants by their average income."

It is fortunate that some of these difficulties disappear when the object is only to compare the incomes of different nations, or of the same nation, at different epochs. If the compared incomes are calculated on a uniform though imperfect plan, the ratios between the results are apt to be trustworthy (cp. Nicholson's *Principles of Political Economy*, p. 216); provided that account is taken of differences in the value of money. An example of the latter

correction is afforded by Sir R. Giffen's estimates of the growth of capital, which are based upon the growth of income.

[The most philosophical treatment of the subject known to the writer is to be found in Prof. Marshall's *Principles* in the chapter on "Income" (bk. ii.), and the sections relating to "National Dividend" (see Index). See also preface to 3rd edition. The statistics in the other works which have been referred to also deserve attention.] F. Y. E.

INCOME TAX IN THE UNITED KINGDOM.

History, p. 375; Scope of the Tax, p. 375; Basis of Charge, p. 376; Exemptions, p. 376; Inequalities, p. 377; Differentiation, p. 377; Graduation, p. 377; Incidence, p. 378; Rate and Yield, p. 378.

History.—It is only within the last century that a general income tax, imposed alike on profits derived from property, from trade and commerce, and from personal exertions, has become a normal method of levying taxation. In England a graduated tax, sometimes called an income tax, was levied in 1435 and again in 1450, but these taxes, as Thorold Rogers points out, fell short of the scope of a general income-tax, being levied only on those who possessed fixed sources of personal revenues (*Economic Interpretation of History*, p. 130; see also Dowell's *History of Taxation*, vol. i. pp. 112 and 116). In the reign of Henry VIII. taxes levied on earnings were imposed, but unsuccessfully, and from this time until the close of the 18th century no further attempt seems to have been made to levy a general income-tax.

Even under the great strain on our finances caused by the French war, it was with reluctance that W. Pitt made, in 1798, the great experiment of imposing a general income-tax, and he only did so after the failure of his attempt to arrive indirectly at the taxation of income by means of his celebrated plan of the Triple Assessment (*q.v.*). The income-tax imposed by Pitt was repealed on the conclusion of the Treaty of Amiens; but the tax was reimposed within a year by Addington, and remained in force until the end of the war. In 1842 Sir Robert Peel revived the tax to enable him to introduce fiscal reforms, and to improve the commerce and manufactures of the kingdom. It was intended that the revival should only be temporary, but the tax had now ceased to be a war-tax, and since 1842 it has maintained its place as one of the recognised means of meeting ordinary expenditure. In 1853 the area of the tax, which had previously been confined to Great Britain, was extended to include Ireland.

On one occasion only since 1842 has a serious proposal been made for the immediate repeal of the tax. On the dissolution of parliament in 1874, the prime minister (Mr. Gladstone) in a manifesto to his constituents announced his view that the circumstances of the time rendered it practicable to confer on the country the advantage and relief of the total repeal of the tax, which it had been the "happy fortune" of Mr. Lowe to reduce from 6d. to 3d. But on the re-assembling of parliament, Mr. Gladstone's government found themselves in a minority and resigned. Their successors retained the tax, reducing it however to 2d., the lowest rate at which it has ever stood. If the proposed repeal had been effected, chancellors of the exchequer would have been deprived of the most elastic of taxes, by the aid of which it is always possible to balance a budget; and it is difficult to see how the expenditure of subsequent years could have been met without reviving the tax.

Scope of the Tax.—The Income Tax Acts charge with duty income derived from every source in the United Kingdom, whether the person to whom the income accrues resides in the United Kingdom or abroad; and also income received in the United Kingdom by persons residing in this country from foreign or colonial sources. The duties are ranged under five schedules of charge (16 & 17 Vict. c. 34, § 2) as follows:

Schedule A imposes a duty on the owners of lands and houses in the United Kingdom. *Schedule B* on the occupiers of lands in the United Kingdom. *Schedule C* on annuities, dividends, and interest payable in the United Kingdom on government securities, British, colonial, or foreign. *Schedule D* on annual profits arising to persons residing in the United Kingdom from any kind of property wheresoever situate, or from any profession, trade, employment, or vocation wheresoever carried on; on annual profits arising to persons not resident in the United Kingdom from property situate, or from any profession, trade, employment, or vocation exercised, in the United Kingdom; and on interest of money, annuities, and other annual profits and gains. *Schedule E* on income derived from public offices or employments of profit, and on annuities, pensions, or stipends payable by Her Majesty or out of the public revenue of the United Kingdom. These familiar schedules of charge had their origin in 1803. The tax imposed by Pitt was levied on a general return made by each taxpayer of his income from every source. But in 1803 the present system of charging income-tax upon all property and profit at their first source was introduced, with the twofold object of reducing the temptations to evasion, and of preventing unnecessary disclosure of the amount of the total income of the taxpayers. It is to the adoption of this system that the success which has attended the administration of the English income-tax is mainly due. The duty charged on lands and houses is collected from the occupier, who is empowered, on payment of his rent, to deduct the duty applicable thereto; and the landlord in turn is entitled to deduct a proportionate

amount of duty from any ground rent, annuity, rent charge, interest, or other annual sum secured on the property. In like manner the profits derived from a trade or business are assessable in one sum on the company, firm, or person carrying on the concern, and the burden is distributed amongst the persons who are entitled to share in the profits, or to receive dividends, interest, or other annual payments thereout, by deduction of a proportionate amount of duty from each such payment. Dividends and interest payable out of untaxed sources, by the agents in England of foreign or colonial governments or companies, are charged in the hands of such agents; and, wherever practicable, provision is made for the assessment of the tax on distributors of profits, who have no personal interest in escaping payment, instead of on the ultimate recipients. The produce of the tax in 1803 under this system, at the rate of 5 per cent, was almost equal to the produce of the 10 per cent duty levied in 1799 upon the general returns of the individual taxpayers.

Basis of Charge.—Assessments under Schedule A on lands and houses are based in Great Britain on the rack-rental value of the property, subject to the deduction of land tax and certain other public burdens imposed by law on the owners; in Ireland on the poor-law valuation, subject to reduction in cases where such valuation exceeds the rental value. Until 1894 no allowance was granted in respect of the cost of repairs, insurance, and other expenses incidental to the maintenance of the property in a condition to command its existing rent. But the Finance Act 1894, which equalised the death duties chargeable on realty and personalty, also made provision for the reduction of the income-tax assessment on the gross value of lands and houses under Schedule A by a sum equal in the case of lands to one-eighth, and in the case of houses to one-sixth, of the assessment. Under Schedule B the farmer is charged on one-third of the annual value of his land, on the assumption that his profits may amount to one-third of his rent. Dividends and interest chargeable under Schedule C, and the salaries of offices chargeable under Schedule E, are assessed on the actual amount receivable within the year. Under Schedule D assessments are based on an estimate arrived at by taking, in some cases, the average profit for the three preceding years, in others, the profits of the preceding or the estimated profits of the current year. Mines are assessable under Schedule A, but according to Schedule D on the average profits of the five preceding years; and quarries, ironworks, gasworks, waterworks, railways, etc., on the profits of the year preceding. Relief is allowed at the end of the year when the profits have diminished.

Exemptions.—Of the exemptions from duty granted by the Income Tax Acts, by far the most important are those in favour of persons with small incomes. The extension of these exemptions has been a marked feature of the income-tax legislation of recent years. When Pitt introduced the income-tax in 1799, he exempted persons whose incomes were under £60, and imposed lower rates on incomes under £200. Subsequently, these exemptions were withdrawn entirely in the case of incomes from realised property; whilst in the case of profits from professions, trades, and offices, the limit of exemption was reduced to £50, and of partial relief to £150. On the revival of the tax by Peel in 1842, exemption was granted to persons whose total incomes from whatever source derived were under £150. This relief was somewhat curtailed in 1853, when Mr. Gladstone introduced an act which exempted incomes under £100, and imposed a reduced rate of duty on incomes between £100 and £150. The limit of exemption was again raised in 1876 to £150 by Sir Stafford Northcote (Lord IDDESLEIGH), and in 1894 to £160 by Sir William Harcourt, whilst the range of abatement was extended under successive Chancellors of the Exchequer (Mr. Gladstone in 1853, Mr. Lowe (Lord SHERBROOKE) in 1872, Sir Stafford Northcote in 1876, and Sir William Harcourt in 1894), until in 1898 Sir Michael Hicks-Beach (now Viscount ST. ALDWYN) introduced the present scale, under which incomes not exceeding £400 receive an allowance of £160; not exceeding £500, £150; not exceeding £600, £120; and not exceeding £700, £70. The relief of small incomes is obviously carried to a point far beyond the exemption of the necessary means of subsistence. The statesmen responsible for our finances have defended the relief mainly on the practical ground that it is impossible to levy the tax on the wages of labour; and to avoid the anomalies which would arise if the tax came into full operation at any given point, it has been thought better to graduate the transition. The relief given has also been defended on the ground that it tends to correct the inequality which arises from the greater proportional pressure of the taxes on articles of consumption on persons with small incomes. The Income Tax Acts also grant exemptions in favour of the public buildings of any college or hall in the universities, or of any hospital, public school, or almshouse; of income legally applicable and applied to charitable purposes; and of the property and income of registered friendly societies. Savings banks, industrial and provident societies, and the provident funds of trade unions are also entitled to a certain measure of relief. The exemption in favour of payments for life insurance, and of payments to secure deferred annuities, is especially note-

worthy. It is of course a partial exemption in favour of savings, and was introduced by Mr. Gladstone in 1853, admittedly as a concession to the general feeling that a man ought to have at any rate the opportunity of investing his savings without being liable to income-tax upon them (*Hansard*, vol. 125, p. 1385). The deduction under this head is restricted to a sum not exceeding one-sixth part of the assurer's chargeable income.

Inequalities.—The income-tax has been much criticised, especially in its earlier years, on the ground of its inquisitorial nature and of the alleged inequality of its incidence. Unfortunately an income-tax which entirely ceased to be inquisitorial would in great measure cease to be effective; but in England this objection has been minimised as far as possible by the assessment of income at its first source in the manner already described. The inequalities of the income tax have been much discussed both in and out of parliament, and the whole subject was thoroughly investigated by the select committees appointed for the purpose in 1851-52 and 1861. One of the main objections formerly alleged against the tax was that no allowance was granted from the assessments upon lands and houses in respect of the portion of the rent which was not available as income, being applied to the maintenance of the property in insurance and repairs. This defect has been remedied by the Finance Act 1894, not indeed by the allowance of the actual outgoings in each individual case, which would involve immense difficulty and friction, but by an all-round deduction calculated to do substantial justice in the great majority of cases. Other objections raised against the scheme of the tax were that it charged savings as well as expenditure; that it taxed all incomes at the same rate, whether they were permanent or temporary, spontaneous or earned; and that capital was sometimes taxed as well as income, as in the case of (1) capital given as the consideration for annuities for years or life, which is taxed in the annuity through which it is being repaid with interest, and (2) capital in the course of realisation through the working of mines, which is taxed in the assessment of the entire value of their produce. The committee of 1852 separated without being able to agree in any recommendation, and contented themselves with merely reporting the evidence taken. But the committee of 1861 arrived at the conclusion that no plan had been proposed to them which afforded a basis for a practicable and equitable re-adjustment of the income tax, and that the objections urged against it were objections to its nature and essence rather than to the particular shape which had been given to it.

Differentiation.—In recent years, however, the proposal to impose differential rates of duty under which industrial incomes shall be taxed more lightly than spontaneous incomes has been once more revived. The principle of a differential income tax has received the powerful support of J. S. Mill (*Principles of Political Economy*, bk. v. ch. 2, § 4). Mill would have preferred, if it were possible, to tax only the part of income devoted to expenditure, exempting that which is saved; on the ground that unless savings are exempted, the contributors are twice taxed on what they save, and only once on what they spend. But he considered that "if no plan can be devised for the exemption of actual savings, sufficiently free from liability to fraud, it is necessary, as the next thing in point of justice, to take into account in assessing the tax what the different classes of contributors ought to save. And there would probably be no other mode of doing this than the rough expedient of two different rates of assessment. There would be great difficulty in taking into account differences of duration between one terminable income and another; and in the most frequent case, that of incomes dependent on life, differences of age and health would constitute such extreme diversity as it would be impossible to take proper cognisance of." Fawcett (*Manual of Political Economy*, bk. iv. ch. 2) discusses the question at some length. He allows that the income tax ought not to be levied at a uniform rate, if the principle is admitted that each single tax should be so adjusted that every individual should contribute to it in proportion to his ability. He points out, however, that this is impossible in the case of other taxes, and considers that equality of taxation can be best secured, not by botching and patching each single tax, but by contemplating the revenue as a whole. After reviewing some of the obstacles to any attempt to levy the income tax in such a way that each individual should contribute to it in proportion to his means, he adopts the conclusion that the present method of levying the tax cannot with advantage be changed. And this is the view which has been taken by our greatest financial statesmen. Disraeli (Lord Beaconsfield), when he was for the first time chancellor of the exchequer in 1852, unsuccessfully proposed to introduce a differential tax, but he did not afterwards repeat the attempt. On the other hand Pitt, Peel, Gladstone, and others have resisted the introduction of a differential duty. On one of these occasions Mr. Gladstone said (*Hansard*, vol. 169, p. 1838), "Mr. Pitt and Sir R. Peel have both considered this question, and have both left the tax as a uniform income tax, not indeed as the image of perfection in our fiscal system, but as that form on which, as wise, prudent, and practical men, they found it necessary to take their stand."

Graduation.—Another important question in

relation to the income tax is that of graduation. The relief granted to incomes not exceeding £500 constitutes a substantial graduation of the duty in the case of the majority of the persons who fall within the scope of the tax. But in some quarters the opinion is held that the tax should be graduated not only degressively but progressively. The question of progressive taxation has been dealt with elsewhere (see GRADUATED TAXATION). Here it will suffice to mention that there are grave practical difficulties in the way of applying the principle of progression to the income tax. It certainly would not be worth while to abandon the system of assessing income at its source in order to impose higher rates of duty on the larger incomes; and even if the progressive duties were levied by a separate supplementary assessment, it would be impossible to prevent considerable evasion, and the procedure and penalties necessary to ensure a tolerable degree of accuracy would probably be regarded as very harsh and inquisitorial.

Incidence.—The English income tax is a combination of taxes on rent, profits, and wages, and its incidence is the same as that of separate taxes on those sources of income respectively (see TAXATION, INCIDENCE OF). Bastable (*Public Finance*, p. 436) says: "Taxes on rents, on the higher kinds of wages, or on employers' gains, are not easily shifted. Even in the case of interest, unless the growth of capital is checked, a tax tends to remain on the payer. Therefore speaking broadly we may say that the shifting of an income tax is not to be expected, and in the rare cases where it does happen, is brought about, either by a check in the growth of capital through diminished interest, or by disturbances in the relations of the several industries and trades through its action." And Seligman (*Shifting and Incidence of Taxation*, p. 179) says: "The tax on economic rent and net profits cannot be shifted, so that for all members of the community, except the wage earners, an income tax levied on pure income would indeed tend to stay where it is put. And in so far as the lowest incomes are exempted from the tax, the tendency would also be for the income tax on the labourer to stay where it is put."

Rate and Yield.—The income tax is imposed annually at rates varying according to the financial requirements of the year. The war tax of the early part of the century was levied chiefly at the rate of 2s. in the £. In 1842 the tax was imposed at the rate of 7d. in the £, and so remained for twelve years. It has varied greatly since, touching its highest point (1s. 4d. in 1855 and 1856) during the Crimean War, and its lowest, 2d., in 1874 and 1875. From 1888 to 1892 it stood at 6d., but rose to 7d. in 1893, and 8d. in 1894. The following table gives the rate and yield of the tax at decennial intervals since 1842.

Year.	Rate.	Net produce.	Yield per penny.
1842-43	7d.	5,405,161	772,166
1852-53	7d.	5,670,030	810,004
1862-63	9d.	10,731,673	1,192,408
1872-73	4d.	6,964,353	1,741,088
1882-83	6½d.	12,758,661	1,962,871
1892-93	6d.	13,439,300	2,239,856
1902-03	1s. 3d.	38,037,931	2,535,862

[Robinson, *Laws relating to the Income Tax*, 1895.—Dowell's *Income Tax Laws*, 5th ed. 1902.—Ellis's *Income Tax Acts*, 3rd. ed. 1893.—*Pratt's Income Tax*, by Redman, 1904.—Dowell's *History of Taxation and Taxes in England*, 2nd. ed. 1888.—Cobden, *Speeches, etc.*, 1878. Annual reports of Commissioners of Inland Revenue, especially 1857, 1870, and 1885. Reports of Committees on Income Tax 1851-52, 1861, and 1905.] E. E. N. B.

INCOME-TAX ON THE CONTINENT OF EUROPE.

Austria, p. 379; Bavaria, Wurtemburg, and Mecklenburg, p. 379; Germany, Prussia, and North German States, p. 378; Holland, p. 379; Italy, p. 379; Switzerland, p. 379.

Continental writers use the equivalents of the word "income-tax" (Einkommensteuer, impôt sur le revenu, imposta sui redditi) to designate a tax levied on individuals in respect of the whole of their income; the taxes which are deducted from income as it arises, or levied on the objects from which income is derived, are generally designated by other names (*e.g.* Ertragsteuer). Taxes of the first kind are, as a rule, included by scientific writers among "subjective" taxes, whilst the last-mentioned taxes are called "objective." The rate of income-tax in most continental countries is not adjusted from year to year according to the position of the budget, but is fixed once for all by statute.

Some kind of income-tax exists in Germany, Austria, Switzerland, Italy; in France the tax called "personnelle mobilière" could not be called income-tax in any sense, and the proposal of a regular income-tax has hitherto been considered too revolutionary to meet with any chance of success.

The principal characteristics of continental income-taxes will appear from the following statement:

1. *Germany.*—The empire has no direct taxes of any kind, but the individual states have income-taxes of some sort. They may be divided into three groups:

(*a*) *Prussia.*—Up to a recent period Prussia had a general income-tax, and certain additional objective taxes, viz. taxes on revenue from land, buildings, and trades. The latter, since the 1st April 1895, have been transferred to the local authorities. The central government now receives a general income-tax, that is, a tax on the whole income of each individual. The tax

is progressive, and rises by steps from about $\frac{5}{8}$ per cent to about 4 per cent. In addition to the general income-tax, there is a tax on income from funded property, which is a complementary tax (Ergänzungsteuer) intended to give an advantage to income derived from productive employment. It is levied on the capital value on the whole of each person's real and personal property (not including furniture and movable goods not attached to land, or used as plant for purposes of trade), and is about $\frac{1}{20}$ per cent of the assessed value of the capital which, taking the average return on capital to be 4 per cent, is equal to about $1\frac{1}{4}$ per cent on the income. The Prussian laws relating to income-tax and complementary tax are dated respectively 1891 and 1893; the latter did not come into force until the 1st January 1895.

(*b*) The other *North German States* (excepting *Mecklenburg*) and the *Grand Duchies of Baden* and *Hesse* have a general income-tax, and some additional objective taxes.

(*c*) *Bavaria*, *Wurtemberg*, and *Mecklenburg* have no general subjective income-tax, but a number of objective taxes, viz. taxes on income from land, from buildings, from trades, and from investments. Bavaria has a partial income-tax, intended to affect incomes not coming under the above heads, viz. income from (i) wages below $1\frac{1}{2}$ marks per diem; (ii) professions and farming; (iii) wages above $1\frac{1}{2}$ marks per diem, and salaries. In the first-named class the tax is a fixed amount for each person; in the second class the incomes are sub-divided into categories, each charged with a fixed rate varying from $\frac{1}{8}$ per cent to 1 per cent; in the third class the tax is progressive, the first 1020 marks of each income pay $\frac{1}{2}$ per cent, the next 510 marks $\frac{3}{4}$ per cent, and the rest of the income pays 1 per cent. Wurtemberg has also a similar partial income-tax.

2. *Austria* has a very complicated system. There is no general income-tax. The tax on revenue from land and from Austrian investments is generally deducted at the source. There is no tax on income from foreign investments, and Austrian loans are frequently issued as bearing interest free of income-tax. There is an assessed income-tax on (*a*) income derived from trade, small traders being exempted; (*b*) income derived from professions, salaries, and wages, workmen and domestic servants being exempted; (*c*) income from interest on loans from which the tax is not deducted on payment, and which is not exempted from tax. The tax on income from trades and on interest is 5 per cent, but traders are also subject to an objective tax; the tax on income from professions and salaries is progressive, and rises from 1 per cent to 10 per cent. Additions are made to the regular tax according to the financial requirements of each year, and as they have of late amounted to 100 per cent of the regular tax, the rates seem very high. It appears, however, that the authorities are very lenient in respect of the assessments, and only government officials, whose tax is deducted from their salaries, are the sufferers.

3. *Switzerland.*—In the Swiss cantons there is generally a property-tax, assessed on the capital value of all funded property, but the value in many cases is assigned on the basis of annual income. In addition to this property-tax, most cantons have a supplementary income-tax, which affects income not derived from taxed property. In Basel-stadt and in Basel-land there are general income-taxes in addition to the property-taxes; but in Basel-land, interest derived from invested capital is exempted from income-tax.

4. *Italy.*—All income, except income derived from land, is subject to a general income-tax, which, however, is deducted at the source in respect of dividends and interest on investments, payable in Italy, and salaries. The tax amounts to $13\frac{1}{2}$ per cent, but the various kinds of incomes are differentiated in the following manner: (*a*) income from investments is assessed at the full amount; (*b*) income derived partly from capital and partly from work, such as income derived from industry or trade, is assessed at $\frac{3}{4}$ of the full amount; (*c*) income derived exclusively from work, such as professional income, income derived from salaries or wages, not coming under the next head, is assessed at $\frac{2}{3}$ of the full amount; (*d*) income received in respect of salary by government, provincial, or municipal officials, is assessed at $\frac{1}{2}$ of the full amount. Special rules are applicable to farmers, and there is an elaborate system of exemptions and deductions in respect of smaller incomes.

5. *Holland.*—Recent legislation (1892-93) has introduced a system by which income from funded property is more heavily taxed than other income, though the distinction is not as marked as in Prussia. A property tax is charged on the surplus value of a person's real and personal property over 10,000 florins (property, the value of which does not exceed 13,000 florins, being exempt, and real property not being assessed at its full selling value). This tax rises from $\frac{1}{8}$ per cent to $\frac{1}{3}$ per cent, and —on the basis of an annual return on capital of 4 per cent—is equivalent to a tax on income rising from 1 per cent to 5 per cent; there is also a tax on income not derived from property, which rises from 2 per cent to $3\frac{1}{2}$ per cent (incomes not exceeding 650 florins being exempt).

[See articles "Einkommensteuer," and "Vermögensteuer," in *Handwörterbuch der Staatswissenschaften*, and the works therein referred to; see also Wagner, *Finanzwissenschaft*, vol. ii.—Roscher, *Finanzwissenschaft.*—Meyer, *Deutsches Verwaltungsrecht.*—Bastable. *Public Finance*,

1892.—Greven, "Fiscal Reform in Holland" (*Econ. Journal*, vol. iii. p. 534).] E. S.

INCOME TAX IN THE UNITED STATES. An income tax was levied by the act of Aug. 5, 1861, as part of the extraordinary financial legislation to supply revenue for carrying on the civil war. Incomes over £160 were taxed 3 per cent. The rates were increased by subsequent legislation, and incomes under £200 exempted. The tax dropped in 1872. The largest amount collected in one year was in 1866, $72,982,159 (£14,596,432), or about 14 per cent of the net ordinary receipts. The tax was never regarded with favour, and when a 2 per cent income tax with an exemption of £800 was included in the Wilson Bill, 1894, it was declared unconstitutional and withdrawn. An income tax is levied in a few states for local purposes, as in Massachusetts, on all professional incomes above £400, and in Pennsylvania on certain businesses.

[For the federal income tax, see *Reports of Commissioners of Internal Revenue;* and for local income taxes, consult index in Ely's *Taxation in American States and Cities.*] D. R. D.

INCONVERTIBLE CURRENCY (see IDEAL MONEY). Inconvertible is predicated of paper money for which coin is not obtainable on demand. A paper currency may become inconvertible by a suspension of specie payments, such as the English bank restriction (see BULLION COMMITTEE, REPORT OF); or it may be inconvertible from the first, like the French ASSIGNATS. It often purports to be based upon, or to "represent" real wealth,—for instance in Pennsylvania last century there was a paper currency based upon the security of land, "coined land" (Franklin), and in Connecticut taxes were assigned for the redemption of the paper.

The value of an inconvertible paper currency depends upon circumstances common to all kinds of money, namely the quantity and efficiency of the circulation compared with the volume of transactions; and circumstances peculiar to this kind of money, namely that the supply is not regulated by cost of production, that the demand is limited to a particular country, and varies according as the currency is received by the people with more or less distrust.

From these peculiarities we may judge of the use of an inconvertible currency. The advantage of dispensing with a reserve of precious metal—an advantage which may be very great in time of emergency such as war—is counterbalanced by the danger of depreciation through over-issue. This danger has often proved fatal: *e.g.* the French assignats which were depreciated to nearly $\frac{1}{100}$ (White), or even $\frac{1}{3000}$ (Macleod), of their face value; and the American "continental currency," which was depreciated to $\frac{1}{1000}$ (Walker). But this danger may be avoided by caution. The notes of the Bank of France were depreciated upon suspension of payment in specie by only two or three per cent during the revolution of 1848, and scarcely by $1\frac{1}{2}$ per cent during the war of 1870,—differences hardly appreciable in practice.

The value of an inconvertible paper money is liable to fluctuate from the absence of that automatic regulator which the foreign exchanges constitute in the case of convertible paper, and also from variations in popular confidence. A remedy for the evil of fluctuation—as well as that of depreciation—is afforded by the rule that the market price and the mint price of bullion should be the same (see DEPRECIATION). But the remedy may appear imperfect to those who hold that a suspension of payment tends to depreciate not only the value of notes in relation to gold, but also that of gold in relation to commodities—an opinion which has been disputed by Tooke and entertained by Walker (Tooke, *History of Prices*, pt. iii. especially ch. i., and summaries to the other chapters; Walker, *Money*, ch. xvii.). An ideally more perfect method of regulating an inconvertible paper currency would be to make its value correspond to a TABULAR STANDARD. A paper so regulated would have an advantage in point of stability over the precious metals. But the realisation of this idea is utopian.

[The subject is treated in almost all the general works on political economy and those of which the special subject is money. Mill's chapter on inconvertible currency (*Pol. Econ.*, bk. iii. ch. xiii.) leaves little to be desired except the idea of a standard other than the precious metals for testing the depreciation of paper money. This idea is supplied by Professor F. A. Walker in his *Money*, together with much interesting historical matter and numerous references (see also INFLATION).] F. Y. E.

INCORPORATION OF COMPANIES. Companies may be "incorporated" (invested with the rights of corporate bodies) by special act of parliament, by royal charter, or under the Companies Acts. The first-named method of incorporation is usually adopted in the case of railway, canal, and similar companies: the second has become exceptional, the incorporation under the companies acts being now most frequently resorted to. The Companies Act 1862, § 18, provides that upon the registration of the memorandum and—where necessary—of the articles of association, the registrar of joint-stock companies is to issue a certificate of incorporation, and that thereupon a company is to become capable of exercising all the functions of an incorporated company. As the memorandum and articles are complete on being signed by seven members, whose holding may be restricted to a merely nominal amount, it will be seen that the incorporation of a company does not in any way prove that it has any substantial existence. Under Companies Act 1900, § 6, a public company, though incorporated, is not entitled to commence business until cer-

tain specified requirements have been complied with. E. S.

INCORPOREAL PROPERTY. The legal distinction between things corporeal and incorporeal first appears in the Roman system. "Corporeal things are those which by their constitution admit of being handled, such as land, a man, clothing, gold, silver, and in a word numberless other things. Incorporeal things are those which cannot be touched, such as those which have only a legal existence, like an inheritance, a usufruct, or obligations however contracted" (*Institutes of Justinian*, bk. ii. pt. ii.). An inheritance in Roman law, it must be remembered, meant the sum total of the proprietary rights and liabilities of a person deceased. This legal distinction was itself derived from a philosophical distinction made by the Stoics between objects of sense and objects of the intelligence. But it involves a confusion of thought. For it is clear that the corporeal things of Roman law are the objects of rights and liabilities, whilst the incorporeal things are rights or liabilities themselves. In the English law of real property the distinction between things corporeal and incorporeal is used in a still more arbitrary way. Lands and houses are said to be corporeal hereditaments. A reversion, a remainder, rights of common, rent charges, and advowsons are said to be incorporeal hereditaments. Under the rules of the common law different modes of transfer were applicable to corporeal and to incorporeal hereditaments respectively. For the transfer of corporeal property a delivery actual or symbolic was necessary. It was said to *lie in livery*. Incorporeal property was supposed not to admit of delivery. It was therefore transferred by means of a writing and was said to *lie in grant*. This practical difference was, however, abolished by the act 8 & 9 Vict. c. 106. The distinction between corporeal and incorporeal hereditaments has no rational foundation. The corporeal hereditaments are objects of rights; the incorporeal hereditaments are peculiar species of rights. A right in possession is just as incorporeal as a right in reversion, whilst the object of the right, say a house, is equally corporeal in either case.

The distinction between things corporeal and things incorporeal may, however, be used in a more rational way. If by proprietary rights we understand rights available against all the world as opposed to rights only available against particular persons and capable of pecuniary valuation, we find that some proprietary rights have definite material objects corresponding to them, whilst other proprietary rights have no such object. Thus to the right of ownership always corresponds a particular horse, house, book, etc. But nothing of the sort corresponds to a copyright or patent right. He who has the copyright in a book has merely the right to prevent any other person from publishing it. He who has taken out a patent for an invention has simply the right to prevent any other person from applying the invention. It is not the control over the material object, the manuscript or the model,—for that the owner already possesses to the fullest extent, it is the forbearance of others from certain actions which makes a copyright or patent right valuable, and which may be said to be the object of either right. The same reflection applies to the right in a trademark.

The importance of rights of this class would hardly be recognised except in a high stage of economic and legal development. In so far as their recognition secures an adequate reward to the creative faculties of man, it is a potent means of economic progress. But the distinction between things corporeal and things incorporeal as hitherto drawn in legal systems is of little value for jurisprudence and of no consequence for economics.

[Moyle, *Institutes of Justinian*.—Williams, *Law of Real Property*.—Holland, *Jurisprudence*. See also IMMATERIAL CAPITAL.] F. C. M.

INCREASING RETURNS. From the time when DIMINISHING RETURNS (*q.v.*) to agricultural industry first began to attract attention it was held that the returns to manufacturing industry increase with the increase of the absolute amount of labour employed. The contrast between agriculture and manufactures in this respect was pointed out by Malthus (*Nature and Progress of Rent*, 1815, p. 45), West (*Application of Capital to Land*, p. 7), and M'Culloch (*Political Economy*, 1st ed. pp. 277-278). It was elaborated by Senior (*Political Economy*, 8vo ed. pp. 81-86) and J. S. Mill (*Principles*, bk. iv. ch. ii. §§ 1-3). The tendency of later writers has been rather to soften the contrast; they insist upon the fact that up to a certain point agriculture gives increasing returns and that manufactures are subject to diminishing returns inasmuch as they require both raw materials and space (Marshall, *Economics of Industry*, 1879, pp. 21-26, 89-90). In *Principles*, vol. i. bk. iv. ch. xiii. § 3, Prof. Marshall says, "While the part which nature plays in production conforms to the law of diminishing return, the part which man plays conforms to the law of increasing return."

[An interesting review of the various standpoints from which the laws of increasing and diminishing returns have been laid down will be found in J. R. Commons, *The Distribution of Wealth*, 1893. See also J. H. Hollander in *Quart. Journ. of Ecs.*, January 1895.] E. C.

INCREMENT, THE UNEARNED. 1. *What is meant by the Unearned Increment.*—Although the germ of the idea may be traced in the *Wealth of Nations*, and is distinctly seen in Ricardo's *Principles*, the term "unearned increment" was first invented by J. S. Mill. By

"unearned increment" is meant that increase in the value of anything subject to a natural monopoly which is due not to the expenditure of capital, labour, or skill by the proprietor, but to the general progress of society resulting in an increased demand for that thing. An unearned increment may thus arise upon any kind of property of which the supply cannot be increased, *e.g.* the pictures of a dead artist. But the only kind of property usually considered with reference to the unearned increment is land. For land is the most important thing subject to a natural monopoly. Land is essential to the human race, as affording them room for their habitation, food to maintain life, and the raw material for all their industry. The extent of land available is also limited. True, the limit is not absolute. Much of the surface of the globe lies as yet unused and even unexplored. Even in civilised and populous countries there is always some land allowed to lie waste or far less improved than it might be. But the land not yet used or improved is land which, on account of position, or climate, or infertility, or some other disadvantage, is comparatively inconvenient. Mankind resort first to the land which is, under all the circumstances, most convenient to them. This land is so far limited that with the progress of society and the recourse had to less favoured land, economic rent makes its appearance. Economic rent, a thing quite distinct from rent in the ordinary sense, represents an unearned increment. But even if all the land belonging to a community were equally suitable for every purpose, its value would rise with the progress of the community and there would result an unearned increment.

The growth of the unearned increment in a progressive society is not uniform or uninterrupted. In the case of arable land, the unearned increment may be reduced or even annihilated by such causes as agricultural improvements or better means of communication which open up new sources of supply. Thus over a great part of rural England at the present day the rent actually obtainable represents a very moderate return on the capital which the landlords or their predecessors in title have expended on the improvement of the land and the buildings. Economic rent and unearned increment have not merely ceased to grow but have for the time being disappeared. Similar fluctuations may occur with reference to property in mines. Setting aside the depreciation resulting from progressive exhaustion, mines usually tend to become more and more valuable as society advances in prosperity. The increased demand for minerals and the improvement of means of transport bring an unearned increment to the mine-owner. But in this case also, the progress of society may open up new sources of supply and lessen the value of the old. Thus the working of silver mines in Europe has been made unprofitable by the competition of far richer mines in America and Australia. Here therefore economic rent and unearned increment have been annihilated. The most striking illustration of the unearned increment is afforded by land which derives its value from situations, such as the building sites in or near great cities. The advantage of situation is a monopoly of the strictest kind. It cannot be communicated to land which does not naturally possess it. It is so valuable that wealthy individuals or corporations will pay almost any price to obtain it. The shopkeeper who desires the custom of the rich must have premises in a fashionable street. The millionaire who desires the pleasures of good society must have a mansion in a fashionable quarter. A great bank must have its principal office in a central part of the capital. A great warehouse must be situated conveniently with respect to docks or railway stations. Many persons are obliged to live close to the place where they do their work, and there is a great deal of work which can be performed only in places possessing a peculiar advantage of situation. Owing to these and similar circumstances the competition for good sites in a great city is extraordinarily keen. Within recent years land in the city of London has been known to sell at the rate of £150,000 per acre, or higher, whilst excellent arable land within thirty miles of London has been sold for considerably less than £10 an acre. The whole difference between these prices may be regarded as an unearned increment (see BETTERMENT).

2. *The Unearned Increment as a subject of Taxation.*—With the progress of democratic ideas and of the desire to impose taxation as far as possible upon property, it was natural that proposals should be made for transferring to the state the unearned increment, which is the result not of the exertions of proprietors, but of the general growth of society. Such proposals differ chiefly as they are more or less far-reaching. They may be distinguished into three classes accordingly as they (1) contemplate the transfer of the ownership of land from private persons to the state, or (2) whilst contemplating the continuance of private property in land, would involve the appropriation of the unearned increment by the state, or (3) provide for such appropriation only in the case of unearned increment arising from special causes.

3. *Criticism of these Proposals.*—(1) Proposals of the first class are sometimes extended to every species of landed property, and sometimes are restricted to certain species on which the unearned increment happens to be unusually large, such as mines or building sites in cities and towns. When they extend to all kinds of land they amount to schemes for what is termed land nationalization, a subject too extensive

to be properly discussed here (see LAND, NATIONALIZATION OF). Shortly it may be said that such proposals have the appearance of a certain logical completeness, but would involve enormous practical unfairness in execution. Proposals for the transfer of particular kinds of landed property from private individuals to the state may be less difficult to carry out although less logical in theory. Upon the foundation of a colony it may be practicable to retain as a public patrimony land possessing special advantages of situation or of mineral wealth. But in any old country where private property in land of all kinds has been fully established for many centuries, schemes for the acquisition of urban land by municipal bodies, or of mines by the state, are not likely to be carried out. If fair compensation were given the operation would be perilous, for the public authority would have incurred the fixed charge of an immense debt in return for a property which might at any moment suffer depreciation through a decline of national prosperity. If no compensation or nominal compensation were given, the confiscation of the land in question would involve such an attack on rights of property as would amount to a revolution. In this case it is unlikely that private ownership of other sorts of land could survive.

(2) Proposals of the second class would not involve the abolition of private property in land. They are directed to the taxation of landowners to the extent of the unearned increment. J. S. Mill proposed and Mr. Dawson and other writers have repeated the suggestion that all the land in the United Kingdom should be subjected to a periodic official valuation and that the state should take for itself any increase in value which could not be shown to be due to the labour and capital of the proprietors. Schemes of this kind are not open to the moral or political objections which may be made to all schemes of confiscation. But their execution would involve serious difficulties. If Mill's proposal were applied to agricultural land, it would be found almost impossible to say how much of a growth in value was due to the general progress of society and how much to improvements effected by the proprietors. If the state were to call periodically for their accounts and to allow them the current rate of interest on the capital shown to have been spent in improvements, it would discourage all the most intelligent and useful improvers. For the return upon agricultural improvements is not really uniform. Some never repay their cost; others are highly profitable. It may also be urged that if the state is to deprive landowners by special enactment of increase of wealth due to the progress of society, the state should also guarantee them against loss of wealth due, not to their own default, but to changes in economic conditions.

(3) Schemes which provide for the appropriation by the state of unearned increment arising from certain special causes only must be considered each on its own merits. One of the most familiar schemes of this kind is known as Betterment (see BETTERMENT). Its object is to secure for municipal authorities the whole or part of the increase in value accruing to town property from the execution of improvements at the public expense.

4. *Conclusion.*—In conclusion, it may be said that no practicable scheme for securing the unearned increment on land to the state has yet been devised. Further it may be doubted whether the subject is of really momentous consequence. It is true that in Great Britain during the past hundred years, and still more in new countries such as the United States, the unearned increment on certain kinds of landed property has been prodigious and has resulted in vast private fortunes. It is natural therefore that reformers should find in the appropriation of the unearned increment a substitute for every other kind of taxation, and should debate upon the good which the national and local authorities might have done with this vast revenue which nobody would have missed. A sceptic might reply that a great revenue which is raised without being felt is usually spent in the most foolish and mischievous manner, as may be seen by the use which our American kinsmen have made of the resources derived from their stringent tariff. But further, it may be urged that the state has an indefinite power of taxation, and that under a democracy, which is the most costly of all forms of government, taxation is always becoming heavier, and is more and more thrown upon property, especially, where landowners are few, upon landed property. Under these circumstances, it is certain that the national and municipal authorities will in future draw an ample revenue from landed property whether or no any unearned increment has accrued thereon. Lastly, it may be said that the interest taken in the subject of the unearned increment in this country is due to the comparatively small number of landed proprietors amongst whom that increment has been shared. In a country of small proprietors the subject would be too invidious and would be abandoned to theoretical writers.[1]

[See Adam Smith, *Wealth of Nations*, bk. v. ch. ii.—Ricardo, *Principles of Political Economy of Taxation*, ch. x.—Mill, *Principles of Political*

[1] The "unearned increment" on land has been referred to throughout this article, as the examples which economic writers have taken have been practically without exception drawn from that particular class of property. The doctrine is, however, theoretically as applicable to every other description of property—for example, to shares in trading companies. Such shares have been known to have risen in price from £1 to £40 in a short space of time. Would the £39 in this case be "unearned increment"?

Economy, bk. v.—and *Papers on Land Tenure in Dissertations and Discussions*, vol. iv.—Cobden's later speeches.—Dawson, *The Unearned Increment*. Many references to the subject are scattered through the extensive literature relating to RENT.] F. C. M.

INCREMENTUM or CREMENTUM, a term used in mediæval accounts. To understand its exact meaning requires some knowledge of the manner in which a statement of receipt and expenditure was drawn up in the middle ages. The simplest way to explain it will be to take a particular example. Suppose we consider the form of a bailiff's yearly account of the estate under his management. First comes the *onus* or charge beginning "This accountant is charged with," or "This accountant renders account of so much for so and so," mentioning all the items of the year's income: then follows the expenditure account, beginning "of which (money) so much (is expended) in so and so," mentioning all the items of expenditure. At the end, or in the case of the Pipe Rolls at the beginning, is the amount of money handed over by the accountant, and finally the statement *debet* or *quietus est* or *habet de superplus* with the sum owed by him to the estate or by the estate to him, as the case might be. The difference between this and a modern statement of receipt and expenditure is not apparent on the face of it. Consider, however, one typical item, the rental account for instance. On the charge side will be simply: "Rents—so much," without any particulars. On the expenditure side, before the sums spent in repairs etc. will be a number of entries such as "so much for rent unpaid for such and such a house because unlet," or "because its rent has been reduced by that amount," or "because it is in ruins." In fact the charge is the whole rental of the estate as ascertained by a survey made at some time, it might be years before the bailiff entered into office, any diminution of rental being accounted for as a modern bailiff would account for expenditure. Any increase in this rental, owing to new sources of revenue being developed since a survey was made, was called *Incrementum*, and was either accounted for under a separate sub-heading or added to the amount of the charge year by year. This system was carried out to a great extent in all mediæval accounts, the tendency being, whenever possible, to charge the accountant with a definite sum, which did not vary from year to year, and to consider any fluctuations as distinct items of revenue or expenditure under the names of *incrementum* and *allocutiones* or *acquietantiæ*. One of the principal fiscal provisions of Magna Charta, as issued in 1215, was, that the counties should be kept at their old ferms *absque ullo incremento* (see FARM OF THE COUNTIES, PIPE ROLLS).

[Madox, *History of the Exchequer*, London, 1769.] A. E. S.

INDEMNITÉ (Fr.). Besides the ordinary acceptation of the word indemnity as compensation for damage by individuals or prejudice caused by acts of the authority in the general interest, it is employed in France to designate the payment received by persons exercising public functions unpaid. The indemnity of senators and deputies is fixed by the electoral laws of 1875 at fr. 9000 (£360) a year. If they already exercise an office paid by the state their salary is suspended while they sit in parliament, unless the salary is greater than the indemnity, in which case they receive the difference. The law declares expressly that the functions of municipal councillors are gratuitous, the only exception being the right of the council to allow a sum of money to the mayor to uphold the dignity of his office; but the Paris municipal councillors, taking advantage of the distinction made between salary and indemnity, have for some years past voted themselves annually an indemnity, first of fr. 4000 (£160) each, afterwards increased to fr. 6000 (£240) for their personal expenses. The illegality of the vote is incontestable, but the government has so far tolerated the infraction of the law. T. L.

INDEMNITY. A promise whereby one person undertakes to indemnify (to hold harmless) another against a liability undertaken on behalf of indemnifying party. An indemnity must be distinguished from a GUARANTEE (*q.v.*). If a person is entitled to indemnity against a liability he may, when sued in respect of such liability, serve a "third party notice" on the indemnifying party, who will thereupon become bound by the judgment, unless he becomes a party to the action and disputes his liability. E. S.

INDENTURE. A deed under seal, if made between two or more parties, is called an "indenture"; if it is the deed of one party only, a "deed poll." The first-mentioned name came to be used as deeds executed by several parties were generally copied out twice on the same parchment, which was then separated by an indented division. E. S.

INDEX NUMBERS are used to indicate changes in the value of money. The objects for which this measurement is undertaken are thus well stated by Sir R. Giffen (Second Report of the committee appointed for the purpose of investigating the best method of ascertaining and measuring variations in the value of the monetary standard. Report of the British Association, 1888):—(1) The fixation of rents or other deferred payments extending over long periods of time, for which it has been desired to obtain a currency of a more stable sort than money is supposed to be. (2) To enable comparisons to be made between the value of money incomes in different places, which is often an object of great practical interest: not only

individuals contemplating residential changes, but also governments and other large spending bodies, spending money in widely distant places, having to consider this question. (3) To enable historians and other students making comparisons between past and present to give an approximate meaning to the money expressions which they deal with, and say roughly what a given fine, or payment, or amount of national revenue or expenditure in a past age would mean in modern language. To which some would add: (4) To afford a measure of the extent to which trade and industry have been injuriously affected by a variation in prices; and of the correction which it would be desirable to apply to the currency.

An index number is constructed by combining several items, each of which is a ratio between the price of a certain article at a particular date under consideration (*e.g.* last year or month) and the price of the same article at a period taken as base or standard (*e.g.* 1867-77, in the index number constructed by Mr. Sauerbeck, *Journal of the Statistical Society*, 1886 and 1893). These ratios are generally expressed as percentages. *E.g.* the percentage for *flour* in 1885, as given by Mr. Sauerbeck, is 63; meaning that the price of flour in 1885 is to the average price of the same article in 1867-77 as 63 : 100. The term index number is sometimes applied (*e.g.* by Mr. Sauerbeck, *op. cit.*) to each of these items, as well as to their combination.

The percentages are usually compounded by taking an AVERAGE of them. But a result of equal generality may be obtained by taking their sum. One of the best-known index numbers, that of the *Economist*, is thus constructed. Twenty-two articles having been selected, the price of each article at the current date compared with its price at the standard period (1845-50) is expressed as a percentage; and the sum of these percentages is put as the index number. Thus the *Economist* index number for the year 1873 is 2947; such a sum is easily reduced to the form of an average by simple division (*e.g.* $2947 \div 22 = 134$). Accordingly in what follows it will be sufficient to consider the latter form only.

The construction of an index number presents the following problems: (*a*) What are the commodities of which the prices are to be taken? (*b*) How are the prices to be ascertained? (*c*) How are the ratios between the prices of each article at the current and the standard dates to be combined?

The answers to these questions vary according to the purpose in hand (above, pp. 384-5). As appropriate to the first purpose, a standard of deferred payments, two methods present themselves, viz. to arrange that the debtor should pay, the creditor receive, either (1) the same quantity of goods and services, the same amount of utility, so to speak; or (2) the product of the same quantity of labour—or more exactly effort and sacrifice.

Of these methods the former has been more generally accepted. It is adopted for instance by the British Association Committee already referred to, as *par excellence* the measure of the change in the value of the monetary standard. The former method is indeed more practicable, perhaps more intelligible. However, in favour of the latter there are some weighty considerations and authorities. It seems to be the nearest possible approach to Ricardo's conception of a commodity invariable in value, "which at all times requires the same sacrifice of toil and labour to produce it" (*Principles*, iii. ch. xx., "On Value and Riches," cp. Mill, bk. iii. ch. xv., "On a Measure of Value"). "A standard," says Mr. Leonard Courtney, "should be something which as far as possible involves the same labour and the same sacrifice in obtaining it" (*Nineteenth Century*, March 1893). Prof. Marshall, in his evidence before the royal commission on gold and silver, says, speaking of appreciation of gold: "When it is used as denoting a rise in the real value of gold, I then regard it as measured by the diminution in the power which gold has of purchasing labour of all kinds—that is, not only manual labour, but the labour of business men and all others engaged in industry of any kind" (Question 9625).

If the first method is adopted, the answers to the questions above set are as follows: (*a*) The commodities of which the prices are to be taken should be articles of consumption rather than materials and implements. Payments for personal services should be included, but not wages in general. (*b*) Retail prices should be used. (*c*) The proper combination of the ratios is an average of the kind technically called *weighted* (see AVERAGE). The general principle according to which the weights are to be assigned is that they should represent the importance of each commodity to the consumer. But this idea may be embodied in different plans.

1. One plan is to assign as the weight of each percentage, or ratio between prices, the value of the corresponding commodity at the initial or standard period. According to this plan the index number is the ratio between these two values: the quantities initially consumed at the prices of the current date, and the same quantities at the standard prices. This method is exemplified by Sir R. Giffen's estimate of the change in the value of money between 1873 (and 1883) and *earlier* years, in his report on prices of exports and imports, 1885, table v.

2. Another plan is to assign, as the relative importance of each percentage, its value at the particular epoch, the current year. This plan is adopted by Mr. Palgrave in his memorandum

on *Currency and Standard of Value* . . . in the third report of the royal commission on depression of trade and industry, table xxvii.

3. According to another plan, the index number is the ratio between the following two values: the quantities consumed at the current date at the current prices, and the same quantities at standard prices. This plan is adopted by Mr. Sauerbeck (*Journ. Stat. Soc.*, 1886, p. 595).

4. Or, instead of taking either the initial quantities or those of the current date, a mean between the two may be taken. This is the plan adopted by the British Association Committee. They estimate "the average national expenditure on each class of article at present and for the last few years"; and put for the relative importance of each commodity a round number corresponding to that estimate. Thus the estimated expenditure per annum on *wheat* is £60,000,000, and on *meat* £100,000,000: that is respectively 6·5 per cent, and 11 per cent of the sum of the corresponding estimates for all the commodities utilised by the committee. As convenient approximations, the weights five and ten are recommended by the committee.

If the index number based on labour (see above, p. 385), rather than on consumption, is adopted as the standard for deferred payments, it would be proper by analogy to take as the measure of appreciation or depreciation the change in the pecuniary remuneration of a certain set of services, namely all, or the principal, which are rendered in the course of production throughout the community during a year, either at the initial or the current epoch; or some expression intermediate between the two specified. But it may be doubted whether the statistics requisite for this method are available.

With regard to the second and third of the purposes above enumerated, the determination of the comparative value of money at distant places and remote times—one or other of the two methods indicated would seem to be theoretically proper.

For the fourth purpose, the regulation of currency, the proper construction of the index number would seem to be as follows: (*a*) The "articles" of which the prices are taken into account should be both commodities and services; (*b*) both wholesale and retail prices should be used; (*c*) the relative importance of each article should be proportioned to the demand upon the currency which it makes. But here as in other parts of the subject theory halts a little, and statistics lag far behind theory.

Considering the theoretical doubts and statistical difficulties which attend the determination of *weights* proper to each purpose, there is much to be said in favour of assigning equal relative importance to all the items; especially if care is taken to include many articles such as *corn*, *cotton*, etc., which for any of the purposes which may be contemplated must be of first-rate importance. Such is the character of some of the principal index numbers which have been constructed—those of the *Economist*, of Jevons, of Soetbeer, and of Mr. Sauerbeck.

In the construction of such an index number the use of the arithmetic mean is not imperative. Jevons employs the geometric mean. His reasons for preferring it are not very clear (the "Variation of Prices," *Currency and Finance*, p. 120). A more intelligible explanation is given by Prof. Westergaard (*Wahrscheinlichkeitslehre*) —the geometric mean alone presents a certain consistency between its results, which may be thus indicated. Taking any three dates, x, y, z, put the symbol $\left(\frac{y}{x}\right)$ to denote the index number for the date y referred to the date x as standard; with similar interpretations for $\left(\frac{z}{x}\right)$ and $\left(\frac{z}{y}\right)$. Then $\left(\frac{y}{x}\right) \times \left(\frac{z}{y}\right) = \left(\frac{z}{x}\right)$, as it *ought* by analogy with perfect measurements in other sciences, if the geometric mean be used, but not if any other mean be employed. The geometric mean has also the advantage of being less liable than the ordinary average to be unduly affected by extremely high prices (*Report of the British Association*, 1887, p. 283). The great objection to the geometric mean is its cumbrousness.

There is another kind of mean which has some of the advantages of the geometric, and is free from its essential disadvantage; namely, the median (see AVERAGE), which is formed by arranging the items in the order of magnitude, and taking as the mean that figure which has as many of the items above as below it. For instance the median of the forty-five percentages on which Mr. Sauerbeck's index number is based was, for 1892, 66; while the arithmetic mean was 68. It is difficult to see why the latter result is preferable to the former; if what is required is an *index* of the change in general prices, not specially referred to any particular purpose, such as of securing a constant benefit to a legatee.

The perplexity of a choice between such a variety of methods is much reduced by the two following considerations. *First*, beggars cannot be choosers. The paucity of statistical data (see the report drawn up by Sir R. Giffen in the *Report of the British Association* for 1888, p. 183) restricts the operation. Thus for the purpose of index numbers based on consumption (above, p. 385) retail prices are theoretically appropriate; but "practically it is found that only the prices of leading commodities, capable of being dealt with in large wholesale markets, can be made use of" (Giffen, *loc. cit.*). *Second*, the difference between the results of different methods is likely

to be less than at first sight appears. For instance, the probable difference between the index number constructed by the British Association committee, and six others which have been proposed by high authorities—supposing the different methods to be applied to the same data, viz. the prices of twenty-one articles specified by the Committee may thus be expressed. The discrepancy which is as likely as not to occur between the committee's and other results is from 2 to 2·5 per cent. The discrepancy which is very unlikely to occur is from 8 to 11 per cent (*Report of the British Association* for 1888, p. 217). In fact, the index number for the year 1885, as determined from the same data by seven different methods, proved to be 70, 70·6, 73, 69, 72, 72, 69·5 (*ibid.* p. 211).

The practical outcome of these two considerations is thus well expressed by Giffen (*loc. cit.* p. 184), "The articles as to which records of prices are obtainable being themselves only a portion of the whole, nearly as good a final result may apparently be arrived at by a selection without bias, according to no better principle than accessibility of record, as by a careful attention to weighting. . . . Practically the committee would recommend the use of a weighted index number of some kind, as, on the whole, commanding more confidence. . . . A weighted index number, in one aspect, is almost an unnecessary precaution to secure accuracy, though, on the whole, the committee recommend it."

[Airy, G., *Memoirs of the Astronomical Society*, xxviii. (refers to a physical problem which has considerable analogy to the determination of the changes in the value of money with respect to things in general; namely, the determination of the motion of the solar system in space—relative to the stars in general).—Bela Foldes, W., *Jahrb. f. Nat. Oekon.*, 1882; *Statistische Monatsschrift* (Vienna), 1881 (refers to changes in the value of Austrian inconvertible currency).—Bourne, S., *Journal of the Statistical Society*, 1879 (exemplifies the principle of *weight*).—Cross, W., *Standard Pound* v. *Pound Sterling*, (1856) (proposes a change in the standard *per saltum*, as often as the index number changes to the extent of say 3 per cent).—Drobisch, M., *Bericht. Kön. Sachs. Gesell. Wissenschaft* (Leipzig), 1871; *Jahrb. f. Nat. Oekon.*, 1871 (suggests ingenious methods of combination).—Edgeworth, F. Y., "Memoranda on the best methods of ascertaining and measuring variations in the value of the monetary standard" (*Report of the British Association* for 1887, 1888, 1889), (a voluminous disquisition, of which the above article may be regarded as an abridgement).—Forsell, H., *Guldbristen* (Stockholm, 1886), translated into English (interesting as showing the different results which can be brought out when different articles are selected).—Giffen, Sir R., *Parliamentary Reports*, 1881-85; *Essays in Finance; Report of the British Association* for 1888, p. 181 *et seq.* (very masterly).—Jevons, *Currency and Finance* (quite classical).—Laspeyres, *Jahrb. f. Nat. Oekon.*, 1864, 1871; *Zeitschrift für die Gesammte Staatswissenschaft*, 1872 (constructs important index numbers for various classes of goods).—Lehr, J., *Statistik der Preise*, 1885 (proposes a cumbrous but theoretically interesting scheme).—Lowe, Joseph, *Present State of England*, 1833 (one of the fathers of this school of writers).—Marshall, *Contemporary Review*, 1887 (offers very valuable suggestions for the construction of an index number based on consumption).—Nicholson, J. S., *Journal of the Statistical Society*, 1887 (recommends an index number based on the change in the monetary value of property or capital).—Nitti, *La Misura delle Variazioni di Valore* (contains some subtle criticism and many useful references).—Palgrave, R. H. I., *Third Report on Depression of Trade* [Appendix B.], (constructs an important weighted index number, and discusses other forms).—Shuckburgh, Sir George, *Phil. Trans.*, 1798, part i. (perhaps the earliest attempt to construct an index number).—Poulett Scrope, *Political Economy* (1833) (proposes an index number under the name of a *Tabular Standard*).—Sauerbeck, A., *Journal of the Statistical Society*, 1886, and 1893 (constructs an important index number based on the prices of forty-five articles); *Economic Journal*, June and September 1895 (replies to objections against their index numbers by Mr. N. G. Pierson and Mr. Sauerbeck).—Scharling, W., *Jahrb. f. Nat. Oekon.*, 1886 (throws some doubt on the apparent change in the purchasing power of money).—Sidgwick, H., *Political Economy*, bk. i. ch. ii. (states different methods of constructing an index number based on consumption).—Soetbeer, *Materialien zur Währungsfrage*, 1886, brought up to date in the *Jahrbücher f. Nat. Oekon.*, 1892 (one of the most important contributions to theory and practice).—Walker, *Money and Trade*, and *Political Economy Appendix* (regards the use of a tabular standard as limited).—Walras, *Théorie de la Monnaie*, 1886 (proposes to regulate currency by means of a proper index number).—United States report on retail prices by the Senate Committee on Finance, 1892 (an interesting verification of the principle that simple and "weighted" averages are not likely to differ very much).] F. Y. E.

INDIFFERENCE, LAW OF, a designation applied by Jevons to the following fundamental proposition: "In the same open market, at any one moment, there cannot be two prices for the same kind of article."

This proposition, which is at the foundation of a large part of economic science, itself rests on certain ulterior grounds: namely, certain conditions of a perfect market. One is that monopolies should not exist, or at least should not exert that power in virtue of which a proprietor of a theatre, in Germany for instance, can make a different charge for the admission of soldiers and civilians, of men and women. The indivisibility of the articles dealt in appears to be another circumstance which may counteract the law of indifference in some kinds of market, where price is not regulated by cost of production.

[Jevons, *Theory of Exchange*, 2nd ed. p. 99 (statement of the law).—Walker, *Pol. Econ.*, art. 132 (a restatement).—Mill, *Pol. Econ.*, bk. ii. ch. iv. § 3 (imperfections of actual markets).—Edgeworth, *Mathematical Psychics*, pp. 19, 46 (possible exceptions to the law of indifference).]

F. Y. E.

INDIRECT TAXATION, in the ordinary English use, is that which is "demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another" (Mill, *Principles*, bk. v. ch. iii. § i.), *i.e.* it comprises taxes on commodities levied from producers or dealers.

The administrative application of the term, at least on the continent, is wider. "Indirect taxation is levied on the occurrence of a fact, act, or exchange; it does not require lists of contributions regularly or periodically established" (Leroy-Beaulieu, *Science des Finances*, t. i. p. 273, cp. Wagner, *Finanzwissenschaft*, vol. ii. p. 239). It therefore covers taxes on successions and gifts as well as the stamp and registration duties.

According to the PHYSIOCRATS (*q.v.*) all taxes, except that levied on the *produit net*, were indirect, since they were necessarily shifted to it (see DIRECT TAXATION and TAXATION).

[A. Wagner, *Finanzwissenschaft*, vol. ii. pp. 239-247.] C. F. B.

The passage from Mill quoted above includes, among the class "Indirect," such taxes as—

"the excise or customs. The producer or importer of a commodity is called upon to pay a tax on it, not with the intention to levy a peculiar contribution upon him, but to tax through him the consumers of the commodity, from whom it is supposed that he will recover the amount by means of an advance in price" (Mill, *Principles*, bk. v. ch. iii. § i.).

Mill's definitions of direct and indirect taxes make the difference to turn upon the mode of incidence, a division probably originally suggested by the theory of the PHYSIOCRATS (*q.v.*) that all taxes being paid ultimately out of the "net produce" of land, it would be better to impose a single tax charged *directly* on the landowners than to assess the fund *indirectly* by other taxes. But, as Sidgwick (*Principles of Political Economy*, bk. iii. ch. viii. § 8) says—

"we can only partially succeed in making the burden of 'direct' or 'indirect' taxes fall where we desire; the burden is liable to be transferred to other persons when it is intended to remain where it is first imposed; and, on the other hand, when it is intended to be transferred, the process of transference is liable to be tardy and incomplete."

Thus—

"In common parlance the distinction between direct and indirect taxes is practically relegated to the mind of the legislator: what he wishes to have borne by the original taxpayer is called a direct tax, what he intends to have borne by some one else than the original taxpayer is called indirect. Unfortunately the intention of the legislator is not identical with the actual result. We must, then, either revise our nomenclature or declare the present distinction of little value" (Seligman, *The Shifting and Incidence of Taxation*, 1899, p. 311).

A distribution of taxes subject to change with every new theory of incidence must necessarily, whatever may be its value in economy, be almost useless for administrative purposes. Hence Bastable states that—

"practical financiers have adopted a different basis of distinction, and regard those taxes as direct which are levied on permanent and recurring occasions; while charges on occasional and particular events are placed under the category of indirect taxation" (*Public Finance*, ed. 1903, p. 271).

Under this method the income tax is direct, and the excise and customs indirect, as in Mill's definitions, but the death duties from direct become indirect. This classification, which is based on the possibility or otherwise of having a list of taxpayers (*rôle nominatif*) is that adopted in France. P. Leroy-Beaulieu objects to it as empirical, and confounding things which ought to be distinguished. He would define a tax as direct if it was intended to charge the taxpayer immediately and proportionally to his fortune or revenue, and as indirect if otherwise (*Science des Finances*, 1899, vol. i. 273). Wagner (*Finanzwissenschaft*, 1890, vol. ii. 237-247) gives a full account of the controversy with respect to terminology. He favours a definition based on incidence.

Bastable, desirous of retaining the broad line of division that the old meaning of "direct" and "indirect" gave, observes that —

"if we take the terms, not as giving a complete classification of taxes, but as marking the presence or absence of a certain characteristic, they may be employed with advantage, but rather to suggest reasons for discrimination than to definitely settle results." He starts, then,

"with the conception of direct taxes as those levied immediately on the 'subjects,' or ultimate bearers, of the charge, and therefore embracing taxes on income and property, or on their component parts, in opposition to duties on commodities and on exchange, where there is a shifting of the burden from the immediate payer to the 'subject' which justifies the name of 'indirect,'"

and proceeds to consider the merits and defects of each class. On the borderland between direct and indirect taxes he places taxes on transfers, on contracts, on communication and transport, and, in short, the numerous charges on acts (pp. 349-356).

In favour of direct taxation may be urged facility and small cost of collection, combined

with definiteness of yield, whilst against it are the unpopularity of the collector's demand for payment, the difficulty of taxing directly the poorer members of society, and the inelasticity of certain forms of charge, *e.g.* on lands and houses, the assessment of which is usually of necessity fixed for some years. Indirect taxation is more costly to collect, and more variable in its yield, owing to the power of increasing or diminishing consumption of taxed commodities at will, but it is hardly felt at the time of payment, is available for reaching the poorer classes, and in times of prosperity is automatically expansive. Its special drawback is the danger of loss through the disturbance of industry, particularly by excise interference with freedom of manufacture. (For the point of view of a finance minister, see Hansard, [162] 583-585.)

"In spite of the evils that are associated with indirect taxation, and are only partially prevented by fiscal improvements, it has been found necessary by all the great nations of modern times to retain customs and excise duties as an important part of the tax system. In England, Russia, and France the excises and customs yield about half the national revenues. In Germany the imperial legislation regulates the customs and excises on salt, tobacco, spirituous liquors, beer and sugar, and with three exceptions the constituent States do not tax these things. In the United States the federal government draws most of its revenue from excises and customs in nearly equal proportion. In comparing direct and indirect taxes both must be considered as parts of the whole tax system. The chief merit in either case is that the one remedies the defects of the other." (Nicholson, *Elements of Political Economy*, 1903, p. 481.) (See DIRECT TAXATION. COST OF COLLECTION OF TAXES. TAXATION.)

F. A.

INDIRECT UTILITY. A distinction has been drawn between direct and indirect utility. "Direct utility," Jevons says (*Theory of Political Economy*, ch. iii.), "attaches to a thing like food, which we can actually apply to satisfy our wants. But things which have no direct utility may be the means of procuring us such by exchange, and they may therefore be said to have indirect utility."

Jevons refers, in connection with this, to the following passage in Garnier, *Traité d'Économie Politique*, 6th ed. ch. i. § iii. : "Utility is direct or indirect. It is direct in the case of things the immediate application of which satisfies our wants ; a loaf of bread possesses this utility for a man suffering from hunger. It is indirect in the case of things which are only the means whereby we can procure what is necessary to satisfy those wants, which they cannot themselves satisfy. For instance, a man possesses two pieces of bread : with one he satisfies his hunger ; this is an example of direct utility : urged by thirst, he exchanges the other for something to drink ; this is an example of indirect utility.

"Utility which is no longer direct acquires the quality of being interchangeable, and becomes also *Value*" (see UTILITY).

INDIVIDUALISM. This term was applied by J. S. Mill (*Socialism*, p. 114) to that system of industrial organisation in which all initiative is due to private individuals, and all organisation to their voluntary agreement. Under such a system the functions of the state are restricted to the maintenance of order, including the defence of the country, the enforcement of contracts, and in general to supplying the conditions necessary to the working of voluntary action. The natural antithesis to individualism is COLLECTIVISM or we may say SOCIALISM, a system under which industry is directly organised by the state, which owns all means of production and manages all processes by appointed officers.

In its extreme form individualism would deny to the state industrial activities of every sort, even the construction of roads, bridges, and harbours, and the coinage of money. Going still farther, it is discovered that the so-called repressive functions of the state are mostly industrial. Lawsuits are a species of compulsory arbitration of disputes, including industrial ones. The punishment of theft is the repression of a personal activity known to be pernicious. A few have been found who disapprove even of these functions of the state and urge their entire abolition. They are properly known as anarchists or disbelievers in any government, and they represent the utmost range of individualism. In the following discussion it will be understood that only a qualified individualism is intended, that is to say, such a compromise with the opposite principle as has been represented by the most individualistic of modern states.

The essential features of individualism are, (1) private property in capital, to which are added almost of necessity the rights of bequest and inheritance, thus permitting unlimited transfer and accumulation. (2) Competition, a rivalry between individuals in the acquisition of wealth, a struggle for existence in which the fittest survive.

It is evident that both these principles have advantages and disadvantages for society. In entering a field where controversy has been violent, only a brief enumeration of admitted tendencies is appropriate. Among the advantages of individualism should first be mentioned the enormous incentive it furnishes to the accumulation of property and so indirectly to the production of wealth. Tasks are undertaken in hope of unusual personal advantage which would not be undertaken by a man receiving a moderate and fixed reward not influenced by special achievements. It is plain that a

considerable class of persons are thus induced to exert to the utmost faculties which would otherwise lie dormant. Further, the control of funds of capital by individuals enables them to develop ideas of great value to society, but ideas which society would not value until so developed. Thus it is claimed that individualism not only excites ingenuity but gives it scope, and utilises it in a way that socialism would not so obviously do. Finally, quite apart from all material advantages there should be noted the intellectual qualities which individualism develops—shrewdness, penetration, aggressiveness, and independence. These characterise in a high degree the foremost members of an advanced individualistic society.

Certain disadvantages are, however, equally obvious. The principle of natural selection seems to be abnormally active in a vigorous individualistic society. If great incentives are furnished to certain men, their number is increasingly small. The hope of accumulation becomes a forlorn hope to most men in a highly organised individualistic society, and they suffer from a dearth of incentives destructive even of the simplest economic virtues. Thus the impetus given to production by individual incentives is partly neutralised by the deterioration or arrested development of the masses of the productive population from whom these incentives are increasingly withheld. It is further neutralised by the fact that the control of capital means also privilege in consumption. If men of wealth are merely capitalists, and consume moderately, the only danger arising from their disproportionate ownership is that of excessive formation of capital, but to this danger we must add that of occasional spendthrift consumption, alike detrimental and irritating to society. The tendency of capital to accumulate in the most competent hands has also its counterpart in the chances of inheritance, which often give it to those who are incompetent.

The more conspicuous disadvantage of individualism is the waste involved in competition. Its cost in active antagonisms and divided efforts is enormous, and has been frequently discussed. Finally, the intellectual qualities developed by individualism are more or less balanced by the ethical weakness which it involves. Individualism is avowedly egoistic. Competition has often seemed ruthlessly to eliminate ethical sentiment. At the best it threatens its existence.

It is impossible to weigh the merits and demerits of individualism without a fuller consideration of socialism than present data will allow. Suffice it to say that its disadvantages have been felt so seriously as to lead many countries of late to modify the system by increasing the industrial functions of the state.

The experiences of corporate industry cannot well be discussed here, but it is plain that such a system is not individualistic, and that the principles of management are such as government is familiar with, and might conceivably use with an efficiency proportioned to the excellence of its own organisation. In this respect corporate industry resembles socialism as well as in the further respect that competition and its attendant waste are frequently eliminated, though the benefit that might result has not always inured to society.

The existing industrial system is in many respects a mixture of socialism and individualism and is doubtless destined to remain so, though in what proportion the two will ultimately combine it is impossible to predict. No scheme of complete socialism has been proposed which provides at all adequately for the utilisation of human originality for the ends of progress, or appreciates the value to society of a leisured class. On the other hand it is alleged that the best individualistic systems have largely squandered and perverted originality and developed a leisured class which has not risen to the level of its duties. The modern tendency of society to limit individualism is doubtless due to deeper ethical considerations, the development of which is one of the most remarkable features of the day.

[Any standard work on political economy is an analysis of the individualistic system. Ely, *Outlines of Economics*, analyses the present mixed system as such. Mill discusses the difficulties of collective or state industry. The weakness of individualism is stated with great force by socialist writers, best of all perhaps in Edward Bellamy's socialist romance, *Looking Backward*. Defence and counter criticism are to be found in the works of opponents of socialism, *e.g.* Rae, *Contemporary Socialism*, and Graham, *Socialism new and old*.

See also Montague, *Individual Liberty*. — Nicholson, *Principles of Political Economy*, vol. i. ch. xv.—Donisthorpe, *Individualism*.—Walker, "Mr. Bellamy," etc., *Atlantic Monthly*, Feb. 1890.—E. Richter, *Zukunftsbilder*, 1892.]

H. H. P.

INDORSEMENT. See BILL OF EXCHANGE.

INDUCTIVE METHOD. There is some ambiguity in the use of this expression. Sometimes it is used with reference to any inquiry in which results are arrived at by the study of concrete facts. The following passage from Prof. R. M. Smith, *Science Economic Discussion*, p. 111, illustrates this acceptation of the term. "Finally, we may ask, what can the inductive method do when it faces some great economic problem which affects the whole community and civilisation itself? Such a problem is the labour problem. What is the condition of the labouring class? Has that condition deteriorated or improved? The inductive method has not shrunk from attempting to find an answer to even such questions as these. Thorold Rogers has laboriously traced the condition of the English labourer during the last six centuries, for the

purpose of answering this question historically. Giffen has attempted, by statistics, to show that the condition of the labouring class has materially improved during the last fifty years." Dr. Keynes, on the other hand, objects to this use of the term (*Scope and Method of Political Economy*, p. 192, note) on the ground that "what is naturally understood by induction and the inductive method is a process of reasoning whereby, on the strength of particular instances, a general law is established." From this point of view, the instances given by Prof. Smith would rather be regarded as illustrating the statistical or realistic or concrete method of economic inquiry. It seems clear, however, that when an inductive method is spoken of it is not usually restricted to a method by which general laws are ascertained. Thus, Prof. Sidgwick says (*Scope and Method of Economic Science*, p. 33) that "even as regards the present condition of industry in the more advanced countries, to which the theory of modern economic science primarily relates, there is, I conceive, no dispute as to the need of what is called a 'realistic' or 'inductive' method—*i.e.* as to the need of accurately ascertaining particular facts when we are inquiring into the particular causes of particular values, or of the shares of particular economic classes at any given place and time." Here the inductive method is identified with the realistic, and is not conceived as necessarily concerned with the ascertainment of general laws, but only of particular causes at a particular place and time. The discussion of the correct use of the term induction must evidently be left to writers on inductive logic; but it may be permissible to remark here that Mill's influence has perhaps tended to narrow the use of the term in a way that is neither conformable to popular usage nor convenient for scientific purposes.[1] At any rate, when we speak of the inductive method with reference to political economy, it seems best to understand it as meaning any method by which truths of scientific value are obtained which are not directly deducible from principles already known. If the term is thus understood, Mill's inductive methods represent only a small part of inductive investigation; and the instances given by Profs. Sidgwick and Smith, so far as the results to which they refer are regarded as having scientific value, are correctly taken as illustrations of induction. It seems necessary to say that the results must have scientific value; for probably no one would regard mere economic history or mere statistics as illustrating the inductive method, or any other method, except in so far as they supply results that are capable of throwing light on economic tendencies. Even Mill would no doubt have been willing to describe the instances given by Prof. Smith as "subsidiary to induction"; and perhaps it is simplest to regard processes subsidiary to induction as being themselves inductive in their nature.

Assuming, then, that induction and deduction are to be understood in such a sense that between them they exhaust all the methods by which economic truths of any scientific value are ascertained, we have next to ask, What is the importance of the inductive method in economic research? This subject has been already to a considerable extent discussed in the article on DEDUCTIVE METHOD, and it is not necessary to add much to what is there said. The classical economists, led by Ricardo, are certainly chargeable with having comparatively neglected the inductive method. There are, however, some certain grounds on which their action may be defended. It may be said, on the one hand, that the facts to be dealt with by the economist are too complicated, and too little amenable to experimental treatment, to be suitable for the application of the inductive method. For this reason it may be urged that the observation of economic facts is seldom of any scientific value, except by way of verifying or correcting the results of deductive reasoning. This is no doubt largely true. A purely inductive investigation would be a long one; and the practical importance of some economic truths naturally renders us impatient of slow processes. Also, it is no doubt true that the economist has seldom the power of modifying his facts experimentally, so as to facilitate investigation. The importance of the latter point, however, may be exaggerated. The absence of experiment is partly compensated by the natural enterprise of human nature, on the one hand, and, on the other hand, by the possibility of forecasting results. The former fact gives rise to what is sometimes described as "unintentional experiment." This is perhaps an inaccurate expression;[1] but it is certainly true that the natural enterprise of human nature renders experiment less necessary in such a subject as economics than it is in the case of objects that are comparatively inert or that are difficult to observe under varying conditions. The power of placing ourselves imaginatively in different circumstances, and considering what the result would be,[2] is also a condition that renders actual experiment relatively unnecessary. It may be urged, however, on the other hand, that the latter circumstance

[1] It is probable that the somewhat narrow view which Mill took of the aim and scope of induction is largely responsible for his low estimate of the value of the inductive method in economics. See his *Essays on some Unsettled Questions of Political Economy*, Essay V., and *System of Logic*, bk. vi. ch. ix.

[1] See Keynes's *Scope and Method of Political Economy*, p. 169, note.

[2] This is what Cairnes describes (*Logical Method of Political Economy*, pp. 90-94) as "an inferior substitute" for experiment, or as "experiment conducted mentally." Cp. also Keynes's *Scope and Method of Political Economy*, p. 172, note.

to a great extent renders the inductive method itself unnecessary. "In order to know, *e.g.*," says Cairnes (*Logical Method of Political Economy*, p. 88), "why a farmer engages in the production of corn, why he cultivates his land up to a certain point, and why he does not cultivate it farther, it is not necessary that we should derive our knowledge from a series of generalisations proceeding upward from the statistics of corn and cultivation to the mental feelings which stimulate the farmer, on the one hand, and, on the other, to the physical qualities of the soil on which the productiveness of that industry depends. It is not necessary to do this—to resort to this circuitous process—for this reason, that we have, or may have if we choose to turn our attention to the subject, direct knowledge of those causes in our consciousness of what passes in our own minds, and in the information which our senses convey, or at least are capable of conveying, to us of external parts. Every one who embarks in any industrial pursuit is conscious of the motives which actuate him in doing so," etc. It is unnecessary, then, in such cases as these, to resort to the inductive method of inquiry, because the chief causes involved are known to us either by direct personal experience, or by sympathetic imagination, or by the instrumentality of language. But this is only partly true. In complicated cases it is difficult to disentangle motives—even our own,—and to estimate to what extent different considerations have weight in our conduct. And this is especially difficult when we have to compare the actions of men in different times and nations. In such cases an inductive method of investigation seems to be indispensable.

Summing up, then, we may describe the place of the inductive method in economics in this way. On the one hand, it is the method by which the premises of the deductive method are secured, and by which its results are verified. On the other hand, it is the method by which important facts are ascertained to which the deductive method cannot as yet be applied. The importance of carefully ascertaining the premises that ought to be adopted in deductive reasoning was very much overlooked by the earlier economists. They seemed frequently to get their premises out of the air without any preliminary investigation. Similarly, they tended to be rather remiss in the verification of their results. But perhaps their chief error lay in the tendency to overlook the importance of those elements in economic life to which the method of deductive inquiry is not at present applicable—*e.g.* to the study of consumption, and to the investigation of special economic forces,—as, for instance, that of custom—operative at particular times and places. Their errors in these respects have been well emphasised by the historical school. It is perhaps worth noting that Carlyle also, in his less scientific way, brought out the importance of inductive inquiry. In chap. ii. of his essay on "Chartism" he suggests a number of statistical inquiries with respect to the condition of the working classes, which would form the basis for a line of inductive investigations. It must be confessed, however, that inquiries of this kind have not as yet furnished us with much definite light either on economic tendencies or on methods of practical reform. But there is every reason to hope that they will be more fruitful in the future. And if the results of the deductive method have hitherto been more imposing, they have probably also been more misleading. The careful inquiries set on foot by such writers as Le PLAY or Mr. Charles Booth can hardly fail in the end to be both light-bearing and fruit-bearing. This is especially the case when such inquiries are conducted in accordance with the principles of the HISTORICAL METHOD. In economics, as in other sciences that deal with life, the genetic method combines, to a large extent, the advantages both of deduction and of induction.

[Further information with regard to the inductive method will be found in most systematic treatises on political economy, as well as in works on inductive logic.—Wagner's *Lehr- und Handbuch der politischen Oekonomie* is specially instructive (3rd edition, 1892, pp. 194-225).—Dilthey's *Einleitung in die Geisteswissenschaften* may be found suggestive.—Reference may also be made to the various works mentioned at the end of the article on DEDUCTIVE METHOD (see also HISTORICAL METHOD; STATISTICS, etc.).] J. S. M.

INDUSTRIAL COLONIES. The proposal to found industrial colonies owes its origin to two causes. *First*, the real or supposed existence of a class whose poverty or destitution results from want of employment, whether the cause of that want be incompetence, vice, the state of production, or overpopulation. *Secondly*, a tendency on the part of population to flock into the towns, swelling the numbers of the above class. Hence, the object of such colonies may be said to be twofold, to prevent unemployed labourers from drifting into a state of vagabondage, and to raise the vagabond class to industrious independence.

Historically, we find these causes playing a part in Greek colonisation, which was closely bound up in the population question, and in those Roman settlements which represent an attempt to solve the agrarian difficulty. In modern times several experiments have been made. In Holland the scheme of planting out the unemployed population of towns in the country dates from 1818, and has taken two forms. (1) The semi-penal colonies of Veenhuizen and Ommerschans, which are supported and controlled by the state, and to which vagrants are sent by order of the magistrate. (2) The colonies founded and maintained by charitable societies at Frederiksoord and

Willelmsoord, in which the destitute are trained in habits of industry by a carefully graduated system of charity and self-interest. In Germany, since 1882, charitable societies have adopted the system as a means of reclaiming the vagrant class by an opportunity of steady work and self-improvement. The introduction of the system into this country would be to carry out the spirit of the Elizabethan poor-law, which directed overseers to set the able-bodied poor to work. But to organise such employment has been found impossible. The parish farm, the "roundsman" system, were attempts to remedy destitution by "finding work," that is, by paying out of the rates for work which does not pay in itself. "Every device for relieving the poor by means of employment must prove illusory in the end, excepting where it is connected with the development of fresh resources for the remuneration of industry." The foundation of labour colonies by County Councils has (1906) been urged as a means of dealing with vagrancy; a departmental committee is investigating the question.

[H. Mills, *Poverty and the State*, 1887.—*Essays on the Principles of Charitable Institutions*, 1834. —*Charity Organisation Review*, Jan. 1888. Holland, *Poor Law Conferences* (W. Midland), 1887. —*Methods of Employing the Unemployed* (Bd. of Trade, Labour Dept., 1893, for complete bibliography).—Mavor, *Labour Colonies*, 1892.—"General" W. Booth, *Darkest England Social Scheme*, 1892, for working of his farm colony.] L. R. P.

INDUSTRIAL COLONIES (BELGIUM). The present agricultural beneficent colonies of Belgium are the survivors of six state provincial *Dépôts de Mendicité* and two state-aided colonies of the private *Société de Bienfaisance* all existing in 1831. The two latter are extinct, and three of the former are closed. There remain—(1) a *dépôt* at Bruges for women and girls above eighteen; (2) an agricultural school at Reckheim for pauper lads aged fifteen to eighteen; and (3) the agricultural colony at Hoogstraeten, to which have been added the old Dutch colonies of Merxplas and Wortel, taken over by the Belgian government in 1870 at a cost of 800,000 francs (about £32,000).

The colonies are under the control of the department of justice. They comprise (*a*) a non-able-bodied colony, Hoogstraeten, extent 270 acres, accommodation 1300; (*b*) an able-bodied colony, Merxplas, 180 acres, accommodation 3600; and (*c*) working ground, Wortel, for the latter, 1410 acres. The total stock comprises about 40 horses, 320 cattle, 140 pigs, and 230 sheep. The area is thus allocated, viz.—arable and pasture 910 acres, heath 245, roads 320, buildings and gardens 74, with some fir-wood and uncultivated. The staff consists of 76 persons, besides farm-servants, master-millers, bakers, gardeners, and foremen, and about 140 soldiers. In October 1890 the total population, excluding staff, was 4000, of whom 2800 were able-bodied. The daily cost per head was about 65 centimes for an able-bodied, and 85 for an infirm person (about 6½d. and 8½d.). The inmates are all adult male vagrants and mendicants sentenced by police courts. They are classified according to ability and character, the classes being kept quite separate. The buildings were erected by colonist labour. The work comprises plaiting, spinning, metal lattice-work, embankment, scavenging, farm and garden work, forestry, brick and tile making, building, carpentry, joinery, etc., and necessary domestic labour. It is allotted according to classes. The colonists are allowed to earn money, of which two-thirds are paid to them on discharge: the earnings vary from 15 to 18 centimes *per diem* (about 1½d. to 1¾d.). It is a leading principle that all trades shall be encouraged, and many skilled tradesmen are among the staff. The presence of many good colonist workmen is accounted for by drink, according to the officials. The products of the work are partly taken by government and partly sold outside.

Recidivism is the rule: in December 1890, only 247 out of 4213 colonists were there for the first time. The general conduct is said to be good. The punishments are cells, or transfer to a lower class. The sanitation is good.

The labour of the colonists does not nearly pay for cost of maintenance. No precise accounts were, however, obtainable in 1890. The colonies appeared to be excellently managed: the question of cost and of reformatory success being the two chief points open to doubt.

[H. G. Willink, article in *Charity Organisation Review*, Jan. 1891, "Agric. Ben. Col. of Belgium." —George Nicholls, *Report on the Condition of the Labouring Classes, etc. in Holland and Belgium*, May, 1838.—Mavor, *Labour Colonies*, Board of Trade Labour Department; *Blue Book on Employment of Unemployed*, 1893]. H. G. W.

INDUSTRIAL COLONIES (GERMANY). The *Arbeiter Kolonie* has three distinctive features. It grew out of the conviction that for the treatment of the defective classes employment in the open air was advantageous. It was founded by a religious body as "a work of free compassion." It was established on the principle that work should be provided for the unemployed instead of other forms of relief. The farm or colony system had in 1834 been adopted by Dr. Wichern at the *Rauhe Haus*, Hamburg. This institution, originating in a home for boys, became afterwards a settlement of homes, including a training home for a brotherhood of men to be engaged in the work of practical charity. Out of this movement sprang the *Innere* Mission (1849). One of its branches was at Bielefeld, where in 1866 a colony for epileptics was opened. In 1872 Dr. von Bodelschwingh was placed in charge of this colony. In 1882 he applied the colony system to the problems of vagrancy and

bought an estate at Wilhelmsdorf near Bielefeld for the purpose of employing vagrants on the reclamation of the land. He argued that on this method half the cost of the vagrants' maintenance would be met, many would be deterred from vagrancy, a check would be put on indiscriminate almsgiving, and those who remained in the colony three or four months would learn the new trade of working on the land, and might "return to the life of a citizen." There are now 26 colonies, 3 Roman Catholic, the rest Protestant. Two are in towns; the rest are farm colonies. All are under the supervision of the *Centralvorstand deutscher Arbeiter-Kolonien*. In connection with them are lodging-houses (*Herbergen zur Heimat*) 426 in number, where the wayfarer or vagrant can obtain food and lodging at low rates; and, in many instances, relief stations (*Verpflegungsstationen*), where he can obtain relief in return for a task of work. Of these there are about 1900. These lodgings and stations are placed at intervals along the main routes. By German law vagrancy is a punishable offence. The wayfarer in self-justification may produce a way ticket (*Wanderschein*), which is checked as he passes from place to place, and by which he is obliged to travel according to a certain route. Arrived at the "colony" the police make inquiries about him. He is set to work. After fourteen days he receives, in addition to his maintenance, 2½d. to 3¼d. a day. If he wants clothes he is supplied with them. The price is stopped out of his wages, though he often leaves before his payments are complete. Any able-bodied man wishing to work is admitted. Habitual drunkards are excluded. Dismissal is the only form of punishment. The "colonies" were established and are supported by grants from state and local authorities and by subscriptions. Their produce is chiefly consumed within the colonies. On the statistics of the colonies the works of Dr. Berthold, the most important writer on the subject, give the fullest information. There are about 8000 persons admitted in the year. The vagrants in Germany have been estimated at 150,000. Of these more than half are in the prime of life, 25 to 45. About 79 per cent represent themselves as single. About 76 per cent have been in prison. About 44 per cent are unskilled or partially skilled labourers. About half have been in the "colonies" more than once. Many return to them frequently. In the winter the "colonies" are full to overflowing. In 1890 about 3500, in 1891 nearly 2000, were turned away. The pressure lasts during the winter. About 64 per cent leave of their own wish: about 19 per cent —a decreasing number—obtain situations. As to results: prosecutions for vagrancy have decreased from 23,093 (1880) to 13,583 (1890). The colonists are kindly treated and work fairly well. Employers are disinclined to take men from the "colonies." Many who find situations do not keep them. Better-class men think it a reproach to enter them. As a cure for these evils, Dr. Cronemeyer proposes a combination of the "industrial colonies" with "home colonies" (see below) for the industrious and reformatory, or penal colonies for those who require more strict supervision or punishment. Dr. von Bodelschwingh proposes (1) larger establishments in the towns to equalise the pressure; (2) a system of asylums for the incapable and crippled; (3) temporary colonies in bad years. Professor J. Mavor (Report, Labour Department of Board of Trade, C. 7182 (1893)) has dealt very carefully with the economic questions of the colonies. He says: "It is because the colonist is non-efficient that he does not compete with the labour market." But if this be so, a chief aim of the system, when established (see above), is not fulfilled. Next the supply of winter board and lodging should have the effect of reducing the relatively higher wages of unskilled labour in summer trades. Lastly, although the numbers concerned are relatively small, yet the minimum subsistence wage fixed by the colony for the purpose of inducing men to seek outside employment, may tend to some extent to become the maximum wage for low-grade labour in the district (p. 285). A home colony has been established at Bremerhaven. Colonists are there at first lodged in barracks, then in family cottages. There are twelve families. At this colony there is a considerable deficit, made good chiefly by voluntary contributions.

In the colony for epileptics at Bielefeld are about 1100 patients, under the care of Westphalian deaconesses and brotherhood. Adults and children are admitted, and may remain even when the epilepsy has terminated in imbecility or insanity. Admission is chiefly by payment on a graduated scale of charges. About 75 per cent of the patients are of the lower classes. They live in houses dotted about in the neighbourhood. Each house is under separate supervision, under the charge of a house father or mother. At different houses are different workshops. The colony with its church, etc., forms a society within itself. Expenditure about £31,000, of which about £1200 from patients' payments; the rest, grants from local authorities and contributions.

The test of a system for dealing with vagrancy is whether it assists those whom it relieves to return as soon as possible to self-supporting work in the open labour market. There is probably in all modern communities a substratum of vagrancy which cannot be removed. In times of industrial pressure this is increased by recruits from the ranks of inferior and usually unskilled workmen, who are the first to be discharged when fewer hands are employed. A good system would offer the minimum attraction to these to become permanent vagrants. There are two methods of

relief: (1) to employ and to endeavour to reform character or improve capacity; (2) to relieve under conditions of wholesome deterrence. The former is the German system. But the statistics do not seem to show that much is accomplished by way of reform. The latter is the English method; it makes no direct attempt to reform, but relies on the applicant preferring to gain his own livelihood to accepting relief on unattractive conditions. The result may be tested in two ways. Is the number of vagrants supported in winter large as compared with those supported in summer? If so, the system is used as a means of partial dependence by the habitual vagrant. Next, is vagrancy on the increase? In Germany the winter and summer number of the colonists varies widely. In England the winter and summer numbers of vagrants relieved by the poor-law vary comparatively little, except in a year of exceptional industrial pressure. Next the claimants for relief at the colonies increase yearly, though it may possibly be argued that the supply of necessary accommodation in Germany has not yet been brought to a level with the requirements, and hence a continual increase for the present may be expected. This contention apart—it would seem that the system draws the vagrant into dependence instead of preventing or reforming his vagrancy. In England, vagrancy seems to fall and rise quickly according to the industrial state of the country. If this be so, it is probably due in part to the fact that the German system is one of relief by employment, with no deterrent conditions. The work is taken as a payment for relief given. It is not laborious and yet it seems to justify the request for relief. A large number therefore take it without dislike or scruple. And as this process goes on, the better-class men become reluctant to apply; and the worse in a manner appropriate the institution to their own purposes. The latter part of this criticism may be applied to the English system; but now in many parts of England separate accommodation, with cleanliness, decency, and freedom from intercourse with others, is afforded to vagrants, so that the self-respecting man can, if he wishes, keep to himself.

[For other colonies in Germany and elsewhere see *The Epileptic and the Crippled* (Charity Organisation Series).—For bibliography, see Professor Mavor's *Report*, p. 431. The following are selected: *Die Arbeiter-Kolonie:* monthly organ of the *Centralvorstand*, Bielefeld.—G. Berthold, *Die Entwickelung der deutschen Arbeiter-Kolonien, 1885-86*, Leipzig, 1887.—*Die Weiterentwickelung, u.s.w. 1886-87*, Berlin, 1889.—*Statistik, 1887-89*, Berlin, 1891.—*Die Deutschen Arbeiter-Kolonien, 1889-91*, Berlin, 1893.—E. Cronemeyer, *Eine Zuflucht der Elenden*, Bremerhaven, 1893.—*Die Herbergen zur Heimat und mit ihnen verbundenen Verpflegungsstationen im Jahre 1891*, Bielefeld, 1892.—*Deutscher Herbergsverein Jahresbericht 1893*, Bielefeld, 1894.—C. von Massow, *Die Natural-Verpflegungsstationen und die Nothwendigkeit ihrer Reform als Voraussetzung ihres Fortbestehens*, Bielefeld, 1887.—*Statistik der Verpflegungsstationen*, 1890. Count Rumford in Bavaria (1789) founded industrial colonies.]

C. S. L.

INDUSTRIAL COLONIES (Holland). There are two classes of colonies, the free colonies belonging to a charitable society, and the beggar colonies belonging to the state.

The original free colonies were founded in 1818 by a private society, *Maatschappij van Weldadigheid*, which was promoted by General van den Bosch, and was composed of a number of supporting districts, each entitled to have in the colonies as many families as it had contributed capital sums of 1700 guilders (say £140 each); and the district was liable for outfit, travelling, furniture, and incidental expenses. The idea of the founders of the society was that pauperism might, to a large extent, be prevented by providing agricultural training and employment for able-bodied, deserving, destitute persons.

By Dec. 1821, 121,000 guilders (say £10,000) had been thus collected, and 300,000 guilders (£25,000) borrowed: the number of buildings was 500; total population 2100. The colonies comprised about 3000 acres, chiefly heath-land, near Steenwijk, Drenthe, purchased at from 22s. to 30s. per acre. A quantity of land was afterwards bought at Wateren, but sold in 1859. The colonists were divided into 3 classes, viz. (*a*) families, (*b*) boarders, (*c*) orphans. Heads of families began as "labourers," with the prospect of rising to be "free farmers." Besides farming, the chief work was weaving, the products being sold to government. Colonists' earnings, over a certain sum, belonged to the society. In 1820 the society founded the beggar colony of Ommerschans in Overijssel, 1900 acres being granted by government; and soon afterwards another at Veenhuizen in Drenthe, 2380 acres being purchased. There were three main classes of colonists (*a*) persons committed for begging; (*b*) voluntary inmates; (*c*) old soldiers. By 1827 the population of Ommerschans and Veenhuizen together amounted to 4518, including officials.

The principal authority on the early history of both the free and beggar colonies is a report by Count Arrivabene embodied in a pamphlet by Nassau Senior, 1835. Mr. Senior himself considered failure inevitable.

During the next quarter of a century the colonies struggled on under increasing difficulties, caused partly by general bad management, partly by the hopeless insolvency of the beggar colonies. The society was repeatedly helped by the state, but matters grew worse until, in 1859, the government took over the beggar colony, excusing at the same time all moneys due to the state, and paying off also all the private debts of the society.

The authority for this period is Sir John M'Neill's report, 1853, in which he unreservedly condemns both kinds of colony, the free colony because it did not foster self-reliance, the beggar colony because of its expense.

Since 1859 the free colonies have been more

carefully managed, though the main lines are unchanged, and they have not much altered in size. Much of the land is now comprised in six large farms managed by the society—manufactures have been established, a forestry department has been organised. Colonists keep all their earnings; piece-work has largely supplemented time-work; and there are now more "free farmers" than "labourers." Still on an average not more than six fresh families are admitted annually; and the colonies are not self-supporting.

The beggar colonies have been gradually concentrated at Veenhuizen. In 1888 the population of Ommerschans was 400, with about 40 officials, and of Veenhuizen about 2020. Nine-tenths were persons under sentence for begging. The colonists are employed on agriculture and simple handicrafts. In 1886 only about one-third of all the expenses, amounting altogether to about 665,000 guilders (say £55,400), was met by the colonists' labour. Such labour is said to be very inefficient. The system is not deterrent, about two-thirds of the beggar inmates having been at the colony at least twice before.

For an account of both kinds of colony in the present day see Mr. Willink's articles written in 1888. He considers that the free colonies, good as their work may be, do not annually deal with enough fresh cases to furnish a solution of the problem of the indigent poor, however beneficial they may be to their limited number of inmates: and that the beggar colonies are not successful either as a deterrent, or from an economical point of view.

[Nassau Senior, *Statement of the Provision for the Poor, etc., in America and Europe* (Fellowes, 1835).—Mary Hennell, *An Outline of various Social Systems* (Longmans, 1844).—George Nicholls, *Report on Condition of Labouring Classes, etc., in Holland and Belgium*, May 1838.—Article in *Quarterly Review*, Dec. 1835.—Eighth Annual Report of the Board of Supervision for the Relief of the Poor (Scotland), containing Report by Sir J. M'Neill, 1853.—Herbert V. Mills, *Poverty and the State*, 1886.—W. Tallack, article in *Public Opinion*, 1st Oct. 1886, and article in *Leisure Hour*, Feb. 1887.—H. G. Willink, *Dutch Home Labour Colonies*, 1889.—Mavor, *Labour Colonies*.—Board of Trade Labour Department Blue Book on *Employment of Unemployed*, 1893. Labour Commission—Foreign Reports.] H. G. W.

INDUSTRIAL EDUCATION IN ENGLAND is not, as in France, Germany, and other countries, entirely a government concern. Apart from the government science and art department which has its headquarters at S. Kensington and at the School of Mines in Jermyn Street, in connection with which evening classes and examinations are held throughout the country, industrial education in England is—quite characteristically—almost entirely promoted by charitable endowment and by local or private enterprise. By far the most important and recognised factor in its promotion is the City and Gilds of London Institute which not only provides, but subsidises other establishments which are providing, sound technical instruction, and encourages in the principal industrial centres of Great Britain the formation of evening classes for workmen and foremen. The Clothworkers' Company are also working in the same direction, and the other great livery companies of London are being pressed to expend a portion of their wealth in furthering the same object.

The universities of Oxford and Cambridge, London and Manchester, and the university Colleges of London and elsewhere, are giving great attention to science and art as applied to industry. But what is even more important, the county councils and municipal councils of the country are taking up the matter with a keen interest.

Elementary technical education both for girls and boys has now for many years been introduced into the curriculum of the elementary day school. Evening classes, usually in connection with the government science and art department, are held; and continuation schools are being provided in the higher-grade schools instituted in the larger industrial centres. The royal commissioners in their report of 1885 on technical education, deplore that England is singularly lacking in continuation schools of this kind; but an effort is being made to supply this want, especially in Manchester and other industrial centres.

Bristol and Birmingham are paying great attention to the subject of primary and secondary technical education. In Liverpool the late school board, by the introduction of elementary technical instruction, attempted to connect the primary with the secondary schools. In Manchester, besides the higher-grade schools before mentioned, there are several technical schools for artisans. Oldham has a school of science and art with evening classes adapted for the technical instruction of young men engaged in the various mechanical and textile works of the neighbourhood, particularly machine construction and the manufacture of cotton.

Of secondary technical schools and colleges the most important and best endowed is the Finsbury Technical College, established in 1883 by the City and Gilds of London Institute, as a model trade school for instructing artisans. Only second to this are Firth College, Sheffield, and University College, Nottingham; which both receive grants from the Institute. These colleges are furnished with workshops and laboratories and possess every appliance for the illustration and application of industrial methods in carpentry, building, engineering, chemistry, dyeing, art designing, carriage

building, metal plate work, and many other branches of trade and industry.

In special weaving and dyeing schools the commissioners found England very deficient as compared with France and Germany, but they bestowed unqualified praise on the Yorkshire weaving schools of Leeds, Bradford, and Keighley, all which are largely supported by grants from the Clothworkers' Company. The Leeds school was erected by the company at a cost of £15,000. There is also a fine weaving school at Glasgow.

Many other institutions, such as the London Polytechnic, the Royal Engineering College at Cooper's Hill, the Royal Naval College, Greenwich—especially adapted for the study of shipbuilding—and the Crystal Palace School of practical engineering—exist, where instruction is given in every branch of trade and industry.

As specimens of private voluntary enterprise in this direction mention must be made of Messrs. Mather and Platt's workshop school at Salford, maintained at their own charge for the technical education of their own workers. At Cambridge the commissioners were particularly struck by the mechanical workshops, instituted by Professor J. Stuart, to enable the sons of manufacturers and others to combine with university training instruction of a kind immediately practicable to their calling. The special feature of the Allan Glen's Institution at Glasgow is workshop instruction. Ireland appears to be somewhat deficient in evening classes for artisans, but in the reformatory and industrial schools of the religious brotherhoods and sisterhoods, boys are instructed in a variety of trades, and in every department of farming and gardening. Also many of the Irish national schools have school-farms attached. In addition to this, the Grocers' Company support a school of agriculture at Templemole; there is also the Albert National Agricultural Training Institution at Glasnevin, with three farms attached, and there is the Munster Dairy School.

Ireland is more advanced in this branch of instruction than England. The English government, except by the S. Kensington examinations, has done little or nothing to promote agricultural education. The few schools that exist are self-supporting. The Royal Agricultural Society of England, and the Highland and Agricultural Society of Scotland, encourage this branch of study by acting as examining bodies. The Scottish society makes a special branch of forestry, with drainage, fencing, bridge building, and the chemical knowledge of soil properties.

Among the agricultural establishments in England, the Royal Agricultural College of Cirencester, organised by the Farmers' Club, holds the first place. The college farm consists of 500 acres devoted to arable, pasture, and dairy farming; and it also possesses botanic gardens. Excursions are made by senior students to the neighbouring farms and herds. In 1880 the Downton Agricultural College, Wilts, was opened on somewhat similar lines.

Agriculture is also included in the curriculum of the county schools. Some years ago an attempt to open a British Dairy School failed, but the effort is illustrative of a felt want of some such institution.

Perhaps the most interesting and instructive institution for the analytic and scientific study of farming and agriculture is the private experimental station at Rothamsted, established by Sir J. B. Lawes. Minute investigations and comparisons of soils, manures, crops, and pasture are made. Experiments in stock feeding and stock breeding are carried on upon a most extensive and elaborate scale.

In conclusion the commissioners found that although the British government has almost entirely neglected the technical education of agriculturists, it has made an effort by its examinations to spread a book knowledge of agriculture.

[*Report of the Royal Commission on Technical Education*, 1885.] A. L.

INDUSTRIAL EDUCATION IN THE UNITED STATES. Education with special reference to the economic life of the people is being promoted in the United States in three different ways: (1) A general introduction of what is termed manual training in the public school system of the large cities; (2) in the establishment of trade schools; (3) in the founding and endowment of higher technical schools and colleges which include a specialised education for the direction of manufacturing, mining, and agricultural industries. With regard to the first experiment, manual training, it is to be observed that it is not artisan education. It "signifies instruction in tool work as an educational discipline." This training, if grafted upon the public school system, is generally taken in connection with the high school studies, and consists in exercises in drawing, modelling, and wood-working, with sewing and cooking for girls. In some of the larger schools which have private endowments, as at Chicago and St. Louis, the course of study embraces pattern-making, foundry-work, forging, and machine shop-work. Manual training as an educational method is largely the growth of the past ten years. There is no uniformity in these schools in the different parts of the country, and some of them are so far developed that they may be regarded as "schools of apprenticeship, though the brief courses pursued in them seem wholly inadequate for the mastery of any trade."

Of the trade schools, there are as yet but few. The best known and most successful is that

established by Col. Auchmuty at New York. Here instruction for fees is given in bricklaying, plastering, plumbing, carpentry, house, sign, and fresco painting, stone-cutting, blacksmithing, tailoring, and printing. A few large manufacturing establishments and railroads have specialised schools for instruction in particular artisan work; and training of this character is being incorporated into the discipline of the better reformatory institutions for youth and men, as at the Elmira Reformatory. All these distinctively serve as apprenticeship schools.

Institutions of the third class include—(*a*) agricultural colleges founded since 1860, for the most part under endowments of the national government, and generally attached to a state university for its administration; and (*b*) institutes of technology for the special education of engineers, architects, and chemists. Colleges and state universities have also very generally introduced similar training into their curricula.

[See *Eighth Annual Report of the United States Commissioner of Labour, 1892.—Industrial Education*, Washington, 1893, pp. 707. This contains a valuable bibliography of twenty pages, relating to the subject of technical training in the United States and Europe.] D. R. D.

INDUSTRIAL PARTNERSHIP. This term is generally used of a system of industry under which the employer is so far in partnership with the employed that he accords to them a share in the profits which are realised (see PROFIT-SHARING). It has been more widely adopted abroad than in England, and it has there been applied to a variety of industries. The term is sometimes also employed of a system by which the actual workmen take upon themselves all the responsibilities of management, and endeavour to eliminate the employer entirely, and secure for their own advantage the whole of his profits. But this latter system is more usually called co-operative production (see CO-OPERATION) and the term "industrial partnership" confined to the system which was first mentioned. This system possesses advantages over that of co-operative production, because the workmen enjoy the benefit of a share in the profits, and the stimulus of an interest in the success of the undertaking, without ceasing to avail themselves of the advantage of the experienced and interested management of the employer (see EMPLOYERS AND EMPLOYED). It has been asserted that the system leads to an increase in wages by the addition of the share of profits which is distributed without occasioning any encroachment on the gains of the employer. It has been affirmed that this is the case because the workmen are rendered more careful in the avoidance of waste, are less disposed to listlessness or idleness, and require less constant and watchful superintendence. The system has been applied with three main varieties of method. The share of profits is sometimes given wholly in cash, sometimes it is set aside or invested in order to secure a provision for the old age or sickness or death of the workman, and sometimes it is treated partly in the first, and partly in the second manner. The difficulties of adopting and working the system may be said to consist partly in the possible inconvenience of a wish on the part of the men to interfere in the details of management, partly in their probable disinclination to share in losses as well as in profits, and partly in the absence in some trades of an opportunity for making a fresh addition to profits through the avoidance of waste or of idleness. Its advantages are summed up in the feeling of joint interest in the success of the concern which it tends to create between masters and men. The system is perhaps best known in connection with the successful trial of it made by the Parisian house-painter, M. LECLAIRE (*q.v.*).

[The system of profit-sharing, or industrial partnership, is thoroughly examined, and the instances of its application recorded and investigated in detail, in N. P. Gilman's *Profit Sharing between Employer and Employee*. A shorter account is given in Sedley Taylor's *Profit Sharing;* and notices of the system are contained in Babbage's *Economy of Machinery and Manufactures*, under the heading "A new system of manufacture"; in J. S. Mill's *Political Economy*, bk. iv. ch. vii. § 5; Fawcett's *Manual of Political Economy*, bk. ii. ch. x.; Jevons, *State in Relation to Labour*, ch. vi., and *Methods of Social Reform*, p. 122; and Cairnes's *Essays in Political Economy*, No. v.; cp. Robert, *La Participation aux bénéfices*; also Schloss, *Methods of Industrial Remuneration;* and B. Potter, *The Co-operative Movement*, for criticism of the system (see CITÉ OUVRIÈRE; FAMILISTÈRE; GODIN).] L. L. P.

INDUSTRIAL RÉGIME is a phrase which only now appears to be in process of crystallisation into a definite use in economic language: and we can hardly define it satisfactorily without sketching the history of the term so far as we can trace it. In 1821 St. Simon wrote his treatise *Du système industriel:* he did not, so far as we can discover, use the phrase under discussion; but he and his followers used *l'industrialisme* to indicate at one time generally the modern industrial organisation, at another time the particular industrial organisation which they advocated. Probably through Comte the idea passed into the works of Herbert Spencer, who distinctly opposes modern "industrialism" to mediæval "militarism," and uses the phrase "militant régime" but not its implied opposite (*Data of Ethics*, ch. viii., etc.).

Apparently the actual phrase is quite modern, and Sir R. Giffen seems to have been one of the first who adopted it; he includes, under the general term "industrial régime," all those

phenomena which go to make up the economic stage: in other words, "the sum of the chief features in the industrial organisation of a country like England." But the particular organisation of industry in England differs not merely in degree, but to some extent also in kind, from that of many other civilised communities; and this fact leaves the meaning above attached to the phrase indefinite. Out of this arises an application of the term "industrial régime" to particular forms of industrial organisation—*e.g.* competition as opposed to socialism — the system of large tenures as opposed to peasant properties. Here the term becomes even more vague. We should hesitate to deny to the most strictly socialistic régime the title to be called industrial, especially when the phrase now in question had its birth in a communistic writing.

Clearly the simplest signification to affix to it would be that of the industrial organisation of any country, however rude, as opposed to mere nomad and marauding existence. In this case the industrial régime of any country will be the sum of its industrial features, and will vary with the state of economic development. C. A. H.

INDUSTRIAL REVOLUTION, THE. At the close of the 18th, and the opening of the 19th century a change, or rather a series of changes, passed over the agricultural and manufacturing industry of England, which has been aptly described by the name of the Industrial Revolution. The changes which then took place were of considerable magnitude, and the conditions of industry, both in manufactures and in agriculture, may without any great extravagance be said to have been revolutionised. Until this time the general character of industry in England presented broadly the same features as those which it had exhibited during the greater part of the middle ages; and from that time the commencement of our modern system of industry dates. AGRICULTURE IN ENGLAND (*q.v.*) and manufactures alike were then generally prosecuted on what we should term primitive and unsystematic methods. Men were raising complaints that half the land of the country was waste. The size of the farms was small, and the method of cultivation unscientific. In many parts of the country there were still open unenclosed fields; in nearly all there was an absence of any proper system of rotation of crops, and of turnips and artificial grasses. Quarrels were continually arising about the rights of pasture on the common meadows, and about the boundaries of the many scattered minute parcels of land of which an individual's holding was made up.

Nor was the position, or character, of manufacturing industry different. It was carried on, with few exceptions, by craftsmen working with their own hands in their own homes (see DOMESTIC SYSTEM OF INDUSTRY), although even then there were exceptions, for some capitalist employers existed, and some factories had been built by the middle of the eighteenth century. The mechanical appliances and tools which the craftsmen used were generally of a simple and rude description, and the number of persons working under their direction was small. The apprentices (see APPRENTICESHIP), limited in number and term of service, and the JOURNEYMEN (*q.v.*), with their wages fixed, in theory if not in practice, by the magistrates, lived in the house, and ate at the table, of the master-craftsman. Employment, such as it was, was regular; fashions varied slowly and slightly; and men produced in the main, though not exclusively, for a market which was close at hand. They were intimately acquainted with the conditions of that market, and the state of the roads was such that intercourse and trade with distant towns were rendered difficult. The workman who ventured to move from one town to another was not merely liable to be sent back to his original abode under the law of settlement (see SETTLEMENT; POOR LAW), stigmatised by Adam Smith (*Wealth of Nations*, bk. i. ch. x.) as an "evident violation of natural liberty and justice," for fear that he might eventually come upon the rates in his new dwelling-place, but he might also be excluded from employment by the restrictive privileges of some exclusive trade corporation which were, in Adam Smith's words, a "plain violation" of that "most sacred and inviolable property which every man has in his own labour." The goods which the craftsmen made were often taken to the halls of the different corporations to be stamped as genuine. The woollen industry was now, as it had been for a long time previously, the staple industry of the country, and was carried on at Norwich, and in the west of England, and the west Riding of Yorkshire. The iron industry, which was prosecuted in Sussex, where the iron was still smelted by charcoal in small furnaces blown by leathern bellows worked by oxen, was said to be gradually dying out; and the cotton industry was so insignificant as to be mentioned but incidentally, by Adam Smith, who lived on the very eve of the industrial revolution, and himself, perhaps, assisted in affording a shelter within the walls of Glasgow University to James Watt, the inventor of the steam-engine, seeking protection from the exclusive tyranny of the local corporation of hammermen, who had refused to allow him to practise his trade. Adam Smith declared that there had been only three inventions of note in the cotton industry for the space of three centuries. Banking was as yet in its infancy, and the Bank of England did not issue notes of a lower denomination than £20. The external commerce of the country was hampered by a number of vexatious restrictions, and duties on imports and

bounties on exports abounded, while the colonies were regarded as a field for the commercial monopoly of the mother country. Such was the general condition of affairs before the changes which introduced the modern industrial system. Those changes were bewildering in their magnitude, and, to some extent also, in the rapidity with which they were effected. Agriculture underwent a transformation, the chief part of which, however, seems to have been accomplished in the earlier half or two-thirds of the 18th century. Large farms began to take the place of small farms. The inclosure of the open field was actively prosecuted, and sometimes injustice was done to the rights of the smaller commoners. Scientific cultivation was substituted, in a more or less considerable degree, in different parts of the country, for primitive methods. Bakewell improved the breed of cattle. Townshend—"Turnip Townshend" as he was nicknamed—introduced the cultivation of turnips. Coke at a later time devised an improved system of rotation of crops. But in manufacturing industry the changes were more revolutionary, and they occurred in the latter part of the century. Four great inventions were made in the cotton industry—that of the spinning-jenny by Hargreaves; that of the water-frame by Arkwright; that of the mule by Crompton; and, the most considerable and important, in its consequences to the old handicraft occupations, of all, that of the power-loom by Cartwright. This last invention dealt a fatal blow to the fortunes of the old hand-loom weavers, and their distress has furnished a stock illustration of the temporary misery which may be occasioned by the introduction of machinery, at any rate to those workmen the labour of whose hands it supersedes. But other industries besides that of the manufacture of cotton were affected by the changes of the times. The smelting of iron by coal was introduced by Roebuck, and the decaying iron industry revived, and abandoned the charcoal forests of Sussex for the coal seams of the north and the Midlands. Canals, such as the Grand Trunk connecting the Trent with the Mersey, and the Grand Junction, which afforded the means of communication between London and the chief towns of the Midlands, were constructed under the direction of the inventive genius of Brindley, and the roads of the country were improved under that of Telford. Mills were erected on the banks of rivers in order that use might be made of the water-power which was there available to drive the new machinery, and then came the most wonderful and important discovery of all—that of the steam-engine, to be followed in its turn by the railway. All these changes gave a great stimulus to the production of wealth and the growth of population. They kindled a spirit of eager and restless enterprise, which was sometimes inclined to be reckless of injury occasioned to human life and health, and to give little consideration to the wrench to human affections which was not infrequently the consequence, direct or indirect, of the changes. For trade passed from quiet villages to noisy towns; from the home of the handicraftsman to the factory of the employer; from the master, who lived together with his apprentices and journeymen, and was in general "so joined together" with them in "sentiment" and "love that they did not wish to be separated if they could help it," to the employer who had hundreds of "hands" working under him, whose very faces he might not himself know. Division and subdivision of labour (see DIVISION OF LABOUR), organisation and localisation of industry, were carried out on a scale, and to an extent, unknown before. Master-merchants and wholesale dealers arose. Manufacturers began to produce for distant and fluctuating markets, and to crowd into, and dismiss from, their factories, as the changing demands of varying trade required, multitudes of men, women, and children. There seems to be reason for believing that something like a regular system of transporting children from London to the new manufacturing districts of the country was in operation; and there is unfortunately no doubt that the greed of parents joined with the eagerness of employers to increase the number and intensify the labour of the young apprentices in the factories. Population was stimulated by the lax administration of the poor law, and by the numerous chances of earning a livelihood which presented themselves; and was, so to say, torn up by the roots from its old abodes, while the industrial world was pervaded by restless movement. The workmen were forbidden by law to combine with a view to the regulation of trade, but, under the guise of friendly societies, they formed themselves into TRADES UNIONS (*q.v.*), and attempted in certain trades to restore the old system, by which the number of apprentices was limited, and the magistrates determined the rates of wages. They failed ultimately in this endeavour; but they did not cease to maintain, under circumstances of difficulty, their unions; and the state, by its FACTORY ACTS (*q.v.*), placed restrictions of increasing rigour and comprehensiveness on the employment of women and children. The industrial revolution was undoubtedly a time of great distress, which may have been increased by the CORN LAWS (*q.v.*) preventing the importation of food from abroad to make up for the scarcity occasioned by bad harvests at home, and by the depression of trade which followed the close of the great war. The financial demands of the war combined with the opportunity afforded to England to supply the commercial wants of the continental nations, in whose country, and by whose soldiers the war was chiefly prosecuted, to stimulate increased

production; and the brilliant series of inventions which were made towards the close of the last century, permitted the stimulus to be effective. The pressing need of the time seemed to be that of increased production; and the nation was less inclined to regard those permanent interests, which might have been consulted by greater consideration for the health and the education of the young, than to promote the obvious and immediate interests of the moment. The industrial revolution may be said to cover the period embraced by the writings of the three great older economists, ADAM SMITH, MALTHUS, and RICARDO (*q.v.*). The first lived on the eve of the revolution, amid the relics of the routine and regulation of a former era. The second lived in the midst of the revolution, and his writing reflected the gloom and despair of the time. The third lived towards the end of the revolution, and the assumption of a pervading competition, which is the basis of his reasoning, was not a wholly inaccurate representation of the actual state of affairs.

[For an account of the industrial revolution the student should consult Toynbee's *Industrial Revolution*, Miss Martineau's *History of the Peace*, and, for the evils of the old factory system, Karl Marx's *Capital*, which is, however, obviously biassed.—For the struggle of the old trade unions, Brentano on *Gilds*, and Howell's *Conflicts of Capital and Labour*, are of use; and, for an account of the changes in agriculture, reference should be made to Prothero's *Pioneers and Progress of English Farming*, ch. iv.—Held, *Sociale Geschichte Englands.*—For much general information, Tooke and Newmarch, *History of Prices*, 6 vols.; cp. also W. Cooke Taylor on the *Modern Factory System.*—S. and B. Webb on *The History of Trade-Unionism.*] L. L. P.

INDUSTRIES, LARGE AND SMALL. One of the most marked tendencies of modern times in industrial matters is to increase the scale on which commerce and manufacture are conducted. The DOMESTIC SYSTEM OF INDUSTRY (*q.v.*) has given place to the FACTORY SYSTEM (*q.v.*); smaller factories have made way for larger establishments which really comprise several factories beneath one roof—for not merely are there separate rooms devoted to distinct operations, but there are sets of rooms so devoted—private ventures have been superseded by public COMPANIES (*q.v.*) controlling greater masses of capital, and employing greater numbers of workers; and various SYNDICATES (*q.v.*) and TRUSTS (*q.v.*) and other kinds of combinations have been formed. The use of steam as a motive power has probably contributed to this tendency to concentration of industry in large establishments, for it can only be generated in one spot and distributed over a small area. But there are other advantages possessed by the system of production on a large over that on a small scale, which have assisted the movement, and these would not cease to be operative, were steam replaced by some fresh motive power, such as electricity, which could be generated at a common centre and distributed by wires over a comparatively large area. These advantages may be classified under three heads: (1) *Economies of management.*—A large undertaking permits of a more systematic organisation, and a more thorough application of the principle of the DIVISION OF LABOUR (*q.v.*). It allows of a better arrangement of buildings and of mechanical appliances. It affords the opportunity for the experimental trial of new machinery, to the expense of which a smaller undertaking would be unequal. In all these ways it tends to economy, and in other ways also it effects a direct saving. "One high chimney can make a draught for a large furnace as well as for a small one; one doorkeeper can admit five hundred men as easily as fifty." The different clerks, stokers, and mechanics can be kept more fully employed on their own special work in a large than in a small undertaking; and the employer at the head of a large establishment is able to devote his time and his thoughts more exclusively to the general direction and superintendence of the business. (2) *Economies of purchase.*—A large undertaking can generally buy what it requires on more advantageous terms than those enjoyed by a smaller undertaking. It can employ well-paid and trustworthy agents. It can draw its supplies from a wider area. It can obtain greater facilities for transport. It can buy in larger quantities, and can afford experimental purchases of machinery and materials. (3) *Economies of sale.*—Somewhat similar advantages belong to the larger undertaking in the matter of selling as in that of buying. It can push its wares by advertising and employing commercial travellers. It can secure the cheaper and more expeditious and efficient transport of these wares to their ultimate destination. It can ascertain the condition of remote markets. It can offer a more abundant variety of patterns and styles. It can perhaps inspire greater confidence in its customers. The advantages thus possessed by large over small undertakings are very great; and to them must be added the consideration that there are some enterprises the magnitude of which is such that they could not be successfully accomplished without the resources of capital commanded by a large trading company. The system of limited liability (see LIMITED LIABILITY ACTS) has permitted of the formation of these companies with comparative ease; and Professor Marshall has said (*Economics of Industry*, original edition, bk. i. ch. viii.) that "there does not seem to be any limit to the amount of wealth which a single trading company can profitably manage in a business which can be managed by routine, and does not require the bold enterprise and prompt decision of a

single mind." But there are, on the other hand, advantages which belong to small, and are not possessed by large, undertakings; and there are departments of industrial activity to which the system of production on a large scale has as yet been applied only in exceptional cases. Smaller subsidiary industries are continually springing up to supply some of the wants of the larger; and AGRICULTURE (*q.v.*) is, at present at any rate, following at a gradual pace in the steps of manufacture. The introduction of mechanical appliances is indeed advancing, and the larger farmer may possess an advantage over the smaller in the matter of the economical use of these appliances, and of his farm-buildings and materials and implements. He may, too, possess greater scientific knowledge, he may display more vigorous enterprise, he may command more abundant capital, and adopt a better rotation of crops. But, with all these unquestionable advantages, it is still the case that agriculture permits of less systematic organisation than manufacture, and of a less thorough application of the principle of the division of labour. The labourers must be scattered over the country, and they cannot be concentrated in masses as they are in the manufacturing centres. Their work varies with the seasons, and they cannot devote their entire energies to some small department of a great industry. And, again, the business of superintendence, and the advantage of unremitting personal watchfulness and close personal interest, are more obvious and important in agriculture than they are in most branches of manufacture. It is in this matter of superintendence and of personal interest that the small master enjoys a superiority over the large, and that the private venturer has a resource and a stimulus which can hardly be possessed, and are rarely exhibited, by the salaried officials of a public company. In industries, then, which demand the incessant vigilance of personal interest, and do not possess a market large enough to render profitable the thorough application of the principle of the division of labour, the system of production on a small scale has, even in manufacture, advantages over production on a large scale (see EMPLOYERS AND EMPLOYED).

[J. S. Mill, *Political Economy*, bk. i. ch. ix., and Marshall's *Principles of Economics*, bk. iv. ch. xi.] L. L. P.

INDUSTRY, CAPTAINS OF. This title has been sometimes given to the employers of modern industry. They have been regarded as the leaders of an industrial army, which is under their command, obeys their orders, and depends to a very large extent for success or failure on their judgment and enterprise. They have in a sense to determine on the plan of action, to organise its means, and to superintend its execution. The employer of older times was a craftsman who lived and worked together with a small number of apprentices and journeymen (see DOMESTIC SYSTEM OF INDUSTRY), and produced his goods, frequently to order, and generally for a steady unchanging market close at hand. Now production is carried on in anticipation of demand, goods are made according to varying fashions of divers materials brought from remote countries, and they are sold at a distance from their place of production and often on credit. The scale on which business is habitually conducted has largely increased (see TRADE), and the number of persons working under an employer has grown together with the size of his factory. The difficulty and importance of the labour of management have undergone a corresponding extension, and the employer has become the most prominent and responsible personage in the world of industry. His authority is despotic, and his power for good or for evil immense. And, just as an army follows the directions, and depends on the generalship, of the commander, so the industrial army obeys the orders and relies on the ability and discretion of the employer, the captain of industry. It is this idea of leadership which has suggested the metaphor, together with the conception of the modern world of industry as the scene of the eager unceasing competition of rival armies of producers.

[For the function of the employer the books mentioned in the articles on EMPLOYERS AND EMPLOYED; EMPLOYING CLASS; and ENTREPRENEUR, should be consulted.] L. L. P.

INDUSTRY, ORGANISATION OF. The organisation of industry, unlike most forms of organisation outside the purely physical world, is not in any great measure due to the conscious endeavour of individuals; it rather grows out of the acts of people for their own ends. It thus contrasts with the organisation of labour (see TRADES UNIONS), and any other combination of the same class (as FARMERS' ORGANISATIONS, U.S., *q.v.*); for such organisations are deliberately formed for special purposes,—generally the defence of classes, interests, or industries,—and have definite aims in view. It is claimed by socialists and collectivists that under a socialist régime this organisation would be carried on with a particular aim—the development of the talent and energy of the whole community; that it would be controlled and regulated by the wisdom of the great body of the people; and that it would, therefore, apart from the special economic effects in distribution of wealth and labour, be more successful than it is at present, when it is dependent on the interests or caprices of individuals. On the other hand, it is maintained that under a system of individual freedom the energies of each are, by force of nature, driven into those channels in which they will be of most use; and that the machinery by which industry has come to be

regulated, though not the result of a definite scheme, is the consequence of principles of human nature which must always in the long run produce the most satisfactory organisation for the community, because ability and capacity are attracted to their proper channels. Whatever view is taken, it is certain that without organisation of one kind or another industry would now be useless and impossible; and the existing organisation is so deeply rooted that it would be difficult to do more than amend it in detail. It is part of the industrial life of every civilised nation.

The earliest phase, historically, of this organisation is what is called division of employments; and the earliest division of employments, like the origin of capital, is lost in the past. We find in some of the oldest records, however, that people are mentioned as engaged in certain specified employments. In the Pentateuch artificers in brass are named; and dyeing and weaving we read about as recognised occupations. There was also, at a very early period, a division between rural and urban forms of industry. The dynasty of Pharaohs, who befriended the Israelites, are understood to have been a race of shepherd princes or chiefs who were ultimately driven out by the later dynasty who held the kingdom in the time of Moses. The curious episode of the purchase and storage of grain by Joseph could only have occurred in a state of society where the town and the country had diverse industries and interests. The progress of industry among the Greeks and the Romans is not easy to trace: that the division of employments attained to a greater degree among them than with the eastern races is certain, but further than this it cannot be said that any organisation is traceable.[1] The division of employments was also retarded greatly by the use of slaves. The localisation of industry, with which we are now so familiar, is found only in its earliest form, where absolutely necessary;—as where precious metals were discovered, or a natural harbour existed, and a port created to serve the surrounding country. What in modern times forms one of the most important features in the organisation of industry—the massing the people engaged in the same employment or manufacture together in certain towns and districts, apart from natural or geographical causes, is a much later development. This phenomenon in the progress of industry is far more common in the present century than it has ever been before; it is, in fact, one of the predominant characteristics of the age we live in, though it is still capable of further development, if the same forces that have acted in the past continue to act in the future. This great change is the result of the new physical forces which have come into operation; steam, electricity, and rapid means of carriage and communication.

In mediæval times, the organisation of industry was attempted to be carried out on a set plan in a far greater degree than in modern times. The whole series of associations, international, national, and local—as the HANSE towns, the STAPLE towns, the merchant and craft GILDS—were attempts made to organise industry through combination for the benefit of the whole association, and through it of each individual member. The unions in separate trades, existing when the means of communication was poor, and distance in space an almost insuperable barrier to the promotion of common interests, frequently caused a subsidiary localisation to take place, the remains of which are seen in the nomenclature of certain districts and streets in the large towns. In the city of London, the names of some streets still indicate the occupations of former occupiers. Prof. Ashley (*Economic History and Theory*, vol. i. p. 96) gives instances which could be multiplied readily in almost every city of considerable size and antiquity.

These localisations were not the result of the convenience to an individual of being in the neighbourhood of those in his own trade, an object which we are used now to see attracting men, but were part of a determined effort to produce an offensive and defensive union for the preservation and furtherance of class interests. If the trade was threatened, either by imposts of the government or by foreign competition, from other towns usually, or by defections from its own ranks, it was necessary to act in unison; and to do this, the trade must be capable of being called together at the shortest notice. Again, if any member was threatened with injustice as an individual, it was important that all the trade should be ready to defend him, if need be, without delay. It is probable that this congregation of trades led by gradual steps to the modern form of grouping, by which industries become localised. In a great number of instances an industry becomes fixed in certain localities by some geographical or geological advantage. The mouth of a large river is naturally used for dock-yards and ship-building; the more easily coal can be conveyed, the more likelihood is there that such a trade will flourish. Of course the presence of coal-fields fixes the locality of a mining industry; and the neighbourhood of coal-fields assists in the rise of industries which constantly require a great quantity of fuel, such as iron and steel manufacture. In a greater number of cases, however, there is no determining cause of the kind we have mentioned, and the prevalence of a trade in any particular town or district is probably due to the indi-

[1] (See *Manufacturing Arts in Ancient Times*, by James Napier, London, 1874, for an interesting account of early localised industries.)

vidual enterprise of some one man. In this country, as in others, we have many examples of such apparently haphazard localisation. There is no reason in nature why china should be made in Dresden; nor why glass-blowing should be predominant in Venice, and carpet-making in Brussels. The lace manufacture in Nottingham, the former silk industry at Coventry, the shoe trade of Northampton, are all familiar instances of the same phenomenon. The origin of these particular local trades and others like them is interesting, but of no scientific value. What is of importance about them is the consequence that we have capital of the same class and labour of the same kind drawn together, with the result that the former, even where it is fixed or specialised, becomes more transferable and easier to realise, while the latter loses much of its natural immobility. The general wage in a trade is much more accurately known where the trade is largely confined to one district than where it is scattered over the country; and thus the remuneration of agricultural labourers, who belong to a trade in which localisation is impossible and organisation singularly difficult to obtain, has always exhibited a very marked divergence in different parts of the country, while the wages of coal-miners remain approximately the same in all different coalfields. From year to year the farm-labourer in Wiltshire goes on taking 30 per cent lower wages than the man who is doing the same kind of work in Yorkshire; but if a rise in wages is obtained by miners in one district, even of a small amount, those in the other districts immediately endeavour, through their unions,—and often successfully,—to obtain a like advance in their own rates.

The features of the modern organisation of industry which are the most striking and the most important are the specialisation of capital and of labour, and the interdependence of trades. The occurrence of these phenomena have, no doubt, led many thinkers of this century to discuss the question whether, when one group of labourers or capitalists depends so greatly on others over which they have no direct control, it is not possible and advisable to place the whole industry of the nation under some central authority; so that, as socialists say, it may be guided by reason for the common benefit, instead of by chance and caprice for the advantage of certain individuals. The cause of this mutual dependence is really, in one or other of its many forms, the tendency which Adam Smith named the DIVISION OF LABOUR. If we take any manufactured article, not of an elementary kind, we find that a perfect multitude of people have combined to produce it and bring it into the market where we find it; often the difficulty, in fact, is to find some class of labourers who have not had a hand in the business. Take such a commonplace thing as a lead-pencil, costing a penny. In the making it, of course, the miners who dug the metal and the hewers who cut the cedar have been employed, besides the workers in the pencil factory who cut each into its proper shape. Then there are the men who compounded the mixture of glue used in cementing the pieces of wood together, and holding the lead fast. But this does not nearly exhaust all the labour concerned in the product. Machinery was required to dig for the lead, and coals were needed to keep in action the engines that drove the machinery. Coal-miners, smelters, iron-moulders, mechanical engineers had all a part, therefore, in the construction of the pencil; and not only they, but all the persons engaged in the industries necessary to feed the businesses of coal-mining, smelting, etc. Ships brought the wood of which the pencil was made, railways carried the lead; and, apart from all these, agriculture was required to produce the food which kept in life the various workers employed in all these industries. It would be impossible to apportion the part performed by each different class of labourers in the product, in the example given; but it serves to show the entire dependence of one industry on another, under the present system; and the means by which anything affecting in a permanent or serious degree one branch of trade is certain to exercise economic consequences on many others. It is this which embodies the real organisation of industry in modern times. It is the consequence, as the above illustration shows, of the manifold specialisation of labour and capital. It is probably to this phase of modern life, more than to any other, that we owe the growth of economics as a science; and it is in the fuller consideration of the mutual dependence of various forms of capital and labour on one another—what is called the social aspect of industry—that further developments of the science in all likelihood are to be looked for.

[Rogers, *Six Centuries of Work and Wages.*—Maine, *Village Communities.*—Ashley, *Economic History and Theory.* Also the *Report of the Royal Commission on the Depression of Trade.*]

M. G. D.

INFANTS. The civil law distinguishes two stages of infancy, the one previous and the one subsequent to the attainment of puberty. The distinction has been retained in many continental countries and also in Scotland, but English law recognises one stage of infancy only, viz. the whole time before the age of twenty-one. Infants are subjected to various disabilities (as to which see DISABILITIES OF INFANTS), and their persons as well as their property are frequently placed under the care of a guardian. This is always the case on the death of an infant's father. Before 1886 the testamentary guardian appointed by the father

was not in any way subject to the mother's control, but the Guardianship of Infants Act 1886 provides that on the death of the father the mother is to be the guardian either alone or jointly with any guardian appointed by the father. The mother may also by deed or will appoint any person to be guardian of her infant children after the death of herself and the father. Infants are but rarely placed under the guardianship of a third person during the father's lifetime, and the only procedure available for that purpose is an application to the Chancery division of the High Court; the court will not, however, interfere with the father's authority except on very strong grounds, as for instance habitual cruelty or immorality. Modern statutes have in various ways extended the legal rules for the protection of infants. Thus it is provided by the Prevention of Cruelty to Children Act 1889, that any person over sixteen years of age, who, having the custody of a boy under the age of fourteen years or of a girl under the age of sixteen years, wilfully ill-treats or neglects such boy or girl, shall be liable to a fine or two years' imprisonment with or without hard labour. This statute imposes punishments for causing children to beg or to be in any street or in any premises licensed for the sale of intoxicating liquor, "whether under the pretence of singing, playing, performing, offering anything for sale, or otherwise." It authorises any petty-sessional court to order a child to be taken out of the custody of any person convicted or committed for trial for ill-treatment or neglect of such child. Another danger to which infants of more mature age are exposed has been met by the Betting and Loans (Infants) Act 1892, which forbids circulars to be sent to infants inviting to bet or borrow money. An Act passed in 1901 imposes a penalty on any person selling intoxicants to a child below the age of 14.

[As to the legal position of infants, and the duties and rights of guardians, see Simpson, *The Law of Infants*, 2nd ed., by E. J. Elgood.—Eversley, *The Law of Domestic Relations.*] E. S.

INFLATION

Great Britain, 1797-1819, p. 405; United States, 1862-1879, p. 406.

GREAT BRITAIN. The examples employed for illustration are that of Great Britain in the years 1797-1819, and that of the United States in 1862-79.

Many more might be cited, but these are sufficient to show the main results of an excessive supply of paper money not redeemable in specie. While "money itself is a mere contrivance for facilitating exchanges which does not affect the laws of value," of itself, an excess of the paper money in circulation issued by official fiat, and without any reference to the cost of production of the precious metals represented by it, must inevitably influence prices. The theory on the subject is explained by Professor Walker (*Money*, ch. xiv.-xvii.) with great clearness, and with copious illustrations.

Specie payments in Great Britain were suspended by order in council, 26th February 1797, owing to a run on the Bank of England. The Bank Restriction Act was passed in that year. The resumption of specie payments on the gold basis, established by the act of 1816, was directed by Sir Robert Peel's Act of 1819, and completed in 1821 and 1822. The Bank of England resumed payments in specie on 20th August 1819

The effect was well described by Ricardo. "From 1797 to 1819 we had no standard whatever by which to regulate the quantity or value of our money. Its quantity and its value depended entirely on the Bank of England, the directors of which establishment, however desirous they might have been to act with fairness and justice to the public, avowed that they were guided in their issues by principles which, it is no longer disputed, exposed the country to the greatest embarrassment. Accordingly, we find that the currency varied in value considerably during the period of twenty-two years when there was no other rule for regulating its quantity and value but the will of the Bank" (Ricardo's Works, 2nd ed., 1852; London, *On Protection to Agriculture*, § 5, p. 467).

The effect of the restriction of cash payments, and the divergence produced between the value of gold and of the paper currency, is broadly shown by the following Table, derived from Mushet.[1]

Market Price of Gold, Value of Currency and Depreciation of Value of Currency in England, 1800-1821.

Year.	Average market price of gold per. oz. from February 1800-1821.	Average per cent of the value of the currency at the market price of gold.	*Average per-centage depreciation of value of the currency.*
	£ s. d.	£ s. d.	
1800	3 17 10½	Par.	*Par.*
1801	4 5 0	91 12 4	*8·4*
1802	4 4 0	92 14 2	*7·8*
1803[1]	4 0 0	97 6 10	*2·6*
1804	4 0 0	97 6 10	*2·6*
1805	4 0 0	97 6 10	*2·6*
1806	4 0 0	97 6 10	*2·6*
1807	4 0 0	97 6 10	*2·6*
1808	4 0 0	97 6 10	*2·6*
1809	4 0 0	97 6 10	*2·6*
1810	4 10 0	86 10 6	*13·5*
1811	4 4 6	92 3 2	*7·8*
1812	4 15 6	79 5 3	*20·7*
1813	5 1 0	77 2 0	*22·9*
1814	5 4 0	74 17 6	*25·1*
1815	4 13 6	83 5 9	*16·7*
1816	4 13 6	83 5 9	*16·7*
1817	4 0 0	97 6 10	*2·6*
1818	4 0 0	97 6 10	*2·6*
1819	4 1 6	95 11 0	*4·5*
1820	3 19 11	97 8 0	*2·6*
1821	3 17 10½	Par.	*Par.*

[1] By the evidence of Mr. Abraham Goldsmid before

In considering this table the further question remains: Does the premium on gold, in a country having inconvertible paper, fairly measure the full depreciation in respect to purchasing commodities? Professor Walker considers (*Money*, p. 388) that the power of the paper was "much further diminished than its power to purchase gold."

The fluctuations in prices for the period (1797-1819) as chronicled by Tooke, *History of Prices*, vol. i. pp. 210-373, vol. ii. pp. 1-6, and 387-420, are illustrated by the following figures.[1]

Year.	Prices per quarter, Winchester measure. Mean price for the year.		Butter (Waterford), per cwt.		Tea (Congou), per lb.				Timber (Memel Fir), per load.			
	s.	d.	£	s.	s.	d.	s.	d.	£	s.	£	s.
1797	62	0	85	88	2	10	4	5	2	15	..	
1798	54	0	60	63	3	0	3	9	2	10	3	0
1799	75	8	78	82	2	5	2	7	3	8	3	10
1800	127	0	85	90	2	10	3	7	5	10	5	15
1801	128	6	115	117	3	4	3	6	5	15	6	0
1802	67	3	65	70	3	0	3	9	3	12	3	14
1803	60	0	85	94	2	8	3	8	5	5	6	5
1804	69	6	75	80	2	8	3	3	3	15	4	0
1805	88	0	68	70	3	1	3	6	3	15	4	0
1806	88	0	96	100	2	11	3	8	3	10	3	15
1807	78	0	108	110	2	10	3	9	4	0	5	0
1808	85	3	100	105	3	2	3	8	6	10	7	0
1809	106	0	82	84	3	0	3	7	14	0	14	10
1810	112	0	90	95	3	1	3	10	8	10	9	10
1811	108	0	115	118	2	11	3	6	10	0	11	10
1812	118	0	110	118	3	2	3	8	9	10	10	0
1813	120	0	84	90	2	11	3	7	5	10	7	0
1814	85	0	138	140	3	5	3	10	7	5	7	15
1815	76	0	111	116	3	2	3	7	5	0	5	10
1816	82	0	62	68	2	6	3	6	3	5	3	15
1817	116	0	93	94	2	9	3	5	2	10	2	15
1818	98	0	130	134	2	11	3	7	3	5	3	10
1819	78	0	74	78	2	10	3	6	3	10	3	15

The general effect is perhaps more clearly shown by Jevons's table of prices in his chapter on the Depreciation of Gold (*Investigations in Currency and Finance*, p. 155).

Year.	Average ratio of prices to the prices of the year 1849 (1849=100).
1789	133
1799	202
1809	245
1819	175
1829	124
1839	144
1849	100

Jevons (*Investigations in Currency and Finance*, ch. iii. heading p. 119) warns us (pp. 130-131) against attributing every rise in prices to the influence of the monetary circulation; but while he regards that Tooke was "partly and only partly right" in holding this view, he considers that "we must assign some part of the elevation of prices" to the manner in which the precious metals were driven out of circulation by the use of paper. It is difficult to estimate with absolute accuracy the effect of over-issues of irredeemable paper on prices. The price of some articles of consumption appears to have been more largely influenced by this cause than that of others, during the period between 1797 and 1819. Again, the effect of alterations in the amount of the currency on prices is more marked at some periods than at others, according as banking facilities are largely used or otherwise. But the table which Jevons himself has compiled leaves no doubt that the inflation resulting from the over-issues of paper currency during the period of bank restriction in Great Britain must have been very great, and that it must have largely exceeded the difference between the value of gold and that of the currency indicated in Mushet's tables quoted above.

UNITED STATES (1862-1879). The period of inconvertible paper money in the United States from 1862 to 1879 is often referred to as the inflationist period. Strictly speaking, "inflation" took place in the United States at other times, markedly in 1815-18 and in 1834-39,—both these being connected with bad banking legislation,—and again in 1854-57, when there was a very simple case of inflation and crisis, not complicated in essentials by currency derangement. But the period 1862-1879, as the one in which the features of "currency inflation" were most marked, will be the one dealt with here.

The issues of paper money began under great financial stress in the course of the civil war, in February 1862, when a first batch of 150 millions of dollars (30 millions sterling) was put out; two more of the same amount followed in July 1862 and March 1863, making a total issue of 450 millions (90 millions sterling) of United States notes or "greenbacks." In addition there were put forth in 1863 and 1864 considerable amounts, the maximum being about 200 millions (40 millions sterling) of interest-bearing legal tender notes, which inflated the currency still further. The result was a rapid disappearance of specie in 1862, and a sharp rise in prices in 1862-65. With the close of the civil war in 1865, the administration—and especially Mr. M'Culloch, the secretary of the treasury,—set to work at once to contract the paper issues, and succeeded without much difficulty in getting rid of the interest-bearing notes referred to. A beginning was also made in contracting the United States

the Bullion Committee 1810, the market price of gold was stated to be £4 per ounce from 1803 to 1809. *Third Report of Royal Commission on Depression of Trade and Industry*, Appendix B. Memorandum of Standard of value. R. H. Inglis Palgrave, p. 314.

[1] Tooke's *History of Prices*, vol. ii. pp. 389, 408, 416, and 417 London, 1838.

notes proper. But in April 1866 congress passed a resolution restricting the pace at which the notes should be paid off; for six months no more than 10 millions of dollars (2 millions sterling) of notes should be withdrawn, and thereafter no more than 4 millions (£800,000) a month. This resolution marks the beginning of the struggle between the inflationists and the advocates of resumption; for the paper issues had been made solely under financial stress in the civil war, and had in no quarter been originally regarded as advisable or likely to endure. The inevitable hardships of contraction and falling prices caused the inflationist movement. The inflationists urged the permanent retention or increase of the inconvertible paper money, the most extreme wing demanding the issue of enough paper to pay off the whole funded debt—over 2000 million dollars (400 millions sterling); the most moderate asking only that the volume of paper be left unchanged, so that the country might "grow up" to it. From 1866 to 1879 the contest was carried on with varying fortune in congress and before the public. In 1868 the inflationists gained a point by the passage of an act forbidding further contraction and leaving the volume of the United States notes at the point where it then stood—356 millions (71 millions sterling). In the height of the panic of 1873 the then secretary of the treasury, Mr. Richardson, put forth some notes previously retired, under questionable legal authority. This became the occasion for a bill, passed by both houses of congress in 1874, providing for an increase of the paper issues to 400 millions (80 millions sterling). The bill marked the height of the inflationist movement; it was vetoed by President Grant, who thus dealt the movement a heavy blow. A compromise bill was then passed, in 1874, fixing the volume of United States notes at 382 millions (76½ millions sterling). Next year (1875) the end of the struggle was brought in sight by the passage of the Resumption Act, which provided for resumption of specie payment in 1879. A gradual decline in the volume of paper was to take place *pari passu* with an expected enlargement of the volume of national bank notes. But this decline was again stopped by an act passed in 1878, which virtually fixed the amount of United States notes at the point then reached —$346,681,016 (69⅓ millions sterling). At that they have remained to the present time (1895). Resumption was successfully accomplished at the date fixed (January 1, 1879); and therewith the movement for paper money inflation came to an end. The demand for an increase in the currency after 1879 took another direction in the agitation for the free coinage of silver or the issue of currency based on silver purchases.

[There is no good history of the monetary policy of the United States since 1860. Some accounts of it are in Bolles, *Financial History of the United States*, Philadelphia, 1886, vol. iii.; J. K. Upton, *Money in Politics*, Boston, 1885. The texts of the various legislative measures are accurately collected in Dunbar, *Laws of the United States on Currency, Finance, and Banking*, Boston, 1891.]

F. W. T.

INGOT. Metal cast in a mould of a size and shape convenient for handling. The word, which is derived from the wedge- or tongue-shaped ingots used by the Romans (*lingo*, to lick with a tongue, Fr., *lingot*), is seldom used in connection with other than the precious metals, though such a cast block of any metal may properly be called an ingot. The shape of the ingots of the precious metals now in use in this country, though varying to some extent, generally approximates to that of an ordinary brick made with slightly sloping sides. In the London bullion market these pieces of metal pass by the name of "bars."

In China transactions in bullion are carried on by means of shoe-shaped ingots, known as "Sycee" silver; while in Japan ingots of copper are cast, under water, into canvas receptacles, the shape of the resultant mass being that of a shallow dish or saucer.

Gold ingots sent by the Bank of England to the Mint for coinage are of an average weight of 400 ounces troy. They are of two kinds—"coarse" and "fine." The latter are not, however, composed of metal which is absolutely pure, but have a mean millesimal fineness of 999, while the coarse bars contain on an average 897 parts of fine gold in 1000. Prior to 1889 the mean weight of such ingots was 200 ounces troy, but in consequence of changes in the practice of the bullion market, their weight was then doubled.

The silver ingots purchased by the Royal Mint for coinage are of an average weight of 1100 ounces troy, and an average millesimal fineness of 995·8.

F. E. A.

INHABITED HOUSE DUTY, a tax on inhabited houses calculated by reference to their annual value and payable by the occupier, was first imposed in Great Britain in 1778, the idea being derived from the *Wealth of Nations* (bk. v. ch. ii. part ii. art. i.). Originally the rates were 6d. in the £ for houses worth £5 and below £50 per annum, and 1s. in the £ for those worth £50 or more. The tax was continued at various rates, the highest being 2s. 10d., till its repeal in 1834. This tax, rather than the more objectionable window tax, was selected for repeal on the ground that the great houses, such as Chatsworth, etc., being charged much more highly, relatively, to the window tax than to the house tax owing to the difficulty of ascertaining their annual value to let, the repeal of the window tax would benefit more particularly the richer

classes. The annual produce of the tax at the date of the repeal was about £1,200,000.

This selection was ultimately allowed to be a mistake; in 1851 the policy of 1834 was reversed, the window tax repealed, and the inhabited house duty re-imposed with certain alterations. The rates were 6d. for shops, public-houses, and farm-houses, and 9d. for dwelling-houses. In 1890 graduation was reintroduced, to the extent of charging the duty at lower rates as respects houses of small annual value. The present rates are:—

On shops, public-houses, hotels, inns, coffee-houses, farm-houses, lodging-houses, of the annual value (without any allowance for repairs) of

£20 and not exceeding £40—2d. in the £
exceeding £40 „ £60—4d. „
exceeding £60 . . . . 6d. „

On private houses, clubs, and business premises other than shops (unless exempt) of a similar annual value, 3d. 6d. or 9d. in the £ as the case may be.

The principal exemptions are:—houses below £20 of annual value; houses belonging to His Majesty or any of the royal family; public offices; hospitals; charity schools; poorhouses; houses or tenements occupied solely for business or professional purposes (a caretaker allowed); artisans' dwellings. The tax is under the administration of the commissioners of inland revenue, and the chief enactments concerning it are:—14 & 15 Vict. c. 36; 43 Geo. III. c. 161; 48 Geo. III. c. 55 (Sch. B); 41 & 42 Vict. c. 15, § 13; 53 & 54 Vict. c. 8, §§ 25 and 26; 54 & 55 Vict. c. 25, § 4; 3 Edw. VII. c. 46, § 11. It does not extend to Ireland.

In 1904-5 the net receipt from the tax was £2,014,206. The following table shows the number and annual value of the houses charged in 1903-4:—

	Number.	Annual Value.
Private Dwelling-houses	1,350,399	£62,256,746
Residential Shops	312,634	16,018,797
Hotels, Public-houses, and Coffee-houses	96,477	9,468,249
Farm-houses	33,073	828,279
Lodging-houses	23,459	1,541,026

In 1901 the royal commission on local taxation recommended (Final Report, p. 21) the transfer of this imperial tax to the local authorities in relief of rates [ed. 638].

[Dowell's *History of Taxation and Taxes in England*, vol. iii. p. 178.—Piper's *House Tax Laws*, 1903.—48th *Report of Commissioners of Inland Revenue*, pp. 166-189.—See for various motions in Parliament, Hansard, (123), 903, (197), 1802, (200), 1374, (280), 90, (285), 224, (335), 436. See ASSESSMENT; TAXATION.] F. A.

INHERITANCE, ESTATE OF. An estate in land extending beyond the duration of one or more lives is called an "estate of inheritance." Such an estate must be either an estate "in fee simple, which in popular language is described as absolute ownership," or an estate tail (see ENTAIL, LAW OF). E. S.

INHIBITION (Scots law). An order against contracting any debt which may become a burden or charge on heritable property (realty) or which may give rise to process issuing against the realty of the party inhibited, to the prejudice of the complainer. It takes effect as of course by registration, in the General Register of Inhibitions in Edinburgh, of a summons containing a "warrant for inhibition," duly issued and served. The inhibition is personal to the debtor, and applies only to realty vested or in expectancy at its date, and to voluntary obligations undertaken after its date. The effect of an inhibition, standing alone, is merely to deter purchasers; but it may be followed by an "adjudication," by which the creditor may be adjudged a preference over other creditors whose claims originated after the inhibition. There is also an inhibition by a husband against his wife—obtained by a bill to the Court, issued as of course without reason assigned, and registered in the General Register of Inhibitions,—by which it is notified to the public that the wife's agency has been cancelled, except in regard to necessaries for which it may be proved that the husband has not otherwise made provision. A. D.

INLAND NAVIGATION. See CANALS.

INOFFICIOSUM TESTAMENTUM is the term used in Roman law to signify a will which may be set aside because it violates the duty of natural affection existing between certain near relations, as when a parent, without proper cause, leaves less than the legal share (*portio legitima*) to a child, or a child leaves less to a parent (see LEGITIM). E. A. W.

INSCRIBED STOCK. A SECURITY (*q.v.*) is called "inscribed" to distinguish it from a security which passes from hand to hand by delivery. A register is kept, where in the case of English or government loans or in the case of shares in an English company, transfer of ownership can be made. Registration or inscription is found suitable to English habits and ideas. On the continent and in America there is a prejudice against anything which publishes the ownership of securities, and bonds or shares to bearer are there preferred. As to the risk of forged transfers of inscribed securities see FORGED TRANSFER. A. E.

INSCRIPTION MARITIME (FRANCE)—the system of recruitment for the navy organised by a law of the year iv. of the first republic (1796). All men who have made two over-sea voyages on a state or merchant vessel, or have served eighteen months at sea, or been two years engaged in fishing, are inscribed on the maritime register, and may be called for service in the fleet from the age of eighteen to fifty. The period of obligatory service is from twenty to twenty-seven years of age, after which the *inscrits* pass into the reserve and are only liable to service in case of war, and in the order of the classes to which they belong, those most

recently liberated being taken first. From the ages of eighteen to twenty the young men may, on demand, anticipate the time for commencing the period of obligatory service. Since 1874 engineers and stokers on steamers are comprised in the maritime inscription. The *inscrits* enjoy many privileges; they have a monopoly of the fishing in French waters, and may alone obtain concessions of parts of the shore or banks of tidal rivers and salt-water pools, for taking or breeding fish; they are not liable to any other public service; and have a right to a pension at the age of fifty, after twenty-five years' service in any kind of navigation, which pension is continued, but reduced, to their widows and orphans. A contribution of 3 per cent of their wages, whether earned on state or merchant ships, is, however, made to the pension fund, called the *Caisse des Invalides de la Marine*. During the period of obligatory service the men may obtain furloughs for service on merchant or shipping vessels. The number of men belonging to the maritime inscription serving in the fleet is about 24,000, forming about two-thirds of the crews, the remainder are volunteers or men drawn in the ordinary military conscriptions to serve as marines, not enjoying the privileges of the *inscrits*, and having no right to a pension although liable to military service to the age of forty-six (cp. IMPRESSMENT).

["Rapport adressé au Ministre de la Marine au nom de la Commission chargée de l'étude des questions se rattachant au régime de l'inscription maritime," *Journal Officiel*, 12 Decembre 1890.]

T. L.

INSOLVENCY. See BANKRUPTCY LAW AND ADMINISTRATION.

INSPIRATIONISTS. See AMANA SOCIETY.

INSTALMENT. When the payment of any sum of money, instead of being effected altogether on one date, is to be divided into several parts to be effected on certain successive dates it is called a payment by instalments. A. E.

INSTITORIA ACTIO is an action of Roman law maintainable against the owner of a business on account of a contract entered into with the superintendent or manager (*institor*). The manager himself, as party to the contract, was liable to an action on the contract he had made, as well as his master—Roman law, owing principally to the frequent employment of slaves in commercial transactions, not fully recognising the principle of contractual agency, which is essential to modern commerce. E. A. W.

INSTRUMENT, NEGOTIABLE. A negotiable instrument differs from an ordinary contract or instrument, securing the payment of money, in three respects:

(1) It is assignable by virtue of the usage of trade, whereas a contract or "thing in action" is not ordinarily assignable at common law. A negotiable instrument purporting to be payable to bearer may be assigned by mere delivery; or if purporting to be payable to order, then by indorsement completed by delivery.

(2) The consideration for its issue or transfer is presumed until the contrary is proved.

(3) If it gets into the hands of a holder for value without notice, he holds it free from any defects of title which would have vitiated it in the hands of any previous holder.

The term "negotiable instrument" is usually confined to the original and typical negotiable instruments, namely, bills of exchange, promissory notes, and cheques; and the term "negotiable security" is applied to the negotiable bonds and scrip which in recent years have become so common in the money market. For the most part these instruments would be governed by the same considerations as promissory notes payable on demand. For revenue purposes, however, they are subject to special stamp regulations (see also COMMERCIAL INSTRUMENT).

[Chalmers, *Bills of Exchange*, 4th edition, pp. 312-327.] M. D. C.

INSURANCE

History, p. 409; Life, Theory of, p. 410; Law and Practice of Life, p. 416; Marine, p. 418; Mutual, p. 419; State (Germany), p. 419.

INSURANCE, HISTORY. There appear to have been two forms of contract akin to insurance known to the ancients. The first is mentioned by A. Böckh (*Public Economy of Athens*). He states that "the idea of an institution for the insurance of slaves first occurred to Antigenes of Rhodes" (in the time of Alexander the Great, 356-323 B.C.), "who undertook, for a yearly contribution of eight drachmas for each slave that was in the army, to make good his price, as estimated by the owner at the time of elopement." Bottomry (see BOTTOMRY, LOAN ON) was also known to the Greeks. Among the Romans, the earliest mentioned transaction of this nature is the contract, noticed by Livy, made after the battle of Cannæ, for the supply of stores to the Roman government, the contractors stipulating that the state should bear all losses which might arise from the enemies' attacks, or from storms. But with the barbarian invasion, and consequent cessation of commerce, all such practices fell into disuse. The origin of modern insurance is obscure. Instances of some form of insurance are found amongst various nations in early mediæval times, but there appears to be no direct connection between them and the methods now adopted. The first form of mediæval insurance was undoubtedly marine, the system being afterwards extended to other objects.

Many countries or towns have claimed to be the birthplace of *marine* insurance, particularly Barcelona, Wisby, and Bruges; but it appears

really to have originated among the commercial cities of Italy, the earliest mention referring to Florence (14th century). It may even have been practised in the 13th century: an unedited Pisan document (the *Breve Portus Calleritani*, 1318) is supposed to refer to insurance at Cagliari. *Chambers of Insurance* were established at an early date on the continent, notably at Barcelona and Bruges. The period of its introduction into England is equally obscure; in the earliest statute on the subject (1601), it is stated that it "hathe been tyme out of mynde an usage amongst merchantes." Bacon quotes it as a usual practice in 1558.

The insurance on a ship and its cargo representing usually too large a sum for a single individual, it is divided amongst several underwriters, each of whom guarantees such a fraction of the risk as he thinks proper. By far the greater portion of marine insurance in this country is done at Lloyd's, now a corporation, but formerly simply a meeting-place for underwriters. This institution originated in the coffee-houses established in London towards the end of the 17th century, one of which, owned by Edward Lloyd (first mentioned in 1688), became the resort of marine insurers, and ultimately all their underwriting was done there; as the business grew larger, it was removed to the Royal Exchange in 1774. Two companies, the "London" and the "Royal Exchange" Assurance Corporations, obtained in 1720 a charter with a monopoly, as companies, of marine insurance business. No other company was formed until 1824, when Rothschild obtained the repeal of this exclusive charter, and founded the "Alliance" Insurance Company. The companies did not interfere much with individual underwriting. The amount of marine property insured in 1810, according to estimates made at the time of the Royal Commission, was about £160,000,000, of which some £130,000,000 was underwritten at Lloyd's.

The first *fire* insurance office in London was set up after the Great Fire, in 1667, by N. Barbon (*q.v.*), although schemes had been suggested in 1635, 1638, and 1660. But fire insurance almost certainly existed earlier on the continent. Part of the functions of fire insurance companies was to extinguish fires; this was undertaken in their own interests, and all the important companies in London maintained fire brigades until 1866, when they were taken over by the Metropolitan Board of Works. Fire engines were first introduced into London from Holland in 1633. Barbon's method was individual underwriting: the first joint-stock association was founded in 1681 "at the back of the Royal Exchange." The oldest existing office is the "Hand in Hand," which dates from 1696. The growth of fire insurance business can be best judged from the following table:

Year.	Value of Property insured.
1783	£135,000,000
1800	200,000,000
1840	645,000,000
1860	1,000,000,000
1868	1,430,000,000

These values are the amounts on which duty was paid; as this was abolished in 1869, statistics of fire insurance since 1868 are only officially given of such offices as undertake also life business. Life insurance offices are compelled to make an annual return to the Board of Trade. The *Finance Chronicle*, however, gives the premiums received by fifty-four British offices in 1894 as nearly £19,000,000, and the claims paid as £13,000,000.

[C. Walford, *Insurance Cyclopædia*, 1871-80. —F. Hendriks, "Contributions to the History of Insurance," in *Assurance Magazine*, vol. ii., 1852. —F. Martin, *History of Lloyd's and of Marine Insurance in Great Britain*, 1876.—W. Gow, *Marine Insurance*, 1895]. R. H. H.

INSURANCE, Life, Theory of. The object of insurance is to spread the burden of losses, which to the individual would be crushing, over a large body of insured, and so render that burden easy to bear. This object is effected by collecting from each of the insured a sum, called a premium, proportioned to the risk to be insured against; and out of the fund so formed, those of the insured who have experienced loss from the contingencies covered by the insurance, are indemnified.

Materials are not available for ascertaining accurately the extent to which life assurance is practised in the United Kingdom. All active companies are required by the Life Assurance Companies Act 1870 to make periodical returns to the board of trade, but these returns do not distinguish between home and foreign business, and they are not made up by the different companies to a uniform date. The last available figures (board of trade, 1894) show that at their then latest periodical valuations, British companies were liable under their life policies to the amount of £628,070,176; that in their respective last financial years they received in premiums £22,790,349; and that at the dates of the last balance sheets the invested funds, accumulated entirely out of premiums, and exclusive of share capital, amounted to £194,175,429. Assurances on lives insured by British offices, and resident in the colonies and abroad, are included in these aggregates, but on the other hand assurances granted by colonial and foreign companies on lives resident in the United Kingdom are excluded. These sources of error are in opposite directions, and the figures may be taken roughly to represent the

amount of life assurance existing at the present day on the lives of persons resident in the British Isles.

From the magnitude of the totals it is manifest how important to the community is a sound system of life insurance, and the object of the present article is to explain, as briefly and as simply as possible, the scientific principles on which the business is conducted, and which experience has shown to be safe and trustworthy.

In early days life policies were granted only for short terms, generally for a year, or less; the earliest, of which full particulars have been preserved, was made on 15th June 1583, for £383 : 6 : 8 on the life of Wm. Gybbons for one year, the premium being at the rate of £8 per cent. No record seems to remain of the age of the life assured, probably that was a detail not thought of at the time. This policy was underwritten by thirteen private individuals, after the manner of marine insurances at Lloyd's in the present day.

About the year 1650, societies for the assurance of lives began to be formed. The principle on which they were worked was, that each surviving member had to pay a fixed contribution in respect of each death; so that the amount receivable by the representatives of a deceased member varied according to the numbers in the society at the time of his death, and the contributions of the members varied according to the number of deaths which occurred in any particular year. No attempt was made to graduate the contributions of members according to their respective ages. In 1705 the "Amicable Society" was formed. Its system at first was to charge each member an annual premium of £6 : 4s., besides certain annual dues, and to divide among the representatives of the members who might happen to die in any particular year the amount received in premiums in that year to the extent of £5 per contributing member, so that in a year in which there happened to be few deaths, the share in respect of each death would be large; and in the event of many deaths, small. At first no limit of age was imposed, but soon it was found that an influx of an undue proportion of old lives would reduce the death money inconveniently, and in 1707 the regulation was passed that members on admission must be between twelve and forty-five years of age. For a century this rule remained in force, and it was not until 1807 that a table of premiums was adopted graduated strictly according to age.

The weakness of the early assurance societies was that with the growing age of the members the death rate increased and the claims became onerous, so that either the contributions demanded from the members had to be augmented, or the amounts paid on death reduced. The societies formed on this unsound basis all succumbed to the inevitable strain, except the Amicable, which, taught by experience, altered its constitution; but in 1762 the Equitable Society was formed on the principle which is now recognised to be the only sound one; and it still carries on business as one of the most successful financial institutions of the country.

Life insurance differs from other descriptions of insurance in that the risk to be insured against is constantly increasing with the duration of the contracts. That the rate of human mortality increases with the age was dimly known at a very early period, the Romans at the commencement of the Christian era valuing annuities charged on estates by a table giving values large for young lives, and constantly diminishing with advancing age. There seem, however, to have been no efforts made to estimate the true rates of mortality until 1671, when John de Witt, Grand-Pensionary of Holland, presented a report, not published until long afterwards, on the subject, to the states-general; and it was not until 1693 that the first real mortality table was formed, by E. HALLEY, Astronomer-Royal of England, and published that year in the *Philosophical Transactions*. It was based on observations made on births and funerals in the city of Breslau.

When the Equitable Society was started in 1762, it employed for the calculation of its premiums a mortality table constructed from the London bills of mortality. This showed heavy rates of mortality, beyond those which the subsequent experience of the society proved really to prevail, and in 1781 the Northampton table was adopted which, however, still showed an excessive death-rate.

A mortality table tells us how many persons out of a given number born, or starting from a given age, survive to each subsequent age; and consequently it also shows how many out of the given number at the commencement die in each year of their age. The number with which the table commences is called the *radix* of the table. It is usual to arrange the table in columns, the first column containing the age attained, the second the number who attain that age, and the third the number who die between that age and the next higher age. The age is usually denoted by x, or one of the other letters at the end of the alphabet. The number who attain age x is denoted by the symbol l_x, and the number who die between ages x and $x+1$ by the symbol d_x. The following is an illustration of a mortality table. It is the early portion of the H^M *Healthy Males* table formed by the institute of actuaries from the experience of twenty British life offices. It will be observed that the commencing age is ten years, and the radix is 100,000. The radix is a purely arbitrary quantity, chosen only for the sake of convenience—

Age.	l_x.	d_x.
10	100,000	490
11	99,510	397
12	99,113	329
13	98,784	288
14	98,496	272
15	98,224	282
16	97,942	318
17	97,624	379
18	97,245	466
19	96,779	556
20	96,223	609
21	95,614	648
22	94,971	650
23	94,321	638
24	93,683	622
25	93,061	617

The mortality table affords the means of calculating the probabilities of life and of death. Thus, there being l_x persons alive aged x, of whom l_{x+t} survive to age $(x+t)$, there are, out of l_x chances altogether, l_{x+t} chances of any one of the l_x persons surviving to age $(x+t)$. Therefore the probability of a person aged x surviving to age $x+t$ is $l_{x+t} \div l_x$. This probability is denoted by the symbol ${}_tp_x$, or when $t=1$, simply by p_x. In a similar way, as $l_x - l_{x+t}$ persons, out of l_x living at age x, die before reaching age $(x+t)$, the probability of dying between ages x and $(x+t)$ is $(l_x - l_{x+t}) \div l_x$, which $= 1 - {}_tp_x$.

In financial transactions involving life contingencies, the operation of interest must be taken into account, because the premium has to be paid by the assured at the commencement of the contract, and the sum assured is not paid until the close; consequently the office keeps the premium invested in the interim, and secures interest on it. If by i we denote the interest in a year on £1, or more generally on 1 unit of value, whether that unit be a pound, a franc, or a dollar, etc., then 1 invested at the beginning of a year will amount to $(1+i)$ at the close. This is called the *amount* of 1 in a year. Similarly if any other sum S be invested for a year, it will produce Si in interest, and at the end of the year will amount to $S(1+i)$. The original unit, 1, having amounted to $(1+i)$ in a year, if that amount be again invested, it will amount at the end of the second year to $(1+i) \times (1+i)$ or $(1+i)^2$, which is the amount of 1 at compound interest in two years. Proceeding thus, we find that the amount of 1 in three years is $(1+i)^3$, and generally the amount of 1 in t years is $(1+i)^t$.

Seeing that $(1+i)^t$ is the amount of 1 in t years, it follows that 1 is the present value of $(1+i)^t$, to be received at the end of t years; and, by simple proportion, the *present value* of 1 to be received at the end of t years is $1 \div (1+i)^t$ or $(1+i)^{-t}$. This present value is usually denoted by the symbol v^t. Thus, the present value of 1 due at the end of one year is v, where $v = 1 \div (1+i)$ and $(1+i) = 1 \div v$.

Suppose it were desired to provide an endowment of £100 for a child now aged fourteen on his attaining age twenty-one, what premium should be paid down, assuming interest at 3 per cent? It will be well to solve the problem first in general symbols. If there be l_x persons aged x, we shall have l_{x+t} surviving at age $(x+t)$. Therefore, if an endowment of 1 is to be secured to each of them at age $(x+t)$, the sum of l_{x+t} must be provided at the end of t years. For that purpose, $v^t l_{x+t}$ paid down now and invested will suffice; and as there are l_x persons who must each pay his proportion, the sum to be paid by each is $v^t \cdot \frac{l_{x+t}}{l_x}$ or $v^t {}_tp_x$. This is called the present value of, or the single premium for, the endowment. Thus, the present value of the endowment is the sum to be received, discounted down to the present time, and multiplied by the probability of receiving it. Taking up now the numerical example: by the specimen mortality table given above, there are 98,496 children aged fourteen, of whom 95,614 will attain the age of twenty-one; hence, if each of the survivors is to receive £100, the sum of £9,561,400 will have to be provided at the end of seven years. At 3 per cent interest the present value of 1 to be received in seven years is ·8130915, and the present value of £9,561,400 is £7,774,293. There being 98,496 children, the sum to be paid down now in respect of each is £78·930, or £78 : 18 : 7, which is the present value of, or the single premium for, the endowment of £100. Or, looking at the matter in another way: the probability of a child aged fourteen attaining the age of twenty-one is $95,614 \div 98,496$ or ·97073; and the value of 1 to be received certainly at the end of seven years is ·8130915. Therefore the value of 1 to be received conditionally on a child aged fourteen surviving until aged twenty-one is $·97073 \times ·8130915$ or ·78930, and the value of £100 so to be received is £78·930 as before.

It should be noted that in speaking of the present value of an endowment we assume a sufficient number of endowments to allow of the law of average asserting itself. If there were only one endowment, and the child happened to survive, the sum paid at the commencement would not amount to the sum to be provided. In the case of the above example it would amount to only £97·073, and the £100 could not be paid in full. On the other hand, should the child happen to die, there would, at the end of the term, be the sum of £97·073 in hand without a claimant. It is only when there are a sufficient number of lives to obviate accidental fluctuations that the figures work out properly. The same observation applies to every kind of contingent benefit.

An annuity is an annual payment to be made either for a fixed term of years, or during the existence of a given life, or of a given combination of lives. In the former case the annuity is called an annuity-certain, and, in the latter, a life annuity, or simply an annuity. According to the elementary principles already discussed, the present value of the first payment of an annuity-certain of 1 per annum is v; that of the second payment v^2, and so on. If the annuity be for n years its value is denoted by $a_{n}>$, the angle round the suffix showing that no contingency is involved. We therefore have the value of an annuity-certain

$$a_{n}>, \times = v + v^2 + v^3 + \text{ . . . etc. . . . } + v^n.$$

The series is a geometrical progression, and by the usual formula for summing such a series, the

sum is $v\frac{1-v^n}{1-v}$, from which, remembering that $v=\frac{1}{1+i}$, we have $a_{n\rceil}, =\frac{1-v^n}{i}$.

It will readily be seen that a life annuity consists of a series of endowments, and by the formula we have already obtained for the value of an endowment, we have, writing a_x for the value of the life annuity where the age of the nominee is x,

$$a_x=\frac{1}{l_x}(vl_{x+1}+v^2l_{x+2}+v^3l_{x+3}+\text{ etc.})$$

There is no way of summing this series except by actual addition. Here each number in the column of l_x is multiplied by a power of v, the index of the power having no reference to the age of the life, but only to the length of time which must elapse before a particular payment of the annuity is to take place. If, therefore, we have calculated by the formula the value of an annuity on a life aged x, all the multiplications and additions must be done over again if we are called upon to calculate the value of an annuity on a life of any other age, and the work becomes tedious and lengthy. In early days the labour was abbreviated by employing a simple relation which exists between the value of an annuity on a given life, and that of an annuity on a life one year older. At the end of the first year the life, if he survive, will be entitled to a payment of 1, and he will also be in possession of an annuity for the remainder of his life, the value of which will then be a_{x+1}. He will, therefore, at the end of a year be in possession of cash and of an annuity together worth $1+a_{x+1}$. The value of this at the beginning of the year is $v(1+a_{x+1})$, and the chance of receiving it is p_x. Therefore the actual present value is $vp_x(1+a_{x+1})$ which is a_x. Therefore, commencing at the oldest age in the mortality table, at which the value of the annuity is zero, and working backwards year by year, a complete table of annuity values can be formed, and it is about as easy to calculate the complete table as to calculate the value of an annuity at the youngest age.

If, however, we look again at the series representing the value of the life annuity, we shall easily introduce a modification which will enable us, by a simple division, to calculate the value of an annuity on a life of any age we please. The value of the annuity is represented by a fraction, and if we multiply both numerator and denominator by the same quantity, we do not alter its value. Let us then multiply by v^x, and we have

$$a_x=\frac{1}{v^xl_x}(v^{x+1}l_{x+1}+v^{x+2}l_{x+2}+v^{x+3}l_{x+3}+\text{etc.})$$

where each value of l is multiplied by a power of v, the index of which is the same as the suffix of that particular l. If now we write D_x for v^xl_x, we have

$$a_x=\frac{D_{x+1}+D_{x+2}+D_{x+3}+\text{etc.}+}{D_x}$$

Let us now write the successive values of D in a column, and sum that column from the bottom upwards, and place in an adjoining column against each age the sum of the column D from the age one year older to the end of the table, and let us denote that sum by the symbol N, that is

$$N_x=D_{x+1}+D_{x+2}+D_{x+3}+\text{etc.}+$$

We then have two columns, the relation of which to each other is such that

$$a_x=\frac{N_x}{D_x}$$

Such columns are called commutation columns, and the principles on which they are constructed have been extended and applied to many other kinds of benefits besides annuities. They will be found in all collections of actuarial tables.

One great advantage of commutation columns is, that by means of them the values of temporary and of deferred benefits can be calculated with great facility. Thus, if the life annuity is to run for only t years, all the payments after t years must be left out of account, and it is easily seen that the value of the temporary annuity is $\frac{N_x-N_{x+t}}{D_x}$. If, on the other hand, nothing is to be paid for the first t years, then the value of the deferred annuity is $\frac{N_{x+t}}{D_x}$.

The endowment and the annuity already considered are benefits receivable if a nominee survive, but the same principles hold if the benefit be receivable at death. What is the present value of, or single premium for, an assurance payable at the end of the year of the death of a person aged x? Assuming l_x persons of that age, each to be assured, d_x will die in the first year, and the sum d_x will have to be provided at the end of the year, and the present value of that sum is vd_x. Similarly, the sum d_{x+1} will have to be provided at the end of the second year—its present value is v^2d_{x+1}—and so on for future years. The value of all the l_x assurances is therefore

$$vd_x+v^2\,d_{x+1}+v^3\,d_{x+2}+\text{etc.},$$

and the value of each of them is therefore the sum of that series divided by l_x. By multiplying each of the terms of the series, and also the denominator, by v^x, the value of the fraction is not changed, while a column is thereby formed for assurances similar to the D column already described for annuities. The function $v^{x+1}d_x$ has the symbol C_x assigned to it, and

$$M_x=C_x+C_{x+1}+C_{x+2}+\text{etc.},$$

so that if we write A_x for the single premium for the assurance, we have

$$A_x=\frac{M_x}{D_x}$$

We have thus obtained by independent processes direct from the mortality table, the respective values of the annuity and the assurance; but these two functions are closely related, and, having the value of one, we can at once assign the value of the other. The annuity consists of a payment of 1 to be made at the end of each year which the nominee completes; and the assurance consists of a payment of 1 to be made at the end of that year on which the nominee enters but does not complete, namely the year in which he dies. Therefore the value of the assurance is the difference between the values of two annuities, the one payable at the end of each year on which the

nominee enters, and the other payable at the end of each year which he completes. Now $v(1+a_x)$ is evidently the value of the first of the annuities, and a_x is the value of the second; and we have

$$A_x = v(1+a_x) - a_x$$

This equation is quite independent of the rate of mortality; it depends solely on the rate of interest, and was skilfully used by the late William Orchard in preparing his celebrated *Conversion Tables*. By means of these tables the value of the assurance and also the annual premium for the assurance, can at once, and without calculation, be found from the value of the annuity.

We have found the single premium for the assurance, but it is not often in practice that a single premium is convenient. To find the annual premium we may look on A_x as the purchase money of an annuity, the first payment of which is to be made at once, because it is customary with assurance offices to make the annual premiums payable at the commencement, and not at the end of each year. Since $1+a_x$ is the purchase money of such an annuity of 1 per annum, unity will purchase $\frac{1}{1+a_x}$ per annum, and A_x will purchase $\frac{A_x}{1+a_x}$ per annum, which is therefore the annual premium corresponding to the single premium A_x. Using the symbol P_x for the annual premium, we therefore have

$$P_x = \frac{A_x}{1+a_x}.$$

In former days the single and annual premiums used in practice were those given by the formulas above discussed, but the rate of mortality shown by the mortality tables then in use was much in excess of that actually prevailing, and the rate of interest employed in the calculations was below that which could be secured on safe investments. It therefore follows that the formulas gave rates in excess of those theoretically necessary, and left a margin for expenses and contingencies. The Equitable Society found that margin so great that large surpluses resulted, and these were distributed as bonuses among the policy-holders. In later years, however, when the true rates of mortality were better known, it became the custom, with a majority of offices, to calculate the single and annual premiums by mortality tables closely representing the real facts, and to employ practical rates of interest. Under these circumstances it was therefore necessary to add to the mathematical premium deduced from the mortality table a margin called "loading," to cover the expenses of the business, to provide against contingencies, and to create a fund out of which the policy-holders might obtain bonuses, because the practice of the Equitable in dividing the surplus amongst its members had become very popular, and other societies, in order to compete successfully, had to follow the same course.

We have discussed so far only assurances for the whole of life, and it is not our purpose to go into further detail. By similar processes, more or less complicated according to the nature of the contingencies to be covered, premiums may be calculated for all kinds of risks, but those wishing to investigate the question further should consult the text-books mentioned lower down.

We have already remarked that life assurance differs from assurance of other descriptions in that the risk to be insured against constantly increases with the duration of the contracts. It will be observed that the formula given above for the annual premium provides for a uniform premium payable throughout life. It follows from this that in the earlier years the assured pays an excess beyond that required for the risk, while in later years the risk is greater than the premiums received. Therefore, if the insurance society is to remain solvent, the surplus premiums of earlier years must be religiously husbanded and accumulated at interest, so as to provide for the deficiency when the lives assured become advanced in age. In other forms of insurance all that is necessary in the way of reserves is a sufficient proportion of the premium for the unexpired risk of the year, and a reserve fund to cover accidental fluctuations. With life assurance, however, the case is different. The unexpired risks of the year must be provided for, and also a guarantee should exist to provide against accidental fluctuations; but over and above these two reasons for providing a reserve, there is the increasing rate of mortality, which necessitates large accumulations. In fact, the so-called reserves of life assurance companies are, for the most part, not in the nature of reserves as usually understood; that is, they are not surplus funds to guard against contingencies, but merely accumulations of excess of premiums received when the risk is small, and laid by against the time when the risk will become great; and they are just as much required for the purpose of solvency, and apart altogether from fluctuations, as the premiums themselves. This being a very important principle, in fact the fundamental principle underlying life assurance, it may be useful to give a numerical illustration of its operation. In an ordinary mortality table the rate of mortality increases but slowly for many years, and to base our illustration on it would involve very lengthy calculations. It is better, therefore, to take an exaggerated example, the principle remaining the same. Let a society be supposed to exist consisting of fifty-five persons, and let the rate of mortality be such that one of these will die in the first year, two in the second, three in the third, and so on, until ten die in the tenth year, when all the members of the society will have passed away. Let it be arranged that each of these members be assured for £100 by an annual premium payable throughout the duration of the contract. What will the premium be, and what will be the working of the fund? Of course, in practice, interest would be secured on the investment, but for the present purpose it is a needless complication, and we may leave it out of account. By assuming interest the figures would be slightly altered, but the principle guiding them would not be changed.

Were the rate of mortality to remain constant as at the commencement, we should have one person in fifty-five die in each year, and therefore the premiums to insure £100 for a year would be $\frac{100}{55}$, or £1 : 16 : 5 nearly. Seeing, however, that

in the second year two out of fifty-four die, and in the third year three out of fifty-two, etc., it is manifest that this initial premium would be too small, and if in each year the premium collected were to be equivalent to the risk incurred, the premium would be an increasing one, in the second year $\frac{2000}{54}$, or £3 : 14 : 1 nearly, in the third year $\frac{2000}{52}$, or £5 : 15 : 5 nearly, until in the tenth year it reached 100 per cent, and there would be no assurance at all. It will be found, however, that if fifty-five persons pay a premium in the first year, fifty-four in the second, fifty-two in the third, and so on, the total number of premiums to be paid throughout the ten years will be 385; and, there being fifty-five claims of £100 each to be paid, an easy calculation brings us to 14·2857, being $\frac{1}{7}$ of £100, or £14 : 5 : 9 nearly, as the uniform annual premium to be paid by each member who enters on a year, that £100 may be paid to the representative of each on death.

The following table shows the working of the fund. The first column gives the year, the second the number of members who commence the year, that is the number of premiums to be paid for that year; the third the number of deaths in the year, that is the number of claims to be paid; the fourth the amount of premiums to be received at the commencement of each year, the fifth the amount to be paid in claims in that year, and the sixth the accumulated funds at the end of each year.

(1) Year.	(2) Members at commencement of year.	(3) Deaths in year.	(4) Premiums paid for year.	(5) Claims paid in year.	(6) Funds at end of year.
1	55	1	785·71	100	685·71
2	54	2	771·43	200	1257·14
3	52	3	742·86	300	1700·00
4	49	4	700·00	400	2000·00
5	45	5	642·86	500	2142·86
6	40	6	571·43	600	2114·29
7	34	7	485·71	700	1900·00
8	27	8	385·71	800	1485·71
9	19	9	271·43	900	857·14
10	10	10	142·86	1000	000·00

It will be noticed that the uniform premium, sometimes called the "level premium," of £14 : 5 : 9 per cent is, at the beginning, much in excess of £1 : 16 : 5, the premium for that year's risk, sometimes called the "natural premium," whereas, after a short time, the natural premium becomes much heavier than the level premium. Our hypothetical fund increases until the fifth year, when it attains its maximum, and then it is gradually drawn on to meet the excess of claims, until at the end of ten years, when all the members have died, the funds have entirely disappeared. This illustrates the purpose for which life assurance funds are created. If a life office were to close its doors to new business its funds would increase for many years, remaining for a short time at the maximum figure, and then would begin to be drawn upon, the drafts rapidly increasing in amount, until at last, with the death of the last life assured, the funds would be entirely exhausted.

It is assumed in the calculations of the level premium that the contract will remain in force for the whole duration of the life of the assured, that the assured will pay the premium regularly year by year, that the office will reserve and invest the difference between the premiums received and the amount actually necessitated by the risk incurred, and that on the death of the life assured the claim will be met. It often happens, however, that after a time the policy is no longer required, and in justice to the policy-holder a portion, at any rate, of the excess of premiums he has contributed should be returned to him. This is the surrender-value of the policy. In early days surrender-values were not granted, and the insurance offices reaped large profits from this source. For many years now, however, it has been the custom to grant liberal surrender-values, and this source of profit is a thing of the past. It is not usual to pay back the whole of the reserve value. The company has no option in respect of the continuance of the contract. If the policy-holder tenders the premium the company must receive it, and it is only on the motion of the policy-holder that the contract can be terminated. Manifestly he will be guided by his own interests in deciding whether to continue or surrender, and it is only fair to the other members, who elect to adhere to the bargain, that a portion of the reserve value should be kept in hand. It is, however, a matter of opinion what is a fair and proper allowance to make for cancelled policies, and the practice of the offices differs within moderate limits in this respect. Nevertheless, at the present day, all companies make a substantial allowance.

We have seen above that, for the purpose of solvency, a life company must retain large funds in hand. Were merely the mathematical or net premiums charged, and were it certain that the rate of mortality shown in the mortality table would accurately correspond with the actual event, the accumulations of the company would be exactly the amount of reserve required; but companies charge loaded premiums, and therefore the accumulations in a well-managed office are greater than the necessities of the case demand. It is, therefore, the custom to make periodical valuations. These are of too complicated a character to be discussed here, but briefly we may say that the object is to ascertain how much of the invested funds consists of the excess of premiums which must be set aside to provide for future risks, and how much is real surplus. When the surplus is ascertained, it may be divided according to the constitution of the company, and hence arise the bonuses to policy-holders, which are almost a universal feature of life assurance as carried on in the United Kingdom. The valuation shows what surplus cash is in hand. If the whole of that be allotted as a bonus to increase the sum assured, it is manifest that when the lives are young the same amount of cash will give a larger reversionary addition than when the lives become more advanced in age. Some offices adopt this course, and give a reversionary bonus which decreases as the policy grows older. This, however, is not a system which is very popular with the public, who do not understand the reasons for a decreasing bonus. With many offices, there-

fore, it is the practice, in the early days of the policy, not to divide the whole of the surplus that policy has created, but to retain part of it in hand, so that, later on, when the life has become older, there may be no necessity for reducing the periodical reversionary additions. Hence has arisen the custom of making the valuation of the office at a much lower rate of interest than that which will probably be realised, and here again we have an illustration of the effects of the operation of the law of increasing mortality. Did the mortality not increase with the age, the reversionary bonus would not cost more with the lapse of time, and there would be no need for making these specially great reserves. It thus appears that, in order fully to understand the finance of life assurance, an intimate knowledge of the complicated principles on which it is based is requisite. Space, however, forbids us from entering further upon this most interesting and important question here, but these brief explanations will suffice to show that knowledge and discretion are required to judge wisely of our insurance companies. They differ in essential principles from all other financial institutions, and must be measured by a completely different standard.

[Here only a few of the more important English works on life assurance can be mentioned. For further information consult catalogues of libraries of Institute of Actuaries in London, and of Faculty of Actuaries in Edinburgh.]

J. GRAUNT (*q.v.*) was one of the first English writers; A. DEMOIVRE (*q.v.*) expounded in his *Treatise of Annuities on Lives* (1725) his famous "Hypothesis for the Law of Human Mortality," which, before trustworthy mortality tables existed, was much used in calculating life contingencies. Dr. Richard PRICE published (1st ed. 1771) *Observations on Reversionary Payments*, containing the Northampton Table of Mortality, for many years employed by insurance offices in calculating their premiums and reserves, which, even at the present day, has not been entirely abandoned. Francis BAILY published *Doctrine of Life Annuities and Assurances* (1810); and Joshua Milne, *Treatise on the Valuation of Annuities and Assurances on Lives*, etc. (1815). This latter work contained the Carlisle Mortality Table, the first constructed on correct principles, and which immediately came into very general use. In 1825 Griffith Davies published a tract explaining the nature and use of commutation columns, and a few years later, after his death, his uncompleted *Treatise on Annuities* was published by his executors without date. Also in 1825 Benjamin Gompertz published in the *Philosophical Transactions* his remarkable exponential formula for the law of mortality, which was extended and improved many years later by William M. Makeham in the pages of the *Journal of the Institute of Actuaries*. David JONES'S work on the *Value of Annuities*, etc., appeared in 1844, until recently the principal text-book on the subject; and in 1849 Peter Gray published his *Tables and Formulæ*, an important volume, dealing principally with the construction of life assurance tables. Lastly, in 1887, the Institute of Actuaries issued its official *Text-Book* on life contingencies, by George King.

[Since the establishment in 1848 of the Institute of Actuaries, its journal has been the medium of publication of all important contributions to the science of life contingencies. The first number was issued in 1851, and it has appeared quarterly, with unfailing regularity, ever since. Many useful papers will also be found in the *Transactions of the Actuarial Society of Edinburgh*, commenced in 1863.] G. K.

INSURANCE, LIFE, LAW AND PRACTICE OF. The contract of life insurance is a contract under which, subject to the payment of an annual premium by the insured, the insurer undertakes on the death of the insured or some other specified person to pay a certain sum of money to the representative of the insured or, as the case may be, to the insured himself. Unlike the contract of fire or marine insurance, it is not a contract of indemnity in the strict sense, but the person who originally insures must, by virtue of 14 Geo. III. c. 48, have an insurable interest in the life of the person on whose death the payment is promised, and Lord Ellenborough in the well-known case of Godsall *v.* Boldero (2 Smith, Leading Cases) held that such interest must continue up to the time of the claims becoming due; but insurance companies, as a matter of practice, did not take advantage of this doctrine, which was subsequently overruled by the unanimous decision of the court of Exchequer Chamber in Dalby *v.* India and London Life Assurance Company (2 Smith, Leading Cases). According to the doctrine now governing the subject, the existence of an interest at the time of the insurance is sufficient. The question as to the nature of the interest which is required to make a life insurance effective has been frequently before the courts. A creditor has an insurable interest in his debtor's life; a tenant holding a lease terminable at the end of a life has an insurable interest in such life, and every man is deemed to have an unlimited insurable interest in his or his wife's, and every woman in her or her husband's life. A parent cannot insure the life of a child without having a pecuniary interest in the child's life, but a child's burial expenses may be insured. It is very doubtful whether insurances of this class should be permitted, the temptation to crime resulting being so great. The interest in a life policy may be assigned to a purchaser or donee, and it is provided by the Policies of Assurance Act 1867, that this may be done either by indorsement on the policy or by a separate instrument, but an assignment is not effective for all purposes until a written notice of its date and purport has been given to the insurance company.

As a general rule the proceeds of a policy on the life of the insured, unless assigned during his lifetime, form part of his estate and are

therefore subject to the payment of his debts. It is, however, possible since the date of the Married Women's Property Act of 1882 to take out a policy for the benefit of the wife or husband of the insured or of her or of his children, by which means the person for whose benefit the insurance has been effected takes the insurance money without any deduction in respect of debts unless the creditors of the originator of the policy can prove that his object was to defeat their claims, in which case they are entitled to the payment of a sum equal to the aggregate sum of the premiums paid in respect of the policy.

An insurance policy becomes void if the insured life is terminated by virtue of a judicial sentence (Amicable Assurance Society *v.* Bolland (Fauntleroy's Case), 4 Bligh, N. S. 194) and probably also if the life of the insured is terminated by his own act (see Horn *v.* Anglo-Australian Life Assurance Company, 30 ; Law Journal (Chancery, 511) if he was of sound mind at the time of committing suicide. It is, however, usual to insert express conditions in the policy, so as to provide against events of the nature described, and which in most cases save the rights of assignees for value. Mrs. Maybrick's case raised the question whether a policy taken out by a husband for the benefit of his wife becomes void if the wife kills the husband. It was held that in such a case the trust in favour of the wife must fail, but that the policy is not avoided, and forms part of the husband's estate (Cleaver *v.* Mutual Association [1892], 1 Q. B., 147).

It is frequently stated in the forms of proposal for life insurance that certain statements to be made by the person whose life is to be insured referring to his health or to the nature of his occupation or possible changes of residence, are to form the basis of the contract between the insured and the insurance company. In such a case the untruth of any such statement invalidates the policy (Hambrough *v.* Mutual Company, Weekly Notes, 1895, p. 18). Insurance companies have, however, frequently begun to restrict the conditions as much as possible so as to make their policies practically indefeasible.

The competition between insurance companies has also produced a great many variations in the scheme of assurance intended to attract customers. It is usual from time to time to grant additions to the sums insured, dependent upon the profits of the company as ascertained on the taking of the periodical valuations. Persons who are willing to forfeit the chance of such bonuses can insure at lower premiums ; or the ordinary premium is paid at the commencement, and a reduction corresponding to the bonus is made whenever bonuses are declared. Some companies also accept reduced premiums at the commencement, so as to attract persons with small but increasing incomes. Persons who do not like to be burdened with the payment of the premiums during the whole of their life may also, by paying a higher premium at the beginning, secure a certain sum on death by the payment of a limited number of premiums. Thus a person aged 25 may insure the payment of £100 on his death by making 10 annual payments of £4 : 7s., or 15 of £3 : 4 : 6, or 20 of £2 : 13 : 8, or 25 of £2 : 7 : 6.[1] A person who is desirous of terminating his payments need not forfeit his policy if he has paid the premiums during a certain number of years (2 or 3 years as a general rule), but he may, on giving notice in proper time, receive an immediate cash payment which is called the "surrender value," or he may receive a "fully-paid policy" for a sum payable at his death. Insurance companies do not generally state the surrender values beforehand, but they frequently guarantee a minimum surrender value, *e.g.* one third of the total premiums paid, and as a rule, pay much higher sums than the guaranteed minima. Thus one company, in the case of a person entered at the age of 30, now allows for a policy for £100, the annual premium being £2 : 9 : 4, the sum of £4 : 3s. after 5 years ; £8 : 19s. after 10 years ; £21 : 7s. after 20 years ; £36 : 17s. after 30 years ; £53 : 12s. after 40 years. The same company guarantees fully-paid policies for an amount equal to the aggregate of the premiums paid. Policies are also frequently granted for securing sums payable at certain ages or on death, if the insured dies before reaching the age. These assurances which are called endowment assurances are useful for several purposes. Thus, a father who wishes to secure a certain sum for the advancement of a child in life, may do so by paying a corresponding annual sum. In the event of the child's death before attaining 21, the company retains the premiums, but it may also be arranged that the premiums are to be returned, in which case they are of course higher. Thus, an annual premium of £3 : 1 : 8 paid from the birth of the child, will secure the payment of £100 on such child attaining the age of 21 ; but if the return of the premiums on death is stipulated for, the premium is raised to £3 : 10 : 4 annually. Another purpose for which endowment insurances are taken out is to provide for retirement from a profitable occupation at a certain age. It is possible for a person 30 years old to secure the payment of £100 on reaching 60 years, by paying an annual sum of £3 : 7 : 6 ; if the payment is to be made on attaining 65 years, the premium is reduced to £2 : 19 : 6.

[1] The figures here given are taken from the tables of various insurance companies, and each case of course applies to the company only from whose tables they have been taken, but they illustrate the general principle.

In case of death before attaining the age in question, the £100 are paid in either case. It is also possible to secure an annual sum payable from a certain age during life by paying an annual premium up to the time of reaching that age. Thus a person aged 30, by paying an annual sum of £2 : 1 : 7, may secure an annuity of £10 payable from the time of his reaching the age of 60 during his life ; and if the annuity is to commence when the insured reaches 65 the premium is reduced to £1 : 8s.

The ordinary annuity business of an insurance company enables a person, by paying a lump sum, to secure a yearly income during life, either immediately or from some later date, —this is called a deferred annuity. This annuity business is in reality the exact opposite of the life insurance business ; a person insuring his life deprives himself of income in order to increase his estate on his death, whilst an annuitant reduces his estate on his death in order to increase his income. The annuity business is also a sort of protection to insurance companies inasmuch as a miscalculation in the tables of mortality which would produce a loss in one department would produce a corresponding gain in the other. Insurance companies have also provided means for facilitating the payment of estate duties. These duties being payable before probate can be granted, cannot, in the first instance, be paid out of the estate of the deceased ; the difficulty is overcome by the insurance company, in return for an annual premium, undertaking to pay estate duty up to a certain amount, which amount is paid direct to the revenue authorities, and can therefore be paid without risk to the company, although the authority of the personal representatives has not as yet been definitely confirmed by probate. There are many other ways in which insurance companies have tried to meet the various contingencies and risks of pecuniary loss which may occur, and new methods are constantly invented to do this in a more efficient and economical way.

The solidity and solvency of insurance companies generally, notwithstanding the complicated nature of their transactions, supply a most convincing testimonial, not only to the prudence and capability of the persons concerned in their management, but also to the truth of the doctrine of probabilities which is the basis of their operations. There is, however, one danger which recent events have made more serious, although it does not seem to have been generally recognised as yet. This is the diminution in the rate of interest in all first-class investments, which of course must materially affect the income whilst not decreasing their expenditure. This makes it all the more necessary to provide some means by which the public can be assured of the solvency of insurance companies. The advertisements which make a large parade of the total sum of the invested funds ought not to be taken for more than what they are worth, their sufficiency depends entirely on the extent of the liabilities, as to which no idea can be formed by anybody except practised experts, and the public cannot attach any importance to statements not certified by such experts. The Life Assurance Companies Acts, 1870-1872, have recognised this want, and provided that every insurance company must, at intervals of at least five years, obtain actuarial reports as to their financial position, and prepare statements as to their life assurance and annuity business on the basis of such report, which report and statement must be submitted to the board of trade. It is also provided that a separate account should be kept of all receipts in respect of life assurance and annuities, and that all such receipts should be carried to a separate fund, which is to be as absolutely the security of the life policyholders and annuitants as though it belonged to a separate company carrying on no other business except life insurance and annuity business. It is also required that revenue accounts and balance-sheets containing a number of prescribed details should be prepared annually and deposited with the board of trade. These balance-sheets must contain a detailed list of the investments under prescribed heads. Insurance companies must also, on starting business, deposit a sum of £20,000, which sum may not be withdrawn until the insurance fund has reached £40,000. Means are thus provided for the public to form their own opinion, but as the least prudent companies are generally the most active in touting for business, occasional losses cannot be prevented, though up to the present they have been comparatively rare.

[See arts. on ANNUITY ; TONTINE. For law of life insurance : see Bunyon, *Law of Life Insurance*, 3rd ed., 1892.—Crawley, *Law of Life Insurance*, 1882.—Porter, *Law of Insurance*, 2nd ed., 1887.]

E. S.

INSURANCE, MARINE. Marine insurance may be defined as a contract whereby the insurer, in consideration of a premium, undertakes to indemnify the assured, in manner and to the extent thereby agreed, against losses caused by perils incidental to marine navigation. The informal note of the contract, which is drawn up when it is entered into, is called the "slip." The formal instrument, which is afterwards drawn up from the slip, is called a "marine policy." The liability of the insurer under his contract is called, as also in the case of other insurance, the "risk."

Though marine insurance is essentially a contract of indemnity, it is not a formally perfect indemnity, because, for example, in the case of

a valued policy, the sum recoverable may exceed the real loss, while, in the case of an unvalued policy, the sum recoverable may fall short of the real loss, as the amount of the loss is then estimated according to certain arbitrary rules. But this depends rather on inveterate adherence to certain traditional forms of policy than on the nature of the contract itself; for the parties may make any stipulation they please.

The peculiar incidents of marine insurance all flow logically from its character as a contract of indemnity. In the first place it is a contract *uberrimæ fidei*. Hence each party must spontaneously disclose to the other all facts relating to the adventure which are not within the actual or presumed knowledge of the other party. In the second place the assured must have a pecuniary interest in the subject-matter insured, otherwise insurance would degenerate from a contract of indemnity into a mere gaming contract. Thirdly, when the insurer pays on the footing of a total loss, the right of subrogation accrues to him, that is to say, he acquires all rights and remedies of the assured in respect to anything that may remain of the subject-matter insured. Moreover, if the assured elects to treat a constructive total loss as an actual total loss, he can only do so by giving notice of abandonment to the insurer, if there be anything of value to abandon. Fourthly, if the subject matter insured has never been imperilled, or if for any other reason, not due to the fault of the assured, the risk has never attached, the assured is entitled to a return of the premium.

[Arnould on *Marine Insurance*, 6th ed., and M'Arthur on *Marine Insurance*, 2nd ed. See AVERAGE (MARITIME); BOTTOMRY, LOAN ON.]

M. D. C.

INSURANCE, MUTUAL. Life and fire insurance are sometimes carried on by companies formed on a mutual principle. Marine insurance, ordinarily and in its origin, is a contract whereby one person, in consideration of a premium, undertakes to indemnify another person against the losses incidental to marine navigation. But a custom has sprung up in modern times whereby associations of ship-owners become their own insurers. The members of the association mutually guarantee each other against marine losses. If the members number more than twenty, they must register under the Companies Acts in order to constitute a legal body. The individual guarantees take the place of the premium, and the details of the contract are of course subject to the rules and regulations of the particular association. Subject to these qualifications a contract of mutual insurance is on the same legal footing as an ordinary contract of insurance with an underwriter or insurance company (see *Arnould on Marine Insurance*, ed. 6, p. 152). M. D. C.

INSURANCE, STATE (GERMANY).—*History*. The compulsory state insurance of Germany grew naturally out of philosophic conceptions of the state that date from the early years of this century. In the voluminous discussion which preceded the sickness and accident laws, in imperial rescripts, in several of Prince Bismarck's speeches, in the *Begründung* of the accident law, we find the idea constantly repeated that the state has wide and various, as well as definite and positive, Christian duties, especially toward the weaker members of society. No one doubts LASSALLE'S influence in shaping much social legislation in Germany. He has told us what he owes to two books of FICHTE, one written in 1796, the other in 1800. SISMONDI'S work published in 1819 is frequently quoted by those who acted most powerfully upon the preliminary discussion out of which the laws sprang. Sismondi returned from a journey among French manufacturing centres with the same feelings that made Karl Marlo a socialist. Sismondi wrote, "Nous regardons le gouvernement comme devant être le protecteur du faible contre le fort," etc. When Prof. Winkelblech (Karl Marlo) came back from his journey, he not only wrote passionately in this same spirit, but he conceived and clearly expressed the thought of a remedy in universal compulsory insurance. In his *Organisation der Arbeit* (probably written before 1850), vol. ii. p. 328 *et seq.*, he maintains, in a criticism of the liberal school, that no remedy for social evils is adequate save obligatory insurance. Dr. Schaeffle, who is often called the father of this system, was influenced directly and powerfully by Winkelblech.

Even before the Franco-Prussian war the thought which was later elaborated in *Der Korporation-Hülfskassenzwang* appears to have occurred to Schaeffle. Both the theory of the state and the theory of compulsory insurance were therefore waiting upon occasion before the legislation came. After the founding of the *Verein für Socialpolitik* in 1872, the idea of the insurance scheme was kept before the public mind, especially through writings of Wagner, Schmoller, and other *Kathedersocialisten*. Feb. 12, 1879, came the first imperial word from the throne. Another followed in Feb. 1881, and in Nov. of the same year the imperial message was sent forth. From 1874 the extraordinary growth of the social democracy had also influenced many of the conservatives to seek a remedy in compulsory insurance. To this end an agitation was begun in the Reichstag 1878. The ministry of 1879 announced "the government accepts the theory that the working man who has become incapacitated through age or in consequence of his work should not be a burden upon the public," etc. The two attempts upon the emperor's life in 1878, while they led to strong repressive measures against the socialists, gave rise also to positive reforms. At the opening of the Reichstag in 1879 the emperor referred directly to the anti-socialist

law, adding an earnest wish that the house would co-operate in a series of positive social reforms initiated by the state. This historic relation to socialism is of signal importance in any attempt to appreciate or criticise this legislation.

Insurance against Sickness.—The first law (against sickness) passed by a powerful majority June 15, 1883. Sick funds or associations already centuries old were taken as a basis. These older *Knappschaftskassen* were even compulsory among Prussian miners as early as 1854. The law of 1883 makes this compulsion universal. To give elasticity and freedom seven forms of associations are established.

(1) Local sick fund, managed by townships for different branches of trade. (2) Factory funds. (3) Building funds. (4) Mining funds. (5) Trade or gild funds. (6) Free funds that may be managed with greater independence, being only obliged to do at least as much for the labourer as the law prescribes. (7) Communal fund, including those who do not fall under either of the above funds. Both payments and receipts under these seven associations differ in details. The law does not fix any weekly amounts, it is left to each insurance office to fix them, see § 20 of the law. Generally the sick receive relief during 13 weeks—(1) for medical treatment, including medicines and appliances, (2) in case of complete disability, at least one half the average wage of the place in which he works. As a precaution the pay begins on the third day of sickness. The sick may be taken to a hospital and half his wage given to those dependent upon him. (3) An amount at death for burial expenses equal to twenty days' wage. (4) Women at time of childbirth are supported during three weeks. This insurance is supposed to represent a money value very nearly $\frac{2}{3}$ the average wage. The labourer himself pays $\frac{2}{3}$ and the employer $\frac{1}{3}$ of the amount, although, as in the old age and invalidity law, many employers pay both contributions, thus adding directly to the wage. Recent statistics show nearly 8,000,000 insured, and more than 100,000,000 marks go yearly to sick relief alone. It is estimated that the employer pays 3·69 marks *per insured;* the employed, 10·09 marks; that the relief averages 11·77; the management and costs, 0·81 marks; and the funds, 9·72. Sickness averages 15·7 days at an expense of 32·41 marks. The relief per 100 insured (sick persons), male 37·4 marks, female 31·8, total 36·3. Relief per 100 marks for sick pay, 47·91; doctor, 19·97; medicine, 16·04; hospital, 10·49; burial, 4·28; childbed, 1·31.

The law against *Accidents* passed 6th July 1884, came into operation 1st October 1885. Several amendments extend the principle practically to the entire wage-earning class, a part of this amount to the injured and to his survivors. Both sick and accident laws will eventually insure nearly 17,000,000 of people. The proposed extension of the law to widows, orphans, and house industry will come into effect as early as practicable. Even if the sickness is caused by accident, the sick fund must bear the burden until the beginning of the fourteenth week. This throws a large proportion of lesser hurts wholly on to the sick funds. Help is rendered under the accident law even if the accident is caused by sheer negligence of the labourer. Wilful self-injury alone is excepted. The responsibility of insuring the labourer is wholly with the employer. The simple fact that one is a wage-earner alone constitutes one a member of an insurance society. Small officials with salary below 2000 marks (£100) yearly are included. The pecuniary burden also is thrown wholly on the employers. The principle of *le risque professionnel* is fully accepted, it being supposed that employers, under such definite responsibility, would guard against accident costs for which they alone have to pay.[1] The management is through trade associations of employers with mutual liability. Premiums are based upon wages, and are determined yearly by estimates of wage or salary during the previous year, and also upon the extent and kind of risk to which the given trade subjects the labourer. Elaborate schedules of danger are used to determine the risks in the different industries. From the end of the thirteenth week of incapacity the injured receives (paid through the post office) while absent from work, two-thirds his usual wage. If only partly incapacitated medical attendance is supplied, and in case of death, a sum equal to twenty times the daily wage goes to the family for funeral expenses, and an annuity to the widow; one-fifth of the husband's earnings to each child till the fifteenth year, 15 per cent of such earnings, or one-fifth, if the child is motherless. The entire annuity may in no case exceed three-fifths of the father's earnings. A board of arbitration composed of employers and representatives decide disputed questions, the imperial insurance bureau in all cases having final judgment. This higher commission is composed of three permanent members including the chairman. These are appointed from proposals of the Bundesrath, by the emperor, and hold office for life. Four non-permanent members are chosen by the Bundesrath, two by the trade associations, and

[1] Of the delicate question of personal responsibility for accidents, it should be said that an employer who causes an accident, even by negligence, is liable to the injured for an *excess* of the award above what the law gives. They must be responsible to the trade association, or sick fund, which pays in first instance, for the *full* amount. Other persons are liable for the whole damage. The various charitable unions have still the same duties as before, though their expenses may be paid by the trade association. So that compensation for industrial injuries becomes a certainty. The certainty is of a nature that has almost wholly done away with the constant litigation under the employers' liability law of 1871, and is considered in this respect throughout Germany an improvement of first importance.

two by representatives of the workmen. The non-permanent members hold office four years. The imperial bureau can command books, witnesses, correspondence, and all documents necessary to the decision of any question in dispute. The expenses of this bureau are borne by the empire. Its accounts are laid yearly before the Reichstag. In 1890 there were 64 industrial trade associations, and 48 agricultural associations. These include 390,622 trades classed as industrial, with 4,843,621 separate agricultural interests, 4,926,672 and 8,088,698 persons are included in these respective interests, *i.e.* above 5,000,000 of businesses (Betriebe) with more than 12,000,000 of insured persons. The entire outgo of these associations exceeds 36,000,000 marks with reserve funds of 55,000,000. The law was extended to the carrying traffic in May 1885. Here the empire or the state has direct control instead of the trade association. The extension of the law (15th March 1886) to military officers and soldiers has rather to do with pension than insurance legislation. May 5, 1886, the law was applied to agriculture and forestry, in which the work is of such uniform character that the institutions could conform to state, provincial, or county lines. Calculations are not here made upon the wages of the injured but upon an average rate of agricultural wages. Direct taxes like the land tax may be made the basis of assessment. The building and marine accident law passed in 1887. The most important change here is that, in the "deep building"[1] a single trade association for the empire was formed, and the method by assessment gave place to a charge on capital[2] (Umlageverfahren durch Kapitaldeckungsverfahren). To estimate results properly, it should be seen that the lighter accidents—nearly 90 per cent—come under the sick law. [The labourers really contribute to the *accident* fund *inversely* to the employers' contribution to the *sick* fund, *i.e.* the labourers bear 11 per cent of the accident burdens while the employers bear 33⅓ per cent of the sick-fund burdens. These facts gave the basis for common representation upon the arbitration of both employer and employed.] The cost per accident is about 200 marks. Compensation per 100 marks 68·66 marks to the injured, 21·35 to survivors, 8·61 for cure, 1·38 for burial. In 1890 the employers paid, per person insured, 2·98 marks, expenses of compensation, 1·40, management, 0·40, funds, 5·52. It is significant that the most skilled physicians are more and more called for all serious cases. This is unquestionably setting a higher standard of health restoration both in cities and country. Fifty-six of the sixty-four trade associations have already adopted measures of *prevention* against accidents. It has been found that the best skill and elaborate preventive methods pay in the long run.

The last law—invalidity and old age—dates from 22nd June 1889. It was early conceived to be necessary for the completion of the scheme, The two previous laws passed with strong majorities, the last with a small hesitating one. Its first distinction from the other laws is that it applies not to any special business or branches of any trade, but to the whole mass of the "working population," so long as wages do not reach £100 yearly. At least 12,000,000 of workers will fall under this form of insurance. Beginning with the sixteenth year, men and women are classified according to their wages in four different classes.

Class 1, up to 350 marks yearly, for which 14 pfennigs are paid weekly.
Class 2, up to 550 marks yearly, for which 20 pfennigs are paid weekly.
Class 3, up to 850 marks yearly, for which 24 pfennigs are paid weekly.
Class 4, above 850 marks yearly, for which 30 pfennigs are paid weekly.

As payments are not made when the insured is out of work (unless from free choice) only forty-seven weeks are "paying time" in the year. This allows for sickness and idle time.

The contributions during the year (forty-seven weeks) would thus amount to—

3s. 3½d.	for	class	1st.
4s. 8½d.	,,	,,	2nd.
5s. 7½d.	,,	,,	3rd.
7s.	,,	,,	4th.

These payments are made half by employers, half by the labourers, the state adding to each paid annuity a yearly subsidy of 50 marks. The annuity is due at the completion of the seventieth year. It is distinctly the purpose of this law to give only enough to guard the insured against actual suffering. It is paid, however, even if the insured is earning full wages. Thirty years of contribution ($47 \times 30 = 1410$ weeks) give claim to the pension. If no time is lost, twenty-seven years suffice to secure the annuity. No separate contributions are necessary for the old-age pension, as this is covered by the invalid insurance claims. If one who is drawing old-age pension secures invalid pension, the former is discontinued. All who have contributed five years, and are permanently disabled, receive the invalid pension at whatever age the disability falls. If an accident disable him, he draws invalid pension, only in case he does not fall under the accident law. "Invalidism," under the third law, is supposed to cover only permanent disablement. This dis-

[1] "Tiefbau" is the building of bridges etc. as distinguished from houses "hochbau."

[2] The expression "charge on capital" requires some explanation. The difference between "Umlageverfahren" and "Kapitaldeckungsverfahren" is this:—According to the first-named system assessments are made in each year to cover the losses of the previous year. According to the second system (which is the ordinary insurance system), fixed premiums are paid out of which reserve funds are formed for the payment of losses.

ability is defined as unfitness to earn one-fourth the usual wage. If thereafter the labourer becomes able to earn more than this sum, his payments may be in part or wholly withdrawn. It is estimated that ten times as many persons will draw invalid pensions as those that draw old-age pensions. It is expected that eventually a sum of 250,000,000 of marks yearly will go alone for invalid pensions. The annuities from incapacity are reckoned on a basis of sixty marks, increasing in proportion to the contribution.

Class (1)	350 marks	2 pfgs. ($8\frac{1}{3}$ pfngs. = 1d.)
,, (2)	550 ,,	6 ,,
,, (3)	850 ,,	9 ,,
,, (4)	850+,,	13 ,,

One who had for example made 100 payments in class (1), or 100×2 pfg. = 200 pfgs. ; 150 payments in class (2), or 150×6 pfg. = 900 pfgs. ; 50 payments in class (3), or 50×9 pfg. = 450 pfgs. ; 300 payments in class (4), 300×13 pfg. = 3900 pfgs.

Here the insured who had paid during the 600 weeks would receive $2{\cdot}00 + 9{\cdot}00 + 4{\cdot}50 + 39{\cdot}00 =$ m. $54{\cdot}50$. The state adds 50 m. The minimum basal annuity is 60 m. If he had had 40 weeks' sickness and served 10 weeks of military duty, for which time the state pays, we have the following result to add to the above 600 weeks' payment in the four classes.

	Marks
1. By the state	50·00
2. Basal annuity	60·00
3. Affixed stamps in the 4 classes during 600 weeks . .	54·50
40 weeks' sickness 40×6 [1] . .	2·40
Military service 10×6 . . .	0·60
	167·50

This amount (167·50 marks) represents the invalid pension, which may at any time, and in any case, be reckoned simply as above shown.

To secure the old-age pension, contributions must have been made thirty years (30×47). As this would have caused great injustice to those approaching the seventieth year, it was decided to give the pension earlier to those who, at the time the law took effect, had passed the fortieth year of age. One, for example, who had in 1891 reached the age of forty-seven, would have, instead of 30×47, only 23×47 weeks to contribute, *i.e.* his years for contributing would be lessened by as many as he had already passed the fortieth year. One who was nearly seventy would have only to show that he had worked regularly 141 weeks before the law came into effect in 1891.

Here the 1st wage class has a pension of			4 pfg.
,,	2nd	,, ,,	6 ,,
,,	3rd	,, ,,	8 ,,
,,	4th	,, ,,	10 ,,

If a man completing his seventieth year has paid during 1800 weeks (500 in 1st class, 400 in 3rd class, 900 in 4th class), and had been sick 50 weeks, and served 40 weeks as soldier (or 90 weeks under 2nd class), his account would stand as follows :—

900	in IV. Class
400	,, III. ,,
90	,, II. ,,
20	,, I. ,,
1410	weeks.

or the exact number of weeks the law demands. As only 1410 are required, 480 of the 500 in 1st class are omitted.

We have thus—

		Marks
(1)	State payment	= 50·00
(2)	900 ,, IV. class at 10 pfg.	= 90·00
(3)	400 ,, III. ,, 8 ,,	= 32·00
(4)	90 ,, II. ,, 6 ,,	= 5·40
(5)	20 ,, I. ,, 4 ,,	= 0·80
		178·20

as the pension.

In case of any sickness so serious as to make permanent disability probable, the insurance authorities may secure such extra medical attention as they see fit, though the insured can make no such claim. The payments are made in stamps, to be had at every post office. The stamps are affixed to a card containing fifty-two spaces. The cost of the stamps is 14, 20, 24, and 30 pfg., according to the wages received. These payments are made by the master, who is supposed to deduct one half the sum from the weekly wage. As a fact it is more and more common for the employer to pay the whole for the more personal service, as the deduction is found to create dissatisfaction, especially with the servant class. In Baden the "sticking," which has caused so much unpleasantness in Germany, is done by the officials. The employer pays, to an official who calls at the door, a lump sum. When the card is filled, a record of it is made at the office, and a new one issued, so marked as to show where the previous card may be found. To women who marry half the sum of their actual contribution is restored without interest, and to the widows and dependants of men who die before receiving the pension, provided contributions have been made for at least five years. The actual burden to the state of paying for time of military service, and for its officials, is estimated at 8,000,000 marks yearly. This does not include the extra burden upon the post office, nor the vast service that is rendered without compensation. It is claimed that the costs have not thus far risen above the estimates. In 1891, 132,917 claims for old-age pensions were allowed costing 16·63 millions of marks; 6·65 millions fell to the government's share. The average pension was 125·08 marks.

The advantages to the labourers are said to be far greater than any which private companies

[1] Time of sickness and military service is reckoned as in second class, *i.e.* 6 pfgs.

could give, as the insured get the state subsidy and the contributions of employers without cost to themselves. After five years of contributions, the yearly invalidity pension is five and a half times greater than all the contributions of the insured. In the first year (1891) 132,917 annuities were given (15,306,754 marks), and nearly 100,000,000 marks received for stamps.

When the "stability stage," *Beharrungszustand*, is reached, about 1,500,000 persons, in a population of 50,000,000, will receive benefits equal to 330,000,000 marks annuities (£16,500,000). The three laws together will eventually distribute annually about 500,000,000 marks (£25,000,000).

[See *Special Report Commissioner of Labour*, U.S.A., 1894, by John Graham Brooks. Two Bills which are intended to effect the compulsory insurance of the great bulk of the wage-earning classes of Switzerland against sickness and accident have been lately issued, Sept. 1895.] J. G. B.

INSURANCE AGAINST SICKNESS. See INSURANCE, STATE.

INSURANCE THEORY IN TAXATION. See TAXATION.

INTEGRAL AND DIFFERENTIAL CALCULUS. The integral calculus provides a method of great importance in all branches of science which require the aid of mathematics, enabling us to deal satisfactorily with variable quantities, such as are far beyond the reach of the ordinary methods of arithmetic and algebra. Its object is to provide a means of adding together quantities which are so small as to be individually imperceptible, but so numerous that their sum is a perceptible quantity. This can only be done in one class of cases, where the quantities are the small increments by which a variable quantity increases from moment to moment. The method of procedure is to compare the small increments of an unknown quantity with small increments of a quantity upon which the changes of the first quantity depend. The change resulting from the united effect of these small increments can then be deduced from the known quantity by the process of *integration*, which is, as its name implies, the fundamental operation of the calculus, thus:— Let x and y be two variable quantities, which are not independent, so that if x varies y must vary also. Let x change to $x+\Delta x$ (where Δx denotes a small increase in the value of x) and y in consequence changes to $y+\Delta y$; then the increase of y is to the increase of x in the ratio $\Delta y : \Delta x$. Now the differential calculus tells us that when Δy and Δx are sufficiently diminished, the fraction $\Delta y/\Delta x$ approaches a definite limit which can always be found, and is denoted by the expression dy/dx: this expression is called the differential coefficient of y with respect to x, and the finding of it is the fundamental operation of the differential calculus. If, then, we know the ratio L of a small increment of an unknown quantity y to the corresponding increment of a known quantity x, in the notation of the differential calculus $dy/dx = \mathrm{L}$. In the notation of the integral calculus $\int_{x_0}^{x_1} \mathrm{L}\ dx$ measures the amount by which Y has increased while x has changed from x_0 to x_1; x_0 and x_1 are called the limits of the integral. Suppose we know the value of y, say b, corresponding to any particular value, say a, of x, then $y = b + \int_a^x \mathrm{L}\ dx$ gives the general value of y in terms of x. The symbol $\int$ was originally an S standing for sum; $\int \mathrm{L}\ dx$ meant the sum of the quantities obtained by multiplying the increments of x by the variable quantity L.

The differential calculus provides a method of comparing quantities which are so small as to be individually imperceptible, but bear to each other a finite ratio. *Differentiation* is the process of finding this ratio when the small quantities are the increments by which two quantities, whose variations are mutually dependent, increase from moment to moment. Suppose the magnitude of a variable quantity y depends upon that of another variable x: then y is called a function of x. If x be increased by a small quantity Δx, y will be increased correspondingly by a small quantity Δy. The fraction $\Delta y/\Delta x$, as Δx is continually diminished, approaches a certain definite limit denoted by dy/dx and called the differential coefficient of y with respect to x. Of course the quantity dy/dx is a function of x, so that it can be treated in the same way as y has been: the expression $d(dy/dx)/dx$ or d^2y/dx^2 is called the second differential coefficient of y with respect to x. This process may be continued *ad infinitum*. It is as an introduction to the higher branches of mathematics that the differential calculus is valuable; while it can very seldom be employed alone for the direct elucidation of a problem, without it, higher mathematics could not be employed at all.

The following example is taken from Marshall's *Principles of Economics*, vol. i. appendix note 1. Let h be a pleasure of which the probability is p, and which will occur if at all at a time distant t: let r be the rate of interest per unit, which must be added to present pleasures before comparing them to future, and let $\mathrm{R} = 1 + r$; then the present value of the pleasure is $ph\ \mathrm{R}^{-t}$. If ω be the probability that a person will derive an element of happiness Δh, from the possession of say a piano in the element of time Δt, then the present value of the piano to him is $\int^t \omega \mathrm{R}\ \frac{dh}{dt}\ dt$. If we are to include all the happiness that results from the event at whatever distance of time, we must make the upper limit of the integral infinity. The same

appendix contains many examples of the use of the calculus in economic reasoning.

[The ordinary text books in use are those of Todhunter, Williamson, and Edwards, on the *Differential*, and Todhunter and Williamson on the *Integral* calculus.—Greenhill, *Differential and Integral Calculus*, gives a very rapid insight into the methods and capabilities of the calculus, but is very difficult.—Wicksteed, *Alphabet of Economic Science*.] A. E. S.

INTENSIVE CULTIVATION means the cultivation of the soil by agriculturists who use artificial means to increase its natural fertility. It is the only practicable method of cultivating a fixed plot of land, and it is the opposite of the "extensive" cultivation of nomad farmers who "arva per annos mutant et superest ager," Tacitus, *Germ.* 26 (comp. Horace, *O.*, III. xxiv. 14; Cæsar, *B. G.*, iv. 1; Marshall's abstract of the reports to the Board of Agriculture, Midlands, p. 17), or where each, like the Yorkshire farmer a century ago, "every year . . . ploughs up a fresh part of his sheepwalk to take a crop or two, and then lets it lie fifteen or twenty years" (A. Young's *Northern Tour*, ii. 14). Pastoral methods leaven unscientific agriculture. The application of science, at first to prevent exhaustion of the soil, characterises non-nomad or intensive agriculture. This expression accordingly means scientific cultivation.

Scientific cultivation includes—(1) the rotation of crops on a double, triple, or quadruple system. The double system is described in Virgil's *Georgics*, i. 73, and in A. Young's *Political Essays*, p. 153. The latter writes (1772), "It is in some parts of England, and in many of France, the practice to divide a farm into two parts; half every year sown with wheat and the other half fallow." This double or convertible system only differs in degree from that of the Yorkshire farmer referred to. The triple system was introduced into England in Henry III.'s reign, the quadruple by Lord Townshend last century (Prothero's *Pioneers and Progress of English Farming*, pp. 4, 42). (2) Drainage had its first scientific English exponent in 1649, its latest in 1834 (*ib.* pp. 97, 249). (3) Spade husbandry was advocated by Sir H. Platte, "author of *Adam's Arts Revived*" ("*Compleat Husbandman*," S. Hartlib, p. 6), in 1601. (4) As for manuring, marling, and liming, the first was an incident of mediæval villein tenures, the last two are devices of peculiarly English origin (Fitzherbert's *Book of Husbandry*, ed. Skeat, p. 134; cp. Sir R. Weston's "We have lime and marl of which they know not the use," *Brabant Husbandry*, p. 4). (5) Bones were introduced in 1772, and their use soon made general by Coke of Holkham. (6) Nitrates date from 1839; then came guano; then machinery. Discoveries have ceased since 1851, according to Sir J. Caird (Ward's *Reign of Queen Victoria*, vol. ii.). As for results, Sir J. Lawes's experiments at Rothamsted, annually detailed in the *Royal Agricultural Journal*, show how wheat can be grown for fifty consecutive years (cp. Prout's *Profitable Clay-farming*), and that properly-dressed grass-land yields two or three times as much as undressed grass-land (Caird's *Landed Interest*, pp. 24 and 39), agricultural thus in its turn reacting on and leavening pastoral methods.

Political economists base upon intensive cultivation—(1) a justification of property in land. These processes, they say, "alter" land, make the useless useful, and increase land qualitatively if not quantitatively, thus making it like any other commodity (Mill's *Pol. Econ.*, ii. 2, 5; Laveleye's *Primitive Property*). (2) Or they argue for security to the capitalist-cultivator: thus improving-leases of twenty-one years were recommended by Sir R. Weston in the 17th, Lord Townshend and Mr. Coke in the 18th century, and now by Sir J. Caird on these grounds. (3) Those who advocate peasant proprietorship as the best stimulus for intensive cultivation, quote A. Young's "the magic of property turns sand to gold"; "give a man secure possession of a bleak rock and he will turn it into a garden; give him a nine years' lease of a garden and he will convert it into a desert" (*Travels in France, 1787, 30th July, 7th November*)—remarks elicited from a partizan witness by the effects of peasant proprietorship in Flanders. (4) Intensive cultivation doubtless illustrates the law of diminishing or limited returns (see J. H. Hollander, The Concept of Marginal Rent, *Quart. Jour. of Econs.* Jan. 1895; S. N. Patten's *Premisses of Pol. Econ.*, ch. vi.; and Sidgwick's *Pol. Econ.*, bk. ii. ch. vii., note); and the principle of specialising growth to soil illustrates an opposite tendency (Carey's *Principles of Social Science*, i. 106, 107; cp. Mill's *Pol. Econ.*, bk. i. ch. xii. 3). The first should not therefore be pursued to the exclusion of the second principle—this is probably the meaning of Mr. Prothero's "Agriculture cannot hold its own by intension against extension" (p. 123). Sir J. Caird, however, discusses a case in which reliance would and could be placed on the first as a temporary substitute for the second principle, viz. supposing war cut us off from foreign supplies (*Landed Interest*, pp. 19 and 20).

J. D. R.

INTERCURSUS MAGNUS, or (Treaty of) Great Intercourse, was the name given by contemporaries to the treaty of 1496 between Henry VII. and the Archduke Philip, re-establishing trading relations between England and the Netherlands. It indicates no fundamental change of policy on either side, and did little more than restore earlier conditions and customs. The joy with which it was received, and the

designation given to it, are to be explained by the fact that, owing to the support given to Perkin Warbeck by the Duchess Margaret, trade between the two countries had been suspended for two years. To the English weavers the market for their cloth furnished by the Netherlands was already valuable, while the Netherlands needed English wool and the privilege of fishing in English waters, so that the suspension of intercourse caused great distress on both sides.

[Schanz, *Englische Handelspolitik* (1881), ch. i. —The text of the *Tractatus Pacis et Intercursus Burgundiæ* is in Rymer, *Fœdera* (2nd ed. 1727), xii. 578 *seq.*] W. J. A.

INTERCURSUS MALUS, or (Treaty of) Evil Intercourse, was the name given by the Netherlanders to the treaty of 1506 between Henry VII. and the Archduke Philip, by which trade was re-established between England and the Netherlands on more favourable terms for the former, after a temporary suspension due to political complications.

In future English merchants were to be allowed to sell their cloth in the Netherlands in both large and small quantities, and no penalties were to be imposed upon the purchasers. The carrying out of this treaty would have seriously affected the woollen manufactures of the Netherlands, and the Archduke had probably only been compelled to accept it by the tempest which cast him upon the English shores. The treaty was never confirmed; and, although a new treaty was signed in 1507, Henry was obliged to abandon his claim so far as it concerned English cloth.

[Schanz, *Englische Handelspolitik* (1881), ch. i.—The text of the treaty is in Rymer, *Fœdera* (2nd ed. 1727), xiii. 132.] W. J. A.

INTERDICT (Scots law term). Equivalent to prohibitory injunction. A. D.

INTERDICTIO AQUÆ ET IGNIS, the ordinary form of Roman banishment under the republican constitution of the Roman state. It was carried into effect by a decree of the people being passed declaring a person to be in exile, and prohibiting every one from supplying him with fire and water so as to prevent his return. Fire and water were the symbols of religious purity, —to deprive a citizen of these was to cut him off from all communion with the state, and so to free it from the contamination of his guilt. Such banishment was accompanied by loss of citizenship.

[Smith's *Dict. of Antiq.*, *s.v.*] E. A. W.

INTERDICTION. There is a procedure in the law of all countries by which persons suffering from certain diseases or propensities (weakness of intellect, insanity, idiocy, etc.) may be subjected to all or some of the incapacities to which infants are subjected under the general law. This procedure, in Scotland as well as in French-speaking countries, is called "interdiction." The Italian term is "Interdizione"; in German-speaking countries the term "Entmündigung" is used. The same or a similar procedure may, in Scotland as well as in all continental countries, be also used in the case of persons of wasteful or extravagant disposition, if their relatives have reason to fear that they would, if unchecked, waste their property. The disabilities which may be attached to prodigals are not, however, identical in all cases with the disabilities to which persons of unsound mind are subjected. Thus in France prodigals are not subject to "interdiction" in the ordinary sense, but they may be prohibited from entering into certain transactions without the concurrence of a person appointed by the court, who is called "conseil judiciaire" (see Code Civil, art. 513), and a similar rule applies to all interdicted persons in Scotland, there being a special procedure for persons of unsound mind in the strict sense. In Scotland there is also a "voluntary interdiction," which enables a person to protect himself from his own weakness of intellect or facility of disposition.

The fact that England and the countries deriving their law from England do not recognise the right of any person to prevent the extravagance of a relative by judicial proceedings, is closely connected with the other fact that the law of the same countries allows persons to dispose of the whole of their property by gifts *inter vivos* or by will without considering their issue or other relatives, whilst in Scotland, as well as in continental countries, the wife or husband and the descendants, at least, are entitled to a certain portion of the property, which cannot be taken away by gift or will. According to the view of Scots and continental law, the head of a family is more in the position of a trustee than of an absolute owner; in England this is not so as a matter of law, but the universal use of family settlements shows that, after all, the Scots and continental law is in accordance with the natural disposition of mankind. E. S.

INTERDICTION (Scots law). Restraint directed against extravagant management of real estate by persons liable to be imposed upon may be by a voluntary bond not to do anything which may affect heritable estate without the consent of persons named in the bond, called "interdictors." Or it may be judicial, imposed by authority of the Court of Session, sometimes at the instance of near relatives, occasionally at its own hand. The interdiction is published by being registered in the General Register of Inhibitions, Edinburgh; and it then operates to render voidable any dealings with the realty only, except such as shall have been effected with the consent of the interdictors, or such as may be onerous (for adequate consideration) or rational (reasonable). The person interdicted may even himself raise

an action to have his improper transaction annulled. A. D.

INTERDICTUM was a formal order of a Roman magistrate commanding the party to whom it was addressed to do or abstain from doing something. In many ways it corresponds to the interdict of Scots law, and to some extent to the injunction of English law.

[*Gaius*, iv. f. 139, 140; *Institutes of Justinian*, 4, 15, § 8.] E. A. W.

INTERESSE TERMINI. The interest that a tenant at common law has in a lease granted to him before he enters on the premises. A lease at common law is regarded before entry as a contract only; after entry the tenant takes an interest in the land.

[Goodeve's *Real Property*, 3rd ed., 1897.] J. E. C. M.

INTEREST.

Theory of, p. 426; Interest and Usury, p. 429

THEORY OF. Interest is the name given to that which is paid for the use of a loan. This payment often includes elements of a nature different from that which is strictly called interest. If there be any probability that the loan will not be repaid, the borrower will be compelled to add something to his offer in order to induce the lender to risk his capital. Often, too, what goes under the name of interest includes the allowances which must be made for the maintenance of the full value of capital subject to wear and tear. These allowances for depreciation and risk being made, and duly subtracted from the *gross interest*, there remains the *net interest*, the pure payment for the use of the loan apart from contingent risks, etc.

It is not proposed here to review the various theories which have been advanced to account for the existence of interest. For a review of these in detail the reader may be referred to E. von Böhm-Bawerk's *Geschichte und Kritik der Kapitalzins-Theorien* (translated under title *Capital and Interest*, by Professor W. Smart), where they are one by one examined for the purpose of showing that they are unsatisfactory, preparatory to the enunciation of Professor von Böhm-Bawerk's own theory. We shall merely give here the principal heads of the classification adopted in *Capital and Interest*. These are as follows:

Productivity theories. Interest is the price of the productive services of capital. Malthus, J. B. Say, Von Thünen, Carey, and Leroy-Beaulieu are named as some of the chief exponents of this group of theories.

Use theories. Interest is the price paid for the use of productive capital. The line of division between this and the former group seems far from clear. J. B. Say is named as the founder of the theory, which has been elaborated by German writers in the main, among whom Hermann, Mangoldt, Schäffle, Knies, and Menger are some of the chief names mentioned.

Abstinence theories. Interest is the payment made for abstaining from unproductive use of wealth. The leading exponents of this theory named are Senior, Cairnes, and Cherbuliez.

Labour theories. Interest is the wage of the capitalist's labour, which, in some statements, means the labour which created the capital. The chief exponents of these theories are James Mill, Courcelle-Seneuil, Rodbertus, and Schäffle.

Exploitation theories. Interest arises from the exploitation from the labourer of the wealth which he alone produces. Rodbertus and Marx are the leading supporters of these theories. Besides these principal groups, Turgot's fructification theory, a group denoted *colourless* theories, including, among leading writers, Ricardo, Torrens, M'Culloch, M'Leod, and Rau, and a number of minor, or composite, systems, represented by Molinari, Roscher, Cossa, Jevons, Hoffmann, J. S. Mill, and Henry George among others, are dealt with more briefly.

In rendering an account of interest, we have to account for two phenomena. The first is that it should be necessary to guarantee to lenders not merely the repayment of the principal of the loan, but of a further sum. The second, that borrowers should be willing to pay such additional sums, or, to put the same matter otherwise, that they should prefer to borrow and to repay a sum greater than that borrowed, rather than to abstain from borrowing at all.

It may be said that lenders ask for interest because they know it can be obtained, and that they simply take all they can get. While this is true, it is also true generally that if the payment obtainable by way of (net) interest be increased or decreased owing to any cause whatever, the disposition of lenders to make advances responds to such changes of the conditions of loans; and the amount of capital available to borrowers depends on the terms they are able to offer. In regard to the other side of the question, it is not sufficient to urge that sheer necessity for ready capital accounts sufficiently for the offer of a premium in order to obtain it. This may be quite enough when we consider the case of a spendthrift, or that of an individual who finds himself unexpectedly called upon to meet demands beyond his means, but it does not suffice to account for the deliberate borrowing by merchants and manufacturers for the purpose of extending their business operations, borrowing which they would clearly avoid if it did not promise to yield them a profit over and above the sum paid by way of interest on their loans.

Böhm-Bawerk in his account of the matter dwells on the fact that immediate enjoyment is preferred to a remote though certain enjoyment, precisely equal in all other respects, or, to use more general terms, that present goods are worth more than future goods of equal amount. He deduces the result that the repayment with interest, at the end of the period of the loan, is a payment of a value precisely equal to that borrowed; that, to use an illustration, if the rate of interest be 5 per cent, £105, a year hence, has precisely the same value now as £100 in hand.

To take into account the difference in valuation of present and future goods is doubtless essential in our problem, and it has long been recognised that this is the case. It is, however, hardly sufficient of itself for the complete solution of the problem, and some of the contentions urged in the theories which Professor von Böhm-Bawerk rejects need to be given a place even co-ordinate with that assigned to the substitute which is offered.

In stating the theory, it is necessary to insist on one point, namely, that we are considering the rate of interest on current loans and current investments, that is to say, the rate of *net* interest on present investments either in new or old enterprises. The fact that old investments return to the investors rates either greater or less than the rate actually paid on current loans is discounted by the changes in price of the shares in such enterprises.

We have, in addition to accounting for the willingness of borrowers to pay interest, and for the unwillingness of lenders to make loans without interest, to attempt to render some account of the influences determining the actual rate of interest.

Let us first consider the borrower's side of the question, and consider, not the case of a borrower forced to obtain ready money to meet his engagements, but of a borrower who can choose whether he will borrow or not, and is influenced by the prospect of realising profit or loss on the transaction.

The use of capital in industry, as has been so often pointed out by writers on economics, enables the producer to adopt indirect methods of production in place of direct processes, and these are adopted because, though the product is, by their means, obtained only after considerable delay, its amount is largely increased as compared with what is obtained by processes yielding a more immediate return. From the increased product, besides the wages of labour and the reward of the entrepreneur and the rent of any land used in the process, the capital itself must be replaced, a due allowance be made for the risk involved of complete or partial loss, and we have then left, in general, a sum available for payment of interest. We may conveniently refer to this as the net yield of capital. It is the net amount by which the product is increased through the adoption of the indirect in place of the direct process of production. It must be clear that this net yield is not likely to be identical in all the different avenues open for the investment of capital. In some it will be greater, in some less. Those investments which promise the greater net returns will be sought after in preference to those which can offer only the less. A borrower who is in possession of an opportunity for using capital thus productively will be deterred from increasing his borrowings if the expected returns be less than he must pay for the loan, but stimulated to increase his borrowings in the opposite case.

If we suppose that the amount of capital which can be borrowed is limited, we may also assume that the richer fields for investment are first occupied, and that gradually the poorer opportunities are utilised as far as the capital available will permit. This tacitly assumes that the amount of capital available is limited independently of the rate of return offered. In this case then, the investments would proceed till the available capital was exhausted and the rate of expected net return on the poorest investment actually made would be the rate of interest obtainable on loans, if we suppose all the capital lent at the same rate, for this poorest investment would not be made on our hypothesis if the rate to be paid were greater than the rate which it is anticipated will be earned.

Since the amount of capital offering for investment is not fixed, but varies with the expected return, the above investigation requires some modification. We have indicated, however, the nature of such change as must be made. If, for precision, we assume the market rate to be 3 per cent per annum, we may conclude, from the point of view here taken, that those who can offer a *net* return of 3 per cent or more are all able to obtain the capital they can employ at this rate, while those opportunities for investment which promise any smaller return cannot be developed so long as the lending rate does not fall.

In thus expressing the conditions of the equilibrium rate, we have partially anticipated the other side of the question, the lender's position. The explanation of interest as the reward of abstinence on the part of the lender has been the subject of a great deal of ridicule at various times, and the notion that the lending of large sums by millionaires involves a degree of painful abstinence proportioned exactly to the magnitude of the sum lent is, indeed, calculated to provoke ridicule (see especially Lassalle's *Herr Bastiat Schulze-Delitzsch*). Professor Marshall has preferred to substitute the word *waiting* for the word *abstinence*, and to speak of interest as the reward of

waiting, so as to avoid the association of ideas which suggests inevitably that abstinence involves self-denial, even to a painful degree.

It is certainly true that the amount of capital which can be borrowed depends in general on the (net) rate which can be offered in payment. The owner of goods, or of the means of obtaining goods, which can be used in production may be conceived as having the choice of entering on production himself, of lending to another, or of obtaining and consuming unproductively the value of the wealth which is at his disposal. Whether he will do the one or the other is largely determined by the rate obtainable by lending, or by employing capital himself. The satisfaction afforded by present consumption is balanced against the satisfaction to be obtained by the opportunity of increased command of the means of satisfaction obtainable by postponing consumption. Doubtless very large sums might be lent if the return obtainable were far less than even at present. The supply of loanable capital might be large even if interest were zero, but, on the other hand, as the rate rises, the supply undoubtedly increases. If, again, for the sake of precision, we assume that 3 per cent per annum is the actual rate, most of the capital actually lent would probably be lent if the rate were below 3 per cent, but not the whole. The last additions to the supply, tempted out by the last increment in the rate payable, may not unfairly be supposed to be lent under circumstances where the actual interest obtained, or bargained for, is regarded as the equivalent of the postponement of consumption, and not more than that equivalent.

The actual rate being 3 per cent, those who are willing to lend find investments for all the capital on which they are content to take interest at 3 per cent. or less, while capital which they are unwilling to lend at rates not greater than 3 per cent remains unlent.

The case of interest may, therefore, be said to be comparable with the ordinary cases of equilibrium of demand and supply, the equilibrium rate being such that lenders willing to take that rate or less find investment for their capital at that rate itself, while opportunities for utilising capital in production so as to obtain a return equal to, or greater than that rate, are utilised.

In the case of capital actually invested and not transferable from an unprofitable to a profitable employment, the actual yield affects the valuation of the capital, this valuation being such as would, at the current rate of interest, produce the net yield obtained. Thus the valuation of capital sunk in productive or unproductive enterprises may be vastly greater or much less than its value when the investment actually took place. Such changes in valuation are only capable of producing an indirect effect on current rates of interest, and that mainly by influencing estimates of future returns to new investments.

Changes in the level of interest may be due to causes affecting either the demand for or the supply of loanable capital. Scientific discoveries and useful inventions extend the field for profitable investment, and, by affording more abundant opportunity of realising large returns, tend to raise the rate of interest. Changes in the influences which affect the accumulation of capital or the willingness of lenders to accept a return of given amount, such as changes in the estimate of the future in comparison with the present, tend to increase or decrease the supply of capital offering at every rate possible, that is to say, tend to cause equilibrium to be established at higher or lower rates as the changes are in the direction of limiting or of increasing the supply.

The influence of changes in the value of money, inasmuch as such changes affect the actual return obtained from investments, and cause it to be different from the nominal return, is of importance in modifying the market price of loans. Further, readiness of realisation is of great importance to many investors, and a lower rate of interest is often accepted when it is of importance to be able to recover the value of the capital invested without loss of time and with a minimum of cost. These circumstances find their place in the general theory, modifying some of its details, but without altering the broad outlines which are sketched above.

[The remarks which conclude the article on "Capital" apply equally here. Böhm-Bawerk's references to the writers whom he criticises may be consulted in seeking the views of particular writers, those writers whose theories are, in their main outlines, similar, being treated together so far as possible, and footnotes indicating the parts of their writings where their theories may be sought. In particular, reference may be made to Roscher's *Political Economy*, bk. iii. ch. iv., to Marshall's *Principles*, bk. vi. ch. vi. (2nd ed.), to Common's *Distribution of Wealth*, and to bk. ii. ch. vi. of Sidgwick's *Principles of Political Economy*. See also Cliffe Leslie's essay on the *History and Future of Interest and Profit*, and the interesting discussion in Wieser's *Natural Value*, bk. iv. and ch. xi. bk. v.

Besides the treatment of interest in systematic treatises, a considerable amount of valuable discussion of many points in the theory has taken place in various periodical publications. A sketch of Böhm-Bawerk's theory was given in the *Quarterly Journal of Economics*, April 1889, and the issue of the English translation of his treatises provoked a lively discussion in that Journal, in which Professor Walker joined in July 1892, in a sense unfavourable to the Austrian writer. This continued till the end of 1893, and has been revived by the appearance of the first

instalment of Böhm-Bawerk's reply to his critics in January 1895. Among articles in German periodicals, an appreciative notice of Böhm-Bawerk's work by Knut Wicksell in *Jahrbücher für Nationalökonomie und Statistik*, may be mentioned. The *Political Science Quarterly* and the *Annals of the American Academy of Political and Social Science* have also contained occasional articles on the subject which was being debated in the Harvard *Journal*. In a contribution to the *Annals* in November 1893, Professor Arthur T. Hadley seeks a justification of interest on the ground that it affords the best available method of effecting a proper selection of employers. Among discussions of the objections to interest on moral grounds, Prof. H. S. Foxwell's article on "The Social Aspect of Banking" in the *Journal of the Institute of Bankers*, February 1886, may be referred to. Prof. Smart's article, "The New Theory of Interest" in the *Economic Journal*, December 1891, gives a brief account of Böhm-Bawerk's theory, convenient for those who do not desire to read his works themselves.] A. W. F.

INTEREST AND USURY. "Interest," as distinguished from "usury," the older name, now always employed in an objectionable sense, is usually taken as meaning a moderate, in opposition to an excessive, return exacted by a creditor for the loan of capital. This connotation has a certain historical justification. The word "interest" (*interesse*) really refers to the compensation which under the Roman law was due from the debtor who had made default. The measure of compensation was *id quod interest*, the difference between the creditor's position in consequence of the debtor's laches and the position which might reasonably have been anticipated as the direct consequence of the debtor's fulfilment of his obligation. From this idea of compensation has come that of profit on the loan of money, for which the Latin technical term was *fœnus* or *usura*. The evil significance of this last term arose from the fact that, despite the laws limiting interest, the most exorbitant rates were charged by aristocratic Roman money-lenders to provincials (Cic. *ad Att.* v. 21, § 11). In primitive societies the return of a payment, whether in money or kind, for the loan of capital, using this word in its widest sense (cp. Levit. xxv. 36, Deut. xxiii. 19), appears to have been sometimes an unknown, always a repugnant practice. This repugnance is to be accounted for by the fact that in early stages of civilisation loans are employed, not as capital, for profitable production, but for consumption, and are consequently needed, as a rule, by persons in want. To exact not only a return for the commodity consumed or for the money spent, but something more besides, appears to be to take advantage of a neighbour's necessities. Tacitus observes of the Germans that both interest and usury were unknown among them: "Fœnus agitare et in usuras extendere ignotum" (*Germ.* 26). Where the practice of lending on interest prevailed in early societies we naturally find high rates, and as a consequence the existence of a class of debtors who in default of payment, whether of principal or interest, have been adjudged slaves to work off the debt. Caesar (*B. G.* iv.) tells us that Orgetorix had a great number of debtors in his service, and after the Germans had been brought into contact with Roman civilisation, they followed the Roman law of reducing debtors to slavery when insolvent. This was probably the mischief against which the Mosaic law guarded by its prohibition to the Jews to lend upon usury except to strangers (Deut. xxiii. 20), a prohibition authoritatively interpreted by a Sanhedrim of seventy Jewish doctors in 1807 to include interest in any sense. That the Mosaic injunction was not observed appears from Nehem. v. 7 foll., which recounts a restitution to Jewish debtors of the lands on which money had been advanced by Jews at the rate of 1 per cent per month (Salvador, *Histoire des Institutions de Moise*, iii. c. 6).

The practice of enslaving the insolvent debtor, common alike to ancient Egypt (Diod. i. 79), Greece, and Rome, was abolished at Athens by the *Seisachtheia* of Solon (B.C. 594) which, according to some ancient writers, included a reduction of the rate of interest, stated by Plutarch to have been about 16 per cent (Plut. *Solon*, 13). In the opinion of Mommsen no restriction was put by it upon interest. At Corcyra, in the 2nd and 3rd centuries B.C., loans on good security commanded 24 per cent, while the common rate at Athens in the time of the orators was 12 to 18 per cent. These high rates, so far as they are not to be attributed to the risk run by the creditor, are partly due to the dearth of capital, partly, as Roscher has pointed out (*Ansichten der Volkswirthschaft*, i. 18), to the cheapness of labour, the rate of interest being determined by the returns to capital which in slave states absorbs all that is produced except the barest minimum of subsistence. But such high rates are exceedingly oppressive to agriculturists, whose fortunes are always precarious. It was principally for the benefit of this class that the *Seisachtheia* of Solon was passed, and it was from the same class that the characteristic words for interest both in Greek and Latin (*τόκος*, *fœnus*) were borrowed. Interest was "produce." Upon this turned the logomachic argument of Aristotle against interest, that coin could not breed, and that, therefore, money derived from the loan of money was unnatural (*Polit.* I. x. 4, 5). This point of view, though it arose out of a coincidence of terminology, for centuries dominated European thought. Aristotle, in fact, was seeking justification for the general sentiment against those who lent money on interest. But that he tolerated

interest appears from a passage in the *Ethics* (IV. i. 40) in which he ranks among those who ply illiberal trades "lenders of small sums at high interest," *i.e.* in the common acceptance of the word, usurers. So with Plato, who is generally represented as altogether condemning interest. It is true that he forbids the payment of interest in his ideal state, but in the same passage (*Laws*, v. 742) he also forbids repayment of capital, and these prohibitions must be interpreted not as of general import, but in conjunction with his desire to exclude private possession of wealth. In another passage of the same work (xi. 921 c) he expressly enjoins the payment of an obole per drachma monthly by way of interest, *i.e.* 200 per cent per annum, in case of wilful neglect to pay, after the lapse of a twelvemonth, for goods received. It must be remembered that the Greek sentiment against money-lenders was not confined to that class, the literature from Homer to Aristotle treating with scarcely less disdain the callings of the merchant and the manufacturer.

The ancient law of Rome allowed interest; which, as usual in agricultural communities, reached an exorbitant height. As at Athens, so in the early history of Rome, popular suffering necessitated a readjustment of debts. The law of the Twelve Tables (B.C. 451-450) first, according to Tacitus (*Ann.* VI. xvi. 3), limited the rate to $\frac{1}{12}$th part of the capital, *uncia*, *unciarium fœnus*.[1] The hatred in which money-lenders were held is visible in the provision mentioned by Cato (*De Re Rustica* procem.), that they were condemned for transgression of the law to twice as high a penalty as the thief. In B.C. 347 interest was fixed at 5 per cent: in B.C. 342 it was abolished altogether by the Lex Genucia. But the nobility controlled the civil procedure through the prætorship, and as the law did not bind any but Roman citizens, the evasion was practised of issuing loans in the names of Latins and allies (Livy, xxxv. 7). By the Lex Sempronia (B.C. 194) this mode of evasion was suppressed. Although the prohibition of interest long remained law, it was found impracticable. The consequence probably was, according to the opinion of Montesquieu and Adam Smith, a rise in the rate of interest to compensate the creditor for increased risk, and accordingly, during the economic crisis of B.C. 89, which followed the Social War and the Asiatic troubles, prosecutions of creditors by dishonest debtors took place. These were eventually put an end to in the following year by the Lex Unciaria of the consuls Sulla and Rufus, which fixed the rate of interest at 12 per cent per ann. This rate was known as *centesima usura*, *i.e.* $\frac{1}{100}$th part of the capital per month. By a decree of the senate in B.C. 50 this became the legal limit throughout the Roman provinces.

The dislike felt by the Romans to the exaction of interest showed itself in the remedies granted by the law against the debtor. While in the case of a sum of money lent (*pecunia certa credita*) the creditor could enslave the person of his debtor for the unpaid principal, he had only a civil remedy against his property for the interest. Creditors accordingly hit upon the device of bringing claims for interest under the form of actions for money lent, and thereby enforcing the judicial enslavement of the debtor (*addictio*). This legal artifice was put an end to by the Lex Pœtelia in B.C. 325, which further allowed a debtor in temporary difficulties to surrender his property. But as regarded the really insolvent, the old law remained in its severity, so far as the principal of the debt was concerned. It is to the credit of Julius Cæsar that by the *Lex Julia de bonis cedendis*, he revolutionised the law of Rome and laid the foundation of all modern systems of bankruptcy by allowing the debtor to formally cede his estate and enter upon a "new financial existence, in which he could only be sued on account of claims proceeding from the earlier period and not protected in the liquidation, if he could pay them without renewed financial ruin" (Mommsen, *Hist. Rome* bk. v. ch. xi.). Such remained substantially the state of the law until the time of Justinian (A.D. 533). Justinian fixed new rates of interest. Whereas in the case of *fœnus nauticum* or bottomry, there had been no limit, he reduced it to a maximum of 12 per cent per annum. Compound interest was not allowed, nor could any claim for arrears of interest be made for a larger amount than the amount of the principal debt. The new rates were adjusted to a classification of ranks, presumably constructed upon the basis of a hypothetical ability to pay interest. While the maximum payable by merchants and business men was 8 per cent, that for persons not in business was 6 per cent, while distinguished personages, *illustres*, and agriculturists, ranked together as capable of paying 4 per cent. This classification probably suggested the later doctrine of the canonists, that all questions involving profits or interest must be considered relatively to the class of society concerned. All mediæval legislation regarded the suitable maintenance of rank as essential to the welfare of society (see SUMPTUARY LAWS). The Roman law also laid the foundation of two other doctrines which became corner-stones of the canonists' teaching. It has been seen that even Plato allowed a penal interest of 200 per cent in cases where a debtor had wilfully neglected, after a year's delay, to discharge his obligation. Such delay was technically known in Roman law as *mora*, and even in cases where interest was not otherwise payable,

[1] *Fœnus unciarium* $\frac{1}{12}$th or $8\frac{1}{3}$ per cent for the *lunar* year, therefore 10 per cent for the *solar—usuræ centesimæ*, 1 per cent per month, 12 per cent per annum. Ramsay, *Roman Antiquities*, p. 420.

as in *fideicommissa*, it became due upon proof of mora, subject to the discretion of the judge (*Dig.* lib. 19, tit. 1, 49, 1). The fact that the rate of interest due for mora was determinable by the rate locally current, suggests that the ground of the adjudication was that the creditor had been prevented dealing profitably with his money in the interval, which is the doctrine of LUCRUM CESSANS, as expounded by the canonists. Further, by the Roman law mora with its penalties was incurred by the debtor for any consequential loss to the creditor. This became the canonical doctrine of DAMNUM EMERGENS (*q.v.*).

The early ecclesiastical history of interest has already been given (CANON LAW). In England it was forbidden by two northern synods in 787. Before the Conquest, canonical and secular provisions were placed side by side in the compilations of the Anglo-Saxon kings. William the Conqueror, by his separation of the work of the bishops' courts from the work of the sheriffs' courts, paved the way for the study and application of canonical principles, which took place in the 12th century. The real founder of the study of mediæval canon law in England was Theobald, Archbishop of Canterbury (1139-61). Its codification began in the reign of Henry III. To this age belong the constitutions of Richard Poore, Bishop of Salisbury, 1217-28, which forbid the taking of the produce of a pledge after the principal sum has been received from it *deductis expensis*. A contemporary canonist, one of the very few English authors on the subject, was Thomas Chabham (or Chobham, fl. 1230), who wrote eight books, *De Casibus et Pœnitentiis*. He was also the author of *Casus aliquot de pignoribus et in quibus latet Usura*. Both these treatises are in MS. in the British Museum. He defines usury as *incrementum fenoris abusu eris crediti*, a definition which embraces interest. But it is remarkable that when William Lyndewode collected the constitutions of the Church of England in the reign of Henry V., a collection which formed the canon law of the realm, scarcely any mention of usury occurs. Possibly this was a concession to the claims of the lay lawyers to take cognisance of the practice of exacting interest as an offence against the common law (see ENGLISH EARLY ECONOMIC HISTORY). In 1364 Edward III. empowered the city of London to issue an *ordinatio contra usurarios*. But parliament complained of the practice of usury in 1390, and a more explicit *declaratio usuræ* was issued by the mayor of London. This defined the offence of usury to consist in the lending "gold or silver to receive gain thereby, or a promise for certain without risk" (CANON LAW). There is much to show that these condemnations of usury were prompted by hostility to the Italian financiers who practised the taking of interest in transactions effected by bills of exchange. Repeated complaints of this were made by the Commons, the belief being general that by means of bills of exchange the kingdom was depleted of the precious metals. This is expressed in the *Libelle of Englyshe Polycye* (1436). With the cessation of the Wars of the Roses a marked development of credit set in, and though the charging of interest on bills of exchange was still subject to ecclesiastical and popular reprobation, we learn from Pauli's *Three Memorials* that a class of native exchangers had sprung up in England. Upon the accession of Henry VII. a reaction took place. The control of policy was in the hands of John Morton, Archbishop of Canterbury, chancellor, and afterwards cardinal. Morton was a canonist, who had been a leading counsel in the ecclesiastical courts, and on the opening of parliament in 1487 delivered a speech condemning the practice of usury and unlawful exchange, that is, exchange in which interest was reckoned. (See DRY EXCHANGE; and MORTON'S FORK). In the same session an act, which bears marks of ecclesiastical influence, was passed against both. The act condemned under the term "new chevesaunce" the loan of money at fixed interest to begin from a certain date. The "Acte agaynst exchaunges and rechaunges" specially struck at accommodation bills. The "Acte agaynst usury and unlawfull bargaynes" (3 Hen. VII. c. 5) gives examples of the way in which the ecclesiastical laws against usury were evaded. Sometimes the form of a sale was gone through, the object sold being an obligation, and the advance for a less sum than the obligation acknowledged being taken in exchange, a system which continued down to the time of Jeremy Bentham, and is described by him. Sometimes a pledge, as a horse, was delivered up, of which the creditor enjoyed the use without setting it off, as he was bound by canonical law to do, *pro tanto* against the principal. Sometimes the device of sale and resale was resorted to. This was the fictitious sale of goods to the borrower on credit, and their repurchase at a less sum of ready money paid by the lender. The sum booked against the borrower included both capital and interest, while the goods remained in the lender's hands. Sometimes a bill of DRY EXCHANGE (*q.v.*) was drawn. Sometimes a gratuity was promised by way of interest. All these evasions were in use on the continent, and had been condemned at numerous synods both there and in England. The offence under the act of 1487, of demanding a fixed percentage, was based on the old canonical doctrine that no claim for interest arose except in the case of DAMNUM EMERGENS, and perhaps also in that of LUCRUM CESSANS, and that these could not be estimated beforehand (CANON LAW). In this respect England, by the act of 1487, fell behind the contemporary doctrine and practice of the continent. The

act proved a failure, in the opinion of the framers of its successor, owing to the unskilfulness of the drafting. In 1495 Morton again addressed parliament upon the evil, and introduced a fresh "acte agaynst Usurye" (11 Hen. VII. c. 8). This repealed the act of 1487. Under the new act the stipulation for interest at the time of the making of a loan was the offence. But a clause "savyng laufull penalties for nounpayment of money lent," by allowing the fixing of *pœna conventionalis*, or *usura punitoria* (CANON LAW), opened a wide loophole for evasion. Sale and resale were defined as illegal when the borrower was at the time *in necessite*. Mortgages in which the creditor should not account for mesne profits were condemned, there being no "aventure" attached to the loan to justify the creditor in receiving them as interest. From this time the law remained unchanged for fifty years. Nevertheless the practice of taking forbidden interest continued, as may be gathered from contemporary popular writers. To some extent it was condoned by being included specifically or implicitly in the general pardons issued from time to time by Henry VIII. The customary rate of interest at this period was 10 per cent upon good security. After the assumption by Henry VIII. of ecclesiastical supremacy in 1544, "all offences of usurie and corrupt bargaynes" were excepted (35 Hen. VIII. c. 18) from the general pardon; but in the following year, for the first time in the history of England, the demand of a fixed rate of interest was made legal by 37 Hen. VIII. c. 9, which repealed the act of 1495. The maximum was to be 10 per cent per annum. By a clause intended to cover some of the canonical justifications of a contract for the payment of interest, opportunities were afforded for the evasion of this maximum. The importance of the act is that it was a clear breach with the canon law, which recognised no quantitative distinction between usury and interest. It is upon the distinction created by this act that our modern conception of the two rests. The act caused lively remonstrances on religious grounds. The reforming party, as a rule, followed LUTHER (*q.v.*) in his earlier view of the sinfulness of interest. In 1552 Northumberland, who posed as an extremist in religious matters, passed a bill through the Lords "against usurie," which became law (5 & 6 Ed. VI. c. 20). This was a drastic prohibition of interest in any shape or form, a clean sweep being made of all the canonical exceptions justifying interest. Probably the customs of London based on the canon law were maintained, as having received regal confirmation. Attempts were made in the following year, without success, to mitigate the severity of the new act. It is doubtful whether the government of Mary permitted the enforcement of a law repugnant to the ecclesiastics as a defiance of the canon law, especially as the chancellorship was in the hands of Gardiner, bishop of Winchester, and afterwards of Heath, archbishop of York. In 1558 Mary herself offered the city of London dispensation from the penalties of taking usury if they would advance her a sum of money at 12 per cent interest. But the act of 1552 remained unrepealed until 1571, when Elizabeth re-established the rate of 10 per cent (13 Eliz. c. 8).

With the Reformation the canonist doctrine naturally came up for review. The general trend of the opinion of reformers, and this was shared by Luther in his later years, was that interest was tolerable as a concession to human frailty. This argument was adopted by Bacon. But CALVIN and Dumoulin, better known as MOLINÆUS, a French jurist, were not satisfied with a negative protest against the intolerant prohibitions of ecclesiastical dogma. They reopened the whole question *ab initio*. In a letter to Œkolampadius, Calvin boldly questions the Aristotelian logomachy on which the patristic and scholastic position was so largely based. Money, he argued, was not fruitful; but neither was a house, which, it was admitted, could lawfully be let for profit. He pointed out that the concessions made by the canonists in fact involved a license to take interest, and that the persistence in a verbal prohibition was "puerorum instar ludere cum Deo." But he adopted, as matter of Christian discipline, the rule that interest should not be demanded of men in urgent need, and as matter of state discipline, that the legal rate should not be exceeded. Molinæus (*Tractatus Contractuum et Usurarum*, 1546) founded his justification on the Roman law that there is inherently involved in a loan an *interesse*, whether in the shape of "lucrum cessans" or of "damnum emergens." This justification of interest, which brought upon Molinæus the censures of the church, naturally found favour in the great mercantile and Protestant community of Holland. Grotius, while assenting to Molinæus's criticism of ARISTOTLE, nevertheless hesitated to explain away the language of Scripture which had been for so many ages accepted as prohibitory (*De Jure Pacis ac Belli*, II. xii.). This step was taken by SALMASIUS in 1638 when professor at Leyden, who in fact popularised the arguments advanced by Molinæus.

In England the prohibition of 1552 having proved a failure, Elizabeth in 1571 re-established the rate of 10 per cent. In 1624 the rate was reduced to 8 per cent. The principle being practically conceded, discussion ranged about the question of a legal rate. The wealth of Holland towards the end of the 17th century being accompanied by a low rate of interest, led to the conclusion formulated by Sir Josiah Child in his new *Discourse of Trade*, first published in 1668, that the relation of the two was that of

effect and cause, and that prosperity might be secured for this country by a reduction of the legal rate of interest to 4 per cent (Child). But this opinion was combated by other contemporary writers. Of these the best known is Sir William Petty, who in 1682 published a treatise under the title *Quantulumcunque*, condemning altogether laws regulating the rate of interest. LOCKE is generally taken to have written in the same sense; but though the arguments in his tract, *Considerations of the lowering of Interest and raising the Value of Money*, tend in this direction, he expressly adduces two reasons why there should be a law to regulate interest. His first is that there may be a rule of practice for courts of law in assessing debts and damages. Such a rule of practice prevails at the present day. His second reason is that thoughtless borrowers, "young men and those in want, might not too easily be exposed to extortion and oppression," a line of thought afterwards adopted by Adam Smith.

In the meanwhile the new doctrines made but slow headway in Roman Catholic countries. It is true that successive refinements of the canonists in deference to the advancing exigencies of commercial life had left nothing but the husk of the prohibition remaining. But a defence of interest upon its own footing, following the lines of Calvin and Salmasius, was too venturesome an assault on the position so long maintained by the church. Even as late as the reign of Louis XIV., interest on commercial debts was forbidden, with an exception in favour of the flourishing industrial city of Lyons; nor did interest become legal until the revolution. In England, opinion had so far passed over to the opposite camp that Adam Smith, writing in 1776, assumed interest as necessary to production in providing the capitalist with an incentive to productive expenditure. About the same time in France, Pothier, a French jurist, and the celebrated TURGOT resumed the ancient controversy as to the justification of interest.

The occasion which produced Turgot's essay on *Les Prêts d'Argent* was a commercial crisis in Angoulême in 1769. A feature of this crisis was an excessive number of accommodation bills upon advances to borrowers for purposes of unproductive consumption. Notwithstanding that the legal rate of interest in France was at this time 4 per cent, there were, as Adam Smith tells us, "several very safe and easy methods of evading the law." The bankrupt borrowers, unable to obtain further advances, followed the example set by Richard II. of England, and combined to prosecute their creditors under the usury laws. Turgot, at that time intendant of Limoges, procured the removal of the cases from the local courts to the council of state, and drew up for its guidance a memorandum, "Sur les Prêts d'Argent," in defence of interest. In this treatise, which was not published till some years later, he first establishes the necessity of interest for commercial and industrial purposes; he then refutes the arguments of the schoolmen; he inquires into the historical causes which have rendered money-lenders odious; and concludes by demanding that the taking of interest should be legalised and the rate left to be settled between borrower and lender. Like Adam Smith, he adopted the standpoint of individualism, that a man has a right to do what he will with his own, and that, on the whole, this liberty is most conducive to the general well-being. Turgot also addressed himself to the arguments advanced by Pothier and his school upon legal grounds. Their contention was that in a contract which is not gratuitous, equity demands an equality in the values exchanged. One party should not give more than he has received, nor the other receive more than he has given. This maxim of equity is violated when the lender receives back more than the capital. The argument was, as Pothier admitted, a reproduction of that of the *res fungibiles* of Aquinas (see AQUINAS; FUNGIBLES). Turgot's reply is first, that equality of values depends on the opinion of the two contracting parties as to the degree to which the objects exchanged will satisfy their demand; secondly, in this following Molinæus, he challenges the fundamental position upon which the prohibition of interest had been based, viz. that a loan is a transfer of property, and that an owner of property (the transferee) cannot be called upon to pay for the use of that which is his own. "Misérable équivoque encore," replies Turgot, "il est vrai que l'emprunteur devient propriétaire de l'argent considéré physiquement comme une certaine quantité de métal. Mais est-il vraiment propriétaire de la valeur de cet argent? Non, sans doute, puisque cette valeur ne lui est confiée que pour un tems et pour la rendre à l'échéance" (*Mémoire*, § 27). Turgot's memoir saved the money-lenders of Angoulême, and so far effected a change of public opinion in France that at the Revolution the national assembly declared all loans on interest legal. The work of Turgot in France was finally done for England by Jeremy BENTHAM (*q.v.*) in his celebrated "Letters in defence of Usury." In these he finally disposed of those pleas for legal maximum rates based on the assumed necessity of protecting the simple and discouraging the prodigal, which had been accepted by Locke and Adam Smith. In England the whole of the acts against usury, dating from that of 1545, were repealed in 1854. For the list of them see the schedule to 17 & 18 Vict. c. 90. In Denmark they were repealed in 1855; in Spain in 1856; in Sardinia, Holland, Norway, and Geneva in 1857; in Saxony and Sweden in

1864; in Belgium in 1865; and in Prussia and the North German Confederation in 1867.

A new act against usury was, however, introduced for the whole of Germany in 1880, and amended and extended in 1893. It is now a criminal offence to obtain a profit by taking advantage of the necessitous condition or inexperience of any person in reference to loans or other transactions, "exceeding the usual rate of interest in such a way that the profit seems out of proportion to the service rendered," and all transactions of this nature are null and void; it is also a criminal offence to "trade as a usurer."

Professor Foxwell, while avoiding any justification of the claim to interest upon abstract, moral, or metaphysical grounds, and anticipating the possibility of the arrival of a time when the tendency of interest to a minimum may result in a natural compulsion upon the capitalist to pay a "negative interest" to the banker who undertakes the care and management of his capital, justifies interest upon the practical ground that it is necessary in the existing state of society as an inducement to the capitalist to save. It is interest which "brings about economic equilibrium" between the demand for capital, of which the function is to give labour more effective power and continuity, and its accumulation.

The tendency of profits, including in this term the bare interest upon capital, to a minimum, has been discussed at length by J. S. Mill. Mill assumes that there is "some particular rate of profit which is the lowest that will induce the people of that country and time to accumulate savings and to employ those savings productively." This rate is determined by (1) "the strength of the effective desire of accumulation"; (2) "the degree of security of capital engaged in industrial occupations." These two determinants interact and grow in force with the progress of civilisation. In a country where population is increasing, capital becomes increasingly applied to agricultural industry, which progressively yields less (see DIMINISHING RETURNS), a law which conditions the whole rate of profit. Where population is not increasing, the competition for labour causes a rise of wages, with the same result. The counteragents to the tendency are therefore the loss of capital in commercial crises and unsound investments; inventions, cheapening articles of common consumption, and thereby reducing the cost of labour; and importation of food from abroad.

It is to be observed that Professor Foxwell's view that there is no absolute minimum is more probable than that of Mill, who underestimated the force of the tradition of accumulation. Hence, Böhm-Bawerk throws modern theories into three classes. The first of these, to which he gives the name the "naïve productivity" theory, attributes the production of interest to capital, which in the distribution of the product only claims that of which it was originally the source. The second, which he calls the "socialist exploitation theory," regards interest as the appropriation of that which is due to labour, out of which it sprang, labour being the sole source and measure of value. The third view is intermediate. While accepting the first view of capital as being in conjunction with nature and labour a source of production, it dwells upon the importance of exchange values in determining the amount which can be appropriated by the capitalist. While the first two theories confine their attention to interest as a problem of production, "the interest problem in its last resort is a problem of value" (Böhm-Bawerk, *Capital and Interest*, trans. by Smart, Macmillan, 1890; *Conclusion*, p. 423).

While Adam Smith accepted interest as an economic fact without endeavouring to justify it on analytical grounds, he indirectly furnished a basis for a revisal of the whole question of its justification. In discussing the sources of wealth, Adam Smith, while he frequently mentions land and capital, leant to the doctrine that wealth was exclusively derived from labour. This position was borrowed from Locke, who lays down that labour "put the difference of value on everything" (*Civil Government*, bk. ii. ch. v. § 40). Ricardo, like Adam Smith, without elevating the proposition into a system, adopts the general idea. As to this, see Professor Marshall's note on Ricardo's theory of production in relation to value (*Principles of Economics*, bk. vi. ch. vi.). From this it was an easy transition to the view of the modern socialists, that interest is abstracted—wrongfully abstracted—from labour. The connecting link between the two views is the French economist SISMONDI in his *Nouveaux Principes d'Économie Politique*, first published in 1819. Sismondi escapes the logical conclusion of the theory by ascribing the right to interest to the original labour which forms capital. The scientific socialists, however, claiming to rest their teaching upon Adam Smith and Ricardo, regard the returns to capital, whether called by the name of profit or interest, as a fraud upon the labourer to which hunger compels him to submit.

Of this school PROUDHON was the earliest distinguished representative in France; in Germany, RODBERTUS-JAGETZOW and Karl MARX. According to Rodbertus, interest—profit and rent alike—rests on two grounds, one economic, the other legal. The economic ground lies in the fact that since the introduction of division of labour the labourers produce more than they require to support themselves in life, and so allow them to continue their labour, and thus others are also able to live upon the product. The legal ground is the existence of private property in land and capital, and Marx reproduces the same idea. In the view of the anti-socialist economists, these conclusions are only arrived at by divorcing propositions of Adam SMITH and RICARDO from their context and ignor-

ing the fact that capital is in itself productive and belongs to the capitalist as the reward of abstinence from its expenditure. The economists who earliest insisted on the first of these characteristics of capital were J. B. SAY and Lord LAUDERDALE, while N. W. SENIOR, formerly professor of political economy at Oxford, is the founder of the abstinence theory (CAPITAL). Eclectic economists, such as Roscher, include both these elements.

The American economist, Mr. F. A. Walker, turns the point of the old Aristotelian and canonical objections to interest by insisting that in actual fact, exemplified by cases in which no coin passes, as well as in theory, interest is paid for the use of the objects for the acquisition of which credit is given or money lent. He leans to the modern view that in the states of society in which prohibitions of interest originate, there may have been justification for them, and they probably exercised some effect. These conclusions he applies to similar conditions in modern communities, as for instance, in extensive regions of the United States, where agriculture is prosperous, where industry has made some progress, yet where the community still remains mainly non-commercial. But he agrees that in highly commercial countries "usury" laws become purely mischievous.

Recent English economists, such as Mr. Sidgwick, show the natural English tendency, exemplified in Adam Smith and Ricardo, to abandon discussion of the metaphysical justification of interest, and accepting it as an ultimate fact, to confine themselves to analysing the economic laws by which its rate is determined.

The general conclusions of economists as to the determinants of the rate of interest may be summarised as follows. In civilised communities a general level of "net" interest tends to establish itself, the differences between rates being for the most part due to differences in the risk of the investment. That on the whole, in such communities, small command less interest than large amounts of capital owing to the difficulties of collection and the irregularity of withdrawal. Of this savings banks are an example. The mere increase of capital does not lower the rate of interest (Hume, *Essay on Interest*; Ricardo, *Principles*, ch. xxi.), which is determined, on the analogy of Ricardo's theory of rent, by the competition of borrowers and its least productive employment. Hence, as a community increases in civilisation, and capital has to be employed on less fertile lands and less productive investments, the return to capital tends to decline; in other words, interest falls. Influences which counteract this tendency are the acquisition by a nation of fresh land or a cheapening of the means of subsistence by the abolition of protective duties; the conversion of circulating into fixed capital (see CAPITAL); the destruction of capital by war, and the emigration of capital.

Within the limits of the Roman Catholic communion the principle has constantly been upheld that to accept usury is sinful. This was laid down by Bossuet in his *Traité de l'usure*, and repeated by Benedict XIV. in the encyclical on usury of 1745 intituled *Vix pervenit*. But when the era of the reformation opened up the whole question, the energy of the canonists was devoted not to fortifying the old positions, but to emptying the principle of its application. Concessions were at first made in those directions in which the severity of the prohibition had from early times been mitigated. Rent-charges upon land, and their purchase and sale, had been canonically legal since 1425, subject to the charge being really attached to land or fixed property yielding actual returns. But in 1452 a bull of Nicholas V. had permitted the inhabitants of the kingdoms of Aragon and Sicily to enter into contracts for the payment of interest on loans based on personal credit (*census personalis*). Against the principle of this concession a reaction took place under Pius V., who, by a bull *Cum onus* in 1568, reverted to the old limitations. But the concession of Nicholas V. had already done its work. The Jesuit casuists, solicitous to adapt the church to contemporary exigencies, discovered a number of reasons for disregarding the new bull. It required, they affirmed, to be invested with authority by promulgation and acceptance in the several countries of Europe. Others, as Liguori, maintained that it only prohibited such loans where fraud was present. Though Benedict XIV. lent his sanction to the condemnation of the *census personalis*, the system continued to flourish even in Rome itself. Another concession which opened the door to the ruin of the whole system was that known by the name of the *contractus trinus* (see ECK, Johann). This, as its name imports, was a combination of three contracts. The first of these, which laid the foundation for the others, was the contract of partnership in risk of profit or loss (*societas*) which had always been allowed. The two subsidiary contracts were contracts of assurance. By the surrender of a part of his expected profit the capitalist could insure himself against loss of capital; by the surrender of a further part he could insure a fixed return (*venditio lucri incerti pro lucro certo*). Now regarded together, and as between the same parties, these three contracts represented an advance of money at a fixed rate of interest. As such they were before the 16th century canonically illegal, though each taken by itself, where the parties were different, was legal even though in respect of the same transaction. Convenience suggested that all these contracts should be made between the same parties, and commerce naturally adopted this plan. As usual in the history of interest, it remained for the theologians to find a justification for the *fait accompli*. This was accomplished by Eck and Major early in the 16th century. But, as in the case of the *census personalis*, so in this, the Catholic reaction at first, by the bull *Detestabiles* of Sixtus V. in 1583, condemned the *contractus trinus* as usurious and illegal. The new school of

casuists, on the other hand, took up the position that the condemnation only applied to cases where usurious practice was potent. Finally, as in the *census personalis*, commercial convenience smothered the protests of doctrine.

In short, by the 17th century the condemnation of usury had been gradually extruded till it had no application outside loans pure and simple. And even in this sphere the concession which had then firmly established itself of allowing the LUCRUM CESSANS and DAMNUM EMERGENS to be calculated beforehand at a fixed rate per cent, left little more than a mere husk of doctrine. The question came up for review before the Roman curia in 1740. The city of Verona raised a loan at 4 per cent, and justified its proceeding by a discourse published by an eminent lawyer, Scipio MAFFEI. The pope, Benedict XIV., issued a special commission to cardinals, prelates, and theologians, to restate the doctrine of usury according to the most recent view. Of this commission the outcome was the encyclical *Vix pervenit* issued in 1745. The old doctrine was reaffirmed, and returns of interest upon loans condemned, except in cases where the claim to interest rested upon some other title than merely that of money lent, or could be justified by the conformity of the contract to one of those forms recognised by the church as legitimate. But the discussion by theologians was not silenced. At last in 1822 an event happened which again compelled the Roman curia to deal with the subject practically. A female penitent at Lyons was refused absolution for receiving legal interest from invested property. She appealed to Rome, and the holy office decided against the confessor, provided the penitent expressed willingness to submit to the judgment of the church. But no formal decision on such cases followed, and in 1838 a general notice was issued to confessors no longer to importune penitents on account of being in receipt of interest. For all practical purposes the doctrine, while it remains intact, has ceased to exist.

[Boeckh's *Public Economy of Athens*.—Grote's *History of Greece*.—Mommsen's *History of Rome*, 2 vols., London, 1868, 1875.—W. A. Hunter's *Roman Law*, London, 1885. As to the prohibition of interest by the canon law, and its peculiar influence in the development of the LAW MERCHANT, see Endemann, *Handbuch des Handelsrechts*, i. pp. 13-14, 19-20.—Goldschmidt, *Universal geschichte des Handelsrechts*, pp. 137-172. For the scholastic doctrine, Endemann's *Studien*. For the revolt against scholasticism, Child's *New Discourse of Trade* (1690).—Locke's *Essay on Civil Government*.—Hume's *Essay on Interest*.—Turgot's *Les Prêts d'Argent*.—Bentham's *Defence of Usury*, Works, vol. iii. Edinburgh, 1843. For the new socialist doctrine, Rodbertus, *Socialökonomische Ansichten*, Jena, 1882.—Böhm-Bawerk on *Capital and Interest* (translated by Smart), London, 1890. On the rate of interest, see J. S. Mill's *Political Economy*, bk. iv. ch. iv.—Professor Foxwell in *Journal of Institute of Bankers*, vii. (1886).—Von Wieser, *National Value*, edited by W. Smart, 1892.—Distinction from discount, Supino, *Saggio de lo Sconto* (1892). All books on the general principles of political economy treat of the subject.] I. S. L.

INTERLOPERS were persons who, not being members of the companies chartered by the crown, nor having a license from them, traded on their own account to the countries to which the companies had the sole trade. Throughout their existence, the companies suffered much from the competition of these outsiders. The relations between them therefore have an important bearing on economic development, particularly on the growth of free trade. It would be impossible here to give a full account of those relations during the latter half of the 16th and 17th century. But a few instances from the history of the trading companies, and a summary of the arguments for and against the claims of the outsiders, will show the nature of the questions at issue. In 1604, the "free traders" nearly succeeded in breaking up the monopoly of the companies, especially the Merchant Adventurers and the Russia Company. Two bills directed mainly against these associations—(1) "for all merchants to have free liberty of trade into all countries"; (2) "for enlargement of trade for his majesty's subjects into foreign countries," passed the Commons "with great consent and applause of the House (as being for the exceeding benefit of all the land), scarce forty voices dissenting," but they were rejected by the Lords. Complaints of the monopoly of the Merchant Adventurers were again made to the House of Commons by the merchants and clothiers of Exeter and other parts of the west of England in 1638, 1643, and 1645. The ordinance of 1643, regulating the company, appears to have been a concession to the outsiders, and under the Commonwealth and Protectorate there appears to have been a movement of opinion in their favour. A committee for trade, appointed by the common council of London, reported to the council for trade in 1651, that they found the Staplers "unnecessary and disadvantageous," and the discussions in the council in 1656 show strong opposition to the claims of the Merchant Adventurers. Interlopers were a source of difficulty to the Russia Company throughout its career, and important concessions were made to them in 1654. Similar difficulties were experienced by the Levant or TURKEY Company (*q.v.*), the EASTLAND Company, and the EAST INDIA Company. The history of the last-mentioned company supplies several important cases. In 1604, James I. granted to Sir Edward Michelborne and his associates a license "to discover the countries of Cathaia, China, Japan, Corea, and Cambaia, and the

islands and countries thereto adjoining, and to trade with the people there, notwithstanding any grant or charter to the contrary." Michelborne greatly injured the East India Company, but in 1607 they decided to drop their suit against him in the Admiralty. In 1637, Charles I. granted a license to Sir William Courten and others, to trade to Goa, Malabar, and China; his association, or the Assada Merchants, as they were called, competed with the East India Company for many years. In 1650-51, on the recommendation of the council of state, a union was effected between the company, the Assada Merchants, and a third body, the Merchant Adventurers, trading to the Indies, which became the basis of a united joint stock. But three years later, the last two petitioned the council of state for an open trade. The interlopers achieved a temporary success, and for three years the company, the Assada Merchants, and the Merchant Adventurers, as well as numerous private traders, competed with each other, with the result that the East India trade was completely disorganised, and Cromwell was forced to renew the charter of the company. The leading case on the claims of the companies against the interlopers is *The East India Company* v. *Sandys* (1684). It was argued at great length before Lord Chief Justice Jefferies, Holloway and Walcot, by Holt (afterwards lord chief justice), Finch (afterwards Earl of Nottingham), and Sawyer, for the plaintiff; and Treby (afterwards lord chief justice), Pollexfen (afterwards lord chief justice), and Williams for the defendant. Judgment was given for the plaintiff, and Sandys' ship and goods were confiscated.

It will now be convenient to summarise the arguments for and against the interlopers. There were two distinct questions at issue: 1. Did the creation of such companies as have been noticed fall within the limits of the royal prerogative? 2. Could they, under cover of their charters, pretend to an exclusive trade? On the first, opinion was by no means unanimous, some people contending that parliament alone could impose the restrictions on trade which the very existence of a company involved. Additional force was given to this argument, when the companies made the royal grant the pretext for excluding all others from the trade. The outsiders answered the second question in the negative. It was contended that the king could create corporations for carrying on a trade, but he could not restrain others from exercising that trade; such restraint was restraint of a common right; it appropriated to one or a few what others might lawfully use before the grant was made. A charter conferring such exclusive privileges was therefore void. The East India Company, which was a joint-stock company, came, it was said, within the provisos of the statute of monopolies, at any rate, after the expiration of their first charter, though the same objection could not perhaps be urged against the regulated companies. Many statutes were quoted in defence of the claim for free trade; on more general grounds it was held that the right to trade was "a right, natural and human," and a charter against natural and civil right was void. On the other hand, a distinction was drawn between inland and foreign trade, and it was maintained that by common law subjects had no absolute right to pursue the latter, which presupposed treaties or leagues of amity concluded by the king of England with foreign powers; that no statute had ever given a general liberty of trade to Englishmen to or with all nations, and that the special statutes dealing with particular nations or particular commodities were not declaratory, but introduced a new law. The distinction between joint stock and regulated companies was held to be of no weight, because it did not touch the question of right, whether a company could or could not have a grant of an exclusive trade. On the ground of expediency, the case for the companies against the interlopers was strong. The men to whom the first charters had been granted were frequently the first discoverers of the trade, and it seemed only fair that they should enjoy a monopoly to reimburse them for their outlay. Their position was analogous to that of the patentee of a new invention, whose claim to a monopoly for a limited period was universally conceded. The companies also were put to great expense for the maintenance of official establishments and factories, for negotiating treaties, for costly presents, and for other objects. It was unfair that interlopers should step in and reap the fruits of their enterprise, without undertaking any of their arduous and expensive duties. They would naturally be able to undersell the companies in the home markets, and the trade would ultimately be destroyed. It was also maintained that experience was in favour of the company organisation, for the trade could not be carried on successfully by any other means. To those arguments the interlopers had an effective reply. Considerations of expediency did not effect the right to an exclusive trade, and it was that which they called in question. To urge expediency in defence of the companies was to set up convenience, or the pretence of convenience, against law; and such an argument might be as effectively used against the companies as in their favour. It might, for example, be urged by the Assada Merchants, as a reason for suppressing the East India Company. There was no objection to the grant of a monopoly for fourteen years to the first discoverers of a trade, but it should then determine. Besides, most of the trades monopolised by the

companies had been carried on by private traders, or associations of private traders, before the grant of exclusive charters. Those who claimed liberty of trade were willing to bear their full proportion of necessary charges, nor did they wish to dissolve any company. On the contrary, a joint stock was, as a rule, necessary for distant trades. They merely claimed that people should be free to form companies or not, as the conditions of the trade should determine, and that no one company should enjoy a monopoly (see COMPANIES). W. A. S. H.

INTERNAL CUSTOMS AND TOLLS. It has sometimes been asserted of taxes that they supply nations with more causes of grief than of well-being. Whether this sweeping assertion is generally true or not, it is certainly confirmed by experience in respect to internal tolls and customs. France, the earliest unified of western continental powers, affords us a striking example of their mischievous operation, which may serve as an illustration of the inconvenience and injury they cause to the trade of a country.

As appears by one of their names, *droit de haut passage*, French customs are, during the feudal ages, difficult to separate from tolls proper. From 1360 they were called *imposition* or *traite foraine*, and as the provinces had preserved their own special constitutions, several of them, such as Picardy, Artois, Anjou, Poitou, Berry, Auvergne, Languedoc, etc., successively adopted them, the duties being collected by a body of officials called *masters of the ports*, but with various tariffs and under different names—*tablier* at La Rochelle, *prévôté* in Nantes, *comptable et convoi* in Bordeaux, *coûtume de Bayonne, trépas de la Loire, traite foraine* in Anjou, etc. The most vexatious of these customs were those of Lyons and Valence (formerly of Vienne), which commanded the passage of the Rhône, and through which *all* goods, whether foreign or home-made, on their way to or from southern France, were compulsorily and unmercifully obliged to pass. The former amounted to 5 per cent, the latter to 3 per cent, and Forbonnais mentions four cases in which it had to be paid twice; not including the tolls levied by private individuals, he reckons that thirteen different duties were exacted between Lyons and Arles, a distance of 150 miles (*Recherches sur les Finances de la France*, i. pp. 358, 359). The same author quotes the bitter complaints made against the customs of Valence by a deputy of Lyons at the states of Dauphiné in 1600: "These customs are a rock and a cause of shipwreck. They are hatched and grow like crocodiles. . . . The terrified merchants fly from this passage as if it were a cut-throat place (*un coupe-gorge*) . . . and if caught, only recover their liberty when the officers have rummaged their bales to the bottom and their purses also" (*Recherches*, i. pp. 40, 41). The eloquence of the worthy member for Lyons was lost, for these customs continued until 1790.

On the Loire, where Forbonnais enumerates 28 tolls, the oppression was quite as vexatious, and Louis XIV., under the direction of Colbert, uses in the preamble of the edict of 1664 language quite as strong as had been heard sixty years before in the states of Dauphiné. "We have ascertained," are the royal words, "that under different names such a diversity of these [duties and tolls] have been set up that we have been filled with astonishment at the institution of so many levies and impositions, sufficient to disgust our subjects from continuing their trade. . . . The merchants cannot possibly have a sufficient knowledge of them, still less their factors and carriers, who are constrained to rely on the good faith of the managing clerks, often doubtful" (P. Clément, Colbert's *Letters and Instructions*, vol. ii. pt. ii. pp. 787-796).

In this edict, Colbert endeavoured to alleviate and unify the chaotic system bequeathed by past ages, but the *Pays d'États*, who in contrast with the *Pays d'Election* enjoyed the privilege of voting and assessing their taxes, steadfastly resisted; the minister was obliged to submit, and France had to be divided into three regions.

1st. Twelve provinces, mostly round Paris and between the Somme and the Loire, in which the internal customs were abolished; they were called *les cinq Grosses Fermes* on account of the system of farming their taxes (see FARMING OF TAXES).

2nd. The so-called *provinces étrangères* (Britanny, Auvergne, southern France, the Franche Comté, and Flanders), which maintained their interior lines of customs.

3rd. The provinces *traitées comme pays étranger* (considered as foreign) Alsace, Lorraine, Toul, Metz, Verdun, and the seaports Marseilles, Dunkirk, Bayonne, and Lorient, which enjoyed the envied privileges of being free ports.

The enlightened views of Colbert thus only became law in the central parts of the kingdom; everywhere else he met with a stubborn resistance prompted by a perhaps justified fear of royal encroachments, by local jealousies, and also by surviving notions on the means of securing plenty, which had been dominant in the middle ages.

The system of tolls proper (*tonlieux* and *péages*) on travellers and goods by land or by water covered with an inextricable net the whole of the kingdom. Imposed by force and under the penalty of confiscation by nobles (*rouage* or *rotaticum*, *cauciage* and *carragium* on carts, *pulverage* on flocks of sheep, *pontage* or *pontaticum* on bridges, *rivage* or *ripaticum* and *mutaticum* on barges and their cargoes, etc.), and by townships (*carragium*, *portage*, and *barrage*), they were an object of unceasing complaint. Several ordinances of Louis IX., Charles VII., Louis XI. and Francis I. attempted to put limits to these

extortionate demands: new *péages* were prohibited and it was decreed that the existing ones must be sanctioned by deed or immemorial possession. An ordinance of 1561 ordered that the nobles who levied tolls were to keep the roads in repair, and another of 1663 declared that tolls might only be collected under authority of the king. The *Assemblée de Commerce*, summoned in 1700 by Louis XIV., petitioned for the suppression under compensation of all private tolls, and about 1200 were suppressed in 1724, but thousands of them still survived on the eve of the French revolution. "A barge laden with wine from Languedoc, sailing up the Rhône and proceeding to Paris by canals and the Loire, has to pay from thirty-five to forty various duties and tolls, exclusive of the tolls on the Rhône and the entry in Paris, in fifteen or sixteen different places . . . which makes the journey a fortnight longer than if all were paid at once in one same *bureau*" (from MS. in the *Archives Nationales* quoted by Taine —*Ancien Régime*, p. 471). In his *Finances de l'Ancien Régime* (i. 473), M. Stourm relates the history of a Paris commissary of police sent on an official mission to buy wine in the south, and convey it in person to Paris, so as to ascertain experimentally what were the fiscal incidents of the journey. From Roanne to Melun, about 240 miles, he had to pay 16 *péages seigneuriaux*, 7 *octrois*, without reimbursement on leaving the place, and the customs duty according to the tariff of the *Cinq Grosses Fermes* already mentioned. The honest commissary in despair did not proceed farther than Melun. Well might Necker exclaim in his *Administration des Finances:* "These laws are so confused that scarcely one man or two out of each generation succeeds in mastering them completely" (p. 473). He introduced a bill for the abolition of internal tolls and customs before the *Assemblée des Notables* in 1787, but this reform was only voted in 1790 by the national assembly considering that "these divers duties had made the different parts of the state foreign to each other."

From that day, the restoration of internal customs has never been attempted in France, although what might be called municipal customs still exist under the name of OCTROI (*q.v.*). As to the roads, the revolutionary government first tried a system of voluntary *corvées* inspired "by the generous fire which animates our free and republican souls," but as this generous fire turned out to be totally wanting, the directory, in 1797, set up turnpikes (*barrières*) on the highways: the tariff for a four-wheeled cart with two horses amounted to 80 centimes (8d.) and to 1·20 fr. (say 1s.) for spring-carriages, per 15 miles. But this imitation of the English turnpikes was not successful, and in 1806 the then minister of finance, GAUDIN (*q.v.*), had to give it up and to confess that "it excited frequent brawls, constant complaints, and that it only yielded 16,000,000 of francs, against an expenditure varying from 30,000,000 to 35,000,000" (*Notice sur les Finances*). Thus, in France at least, practical experience contradicts Adam Smith's opinions that carriages and lighters might "easily" pay for "the maintenance of public works exactly in proportion to the wear and tear which they occasion of them" (*Wealth of Nations*, bk. v. pt. iii. ch. i.). Moreover, on the roads, the expense of the collections of the turnpike dues absorbed 23 per cent of the proceeds. On rivers and canals, although it was an easier task to collect them at the sluices, where barges and lighters are necessarily detained, navigation is also free since 1880; the levying of tolls by companies or corporations who have executed public works, is quite exceptional, and must in each case be conceded by a special law. The prevailing feeling looks on the construction and repairing of roads and canals as a public service, which ought to be covered by the public revenue; however, for the latter, there were in 1889 some unavailing attempts to cause the French parliament to reconsider the question. A tax of 10 per cent on travellers' fares in public vehicles has existed since 1797; similar taxes are laid on fares and freight by rail, but these receipts have no specific allocation to the repair of roads and are included in the total revenue of the state.

Germany has, naturally owing to its state of political division, been one of the countries where the system of internal customs and tolls has received the most excessive extension. Vainly did successive diets declare that such unauthorised tolls had no legal existence; the petty princes and sovereigns persisted, and at length succeeded in obtaining the legal recognition of their prerogatives. Sometimes the different provinces of one particular state were fenced round with tolls, for instance in Prussia, where the Great Elector Frederick William (1620-1688) having introduced a system of excise varying from province to province, compensatory excise-duties (*Ergänzungsaccise*) had to be paid on the passage from one province into another. After the peace of 1815, Prussia initiated the movement of reform of German internal customs, which culminated in the conclusion of the ZOLLVEREIN (*q.v.*) and of internal tolls on the transport of goods and travellers. On the Oder about thirty provincial tolls were suppressed, numerous communal and private tolls were redeemed, and on canals the dues were henceforward calculated on the capacity of the barges and lighters, without having any longer regard to the nature of their cargoes. The same policy of simplification was from 1838 applied to roads and highways; still down to 1867 such dues as *Pflaster-*, *Brücken-*, *Damm-*, *Fahr-gelder* (pavement, bridge, dyke, pass

age tolls) were levied, besides the *Chausséegeld*, which was only abolished in 1874. (Article *Binnenzölle* in Conrad's *Handwörterbuch der Staatswissenschaften*, Jena, 1889-1890). In the states of southern Germany their suppression had taken place earlier: Bavaria and Würtemberg, 1828, Baden, 1831.

[For Germany, see Hüllmann, *Deutsche Finanzgesch. des Mittelalters*, 1805.—Falke, *Gesch. des deutschen Zollwesens*, 1869; and Roscher, *Gesch. der Nat. Oek.*, p. 950. For France, besides the already-mentioned works, the articles "Douanes," "Droits," "Péages," in the *Encyclopédie Méthodique*.—Renauldon, *Traité historique et pratique des droits seigneuriaux* (Paris, 1765).—Moreau de Beaumont, *Mémoires sur les Impositions de la France* (1785).—Clamageran, *Histoire de l'Impôt en France* (1867-76).—Vignon, *Études historiques sur l'Administration des Voies Publiques en France avant 1790* (Paris, 1862), and the articles "Canaux de Navigation," "Douane," "Péage," "Routes et Chemins," and "Voies de Communication" in Guillaumin's (old) *Dictionnaire d'Économie Politique*.] E. Ca.

INTERNAL REVENUE TAXES IN THE UNITED STATES. In the United States this term is applied to federal taxes imposed upon domestic manufactures, trade, or income. It does not include revenue derived from sales of public lands, postal revenues, or patent fees. Internal revenue duties have been imposed at three different periods: 1791-1802; 1813-1817; and 1862 until the present time (1893). During the first period taxes were levied upon distilled spirits (1791), carriages, licenses for retailing wines and liquors, snuff, refining sugar, auction sales (1794), stamped papers (1797), and a direct tax of $2,000,000 (£400,000) (1798). The first of these duties was very unpopular in certain sections of the country, not only on account of the special burdens which were imposed upon farmers, who were the distillers of the period, but also because it was regarded as a British tax, hostile to American freedom. Opposition gave rise to the whisky rebellion in the western part of Pennsylvania. The republican party under the leadership of Jefferson was pledged to the repeal of the existing internal revenue duties; and with their succeeding to power, this was done in 1802. The necessities of war revived these taxes in the second period, and a similar reason occasioned their imposition at the beginning of the civil war. In the last period they were sweeping in their embrace; and, owing to the urgency of the times and general ignorance of the incidence of such taxes, there was frequent change and no system. The first of these measures was the act of July 1, 1862, which imposed specific and *ad valorem* duties upon manufactures, licenses upon occupations, a general income tax, and a tax upon gross receipts of transportation companies. The system was further extended by the act of June 30, 1864; and it was estimated by Mr. David A. Wells that between eight and fifteen per cent of the value of the finished product was collected by the treasury department. So productive indeed were these taxes that from 1864 until 1868 they exceeded the customs revenues. With the close of the war many of the internal revenue duties were reduced or repealed, until taxes were imposed only upon the manufacture and selling of distilled liquors, fermented liquors, tobacco and cigars, and oleomargarine.

During the first period, 1792-1801, the internal revenue duties varied from 5 to 9 per cent of the net ordinary receipts; in the second period, they constituted about 13 per cent; and since 1862 they have been one of the principal props of financial support, furnishing in recent years about 40 per cent of the net receipts. As the country has become accustomed to the taxes, and they are favourably regarded by many as desirable sumptuary regulations, they may remain for the present (see Finances, United States).

[For the early period see H. C. Adams, "Taxation in the U.S. 1789-1816," in *Johns Hopkins Studies*, vol. ii.; and for the period of the civil war, *Reports of the Special Commissioner of Revenue* (D. A. Wells) for the years 1866-68; also annual *Reports of the Commissioner of Internal Revenue* (published without Tables in the *Finance Reports*).] D. R. D.

INTERNATIONAL. See International Working Men's Association.

INTERNATIONAL COINAGE. The idea of having one and the same measure of values for all civilised nations received a strong impetus from the great exhibition in London of 1851. The difficulty then experienced in comparing the prices of similar exhibits from different countries and the values of the exhibits of one country as against those of another, led to the discussion of the possibility of establishing an international standard; the question came up at various meetings of the international statistical congress. In December 1865 France, Belgium, Italy, and Switzerland made the convention by which the currency of the Latin Union was established. In 1867 the conference at the Paris exhibition invited wider consideration of the idea thus adopted. Two delegates from Great Britain attended this conference, which recommended that a uniform gold standard be adopted by civilised countries with coins of $\frac{9}{10}$ fineness; and that the gold coins thereafter struck by countries the parties to the convention should be multiples of five francs. About the same time several countries had been making some move in the direction of assimilating their coinage to that of their neighbours.

The royal commission of 1868, which arose out of the Paris conference, marks for Great Britain the most important epoch in the history of the idea. That commission examined some of the leading economic thinkers of the day,

such as Bagehot, Jevons, and Newmarch, of whom the latter was almost alone in being very lukewarm about the matter; the principle of an international coinage was warmly espoused by several witnesses. The commission summed up the evidence as tending to show—

1. That time would be saved to all traders in calculations and comparing foreign price-lists.

2. That small traders would be relieved from a disadvantage which at present they suffered in their inability to keep a staff conversant with foreign price-lists, etc.

3. That commercial travellers would be much aided in pushing their wares.

But the commission very rightly pointed out that these advantages, even if not exaggerated, would only be obtained by complete uniformity of weights and measures as well as coins. As regards coins it stated the absolute necessity of some sort of international mints so as to assure each country that the international coins did correspond in intrinsic value with their denomination; it pointed out the necessity of a uniform charge for mintage; and after discussing the various possibilities as to the choice of a coin for a common standard, concluded that a measure which would cause so much disturbance of existing contracts, and was after all only a partial measure, could not be lightly entered into; and they reported distinctly against any suggestion that Great Britain should merely adopt a gold coin of the value of 25 francs instead of the sovereign.

Here the matter rested so far as Great Britain was concerned for thirteen years. But the conference of 1867 is thought to have borne fruit in the adoption of a gold standard by Germany in 1871, and the alteration of other national currencies. When in 1882 delegates on behalf of the British Indian and imperial governments attended another conference at Paris upon the question, the idea had taken a new turn; in 1867 the general opinion of the parties who met in conference had favoured a single gold standard; now the United States, as well as some other countries, had declared for a double standard. The possibility of agreement on an international currency was farther off than ever.

The system generally supported by advocates of change as the best to be adopted is a decimal system (see DECIMAL SYSTEM), and to some extent the movement in favour of an international measure of value became mixed up with the movement in favour of international weights and measures. Even if the principle of the decimal system be admitted, we have still to face the difficulty of electing between the two chief decimal systems of the world—those of the United States and of the Latin Union. And there is at least a question whether the mere theoretic convenience of the decimal system should weigh against other considerations, *e.g.* that of keeping in currency the most generally known coin of the world. The Commission of 1868 on that ground suggested that the sovereign was best adapted for an international standard—but they did not consider whether it should be redivided on a decimal system; this is of course a matter of pure convention.

The general objections to a change which falls with different weight on different countries are chiefly (1) the necessity of revising all contracts; (2) the expense attendant on re-coinage. They will be found well stated in the late Mr. Newmarch's evidence before the commission of 1868. We are assuming that subsidiary coins will follow the standard, and that thus one class of difficulties will disappear.

There is, however, one important point touched on by Mr. Goschen in his evidence before the same commission—viz. whether making a "coin" a universal measure will not be to substitute a token for the commodity known as gold.

The idea of an international coinage is not impossible, though at present impracticable. In the 15th and 16th centuries the Spanish dollar and Portuguese Johannes became for all practical purposes international coins, and at the present time the English sovereign comes almost as near to that ideal as the Spanish dollar did.

[The publications of the International Association for obtaining a uniform decimal system, etc., etc., especially a *Concise Narrative* by Leone Levi, 1867.—The report of the Royal Commission of 1868 in *P. P.* of 1868, vol. xxvii.—The reports of the delegates to the International Monetary Conference 1882 in *P. P.* of 1882, vol. liii.]

C. A. H.

INTERNATIONAL LAW.

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I. INTRODUCTION.—International Law may be defined as *the rules which determine the conduct of the general body of civilised states in their dealings with one another*. Some writers regard it as deduced from principles of natural justice implanted by the Creator in the human breast (Vattel, Wheaton, Hautefeuille), while others look upon it as a body of precepts drawn from the practice of states, and resting for their validity upon express or tacit consent (Hall, Stephen). The latter view is in accord with the facts of history. Modern international law is derived from usage, some of it extending back to remote antiquity, but most being the

growth of the last three centuries. Rules have been adopted partly because they were convenient and partly because they were deemed just and merciful. The law of nations is ultimately shaped by the public opinion of the civilised world.

II. The Laws of Peace. 1. *Independence.*—Every fully sovereign state possesses the right of managing all its affairs without interference from other states. This is called the right of independence. It is conditioned by an obligation to respect the corresponding rights of other members of the family of nations. Mutual intercourse is as impossible among states without mutual concession as it is among individuals. Political communities, like Egypt and Bulgaria, which are not allowed entire freedom of action in external affairs, cannot be regarded as fully sovereign and independent; but a state which submits temporarily to restrictions imposed by treaty is not held to have forfeited thereby its title to independence. Intervention takes place when a state interferes by force or threat of force in the internal affairs of another state, or in questions arising between two or more states. Such action trenches upon independence, and is therefore to be looked upon with grave suspicion. Each case must be judged on its own merits. Publicists differ widely as to what are lawful grounds of intervention. It is best to restrict intervention to cases where the duty of self-preservation overrides the obligation of respecting a neighbour's freedom of action. Undoubtedly a state may intervene to ward off a direct and pressing danger to its own safety or its highest national interests.

2. *Property.*—Modern international law assumes that sovereignty is territorial (Maine, *Ancient Law*, ch. iv.). States possess arsenals, museums, hospitals, munitions of war and similar objects; but their territorial possessions are by far the more important. Their dominion extends not only over the land within their boundaries and all the rivers and lakes enclosed therein, but also over the sea to the distance of three miles from low-water mark along their shores, and over the narrow bays and gulfs indenting their coast. The best rule with regard to inlets is that, if the line drawn from headland to headland across the entrance is less than ten miles in length, they are territorial waters, if more, they are a part of the open sea. In the former case the marine league is measured from the imaginary line across the opening, in the latter from the shore around the bay. The ten-mile rule has not, however, been adopted universally in practice, like the three-mile limit. The open ocean is free from territorial dominion. Its use is common to all, and none have exclusive rights within it. The old claims to dominion over large portions of it have become obsolete, the last relic of them having disappeared when the arbitrators of Paris decided, in 1893, against the claim of the United States to exercise jurisdiction in Behring Sea for the purpose of preventing vessels of other nations from catching seals therein. There is a right of innocent passage through natural territorial waters when the channel connecting two portions of the high seas runs through them. All vessels at peace with the territorial power possess it; and it has been secured as regards the artificial channel of the Suez Canal by the convention of 1888, which neutralised that water-way. Fisheries in territorial waters are reserved for subjects of the local sovereign; fisheries in the high seas are open to all. But these simple rules are often modified by treaty stipulations. If a river flows through more countries than one, it is now the custom for them to grant reciprocal rights of navigation. If a river flows between two countries, the territory of each extends to an imaginary line drawn along the middle channel (*Thalweg*).

3. *Jurisdiction.*—Jurisdiction is in the main territorial; but states have a personal jurisdiction over their own subjects wherever they may be, though it cannot be enforced if the territorial jurisdiction of any other power conflicts with it. Each state exercises authority over all persons and things within its territory, with some few exceptions. Questions of jurisdiction assume an international aspect when two states put forth conflicting claims with regard to the same individual. Thus a person born in one country and naturalised in another, may be regarded by each as its citizen; and, if he returns to the country of his birth, it may possibly deal with him in a way that causes the country of his naturalisation to interfere for his protection. England in 1870 recognised the naturalisation of her subjects abroad as depriving them of their British citizenship; and, with regard to her naturalised subjects, she protects them abroad except in the country of their birth, but there she will not interfere on their behalf unless by its law they have ceased to be its subjects. This rule avoids all trouble; but countries which, like the United States, claim to protect their naturalised subjects wherever they may be, meet with constant difficulties in the matter of compulsory military service. Latterly these have been avoided by treaty stipulations whereby the obligation is not to be enforced unless the person concerned had actually come under it before he left his native land. Citizens of one country domiciled in another must pay all state and local dues, but they cannot be compelled to serve in the army. Real property is for all purposes under the local law; but if personal property is situated in one country and its owner is domiciled in another, the *lex domicilii* (see Domicil) prevails with regard to it. A state's jurisdiction extends to all ships, except foreign men-of-war, in its territorial waters, to

all its own ships on the high seas, and to all pirates seized by its vessels. Some states follow France in declining to exercise authority over foreign merchantmen in their ports, when only the interior order and discipline of the ship are concerned. In such cases the law of the country to which the ship belongs is applied. Foreign sovereigns visiting a country in an official capacity, and the resident diplomatic agents of foreign powers, are exceptions to the rule that a state's jurisdiction extends to all persons and things within its territory. Their persons and property are inviolable. They are exempt from ordinary legal processes, and even in cases of grave misbehaviour all that can be done is to escort them out of the country. Land forces of foreign states may not enter the territory without permission; but when in it they are under the authority of their own officers. Foreign ships of war enter friendly ports without special permission. While there they are exempt from the local jurisdiction in most matters, but are bound to observe port and health regulations, and also neutrality regulations should their country be a belligerent. They may give asylum in extreme cases to political refugees and fugitive slaves, but not to ordinary criminals. The local authorities have no right to effect arrests on board. Western states have obtained by treaty for their subjects in oriental countries under native rule exemption from the local jurisdiction, and subjection instead to consular courts of their own nationality or mixed tribunals. Most civilised powers are now bound by extradition treaties to surrender to one another criminals, who, having committed a grave offence in the territory of one state, succeed in escaping to another. Political offenders are usually excepted from these stipulations.

4. *Equality.*—The doctrine of equality means that the rights and obligations of each independent state are the same, not that all are equal in influence. Since outward forms are the signs of equality or the reverse, the rules of etiquette between states are treated of under this head. Some of them regulate precedence at court ceremonials, others are concerned with diplomatic rank and the order of the signatures to international documents, while a third class deal with salutes by foreign war-vessels visiting a port and salutes between vessels at sea.

5. *Diplomacy.*—Diplomatic intercourse is now carried on by means of agents accredited by each state to its neighbours, and permanently resident at their capitals. These agents are divided into four classes: (1) ambassadors, and papal legates or nuncios; (2) envoys and ministers plenipotentiary accredited to sovereigns; (3) ministers resident accredited to sovereigns; (4) chargés d'affaires accredited to ministers of foreign affairs. The classes rank in the order given; but within each class precedence is determined by length of residence at the court to which its members are accredited. A state may refuse to receive a given individual as the diplomatic agent of another state if he is one of its own subjects, or personally obnoxious to its sovereign, or openly hostile to it or its institutions; and it may ask for the recall of a diplomatic agent, and even dismiss him, if in its opinion he has seriously misconducted himself. Such rejections are consistent with friendliness between the powers concerned, but a refusal to continue diplomatic intercourse at all is a sign of rupture and generally the prelude of war. Diplomatic ministers possess large immunities. In all matters governed by the *lex domicilii* their residence abroad is held to be a residence in their own country. Their persons are inviolable. They are free from legal processes. Their official residence may not be entered, except in extreme cases, by the local authorities, nor may their papers be seized. The members of their suite who are in the diplomatic service are free in most matters from the local jurisdiction; and their wives and children, and even their servants, share their immunities to a considerable, though not very precisely determined, degree.

III. The Laws of War. 1. *Preliminary Points.*—War is a contest carried on by public force between states, or between states and communities having, with regard to the contest, the rights of states. Private wars have been abolished in civilised countries. All wars are now public, in that they are carried on by governmental authority. There are various ways of obtaining redress by force, which are held to fall short of war, though they differ from it only in the intention of the parties. They are reprisals, Embargo (*q.v.*), and pacific blockade (see Blockade). The first involves the destruction or seizure by one state of property belonging to another in the territory of the latter or on the high seas. The second is used when the aggrieved state seizes all the ships of the offending nation found in its ports. The third is like an ordinary blockade except that the ships of third powers cannot be captured. No formal Declaration of War is necessary. The moment war begins the public armed forces on both sides are free to act, private individuals are obliged to refrain from pacific intercourse with enemy subjects, and some treaties with the enemy are abrogated, while others, such as extradition treaties, are suspended. When a province or colony revolts from the mother-country, other powers may without offence accord it recognition of belligerency, if it carries on war in civilised fashion, possesses a regular government and a fairly well-defined territory, and if the interests of the recognising state demand that it should fix the *status* of the revolted community. Such recognition grants all the rights and obligations conferred on lawful belligerents.

2. *Enemy Persons.*—Enemy subjects found within a state's territory at the outbreak of war are allowed to remain on condition that they live quietly and peacefully and give no information or assistance to their own state. A right to expel them exists; but it is rarely used, the action of the French government of national defence in expelling Germans from the department of the Seine in 1870, being the only instance in modern times. The population of the enemy's country is divided into combatants and non-combatants. With regard to the former, quarter is given when asked for, prisoners are cared for, and, if possible, exchanged, the sick and wounded are well treated and the practice of slaughtering the defenders of a fortress taken by assault has died out. With regard to the latter, they are to be protected from personal insult and injury; but, when they reside in territory in the enemy's occupation, they may be compelled to perform for him any service not distinctly military, and must give no aid or information to their own side. Women and children are sometimes allowed to leave places about to be bombarded.

3. *Enemy Property on Land.*—Real property situated in the state and possessed by enemy subjects is not confiscated or sequestrated, nor is personal property unless the proper authorities order seizure. The outbreak of war renders such property confiscable, but does not *ipso facto* confiscate it. Debts due from subjects of one belligerent to subjects of the other cannot be collected during the war, but the right to demand them revives at the conclusion of peace. Debts due from a belligerent state to subjects of the enemy are not confiscable. Movables taken in war on land are called "booty." They should be sold and the proceeds divided among all concerned according to a regular plan. If booty is recaptured before the captors have held it for twenty-four hours, or before they have brought it within their lines, it reverts to the original owners. When an invader holds a portion of his enemy's country in firm possession, he is said to occupy it. In that case he may use immovables belonging to the invaded state, and, though he may not alienate them, he may appropriate the rents and profits derived from them, unless they are devoted to the support of religion, charity, or education. State movables may be appropriated and alienated, except legal documents, state papers, works of art, and scientific instruments. Neither private immovables nor the profits arising from them may be confiscated, but military necessity justifies their destruction. Private movables are unconfiscable unless of immediate use in war. Requisitions may be levied on occupied districts, which are thereby compelled to furnish articles needed for the daily consumption of the invaders. The taxes are paid into their military chest, and sometimes further sums are exacted under the name of contributions (see ENEMY GOODS).

4. *Enemy Property at Sea.*—Maritime capture can be carried on in the territorial waters of either belligerent and on the high seas. Private as well as public property may be captured; but vessels exclusively engaged in works of exploration, discovery, or humanity, vessels engaged in coast fisheries, and vessels driven by stress of weather into their adversary's ports, are usually exempt from seizure. Moreover, in recent wars merchant vessels of one belligerent found in the ports of the other at the outbreak of war have been allowed a reasonable time to depart, and cargoes of works of art have been restored to enemy owners. And further, enemy goods not contraband laden on board neutral vessels are free from capture under the Declaration of Paris of 1856 (see article on that subject). With the exceptions just given, enemy ships, and enemy goods on enemy ships, are good prize. Belligerent cruisers have a right to stop and overhaul all merchantmen on the high seas in order to discover whether they are liable to capture. Prize Courts are established by belligerents to try the validity of captures made by their cruisers; and it is the duty of captors to bring every prize in for adjudication. But extreme necessity is held to justify the destruction at sea of vessels taken from the enemy. If captured property is recaptured, it is restored under certain conditions to its original owners. Great Britain restores if the recapture is made during the same war.

5. *Agents and Instruments of Warfare.*—Regular soldiers and sailors are legitimate combatants; but guerilla troops and levies *en masse* are held lawful only when they can be easily distinguished from non-combatants and respect the laws of war in their operations. Savage or half-civilised troops, regularly embodied and drilled, and led by civilised officers, are employed by many states. Privateers are forbidden by the Declaration of Paris; but the question of the legality of a volunteer navy, raised by Germany in 1870, has not been definitely settled. The crews of merchant ships may not fight except to resist an attack upon their own vessel. Assassination, the poisoning of food and water, and the use of poisoned weapons and of explosive bullets below 14 oz. in weight, are forbidden. Devastation of an enemy's territory is deemed lawful only when justified by overwhelming military necessity. Stratagems which involve breaches of faith are condemned.

IV. THE LAW OF NEUTRALITY. 1. *The Nature of Neutrality.*—Neutrality is the condition of those states which in time of war take no part in the contest, but continue pacific intercourse with the belligerents. Neutral governments must give no assistance to either belligerent and preserve perfect impartiality

between them. Neutralised states are those which, like Belgium and Switzerland, are obliged, as a condition of having their national existence respected and defended by other states, to abstain from warfare except in the strictest self-defence. Provinces have been neutralised, and also persons and things, such as those concerned with the care of the sick and wounded, which have been protected by the Geneva Convention of 1864. The Suez Canal was neutralised by a great international treaty in 1888.

2. *Rights and Obligations as between Belligerent and Neutral States.*—A belligerent state may not carry on hostilities within neutral territory, or use it as a base of operations, or recruit in it, or obtain supplies of arms or warlike stores for its cruisers in neutral ports and waters. Its vessels must obey reasonable regulations made by any neutral as to the length of their stay in its ports, the admission or exclusion of their prizes, and the amount of coal they may take in. If its troops are driven across a neutral frontier they must submit to being disarmed and interned. A neutral state is bound not to give armed assistance to either belligerent, nor to permit belligerent troops to march through its territory, nor to sell ships or arms to belligerents, nor to lend money to either of them, nor to allow them, or its own subjects for them, to levy troops, or fit out armed expeditions within its dominions or increase the armament or fighting crew of any vessel of war in its waters. It must restrain its subjects from engaging in the military service of belligerents within its territory or accepting letters of marque from them; and it lies under a vaguely-defined obligation to prevent the original departure from its territory of vessels built and fitted out therein for the naval service of either belligerent. The Geneva arbitration of 1872 has not cleared up this point.

3. *Ordinary Maritime Capture.*—The old rule that governed cases of maritime capture uncomplicated by special circumstances of character, destination or control, was that enemies' goods were prize, even if found on neutral ships, and neutral goods were not prize, even if found on board enemies' ships. Attempts began in the 17th century to substitute for it the rule that enemies' goods in neutral ships were not prize, and with this was joined the rule that neutral goods on enemies' ships were prize. The Declaration of Paris adopted the portion of the opposing rules most favourable to neutrals, and decreed that enemies' goods, except contraband of war, should be free under the neutral flag; and neutral goods, with the same exception, should be free under the enemies' flag (see DECLARATION OF PARIS). Neutral goods on board a belligerent cruiser are liable to capture, and they would probably be adjudged good prize if found on an armed enemy merchantman. Resistance by neutral merchantmen to belligerent search renders both ship and cargo good prize. In the absence of special agreement neutrals cannot avoid belligerent search by sending their merchantmen to sea under the convoy of their ships of war. Neutral vessels under belligerent convoy are good prize.

4. *Contraband Trade.*—Belligerents have a right of capturing on the way to the enemy such goods as are directly necessary to the conduct of his hostilities, even though they are carried in neutral vessels. The goods are called "contraband of war" (see CONTRABAND); and the offence of the neutral consists not in selling them, but in carrying them. A belligerent destination is essential; and if a merely colourable neutral destination is interposed between the port of departure and the real termination of the voyage, the doctrine of continuous voyages applies, and the goods are condemned as contraband. Articles useful primarily and ordinarily for warlike purposes, such as arms and ammunition, and the machinery for making them, are always contraband. Articles useful primarily and ordinarily for peaceful purposes, such as books, music and furniture, are never contraband. With regard to articles useful for warlike and peaceful purposes indifferently, technically termed articles *ancipitis usus*, such as clothing, food and coal, there is great difference of opinion. British and American courts and jurists favour the doctrine of occasional contraband, which makes them good prize or not according to such circumstances as the nature of the port to which they are going, the special character of the goods themselves, and the special needs of the enemy. Continental opinion inclines strongly to a restriction of the list of contraband goods, and as a rule rejects the doctrine of occasional contraband, though in 1884 France endeavoured to regard food (rice) as contraband in the course of her operations against China. The British doctrine is strongly based in reason and authority, but there can be no doubt that our courts and statesmen have sometimes given it an undue extension. The usual penalty for carrying contraband is confiscation of the contraband goods, but the whole cargo is confiscated if the proportion of contraband goods to innocent goods is large, and both belong to the same owner. The vessel also is confiscated if it is owned by the owner of the contraband goods, or if any fraudulent device, such as showing false papers, is used to avoid capture.

5. *Blockade.*—Belligerents have the right to capture neutral merchant vessels attempting to enter or leave the enemy's ports, if they are able to maintain a ship of war or a squadron in such a position that any attempt at ingress or egress is eminently dangerous. But they cannot

obtain this right by merely proclaiming a port or a coast-line blockaded, and supporting the proclamation by no force at all or by an entirely inadequate one. Such attempts are called paper blockades. When the Declaration of Paris asserted that a blockade to be binding must be effective, it did but declare an undoubted principle of international law. Military or strategic blockades are those which are carried on with a view to the ultimate reduction of the place blockaded. Commercial blockades are those carried on with the object of weakening the enemy by cutting off his external trade. They are certainly lawful; but there is a growing feeling against them caused by the fact that with modern facilities of land communication they will in most cases cripple neutral trade without inflicting serious injury upon the belligerent subjected to them. When a state establishes a blockade, it generally sends a diplomatic notification thereof to neutral governments. The British school of publicists hold this to be equivalent to notification to neutral ship-masters, but the French school require a warning to be given direct to the neutral ship-master on his first approach to the blockaded port. Thus notification has little or no effect in French practice; whereas English prize law varies considerably according to its presence or absence. The doctrine of continuous voyages applies to BLOCKADE (*q.v.*) as well as to CONTRABAND (*q.v.*). The offence of breach of blockade attaches the moment the blockade-runner leaves its own waters, and is not deposited till the end of the return voyage. The usual penalty is confiscation of ship and cargo; but, if they belong to different persons and the owner of the cargo did not know that the port of destination was blockaded, the ship alone is confiscated.

6. *Unneutral Service.*—Neutral individuals are forbidden to perform certain services for a belligerent, such as transmitting signals or messages for warlike purposes, carrying military or naval despatches, or carrying persons in the military, naval or civil service of the belligerent government. These are not matters of contraband trade. They amount to entering the service of the belligerent, though to a limited degree and for a temporary purpose. It is sometimes difficult to draw the line between what is allowed and what is forbidden in these matters. For instance it has been decided that to carry men returning from abroad to perform military duties in a belligerent army was not unneutral service, because the men were unarmed and unorganised and travelled as ordinary passengers, though cases of arms were in the hold of the vessel which took them. But it has also been decided that to carry shipwrecked officers and men of a belligerent navy home to their own country was unneutral service, because they were organised and the vessel was specially hired by their government to transport them The two important tests are the knowledge of the master of the vessel, and the character of the contract he enters into. If he knows that he is signalling or carrying persons useful in war for a belligerent, and especially if in addition he has made a special contract with an agent of the belligerent government, he will not, if captured, escape the penalty of the confiscation of his ship. Usages are growing up in favour of the exemption of duly certified and sealed mailbags from belligerent search; but at present they have not crystallised into law. Exemption has been granted in recent wars as a matter of comity.

[Acollas, *Droit de la Guerre.*—Bar, *Private International Law*, Gillespie's translation.—Bernard, *Neutrality of Great Britain during the American Civil War.*—Calvo, *Droit International.*—Cushing, *Treaty of Washington.*—De Martens, *Guide Diplomatique.*—Foelix, *Traité du Droit International Privé.*—Hall, *International Law.*—Halleck, *International Law*, Baker's ed.—Hautefeuille, *Des Droits et des Devoirs des Nations Neutres*, vol. i.—Heffter, *Droit International*, pp. 269 *et seq.*—Lawrence, *International Law.*—Maine, *International Law.*—Manning, *Law of Nations*, bk. iv. chs. vii. and viii.—Nys, *Guerre Maritime*, ch. iii.—Ortolan, *Diplomatie de la Mer.*—Piggott, *Exterritoriality.*—Phillimore, *Commentaries.*—Story, *Conflict of Laws.*—Twiss, *Law of Nations.*—Wharton, *Conflict of Laws.*—Wheaton, *International Law*, Dana's ed. pt. ii.

See the works of Hall, Manning, Maine, Ortolan, Halleck, Phillimore, Calvo, Heffter, Hautefeuille, Nys, and the others cited in the body of this article. See also Bluntschli, *Droit International Codifié.*—Wharton, *Digest of the International Law of the United States.*—Kent, *Commentaries.*—Woolsey, *International Law.*—Creasy, *First Platform of International Law.*—Fiore, *Nouveau Droit International Publique.*—Pommeroy, *International Law in time of peace.*—Hertslet, *Map of Europe by Treaty*; and the publications of the *Institut de Droit International*; arts. ANGARIE, DROIT D'; AUBAINE, DROIT D'.] T. J. L.

INTERNATIONAL LAW, PRIVATE.

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I. INTRODUCTION.—Many more or less complex cases are brought before courts of law, so connected with different countries that it becomes a question of what country the law ought to be applied to them. The department of law which answers that question is called private international law, or the CONFLICT OF LAWS (*q.v.*). Its basis is sometimes said to be international comity, as if it was only through comity that a court ever applies a foreign law. But this is not so. Suppose, for example, that the heirship to an estate in England depends on the validity of a marriage which took place

in Scotland. The English court is impelled by much more than comity to apply Scotch law, and not English, to the question whether that marriage could be valid without the presence of a clergyman or a registrar. The selection of a law is itself matter of legal principle, which ought to lead to the same selection being made in all countries. And to a great extent that result is attained, but in many cases the selection is so difficult that neither all countries, nor all judges and authors in the same country, are agreed on it. The subject is eminently one which lies *inter apices juris*. As may be seen from the example just given, the questions dealt with in it arise not only between independent states, as France and Italy, but also between different parts of the same state possessing distinct systems of law, as England and Scotland. And the principles, and the solutions to which they lead, are the same for both cases, so far as circumstances permit.

II. Domicile and Nationality.—Domicile and political nationality occur so frequently among the circumstances determining the selection of a law that the careful examination of those two characteristics, with a view to the classification of persons by them, is considered to be a branch of private international law. Domicile is divided into that of origin and that of choice (see Domicil). Without going into all the distinctions necessary in practice, the former is the domicile which a person derives at his birth, usually from his father, and the latter is that which a person of full age establishes for himself by fixing his residence within a certain jurisdiction, with a sufficient character of permanence. There is on the continent of Europe a wide and growing tendency to substitute political nationality, as a determining element in the selection of a law where a person is concerned, for domicile, which is the older criterion. English judges have not followed that movement, and, even where it prevails, no test but domicile can be applied to distinguish persons who, within the same independent state, belong to parts possessing distinct systems of law, as Englishmen from Scotchmen, Austrians from Hungarians, or men of New York from Pennsylvanians. The law which belongs to a person, and the jurisdiction to which he is subject, either on the ground of his domicile or on that of his nationality, are called his personal law and jurisdiction. That term, for the purposes of the English courts, means the law or jurisdiction of the domicile, even although the person in question is of British nationality, but has a non-British domicile. In certain other countries—France, for instance,—the personal law or jurisdiction is taken to be that of the nationality, subject to the necessity of using domicile in order to distinguish persons of, say, British nationality into Englishmen, Scotchmen, South Africans, or others.

III. Capacity.—This may be absolute or relative. The question whether a person is of the age required by law to make a will, marry, or conclude any other contract, is one of absolute capacity; that of whether two persons are incapable of marrying one another on the ground of consanguinity or affinity is one of relative capacity. Both kinds of capacity have usually been referred on the continent of Europe to the personal law, and in England also the capacity to make a will has always been referred to the law of the testator's domicile. But in England formerly the capacity, whether absolute or relative, for marriage or any other contract, was referred to the law of the place where it was entered into, the *lex loci contractus celebrati;* and so it still is in the United States. Now, however, Lord Westbury, Lord Justice Cotton, and Lord Halsbury, have pronounced that capacity depends entirely on the law of the domicile.

IV. Minors and Lunatics.—The guardians and curators, whether of the person or of the estate, appointed for a minor or a lunatic by the jurisdiction which claims him on the ground either of his nationality or his domicile, can exercise their functions in England, both as to his person and as to his movable property. But the English court also has jurisdiction, and can appoint guardians or committees, though it will only do so in aid of the foreign jurisdiction, so long as the appointees of the latter are not abusing their powers.

V. Marriage and Divorce.—The validity of a marriage, as regards the form of its celebration, like that of any other contract, is universally held to be governed by the law of the place of celebration. We have seen the rules as to the capacity of the parties.[1] Divorce has been granted in England when the husband, whether petitioner or respondent, is resident here, though his residence may not amount to domicile; but the English court shows a strong tendency not to recognise the divorce of persons domiciled in England, when decreed by a foreign court on the ground of mere residence, and since the decision in *Le Mesurier* v. *Le Mesurier*, June 1895, it is probable that in future it will only be granted in England to persons domiciled here. The place where a marriage was contracted is immaterial in a suit for divorce, and the grounds for decreeing divorce can only be those which are admitted by the law of the country in which the court sits, the *lex fori*.

VI. Property and Wills.—Property is divided into movable and immovable, terms which are equivalent to our personal and real estate, except that terms of years in land are immovable property though personal estate in England. This line of demarcation between movables and immovables is recognised for the purposes of private international law even in England.

A distinction must be drawn between questions affecting a particular piece of property, movable or immovable, and those affecting the entirety of a person's property, or of the movable part of it, on the occasion of his marriage or death. The former class of questions, as, for instance, the form and effect of a conveyance of land, or the

[1] One consequence of those rules is that a man domiciled in England gains nothing by going through the form of marriage with his deceased wife's sister, even in a European country where such marriages are allowed to its own subjects. The relative capacity being generally tested in Europe by the personal law, it will not be a marriage even where the form is gone through, unless the parties have previously naturalised themselves there, or transferred their domicile to that country, which would be incompatible with the intention of returning to live in England.

conditions necessary for passing the property in a lot of deal planks, are decided by the law of the country where the piece of property is, the *lex situs*. As to the latter class of questions, the oldest rule, still maintained in England, determined the rights which husband and wife take in one another's movables on marriage by the law of their domicile, which is necessarily that of the husband, and determined the beneficial succession to the movables of a testator or intestate by the law of his last domicile, but left similar questions for immovables to the *lex situs*. Now, however, there is a growing tendency on the continent to consider that the whole mass of a person's property, immovable as well as movable, ought to be dealt with on his marriage or death as a unit, in accordance with his personal law.

What has been said as to the beneficial succession to movables on death being governed by the law of the deceased's last domicile (or nationality) applies, as a general rule, to distribution on intestacy and to the validity of wills in matters of substance, such as the proportion of his property of which a testator can dispose, or the extent to which he may tie up his property. The formal validity of a will, as with respect to the number of witnesses, or to its being notarial or holograph, has usually been referred on the continent, in common with the forms of contracts and acts in general, to the law of the place where it is made, the *lex loci actus*. But the old English practice required that a will of movables should be made also in the form of the domicile, so that both in this case and in that of contracts it took the peculiar line of determining both formal and substantial validity by the same law, though with this difference, that in contracts the rule for the capacity was taken from that for the form, the law of the place of contract, while in wills the rule for the form was taken from that for the substance, the law of the domicile. But now, by Lord Kingsdown's act, a will of personal estate will be held in the United Kingdom to have been well made if it follows the form either of the testator's last domicile, or of the country in which he was domiciled when it was made; or, if he was a British subject, that of the place where it was made; or, if such British subject made it out of the United Kingdom, the form required in that part of the British dominions in which he had his domicile of origin.

VII. Contracts and Torts.—The validity of a contract in point of form is determined by the law of the place where it was made, except that foreign stamps are not required in England on bills of exchange. In other contracts it is agreed that foreign stamps, which are necessary to their validity where made, cannot be dispensed with; but that principle is frittered away in England by a doctrine that a contract may be valid although, for want of a stamp, no available obligation arises from it.

The intrinsic validity and the effects of a contract are determined by the law of that country with which the contract has the most real connection, especially by the law of the country to which the parties looked as that in which it was to be fulfilled.

In order that an act may be sued on in England as a Tort, it must be a tortious one both by the law of the country where it was done and by English law.

VIII. Limitation of Actions.—No part of private international law presents more difference of doctrine between authors, or more difference of practice between different countries, and between different periods in the same country, than this. In England it is settled that the time of limitation is always the English one, and within that time actions are entertained on contracts or tortious acts, though barred by the law of the country to which the contract properly belonged or where the act was done, and after that time are not entertained, though the obligation from the contract or tort is in full vigour in that country.

IX. Bankruptcy.—There has always been a considerable body of opinion in favour of bringing all the assets and all the liabilities of a bankrupt into one focus at his domicile, but this has been resisted not only, as in the somewhat parallel cases of marriage and death, by the theoretical objection to comprising immovable assets in the principle, but also by the practical convenience which is often found in having concurrent bankruptcies in the different countries where the debtor has carried on business, instead of sending all the creditors to his domicile, from which they may be very remote. In England every one is subject to be adjudicated bankrupt who is domiciled here, or within the last year has ordinarily resided or had a dwelling-house or place of business here; that he has been made bankrupt elsewhere does not prevent his being adjudicated one here, if it seems expedient to the court that this should be done; the syndics, or other administrators appointed in a bankruptcy in the debtor's domicile, can sweep his movable property in England within their administration, so long as there is no concurrent bankruptcy against him here; an English creditor must hand over to the trustees in an English bankruptcy any payment which, after its commencement, and not by virtue of any security given prior to its commencement, he has obtained out of the bankrupt's movables in a non-British country; and a discharge under the bankrupt law of a foreign country will only relieve the debtor, in England, from contracts governed as to their effects by the law of the same country, and from torts committed in it.

X. Foreign Judgments.—A foreign judgment, for a sum of money, can be sued on in England when the court which pronounced it was competent by reason of the defendant's being either a subject of that country by nationality, or domiciled in it, or resident in it in a sense looser than that which is needed for domicile but such as is generally sufficient for jurisdiction. All these are grounds of competence having reference to the defendant's person, and are admitted as such everywhere. Where the competence of the foreign court was founded on the circumstance that the obligation sued on had special reference to that country, there is no equally general acceptance of definite rules for jurisdiction, and the English court will not now admit an action on the foreign judgment. In any case where the competence of the foreign

court is admitted and the action entertained, the foreign judgment will be allowed the force of *res judicata*, that is to say, the defendant will not be allowed to dispute it, for alleged error either of fact or of law. The courts of many countries entertain actions not resting on any of the grounds of competence above mentioned. In France, for instance, a Frenchman can sue, although both the defendant and the obligation may have no connection with France. But the judgments in such actions will not be enforced in any other country than that in which they are pronounced. The grounds above mentioned are the only ones of what may be called international competence.

XI. PROCEDURE.—This is always governed by the *lex fori*; that is to say, every court follows its own procedure, and no other, whether in rules of evidence or in any other particular.

XII. THE METHOD OF AMENDMENT.—We must warn the reader that our limits have only allowed us to present a selection of important points, and to treat them especially with reference to the rules prevailing in England, and in a very general way even with reference to those rules. We hope, however, that enough has been said to show how desirable it is that the subject should be settled on a uniform basis for all countries, and how hopeless it is that such a result should be attained except by international agreement. Doctrinal discussion has been at work for seven centuries, with no further result than we have seen. Governments have therefore been at last impelled to take up the subject, and in September 1893 the delegates of fourteen countries met at the Hague, on the invitation of the Netherlands, in a conference on the codification of private international law. In June 1894 the conference reassembled, the delegates of sixteen countries taking part, and a portion of the work, amounting to fifty-nine articles, has been drafted and submitted to the respective governments. It is much to be regretted that the British government declined the invitation to the conference (see CONFLICT OF LAWS).

[The following are a few of the principal works. England: Westlake, *Private International Law*, 3rd ed., 1890.—Foote, *Foreign and Domestic Law*, 2nd ed., 1890.—Dicey, *Law of Domicil*, 1879.—United States: Wharton, *Conflict of Laws*, 2nd ed., 1881.—Story, *Conflict of Laws*, often re-edited: Continent of Europe: von Bar, translated from German into English, by Gillespie, 2nd ed., 1892.—Laine, 1888.—Asser, translated from Dutch into French by Rivier, 1884.—*Revue de Droit International et de Législation Comparée*, Brussels, from 1869.—*Journal du Droit International Privé et de la Jurisprudence Comparée*, Paris, from 1874.] J. W.

INTERNATIONAL SECURITIES. A certain number of stocks and shares are dealt in indiscriminately: on the London market, on the Paris bourse, on the exchanges of Germany or Austria, on those of Holland, and even in New York. The ability of holders to realise in any of these markets, or in that one out of several which may happen to be the best for his purpose, puts such stocks into a different category from those which depend upon a single local and limited market. To give instances, the bonds of the French or Italian governments are dealt in freely on most of the European exchanges, and of Italian bonds it might be said that the best market is almost anywhere outside Italy. The *locale* of market for specific government bonds changes from time to time. Thus, since Russia grew, or was thought to have grown inimical to England, Russian bonds were gradually realised here and sent to Germany or Holland or France; and, whereas Germany was the chief market for Russian securities, after London had lost taste for Russian stocks, France afterwards stepped in and by degrees relieved German holders of a large portion of the Russian sterling bonds which had been bought in Berlin, Frankfort, and on other stock markets of Germany. The shares and bonds of the South Austrian Railway Company (formerly Lombardo-Venetian) were at one time a favourite medium of remittance between markets, these being realisable not only in Vienna, but just as freely in Berlin or Paris or London. Of late years certain American railroad shares have taken the rank and distinctive features of international securities, and bankers have been heard to declare that they would rather advance money upon American railroad shares which carried no dividend, and which might be thought intrinsically valueless, but which could be realised in almost any great market of the world at a pinch, than lock up money in British Colonial stocks for which the market was confined to London, and was not always a free market even on the London stock exchange. A large part of the remittances between countries is now conducted by means of the purchase and sale by *arbitrage* dealers of these international securities. Nothing can be more prompt than the execution of an order by telegraph to buy or sell in Paris securities which were sold or bought against those operations in London, for example. These arbitrage dealings have a strong influence on the exchanges. Thus, suppose money is scarce in London and plentiful in Paris, the scarcity here naturally induces holders of French or other bonds to realise. The pressure to sell in this market reduces the price in London below the equivalent on the Paris bourse. Instantly the arbitrage dealer sees his opportunity, buys here—in the cheaper market, that is—and sells in Paris, which is contemporaneously the dearer market. The French exchange on London thereupon tends to rise, and cash drifts hither if the operations described are sufficiently large and numerous (see ARBITRAGE). A. E.

INTERNATIONAL TRADE. A term used to describe commercial dealings between different countries, as opposed to those taking place within a single country or region. The separation between foreign and domestic trade, due originally to the importance attributed to the former in the MERCANTILE SYSTEM (*q.v.*), has been re-

tained on scientific grounds. There is not such facility for moving labour and capital from country to country as would equalise wages and profits, while the effect of cost of carriage and other obstacles to exchange is very prominent. The ordinary theory of exchange therefore failing to completely interpret the facts, a special explanation is needed, the outlines of which are :—

The difficulty of moving labour and capital is regarded as the cause of the peculiar features of foreign trade. "A nation in the economic sense is a group of producers within which labour and capital freely circulate" (Bagehot), while they do not easily pass outside it. This relative immobility, sometimes regarded (*e.g.* by J. S. Mill) as the result of distance solely, seems more correctly conceived by Cairnes as the product of all the forces—"viz. geographical distance, differences in institutions, language, religion, and social customs"—which separate the economic groups called "nations." As labour and capital cannot move freely from country to country, normal international values will not depend on cost of production, the existence of industrial competition being requisite for the full operation of that regulator. Nevertheless exchanges between countries will be advantageous owing to (1) diversities in natural resources, and (2) the existence of special industrial aptitudes, the result of social development. Though cost will not determine value, it will not be without effect on the course of trade. "The existence of international trade" depends on "a difference in the comparative as contradistinguished from the absolute cost of producing the commodities exchanged" (Cairnes). If, *e.g.*, England gives France coal in exchange for wine, the cost of producing coal as compared with wine must be less in the former than in the latter country.

It is conceivable that both coal and wine may be more cheaply produced in France, but the advantage being greater in the case of wine, it is profitable to obtain coal by means of exchange ; thus a difference in *comparative* cost of producing commodities will suffice to create a trade in them, unless (*a*) the hindrances to exchange be such as to absorb the gain, or (*b*) other countries offer more favourable terms. Cost of production, *so far as it is operative within the trading countries* (see COMPETITION AND CUSTOM) acts as a limiting force on foreign trade. Within the bounds set by comparative cost exchanges are mainly governed by the strength of reciprocal demand (see INTERNATIONAL VALUE).

The benefit of international as of all exchange lies in the increased enjoyments of the exchangers and therefore in the goods received, *i.e.* the only direct advantage of foreign commerce consists in the imports (Mill). Exports are merely the price or consideration paid for what is obtained by these means, a proposition which follows from and illustrates Adam Smith's maxim, "Consumption is the sole end and purpose of all production . . . a maxim so perfectly self-evident that it would be absurd to attempt to prove it."

The general gain of foreign trade can be further divided into, (1) the obtaining of articles which could not be produced at home ; (2) the cheapening of goods which could be so produced but at greater cost ; (3) the more efficient distribution of industrial forces and consequent larger production by the extension of "the territorial division of labour" (Torrens), the last chiefly found in the case of manufactures.

Possible evil results should in theoretical discussion be noted, viz. (1) specialisation of industry, of which foreign trade is but one form, increases the chance of so-called over- (really *mis-*) production. It is more difficult to gauge the amount of product required in a widely extended market ; and such disturbances as wars and failure of crops may produce serious effects. (2) The extension of international exchange may intensify the action of the "law of diminishing returns." In the case of a food-exporting country increased foreign trade is equivalent to an increase of population. When the product is an exhaustible one (*e.g.* English coal or Peruvian guano), the evil is more apparent (cp. Jevons, *Coal Question*, pp. 370 *seq.*). See MINES AND MINERALS, EXHAUSTION OF.

In interpreting the facts of international trade, valuable assistance is afforded by the proposition that "gold and silver having been chosen for the general medium of circulation, they are by the competition of commerce distributed in such proportions amongst the different countries of the world as to accommodate themselves to the natural traffic which would take place if no such metals existed and the trade between countries were purely a trade of barter" (Ricardo). Its truth is shown by considering that any other distribution would be unstable, as either export or import of bullion would be necessary ; it is in fact a special case of the general law that relative prices must be adjusted to relative values.

Until this proposition was formulated "the theory of foreign trade was," as Mill justly remarks, "an unintelligible chaos." By its aid the problems of international trade and values are freed from a complicating element. The precious metals can be regarded as simply an instrument for facilitating exchanges ; normal values are not altered by their fluctuations (see MONEY), which only affect *prices*. Monetary changes, like any other trade disturbance, may be followed by temporary movements, which however do not invalidate the general principles.

The actual working of international trade is carried on by means of the FOREIGN EXCHANGES, (*q.v.*) supplemented by telegraphic facilities and the modern developments of BANKING (*q.v.*), but as in the case of money these agencies alter no essential feature. The fundamental conditions

of exchange hold good alike under a "barter," "money," or "credit economy."

The above outlined theory furnishes a logical basis for the practical rule of FREE TRADE (*q.v.*). "To those who accept the economic theory of international trade, no further proof of the essential soundness of this fundamental principle of commercial policy is needed" (Cairnes, cp. Cherbuliez, t. 2, p. 55), though particular theoretical exceptions may be suggested (cp. Mill, *Principles*, bk. v. ch. 10, § 1; Sidgwick, bk. iii. ch. 5). It may also be usefully employed in discussing the effect of taxation on imports and exports (cp. Mill, *Essays* and *Principles*, bk. v. ch. 4, § 6).

The theory of international trade first stated by Ricardo, more elaborately developed by Mill and Cairnes, may be regarded as the recognised English doctrine, though there are some dissentients (*e.g.* Mr. M'Leod), and even those who do not reject the theory, sometimes, with Prof. Sidgwick, minimise its importance. On the continent it has not met with much acceptance, being either ignored or controverted. The principal objections may be grouped as: (1) international does not differ from domestic trade, and therefore needs no special explanation; (2) the assumptions made are incorrect, so that the conclusions do not interpret the facts (COURNOT, *q.v.*); (3) though logically correct, they have no application to the complications of actual trade (Lexis). Some continental writers have however given admirable expositions, especially A. E. Cherbuliez.

[Ricardo, *Principles of Political Economy and Taxation* (1817), ch. vii.—Torrens, *Economists refuted* (1808); ib. *External Corn Trade*, 1st ed. (1815).—J. S. Mill, *Essays on some Unsettled Questions of Pol. Econ.*, pp. 1-46 (1844); *Principles*, bk. iii. ch. 17-22 inclusive.—Cairnes, *Leading Principles*, pt. iii. (1874).—A. E. Cherbuliez, *Précis de la Science Économique* (Paris, 1862) t. i. pp. 335-391.—Mangoldt, *Grundriss* (2nd ed. 1871) pp. 97 *seq.* 203 *seq.*—Most English text-books contain statements of the theory (*e.g.* Fawcett, Walker, MacVane, Andrews).—See also Bastable, *Theory of International Trade* (1887).—Beaujon, *Handel en Handelspolitiek* (Harlem, 1888).—For criticism, see A. Cournot, *Théorie des Richesses* (1863), livre iii. ch. 6.—Lexis, art. "Handel" in Schönberg's *Handbuch der Politischen Oekonomie* (2nd Au.) bk. ii. pp. 753-758. Also references under INTERNATIONAL VALUE, THEORY OF.] C. F. B.

INTERNATIONAL VALUE, THEORY OF. The problem of international *value*, as distinct from that of international *trade*, deals with the question, "On what principle is the increase of wealth which results" from foreign trade "shared amongst the nations which co-operate in producing it?" Or, since the division of gain depends on the ratio of exchange, "What causes determine the proportions in which trading nations exchange their products" (Cairnes). Its solution depends on an application of the fundamental principle of supply and demand. Under INTERNATIONAL TRADE (*q.v.*), it appeared that the terms of exchange must lie between limits fixed by the relative costs of producing the exchanged goods in the trading countries. Thus if the production of 10 yards of cotton yarn or of silk requires a given cost in France, while 20 yards of cotton-yarn can be produced in England at the cost of 10 yards of silk, the exchange of English cotton-yarn for French silk may be profitably carried on at any ratio between 10 yards silk: 10 yards cotton-yarn, and 10 yards silk: 20 yards cotton-yarn. Less than the former France will not take, more than the latter England will not give. Within these bounds the rate of exchange will depend primarily on the comparative strength of demand. Should the English demand for silk be keen, while that of France for cotton-yarn is feeble, the terms of exchange will probably approach to 10 yards silk for 20 yards cotton-yarn, the precise ratio being so fixed as to equalise the reciprocal demand for the exchanged commodities: *e.g.* if, at the ratio 10 yards silk: 19 yards cotton-yarn, England takes just 100,000 yards silk and France 190,000 yards cotton, the "equation of international demand" (J. S. Mill) will be attained, and so long as the conditions are unchanged the ratio will be stable. An increased demand on the part of either country will tend to alter the terms to its disadvantage—suppose that France needs more than 190,000 yards of cotton she will have to offer say 10 yards silk for 18 yards cotton, and the amounts exchanged may be 110,000 yards silk for 198,000 yards cotton-yarn, which will again equalise reciprocal demand.

In the simple case supposed the equation of demand is not determinate; "several different rates . . . may all equally fulfil the conditions. . . . It is conceivable that they might be equally satisfied by every numerical rate which could be supposed" (J. S. Mill). This theoretical indeterminateness may be removed by taking into account for each country "the capital which it has to spare from the production of domestic commodities for its own consumption" (Mill), or by remembering that as the demand on each side is that of a whole country, it will not be likely—as Cairnes points out (*Leading Principles*, 1st ed. p. 103) in the similar case of reciprocal demand between non-competing groups—to be easily altered.

Hindrances to exchange, such as cost of carriage, unnoticed in the preceding remarks, reduce its advantage and cause a divergence of values in the trading countries. In the absence of impediments, values must be the same in both, but cost of transport and all similar items will raise the value of each commodity in the importing country, so that, *e.g.*, silk will be dearer in England and cotton-yarn in France. The division of this charge will depend on the readjustment of demand which the change in values will

probably produce, and, as there is no precise law for the variations of demand, any change in the amount of hindrances to exchange, will be likely to alter the terms already established, and therefore the proportion of gain derived; "but no absolute rule can be laid down for the division of the cost any more than for the division of the advantage, and it does not follow that in whatever ratio the one is divided the other will be divided in the same" (Mill).

In practice countries will generally trade not in *two* but in many commodities. "Those articles in which the difference in comparative cost is greatest will first enter into international commerce;" but as obstacles to traffic are reduced additional commodities will be exchanged—"a movement which tends to extend until no goods remain whose transfer would give an advantage to either of the parties" (Mangoldt). The extension of trade makes value more stable, and tends to bring about a fairer division of gain, *e.g.* the French demand for cotton-yarn may be feeble while that of England for silk is strong, but the addition of iron and coal to English exports will act on the total French demand and improve the position of England.

Commerce moreover is not limited to two nations. Most staples are produced in more than one country, and are traded in by many. The consequence is a further limitation on the possible fluctuations of value. To the small French demand for cotton a German one may be added, and the advantage of France in the exchange of silk may be reduced by the competition of Italy as a producer of that article. Commodities the subjects of foreign commerce have their values fixed in the market of the world, local deviations being the result of particular hindrances to trade. International values lie "in the region of the most complicated questions which political economy affords" (Mill), and can only be elucidated by use of the principle that "trade among any number of countries, and in any number of commodities, must take place on the same essential principles as trade between two countries and in two commodities" (*ib.*) (cp. Jevons, *Theory*, 2nd ed. p. 124).

International prices have to be carefully distinguished from international values. Prices tend to adjust themselves to values (see INTERNATIONAL TRADE) by the alterations in distribution of the precious metals. Price—the value of money—is a special case of the value problem. The precious metals have their international value fixed by the same conditions as those obtaining in the case of other commodities. "The countries whose exportable productions are most in demand abroad and contain greatest value in smallest bulk, which are nearest to the mines, and which have least demand for foreign productions, are those in which money will be of lowest value" (Mill), this lower value being the result of increased quantity. The theory of international value due in its main features to J. S. Mill has been severely criticised by Cournot and in England by Prof. Sidgwick, who regards "the division of the double cost of carriage which trade involves between the two sets of commodities" as "the question which a special theory of international values has to answer." On the continent it has been neglected by most text-book writers. According to M. Block, "*Les économistes du continent ont bien fait de laisser 'la théorie de la valeur internationale' de l'autre côté de la Manche*" (*Science Économique*, ii. p. 172). Cherbuliez, Mangoldt, and Beaujon are, however, exceptions. The prevailing view in England and the United States may perhaps be summed up in Jevons's judgment of Mill's theory as being "always ingenious and . . . nearly always true" (*Theory*, 154).

[See references under INTERNATIONAL TRADE. Special for international value are J. S. Mill, bk. iii. ch. 18-19.—Cairnes, *Leading Principles*, pt. iii. ch. 3.—Sidgwick, bk. ii. ch. 3.—F. Y. Edgeworth, "The Theory of International Values," in *Economic Journal*, vol. iv.—Mangoldt, *Grundriss, Anmerkung*, ii.—Beaujon, *Hoofstukk*, 3.—Bastable, ch. 3. See also Torrens, *The Budget* (1842), and criticism in *Edinburgh Review*, July 1843 (by Senior).] C. F. B.

INTERNATIONAL WORKING MEN'S ASSOCIATION, THE. This association, which came to be generally known by the abbreviated title of "The International," was founded in 1864. Its origin was very different from its ultimate development. It was suggested by some representatives of English working men in an address presented to some French workmen who had come over on the instance of the Third Napoleon to visit the London exhibition of 1862. It was suggested as a means of interchange of thought and opinion on the solution of the labour problem, among other economic questions affecting the welfare and condition of society. It was suggested as a means of creating an union of interest and feeling between the working men of different countries. It had apparently in its origin no definitely socialistic aims, it even held that the socialist schemes, which had been professedly put forward as solutions of the labour problem, were idle chimeras and magnificent dreams. But, as soon as the suggestion took practical shape, the committee which was formed requested Karl MARX (*q.v.*), the author of *Das Kapital*, to draw up the programme and to prepare the statutes of the association. He impressed upon it from the outset the stamp of his own socialistic views; and, although throughout its history he never held any higher office than that of corresponding secretary for Germany, he seems to have exercised a predominant influence over its deliberations and acts. The statutes,

which were adopted at the congress held at Geneva in 1866, declared, in the characteristic language of modern scientific SOCIALISM (*q.v.*) that the "economic subjection of the labourer to the possessor of the means of production is the first cause of his political, moral, and material servitude, and that the emancipation of labour is consequently the great aim to which every political movement ought to be subordinated." This phrase of the "emancipation of labour" was conveniently ambiguous, and was interpreted differently by the workingmen members of different countries. The English trade-unionists saw in it far less than the Russian nihilist BAKOUNIN (*q.v.*), who merged his more violent "Alliance of Socialist Democracy" in the larger organisation of the International; but for some years a working basis of agreement was found by cherishing a distant ideal of a revolutionary nature at the same time as immediate practical aims of so comparatively moderate a character as free education, gratuitous justice, and a normal working day of eight hours, were sought to be accomplished. The association held periodical congresses in various towns, and gained a footing in different countries. In Belgium it had as many as eight federations of associations, and several journals; in Holland it possessed a branch in almost every town in 1869, and in Spain its organisation extended throughout the length and breadth of the country and comprised a membership of more than 300,000. It did not spread in Norway or Sweden, nor yet in Switzerland, although its congresses were not unfrequently held in the last-mentioned country. It exercised, M. de Laveleye observes, little real influence in Germany or in England, but in the latter country it obtained the nominal adhesion of 30,000 trades-unionists represented at the Trades Union Congress of 1867. From the first there were discordant elements in the association, and after the revolution of the COMMUNE OF PARIS, which followed the Franco-German war, and met with the approval of the leaders of the International, the English members dropped off. At the first congress, which was subsequently held, at the Hague in 1872, the association broke up into two rival factions on the questions of the nature of the political constitution of the society of the future, and of the means by which that new society was to be substituted for the present *régime*. The centralist democratic socialists, led by Marx, were in favour of centralised authority, the anarchic socialists, led by Bakounin (see NIHILISM), disliked central government and favoured the old communal system. The former advocated legal and peaceful organisation, and a gradual though inevitable evolution from the old order to the new; the latter urged revolution. Bakounin was expelled from the association; and for a time two separate organisations maintained a lingering existence and then died away. The connection of the English trades unions with the International had never been very close, although the first president was Odger, a noted unionist leader, and the first secretary, Cremer, another unionist leader of repute. There can indeed be little doubt that generally the International possessed far less power in reality than that with which it was commonly credited. But it certainly inspired wide-spread alarm. It was joined for a short time by the Italian Mazzini. It was suspected of being the real author of the Paris Commune. It has been the subject of a parallel between itself as the Red and the Roman Catholic church as the Black International. Its first manifesto concluded with the words "Proletarians of all countries, unite," and from its outset it aroused the repressive hostility of the governments of France, Italy, Austria, and Spain.

[J. Rae's *Contemporary Socialism*, chs. ii. and iv.—De Laveleye's *Le Socialisme Contemporain*, ch. x.—Hyndman's *Historical Basis of Socialism in England*, ch. xii.—Labour Comm., *Foreign Reports* on Germany, should be consulted. See also *Le Devenir Social*, June 1895. *En mémoire du manifeste du parti Communiste*, by A. Labriola.] L. L. P.

INTERPLEADER. Where a person is under liability for any debt or goods in respect of which he expects to be sued by two or more parties making adverse claims thereto, he may bring the adverse claimants before the court, or compel one of them to relinquish his claim by a mode of procedure called "interpleader." The same mode of procedure is available for a sheriff or sheriff's officer taking goods in execution which are claimed by a third party.

E. S.

INTERRUPTION OF PRESCRIPTION. See PRESCRIPTION.

INTERSTATE COMMERCE LAW (U.S.A.). The constitution of the United States, while leaving to the authorities of the several states the right and duty of controlling the operations of common carriers, reserves to congress the right to regulate commerce between the states. When the constitution was framed, this provision was chiefly intended to prevent the individual states from erecting custom-houses on their borders, or in any wise taxing the business which should originate in other parts of the union. But as time went on it began to have an important bearing on railway regulation. For the through or "interstate" traffic tended to increase in volume faster than the local or state traffic, until, in 1886, it furnished from three-quarters to nine-tenths of the business and the revenue of many leading lines. Under these circumstances, local legislation which could only affect a small part of the traffic of such lines was obviously of little

use; more especially since fairness in railroad rates is a relative matter, and the justice of a local charge depends not alone on conditions affecting that shipment by itself, but also on the scale of charges adopted for through traffic on the same line.

The United States courts did all that they could to meet this difficulty; but there was a clamour for legislation which should settle the principles to be applied more definitely and speedily than the courts were likely to do if left to themselves. The first attempts to secure such legislation were made in 1873; but it was not until 1878 that a systematic and continuous agitation of the subject was begun, which finally led to the passage of the Interstate Commerce Act nine years later. In 1878, Mr. Reagan of Texas, formerly postmaster-general of the confederate states, introduced a bill providing for the adoption of equal mileage rates on all the railroads of the country. Such a proposal was obviously impracticable, and was successfully resisted by the railroads. In subsequent years Mr. Reagan introduced a succession of bills, each a little more moderate than its predecessor, but all endeavouring to subject the railroads to somewhat arbitrary regulations which would have interfered with the successful conduct of their business.

The division on these Reagan bills was based not on party, but on locality. They found their chief support in the south and west, where there are many shippers and few shareholders; while they were opposed in the central and eastern states, where the railroad capital of the country is chiefly owned. These bills also commanded much stronger support in the House of Representatives than in the Senate, because the latter body is largely composed of men who are themselves property-owners on a considerable scale, and understand the fatuity of laws aimed to restrict investors' profits in any radical fashion.

Down to 1885 the moderate party was strong enough to defeat all legislation. But it had become obvious by this time that the public demanded the enactment of a law of some sort, and that it was futile to resist such a demand much longer. Accordingly the United States Senate appointed a special committee under the chairmanship of Mr. Cullom of Illinois to investigate the situation and draft a bill.

Their report was made in 1886; their bill provided that all traffic of any given kind was to be charged the same rates under substantially similar circumstances and conditions; that is, that personal preferences of every kind were to be declared illegal. It further prohibited the worse sort of local preferences by providing that through traffic should not be given a lower aggregate rate than the traffic to and from intermediate points. It made provision for certain exceptions to this rule by appointing a commission which should have discretionary power to suspend its operation in certain specific cases.

Only on the first of these points was the report of the Senate committee satisfactory to the advocates of the Reagan bill. In the matter of local preferences, they wished to secure something much more nearly approaching equal mileage rates. The establishment of a commission with power to make exceptions seemed to them likely to make the whole law nugatory, and they were therefore opposed to its creation. On the other hand they were extremely anxious to prohibit divisions of traffic or earnings, known in America as POOLS. They feared that if competition could be restricted by these agencies, the railroads would comply with the law by raising their through rates instead of lowering their local rates.

The views of Mr. Cullom prevailed in the Senate, those of Mr. Reagan in the House. Early in 1887 a compromise was finally adopted, prohibiting pools, creating an interstate commerce commission, and wording the section with regard to local discriminations or preferences so ambiguously as to leave grave doubts as to what it actually meant. This compromise bill became law February 4, 1887, and constitutes what is known as the Interstate Commerce Act.

The ambiguity of the section concerning local discrimination placed upon the interstate commerce commission the somewhat unforeseen duty of making a provisional interpretation of its doubtful points. This interpretation, popularly known as the Louisville and Nashville decision, was made in so able a manner as to command universal respect, and was reported and quoted exactly as if it were a judicial opinion. This led to a demand for similar opinions on the part of the commission on other points connected with the operation of the law. The commission was composed entirely of lawyers, and this work of interpretation was perhaps more congenial to them than some of the other duties contemplated by the Act. This became their important work, which they did in person, while other functions were relegated to subordinates. At first their success was phenomenal. Their decisions were marked by moderation and good sense, and bade fair to create, with unexampled ease, a large body of transportation law. But the commission, as was perhaps natural, undertook a little more than it was likely to be able to carry out under the most favourable circumstances; while the retirement of Mr. Walker and the illness of Judge Cooley deprived it of the services of its two most active members. It was drawn into an attitude of hostility to the courts in certain questions of jurisdiction; and hence the influence of the commission is not so great as it seemed likely to be a few years ago.

With regard to the benefit derived from the operation of the law, there is considerable difference of opinion. It is generally thought that there are much fewer discriminations or preferences than there were when the act was passed, and that those which continue to exist are of a less glaring character. There is more publicity both of rates and of accounts than before the passage of the act. On the other hand the clause prohibiting pools has proved decidedly harmful. It has combined with several other causes to produce a good deal of depression in American railroad profits; it has more than once put responsible railroad men at the mercy of irresponsible ones; and it has prevented the development of far-sighted schemes of railroad policy which would do as much good to the shippers as to the companies. At present the prohibition is pretty generally evaded; but efforts to secure its repeal have thus far been unsuccessful (see also RAILWAYS).

A. T. H.

INTESTACY (ENGLAND). In the case of a person dying without having left any directions as to the disposal of his property answering the requirements of a valid will, or having left a will the directions of which do not deal with the whole of his property, there is said to be an "intestacy." In most countries the devolution of property as to which a person dies intestate does not depend on the nature of the property; but in England a distinction is drawn between real and personal property—real property going generally to one person, called the "heir-at-law," and personal property being generally divided among several persons, collectively called "the next-of-kin," subject in both cases to any rights a surviving husband or wife may be entitled to. The rules for ascertaining the heir-at-law and the next-of-kin in a given case are too complicated to be stated here. It is sufficient to mention that if an intestate dies leaving several sons and daughters, his real estate goes to his eldest son and his personal estate is divided among all the children, the issue standing in a deceased parent's or ancestor's place. If he leaves daughters only they all take the real estate as COPARCENERS (*q.v.*). The preference of the eldest son and his issue in the case of real estate, when spoken of in political pamphlets, is generally described as the "rule of" PRIMOGENITURE. The importance of the rule and its injustice have often been exaggerated; but although the attacks against the rule have to a certain extent subsided, there is no doubt that the time when the devolution of real property will be made equal to the devolution of personalty cannot be far distant. It should be pointed out that the general rules as to the descent of real property are in some places displaced by local custom (see BOROUGH ENGLISH; GAVELKIND); as to personalty, all such special customs have been abolished by the "Act for the Uniform Administration of the estates of Intestates" passed in 1857. The rights of the surviving husband or wife of an intestate are not of much practical importance as regards realty (see HUSBAND, AS TO WIFE'S PROPERTY; DOWER); the personal estate of an intestate wife goes to the husband, whether there be children or not; on the other hand the widow of an intestate receives one third of his personal estate, if there is any issue, and one half if no issue survives. It is further provided by the Intestates' Estates Act 1890 that the real and personal estate of any man dying intestate, and leaving a widow but no issue, shall, if of a net value not exceeding £500, belong to the widow absolutely and exclusively, and also that in case the net value exceeds £500, the widow shall have a charge upon the whole estate for £500.

Real property situated in England descends, according to English law, without any regard to the domicile of the owner (see DOMICILE); the devolution of personal property on the other hand is regulated by the law of the intestate's domicile without any regard to the local situation of the property (see also ADMINISTRATION, LETTERS OF; ADMINISTRATOR).

E. S.

INTIERI, BARTOLOMEO (1677-1757), was a Florentine ecclesiastic. He founded the chair of political economy at Naples in 1754—the first in Europe—under the title of a professorship of commerce and mechanics. He attached three conditions—(1) that the teaching should be entirely in Italian—this was contrary to the custom of the time, all scientific teaching being then in Latin; and was intended to obtain a wider circle of students. (2) That GENOVESI (*q.v.*) should be the first professor. (3) That after his death no ecclesiastic should be appointed to the chair.

Intieri is supposed to have assisted in suggesting to GALIANI (*q.v.*) the principles on which his work was founded (Ingram, *History of Pol. Ec.*, p. 72). His influence over economics was therefore considerable, though he left no original work of his own.

A. B.

INTRINSIC VALUE is attributed to an article when it (1) is not "spontaneously supplied by nature," but "requires labour to obtain it"; and (2) is "useful for other purposes than being employed as money" (Fawcett, *Manual*, bk. iii. ch. v.). Or one only of these attributes may form the definition; the term thus coinciding with "real value," which sometimes means the quantity of labour required for the production of an article (Ricardo, *Principles*, ch. xx. and *passim*), and sometimes "the amount of necessaries, comforts, and luxuries of life" that it will purchase (Marshall, *Principles*, p. 666).

The term, in one of these senses, is often employed in monetary theory. For instance,

Ricardo, "Gold and silver, like other commodities, have an intrinsic value" (*High Price of Bullion*, par. 1); and Fawcett, "the substance chosen as money should possess an intrinsic value."

There is no objection to this terminology, if it does not suggest the misconception that all value is intrinsic, that inconvertible paper-money cannot possibly act as a medium of exchange and common *denominator*. The erroneousness of this view is well shown by Professor Walker (*Money*, ch. i. and xiii.). To avoid the suggestion of error, it might be better to speak with Senior of "intrinsic causes of value" (*Pol. Econ.*, p. 16); and to follow those who assert that "nothing can have an intrinsic value" (BARBON); "it is a contradiction in terms" (Macleod, *Credit*, ch. ii. §§ 17-18).

But when we use the term in this sense—or want of sense—we incur the danger which often attends correction of popular phraseology; namely, that some important property may be lost sight of. If, with Jevons, we regard value as a mere ratio of exchange (*Theory*, ch. iv.), let us take care, with Jevons, to remember that "there is a close connection" between value in this sense, and "esteem" or "final degree of utility" (*loc. cit.*). The relation between value in exchange and the other attribute of "intrinsic value," viz. cost of production, is not less likely to be lost sight of. The author of *A Critical Dissertation on Value*, S. BAILEY, may be instanced as one who incurred these dangers when he maintained that value is nothing positive or intrinsic, but merely a relation in which two commodities stand to each other. Locke uses the phrase in a sense which may be gathered from the subjoined passages:—"The raising of one species of your coin beyond its intrinsic value is done by coining any one species with less silver in it than is required by that value it bears in your money." "Silver which makes the intrinsic value of money." (See Locke's *Considerations of the Lowering of Interest.*) F. Y. E.

INVECTA ET ILLATA. The right of hypothec, which came to be of general application in Roman law, was first established by the prætor in case of a tenant-farmer agreeing with his landlord that the farming stock brought into his holding (*invecta et illata*) should become security for his rent. According to Roman law, movable property of a tenant put into a town-house warehouse, and (*invecta et illata*) under a contract of letting and hiring, was hypothecated to the landlord by operation of law without any agreement to that effect. E. A. W.

INVENTORY DUTIES. See DEATH DUTIES.

INVESTMENT. The investment of money by an individual means either some form of lending the money at interest, or its exchange for property from which a profit, rent, or income of any kind is expected, whether this property is already in existence or is being produced by those to whom the money is paid. The money invested may be either on the one hand the proceeds of the repayment of a loan, or of a sale of property, or on the other hand an amount saved from income. In the first case the investment, or more properly the reinvestment of the money, is simply the completion of an exchange of one sort of property for another: when, for example, a man sells a house and buys with the proceeds a share of a ship, he has merely exchanged the house for the share of the ship. The amount of money which can be invested or reinvested in this way is only limited by the extent to which exchanges of property take place; the more property is bought and sold the more money there will be to invest or reinvest. But the amount of money which can be invested from savings is a strictly limited quantity. It obviously cannot exceed the amount saved, and it must also, unless useless hoards are accumulated, always come up to that amount. There is an impression that savings may lie in a country "idle" or uninvested, but in a country like England this is never the case. If it be inquired where the accumulation of idle savings or uninvested money is to be found, the invariable answer is "In the banks." But if the balance-sheets of the banks be examined it will be seen that, after accounting for the amounts in transit between one bank and another, almost the whole of the "money" in their possession has already either been lent at interest, or spent in the purchase of securities. The term "money" in this case is merely applied to a figure representing the number of pounds the banks' various investments are taken to be worth. Even the balance which a bank holds at the Bank of England, and which to the bank which keeps it there is really "idle money," may be and frequently is lent out again by the Bank of England itself. The comparatively small quantity of money remaining is as necessary and useful to the banks as the small quantity which an individual carries in his pocket is to him, and though apparently at rest has been well described as the most "hard-worked" money in the country.

The savings and the new investments of the world are in short identical. They are the additions made to the accumulated wealth of the world, the new railways, roads, houses, mills, canals, and such like things, and the improvements effected in the old ones. When it is said that £200,000,000 a year is saved by a community what is meant is that £200,000,000 worth of its annual produce is not consumed but is added to its accumulated wealth or capital.

Though the amount the community adds to its capital depends on the amount saved by

individuals, the individuals who save do not in all cases settle in what form the additions to the capital shall appear. When a man lends his savings without stipulating how they shall be employed, or lets them "lie" at a bank, he practically delegates the decision of this question to the borrower, or the banker. Similarly, when he buys already-existing property, he virtually delegates the decision to some one who, having sold existing property, invests the proceeds in new property. What the new capital of a community shall consist of thus comes to be settled to a great extent by a special class of financiers, promoters, and speculators.

E. C.

The investment of capital by an individual in an undertaking already existing is only a transfer of the command of currency from one person to another. It makes no diminution in the floating cash in the banks, but places the command of a portion of it in one hand instead of in another. Where banking is fully developed, it does not even momentarily diminish available currency. The transfer as a rule is carried out by cheque, and the only effect upon currency is in the extent to which bankers may think it desirable to increase their cash holdings in times of more active demand. In the case of the investment of floating capital in a new undertaking, as in the construction of works not immediately productive, there is a diminution of the immediate purchasing power of the community. It diminishes by so much the amount of consumable or exchangeable goods that can be produced. If the country be previously producing enough only for its own support, it must now import to supply some part of its requirements. If it had already imported, it must now import more. The immediate effect upon the money market is, that the exchanges become unfavourable, and bullion must be exported.

If investments be made in a foreign undertaking, whether a new one or one already in existence and under foreign ownership, the effect is the same. It diminishes the immediate power of taking goods from abroad, substituting therefor an increased power in the future. But the capital is, nevertheless, really locked up, and great danger may arise from this fact being disguised by credit issues. The financial crisis of 1846-47, and some others of equal importance, have been ascribed to the too rapid conversion of floating capital into fixed capital. It would give, perhaps, a more exact view of the condition of these times to describe them as resulting from the undue expansion of credit founded upon the fixed capital invested. R. W. B.

INVOICE. A statement giving particulars of goods forwarded by a trader to a customer, and of their cost, and of the charges concerning the same. Some foreign countries require invoices to be legalised by their consuls, or verified by declarations as to their accuracy. The omission of the prescribed formalities may cause the custom-house authorities at the port of destination to forbid the importation.

E. S.

INVREA, FABIO, a Piedmontese marquis. The book he wrote, though little known, deserves notice for the able development of the theory of wealth which it contains.

Discorsi sulla pubblica ricchezza, ossia sopra di quanto la costituisce, sulla di lei origine, aumento e ripartizione (Genova), 1846.—Referred to in the *Bibliografia dei Trattati e compendii d'Econ. politica scritti da italiani dal 1765 al 1891*, by Prof. Cossa. A. B.

I.O.U. An acknowledgment of indebtedness worded as follows: To A.B.—I.O.U. [I owe you] £10—signed C.D. If such a document contains a promise to pay, it should be stamped as a promissory note. E. S.

IRISH CURRENCY. This term at the beginning of the present century denoted a money of account different from that in use in England. It disappears with the act of 1825, which finally assimilated the currency of Ireland to that of Great Britain.

The English denominations of money came early into use in Ireland. The value and the rating of coins were both tampered with on occasion, alike by the sovereign, and, apparently, by the Irish parliament; and throughout the variations in the intrinsic value of the English coinage, the Irish coins appear to have remained always less valuable. The records of receipts of revenue between Henry VIII. and James I. give amounts both in English and Irish currency, the latter being accounted less valuable by one-third, so that the amounts of English are three-fourths of the amounts in Irish currency. In fact there existed exactly the state of things described in the article on COLONIES: DENOMINATIONAL CURRENCY IN.

By a proclamation of James II. when a fugitive in Ireland (25th March 1689), the guinea is rated at £1:4s. Irish, and the shilling at 13d. Irish. This seems to be the first establishment of the ratio afterwards more particularly associated with the term "Irish currency"; and it is therefore incorrect to date that ratio from W. WOOD's halfpence (1725), as Mr. Culley does in his evidence cited at foot.

This ratio, which subsisted through the 18th century, gave a difference of $8\frac{1}{3}$ per cent on amounts of English converted into Irish money. All transactions between the two kingdoms were adjusted on this basis, and this inconvenience tended to enhance the premium on bills of exchange which between 1812 and 1815 had risen to 10 per cent; so that £118:6:8 Irish money was required to pay a debt of £100 in England. After the union this became more and more intolerable; the first important measure in alleviation was that of 1817 which authorised the transfer of

government and certain other funds between the kingdoms at the so-called *par* of 8⅓ per cent. The anomaly was abolished by the act of 1825 (6 Geo. IV. c. 79), which assimilated the currency in all parts of the United Kingdom, and enacted that contracts entered into previous to the date of the act should be satisfied by a payment in English currency of $\frac{1}{1\frac{2}{3}}$ of the amount expressed to be owing in Irish currency. The copper tokens of Ireland were called in under the same act.

[*House of Commons Papers*, 1868-69, vol. xxxv. pt. 2, p. 379. Evidence of Mr. Culley before the Commission on International Coinage, 1867-68.—Kelly's *Cambist*, 1831, pp. 401-403.] C. A. H.

IRISH LAND LAWS. See LAND LEGISLATION, IRISH.

IRON AND STEEL AS MONEY. Little doubt exists as to the extensive use of iron as money in very ancient times (probably in the period from 1000 to 600 B.C.), though, on account of the rapidity with which that metal rusts, no specimens now exist, and their exact form is therefore uncertain. Probably, however, they resembled in shape the small ingots which are found in use at the present day in Central Africa.

Experiments were made at the Royal Mint, London, in the year 1884, with a view to discover what would be the rate of wear of steel coins. The average wear after 26 hours' friction was ·0032 grammes of soft steel and ·0029 grammes of hard steel coins. When soft and hard steel coins were subjected to friction together, the soft coins lost, after 52 hours' friction, ·0077 grammes, and the hard coins only ·0042 grammes. The amount of metal lost, even in the case of the hardened steel, approximates closely to the loss sustained by standard gold and silver coins, when subjected to the same process. F. E. A.

IRREGULARITY OF EMPLOYMENT is more a social than an economic question, and it is one which the earlier economists hardly noticed. It has of late years been thoroughly recognised as an evil requiring careful investigation. The board of trade is now carrying out inquiries which it is hoped will throw considerable light on this subject. The Americans have also been paying much attention to it, but without particular success. At present, therefore, no series of well-observed facts exists to support generalisations on the subject.

Inconstancy of employment, as Professor Marshall terms it, is one of the chief conditions which presents itself for consideration in connection with the mass of unemployed in all countries. It may in this connection be viewed either as a result or a cause. Some men are so inefficient, so lazy, or disinclined for regular work, that they prevent themselves from being regularly employed. And in dealing with questions of irregularity of employment, it is of primary necessity to decide whether the case in point is such a result or no. It is only when it is a cause of distress arising outside the worker himself that its consideration falls within the proper sphere of economics. Here it is closely connected with the problem of the "unemployed."

The causes of irregularity in employment are:

(1) Essential conditions of the occupation—the work of the painter and mason are liable to be interrupted in certain states of the weather—the effect of a season on the demand for certain goods. Thus furriers are much harder at work in the autumn; and it is in evidence before the labour commission (C. 6708, III. 1892, p. 44) that in the confectionery trade the girls are often out of work from December, when the Christmas demand is over, up till February.

(2) Accidental circumstances which indirectly produce irregularity:

(*a*) The use of machinery. Of itself the use of machinery might be quite regular in effect, but constant labour-saving improvements tend to displace labour. The tendency of employers to produce in excess of the current demand is not strictly attributable to machinery, as suggested in evidence before the Labour Commission (C. 7063, I. 1893).

(*b*) Fluctuation of trade, produced by causes perhaps too complicated to classify roughly, but arising from the competition: (*α*) of home manufacturers, (*β*) of foreign countries. Thus "foreign tariffs" were cited before the labour commission as a cause of irregularity in employment: and the fall in prices was suggested as having that effect in the course of the enquiries of the Gold and Silver Commission, and that on Depression in Trade (1886).

The above heads probably include all the causes at work, but the analysis is not perfect. "Influx into towns," by which is meant over-competition of hands for any given work, has been cited as another cause, but this really only describes one of the conditions arising in part out of irregular employment; though doubtless the condition reacts so as to make matters worse.

DOCK LABOUR (*q.v.*) presents probably the worst instance of irregular employment, certainly the most prominent at the present time. It is in evidence before the labour commission that the average number of months for which the labourers were at work was seven; the rest of the year they used to "hang about the gates and starve":—the evil is the irregularity of employment reducing the average wage to 10s. a week; some only get 5s.; some are out of work for months" (C. 6708, II. 1892, pp. 9 and 12). On the other hand one witness of great experience (Mr. Hill) contended that this state of things was the fault of the men. At the time of the late dock strike attention was directed to the importance of regulating the labour, and something has been done in this direction.

As above stated, the problem whether it is possible to counteract irregularity in employment has only recently come up for solution. Professor Marshall doubts if the evil which "rightly attracts public attention" is greater than it was in past ages.

The palliatives or remedies hitherto suggested are practically but three, which require consideration in detail.

(i) It is contended that the remuneration or wages of an irregular employment tend to be proportionately higher than those which are more regular. Professor Marshall lays this down, (*Econ. of Ind.*, 1881, vol. i. p. 537), and instances the medical man.

(ii) The eight hours day is relied on by several witnesses before the labour commission for making employment more regular. No one, however, has explained how this effect will be manifested. It cannot of itself affect the irregularity arising out of the use of machinery or fluctuations of trade; and as it will tend to increase the productiveness of the labour employed, it will not immediately stop over-competition by opening avenues for the unemployed. Yet if it is allowed to come naturally, and as the result of experience, it will combine with other causes to operate in the direction of greater regularity.

(iii) Organisation of all labour as far as possible into permanent services with some security of tenure for the individual seems the most hopeful solution. The most prosperous employés as a body at the present day are those of the great railway companies, and next to them those of some large firms where a reciprocal feeling exists between masters and men, resulting in permanence of engagement accompanied by provisions for sickness and old age. The elimination of daily competition is the first step to the better regulation of labour. At the same time there should be ample power to dismiss bad and incompetent men. This has always been the difficulty in the organised system, and is precisely the point where the trades-union system is apt to break down.

Finally, it has been suggested as an advantage in irregular forms of employment, that there are periods of leisure. But when these are prolonged, there is a danger of anxiety as to the future which more than compensates for enforced idleness. Leisure to be valuable should be accompanied by regular employment.

[Professor Foxwell, *Irregularity of Employment and Fluctuations of Prices.*—Marshall, *Economics of Industry*, vol. i. pp. 537-38, 736-37.—Reports of Labour Commission, *passim*, especially Tom Mann's evidence in C. 7063 (1893), vol. i., and Sidney Webb's in *id.* vol. ii. See Evidence of Select Committee on Unemployed, 1895; and G. H. Duckworth in *Econ. Journal*, March 1896.]

C. A. H.

IRRITANCY (Scots law). Forfeiture of lease or of tenancy in FEU through some neglect or contravention. This may arise by force of law, or under the terms of the contract. Irritancies arising by force of law—such as loss of a feu through non-payment of the feu-duty for two years—are purgeable at any time before judgment by payment or restitution or fulfilment of the condition. An irritancy arising from agreement can, in general, not be so purged.

[Rankine, *On Leases*, 461.] A. D.

ISELIN, ISAAK (1728-1782), a Swiss physiocrat. He belonged to an old business family of Bâle, and passed the greater part of his life in his native city, where, after vain attempts to obtain a professorship at the university, he was elected, in 1756, secretary to the council (secretary of state). In this position he displayed great literary capacity, occupying himself at first with philosophical and historical subjects, but labouring entirely during the last ten years of his life (1772-1782), under the banners of the physiocrats. To the older pre-physiocratic period belong his works: *Patriotische und Philosophische Träume eines Menschenfreundes* (Patriotic and Philosophic Dreams of a Philanthropist), 1755, and *Geschichte der Menschheit* (History of Mankind), 1762. Both compositions show little originality. The second named exhibits a rather arbitrary reading of history, somewhat in the sense of the later *Esquisse* of CONDORCET. The change to the doctrines of the physiocrats is first obvious in the *Versuch über die gesellige Ordnung* (Essay on Social Order), 1772, where it is said in the preface that an "able man" (was it Schlettwein?) had some time before directed him to the study of the French economists. But the instruction seemed obscure to him, and "the fervour with which some defenders of these truths extolled the discoveries of their teachers seemed to me to be charlatanry rather than that honourable zeal for the truth which animates noble minds." Afterwards, by good fortune, the EPHÉMÉRIDES DU CITOYEN (*q.v.*) came into his hands, after reading which, QUESNAY became in his eyes "what NEWTON is in the eyes of a mathematician." The new standpoint comes to light, fully matured, in the work which appeared four years later:—*Träume eines Menschenfreundes.* (Dreams of a Philanthropist), 1776. This book is by no means a second edition of the work published in 1755, as is generally supposed, and as might have been conjectured from the kindred title, but quite a new work. He expresses himself thus on the subject, in the preface: "What I put into print twenty years ago under the title of *Patriotische und Philosophische Träume eines Menschenfreundes*—(Patriotic and Philosophic Dreams of a Philanthropist), and what I now publish entitled *Träume eines Menschenfreundes* (Dreams of a Philanthropist), although they agree in design, are nevertheless two quite different things. Those were merely sentiments of a young man, to give a new edition of which would be quite needless, and which may fairly be allowed to sink into oblivion." Iselin

thus publicly retracted his old ideas in favour of the authors who had adopted Quesnay's teaching, as the Marquis of Mirabeau, Baudeau, Comte d'Albon, and others. Commencing from the same year, 1776, Iselin published a monthly journal in German, dedicated to the propaganda of the doctrines of the economists; this bore the title, borrowed from the French organ of the school, *Ephemeriden der Menschheit* (Ephémérides of Mankind, or Library of Moral Philosophy and Politics). This soon gained a great reputation in German-speaking countries, and numbered among its contributors many of the most prominent economic authors of Germany. After the death of Iselin, which took place in 1782, it was carried on under the editorship of G. W. Becker, professor at the "Adeligen Gymnasium" in Dresden. For the rest, Iselin did not in all points agree with the "eminent Quesnay." He would have allowed the IMPÔT UNIQUE to be assessed progressively instead of proportionately; and if indeed he occasionally says with Mirabeau that the best corn law is *none*, yet elsewhere again he defends the public granaries condemned by Quesnay. How unhistorically, besides, Iselin reasoned, regardless of his former historical studies, is shown in the passages in his *Träume* (Dreams) where he maintains that only "chance and caprice have produced the difference between one people and another people," and when he then concludes that "everywhere likewise the laws must be the same, what is just in China must necessarily also be so at San Marino." Human institutions have corrupted the natural order, and Iselin concludes his *Träume* (Dreams) with an ideal constitution, by means of which "instructive fiction" he tries to reconcile the republicanism of his Swiss fatherland with the enlightened despotism recommended by Quesnay. Finally, Iselin proves himself to be a true son of his generation, anticipating the complete salvation of mankind in the *education* of the people. This caused Basedow, the German apostle of education, to appear to him, with Quesnay, the person most worthy of emulation.

[A. v. Miaskowski, *Isaak Iselin*, Basle, 1875.—W. Roscher, *Geschichte der National-ökonomik in Deutschland*, 1874.] A. O.

ISNARD, ACHILLE NICOLAS, born in Paris, died in 1802 or 1803. He published, anonymously, in 1781, a *Traité des Richesses* (London and Lausanne, 2 vols., 8vo), and in 1801 his *Considérations théoriques sur les Caisses d'amortissement de la Dette Publique* (Paris, 1801). The former is directed against the theory of the *produit net* and of the single tax of Quesnay; Isnard does not mention Adam Smith, although generally concurring with the latter's views on the origin of wealth, the effects of protection, and of the accumulation of gold and silver, etc.

Isnard, who was an engineer, has frequently recourse to mathematical symbols, although he does not venture farther than equations of the first degree and simple problems in the rule of three. As having done this, he is mentioned by Jevons in his *Theory of Political Economy*, 2nd ed. 1879, appendix i. p. 301. E. Ca.

ISOLA, FRANCESCO (first half of 19th century), Italian economist, is mentioned by A. Graziani in his *Idee economiche degli scrittori Emiliani e Romagnoli sino al 1848*, etc., Modena 1893, pp. 156-7. He was appointed, by the papal government, a member of the committee for the reform of the commercial code, and found in the materials thus provided the basis of his treatise on political economy. Isola was a protectionist, for though nominally a supporter of free-trade, he admits many exceptions to this principle. He proposes to prohibit the import of such articles as would injure the sale of similar home products; and also to limit the goods imported, fearing a general excess of production. He also discusses general values, considering that these originate in the demands of consumers, and in the scarcity of the goods themselves. He considers that with respect to money it is its intrinsic value as a commodity which, together with rapidity of circulation, forms the total purchasing power of the circulating medium, and determines the quantity of goods a market may require. He wrote also on interest and taxation, recommending that this should fall on superfluous wealth, and recommending indirect taxation.

Istituzioni di Commercio e di Economia civile, Roma, 1811. A. B.

ITALIAN SCHOOL OF ECONOMISTS.

Introduction, p. 460; The Early Phase, p. 461; Superficial and Optimistic Phase, p. 465; Scientific Phase, p. 466.

No one now, we imagine, would agree with Augustin Thierry, in characterising political economy as "cette science bourgeoise surgie dans les villes d'Italie," nor would conscientious scholarship ever entitle Italy to take the earliest place chronologically in economic research. Nevertheless it is beyond question that the early development of commercial wealth in mediæval Italy, the vigorous industries and economic inter-relations of her republican cities, attracted Italian thinkers early to the study of political economy. Italy can boast of a prominent position in the history of the science from the remotest times.

Italian economic thought, when traced from its first sources down to the present day, shows in its evolution, though chequered by many irregularities, three well-marked stages, corresponding to certain analogous conditions of the social evolution of the country. There is at first a roughly-developed, almost archaic phase of economic inquiry, the product of *patriarchal* economic relations; to this succeeds the *super-*

ficial and optimistic phase of the science, the product of the *small industry* system, when wealth was still scanty and distributed fairly equally; finally there is the *scientific* phase, developing with the expansion of capital. The first phase extends from the middle of the 13th to the end of the 18th century; the second carries us on to 1870; the third, initiated about 1870, is developing beneath our eyes, and may not yet have attained its maturity.

1. *The Early Phase.*—Economic thought in Italy seizes at the outset on the more obvious forms of social life, and advances gradually to investigation of the less obvious phenomena. Thus every phase of economic science is distinguished from its preceding phase by the deeper nature of its inquiries. The few early writers of Italy who touch on economic questions, put forward only external points, and, instead of analysing them closely, confine themselves to praise or criticism from a purely theological standpoint. The first advance in more thoroughgoing inquiry is found in the writings of political thinkers who are only concerned to trace the outlines of economic conditions in so far as these subserve their theories on legislation and administration. Hence when writers enter for the first time on the field of genuine economics, they turn to the most obvious and external economic subject, namely to currency; and a rich and varied literature rises and flourishes round that subject. Greater depth is attained in analysis of inland and foreign trade and its regulation. Thence the way is opened up to the investigation of value; the first treatises dealing with the more external manifestations, secondary forms, or market values, without bringing out the inner *nexus* connecting value with distribution of wealth. Not till the termination of the early phase do we come across some passing observations on the production and distribution of wealth; but these embody no definite doctrine.

One of the first Italians in the 13th century to reflect on economic facts was St. Thomas AQUINAS, who set himself to oppose usury,—both by authority of the Bible, popes, and councils, and on the principle that time belongs to God and may not be sold. He also wrote learned treatises on monetary and fiscal politics, with acute remarks on the nature of wealth. The theological standpoint is no less dominant in the 14th century, when both Paolino Minorita (1315) and Egidio Colonna (1247-1316) wrote. The former treats of the management of landed estates, of the family, and the citizen; the latter, of taxes. In the 15th century theological economics were developed in the writings of St. ANTONINUS, archbishop of Florence (1389-1455), and of St. Bernardino of Siena, who wrote in the first half of the 14th century. They reach the real gist of the theory of the circulation and distribution of wealth from the basis of theological morality, though they too have their say against usury. In the 15th, 16th, and 17th centuries the disquisitions of theologians become more interesting and practical, stimulated by the new phenomena of deposit and loan banks of the Monti di Pietà (see MONTS DE PIÉTÉ) and the public revenue derived therefrom. The banks, defended by some theologians, were assailed chiefly by the Augustinians. The Monti di Pietà were condemned by the Augustinian Nicolò Barianno and the Dominican Tommaso DE VIO, but defended by the Franciscan Da Busto and others. Even the mechanism of bills of exchange became at that epoch the subject of subtle polemics among theological writers, some of whom, like Fathers Bernardo GIUSTINIANI and Ortensio Capellone, attacked profit derived from exchange operations, while others, like Fathers Antonio di San Salvatore and Basilio Alemanni, defended it.

Meanwhile a more discriminating and scientific tendency began gradually to replace the older scholastic and religious views; attention was paid to reasons of state and the practice of good government. Some timid manifestations of this tendency had not indeed been wanting at remoter epochs. In the 14th century Petrarch, in his book *De republica optime administranda*, expatiated on justice and moderation in imposts and on the abuses of farmers of taxes. Andrea de Isernia too, the Neapolitan legist, expressed some remarkable opinions as to the extent to which domain land might be alienated, and on farming of taxes. In the following century this scientific tendency makes a greater advance through the writings of Giovanni Gioviano PONTANO, Benedetto Cotrugli, and especially Diomede CARAFA, who in his work *De regis et boni principis officio* gives expression to ideas, new in part, on the utility of commerce and on the harmony between incomes and public expenditure, on the convenience of farming taxes, and on the assessment of taxes. The 16th century can boast of still greater progress in the same direction made by men like Matteo PALMIERI, Francesco GUICCIARDINI, and Nicolò Machiavelli. The first occupied himself largely with political economy, advocating proportional taxation. The second frequently introduces economics into his historical writings, and with great skill traces the contrast between *proportional* and *graduated taxation*. The third insists on the economic necessity of good government, recommends that to ensure prosperity to industry the state should guarantee the security of property and grant bounties to the most skilled and capable producers; he also maintains, like MONTESQUIEU later, that countries are populous in virtue of the goodness and mildness of their respective governments; and, finally, anticipates MALTHUS in affirming that there is a limit to the powers of production of the soil which checks the indefinite increase of

the human race (see in particular bk. ii. of the *Storie Fiorentine*, chs. i. and ii.; also the discourses on the first *Decade* of Livy, bk. ii. chs. iii. and v.). Even with greater force than Machiavelli, Giovanni BOTERO had held this argument in his work *Ragione di Stato, con tre libri delle cause della grandezza e magnificenza delle città* (three books dealing with the causes of the greatness and magnificence of cities) (1589), in which he insists, from the political standpoint, on the necessity of providing an equilibrium between the increase of population and that of subsistence, and urges the foundation of colonies as a remedy for an excess of the former. Botero moreover has some remarkable observations, inspired it is true in part by BODIN, on government monopolies and on the restraints placed on commercial liberty.

The evidence of the advance amongst Italian thinkers in the direction of abandoning the general and abstract considerations so dear to the ancient writers for a thorough investigation of their social mechanism, is seen in the very numerous contemporary treatises on currency. The deplorable state of the Italian monetary system, the continual debasement of coin by different rulers, and the great variety of coins current in the different states of the peninsula, to the great detriment of trade, could not fail to engage the attention of economists, and it is no marvel if, as GANILH said, Italy was always famous for the worst currency and the best writings on currency. First of these in order of time is the *Discorso sopra le monete e della vera proporzione fra l'oro e l'argento*, 1582, by Gaspare SCARUFFI, who was first to propose the international unification of monetary systems and universal, or at least European, bimetallism with a ratio (corresponding to that in force in his day) of 1 to 12. After Scaruffi, DAVANZATI (1588) published two short treatises, remarkable for elegance of style, one on coinage, in which he maintains that the expenses of mintage should be borne by the state, the other on exchanges. Unlike other writers, *e.g.* BROGGIA, who exaggerated the importance of money as facilitating hoarding, Davanzati does not lose sight of money as an instrument of circulation, comparing it to the circulation of the blood, which, if congested at any point produces atrophy and dropsy, whence he concludes that an equal distribution of money should be brought about in all parts of Italy. Geminiano MONTANARI (1633-1687) opposes the sweating of the coinage by rulers, and lays down useful precepts on the methods of regulating judiciously the circulation, with suggestive remarks on money. Still more distinguished and less remote from the actual focus of the science are the works of GALIANI on currency (1750),—free from most of the prejudices of mercantilism,—of PAGNINI, *Sul giusto prezzo delle cose* (On the fair price of Commodities) 1751, which contains profound reflections on the different characteristics of the circulating medium in ancient and modern economy, and the excellent *Osservazioni sopra il prezzo legale delle monete* (Observations on the legal price of Money) by Pompeo NERI the Florentine (1751). But all these writers who investigate currency from the standpoint of the mint and the state rather than from that of the economist, are excelled by Antonio SERRA of Cosenza, who in his *Breve trattato delle cause che possono fare abbondare li regni d'oro e d'argento* (Short treatise on the causes which can lead to abundance of Gold and Silver) (1613), sets forth lucidly a theory of money in relation to international trade, admirably elucidating the mechanism of exchange and showing that a favourable exchange, believed by his contemporaries to be effected by sovereign decree, is the natural result of excess of exports over imports, and that therefore the only way for a nation to secure and maintain it is by promoting industry and encouraging enterprise, and not, as MUN said later, by imposing custom-duties on manufactured imports; especially, maintains Serra, by developing manufactures, inasmuch as these have an indefinite possibility of increase, while agricultural commodities follow the law of DIMINISHING RETURNS. A remarkable forecast this of the famous law expounded later in England by WEST, RICARDO, MALTHUS, and J. S. MILL. Not less praiseworthy is the vehemence with which Serra opposes the debasing and sweating of the coinage,—the very mode, on the other hand, occurring to M. Antonio DE SANCTIS as the best for remedying the fall in exchange and the crises in the kingdom of Naples.

To the list of writers on currency we may add the names of Domenico and Luigi DIODATI, of TURBOLI, and of Romeo BOCCHI (1621), who treated with ability of payments and compensations. There are other writings called forth by the establishment of banks at Venice and Genoa, but unimportant as regards theory.

The analysis of currency naturally led Italian economists on to study the kindred, perhaps deeper, subject of international trade. They discussed various systems referring to the economic conditions of the day. The difficulty of importing foreign corn through defective transport, together with the increase of population which began to press on demand, induced economists, *e.g.* SEGNI (1602), and TAPIA (1638), to favour the system of *annona* (stores), called the *Sistema Annonario*, or system of providing food, and of corn stores (GRENIERS D'ABONDANCE), intended to ensure the country abundance of food by stopping exports. These arrangements, which were urged on by the complaints of agriculture, stifled the improvements in transport, which would have rendered the importation of grain possible; meanwhile the increase in population made this necessary. The discussion thus aroused gave rise early to controversy, and led to the institution of the MERCANTILE SYSTEM, which, while allowing the free importation of raw produce, lays prohibitive duties on the import of manufactures, seeking to develop national manufactures while sanctioning the introduction of cheap foreign corn. Mercantilism in its primitive form was defended by BELLONI (1750), an author commended by Sir James STEUART—

Belloni recommended that export of money should be prohibited. This doctrine was fully expounded by Antonio Genovesi (1765), unquestionably the most illustrious of Italian mercantilists, who popularised the system among southern writers, whilst the negative side of mercantilism, free trade in corn, found a brilliant apostle in the Abbé Galiani (1770).

Mercantilism was bound to meet immediate opposition; the serious injuries which it inflicts on landowners—ever uneasy and influential—and the fiscal burdens which it inflicts on trade, could not fail to favour the growth of an opposite view, termed by Cossa *Agrarian protectionism*. This, inspired by the landed interest, desired to lay heavy duties on import of grain, and insisted on free export of manufactured goods. Its most noteworthy representatives are Pascoli (1733) and Bandini (1775). Economists everywhere in Italy have remained loyal to the doctrine of restriction of trade, more in the form of mercantilism than of agrarian protection, and this even when the theory of free trade had matured in France and England. Even the influence of theories of the physiocrats, so evident in Beccaria and Verri, did not remove this predilection. The solitary luminous exception in this as in other respects is afforded by Ortes, who, proceeding on different principles from those of the physiocrats, and, as we shall see, positively original, concludes in favour of absolute freedom of foreign trade.

Nevertheless many Italian economists of this first period were in favour of free inland trade, either combating the abuses of trading corporations—Genovesi, Verri (1771), and Beccaria (1769); or calling for their total suppression—Vasco (1794), Fabbroni (1778), and Gianni.

Much less valuable is Italian economic opinion on finance. There is throughout a predilection for taxes on land, due much less to the influence of the physiocrats than to the distinctly agricultural character of Italy in past centuries, and the almost entire absence of manufactures. To the taxes on land which Botero, Bandini, and Filangieri (1780) advocated as the only source of revenue, Genovesi proposed to add the poll-tax; Verri, duties on exports of raw produce, and imports of manufactured goods; Ammirato (1594) excise-duties; Broggia (1743), beside taxes on land and manufactured goods, advises a tax of the tenth of all capital producing interest, with moderate customs and an excise on provisions. But none of these writers has the remotest idea of the possibility of a tax on profits, which holds so large a place in the system of Ricardo,—a remarkable fact, as showing how slightly capital, and the returns from it, had as yet been developed. Filangieri's proposal for extraordinary revenue deserves to be commemorated. He recommended the institution of a fund for the use of the more deserving and enterprising citizens, who were to be bound to repay the advances which had been made them when called on to do so by the state. There are also interesting discussions by writers on finance on the exemption from taxation of the nobility and clergy, which the most eminent—such as Genovesi, Bandini, Fra Paolo Sarpi—vigorously condemned.

These empirical studies, which discussed only practical questions, were soon followed, partly owing to the foundation of chairs of political economy at Naples (1754), Palermo, Milan, and Modena, by deeper researches extending into theory, which began, though imperfectly, to take the form of a pure science. In this connection the discussions on the theory of value are important: these were principally connected by our best economists with analyses of the theory of "money," and are distinguished by acumen and insight. In the Italian view of the theory of value, two absolutely distinct phases appear; in the former, represented by Davanzati, Montanari, Pagnini, Genovesi, and Paoletti (1772), the element of "cost" is absolutely excluded, and "value" is represented as governed wholly by "utility"; in the latter, expounded by Galiani, Beccaria, Fabbroni, value on the contrary is based on "cost of production."[1] The cause of this development of theory was a corresponding advance in the economic mechanism of society in Italy. In the first period the non-existence of free competition between producers, or else the restrictions which limited it, rendered it impossible to determine "value" by the factor of "cost," and inevitable that it should be determined by the factor of "utility." In the second period, when competition between producers was unchecked, "value" naturally tended to become commensurate with "cost of production." Nevertheless, even at a more advanced stage of their inquiries, Italian economists of that epoch always confine themselves to the more superficial and unimportant aspects of the question of value, dwelling especially on market value, and are not able to analyse the elements of the cost of production, oscillating (like Vanderlint and Steuart) in perpetual ambiguity between labour and wages. This is not wonderful considering how childish were the ideas of the economists, even of the highest repute, respecting the production and distribution of wealth, which nevertheless are the data essential for resolving cost of production into its constituent elements. Only the very best Italian economists of the 18th century possessed any notion of the theory

[1] The position of Ortes is eclectic. Originally he deduces value from demand and supply, but afterwards he measures it by the quantity and quality of the labour employed in production and transport, and thereby explains the greater value of the commodities in the metropolis and the greater quantity of money which circulates there.

of capital, while their views on production were meagre and vague. The observations of Beccaria on division of labour are always quoted.

"Everybody proves by experience," he says, "that the constant application of hands and wits to the same kind of work and product renders the same easier, better, and more fruitful than would be the result did every one make by himself merely what is necessary to himself; whence it comes that some pasture cattle, some card wool, others spin it, some grow corn, others make bread, raiment, tools for the agriculturists and labourers, causing growth and concatenation of arts and a division of them so as to serve common and private utility among all classes and conditions." (*Elem. di Ec. Pubblica*, pt. i. ch. i.).

Here we get, it is true, the social division of labour, but nothing about its technical division, or specialisation within the same industry, an exact idea of which Adam Smith was to set forth in so masterly a manner seven years later. Yet these observations by Beccaria, and those of Verri, that in production man does not create, but confines his operations to collecting and separating material already existing, with some considerations by the same author on the influence of climate on efficiency of labour, are all that is worth gleaning from the works of the earlier Italian economists on the subject of production.

Nor do their writings on the distribution of wealth take any higher rank; inasmuch as they have not attained to an exact definition of income, wages, profits, and rent of land. Botero's view, that population is limited by subsistence, is restated by Beccaria, and more clearly still by Ricci (1787), but these writers treat the subject only in a superficial manner, and not in such a way as to entitle them, as some would have it, to be regarded as precursors of MALTHUS. Of more frequent occurrence in the writings of the economists of this epoch, *e.g.* CARACCIOLI (1784), PAOLETTI, Beccaria, whose remarks on wages are termed "classic" by the Russian writer Wernardski, is the assertion that high prices of provisions, and the rise in money wages which ensues, are injurious to industry,—an assertion which, put forward contemporaneously in England by a series of economists, and repeated by Smith, is the logical consequence of the theory which reckons wages among the elements of the cost and of the value of the product. One marked characteristic of the Italian economists of this period is the absolute eclecticism with which they perpetually oscillate between the mercantilists and the physiocrats, and strive to reconcile the deductions from both. Besides this it is well to note the lofty and humane principles inspiring their remarks on economic relations, contrasting favourably with those of their French and English contemporaries,— their sympathetic interest in the fate of the producer—which they consider more important than the exigencies of production—their courageous denunciation of the wretchedness of the peasants, their thoroughgoing predilection for small farming, and finally their eloquent pleading that the legislator should intervene to mitigate economic inequality and injustice,—in these matters they sound the prelude to what is now known as socialism of the chair (see SOCIALISTS OF THE CHAIR). This tone is common to all the economists of the peninsula, and not, as some hold, peculiar to central and northern Italy, since it is equally shown in the works of the southern Genovesi, Galiani, Filangieri, and Broggia, and in those of the northern Beccaria, Vasco, and Verri, and again among the Tuscans, Bandini, and Paoletti. All our economists of whatever school concern themselves not only, like Adam Smith, with the *wealth of nations*, but also, and as much, with the *public weal*, for which the very titles of their works are the proof, namely those of Vasco, Paoletti, Palmieri, MURATORI, etc.—a significant difference, attesting the ethical and philanthropic character of economic science in Italy. This character is possibly due in part to the fact that some of our economists, like Ortes, Paoletti, Bandini, Galiani, Ammirato, Vasco, Genovesi, and Pascoli, have been ecclesiastics; others, like Beccaria, Verri, Scaruffi, D'Arco, Carraccioli, are nobles; while few only, like Davanzati, Broggia, Belloni, have been merchants or bankers. Nevertheless the generous and noble expressions to which we have referred, and which deservedly attract so much sympathy to our economists of this epoch, do not rise from the narrow limits of sentimental literature nor do they show any profound reflection on the laws of economics.

One amongst them, however, does not deserve this criticism, and rises far above his contemporaries. This is the Venetian monk Giammaria Ortes, one of the greatest economists of the 18th century.[1]

[1] *The opinions of G. Ortes.*—G. Ortes was unquestionably the most original thinker among all Italian economists. In his *Economia Nazionale* (1774), his *Riflessioni sulla Popolazione* (1790), and in some of his minor writings, he develops a complete system of economic science. The fundamental notion from which he starts is, that a given population cannot consume, and therefore cannot produce, more than a limited quantity of goods, and that this quantity is just such as to require for its production not more than the labour of one-half of the given population. Hence he deduces the opinion that a man cannot increase his own wealth without reducing to a corresponding extent the wealth of another man; in other words, that the increase of individual wealth involves a correlative increase of misery. From the principle that one-half the population suffices for social production, Ortes, anticipating modern socialism, deduces the hopeless case of a relatively excessive population, due not to a positive excess of population above the means of subsistence, but to the impossibility of increasing consumption, and *therefore* social production, beyond a certain point. In this deduction Ortes manifests a logical acumen far superior to that of SISMONDI. The latter, whose influence on MALTHUS and RICARDO was considerable, also starting from the limitation of social consumption, admits the necessity of the introduction of machinery to meet the relative excess of population.

The last remark of our note on the opinions of Ortes, indeed, applies more or less to all Italian political economy of the early period. The leading features of the social economy which succeeded the abolition of serfage in Italy were for a long period the breaking up of capital, the growth of metayage, the continuance of small industry,—in other words they presented a stunted form of capitalism crossed and complicated by numerous relations of personal service between labourer and proprietor, the relics of feudalism. This network of economic relations created a scientific literature in which it was reflected. No sound theory of distribution could be formulated in a country where the phenomena of distribution had not assumed a distinct and fixed character, nor had those glaring contrasts to which a social economy gives rise, in which capital is more fully developed, had a fair field to display themselves. Hence, all that Italian economists of past centuries have written on distribution is collectively of very small value. But while they were excluded, through the defects in the existing economic position, from the possibility of investigating the deep-lying social relations, they set themselves eagerly to examine those more patent economic relations the growth of which, being independent of that of more fundamental relations, had opportunity to display itself even in Italy. Hence, the considerable body of writings on currency, which are the best part of Italian economic literature, as well as on commerce, usury, and taxation; while the investigations on value, which occur frequently at this epoch, are confined to analyses, more or less effective, of wants, utility, competition, or monopoly, but which do not in the least account for the influences determining the part played by value in the deepest relations of capital and profit and in the technical organism of production. Certain it is that the closer we approach our own times, the more frequently do we find among Italian economists good examples of a profound analysis of the economic structure of society, as in the works of ORTES, GALIANI, BECCARIA, VERRI, GENOVESI, and PAGNINI (*q.v.*). But, generally, throughout this epoch, and even among these, we look in vain for that fine economic sense which distinguishes their English contemporaries so conspicuously.

2. *Superficial and optimistic phase.*—With the close of the 18th century, capital had begun to develop its influences in Italy to a degree hitherto unknown. It seemed therefore that the causes of the slow advances of economic theory were ceasing to operate, and that the era of scientific economics in Italy was to begin. But there were weighty reasons which influenced capitalistic economy and kept it backward. The most powerful of those was the want of political union; this involved a close network of inland custom-duties, which stifled economic progress and the growth of capital. Hence, the absence of farming and industry on any large scale and the scanty use of machinery. This absence of production on a large scale is certain to react on theory and to produce a school of superficial and optimistic political economy. The inferiority of the work of most of the writers of this epoch is, therefore, not surprising, nor that the few original thinkers should gradually drift from tedious superficiality to optimistic doctrines. During this epoch no important contributions were made to the theory of the distribution of wealth, or to the analysis of property, while there is no lack of suggestive investigation into such secondary matters as currency, trade, and taxation.

The period 1800-1848, is for Italian economics an inglorious time of depression and

Ortes, however, in his *Riflessioni sulla Popolazione*, published fourteen years after his principal work, admits, in partial divergence from what he had there laid down, that a population might possibly outrun its means of subsistence—an emergency which is in contradiction to the axiom, that *wealth is a constant function of population*, since it implies that, up to a certain point, wealth increases at a lower ratio than population. Finally, from the fact that the unemployed can only live at the expense of the employers (*i.e.* those who have property), Ortes deduces the principle that *real income is equal to each*, because those who have property have to distribute all the returns which are in excess of what they consume beween the workers and the unemployed.

These quaint doctrines, which MARX very ably made use of to support his own, betray constantly the backward state of the science, exaggerating the importance of consumption and attributing to this factor, which only influences the surface of things, phenomena which have their roots deep down in the organism of production. Still more defective are the investigations of Ortes on capital and profit. Defining capital as the sum of the means of subsistence necessary to the worker, he does not take into account capital sunk in machinery, raw material, etc. While he recognises the economic justice of interest on capital, he declares it to be a thing which, properly considered, is entirely anomalous, for the reason, that capital lent at interest yields a return to the lender and a wage for the workers, but nothing to the borrowing ENTREPRENEUR, who hence will have either to go to the wall or to steal from his creditor. This observation is obviously erroneous, because capital does produce, besides interest and wages, the reward of the *entrepreneur*. But these doctrines appear less strange when viewed in relation to the economic conditions of the time. The principle of fixity in production is a faithful image of the economic positions of the expiring Venetian republic, in which there was no progress in production, and every industry was languid. The hopeless case of an unemployed class was true enough of a country in which the accumulation of capital was feeble, and shackled by the countless fetters of antiquated methods of production. The definition of capital given by Ortes fits an epoch when capital in its technical shape is almost non-existent. And the same idea of real income being equal for every man may be considered a tolerably correct expression of the relations of feudal economy, which, in placing the strength of the property-holder in the number of his followers, broke up his returns between a large number of clients, and ultimately reduced to the same figure the consumption of himself and of his dependants. The disconsolate fatalism of Ortes which sees no remedy whatever for the economic evils of the day, and the only palliative in the endowment of monasteries to relieve the wretchedness of the poor—which restricted thus the scope of economics to the mitigation of human misery,—all this distinctly and completely reflects the state of decay under which Italy was groaning. Hence in reading at this day the works of Ortes there is still profit, not in the nebulous musings of a recluse, but in the theorising of a genius over an age now buried. [See also art. on ORTES.]

decadence, yet it was distinguished by the monumental collection of classical Italian economists, formed by Baron CUSTODI, *Scrittori Classici Italiani di Economia Politica*, forty-three volumes, 8vo, Milan, 1802-16. The importation of Smith's doctrines, instead of acting as a stimulus to reflection, only evoked a number of second-rate compilations. There are but one or two writers of this period who stand out from the general level of inferiority by their able investigations into some special problems. Amongst these is Melchiore GIOJA (1767-1829), the advocate of large landed estates and industrial protection, remarkable rather for some important observations on the division of labour, which were praised by BABBAGE, than for his indefatigable collecting of statistics, and his infelicitous attacks upon Smith and SAY. There was also Gian-Domenico ROMAGNOSI (1761-1825), a masterly critic of free trade, who showed his concurrence with the ethical view now upheld in Germany, and who combated the population theories of MALTHUS though not without committing serious blunders; Luigi Molinari VALERIANI (1758-1828), author of deep, careful investigations into "market value"; Francesco FUOCO (died 1841), who expounded the Ricardian theory of rent, and is noted for the pre-eminence he assigns to the distribution of wealth over its production; Carlo CATTANEO (1801-1869), a defender of free trade and a critic of the system of LIST (1789-1846); Pellegrino ROSSI (1787-1848), who lectured on political economy, expounding English economics, and criticised the Code Napoléon from the economic standpoint; Antonio SCIALOJA (1817-1877), who published *Principles of Social Economy*, toning down the theories of the English school; finally Camillo CAVOUR (1810-1861), distinguished for his admirable writings on the corn trade, the Irish question, and his speeches on economic and financial subjects. All these writers inherited an ethical standard in economics which up to 1848 characterised the Italian school of economists; and all, however they may differ in the systems they uphold, hold most pronounced opinions on the moral functions of the state and its social duties towards the classes who possess no property.

Towards 1850 a distinct awakening succeeds to these indecisive writings of unsystematic writers, proceeding from the optimistic school and its head, Francesco Ferrara.[1]

3. *Scientific Phase.*—The conditions of the time favoured the abandonment of optimistic doctrines for objective and positive inquiry. Under the regime of political unity the obstacles

[1] F. Ferrara, born 1810, of Sicilian origin, professor at the university of Turin, and subsequently deputy and minister of finance, is unquestionably the most talented Italian economist of this period. Ferrara has written no comprehensive work, but has expounded his ideas not only in a course of able lectures, but also in a series of *Introductions* to the numerous volumes of the *Biblioteca dell' Economista* which he edited, and which contain translations of leading foreign economic works. In these introductions, which combine the attractions of a brilliant style, a method of teaching of vast range and marvellously elaborated, there is found not only a series of criticisms, biographies, and bibliographies, but also Ferrara's own theories, forming a symmetric and usually concordant whole. These take their rise from the theory of value, which he declares to be the mother-idea of the science, and develops with much originality save where he adheres closely to the doctrines of CAREY. Like him, Ferrara opposes RICARDO's theory of value and that of J. B. SAY, to land himself in the formula of *cost of reproduction*. This theory, which he carefully develops, seems to Ferrara to be alone capable of summing up and unifying all economic phenomena, inasmuch as it explains value as well in the case of production which may be indefinitely increased as in the case in which increase takes place under augmented difficulty, and also in monopolies. However, to include these last within the circle of his theory, he is compelled to have recourse to a subtle distinction between *physical* and *economic* reproduction, and maintains that the value of the monopolised products is given by the cost, not of the physical reproduction, which is impossible, but of the *economic* reproduction, *i.e.* by the cost of the products which would be obtained instead of the monopolised products.

In this way Ferrara believed he had subsumed the true heads of value under a single law, overcoming the Ricardian theory which is forced to postulate two laws for competition and monopoly respectively. But further, he held that cost of reproduction ought to explain and measure by the same standard all the relations of the distribution of wealth. Hence, Ferrara argues, rent, profit, wages, are only so many instances of the law of cost of reproduction. To rent in particular, on which English science has left the indelible stamp of its strong hand, Ferrara devotes his best energies; strengthening himself by his theory of value, he attacks the doctrine of Ricardo and reconstructs the rent of the landowner as the natural and legitimate reward of capital and labour. Here, however, Carey inspires and directs Ferrara, who, if he does not distinctly grant that cultivation proceeds from sterile to fertile soils, admits that economic progress renders the cultivation of fresh soil more productive than those previously taken in hand, thus ensuring an advantage to the land latest brought into cultivation over the first. The owners of the later land cultivated derive in consequence a surplus rent, or surplus over ordinary profit, due to the superior methods they have designed and carried out. Hence rent results, not from increasing cost of production, but from decreasing cost of reproduction, and involves neither usurpation nor injustice. Further, since the same theory is to explain all economic phenomena, profit is measured by the cost of reproduction of capital, wages by the cost of reproduction of labour; which means that ultimately demand and supply of capital produce profit, demand and supply of labour produce wages.

In his minor works, the *Prefazioni* and the *Lezioni*, Ferrara sought to apply his favourite theory to certain practical questions, using pure science to throw light on the economic facts of which he was an eye-witness. Among these writings are the exhaustive articles on "Banks" and on "Inconvertible Paper Currency" (Corso Forzoso), abounding in admirable remarks on the circulating medium in Italy (see ASSIGNAT; BULLION COMMITTEE, REPORT OF; FORCED CURRENCY; INCONVERTIBLE CURRENCY); others on the banks of Venice and on taxation of flour, which Ferrara defends with partial inconsistency in view of his free-trade theories. It is not wonderful that so extraordinary and gifted a writer should have created a flourishing school attracting into his orbit the best intellects of the peninsula. Minghetti, in a well-known work remarkable for brilliancy of style (*Della economia pubblica e delle sue attinenze colla morale e col diritto*, 1858), accepted and supplemented Ferrara's theory; Reymond in his *Études sur l'Economie sociale et internationale* (1860-61), further confirmed it; Antonio Ciccone, Angelo MARESCOTTI, Giovanni Bruno, Todde, and others commented on it in their treatises. During a long period, Ferrara occupied a solitary and preponderating position in Italian economic literature, due rather to his marvellous ability than to the soundness of his doctrines. Italian intelligence has extricated itself from the spell of the illustrious theoriser; his system has gradually been abandoned.

to the establishment of a social economy based on capital became slowly removed. The distressing phenomena of a critical period of social evolution in Italy were attracting investigation. Statistical research, directed by the hand of Bodio, revealed the vitiated character of the system by which wealth was distributed, the encroachments of the *latifundia*, the spread of short leases; and important publications showed that the actual state of the rural classes was as degraded as it well could be. Sonnino, Villari, Franchetti, Mme. White Mario, Lombroso, Stivanello, Mortara,—all these illustrated the condition of the agricultural classes in a series of memorable monographs, while the exhaustive work of the agrarian commission contributed ample materials invested with official authority. In those reports Emilio MORPURGO drew in the dark hues of truth the deplorable wretchedness of the agricultural classes in Venetia. And the reports of JACINI, Angeloni, Branca, Tanari, and Damiani showed that Italy had reached her lowest level of misery, inasmuch as from provinces mutually dissimilar there was heard but one wail and the selfsame moan.

A new habit of research and criticism informed economic thought from end to end of the peninsula, and a legion of clever and ardent youths flung themselves into the open field of social inquiry. Theirs is the merit that Italy occupies a position in the political economy of to-day on a level with more advanced countries; theirs is the merit that she has entered on the scientific phase.

Even in the preceding generation Italian writers were not wanting who set themselves to study economic relations with impartial criticism *e.g.* Girolamo Boccardo, who in his *Trattato teorico-pratico di Economia Politica* (1853), still the delight of the Italian student—defended and repolished the exact theories of Ricardo. It was, however, especially in the field of technical and specific inquiry that scientific economics was to prevail. Among the first indications of this tendency was the book by Baer, *L'avere et l'imposta* (1872), praised by J. Stuart Mill,—the *Logica delle Imposte* (1867), written by Pescatore, a calm and impartial study of public finance; and Jacini's work, *La Proprietà fondiaria e le Popolazioni agricole in Lombardia* (1854), a good example of positive analysis.

But the real initiator of the scientific method is undoubtedly Angelo Messedaglia. A distinguished physicist and mathematician, Messedaglia appeared least of any one inclined to examine the burning questions of economics, his turn of mind inclining him rather to more special and calm studies. Therefore he launched into a series of investigations into population, public loans, currency, taxes on real property, in which he sought to secure not the triumph of a school, but to lay bare and differentiate the most intimate connections of economic phenomena in a number of monographs written with conscientious and exact precision.

In his book *Della Teoria della Popolazione, principalmente sotto l'Aspetto del Metodo* (1858), unfortunately unfinished, Messedaglia puts forward an emendation of the Malthusian theory, namely, that the two progressions of subsistence and population cannot proceed as mutually isolated and independent. The latter is strictly limited by the former, which gives a different result from that reached by Malthus. For, given the former rate, two, three, four, five . . . and the latter, two, four, eight . . . it is evident that in the latter the second term will be suddenly reduced to three by the limit of subsistence killing off the surplus. Hence the successive doubling of population can only start from three, raising numbers in the third turn no higher than six. This again, colliding with a sum of subsistence equal to four, becomes reduced to four, and this by the given rate gives eight. Hence the real progression for population is two, four, six, eight, ten . . . *i.e.* an arithmetical progression with a constant difference double that of the rate of subsistence. Equally important are Messedaglia's further developments of the population theory, the statistics moreover of which, and the methods of handling them, he has expounded and criticised with great acumen in a solid work on the *Vita Media* (average of life). In his book on public loans, Messedaglia discusses the different questions connected with raising public loans, and in his recent work on currency, the history of money and prices, and the controversy on the legal standard. Finally his report *Sulla Perequazione Fondiaria* (1884) gives a history of the Cadastre (see CADASTRAL SURVEY) from the earliest times, and of the character of the surveys of land, and the taxes based on them in widely-separated and contrasted countries and states. The works of Messedaglia are in some points open to criticism, especially for their eclecticism and the indefiniteness of his results, but his labours will leave an enduring mark on Italian economic thought.

Messedaglia's strictly scientific method, which he employed on technical subjects extraneous to social controversies, has been applied by other and well-known economists to the most burning questions concerning the distribution of wealth. Among these Emilio Nazzani should be mentioned, who, while the prevailing school was yet seeking to draw a veil over the more painful phenomena of our economic system, courageously examined the laws of rent (1872), profit (1877), and wages (1880), developing and amplifying the theories of Ricardo. The writings of Nazzani mark a new starting-point in Italian political economy, leading it to reject optimistic fallacies and to initiate a vigorous criticism of the relations of production. However, neither he nor the other Italian economists of the same school have adopted the extreme conclusions of their doctrines, but have laboured rather to

qualify them by every possible means. Thus Nazzani seeks to soften the asperities of the Ricardian theory of rent, and the teaching of the English school; nevertheless he has laid the foundations of solid inquiry into the laws of distribution.

Again Fedele Lampertico influenced the economic revival in Italy by reproducing English and German theories in a lengthy treatise (1874, etc.); while Luigi Luzzatti, eloquent opponent of the exaggerations of *laissez faire*, has ably dealt with treaties of commerce, tariffs, currency, and credit, both in his writings and parliamentary life.

But the chief honour of the peaceful revolution whence scientific economics in Italy have sprung belongs unquestionably to Luigi Cossa; he has not only contributed a noteworthy and original essay on the limits of production, and diffused and championed in Italy the theories of the English school, harmonising them with those of Germany (which have also been popularised in Italy by Cusumano), France, and Holland, in which he is extremely well read; but he has also by teaching, by prizes, and instructive writings stimulated the economic studies of young Italy, creating around him a compact phalanx of able and diligent disciples.

A testimony to the awakening power of such masters may be seen in the numerous publications of youthful Italian economists, all educated in the new and progressive tendencies and agreed in the search for truth, however else they may differ. Of those cultivating exact science are Buzzetti, who has dealt with internal values and agricultural contracts,—Ricca-Salerno, who has dealt with capital, public loans, and wages,—Graziani, with machinery and wages,—Alessio, Bertini, Valenti, and Tangorra, with the theory of value,—Manara and Masè-Dari, who have examined rent,—Supino, capital and its transformations,—Majorana, economic laws,—and many others besides. While these economists are mainly deductive in treatment, others complement abstract research by a judicious application of the historic method. Among these, Cognetti de Martiis has written on primitive forms of economic evolution and the origin of socialism, —Toniolo on the factors of the economic power of medieval Florence, and the relation of scholasticism to humanism. Other writers apply sociology to political economy, like Vanni, an eminent philosopher, and Nitti, author of the book on *Catholic Socialism*, in their works on population. Ugo Rabbeno, who follows the inductive method, has treated of co-operation, its laws, and development in Italy and England, with great talent, and also has written a work on the phases of American protectionism. Equally skilled in statistical method, and more decided partisans of the socialism of the chair, are Carlo F. Ferraris, author of a book on labour insurance in Italy, and Augusto Mortara, who, in his work *I Doveri della Proprietà fondiaria e la questione sociale*, suggests state intervention in the tenure of land on behalf of the labourers.

Meanwhile there is no falling off in more strictly technical publications, as on credit, trade, and finance. First among these should be noticed Maffeo Pantaleoni's *Teoria della Traslazione dei Tributi*, skilfully explaining the shifting incidence of taxation. This book, not to mention others by the same author (*v.* works named later), shows how great has been the progress of scientific investigation in Italy. We may mention the labours of MAGLIANI, to whom we owe the most thorough critique of bimetallism, of Ferraris, Stringher, Piperno, G. Luzzatti, De Viti, Loria, Benini, Lorini, in monetary questions to which modern Italian economists, like their earlier brethren, and unhappily for the same reasons, have given much attention. Thus on banks we have works by Boccardo, De Jehannis, the *Storia delle Banche* by Rota, and the *Principii di Scienza bancaria* by Rota and by Ferraris. On rural economy there are the writings of Bertagnolli (*v. Authorities*), and others of equally high quality, by Bianchi, Emilio Cossa, and Sartori. On subjects of applied economics mention should be made of the labours of Graziani (*Teoria delle Operazioni di Borsa*), of Supino in his essay on discount, and especially in his *Navigazione dal Punto di Vista economico*, in which he discusses questions of freight, cost of navigation, and generally the economy of maritime enterprise. The writings of Montemartini and Della Bona on crises are also worth note, of A. Rossi and Benini, both protectionists, on the balance of trade, of Dalla Volta on industrial combination and forms of wages, of De Viti, Salandra, Alessio, Zorli, Graziani, and Puviani on financial questions. Here, too, quite apart from the subjects of the day, mention must be made of the bibliographical series published by a group of writers, Alberti, Montanari, Cusumano, Ricca-Salerno, Fornari, Sinigaglia, Loria, Errera, Gobbi, Supino, Conigliani, Graziani, Balletti, De Viti. Bertolini, under the editorship of Cossa.

The acclamation which in recent years greeted the rise of the AUSTRIAN SCHOOL (*q.v.*) could not fail to excite a fascination on Italian minds. The natural consequence has been a multitude of commentators on the theories of JEVONS, Menger, Böhm-Bawerk, SAX, and Wieser. For instance, Graziani accepts their theory of value in his *Storia critica della teoria del valore in Italia*, and so in part does Pantaleoni in his *Principii di Economia pura*, and Alessio in his essay on value, already mentioned. Again Sax's theories on finance are reproduced in the *Manuale di Scienza delle Finanze* of Ricca-Salerno, and accepted, with certain modifications, by Conigliani in his *Teoria degli Effetti economici delle Imposte*, by Graziani (*Di alcune questioni intorno alla Natura e agli Effetti economici delle Imposte*, 1889; and *Natura economica delle Imposte sulle Successioni*, 1890), and by Mazzola (*I Dati scientifici della Finanza pubblica*, 1887).

Economic study has received a vigorous impulse in Italy through the *Giornale degli Economisti*, an able review, edited by eminent writers with the collaboration of the best intellects in the kingdom. It courageously opposes protection, both agrarian and industrial, which has come to the front of recent years in Italy, to the great injury of national economy, and bestows a keen and conscientious criticism on the monetary and bank policy of the Italian government.

The work of certain other writers does not come under any of the preceding categories. Among these are economists who are free-traders and

optimists, such as Berardi, De Johannis, Martello, Dalla Volta, Bertolini, Todde, Pinna-Ferrà, Pareto, etc., whose organ is *L'Economista*, and a rising knot of authors occupied with socialist theses,—defended with moderation and learning by Napoleone Colajanni in *Socialismo e Sociologia criminale*,—and of which the leading organ is *La Critica sociale*, ably edited by Filippo Turati.

Finally there are some Italian economists whose line of thought diverges from all the foregoing. These see in the analysis of the relations of real property a key by the aid of which they seek to penetrate the yet unsolved problems of the distribution of wealth; following this method they have reached a number of results in the theories of value, currency, profit, interest, rent, population, and the interpretation of economic and political history. The system was set forth for the first time by Achille Loria in *La Rendita fondiaria e la sua Elisione naturale*, 1879; and *Analisi della Proprietà capitalista*, 1889; and applied to sociology by him in *Les Bases économiques de la Constitution sociale*, 2nd éd., Paris, 1893. It starts from an analysis of the economic influences exerted by the presence, or absence, of free land, not like WAKEFIELD, to deduce how new countries should be organised, and still less to mourn with VON THÜNEN over the distribution of wealth obtaining in old countries, but to trace out the organic laws and structure of the capitalistic economy. Amongst Loria's analyses we may mention that which reduces value to *complex labour*, complementing Ricardo's theory; his analysis of money, in which he traces the origin of money, completes Mill's doctrine of international values, and corrects FULLARTON'S theory on *hoards;* his analysis of the distinction between *technical capital* and *wage capital;* his distinction between distribution of wealth, *i.e.* distribution of the produce between wages and income,—and re-distribution of wealth, *i.e.*, distribution of income between earnings of the undertaker (*entrepreneur*), interest on capital, rent of land and taxes; the amount of the bank reserve; the theory of the systematic excess of population; the comparative analysis of the economic development of the American and Australian colonies, and of Europe, showing how the economic relations existing in ancient Europe are reproduced in modern colonies. This system, which has been called "the landed property system of political economy," now counts amongst its partial or thoroughgoing adherents Rabbeno, Nitti, E. Cossa, Garlanda, A. Mortara, Masè-Dari, Flora Sartori, Bianchi, Supino, De Marinis, Coletti, Petrone, and others.

[Recent works are:—Alberti, *Le corporazioni d'arti e mestieri negli antichi economisti italiani*, Milano, 1888.—Alessio, *Saggio sul sistema tributario in Italia*, Torino, 1883-87; *Studii sulla teoria del valore nel cambio interno*, Torino, 1890.—Baer, *L'avere e l'imposta*, Torino, 1872.—Balletti, *Gasparo Scaruffi e la questione monetaria nel secolo XVI*, Modena, 1882.—Benini, *Le basi di una nuova teoria della circolazione*, Cremona, 1887.—Bertagnolli, *La colonia parziaria*, Firenze, 1877; *Vicende dell' agricoltura in Italia*, Firenze, 1881; *L'economia dell' agricoltura*, Roma, 1886.—Boccardo, *Trattato teorico-pratico di economia politica*, Torino, 1853.—Buzzetti, *Sull' indole Economica dei contratti agrari*, Milano, 1874; *Teoria del Commercio internazionale*, Milano, 1877.—Cattaneo, *Scritti di economia publica*, Genova, 1887-88.—Cavour, *Opere politico-economiche*, Napoli, 1860.—Ciccone, *Principii di economia sociale*, Napoli, 1866-68.—Cognetti de Martiis, *Le forme primitive dell' evoluzione economica*, Torino, 1881; *Socialismo antico*, Torino, 1889.—Colajanni, *Socialismo e sociologia criminale*, Catania, 1884-89.—Conigliani, *Teoria degli effetti economici delle imposte*, Milano, 1890.—Cossa, E., *Primi elementi di economia agraria*, Milano, 1890.—Cossa, Luigi, *Introduzione allo studio dell' economia politica*, 3a edizione, Milano, 1892; *Saggi di economia politica*, Milano, 1878; *Primi elementi di economia politica*, 9a ed., Milano, 1891; *Id. id. di scienza delle finanze*, 6a ed., Milano, 1893.—Cusumano, *Le scuole economiche della Germania*, Napoli, 1875; *Dell' economia politica nel medio evo*, Bologna, 1876; *La teoria del commercio dei grani in Italia*, Bologna, 1877.—Dorado Montero, *El positivismo en la ciencia juridica y social italiana*, ii., Madrid, 1891.—Ferrara, *Prefazioni alle Serie I. e II. della Biblioteca dell' Economista*, Torino, 1850-70; *Memorie di Statistica*, Roma, 1890.—Ferraris, C. F., *Saggi di economia statistica, etc.*, Torino, 1880; *L'assicurazione degli operai, etc.*, Roma, 1888; *Principii di Scienza Bancaria*, Milano, 1892; *Moneta e corso forzoso*, Milano, 1879.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, Milano, 1882-88.—Fuoco, *Saggi economici*, Pisa, 1825-27. Melchiore Gioja, *Nuovo Prospetto delle scienze economiche*, Milano, 1815-17.—Graziani, *Di alcune questioni intorno alla natura ed agli effetti economici delle imposte*, Siena, 1889; *Natura economica delle imposte sulle successioni*, Siena, 1890; *Teoria delle operazioni di borsa*, Siena, 1890; *Storia critica della teoria del valore in Italia*, Milano, 1889; *Le idee economiche degli scrittori emiliani e romagnoli sino al 1848*, Modena, 1893; *Studii sulla teoria economica delle macchine*, Torino, 1891; *Di alcune questioni relative alla dottrina del salario*, Torino, 1893.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milano, 1884; *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milano, 1889.—Lampertico, *Giammaria Ortes e la scienza economica al suo tempo*, Venezia, 1865; *Economia dei popoli e degli stati*. Milano, 1874-84.—Loria, A, *La rendita fondiaria e la sua elisione naturale*, Milano, 1879; *Analisi della proprietà capitalista*, Torino, 1889; *Les bases économiques de la constitution sociale*, Paris, 1893; *La teoria del valore negli economisti italiani*, Bologna, 1882; *Studii sul valore della moneta*, Torino, 1891.—Lorini, *La questione della valuta nell' Austria-Ungheria*, Torino, 1893.—Luzzatti, *L'inchiesta industriale ed i trattati di Commercio*, Milano, 1878.—Magliani, *La questione monetaria*, Roma, 1872 e ss. (in the Nuova Antologia.)—Majorana, *Le leggi naturali dell' economia politica*, Roma, 1890.—Manara, *Concetto e genesi della rendita fondiaria, suoi correttivi e sua naturale elisione*, Roma, 1882.—Masè-Dari, *L. A. Muratori, come economista*, Bologna, 1893; *Della influenza della coltivazione intensiva sulla rendita fondiaria*, Torino, 1888.—Mazzola, *L'assicurazione degli*

operai in Germania, Roma, 1886 ; *I dati scientifici della finanza pubblica*, Roma, 1890.—Messedaglia, *Dei prestiti pubblici e del miglior sistema di consolidazione*, Milano, 1850 ; *Della teoria della popolazione principalmente sotto l'aspetto del metodo*, Verona, 1858 ; *La moneta e il sistema monetario in generale, La storia e la statistica dei metalli preziosi*, Roma, 1881-83 ; *Relazione sul Titolo I. del progetto di legge sull' imposta fondiaria*, Roma, 1884.—Minghetti, *Dell' economia pubblica e delle sue attinenze colla morale e col diritto*, Firenze, 1858 ; *Opuscoli letterarii ed economici*, Firenze, 1872.—Morpurgo, *Saggi economici e statistici sul Veneto*, Padova, 1868 ; *I contadini nel Veneto*, in the *Atti dell' inchiesta agraria*, Roma, 1882.—Mortara, Augusto, *I doveri della proprietà fondiaria e la questione sociale*, 2a ede., Roma, 1885.—Nazzani, *Saggi di economia politica* Milano, 1881 ; *Sunto di economia politica*, 4a ed., Milano, 1881.—Nitti, *Le popolazione ed il sistema sociale*, Torino, 1894 ; *Il socialismo cattolico*, Torino, 2a ed., 1891.—Pantaleoni, M., *Teoria della traslazione dei tributi*, Roma, 1882 ; *Teoria della pressione tributaria*, Roma, 1887 ; *Dell' ammontare probabile della ricchezza privata in Italia*, Roma, 1885 ; *Principii di Economia pura*, Firenze, 1889.—Pecchio, *Storia dell' Economia pubblica in Italia*, 2a ed. Lugano, 1832.—Pescatore, Matteo, *La logica delle imposte*, Torino, 1867.—Perrone, *La Terra nella odierna economia capitalistica*, Roma, 1893.—Puviani, *Alcune questioni intorno all' imposta sui fabbricati*, Bologna, 1890.—Rabbeno, Ugo, *La cooperazione in Inghilterra*, Milano, 1885 ; *La cooperazione in Italia*, Milano, 1886 ; *Le Società cooperative di produzione*, Milano, 1889 ; *Protezionismo americano*, Milano, 1893 ; *Raccolta degli economisti toscani*, Firenze, 1847-49.—Reymond, *Études sur l'économie sociale et internationale*, Turin, 1860-61.—Ricca-Salerno, *Saggio sulla teoria del capitale*, Milano, 1877 ; *Teoria generale dei prestiti publici*, Milano, 1879 ; *Del salario e delle sue leggi*, Padova, 1878 ; *Storia delle dottrine finanziarie in Italia*, Roma, 1881 ; *Manuale di Scienza delle Finanze*, Firenze, 1888.—Romagnosi, *Collezione degli articoli d'economia politica e statistica*, Firenze, 1835, Valenti, *Le idee economiche di G. D. Romagnosi*, Roma, 1891.—Rossi, Pellegrino, *Cours d'Économie politique*, Bruxelles, 1852.—Rota, *Storia delle banche*, Milano, 1874 ; *Principii di scienza bancaria*, 2a ed. Milano, 1885.—Scialoja, *I principii dell' economia sociale*, Napoli, 1848 ; *Scrittori classici italiani d'economia politica*, Milano, 1803-16, Custodi collection, 43 vols.—Stringher, *Della estinzione del corso forzoso negli stati Uniti*, Roma, 1879.—Supino, *La scienza economica in Italia dalla seconda metà del secolo XVI. alla prima del XVII.*, Torino, 1888 ; *Il saggio dello sconto*, Torino, 1892 ; *La navigazione dal punto di vista economico*, Roma, 1890 ; *Teoria della trasformazione dei capitali*, Torino, 1891.—Tangorra, *La teoria economica del costo di produzione*, Roma, 1893.—Todde, *Note sull' economia politica*, Cagliari, 1885.—Toniolo, *Dei remoti fattori della potenza economica di Firenze*, Milano, 1882.—Valenti, *La teoria del valore*, Roma, 1890.—Valeriani, Molinari, *Saggio di Erotemi, ecc.*, Bologna, 1825-28.—Vanni, *Studii sulla teoria sociologica della popolazione*, Città di Castello, 1886.—Viti, De, *Moneta e prezzi*, Città di Castello, 1884.—Wernardsky, *Kritiko-istoritcheskoe islidovanie obi italianskoi politiko-economitcheskoi literature*, Moscow, 1849.—Zorli, *Diritto tributario italiano*, Brisighella, 1892.] ACH. L.

IVERNOIS, SIR FRANCIS D' (1757-1842). A French émigré, was knighted by George III. He returned to France in 1814.

His principal works were : *Tableau historique et politique des pertes que la révolution et la guerre ont causées au peuple français dans sa population, son agriculture, ses colonies, ses manufactures et son commerce*, London, 1799. A work in form too much resembling a party pamphlet, but many of its reflections are valuable ; and *Sur la Mortalité proportionelle de quelques populations considerée comme mesure de leur aisance et civilisation*, Genève, 1832.

[The *Nouvelle Biographie générale*, Paris, 1858, vol. XXV., contains a full notice of him, and lists of works. See also Coquelin and Guillaumin's *Dictionnaire de l'économie politique*, Paris, 1852-1853.] H. E. E.

JACINI, COUNT STEFANO (1837-1891) belonged to a Lombard family of Casalbuttano. He studied in Switzerland, then at Milan by order of the Austrian government, lastly in Germany. In his youth he travelled through Europe and the East. He then applied himself again to study, and published *La proprietà fondiaria e la popolazione agricola in Lombardia*, Milano, 1854 ; 3rd ed., 1857. During a famine in the Valtellina, invited by Maximilian of Austria, then governor of Lombardy, he wrote *Le condizioni economiche della Valtellina*. Mr. Gladstone translated this pamphlet into English to show how intolerable the Austrian rule was in Italy. In 1860 Jacini became minister for agriculture and commerce, Cavour, whom he had supplied with information as to the relations of Austria to Lombardy and Venetia, being Premier.

He gave a strong impulse to the execution of the St. Gothard tunnel. His report to Parliament on that occasion, 25th February 1866, is a good example of his positive method, stating ascertained facts which had been made thoroughly known through a public inquiry. After being appointed a Senator he published several political writings, "Sulle opere pubbliche in Italia nei loro rapporti con lo Stato.—Sulle condizioni della cosa pubblica in Italia dopo il 1866." His positive method made a deep impression on the nation when the Italian parliament, 15th March 1877, ordered an inquiry into agriculture and the position of agriculturists (*Inchiesta Agraria*). The result of this inquiry was published in 15 volumes 4to, 1881-1885, Rome (Tip. del Senato) with a preface

by Jacini, vol. i. containing an explanation of its aim and a statement at the end *Relazione Finale* (vol. xv.) collecting its conclusions which, according to his own words, applied the experimental method to the study of Italy as an agricultural nation. Jacini did not rely on theory, his works show great clearness of observation, he sided with free trade, just when the protective system was cherished by the supporters of agricultural interests. A rich landowner himself, he supported the principle that property is a social necessity if it were only to preserve and to increase agricultural wealth, its defence lies in the service it renders to society. A. B.

JACOB, WILLIAM, F.R.S. (1762?-1851), merchant in London, was appointed in 1822 to the comptrollership of corn returns, which post he retained during twenty years. He was commissioned by the Government in 1825 and 1827 to report on the condition of agriculture in some of the states of northern Europe; the results of his observations are contained in two *Reports* which contain valuable information and very full statistics of the state of land and the agricultural produce of those countries at that period. On the suggestion of Huskisson he undertook an inquiry into the production and consumption of the precious metals. This work shows great research, but is defective, which may be attributed partly, for the more recent periods, to the insufficient historical information available then. But, as regards earlier times, Jacob appears to have put together more information than any one previously, and his conclusions concerning the subsequent and middle ages are quoted as authoritative by many recent writers on the subject, as by Walker in *Money*.

An historical Inquiry into the Production and Consumption of the Precious Metals, 2 vols., London, 1831.—*Report on the Trade in Foreign Corn, and on the Agriculture of the North of Europe. . . . To which is added an Appendix of Official documents, Averages of Prices, etc.*, London, 1826.—"A Report . . . respecting the Agriculture and the Trade in Corn in some of the Continental States of Northern Europe," in the *Pamphleteer*, xxix., 1828, and several other pamphlets on agriculture. R. H. H.

JACTUS NAVIS LEVANDI GRATIA (General Average). When a ship and its cargo are in peril of the sea, and the master of the ship orders a sacrifice of property to be made for the purpose of avoiding the danger, such as that of throwing cargo overboard to lighten the ship, the loss thus arising has to be shared in common between the ship-owner and owners of cargo, *i.e.* among all those who benefit by its having been made. This provision of Roman law was derived from the maritime law of the Rhodians; hence it is called *lex Rhodia de jactu* (see AVERAGE, MARITIME). E. A. W.

JAKOB, LUDWIG HEINRICH VON (1759-1827), a distinguished economist, was born at Wettin. He studied at Merseburg and Halle, and in 1791 became professor of philosophy at the latter place, where he strove to popularise the doctrines of Kant. He lectured also with great success on political economy. The Russian government invited him to fill the chair of economic science at Kharkow, and the suppression of the university of Halle in 1806 induced him to accept the offer. He speedily learned Russian and lectured in that language on political science. He was favoured by the minister Speransky, and in 1809 was called to St. Petersburg as member of an important finance commission. On the re-establishment of the university of Halle, he returned to Germany and resumed his professorial work. The Russian government on his retirement ennobled him and granted him a pension. He was a voluminous writer on philosophical subjects in the earlier part of his career.

Jakob's principal economic publications were: *Theorie und Praxis in der Staatswirthschaft*, 1801; *Ueber die Arbeitleibeigner und freier Bauern in Russland*, 1815; *Grundsätze der National-oekonomie, oder Theorie des Nationalreichthums*, 1805 (3rd enlarged edition, 1825); *Die Staatswissenschaft theoretisch und praktisch dargestellt und erläutert*, 1821. He closely followed Adam Smith, whilst at the same time seeking to place in a clearer light the fundamental conceptions of the science. He translated into German (1807) the treatise of J. B. Say and (1803) Thornton's *Paper Credit of Great Britain*. J. K. I.

JANNET, CLAUDIO (1844-94), after having graduated as doctor of law at Aix in Provence, and as doctor of political sciences at Louvain, practised some time at the bar in Aix. Having been introduced to LE PLAY, he became the most brilliant of his disciples and fellow-labourers, and following his method, made a personal inquiry into the state of the populations of Dauphiné and Provence.

Jannet wrote in 1867 an essay on the *Lex Voconia*, and after having published in 1873 his *Institutions Sociales et le Droit Civil à Sparte*, he returned from a journey in America with his *États Unis Contemporains*—pub. 1876,—a critical examination of the institutions, moral conditions, and ideas prevalent in the great republic after the war of secession; this book, which in thirteen years went through four editions, established the reputation of Jannet as an acute observer, although he certainly did not see American democracy in the same favourable light as De Tocqueville forty years before. However, in his last edition (1889), he is glad to testify that "the political condition of the United States has considerably improved" (see his monographs in the *Ouvriers des deux mondes, e.g.* "Un Metayer de Texas.")

Having been elected the first professor of political economy at the Catholic Institute of Paris, Jannet occupied this chair until the time of his death. According to one who knew him well, he aimed "at following the method of observation and keeping to the exact study of facts, so as to give economic science a solid foundation, and at illus-

trating it by judicious historical descriptions of the past and comparative information derived from both continents, breathing into the whole the spirit of elevated moral thought." This object he successfully attained, both in his academic lectures and in the two large works published during this period: *Le Socialisme d'État et la Réforme Sociale*, 1889, and *Le Capital, la Spéculation et la Finance au XIXe Siècle*, 1892. Jannet probably was the most scholarly and certainly one of the best and most widely informed of the French economists of his generation; with a marked Roman Catholic and conservative bias, his standpoint is the standpoint of unrestricted economic liberty combined with a due acknowledgment of the relativity of economic phenomena and deep religious and moral convictions. To socialistic schemes of reform, whatever might be their origin, he was firmly opposed; although he admitted that the rise of *Kathedersocialismus* was the natural outflow of the past history of Germany, he would not admit that a socialistic legislation could achieve its supposed ends even in Germany. Denying thus to the state any right of interference with questions of production, distribution, and consumption, he however, recommended in case of need a liberal policy of *subventions*, to be provided as well by the masters (*patronage*) as by communal and corporation funds. In common with LE PLAY, he consistently strove to obtain the reform of the French law of bequest, and to restore the power of paternal authority on this point as a remedy against rural depopulation and the demoralisation of the wealthy classes of society. Jannet was a frequent contributor to the leading French periodicals, such as the *Réforme Sociale*, the *Économiste Français*, the *Correspondant*, the *Revue des Deux Mondes*, and the *Polybiblion* (see BEQUEST, POWER OF). E. Ca.

JANSSEN, SIR THEODORE (d. 1748), director of the SOUTH SEA COMPANY, contributed several articles on the trade between Great Britain and France to the *British Merchant*, edited by Charles KING (*q.v.*), during the controversy on the commercial treaty with France in 1713. Of the papers afterwards republished as the *British Merchant*, 3 vols. 8vo, London, 1721 and 1743, Janssen was the author of *General Maxims in Trade, particularly applied to the Commerce between Great Britain and France*, reprinted in the *Somers Tracts*, 4to, 1752, vol. iv.; 4to, 1809, vol. xiii. After giving a short summary of the principles of the MERCANTILE SYSTEM (*q.v.*) in the form of "maxims in trade assented to by everybody," he discusses the various branches of English commerce which would be affected by the proposed treaty with France, and concludes that "the high duties are the only fence we have left against an inundation of French commodities upon us," and that if the treaty were carried into effect "our capital stock of gold and silver would be diminished." The treatise has no scientific value, but it is a good illustration of the mercantile system in its most unreasonable form. It appealed to the prejudices of the merchants, whose vigorous opposition to the treaty secured its rejection.

[For further particulars of Janssen's career *vide Dictionary of National Biography*.] W. A. S. H.

JARROLD, THOMAS (1770-1853), a physician, born in Essex, and educated at Aberdeen, practising first at Stockport, then at Manchester, was the author of *Dissertations on Man, Philosophical, Physiological, and Political, in answer to Mr. Malthus's Essay on the Principle of Population*, 1806.

He thinks Malthus has not sufficiently noticed that increase of food depends on human action (29-30); also there is no proof that, where discomforts are great, increase of population is slow, and *mutatis mutandis* (16, 17). Vice, for example drunkenness, is not only sometimes a check, but sometimes a cause of population (38 *seq.*). Dr. Jarrold draws on his medical experience, and this gives his book a character of its own. "During three years, I have attended with considerable care to the diseases of the poor of the town of Stockport, and in that period have not seen fewer than 5000 sick persons who then were or had been employed in manufacturing cotton" (60). He thinks the factory children (200 in number) were healthier than those of other occupations, though factory work is that "to which the eyes of the public are directed with the most watchful jealousy." If there were more of his own experiences and less of his criticisms, which are seldom well-founded, the book would have been of greater value. His paradox, that "an unsound constitution in a civilised country most commonly proves prolific" (305), has found supporters in our own days; but is hardly a demonstrable any more than a comfortable doctrine. Few will agree with him now in condemning Malthus for finding "an analogy in principle" between the vegetable, animal, and human kingdoms in respect of increase (329), or in regarding Malthus as destitute of due faith in Providence (327 *seq.* cp. 364). If the book in its main arguments has a family likeness to many other refutations of Malthus, it is at least superior to most of them in moderation of tone.

His other writings were — *Letter to Samuel Whitbread, M.P., on the Poor Laws*, 1807.— *Anthropologia or Dissertations on the Form and Colour of Man* (Stockport), 1808.—A paper on National Character in *Transactions of Manchester Literary and Philosophical Society*, 1811.—*Instinct and Reason philosophically investigated with a view to ascertain the Principles of the Science of Education* (Manchester), 1836.—*Education of the People*, Part I. (Manchester), 1847. J. B.

JARVIS, EDWARD (1803-1884), born in Concord, Massachusetts; lived in Boston. He was educated as a physician, and devoted much attention to vital statistics. He edited the vital statistics of the United States census of 1860, published in vol. iv. of the census of that year; and contributed many papers to periodicals and societies on subjects relating to the increase of the population.

Among these may be mentioned *The Increase of Human Life*, and *Infant Mortality*, Boston, 1873.

He was the second president of the American Statistical Association, serving from 1852 until his death. D. R. D.

JENKIN, HENRY CHARLES FLEEMING (1833-1885), an eminent electrician, and professor of engineering at the university of Edinburgh, deserves notice here as having contributed to political economy some very original papers of the highest theoretical importance and of considerable practical interest.

In a paper on "Trade Unions," in *North British Review*, 1868, Jenkin refutes the belief that unions cannot be economically beneficial to their members, by a masterly analysis of the law of demand and supply. He represents the relation between price and demand by a *function*: $D=f\left(\frac{1}{x}\right)$; or, more elaborately, $D=f\left(A+\frac{1}{x}\right)$; where x is the price, and A is an unknown constant; so that the decrease of x, or increase of $\frac{1}{x}$, corresponds to what has since been called an "extension" of demand, the increase of A to a "rise" (see COURNOT). Similarly, the equation $S=F\ (B+x)$ expresses the relation between price and supply. The equation $F\ (B+x)=f\left(A+\frac{1}{x}\right)$ determines the price x. Descending to practical details, the writer discusses, in the light of first-hand knowledge, the policy of trade unions with respect to piece-work, over-time, and other arrangements. Much weight attaches to his advice as to the rights and limitations of combination.

In the paper on *The Graphic Representation of the laws of Supply and Demand, and their application to Labour*, 1868, resuming his mathematical analysis, he continues to show "how much the value of all things depends on simple mental phenomena, and not on laws having mere quantity of materials for their subject." He constructs a demand curve and a supply curve virtually identical with Cournot's constructions. "In a given market, at a given time, the market price of the commodity will be that at which the supply and demand curves cut." Jenkin calls this the *first* law of demand and supply. Attention should be called to the statement (*Papers*, p. 86) that "the law only comes into operation where buyers and sellers can approximately estimate whether at a given price the quantity wanted or the quantity for sale is the greater." The *second* law formulates the effect on price of an increase of the "whole supply," or of the "whole purchase fund." The *third* law is: "In the long run the price of the manufactured article is chiefly determined by the cost of its production, and the quantity manufactured . . . by the demand at that price." Here "cost of production is no one fixed cost, constant for all quantities"; and the first and third laws seem to differ only as "*short periods from long.*" In applying these laws, Jenkin conceives the action of a combination as modifying the supply curve. "The legitimate action of trade unions is to enable the labourer to set a reserve price on his merchandise." . . . "The power of bargaining, or, in other words, of reserving some of the goods for sale, may lower the supply curve." . . He employs largely the conception of the "cost of production of a labourer"; from which he deduces just conclusions as to the importance of a high standard of life.

The paper on the *Incidence of Taxes*, 1871, opens with a brilliant exposition of the principle now known as CONSUMER'S RENT. Jenkin had re-discovered not only the general theory which Dupuit first propounded, but also the particular approximation by which Dupuit made it applicable (DUPUIT, *Papers*, p. 114). The effect of a tax on price is represented by Jenkin in much the same way as it had been by Cournot. In conclusion, he discusses two particular taxes —on houses and on rent; employing in the treatment of the latter subject a supply curve of a very peculiar construction.

The *Time-labour System* is a proposed new form of contract between men and masters. Men are to be engaged for a long period—say, six months,—each man is liable to dismissal, but the master engages to receive as substitute any competent workman, at the same wages, for the unexpired period. Also, each man is free to throw up his employment on condition of finding a competent substitute. The object is to correct the characteristic imperfection of the labour market—namely, that a master cannot take on a few additional men at an advance of wages without raising wages all round.

In the paper entitled *Is one man's gain another man's loss?* Jenkin enhances some elementary principles of economics by the physical metaphor of a "closed circuit," round which money travels in one direction, goods in another. "If we imagine all our closed barter circuits drawn as lines from man to man, with arrowheads to show which way the goods travelled, every man [in an imaginary isolated community of workers] would have as many lines coming into him as went out."

The papers described here are published—some for the first time—in *Papers Literary, Scientific*, etc., London, 1888, 2 vols. 8vo, edited by Sidney Colvin and J. A. Ewing, with a memoir by Robert Louis Stevenson in his most charming style. F. Y. E.

JENNINGS, RICHARD (flourished in the middle of the 19th century), of Trinity College, Cambridge, will be remembered as one of those who in Jevons's words first "clearly appreciated the nature and importance of the law of utility." In his *Elements of Political Economy*, conformably to the definition of the subject as the relation between human nature and exchangeable objects, Jennings begins with psychology and physiology. He distinguishes two kinds of

commodities — *primary* and *secondary*: the former exciting nerves of common sensation, *e.g.* the sensation of warmth or cold, and that which follows the satisfaction of hunger; the latter exciting nerves of special sensation, sight, hearing, smell, etc.—roughly corresponding to necessaries and luxuries. The difference between these classes is that "necessaries may confer their full amount of satisfaction in the absence of luxuries; while luxuries cannot be enjoyed by those who want the necessaries of life." Another difference is that "the satisfaction which is derived from objects which affect the special senses is less dependent on quantity." Here reference is made to what is now called the LAW OF DIMINISHING UTILITY, thus formulated by Jennings. "With respect to all commodities our feelings show that the degrees of satisfaction do not proceed *pari passu* with the quantities consumed—they do not advance equally with each instalment of the commodity offered to the senses and then suddenly stop—but diminish gradually until they ultimately disappear" (p. 98). The law of increasing disutility is stated with corresponding clearness (p. 120). That its operation is more marked in the case of bodily than that of mental labour is an important observation. There is much more psychology, but of a less original character.

In the second book, Jennings applies his principles to the phenomena of exchange. He anticipates that economic theories "may be expressed in figures" . . . "exhibited in the formulæ, and analysed by the different methods of algebra and fluxions." He looks also for rather drastic applications of the new political economy. Thus one of his proposals is that a considerable share of the property of proprietors dying without leaving near relations should revert to the state.

A similar vein of suggestion is found in Jennings' later work, *Social Delusions* . . . Convinced that, "in determining the incidence of taxation, the condition of women is an object worthy of attention," the author proposes to tax the employment of men in domestic service and in shops, in order to make room for women in those callings (p. 115). The proposal that we should select our statesmen by a sort of examination in the theory of value shows a certain want of humour. A similar criticism applies to much of the tirade against fallacies. The second work does not form an advance upon the first.

Natural Elements of Political Economy, 1855. —*Social Delusions concerning Wealth and Want*, 1856.

[*Athenæum*, 1856, p. 898.—*Westminster Review*, July 1856.—Jevons, *Theory of Political Economy*, ch. iii. p. 59, 2nd ed.—Cairnes, *Character and Logical Method of Political Economy*, pp. 56, 110, 224.] F. Y. E.

JENYNS, SOAME (1704-1787), poet and miscellaneous writer, sat in parliament from 1742 till 1780, and was a lord commissioner of the board of trade and plantations, from 1755, until it was merged with another department in 1782.

Jenyns' economic writings, probably owing to his official position, attracted attention at the time beyond their deserts. His views on economic questions are generally unsound, and he is not consistent; he imputes the high price of provisions, about 1767, to the national debt, and to the increase of individual wealth, which increase he also attributes in part to the national debt. These opinions are only noteworthy inasmuch as they are an instance of the mistakes made by contemporary observers, even when well placed for observation, in recording the events which passed under their eyes. He maintained the right of the home government to tax the American colonies at will. Of his writings, which have been collected by his biographer, Cole, into four volumes (1790), those dealing with economic questions are—

Thoughts on the Causes and Consequences of the present High Price of Provisions (1767).—*The Objections to the Taxation of our American Colonies by the Legislature of Great Britain briefly considered* (1765).—*Thoughts on a Parliamentary Reform* (1784).—*Thoughts on the National Debt* (first printed in Cole's edition, 1790).

[*Biographical Memoir*, prefixed to C. N. Cole's edition of Soame Jenyns' works, 1790.—Chalmers's *Biographical Dictionary*.—R. Anderson, *Complete Collection of the Poets of Great Britain*, vol. xi. 1794, p. 983.] R. H. H.

JETONS DE PRESENCE (Fr.) are the form in which attendance fees are paid in France to directors or members of committees in public companies or societies when the functions are presumed or declared to be honorary. Some companies give a *jeton de presence*, usually ten francs, to shareholders who attend the annual meetings. The *jetons* are generally silver medals specially coined, bearing the name of the company, and which may be exchanged for their nominal value in cash. Rich directors frequently keep them to use as counters for card-playing at home.

[*Dictionnaire des Finances*, ii. 450, 1894.] T. L.

JETSAM AND FLOTSAM. See FLOTSAM AND JETSAM.

JEVONS, WILLIAM STANLEY (1835-1882), one of the greatest English economists of the 19th century, was born at Liverpool. His father, Thomas Jevons, was in the iron trade, and interested in all the new engineering schemes of his time. His mother, Mary Ann Jevons, was the eldest daughter of William Roscoe, the author of the *Life of Lorenzo de Medici*, a man of much learning and refinement. Her mind had been cultivated by constant companionship with her father and by the intellectual society which she enjoyed under his roof. She was a person of considerable poetical talent and strong religious feeling. W. S. Jevons, the ninth child of these parents,—with other

relations of much education and ability,—was thus early brought under influences which assisted to develop his mind and character. His mother encouraged her children in their love of drawing and music. She "carefully fostered," W. S. Jevons wrote, "a liking for botany, giving me a small microscope and many books, which I yet have. Strange as it may seem, I now believe that botany and the natural system, by exercising discrimination of kinds, is the best of logical exercises. What I may do in logic is perhaps derived from that early attention to botany."

Early in 1846 Jevons was sent to the Mechanics' Institute High School, Liverpool, of which Dr. W. B. HODGSON, afterwards professor of political economy in Edinburgh, was then head-master. In 1850 he entered University College School, London, and in 1852 matriculated at the University of London, with honours both in chemistry and botany. Meanwhile the means of earning a livelihood had to be sought, and Professors Williamson and Graham, who had observed his great ability and power of work in the college laboratory, recommended his appointment as assayer to the new mint at Sydney. Further study in other directions had now to be checked. He studied assaying at the Paris mint, and in 1854, when not yet nineteen, sailed for Sydney. He remained five years in Australia, filling his post at the mint with skill and success. The study of meteorology attracted him strongly, and he devoted himself to it with his wonted thoroughness. His interest in later life in recording the periodicity of the "sun-spot" disturbances and the connection between these and changes in the seasons, the price of corn, and commercial crises, was doubtless quickened by these investigations. During this period, political economy also appears to have attracted his attention.

His position at Sydney was an honourable one. The income was considerable, the more creditable to him because attained at so early an age, and the more important because he was now entirely dependent on his own exertions. But an ardent desire for further opportunities of mental improvement overcame all other considerations. "Another year's regular hard study," he wrote to his sister Lucy (Mrs. John Hutton) in 1858, "especially at my increased age, will be invaluable, and its loss would be regretted to the end of my life." He returned to England in 1859, re-entered University College, took the B.A. degree 1860, the Ricardo scholarship the same year, the M.A. with a gold medal 1863. He was, 1866, appointed professor of logic and mental and moral philosophy and Cobden lecturer on political economy in the Owens College, Manchester, posts which he held till 1875, when the strain of increasing work, coupled with somewhat failing health, compelled him unwillingly to resign. In the same year, 1875, he was elected professor of political economy in University College, London, a post which he retained till 1880.

Jevons was elected Fellow of the Royal Society in 1872. He married, in 1867, Harriet Ann, third daughter of Mr. J. E. Taylor of Manchester, founder and proprietor of the *Manchester Guardian* paper. His marriage was an eminently happy one. His love for music was a constant solace. He had constructed himself a very well-toned organ for his house, and was an unusually accomplished musician.

Though reserved in character, he was a very pleasant companion and extremely instructive in conversation. One who had the advantage of knowing him, and frequently experienced the help which his powerful mind brought to the solution of any economic problem, remarked of his conversation, "It was more like talking with an early Greek philosopher, if one can realise what that would have been, than with one of our contemporaries."

Perhaps the most remarkable feature in his life was his early and unswerving conviction that he was destined to do some great work, his entire devotion of himself to preparation for it, and afterwards his unhesitating renunciation of anything, however tempting, that seemed to stand in the way of it. Thus in 1851, when he was sixteen, he writes, "I began to think that I could and ought to do more than others,"—in 1857 when twenty-two, that he has "one wish, or one *intention*, viz. to be a *powerful good* in the world,"—in 1863, when twenty-seven, and saddened by want of immediate success on his return from Sydney, he still sees a hope in his "capacity of seeing the sameness and difference of things, which if history and . . . experienced men are to be believed, is a rare and valuable kind of power." His subsequent career was the carrying out of these convictions. He could let nothing draw him aside from the endeavour to carry out his scientific career to the utmost limit of his capabilities.

While it is primarily as an economist that Jevons claims attention in the *Dictionary of Political Economy*, his researches as a logician and a student of scientific method cannot be ignored. Indeed it will be convenient to begin with an examination of the *Principles of Science*, in which Jevons sums up and applies the results of his long and severe researches in logic. He bases his system upon the generally received axioms that "whatever is is," that "a thing cannot both be and not be," and that "a thing must either be or not be." But to these he adds the principle of "the Substitution of Similars," that is to say, the axiom that whatever is true of A is true of everything that cannot be distinguished from A in the relation contemplated. Thus if B is identical with A then B may be substituted for A in any assertion that has been shown to be true of A. The next and crucial step is to bring every proposition into the form of the assertion of an identity. Thus the proposition "men are mortal" becomes in Jevons's system "man" is the same as "mortal man." Therefore if anything can be said of "man" the same can be said of "mortal man," and if "man" can be predicated of any subject, "mortal man" can be predicated of the same subject. Now whatever may be thought of the psychological principle that a proposition *is* the assertion of an identity, it is unquestionable that it logi-

cally *involves* such an identity. Jevons can therefore throw his propositions into a form which at once admits of the application of the principle of the "substitution of similars." Let us take the two propositions (1) "Cæsar" is the same as "the man Caesar"; (2) "man" is the same as "mortal man." Now (2) enables us to substitute "mortal man" for "man" in (1), and we have "Cæsar" is the same as "the mortal man Cæsar"; or symbolically putting A for Cæsar, B for man, and C for mortal, we have (1) A is the same as AB, (2) B is the same as BC, whence by substitution A is the same as ABC. It is now possible to elaborate a system in which every proposition shall be convertible, and to found upon it a symbolical manipulation of terms, with its appropriate algebra, that constitutes an indefinite advance upon the "Barbara, Celarent, etc." of Petrus Hispanus. Having reduced deductive reasoning to a mechanical process, Jevons found no insuperable difficulty in constructing a syllogising machine; but he regarded this triumph as possessing little practical though considerable theoretical significance. From his reconstruction of deductive reasoning Jevons goes on to contend that induction is an inverse process entirely dependent upon the laws of deduction for its validity. The next step is to show that mathematics is but a special application of logic, and that the mathematical equation is subject to precisely the same laws as the logical identity, the apparent difference being due to the universal presence in the equation of certain limiting conditions which are not assumed unless expressly stated in the logical identity. The doctrine of chances is now developed in immediate dependence upon the law of "substitution of similars"; for the root principle of the doctrine of chances is that inasmuch as belief ought to depend upon the distribution of our knowledge and ignorance, therefore we should believe the same about one event as we believe about another, our knowledge or ignorance of which is the same. The doctrine of chances in its turn is made the basis of the whole system of scientific investigation and induction, in the development of which Jevons's genius finds a thoroughly congenial field, and in which the scope of his scientific reading becomes manifest.

We will pass from this treatise on method to a collection of writings on currency and finance, which forms an almost ideal application of the "principles of science" to a group of problems of equal complexity and importance. The volume contains papers written at every period of Jevons's literary life, and, as Professor Foxwell remarks in his preface, it is not till they are read together that the impressive unity of conception, firmness of grasp, and tenacity of scientific purpose which they reveal can be adequately felt. With equal patience and sagacity Jevons separates out the sæcular from the periodic variations in the phenomena of price, discount, pressure on reserves, frequency of bankruptcies, and so forth. His elaborate logarithmic and other tabulations are models of sound method and laborious research illuminated by theory, not likely soon to be superseded. His brilliant attempt to bring the periodicity of commercial fluctuations into connection with that great physical period which is indicated, for instance, by the changes in the aspect of the sun-spots and the electrical condition of the earth, if not conclusively successful, is suggestive of the highest range of physico-economic law which we are ever likely to attain. From his examination of the actual phenomena of the currency, Jevons proceeds to the discussion of questions of monetary policy, both domestic and international. He deals with such questions as the possibility of an international coinage, the principles of note-issue, the best means of maintaining the standard weight of coins, and of securing (by the institution of a compound unit of value) an assured stability in the standard of deferred payments. On the now burning question of bimetallism, Jevons's position, though perfectly unequivocal, is almost certain to be misunderstood by those who know it only at second hand. He fully recognises the serious nature of the evils deplored by bimetallists, and the theoretical possibility of maintaining a fixed ratio between gold and silver by international agreement; but the precarious nature of such an agreement, and the danger of sudden disturbance to existing obligations, appeared to him to be fatal objections. Thus bimetallists and monometallists alike appeal, with perfect sincerity and justice, to the authority of Jevons at one point or another of the argument, and it may be confidently asserted that when the controversy is waged within the lines laid down by Jevons, the era of scientific discussion will have definitely begun, and a decision on scientific grounds will not be far distant.

In addition to his studies in finance, Jevons treated a great variety of questions relating to state control and management. On the broad principle of state socialism and individualism Jevons was without prejudices. His determining principle was purely Benthamite. "Will a measure increase the sum of happiness?" was the only question which he would admit as ultimately relevant. But the evidence upon which we must rely for an answer is often ambiguous, always in large part indirect, and generally conjectural. Hence the necessity of extreme caution in arriving at conclusions, together with a considerable degree of boldness in hazarding experiments. Our only guides are experience and analogy; and wherever experience seems to contradict analogy, as will often be the case, our rule must be to analyse more carefully and so correct the analogy, instead of

ignoring or denying the experience. Following these principles, Jevons collected a vast mass of information on social questions, and analysed it so scrupulously that his work is almost equally valuable when experience has confirmed and when it has contradicted his anticipations. In examining questions of state action, Jevons very carefully distinguishes between state *control* of private enterprise and state *management* of enterprise. With reference to the former, we can only say that there is a presumption against interference, in so far as unimpeded freedom must be held to be a source of happiness, and therefore any restriction of freedom an evil. But this presumption must yield in innumerable instances to the demonstrated fact that greater happiness has resulted from control. A conspicuous instance is furnished by the FACTORY ACTS, and Jevons would gradually extend their principle so as to prohibit altogether the employment of child-bearing women in factories. The conditions under which state management, as distinct from state control, is likely to be advantageous, were submitted by Jevons to a rigorous analysis, which ought to be the starting-point of all discussions of the subject. The conditions he held to be favourable to state management are as follows: (1) where numberless wide-spread operations can only be efficiently connected, united, and co-ordinated in a single all-extensive government system; (2) where the operations possess an invariable routine-like character; (3) where they are performed under the public eye or for the service of individuals who will immediately detect and expose any failure or laxity; (4) where there is but little capital expenditure, so that each year's revenue and expense account shall represent with sufficient accuracy the real commercial conditions of the department. An exhaustive examination of the facts, with reference to these criteria, led Jevons to pronounce in favour of the state management of telegraphs and telephones, and the establishment of a parcel post, none of them accomplished facts when he wrote; but against the state management of railways, which however should be strictly controlled in the interests of the community. It may be mentioned that Jevons had a strong dislike and suspicion of trade unions, based on grounds of economic theory. But he looked for their gradual transformation into co-operative societies, and would leave them absolutely free. On similar grounds he placed small hope in methods of arbitration and conciliation, trusting rather to the free play of competition. It should be noticed in connection with labour questions that Jevons never lost sight of the vital distinction, so generally overlooked, between the horizontal cleavage of the industrial community into various grades of skilled and unskilled labour, managers, capitalists, landowners, and so forth, and the vertical cleavage into the agricultural interest, the coal interest, the iron interest, etc. Through neglect of this distinction a class movement and a trade movement may easily be confounded. Jevons had a profound faith in the future of industrial partnerships—a faith that survived rude shocks, for he frankly owned that English experience was against him, and that French experience is always unsafe ground for reasoning by analogy to England.

The mass of work already reviewed is great; but we have still to notice the treatise by which Jevons's place in the history of economic theory will ultimately be determined. In his *Theory of Political Economy* he attempts nothing less than the reconstruction of the science of economics as the calculus of human satisfactions. Production derives its whole significance from consumption; that is to say, from the satisfactions to which it ministers; and the significance of any special unit of product is due to the increment of satisfaction which it is capable of producing. Hence the scale of equivalence of any two commodities is determined by the scale of equivalence of the increments of satisfaction which they are capable of producing. Exchange value then is determined by incremental efficiency as a producer of satisfaction. But this incremental significance is not absolutely fixed. It depends on the amount of the commodity already possessed or enjoyed by the individual or the community whose satisfaction we are considering. Thus we obtain the formula that if $F(x)$ represents the whole significance, or value in use, of a commodity to its possessor, then $F'(x)$ will represent the significance of an increment of it to him, or in other words, will be the gauge of its exchange value (see DEGREE OF UTILITY and FINAL DEGREE OF UTILITY). Should the incremental efficiency, and so the exchange value of the product of a given combination of productive efforts be greater when such efforts are turned into one channel than when they are turned into another, this fact will determine the course they will actually take. The more significant product will therefore be increased in quantity, and the less significant decreased. Hence the incremental significance of the former will decline, and that of the latter will rise, until there is equilibrium. There will now be equivalence between the relative expenditures of productive effort and the relative values of the product; though it will not be the cost of production that has determined the value of the products, but the (anticipated) value of the products that has determined the direction of productive effort. These principles, together with the "law of indifference"—in reality a new application of the "substitution of similars"—enable Jevons to throw the theory of exchange into the form of systems of equations. From this we must inevitably proceed to the theory of distribution.

Value had long been recognised as the cause and not the effect of rent. Jevons declared it to be the cause and not the effect of wages also. Hence the theory of distribution must be built up afresh, taking as the starting-point the significance of the product to the consumer. Jevons has left much for his followers to do in working out this theory. The form of his equations is open to just criticism. He seems hardly to have realised the full consequences of his method. But none the less his *Theory of Political Economy* has succeeded in its aim. When all its implications have been worked out the science will be reconstituted. On the questions of priority and originality, cp. arts. on COURNOT; GOSSEN; and the works of Walras and Menger.

In addition to the above, Jevons wrote a considerable number of technical and miscellaneous essays on scientific and social subjects, an industrial treatise, *The Coal Question*, dealing with the possible exhaustion of our coal mines, which had a powerful influence in initiating the serious attempt to pay off the national debt, and a number of more or less elementary and popular books on logic, monetary science, problems of state management and control, and political economy.

In reviewing the whole work of this bold and patient thinker, it is impossible not to regard his death,—in the plenitude of his powers, and in the midst of works which promised to equal anything he had yet done in significance,—as one of the heaviest losses that science has suffered in our generation.

A full bibliography of Jevons's works appears in Appendix B to his *Letters and Journal*, 1886, edited by his wife, which contains a classified list of his principal works, with the dates of their first issue or collection. *Primer of Logic*, 1876. — *Elementary Lessons in Logic*, 1870. — *Pure Logic and other Minor Works* (collected), 1890. — *Principles of Science*, 2 vols., 1874. — *Studies in Deductive Logic*, 1880. — *The Coal Question*, 1865. — *The State in Relation to Labour*, 1882. — *Methods of Social Reform* (collected), 1883. — *Money*, 1875. — *Investigations in Currency and Finance* (collected), 1884. — *Primer of Political Economy*, 1876. — *Theory of Political Economy*, 1871. — *Principles of Economics*, a fragment, 1905. — "Fall in Gold," 1863, in *Investigations*. — Art. on "Cantillon." — *Contemp. Review*, Jan. 1881. — Art. on "Bimetallism," *Contemp. Review*, May 1881. P. H. W.

JEWS, ECONOMIC POSITION AND INFLUENCE OF, IN ENGLAND. The Jews lived in mediæval England for rather more than two hundred years, from shortly after the Norman conquest till 1290. During the whole of that time they were without any share in the national or municipal life of the country; and, as far as our knowledge goes, no large section of them followed, except for the sixteen years from 1274 to 1290, any occupation except that of dealers in money. But their relations to the king, and to the various orders of the nation, underwent considerable changes during their residence, and their history is divided into three clearly-defined periods.

I. (From the Conquest to 1194.) The first body of Jews came to England from Rouen shortly after the Conquest, at the invitation, it is said, of William the Conqueror. They were no doubt from the first in a position of dependence on the royal favour and protection, for there was no feudal or customary law to which they could appeal. From William Rufus, Henry I., Stephen, and Henry II., they met with support and encouragement. By the two Henrys especially they were upheld in the possession of a body of privileges which allowed them to go where they pleased throughout England, to buy or receive in pledge whatever was brought to them, except things of the church, to settle in any town where they chose, free alike from the payment of local tolls and taxes, and from the jurisdiction of the local courts, and finally, to hold land in pledge or fee. They enjoyed the royal favour because they helped to fill the royal exchequer. The earliest extant pipe roll contains entries of fines and amercements of the Jews, and of payments rendered by them to the king in return for help received from him in the recovery of money that they had lent on interest. We have very little information as to the amount of their annual contribution to the exchequer, during the earlier part of this period; but in the latter half of the 12th century, when the royal income was about £35,000, the Jews cannot have paid less than £3000 a year. And besides this, they helped the king by making advances to him, to be repaid when the collection of the FARM of the counties should provide him with a fresh stock of ready money.

The wealth that enabled them to provide so considerable a proportion of the royal income, was drawn from the proceeds of the business that they carried on, men and women alike, singly and in firms, as the only great money-lenders in the kingdom. Barons who were impoverished by war, crusading, litigation, or extravagance, and religious houses which had suffered from bad management, the claims of hospitality, or the expense of new buildings, had no way of raising ready money except by pledging to the Jews some of their lands or other possessions. Hence they spread throughout the country, and their communities became large, rich, and numerous. They were recognised as being the "royal usurers," and, as such, entitled to take up their position in towns which might otherwise have been closed to them. For, although they had friendly relations with some Christians, they were generally regarded with superstitious dislike, and on various occasions the charge of murdering or

mutilating Christian children was brought against them, and widely believed to be true. But there was no great demonstration of the general dislike in which they were held till 1189. In that and the following years fierce popular attacks were made on them in London, York, Colchester, Norwich, Lynn, Stamford, Bury St. Edmunds, and Lincoln. The loss to the royal exchequer that ensued, and the evident possibility of a recurrence of the massacre, suggested to Richard I. the necessity of still further securing the safety of the Jews, and of the revenue that they yielded. He therefore introduced, in place of the old informal protection, a thorough organisation of the Jewry as a branch of the royal administration. The Jews were henceforth bound to register all their debts, pledges, mortgages, lands, houses, and rents; and were allowed to enter into no contracts, except in certain towns, which were selected by the king for the purpose, and in each of which was maintained a staff of lawyers, registrars, and custodians, for the purpose of witnessing and enrolling every bond to which a Jew was a party, and of preserving in sealed chests an indented portion or "chirograph" of each. Moreover, special justices or proctors were appointed to settle all disputes between Jews and Christians.

II. (From 1194 to 1274.) Richard's organisation of the Jewry was introduced in 1194, and from that year to the end of their residence in England, the Jews occupied the position of complete subordination to the king, which it marked out for them. Their dependence on the king, and on him alone for protection, their absolute want of all legal rights to life or property, and the obligation imposed on them of rendering to the royal officers an account of all their possessions, and of transacting all their business under supervision, made it impossible for them to escape any burden that they might be called on to bear. And their masters showed them little mercy. Sometimes the king made a free grant to a favoured subject of land on which a Jewish mortgagee had claims, sometimes he cancelled the obligation of a Christian debtor to a Jewish creditor. But the royal attacks were often made on a much larger scale. John, in 1210, plundered the Jews, and reduced them to such a state of need that "they prowled about the city like dogs" (*Chronicles of Lanercost*, p. 7). Henry III. exacted from them a third of their property in 1230, another third in 1239, 20,000 marks in 1241, 60,000 marks in 1246, and great sums, of which the amount is not stated, in 1243, 1244, 1250, 1252, 1254, and 1255. So unsparing were the royal demands that in 1210 many of the Jews left the country, and in 1254, and again in 1255, their chief representatives entreated Henry III. to give the whole community permission to do so. But the request was refused.

It was during the reign of John and the first forty years of the reign of Henry III. that the Jews yielded the greatest revenue to the royal treasury. It has been calculated that the annual average tallage alone amounted at one time in the 13th century to £5000 (*Papers of the Anglo-Jewish Historical Exhibition*, p. 195); and, besides this, their escheats, fines, amercements, reliefs, and fees of all kind must have made up a large sum.

Nevertheless, profitable as they were, the royal power could neither protect them completely against plunder, nor maintain them in possession of all the unpopular privileges that made them rich. Their right of settling wherever they wished in England was gradually taken from them, owing no doubt to the dislike with which, on account of their immunity from local jurisdiction and taxation, their foreign origin, their religion, and their occupation, they were regarded by the towns. Special decrees of expulsion were obtained against them by Bury St. Edmunds, Leicester, Newcastle, Wycombe, Southampton, Berkhampstead, Newbury, and Derby, at various times between 1190 and 1263; and in 1245 a general order was issued by the king that henceforward no Jew was, except with the royal permission, to settle in a town where Jews had not formerly been in the habit of dwelling. This restriction must have seriously affected their power of acquiring the wealth that they needed to meet the royal demands. And they were exposed also to more direct attack in the towns. The Jewry of London was plundered by a riotous crowd in 1204, that of Norwich in 1234, and those of Oxford and Bristol later on.

Far more serious, however, than the enmity of the towns was that of the barons. In the constitutional struggle that preceded the civil war, the whole baronial party saw its efforts after reform thwarted because the king, when supplies were refused, could fall back on the Jewry; and the Great Council attempted, apparently with little effect, to secure a share in the management of the Jewish revenue. But the lesser barons had, in addition, personal grievances of their own to avenge. Many of them had had to mortgage to the Jews lands which had then passed by sale into the possession either of greater barons (*Petition of the Barons*, § 25, in Stubb's *Select Charters*, etc., pp. 385-386), or of religious bodies (cp. Burton, *Chronica Monasterii de Melsa*, Rolls series, *passim*), and were thus irretrievably lost to their former owners. And the same thing might happen to any land that was pledged to a Jew. Hence, during the civil war, the barons lost no opportunity of attacking the Jewries and destroying the deeds in which debts were recorded. Between 1262 and 1268, the Jewries of London, Worcester, Cambridge, Winchester, Canterbury, Exeter, Northampton, and Lincoln were sacked; some by De Montfort, some by his sons and

adherents, some by the freebooters who after his death represented his party.

On the restoration of tranquillity, the king's son, Edward, the patron of the cause of the "knights bachelors," could not but take up the work of restoring to its former knightly holders such of the land of England as had passed into the possession of the Jews. An attempt of this kind, indeed, was in thorough harmony with Edward's lifelong policy of trying to rescue the feudal organisation from the confusion into which it had begun to fall, in consequence of the transference of land from holders who could render military service to such as, like religious corporations and Jews, were unable to do so. Henry III. had already safeguarded the royal estates by forbidding the tenants on them to pledge their land to the Jews (*Norfolk Antiquarian Miscellany*, i. 328); but on other estates there was no legal check on such alienation. Jews could be "seised" of lands, and some of them were recognised holders of portions of knights' fees. Edward determined to defend the land of all feudal holders in the same way as the royal demesne was defended. The loss that would be caused to the royal income by the imposition of the necessary restrictions on Jewish transactions was less serious now than it would have been earlier in the reign, for the exactions of Henry III. and the attacks of the barons had impoverished the Jews; and it was compensated by a political gain, since a policy of the kind accorded with the prejudices of the knightly class at the same time as it protected the feudal organisation to the king's advantage. The church also, like the baronage, had its lands encumbered with obligations to the Jews, and was eager to welcome restrictive measures. The consequence of this combination of forces was that, in 1269, a statute was passed enacting that from that time forth no land should be pledged to a Jew as security for the repayment of money, and cancelling some of the agreements to that effect that had already been entered into; and in 1270 it was followed by a second statute which made it unlawful for Jews to acquire English land, not only by way of pledge, but even by purchase, and which ordered that all land in the possession of Jews was to be restored to its original Christian owners.

These measures made Jewish usury on a large scale practically impossible in the future; for they forbade Jews to remain in possession of the only widely distributed commodity that could serve as a security for advances. Four years later, an even more severe measure to the same effect was called forth by the action of the church. In 1274, the council of Lyons, in accordance with the doctrine of the sinfulness of usury that had been held by Christian teachers since the time of the early fathers (see AQUINAS), ordained that communities, corporations, and individuals should no longer permit foreign usurers to live on their lands. Edward, in obedience to the decree, issued a statute ordering that henceforth no Jew should practise usury in England, and that all who had pledges deposited with them should, after receiving repayment of the money that had been advanced on them, return them to their owners before the following Easter. Permission was granted to the Jews to practise merchandise or live by their labour; but they were to be confined henceforth to the king's towns and were not to be in scot or lot with their fellow-inhabitants, but were to be tallaged by the king separately as his serfs.

III. (1274-90.) The conditions imposed on the Jews by Edward's statute made it impossible for any great number of them to enter on a new calling; since the prohibition which forbade them to be in scot and lot with the other inhabitants of the towns where they lived excluded them from citizenship, and therefore in most cases from membership of the gild-merchant and of such craft-gilds as were in existence at the time. Thus it was impossible for them, except under crushing disadvantages, to carry on a trade or handicraft in a town (see CORPORATIONS OF ARTS AND TRADES; GILDS). If they were to follow any mercantile pursuit at all, their choice was limited to those trades for which membership of a municipal or trade organisation was not necessary. The only such pursuit to which the energies and capital of a large number of men could be suddenly transferred was the wholesale trade in corn, wool, and other agricultural produce, which was carried on by capitalists who seem to have been in the habit of making advances of money to the producer as prepayment for the yield of a yet ungrown harvest. Jews had long had some slight share in trade of this kind; and many of them now took to it on the publication of Edward's statute. But it was open only to those who had command of a fair amount of capital available for speedy transference. There were many English Jews of humble means, of whom, when usury was still allowed, some had begun to keep pawnshops, while others had lent money in small sums to meet the demand caused by the growing tendency towards the commutation of services and rents in kind for payments of money; and these had no resource except to become household servants and day-labourers, if they could find employers, or else to carry on in secret their former dealings. Thus the severe conditions of Edward's statute led to dishonesty; some Jews continued to practise usury, and others were convicted of clipping the coin. Edward attempted to mitigate the difficulties that his first measure had caused, by issuing an amended statute which allowed usury in a modified form. But the attempt

never had a fair trial. The church, alarmed at the influence that the Jewish faith and rites exercised on Christian heretics, and on conforming Catholics as well, had attempted during the 13th century to restrict the intercourse between believers and Jews; and in 1286, Honorius IV., dissatisfied with the efforts made by the English bishops to enforce the canonical decrees on the subject, issued a special bull to the Archbishops of Canterbury and York and their suffragans, in which he begged them with the greatest urgency to use every possible means by which the intercourse might be lessened (Baronii, *Annales Ecclesiastici*, sub anno). If such advice was to be carried out, it was impossible for the Jews to work their way into trades and handicrafts; and usury being now forbidden, the bull was therefore practically an appeal for the expulsion of the Jews. A king of Edward's piety could not disregard the wishes of the pope.

But there were two causes which rendered it now an easy sacrifice for a king of England to give up the Jews. First, they had lost immensely in wealth during the period from the outbreak of the civil war till 1290. Their tallage alone at one period of the 13th century had, as has been said above, amounted to £5000 annually; but in 1271, the annual value of the Jewry was estimated by the king at only 2000 marks (Rymer, *Fœdera*, i. 489); and the records of the reign of Edward I., show that in some years the contribution of the Jews was only a few hundred pounds (Public Record Office, *Exchequer of Receipt, Jews' Rolls*). Secondly, there had grown up in their place a new set of royally-favoured money-lenders, the Italian merchants, who were the greatest financial and commercial power in Europe, and whose vast resources were always at Edward's service in time of need.

Edward therefore could yield speedy obedience to the desire of the pope. He was in Gascony when the bull reached England, but before his return he expelled the Jews of the province; and in 1290, a year after his return, he issued a decree, ordering all Jews under pain of death to leave England. The whole community, numbering 16,000, departed from the country in the same year. They were allowed to take away their movable property with them, but their debts and houses fell into the hands of the king.

For two centuries the decree forbidding Jews to live in England was, in all probability, completely effective. The one known fact to the contrary is, that in 1410, a French Jew, a physician, was allowed to come to England, to remain here for two years, and during that time to practise his profession in any part of the realm (Rymer's *Fœdera*, 2nd ed., viii. 667). But in 1492, when the great expulsion of the Jews of Spain took place, some of the refugees sought a home in England. They were not money-lenders, like the mediæval Jews who had been expelled from England, but merchants engaged in foreign trade. The little community thus founded has continued to exist and to grow till the present day. For two centuries it was not recognised by the law, but in 1656, a commission appointed by Cromwell to consider the legality of the presence of Jews in England, reported that "the Jews deserving it may be admitted into this nation to trade and traffic and dwell amongst us as Providence shall give occasion." From that time, the Jews were recognised as English subjects, not distinguished in the eyes of the law from other Englishmen, except by certain political and other disabilities, nearly all of which attached equally to Roman Catholics, and have now been removed. Perhaps the only one remaining is their ineligibility to the office of Lord Chancellor.

[An admirable and almost complete bibliography of the subject is given by J. Jacobs and L. Woolf, *Bibliotheca Anglo-Judaica*, London, 1888, 8vo, pp. xiii-xix, and 1-35. The most comprehensive histories and collections of documents are:—J. Jacobs, *The Jews of Angevin England*, London, 1893.—S. Goldschmidt, *Geschichte der Juden in England, XI. und XII. Jahrhundert*, Berlin, 1886.—D. B. Tovey, *Anglia Judaica*, Oxford, 1738.—W. Prynne, *A Short Demurrer against the Jews' long-discontinued Remitter into England*, London, 1656.—A Gentleman of Lincoln's Inn (P. Carteret Webb), *The Question whether a Jew, born within the British Dominions, was before the making the late Act of Parliament, a Person capable by Law to purchase and hold Lands to him and his Heirs, fully stated and considered.* London, 1753.—J. E. Blunt, *History of the Establishment and Residence of the Jews in England*, London, 1830. See also *Transactions of the Jewish Historical Society of England*, 1895.—*Papers read at the Anglo-Jewish Historical Exhibition*, 1888.—Articles by B. L. Abrahams, on the expulsion of the Jews from England, in *Jewish Quarterly Review*, vol. vii., Nos. 25, 26, 27.]

B. L. A.

JEWS, EXCHEQUER OF THE. It has been mentioned in the preceding article that in 1194 there were appointed by Richard I. special officers for the affairs of the Jews, viz.—local staffs of clerks and registrars to supervise Jewish business in those towns where it was allowed to be transacted, and to keep counterparts of Jewish bonds, and in addition proctors or judges to deal with cases in which Jews were concerned. The local officers remained, during the residence of the Jews in England, in the position to which they were originally appointed. But the proctors acquired powers and duties which made them, like the barons of the exchequer, the heads of a judicial and administrative system. In the 13th century, they were known no longer as "proctors," but sometimes as "Justiciars deputed to the charge of the Jews" (*Justiciarii ad custodiam Judæorum assignati*), sometimes as "guardians of the Jews" (*custodes Judæorum*),

sometimes, with reference to the fact that they presided over the exchequer chamber set apart for Jewish revenue and accounts, as "Justiciars of the Exchequer of the Jewry" (*Justiciarii ad Scaccarium Judaismi*).

In their judicial capacity they tried nearly all the Jews that were charged with any offence for which a non-Jew would have had to appear before one of the king's ordinary justices; they also decided civil suits between Jew and Jew, and between Jew and Christian. At the king's order they could set aside, or modify, contracts to which Jews were parties. But arbitrary action of this kind was exceptional; as a rule they administered the special system of law that had grown up, partly from the recognition of Jewish custom, and partly from the action of kings who issued charters, writs, and statutes defining the duties, position, and privileges of Jews. The only other officers who had jurisdiction over Jews in England were the constables of certain royal castles, the chancellor of the university of Oxford, and the judges who were sometimes exceptionally appointed to try heinous charges such as those of child murder and of clipping the coin.

In their fiscal capacity the justices of the Jews were the responsible custodians of the Exchequer Chamber of the Jews (*Scaccarium Judaismi*), its great seal, its chests, and its accounts. They had to see that all the claims which the king had against Jews, or which arose out of transactions in which Jews were concerned, should be presented and enforced. For this purpose they provided the sheriff of each county with *extractæ*, or lists of the sums which he was expected to collect as Jewish revenue (*de summonitione scaccarii judaismi*): and, in order that they might have at their disposal the necessary information, they kept records of the king's claims on Jews and their debtors; they heard declarations concerning, and gave their sanction to, changes which were to take place in the ownership of Jewish property, as for example when a Jew having received payment of a debt, gave up his claim on the debtor; they made arrangements for the management and transference of property that came into the king's hands on account of Jewish claims. But, important as were their duties in connection with the Jewish revenue, they did not receive any money except from the barons of the exchequer. The sheriffs, or any other officers who might on special occasions be appointed to make collections from the Jews paid in their money to the great exchequer; thence, except when it went direct to the king's wardrobe, it was transferred to the Exchequer of the Jews; and the justices of the Jews were responsible for having it ready for use by the king when he needed it. As it was collected for the most part in silver, they were sometimes ordered to exchange it for gold, so that it might be in a form more convenient for the king's use. They had to present periodically to the barons of the exchequer an account of their receipts and disbursements.

Nor were their functions wholly judicial and fiscal. Besides interpreting as judges the special acts relating to the Jews, they were responsible as executive officers for their carrying out. At various times they were ordered to see that regulative and restrictive enactments issued by Henry III. and Edward I. were duly observed; they kept lists of all foreign Jews who arrived in England, and they and the king alone had the power to allow a Jew to change his residence from one town to another. In order that they might be able to discharge their executive functions, they were invested with a general authority over the king's "bailiffs and faithful subjects" which enabled them on the one hand to order the seizure of the person, family, and goods of any Jew who failed to pay what he owed the king, and on the other hand to transfer to a Jew the lands pledged as security by a defaulting debtor.

Their status was that of officers of the exchequer, subordinate to the treasurer and barons, by whom they were inducted into office. Thus they enjoyed all the privileges and dignity that belonged to those who were *e gremio scaccarii*: and on the other hand, the barons could, as superior officers, overrule their proceedings, punish them, suspend or expel them from office, and discharge any of their duties. Thus we find the barons conducting scrutinies of the chests containing the deeds of the Jews, taking part in the assessment and enforcement of their tallage, sanctioning the release of their debtors, deciding their disputes, and giving directions for the apportionment of their estates; although all these duties naturally belonged to the justices appointed especially for Jewish affairs. This imperfect distribution of duties is not surprising in a branch of the administration which, while it lasted, was dependent to an exceptional degree on the will of the sovereign, and which ceased to exist before it could, like other branches of the administration, be reorganised by the genius of Edward I.

It remains to be added that the justices of the Jews appear to have varied in number at different times from two to five, and were, in the 13th century at any rate, without exception Christians; whereas their subordinate staff, made up of clerks, escheators, bailiffs, presbyter, and keepers of records, regularly included both Jews and Christians. (See KING'S CATTLE.)

[W. Prynne, *A short Demurrer against the Jews' long-discontinued Remitter into England*, London, 1656.—T. Madox, *The History, and Antiquities of the Exchequer of the Kings of England*, ch. vii.—*Papers read at the Anglo-Jewish Historical Exhibition*, London, 1888, pp. 136-230.—J. Jacobs, *Jews of Angevin England*, 1893.] B. L. A.

JEWS, HOUSES FOR CONVERTED. During the residence of the Jews in England before 1290, three institutions were founded, at the royal expense, for the reception, maintenance, and education of converts from Judaism to Christianity. The first, founded by Henry II., was at Bristol; the second, founded by Henry III. in 1232, was in New Street, London, at the southern end of the present Chancery Lane; the third, founded by the same king, probably somewhat later in his reign, was at Oxford. No doubt the two kings were both impelled by the same feeling to found these houses, viz. by the hope that their obedience to the teaching of the church, which bade all Christians help in the conversion of the Jews, would be regarded by the spiritual power as a set-off against the fact that they encouraged Jews to dwell in their kingdom, and shared in the profits of their usury.

Concerning the Houses at Oxford and Bristol, we have no information except as to the authorities which were responsible for their management, the one at Oxford being, as may be conjectured with absolute confidence, under the direction of the Dominican Friars, and the one at Bristol being, as we know from documentary evidence, under the joint direction of the Fraternity of Calenders, the mayor of the town, and the monastery of St. Augustine.

On the other hand the official documents relating to the *Domus Conversorum* of London are numerous, and supply us with information concerning its history over a period which begins with its foundation and does not end till more than three centuries after the expulsion of the Jews from England by Edward I.

At the time of the foundation of the House in 1232, Henry III. made lavish provision for its support. He gave the ground on which it was built, he bore the expenses of building, and made an annual grant of 700 marks from the exchequer as a provision for its officers and inmates until some special source of revenue should have been set aside for the purpose. Three years later he granted to the House, no doubt in substitution for the annual payment from the exchequer, certain lands and tenements in London, and also such other property in London as should from time to time be escheated. His intention was, according to the account of his contemporary Matthew Paris, that the life of the inmates should resemble that of members of a religious order. The buildings were planned so as to give accommodation similar to that of a monastery; and the converts were to live according to a "rule," a word that is often used to describe the ordinances of a monastic order, and were to regard the *Domus* as a lifelong home where they might dwell without the need of servile labour or the practice of usury, and might study the Christian law under competent teachers.

The attempt to maintain the religious character of the house was kept up during the pre-expulsion period. There were always a clerical warden, and two or more resident clerics besides, who were charged with the duty of instructing the inmates and celebrating religious services on their behalf. Indeed, Edward I., in his endeavour to encourage the converts in the study and practice of Christianity, went so far as to command that the warden should in the appointment of chaplains, give the preference to such converted Jews as should show themselves to be fit for the post.

The supply of money for the support of the house was less constant, and was affected by the fluctuations in the king's Jewish revenue. Throughout the reign of Henry III. the early endowments were undisturbed and provided a sufficient income. But Edward I., who was heavily in debt at his accession, seems to have resumed possession of the lands and houses which his father had set aside for the support of the converts. In 1280, however, he granted them, in addition to an annual payment from the exchequer, the deodand, the yield of the poll-tax of 3d. a head levied on the Jews, a half of the property of any Jew who should become converted to Christianity, and all the property belonging to Jews that, on account of the misdoings of its owners, or for any other reason, should fall into the king's hands. All these sources yielded, as we know from the still extant accounts rendered by the keeper of the house from 1280 to 1286, an average income of only £108, and did not rise in any year higher than £150. Even this small amount was not to be depended on, as the annual grant of 80 marks from the exchequer was, in 1285, reduced to 40 marks, and was in some years withheld altogether. In 1290 the converts presented a petition bitterly complaining of their poverty, and Edward, into whose hands some Jewish property had fallen at the expulsion, answered the petition in 1292 by promising a grant from the exchequer to begin at £202:0:4 yearly, and to be reduced, whenever any convert then in the house should die, by the amount of the saving that would thus be effected. The greater part of the grant was spent in the payment of the allowance made to the converts, each of the forty-four men receiving tenpence weekly, and each of the fifty-three women eightpence. The rest of the money went to pay the salaries of the warden, chaplains, and clerk, and the cost of repairs of the building. By 1308 the inmates were reduced to seventeen men and seventeen women, and the annual grant to £120. The exchequer still neglected to issue the money regularly, and the converts frequently complained that their pay was years in arrears and that they were half-starved. Nevertheless new inmates,

foreigners of course, entered the house from time to time, the latest date at which their presence can be traced being 1610.

The office of warden of the House, which was annexed by Edward III. to that of keeper of the rolls, was, down to the time of Lord Lyndhurst, filled by the masters of the rolls who lived, by virtue of their position, in the house that was built on the site of the original *Domus*.

[The printed matter that has been consulted for the purpose of the above article is contained in Rymer's *Fœdera.*—*The Rolls of Parliament.*—Madox's *History of the Exchequer.*—*Calendar of Patent Rolls from 1281 to 1292.*—Devon's *Issues of the Exchequer* (Record Commission).—Matthew Paris, *Chronica Majora.*—Toulmin Smith, *English Gilds.*—Anthony Wood, *History and Antiquities of Oxford.*—W. J. Hardy, in *Leisure Hour* for November 1892, on "A bit of old London." In addition, there have been used the Manuscript Calendar, in the possession of the Public Record Office, describing the documents concerning the *Domus Conversorum* that are preserved there, and the accounts of the *Domus* from the eighth to the fifteenth years of Edward I., which are in the Public Record Office and belong to the series "Q. R. Exchequer, Jews." See also *Bibliotheca Anglo-Judaica* (by J. Jacobs and L. Wolf) published in connection with the Anglo-Jewish Historical Exhibition.] B. L. A.

JOBARD, Jean Baptiste Ambroise-Marcelin (1792-1861). A Frenchman by birth, he was sent as surveyor in the Netherlands during the French dominion, and was naturalised after the events of 1815. He soon afterwards started a large lithographic establishment in Brussels, which was ruined by the revolution of 1830, then took to journalism, and was appointed in 1841 director of the Belgian *Musée de l'Industrie*. In this capacity he started the *Bulletin* of the *Musée*.

Jobard had always been passionately interested in technology, social reform, and patents and copyright. Being himself an inventor and a strenuous upholder of the maintenance of copyright, he published, in order to defend his views, besides numerous pamphlets on this question, his *Nouvelle Économie Sociale ou Monautopole industriel, artistique, commercial, et littéraire*, Paris, 1844; and later on his *Organon de la Propriété Intellectuelle*, Paris and Brussels, 1851. This gives the substance of the former work in a condensed form.

His claim in favour of unlimited copyright was criticised by M. Coquelin in the old *Dictionnaire d'Économie Politique*, vol. i., article *Brevets d'Invention*, but has been upheld since by M. de Molinari in the *Journal des Économistes*, xxx., p. 177. He also wrote a *Rapport sur l'Exposition de l'Industrie française en 1839* (2 vols., Brussels and Paris, 1841-42); several *Voyages Industriels* through different countries; and in 1849 a notice on *Brevets de Priorité* (patents for priority), written with the assistance of leading Belgian manufacturers.

[*Biographie Nationale de Belgique*, vol. x. pp. 494-499.] E. Ca.

JOBBER. On the stock exchange a jobber was originally regarded as a kind of professional speculator, but, by degrees, the term has come to be applied to the professional dealers who stand on the stock exchange and "make a market" for the special securities to which they give attention. The verb "to job" probably proceeded originally from the practice by speculators of buying small quantities or "jobbets" of stock or shares. The national debt would be too large a morsel for anybody to buy or sell, but it is within the powers of any capitalist to job to a small extent in consols. For a description of the jobber in his later phase we may refer back to the heading Dealer. A. E.

JOE (see Johannes), was a nickname derived from *Johannes*, but applied in the West Indies and American colonies throughout the 18th century to the *Double Johannes* or *Dobra*. A "broad joe" was of course a perfect dobra, as opposed to the clipped and sweated specimens which rapidly became common. C. A. H.

JOHANNES, familiarly spelt *Joannese* by English contemporaries, was the Portuguese gold coin which was first minted in 1722 to take the place of the Moidore series of coins. It took its name from the reigning king, John V. It represented 6400 reis or a half-dobra, and in weight half a Portuguese *onça* of gold of twenty-two carats fine.

Its interest to the English is due to the prominent position which it occupied down to 1800 in the currency systems of the West Indian colonies, then the most important of our possessions. But there and in America, by a very natural error, the coin was known as the "half-joe," and the term "joe" was reserved for the full dobra—a coin rather on a par with the doubloon of Spain. The uniform fineness which led to the rapid popularity of "joes," also encouraged the sweating and clipping of which they were the victims, as well as a considerable manufacture of counterfeit "joes" in Birmingham about the end of the last century. In 1821 a change was made in their value, and in 1835 they were displaced in Portugal, the loss of Brazil having affected the demand for Portuguese gold.

The value of the joannese in English money, in 1831, is given as 35s. 11·98d., and that of the half-joannese (which is not the half-joe, as above explained) at 17s. 11·56d. [Kelly's *Cambist*, *passim*, and Chalmers's *Colonial Currency*, p. 396; Eckfeldt and Dubois, *Manual of Gold and Silver Coins.*] C. A. H.

JOHNSON, Samuel (1709-1784). The great lexicographer occupies an interesting place in the history of economics in England. His formal contributions to the subject were few; indeed it may be said that the preface to Rolt's *Dictionary of Commerce* (1761) and his *Considerations on Commerce* (1766) were all that he wrote on the subject. But his opinions

were freely expressed in conversation, and reflect an interesting phase of thought. A man of strong common sense, he had read LOCKE (*Life*, iv. p. 105), PETTY (*ib.* i. p. 440) and many other classical English writers; he may be regarded on the whole as putting forth the views of the ordinary educated Englishmen of the time preceding the publication of the *Wealth of Nations*. He fills this position more distinctly, as he was not carried away by the burst of enthusiasm which followed the appearance of Adam Smith's book. His general attitude on the subject of commerce is summed up in his own words, "As to mere wealth, that is to say, money, it is clear that one nation or one individual cannot increase its store but by making another poorer; but trade procures what is more valuable, the reciprocation of the peculiar advantages of different countries" (ii. p. 430, also p. 98). But though inclined to regard traders as engaged in trying to make their gains at the expense of each other, he distinguished their occupation from gambling on account of its indirect effects (ii. p. 176), and held English merchants in high repute (i. p. 491 n.).

He was also a shrewd observer, and Boswell has put on record many of his remarks on topics of interest. He saw the advantages which accrue from the intervention of middlemen (see MIDDLEMAN, ii. p. 426). He expressed the strongest opinions in regard to the American planters, and may be regarded as one of the precursors of the anti-slavery agitation (ii. p. 27), but he was not a sentimental philanthropist in English affairs, and deprecated the raising of wages of day-labourers as more likely to induce idleness than to raise the standard of comfort (iv. p. 176). He made some interesting remarks on the increase of population, and called attention to the positive checks to its growth (ii. p. 101); but his most valuable suggestions arose from his observations in the Hebrides, on the transition which he there noted from a natural to a moneyed economy (iii. p. 262), and on the effects of this change on social institutions; natural economy has so entirely passed away in the nations which the economist studies most closely, that his remarks upon it possess a special interest.

[*Life of Johnson*, and *Journal of Tour*, ed. by Dr. G. Birkbeck Hill, to which ed. the pages cited refer. The editor's app. to vol. ii. shows Johnson's views on the slave-trade. For A. Smith's opinion of him see John Rae, *Life of A. Smith*. For Johnson's on A. Smith, see Boswell's *Life*. Johnson's pamphlet, *Taxation no Tyranny*, etc., 1775, scarcely deals with economics.] W. C.

JOINT DEBTORS. When several persons are jointly liable to the same debt or demand, each is liable for the whole debt, but they must, as a rule, be sued together during their joint lives, and a voluntary release to one of them will discharge them all. In the case of an order of discharge in bankruptcy, however, persons who are jointly bound with the discharged bankrupt remain liable (Bankruptcy Act 1883, § 30 [4]). If one of several joint contractors interrupts the operation of the Statute of Limitations (see LIMITATION, STAT. OF), by a written acknowledgment of the debt, the other debtors do not lose the benefit of the statute, but he can be sued alone (9 Geo. IV. c. 14, §§ 1 and 2).

The above-mentioned rule that joint debtors must generally be sued together, and that the voluntary release of one discharges them all, constitutes one of the differences between joint liability and "joint and several liability," but the most characteristic difference consists in the fact that the estate of one of several joint debtors is discharged by his death, if any of the co-debtors survive, whilst the estate of a person jointly and severally liable remains liable after his death.

The contractual liabilities of a partnership are in England and Ireland joint liabilities, but the estate of a deceased partner is liable for debts and obligations incurred whilst he was a partner, subject however to the prior payment of his private debts (Partnership Act 1890, § 9). For wrongful acts or omissions partners are, on the other hand, liable jointly and severally (*ib.* §§ 10-12). In Scotland partners are liable jointly and severally for all debts of the partnership (*ib.* §§ 9-12). E. S.

JOINT PRODUCTION — JOINT PRODUCTS. When two or more things are produced by one and the same process, so that the expenses of producing them all together are not greater than the expenses of producing one of them alone would be, then those things are called *joint products:* for example, beef and hides, wheat and straw.

The value of joint—as of single—products is determined by two conditions relating to final and total utility. (1) That the last increment of the producer's outlay should just be compensated by the sum of the prices of the last increments of the products. (2) That the "net advantages" accruing to the producer should be as great as in any other occupation open to him. The value of joint products is regarded by Mill as a[1] "peculiar case," apparently because it varies with the demand for the products; whereas in general he supposes cost of production, and accordingly value, to be unaffected "although the demand should be doubled, trebled, or quadrupled," (Ricardo, ch. xxx.). But with the wider conception of cost of production varying with the quantity produced (Sidgwick, *Pol. Econ.*, bk. ii. ch. 2, § 7; Marshall, *Principles, passim*), this difference between single and joint products disappears.

It is pointed out by Prof. Marshall that the definition of joint products is seldom so

[1] Jevons, *Theory, Pol. Econ.*, 3rd ed. ch. v., points out: "These cases . . . form the general rule," etc.

perfectly realised but that one may be increased without increasing the others. The product then is no longer "joint" with respect to its *marginal* expense.

[Mill, *Pol. Econ.*, bk. iii. ch. xvi.—Marshall, *Principles*, 2nd ed., bk. v. ch. vi. § 5.—Sidgwick, *Pol. Econ.*, bk. ii. ch. ii. § 10.] F. Y. E.

JOINT FAMILY is, according to Hindoo law, a family union of persons, and their wives, descended through males from a common male ancestor, or supposed to be so descended, having a continuous existence like a corporation with its property in common. There is no definite limit to the number of persons who may be members of such a family, or to the closeness of their relationship to one another. Descendants through males from a common male ancestor are presumed to be united in this way. "The strength of the presumption," it has been laid down, "varies in every case. The presumption of union is stronger in the case of brothers than in the case of cousins, and the further you go from the founder of the family, the presumption becomes weaker and weaker." The family remains joint until partition, when each member of the family who has a right to an individual share of the joint estate is in the position of becoming founder of a new joint family. As long as the family is joint and undivided no member of it has any right to a particular portion of the joint property. The proceeds of it belong to the common purse, and are dealt with according to family arrangement; the fact that a person has acquired property for the family does not give him any advantage in respect of the enjoyment of the family property; the most that can be claimed as a legal right by a member of a joint family, so long as it is joint, is maintenance. Whatever is acquired by a member of a joint family belongs to his family not to himself, but to this rule exceptions have been allowed from an early time. Thus, according to the laws of Manu, "property acquired by learning belongs solely to him to whom it was given, likewise the gift of a friend, a present received on marriage, or with the honey mixture"; and again, "what one brother may acquire by his labour without using the patrimony, that acquisition made solely by his own effort he shall not share, unless by his own will, with his brother." The question whether property acquired by a person in commerce can be claimed by his family, or whether it belongs to himself, as having been made *solely* by his own effort, is a frequent subject of litigation in India; the result in many cases, owing to the presumption in favour of joint property, causes great hardship to individual acquirers. The administration of the joint family property is vested in a manager chosen by the family, who is generally the eldest male of the eldest line, he being a competent person. The manager acts as agent of the family within the scope of his powers, not as owner of the family property, like the head of a patriarchal family, from which the joint family is in many cases derived. Important acts relating to the family property require the concurrence of those members of the family who are interested in a partition. There is a great difference between the two schools of Hindoo lawyers, the Mitacshara and Dayabhaga, as to the position of those members of the family who can claim a share by partition. According to the Dayabhaga teaching, which prevails in Bengal, the members of the family are owners of their undivided shares, and the sons take no interest whatever in the family property in the lifetime of their father. According to the Mitacshara, on the other hand, the son immediately on his birth becomes one of the co-owners, and the co-owners hold the family property not as individuals, but as a corporation; no single member having any ownership in it whatever. Thus the share of a co-owner in Bengal is treated as individual property, which may be alienated by him, and made liable for his debts; whilst under the Mitacshara a co-owner has, strictly speaking, nothing which his creditors can seize or which he can alienate. But this strict view of the Mitacshara joint ownership is giving way in some parts of India, and an approach is being made towards individual ownership. There is, of course, no inheritance in a Mitacshara joint family. Any member of a family who is a co-sharer may, according to both schools, claim a partition.

The typical Hindoo joint family is joint in food, worship, and estate, *i.e.* it has a common meal in the common homestead, common religious rites, and common property. The joint family organisation exists with more or less difference of detail in many countries, as in Armenia, Russia, and among the Southern Slaves. It has not been confined to peoples of Aryan origin, as has sometimes been supposed.

[Mayne, *Hindoo Law and Usage*, ch. viii.—De Laveleye, *Primitive Property*, ch. xiii.-xvi.—Maine, *Early Law and Custom*, ch. viii.] E. A. W.

JOINT OWNERSHIP. Property may be held by several persons as tenants-in-common, or as joint tenants. In the former case the share of a deceased tenant is part of his estate, in the latter it accrues to the surviving joint-tenants or tenant. E. S.

JOINT-STOCK COMPANIES. Joint-stock companies are divided into incorporated and unincorporated Companies (*q.v.*), but the latter have ceased to be of any practicable importance. Companies belonging to the first-named description are incorporated by royal charter, or by a special act of parliament, or by registration under the Companies Act. The constitution of companies incorporated by royal charter depends entirely on the provisions of the charter in each case. It is not unusual to provide in

such charters that the members of a company are liable for the debts of the company for an amount exceeding the amount of their respective shares. Railway, canal, dock, and waterwork companies carrying on business in the United Kingdom are always incorporated by special act, but they generally adopt the provisions of the Companies Clauses Act 1845, and are therefore to a great extent governed by uniform regulations. These regulations differ in several material respects from those governing the third class of companies—companies incorporated by registration. Thus, whilst the Companies Acts leave it to the articles of each company to determine the constitution of the managing body, the Companies Clauses Act contains explicit directions as to the appointment, rotation, powers, and proceedings of directors (§§ 81-100). The Companies Acts, with the exception of the act of 1879, which only applies to *banking* companies formed or transformed into limited companies after its date, do not prescribe a compulsory audit of the accounts; on the other hand companies governed by the Companies Clauses Act must have their accounts audited in accordance with the provisions of that statute (§§ 101-108). There is no power either under the Companies Clauses Act or under the Companies Acts to pay dividends out of capital, but whilst a company registered under the last-named statutes is absolutely incapable of sanctioning such payments, the special act of a railway, canal, dock, or waterwork company may authorise them, and the payment of unearned dividends at a fixed rate during the construction of the undertaking is sometimes provided for in this manner. (As to the difference between the debenture-stocks issued by the two respective classes of companies, see DEBENTURE STOCK.)

The most numerous class of joint-stock companies consists of those formed under the Companies Acts. These acts, the principal of which is the Companies Act of 1862, are occasionally referred to as the Limited Liability Acts, an expression which is somewhat misleading, inasmuch as companies with limited liability were in existence for a considerable time before 1862, and the Companies Acts moreover deal with unlimited, as well as with limited companies. Limited companies are subdivided into companies limited by shares and companies limited by guarantee; unlimited companies into such as have a fixed capital, and so-called "mutual companies," which have no fixed capital. The new companies registered since the passing of the Companies Act of 1862 and up to the 31st December 1892 consisted of

39,911 Companies limited by shares.
950 Companies limited by guarantee.
134 Unlimited Companies with a fixed capital.
318 Mutual Companies.

41,313

In 1892 the newly-registered companies consisted of—

2279 Companies limited by shares.
73 Companies limited by guarantee.
3 Unlimited Companies with a fixed capital.
5 Mutual Companies.

2360

It will be seen that the unlimited companies with a fixed capital form only a very small part of the whole number. The mutual companies and those limited by guarantee are somewhat more numerous, but hardly any of the companies registered in either way are trading companies in the strict sense. The usual form of association adopted by trading companies not being railway, canal, dock, or waterwork companies, carrying on business in England, is that of companies limited by shares.

One of the most striking features of the law of the Companies Acts before 1900 was the absence of any restrictive conditions in respect of formation of companies. On the Continent, companies are, as a rule, not incorporated until the whole of the capital has been subscribed (as to Germany, see *Handelsgesetzbuch*, § 209, d, e; as to France, *Loi sur les sociétés*, 24th July 1867, § 24; as to Belgium, *Loi sur les sociétés*, 18th May 1873, § 29; as to Italy, *Codice di Commercio*, § 131) and until a certain portion of it has been paid up (in Germany, 25 per cent, *l.c.* § 210; in France, 25 per cent, *l.c.* § 24 and § 1; in Belgium, 5 per cent, *l.c.* §§ 29, 31; in Italy 30 per cent, *l.c.* § 131). There are also in the law of most continental countries various provisions for securing an inquiry—at the outset—into the circumstances of the promotion of every company. Thus, for instance, in Germany it is the first duty of the directors of a newly-formed company to issue a special report on these matters, and if any of the directors have taken part in the promotion or sold any property of the company, another report must be issued by independent auditors (*l.c.* § 209), and it is also provided that any purchases of property for a sum exceeding one-tenth of the capital of a company made within two years from the incorporation of the company must be approved by the shareholders in general meeting (*l.c.* § 213f.). Since 1900 some safeguards against the creation of bogus companies have been introduced in England. A limited company is incorporated as soon as the MEMORANDUM OF ASSOCIATION (*q.v.*) is filed at the office of the registrar of joint-stock companies, and this can be done before any shares, excepting the seven shares to be subscribed for by the persons who sign the memorandum, have been disposed of; but a company though incorporated is not allowed to commence business before the amount fixed as the minimum capital has been subscribed, and a number

of other specified requirements ensuring the publicity of all incidents connected with the promotion of the company has been complied with.

The principle of "laissez-faire" still pervades the rules as to the management of companies. A company excluding table A by its articles (see ARTICLES OF ASSOCIATION) is almost entirely unfettered in these respects; it may leave the entire management in the hands of one person for life, and though a meeting of the shareholders must be held annually (Companies Act 1862, § 49) it is not necessary, in the absence of directions in the articles, to submit yearly accounts to the shareholders. The foreign codes have elaborate rules on the valuation of assets and the formation of reserve funds (see as to directors and managers of companies in Germany, *l.c.* § 209 f., §§ 224-235; in France, *l.c.* §§ 22, 26, 40, 44; in Belgium, *l.c.* §§ 43-49; in Italy, *l.c.* §§ 139-142, 147-152. As to the confirmation of accounts by general meetings in Germany, *l.c.* §§ 239, 239 b [185 c]; in France, *l.c.* §§ 32, 34; in Belgium, *l.c.* §§ 27, 35; In Italy, *l.c.* § 154. As to the valuation of assets and formation of reserve funds in Germany, *l.c.* § 239 b [185 a, 185 b]; in France, *l.c.* §§ 34, 36; in Belgium, *l.c.* §§ 62-65; in Italy, *l.c.* §§ 176, 182). British company law does not require the assets to be valued periodically, and it is even unnecessary—in the absence of any special regulations in the articles—to provide for the depreciation of wasting property (see Lee *v.* Neuchatel Asphalte Company, 41 Chancery Division, 1; Bolton *v.* Natal Land Company [1892], 2 Chancery, 124; Verner *v.* General Trust [1894], 2 Chancery, 239); dividends cannot be paid except out of profits, but in ascertaining the profits for that purpose, it is not necessary to take into account any decrease, however serious, in the value of a company's property.

Directors, in England as elsewhere, are liable for fraud and for any acts done by them in excess of their powers (see DIRECTORS, LEGAL DUTY OF); but whilst on the Continent they can be made responsible for losses caused by ordinary negligence (see as to Germany, *l.c.* § 241 [2]; as to France, *l.c.* § 44; as to Belgium, *l.c.* §§ 51, 52; as to Italy, §§ 147-149), British directors are safe from all claims as long as they keep within their powers and are not acting for their personal advantage (see Lord Hatherley's remarks in Turquand *v.* Marshall, 4 Chancery Appeals, on p. 386: "However ridiculous and absurd their conduct might seem, it was the misfortune of the company that they chose such unwise directors"). Every English company must—by virtue of Companies Act 1900, § 21—appoint at least one auditor at each annual meeting, not being either a director or officer of the company, and having wide powers as to the inspection of books and vouchers, and every balance-sheet published by a company must be certified by the auditor or auditors so appointed. In France, Belgium, and Italy, independent auditors (*commissaires*, *sindaci*) must be appointed by the shareholders (see as to France, *l.c.* §§ 32-34; as to Belgium, *l.c.* §§ 47, 48, 54, 58; as to Italy, *l.c.* §§ 183-184). Their duties include the inspection of the accounts and securities during the whole of the year for which they are elected, and they may convene general meetings of the shareholders in case of necessity. A peculiarity of British—as distinguished from foreign—companies is their power to issue debentures, the holders of which in case of a winding-up may take possession of the whole undertaking (see DEBENTURE). The hardship to ordinary creditors produced by this possibility is now considerably mitigated by Companies Act 1900, § 14, which provides for the compulsory registration of all mortgages and charges created for the purpose of securing any issue of debentures.

In one way, shareholders in British companies are better protected than those in foreign companies. On the Continent the officers of a company have unlimited powers to bind the company, while in England engagements entered into beyond the powers defined by the memorandum and articles are of no effect (see ULTRA VIRES, DOCTRINE OF).

The question as to the relative advantages of the respective tendencies of British and continental company law is not easily answered. There is no doubt that the great majority of the more important companies in the United Kingdom have hitherto been managed honestly and prudently: gross instances of fraud and recklessness occur from time to time, but it is by no means certain whether, under the stringent regulations of continental law, such occurrences are less frequent.

The law should allow full scope to the great variety of objects for which companies are created, as inelastic rules as to the conditions of incorporation and internal organisation may stifle legitimate enterprise. This has been shown in Germany, where the stringency of the provisions enacted in 1884 has—already in 1892—made it necessary to introduce a new kind of mercantile associations, *Gesellschaften mit beschränkter Haftung* (Partnerships with Limited Liability), which are not subject to the restrictions of company law.

The chief fault of English company law is the unsatisfactory nature of the rules as to the liabilities of directors. As the law stands, a director who does not take any active part in the proceedings of the board is almost free from responsibility (see, for instance, Cullerne *v.* London and Suburban Building Society, 25 Queen's Bench Division, 485); and the frequent practice of directors, of leaving everything in

the hands of one or two "active" colleagues, is actually encouraged by the decisions of the courts.

The habitual disinclination of shareholders to ascertain whether unusually high dividends have been earned in a legitimate way is a frequent cause of disaster, which cannot, however, be dealt with by legislation.

The disasters of the "Liberator group," and of a number of so-called "trust companies," have attracted the attention of the public to the deficiencies of English company law, which are also pointed out in a very interesting report issued by the board of trade, pursuant to § 29 of the Winding-up Act 1890 (Third Annual Report, 1894, pp. 305); new legislation is recommended in the same for the purpose of securing the following among other objects. (1) The compliance with definite requirements as to subscription and payment of capital; (2) the disclosure of fuller information in prospectuses; (3) the securing of a substantial interest in the company on the part of its first subscribers; (4) the prevention of fraud by the sale of insolvent undertakings; (5) the limitation of borrowing and mortgaging powers and fuller disclosure of mortgages; (6) more efficient audit and fuller publication of balance-sheets, etc. A departmental committee, consisting of Lord Davey as chairman, and a number of theoretical and practical experts in company law, was constituted for the purpose of considering these proposals, and the Companies Act 1900 is the result of their deliberations.

Another departmental committee constituted in 1905 for the purpose of considering further improvements of the law has not as yet issued a report.

The increasing amount of business carried on through the medium of limited companies renders it more imperative that the supervision of these companies should be thorough and exact. The business carried on by these companies is very varied in nature, from millinery shops carried on by ladies struggling to make a scanty income, to large shipping companies whose liabilities reach immense sums: the whole subject of the regulation of these concerns requires the careful attention of our highest legal authorities. The annual reports of the board of trade under § 131 of the Bankruptcy Act 1883 disclose many instances of dishonesty through which innocent and ignorant persons are frequently robbed of large sums.

[As to the law of joint-stock companies incorporated under special acts, see Hodges on *Railways;* Brown and Theobald on *Railways*. As to the law of companies incorporated under the Companies Acts, see Palmer, *Company Law;* Buckley on *The Companies Acts*. A more popular exposition is contained in Hamilton: *A Manual of Company Law for the use of Directors and Promoters*. Statistics relating to companies registered under the Companies Acts are contained in the annual returns of the registrar of joint-stock companies; see also the articles on COMPANIES.] E. S.

JOINT TENANCY. Where two or more persons have an estate given to them as joint tenants, they hold it jointly, so that on the death of one, the whole estate belongs to the survivors or survivor; whilst if the estate or property is given to them as "tenants in common," the share of a deceased tenant goes to his heir in the case of real property, and to his personal representative in the case of personal property. Trustees are usually made joint tenants.

[Goodeve's *Real Property*, 3rd ed. 1897.] J. E. C. M.

JOINTURE. A jointure was an estate in freehold land given to a wife to take effect on the death of her husband, so called because in former days the estate was given in joint tenancy or jointure to both husband and wife. In modern times, provision is made for the wife by charging the lands of the husband with the payment of a yearly sum.

[Goodeve's *Real Property*, 3rd ed. 1897.] J. E. C. M.

JONES, DAVID (1806-1854), Actuary of the Universal Life Assurance Office. Very favourably held in estimation as the author of a book *On the Value of Annuities and Reversionary Payments*, with numerous tables. To which is appended a treatise on "Probability," by Sir William Lubbock, Bart., F.R.S., and J. E. Drinkwater Bethune, A.M., 2 vols., 8vo, London, 1844, published by the Society for the Diffusion of Useful Knowledge (pp. xxx. and 1136, with 64 pages comprising the treatise referred to). This work, which has become scarce, continues to be appreciated as one of the most useful guides, from a practical point of view, for the solution of the many problems that require accurate solution in the business of life assurances and annuities. The former are included in Jones's work under the designation of reversionary payments.

A translation into German appeared in 1859, at Hanover. Jones, David, *Leibrenten und Lebens-Versicherungen*, Deutsch bearbeitet und mit Tabellen versehen von K. Hattendorf. F. H.

JONES, ERNEST CHARLES (1819-1869), poet, novelist, and politician, was brought up to the bar, but attached himself in 1846, at first as a follower of Feargus O'Connor, to the Chartist movement, of which he was a prominent advocate. Gradually, however, as the importance of the Chartist movement decreased, he became more identified with the extreme radicals. In 1848, he was sentenced to two years' imprisonment, with a fine, for seditious speeches. He was on the staff of the *Northern Star*, the Chartist organ, and afterwards edited *Notes to the People*. He was a brilliant and impres-

sive democratic orator, but his statements are exaggerated.

His writings on economic or political subjects, apart from articles in the organs above mentioned, are all reprints of lectures, and include — *Evenings with the People*, 1856-57.—*Labour and Capital*, 1867.—*Democracy vindicated—a Reply to Professor Blackie*, 1867.

[R. G. Gammage, *History of the Chartist Movement*, 1854 (this author is very severe on Jones, with whom he was constantly at strife).—*The Times*, 27th January, etc., 1869.] R. H. H.

JONES, RICHARD (1790-1855), son of an eminent solicitor, was born at Tunbridge Wells. At the age of twenty-two he entered Cambridge, where the society of Herschel, Whewell, and other future savants is said to have fostered in him the love of positive inductive knowledge. After leaving Cambridge he took orders, and was curate for several years in Kent and Sussex. Meanwhile he was composing his first and principal work, *An Essay on the Distribution of Wealth, and on the Sources of Taxation*, of which the first division, or "book," on rent, —not destined to have a sequel—was published in 1831. Soon afterwards Jones was appointed professor of political economy in the newly-established King's College, London; where he delivered an introductory lecture in 1833. From King's College he was transferred to Haileybury, as the successor of Malthus. He occupied the chair of political economy and history at Haileybury for several years; but his academic pursuits, and the completion of his projected work, were interrupted by the active part which he took in the commutation of tithes. He showed great practical ability as tithe commissioner, an office which he held till 1851. He was afterwards a charity commissioner.

The rôle of Jones in political economy was like that of Bacon in physical science: to preach the importance of experience, and the danger of hasty generalisation.

"If we wish to make ourselves acquainted with the economy and arrangements by which the different nations of the earth produce or distribute their revenues, I really know of but one way to attain our object, and that is to look and see" ("Introductory lecture at King's College," *Literary Remains*, p. 569).

"To complete the knowledge really and securely attainable . . . will still require the patient and assiduous observation and labour of many minds. . . . During this process the too hasty erection of whole systems, a frail thirst for the premature exhibition of commanding generalities, will probably continue to be the sources of error most to be guarded against" (Preface to *Essay on Distribution of Wealth*, p. 39).

Aristotle's method was not more objectionable to Bacon than Ricardo's was to Jones.

"Mr. Ricardo was a man of talent, and he produced a system very ingeniously combined of purely hypothetical truths; which, however, a single comprehensive glance at the world, as it actually exists, is sufficient to show to be utterly inconsistent with the past and present condition of mankind (*ib.* p. 7)."

Like Bacon, Jones did not illustrate his new method by any very remarkable discoveries. The following are specimens. Jones contends that the Ricardian theory of rent does not apply to the payments made to the owners of the soil over the greater part of the world. He disputes what is now called the law of diminishing returns, "the opinion that the powers of agricultural capital necessarily decrease as the quantity employed increases" (*Essay*, p. 197); regarding it as invalidated by "improvements in the arts of production" (*ib.* p. 199). He denies that a fall in the rate of profits is always attended with a diminution of savings (*Literary Remains*, p. 371). All these propositions are admitted by moderate followers of Ricardo, by J. S. Mill for example. However, against some of the narrower Epigoni, some of Jones's strictures (*e.g.*, *Essay*, p. 182) may be justified.

Accordingly it may be regretted that Jones's criticisms were not more favourably received by his contemporaries—M'Culloch, for instance, hardly thinks him worth notice (*Literature of Political Economy*). For the reaction against over-generalisation, if headed by Jones, would have come sooner, and would have been more moderate, inasmuch as Jones did not abjure the use of deductive reasoning within certain limits, *e.g.* with respect to farmers'—as distinguished from peasants'—rents.

Thus his demonstration of the propositions that the rise of rents from the employment of any given quantity of auxiliary capital will be less than that which would take place from the employment of an equal amount of capital in the maintenance of additional labour (*Essay*, p. 225), and that "a rise in the relative value of raw produce . . . will always be followed by a decrease of the share of the producing classes . . . and by a corresponding rise in the produce rents of the landlords" (*ib.* p. 245) is highly abstract.

His formula that the interests of the landlords are indissolubly connected with those of their tenantry and the community at large is just as liable to misconstruction as the converse Ricardian paradox which he combats. In short, as Gibbon said of a more important protest, "we shall rather be surprised by the timidity, than scandalised by the freedom," of the reformer.

A similar moderation characterises Jones's contributions to economic history, of which the best specimen is the "Essay on Primitive Political Economy," forming an article in the *Edinburgh Review* for April 1847 (reprinted in the *Literary Remains*, p. 291). The writer looks at past events in the light of modern theory. He has not reached that pitch of

culture from which all the truths of political economy appear only "relative" to the circumstances of the age. He roundly takes our ancestors to task for their "delusions" (*ibid.*), and, in terms calculated to shock the delicate historical sense of the present day, exhibits "the errors and wanderings of our forefathers" (Introductory Lecture, *Literary Remains*, p. 541). He presented clear general views, such as the distinction between the "balance of bargain," and the "balance of trade," without parading obscure authorities. He was a philosophic historian, and not a mere chronicler. He deserves to be regarded as the founder of the English historical school.

An Essay on the Distribution of Wealth, and on the Sources of Taxation, pt. i., Rent [no more published], 1831.—An introductory lecture on Political Economy, delivered at King's College, with a syllabus of a course of lectures on the Wages of Labour (reprinted in *Literary Remains*), 1833.—A few remarks on the proposed commutation of tithes, with suggestions of some additional facilities, 1833.—Remarks on the manner in which tithes should be assessed to the poor's rate under the existing law, with a protest against the change which will be produced in that law by a bill introduced into the House of Commons by Mr. Shaw Lefevre, 1838.—[The impression of a "full man" which Jones's writings convey is confirmed by the genial picture of his personality which Miss Edgeworth gives in her (unpublished) memoirs (vol. iii. p. 55): "Such crowds of ideas as he poured forth, uttering so rapidly as to keep one quite on the stretch not to miss any of the good things."]—A very unfavourable review, in which the hand of M'Culloch may be traced, in the *Edinburgh Review* for 1831 (vol. liv.), disputes many of Jones's facts as well as all his theory. Whewell, in his Preface to the *Literary Remains*, makes a rejoinder.—A letter to the Right Honourable Sir Robt. Peel on the bill introduced into Parliament by the Attorney-General to exempt all persons from being assessed as inhabitants to parochial rates, 1840.—Textbook of lectures on the Political Economy of nations, delivered at the East India College, Haileybury, 1852 [republished among the *Literary Remains*].—*Literary Remains*, consisting of lectures and tracts on Political Economy. Edited with a prefatory notice by the Rev. William Whewell, D.D. F. Y. E.

JOURDAN, Alfred (1825-1892), dean of the faculty of law at Aix in Provence, and professor of political economy at Aix and Marseilles, was also a frequent contributor to the *Revue d'Économie Politique*.

Besides several writings on law, Jourdan published a *Cours Analytique d'Économie Politique*, eds. 1882, 1890.—*Du Rôle de l'État dans l'Ordre Économique ou Économie Politique et Socialisme*, 1882. "The law of the historical development of the economic mission of the state is to abstain more and more from direct *tutela*, such as technical regulations, but to contribute more and more towards the improvement and increase of the social machinery put at the disposal of emancipated human industry," p. 395. He also wrote *Des Rapports entre le Droit et l'Économie Politique ou Philosophie Comparée du Droit et de l'Économie Politique*, 1888. "Both sciences are based on the same primordial facts; the instinct of social aggregation and human liberty. Political economy traces the motive principle—the necessity of satisfying human wants with the smallest possible amount of exertion; but it is only directly concerned with material interests; whilst law has a more extended territory. For both, progress has always been realised through liberty, namely, the removal of certain trammels." The author's conclusion is: "Ethics and economics stand, as sciences, in the same relation to the science of law as natural philosophy and chemistry to the science of mechanics." The two latter works were rewarded with a prize by the French Academy of Political and Moral Sciences. E. Ca.

JOURNEY (*Mint*). A word used in the Mint to represent a certain weight of gold or silver coin, originally supposed to represent a day's work, and which had to be delivered by the coiners at the end of each "journée" or day. A "journey-weight" of gold is 180 oz. troy, and of silver 720 oz. troy. F. E. A.

JOURNEYMAN, a term originally denoting a labourer working by the day (*journée*), came in England to be applied, before the end of the middle ages, to all craftsmen working for hire, as distinguished, on the one side, from the "masters," "craft-holders," or "shop-holders" who employed them, and, on the other, from the apprentices. In the 14th century, however, the journeyman was also commonly distinguished from the "serving-man," "valet," or "yeoman," who was engaged for a considerably longer period. We may perhaps see in the supersession of these other terms by "journeyman," an indication that with the growth of industry it became increasingly exceptional to contract for a long period of service. Such a contract, it must be added, would become less advantageous to the employer when once the system of apprenticeship had been definitely established, and he had thus secured a permanent working force of another kind, and it would also naturally tend to disappear before the extension of the practice of piece-work.

In the picture commonly drawn by modern writers of the mediæval "gild-system" in its best period, the position of journeyman is represented as the normal intervening stage between apprenticeship and mastership,—a stage out of which the industrious and skilful journeyman could easily rise after a few years. This picture is perhaps true of some industries—in certain localities—in particular periods; and it has served as a useful standard of comparison wherewith to contrast what have been supposed to be earlier and later conditions. But it is difficult to reconcile with the historical evidence. Even as late as the 14th and 15th

centuries apprenticeship was only slowly coming to be a necessary prerequisite of hired labour; and, when it had, full membership of the craft, with the right to set up as an independent master, was already restricted in such a way as to be beyond the reach of the average journeyman. The relation of the journeymen to the GILDS or "crafts" is still somewhat obscure and varied probably from place to place. They were subject to the control of the gild, and their wages were regulated by its officers: in some few cases they appear as taking part in the making of ordinances and even in the election of officers. But as a rule, and certainly towards the end of the 15th century, the masters were alone regarded as in any real sense members or "combrethren" of the craft company.

So long as apprenticeship was enforced, the name of "journeymen" or "free journeymen" continued to be used for those who had served seven years to any art or craft under a lawful "master." It is still in common use in some industries still organised in small shops—*e.g.* that of the bakers; and in others which, like the hatters, have only recently passed into the factory stage, and retain the tradition of earlier conditions.

[The literature of the subject will be found under CORPORATIONS OF ARTS AND TRADES, GILDS, and elsewhere. For a recent summary see Ashley, *Economic History*, part ii. (1893), § 34.—Mrs. Green, *Town Life in the Fifteenth Century* (1894), vol. ii. chs. iv. v., takes up a position which, if hardly supported by sufficient evidence and not altogether clear, is independent and suggestive. The most convenient collection of material will be found in H. T. Riley, *Memorials of London*, 1868.]

W. J. A.

JOURNEYMEN'S SOCIETIES. As soon as there grew up a class of journeymen who realised that they were likely to remain in that position for many years, if not all their lives, and, therefore, that they had class interests to defend, distinct from, or opposed to those of the masters, separate societies of journeymen began to make their appearance. In accordance with the tendency of the later middle ages towards the formation of religious gilds, such societies would seem to have been usually, at first, of a religious character, as is indicated by the names "fraternity," "brotherhood," "confrèrie," and "Bruderschaft." Although in some cases this may have been caused by a desire to avoid condemnation by the public authorities, there is no reason to believe that the journeymen were not moved by the same motives as led other classes to form religious associations. Yet these fraternities would naturally tend to concern themselves with the other interests of their members; and the mere fact of association would lend strength to the journeymen in their negotiations with the masters. The "confrèries" of "compagnons" were a prominent feature in the industrial life of France in the 15th century; their later history still awaits investigation. In Germany "Gesellenverbände" of various kinds were numerous in the 15th century; in some industries they were to be found as late as the present century; and they were the occasion of a long series of imperial and territorial decrees. In England they played a much less important part, partly because industry here was less developed, partly because of the absence of the rule concerning a period of travel, to which may be largely attributed their rapid spread on the continent. Evidence has, however, already been found of their existence in the following London crafts at the dates here stated:—the saddlers, 1383-1396; cordwainers, 1387; tailors, 1413-1696; blacksmiths, 1435; carpenters, 1468; drapers, 1493-1522; ironmongers, 1497-1590; founders, 1508-1579; fishmongers, 1512; clothworkers, 16th century; armourers, 1589; and in the following provincial towns:—Coventry, the weavers, before 1450; Exeter, the tailors, before 1512; Oxford, the shoemakers, 1512; Bristol, the tailors, 1570; and with the further publication of municipal records other instances will doubtless be found. So far as we can judge from our scanty evidence, they seem to have begun as voluntary combinations, in the teeth of the masters and the civic authorities, and to have commonly had among their objects the increase of wages. They were met by strong measures of repression, to which possibly some succumbed, but in many cases they were recognised after a time, sometimes as the result of a formal compromise, and ultimately they sank into a position altogether subordinate to the companies of masters, and became convenient to the latter as a machinery for relieving poor journeymen. Their organisation resembled in general character that of the masters' companies, with periodical assemblies, wardens, contributions, and common-box.

[Our most consecutive information concerns the association among the tailors of London, which under the names of the "fraternity of yeomen," or "valets," "the yeomen fellowship," and, from 1569 onwards, "the bachelors' Company" survived till 1661, when it was suppressed by the Merchant Taylors' Company. Here the development was complicated by the gradual separation between the Merchant Taylors' Company and the industry from which it derived its name. The evidence will be found in C. M. Clode, *Memorials of the Merchant Taylors' Company* (1875), and *Early History of the Merchant Taylors' Company* (1888). But more instructive is the "Ordinance granted by the worshipful masters and wardens, with all the whole company of the craft of blacksmiths of London, to the servants of the said craft" in 1434, which is evidently of the nature of a compact between two bodies, and contains conditions curiously resembling modern trades union policy. It is printed by Mr Coote in *Trans. London and Middlesex Archæol. Soc.* (1874), iv. And almost equally interesting is the indenture between the

shoemakers and their journeymen in Oxford (1512), when the struggle seems to have turned upon the possession of "the box of the journeymen"; this is given in *Records of Oxford* (1880). An attempt is made to present and estimate the value of the information at present accessible in Ashley, *Economic History*, vol. i. pt. ii. (1893), § 35. See however the recent criticism by S. and B. Webb, in *The Hist. of Trade Unionism* (1894), ch. i. For Germany, see G. Schanz, *Gesellenverbände* (1877), and for France, Levasseur, *Histoire des classes Ouvrières*, vols. i. and ii. (1859).] W. J. A.

JOVELLANOS, GASPAR MELCHIOR DE (1744-1811), had a most chequered existence. He was originally public prosecutor in Seville, then in high favour at the court of Madrid, where he became a member of the *Sociedad Económica* and of the *Academia de Historia*; but he fell into disgrace after the accession of Charles IV., was exiled to Gijon, his native place, then recalled to the court and appointed a minister, to be imprisoned again in 1801, first in a convent and then in a fortress in the Balearic islands. Released at the time of the French invasion, he rejected the offers of Napoleon, was made a member of the *Junta Central* of government, and took a leading part in the debates on the Spanish constitution put forward in Cadiz.

On his tombstone in Gijon he is described as having been "a magistrate, a minister, a father of his country, a man of letters, an orator, a poet, a jurisconsult, a philosopher, an economist, —always distinguished, often eminent."

His works, exclusive of his *Memoirs*, which have been printed separately in Paris (1825), have been republished in Rivadeneyra's *Biblioteca de Autores Españoles* (Madrid, 2 vols. 1858-59); the economic writings are to be found in vol. ii. The most important are the *Informe á la Junta General de Comercio sobre la Libertad de las Artes* (1785) (Report on the liberty of the crafts), and the *Informe de la Sociedad Económica al Real Consejo de Castilla sobre el expediente de la Ley Agraria* (1794) (Report on Agrarian Reform). In both, Jovellanos starts from extremely liberal principles, but sometimes restricts them in their final application. Thus, he is strongly opposed to the existing *gremios* or craft-gilds, charging them with oppressing the artisans (p. 37) and inability to adjust supply to demand (p. 38), but although proposing their abolition, he demands a "general immatriculation (enrolment) of all persons connected with a craft, whether as masters, artisans, or apprentices," in order to submit them to the guidance of "*síndicos*" belonging to the craft, but appointed by the local authorities. No free association of people belonging to a craft is to be allowed (p. 41). In his *Informe sobre la Ley Agraria*, Jovellanos inveighs against the existence of *baldíos* (waste-lands), *tierras concejiles* (communal property), and *mayorazgos* (entails), against the extent of land owned in clerical mortmain, and against the privileges of the MESTA granted to the owners of the migrating flocks. He advocates the inclosure of common fields, and proposes to legalise the sale of all such land to the peasants in their vicinity. He urges that more roads and canals should be constructed as well as more works of irrigation. Internal trade in corn should be free, but "in our present situation, free export of corn, either absolute or restrained according to prices, is not necessary and would not be useful" (p. 116). Even the import of corn is only to be allowed temporarily, and should be suspended in years of acknowledged abundance. E. Ca.

JOYCE, JEREMIAH (1763-1816), was a Unitarian minister, and tutor to the sons of Lord Stanhope. Early in 1794, he was imprisoned on a charge of high treason, but at the end of six months released without trial. He remained, until his death, secretary of the Unitarian Society and minister of the Unitarian Chapel at Hampstead. In 1797, he published an analysis or rather abridgment of Adam Smith's *Wealth of Nations*. His annotations are not numerous, but have an interest as reflecting affairs of his day. They refer chiefly to Smith's proposals for obtaining a revenue from the taxation of the colonies,—among which "America," writes Joyce, "the grand, principal resource, is *now* entirely and for ever out of the question" (p. 290). Among other things he notices Pitt's proposal to "double the turnpike tolls . . . seizing upon one half of them for the exigencies of the State" (p. 232).

Joyce's publications are very numerous; those that are connected with political economy are—*A complete Analysis . . . of . . . Adam Smith's . . . Wealth of Nations*, 1797, 8vo, 1821, 12mo, 1877, etc., 8vo.—*The Arithmetic of Real Life and Business*, 1809. A. L.

JUDGMENT. A judgment is the decision of the court on one of the main subjects of an action brought before it. A judgment need not necessarily put an end to the action, as it may only deal with part of the claim or not finally adjudge on any part of the claim. If a defendant in an action fails to appear or to plead in accordance with the prescribed rules, judgment "by default" may be obtained against him. In actions in which unliquidated damages are claimed, a defendant is in such a case ordered to pay "the damages to be assessed." This is called an "interlocutory judgment," because a further step, viz. the assessment of the damages, must be taken before the rights of the parties are finally adjusted. In the Chancery Division of the High Court a judgment frequently directs certain inquiries to be made, or certain accounts to be taken. This is done before the chief clerk in chambers, who subsequently issues a certificate as to the result; the action is then brought before the court

"on further consideration," and if no further inquiries are necessary, directions are given for a final judgment declaring the rights of the parties.

A final judgment materially alters the mutual rights of the parties. It enables a successful party to issue execution against the property, and in case of need against the person, of the party whom it affects (see ATTACHMENT; ELEGIT; FIERI FACIAS). If it directs the payment of money it creates a debt more easily enforced, and in most cases less easily barred by the Statute of Limitations (see LIMITATION, STATUTES OF) than the claim in respect of which the action was brought. As between the parties and their successors in title the subject matter of the litigation cannot, after the lapse of the period allowed for an appeal, or after an unsuccessful appeal, be contested again. The latter rule is generally expressed by saying that a judgment creates an "estoppel inter partes," or that the case has become "res judicata."

The Judgments Extension Act of 1868, and the Inferior Courts Judgments Extension Act 1882, render judgments obtained in England, Scotland, and Ireland effectual in any other part of the United Kingdom. The judgments of foreign courts cannot be enforced in England without a fresh action in an English court, but the judgment in such an action must be in favour of the plaintiff unless the defendant can prove that the foreign judgment was obtained by fraud; that the court in which it was obtained had no jurisdiction; or that it violates a vital principle of English public policy. E. S.

JUDGMENT DEBTOR. A person to whom directions have been given by a JUDGMENT (*q.v.*) to pay a sum of money to another person. E. S.

JUDICIAL FACTOR (Scotland). An administrator appointed to an estate by the Court of Session, in the exercise of its equity jurisdiction "*ex nobili officio* of the court."

Factors may be factors *loco tutoris* on children's estates, or *loco absentis*, as where an owner is absent; curators *bonis*, as where the owner has become incapable of managing his own affairs, or upon failure of trustees, or where trustees have been removed on suspicion of misconduct, or generally where there is a risk of the property perishing or being injured or going to waste. The appointment is made upon petition; and the nominee of the petitioner is, if suitable, usually appointed; but the court may recall the appointment, as on his insolvency.

The sheriffs of the counties may appoint judicial factors to estates of not more than £100 a year, all told. Judicial factors are under the supervision and general superintendence of the Accountant of Court. This officer sees that they give due security, and that the funds are properly lodged in bank. He audits their accounts once a year, makes any such requisitions or orders on them as he considers necessary, and reports any failure or misconduct to the Court or, if necessary, to the Lord Advocate for prosecution. He gets information from the banks as to balances, etc., and is the official custodier of bank receipts and vouchers. He makes an annual report of all the estates under his superintendence. The court does not interfere unless the accountant makes an application to it, or unless leave is required to grant abatements of rent, to sink funds in an annuity, or the like. The judicial factor is paid for his time and trouble by a commission, fixed by the Accountant. Under the Judicial Factors Act 1889, § 13, the appointment of a judicial factor has the full force and effect of an assignment or transfer, duly executed, of all property situated or invested in any part of the British dominions, and belonging to or forming part of the estate under his charge; and all debts must be paid or assignments or transfers executed accordingly. A. D.

JUDICIAL RENT, see LAND LEGISLATION, IRISH.

JUNG STILLING, JOHANN HEINRICH (1740-1817). The surname Stilling was derived from the pietist congregation, *Die Stillen im Lande*, the "quiet country people" to which his family belonged. Jung was essentially a self-made man; up to the age of twenty, his time was divided between teaching in village schools and tailoring; through self-exertion and the assistance of friends, he was enabled to study in the university of Strasburg, where he obtained the degree of doctor of medicine; later on he lectured on cameralistic sciences at Kaiserslautern and Marburg, but this did not prevent his attaining a wide celebrity as an operator for cataract. Jung Stilling made a strong personal impression on Goethe (see *Wahrheit und Dichtung*, bk. ix.); during the last twenty years of his life he gave himself entirely up to mystic literature.

As an economic writer, Jung belongs to the philanthropical and eclectic school, with strong absolutistic leanings which flourished in Germany during the second half of the 18th century under the influence of Sonnenfels, and of his theory of the largest possible population. On this last principle, he goes to the extreme of claiming the protection of the police for pregnant unmarried girls, even against their own parents. Land, in his opinion, might be subdivided to the minimum sufficient to supply the subsistence of a family. Jung was opposed to craft monopolies (Gilds), but favourable to the craft system,—this he wants made compulsory: "craft examinations are necessary in order to prevent the manufacturing of rubbish." In matters of national finance he has a predilection for state domains and royal dues. He appears to have learned very little from Adam Smith, but is most of all swayed by his strong religious feelings: nations whose practice is based on purely commercial principles would soon come to destruction; and exclusively selfish commercial aims are as much to be reprobated in nations as in individuals. Excise-duties have the great

disadvantage of being borne by the weakest party in buying and selling.

Jung Stilling's best-known economic works are the *Staatspolizeiwissenschaft* (1788); the *Lehrbuch der Finanzwissenschaft* (1789); and the *Grundlehre der Staatswissenschaft* (1792).

[See Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 552-555; and *Allgem. Deutsche Biographie*.] E. Ca.

JURANDE. This was the name of the elected board which managed the affairs of a trade-gild or corporation in France. Its chief functions were to maintain the interests of the gild, to regulate the terms of admission and the length of apprenticeship, and to issue *lettres de maîtrise* to those who were qualified for full membership. The advantages and disadvantages of these close corporations were the same in France as in England. They gave some security for good workmanship, but they raised the price of most of the commodities which passed through their hands. At last Turgot succeeded in 1776 in extorting from Louis XVI. an edict for their suppression. It is a curious illustration of Adam Smith's close connection with the French economists that the preamble to this edict contains many of the arguments which he advanced in the same year against trade corporations (*W. of N.*, bk. i. ch. x.). Turgot's reform was not lasting. The system of *jurandes* and *maîtrises* was revived after his fall; but they were finally abolished in 1791. R. L.

JURISDICTION. The jurisdiction of English courts does not extend beyond England; in certain cases, however, leave may be given to serve defendants out of the jurisdiction with writs or notice of writs. If the service is properly effected in such a case, judgment may be obtained against a foreign defendant, but such a judgment could not be enforced abroad, except under the sanction of a foreign court.

[Piggott, *Service out of the Jurisdiction.*] E. S.

Jurisdiction, Scotch. In Scotland jurisdiction is not, in principle, assumed, except upon certain established grounds. The general rule is that the "pursuer" must follow the defender's domicile. The domicile, which is considered sufficient to found jurisdiction against the defender, may be his domicile of succession, that which would regulate his status and the succession to his property. But, by custom, forty days' residence in Scotland is held to imply an intention of remaining in the country, and consequently, any person, who has been more than forty days in Scotland, may be cited to appear as a defender, on the strength of that circumstance alone, until the implication is rebutted by his having been forty days absent from the territory of the court. When this has occurred, or when he is not in Scotland at all, jurisdiction over him, if it exists, must be founded upon some other ground; if it can be, he may be cited in his absence. Among grounds which give the court jurisdiction, may be mentioned the subject matter of the action being a question relating to realty in Scotland. The ownership of real property in Scotland is held to give the Scotch courts jurisdiction over the owner, in respect of all matters except status, so that, if he be resident abroad, he can be cited as an absent person at the office of the keeper of edictal citations, Edinburgh, and the action goes on against him. Where the cause of action, whether contract or delict, has arisen within Scotland, then, if along with this the defender have been personally cited in Scotland, the court has jurisdiction. Again, if a foreigner sue in a Scottish court, he is bound to answer any counter claim which has relation to the same matter, or any set-off fairly set against his own suit or claim. And if a stranger have moveable property in Scotland, the fund or effects due or belonging to him, if substantial, and not merely elusory (though this limiting condition does not appear to be very operative), may, after the fashion introduced in Holland in the 16th century, be attached at the suit of the pursuer, by an *arrestum jurisdictionis fundandæ causâ*, which is only loosed on security being found to appear and defend. The effect of this arrestment is to found jurisdiction, except in cases of status, or actions of declarator of rights, or of reduction of writings, but the jurisdiction fails upon the death of the defender. The judgment which may be pronounced is not limited to the value of the article arrested. With the exception of judgments in absence in actions in which jurisdiction has been founded by the last-mentioned means, all judgments of the Court of Session for debt, damages, or expenses may be enforced in England or Ireland, on registering them within twelve months in the books of the high court in England, or of the common pleas in Ireland; after such registration they have the force of judgments of those courts respectively, this power being reciprocal between the three countries.

In Scotch civil cases, but not in criminal, the House of Lords has appellate jurisdiction in respect of all final judgments, and also of interlocutory judgments in which there has been a division of opinion among the judges of the court, or as to which the court has granted leave to appeal.

[Rankine's *Erskine's Principles of the Law of Scotland.*] A. D.

JURISDICTION OF STATE. See International Law.

JUROS (*Spanish term*). Ferdinand and Isabella, and later on the Spanish kings of the house of Austria, were wont to raise money by accepting private loans from their subjects at varying rates of interest, the payment of this and the reimbursement of the capital being assigned on the general revenue. It was specified that the indentures could be held by right of inheritance (*por juro de heredad*), whence the name. These *juros* were a cause of frightful financial mismanagement, especially when at the time of compulsory reductions of interest, those held by the inquisition or ecclesiastical corporations were declared to be privileged. The unprivileged or *Seculares*, as they were called, very often were sold at a ruinous discount to

holders of privileged stock, so that the liabilities of the royal treasuries derived no advantage from these iniquitous proceedings.

[See the article "Juros" in Canga Argüelles, *Diccionario de Hacienda* (London, 1826); ch. vi. of Konrad Haebler's *Wirtschaftliche Blüte Spaniens* (Berlin, 1888); and Colmeiro, *Historia de la Economia Política en España*, ii. pp. 578-581.]

E. Ca.

JURY (ENGLAND). Before the Conquest, one of the means by which an alleged offender was brought to justice was by accusing him in the sheriffs' tourn, the criminal side of the old county court. He was accused by a kind of committee of twelve from among the suitors of the court (public officials, lords of lands, and, from each township, the parish priest, the reeve, and four men), or by a private accuser; or else in the hundred court, by the reeve and four men of the township.

The suitors were properly the judges; and the accused was cleared either by ordeal or by compurgation, *i.e.* witnesses swore that his oath of innocence was true. After the Conquest, he was accused before the justices by the oath of "the body of the country and the lawful knights of the county"; he might clear himself by ordeal, though even then he might have to suffer banishment; but speaking generally, the accusation was equivalent to conviction, because the twelve accusers spoke from their own local knowledge. This was the origin of the present grand jury in England, which consists of such a number, usually twenty-three, of good and lawful men of the county, usually county magistrates, as may supply the necessary twelve accusers. In the course of time the element of local knowledge became less effective, and the ordeal was practically abolished after the Lateran council of 1216, so that there was no means of testing the truth of the accusation; and hence the custom arose of remitting the matter to an inquest. An inquest was a Norman mode of obtaining information for the use of the justices by referring the matter of fact in dispute to persons possessed of the requisite local knowledge. If the persons so referred to testified to the truth of a fact, it was held as proved; but it must be proved by their own oaths. They themselves were the witnesses; and if they knew nothing of the matter, they could not testify. This kind of inquest by a jury of twelve was, after the great assize of Henry II., the regular mode of ascertaining facts relating to rights in land and the like, these being matters well known to the neighbourhood, the vicinity (*vicinetum*) or "venue." If some testified on one side and others on the other, additional witnesses were added until there were twelve in favour of one side or the other; then the inquiry stopped, and the finding of the twelve was their "truth-telling" or *veredictum* or verdict. The jurors, being witnesses, could be individually examined by the justices.

The next stage was that the jurors, in order to prepare their sworn report, collected information in their own way. Persons possessed of particular information were called in to testify: the jurors, on being satisfied that they spoke the truth, on the ground of personal acquaintance with their credibility, adopted their information, and themselves "dared to swear" to it. They thus prepared themselves to give sworn answers to questions as to specific facts; and by the middle of the 15th century they had arrived at a practice of giving general verdicts on the whole matter. The procedure was thus one based on the jurors' personal knowledge, and was one adapted to small neighbourhoods.

In criminal cases the accusers are now represented by the grand jury, who, as it were, from their own local knowledge of the venue, inform the judges what crimes have been committed within their district. They obtain this knowledge by hearing enough evidence to show that there is a *primâ facie* case in support of the indictment or of the presentment by the coroner's jury. If they are satisfied of this, they endorse the bill of indictment "True bill," and it then becomes an indictment, a sworn accusation by the grand jury; if not, they endorse it "No true bill," and the prisoner is discharged, but can be indicted again.

The modern equivalent of the inquest is the jury in civil cases, the petty jury in criminal cases, while the name is retained in the coroner's inquest. In the two former cases the jury consists of twelve jurors whose verdict must be unanimous; in the last it consists of twelve or more, of whom a majority not less than twelve must concur in the verdict. Juries have a right to return any verdict without being subject to being punished at the will of the court. It is only in rare cases that the element of personal knowledge on the part of jurymen now comes into play; in general it is assumed that they have none.

The right to have a civil case tried by a jury is now absolute only in actions of slander, libel, false imprisonment, malicious prosecution, seduction, and breach of promise of marriage. In other actions, trial by jury can only be had on an order of the court, but this, in common-law actions, is never refused if either party applies for it. A special jury can always be had, on proper notice, at the risk, as to the extra expense, of the applicant. When a juryman is withdrawn by the parties with a view to a settlement, or when he falls ill or dies, or when agreement seems hopeless, the jury is discharged, and the case, if it is to go on, must be re-tried before a new jury.

[Stephen, *Hist. of the Criminal Law of England.* —Stubbs, *Constit. Hist.*]

A. D.

JURY (SCOTLAND). The early history of the jury in Scotland is much the same as in England. In criminal cases there is no grand jury; the jury consists of fifteen persons, of whom five must be special jurors; and the verdict is given by a majority. The forms of verdict in use are "guilty," "not guilty," and "not proven." The last operates as a bar to any fresh trial on the same charge: it has the same effect as a plea of *autrefois acquit* in England. It is understood, and is intended by juries, to mean that the jury are not satisfied as to the innocence of the prisoner, but think the crown authorities have not proved his guilt. It seems, however, that this is a comparatively recent interpretation of the verdict, and that

"not proven" formerly differed from "not guilty" only in referring to the charge instead of to the person; the converse verdict being either "proven" or "guilty."

Jurors in Scotland must have £5 a year from land, or personal property over £200 in value: special jurors must have £8 : 6 : 8 from land, occupy a £30 house or possess personal property over £1000 in value. Each party has five challenges, of which not more than two can be challenges of special jurymen. The verdict is delivered by the foreman or "chancellor" *viva voce* unless a written verdict is directed, and he must say whether the verdict is unanimous or by a majority.

In civil cases, trial by inquest was anciently the usual form; but the ecclesiastical courts assumed a much larger jurisdiction in early Scotland than in England; and the session of James I. and the daily council of James IV. superseded jury trials to a still further extent; so that after the institution of the Court of Session, jury trial in civil cases had practically fallen into disuse except in respect of inquests, which the sheriffs of counties were directed by the Scottish chancery to hold, in reference to the ascertainment of heirs, the finding persons to be lunatic, the delimitation of the widow's third in lands, and the partition of property among heirs-portioners. In 1815, however, it was thought by parliament that trial by jury ought to be made more use of in civil cases in Scotland; and a new court, the jury court, was established, to ascertain facts on remit from the other courts. In 1831, this court was, however, absorbed in the Court of Session, which takes jury trials when required. The cases appropriate to jury trials are, to summarise them roughly, actions arising from alleged wrong-doing, where damages and costs are alone sued for, actions against innkeepers, carriers, etc., actions on insurance policies, some shipping cases, and the annulling of deeds and contracts as having been obtained by coercion, etc. But in practice, litigants are found to prefer trials before a judge without a jury. In jury trials issues are usually adjusted and placed, in print, in the hands of the jurymen, so that they may answer the precise questions put to them. Jury trials take place before the Court of Session in Edinburgh, or before the sheriffs in the county towns; sometimes on circuit. Either party may move for a special jury. The verdict must be unanimous, or, after three hours, by a majority; while in case of equal division the jury is discharged after six hours. The parties may agree to take a special verdict at any time; and, in the course of the trial, a juror may be withdrawn.

[Bell's *Dictionary of the Law of Scotland.*—Mackay's *Practice of the Court of Session.*—Macdonald's *Criminal Law of Scotland*,—50 & 51 Vict. c. 35.] A. D.

JUS AD REM: JUS IN RE. Barbarisms purporting to be derived from the Roman law, but which first appeared in the *Brachylogus* and passed into secular jurisprudence from the canon law.

A *jus ad rem* is a right, relating to a thing, enforceable by an action *in personam; e.g.* a right on the part of A to make B deliver up a specific chattel. A *jus in re* is an absolute right to a thing, enforceable by an action *in rem;* the right which an owner has in his own property. A *jus ad rem* is based on an obligation, and is good as against the party bound; a *jus in re* is good as against the world. A. D.

JUS NATURÆ, as understood by the PHYSIOCRATS, is the right which a man has to do that which is beneficial or advantageous to himself. This right he can only make use of by conforming himself to the order of nature and obeying natural laws.

Up to the middle of the 18th century the question of man's natural rights had been much neglected by philosophers, though LOCKE speaks of it (Bonar, *Philos. and Pol. Econ.*, p. 98), and QUESNAY's views, though not original as regards their subordinate propositions, amounted in the sum to an expansion of the ideas of mankind with respect to the due order of society. Personal liberty and proprietorship of the results of his labour are man's primary rights. These would be destroyed if it were not the duty of all men to abstain from invading them. Hence rights and duties are reciprocal and interdependent. But duties are burdens, and therefore in a sense evils. They exist only to exclude greater evils, and so their existence must depend upon their utility. For subsistence, property is requisite, and this implies inequalities among men, as the ability to acquire is not uniform. Again, for food-production the first essential is land, which is best cultivated when it is a permanent possession, and property in land is therefore desirable. Finally, as all men are not willing to respect rights and duties, means for their protection must be provided, and this provision is Government; but government should have no other mission than the protection of the rights of liberty and property, and legislation should be mainly the enunciation of such natural laws as are best calculated to preserve the social order (see GOVERNMENT, ECON. EFFECTS OF).

[F. Quesnay, *Le Droit Naturel* in *Physiocrates*, E. Daire, Paris, 1846.—G. Schelle, *Du Pont de Nemours*, 1888.—J. Bonar, *Philos. and Pol. Econ.* (1893), p. 135 *seq.*] R. H.

JUS NATURALE, JUS GENTIUM, JUS DIVINUM, JUS HUMANUM. In these phrases the term *Jus* is used not in its sense of a particular "right," but in its sense of "principle of right" = *droit, diritto, Recht.* There is no proper English equivalent for it, as the use of "Law" is apt to cause confusion with the meaning of "law" = *lex, loi, legge, Gesetz, i.e.* a definite statute or judicially-enforced custom. Thus English readers may need to be reminded that international "law," a use of the term "law" to which Austin objects, is in other languages not *lex*, but *jus, droit international, Völkerrecht*, etc.

ARISTOTLE had recognised a distinction between "natural" justice (*τὸ φυσικὸν δίκαιον* =*jus naturale*), which is the same at all times and in all places, and "conventional" justice, *τὸ νομικὸν δίκαιον*, which depends on institution and may therefore vary (*Eth. Nic.* v. 7, § 1). The Roman jurists distinguished the *jus civile* of Rome or of any particular state from the *jus gentium* or principles of right commonly recognised among the various nations and tribes known to them, the principles according to which "equity" was administered by the prætors in cases where aliens were concerned. When the Romans came to be influenced by Greek, especially Stoic, philosophy, *jus naturale* came to be used (*e.g.* by Cicero) as an equivalent but more philosophical term for this *jus gentium*. [Maine's view about the *jus gentium* in his *Ancient Law* is corrected in part by H. Nettleship in *Journal of Philology*, vol. xiii. p. 169, *seq.*] Philosophical associations tended to introduce into the conception of "natural law" the ideas of simplicity and of perfection, and thus the notion came to serve the cause of legal reform. One jurist, Ulpian, attempted to distinguish the *jus naturale* from the *jus gentium*: *jus naturale* he defined as that which nature teaches to all animals, *e.g.* the bringing up of offspring, *jus gentium* as that which is common to the whole human race. In accordance with this distinction, slavery is said to exist *jure gentium*, having arisen out of capture in war; but "by the law of nature all men were born free" (Justinian, *Inst.* i. 2). Later writers tend to regard *jus naturale* or *lex naturalis* as distinct from *jus gentium*, but not simply on the ground taken by Ulpian. The law of nature is to them not merely, as to the older Roman lawyers, a common element amid the diversities of human institutions, but that portion of the "eternal law" or system of divine government in which man as a rational creature can always and everywhere, though in varying degrees, participate, (THOMAS AQUINAS, *Summa*, 1a 2ae, qu. 93. art. 2): whereas the *jus gentium*, containing much that is due to tacit or express agreement, is rather counted as part of positive human law, *jus humanum*, the other part being *jus civile*, the law of this or that particular state. This had been the view of Isidore of Seville (d. 636 A.D.). His *Sententiæ* were a main channel through which scraps of ancient learning passed to the mediæval world. Thomas Aquinas accepts the view of Isidore about the subdivision of human law, but holds that all human law is derived from the law of nature, as conclusions from premisses; so that the *jus gentium* is in a sense natural to man, though distinguishable from the law of nature, especially from that which is common to all animals (1a 2ae, qu. 95, art. 4). Suarez (*De legibus*, ii. 17 and 19), laying still less stress on Ulpian's distinction, agrees on the whole with Aquinas. From these authorities apparently is derived the view of GROTIUS (*q.v.*), who rejects the opinion of Ulpian as of little use (i. 1, § 11), but regards the *jus gentium* as properly a division of instituted human law, *jus voluntarium humanum*, being the product of tacit or express agreements among nations (*Jus gentium*, it should be noted, is coming to mean *jus inter gentes*), whereas the *jus naturale* in the strict sense consists of principles which can be deduced by reason from the primary necessities of man's rational and social nature. But on this subject there is much division of opinion, and even those who adopt the distinction do not always consistently separate the *jus gentium* from the *jus naturale*. PUFENDORF (*De Jure Naturæ et Gentium*, ii. 3, § 22) follows Hobbes (*De Cive*, c. xiv. 5, 4) in dividing natural law into the natural law of individuals and of states—*jus gentium* now meaning quite definitely "international law." Pufendorf denies that there is any positive "law of nations" apart from either the law of nature or the civil law of particular states. Barbeyrac, Grotius's commentator, makes the same criticism. Later writers on the law of nations seem mostly to agree in recognising two elements in the *jus gentium*, one derived from "nature" or reason, the other from the actual usage of the more civilised nations: thus we can distinguish a *jus gentium naturale* and a *jus gentium positivum* or *voluntarium* (see Wheaton's *International Law*, pt. i. ch. i.). This view seems to recognise the element of truth in the conflicting theories.

The law of nature is, by Thomas Aquinas and his followers, regarded as immutable even by the will of God, though it may be added to by the positive law of both God and man. The positive law of God, *jus voluntarium*, *positivum*, or *divinum*, is the law of God as specially revealed to mankind at large, or to any particular portion of mankind. The law of nature might, as coming also from God, "the author of the rational nature of man," be called *jus divinum*; but among Christian theologians that term is generally given to the *jus positivum divinum*. In regard to the positive divine law of the New Testament, a distinction is always recognised by Catholic theologians between "precepts" binding on all men and "counsels of perfection." It may be noted that the schoolmen generally speak of *lex naturalis*, *lex divina*, etc., rather than of *jus*, probably because they are thinking of God as legislator. Grotius (I. i. § 10) holds that the *jus naturale* would exist and be binding even if we were to suppose that there was no God, an attempt to separate jurisprudence from theology which he does not consistently follow out: this Pufendorf (II. 3 § 19) will not allow, holding that the obligation of natural law is from God.

In these theories we have the source not only of the modern German theories of *Naturrecht*, but of these doctrines about "natural liberty," "natural rights," etc. which play so large a part in the politics and economics of the 18th century and even of our own time. It should be noted that in all the more careful writers on the law of nature, that law is supposed to deal not only with what may be supposed to be a "state of nature" apart from human institution, but also with circumstances created by institutions. Thus the rights of private property as they now exist in any particular country are only rights by natural law in the sense that they may not be contrary to natural law, which allows the right to acquire property; but when once such rights have been introduced or defined by positive human law, obligations to respect property-rights are created which are obligations of natural law apart from positive institution. Pufendorf would not regard such obligations as belonging to natural law in the strictest sense, but only "reductively" (II. 3, § 21), and Thomas Aquinas carefully distinguishes the senses in which anything may be said to be according to the law of nature (1a 2ae, qu. 95, art. 5). Such careful distinctions are not always observed by those who have used the phraseology of natural rights in later times, especially in practical controversies (see INTERNATIONAL LAW; LAW).

[Besides Maine, *Ancient Law* (1st ed. 1861) and the other works referred to in the article, may be named Moritz Voigt, *Das jus naturale, aequum et bonum und jus gentium der Römer*, 4 vols., Leipzig, 1856-75.—J. Bonar, *Philosophy and Political Economy*, 1893, bk. ii.—D. G. Ritchie, *Natural Rights*, 1895, ch. ii.—Lorimer, *Institutes of Law* (1st ed. 1872, 2nd ed. 1880) is an application of the German theory of *Naturrecht*.]

D. G. R.

JUS RELICTÆ (Scots Law). The widow's share of the free movable property, other than personal bonds bearing interest, of a predeceasing husband; one third if he have left children, one half if none. This share is reckoned after the predeceasing husband's personal obligations have been provided for: hence the widow may have both *jus relictæ* and a right to demand performance of the provisions of a settlement, unless she have, either explicitly or by inevitable implication, and with full knowledge of her legal rights, given up her *jus relictæ*. This widow's right takes precedence of any will made by the predeceasing husband, and vests in her by mere operation of law; and it can be enforced against the husband's executor. By the Scotch Married Women's Property Act of 1881, § 6, a surviving husband is given an analogous right over the estate of the predeceasing wife.

A. D.

JUS STILLICIDII. See SERVITUDE.

JUST PRICE. See JUSTUM PRETIUM.

JUSTA CAUSA. According to Roman law a delivery of property in order to operate as a conveyance by delivery (*traditio*) must be accompanied by a legal act, such as a contract of sale or exchange, showing an intention to transfer the right of property in it. The term for a legal act of this nature is *justa causa traditionis*.

E. A. W.

JUSTI, JOHANN HEINRICH GOTTLOB VON (1720-1771), a German economist, was born at Brücken in Thuringia. He studied jurisprudence at Wittenberg, and afterwards—having served meantime in the Prussian army—at Jena and Leipzig. He was then for some time in the service of the Duchess of Sachsen-Eisenach. He was made, apparently in 1750, professor of the cameral sciences in the newly-founded Ritter-Akademie (Theresianum) at Vienna, and is by some accused of having changed for the time his religious profession in order to obtain this appointment. The outline of economic doctrine which he prepared with a view to his lectures was warmly approved by the then minister Haugwitz, and he was employed in various commissions by the government. In 1753 he quitted the Austrian service, and at Erfurt and Leipzig engaged in various literary undertakings for a livelihood. In 1755 he settled at Göttingen as member of the council of mines and commissioner of police. In 1757 he went to Copenhagen, and, coming thence to Berlin, was made director of mines and superintendent of glass and steel works. He was, however, frequently in collision with his colleagues and subordinates, and was finally disgraced in consequence of a deficit in his accounts, due apparently not to fraudulent design, but to his improvident household management and singularly unsystematic mode of life. He died a prisoner in the fortress of Küstrin.

Justi was a man of remarkable gifts and indefatigable industry. His importance in the history of political economy arises from the fact that he was the first German systematic writer on the science. In his earlier publications he stands on the basis of the mercantilist doctrine, but in his later works he was influenced by the encyclopædists and tended towards views similar to those of the physiocratic school. His principal economic writings were: *Staatswirthschaft oder systematische Abhandlung aller ökonomischen- und Cameralwissenschaften*, 1755, dedicated to the Empress Maria Theresa, of whose political practice his work is the theoretical counterpart; *Entdeckte Ursuchen von dem verderbten Münzwesen*, 1755, in which he denounced the debasement of the currency by the King of Prussia and the Duke of Würtemberg; *Grundsätze der Polizeiwissenschaft*, 1756, a treatise on administration, a branch of theory of which L. von Stein declares him to have been the father, but which he unduly extended so as to make it include the subjects of the circulation of money and public credit; in this treatise occurs his well-known dictum that a state cannot have too many inhabitants; *Abhandlung von den Steuern und Aufgaben*, 1762, in which he proposed to substi-

tute for excise duties a tax on the net profits of traders; and *System des Finanzwesens*, 1766, dedicated to Frederick the Great; this was the first systematic work in German on the subject of finance; it gives, says Cossa, the rational classification of public expenses, and contains a good account of sources of revenue, but an insufficient treatment of public loans. In the spirit of the mercantilists, he regards taxes as "bridles" to be used by a government in directing the industry of producers into the lines most advantageous to the whole community. A number of his minor pieces on economics were published collectively in two vols. in 1760-61, and another series in three parts (1761-64), in which the most remarkable is *Von der Finanzverwaltung des Postwesens*, in which he objects to the monopoly possessed by the state post-office, and condemns the practice of making the post, in any great degree, a source of public income.

[Inama in *Allg. Deutsche Biogr.*—Lippert in *Handb. der Staatswissenschaften.*—Roscher, *Gesch. der N.O.*, p. 444.—Cossa, *Introd. allo studio dell' E.P.*, p. 259. See, too, Hasbach's *Untersuchungen über Adam Smith*, 1891, pp. 224-25, 229. Best account in G. Marchet, *Studien über die Ueberwaltungslehre in Deutschland*, 1885.—Seligman, *Taxation*, 1895.] J. K. I.

JUSTICE or JUSTICIARE is a word frequently used by Madox in his description of the collection of a scutage. When a tenant *in capite* was unable to make his tenants pay the amounts due from them, he was in the habit of obtaining the permission of the court of exchequer to *justiciare tenentes suos*, meaning thereby, to distrain on their goods, and, if necessary, to call in the aid of the sheriff to enable him to do so. (*See* KNIGHT'S SERVICE.)

[Madox, *History of the Exchequer*, London, 1769.] A. E. S.

JUSTICE, ALEXANDER (c. early 18th century), besides his work *A general treatise of the Dominion and Laws of the Sea*, ancient and modern (especially French and English), together with a proposal to abolish *Pressing for the Navy*, 1705, which includes information on marine insurance, also wrote a *General Treatise of Monies and Exchanges: In which those of all Trading Nations are particularly described and considered. With an Account of all the Foreign Banks and different Species and Denominations of Monies . . . and of the Method and Practice of Foreign and Domestic Exchanges* (1707), a merchants' handbook of English and foreign coinage, banks, mercantile bills and notes, weights and measures, and exchanges. In the dedication, speaking of exchange, he says, "some years' experience I have had myself in that way of business," and the work is entirely that of a practical man, never touching the theoretical side of his subject.

[See Thorold Rogers, *First Nine Years of the Bank of England*, 1887, pp. 37, 42.] E. G. P.

JUSTICE SEAT. See FORESTS, MEDIÆVAL.

JUSTUM PRETIUM, "just price." The doctrine of "just price"—that there was for every article at a particular time a just price, for which alone it should be sold—played a great part in the economic teaching of the mediæval church, and had great influence upon the action of the public authorities. The stress which the great schoolmen, beginning with Peter Lombard, laid upon it from the 12th century onwards, must be explained not only by the growth of trade, but also by the revived study of the Roman law, which had laid down that every man had a natural right to overreach another; against this teaching the doctrine of the church must be regarded as a conscious protest. It was formulated systematically in the *Summa Theologica* of AQUINAS, who was followed by most subsequent writers. But although Aquinas and the other schoolmen felt no difficulty in proving that it was not allowable in conscience, whatever might be the rule of civil law, to sell a thing for more than it was worth, they seldom gave much attention to the question what constituted just price. It is probable, however, that what some of them definitely stated, for instance LANGENSTEIN—viz. that a man could determine for himself the just price of the wares he had to sell by simply reckoning what he needed in order to suitably support himself in his rank in life—was assumed as a matter of course by Aquinas and other writers. The whole scholastic and canonist view of society rested on the idea of *status;* and this particular doctrine was only applicable so long as every class directly or indirectly engaged in production had a recognised standard of living. And even then difficulties were presented by wares like corn, the supply of which depended upon the seasons. Here it was impossible not to allow that the price must vary; but it was attempted to remove as far as possible all opportunity for the arbitrary exercise of the individual will, by insisting that the whole local supply should be laid before the whole body of purchasers in the open market. This was to a large extent the motive which guided legislation in the matter of forestalling, etc.

Knies and others have remarked that what the doctrine of just price aimed at may be described as a *normal* price, in accordance with *cost of production*, instead of a fluctuating price dependent upon the chances of the market. This is an accurate description, if it be understood that cost of production was to be determined by a fixed standard of living on the part of the producers, and was not to include any element of *interest*. Perhaps the contrast between mediæval and modern ideas of value is best expressed by saying that to us value is usually something subjective, consisting of the mental determination of seller and buyer, while to the schoolmen it was in a sense objective,

something intrinsically bound up with the commodity itself.

[W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- u. Rechtslehre*, vol. ii. (1883), v.—Ashley, *Economic History* (pt. i. 1888, pt. ii. 1893), §§ 16, 64.] W. J. A.

KACORAWNS, money once current in Guinea and Benin "which is *gold* drawn out into *wier*, and cut afterwards into small pieces for all triviall commodities." No minted coin appears to have been employed at this period (*circa* 1650) in these countries, the payment being made in gold and by weight.

[Lewes Roberts, *The Merchant's Mappe of Commerce*, London, 1638.]

KANE, Sir Robert John (1809-1890), was an Irish scientist and statistician. In 1843 he delivered a course of lectures in Dublin, which in the following year he published under the title of *The Industrial Resources of Ireland* (2nd ed., Dublin 1845, 8vo). His object was, he tells us, "to obtain materials for the discussion of the problem . . . what field of *work* does Ireland really present?" After describing the geological strata of Ireland, the lie of the coal and other mineral beds, her water power, agriculture, linen trade, and her excellent internal communication by means of navigable rivers, lakes, canals, and railways, he compares the low average cost of unskilled labour with the dearness and scarcity of skilled labour, and in conclusion insists that Ireland will never become rich by waiting idly for English capital to come to her: she must, the author points out, create a capital for herself, always remembering that "labour is capital: intellect is capital."

In 1846 Kane was knighted, and the same year was appointed director of the Museum of Irish Industry, for the foundation of which he had successfully agitated. In 1873 he was made a commissioner of national education, and, in 1877, elected president of the Royal Irish Academy. In 1880 he became vice-chancellor of the newly created Royal University of Ireland.

He published *The Large and Small Farm Question Considered*, 1844, in which he advocated the formation of small farms in Ireland.—*Address delivered at the Public Distribution of Prizes . . . by Sir John R. Kane*, Cork, Queen's College, 1850, 8vo.—*Elements of Practical Pharmacy*, Dublin, 1831, 12mo.—*Elements of Chemistry, Illustrated*, Dublin, 1846, 8vo; 2nd ed. 1849, 8vo.—*The Queen's University in Ireland and the Queen's Colleges; Their Progress and Present State*, Dublin, 1856, 8vo.—*The Irish Watering Places*, 1845, 8vo. A. L.

KANT, Immanuel (1724-1804). Kant was born and bred at Königsberg, East Prussia; and, except the few years when he was private tutor a few miles off, the whole of his life was spent in his native town. From 1755 to 1770 he gave lectures at the university on mathematics, philosophy, and theology, becoming professor of philosophy 1770, and doing the work of the chair till 1797. His *Critique of Pure Reason* appeared in 1781; *Critique of Judgment*, 1790; *Doctrine of Right, and Doctrine of Virtue* (*Metaphysic of Ethics*), 1797. His complete works fill eight stout octavo volumes in Hartenstein's newer edition (1867 *seq.*, Leipzig).

Kant is to modern philosophy what Adam Smith is to modern economics. Professor Oncken has even tried to show an agreement between them in philosophy (*Adam Smith und Immanuel Kant*, Leipzig, 1877). They agree, he says, in reintroducing teleology alongside of mechanism in the world. They both, he says, distinguish between the world of spirit and the world of sense, Adam Smith's *Moral Sentiments* being supposed to deal specially with the spiritual world, his *Wealth of Nations* with the sensible. Kant's dualism, however, was not merely of two aspects or elements of the same world; he conceived man to be member, at the same time, of two entirely different worlds. As the recipient of impressions from the senses man is strictly under physical law; his very motives, as sensible, are part of the world-wide chain of causes and effects. He is a phenomenon among phenomena. But as a moral being he is a law to himself and an end to himself, a cause but not an effect. He is a noumenon, a member of the intelligible as distinguished from the sensible world. It is impossible to find any conception closely approaching this in Adam Smith, though we may grant to Professor Oncken that the two philosophers both conceive religion to represent duty as divine commandment. Their agreement reaches farther in the neutral sphere of political philosophy. Kant conceives civil society as existing to secure not the happiness of its members, which depends on themselves, but their freedom. It is founded on an original contract, not as a fact of history, but as a logical postulate. All give up their original license under the law of nature, in order to get real liberty by a political union. This liberty is the end of all laws; the first principle of law or right is: "So act that your freedom shall not interfere with another man's freedom." Force may be used to secure this. Kant's view of the powers of the state approached absolutism, though he had also a weak side for the French revolution, and allowed that when men are ripe for it, a republic is the best form of government.

Originally, which means no more than in abstraction from civil society, all land was in common—Kant does not say all things were—

and private ownership is founded on the social contract, and therefore, in a sense, on a common ownership. The state secures private rights, and in return may tax private owners. It was argued that the state may impress citizens as soldiers, because the state alone allows these citizens to exist, and thus in a sense creates and owns them. But men should also be ends, not means.

Kant's state is essentially regulative rather than constructive or socialistic. The notion of contract is stretched by him very far, to include, for example, marriage. It is under the head of contract that he lays down most of his economic propositions, which are not very profound. He does not, like Locke, base property on labour; he defines money as the means of exchanging one man's industry with another's, but labour plays, on the whole, a minor part in his notion of economical arrangements. Silver seems to him the best money; and he finds an analogy between money, as a means of exchanging goods, and books, as a means of exchanging ideas. He quotes the *Wealth of Nations*, rather loosely, and speaks in praise of commerce and trade. Though the commercial spirit seems, like the aristocratic, unsocial, it will one day, he thinks, lead to the fulfilment of his fond hope of a permanent peace among the nations. In his *Anthropology* (1798) he gives his estimate of the nations as they were then. The French, he says, have given the world the language of conversation, the English the language of trade. The difference of national character appears even in the way in which, for example, a rich man is described. In English, "he is worth a million"; in Dutch, "he commands a million"; in French, "he possesses a million." In Kant's essay on the "Aufklärung" or *Illumination* (1784), and on Herder's *Philosophy of History* (1785), he gives his view of what was even then called evolution. It is, he says, essentially a notion of metaphysics, and not of physical science; but it is not therefore the less but the more trustworthy.

Kant's followers were often economists (see GERMAN SCHOOL), but he needs mention in a history of political economy chiefly because his philosophy begat that of FICHTE and HEGEL, which determined the character of modern German socialism.

[The best English account of Kant's whole philosophy is by Edward Caird, Master of Balliol, *The Critical Philosophy of Immanuel Kant* (Maclehose, Glasgow, 2 vols., 1889). The literature on Kant, both in English and in German, is very large. For the economical passages in his writings, compare Bonar's *Philosophy and Political Economy* (Sonnenschein, 1893).] J. B.

KARL FRIEDRICH (1728-1811), at first margrave, then (1803) elector, and finally (1806) grand duke of Baden, was born at Carlsruhe. Succeeding his grandfather before he was ten years old, he finished his studies, and visited France, Italy, England, and Holland before returning to Carlsruhe. His regime was tolerant and enlightened, and he attracted many residents to his state. He preserved his dominions from the evils suffered by others during the Seven Years' War, and made great sacrifices to maintain peace with revolutionary France. He excluded the *emigrés* from Baden, and remained faithful to the fortunes of Napoleon, by whose aid he greatly enlarged his possessions. His *Abrégé des Principes de l'Économie Politique* appeared in the *Éphémérides du Citoyen*, Paris, 1772, with a preface by Dupont de Nemours. It was dedicated to the Marquis de MIRABEAU, for whom the author had a profound admiration. He was the most important German convert won by the physiocrats. His book is of little scientific value and contains nothing original, but it produced a considerable effect at the time of its appearance, and has still a certain historical interest as proceeding from the chief of a State.[1]

[See C. Knies, *Carl Friedrichs von Baden brieflicher Verkehr mit Mirabeau und Du Pont* (Heidelberg, 1892).—Review of this in *Econ. Jour.*, vol. iii. 1892.] J. K. I.

KAY-SHUTTLEWORTH, SIR JAMES PHILLIPS (1804-1877), the founder of the modern national school system. He studied medicine at Edinburgh, where he took his M.D. in 1827. Both as student and practitioner at Manchester, he devoted much time to the housing and sanitary condition of the poor. The cholera outbreak in 1832 confirmed many of his conclusions, and resulted in the publication of his pamphlet on *The Moral and Physical Condition of the Working Classes employed in the Cotton Manufacture in Manchester* (London 1832, 8vo). In 1831, he published an anonymous *Letter to the people of Lancashire concerning the future representation of the Commercial Interest*. He was an ardent advocate for parliamentary reform and the repeal of the corn laws. In 1834 he was chosen to introduce the new poor law locally, and next year became assistant poor-law commissioner. In 1841 the government published his reports on the training of pauper children. The subject of national education became henceforth the study of his life; and in 1839 he was appointed secretary to a committee of privy council, nominated to dispose of public money voted for purposes of national education. This same year—with the help of a friend—he established the first training college for teachers at Battersea. During the cotton famine of 1861-65, Kay-Shuttleworth—who had been created a baronet under this name in 1849—worked vigorously to relieve, without pauperising, the poor. In 1863, he was high sheriff

[1] Refer to his experiment on *Impôt Unique*, and to account of this by Emminghaus mentioned *s.v.* IMPÔT UNIQUE.

of Lancashire, and in 1870 received the honorary degree of D.C.L. from the university of Oxford.

His numerous writings on educational and social questions are chiefly collected in the following volumes:—*Public Education as affected by the Minutes of the Committee of Privy Council*, 1846-52, London, 1853, 8vo.—*Four Periods of Public Education as reviewed in* 1832, 1839, 1846, and 1862, London, 1863, 8vo.—*Thoughts and Suggestions on Certain Social Problems*, etc. . . . London, 1873, 8vo.—*The Results of the Education Act*, Fortnightly Review, May 1876. A. L.

KELLEY, WILLIAM D. (1814-1890), born in Philadelphia, practised law, served as judge from 1846 until 1856; in 1854 abandoned the democratic party and became a republican and protectionist. In 1861 he entered Congress and served until his death. He was thoroughly identified with the cause of protection, serving for many years on the committee of ways and means, and for a portion of his term as its chairman. His loyalty to the protective system was unwavering, and is well expressed in a speech made 25th March 1870, which also illustrates the views of many of his party.

"Protection cheapens commodities; the internal revenue system is expensive and inquisitorial and should be abolished at the earliest possible day; free trade means low wages and a limited market for grain; protective duties are not a tax; protection stimulates immigration; skilled workmen are the most valuable commodity we can import."

He was earnest in his advocacy of legal tender treasury notes, convertible into securities, the interest of which should be payable in the same currency. In his support of legal tenders he opposed the extension of the national banking system. At the close of the civil war he opposed the contraction of the currency, and made a speech in favour of what he termed an inexportable currency. He also supported the silver legislation of 1878.

[His opinions are typical of a considerable group within his own party, and thus stand in economic history for more than an individual expression. They may be found expressed in *Speeches, Addresses, and Letters on Industrial and Financial Questions*, Philadelphia, 1872, pp. xxx. 514.] D. R. D.

KELLOGG, EDWARD (1790-1858), born in Norwalk, Conn., engaged in business in New York, and died there. His interest in economic questions was aroused by the crisis of 1837, for which various causes were assigned by different investigators. He came to the conclusion that commercial disturbances and economic evils in general were due to a lack of credit facilities. He consequently proposed a national currency to be based upon actual property or land security to be loaned to individuals at a uniform rate of interest and therefore of uniform value in all parts of the country. Through this agency wealth would be more fairly distributed, as labour would not be subject to capital.

This thesis is developed at length in *Currency, the Evil and Remedy*, by Godek Gardwell, N.Y., 1844.—*Labour and Other Capital, the Rights of each Secured*, N.Y., 1849, pp. 298; and in a revised edition of the latter, entitled *A New Monetary System the only Means of securing the Rights of Labour and Property*, N.Y., 1861, pp. 366. D. R. D.

KELP, RENT OF, instanced by Adam Smith (*W. of N.*, ed. M'Culloch, p. 66) to prove that rent may be exacted for land never improved by human industry. Kelp-burning was practised in Ireland long before it was begun, towards the middle of the 18th century, on the western coasts and islands of Scotland. Estates hitherto valueless brought in large kelp-rents to their owners; but since changes in chemical processes have greatly diminished the demand for kelp, many of the shores on which it was gathered below high water-mark have ceased to produce rent. In 1845 nearly one-third of the rental of one parish in the Orkneys was being paid for kelp, at the rate of two guineas per ton, a great decrease from earlier rates; in another parish the decrease was from £20 or £15 a ton to £5. As late as 1827 the landlords of a parish in Sanday island were estimated to receive a kelp-rent of £4320, or £9 a ton. On the chief estate in South Uist reductions in the price of kelp reduced the rental by more than two-thirds. When the price was high £20 a ton was an ordinary rent, and even in 1830 the net kelp-rent of the western islands of Scotland was £20,000, of North Uist alone £7000.

The manufacture still continues on the Irish coasts, though at lowered prices, ranging at present from £1 to £5 a ton according to quality and time of year.

Arthur Young (*Tour in Ireland*, 1780) gives several instances of rent paid by kelp shores; in Galway, he says, "the shore is let with the land against it, and is what the people pay their rent by" (p. 231); in Sligo he mentions an estate the coast of which let for £100 a year for making kelp (p. 215). But he gives few figures.

[*Statistical Account of Scotland*, 1845, vol. xiv., xv.—*Penny Encyclopædia*, 1839, art. "Kelp."—Brewster's *Edinburgh Encyclopædia*, 1830, art. "Scotland."—Private information from Ireland.—*Times*, 12th November 1890.] E. G. P.

KEMPER, JEROMMO DE BOSCH (1808-1876), son of Joan Melchior Kemper, born at Amsterdam, studied law at Leyden, 1825-1830. He became a famous criminalist, and from 1834-1852 was public prosecutor. In 1852 he was appointed professor at the university of Amsterdam. For a short time he was also a member of the states-general. He rendered great services to the study of statistics by founding the Dutch Statistical Society. His principal works on economical subjects are:—*Geschiedkundig onderzœk naar de Armoede in ons vader-*

land, hare oorzaken, en de middelen, die tot hare vermindering zouden kunnen worden aangewend (Historical Inquiry into Pauperism in our Country; its Causes and the Means to diminish it), Haarlem: Erven Loosjes, 1851. *Handleiding tot de kennis van de wetenschap der samenleving* (Treatise on Social Science), Amsterdam, 1863.

Kemper belonged to the historical school. His works give evidence of enormous reading on a variety of subjects. His method is eclectic. He advocated scientifically and politically the "*juste milieu*"; but his principles are somewhat vague.

His treatise on social science is a very important work, full of learning; it is an introduction to his political history of Holland, and his system of Dutch public law.

A. F. v. L.

KERNETTY was one of the items in the revenue of the petty princes of Ireland, as distinguished from the monarch. It was a land tax of 3s. 4d. per acre on ploughed land, and was devoted to the maintenance of the prince's mansion house. C. A. H.

KERSSEBOOM, WILLEM (1691-1771), a Dutch actuary, and an able representative of those economic students who followed the method of inquiry styled political arithmetic (see ARITHMETIC, POLITICAL), was brought into notice through his books written between the years 1737-1742. He was an official in the financial administration of the province of Holland, which at that time possessed sovereignty; and having to superintend the government contracts relating to annuities, was led to calculate one of the earliest tables of mortality and survival. On these tables, calculated by means of direct observation, he bestowed a vast amount of labour. They served as the basis for the valuation of life annuities, in those days an important source of revenue to the Province, and won him a well-merited reputation as an actuary.

He endeavoured to calculate also the number of the population by applying his tables of survival to the number of the births. This ingenious estimate, made at a time when exact statistics of the population were yet unheard of, would have secured his reputation, had the number of births on which he based the whole calculation been correct. This, however, was not in the least the case, the number of births being only a rather rough estimate. The value of these books as statistics is therefore not equal to their ingenuity.

[On Kersseboom, see X. Heuschling, *Bull. de la Comm. Centr. de Stat. de la Belgique*, tome vii. p. 397; Dr. A. Boaujon, *Jubilee volume of the Paris Stat. Soc.*, 1866, p. 66; John, *History of Statistics*, i. p. 227 *et seq.*; also article in *Handwörterbuch der Staatswissenschaften.*] C. A. V. S.

KEYS, QUEEN'S (Scots Law). That part of a warrant which authorises a messenger-at-arms to break locks, in order to get at a debtor or his goods. A. D.

KHRAN. The standard of value and the money of account in Persia. A silver coin weighing 71 grains; fineness varying from ·760 to ·900. Value: English standard (925 fine at 5s. 6d. an oz.), 8·4d.; French standard (silver francs 900 fine), ·88 franc. F. E. A.

The exchange value of the khran has fallen greatly since 1865, owing as much to uncertainty as to its intrinsic value as to the fall in the gold price of silver. C. A. H.

KIND, PAYMENTS IN. The payment of rent, wages, and other dues in commodities other than money, usually in agricultural produce—known in England as payment "in kind"—was, in early society and in mediæval times, but part of a condition of things to which HILDEBRAND (*q.v.*), and many German economists and historians following him, have given the name "Natural-wirthschaft." In this "natural," as opposed to a "money," "economy," the distribution of wealth, so far as it took place at all outside the family, was effected by equivalencies of land, services, and commodities, especially of grain, without the intervention of money: feudalism has been not inaptly described as but a peculiar form of "natural economy." In the earliest economic stages, payment in kind may be looked upon as an outcome of the method of barter which prevailed in all exchanges; but long after barter had disappeared in all ordinary buying and selling, the periodical dues of serfs and even of other tenants continued to be paid, partially at least, in kind. Over large parts of Europe the practice has survived to the present day in the shape of MÉTAYER tenure (*q.v.*). In industry, the payment of wages partly in commodities was among the earliest evils complained of upon the rise of the domestic manufacture, and gave rise to legislation in England as early as 3 Hen. VIII. The TRUCK SYSTEM (*q.v.*), as it was called, continued to exist in spite of renewed legislative prohibition, and became even more widespread upon the advent of the "great industry." The act of 1 & 2 William IV. c. 37 went far to destroy it, but it lingered on for some time, here and there, in various forms.

[Bruno Hildebrand's distinction between *Natural-* and *Geld-wirthschaft* is referred to in his *Nationalökonomie der Gegenwart und Zukunft* (1848), and worked out at length in an article in his *Jahrbücher für N. O.*, vol. ii. (1864). For the English Middle Ages see Ashley, *Econ. Hist.*, i. pt. 1, § 6; for the German, K. W. Nitzsch, *Gesch. d. deutschen Volkes* (2nd ed. 1892), *passim.* Adam Smith, following the physiocrats, regarded the metayer tenure as altogether unsatisfactory, and declared that rents in kind and rents in service were "always more hurtful to the tenant than beneficial to the landlord" (*W. of N.*, bk. v.

ch. ii. art. 1). J. S. Mill, however, took up its defence, so far as Italy was concerned, and "regretted that a state of rural well-being . . . should be put to hazard by an attempt to introduce . . . a system of money-rents and capi-talist farmers" (*Principles of Political Economy*, bk. ii. ch. viii. § 4). Of the truck system a brief account is given by Brentano, in Schönberg's *Handbuch d. P. Œ.* (1882), i. 971. Adam Smith held that "the law which obliged the masters in several different trades to pay their workmen in money and not in goods" was "quite just and equitable." The truck method has been commonly, and no doubt justly in the main, condemned as a means of undue control by masters over their men. Yet some among the thorough-going Radicals objected to the legislation of 1831, and maintained that "such state interference in freedom of contract" was "always mischievous" (see *Frederick Hill, an Autobiography*, 1893, p. 76).] W. J. A.

KING, Charles (fl. 1713), chamberkeeper to the treasury, merchant of London, was the editor and joint author of the *British Merchant*, a periodical published in opposition to the government, in 1713-14, during the controversy on the 8th and 9th clauses of the Treaty of Utrecht. These clauses provided (1) that all subjects of Queen Anne and the king of France should enjoy the same commercial privileges as the most favoured nation; (2) that, on the part of England, the duties on French goods should not be greater than the duties on those of any other country, and all prohibitive laws passed since 1664 should be repealed; (3) that, on the part of France, English goods should be rated according to the tariff of 1664, and all laws contrary to that tariff should be repealed. The approach to freedom of trade implied in these clauses aroused the opposition of the commercial classes, and when Defoe defended the government proposals in the *Mercator*, the *British Merchant*, under the editorship of Charles King, was published in order to counteract his influence. In addition to King, the writers who contributed articles were, Henry Martin, "who had the greatest hand in them," Sir Charles Cooke, Sir Theodore Janssen, James Milner, Nathaniel Toriano, Joshua Gee, Christopher Haynes, David Martin, and others. The agitation was successful, and the obnoxious clauses were abandoned. In 1721, King collected the papers and republished them with the title *The British Merchant; or, Commerce Preserv'd*, 3 vols. 8vo. By the order of the Earl of Sunderland when he was first lord of the treasury, a copy of this work was sent to every parliamentary borough for the use of the inhabitants.

[For a notice of King, see *Dictionary of National Biography*.] W. A. S. H.

KING, Gregory (1648-1712), was perhaps the ablest of the small group of 17th century writers who laid the foundations of statistical investigation in England. His work, *Natural and Political Observations upon the state and condition of England*, 1696, was for that period a remarkable achievement, and there is much in it of permanent value and interest. Only certain sections of it, however, published in Charles Davenant's *Essay upon the Probable Methods of making a people gainers in the Ballance of Trade*, etc., London, 1699, 8vo, were accessible to King's contemporaries. In 1802 George Chalmers appended large selections from it to his *Estimate of the Comparative Strength of Great Britain*, etc., London, 8vo; 2nd edition, 1804, 8vo. Chalmers also published a complete edition with the title, *Natural and Political Observations and Conclusions upon the state and condition of England*, 1696, by Gregory King, Esq., Lancaster Herald. *To which is prefixed, A Life of the Author*, etc. A new edition, London, 1810, 8vo.

In this work, King states that "the ensuing treatise depends chiefly upon the knowledge of the true number of the people in England, and such other circumstances relating thereunto, as have been collected from the assessments on marriages, births, and burials, parish reports, and other public accounts." Section i. deals with the population. Taking as the basis of his calculations the returns from the hearth tax, on Lady Day, 1690, King reckons that there were 1,319,215 houses on that day. He allows an increase of 1000 per annum, and subtracts 1 in 36 or 37, which he estimates were improperly included in the hearth-tax returns. He thus calculates that in 1696 there were about 1,300,000 inhabited houses. He then calculates the "number of souls" per house from "the said assessments on marriages, births, and burials in several parts of the kingdom" to be $5\frac{1}{2}$ in London, within the walls; $4\frac{1}{2}$ full for the six parishes without the walls; $4\frac{1}{2}$ almost for the rest of the bills of mortality; $4\frac{1}{3}$ "at a medium" for cities and market towns; and 4 "at a medium" for villages and hamlets; he adds 104,460 for omissions in the assessments; 80,000 "transitory people and vagrants"; and reaches a total of about 5,500,000. In section ii. he discusses "the proportion of England, in acres and people, to France, and Holland to Europe, and to the world in general; with a calculation of the number of the people now in the world"; in section iii. "the several distinctions of the people, as to males and females, married and unmarried, children, servants, and sojourners." Using the same authorities, he calculates that in London and the district covered by the bills of mortality there were 10 males to 13 females; in cities and market towns, 8 to 9; and in villages and hamlets, 100 to 99. In section iv. he discusses "the

several ages of the people"; in section v. "the origination and increase of the people of England"; and concludes (1) "that although each marriage in London produces fewer people than in the country, yet London in general . . . is more prolific than the other great towns; and the great towns than the country; (2) that if the people of London of all ages were as long-lived as those in the country, London would increase in people much faster *pro ratâ* than the country"; and (3) that the principal checks in London on the growth of population were immorality, luxury, and intemperance, "greater intenseness to business," "unhealthfulness of coal and smoke," and a relatively greater disparity of age between husbands and wives. On the last point he gives some observations based upon the Lichfield registers. In section vi. he deals with "the annual income and expense of the nation as it stood in anno 1688"; giving his famous "Scheme" printed by Davenant, and the quantity of silver and gold in England, France, and Holland, in Europe, and "the world in general"; in section vii. "the several sorts of land in England, with the value and product thereof." In his estimate of the "yearly consumption of flesh," he calculates that there were 1,280,000 persons who by reason of their poverty did not contribute to church or poor, and consequently eat not flesh above 2 days in 7, and 1,020,000 who received alms and consequently eat not flesh above once a week." His estimate of the influence on the price of corn, if a defect of one-tenth, two-tenths, be in the harvest, was adopted by many subsequent writers.[1] Sections viii. to xiii. are taken up with calculations of revenue, the probable yield of certain taxes proposed by him, a comparison of the state of England, France, and Holland, etc. There are also appended to Chalmers's edition of King's work "A scheme of the inhabitants of the city of Gloucester," and "A computation of the endowed hospitals and alms houses in England."

[Full particulars of King's life and a list of his heraldic and other works are given in the *Dictionary of National Biography*.] W. A. S. H.

KING, PETER, Lord (1776-1833), collaterally related to the philosopher Locke, is perhaps best remembered by economists in connection with the instructions which he issued in 1811 to his tenantry requiring them to pay their rents in gold, or in notes sufficient by the purchase of gold "to secure the payment of the real intrinsic value of the sum stipulated." King thus practically asserted the fact of the *depreciation* of the Monetary Standard (see BULLION COM., Report of); the theory had been stated in his *Thoughts on the Effects of the Bank Restriction;* 1st. ed., 1803, 2nd ed., 1804, under title, *Thoughts on the Restriction of Payments in Specie at the Banks of England and Ireland.* In this classical tract King lays down two tests of depreciation, the market price of bullion and the state of the exchanges ("King's Law," Macleod, *Theory of Banking*). It should be observed that the depreciation which King attributed to the bank-notes was understood by him in a wider sense than what has been called DEPRECIATION *proper* — diminution in the value of the paper relatively to gold. Thus, he assumes in his *Thoughts* (1803) that the bullion has not become dear but the paper cheap (Lord Fortescue's edition, p. 76). And in the speech justifying the letter to his tenantry (1811), he maintains that "the gold itself, compared with the best standard of value, has in all probability become much cheaper and more abundant" (*ibid.* pp. 240-244). The contrary is affirmed by Mill (*Pol. Econ.*, bk. iii. ch. xiii. § 6), following Tooke (*History of Prices*, pt. i.). The "great city job," as King called the bank restriction, was not the only object of his attack; he also directed a brilliant tract and several speeches in parliament against the "grand land job," the corn laws.

[Lord King wrote the *Life of Locke;* his tracts and speeches relating to bank restriction, corn laws, and other economic subjects, are collected in the *Selection from the Speeches and Writings of the Late Lord King* by Earl Fortescue, 1844. There is an appreciative review of the *Thoughts* by Horner in the second volume of the *Edinburgh Review*. See also Ricardo's *Letters to Malthus*, pp. 148, 150; Hansard, 1822, vol. vii. p. 1397.] F. Y. E.

KING'S CATTLE (*i.e.* chattels) was a term applied to the Jews in early English history, because they or their estates were reckoned a part of the king's revenue, or rather a source of his revenue, taxable at will. The profits of the levies on them were sometimes farmed out (see JEWS, EXCHEQUER OF THE). C. A. H.

KING'S PEACE. At a time when private feud was prevalent in England, there were certain places and occasions which were specially under the protection of the king. To disturb the peace at such places and on such occasions was an offence against the king's peace. The king's peace was analogous to the peace of every household, which it was an offence to disturb, or to the peace of the church, which, however, soon came into the province of the king's peace, but it was a graver offence to disturb the king's peace than to disturb any other person's peace. Gradually the king's peace came to be extended beyond the small number of places which it protected originally. Thus it is provided in

[1] This estimate, sometimes known as "Gregory King's Law," is set out in full in the art. on CH. DAVENANT. It supposes that a defect in the harvest may raise the price of corn in the following proportions:—

Defect.		Above the Common Rate.
1 tenth	raises the price	3 tenths
2 tenths		8 ,,
3 ,,		1·6 ,,
4 ,,		2·8 ,,
5 ,,		4·5 ,,

the laws of William the Conqueror that violence on one of the four great public roads (Watling Street, Erming Street, Fosse, Hykenild) is a breach of the king's peace; and gradually the king's peace came to be extended over the whole kingdom. The officers appointed to keep order, and prevent and punish criminal offences were, therefore, called "custodians of the peace," subsequently "justices of the peace," and the words "against the peace of our Sovereign Lady the Queen" still occur in indictments for criminal offences.

[Sir F. Pollock, The King's Peace, *Law Quart. Rev.*, vol. i.—Pollock and Maitland, *Hist. of Eng. Law.*] F. S.

KINGSLEY, CHARLES (1819-1875), born at Holne vicarage, Devonshire, was son of the Rev. Charles Kingsley, who held the living of Barnack in Northamptonshire, 1824-1830, and was then at Clovelly, 1830-1836, until presented to St. Luke's, Chelsea, 1836-1860. To these surroundings in the fen country and the Devonshire village many of the influences moulding C. Kingsley's tastes may be traced. In 1831 he was sent to a school at Clifton, where he witnessed the Bristol riots of the same year, which, he said later, were his first lesson in social science. In 1836 he became a student of King's College, London, and in 1838 he entered Magdalene College, Cambridge. He threw himself with great eagerness into the many interests of the place, pursuing his studies in an erratic fashion, which prevented him from attaining the highest distinctions in his examinations. In July 1842 he was ordained to the curacy of Eversley, Hampshire, a place with which he was, with the exception of a very short interval, connected until his death, as he was presented to the living in 1844. In 1845 he was appointed a canon of Middleham. In addition to his pastoral work during these and the following years, Kingsley was engaged in writing, in teaching, and in studying social questions as they came under his own observation as a country clergyman, and as they were thought out by F. D. MAURICE, with whom an acquaintanceship, begun in 1844, soon ripened into friendship. In 1848 he accepted the professorship of English literature and composition at Queen's College, Harley St., of which Maurice was then president, but resigned on account of ill-health in the following year. Maurice's influence over Kingsley was unbounded, and on many points the latter claimed to be but the interpreter and populariser of his friend's views. Taking as active a part as his residence and work in the country permitted during the Chartist movement of 1848, Kingsley worked with J. M. Ludlow, Thos. Hughes, and others who, under the guidance of Maurice, advocated reform rather than revolution as the right method for the regeneration of society. He and the other Christian Socialists (see CHRISTIAN SOCIALISM) urged the adoption of Christian principles, as supplying the soundest basis for the socialistic views then coming to the front, while they promoted the cause of co-operation, as the best cure for the evils produced under the competitive system, by starting co-operative associations, and by pressing for parliamentary action in sanitary and other matters affecting the welfare of the working classes.

Kingsley's literary gifts were freely employed in various ways to point out grievances, to suggest remedies, and to give wholesome advice to labourers as well as to employers. Under the name of "Parson Lot" he contributed various articles to *Politics for the People*, a paper of which seventeen numbers were published; and to the *Christian Socialist*, a journal which was issued between Nov. 1850 and June 1851; while a pamphlet entitled *Cheap Clothes and Nasty*, 1850, appeared under the same pseudonym. To this period also belong his earliest novels, which aimed at spreading the same truths in a different form and to a larger circle. Thus *Yeast*, which appeared in *Fraser's Magazine*, 1848, raised social questions as they affected the rural population; while *Alton Locke*, 1850, described the condition of artisans in large towns. For the fearless expression of his views at this time Kingsley was frequently attacked with great bitterness, although his opinions were by no means extreme; his aim, as a reformer, was to awaken men to a sense of their duties and responsibilities, rather than to advocate measures which would deprive them of their privileges. In later life he displayed tory rather than radical tendencies, and as early as 1857, though dwelling in *Two Years Ago* on the necessity for sanitary reforms, there is a change in his attitude, induced by his own more prosperous circumstances and by the improvements which, in various ways, had resulted from the efforts of the Christian Socialists and others. His novel *Hypatia*, 1853, presents an earlier condition of society which had to face problems in some respects similar to those of his own day, while *Westward Ho!*, 1855, a story of Elizabethan times, marks his aversion to those Romish practices which seemed likely to be more widely spread as the result of the Tractarian movement. This same feeling is also reflected in his one drama, *The Saint's Tragedy*, which, though primarily describing mediæval conditions, clearly indicates his views upon current social and religious movements. In 1859 Kingsley was appointed chaplain in ordinary to the queen, and held the regius professorship of modern history at Cambridge, 1860-1869. In 1869 he was also appointed a canon of Chester, and in 1873 was preferred to a canonry at Westminster. This he retained until his death.

Kingsley was not only a conscientious parish priest, a favoured court preacher, an ardent social and sanitary reformer, a widely-read novelist, and a university professor, but also a keen sportsman, a zealous naturalist, and a poet of no mean order. The versatility and wide range of his interests led him to undertake work in many fields, while it hindered the attainment of the highest place in

any one direction; but it doubtless contributed to the widespread influence he has exercised over many different types of persons. To his teaching and example must be attributed no small share in the awakening of that increased earnestness in facing social problems which characterises the present generation.

Kingsley's works have been collected in thirty-six volumes, and include, in addition to the novels already mentioned, many volumes of children's books, sermons, lectures on history, on social and sanitary matters, on scientific matters.

[*Charles Kingsley: His Letters and Memories of his Life*, by his wife, 1877. — Hughes, T., *Memoir* in preface to *Alton Locke*, 1876. — *Life of F. D. Maurice*, by his son. — Kaufmann, M., *Charles Kingsley, Novelist and Social Reformer*.]

E. A. M.

KITE. The term "kite" serves to denote accommodation bills, when used systematically for the purpose of "raising the wind," or obtaining capital by pure credit for trading or speculation. Such transactions are frequently carried on in duplicate form, as when A draws upon B and obtains advances thereon under discount, and B draws upon A for the same purpose and to a corresponding amount. "Kiteing" has also been carried on, particularly in the United States, for obtaining the use of money even for one or two days by cross deposit of cheques for similar amounts in different banks, so as to obtain fictitious credit (see also ACCOMMODATION BILL). R. W. B.

KLOCK, KASPAR, also Glock and Glocke (1583-1655), studied law at Marburg and Cologne, and was successively one of the magistrates of Bremen and chancellor of the bishops of Minden and of the counts of Stolberg. He published collections of judicial decrees, which went through several editions, and two treatises on finance: the *Tractatus nomico-politicus de contributionibus in Romano-Germanico Imperio aliisque regnis ut plurimum usitatis* (Bremen, 1634); and the *Tractatus juridico-politico-polemico-historicus de Aerario* (1651 and 1671); "two unending, discursive, encyclopedic works, where economic, juridical, financial dissertations run along mingled up and with political, historical, and other digressions" (Ad. Wagner, *Finanzwissenschaft*, i. 33). A thorough mercantilist, most of his views are quite in keeping with mediæval practice, *e.g.* his strong partiality for fines and *amerciaments* levied on criminals, because of all taxes, "quae ad coercenda scelera imperantur," are "omnium justissima, utilissima et sanctissima." He is not, as many of his contemporaries, opposed to the extension of noble estates (*Rittergüter*), but is no friend of property in mortmain belonging to the church, and would see it entirely devoted to charitable and educational endowments.

He does not share the common admiration for the Dutch system of excise, which spread during the second half of the century; and, except in cases of urgent necessity, rejects taxation of bread and meat. His leading principle is that "all taxes ought to be proportioned to the wealth (*secundum facultatem patrimonii*) of those on whom they are imposed. Nothing but injustice can result from a want of proportion between the burden and the strength of those who are required to bear it."

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 210-217.] E. Ca.

KNIGHTHOOD, DISTRAINT OF. In the 12th century the holder of twenty librates of land (*v.* KNIGHT'S FEE) was expected to furnish a fully-armed warrior to serve for forty days in the year. In the reign of Henry III. all tenants-in-chief holding such an estate were compelled by writs issued to the sheriff to take up knighthood. Edward I. in 1278 showed his disregard of tenure by a writ enforcing knighthood upon all holders of land worth £20 a year, whether tenants-in-chief or not. Towards the end of his reign the qualification was raised to £40 a year, at which it remained. The penalty for not obeying the writ for distraint of knighthood was a fine, and such writs became in the future merely a method of raising money. The practice of issuing such writs became more and more rare, until it was revived in 1629 by Charles I., and they were strictly enforced during his eleven years of arbitrary government. The distraint of knighthood, with the other relics of the feudal system, was abolished at the restoration. R. L.

KNIGHT'S FEE. The Norman conquest introduced into England the tenure of land on military service, which is so prominent a characteristic of feudalism. At first the amount of service was not defined, but by the time of Henry II., the unit of assessment in the case of land held by military tenure was the *feodum militis* or knight's fee. This was not a fixed area of land, like the five hides which had been the qualification for thegnship (see HIDE), but was measured by the annual income derived from land. Land worth £20 a year was compelled to furnish a fully-equipped warrior to serve for forty days in the year. The extent of a knight's fee varied from two and a half to six hides. This measure was naturally the basis of SCUTAGE (see p. 510), which was a money payment in lieu of service in foreign wars. Lands held in socage were not measured by knight's fees but by hides.

[Stubbs, *Constitutional History*, i. 261-265.]

R. L.

KNIGHT'S SERVICE.

Origin, p. 508; Description of fee, p. 509; Personal Service, p. 510; Scutage, p. 510; Economic Aspects of Knight's Service, p. 510.

ORIGIN. Tenure by knight's service (*servicium militare*) is a feudal tenure by free and uncertain service. Free or honourable service consisted in attending the feudal lord to

war as opposed to base service, for example, ploughing his land. It is called uncertain because it was performed when demanded by the lord, and was not fixed in amount like the certain service of ploughing for a stated number of days or of paying rent.

In the returns to the Inquest of 1166 concerning knights' fees, quoted from the Black Book of the Exchequer by Mr. Round in the *English Historical Review*, there are instances of very early enfeoffment. For example, William de Colecherche holds by military service "de antiquo tenemento a conquestu Anglie." The holdings in Domesday are expressed in hides, not in knights' fees, but the survey was taken for the purpose of levying geld which was always assessed on the hide. The Ely History tells us that, in 1072, William I. ordered the abbots and bishops of all England to furnish to the army the forces due from them for an expedition against Malcolm, King of Scotland (*debita militæ obsequiae transmitti*): and that William II., at the beginning of his reign, exacted with harshness the *debitum servitium* imposed by his father on the churches. Long before the Conquest there was a tendency in England, from the allodial system of holding land independently and performing services as a member of the community, to the feudal system of holding by service due to a personal lord. From Alfred's time the consent of the witan to grants of bocland grew less important and the distinction between folcland and king's land less marked, so that each estate given by the king became looked upon as a grant entailing personal service to him. By the laws of Cnut (c. 77), even when estates of bocland were cut out of folcland, this land, if forfeited for cowardice in battle, became, not folcland again, but king's land. The thegn, two of whose qualifications were that he "had fully five hides of his own land" and "special duty in the king's hall," owed personal military service at his own expense, and the right of summoning the thegns belonged to the king. All this reminds us of the feudal tenant and his relation to his lord; the thegn has but to acknowledge that the five hides which give him his position are not "his own," but are held of his lord the king by the service already attached to them. Thegnage continued to exist in the north of England for centuries after the conquest. The northern thegns paid fines in commutation of personal service in Normandy in John's reign; and under the Tudors, their successors still owed military service against the Scotch for fifteen days in the year. In all these ways the English were approaching feudalism before they became the subjects of the feudal lord of Normandy.

Description of the Knight's Fee (*feodum militare*). This was the unit of assessment of the service due from a feudal tenant. A tenant-in-chief was enfeoffed by the service of furnishing to the king's army so many fully-equipped knights, this number being his *servitium debitum*. The formation of knights' fees was a gradual result of this arrangement between the king and the tenant-in-chief; for on the latter rested the responsibility of fulfilling his *servitium debitum*, and the means by which this was effected concerned only himself and the knights by whom this *servitium* was made up. Many early instances of subinfeudation, that is, of dividing the lands of a tenant into "fees" each of which furnished a knight, are found in church-lands. One reason of this is that it was a greater advantage to churchmen than to lay barons to have the fulfilment of their military service assured. The *servitium debitum*, however, did not take the place of the English military organisation. As the aid and trial by battle did not displace the geld and moot, so the *fyrd* or duty of every free man to serve, not by homage to a lord, but as a member of the community, existed side by side with knight's service. In 1138, the *fyrd* called together by the northern clergy and nobility, with Archbishop Thurstan at their head, won the battle of the Standard, and again in 1173 a Scotch invasion was repulsed by the fyrd of Yorkshire. The fyrd was re-modelled in 1181 by the Assize of Arms, which ordered every free man to bear arms. The holder of a knight's fee was to have a breast-plate, a helmet, a shield and a spear, and he who owed the service of more knights than he had enfeoffed, was to provide the same arms for these (c. 1). The Assize of Arms was enforced by Henry III. in 1252. The Statute of Winchester (1285) connected the fyrd very closely with the keeping of the peace, and directed that a view of armour should be held twice yearly (c. 6). The knight's fee usually contained an amount of land worth yearly £20, and as the value of land was not uniform, the size of a knight's fee was not everywhere the same. The normal size of a fee was four hides, each hide containing 120 acres; the five hides, which occur frequently as knights' fees, may once have been the holdings of Saxon thegns. The number of knights' fees created in England by William I. is given by Ordericus Vitalis as 60,000. Mediæval writers, however, often used 60,000 to mean simply a large number, and Stephen de Segrave, justiciary under Henry III., reduces it to 32,000. But the scutage raised under Henry II. was far too small to represent so many fees; and Alexander Swereford, compiler of the Red Book of the Exchequer, writes in 1230 of this number as "absurd and amazing," as he well might, for it would have left no English land to be held otherwise than by military service. Modern historians, have, like Swereford, put small faith

in these large numbers, and Mr. Round shows that the whole body of knights, from both the church and lay fiefs, "can scarcely have exceeded, if indeed it reached, 5000."

PERSONAL SERVICE.—Though personal service could be afterwards commuted for a fine, it was at first an essential condition of feudal tenure. The personal relationship of the feudal tenant to his lord could not be expressed more forcibly than in the oath of homage. He who, in return for his land, gave his services to his lord in the emphatic words "Ego devenio homo vester" was naturally expected to attend him in person to war, and to risk his own life in his service. Churchmen were, of course, exempt from personal service, though they held their lands from the reign of William I. as baronies, but the *servitium debitum* was due from them as from the lay barons, and quite as rigorously exacted. Under the Norman kings, feudal tenants followed the king across the sea, and foreign service was not refused until the loss of Normandy in John's reign. From this time, frequent fines "ne transfretent" appear in the Pipe Rolls to escape service abroad, and in 1297 the earls refused to go to Flanders, because, as they very clearly told the king, there was no precedent for it—"videtur toti communitati quod ibi non debent aliquod servitium facere; quia nec ipsi nec predecessores sui seu progenitores unquam fecerunt servitium in terra illa." In the charter of the same year, Edward I. pardons all knights who had not obeyed his summons to Flanders; telling them, however, at the same time, that they have incurred "rancorem nostrum et malam voluntatem" (c. 5). From Richard I.'s time, tenants sometimes paid fines to send substitutes to the army instead of obeying the summons in person. The recognised term of service for a knight was forty days in the year, and, if the duration of service would exceed this time, the king's summons was expressed in the language of a request rather than of a demand. Edward I., in his writs for continued service in the Welsh war in 1277, uses the words "affectuose rogamus," and he has to satisfy the cautiousness of the barons by promising that the lengthened term of service shall not be a precedent. In 1157, Henry II. directed that every three knights should equip one of their number for three times the term of service, and this was also done by Richard I. and John, the latter ordering nine knights to provide a tenth with 2s. a day. This reminds us of the old use in Berkshire, where, according to Domesday, holders of one hide, instead of serving themselves, paid each 4s. to send a fully-equipped warrior for every five hides (i. 56).

SCUTAGE.—Scutage was a tax levied on the knight's fee, not on the hide like the English gelds. The *Dialogus de Scaccario* says that it was so called because it was paid by those who owed the service of the shield (*quia nomina scutorum solvitur*) (i. 9). The name first appears on the Pipe Roll of 1156, when Henry II. wanted supplies with which to carry on his war in opposition to his brother Geoffrey's claims on Anjou. The rate was 20s. on a fee, and it was only levied on church lands. The Great Scutage was levied in 1159 for the war in defence of Eleanor's claim on Toulouse. It was assessed not only on church lands, but on other fees both in Normandy and England, as a commutation for personal service: the rate in England was two marks, and in Normandy sixty Angevin shillings or fifteen English. From this time the word was generally used to mean a payment in place of military service, but, unlike the English *fyrdwite*, which was a fine incurred by neglect of the fyrd, the *Dialogus* tells us that scutage was levied because the king preferred to expose mercenaries rather than his own subjects to the chances of war (i. 9). Tenants-in-chief obtained writs from the marshal "pro habendo scutagio suo," empowering them to levy scutage on their under-tenants, and they might enforce payment by distress, or procure a writ to the sheriff for that purpose. Before 1166, the scutage paid to the king was only on fees formed before Henry I.'s death (*de veteri*), but after the Inquest of that year it was levied also on new fees (*de novo*), thus cutting off the profits of those lords who had enfeoffed more knights than their *servitium debitum* required. The rate of scutage under Henry II. varied from one mark to 20s. There were three scutages in Richard I.'s reign for the wars in Wales and Normandy, and under John, who increased other taxes also, the rate was raised to two marks and scutage taken almost yearly. Magna Carta provided that it should only be levied by consent of parliament (c. 12) and by the charter of 1217 it was to be taken as in the time of Henry II. (c. 44). But Henry III. "scutagium per totam Angliam sibi fecit extorqueri," and the rate in his reign was as high as three marks. Scutage became of less importance under Edward I.; after 8 Edward II. it was sometimes levied when the king went to war in person, until Richard II. remitted it on the occasion of his fruitless expedition to Scotland in 1385. It was abolished by statute 12 Car. II. (c. 24), 1661.

ECONOMIC ASPECTS OF KNIGHT'S SERVICE.—The feudal system was not without importance as a means of increasing the revenue. There were seven "feudal incidents" connected with knight's service by which this was effected.

1. *Aids* were at first benevolences granted from a feudal tenant to his lord when there was special need for them, "de gracia et non de jure," but the three chief aids early become recognised claims of the lord on his dependant (see AID, AUXILIUM).

2. *Relief*, so called because it "incertam et caducam hereditatem relevebat," was a fine paid to the lord by the heir on succeeding to a feudal tenure. The *Dialogus* gives 100s. as the fixed amount for a knight's fee in Henry II.'s reign, but says that the relief of a barony is still settled in each case by the king (ii. 10). Magna Carta determined the relief of a barony at 100s. "per antiquum relevium" (c. 2).

3. *Primer Seisin* was the king's right to one year's profit of the lands of a tenant-in-chief if the heir was of age.

4. *Wardship.*—The lord was entitled to the wardship of the heir until he was twenty-one and of an heiress until she was fourteen years of age (raised to sixteen by Stat. of Westm. c. 22) without accounting for the profits of the estate.

5. *Marriage.*—If a feudal ward refused a suitable marriage he forfeited to his guardian the value of the marriage; that is, the sum which a jury assessed, or which would have been paid to the guardian for the marriage. If after a suitable marriage had been offered, he married without the guardian's consent, he forfeited double value—but the double value was not exacted in the case of heiresses.

6. *Fines for Alienation* were payable if a tenant alienated the land without the lord's consent. These are only found from tenants-in-chief.

7. *Escheat* was the reversion of the fief to the lord, and took place if the tenant left no heirs of his blood or was guilty of treason or felony.

The feudal incidents gave room for much oppression, for nearly every important occurrence in the tenant's life could be made an occasion for enriching his lord. All the charters and reforms issued from time to time, not before they were urgently needed by the people, were chiefly directed against the severities of feudalism. The Inquest of Sheriffs, in 1170, shows how easily Knight's Service could lead to abuses. The king had been abroad for four years, and this inquest was to inquire into the proceedings of the sheriffs and bailiffs during his absence. By the statute of *Quia Emptores* in 1290, any free man could sell the whole or part of his holding to be held by the buyer immediately of the same lord and by the same services as formerly. Before this, if a feudal tenant alienated part of his land he had still to answer to his lord for the rents and services due from the whole, and became himself the lord of the purchaser. Subinfeudation had been carried so far (we find holdings of $\frac{1}{100}$ and $\frac{1}{200}$ of a knight's fee) that the feudal dues had to be paid in some cases to many under-tenants before they reached the lord, whose profits were thus diminished: the statute of 1290 gave him a direct claim on the actual holder of his land, and it also improved the condition of the latter by removing the small owners whose lordship had been oppressive. It did not, however, apply to tenants-in-chief, who could not alienate their land until 1 Edward III., and then only by a license for which they paid a third of the yearly value of the land. Besides the three recognised aids, the under-tenants often paid their lord's debts to the Jews, and, though they are sometimes said to do so "pro bona voluntate," such very good will as this was probably only produced by the oppressions of feudalism. By Magna Carta no scutage or aids were to be taken without the consent of parliament except the three lawful aids, and these only in reasonable amounts (c. 12) and, as in Henry I.'s charter, it is expressly set forth that these reforms shall affect the under-tenants (c. 15). Further, all tenants-in-chief are to be summoned to parliament with forty days' notice before any other aid is levied (c. 14)—so carefully had experience taught the barons to guard their rights and their money against their feudal lord the king. The aid in 1168, for the marriage of Henry II.'s daughter Maud to the Duke of Saxony, the first occasion of a levy on the new enfeoffment, was at the rate of one mark on the fee; for Richard I.'s ransom in 1193, the aid was 20s. on the fee, but so large a sum was needed (£100,000) that a tax was also levied on land not held by military service; the aid granted by parliament to marry Henry III.'s sister Isabel to the Emperor was at the rate of two marks. But the amounts were not fixed until 1275, when the statute of Westminster directed that the rate should be 20s. on the fee, and that the aid should not be demanded until the son to be knighted was fifteen, or the daughter to be married seven years of age (c. 36): there could obviously be no settled rate for the aid for ransom. Edward III. levied an aid of 40s. on the fee, but without the consent of the commons, for knighting the Black Prince, in 1346. Scutage, the burden of which fell chiefly on the under-tenants, was an important contribution of feudalism to the exchequer, especially from the abolition of Danegeld in 1163 until its restriction by Magna Carta: and in Henry III.'s reign, money began to be raised by distraint for knighthood. Measures for this purpose were first taken in 1224, and in 1274 an inquiry was made into their enforcement by the sheriffs. The yearly value of land, the possessor of which had to receive knighthood or pay a fine, varied from £15 to £40, and in 1285 was as high as £100, but the normal sum was £20, the accepted value of a knight's fee. In 1278, Edward I. made knighthood obligatory on all who owned twenty librates of land, whether holding by military service or not. This measure not only increased the revenue by the fines it brought in, but also tended to break down the distinctions between the military and other tenants. The disorders and confusions of the Wars of the Roses had

the same tendency, but the feudal rents and services continued to be felt as oppressions until military tenures were finally abolished by Charles II. in the year after the restoration (Statute 12 Chas. II. c. 24).

[Blackstone, *Commentaries*, bk. ii. (1809).—Stubbs, *Select Charters* (1870); *Const. Hist.* (1880).—Freeman, *History of the Norman Conquest* (1867).—Gneist, H. R. von, *History of the English Constitution*, translated by P. A. Ashworth (1891).—Madox, *History of the Exchequer* (1769).—Hearne, *Liber Niger Scaccarii* (1728).—Norgate, K., *England under the Angevin Kings* (1887).—Pollock, F., *The Land Laws* (1887).—Round, J. H., *The Introduction of Knight-Service into England* (*Eng. Hist. Review*, July, Oct. 1891; Jan. 1892).—Maitland, F. W., *Northumbrian Tenures* (*Eng. Hist. Review*, Oct. 1890).—Hall, H., *An Unknown Charter of Liberties* (*Eng. Hist. Review*, April 1894).—Oman, C. W., *The Art of War in the Middle Ages* (1885); *Testa de Nevill* (*Record Commission*, 1807); *Pipe Rolls*, *temp.* Henry II., John, Ric. I., Henry III.; *Parliamentary Writs* I. (*Record Commission*, 1827).] M. T. M.

KNIGHTS OF LABOUR. See TRADES UNIONS, U.S.A.

KNOX, JOHN J. (1828-1892), was born in New York. After engaging in private banking he entered the service of the treasury department of the United States government in 1862; in 1867 became deputy-collector of the currency; and, in 1872, comptroller. The latter position he held until 1884, when he resigned and was chosen president of a national bank in New York city. He was an earnest advocate of monometallism; and favoured the continuance of the national banking system through the establishment of a safety fund.

J. J. Knox's twelve reports as comptroller of the currency contain valuable historical material relating to state and national banks. Among these reports those of 1875 and 1876 are the most important. In 1884 he published *United States Notes* (published New York; reprint, London) a history of the issues of paper currency by the government. D. R. D.

KOPECK. One hundredth of the Russian rouble; a copper token coin. Value at present time (1905) about ¼d.

Silver coins: 50 and 25 kopecks; 900 fine, weight 154·29 and 77·15 grains. Value (English standard), 1s. 0$\frac{1}{16}$d. and 6$\frac{3}{16}$d. Also token silver coins, 500 fine, of the nominal value of 20, 15, 10, and 5 kopecks, as well as token copper coins of 5, 3, 2, 1, ½, and ¼ kopecks. F. E. A.

KOPS, J. L. DE BRUYN (1822-1887), was born at Haarlem. He studied law at Leyden, 1840-47, was an advocate at Haarlem 1851, functionary at the department of finances at the Hague 1864, professor at the polytechnical school at Delft 1868, member of the second chamber of the states-general till his death.

He was one of the founders, and for some time president, of the statistical society of Holland, for years editor of its statistical year-book, and afterwards also of its statistical abstract (1881-83). In 1852 he founded the periodical, *De Economist*, and remained its editor till his death.

His economical works are: *Grondbeginselen der Staathuishoudkunde* (Principles of Political Economy), Leyden, 1850.—*Handelscijfers: overzicht van den In-uit-en doorvoer der Nederlandsche handelsartikelen in elk der Jaren* 1846-1855 (Statistics of Trade. Summary of the Import and Transit of Dutch articles of Trade in each of the years 1846-1855), Amsterdam, 1857. His essays, treating of a variety of subjects, however, mostly appeared in *De Economist*. In general he belonged to the school of Bastiat; as to taxation he was an opponent of excise duties, especially of local ones such as the OCTROI. At a later period he eagerly combated the duty on sugar. His chief merit is that he contributed greatly to popularising political economy by his simple and intelligible style; his work, *The Principles of Political Economy*, was for some time the most generally used text-book in Holland. A. F. v. L.

KOSEGARTEN, WILHELM (1792-1868), began life as a barrister in Hamburg, but was appointed in 1839 *docent* at the university of Bonn, and in 1855 extraordinary professor of political sciences at Graetz. In his *Betrachtungen über die Veräusserlichkeit und Theilbarkeit des Landbesitzes* published in 1842, he evinces a predilection most entirely opposed to the spirit of his time for mediæval forms of payment in kind or in labour, though, according to Roscher, he successfully dispels some of the delusive fallacies of the extreme advocates of the subdivision of land. His deep-rooted aversion to what a certain German school calls *Manchesterthum* and reactionary feelings are still more conspicuously displayed in his *Geschichtliche und systematische Uebersicht der Nat. Oekonomie*, Vienna, 1856; for him, a system based on self-interest and avarice must unavoidably lead to the pauperisation of the masses. He expresses a similar bitter hatred for free competition, manufactures, railways, machinery, schemes of universal money, weights and measures, etc., and a corresponding admiration for legislation against usury and the engrossing of corn, and in favour of state industries, etc. Constitutionalism also comes in for its share of reprobation, because in the actual state of conflict between capital and labour, it is impossible for the owners of property to represent the bulk of the nation.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 1025.] E. Ca.

KRAN. See KHRAN.

KRAUS, CHRISTIAN JAKOB (1753-1807), a distinguished German economist, was born at Osterode in East Prussia. In 1770 he went as a student to the university of Königsberg, where he was in intimate relations with Kant,

von Auerswald, and Hamann, and where he became, in 1781, professor of practical philosophy and cameral science—a position which he held till his death. In later life he abandoned most of Kant's views to which he had been attached, devoted himself altogether to economics, and lectured on agriculture, manufactures, trade, and finance. He translated in 1790 the political portion of Hume's *Essays*. He was an ardent admirer of the *Wealth of Nations*, which he was the first to make known and interpret to his fellow-countrymen. Adam Müller called him a "mere echo" of Smith; he was at least his earnest disciple. In 1797 he wrote: "For the last six years, and latterly without any concealment, I have not only expanded the only true, great, noble, and beneficent system" (by which he meant Adam Smith's) . . . "but have succeeded in possessing some excellent heads with it" . . . ; and again in 1796, "Scheffner has a perfect right to say that the world has never yet seen a more important book than that of Adam Smith; assuredly, since the time of the New Testament, no work has had more beneficial effects than this will have, if it should be more widely diffused and more deeply impressed upon the minds of all who have to do with public affairs" (Seeley's *Life of Stein*, i. 409). Von Schön says —"Kraus was my great teacher; he mastered me entirely, and I followed him without reserve." "It was from Kraus," adds Professor Seeley, "that he (Schön) gained that idea of the connection of national wealth with industrial liberty, which was to be embodied partly by his exertions in the emancipating edict of Stein's ministry" (i. 375). Kraus died at Königsberg, 25th August 1807. He published little except lecture programmes; his chief influence was exerted through his oral teaching. Von Auerswald, Herbart, Süvern, and Hüllmann edited (1808-1819) his *Vermischte Schriften* in eight vols., with a biography by J. Voigt; and his *Staatswirthschaft* was published by V. Auerswald (1808-1811), and reprinted at Breslau in 1837. He advocates in these writings the removal of monopolies and restrictions on trade, the free division and alienation of landed property, and the abolition of the system of gilds.

[See J. Kautz, *Theorie und Geschichte der National Ökonomik*, ii. 621.—Roscher, *Geschichte der deutschen Nat. Oek.*, 608.—*Handwörterbuch der Staatswissenschaften*, iv. 72.] J. K. I.

KREUTZER. One hundredth of the Austrian florin; a copper token coin.

There are also silver token coins of the nominal value of 20 and 10 kreutzers, and copper ½-kreutzer pieces. In the coinage which existed all over south Germany down to 1876 the kreutzer was the sixtieth part of the florin. Since the introduction, in 1892, of the new crown currency, the coinage of kreutzers has been discontinued. The crown, which is equal in value to half a florin, is divided into 100 hellers. The new heller being, therefore, of the value of half a kreutzer. F. E. A.

KRIES, Karl Gustav (1815-1858), appointed in 1844 extraordinary professor of political sciences in Breslau, resigned his chair in 1850, and was elected a member of the Prussian house of deputies. During a journey in England, he entered into connection with the Irvingites, and became subsequently a deacon of an "apostolical" congregation in Berlin, his religious feelings giving a tinge to his opinions on the treatment of the poor, a subject which he had personally investigated in England and on which he wrote a posthumously published book, entitled *Die Englische Armenpflege* (1863). During his Silesian professorship, he had already examined the state of the spinners and weavers of that province (*Ueber die Verhältnisse der Spinner und Weber in Schlesien*, 1845), and had written still earlier a history of taxation in Silesia under the Austrian rule (*Historische Entwickelung der Steuerverfassung in Schlesien*, 1842). In a review of John Stuart Mill in Rau's *Archiv* (new series, x. 378), he utters sentiments which have since widely prevailed in Germany. "The most important task of political economy is to show how the relation of man to inanimate things, how his sentient nature, is and must be the basis and spur to his mental and moral development. Just now it ought to explain how different is an emulation tempered by considerations of justice, equity, and of the well-being of our fellow-citizens from a headlong competition only caring about self-interest."

[See Roscher, *Geschichte der Nat. Oekonomik in Deutschland*, p. 1043.] E. Ca.

KRÖNCKE, Klaus (1771-1843), a Hessian privy councillor and inspector of the Rhine, published his theories almost exclusively in the shape of algebraical formulæ. In his *Steuerwesen nach seiner Natur und seinen Wirkungen untersucht* (1804), and in his *Anleitung zur Regulirung der Steuer* (1810), he recommends for agricultural countries a single and direct tax on persons and not on things, apportioned by the fiscal authorities according to the physical and mental productive capabilities and actual faculties, whether corporal or incorporal, of each taxpayer, professional incomes being rated lower than life interests. He proposed to abolish all indirect taxes, but he would allow the taxes on industrial incomes to be adjusted so as to exert an educational influence on the national industry. "If out of ten, even only one of such attempts succeeds, the gain ought to be considered."

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 664.] E. Ca.

KRUG, Johann Leopold (1770-1843). A graduate of theology in Halle, he gave up in 1799 the ecclesiastical career in order to devote himself to statistical researches, for which he

had always felt inclined, and having attracted the attention of the king of Prussia by a pamphlet on the *Serfdom* (*Leibeigenschaft*) *of the Prussian Peasantry*, he obtained in 1800 the appointment of privy *Registrator*, which gave him access to state archives. Later on, he organised the Prussian statistical board. His *Betrachtungen über den Nat. Reichthum des preussischen Staats* (1805) are described by Roscher as one of the first attempts towards a comprehensive statistical work. His other books are: *Ideen zu einer staatswissenschaftlichen Statistik* (1807); *Abriss der Staatsoekonomie* (1808); *Geschichte der Staatswissenschaftlichen Gesetzgebung im preuss. Staate* (1808); *Geschichte der Preussischen Staatsschulden*, which, written in 1823, was only published in 1861, a long time after the author's death, on account of some disagreement with the Prussian censorship. His acquaintance with early times is rather inadequate. Krug's opinion that all indirect and personal taxation is ultimately borne by land, and his rejection of such taxes, allows him to be numbered amongst the last followers of the physiocrats.

The favourite object of his studies was assistance to the poor. Opposed to workhouses and obligatory assistance, he recommends the principle of insurance (*Die Armenassecuranz*, 1810).

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 497, and his life by Inama in the *Allgemeine Deutsche Biographie*.] E. Ca.

KURICKE, Rein (17th century), a German author,—

Wrote, in 1667, a treatise entitled *Jus Maritimum Hanseaticum* (Gottingen), and also *Diatriba de Assecurationibus* (Hamburg, 1667). The *Jus Maritimum* was reprinted by Heineccius and included in his *Fasciculus Scriptorum de Jure Nautico et Maritimo*, Halle, 1740. According to Pardessus, (*q.v.*), the *Jus Maritimum* is simply the Latin translation with a commentary of the Lubeck *recess* (or ordinance) of 1614, which became the maritime law of all the cities belonging to the Hanseatic league. Pardessus himself gives its original German text with a French translation (*Collection des Lois Maritimes*, vol. ii. pp. 528-558); in his opinion, Kuricke's long and learned commentary might usefully be reduced to a few pages (see Law Merchant). E. Ca.

LABORDE, Alexandre, Comte de (1774-1842), was born at Paris and died in the same city. This author, the son of a well-known banker to the court who perished in 1794 on the revolutionary scaffold, and the father of a distinguished archæologist, is known from an economic point of view by his work, *De l'esprit d'association dans tous les intérêts de la communauté* (1818, 8vo; 2nd ed. 1821, two vols. 8vo; 3rd ed. 1834, 8vo).

It would appear from what Laborde has written that he must have heard Adam Smith and J. B. Say spoken of; but this is about all he appears to have known of them. We must, however, recognise in this author an unaffected, honest, and unprejudiced mind. He lays weight on the importance of labour and of the value of liberty in economic matters. A. C. f.

[The work, *De l'esprit d'Association*, develops the advantages to a community of the spirit of association in all its branches: Industrial association to assist production; military association to secure possession; the advantages of credit associations; benevolent, scientific, literary associations, etc. It is interesting as marking the ideas of association current at the time before protection was advocated so strongly as has been the case since—before, on the other hand, socialism and communism were as prominent as they are now. *Dictionnaire de l'Économie Politique*, ed. Coquelin et Guillaumin.]

LABOULAYE, Edouard René Lefebvre (1811-1883), was born and died at Paris. He was perhaps rather an enlightened and determined liberal than an economist; but well read as he was in moral and political science, in history, and in law, as well as in political economy, he exercised a powerful and happy influence on the political fortunes of his country. A brilliant speaker, he knew how to impart a serious and instructive tone to his works, which were many in number and varied in character, without injury to their style. Like Alexis de Tocqueville, whom he greatly admired, he was a strong partisan of decentralisation.

Laboulaye wrote *L'État et ses Limites*, 1863, the title of which sufficiently indicates the object of the work. In *Paris en Amérique* he displayed a humorous spirit which emphasises the difference between American and European manners and customs. *La Liberté religieuse*, 1850; *Le parti liberal*, 1863; *L'histoire des États-Unis depuis les premiers essais de colonisation jusqu'à l'adoption de la constitution fédérale* (1620-1789), etc., are, as well as his *Études morales et politiques*, works from which an economic spirit is never absent, though the inculcation of political economy is not their first object. By direct statement and indirect allusion he was an enthusiastic and eloquent populariser of the science. His high-minded and loyal character was held in the highest esteem both by his opponents and his friends. He translated, or it may rather be said paraphrased, the works of Franklin and Channing.

Laboulaye was a deputy to the national assembly, and afterwards a senator for life. He occupied from 1848 onwards the chair of comparative legislation (*Legislation Comparée*) at the college of France.

Curiously enough, Laboulaye, who so well appreciated the better side of the American institutions, never crossed the Atlantic.

A. C. f.

LABOULINIÈRE, PIERRE (beginning of the 19th century), was a sub-prefect in France and Italy under the first French empire.

Laboulinière used the practical knowledge he had acquired in this capacity to write the following works:—(1) *Plan d'une statistique générale pour le Piémont* (1803); (2) *De l'influence d'une grande révolution sur l'agriculture, le commerce, et les arts* (1808); and (3) *De la disette et de la surabondance en France; des moyens de prévenir l'une en mettant l'autre à profit et d'empêcher les trop grandes variations dans le prix des grains*, 1821. Laboulinière recommended a system of *réserves à domicile* (home-stores). In years of plenty associations were to be formed, protected, and helped by the state, and local authorities were to buy corn at the market price, with the proviso that the farmer was to keep it in store until the next year of scarcity, when it was to be sold. The farmer, who had been paid in cash at the time of the purchase, was to get either a share of the profit or an indemnity proportionate to the length of time during which the corn had been stored in his granaries. E. Ca.

LABOUR. In everyday life we speak of the labour either of man or of domesticated animals (see *Wealth of Nations*, ed. M'Culloch, supp. note i.). The earlier economists too, as a rule, sought merely to interpret popular language. "The *Wealth of Nations* contains scarcely a definition" (Senior, *Pol. Econ.*, p. 5). Adam Smith in general restricts the term labour to *human* exertion, while speaking, on occasion, of "labouring cattle" (*Wealth of Nations*, bk. ii. ch. i.). He, however, departs from popular usage when he asserts that in agriculture "Nature labours along with man" (bk. ii. ch. v.). But M'Culloch, insisting on the absence of any fundamental distinction between the operations of domesticated animals, of machinery, and of nature, defines labour as including each: "any sort of action or operation, whether performed by man, the lower animals, machinery, or natural agents, that tends to bring about any desirable result" (*loc. cit.* cp. J. B. Say, *Cours Complet d'Économie Politique Pratique*, 1828-30, pt. i. ch. ix. pp. 239-40, also *Traité d'Économie Politique*, 2nd ed., 1814, bk. i. ch. vii. pp. 52-53. See Senior's criticism, *Pol. Econ.*, ed. 1872, p. 57). If, however, this be the logical outcome of popular usage, the line of thought it indicates is from the economic standpoint irrelevant. In the department of production man stands forth as, with more or less success, subjugating the rest of nature, a task in which his labour is certainly more efficient in proportion as he utilises, rather than combats, nature's forces. It is, doubtless, also more efficient the more he is aided by the capitalised labour of the past, whether that be realised in domesticated animals or inanimate machinery. Nevertheless, in the department of distribution the contrast between labour and capital is of fundamental importance. Both these distinctions M'Culloch's definition tends to obscure. Confusion in the subject matter is the natural sequence of such a wide interpretation of the term labour, just as on the other hand confusion ensues when, on the strength of an analogy indicated by Adam Smith (*W. of N.*, bk. ii. ch. i.), but valid only for certain purposes and within certain limits (see LABOUR, SKILLED). CAPITAL is made, as by Say (*Cours Complet*, pt. i. pp. 284-285, 316) and M'Culloch (*Principles*, 5th ed. pp. 294-295), to include, for general purposes, the labour power or even the person of the labourer (cp. Böhm-Bawerk, *Positive Theory of Capital*, trans. Wm. Smart, 1891, pp. 50-54). Hence most economists, to adapt the term labour to scientific use, have restricted its signification (cp. Sidgwick, *Principles*, 2nd ed. p. 51).

Again, the era of machinery, with its substitution of intelligence for strength (Marshall, *Economics*, vol. i. bk. iv. ch. ix.), has widened the popular conception of labour; still, physical exertion is the paramount idea. Scientific analysis, however, has resulted in including mental exertion also. From the economic standpoint the cabinet minister, or the *entrepreneur*, labours no less than the navvy. Hence particular discussions necessitate qualifying epithets, *e.g.* *unskilled* labour, or labour *of management*. At the same time, it appears that the extension of the conception adopted by Courcelle-Seneuil and others, and implied in the phrase "labour of saving" (*travail d'épargne*), is a departure from the ideas and language of everyday life, accompanied by no corresponding gain for the purposes of science (cp. Böhm-Bawerk on "Labour Theories" of the origin of interest, in *Capital and Interest*, Eng. trans., 1890, bk. v. p. 300 *seq.*).

Economists are, however, at one with popular usage in regarding labour as, on the whole, irksome exertion, or such as would not be undergone but for the stimulus of some ulterior aim, *e.g.* the desire to provide for present or future needs, or, it may be, to avoid the lash. (On the comparative inefficiency of the latter stimulus, see Cairnes, *The Slave Power*, 2nd ed., 1863, p. 44 *seq.*). J. B. Say's definition, "action suivie, dirigée vers un but" (*Traité*, 2nd ed., vol. ii. p. 476), is simple but too comprehensive; since, as Senior points out, it covers "a walk taken for the purposes of health, and even the exertions of an agreeable converser" (appendix i. to Whately's *Logic*, ed. 1855, p. 233). And, as the same author elsewhere remarks, "Ordinary language does not allow us to consider those undergoing labour who exert themselves for the mere purpose of amusement" (*Pol. Econ.*, ed. 1872, p. 57). High authorities,

it is true, have regarded labour as essentially disagreeable (see J. S. Mill, *Principles*, bk. i. ch. i. § i.). Jevons, however, while emphasising the painfulness of labour, admits that, when the irksomeness of beginning is over, the worker, entering into the spirit of his work, finds in it for a time an excess of pleasure; and only when he begins to grow weary does the UTILITY (*q.v.*) of labour itself again approach zero, after which the irksomeness increases, till the labourer desists when the disutility of labour equals the utility of the reward (*Theory of Pol. Econ.*, ch. v.). Labour, it thus appears, though in general a DISCOMMODITY (*q.v.*), is not universally painful (cp. Sidgwick, *Principles*, 2nd ed. pp. 37-38, 58 n.).

To sum up, labour is effort, bodily or mental, put forth by human beings, not exclusively for the sake of the pleasure immediately associated therewith, but, partly or wholly, with a view to the attainment of some ulterior object (cp. Jevons, *Theory*, 2nd ed. p. 183; Marshall, *Economics*, 2nd ed. bk. ii. ch. iii. § 2).

Senior (in appendix i. to Whately's *Logic*, ed. 1855, p. 233) asserts that "the word Labour signifies both the *act* of labouring and the *result* of that act" (see M'Culloch's criticism, that the phrase "accumulated labour" is "merely a compendious, though inaccurate, mode of signifying the accumulated products or results of labour"—*Wealth of Nations*, M'Culloch's ed. p. 435 n.). We certainly do consider labour with reference either to its internal or its external aspect,—to the mental and physical expenditure or to its productivity. The one is in no sense a measure of the other. Indeed, it is doubtful whether exact quantitative treatment is in either case possible (see *Wealth of Nations*, bk. i. ch. v.; Jevons, *Theory*, 2nd ed. 124-125, 221.; Sidgwick, *Principles*, 58 n., 92). At all events, economists have usually restricted themselves to an analysis of the determining elements of (1) intensive "quantity of labour" (see Nicholson, *Effects of Machinery on Wages* (1892), pp. 11-12, 26, 45 *seq.*, 77 *seq.*), or (2) efficiency. The latter includes, *firstly*, the causes which influence individual efficiency (see Walker, *Wages Question*, pt. i. ch. iii.; Sidgwick, *Principles*, 2nd ed. bk. i. ch. iv. §§ 4, 5), *secondly*, the nature of the organisation of labour (see Marshall, *Economics*, vol. i. bk. iv. ch. viii. to xiii.; Sidgwick, *Principles*, bk. i. ch. iv. §§ 6-8. See also DIVISION OF LABOUR; EFFICIENCY OF LABOUR; INDUSTRY, ORGANISATION OF).

Man's labour cannot produce matter but only utilities (see PRODUCTIVE LABOUR). Even thus, however, its *rôle*, as LOCKE (*q.v.*) shows, is sufficiently important. The American Indians, though they have a fruitful soil, "yet, for want of improving it by labour, have not one-hundredth part of the conveniences we enjoy; and the king of a large and fruitful territory there feeds, lodges, and is clad worse than a day labourer in England" (*Civil Government*, bk. ii. § 41.—cp. *Wealth of Nations*, bk. i. end of ch. i.). Indeed, to the labour of appropriation alone is due much that is commonly attributed to the bounty of nature (see CAPITAL, cp. Locke, *Civil Government*, bk. ii. §§ 40-43). "Labour was the first price, the original purchase money that was paid for all things" (*Wealth of Nations*, bk. i. ch. v. cp. introd. p. 1). It is, at any rate, evident that the aggregate of labour involved in the production of any commodity includes much more than that immediately concerned. To form the "strange catalogue" (Locke, *Civil Government*, bk. ii. § 43), a practically infinite regress of acts must be taken into account, many of which, however, since they enter into the final act of production in merely infinitesimal quantities, may, in practice, be neglected (cp. J. S. Mill, *Principles*, bk. i. ch. ii. § 1). For certain, though not for all purposes, the labour indirectly involved may be treated as condensed in the material and immaterial capital immediately employed (see Ricardo, *Principles*, ch. i. §§ 3, 4;—Böhm-Bawerk, *Capital and Interest*, trans. Wm. Smart, 1890, pp. 97-102, 297-300; and bk. vi., especially p. 375 *seq.*—Wieser, *Natural Value*, trans. C. A. Malloch, 1893, bk. v. ch. ix. x.).

[An exhaustive treatment of such a fundamental conception as labour would involve a discussion of many of the most vexed questions in economics. See COMFORT, STANDARD OF; POPULATION; PROPERTY; SOCIALISM; VALUE; VALUE, STANDARD OF; WAGES; and authorities cited in text.

The subject is admirably treated in Prof. J. S. Nicholson's *Principles of Pol. Econ.*, vol. i., 1893, bk. i. ch. v.] A. B. C.

LABOUR AND CAPITAL. The employment of these two terms as the antitheses of one another has for long been a commonplace of popular discussion. Disputes between capital and labour, the interests of capital, and the claims of labour, are topics familiar to every student of journalistic and periodical literature. Nor is it until the last few years that any serious doubt has been thrown in economic treatises upon the reality and appropriateness of the antithesis. The prominence, which has lately been given in those treatises to the functions of the employer in the production of wealth, and to his share in its distribution, has tended to substitute a new antithesis, for, on the one hand, trade disputes, it is seen, arise between employers and employed rather than between capitalists as such and labourers as such, and, on the other, if there be an antithesis between capital and labour, the employers, as such, may claim a place together with the employed in the ranks of labour. A group of writers, among the more distinguished of whom have been Bagehot in our own country, and General Walker in the United States of America

have shown that the employer is the moving and the guiding spirit of modern industry, organised, as it is, on the grand scale; and that he may, with the remarkable development of the banking and bill-broking system which has obtained in England and America, own but a fraction of the capital employed in his business. Accordingly capitalists may furnish him with capital, and labourers may offer to him their labour; and, if either of these two parties has a quarrel with the other, they only fight from behind the back of the employer, who has to bear the real brunt of the conflict. From this point of view, undoubtedly, the disputes, which occupy so prominent a place in popular discussion, are misnamed disputes between capital and labour, and should more properly be called disputes between EMPLOYERS AND EMPLOYED (*q.v.*). Again, recent writers on economics in England, like Professors Marshall and Sidgwick, have exhibited a disposition to consider the earnings of employers as belonging to the same genus as the wages of labourers; and although they may, making allowance for the human element involved, consider that both are determined by the same general principles as those which apply to the remuneration of capital, they have unquestionably tended to shift the antithesis from the position it has occupied in ordinary speech. For, if there be a real opposition between capital and labour, then the second member of the antithesis will include, on the arrangement of their treatises followed by these recent writers, a class which popular phraseology would certainly assign to the first. This alteration, despite the important developments of economic thought with which it is connected, and of consequences of no small pertinence to the validity of the arguments commonly employed in the discussions which have centred about the antithesis, has scarcely as yet established itself firmly even in scientific speech, and for the most part the phrase is used in its old familiar sense. It is in this sense that Mr. G. Howell, describing the history of Trade Unions, calls his book, *Conflicts of Capital and Labour*. It is in this sense that the late Mr. W. T. Thornton entitled his well-known treatise, *The Claims of Labour*. And it was largely in this sense also that Karl Marx gave the designation of *Das Kapital* to his epoch-making book; while it is certainly in this sense that many, if not most, of his numerous disciples, less acute in their economic analysis and less competent in their employment of subtle dialectic than their master, have been led into perverse interpretations of the constitution of industrial society. No doubt the employment of the term in this sense has given rise to serious misapprehension which might have been corrected by a more scientific analysis. But the employment is so stereotyped that Mr. Mallock, in a clever book on *Labour and the Popular Welfare*, is compelled to have recourse again and again to the familiar contrast, although he discerns clearly enough the fallacies it has occasioned.

It may be asked whether the antithesis between labour and capital is a reality; and the scientific answer states that it is both real and unreal. So far as the production of wealth is concerned, employers and employed are co-operating partners, and so, indeed, are labour and capital. In modern industrial society either of the two partners requires the services of the other. Nor are they merely necessary to one another, but it is their true interest that they should both be as efficient as possible. The more efficient they are, the larger will be the total amount of wealth produced; and the wealth so produced determines the absolute size of their shares in its distribution. It is the true interest, therefore, of the employers that the employed should earn sufficient wages to maintain them in the utmost efficiency of body, mind, and character; and it is the true interest of the employed that the earnings of the employer should be adequate to induce him to put forth his utmost powers in the organisation and development of his business. And similarly capital, requiring labour to co-operate with it in the production of wealth, needs as efficient labour as possible; and labour cannot dispense, without suffering for it, with capital of adequate quantity and quality. But neither efficient labour nor adequate capital will be forthcoming if it be discouraged by the smallness of its reward. So far, therefore, as the production of wealth is concerned, the interests of the two parties are harmonious, and the antithesis is unreal and misleading. But, given the production of wealth, the antithesis is strictly applicable to the distribution of the wealth so produced. Here employers and employed, and similarly capital and labour, find their interests conflict; for, the larger the share of the one party, the smaller must inevitably be the share of the other. When the older economists maintained that wages could not rise save at the expense of profits, just as when they insisted on the inelastic character of the wages-fund, they were possessed by the conception of a law of diminishing returns contracting the area of profitable employment of capital, and they did not keep continually present to their minds the possibility of increased production. Later inquiry has shown that an increase of wages, and also a diminution of the hours of the working-day, may be accompanied, if it only result in greater efficiency and a larger output, by no decrease—sometimes even by an increase—in the profits of employers and the earnings of capital. But, when once the amount of production is fixed, the possibilities of contests, bitter and protracted, over the distribution become imminent. So far,

then, as the production of wealth is concerned, the antithesis between labour and capital,—whether we interpret the phrase in the familiar sense, which would be more scientifically expressed as an antithesis between employers and employed, or whether we use labour and capital in the wider signification of agents in the production of wealth (including employers under the head of labour)—is certainly unreal; but, so far as the distribution of wealth is concerned, it is as pertinent as it is real. The scientific observer must here content himself with the sage, if ambiguous, counsel that neither party will act well or wisely for its permanent interests if it pushes any advantage it may happen to possess in the distribution of wealth so far as to affect prejudicially its production. It will then commit the error, celebrated in fable, of "slaying the goose which laid the golden eggs." But the application of this wise caution to practice is beset with so much difficulty that it may serve to restrain excess rather than to offer positive guidance. The combatants may be usefully reminded of their necessary dependence on one another, but they will not on that account be disposed to forget the inevitable opposition of their interests. Labour and capital will continue to be opposed in popular parlance; and the scientific student will be compelled to allow that the opposition has a basis in reason. The antithesis, therefore, whether the terms be used in a narrower or wider sense, cannot be said to be unreal. But it must be added that it has undoubtedly been responsible for no little amount of error. Partly this error has arisen from the particular expression given to the antithesis, and partly from mistaken ideas which have lain beneath it. Unquestionably the advocates of the claims of labour have frequently forgotten to consider the effects of the measures they support upon the production of wealth, and to remember that their constituents are equally interested with their opponents in increasing, or at least maintaining undiminished, that production. The idea of "making work by abstaining from work" is as delusive as it is attractive and popular, but it ignores the fact that production is the only source of distribution. Undoubtedly, too, it is possible that a strike may drive away a trade from a town, a district, or a country, and that the ultimate gain of a dispute may never be sufficient to compensate for the temporary loss. And, again, employers have not been always too ready to recognise the serious mischief of underpaid or degraded labour; and the history of the factory laws affords a warning, by no means unneeded, that employers—as indeed also parents and the nation at large—may at times of pressure sacrifice the permanent welfare of a country to its apparent immediate needs. Such errors as these connect themselves with an excessive emphasis laid upon the antithesis between labour and capital. Others arise from defective analysis, which the more scientific expression of the antithesis has done something to correct. The ardent hopes which were formed of the disappearance of industrial disputes with the inauguration of a system of co-operative production, connect themselves with such a faulty analysis. On the one hand, the importance of the part played by the employer, and the difficulty of discovering any effective substitute for him in co-operative management, have been slurred by the setting of capital in antithesis to labour; for it would then seem that it is only the acquisition of capital by labourers which is needed to remove that antithesis. On the other hand, a more deeply rooted fallacy lies beneath. For the antithesis is not so much between the abstractions capital and labour as it is between the concrete realities capitalists and labourers. The abstractions admit of reconciliation, but such reconciliation does not remove difficulties, which, so long as the main elements of human nature remain unaltered, must arise between men and women, capitalists and labourers. It is the individuals, and not the groups only, which are liable to quarrel, and, by setting up an antithesis between the groups as such, we are only too likely to forget the failings of the individuals who compose them. This subtle influence, which seems to attach to an abstraction, is probably responsible for another fallacy which may be noticed. It is a favourite practice with writers of a socialistic tendency, while laying immense stress on the mischievous nature of capital and the capitalistic system, and emphasising its inherent hostility to the interests of labour, to withdraw at the same time its pretended title to a useful place in the industrial economy by maintaining its original identity with labour. Out of labour it has come; and to labour its wrongful gains rightfully belong. If machinery be used in the production of wealth, it is in its origin the product of labour, and capital as such makes no contribution to that production. This reasoning, which occupies a prominent position on the pages of most socialistic treatises, is generally accompanied by a tendency to ignore, or to minimise, the functions of the employer; and in this respect it may be attributed to the faulty analysis which the altered statement of the antithesis between capital and labour has served to correct. But, as a matter of fact, while professing to insist on the antithesis, it endeavours in reality to remove its foundation. For, if capital be in its source and origin but labour, why should the two terms be opposed? The true answer is that the development of a phenomenon may be different from its origin, and may work such a change as to make it at once unreal and inaccurate to resolve the phenomenon into its primary source. In the

modern world what is known as capital is so distinct from what is known as labour that to explain the functions of the one by those of the other is to confuse and not to enlighten. It is a distortion of language and a misrepresentation of fact to argue that capital fulfils no function of its own in the production of wealth because it may ultimately have found its source in labour. The question is, what is it now, and not what it may have been a generation or more ago. The contention of the Austrian school of economists represented by Böhm-Bawerk, who regards capital as being essentially an exchange of present goods for future goods, is rarely more convincing than when its dialectic is employed in refuting that of Marx. One of the strongest reasons for the necessity of organisation to protect the interests of labour in the form of trade unions is that capital can afford to wait for the future, while labour, isolated and unorganised, cannot hold out for a reserve price, but must seek employment in the present. In this sense, then, there is a real antithesis, and it is an antithesis, not between employers (as such) and employed, but between capital and labour.

[Besides the books mentioned in the text the student may be referred to those under ARBITRATION; CONCILIATION, BOARDS OF; EMPLOYERS AND EMPLOYED; STRIKES; and TRADES UNIONS. The particular passages which should be studied in the books mentioned in the text are Walker, *Wages Question*, chs. i., xiii., xiv., and xv.—Bagehot, *Economic Studies*, pp. 52 and 53.—Sidgwick, *Principles of Political Economy*, bk. ii. chs. i., viii., and ix.—Marshall, *Principles of Economics*, bk. iv. chs. vi. and xii.; bk. vi. chs. i., ii., vi., vii., and viii.—Howell, *Conflicts of Capital and Labour*, ch. iv.—Böhm-Bawerk, *The Positive Theory of Capital* (Smart's translation), bk. ii. chs. i. and ii.—*Capital and Interest* (Smart's translation), bk. vi.—Cp. also Nicholson's *Principles of Political Economy*, bk. i. chs. v. and vi., for definitions of labour and capital.] L. L. P.

LABOUR DEPARTMENT. The development of the English labour department may be briefly traced as follows. In 1886 the board of trade was charged with the duty of supplementing, correcting, and systematising the statistics relating to labour, which had hitherto been only incidentally furnished in official reports. Mr. John Burnett, the general secretary of the Amalgamated Society of Engineers, was, accordingly, appointed to the newly-created post of "labour correspondent," and, with his assistance, the commercial department of the board of trade proceeded to draw up several volumes of wages statistics and to issue annual reports on trade unions and strikes. The services of experts also began to be engaged to furnish the board of trade with reports on special topics of industrial interest from time to time.

In 1893 the staff engaged in this work was enlarged, quartered in a separate office, and placed under the immediate control of a new official called the "commissioner for labour," and the labour department, thus equipped, undertook the task of preparing for monthly issue a journal called *The Labour Gazette*, in addition to the annual and other reports above mentioned. And, in 1896, an officer of the department was appointed to exercise the powers given to the board of trade by the Conciliation Act of that year. But the department has remained subject to the general supervision of the controller-general of the commercial, labour, and statistical departments of the board of trade, and is not represented in parliament by a special ministerial chief. Thus, factories, chemical works, and mines are inspected by the home office; the care of emigrants, seamen, and railway servants is entrusted to other departments of the board of trade; the protection of the accumulated capital of the working classes devolves on the registry of friendly societies; the superintendence of the action of local authorities as regards education, sanitation, and poor relief is divided between the education office and the local government board; while the post office, the war office, and the admiralty, and several other departments are large employers of labour. All these functions are discharged quite independently of the labour department of the board of trade.

Nor does that department, in its turn, monopolise the duty of preparing labour statistics,—a duty which is to a very large extent performed by the above-mentioned administrative departments in the course of their ordinary reports, while the task of preparing a decennial census of the occupations of the people is assigned to the general register office. Nevertheless, the labour department is doing a large amount of very useful statistical work, as illustrated by the following record of its publications during the first eight years of its existence (namely):—

"Six Annual Reports on Trade Unions" (*Parl. Papers*, c. 5104 of 1887; c. 5505 of 1888; c. 5808 of 1889; c. 6475 of 1890; c. 6990 of 1893-94, and c. 7436 of 1894).—"Five Annual Reports on Strikes and Lockouts" (*Parl. Papers*, c. 5809 of 1889; c. 6176 of 1890; c. 6476 of 1890-91; c. 6890 of 1893-94, and 7403 of 1894).—"Returns of Wages Published between 1830 and 1886" (*Parl. Papers*, c. 5172 of 1887).—"Return of Wages Paid in the Principal Textile Trades" (*Parl. Papers*, c. 5807 of 1889).—"Return of Wages Paid in the Minor Textile Trades" (*Parl. Papers*, c. 6161 of 1890).—"Return of Wages Paid in Mines and Quarries" (*Parl. Papers*, c. 6455 of 1890-91).—"Return of Wages Paid to the Police and to Persons Employed on Roads and at Gas and Water Works" (*Parl. Papers*, c. 6715 of 1892).—"Report on Wages of Manual Labour" (*Parl. Papers*, c. 6889 of 1893-94).—"Report on Sweating in the East End of London" (*Parl. Papers*, c. 331 of 1887).—"Report on Rates of Wages in Belgium" (*Parl. Papers*, c. 5269 of 1888).

—"Report on Sweating in Leeds" (*Parl. Papers*, c. 5513 of 1888).—"Report on the Condition of Nail Makers and Small Chain Makers" (*House of Commons Papers*, 385 of 1888).—"Returns of Expenditure by Working Men" (*Parl. Papers*, c. 5861 of 1889).—"Report on Profit-Sharing" (*Parl. Papers*, c. 6267 of 1890-91).—"Report on Wages and the Cost of Production" (*Parl. Papers*, c. 6535 of 1890-91).—"Two Reports on Alien Immigration from Europe to the United States of America" (*Parl. Papers*, c. 7113 of 1893-94).—"Report on Agencies and Methods for Dealing with the Unemployed" (*Parl. Papers*, c. 7182 of 1893-94).—"Two Reports on the Volume and Effects of Recent Immigration from Eastern Europe into the United Kingdom" (*Parl. Papers*, c. 7406 of 1894).—"Report on Profit-Sharing" (*Parl. Papers*, c. 7458 of 1894).—"Report on the Fishing Apprenticeship System" (*Parl. Papers* c. 7576 of 1894); and the *Labour Gazette*, London, May 1893, and monthly.

There are similar departments in the Dominion of Canada, the United States, Germany, and France. The United States and France publish a *Bulletin du Travail* monthly like our *Labour Gazette* (see BUREAU OF LABOUR, and BUREAU OF LABOUR IN THE UNITED STATES). T. G. S.

LABOUR EXCHANGE.

I. The Proposal, p. 520; II. The Scheme, p. 520; III. Labour Exchange Notes, p. 521; IV. The Principles on which Labour Notes were based, p. 522.

This term is sometimes used loosely as the equivalent of labour registry (see also BOURSE DU TRAVAIL). Accurately and historically it applies to a class of institutions which found much theoretical favour amongst early co-operators and the associates of Robert OWEN's propaganda. Numerous labour exchanges, marts, and banks flourished in England in 1832, 1833, and 1834 for the direct exchange of the products of labour according to the amount of labour expended in making them, without the intervention of money or the expenses of the ordinary machinery of distribution. Their fundamental principle was the doctrine that labour is the source of all wealth, and labour-cost the true measure of value: the operation of this principle was considered to be interfered with and distorted by the intervention of money, a monopolised and limited commodity, as a medium and essential of exchange. The exchanges met a popular requirement, and, had the constant efforts of the more clear-headed among their directors been successful in maintaining a strict commercial system of valuation, might have been long-lived. But the labour-value theory, and the conventional rating of all labour at sixpence an hour for purposes of valuation in exchange, or for labour notes, defeated these efforts. The valuation of the price of materials was also a constant difficulty. Sharp tradesmen took labour-notes in their shops, and picked out the goods in the exchanges that were saleable at a profit on their "labour value." This process accelerated the accumulation of stocks so that no one cared to take at the price of sixpence per hour for the time of their makers: the "labour-note" became depreciated *pari passu* with this depreciation of the security on which it rested; its depreciation enabled traders who took it to skim the deposits still closer, until the goods in stock, and the labour-note, had fallen to a commercial value below that which the workman of average skill could earn in the ordinary labour market in the time represented by their price, and the exchanges one by one collapsed, after furnishing a very interesting illustration to the history of theories of value.

[*The Crisis*, 1832-34.—Holyoake, *History of Co-operation.*—Noyes, *American Socialisms; Gazette of Labour Exchanges*, 1833-34.—B. Jones, *Co-operative Production* (1894), ch. viii.—*Labour Exchanges.—The Birmingham Labour Exchange Gazette.—Gazette of the Exchange Bazaars.*]

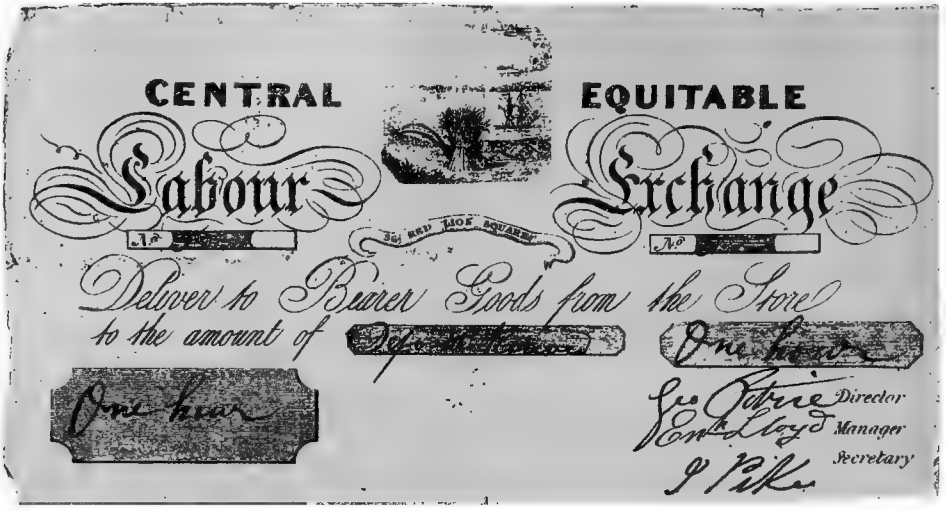
S. O.

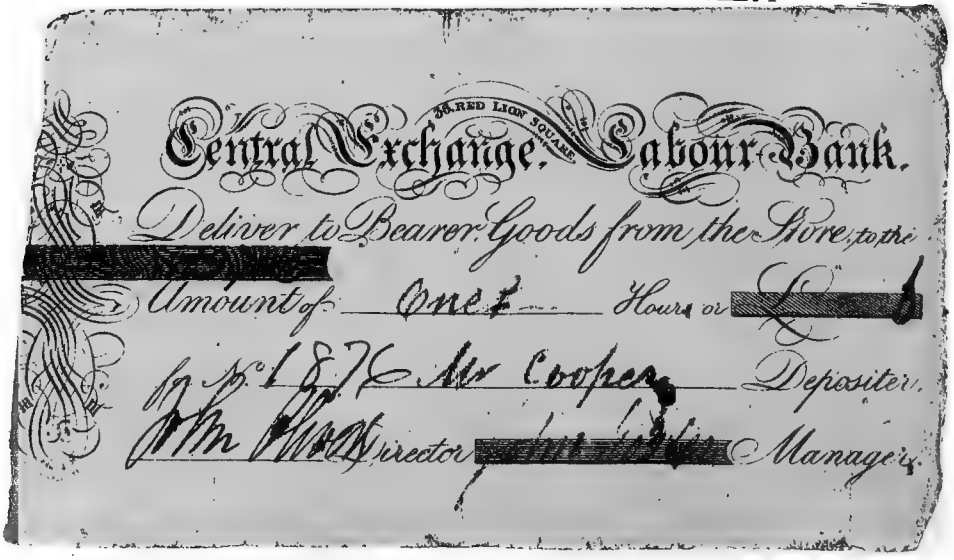
The history of this movement may be best brought under four heads: I. *The Proposal.* II. *The Scheme.* III. *Labour Exchange Notes.* IV. *The Principles on which Labour Exchanges were based.*

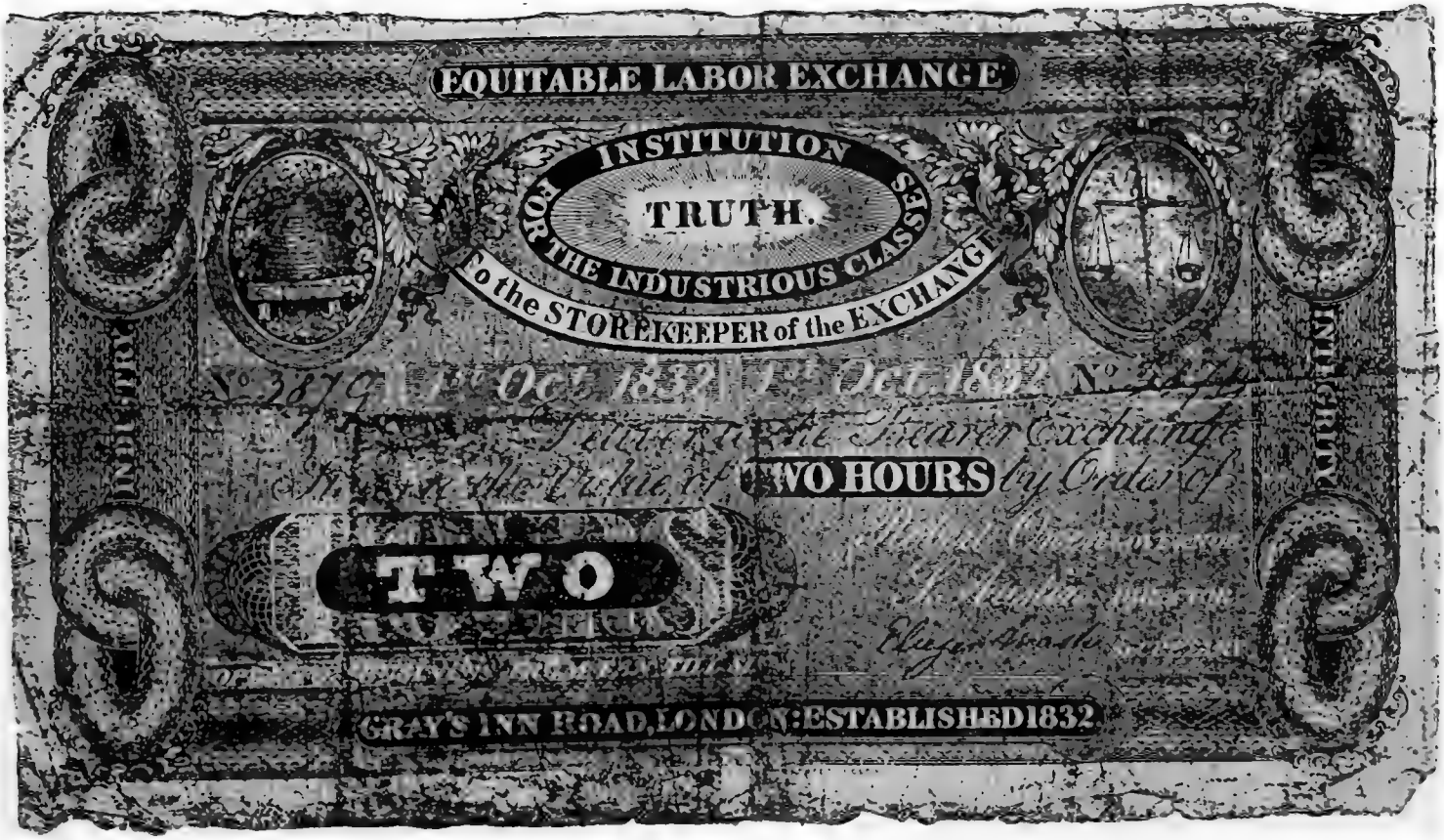
I. *The Proposal.* In 1820 R. Owen wrote that there were three stages in the history of exchange: (1) barter, which admitted "the only equitable principle of exchange," which was to exchange "the supposed value of labour in one article against the amount of labour contained in any other article" ("Report to County of Lanark," *Autobiography*, ii. 278). As wealth increased, barter became impossible, and (2) artificial exchange, or exchange through some medium with a value of its own, introduced the commercial stage, which forgot "the natural standard of labour." But the increase of wealth was superseding the use of the gold and silver standard, and had partly done so during the suspension of cash payments between 1797 and 1819 (*ib.* p. 266).

(3) The third stage began when exchange would be "equitable" as in the first stage, and by means of a medium, as in the second stage. The new medium, in order to reflect without deflecting the "natural standard of value," should not possess a value of its own. What was it to be? England had solved the question in 1797 by making the new medium bank notes. The new medium was to be paper. This plan only differed from its realisation in suggesting a day-unit for an hour-unit. In 1823 he recommended "notes representing any number of "days' labour or part of a day's labour" (*Reports of Meetings in Dublin*, p. 127). "Equitable labour exchange" applies therefore to barter as well as to exchange by labour notes.

II. *The Scheme. The First Scheme* (1827-30) is often attributed to Josiah WARREN, who after assisting in the disastrous communistic experiment of OWEN at New Harmony (1825-27; for Owen's plan, see below) became an individualist. No account is obtainable of Warren's first experiment (*c.* 1828) at Cincinnati. Warren's New Harmony experiment (1842) is thus described by Macdonald: the purchaser paid *in cash* wholesale prices plus 5 per cent for general expenses and added a promise to labour for, say, the hour during which the


CENTRAL
EQUITABLE
Labour
Exchange
No
No
30 RED LION SQUARE
Deliver to Bearer Goods from the Store
to the amount of
One hour
One hour
Geo Petrie Director
Ent Lloyd Manager
Secretary


30 RED LION SQUARE
Central Exchange. Labour Bank.
Deliver to Bearer Goods from the Store, to the
Amount of One Hours or
No 187 Mr Cooper Depositer.
Director Manager.


EQUITABLE LABOR EXCHANGE
INSTITUTION
FOR THE INDUSTRIOUS CLASSES
TRUTH.
To the STOREKEEPER of the EXCHANGE
INDUSTRY
INDUSTRY
TWO
TWO HOURS
GRAY'S INN ROAD, LONDON: ESTABLISHED 1832.

storekeeper attended to him; he then valued his promise in kind (or in cash?) and redeemed it accordingly (Noyes, pp. 96, 97). We do not read of the storekeeper buying with labour-notes but with cash, and in 1852 Warren said it was his rule that what was bought with cash must be sold for cash (*Equitable Commerce* by Josiah Warren, pp. 85, 91, 92, 109, etc.). The labour-notes were merely a medium for paying store servants for their trouble in kind. The only interest of the scheme is that it was a co-operative store. Warren had ulterior views no doubt, but these were to be carried out by corn-notes (*see below*).

In England, at that date "co-operative society" meant a club whose members subscribed 1s. a week or so to a "community fund," or a fund for starting an Owenite "village" in which producers should produce all that they wanted, and so turn communists; "trading associations" meant co-operative stores in the modern sense based on this community fund; and "union exchange" meant co-operative stores bought from co-operative producers. In August 1827 Dr. King grafted on "The London Co-operative Society" at 36 Red Lion Square, a "union exchange" (*Co-operative Magazine*, ii. 421), which Lovett called "The First London Co-operative Trading Association." During September, Owen, then on a flying visit to England, saw Dr. King and induced him to divide the community fund amongst the members each month. In announcing this change (1st December 1827), Dr. King wrote of his scheme as a scheme for "exchanging labour," which meant buying and selling at cost price, and as leading to everything Owen ever contemplated (*ib.* ii. 548). It is hard to see how the Owenite ideal of economical self-sufficiency could be obtained by a group of townsmen if they gave up the plan of a permanent community fund. But there was one other possible method, alliance with other groups of co-operative producers. This method was probably present to Dr. King's mind. Again on 1st October 1827 the Brighton co-operators, whose prophet was Dr. King, proposed a similar exchange union with labour-notes or "notes for the value of so much labour as is brought in" (*ib.* p. 511).

The example of London and Brighton spread through the kingdom, and we come to the *second scheme* (1829-34), whose *differentia* is the alliance of co-operative societies, in the modern sense, through labour-notes. On 13th January 1830, "The British Association for promoting Co-operative Knowledge" officially proclaimed the federal idea (London, *Co-operative Magazine*, p. 28), the idea of forming what the *Quarterly Review* of November 1829 (p. 373) called "a bazaar of co-operative shops." Owen, who had permanently returned to England in the previous August, inspired, but did not head the new departure. On 28th April 1832, the *Crisis* advertised an "exchange bazaar" in New Road, Marylebone, then the headquarters of the British Association, "on an equitable time valuation," under the signatures of Dr. King and Macpherson. According to Lovett (*Life*, p. 47), this meant labour-notes.[1] Owen, his hand being thus forced by his disciples, then published his full scheme (*Crisis*, 16th June 1832), with draft labour-notes (*ib.* 30th June), and rules (*ib.* 30th June and 8th September). Owen's "Institution"—as the headquarters of his "Association of the Industrious Classes, founded 1831," were called—was at Bromley's Bazaar, Gray's Inn Road. It had been a club for ventilating unpopular religious views, but was now quickly adapted to its new purpose. Deposits began 3rd September; exchanges, 17th September, and a branch office was opened 8th December in Blackfriars. The maximum deposits in the Bromley Bazaar reached 38,772 hours in one week, and after a month the branch office recorded 32,759 hours' deposits, 16,621 hours' exchanges (*Crisis*, ii. 7); (Holyoake writes £ for hours). The "institution" merged in the Blackfriars branch from January to May 1833, when it migrated to 14 Charlotte Street, Fitzroy Square, whence it formed a Birmingham branch which opened on 29th July and 12th August 1833 for deposits and exchanges respectively. This "institution" was by far the most important federal centre of the new movement, but while it invited non-members as well as members to deal with it, co-operative societies usually kept their organisations distinct from it. Owen undertook to absorb into it every trade, benefit, and co-operative society in the kingdom (*Crisis*, 14th April 1833), but a year later it abandoned industrial federalism (*Crisis*, 7th June 1834). In spite of this abandonment co-operative societies had been swept into the stream mainly by Owen. Pare (Owen's son-in-law) and Dr. King turned their clubs, "trading associations," and "union exchanges" into "equitable exchanges," federated throughout the length and breadth of the land, and in a year or two were nearly all engulphed (Booth says "all but four," *Robert Owen*, p. 154, but see *Working Men Co-operators* by Acland and Jones, p. 23).

III. *Labour Exchange Notes.* "This little and apparently insignificant instrument would bring prosperity to all,"—so said Owen of the *first* of the notes represented here (*Crisis*, 2nd October 1832), which bears date fifteen days after the Bromley bazaar stores were opened for Exchange. The example published in Lloyd Jones's *Life of Owen*, 2nd ed., 1895, p. 240, is marked "Birmingham Branch," has no reference to an eight hours' day (as the one given here has), but has the same pattern. "The sun of truth" recalls the titles of two Owenite newspapers, the daily and weekly *True Sun*. The beehive commemorates one of Owen's favourite fables (*Crisis*, ii. 40). The scales of justice adorn, also, J. Warren's corn-note of 1852. The note is in form a bill of exchange, and in substance a deposit-receipt, and therefore, unlike the I.O.U.'s devised by Warren, precluded credit. It was transferable in name and fact, but not in law. The *second* and *third* of these notes were obviously issued by the "London Co-operative Trading Association," and the word "central" indicates that they too were federating. There is no trace of notes actually issued by this or any other co-operative society before April 1832. E. Nash, the secretary of Owen's central association, whose name appears on the first note, often warned people against

[1] The commission charged was 8⅓ per cent = to 1d. in 1s.

notes issued by non-affiliated societies which worked on slightly different lines (*Crisis*, i. 143); perhaps this society was referred to. On 14th April 1833, "extensive premises in Red Lion Square, lately the Labour Exchange and Institution for the Working Classes," were advertised for sale; these premises were apparently referred to. *The third note* marks the point where the labour-standard degenerates into or emerges from the money standard. Owen's first draft-note (*Crisis*, 20th June 1832) also stated that "the price of labour is 6d. an hour"; but the rules explain that this superscription only meant that materials were valued thus; Warren's notes, which he suggested for general use, were as follows:—

Cost the Limit of Price.	*Seven Hours*	*Not transferable*	*7-12 pounds.*	Labor for labor.
(Figure of Justice) Justice	Due to Jacob Smith SEVEN HOURS' LABOR. In House Rent or SEVEN-TWELVE POUNDS of CORN.			

Warren's circulating medium, which he forbade to circulate, in effect substituted corn for labour, just as this third note substitutes corn or labour as the standard of value. This note is practically a bill of exchange; only a technicality of English law prevents it being regarded as such.

[Noyes, *American Socialisms.*—Benjamin Jones, *Co-operative Production* (1894), ch. viii. Labour Exchanges. For corn notes, see House of Commons' discussion, 11th and 12th June, 1822, and passages from Adam Smith and Locke cited by Western in support, and criticised by Ricardo.] J. D. R.

IV. *The Principles on which they were based.* As the ASSIGNATS (*q.v.*) were a paper currency based upon land, so Robert OWEN proposed in 1820, and his societies tried to carry out in 1832, a currency based upon labour. His labour notes were warrants issued on the strength of an hour's labour, and entitling the holder to goods from the store of the issuing exchange "to the value of one hour." Articles were to be exchanged at cost price, cost being assumed to be simply the labour spent on them. For the sake of bridging over the transition from the old currency to the new, labour was valued at 6d. an hour. Thus at the labour bank in the Gothic Hall, Marylebone, those who deposited goods at the stores were paid in labour-notes according to the value of the goods as so estimated.

For several months there was every sign of success, and some hundreds of London tradesmen agreed to take the notes in payment from their customers. The prosperity of the co-operative exchanges caused the rise of spurious rival institutions which soon forfeited the public confidence, and in the course of the year brought themselves and their models to a common ruin.

In any case no permanent prosperity could have been expected. Beginning with the error of treating all value as a matter of cost and all cost as labour, the promoters of the scheme were, besides, not equal to the task of distinguishing between the hour's labour of the skilled and industrious and the hour's labour of the unskilled or the idle. To discriminate accurately by having regard to length of training and to the ease or difficulty of the labour attested by the note would have complicated a scheme of which the most vaunted merit was its simplicity. Owen himself, too, was conscious that, especially at first, the ways and even the language of ordinary business must be preserved. But his followers, with few exceptions, were without discretion, and imposition was easy. Men brought goods that were unsaleable in the ordinary market, turned them into labour-notes, and with these notes drew useful and saleable articles from the stores. If careful valuation had been made for them by a common pawnbroker, the exchange societies might, at a small expense of dignity, have purchased a longer lease of life.

The idea of a labour note was in Owen's mind as early as 1820. In the Report to the County of Lanark, 1820 (*Life*, vol. ii. 267 *seq.*, he says that "the natural standard of value is in principle human labour," "the average of human labour or power may be ascertained; and, as it forms the essence of all wealth, its value in every article of produce may also be ascertained, and its exchangeable value with all other values fixed accordingly, the whole to be permanent for a given period. Human labour would thus acquire its natural or intrinsic value" (see VALUE, MEASURE OF).

Owen continues (*ib.* p. 278), "To make labour the standard of value it is necessary to ascertain the amount of it in all articles to be bought and sold. This is in fact already accomplished, and is denoted by what in commerce is technically termed the 'prime cost,' or the net value of the whole labour contained in any article of value the material contained in or consumed by the manufacture of the article forming a part of the whole labour." "The genuine principle of barter was to exchange the supposed prime cost of, or value of labour in, one article against the prime cost of, or amount of labour in, one article, against the prime cost of, or amount of labour contained in any other article. This is the only equitable principle of exchange," and it may be secured without sacrifice of modern improvements (p. 279), "by permitting the exchange to be made through a convenient medium to represent this value." He goes on (p. 304): "A paper representative of the value of labour manufactured on the principle of the new notes of the Bank of England will serve for every purpose of their [the association's] domestic commerce or exchanges and will be issued only for intrinsic value received and in store."

It must be said that these notes cannot fairly be compared with ordinary bank notes; they were not issued for profit or on a calculation of probable demands for payment, but simply to effect the exchange of two supposed equivalents both actually existing at the time of exchange. Over-issue was impossible, for the goods might be said to go with the notes, as with bills of lading. In theory they were always convertible. If depreciation occurred, it was because of the spread of disbelief in the possibility of carrying

out the conditions of the scheme, not from the nature of the case owing to an issue beyond the needs of the public.

[A. Held, *Sociale Geschichte Englands* (1881), i. 366-372.—Anton Menger, *Recht auf den vollen Arbeitsertrag*, 2nd ed. 1891, pp. 59, 94, cp. also pp. 89, 90, for the *Arbeitsgeld* of Rodbertus, and *passim* for parallels from later socialistic writers, with whom the idea became very popular.—The idea occurs in W. Herbert's pamphlet on *Harmony*, 1825, p. 32; and W. Thompson's *Distribution of Wealth*, 1824, p. 524.—G. J. Holyoake, *History of Co-operation* (1875), vol. i. ch. viii.—Benjamin Jones, *Co-operative Production* (1894), ch. viii. (the best short account).

Among the original authorities are the *Crisis* (organ of the co-operative societies), the Life of Lovett the chartist, and the Place Collection in the British Museum.] J. B.

Other "labour notes" besides these, appear to have existed. The following is a description of a proof of one which is preserved in a collection made by Francis PLACE, in four volumes of his, Owen's, and similar authors' writings ranging from 1817 to 1832 on *Labour Questions and Political Economy.*

Removed from the Gothic Hall to
No. 17 Hertford Street, Tottenham Court Road.

INDEPENDENT

EXCHANGE

Here is a view
of a Gothic Hall
4 stories high
with 7 windows
in front (copper plate)

BAZAAR

The true standard
of Value, is Labour

No. [illegible]

The Equitable
reward of Labour
is Equal Labour

No. [illegible]

Deliver to the Bearer, Goods
to the Value of [illegible] hours labour

Ten

(blank
not signed)

} Managers

At foot of the example from which this description is taken, is written, it is believed in Place's own handwriting—*discontinued.*

The "Gothic Hall" referred to, or rather depicted on the labour note described above, was in the New Road, Marylebone. It is described in an octavo page, broadside, in one of the four volumes collected by Place. The broadside says "Labour Exchange was begotten in the years 1827 and 1828,[1] but was not born until the month of April 1832, when it came into existence in the New Road, Marylebone, where it continued for some time to grow and thrive, and promised in due time to become a full grown man. But unfortunately, in the month of September of the same year, it was placed at nurse . . . in Gray's Inn Road. . . . After undergoing about four months' ignorant, experimental torture, it died, much lamented by all its real friends . . ." (Broadside is signed W. K., Charlotte Street, Portland Place, June 1835).

LABOUR IN PRISONS. See PRISON LABOUR.

LABOUR IN RELATION TO THE LAW. Under this heading it is proposed to sketch the general nature of the legal relations subsisting between wage-paid manual labourers and their employers.

Formerly, the law would not permit a workman to practise a skilled trade unless he had served a regular apprenticeship; and, in some industries, the ancient system of master, journeyman, and apprentice still survives. But, since the final repeal of the Statute of Apprenticeship (5 Eliz. c. 4) in 1814, it has been deprived of its legal sanction, and, in the larger industries, is rapidly becoming obsolete (see APPRENTICESHIP; APPRENTICESHIP, STATUTE OF).

At the present day, the nature of the legal relations between employer and workman, depending, as it does, so largely on the terms of the contract of service, varies very considerably. In the average case, however, the workmen employed in the larger and better paid industries are engaged for about a fortnight, although the contract is understood to be renewed at the end of that time, unless one or other of the parties shall have given a stipulated length of notice to terminate it. Every such contract is enforceable at law, so as to render liable to damages the employer ceasing to employ, or the workman ceasing to work without giving the stipulated notice, but not so as to enable any court to compel specific performance, or grant an injunction against a contemplated breach of the agreement. A workman leaving his employment voluntarily and without notice, cannot recover wages for the uncompleted period of service in the course of which he leaves. When summarily dismissed for no fault of his own, he can recover the full wages that would have become payable if he had received

[1] First published and recommended in No. 1 and 11 of the *Union Exchange Gazette*, and afterwards continued through the columns of the *Weekly Free Press* newspaper.

the proper notice; but, if he has been guilty of misconduct, he can only recover the wages, of which, at the date of his dismissal, payment is actually due. The types of misconduct that will justify the summary dismissal of a workman are: (*a*) dishonesty; (*b*) disobedience to lawful and reasonable orders; (*c*) habitual neglect in the discharge of ordinary duties; (*d*) drunkenness, or gross immoral conduct; and (*e*) incompetence; but, if a workman be ordered to do anything outside the sphere of the particular duties which he has expressly or by implication undertaken to discharge, he is not guilty of "disobedience to a reasonable order" in refusing to comply.

An employer can recover damages from any person who has succeeded in persuading his workmen to break their contracts with him, or in keeping them away from their work by force. He also has a right of action against any person who has employed his workmen after receiving notice of their previous engagement to work for him. He can recover from the workmen themselves the wages which their breach of contract has enabled them to earn elsewhere, and can even claim from the person who has wrongfully employed but not paid them, a sum equivalent to the value of their services. Finally, he can recover damages from any person who, by using or threatening to use violence, has deterred workmen from entering upon or renewing contracts to work for him, while any agreement that he may have made not to employ a particular workman or class of workmen is "in restraint of trade," and not enforceable against him.

Conversely, a workman can recover damages from any person who has succeeded in persuading his employer to break his contract with him, and he can even sue any person who, by threatening or using violence, has deterred him from entering upon or renewing a contract of service. Indeed, whatever may be said of an employer's freedom to choose his workmen may also be said of a workman's freedom to choose his employer.

The contract between employer and workman almost always includes a definite agreement as to wages, and from the sum agreed upon no deduction that is in contravention of the Truck Acts may be made (see TRUCK ACTS). If the wages are made payable "by the piece," the employer, being under agreement to pay them at specified periods, and not to terminate the contract without giving a stipulated length of notice, is bound to find employment for the workman between the date of the notice and the date of the termination of the contract.

An undertaking is implied on the part of the workman to conform to the general rules of discipline prevailing in the employer's service, and, so far as relates to the employer's responsibility for his workmen's personal safety, there is implied, on his part, an obligation to use due diligence to associate them with competent mates and superiors.

On leaving his employer's service, a workman cannot demand any testimonial of character. Testimonials given to him by former employers, however, are his property, although any person subsequently employing him may impair their value by writing an adverse opinion on the same paper. These "character-notes" are "privileged," and may, therefore, contain defamatory statements without exposing the writer to an action for libel. But proof of malice will destroy the privilege, and, whereas wilful falsehood proves the presence of malice, truthfulness does not prove its absence. A workman writing or uttering a false character of himself is guilty of forgery.

By the following statutes, the legal relation of employer and workman has been further defined.

The Preferential Payments in Bankruptcy Act 1888.—By this act, workmen are given priority over certain other classes of creditors in respect of the wages due to them from a bankrupt employer. Similar provisions are contained in the Companies Acts 1862 and 1867, in respect of the wages due from a company in process of winding up.

The Wages Attachment Abolition Act 1870.—This act forbids judges and magistrates to make orders for the attachment of workmen's wages.

The Truck Acts 1831 and 1887.—These acts compel employers to pay their workmen's wages in coin and in full (see TRUCK ACTS).

The Payment of Wages in Public Houses Prohibition Act 1883.—This act is, in its object, analogous to the Truck Acts.

The Employers' Liability Act 1880 *and The Workmen's Compensation Act* 1897.—These acts amend the common law of negligence as applied to the conduct of employers and workmen *inter se*, by making every employer liable, in certain specified classes of cases, for the personal injuries caused to his workmen (see EMPLOYERS' LIABILITY ACT).

The Factory Act 1901.—The primary object of this act is to regulate the conditions of labour in manufacturing establishments where "protected persons" (*i.e.* women, young persons, and children) are employed; but some of its provisions bear directly upon the employment of adult males. Among other statutes regulating the employment of protected persons, the Agricultural Gangs Act 1867; the Children Dangerous Performances Act 1879; the Prevention of Cruelty to, and Protection of Children Act 1872; and the Shop Hours Acts 1892 and 1895, may here be noticed (see FACTORY ACTS).

The Trade Union Acts 1871, and 1876, *and the Trade Union (Provident Funds) Act* 1893.—These acts have rendered the property of the associations, formed by employers and workmen for the protection of their respective interests, legitimate objects of trusts, notwithstanding that their purposes may be "in restraint of trade"; and they have exempted from income tax the portions of a trade union's funds that are set apart for provident benefits. But they have not given

trade unions the legal *status* of corporations, although they are able to sue and be sued in the courts (see TRADES UNIONS).

The Conspiracy and Protection of Property Act 1875.—This act regulates the conduct of strikes. It provides that no combination to do any act in furtherance of a trade dispute shall be indictable as a conspiracy, unless the contemplated act would be criminal if done by one individual; but it renders liable to fine or imprisonment any person who, with a view to compelling another person to do or abstain from doing any act which the latter has a legal right to abstain from doing or to do, uses or threatens to use violence towards him, persistently follows him about, hides his tools, or, except for the purpose of communicating information, besets his residence or place of work (see STRIKES and COMBINATION LAWS).

The Employers and Workmen Act 1875.—This act confers and enlarges certain jurisdictions as to disputes between employers and workmen. It enables county courts, and, in some cases, courts of summary jurisdiction—(*a*) to adjust and set off claims, whether for wages, damages, or otherwise; (*b*) to rescind contracts of service on such terms as may be just; and (*c*) with the plaintiff's consent to accept security from the defendant for the performance of so much of his contract as is unperformed, in lieu of damages. The Conciliation (Masters and Workmen) Act 1896, also makes provision for settling disputes between employers and workmen.

In addition to these statutes, there is a large mass of legislation regulating the conditions of employment in particular industries. Of this the following acts are among the most important examples. The Alkali Works Regulation Acts 1881 and 1892; the Canal Boats Acts 1877 to 1884; the Coal Mines Regulation Act 1887, and the Coal Mines (Check Weigher) Act 1894; the Cotton Cloth Factories Act 1889; the Hosiery Manufacture (Wages) Act 1874; the Merchant Shipping Act 1894; the Metalliferous Mines Regulation Acts 1872 and 1875; the Metropolitan Public Carriages Act 1869; the Quarries Act 1894; the Railway Regulation Act 1893; and the White Lead Factories and Bakehouses Act 1883.

[See Jevons, *The State in relation to Labour.*—Rumsey, *Legal Handbook for Employers and Employed.*] T. G. S.

LABOUR, MOBILITY OF. By the "mobility of labour" is meant the degree of facility with which, in response to any inducement, labourers move from one employment or place to another. For, the labour being inseparable from the labourer, "the mobility of labour and the mobility of the labourer are convertible terms" (Marshall, *Principles*, vol. i. 2nd ed., bk. vi. ch. iv. § 5).

The movement of progressive societies from status to contract (cp. Maine, *Ancient Law*, p. 170) has necessarily involved a corresponding increase in the mobility of labour. In the old VILLAGE COMMUNITIES (*q.v.*), and even now in the stationary civilisations of the East, the workers' position is, with a few "safety valves" (Bagehot, *Economic Studies*, p. 35), fixed by the rigid rule of CUSTOM (*q.v.*) (see also CASTE: FRICTION IN ECON.). Under the feudal system (see FEUDALISM), it was scarcely less rigidly fixed by "inherited and forced, rather than free, contracts" (Cunningham, *Growth of English Industry*, vol. i. (1890), p. 129, cp. *ib.* p. 5). But in modern western nations there is, to a considerable extent, freedom of movement,—most pronounced of all in the United States, the country which has broken most completely with the traditions of the ancient world. Under the modern industrial *régime*, however, so large in number, so incalculable in their operation, are the variable causes that affect the demand for the produce of any given industry or locality, and so quick the response of capital to the call of higher interest, that there is a continual tendency to disturb the relation subsisting between the supply of and the demand for labour. And, since perfect mobility is the attribute only of that mythical being, the ECONOMIC MAN (*q.v.*), labour is, during the process of readjustment, in some cases at a scarcity value, while in others its remuneration is much below the natural level (cp. Sidgwick, *Principles*, 2nd ed., bk. ii. ch. xi. § 7).

With reference to movement from employment to employment, altogether apart from impediments to mobility in its every aspect arising from legal restrictions and combinations of labourers (see APPRENTICESHIP; APPRENTICESHIP, STATUTE OF; CORPORATIONS OF ARTS AND TRADES; GILDS; TRADES UNIONS), the tendency under free competition to equality in the net advantages of different employments "in the same neighbourhood" insisted on by Adam Smith (*W. of N.*, bk. i. ch. x., beginning), is now seen to be subject to greater qualification than he was disposed to admit (see Sidgwick, *Principles*, pp. 192-193, 317-323; Walker, *Wages Question* (1886), p. 192 *seq.*). J. S. Mill speaks of the industrial society of his day as distinguishable into four grades, between which the mobility of labour was practically non-existent (*Principles*, bk. ii. ch. xiv. § 2; cp. Cairnes, *Leading Principles of Pol. Econ.* (1874), pp. 69-73). But the subsequent course of social evolution has, as Mill foresaw (*loc. cit.*), greatly loosened the bonds of custom and tradition (cp. Marshall, *Principles*, bk. iv. ch. vi. § 7). At present the chief obstacles to this "vertical movement" (Marshall) are, directly or indirectly, traceable to the unequal distribution of wealth. It is this that keeps the higher forms of labour at a "monopoly" (Mill, *loc. cit.*), or rather "scarcity" (Sidgwick, *loc. cit.*) value. The lower the grade of labour, the less able and the less willing, on the average, are parents to "sacrifice themselves for the sake of their children" (Marshall, *Principles*, bk. vi ch. iv. § 2; cp. bk. iv. ch. vi. § 7), and this obstacle is only diminished, not removed, by

the growth of morality and enlightenment, and by state-aided education. But in opposing the "horizontal movement" (Marshall), *i.e.* from one employment to another in the same grade, this cause is important only in so far as it tends to perpetuate the sway of custom, ignorance, and inertia over the poorer classes. The chief hindrance to such movement seems rather to be this, that all save the lowest forms of labour involve on the part of the workman a certain amount of technical skill and training, which is rendered useless by a change of occupation. In this connection, however, Prof. Marshall notes that the increasing use of complex machinery, calling as it does for judgment and general intelligence, rather than mere manual dexterity, tends, while accompanied by increasing subdivision of labour, to replace the former well-nigh insurmountable barriers between different employments by "thin lines of division," which are easily passed on the appearance of any considerable and lasting inducement (cp. *Principles*, bk. iv. ch. vi. § 2; ch. ix. §§ 3, 4, 5; bk. vi. ch. v. § 3).

As regards movement between different localities, that poverty and ignorance are not the only impediments in the way of such migration is clear, since "the increased facilities of locomotion, and the extended knowledge possessed by the working classes as to the conditions of life in parts outside their immediate localities," have not, within the last quarter of a century, materially increased the "migration within the borders of England and Wales" (*Census* (1891) *General Report*, p. 61).[1] It still, then, "appears evidently from experience that man is, of all sorts of luggage, the most difficult to be transported" (*Wealth of Nations*, M'Culloch's ed., p. 34). Historic legal restrictions apart (see SETTLEMENT, POOR LAW), we have here to reckon not only with the influence of marriage and the existence of family life, but also with the labourer's natural attachment to early friends and the scenes of childhood, including a feeling of reluctance, half unconscious it may be, to forsake the vicinity of the green churchyard where his forefathers sleep. In opposing the transfer of labour from one country to another, the combined influence of these motives is *à priori* more powerful; and there are frequently in this case additional drawbacks, such as difference of climate, geographical distance, and peculiarities of national character in respect of language, religion, political institutions, and modes of life (cp. Cairnes, *Leading Principles*, pt. iii. ch. i. § 2). It is this relatively greater immobility of labour, as between different nations, that is generally held to necessitate a special theory of INTERNATIONAL TRADE (*q.v.*) (see EMIGRATION).

[In addition to the references in the text, see Cliffe Leslie, *Essays in Political and Moral Philosophy* (1879), Essays xii. xxiv. — Marshall, *Principles of Economics*, vol. i., 2nd ed. bk. iv. ch. xii. §§ 6-12; bk. vi. ch. iii. § 2 (reply to Cliffe Leslie), ch. iv. §§ 2-5, ch. v. §§ 1-3.—Nicholson, *Effects of Machinery on Wages* (1892), ch. i. *passim*, ch. v., also pp. 70, 129-130. — Walker, *Wages Question*, chs. x. xi. xviii. On legal restrictions, gild regulations, etc., see *Wealth of Nations*, bk. i. ch. x. pt. ii.—Brentano, *History and Development of Gilds and Trade Unions.*—C. Gross, *The Gild Merchant* (1890). —Sir G. Nicholls, *History of the English Poor Laws* (1854). On international mobility, see above, vol. i. p. 761, col. 1, par. 2.—Ricardo, *Principles*, ed. Gonner (1891), p. 117.—J. S. Mill, *Principles*, bk. iii. ch. xvii. § 1.—Cliffe Leslie, in *Fortnightly Review*, xxv. p. 942 (June 1879).—Bastable, *Theory of International Trade*, 1887, ch. i.—Edgeworth, in *Economic Journal*, vol. iv. p. 35 (March 1894).—*Census* (1891), *General Report*, pp. 5-6, 83-84, 126.] A. B. C.

LABOUR NOTES. See LABOUR EXCHANGE; OWEN, ROBERT.

LABOUR ORGANISATION. See INDUSTRY, ORGANISATION OF; TRADES UNIONS.

LABOUR, PRODUCTIVE. See PRODUCTIVE LABOUR.

LABOUR RENT. See RENT, LABOUR.

LABOUR, SKILLED. The wealth of a nation in any given environment depends chiefly on "the skill, dexterity, and judgment with which its labour is generally applied" (*Wealth of Nations*, p. 1); or, in other words, the greater his skill the more successful, *ceteris paribus*, is man in turning the rest of nature, animate or inanimate, to the satisfaction of his wants (see EFFICIENCY OF LABOUR). But, while there are as many kinds and qualities of skill as there are varieties of mind, skill of some sort is inseparable from even the rudest forms of LABOUR (*q.v.*) (cp. Duke of Argyll, *Unseen Foundations of Society*, 1893, p. 78). There is thus no clear-cut distinction between skilled and unskilled labour. The case illustrates well the principle of continuity, the difference being in degree rather than in kind (cp. Marshall, *Principles of Economics*, 2nd ed. p. 104, Pref. p. xiii.). The distinction, moreover, such as it is, must vary from age to age and from country to country. Thus all English, and still more all American, labour is skilled in comparison with that of more backward races; and to our mediæval ancestors much of what we now regard as rude or unskilled would have seemed skilled labour; just as much of the so-called skilled labour of to-day, *e.g.* that of the copying clerk, may be

[1] The *Report* (p. 61) states that the native population shows "stationary habits of a very decided character." The percentage of "stationary natives" (*i.e.* natives of England and Wales enumerated in their native counties) was 74·04 in 1871, 75·19 in 1881, 74·86 in 1891, proportions practically identical. It is, however, noted that "the counties that retain the largest proportion of their natives are, as might be expected, those which offer the best chances of remunerative occupation."

the unskilled of future generations (cp. Marshall, *Principles*, pp. 730-732). These, however, are familiar difficulties in the way of economic classification and definition (cp. Sidgwick, *Principles of Pol. Econ.*, 2nd ed. p. 50).

What then is implied in the phrase "skilled labour" as ordinarily understood? Clearly general intelligence, foresight, energy, and honesty are qualities which, depending as they do largely on inherited race character, and on early environment and training, constitute the raw material of all industrial skill whatever—a material, too, of very various qualities in different races and individuals (cp. F. A. Walker, *Pol. Econ.*, 2nd ed. pp. 51-53). The phrase, however, as commonly used, seems to imply, in addition to this, the possession of a certain amount of technical skill—of ability specialised in some particular direction, whether it be of the faculties required in business management or for the professional work of lawyers, physicians, accountants, and such like, or the manual dexterity, the quickness of hand and eye, the technique of particular industries. Skilled labour, then, may be taken as labour differentiated, by training and experience, to such an extent that its transference to other occupations would involve, *ceteris paribus*, an appreciable industrial loss, as contradistinguished from the general mass of rude or unskilled labour, the transference of which from one occupation to another would, in this respect, involve no great sacrifice of labour power (see LABOUR, MOBILITY OF).

This acquired skill of the labourer is by Adam Smith included in the "fixed capital" of the society (see CAPITAL). It may, he says, in a noteworthy passage, "be considered in the same light as a machine or instrument of trade which facilitates and abridges labour, and which, though it costs a certain expense, repays that expense with a profit" (*Wealth of Nations*, M'Culloch's ed. p. 122). And the analogy is striking though incomplete; the motives which determine the supply of material capital do influence to a certain extent the supply of that personal capital which we term industrial skill. But the theory of EXCHANGE (*q.v.*) does not exhaust the problem of DISTRIBUTION (*q.v.*). A man's industrial skill, though partly the reward of his own effort and sacrifice, is also in great part due to the effort and sacrifice of his parents on his behalf. He who sows, acts in the full consciousness that the harvest, on its material side at least, will in all probability be reaped by another. And this fact alone—independently of the longer duration of the working life of man compared with that of a machine, and the consequently greater difficulty of forecasting future earnings (cp. Marshall, *Principles*, bk. vi. ch. v. §§ 1, 2)—suffices to differentiate to a certain extent the production of skill from that of material capital. For "the investment of capital in the rearing and early training of the workers of England is limited by the resources of the parents in the various grades of society, by their power of forecasting the future, and by their willingness to sacrifice themselves for the sake of their children" (*ibid.* bk. vi. ch. iv. § 2).

There is, however, no question that industrial development is steadily raising the ratio of skilled to unskilled labour (cp. Nicholson, *Principles of Pol. Econ.*, vol. i. 1893, p. 120). On the one hand, the growing comfort, morality, enlightenment, and forethought of the mass of the people, and a keener appreciation on the part of governments of the importance of industrial forces in determining national strength, and of the consequent urgent need of education, combine to rapidly increase the supply of trained abilities (see Marshall, *Principles*, bk. iv. ch. vi.); while on the other, the progress of science and its practical application to industrial processes, accompanied as it is by the growth of a world-wide interdependence of industry, is probably associated with an increase no less rapid in the demand for industrial skill (see DIVISION OF LABOUR; LOCALISATION OF INDUSTRY).

Machine production being specially characteristic of the present industrial era, the portion of this problem which has received most attention is the effect of machinery on skill. In the matter of the introduction of machinery, as so often in economic questions, it is necessary to carefully distinguish between the immediate and the ultimate effects of the change. The former, as experience shows, are, from the standpoint of the labourer at least, pernicious. Machinery, when introduced, depreciates the value of the labourer's only capital—his skill; for unskilled labourers, including women and children, can by its aid accomplish the task which formerly demanded the highly specialised skill and judgment of the artisan; and the amount of hardship thus occasioned will be greater the more sudden the change and the less the mobility of the displaced labour (cp. Nicholson, *Effects of Machinery on Wages*, 1892, pp. 43-44). But this is only the transitional aspect of the problem, which remains to be contemplated from the point of view of social statics (*ibid.* pp. 55-56, 83 *seq.*). Machinery once generally adopted—is the result an increase in the ratio of skilled to unskilled labour, or is the net effect the reverse of this? That the invention, manufacture, management, and repair of machinery, and the organisation and other functions consequent on the *régime* of machine production, yearly demand higher and higher forms of skill, is a truth implied in the universal recognition of the growing importance of technical education (see EDUCATION). And that this highly skilled labour is itself a steadily increasing proportion of the whole seems

probable. In favour of this view, see Marshall, *Principles*, bk. iv. ch. ix. §§ 3-6; Nicholson, *Effects of Machinery*, pp. 82-92; Giffen, *Essays in Finance*, 2nd series, 1887, Essays, ix. x. xi., cp. also *Census 1891, General Report*, p. 57 etc. Against it see Hobson, *Evolution of Modern Capitalism*, 1894, pp. 252-254. So far, therefore, the tendency of machinery would seem to be, as Professor Marshall insists, to increase the proportion of labour engaged in occupations which are at once more interesting, more intellectual, and call into play the higher forms of skill (*loc. cit.*).

A more debatable point is the influence of machinery on the skill of the machine tender—the ordinary factory hand. On the one side it is maintained that machinery, while increasing man's power over nature, and narrowing the field for muscular exertion and mere manual skill, tends at the same time to lessen the monotony of labour, and to correspondingly increase the scope for the operation of the higher mental faculties, which, too, the worker is better able to develop since his labour is less exhausting (cp. Marshall, *Principles*, bk. iv. ch. ix.). On the other side it is held that, except as regards a few industries such as watchmaking, this view is much too optimistic; that, in general, under the system of minute division of labour which accompanies the use of complex machinery — partly cause and partly consequence,—the factory hand is not properly trained to understand as a whole the operation of which his work is but a fraction (see APPRENTICESHIP); that, in consequence, his labour is monotonous and affords no scope for mental activity; that the habit of conforming to the automatic movements of the machine tends to dwarf the mind; and that, in so far as machinery lessens the need for muscular exertion and manual skill, it tends to diminish within the factory the differences in skill, reducing all to one low level (see Hobson, *Evolution of Capitalism*, ch. ix. §§ 1, 4, 5). That there is a stratum of truth in this latter or more pessimistic view need not be doubted. But it may be noted (1) that it is doubtful how far it can be reconciled with the continued preference of masters for piecework, or the increasing differences in the wages of workmen (cp. Nicholson, *Effects of Machinery*, 87-88,—Hobson, *Evolution of Capitalism*, 258-259); (2) that, as its logical outcome, we should expect to find machinery cutting wedge-like into industrial society—elevating, educating, intellectualising its few masters, degrading and brutalising its many slaves. This, it is true, was apparently the experience of Great Britain in the earlier part of this century; but the degradation of labour which then ensued was not, as experience shows, a necessary concomitant of machine production, but simply a feature of the industrial chaos which intervened between the old system of regulation and the new—between the shelving of the Statute of Apprenticeship and the gradual substitution of factory legislation (see APPRENTICESHIP, STATUTE OF; FACTORY ACTS). And, at the present time, the mental, no less than the physical and moral, degradation of labour is most pronounced in those occupations in which division of labour and the use of machinery are least conspicuous (cp. Nicholson, *Principles*, p. 120); while, as a rule, the least educative parts of factory labour are performed by those who have risen to it from even less skilled occupations (Marshall, *Principles*, p. 323). On the whole, therefore, it would seem that the effect of machinery on the skill of the machine tender will depend chiefly on the environment in which it works—on the minds with which it comes into contact. As Professor Nicholson says: "Machinery of itself does not tend to develop the mind as the sea and the mountains do, but still it does not necessarily involve deterioration of general mental ability" (*Effects of Machinery*, 80-81). It will educate only those who are prepared for it. Under its sway, general ability is, as Professor Marshall notes, becoming a relatively more important factor of industrial skill (*Principles*, pp. 265, 313-323, 607). Hence, that the worker may reap whatever benefit may be in his work, a sound general education, including a training in elementary science, is the great desideratum of the age of machinery.

But, whatever be the direct influence of machinery on the skill of the factory hand, there can be no question that the modern industrial *régime*—at once the cause and the consequence of machinery—with its large towns, interdependence of industries, and increasing complexity of life, calls for much more skill and greater intellectual activity than formerly on the part of the average citizen. The very forces, moreover, which are thus lengthening the period of tutelage, are at the same time providing the means of support during that period (cp. Giffen, *Essays in Finance*, 2nd series, 1887, p. 374, etc.); and the state prohibition of the labour of children (see CHILDREN'S LABOUR) is thus in accordance with the trend of industrial evolution.

[In addition to the authorities cited in the text, see Dr. Wm. Cunningham, *Growth of English Industry and Commerce*, vol. i. 1890, pp. 313-314 (on Craft Gilds).—C. Babbage, *Economy of Machinery and Manufactures*, 1832.—R. W. Cooke Taylor, *The Modern Factory System*, 1891.—G. Schulze-Gävernitz, *Der Grossbetrieb*, Leipzig, 1892.—A "Memorandum on the state of the skilled-labour Market" appears in the monthly issue of the *Board of Trade Journal*.] A. B. C.

LABOUR STATUTES originated in an attempt to remedy by legislation the dearness and scarcity of labour which followed the great

pestilence of 1349. The first great statute of labourers (23 Ed. III. st. 2) which served as the basis of nearly all subsequent legislation, ordained that able-bodied labourers of either sex "within the age of threescore years of age . . . not exercising any craft of his own whereof he may live, nor proper land about whose tillage he may himself occupy, and not serving any other," should serve any one who needed his services, and this for such wages and livery as was accustomed to be given in that neighbourhood in the twentieth year of the reign.

The penalty for refusing to work, for departing from work without license, or before the term agreed upon, or for giving alms to "valiant" beggars who refused to labour, was imprisonment. The same enactment was also applied to the labour and wages of artificers; and sellers of victuals were forbidden under heavy penalty to ask more than a reasonable price. Owing to the ineffectiveness of this statute it was re-enacted in the twenty-fifth year (st. 2, c. 1, 2) with more precise definition as to agricultural and artisan wages, which were still to remain at the standard of the twentieth year, and none for festival days (see also 4 Hen. IV. c. 14). Labourers were to serve by the year instead of by the day, and were not to leave their town if they could obtain work there. The punishment for infringement of this statute was a heavy fine, the stocks, or imprisonment of forty days for the first, and a quarter of a year for the second offence, at the discretion of the justices. The fines from the labourers were to go either to the party sueing, or if none would sue, they were to be in aid of the town's contribution to the Fifteenth (see FIFTEENTHS and TENTHS). Labourers fleeing from one county to another were to be sent to their county gaol, and this ordinance was to be observed in London as well as in all the boroughs of the land (see also 31 Ed. III. i. c. 7).

In the thirty-fourth year the penalty of imprisonment was substituted for that of fine or ransom. All alliances of workmen were to be unlawful and void; and all such leaving their service for another place were to be outlawed, imprisoned, and burnt in the forehead with an iron F in token of falsity. But this pain of burning was not to be put in execution unless by the advice of the justices.

In the thirty-sixth year the fines of artificers and labourers were to be levied to the use of the Commons. This statute was again revived in the forty-second year of Edward III., and confirmed in 2 Richard II. (1, c. 8) (repealed 5 Eliz. c. 4). By the statute 12 Rich. II. c. 3—*For the regulation of servants, labourers, beggars, and vagabonds* (repealed 21 Jac. I. c. 28; see also general words, 5 Eliz. c. 4), it was enacted that any such wandering from their place of employment without sealed letters or testimonial explaining the cause of his going and the time of his return, should be put in the stocks till he could find surety for his return. Severe penalties were imposed on the forgers of such letters, and on such as received labourers wandering without them. By this statute artificers not otherwise employed were compelled to work as husbandmen. This was confirmed by the statute of the following year (13 Rich. II.), which further ordained that the justices in quarter sessions should assess the rate of labourers' wages. By 4 Hen. IV. c. 14, labourers were not to be hired by the week, nor to take hire for holy days nor Evens of feasts. Statute 7 Hen. IV. c. 17 confirmed that of 25 Ed. III. and 12 Rich. II., concerning labourers, and further enacted that by reason of the continued scarcity of "servants of husbandry," no one who had not rent to the value of at least 20s. a year might apprentice his or her child to any craft or mystery, but only to such labour as the said parent used (in part repealed by 8 Hen. VI. 11; 12 Hen. VII. 1; and entirely by the operation of 5 Eliz. 4, § 2).

But, inasmuch as servants and labourers continued to "flee from county to county, to the great damage of gentlemen and others to whom they serve," it was decided by the 2 Hen. V. (st. 1, c. 4) that all previous labour statutes should be firmly holden and put in due execution; and as all the legislation of this period was in the landowner's interest, it is not surprising to learn that in the fourth year of the same reign the penalty for excessive wages (12 Rich. II. c. 4) was to be imposed on the taker only (expired 6 Geo. I. 11).

In the next reign, however, the justices received power to proceed against masters as well as servants, and were again empowered to regulate wages and prices (2 Hen. VI. c. 18). A similar enactment was made in the sixth, and confirmed in the eighth year, until in the 23rd Hen. VI. c. 12, we get an act for fixing servants' wages, which provided that servants of husbandry proposing to engage with a new master, must first give warning to the old, otherwise the new covenant is void, and the said servant compelled to serve his first master for a year. In this statute the wages of every kind of labourer and artificer were assigned, whether with or without food and clothing. No man was to be excused "to serve by the year upon the pain to be justified as a vagabond."

By the 11th Hen. VII. c. 22, wages were once more fixed, and in addition the hours of work and of meals for labourers were particularly defined. Notwithstanding the social and economic changes that had taken place, wages were kept rigidly at their former rate, and

the bailiff alone received a rise from his former 23s. 8d. (23 Hen. VI.) to 26s. 8d. per annum. During the summer half year the labourer was to work from 5 A.M. till 7 or 8 P.M., with half an hour allowed for breakfast, and an hour and a half for dinner and a mid-day sleep. In the winter term he was to work from sunrise to sunset. Deductions were to be made from his weekly wages for hours misspent; and a labourer assaulting his overseer could be imprisoned at the king's will. Next year, however (12 Hen. VII. c. 3), the first portion of this statute, that referring to wages, was repealed, and this fact, taken in connection with the subsequent repeal (4 Hen. VIII. c. 5) of the penalties on masters who gave excessive wages, might seem to point to a freer competition of capitalists for the services of labour, had it not been almost immediately followed by the stringent enactments of 6 Hen. VIII. (c. 3) reviving in all its rigidity the wage standard of 23 Hen. VI. c. 12. The London artisans, however, by representing the additional charges to which they were subject, obtained (7 Hen. VIII.) exemption from this statute. From the frequency with which these labour statutes were re-enacted and proclaimed, we may deduce their practical inefficiency to remedy the economic evil. But the evil itself was changing. The landowners, despairing of effectual legislative remedies, set about helping themselves. Sheep-rearing was found to pay better than corn-growing, and required far fewer working hands. The population had in the meantime increased, so that gradually it became not so much the grievance of masters who could not obtain labourers as that of labourers who were obliged to wander in search of masters. A great amount of really pressing poverty, as well as of crime and vagabondage, was the result of this state of things, and Edward VI.'s first parliament found it necessary to deal with the matter. This statute (1 Ed. VI. c. 3), for *the punishment of vagabonds and the relief of poor and impotent persons*, may be called our first poor-law. It was of a terribly harsh and repressive nature. Infant beggars might be taken as apprentices or servants—the males till twenty-four, the females till twenty years of age—and those running away from such service were to become *slaves*[1] for their remaining years of service, and might be punished with chains or otherwise. Masters might let or sell the services of such a slave or child. Slaves or slave children wounding or conspiring against their masters were to become *slaves for life*. Vagabonds were to be branded with the letter V and sent to their native parish. They might be worked on the road in gangs, with rings of iron round their necks, and could be sold by the city or borough which owned them. Impotent beggars, however, were to be provided for by their native parish. It seems, however, to have proved impossible to execute this barbarous statute, and in the 3rd and 4th Ed. VI. it was repealed, and the 22 Hen. VIII. was revived in its stead. In addition to this a more careful provision was made for the poor and impotent. The mayors of towns were to remove the sick and poor to their proper parishes, and the aged poor able to work were to be employed. Lepers and bedridden persons were allowed to beg by their proctors. Pauper children above five years of age might still be taken into service without consent of their parents, but there is no mention of chains or slavery. And, further, there is a protective clause by which the justices might discharge such children from the service of a bad master.

Elizabeth began her reign by a sanguine *Act touching divers orders for artificers, labourers, servants of husbandry, and apprentices*. This, after lamenting the inefficiency of the existing laws as to wages and hiring, which could not "conveniently, without the great greefe and burden of the poor labourer and hired man, be put in execution," repealed them so far as related to hiring and wages. The statute then goes on to decree concerning compellable service in husbandry, concerning the testimonial to be carried by wandering servants, the regulation of hours of labour, the annual assessment of wages by the justices of the peace "according to the plentie or scarcitie of the time," the penalties for giving or receiving higher wages than those so fixed, and so on, very much—for all its claims to originality—on the lines of former legislation. The last portion of it dealt exclusively with the regulations for the taking of apprentices, who were to be bound for a term of not less than seven years, and none might follow any trade or mystery to which he had not been bound apprentice for the legal term (*vide infra* 17 Geo. III. c. 33, and repealed 35 Geo. III. c. 124). But the comparative leniency of this pauper legislation proving ineffective to check the prevailing pest of rogues, vagabonds, and sturdy beggars who swarmed all over the country, recourse was, in the fourteenth year, once more had to the extremest rigour. The former statutes (22 Hen. VIII., 3 & 4 Ed. VI., and 5 Eliz.) were repealed. Persons above the age of fourteen taken begging were to be imprisoned; beggars convicted of "vagabondage" were to be "grievously whipped," and burnt through the right ear, unless some honest person of the value of £5 would take him into his or her service for a year; and the beggar quitting such service was to be whipped as above. Beggars offending a second time were to be deemed felons, and a third time, as felons without benefit of clergy. Hereupon follows a strict and detailed list of such as were to

[1] *Servi*, trans. *slaves* in Record Comm. ed. *Statutes of the Realm*. The word might be rendered *Bondmen*, yet the *Servi* had all the badges of actual slavery.

be deemed vagabonds, among which were students of Oxford and Cambridge begging without license, and play-actors who had no acknowledged patrons. Provision was to be made for the poor and impotent, and their parishes taxed for their maintenance.

The 39th Eliz. explained and revived this statute; and it was reinforced by 1 Jas. I., and heavy penalties were imposed upon those who gave less than the appointed wages.

In the 14th Charles II. c. 12, elaborate provisions were laid down for the organisation of the parish workhouses, and for the apprehension of sturdy beggars and vagabonds, who were to be compelled to work in houses of correction. Nothing, however, was herein attempted as to the assessment of wages or in respect of amelioration of the labourer's condition, although from this time onwards we meet with no more labour statutes of the harsh mediæval type. The legislature is either content, as in the present instance, to continue and pass on the work of former governments, or simply to repeal what was becoming inconvenient and obsolete.

This statute of 14 Chas. II. was renewed at various periods by 1 Jas. II. c. 17; 3 Will. & Mary, c. 11; 4 Will. & Mary, c. 24; 11 Will. III., c. 13; 6 Anne, c. 34; and, finally, made perpetual by 12 Anne, c. 18. A timidity no doubt engendered by centuries of repressive legislation restrained the labourer from seeking work far afield. To remedy this was passed, in 8 & 9 Will. III., *an act for supplying some defects in the laws for the relief of the poor of this kingdom.* This—recognising that many labourers became chargeable to their parish "merely for want of work," "who would, in any other place where sufficient employment is to be had, maintain themselves and families," and who, by reason of the difficulty of leaving their own parish, do not dare to settle elsewhere, "though their labour is wanted in many other places where the increase of manufactures would employ more hands"—enacted that labourers might change their parish, carrying with them a certificate from the place they left, and to which they were liable to be again removed in the event of their becoming chargeable.

An act, in the 22nd year of George II., providing for the more effectual preventing of frauds and abuses by persons employed in various manufactories, and for preventing combinations of workmen, and so, apparently, largely in the interest of the masters, yet also provided "for the better payment of their wages." The necessities of the improved industries also contributed to the slow emancipation of labour, for in 17 Geo. III. c. 33, we get *an act to allow master dyers within the counties of Middlesex, Essex, Surrey, and Kent, to employ journeymen in their trade who have not served apprentice thereto.* This was in contravention of 5 Eliz., which prohibited the use of certain trades to any persons who had not been apprenticed thereto for seven years at least. Similarly the hat makers, in the 55th chap. of the same act, petition for the repeal of the 5th and 8th Eliz. The 33rd Geo. III. c. 40, repealed 5 Eliz. 4, § 15, whereby justices in quarter sessions were to assess wages; the 35th Geo. III. c. 124 also repealed in favour of the wool-combers, 5 Eliz. concerning apprentices, and the statute of the 54th year c. 96 repealed for ever paragraph 31 of 5 Eliz. c. 4.

[FACTORY ACTS; POOR LAWS; SERVUS; TRADES UNIONS; WAGES; J. Thorold Rogers, *Hist. of Prices.*—Cunningham, *Hist. of Industry and Commerce.*—F. D. Longe, *An Inquiry into the Law of Strikes*, 1860.—Jevons, *State in Relation to Labour.*—Howell, *Handy Book of the Labour Laws.*]

A. L.

LABOUR, UNPRODUCTIVE. See PRODUCTIVE LABOUR.

LABOURERS, LAW OF. See LABOUR STATUTES.

LACHES. Delay in prosecuting a right. The doctrine is laid down in the following words by Lord Camden in Smith *v.* Clay:—"A court of equity has always refused its aid to stale demands, where the party has slept upon his rights for a great length of time. Nothing can call forth this court into activity but conscience, good faith, and reasonable diligence." The doctrine is applied where a plaintiff is setting up an equitable title to land, where a plaintiff is seeking specific performance, and in other cases.

[Story's *Equity Jurisprudence*, London, 1892, gives the English and American authorities.—See also Snell's *Equity*, 14th ed. 1905, and Fry on *Specific Performance*, 4th ed. 1903. J. E. C. M.

LACROIX, EMERIC DE (in Latin CRUCEUS), born c. 1590 in Paris. Very little is known about his life, except that he published an edition of Statius and two Latin poems on Henry IV. and Louis XIII.

His *Nouveau Cynée ou Discours des Occasions et Moyens d'establir une paix générale et la liberté du Commerce par tout le monde*, Paris, 1623, shows that its author was greatly in advance of his times. To secure a perpetual peace, he recommends the institution in Venice of a permanent congress, consisting of the ambassadors of the principal sovereigns of the world, to be entrusted with the mission of settling all international quarrels by arbitration. Peace being thus secured, he urges sovereigns to repress every kind of oppression on the part of their officials, and insists on the necessity of abolishing the sale and purchase of offices. Justice should be valued higher than military courage; merchants should be honoured as being more useful than "nobles, priests, and magistrates." . . . "It is reasonable to levy small taxes on imports and exports, but this must be done with the utmost moderation,

especially for commodities which cannot be dispensed with, such as corn, wine, salt, meat, fish, wool, and leather, so that merchants may enjoy greater freedom and the inhabitants obtain them cheaper." Lacroix denies that there exists any reason "to make a distinction between the foreign and the native merchant: the conditions of trade must be equal everywhere," and he enlarges on the happiness of men who are allowed "to come and go freely, to be connected with each other without any scruple about their native country, as if the whole of the earth were, what it really is, the common city of all." He also argues for uniform coinage, weights and measures, and universal education by the state.

Lacroix was aware that his contemporaries were not ready to accept his plans, and concludes in a calm but despondent tone: "All I can do is to express these wishes and humble remonstrances, which will probably not be heeded. Still I desire to submit this testimony to posterity. If it turns out to be useless, I shall take refuge in patience."

E. Ca.

LADING, BILL OF. See Bill of Lading.

LÆNLAND. As large estates grew up in Anglo-Saxon times, the practice developed of letting outlying portions to tenants, who cultivated but did not own the land. The rent paid for such lands might be in money, in kind, or in labour, and was sometimes a combination of all three. Some writers draw a distinction between "unbooked lænland," in which the conditions of tenure were vague and arbitrary, and terminated with the tenant's life, and "booked lænland," where the conditions were definitely laid down in writing, and the agreement might be for several terms of life. The whole subject of Anglo-Saxon tenures is so obscure, and the authorities are so scanty and of such doubtful authenticity, that it is not safe to lay down too distinct dogmas.

[*Essays in Anglo-Saxon Law* (Boston, 1876).—Kemble, *Saxons in England*, vol. i.—Kemble, *Codex Diplomaticus ævi Saxonici*.] R. L.

LA FARELLE, François Felix (1810-1872), born at Anduze, has been reproached as regretting that the ancient corporations, with their system of masters and journeymen, no longer existed, and as desiring to see the re-establishment of similar organisations. There has been a little exaggeration in this. La Farelle recognised clearly and described the defects in the organisation of labour in the 18th century throughout the whole of Europe. His work is moderate in tone. How distinctly events have moved may be seen by comparing the law of 11th March 1884 on syndicates in France with the regulations of the decree of 14th and 17th June 1791, which says (art. 2): "Citizens of the same rank or profession, contractors, those who keep open shops, workmen and journeymen of any trade whatsoever, may not, when they meet, name for themselves either presidents or secretaries or syndics, they may not keep minutes, pass resolutions or deliberate, or lay down regulations for the benefit of their supposed common interests."

La Farelle proposed to distribute officially through the agency of administrative authority all merchants, artisans, and workmen of the industrial classes and professions either in societies or in different localities. They were to be free, doubtless, either to join or to leave; the arrangement was not obligatory, it was only, at least in the towns, designed to correct through competition the faults inherent in all associations of this character. "People of the same trade seldom meet together," says Adam Smith, "even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." Competition alone can remedy this serious inconvenience; now the organisations of La Farelle, entirely open as they were in reference to those outside, and as he planned them absolutely free, did not allow competition, at all events in the same town. Many of the defects of the mediæval corporations would thus have been re-established.

In studying his period the works of La Farelle are still both useful and instructive. La Farelle wrote many works on workhouses and reformatories; we need only mention of these the *Progrès social au profit des classes populaires non indigentes*, 1839, 2 vols. in 8vo, which won the Montyon prize in 1840, and *Plan d'une réorganisation disciplinaire des classes industrielles de France*, preceded and followed by historical dissertations on human labour in ancient and modern times, 1842, 8vo, 2nd ed. 1847, 8vo. These two books form practically one, the first giving the plan which was ably developed in the second.

A. C. f.

LAFFEMAS, Barthélémy de (1545-1612). First a gentleman of the chamber of Henry IV. of France, he became general controller of trade. He published several tracts on the advantages which would accrue to France from mulberry-tree plantations and the breeding of silkworms, and others on commercial questions, which he viewed from the strictest stand-point of mercantilism.

Among the latter may be mentioned the *Sources des abus et monopoles glissés sur le peuple de France*, and the *Trésors et richesses pour mettre l'état en splendeur* (1598), in which he advocates, amongst other regulations, the establishment of a uniform system of weights and measures for the whole kingdom, and his *Discours d'une liberté générale et vie heureuse pour le peuple* (Discourse on a general liberty and happy life for the people), 1601.

[Pigeonneau, *Hist. du commerce de la France* (1889), vol. ii. pp. 272-278.] E. Ca.

LAFFEMAS, Isaac de, Sieur de, son of Barthélémy de Laffemas (*q.v.*), civil lieutenant of Paris and subsequently member of the council of state, wrote a *Histoire du Commerce de France* (1606), in which he follows his father's footsteps and insists on the usefulness of acclimatising the breeding of silkworms and of prohibiting the introduction of foreign silks. E. Ca.

LAFFITTE, JACQUES (1767-1844), born at Bayonne, died at Paris, was an honest man in all senses of the word. It is of him that Cormenîn said, "his private life was a living sermon." Unfortunately his too optimistic faith that everything was for the best, and perhaps a touch of vanity in his disposition, blinded him to the faults of others, and he weakly allowed himself, particularly towards the end of his life, to be imposed upon by unscrupulous persons. Hence reverses occurred which injured the reputation to which he had so high a claim. Unusually gifted as he was with the qualities which lead to success in banking business, he came to Paris, and, a little before 1789, entered the banking-house of M. Perregaux. His qualities both of heart and head made him welcome to the chief, whose son-in-law and successor he afterwards became. From this time he began to accumulate a fortune which became considerable. He was a regent of the Bank of France at the time when those events took place which led to the fall of the first empire. At this period of difficulty (6th April 1814) he was appointed provisional governor of the Bank of France. In this capacity he proposed a reform, which, had it been adopted, would have considerably improved the government of that institution. At that time the state governed, and the shareholders superintended it. Laffitte wished to appoint the directors of the Bank of France from among the shareholders, the state to be nothing more than the inspector or controller of the operations on behalf of the public interest. This useful improvement, however, was prevented by the nomination, on the 6th April 1820, of Gaudin, Duc de GAËTA, as the governor.

In 1815 Laffitte was appointed to the chamber of representatives, and from that time onwards he continually was a member of the legislative assemblies. Liberal by temperament, he freely supported a constitutional government. Hence, under the restoration he was on the side of the opposition, where he filled an important position. Loyal and cautious, he courageously braved the risk of losing his popularity by upholding measures which he considered important to the prosperity of the country, such, for instance, as the plan for the conversion of the public debt introduced in 1825 by his political adversary, M. de Villèle. Besides this, Laffitte greatly assisted in bringing about the revolution of 1830. Louis Philippe, it may even be said, owed his crown to him. The king thought he paid him sufficiently by appointing him for some months, from 2nd November 1830 to 3rd March 1831, minister of finance. Unfortunately for Laffitte, the severe crisis which broke over the country at this moment struck his bank, weakened by acts of rare generosity. The man who, during the six years he was governor of the Bank of France, had refused to accept the salary, £2400 a year, attached to that office, who had been alternately the guardian of the valuables of Louis XVIII. fleeing to Ghent, of Napoleon when he left France after Waterloo, of the Orleans family when in difficulties; the man who, in 1814, opened a subscription for a loan to carry on the war, putting his own name down for £12,000, but was alone in this; who, in 1815, advanced £80,000 to feed the army compelled to retire to the other side of the Loire, and at many other times assisted the country when in financial necessity, had to turn to the Bank of France and to the king himself to meet a claim for £600,000. Laffitte completely shielded his creditors from loss, but the support of the government of 1830 was but sparingly granted him. The gratitude of the citizen king did not blind him to his own interests. Laffitte must have reflected sadly on the want of gratitude in the public and the politicians of the time. In 1837, when seventy,—an age when men of a different stamp of character seek retirement from work,—he re-entered business life and established the Bank of Commerce and Industry, *Caisse du commerce et de l'industrie*, which was wrecked by the revolution of 1848.

He died in 1844, and was spared the knowledge of this further trouble; little as he had been appreciated in his lifetime, his funeral showed that the public was not quite indifferent to his memory.

The works which Jacques Laffitte left behind him were on financial subjects of the day. The most important is the one in which he courageously took up the question of the conversion of the public funds. *Réflexions sur la réduction de la Rente et sur l'état du crédit*, 1824, a publication which passed through several editions. A. C. F.

LAGRANGE, JOSEPH LOUIS (1736-1813). Born in Turin, but of French descent, this celebrated mathematician resided in France after the death of Frederick II., who had appointed him director of the Berlin academy. He enjoyed the steady protection of Louis XVI. and of the Emperor Napoleon.

In his *Essai d'Arithmétique Politique sur les premiers besoins de la France*, printed in 1791 by order of the *Assemblée Constituante*, Lagrange takes as the standard of the wealth of a nation the proportions between its vegetable food reduced to terms of corn and its animal food represented by butcher's meat. By three parallel estimates—grounded on the alimentary allowance of soldiers, the consumption of the towns which made returns of the quantities of food introduced, and the average annual produce of arable land and pastures—he computes that for the army the proportion between both kinds of food was as 7 to 2, for Paris 21 to 10, and for the whole of France only 15 to 2. He comes to the general conclusion that France in his days produced enough corn for its consumption, but only about half the quantity of butcher's meat which would have been requisite to put each inhabitant's allowance on the same proportion as the allowance of a common soldier.

Lagrange's *Essai* will be found in the *Collection des Principaux Économistes* (ed. Daire), vol. xiv.; *Mélanges*, pp. 608, 614. E. Ca.

LAING, Samuel (1780-1868), was the author of *Notes of a Traveller*, in which the social and political condition of many European countries is commented upon. The *petite culture* of Belgium and its system of *pauper colonies* is described accurately and carefully (see *Brit. and Foreign Rev.*, vol. xvi. (1844) p. 586; and *Dublin Univ. Mag.*, vol. xix. 1842, p. 579).

In 1836 Laing published his *Journal of a Residence in Norway during the years 1834, 1835, and 1836, made with a view to enquire into the moral and political economy of that Country, and the condition of its Inhabitants*, London, 8vo. The high praise he here bestowed upon the Norwegian method of land tenure contrasts sharply with his subsequent attack on the system of peasant proprietorship in his *Comments on the Social and Political State of the European Peoples* (1848-49), and caused J. S. Mill to remark (*Principles of Pol. Econ.*, bk. ii. ch. vi. § 3) upon his inconsistency.

Other publications were:

Preussen . . . in seiner politischen Entwickelung . . . dargestellt durch B. Constant und S. L. 1844, 8vo.—*Address to the Electors of Scotland*, Edinburgh, 1833, 8vo.—*Notes of a Traveller, on the Social and Political State of France, Prussia, Switzerland, Italy, and other parts of Europe during the present century*, London, 1842, 8vo; 2nd series, 1850, 8vo; 3rd series, 1852.—*A Tour in Sweden in 1838*, London, 1839.—*Observations on the State of Denmark and Duchies of Sleswick and Holstein in 1851*, demy 8vo, 1852.—*Observations on the Social and Political State of European People in 1848-49*, demy 8vo, 1850. A. L.

LAISSEZ-FAIRE, LAISSEZ-PASSER, History of the Maxim. Gournay is still generally credited with being the inventor of this phrase, and this apparently on the authority of his friend Turgot, who, however, in his *Éloge* of Gournay, simply says: "It ought to be added that the . . . system of M. de Gournay is remarkable in this respect, that . . . in all times and everywhere the desire of trade has been concentrated in these two words, *liberty* and *protection*, and most of all liberty. The remark of M. Le Gendre to M. Colbert is well known: "*laissez nous faire*" (Turgot, *Petite Bibl. Econ.*, p. 40, "*Il faut dire encore*," etc.). This supposed agreement of the views of Gournay with the observation of Le Gendre has been translated by Dupont de Nemours into the positive statement: "From his (Gournay's) profound observation of facts he had drawn the celebrated axiom, *laissez-faire, laissez-passer*" (*Œuvres de Turgot*, ed. Daire, i. p. 258); and has been followed by most of the writers on economic literature down to M. G. Schelle, Dupont's last biographer (*Dupont de Nemours et l'École Physiocratique*, Paris, 1888, p. 19).

In *Die Maxime Laissez Faire et Laissez Passer* (Bern, 1886), Prof. August Oncken has thoroughly sifted and examined all available evidence on this subject, and comes to conclusions which may be definitively accepted, although he has not completely succeeded in identifying Le Gendre. The latter appears to have been François Legendre, the writer of an arithmetical treatise entitled *L'Arithmétique en sa Perfection selon l'usage des Financiers, Banquiers et Marchands*, which went through nine editions between 1657 and 1687. Prof. Oncken has not been able to find out on what occasion the above reply was made to Colbert, but is inclined to believe that it must have been about 1680.

Still Legendre was a merchant and not a political writer; his answer was probably unpremeditated, and was wanting in the distinction of literary fame. In the writings of his contemporary, Boisguillebert (*q.v.*), we meet, however, sentences which are closely allied to Legendre's utterance, such as: *Il n'y avait qu'à laisser faire la nature et la liberté* (*Factum de la France*, p. 286, ed. Daire), and, *Ainsi dans le Commerce de la Vie, elle* (nature) *a mis un tel ordre que pourvu qu'on laisse faire*, etc. (*ibid.* p. 280).

The worthy Norman magistrate, Boisguillebert, would thus have been the first to use with a scientific purpose, if not the actual first half of the maxim, at least language approaching to it. After him we must come down to the Marquis d'Argenson, in order to find a distinct and clear enunciation of the same principle conveyed still more pointedly in the essay to which he gave the title of *Pour gouverner mieux, il faudrait gouverner moins* (In order to govern better, we ought to govern less) (*Journal et Mémoires du Marquis d'Argenson*, 1858, vol. v.). Here he emphatically declares that *Laissez faire, telle devrait être la devise de toute puissance publique* (*Laissez faire* ought to be the motto of every public authority), p. 364. The same line of reasoning is consistently followed, and similar expressions are used, in his *Pensées sur la Réformation de l'État* and in sundry contributions to the *Journal Économique*, the authorship of which has been brought home to D'Argenson (Oncken, *Die Maxime Laissez faire*, pp. 66-80). Neither Quesnay nor Adam Smith uses the expression, but it is printed several times in the Ephémérides du Citoyen, and now in its complete form (*laissez-faire, laissez-passer*), and constantly put into the mouth of Gournay (see quotations in Oncken, pp. 86-89). Mirabeau, Mercier de la Rivière, and Letrosne in their works give vent to the same theory, but under the parallel French or Italian form: *Le monde va de lui-même* or *Il mondo va da se* (The world goes by itself) (Oncken, pp. 84, 85). From what precedes, we may, it seems, safely conclude that if Gournay is not the actual inventor of the maxim, he put it into circulation

through his conversations, after having contributed its second half.

Although the PHYSIOCRATS had numerous contemporary adherents in Germany, the latter do not appear to have adopted the expression, unless the maxim of ISELIN (born at Basle 1728), *Lasset der Natur ihren Gang* (Let nature have her course), in his "Ephemerids of the human kind" (*Eph. der Menschheit*), be considered as an attempt towards a translation (Oncken, p. 127).

In England, J. Stuart Mill employed the actual French words *laisser faire* (but in the infinitive, not the imperative mood) in the table of contents of his *Principles of Political Economy*, as a heading to § 7 of ch. xi. E. Ca.

LAISSEZ-FAIRE IN ENGLAND.

Theory, p. 535; Legislation, p. 537.

Theory.—Laissez-faire has never been preached as an absolute dogma by any English economist, though every English economist has recognised its value in connection with certain philosophic or juristic ideas and in relation to certain definite facts. MANDEVILLE was more a philosopher than an economist; and, like Franklin, he probably advocated bounties quite as much as freedom from restraint, but his language is vague (*Fable of the Bees, or Private Vices and Public Benefits*, 1714; ed. 1772, ii. 142). The "private vices" which figure in his title consist mainly of "avarice," which he, in common with D. HUME (*Works*, ed. Grose and Green, iii. 610) and A. SMITH (*Moral Sentiments*, pt. iv. ch. i.) used to designate the desire for gain, or the economic sense (cp. Franklin's use of "to cheat," *Works*, ed. 1882, ii. 376). His "public benefits" involved such fallacies as these: "The real pleasures of all men are worldly and sensual" (ii. 118), and "Extravagance is good for trade" (*passim*). Still his writings first familiarised people with the idea that economic activity, by whatever bad names it might be called, was a far more legitimate ideal of statesmanship than the still blank perfection of the utopians. At the same time the philosophic doctrine of "the social contract" tended to reduce the functions of government to a minimum. A. Smith went to work in a very different spirit, as the chapters of the *Wealth of Nations* on the "Sovereign or Commonwealth" sufficiently show. Completing what Dudley NORTH, D. HUME, and others had begun, he exposed the unwisdom of definite instances of state intervention, such as the mercantile system, protection, apprenticeship, corporation, combination, and settlement laws. And his exposure was made at the psychological moment. He wrote, "The statesman who should attempt to direct people in what manner they ought to employ their capitals, would assume an authority which could be trusted not only to no single person, but to no senate or council whatever" (*Wealth of Nations*, 4, 2), of a society innocent of the factory system. Factory inspectors would have been an anachronism in his day. Where he pleaded for "natural liberty" every living contemporary fact echoed his plea: thus his attack on "the colonial system" was published in the year of the declaration of independence (1776), and while inveighing against monopolists, he sheltered James Watt from the persecution of the "Hammermen." And he grounded his plea on an old-world belief in the pre-established harmony between selfish impulses and the aims of society, meeting the objection that "natural liberty" led to an unjust distribution of wealth by the reply that wealth was not happiness (*Moral Sentiments*). In the next generation (1817) RICARDO's language created, although it did not justify (Marshall's *Principles*, 553), the fallacy that unrestricted competition was the best and only principle regulating the distribution of wealth—a fallacy which Mill dissipated in 1848 by showing that it confused a hypothesis or at best a tendency with a natural law. Similarly Sir J. Bowring represented the current inferences drawn from BENTHAM's writings when he wrote in his Introduction (p. 77), that "the preservation of security is *all* that political economy looks to from the legislature, security for wealth created, security for the exercise of ingenuity and industry in creating more, security for enforcing the performance of contracts." Yet Bentham arrogated to government (1) coinage and the restriction on the issue of notes adopted in principle in 1844; (2) the duty *e.g.* of improving communication where profit was certain, but it was uncertain who would profit (*Manual of Political Economy*, ch. iii. § 2, note); (3) the duty of providing information by registries of births, tenures, etc.; (4) of promoting education and health—thus CHADWICK, the father of English sanitary legislation, was Bentham's disciple. Indeed it cannot be said that Bentham's rule that government must "stand out of the sunshine" of industry (*ib.* ch. i.) was subject to the sole reservation that government must fix "the mechanism of exchange in order that the forces of society may act freely," unless mechanism and exchange are used in a wide sense. Meanwhile the most visible results of Bentham's and Ricardo's influence were the abolition of combination and usury laws, and of those poor-law regulations which had made it people's interest to add to poverty. A new generation passed. FREE TRADE sealed the triumph of the policy of "adding wings by striking off fetters"; and men forgot that the champion of free trade who wrote, "Wherever the deductions of political economy lead I am prepared to follow" (Morley's *Cobden*, 2, 97), wished to forbid the supply of money when

demanded by the biggest customer in the money market, for reasons which many people thought sentimental, but which he thought involved the first principles of morality (*ib.* 69 n.). Darwin's *Origin of Species* (1859) was suggested by the work of an economist, MALTHUS, and furnished a wider basis for blind belief in competition than that which economists claimed. A Benthamite might argue that the state should define "tenancy" as a right of property including the right to game, compensation for improvements, etc., just as it defines "mortgage" as a right of property including the right to redeem; but students of Maine's *Ancient Law* (1861) stigmatised such definitions as a retrograde substitution of status for contract. H. Spencer blended references to the old poor-law with his curious identification of Maine's new principle with A. COMTE's old principle of industrialism ousting militarism (*Contemporary*, xl. 512, 513, etc.). His conception of the duty of the state towards industry is practically that expressed by Sir J. Bowring (*v.s.*); and since 1853 (*Essays*, ed. 1891, vol. iii. pp. 229-471; *Man versus The State*, 1884; Introduction to T. Mackay's *Plea for Liberty*, 1891) he has unceasingly urged that "positively-regulative" acts are either (like the Licensing and Banking Acts) gratuitous and ineffectual blunders, or else (like the Adulteration of Food and Metropolitan Building Acts) blunders intended to counteract, but actually intensifying, the evils arising from its "negatively-regulative" shortcomings. Professor Huxley's phrase "administrative nihilism" describes his wishes if not his practical views. Further expression was given to these intellectual tendencies in R. LOWE's speeches against land reform in Ireland (Hansard, 183, p. 1078; 190, pp. 1483, 1493, etc.) and in Bonamy PRICE's application of "the principles of *abstract* political economy to the people and circumstances of Ireland exactly as if he had been proposing to legislate for the inhabitants of Saturn and Jupiter" (Gladstone's speech, April 7, 1881). The first note of revolt against this new tendency was sounded in 1862 by Cliffe LESLIE who was as much influenced by Maine as J. S. MILL was by Austin or RICARDO by BENTHAM; but he had seized his master's concrete method instead of misappropriating his results (*Essays in Political Economy*, Nos. 1, 3, and 15). CAIRNES was at this very time proving the failure of competition to act freely in regard to retail trade or where there were "non-competing groups"; and supported in the *Fortnightly* for January 1870 a proposal which anticipated that very Irish land law of 1881 which, according to a misquotation of Mr. Gladstone's speech, banished political economy to Saturn and Jupiter (*Essays in Pol. Econ.*, p. 203). In the same year his address on political economy and *laissez-faire* relegated the latter to the rank of a fairly sound maxim (*ib.* 232). BAGEHOT laid down (1876) the principle that political economy established conclusions only applicable to exceptional and artificial conditions of society such as obtained in certain industries existing in England at that date (*Fortnightly*, xix. 218, 226, etc.). JEVONS wrote in 1876 that it was all very well for industry to ask the state to stand out of its sunshine, but what if it was already an industry which stood in the sunshine of other industries? (*ib.* xx. 629), and suggested the extension of the Artisans' Dwellings Act 1881 (*ib.* 630). He had already declared that experience might, but "no abstract principle can, guide us in determining what kinds of industrial enterprise the state should undertake and what it should not," and urged in 1867 the state monopoly of telegraphs established in 1868 (*Manchester Statistical Society Trans.*, April 1867, p. 9). Walker's *Wages* (1876) emphasised the truth, mixed with fallacies in THORNTON's book on *Labour*, 1869, that the conditions of fighting between employers and employed are unequal, the former fighting for profit, the latter for life, and that the labourer brings himself into the market, this same self being the object for which, as well as a means by which, wealth is produced. The modern view that self-interest acts with infinitely varying degrees of force in different cases is enlarged upon in Sidgwick's *Principles*, bk. iii. (1901), and TOYNBEE's *Industrial Revolution*, (1884); the latter writer holds "that between men who are unequal in material wealth there can be no freedom of contract" (p. 216), and is also dominated by the idea expounded in Professor Green's *Free Contract* (Writings, iii. 365) that personal and patriotic considerations enter with peculiar force into labour and land questions, and that negative is only the handmaid of positive freedom. These writers all agree in their general direction, but differ in their application of their principles. For instance, Jevons wrote that "an eight hours *bill* is in no way an illegitimate object to keep in view" (Lecture on the *Trades Unionists' Political Association*, 1868); Fawcett only approved of this movement for shortening hours of work provided that it repudiated state intervention (Hans. 219, p. 1421). Again Cliffe Leslie attacks, Jevons and Bagehot defend, the use of the expression "Law" to describe the operation of competition. All, however, unite in condemning legislation to determine wages, though all would not approve of Fawcett's simile "we might as well think of regulating the tides by act of parliament" (*ib.*). And, secondly, all condemn the regulations, which have the force of law, for restricting production and making unnecessary work, which have in so many cases been adopted by

TRADES UNIONS, and which seem copied from mediæval legislation or guild rules. Thirdly, all agree that where wages are compulsorily raised, *e.g.* by a strike, this means either that "the operation of economic conditions" is being, in Cairnes's phrase, "accelerated," or that the consumer is being taxed, a process which is protection, and therefore open to those arguments against protection which no English economist has renounced (Cairnes, *Leading Principles*, pt. 2, ch. 3, etc.). Strike leaders used to justify their action on the former ground, or, as they put it, on the ground that profits were too high; the leaders of the coal strike of 1893 adopted the latter grounds. It cannot, therefore, be said that the adverse criticisms formerly passed by economists on the intervention by political bodies in industries are out of date; these adverse criticisms or *laissez-faire* arguments first made economists a force in the state, and they are as valid now as when they were first used. On the other hand economists realise that negations are only a part of their message, and the easiest part to understand and to translate into practice. Indeed, it is probably the only part in which their science can be treated as an art, and they can have recourse to the imperative mood. "Trade never so well freed, and all tariffs settled or abolished, and supply and demand in full operation, we have merely cleared the ground for doing" (*Past and Present*, p. 159). Hitherto they have, like J. D. HUME, opposed; or, like Mill and Fawcett, partly opposed and partly apologised; or, like Cobden, have not voted, where constructive industrial legislation, *e.g.* the FACTORY ACTS, was concerned. The later economists have adopted a different tone, but have only displayed the unanimity which we expect from historians or philosophers, not that which we require from people entitled to apply their ideas to real life (see GOVERNMENT REGULATION OF INDUSTRY).

J. D. R.

Legislation.—Recent laws interfering with free industry may be classed under three heads:—

First, there are the laws gradually extending principles laid down in earlier legislation, such as—

(*a*) The laws relating to town life. These laws were first consolidated by the Towns' Improvement Clauses Act 1847, and The Public Health Act 1848; the latter is now superseded by The Public Health Act 1875. Amending acts and local acts are also numerous. Consolidated laws relating to London were first made in 1844, and lastly in 1891. All these laws are lineally descended from the act passed for rebuilding London after the great fire (19 Car. II. c. 3), which contained provisions for paving and drainage, for the height and materials of houses, for prohibiting "noisome trades," for compulsorily taking land in order to widen streets, and for enforcing all this by means of commissioners, surveyors, and summary judicial proceedings. One of the acts amending the parent act contained power to pull down dangerous dwelling-houses at the cost of the owner (33 Geo. II. c. 30, § 26). The modern versions of these provisions extend the definition of "dangerous dwelling-houses" so as to include the danger arising from over-crowding, living in cellars, etc., and extend the scope of the sanitary provisions to populous places or even the country (Public Health Act 1872), and powers are given to destroy food exposed for sale and unfit for food. (i) A singular offshoot of the law against dangerous dwellings is the series of Housing of Working Classes Acts consolidated and amended in 1890 (53 & 54 Vict. c. 70). Under this act, where unhealthy or obstructive areas or dwellings are pulled down, the local authority can buy the site and erect and manage labourers' dwellings.[1] The power to buy land and erect labourers' dwellings was borrowed from the Labouring Classes' Lodging Houses Act 1851 (§§ 35 *et seq.*), which had up till then remained a dead letter. Similar provisions contained in the Artisans' and Labourers' Dwellings Improvement Act 1875 took away with the left what they gave with the right hand. So that the act of 1890 is substantially new. Its amendment in 1903 is unimportant. (ii) Still more singular is the development of the law against unhealthy food. It united itself with the act against the "adulteration of bread" (6 & 7 Will. IV. c. 37) which replaced the Assize of Bread Acts (51 Hen. III. to 55 Geo. III. c. 99), and the result of the union was the 6th section of The Sale of Food and Drugs Act 1875, which makes a person criminally responsible who sells "to the prejudice of the purchaser any article of food or any drug which is not of the nature, substance, and quality of the article demanded by such purchaser,"-§ 6, except in a few cases. Public analysts assist in the detection of offenders. (iii) Municipalities can erect, buy, and manage baths and wash-houses since 1846[1] (9 & 10 Vict. c. 74). The local government board superintends the administration of all these acts.

(*b*) Shipping laws, including the wage-law of sailors, were first consolidated in 1854 (17 & 18 Vict. c. 104). The chief innovation of this law was that it gave the board of trade wide powers of supervision and control over the construction and safety of ships, over the grant of certificates to captains, and over the mode of paying wages, etc. The Passengers Act 1855 contained provisions as to the number and accommodation of passengers; and the Merchant Shipping Amendment Act 1871, as to the draught of the ship when loaded; these provisions, which have been gradually added

[1] Here a public body directly competes with private industries.

to, may be regarded as corollaries from the provisions as to "safety" in pt. iv. of the act of 1854. But § 168 of the last consolidating act (The Merchant Shipping Act 1894) borrows from 43 & 44 Vict. c. 16 a principle which finds no parallel in earlier acts, although it was foreshadowed by Lord Stowell's argument that no contractual freedom obtains between master and man (1 Haggard's Adm. Rep. 355). It enacts that the court can rescind unjust and substitute just terms in the contract between master and man; that is to say, the court can settle the amount of wages.[1]

(*c*) The prohibition to pay wages in kind, which dates from the middle ages, was for the first time extended to agricultural labourers, for certain purposes, and other labourers by the Truck Amendment Act 1887 (see TRUCK SYSTEM).

(*d*) The General Post Office, which acquired its monopoly of carrying letters by 12 Car. II. c. 35, acquired a telegraph monopoly under 31 & 32 Vict. c. 110. Its issue of postal orders (under 3 & 4 Vict. c. 96, § 38), and its savings banks (24 & 25 Vict. c. 14), imply an assumption on its part of the rôle of poor man's banker, and represent a new departure.[2]

Secondly, there are the laws directly arising out of new inventions which have changed the face of society.

Thus (*a*) railways had to create their lines by means of compulsory purchases (see Lands Clauses Consolidation Act 1845), and they subjected themselves, in return, to certain disabilities (see Railway Clauses Consolidation Act 1845), the chief disability being that of having to run cheap trains, and of having their maximum rates fixed and, in case their concern was a success, revised from time to time by government (7 & 8 Vict. c. 85).[1] The authorities exercising jurisdiction over these matters are under the Railway and Canal Traffic Acts 1888 to 1894, partly the board of trade and partly the railway and canal commissioners. It is easy to see how a maximum rate might in many cases mean the same thing as the actual rate. Thus bye-laws under the Town Police Clauses Act 1847, and the provisions of the Metropolitan Stage and Hackney Carriages Act 1853, perhaps suggested by railway law, fixed the actual fare for cabs.[1] It is also to be noted that the provision for penny-a-mile fares in the act of 1844 (7 & 8 Vict. c. 85, § 6) has developed into The Cheap Trains Act 1883, under which the board of trade and railway commissioners have to be satisfied of the accommodation provided at this rate, and of the adequacy of provision for cheap workmen's trains. The limits within which they exercise their discretion are not defined.[1]

1 Here the state regulates prices.
2 Here the state directly competes with private industries.

(*b*) The rise and progress of the FACTORY ACTS (1802-1902) is traced elsewhere.

Thirdly, there are laws dictated by a new social policy with regard to old social conditions.

(*a*) The Elementary Education Act 1870 authorised the use of compulsion to make parents send their children to school. The compulsory clauses have been more and more enforced, especially under the Amending Act of 1880.

(*b*) Commissioners appointed by government have since The Land Law (Ireland) Act 1881 fixed the rents of Irish tenants, and since the Crofters' Holdings (Scotland) Act 1886 of Scotch "crofters."[1] The Irish act was extended to lessees by the Land Law (Ireland) Act 1887.

(*c*) The Allotment Acts 1832-1882 enabled local authorities to hold, hire, and enclose land for the purpose of letting it to industrious cottagers. These acts were chiefly if not exclusively applied for the purpose of restoring to the poor land taken from the poor under Inclosure Acts (see *e.g.* 8 & 9 Vict. c. 118, § 73). The Allotment Acts of 1887 & 1892 and sections 9 & 10 of the Local Government Act 1894, go further and enable local authorities to take land compulsorily for the purpose of allotments. Historically these laws grew out of pauper legislation (59 Geo. III. c. 12; 1 & 2 Will. IV. c. 42), logically they are the expression of new agrarian ideas to which there is no analogy since the Tudor and early Stuart policy of "laying land to houses" for the benefit of small tenants and labourers (see *e.g.* G. Roberts' *Social History*, 1856, p. 184).

(*d*) Compulsory terms are often read into certain contracts which pass property. Thus it is provided by 17th century judge-made law that a mortgagor cannot contract away his power of redeeming. The agricultural tenant *qua* agricultural tenant, can kill ground game under The Ground Game Act 1880, and has compensation for improvements under the Agricultural Holdings Acts 1883-1900. The tenant-right of Irish tenants includes under the land act of 1870 compensation for disturbance, and under that of 1881 fixity of tenure and free sale. Under the Merchant Shipping Acts 1854-94, the sailor's contract for wages involves a lien on the ship. The Employer's Liability Bill, which passed the House of Commons in 1893, gave workmen compensation for accidents on the false analogy of this principle, by compulsorily inserting an implied term in the contract between employer and employee. It has always been a moot point where the law of contract ends and the law of property begins. In all the above cases, except perhaps the last, the sphere of the latter was enlarged at the expense of that of the former. The judiciary or legislature held

in these cases that certain contracts shall be construed as necessarily involving the transference of certain rights of property. How far this means may be used to favour new schemes of social policy is one of the historical problems of our time (see LABOUR IN RELATION TO THE LAW; LABOUR STATUTES). J. D. R.

LAISSEZ-FAIRE (from American point of view). In treating the subject of *laissez-faire*, the earlier writers on economics in the United States follow the general lines laid down by their English contemporaries. For the most part they accept *laissez-faire* as an economic maxim, though they are by no means in agreement concerning the limits of its application as a fixed rule of practical statesmanship. The great point of controversy lay in its pertinency to the system of protection practised by the federal government, and upon this the principal American economists are divided. The "orthodox school" have displayed their deference to the classical English economists by going in many instances to an even greater extreme of claiming for all economic laws the force of unbending laws of nature. Thus Amasa WALKER (*Science of Wealth*, p. 110) maintains that so far as the state urges the claims of its own safety in justification of interference with industry, "the principles of economic science must be silent," but that this interference is rarely, if ever, necessary, and that it cannot be too often repeated that individuals only need to be "let alone." A. L. Perry (*Political Economy*, p. 96) speaks of the natural laws of production as "inexorable" in their operation, and as taking their revenge without pity whenever custom or legislation thwarts them. In his later *Introduction to Political Economy*, p. 153, he asserts that it would be nothing less than "presumptuous" for certain men to set up at will barriers to trade and then to undertake to defend these barriers as an economical blessing to the world. William G. Sumner, in the fifth of his *Lectures on the History of Protection in the United States*, repeats that we are living here "under immutable and inexorable laws of social organisation," which we can neither avoid nor evade, and which avenge themselves when we try to escape their operation. Simon Newcomb ranges himself with the "orthodox school," but is more moderate in his views. His *Principles of Political Economy* (p. 444 *et seq.*) distinguish between *laissez-faire* as a principle and as a policy. He enumerates certain non-economic limitations to its practical application; he further distinguishes between what he terms the "let-alone" principle and the "keep-out" principle, the former claiming that the government should not stop the citizen, the latter that it should not act itself. A review of the criticisms urged against the "let-alone" principle leads Newcomb to the conclusion that it cannot be regarded as a necessary and universal truth, but that the exceptions adduced are insufficient to prove the principle entirely invalid. In a later essay (*Science Economic Discussions*, p. 64) Newcomb tones down his contention for *laissez-faire*: "The school of non-interference claims that, as a general rule, these [economic] ends are best attained by giving the adult individual the widest liberty within the limits prescribed by considerations of health and morality."

The AMERICAN SCHOOL of early economists deny the universal applicability of *laissez-faire*, but they, too, are not at one with each other. Henry C. CAREY, the apostle of the protective system, regards *laissez-faire* as the goal in which that system is to end (cp. *Social Science*, iii. p. 442). His works would lead us to infer that the doctrine of *laissez-faire* is disastrous in its operation only when applied in a community in which industrial development is still to be accomplished (*ibid.* p. 516). Among his followers, Horace GREELEY (*Essays*, p. 129) simply refuses in so many words to accept the doctrine, which he proceeds to demolish with the adjectives "fallacious, pestilent, and utterly mistaken," while E. Peshine SMITH (*Manual of Political Economy*), and Robert E. Thompson (*Political Economy*), uphold the protective system as an exception to *laissez-faire*, as a condition of greater economic freedom yet to come. Francis BOWEN, likewise of the school of Carey, professes faith in the "let-alone" principle, whose limitations, he says (*American Political Economy*, p. 18), are nearly as obvious as the principle itself; and which is in no way infringed by the maintenance of a protective tariff (*ibid.* p. 21).

President Francis A. Walker holds aloof from both these "schools," though inclining slightly to the one first discussed. With reference to *laissez-faire* he agrees substantially with Cairnes and Jevons, whom he quotes with approval in his *Political Economy*, but adheres to the policy so far as to insist (p. 416) that freedom is the rule and restraint the exception. While the necessity of making exceptions to the rule of freedom of individual action has been completely established, those who make these are bound to show cause for every such act of interference; their case is to be made good against a powerful presumption in favour of liberty—the condition which has the promise not only of that which now is, but also of that which is to come (*ibid.* p. 464).

The real revolt against *laissez-faire* appears with the rise of the "new school" of American economists comprising the younger writers more or less influenced by German thought. This group, under the leadership of Richard T. Ely, was active in forming the American Economic Association in 1885 to protest against the all-sufficiency of *laissez-faire*. Ely had but shortly before asserted (*Past and Present*, p. 23) that

laissez-faire "never held at any time in any country, and no maxim ever made a more complete fiasco when the attempt was seriously made to apply it in the state." The first paragraph of the declaration of principles which he proposed for the newly-formed association concluded with these words: "We hold that the doctrine of *laissez-faire* is unsafe in politics and unsound in morals, and that it suggests an inadequate explanation of the relation between the state and the citizens." The discussion upon this subject disclosed the fact that while there were grave objections on the part of many present to taking a decided stand on the question of state interference, the trend of opinion was substantially in harmony with the declaration formulated by Dr. Ely. As finally accepted, however, the first paragraph reads: "We regard the state as an agency whose positive assistance is one of the indispensable conditions of human progress," while an appended note announces that it was proposed and adopted as a general indication of the views and purposes of those who founded the association, but was not to be regarded as binding on individual members. The general views of the "new school" also find expression in an exhaustive arraignment of the *laissez-faire* doctrine by Henry C. Adams, a leading member, entitled *The Relation of the State to Industrial Action*, and republished by the American Economic Association. Adams follows closely the analytical methods of Cairnes. He restates the doctrine in the form of a syllogism, and denies its logical basis; but he refuses to stop with Cairnes at destroying its claims as a working rule of economics, and supplies its place with a newly-formulated principle of state interference. He contends that it becomes the duty of the state to interfere in industrial relations, (1) to determine the plane of competitive action; (2) to realise for society the benefits of monopoly; and (3) to restore social harmony by extending the functions of the state. From this position, namely, of fixing a field where the rule of interference is to be recognised, toward which many of the younger economists seemed to incline a few years ago, a reaction has set in in very recent times—a reaction in which the attitude of President Walker is finding favour with the greater number of economic students in the United States. J. Lawrence Laughlin (*Journal of Political Economy*, I. No. 1) maintains that "the once-called 'new school'" is losing its authority in the American Economic Association, but this has been strenuously denied. The general drift of economic opinion, as indicated in the current writings of members of the association, however, appears to be against the exercise of state interference in every case where the preponderance of evidence is not clearly in favour of its expediency and beneficence.

The applications of the maxim of *laissez-faire* may be conveniently discussed with reference to the violations of the rule of non-interference by the federal, state, and municipal governments. (1) The legislation of the federal government has never conformed to the doctrine of *laissez-faire*. The very first revenue law enacted in 1789 professes in its preamble to afford protection to American industries, and this purpose has never been absent from the tariff, whether proposed by one political party or the other; while the author of the latest Wilson tariff law acknowledges that it is a protective measure. An outright bounty on sugar has been the culmination of the protective policy. The United States held stock in each of the two United States banks. It furnished funds for the first experiments with the electric telegraph, and encouraged the building of railroads by the grant of land subsidies and even by the loan of money. It suppresses note issues by state and private banks, and interferes to prevent the sale of food products under false names (as oleomargarine). (2) The state governments have been no less active in participating in industrial undertakings. They have built railroads, subscribed to the stock of railway corporations, and given them aid by donations of land and money. They have later stepped in to limit the abuses of private railroad management, in some instances ending in the statutory prescription of maximum rates of charges for the transportation of passengers and freight. They at one time quite generally entered into the banking business. Factory legislation of all kinds has found its way on to the statute-books of different states, while a few states have established limits upon the hours of daily labour. (3) American municipalities, when duly authorised thereto, have not hesitated to overstep the bounds prescribed by *laissez-faire*. Their activity lies largely in the field of so-called "monopolies of service." In 1890, nine cities owned and operated gas-works; out of 2037 water-works plants, 877 were under public management; about 150 cities and towns operated electric lighting plants; one street railway was conducted by a municipal administrative board. At the same time many other cities shared in the profits of these quasi-public enterprises. The activity of American municipalities in this field appears to be on the increase.

[Amasa Walker, *Science of Wealth*, N. Y., 1866.—A. L. Perry, *Political Economy*, N. Y., 1883; *Introduction to Political Economy*, N. Y., 1883.—William Graham Sumner, *Lectures on the History of Protection in the United States*, N. Y., 1884.—Simon Newcomb, *Principles of Political Economy*, N. Y., 1886.—H. C. Carey, *Social Science*, Phila., 1877.—Horace Greeley, *Essays designed to elucidate the Science of Political Economy*, Phila., 1869.—E. Peshine Smith, *Manual of Political Economy*, Phila., 1877.—Robert E. Thompson, *Political Economy*, Phila., 1882.—Francis Bowen, *American Political Economy*, N. Y., 1870.—Francis A. Walker, *Political Economy*, N. Y., 1883.—Richard T. Ely, *Past and Present of Political Economy*, Balto., 1884.—Henry C. Adams, *Relation of the State to Industrial Action*, Balto., 1886.—C. F. Dunbar on the "Reaction in Political Economy," in *Quarterly Journal of Economics*, Boston, Oct. 1886.—J.

Lawrence Laughlin on "Political Economy in the United States," in *Journal of Political Economy*, Chicago, I., No. 1, 1893.—*Science Economic Discussion*, N. Y., 1886.—*Report of the Organisation of the American Economic Association*, Balto., 1886.] V. R.

LA JONCHÈRE, DE. See DE LA JONCHÈRE.

LAKH or LAC is a Hindustani word meaning 10,000, commonly used in Indian finance in computing rupees. C. A. H.

LALOR, JOHN (1814-1856), was a writer on social questions. He graduated at Trinity College, Dublin, in 1837. As an assistant poor-law commissioner he collected much valuable information, but in 1836 he left Ireland for London, where he became one of the editors of the *Morning Chronicle*. About 1844 he also became editor of a Unitarian weekly paper, *The Enquirer*, to which he contributed papers on social questions, such as the Factory Bill, Ireland, and Education.

Lalor's last work was *Money and Morals: a Book for the Times* (London, 1852). The problem here discussed is what will become of the ten millions of new gold which, "within a comparatively short period," says Lalor (p. 103), have come into England. The author thinks that instead of coming into the currency the influx will quicken trade, especially in Lancashire (p. 110), encourage rash speculation, and effect a rise not only in manufacturing, but also in agricultural incomes. In short, it will exist as capital (p. 124). In the second part of the work Lalor advocates "the adoption of a financial policy, which, though perfectly consistent with free trade in the food of the people, is not consistent with the exaggerated maxim of leaving the whole direction of industry to private interest" (p. 125). As a precaution against the *laissez-faire* principle, he suggests the expenditure of excess capital in agricultural or colonising loans, in the improvement of town dwellings, sanitation, and the water-supply. The position of England among the nations, and the national defences, are next discussed, while in part iii. the author passes on to consider the remedy for the social evils with which England is threatened. After discussing the respective prescriptions of Auguste COMTE and T. CARLYLE, Lalor insists that practical Christianity can be the only effectual cure for the diseased body politic. A portion of the book was in 1864 reprinted as *England among the Nations*. A. L.

LA LUZERNE, CÉSAR-GUILLAUME DE (1738-1821), termed by Lecky "an eminently wise and high-minded statesman," entered the church and became Bishop of Langres at the age of thirty-two. In 1789 he endeavoured to stem the democratic torrent by proposing the establishment of a second chamber, and, when this proposal was rejected, the addition of 600 members to the representatives of the nobles and clergy. Unable to influence events, he retired to his diocese, and afterwards emigrated to Switzerland, whence, however, he returned on the accession to power of Napoleon. After the restoration he was made a peer of France, and in 1817 a cardinal.

Among numerous other works he wrote *Dissertations sur le prêt du commerce*, Dijon, 1823, 8vo, 3 vols.; a voluminous treatise on the lawfulness, from the stand-point of the Roman Catholic Church, of taking interest for money (see INTEREST AND USURY).

[*Dictionnaire des Parlementaires Français*, Paris, 1891, vol. iv.—*Nouvelle Biographie Générale*, Paris, 1860, vol. xxix.—*Introduction to the Study of Political Economy*, by L. Cossa, Eng. trans., London, 1893, 8vo, p. 162.] H. E. E.

LA MARE, DE. See DE LA MARE.

LAMBE, SAMUEL (fl. 1657), merchant, published *Seasonable Observations humbly offered to his Highness the Lord Protector*, London, 1657, fol., in which he suggested the establishment of a bank at London. His scheme was, that governors should be chosen from the trading companies, that the bank should "let out imaginary money on credit at 2½ or 3 per cent at most," and receive deposits withdrawable on demand, that all "bills of exchange" should be received and paid into the bank, and that the profits should go "to the good men who manage the bank." The bank was also to supply another subordinate one "with stock to let out any sum under £5 or £10 at reasonable rates upon pawns or other security." Lambe's proposals were referred to a committee of the East India Company for their consideration on 30th Dec. 1657. His work also contains useful information on the Navigation Act, the competition between England and Holland, and other subjects. W. A. S. H.

LAMBIN DE SAINT FÉLIX. See LOTTIN, A. P.

LAMMAS-LANDS, LAMMAS-MEADOWS, were open-field arable and pasture lands, held in severalty and enclosed during the growing of the corn and hay crops respectively, but open during the rest of the year to all who had rights of common upon them. They were thus commonable, not common, lands. Under the old open-field system of agriculture such common rights might be upon the whole a convenience to the inhabitants, but the introduction of roots made rights of winter pasture intolerably wasteful; as late, however, as 1844, lands subject to these rights were still abundant in England, though there were few or none in Wales.

Lawyers generally distinguish "lammas" from "shack" lands by the fact that the former were commonable to other inhabitants besides those having severalty rights on the land. But Nasse (*Feldgemeinschaft*, p. 3) denies this distinction, which he thinks a mere local detail. The classes of commoners varied locally: they were "sometimes the inhabitants of the parish; sometimes a class of inhabitants,

as the freemen of the neighbouring town, or even the householders; and perhaps more generally the owners or occupiers of ancient tenements within the parish, usually termed tofts" (G. W. Cooke, *Acts for facilitating the Inclosure of Commons in England and Wales*, 1850). The usual time for the resumption of common rights was Lammas-day, 12th August[1] (the old 1st August) for arable lands, and 6th July (the old Midsummer) for meadows. Commonable meadows were probably called lammas-meadows by analogy, as it is rare to find them opened as late as Lammas-day. In some cases the common rights lasted till November, in some till the middle of February. The fixed dates for opening, especially Lammas-day, gave rise to difficulties which were met in various ways. About Nottingham, when the customary day arrived, according to a witness before the select committee in 1844, "the population issue out, destroy the fences, tear down the gates, and commit a great many other lawless acts, which they certainly have a right to do." These Nottingham lands were used for recreation, not for pasture. In other places things were managed better. On the lands of St. John, Hackney, on 26th July 1692, the "proprietors of the commonable lands" were "allowed ten days to carry off their crops on account of the wett"; and there is a similar entry in 1763 (Garnier, *English Landed Interest*, 1892, p. 202). Scriven (*Law of Copyholds*, 6th edition, p. 310) cites a case where the beginning and end of the season were regulated by bye-laws made by the tenants of the manor; and an act of 13 Geo. III. c. 81, § 7, enacted that three-fourths in number and value of the occupiers of open- and common-field lands might agree in a meeting to postpone the opening for a reasonable time. Later enclosures have left few traces of these commonable lands.

[See evidence of Messrs. Blamire, W. Keen, T. Hawkesley, T. S. Woolley, R. F. Graham, and H. Chawter before Select Committee on Inclosures, 1844.—J. Williams, *Rights of Common*.—Elton, *Treatise on Commons and Waste Lands*.—Woolrych, *Rights of Common*.—Vinogradoff, *Villainage in England*.—Maine, *Village Communities*, Lecture iii.—Marshall, *Rural Economy*, of various counties.—For similar French custom, see Seebohm, "French Peasant Proprietorship," *Econ. Jour.*, 1891.]

E. G. P.

LAMOND, ELIZABETH (1860-1891), was the eldest daughter of William Lamond, advocate at the Scotch bar. She had hoped to devote herself to teaching, and she was engaged in this work at St. Andrews before entering Girton College, Cambridge, where she obtained honours in history (1885-1887). After a few months of teaching at Winchester her health gave way and she was forced to occupy herself with literary work. In 1890 she edited for the Royal Historical Society four unpublished treatises in Norman French, *Walter of Henley*, *Seneschaucie*, the anonymous *Husbandry*, and Grosseteste's *Rules*. The translation and glossary gave proof of her scholarly feeling and accurate knowledge. In the course of researches connected with this work, she discovered that the well-known dialogue, published by W. S. in 1581, had been composed some years earlier, and in a convincing article in the *English Historical Review* in April 1891, gave good grounds for believing that it had been really written in 1549, that John HALES was the author, and that Coventry was the place of writing. She was not able to complete the edition of the *Discourse on the Common Weal of this Realm of England*, on which she was engaged at the time of her death; but a posthumous publication contains the result of her researches. *Walter of Henley*, Longmans. —*Discourse of Common Weal*, Camb. Univ. Press. See also a review of the latter work in *Economic Journal*, December 1893. W. C.

LAMPREDI, GIOVANNI MARIA (18th century), professor of public law in the university of Pisa, and author of *Del Commercio dei popoli neutrali in tempo di guerra*, Milan, 1831, 12mo.

This work, which according to M'Culloch (*Lit. of Pol. Econ.*, p. 127) is well reasoned and of considerable authority, was twice translated into French, first by Jos. Accarias de Serionne (La Haye, 1793, 2 vols. 8vo), and again by Peuchet (Paris, 1802). The latter, in his preface, remarks that Lampredi has on the whole treated his subject impartially, but with a strong bias in favour of neutral goods passing free.

Other publications of Lampredi are:—*Del governo civile degli antichi Toscani e delle cause della lor decadenza, discorso*, Lucca, 1760, 4to.—J. M. L. . . . *de licentia in hostem liber singularis, in quo S. Cocceii sententia de infinita licentia in hostem . . . confutatur*, Florence, 1761, 8vo.—*Saggio sopra la filosofia degli antichi Etruschi, dissertazione istorico-critica*, Firenze, 1756, 4to. A. L.

LAND. Primitive custom recognises certain rights in and over land: the "right of the first clearer" to regard the land which he cultivates as his own family holding (Baden Powell, *Systems of Land Tenure in British India*, i. 221); the right of a chief or freeman to a share in the territory which he helps to defend against outsiders; the right of a chief to levy tribute from those who hold land under his protection. There is at this stage no ownership in the modern sense of the term; the powers of the individual are controlled by family rights and local custom. Common

[1] The new style was introduced throughout the British dominions in 1752, by omitting eleven nominal days after 2nd Sept., and dating the next day 14th Sept. instead of the third.

ownership, it should be noted, is not a mark of social equality, but rather of inequality; it grows out of the combination of members of a ruling family to maintain their landlord-right, or of members of a subject community who can only live and pay their tribute by adopting co-operative methods of husbandry. When the state comes into existence the family loses some of its importance; the individual chief or house-father is not merely the administrator of a common inheritance; he is *dominus* or owner of his land; it is a thing *in patrimonio*, to be disposed of by will or settlement, a thing *in commercio*, which he can sell or mortgage. *Dominium*, absolute ownership, is the basis of the Roman law of ownership and possession. The system had great economic advantages, but the small cultivating owner could not hold his own under the stress of competition; the tendency was towards the formation of the LATIFUNDIUM, large estates cultivated by slaves. The Teutonic chiefs who founded their kingdoms on the ruins of the empire admired the precision of Roman law; but they retained the primitive belief in the tribal or national organisation of society. The king as leader of the nation was lord paramount over all lands, and claimed service and allegiance from their owners; he was not in direct relation with the peasantry, except on his own estates, but he protected them, so far as he had power, against the oppression of their immediate lords. England is a typical example of feudal monarchy; the state, represented by parliament and the king's judges, broke down the rights of the great lords, and gave freedom of disposition to all owners of land. In 1285 the lords obtained an act to maintain the strict rule of entail; but the courts did not favour "perpetuities," *i.e.* arrangements for tying up property for indefinitely long periods; the statute was evaded, and the owner in fee tail was enabled to exercise all the rights of an owner in fee simple. Military tenures were finally abolished in 1661. The services of SOCAGE tenants (ordinary freeholders) were commuted for fixed sums of money; with the change in the value of money these annual payments became of no importance and were bought up or forgotten. Copyhold tenure, where it survives, still operates to curtail the freedom of disposition enjoyed by the owner of land; but the Copyhold Acts, passed between 1841 and 1887, provide a variety of forms whereby copyhold lands may be enfranchised or turned into freehold (see the Copyhold Act 1894). The Real Property Commission of 1830 marks a turning-point in the history of our land laws; the suggestions of the commissioners were embodied in a long series of reforming statutes. Forms of settlement and conveyance have been simplified, and extensive powers of disposition have been given to limited owners, *i.e.* to persons having a life estate or other limited interest in land. Under the Settled Land Act of 1882 a tenant for life may sell a family estate; the purchase money is treated as capital to be invested, and remains subject to the trusts of the settlement. In many points the law of real property has been assimilated to the rules which govern the devolution and disposition of personal property. Legislation has not destroyed the sentiment which leads an owner of land to add to his estates and to transmit the inheritance undivided to his eldest son; the practice of resettling family estates in each generation still prevails among the great landlords. There has been of late years a marked reaction against the liberal doctrine of absolute ownership and free contract. The Agricultural Holdings Act of 1883 is based on the assumption that a tenant-farmer is not in a position to contract freely with his landlord, and must therefore be protected by the state. The Irish Land Acts of 1870 and 1881 had gone farther in the same direction; they introduced a kind of dual ownership in land, and attempts have since been made to restore the rule of individual ownership by assisting the tenant to purchase his landlord's interest. In Scotland, the crofters of the highlands and islands have obtained legislation of a similar character. In England, there has not been as yet any urgent demand for judicial rents or schemes of land purchase; farmers are fairly content with the Agricultural Holdings Act, and labourers with the acts which facilitate the acquisition of allotments and small holdings. Socialist ideas in regard to land have begun to influence the popular mind. Sir Henry Maine pointed to the rapid settlement of North America as an example of what can be done under a system of individual ownership; Mr. Henry George uses the United States as an example of the evils caused by permitting large tracts of land to be held and disposed of by private owners. Mr. George would "nationalise" the land by taxing it up to its annual value; and in England various plans have been proposed for intercepting what is called the "unearned increment" in the value of land (see BETTERMENT). If the legislature succeeds in creating a large body of small owners, there will probably be a reaction in favour of absolute ownership; for this reason the more logical among Mr. George's disciples oppose the measures which have for their object the multiplication of peasant proprietors.

Laws requiring the registration of all titles to land are advocated on the ground that they help to simplify transfers. They have worked well in new countries, but great difficulties are encountered in applying such laws to an old country where titles are already complicated. In England the acts permitting or requiring registration have not been successful.

[Fustel de Coulanges, *Origin of Property in Land* (Eng. trans. by M. Ashley).—Baden Powell, *Systems of Land Tenure in British India.*—Cobden Club, *Systems of Land Tenure in different Countries.*—Shaw Lefevre, *Agrarian Tenures.*]

T. R.

In connection with Land the following articles occur in the Dictionary: — Agricultural Community; Agricultural Holdings Acts; Agricultural Systems; Agriculture in England; Allotments; Arable Land, Conversion of, into Pasture; Commons; Corvée; Cottiers; Culture, Large and Small; Depopulation; Depression, Agricultural; Domesday Book; Emigration; Enclosures; Enfranchisement of Land; Entail; Farming; Feudalism; Forests, Mediæval; Forests, Economic Aspects of; Gangs, Agricultural; Holdings, Large and Small; Impôt Unique; Land; Land Companies; Land, Domaine Congéable; Landgafol; Land, Law Relating to; Land Legislation, Irish; Land, Nationalisation of; Lands, Public, of the United States; Land Registration; Land System in the American Colonies; Land Tax; Land Tenures; Land Banks, Schemes of, in England; Landes-Creditkassen; Majorat; Manor; Métayage; Métayer, in West Indies; Minorat; Open Fields; Peasant Proprietors; Primogeniture; Rent; Rent Charge; Rent of Land; Serf; Services, Predial and Military; Settled Land.

LAND COMPANIES may, as a result of practical experience, be divided into two classes: one consisting of those which are concerned with the exploitation of large blocks of land, chiefly abroad; the other of those which deal rather with the financing of owners and occupiers of land and the realisation of their produce.

(1) Companies which take up blocks of land may be again subdivided into two classes, consisting respectively of—

(*a*) Those whose primary object is colonisation. A notable example of these, both from its own history and its close connection with Edward Gibbon WAKEFIELD, was the old New Zealand Company of 1825, which became in 1838 the New Zealand Colonisation Company, and in 1839 the New Zealand Land Company. To a large extent this company, by taking up lands and allotting them to settlers, was the parent of colonisation in New Zealand. It was a type of a regular system of which there were other examples about the same period of English history. In later times (1884), the Methuen settlement in South Africa, which turned out a failure, was a company of this kind, and the more recent Bechuanaland Concessions Company, now merged in the London and Pretoria Financial Agency, had a similar object in taking up and re-selling large areas of farm land.

(*b*) Those companies whose primary object is the use of the land for mining, timber-cutting, etc., and more rarely for actual cultivation. This is the more popular class at the present time; and of late years many large concessions of land all over the world have been given for these purposes both by civilised and savage states. The Bechuanaland Land and Exploration Company, the Mexican Concessions Company, the Pahang Concessions Company, are instances which have been recently before the public. Such companies are too often of a speculative character, and too apt to rely upon making profits by parting with portions of their territory to other companies.

The British South Africa Company is a notable instance of a company combining both functions [cp. COLONIES, GOVERNMENT OF, BY COMPANIES].

(2) "Land mortgage and financial agencies" is the general term adopted in the share lists for companies of our second class, but their titles vary; for instance we have the Anglo-African Land, Mortgage, and Investment Company, the Auckland Agricultural Company, the British Land and Mortgage Company of America, and others all devoted to the same class of business. There are at least fifty companies with a paid-up capital of over £20,000,000 enumerated in the stock exchange lists primarily connected with the land. One "deals with real estate," another is designed "to lend on first mortgages in the States and Canada," another is to work certain estates with a view to resale; others deal in products as well as land. But all have the general scope above indicated (see also MORTGAGE BANKS).

C. A. H.

LAND, DOMAINE CONGÉABLE (literally ejectable domain, also called *tenure covenancière* or holding by covenant). This form of tenancy, peculiar to Celtic Brittany, which has not yet disappeared, seems to have been introduced during the last centuries of the middle ages; a law of the 6th of August 1791 suppressed the feudal incidents which had gradually been annexed to it, but allowed the principle on which it is based to continue. The position of landlord and tenant is as follows: with respect to third parties, the tenant enjoys all the rights of a freeholder; with respect to his landlord, he is only bound to pay a fixed rent, which in former times was generally very low. In modern times the practice of nine years' leases has prevailed, the leases being renewable on the payment of a fixed sum of money called *commission* or *nouveauté*. The landlord has only the ownership of the ground (*fonds*), the tenant owns the buildings and enclosures which he has erected, the trees he has planted, even the one-year-old furze which grows on waste land: hence the distinction between the *foncier* and the *superficiaire* or *domanier*. The former may always serve on the latter a notice to leave (*congément*), but in that case he is obliged to pay him a full compensation according to a detailed valuation for the buildings, plantations, crops, enclosures, improvements, etc. Owing

to the heavy expenses entailed by a *congément*, this system led to the stability of the tenantry and the most efficient cultivation consistent with the nature of the land and the agricultural knowledge of the period; it is, in fact, a thorough application of tenant right.

The passion of the French peasantry for the investment of their savings in land has exerted an unfavourable influence on the maintenance of this kind of tenancies; still, at the end of the second empire it was computed that about one-third of the territory of Brittany was held under these terms.

[Duseigneur, *Histoire du Domaine Congéable* in his *Études sur l'Histoire du Finisterre* (pp. 355-414), Brest, 1878.—Baudrillart, *Les Populations Agricoles de la France, Normandie et Bretagne* (pp. 387-395), Paris, 1885.—Paul Henry, *Une vieille Coutume Bretonne: Le Domaine Congéable*, Angers, 1894. See *Les Classes Rurales et le Régime Domanial au Moyen Age*, Paris, 1901, pp. 579-585. E. Ca.

LANDGAFOL, a customary rent paid to the lord of the manor by his tenants, distinct from other customary payments due to him on special occasions. The distinction grew clearer with the process of commuting services and payments in kind for money (see GAFOL).

[Vinogradoff, *Villainage in England.*—Round, *Domesday Studies*, vol. i. p. 133.—*Domesday of St. Paul's*, Archdeacon Hale's note, p. lxix.] E. G. P.

LAND, LAW RELATING TO. The law of property is chiefly concerned (1) to define the nature of the rights which are recognised in objects of property, and (2) to define the modes in which such rights may be acquired, transferred, or extinguished. With respect both to the rights of which it is the object and to the acquisition, transfer, or extinction of such rights, land differs from every other object of property. Land is immovable, imperishable, and wide in extent. It is a prime necessary of life, and furnishes the raw material of all wealth. It admits of being used in innumerable ways. It has been a basis of political power and social consideration. It is susceptible of what Bentham terms "a value of affection," as distinct from market value in a higher degree than any other object of common use. At the same time it is limited in quantity, and although it can be rendered more productive by the expenditure of capital and labour, the returns from this expenditure fall off after a certain point has been reached, and at a remoter point become inappreciable. As compared with other forms of wealth, land is, in the long run and in most countries, the most generally and the most ardently coveted. Under these circumstances it is natural that the law relating to land should be complex, and should differ much in different times and places.

The right of property in land admits of subdivision in various ways. The state is everywhere supposed to have certain rights over the land which are indispensable for the safety and welfare of the public. These rights are sometimes termed its EMINENT DOMAIN. A familiar instance is afforded by the claim of the state when it thinks expedient to purchase or to enable others to purchase land which the owner is not disposed to sell. The Roman lawyers held that though there might be full ownership in the soil of Italy, there could be only a possessory right in the soil of the provinces which was, strictly speaking, vested in the Roman people or in their representative the emperor. The chief practical indication of this difference was the land-tax, which was paid by the provinces, but not by Italy. In eastern countries the proprietary right of the sovereign is so large and vaguely defined that it is difficult to say how far the subject can ever be deemed a proprietor. But the subdivision of proprietary rights over land with which we are most familiar has resulted from the feudal conceptions of tenure and of particular estates in land (see FEUDALISM; MANOR).

According to the rigorous feudal theory, the sovereign alone has property in the land, and no subject can be more than a tenant. But every tenant may give himself sub-tenants, and they may repeat the process indefinitely. Thus the land would come to support an ascending hierarchy of tenants closing in the king as lord paramount. Each would have rights that could not be lawfully infringed, and duties that could not be lawfully discarded. Each would be protected by law, and still more by custom, against the rest. The king, who had the loftiest theoretic claim, would probably derive the least practical advantage from the land. It would be difficult, were the doctrine of tenure carried to its logical conclusion, to say who, if any, of the persons interested in the land could be termed its proprietor. But the process of subdividing interests in the land is carried still further by the help of the doctrine of estates in land. For each person in the ascending scale which we have described might have his interest in the land either for life, or to himself and the heirs of his body, or to himself and his heirs generally. He might have an estate for life, or an estate tail, or an estate in fee simple. If his estate were only for life he would be unable to devise it by will, or to give anybody rights in the land lasting beyond his own decease. Nay, more, his power of using and enjoying the land would be restricted in the interest of those who were to come after him. If his estate were an estate in tail or in fee simple his powers of alienation and enjoyment would be more extensive. Under feudal law, in brief, not only may proprietary rights be divided between lord and vassal, but they may also be divided between tenant in possession

and tenant in remainder (ENTAIL, LAW OF). A man who has the largest estate possible in land, in English law a tenant in fee simple, can thus carve out of his own interest a number of lesser estates to take effect after his death, so as to control its devolution for many years. The natural wish of landowners to exert this power to the utmost has given rise to *family settlements*, and the endeavour of the judges to restrict the practice of settlement in the public interest has given rise to the rules against *perpetuities*. The decay of the manorial system produced a distinct form of imperfect ownership of land, known in England as copyhold tenure, which was once widely extended in western Europe, but was abolished on the Continent by the French Revolution, and is gradually disappearing in England by the operation of the acts for the enfranchisement of copyholds.

The tenures of which we have hitherto spoken are distinctly feudal in origin, and have either been abolished, as in France, or have been rendered almost unmeaning as in England. In England, successive statutes, framed without any regard to symmetry, have removed almost all the inconveniences attaching to the feudal law of real property, and have left hardly anything of feudalism save names and forms. The relation of landlord and tenant has nothing feudal about it. Indeed, the strictly feudal law regarded a lease as unworthy of its attention, as may be seen by the fact that leaseholds are regarded not as *real* but as *personal* property. The practice of letting land for a money rent has been recognised by all civilised legal systems. It does not involve a division of ownership, but it may assume forms which are tantamount to such division. Thus, by the Roman contract of EMPHYTEUSIS the tenant acquired the land in perpetuity, subject to the obligation of paying rent. The Irish tenant, whose rent can be altered only at intervals of fifteen years, and then only by the decision of a court, has an interest in the land which often exceeds in market value the interest of the landlord. Such a tenant can hardly help regarding himself as at least part proprietor. Political, economical, and social forces are constantly operating on the legal relations of the classes living on the land, and may turn a nominal tenant into a virtual owner, as they have turned nominal owners into virtual serfs. Even when it is easy to ascertain the proprietor of a piece of land, his right of property may be limited by rights over that land vested in other persons. Such rights are described in Roman legal language as *jura in re aliena*. They are of two kinds. Some are valuable in themselves, whilst others are valuable only as security for a debt due from the owner of the land. Rights of the first class, known in Roman law as *servitudes*, and in English law as *easements*, and *profits-à-prendre*, are exemplified in the right of way across another's land, in the right not to have ancient lights darkened by the erection of new buildings, and in rights of common which include the right of grazing cattle, the right of digging gravel, the right of cutting turf and firewood, and so forth. Rights of this class may be enjoyed by a man as proprietor of certain land, and are then said in English law to be *appendant* or *appurtenant*, or they may be enjoyed by him irrespective of any such property, and are then said to be *in gross*. A similar distinction was expressed in Roman law by calling some servitudes *prædial* (Lat. *prædium*, an estate) and others *personal*. It is worthy of note that the Roman lawyers regarded a right of usufruct in land, the nearest equivalent of the English estate for life, not as a form of property, but as a personal servitude. The second class of rights enjoyed with reference to the land of another includes such as form a security for debt. As land, whilst highly valuable, can neither be removed nor concealed, it has always been the favourite security for money lent, and the law of *mortgage* forms an important chapter in the law of land. In the primitive mortgage the debtor conveys the land to the creditor subject to a condition that it shall be reconveyed to himself when he repays what he has borrowed. Should he fail to pay punctually he will lose his land, although its value may far exceed the amount of the debt. The injustice of such a transaction led to the invention of improved forms of mortgage The *hypotheca* of later Roman law was a contrivance by which the mortgaged land was left in the ownership and possession of the debtor whilst the creditor obtained the right of realising his debt out of it in case of default in payment. The modern English mortgage, the result of the correction of the common law by courts of equity, resembles the *hypotheca* in its practical working, although it retains the form of a conveyance.

The modes of acquiring, transferring, and extinguishing rights of property are in the main similar for land and for other objects of value. Land which has no owner—there is none such in England—may be acquired by the first occupant or by the owner of other land to which it accedes, as where a field is enlarged by alluvial deposit. The course of years (see LAPSE OF TIME; PRESCRIPTION) may extinguish an old and create a new proprietary right. Sale, gift, exchange, and succession, testamentary or intestate, transfer rights of property in land as in other things. But a peculiar form is often required for transactions affecting interests on land. Land cannot be passed from hand to hand like a movable. It is peculiarly necessary, therefore, to provide evidence of transfer. In primitive times, when writing was either unknown or little used, this object

was attained by requiring for every transfer of land certain solemn forms which might impress the memory, not merely of the parties, but also of the community or at least of the neighbours. Such was the primitive Roman *mancipation*, a formal sale in the presence of five witnesses and of a man who held the balance used to weigh the uncoined money of the early Italian society. Such, too, was the old English ceremony of *livery of seisin*, the symbolical delivery of land by the seller to the purchaser. But where the art of writing has been generally diffused, written documents are found more convenient to execute and more effectual in preserving an exact record of what has been done. In England at the present day a deed is the recognised form for conveyances, leases, mortgages, and so forth. But where manifold interests have been created in reference to one piece of land, such documents are apt to be lengthy, and where dealings in land are frequent they accumulate to an inconvenient extent. Hence the advantage of a further reform, the registration of title (see LAND REGISTRATION). An efficient system of registration ensures a complete, concise, and authentic record of all transactions affecting land, and thus promotes the abbreviation of legal documents and the reduction of legal charges. England is one of the few civilised countries which does not possess an effective registry of title to land.

Passing from the outline of the law relating to land to the suggestions which have been made for its improvement, we have to remember that every plan of reform is to be judged in relation at once to the existing circumstances and to the object which it is designed to accomplish. The object of an agrarian reformer may be either to improve the condition of tenants on the land of another, or to multiply proprietors, or to put an end to private property in land and vest it either in the sovereign or in municipal authorities. The first of these objects is sought by measures securing to the tenant compensation for the improvements which he has made (see AGRICULTURAL HOLDINGS ACTS), or fixity of tenure at a fair rent and freedom to sell the interest on the land which such fixity creates (see F's, THE THREE; and LAND LEGISLATION, IRISH). The second object, that of multiplying proprietors, may be obtained by various expedients, such as (1) the establishment of a system of free alienation and registration of title so as to encourage sales and to make the sale of small parcels of land expeditious and cheap, or (2) making advances of public money to tenants, especially to such tenants as already enjoy fixity of tenure, in order that they may buy out their landlords and become full proprietors, or (3) enabling lessees of house property to compel the lessors to sell the reversion, and thus enlarging leaseholds into freeholds, what is commonly known as leasehold enfranchisement, or (4) enforcing the partition of landed estate among the children of a deceased owner, on the principle adopted by the *Code Napoléon*. It may be said that there is a real affinity between reforms of the first and of the second class. Measures tending to secure to tenants the advantages known as the Three F's find their natural complement in measures tending to turn tenants into full proprietors. For what is virtually a divided ownership can hardly be permanent in a society not governed by immemorial custom. The charms of property are most strongly felt by him who is absolute proprietor. Reforms of the third class, reforms which aim at the abolition of private property in land, are advocated on totally different grounds, and imply a totally different economic theory. To this class belong proposals for the "nationalisation" of land, *i.e.* the transfer to the state of all private rights of landed property, and proposals for the "municipalisation" of land in towns, *i.e.* the transfer to the municipal authority of all private rights to land within its jurisdiction. Those who advocate changes of this nature differ on the question of giving or refusing compensation to evicted owners. But they agree on the more fundamental point of allowing no private person to be more than a tenant. Far more restricted in scope, and resting in some measure on narrower arguments, is the proposal to give municipal authorities the advantage of what is known as betterment (see BETTERMENT), in other words, to give them the power of charging the expense of municipal improvements upon the owners of land which is increased in value by such improvements.

[Holland, *Jurisprudence.*—Poste, *Institutes of Gaius.*—Moyle, *Institutes of Justinian.*—Pollock and Maitland, *History of English Law.*—Digby, *History of the Law of Real Property.*—Blackstone, *Commentaries*, vol. ii.—Edwards, *Law of Real Property.*—Williams, *Principles of the Law of Real Property.*—Goodeve, *Modern Law of Real Property.*—Pollock, *The Land Laws* (English Citizen Series); (comp. SASINE; SEISIN).]

F. C. M.

LAND LEGISLATION, IRISH. The history of modern legislation with regard to land in Ireland is full of economic interest. The agrarian troubles of Ireland have arisen from many causes, the most important of which are, perhaps, the following: (1) The forcible dispossession of the original proprietors by foreign conquerors. The first English conquest of Ireland, effected under the Plantagenets, did not lead to chronic agrarian strife, because the Anglo-Norman barons adapted themselves to Irish ways and became Irish chiefs. But the three subsequent English conquests by Elizabeth, by Cromwell, and by William III., led to the confiscation of much the greater part of the

land of Ireland, and established a new class of landowners closely connected with England and severed by religion from the peasantry. In parts of the north of Ireland not only the native chiefs but the native cultivators had been ousted to make room for English or Scotch settlers, and here the new landlords and tenants lived on tolerably good terms. But elsewhere the owners and the cultivators were too generally enemies, or at least aliens, to one another.

(2) The defects of the new agrarian system introduced by conquest. The English conquerors naturally introduced into Ireland the agrarian system to which they were accustomed at home. But they omitted one thing essential to its proper working. Since agriculture became a progressive art in England all great agricultural improvements have been made by the landlord. They would not have been made by the tenant who has no legal fixity of tenure. In Ireland the making of agricultural improvements was commonly left to the tenant. He was generally too poor to execute them properly, and he had no security for compensation when he had made them. For he had no legal fixity of tenure, and with the growth of population was exposed to a severe competition for holdings. In Ulster and in some districts elsewhere custom protected the tenant against arbitrary eviction or the appropriation of his improvements by the landlord. Under this custom, known as the ULSTER TENANT-RIGHT, the tenant could sell his interest in the holding to his successor. Where this custom prevailed, agriculture as a rule flourished. Elsewhere it was very backward.

(3) The normal balance of occupations was never attained in Ireland. Agriculture, especially in the south and west, was almost the only resource of the population. Ireland is not well adapted for manufacturing industry, and such industries as the English and Scotch settlers had brought with them were too often crushed or hampered by the misdirected legislation of the English parliament in the 18th century. Commerce and manufactures, which would have drawn off the surplus population, and furnished new capital for the improvement of the land, were thus reduced to the narrowest limits.

(4) The evils arising from these causes were intensified by the introduction of the potato, which in the 18th century became the staple food of the Irish peasant. This cheap and abundant food enabled a poor and prolific people to multiply at a rate hitherto unknown in old countries. In 1741 Ireland may perhaps have contained two million inhabitants. In 1841 it contained upwards of eight millions. The majority of these eight millions were sunk in extreme poverty. The land was subdivided to an extent incompatible with its proper cultivation or the well-being of the cultivator. Competition raised the rent of land in many cases beyond the amount that could be extracted from the soil. It necessarily followed that hundreds of thousands of tenants were hopelessly in arrear with their rent and exposed at every moment to eviction. Under these circumstances the proprietors themselves could not be prosperous. They had too generally adopted the careless, sociable, and extravagant habits of the native gentry whom they had displaced. They were in many instances hopelessly sunk in debt or burdened with family encumbrances, and quite unable to face the expenditure necessary to put their affairs into decent order. Such was the agrarian condition of Ireland when the potato blight of 1846 and 1847 brought about, first, a terrible famine; secondly, a great mortality from epidemics; and lastly, an immense emigration to the New World. In a short time Ireland lost one-third of her population. About the same time the repeal of the corn laws deprived the Irish farmer of his advantage in the best market of Europe. The potato blight and the repeal of the corn laws led to a wide extension of pasturage and to evictions of tenants. These in turn added fuel to the agrarian discontent which has always been smouldering in Ireland. Then it was generally felt that something must be done. But the public opinion of England and the sentiment of the Irish peasants were not in accord. The ruling passion of the Irish as of the French peasant is to become proprietor of his holding. This passion, however, could not be gratified without the breaking up of great estates, which involved sacrifices on the part of Irish landowners, and was distasteful to the English landed interest. Failing full property in his holding, the Irish tenant desired fixity of tenure, which most landowners were unwilling to concede. The economic ideas then predominant in England were opposed to any interference with the free play of competition, and the determination of rent by the higgling of the market. Thus the progress of Irish agrarian reform was slow. It falls into three stages.

I. An attempt to get rid of embarrassed landowners, and to replace them with new men of energy and capital.

II. A gradual concession to the Irish demand for what are known as the Three F's—(see F's, THE THREE), fair rent, fixity of tenure, and freedom of sale.

III. An attempt still in progress to turn the tenant into a proprietor by advances of public money for the purpose of enabling him to buy his farm.

I. The Encumbered Estates Acts.—

The first of these is the act 11 & 12 Vict. c. 48, 1848, to facilitate the sale of encumbered estates in Ireland. It was followed by the act 12 & 13 Vict. c. 77, 1849. This provided that

the owner of an encumbered estate or an encumbrancer might apply to the commission established by the act for an order to have the land sold notwithstanding any restrictions of settlement. The commission was empowered to authorise a sale, if the charges on the estate amounted to one-half of the income thereof, and to pay off encumbrances out of the proceeds, handing over the balance to the owner or to other persons interested in the land. This act has been amended by subsequent statutes. The jurisdiction of the commission was transferred by the act 21 & 22 Vict. c. 72, 1858, to the landed estates court, which still exists as a branch of the supreme court of judicature in Dublin, and still performs its original function. The immediate success of the act was striking. Vast quantities of land were transferred from insolvent to solvent proprietors. But it did little towards assuaging agrarian discontent. The new landlords had no hold upon popular sentiment. They were much stricter men of business than their predecessors. They were on the whole more unpopular than the old landlords. Improvements in most cases were still made by the tenant, and the tenant was still without security. Thus the agrarian difficulty remained formidable.

II. The concession of fair rent, fixity of tenure, and freedom of sale.

The first change in this direction was made by the act 33 & 34 Vict. c. 46, the Landlord and Tenant (Ireland) Act 1870, of Mr. Gladstone's first administration. This act (1) gave the force of law to the Ulster custom and to similar customs existing in other parts of Ireland; (2) granted in cases of eviction not coming within such customs a compensation for disturbance, graduated so as to be most liberal in the case of the smallest farms, but limited in any case to a sum not exceeding £250; and (3) granted compensation for improvements made by the tenant, the presumption being that all improvements were made by the tenant or by his predecessor in title. Some of its other provisions, intended to assist tenants in the purchase of their holdings, will be noticed hereafter.

A much more extensive change was made by 44 & 45 Vict. c. 49, the Land Law (Ireland) Act 1881, of Mr. Gladstone's second administration. This act extended to all agricultural tenancies not under lease the benefit of the Three F's—fair rent, fixity of tenure, and free sale. The fair rent may be determined either by recourse to the land courts established under the act, or by agreement between landlord and tenant. An agreement filed in the court acquires the same force as a decision of the court. The rent thus ascertained cannot be altered during a statutory period of fifteen years, and so long as it is paid the tenant cannot be evicted. Nothing is said in the act as to the principles on which the fair rent is to be determined, except that no rent is to be charged for improvements made by the tenant or his predecessors in title. Under certain conditions specified in the act the tenant may sell his interest in the holding. A tenant of the rateable value of £150 or upwards was allowed to contract himself out of the act. The court referred to in the act was to be either the civil bill court of the county or the Irish land commission. The land commission was to consist of three persons, one of whom must have practised at the bar for ten years, and obtained the rank of a judge of the supreme court. The commission has full power to determine all questions of law or fact and to make rules of procedure. But the business of determining rents is almost entirely performed by the assistant commissioners.

The act of 1881 was amended by the act 50 & 51 Vict. c. 33, the Land Law (Ireland) Act 1887, which extends its provisions to leaseholders, and allows a temporary reduction in judicial rents fixed before 1st January 1886, to meet the fall in prices between 1881 and 1887. The importance of this act will be understood when we remember that out of 600,000 cultivating tenants in Ireland about 150,000 are leaseholders. The acts of 1881 and 1887 together have made an agrarian revolution in Ireland. Without professing to affect the landlord's proprietary right, they have rendered him practically little more than an annuitant. Under the provisions of these acts rents have been reduced upon an average from 20 to 25 per cent. The interest of the tenant now frequently sells for more than the interest of the landlord. Moreover, the ascertaining of rent, whether by judicial decision or by agreement outside the court, is a process which takes time. It will hardly be completed for the whole of Ireland before the period of fifteen years has elapsed, when it will have to begin afresh. Thus the idea of a further alleviation of his burthens is constantly kept before the tenant. When to these circumstances we add the general tendency of modern feeling about landed property, we shall see that the landlord has no security for the retention of the proprietary interest left to him, and that the acts above-named form only one stage in the Irish agrarian revolution.

III. The conversion of the tenant into a proprietor by advances of public money for the purpose of enabling him to buy his farm.

For many years past a few discerning men had seen that the Irish tenants, once set in motion, would never rest until they had become proprietors. J. S. Mill exaggerated, perhaps, the advantages of peasant proprietorship, but he was the first English economist to refute the doctrine that the peasant proprietor was necessarily poverty-stricken and thriftless. His

advocacy of peasant proprietorship was continued by other writers, and found willing listeners in the political party most hostile to the landed interest. John BRIGHT was perhaps the first public man of mark to advocate the conversion of Irish tenant farmers into proprietors. When the Irish Church was disestablished by the act 32 & 33 Vict. c. 42, 1869, he procured the insertion of clauses which gave the tenants of church lands an opportunity of purchase. One-fourth of the purchase-money was to be paid down, and the remaining three-fourths with interest at 4 per cent might be paid in sixty-four half-yearly instalments. Several thousand tenants took advantage of these clauses. The Landlord and Tenant Act of 1870, and the Land Act of 1881, contained provisions intended to promote purchase by tenants. The greater part or the whole of the purchase-money was to be advanced by the state and repaid in thirty-five annual instalments of 5 per cent. But very few purchases were effected under these provisions. By the act 48 & 49 Vict. c. 73, the Purchase of Land (Ireland) Act 1885, commonly known as Lord Ashbourne's Act, much more liberal assistance was granted to tenants desirous of purchasing. The whole purchase-money was to be advanced by the state and to be repaid in forty-nine annual instalments of 4 per cent. £5,000,000 was made available for the purposes of the act, with £5,000,000 three years later. The whole £10,000,000 was soon issued to tenants purchasing their farms. The annual instalments have hitherto been paid with great regularity. Under the Purchase of Land (Ireland) Act 1891, 54 & 55 Vict. c. 48, the landlord might be paid in government stock. The total amount of stock which might be created was limited by the provision that the annual charge for interest and sinking fund must not exceed the amount annually granted from the treasury to local authorities in Ireland. Precautions were taken to ensure the treasury against loss, and these deterred Irish farmers from availing themselves of the act. Special provisions were inserted for the benefit of tenants with small holdings and of congested districts.

The Irish Land Act 1903 (3 Edw. VII. ch. 37) amended the previous acts so as to hasten the transfer of holdings from landlord to tenant. It gave a state bonus to vendors. Under this act agreements to purchase have become very numerous. It is probable that within the present generation the great mass of Irish tenants will have been turned into proprietors. These acts alone offer any honest and peaceable solution of the agrarian problem in Ireland. The complicated mechanism of the Land Act of 1881 can hardly be permanent, and the ascertainment of rent by courts acting without definite principles and liable to external pressure, must always be an unsatisfactory process. The judicial rent may serve as a basis for the calculation of the selling value, but has no stability in itself. The landlord must be in constant alarm for what is left to him, and the tenant in constant unrest until he has acquired all.

The remedial acts above referred to are long and intricate, and cannot be fully understood without a long preliminary study. The ultimate causes of Irish agrarian disturbance are well explained in Lecky's *History of Ireland in the Eighteenth Century*. Its progress can be followed in a vast mass of parliamentary papers, the most important being the Report of the Devon Commission appointed by Sir Robert Peel in his second administration. The Report was presented in 1845.

[The literature of the subject is bulky, but in great part obsolete, owing to recent legal and economical changes. The following are a few of the more useful publications:—J. S. Mill, *Chapters and Speeches on the Irish Land Question* (reprinted from *Principles of Political Economy*, and Hansard's *Debates*).—W. O'Connor Morris, *Land System of Ireland* (Oxford Essays, 1856).—*Letters on the Land Question in Ireland* (reprinted from the *Times* in 1870).—*Land System of Ireland* (reprinted from *Law Quarterly Review*, 1888).—J. Boyd Kinnear, *Ireland*.—M. Longfield, *Tenure of Land in Ireland* (Cobden Club Essays, Systems of Land Tenure in various countries).—W. E. Montgomery, *History of Land Tenure in Ireland*.—Right Hon. G. Shaw-Lefevre, *Agrarian Tenures*.—*The Irish Peasant, a Sociological Study*, anonymous, published by Swan, Sonnenschein, and Co.—Cliffe Leslie, *Land Systems*.] F. C. M.

LAND, NATIONALISATION OF. This term is used to denote the extinction of all private proprietary rights in land and the vesting of all landed property in the state. The extinction of private property in land is one of the objects contemplated by systematic socialists who desire to give the state exclusive control over all the means of production, and to restrict private property to property in wages. But the "nationalisation" of land has also been advocated by persons who are not systematic socialists, and who are not averse to the continuance of private ownership of capital. Such persons justify their proposals on the ground that private property in land is peculiarly indefensible. Land, they argue, is not the product of human industry or ingenuity, but the free gift of nature. At the same time the value of land is increased, without any effort on the part of landowners, by the growth of population, by the accumulation of capital, by every advance in civilisation. Land, they argue, yields an unearned increment (see INCREMENT, THE UNEARNED), and this increment is intercepted by landowners who are thus enriched by the labour and parsimony of others, and levy a tax on human improvement. The wage-earner, it is alleged, rarely earns more than a scanty subsistence, and the interest on capital declines as the mass of capital in-

creases. The whole surplus accumulations of progressive communities, it is inferred, go to enrich an unproductive class. The state, they conclude, should evict all landowners, with or without compensation, and become for the future the sole landlord. In this way the unearned increment would be secured for the common good. The field of industry would be indefinitely enlarged, the production of wealth enormously increased, and its distribution so much improved that poverty would disappear and well-being become universal.

Put in this form the argument in favour of the "nationalisation" of land is an argument for the transference of the unearned increment to the state. The theoretical basis of "nationalisation" is to be found in the writings of RICARDO and of J. S. MILL. RENT Ricardo defines as "that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." If this were so, rent would afford a revenue to the landlord without the landlord rendering any service in the production of wealth. Ricardo was aware, indeed, that rent in this sense is something different from rent in the popular sense, which includes remuneration to the landlord for capital expended by him upon the land. Ricardo knew that he was defining not rent commonly so-called, but that which has since been described as *economic* rent. But the popular writers and orators, such as Mr. Henry George, who have caught at his definition, have either forgotten or ignored his qualifying statements. Again, the increase of rent in Ricardo's sense of that term is due to the circumstance that the land cannot be increased in quantity, and so forms the subject of a monopoly. With the growth of population and of riches the demand for land becomes more intense, and the landowner is enabled to charge a higher price for "the use of the original and indestructible powers of the soil." The rise of rent, Ricardo says, is a symptom, but it is "never a cause of wealth." Mill, following upon Ricardo, described the rise of rent resulting from the general progress of society as the "unearned increment." He argued that as it was due to the exertions of the whole community, it should for the future go not to the proprietors of land, but to the state. Here again the advocates of "nationalisation" carry an economic theory to its extreme consequences, and propose to transfer to the state not merely all future but also all past increments of this description.

In reality we cannot be too careful how we apply abstract definitions to concrete affairs. It is undoubtedly possible to discover forms of landed property, such as mines or sites adapted for building, which may sometimes yield a large and increasing revenue without any effort or expense on the part of the proprietor. But with agricultural land the case is far different. There it is difficult to prove the existence, and impossible to measure the amount, of the unearned increment. In this country, at all events, land has been rendered fit for cultivation at a great expense to the proprietors. The rent which they now receive often represents an inadequate return upon capital which they or their predecessors have sunk even in the buildings necessary for the proper cultivation of the soil, to say nothing of improvements effected in the soil itself. In other cases it may represent an adequate return, but no more. But in these cases we cannot determine, except for a very recent period, how much has been spent in improving the land, and therefore cannot discriminate accurately between the unearned increment and the return on capital. Thus even where an unearned increment exists, any attempt to appropriate it to the state would be illusory.

Mill proposed to leave landowners in the enjoyment of whatever unearned increment should have accrued down to a given date, and to take by way of taxation only such unearned increment as should arise subsequently. But this proposal, far more equitable as it is, would not meet the wishes of those who advocate nationalisation of the land. In an old community like the United Kingdom it would leave the bulk of rent in the receipt of private individuals. Any serious decline of prosperity would deprive the state of all advantage from such taxation. If, for example, the legislature had followed Mill's suggestion, and had fixed on 1st January 1850 as the date of appropriation, it would now receive nothing from the agricultural land of the United Kingdom.

The "nationalisation" of land, therefore, would not be confined to the unearned increment. It would extend to the whole value of the land. The land might be "nationalised" either by a formal abrogation of all private rights of property or by levying on all landowners a tax equal to the rack-rent of their estates. In either case a question arises as to what compensation, if any, should be given to the evicted owners. If "nationalisation" is to deprive landowners of all return for the capital which they or their predecessors in title have expended on the improvement of their land, it would be a confiscation of the most violent and unequal kind. We may go further, and say that open and peaceable enjoyment for an indefinite time under the sanction of law and received morality constitutes a very strong claim to compensation for the loss of the unearned increment itself. "Nationalisation" of land, effected without compensation, or with merely nominal and delusive compensation, is open to the objections based on law, morals, and public policy which can be brought against the abolition of all private

property whatsoever, and to the additional objection of making one class a victim to all other classes. If effected with substantial compensation, the "nationalisation" of land becomes far less lucrative to the state, and may sometimes end in actual loss.

But let us suppose "nationalisation" of land to have been carried out on such terms of equitable compensation to evicted owners as left the state a considerable margin of revenue. Even this margin would be further curtailed by the force of circumstances. (1) In so far as the former owners were impoverished by the change, their contributions to the imperial and municipal revenues and to public charities would be diminished. (2) A great quantity of land is held by corporations ecclesiastical, municipal, educational, and charitable, rendering a variety of public services which must be provided for in other ways when the corporate estates have been confiscated. (3) A costly public department with an immense staff would have to be instituted for the dispatch of agrarian business. (4) All the permanent improvements which in England have been executed by landowners must henceforwards be executed either by the state or by its tenants. If the state is to execute these improvements, we know from recorded experience of public works that they will always be costly, and very often prove unremunerative. All the capital required must be borrowed by the state, and a heavy charge for interest and sinking fund will be placed on the newly-acquired revenue from the land. If improvements are to be executed by the tenants, they must be tempted to improve by the concession of fixity of tenure at a fair rent.

The necessity of such fixity of tenure has been fully proved by the experience of Asiatic countries. There the first condition of prosperity has been the restriction of the claims made upon the cultivator by his landlord the state. A bad oriental government lays waste the country by taking from the cultivator everything it can. A good oriental government makes well-being possible by granting the cultivator a moderate assessment fixed for a term of years. With every prolongation of the term, and with every alleviation of the assessment, agriculture improves and the community becomes richer. The comparative well-being of the people of British India is due chiefly to the circumstance that the government has reduced its demand on the farmer to what is virtually not a rent, but a moderate land-tax.

The same necessity for fixity of tenure where the state owns the land will be more apparent when we consider to what a degree the amelioration of the soil of Europe in the past has been a labour of love inspired by the sense of ownership. Capital has been lavished on the land, not always to the advantage of the owner, but almost always to the advantage of the commonwealth. The land has been the French peasant's bank and the English squire's hobby. Nor is it only money that the fond proprietor puts into the soil; he puts his mind into it also. He knows better than any other man its wants and its capabilities. He takes care that the work done upon it is done thoroughly. This vigilant affection is possible only to the man who has either full property, or an interest resembling full property in the soil.

If therefore the state is to be landlord, its tenants must have fixity of tenure on favourable terms. Once the tenants have gained this point they are part proprietors for all practical purposes, although not so described in books of law. Their interest in the land, as the experience of Ireland shows, may often sell for more than the interest of their landlord. Nor is this all. As the history of copyhold tenure and the history of Ireland in recent years have proved, the man who has become a part-proprietor never rests until he has become an exclusive proprietor. If part-proprietors are numerous they are almost certain to succeed in achieving this object.

It seems likely, therefore, that the additional revenue which would result from the "nationalisation" of land would neither be large nor permanent. It certainly would not enable the state to discard other sources of revenue. It might for a few years produce a revenue of some magnitude. But every party which could not otherwise obtain a majority would promise in turn to lessen the burthens of the rural voter. Sometimes it would be compelled to fulfil its promises, and then its opponents would be reduced to make promises still more liberal. At last the ownership of land by the state would become a mockery, and the ultimate result of "nationalisation" would have been the transfer of the land from one set of proprietors to another. In this case nothing would have been gained, at least nothing which could not have been gained far more cheaply. The state already possesses a power of taxation limited only by considerations of prudence or of justice, considerations which under any conceivable scheme must limit its exactions from the soil. Yet in England there are, at the present time, hundreds of thousands of acres which, after supplying a humble and precarious livelihood to the farmer and labourer, and discharging the rates and taxes, yield but a nominal rental to the landlord. A comparatively small increase of local and imperial taxation would virtually oust the owners of such land, and leave the cultivators hardly wherewithal to keep themselves. What more could be effected by "nationalisation" in any form?

The plan of "nationalisation," as distinct from complete socialism, has hardly attracted attention outside the United States, the United Kingdom,

and some of our colonies. It has found favour only where the exceptional economic progress of the last hundred years has added surprisingly to the value of certain kinds of land, and this additional value has been shared among a comparatively small number of owners. In a stationary country there is no such growth in value, and in a country where proprietors are numerous such growth as there is excites little jealousy.

[Ricardo, *Principles of Political Economy and Taxation.*—Mill, *Principles of Political Economy.* —Henry George, *Progress and Poverty.*—Moffat, *Mr. Henry George, the Orthodox* (a criticism of the last-mentioned work).—Marshall, *Principles of Economics.* — Seligman, *Shifting and Incidence of Taxation.* — Nicholson, *Principles of Political Economy;* the literature of socialism generally, as the fundamental principles of land nationalisation are the common property of socialist writers. See arts. on P. E. DOVE and W. SPENCE.] F. C. M.

Some further reference to Henry George's *Progress and Poverty* in relation to his proposal for the nationalisation of land is advisable here. To make this point clear, it is necessary to go back to Mr. George's theory on wages. He argues that "wages depend upon the margin of production, or upon the produce which labour can obtain as the highest point of natural productiveness open to it without the payment of rent." From this standpoint Mr. George examines in his fifth book "the primary cause of recurring paroxysms of industrial depression," and the causes of "the persistence of poverty amid advancing wealth," and arrives at the conclusion that these spring from the existence of private property in land. As Mr. George considers this not only unjust, but the cause of the evils existing in modern society, he would give no compensation to the owners, but he would give security for improvements. He would "appropriate rent by taxation." This taxation might be crushing. Mr. George states, in one place "the monopolist in agricultural land would be taxed as much as though his land were covered with houses and barns, with crops, and with stock." In another, the taxes would "fall as heavily upon unimproved as upon improved land." By adopting this plan Mr. George anticipates a removal of many of the inequalities of wealth, but he thinks that wages would rise, that the general rate of interest would rise also, that universal prosperity would follow. It is curious, though somewhat sad, to observe the various directions in which different thinkers believe they have found a universal remedy against pauperism. The endeavour reminds the reader of the search for the philosopher's stone in the middle ages. The investigation is ever fruitless, but ever attractive to the speculative mind.

This reference is to the first statement of Mr. George's opinions. In a later edition he considers that "private property in land always has, and always must, as development proceeds, lead to the enslavement of the labouring class."

The principle Mr. George advances would be equally valid against the existence of any property at all, and, however the inequality of wealth may menace civilisation, the destruction of all wealth would be fatal to human progress.

LAND, PUBLIC, OF THE UNITED STATES. The total amount of public lands owned by the government of the United States has varied greatly at different times, owing to extensive acquisitions on the one hand and sales and gifts on the other. In the course of its existence the government has possessed in its own name 2,708,388 square miles; and the largest amount owned at any one time was in 1848, amounting to 1,890,013 square miles. The public domain has its origin (1) in cessions made by the different states originally forming the union, many of which gave up large tracts of western lands; (2) by purchases or treaty cessions, as Louisiana in 1803, Florida, 1819, purchase from Texas in 1850, the Gadsden purchase in 1853, Alaska in 1867, and the Oregon cessions; (3) by the Mexican war. As settlers' rights had already been acquired within the territories annexed, it by no means followed that all the land thus brought under the American flag was part of the public domain. From the outset it has been the policy of the government to be liberal in its grants of land. Lands have been disposed of in four different ways: (1) by grants to individuals; (2) grants to states; (3) grants for internal improvements either to states or corporations; (4) sales. No attempt has been made to secure any substantial revenue from the public lands, and, when sold, but a nominal price as a rule has been charged. The total receipts from public lands from 1798 until 1893 were 283,000,000 dollars. A much larger sum, however, has been expended in the extinction of Indian titles, purchase-money for annexations, and for surveys. The economic advantages to the nation cannot be measured by the receipts entering into the budget accounts, as nearly three-fourths of the lands have been given away to soldiers as bounties, to assist corporations in the construction of railways through sparsely-settled regions, and indirectly to promote immigration through gifts to actual settlers under the Homestead Act of 1862. Generous grants have also been made to individual states for the establishment of productive funds for common-school and university education. Only very rarely has the revenue from public lands constituted an important element in the treasury receipts. The largest amounts received from this source were in 1835 and 1836, $14·7 and $24·8 millions, or about 40 and 50 per cent respectively of the total net receipts in those years. The sales at that period were exceptional, due in part to the construction of canals and railways, and the extension of banking credits. Under the Homestead Act of 1862 a citizen, or an alien who has filed a declaration of intention to become a citizen, may enter upon not more than 160 acres of unappropriated public land

and may acquire title in five years. In 1892 there were 567,000,000 acres of public lands left, of which one-half was unsurveyed. A large part is known to be arid, and can be utilised only after large public expenditures.

It is difficult to estimate the economic effects of the public land policy of the United States. It is impossible to do more than note its relation to the rapid growth of the population, especially west of the Mississippi; its influence upon rents in the east and older districts; and the mitigation of the evils arising from a too rapid congestion of population in large cities, by furnishing an immediate and attractive outlet for industrial activities.

[See Richmond Mayo-Smith in *Emigration and Immigration* (New York, 1890), p. 56: "When trade became unprofitable a man could take to agriculture. Our public land has been our great safety-valve, relieving the pressure of economic distress and failure."—*Annual Reports of the Commissioner of the Public Land Office.*—Thomas Donaldson, *Public Domain*, Pub. Doc. Washington, 1884.—A. B. Hart, "Disposition of the Public Lands," *Quarterly Journal of Economics*, 1 (1887), 169.—W. C. Ford, in Lalor's *Encyclopedia of Pol. Sci.*, 3, 460-478.] D. R. D.

LAND PURCHASE ACT. See LAND LEGISLATION, IRISH.

LAND REGISTRATION. Land is by far the most important article of commerce. Owing to its physical peculiarities it is the subject of more varied rights and interests than any other commodity. Owing to those peculiarities, also, it does not admit of being held in the same close and constant physical possession as do most movable objects. It is thus at once peculiarly important and peculiarly difficult for those who enter into transactions with respect to land, who buy or who advance money upon land, to be certain that the person with whom they are dealing has a title to that land. Where no special legislation has been devised for their assistance, intending purchasers or mortgagees must conduct for themselves and at their own risk an inquiry into the title of the intending seller or mortgagor. This inquiry may be troublesome and expensive, and does not always yield a certain result. Moreover it must be repeated as often as any fresh transaction with reference to the land is begun. Such is still the case in England. A history of the title to the land extending formerly to sixty and now to forty years, has to be made out before any prudent person will buy the land or advance money upon the land. But a special legislation may render dealings with land less cumbrous and more secure. The titles to all the land within the limits of the state may be ascertained and recorded once for all by a public agency. All subsequent transactions affecting the land may be similarly ascertained and recorded. It will then be possible, by referring to these records, to determine what persons are at any moment interested in any piece of land either as owners or as incumbrancers. No further inquiry as to title will be necessary. The past history of the title will be of no practical consequence. Such is the case in the great majority of civilised states at the present day.

In France a system of registration of deeds has existed since the reign of Napoleon I. In every arrondissement, a subdivision comparable to our poor-law union, there is a registry office. Sales and mortgages of land must be registered there, or they will not be valid as against subsequent dealings with the land. The register is public. A lease need not be registered, but in case of litigation the tribunals will not take cognisance of it without registration. The registration fee on a purchase amounts to 5 per cent. For a mortgage it varies from £1 : 5s. to £1 : 15s. For a lease it varies from 1 to ½ per cent on the net amount accruing from the lease. In Prussia the system of registration is at least as cheap and expeditious. In all cases of alienation, proprietary rights are acquired by an act of conveyance followed by registration. The conveyance consists simply of two verbal declarations at the local registry office. The registered proprietor declares his assent to the registration of the purchase, and the purchaser declares that he demands such registration. Mortgages are created in a similar manner, and a certificate of charge upon the land is negotiable. The expenses of sale and of mortgage are adjusted on very low sliding scales. Thus where land is sold for £150 the fees amount only to 12s. The time required is in ordinary cases under an hour. A somewhat similar system was established in South Australia by the late Sir Robert Torrens, and proved so successful that it has been adopted by all the Australian colonies and by New Zealand. The speed and economy both of first registration and of registering all subsequent dealings with the land are most remarkable. The registry does not give an indefeasible, but only a guaranteed title. Experience shows that the guarantee hardly ever has to be made good.

The advantages of registration have not escaped the notice of English legislators. The registration of deeds relating to land as distinct from registration of title has long been known in England. As early as the 27th year of Henry VIII. the Statute of Enrolments required all bargains and sales of freehold land to be made by deed and enrolled within six months at Westminster or in the county where the land was situated. But this act was eluded by a technical contrivance which cannot be fully explained here. Under the Commonwealth bills for the registration of dealings with land were brought into parliament, but none of them became law. In 1669 a committee of the House

of Lords reported that the uncertainty of title was one cause of the depreciation of land, and recommended as a remedy a system of registration. In the reign of Anne separate registries of deeds were established for the county of Middlesex and for the East and West Ridings of York. In the reign of George II. a similar registry was instituted for the North Riding. A registry of deeds has long been established in Scotland and in Ireland, and is highly valued in those countries. A bill for a general system of registration was introduced in 1758, but was not passed. The subject then dropped for a long time.

In 1830 and again in 1857 royal commissions reported in favour of the registration of title, and their opinion was made more impressive by the practical success of systems of registration in other countries. The first act for the registration of titles in England, known as the act to facilitate the proof of title to and the conveyance of real estate (25 & 26 Vict. c. 53), was passed in 1862 by the efforts of Lord Westbury, then chancellor. Under this act an office of land registry was established in London. Registration of title was to be voluntary. No title was to be registered unless it were such as a court of equity would consider to be a good marketable title. Once registered the title became indefeasible. The registrar was to deliver a land certificate to the person registered as having title to the land, and the deposit or endorsement of the certificate was to be effectual as a sale or mortgage of the land. This act may be said to have been a failure from the beginning. Only a few hundred titles have been registered under it. The making out of a title for registration was found to involve a far heavier expenditure of time and money than was needed to make out a title sufficient for an ordinary conveyance. In one instance the office took two years and five months to make the preliminary inquiries, and only once did it accomplish this task in less than five months. The average amount of the registration fees appears to have been about £50, and this is said to have been only one-third of the total expense incurred by owners registering. Even when the title had been duly registered, subsequent dealings with the land were not made cheaper or more expeditious. A royal commission, which reported in 1870, came to the conclusion that the act had failed because the conditions which it imposed were too rigorous. It required the person registering to show a marketable title. It required boundaries to be defined and partial interests in the land to be recorded. Accordingly in 1875 Lord Cairns, then lord chancellor, procured the passing of the Land Transfer Act (38 & 39 Vict. c. 87). Under this act any person might be registered as the proprietor of land if he could satisfy the registrar that he was *primâ facie* entitled to it in fee, and that there was possession in the same right. In this case the registration did not prejudice the enforcement of any adverse estate, right, or interest, but the lapse of time would perfect the registered title. If application were made for an absolute title, and on examination it appeared that the title could be made out only for a limited period or subject to certain exceptions, the registrar might except from the effect of registration any estate, right, or interest arising before a specified date, and register the title not as absolute, but as "qualified." In this case also lapse of time would perfect the title. It was hoped by these expedients to lessen the expense of registration, and thus encourage the public to register. But this act failed as completely as its predecessor. In 1879 a select committee of the House of Commons appointed to consider what steps could be taken to simplify title and to facilitate the transfer of land, reported as follows:—

"Various causes have been assigned for the reluctance of landowners and mortgagees to avail themselves of the act. Its unpopularity has been ascribed (1) to the absence of any power to remove from the register a title which has once been placed upon it; (2) to the disinclination of solicitors to recommend to their clients a course of dealing with their property which may tend eventually if not immediately to curtail their own profits; (3) to the general distrust of all projects of land registration, inspired by the break-down of Lord Westbury's act; and (4) to the indisposition, both of the public and the legal profession, to familiarise themselves with a new system, and to run the risk of an experiment which involves so great a departure from established usage."

The committee, whilst admitting that there might be some force in these contentions, did not think them sufficient to account for the failure of the act of 1875. They considered that the difficulty of tracing the title to freeholds, and the complexity of the interests which can be created in English land, were the gravest obstacles to its success. Mr. Brickdale, in his pamphlet on the *Registration of Title to Land*, takes a different view. He argues that the registration of title will succeed only where it is easier to prove a title to the satisfaction of the registrar than to the satisfaction of an ordinary purchaser. But this cannot be the case where registration gives an indefeasible title, for there exhaustive evidence must be required if the risk of doing injustice to the true owner is to be avoided. He argues from the experience of the Australian colonies that registration should give not an indefeasible, but a guaranteed title, in other words, a right to compensation where the person registering himself as owner *bona fide* turns out not to be the owner. Experience has shown that the cases in which compensation has to be given are very few, and that ample funds for the purpose can be raised by imposing a small fee

upon all persons who register. Mr. Morris, in his essay on the *Registration of Title*, proposes to dispense with proof of title altogether. He would have registration commence in every case with the next dealing with the fee simple after the passing of a Registration Act. The vendor and purchaser, or their respective solicitors, would appear before the registrar and make statutory declarations, the vendor that he believed himself to be entitled to sell, the purchaser that he had in fact purchased. The purchaser would then be registered as having merely a possessory title which time would ripen into full ownership. Both Mr. Brickdale and Mr. Morris hold that direct compulsion to register is unnecessary and undesirable, although Mr. Morris would give all registered transactions legal priority over unregistered.

In 1888 a further attempt to improve the existing system of registration was made by the Land Charges and Registration Act (51 & 52 Vict. c. 51). A bill for compulsory registration introduced in 1895 was dropped. The Land Transfer Act 1875 was amended by the Land Transfer Act 1897 (60 & 61 Vict. c. 65), under which a possessory title may be placed on the register, and registration of title may be rendered compulsory for sales of land within any county or part of a county by Order in Council. Such orders have been made for the city of London and county of London. The usefulness of the act is still the subject of bitter controversy. That it should prove effective is most desirable.

The principal obstacle to a large traffic in small parcels of land lies in the cost and trouble of transfer. Owing to the difficulty of transfer the bulk of the people look upon land as a luxury which they are not likely ever to acquire, and in this age all such luxuries excite envy and hatred. Vast schemes of confiscation which would be hooted down in France or Prussia are sometimes propounded in England. The only remedy is the augmentation of the number of landed proprietors, and the best means of bringing about this augmentation is to facilitate dealings in land by an efficient system of registration.

[See text of the acts above referred to.—Reports of the Land Transfer Commission appointed 1868 and of the select committee on Land Titles and Transfer appointed 1878.—R. Torrens, *Essay on Transfer of Land by Registration of Title.—Land Transfer*, a review of the subject published by order of the Bar Committee, 1886.—F. Brickdale, *Registration of Title to Land.*—R. B. Morris, *Registration of Titles*, 1886, and *Summary of the Law of Land and Mortgage Registration*, 1895, and the valuable lists of authorities in both works. —Say and Chailley, *Nouveau Dictionnaire d'Économie Politique*, s.v. *Cadastre.* Art. on CADASTRAL SURVEY. — Brickdale and Sheldon, *Land Transfer Acts 1899.*—Ambrose and Ferguson, *The Land Transfer Acts 1875 to 1897.*] F. C. M.

LANDSETTUS, one of the many appellations for the peasant landholders on a mediæval manor, chiefly found in the eastern counties.

[Vinogradoff, *Villainage in England.*]

E. G. P.

LAND SYSTEM IN THE AMERICAN COLONIES. The agrarian policy of the various American colonies was largely dependent upon the character and instincts of the different groups of settlers. In the division of the soil, better even than in the forms of government, were expressed the political and social ideas of these settlers, and as these ideas varied, so did the methods of land-distribution and the forms of land-tenure. Such variations may be ascribed in part to hereditary inclinations, to the influence of habit and previous environment, and to the political ideas that had stimulated the colonists to leave England for America; in part to climate and staple products, the influence of which, though important, is likely to be exaggerated. The fitness of a territory for a given staple, cultivable only on a large scale, will militate against small holdings; while a land confined by sea and mountain, and broken by frequent ranges of hills, will not be favourable to large plantations.

The title to all lands in America claimed by virtue of discovery and occupation was vested in the Crown. The king was as absolute a sovereign of these territories as of his ancestral demesne. He disposed of them freely, and conveyed to the grantees, by letters patent, such powers as seemed to him good. Such patents were issued to petitioners, conveying to them rights in the soil and the power of free disposal of it. Lands granted in this way were held by the petitioners in free and common SOCAGE, which was the normal and typical free tenure, that is, tenure by fealty and fixed services. The most common of the latter was the payment of rent. This form of tenure was embodied in all the early charters, though the form of the rent varied. In the charter to Raleigh in 1584, to the Virginia Company of London in 1609 and 1611-1612, to the New England Company in 1620, to the Massachusetts Bay Company in 1629 and 1691, to the Governor and Company of Connecticut in 1662, and to the Governor and Company of Rhode Island and Providence Plantations in 1663, the service took the form of a payment of one-fifth of all the gold and silver. This had, however, rather the character of a reservation than a rent. The grant to Lord Baltimore in 1632 exacted, in addition to the reservation of one-fifth of all the gold and silver, an annual payment of two Indian arrows to the king at Windsor; the grant to Gorges in 1639, one quarter of wheat; the grant to the Duke of York in 1664, forty beaver skins; the grants to the proprietaries of Carolina in 1663 and 1665, twenty marks; and the grant to Penn in 1681, two beaver skins. It is not surprising that so free a

tenure should have been conceded when we realise how burdensome a military tenure would have been to settlers engaged in such distant and hazardous undertakings, how willing the Stuart kings were to offer every encouragement to these colonists, and how strong was the opinion in England—note the action of parliament in 1610—that all feudal dues and incidents should be abolished.

The patentees, whether single proprietaries, groups of proprietaries, or joint-stock companies, made subgrants to those who would co-operate directly in bringing about settlement. Such grantees might be organised as joint-stock companies, as was the case with the Massachusetts Bay Company. This company, a patentee of the New England Company, although receiving a charter directly from the king, distributed lands under certain prescribed rules to individuals and to land-communities, who had power to subdivide the land further among *bona fide* settlers. Or such grantees might be a number of proprietaries, as in the case of New Jersey, where the proprietaries received their title by a conveyance from the Duke of York — himself a patentee of Charles II.,— and having erected a frame of government, gave the governor and council of the new province the power to distribute lands to individuals, but retained in their own hands the privilege of granting town-patents. In the majority of cases, however, the first patentees, whether a single proprietary, as in Pennsylvania, Maryland, and New York, a chartered company, as in Connecticut and Rhode Island, or a group of proprietaries, as in Carolina, conveyed title, either directly or through the governor or deputy-governor, to those who were to be the final owners of the soil, if individuals, or to those to whom was entrusted the task of further division among themselves, if members of a land-community.

The methods according to which lands were distributed differed in detail, but in general were much the same everywhere. The scheme of division based on the share-right, that is, the right of each shareholder to a certain amount of the newly-discovered territory, and to a share in the profits of the venture, was the outcome of the joint-stock system. In Massachusetts Bay there was allowed to each subscriber of £50, 200 acres; in New Jersey to every armed freeman who shared in the settlement, 150 acres; in Maryland to each adventurer bringing over ten additional persons, 1000 and later 2000 acres; in Carolina, in 1669, to each free-born individual over sixteen, 150 acres. This system was easily extended by the grant of additional acres for each new settler transported to the colonies, for each man-servant or woman-servant possessed, for each apprentice or indentured servant, or for each member of a family, especially children. Such methods are inevitable when land is plentiful and a rapid increase of population desired. In addition to these grants of fixed amounts extensive grants were made to individuals who were of rank in the colony, or had performed meritorious service. Lastly, grants were made to communities of settlers who desired to establish towns. In Connecticut and Rhode Island the last two forms of distribution were the only ones employed. In Pennsylvania, in the laying out of a town, grants were made to "first purchasers" according to a fixed agreement at the rate of ten acres to every 500 purchased. Any attempt at systematic distribution seems to have been given up at an early date in Pennsylvania. The proprietary and the land-office acting in his absence seem to have disposed of the territory at their own will and pleasure.

Lands thus granted were in the northern colonies generally held in FEE (*q.v.*). In Massachusetts Bay there were a few instances of grants for life or for rent. In the other colonies a small QUIT RENT was demanded. This was in New Jersey and Carolina a half-penny to the acre; in Pennsylvania for the "first purchasers," one shilling, though later the rent dropped to one penny or half-penny an acre. In Maryland the quit-rent was first paid in kind, four hundred pounds of wheat; later the amount was diminished, and money sterling substituted for the wheat rental. In Virginia a rental of one shilling, to be paid after seven years in agricultural commodities, was imposed; this, after 1688, was paid in tobacco at the rate of one penny per pound. In South Carolina it was a penny per acre before 1694, after that date one shilling sterling per one hundred acres until 1731, when the old rate was restored. All such rentals, of course, lapsed with the independence of the colonies, and all landed property became alodial freeholds (see ALOD).

In none of the charters issued were the rights of the Indians, the native occupiers of the soil, recognised. The Crown claimed absolute and positive sovereignty. Nevertheless, the opinion was held very generally by the colonists and by others that the natives should not be dispossessed of their property without some compensation. Extreme views, however, were held on both sides. Cotton Mather said it was unnecessary to recognise the Indian claims at all, and later lawyers denied that the Indian deed created a title, holding that it was no more than a quit-claim, the fee being in the king. On the other hand, Roger Williams and the New Jersey squatters claimed that titles based on Indian purchase were alone worthy of consideration. In nearly every case, however, the colonists purchased their lands of the Indians for small amounts of merchandise, and protected the natives in the fields and

hunting-grounds reserved for them. Cases of hard treatment and actual dishonesty were fortunately not common. Titles that rested on Indian deeds only had to receive the sanction of the local courts or of the colonial assemblies, while some of the colonies were obliged to forbid unlicensed purchasing entirely, because of the confusion caused by it. Massachusetts Bay forbade it in 1633, Rhode Island in 1643, Maryland in 1649, Connecticut in 1663. Virginia discouraged sale by the Indians of their lands, but in New Jersey the number of titles that rested on Indian deeds only was so large as to lead to serious dispute followed by riots in 1749. Reservations and even towns were set apart for the Indians by many of the colonies, but, inasmuch as the Indian question was an ever-recurring one, a considerable mass of legislation was called into existence in settling it. The eastern Indians, yearly decreasing in number, continued to occupy their reservations till long after the revolution. To-day a few half-breeds still linger in the territory of the original colonies, but the lands owned by them are very small in extent.

After this general view of the land system in the American colonies, a more detailed examination of the Virginian and New England system is necessary. By the charter of 1609 the Treasurer, Council, and General Association of Adventurers in England were authorised to divide the soil of Virginia according to such methods as they might prescribe, employing the governor and council in Virginia as ministerial agents. The requirement to send all patents to England for confirmation involved so much delay as to retard seriously the growth of the colony, and with the recall of the letters-patent in 1624, the power fell into the hands of the royal governor acting for the Crown. There were three grounds upon which a grant might be issued: First, the purchase of a "bill of adventure," by which the purchaser of a single share at £12:10s. was entitled to 100 acres in the first division of the soil, and 100 acres in addition when the first plantation was seated. The purchasers of bills before 1625 were exempt from quit-rent. Of the original subscribers it is estimated that about two-thirds, either in person or through agents, took up their lands, while one-third sold their rights to others. By means of extensive purchasing of shares on the part of private associations, engrossing of lands began on a large scale; but after 1624 the associations were unable to maintain their position, and, with the dissolution of the company, these lands fell into the hands of private individuals. The second ground was the performance of some meritorious service. The recipients were generally officers of the state, clergymen, physicians, and others. To these the company, and afterwards the Crown, gave large portions of land, in the form either of shares or, after 1624, of money. Special grants were made to the governors who became in time the agents of the Crown in dispensing like favours to those of lesser rank. To those who guarded the frontiers every inducement was offered, and large quantities of land situated along the border were patented to single individuals or groups of men. The third ground was the head-right, that is to say, any shareholder or other person who transported an emigrant to the colony was allowed fifty acres. The object of this was to increase the population, and to promote individual ownership in the soil. This method of distributing land became very much more common after 1624. Abuses crept in, and on many pretexts it became possible to obtain land without having transported a single emigrant. This abuse was connived at because of the feeling in Virginia that a simpler method of acquiring title should be adopted. The economic growth of the colony demanded the abolition of such expensive methods, and those who were desirous of bringing new land into tillage did not wish to be hampered by unnecessary burdens. Thus it took Virginia over fifty years to reach that policy of land-distribution which the New England colonists had been employing since the beginning of the settlement. The size of the portions allotted in Virginia increased with the growth of the colony. From 1634 to 1650, though the largest grant was for 3500 acres, the average area of soil acquired did not exceed 446 acres. From 1651 to 1700 the average size of the patents was 674 acres, though individual patents ran as high as 20,000 acres. The only conditions attached to such grants were, first, that the land be seated, that is, that a small house or cabin be erected upon it, and a portion of the soil tilled; secondly, the payment of quit-rent to the amount of 1s. per 50 acres after seven years had passed, reckoning from 1618, the date of the adoption of the law. Settlers were exceedingly remiss in the payment of this rental, as was the case in all the colonies where it existed, for they did not like it, and sought by every means to evade it. Failure to fulfil these conditions, particularly the first, caused such land to escheat to the Crown, as did also lands of intestates who died without heirs. There existed, in consequence, at various times in Virginia large amounts of forfeited territory, for which new patents were constantly granted.

Thus it will be seen that Virginia was a land of large individual holdings, and it will also be noticed that these holdings tended to become larger. This was due to the nature of the colonists, the character of the country, and the conditions of agriculture. There scarcely existed the small land-communities, through

whose agrarian activity and methods of subdivision a system of small freeholds was introduced. For these we must look to New England, and must follow the process of land-distribution one step farther.

In addition to the gifts to individuals, the colonial authorities of Massachusetts Bay, Connecticut, and Rhode Island made grants of territory to groups of men bound together by ties of blood, religion, and common political ideas. These groups or companies were organised on a joint-stock basis for the purpose of purchasing the land necessary for the establishment of a town. To these men the purchase of the lands of the Indians was a duty higher even than that of obtaining a title from the Crown. For this purpose a common fund was raised, to which all those who were to join in the undertaking subscribed. After a grant had been obtained from the colony the land was purchased. It was then divided slowly, as need required, the share of each being chiefly determined by his contribution to the common fund. This share was called the "purchase right," and was generally, though not always, expressed in pounds. The "purchase right," while corresponding in a sense to the "bill of adventure," nevertheless differed in two particulars. First, the amount of land given was determined not only by the amount of money subscribed, but also by the size and importance of the family of the subscriber. A "purchase right" was therefore in part a family holding. Secondly, the "purchase right" was not a certain amount of land taken up all in one piece, as was the land taken up under a Virginia patent, but it was a bundle of separate shares situated in many parts of the village territory, and a right to the enjoyment of privileges common to all. In the earlier days the "purchase right" included a right to a homestead, a right in every important division of land, a right to use all lands left common for pasturing sheep and cattle, a right in all woods for the masting of swine and gathering of timber, and a right to share in whatever resources the town possessed, such as fisheries, vineyards, mines, etc. This definition of the "purchase right" shows that in dividing their lands the New England proprietors had before them two objects. First, equity, which was to be obtained by making the divisions as equal as possible. Engrossing of lands was thus prevented. Secondly, such an increase of population as would bring about a rapid cultivation and improvement of the soil. Both of these objects were to be attained by a system of small and scattered holdings only. The system of this kind with which the colonists were familiar was that of the English village community, and therefore the plantations of New England reproduced that system as nearly as possible. The lands were divided into long and narrow fields, called variously tiers, furlongs, shots, squadrons, and quarters. These were subdivided into lots ranging from one acre to forty or more in size. Adjacent to these fields, which formed the chief arable land of the community, were meadows, divided in severalty, yet thrown open, like the LAMMAS LANDS (*q.v.*) of old England, after haying-time. There were also the common pastures for sheep and cattle, and the outlying waste and wilderness. The "purchase right" gave to the holder scattered lots in the majority of fields, in this respect corresponding to the YARDLAND of the English VILLEIN; it also included sub-rights in all common lands and undertakings. The common rights in New England differed from those in some parts of old England, notably at Ashton and Cote (Giles, *History of Bampton*, p. 76), in that they were probably appendant to the homestead only and never to the person. The rights in undivided lands could, however, be retained by persons living outside the town, though even this was denied by some of the colonial lawyers, who asserted that such rights were appendant to the homestead only. Inasmuch as the commons in some of the towns were not divided into severalty until the end of the 18th century, there arose frequent disputes between the towns and the descendants and assigns of the old proprietors regarding the ownership of these lands.

Thus it will be seen that while in Virginia the soil was divided into large plantations varying from 200 to 20,000 acres in size, in New England it was divided into petty holdings as small as one acre or even half an acre in size. In Virginia a quit-rent was demanded; in New England the land was held in full ownership, limited only by certain liabilities to forfeiture in case of alienation or removal. As the colonies became better established, and the economic condition changed, all these restrictions on full ownership were removed. This had been done in New England by the middle of the 18th century, while in the other colonies all proprietary rights, manorial obligations, quit-rents, forms of primogeniture, entail and intestacy escheat, were abolished in 1776. The form of freehold tenure, thus defined by the different state laws and constitutions for the settled and cultivated lands, was extended by the ordinance of 1787 to the unoccupied lands of the nation. These lands, by the peace of Paris in 1783, had ceased to be Crown lands, and, after the state cessions of 1785 to 1790, had been taken in trust by the government of the United States for the benefit of the whole people.

[No systematic, compact account of the land system in all the American colonies has as yet been written, nor can a satisfactory knowledge of it be obtained from the material thus far printed.

Histories of the United States pass over the subject almost entirely. Much information can be obtained from town and colonial records and from local and state histories. The charter regulations can be found in Poore's *Charters and Constitutions*, Washington, 1878. There is a small amount of information in Winsor's *Narrative and Critical History*, vols. iii. and v. The only systematic attempt to investigate the subject will be found in the *Johns Hopkins Studies in History and Political Science*, as follows: vol. i., "The Germanic Origin of New England Towns," "Parish Institutions of Maryland," "Old Maryland Manors"; vol. iii., "Virginia Local Institutions," "Maryland Local Institutions"; vol. iv., "Dutch Village Communities on the Hudson River," "Pennsylvania Boroughs," "History of the Land Question of the United States" (this work is of importance for the period after 1776 only), "The Land System of the New England Colonies"; vol. vii., "The River Towns of Connecticut; vol. xiii., "Government of the Colony of South Carolina." See also Howard, *Local Constitutional History of the United States*, Baltimore, 1889.—Sargeant, *Land Laws of Pennsylvania*.—Brown, *Genesis of the United States*, Boston, 1891.—Weeden, *Economic and Social History of New England*, Boston, 1890.—Bruce, *The Economic History of Virginia in the Seventeenth Century*, New York, 1895; and an article in the *Zeitschrift für Sozial und Wirthschaftsgeschichte*, vol. ii., entitled, "Die Stadt in Neu-England, ihr Ursprung und ihre agrarische Grundlage."] C. M. A.

LAND TAX. The origin of the existing land tax in England is usually referred to the year 1692, when the valuation was made on which the quotas subsequently fixed were based. In that year parliament, discontinuing the system in force during the civil war and the Commonwealth, under which a specified sum was raised from each county and from certain towns by the MONTHLY ASSESSMENTS, directed by the act 4 W. & M. c. 1, the levy of a definite rate of 4s. in the pound—the same as for SUBSIDIES on land in Tudor times—on the true yearly value of all personal estate, offices, lands, tenements, and hereditaments in England, Wales, and Berwick-on-Tweed. Adopting in the main the machinery used in raising the monthly assessments, the act provided for a valuation of the subjects of charge by parochial assessors to be appointed by the commissioners named for putting the act in execution.

The yield of the tax as thus levied (£1,922,712) fell short of what was anticipated, owing doubtless to incorrect returns, and year by year it showed such a tendency to decrease that, in 1697, parliament found it desirable to revert to the system of granting a definite total sum to be paid in specified amounts charged in the act upon counties and certain named towns. A total sum of £1,484,015 : 1 : 11¾, as for a rate of 3s. in the pound, was granted, and the commissioners were directed to set down the several proportions which, *in their judgment*, ought to be charged upon every hundred or other division towards raising the amount charged on the whole county or town. In every hundred or division the particular sum required was to be levied, first, by a rate of 3s. in the pound on the assumed income from goods, merchandise, and personal property—every £100 in value being considered to represent an income of £6—and on income from offices; and *the residue of the sum* by a pound rate on the annual value of real estate. In the following year, 1698, a similar total sum was granted, but on account of the difficulties that had been experienced in apportioning the amounts fixed for the counties and towns among the various hundreds or divisions, the act making the grant, 10 W. III. c. 9, directed that each hundred or division should contribute the same proportion that it had paid under the assessment for 1692, the year when a new valuation was made.

The tax thus originally intended to bear in the first instance on personal estate and offices was subsequently, when personal property—though always by law primarily chargeable—had in practice almost entirely slipped out of assessment, described as an "aid by a land tax," or, in fiscal expression, "the annual land tax." It was granted in the same form, but at rates varying between 4s. and 1s. according to the exigencies of the times, for the next hundred years, the proportions for the hundreds and divisions remaining as fixed by the valuation of 1692. That valuation was very unequal even at its first establishment, and the lapse of years necessarily made it more so. Complaints of inequality were therefore frequent, but as, with the growth of the towns and the improvements in agriculture, the tax had become in most districts light compared with the nominal charge of 4s. or less per pound annually imposed, there was no general demand for a revision.

In November 1797 the usual act (38 Geo. III. c. 5) was passed granting the land tax (£1,989,673 : 7 : 10¼ for England, Wales, and Berwick-on-Tweed, as for a rate of 4s. in the £) for the service of the following year, and on 2nd April 1798 Pitt produced his plan for the redemption of the tax, which was brought into operation by the act 38 Geo. III. c. 60. Pitt's object was to diminish the pressure of the funded debt in the market by causing the absorption of a large amount of stock; and to effect this so much of the land tax as by the act for 1798 was charged on the several counties and towns in respect of lands, tenements, and hereditaments was made perpetual, subject to redemption. Redemption was to be effected by transferring to the commissioners for the reduction of the national debt for cancellation

so much 3 per cent stock (2¾ per cent stock substituted by 52 & 53 Vict. c. 42-59) as would yield a dividend exceeding the land tax to be redeemed by one-tenth part. This amount of stock consideration was reduced in 1853 by 17½ per cent. As the result of redemption, the property became exonerated from land tax, provision being made, however, that in certain circumstances the charge should be kept on foot for the benefit of the redemptioner. The amount of tax redeemed in the years 1798 and 1799, when stock stood at an average of 56, and the price payable represented 20¾ years' purchase of the charge, was, for England and Scotland, £435,888, nearly a quarter of the whole charge, but in after years the progress of redemption became slow. It was quickened in 1896 when, by the Finance Act of that year, a simple payment amounting to thirty years' purchase of the tax was substituted for the cumbrous system of redemption previously existing. By the same act the maximum rate of charge was reduced from 4s. to 1s. in the £1, and by the Finance Act 1898 exemption was allowed to owners in receipt of total incomes not exceeding £160 a year, whilst an abatement of half the charge was granted to those with incomes not exceeding £400. The loss to the revenue from these remissions was estimated for 1904-5 at £238,577, leaving £726,158 as the approximate amount of tax then collectable in Great Britain. There is no land tax in Ireland.

The existing quotas of land tax, subject, of course, to future redemptions and to the relief by way of exemption or abatement above mentioned, are required to be raised by an annual assessment at an equal pound rate not exceeding 1s. on all the unexonerated lands, tenements, and hereditaments within the areas charged with the separate quotas. It may here be mentioned that, as respects the period between 1697 and 1798, the quotas fixed for each hundred or division were required by law to be assessed *equally* within every parish or place within the hundred or division, although in practice effect was not always given to this requirement. But in the important case of Regina *v.* Land Tax Commissioners for Tower division, it was decided by the Court of Queen's Bench in 1853 (2 E. and B. 694) that the act 38 Geo. III. c. 60 fixed, as from 1798, *a separate quota for each parish or place*, and that there was no power to equalise the quotas payable by the several parishes or places within any division. The net amount of the fixed quotas is paid over as part of the inland revenue, any surplus unavoidably raised being applicable to the remuneration of the assessor and the redemption of the quota for the particular parish or place. The tenant of the property is the person required by law to pay the tax, but in the absence of agreement to the contrary he is entitled to deduct the amount out of his rent. There are certain exemptions for hospitals and colleges.

As before stated, personal property, originally placed in the forefront of the tax, gradually slipped out of assessment. In 1798 the remaining charge was found to amount to a little over £5000, and this charge was continued by Pitt in the various districts subject to it till 1833, when it was repealed. That part of the old land tax which was collected from offices, and which amounted in 1798 to about £126,000, was also then continued as a separate annual grant, finally disappearing in 1876, except as regards certain salaries charged on public revenue.

The existing land tax in England is described by Giffen, *Essays in Finance*, 1st series, p. 242 :— "As a fixed charge upon land for generations, it is now past all controversy a rent-charge. In many instances it has long since been redeemed, the property having subsequently changed hands ; in others, inheritors of property have acquired it under the burden, and have calculated their income minus the tax, while purchasers, in buying, invariably allow for it. To reduce (abolish ?) it now would be to present the landowners of England with a capital sum of nearly £30,000,000. Their estates, relieved of the burden, would become at once so much more valuable, and if they did not sell, they would pocket an additional income which they never inherited or paid for."

[Dowell's *History of Taxation and Taxes*, 2nd ed. vol. iii. bk. ii. ch. i.—Bourdin's *Land Tax.*—1st, 13th, 28th, 43rd, and 48th Reports of Commissioners of Inland Revenue (see TAXATION).]

F. A.

LAND TENURES (or LANDLORD AND TENANT IN THE UNITED KINGDOM). The relation of landlord and tenant springs out of a contract by which the proprietor of land lets it on hire for use by some other person. Under this contract the proprietor is entitled to payment for the use of the land,—a rent whether in kind or in money, and the tenant acquires certain possessory rights in the land available against third parties as well as against the proprietor. Experience has shown that as a rule the proprietors of large estates can make more out of their land by thus letting it for hire than by dealing with it in other ways. The high cultivation of the land involves an expenditure of capital to which the proprietor may be unequal, it also requires special knowledge which the proprietor may not possess, and close personal supervision which he may not be able to give. Hence proprietors are naturally led to devolve on other men who have the requisite knowledge and capital the business of utilising the land, and in order to obtain their assistance concede to them at least for a time exclusive rights of possession and enjoyment. Unlike the bailiff or caretaker, who is a mere living instrument of the proprietor, the tenant is the legal occupant of a

given parcel of land, and can exclude the interference of the proprietor himself.

On the other hand, the landlord has very generally possessed special means of recovering his rent from a tenant who has fallen into arrear. The ordinary creditor has not, in the absence of express agreement, any mortgage on his debtor's property. But Roman law gave the landlord a HYPOTHECA or implied mortgage on the tenant's stock, so that he could satisfy his claim out of it in preference to other creditors. English law allows the landlord the extrajudicial remedy of distraint. Without going into court he can distrain on the goods and chattels found on the farm for which rent is due. He is entitled to sell the goods thus seized, and to satisfy his claim out of the proceeds of the sale. By the AGRICULTURAL HOLDINGS ACT of 1883, the landlord is prevented from distraining for more than a year's rent, and from taking by way of distraint machinery or live-stock which, although found upon the farm, belongs to a third party.

It follows almost inevitably from the independence of a tenant, as compared with a labourer, that he should supply part of the capital required for the cultivation of his holding. He must at least find his own tools, and keep himself alive until the first crop sown by him becomes marketable. This seems to be all the capital required by that class of metayers who receive from their landlords the whole of the stock for their farms (see MÉTAYAGE). But usually the tenant supplies much more than this small capital. He may supply the whole of the stock. Or, besides supplying the stock, he may spend a considerable sum in keeping the land fit for cultivation, and this expenditure will increase rapidly as INTENSIVE CULTIVATION (*q.v.*) becomes general. Finally, he may defray the expense not merely of keeping the land in order, but also of what are termed permanent improvements, such as drainage and farm buildings,—this last case is practically unknown in England.

In so far as the tenant's capital is spent on the lasting improvement of the land, he has a moral and may have a legal claim to compensation.

In considering the relation of landlord and tenant we have to take account of three things: the mode of fixing the rent, the duration of the lease, and the compensation to be paid for tenant's improvements.

1. *The Rent.*—The rent to be paid by the tenant may be fixed in various ways. It may be fixed by competition, the landlord offering a vacant farm for the highest rent obtainable. This method is commonly adopted in England. But in England, though most farms are let from year to year, it has been the general practice of good landlords to allow a satisfactory tenant to remain in possession, practically in perpetuity. Again the rent may be merely nominal, but coupled with the obligation to pay a large fine whenever the lease is renewed. This is the principle of the beneficial lease formerly common in England, especially on the estates of corporate bodies, but now fallen into desuetude. Again the rent may be fixed at a certain proportion of the gross or net produce of the holding, as in the metayer tenure. In all these cases the rent is determined by the agreement of the parties. In other cases the rent may be customary. Long lapse of time may have rendered it unalterable, in spite of changes in the value of money or an increase in the demand for farms. Again the rent may be judicial—fixed periodically by a court on an estimate of what a man of average capacity can fairly pay for a given piece of land. But judicial determination of rent only takes place when there is a dispute between a tenant in possession and his landlord as to what rent should be paid.

Each of these modes of determining rent has its peculiar advantages and disadvantages. The fixing of rent by competition works very well in a country like England, where there are many other industries beside agriculture, and where, as farming is carried on, the competition for holdings is limited to men of some capital and special training. Under these conditions it gives landlords every motive for spending pains and money on their land so as to enhance its letting value, whilst it stimulates the tenants to farm the land effectively, or in default admits abler men to carry on the work of cultivation. But where the needful conditions do not exist, where agriculture is almost the only industry, where competition for land is fierce and irrational, where landlords are often not improvers and frequently are absentees, the system of competitive rents does not promote good farming and excites much ill feeling. In Ireland the competition for land in many cases induced the offer of a rent which could never be paid, and assisted in multiplying a miserable and lawless rural population. The system of beneficial leases seems more indulgent to the tenant, but it destroys the landlord's interest in improving his land. When it was in common use in England, the lands let on beneficial lease compared generally very unfavourably with the lands let at a rack-rent. The method of fixing the rent at a proportion of the produce has the advantage of roughly adjusting the tenant's payments to his means, and reducing the rent in an easy automatic manner when agriculture becomes less profitable. It has the further advantage of making the landlord as it were a partner with the tenant, and of interesting him directly in the improvement of the land. Where rent has been fixed by custom the landlord has no interest in the improvement of the land, and the progress of agriculture depends wholly on the skill, capital, and industry of the tenant who is secure of any surplus which he can extract from his farm. But custom operates chiefly in poor communities where agriculture is not progressive. The judicial determination of rent assures to the tenant in possession a full return for all improvements made by him, but it also secures him against the competition of abler men who might do better with the land, and hence removes incitement to improvements. It has no benefits for a new tenant who comes in after paying a full competitive price for his predecessor's tenant-right, for the interest on the sum so paid

when added to the judicial rent will often equal and sometimes even exceed a full rack-rent. Under this system the landlord's control over his land and sense of enjoyment in it are so much reduced, that he is apt to do nothing more for the improvement of his estate and to sink into a mere annuitant. The periodic determination of the rent causes recurring friction, and the constitution and procedure of the court become the playthings of political parties. The system of judicial rents, probably, can hardly be more than exceptional and temporary.

2. *The Duration of the Lease.*—This may vary from one year to a practical perpetuity. An agricultural tenant must occupy the land at least for a year in order to derive any return from his labour. For this reason the English courts have caught at any pretext for turning a mere tenancy at will into a tenancy from year to year. Through the operation of the Agricultural Holdings Act a tenancy by the year virtually secures the enjoyment of the land for two years. But much more important, as mentioned before, is the custom of all good landlords not to disturb a satisfactory tenant. There are many instances in England of a farm let nominally from year to year which has remained in the hands of the same family for several generations. Leases for a term of years are common in England and much more frequent in Scotland and Ireland. The Settled Land Act 1882, empowers every tenant for life to grant agricultural leases for a term of twenty-one years. The lessee for a term of years has evidently a strong incentive to industry in the earlier years, but he is apt to relax his efforts during the later years of his term. Yet the large farms of Scotland, the best of their class in the world, have usually been held for a short term of years. Leases for long terms are not unknown in the United Kingdom, and the Roman contract of EMPHYTEUSIS was practically a lease for ever. The tenant could never be disturbed, provided he paid his rent and did not lay waste the holding. Where the rent has been fixed by custom, the tenant has a virtual lease for ever. Where the rent is determined judicially, it must be reassessed at moderate intervals. In Ireland the interval was fixed by the Land Act of 1881 at fifteen years, but a bill has been introduced this year (1895) for reducing it to ten years. As a general rule, it may be laid down that where landlords have the means and the will to improve the land, leases for moderate terms will suffice to ensure high farming, but where landlords are not in the habit of making improvements leases for longer terms are desirable. Tenancies from year to year are compatible with high farming only where custom gives an additional security to the tenant.

3. *Compensation for Tenant's Improvements.*—The general rule is that the property in the soil includes everything which is affixed to, or embodied in, the soil. If a tenant gives up possession, therefore, he loses any right to his improvements. But, as this is inequitable to him and injurious to agriculture, he ought to receive compensation. Again, if he is to be compensated for his improvements he should be obliged to obtain the landlord's consent for making them, as otherwise he might compel the landlord to reimburse him for reckless and fanciful expenditure. Compensation may be either direct or indirect, customary or legal. If the tenant has a lease for a term of years at a low rent he may be regarded as receiving indirect compensation for the improvements which he has executed. If he pays a competitive rent, compensation must be direct and must be paid him on quitting the farm. In England custom has generally thrown on the landlord the burthen of making the most durable and costly improvements, and has sometimes given compensation to out-going tenants for improvements which they had made. But it was found necessary to supplement custom by legislation (see AGRICULTURAL HOLDINGS ACTS).

Where the tenant enjoys fixity of tenure at a judicial rent no special legislation is needed to ensure compensation for his improvements.

The relation of landlord and tenant in the East, particularly in India, differs greatly from that in western Europe. A few words only can be given to it here. Baden-Powell's great work on *Systems of Land Tenure and Land Revenue in British India*, contains much information. Baden-Powell appears to have proved that neither Mohammedan nor Hindu jurists had a clear conception of property in land, and in consequence the several interests of the different classes who live on the land have never been defined with the legal precision customary in Europe. The relations subsisting between those whom we should call landlords and tenants differ in different provinces. It has been the policy of the government to recognise the claims of actual occupants, and to give them what might be called a tenant-right. This is said to have been the intention even of Lord Cornwallis and of those who assisted him in the permanent settlement of Bengal, although it was not carried out till many years afterwards. But the subject of Indian tenures is too extensive and too intricate to be discussed within the limits of this article. To illustrate European institutions by Indian parallels, though always attractive and sometimes useful, is generally unsafe.

The relation of landlord and tenant in the case of mines or of buildings presents certain peculiar features, for which see MINES; ROYALTIES.

[Williams, *Principles of the Law of Real Property.* — Woodfall, *Law of Landlord and Tenant.*—The works referred to in the articles on the Three F's (see F'S, THE THREE, and LAND LEGISLATION, Irish); the acts referred to above. —Mill, *Principles of Political Economy*, bk. ii. —Marshall, *Principles of Economics.*—Nicholson, *Principles of Political Economy.*—Brodrick, *English Land and English Landlords.*—*Systems of Land Tenure in Various Countries* (Cobden Club), 3rd ed., 1876.] F. C. M.

LAND BANKS, SCHEMES OF, IN ENGLAND, 1695-96. A rival banking scheme to that of the Bank of England. The idea of it was first broached by Hugh CHAMBERLEN who, in November 1690, issued from his house in Essex Street the first draft in his "proposal to make England rich and happy." In the session of 1693 he brought the proposal before the Scottish parliament, and in the month of July it was

examined by a committee. In this form of his scheme Chamberlen proposed, against a conveyance of an estate for 150 years, to create bills to the value of 100 years' rental, 40 years' rental to be advanced on loan and rental to the landowner, 30 years' rental to form the capital of a joint-stock for the benefit of subscribers, 10 years' rental to be advanced to government as a loan, and remainder for working expenses. The scheme not passing the Scotch parliament, it was brought before the English parliament in December 1693, but slightly altered. Subscribers were to convey £150 rental for 150 years to secure a loan of £100 per annum for 100 years, and in addition to exchange £1000 in gold or silver for the intended company's bills, thus £400 in allotment, £300 at end of first year, £200 at end of second year, and £100 at end of third year. For this he would receive in the company's bills £1000 down, £1100 at end of first year, £1200 at end of second year, £1300 at end of third year, and £1400 at end of fourth year. Of the £10,000 loan created, therefore, the conveyor got £6000, another £3000 was to form a joint-trading stock, the remainder was for government loan and working expenses.

The scheme was taken up by the tories out of rivalry to the whig Bank of England (see Kennet, and Burnet, "*a new ballad of the land bank, or credit restored*," published c. 1696, in which Harley and Foley are especially mentioned), and a huge scheme was launched by which the land bank undertook to raise a loan of £2,564,000 for William's government. The scheme received the sanction of parliament in April 1696, after bitter opposition from the Bank of England. By the act 7 & 8 Will. III. c. 31, the duties on salt, glass, etc., and tobacco pipes were appropriated to form a fund to raise £179,480 per annum, being interest on the proposed loan. By the act the subscription was to be closed before 1st August 1696, and half the loan was to be subscribed before the incorporation of the company. The bank was further to lend £500,000 on land securities.

The deed declaring the constitution of the "Office of land credit" was sealed 10th August 1695, but not enrolled in chancery till 15th July 1696. The provision on the first draft of the scheme as to the exchange of £1000 in gold was omitted and other details altered.

Before parliamentary assent to the scheme the subscription had been opened on the 25th October 1695. It met with no response, was closed, and again opened on the 18th November with like effect, and a third advertisement was tried on the 20th December. The 6th number of the "monthly account" of the bank, issued 7th January 169$\frac{6}{7}$, says that since the 25th October £40,000 had been lent out on land security. This must be looked upon as distinct from the institution established by the act of April 1696. Subscriptions for the latter were to open 25th May 1696, and the first meeting of subscribers was called 8th June. From the first it proved a total failure. Kennet says the scheme did not produce a penny, and was a serious blow to credit generally (see Macaulay).

Chamberlen in 1700 and 1705 again brought his schemes before the Scotch parliament, but in vain.

RIVAL SCHEMES.—1. That of John BRISCOE, presented to parliament in 1694. Offered to subscribers bills to the value of $\frac{2}{3}$ of the estate settled, at £3 : 0 : 10 per cent interest. Coupled with this were proposals for raising £1,000,000 for government aid. Not receiving the sanction of parliament Briscoe opened his subscription without it (11th June 1695). By the 13th July 1695 estates to the rental of £29,460 were subscribed, by 27th July £51,438, by 3rd August £60,270, by 2nd December over £200,000, the estates being drawn from almost every county of England and Wales. According to Briscoe's assertion, also, of the million loan £650,000 was subscribed. There is no further evidence as to the progress of the project.

2. A scheme drafted in a tract undated and unsigned, entitled "An account of the office for transferring and discounting land bills" at Hercules Pillar, Fleet Street, near Temple Bar. Owners of land to draw $\frac{2}{3}$ value of estate conveyed, in bills discountable at 1 per cent 6 months after the registration of the estates. To provide a fund for discounting, the manager to be empowered to call in 10 per cent or more of the value of all the estates registered.

3. An anonymous "Proposal for erecting a general bank which may be fitly called the Land Bank of England" 1695.

4. Nicholas BARBON is said to have founded a land bank, which on the 15th August 1695 was going on successfully (Luttrell's "relation"). On the following 4th February 169$\frac{5}{6}$ this coalesced with Briscoe's bank.

5. Thomas Dalby, "Propositions for general land banks," an undated pamphlet signed as above (of 1695 almost certainly). He proposes two alternative schemes—(1) funds not to exceed $\frac{1}{4}$ of rental of lands engaged, (2) land banks secured by a parliamentary fund of which he gives a sample scheme.

6. John ASGILL, who was accused of plagiarism of Briscoe's ideas, proposed an anonymous scheme in tract entitled "To the knights, citizens, and burgesses in parliament assembled, a short scheme or proposal for a National Land Bank." Landowners to subscribe £4,000,000, $\frac{1}{4}$ of this to be government loan and the fund of the bank. Landowners to have $\frac{2}{3}$ value of estate advanced, viz. on £100 rental £1200 in money at £3 : 0 : 10 per cent. (This is apparently Briscoe's.)

[Thorold Rogers, *First Nine Years of the Bank of England*]. W. A. S.

LANDES-CREDITKASSEN. Government mortgage banks established in some parts of Germany, chiefly for the purpose of assisting peasant proprietors (see MORTGAGE BANKS).

E. S.

LANDING-WAITER is the name which, in the customs departments of the United Kingdom and the colonies, denotes the officer who receives and checks imported goods at the place of landing. The rules of the department in Queen Elizabeth's reign show that the *waiter* was the officer who superintended importation, as distinguished from the *searcher* who looked after exports—who "waited on" the lighters which brought the goods to the pier. Later the term became *land-waiter* and then *landing-waiter*.

[See *First Report of Commissioners of Customs*, 1857.] C. A. H.

LANGE, FRIEDRICH ALBERT (1828-1875), was born at Wald near Solingen in the district of Düsseldorf. He was son of Dr. J. P. Lange, well known as a theologian and a professor at Bonn. His father was called to Zürich, and the boy's early youth was spent there. He went to Bonn to study philology and philosophy; after teaching for some time at Cologne, he returned to Bonn as *privat-docent*. From 1858-62 he was master in the gymnasium at Duisburg, but resigned this position when the government forbade teachers to take a part in political agitation. His deep interest in the social and economic questions of the time led him to engage in several journalistic enterprises, always showing himself a decided adversary of reaction. After a residence of some years at Winterthur in Switzerland, he became, in 1870, professor of inductive philosophy at Zürich, and in 1872 accepted an invitation from the minister Falk to fill the chair of philosophy at Marburg. His health began to fail, but he continued to work energetically, lecturing and writing, till the end came. Personally, he appears to have been a man of singularly pure and elevated character, with high moral ideals, and filled with zeal for the advancement, and especially the enlightenment, of the working classes.

Lange is most widely known by his *Geschichte des Materialismus*, 1866 (afterwards remodelled and largely rewritten), which was translated into English by E. C. Thomas, 1877-81. His principal economic work is *Die Arbeiterfrage in ihrer Bedeutung für Gegenwart und Zukunft beleuchtet*, 1865, republished in 1870 with considerable changes, especially with a larger element of theoretical discussion. It is this work which has led to the position assigned him as one of the scientific socialists. His socialism is of a peculiar type, making him an interesting, but also a somewhat perplexing figure. He is repelled by the pervading egoism of the existing system of society, and looks forward to a better organisation, but does not adopt any of the dominant popular creeds of his day. Accepting the proposition that competition tends to force wages down to a minimum, he yet does not wish to abolish the wage system. He does not admit Marx's theory of value, nor does he approve his project of expropriation. He holds the *Konsum* and *Vorschuss-vereine* of Schulze-Delitzsch to be an altogether insufficient solution of the social problem, but rejects also the productive associations of Lassalle, except for agricultural exploitation. Malthus he regards as an immature forerunner of Darwin, and refuses to explain human development by the struggle for existence which prevails amongst the lower animal races; indeed, as he pointedly says, the contemporary labour movement is in its essence a "struggle against the struggle for existence." He is more critical than constructive, and represents a transitional and indeterminate stage of sociological opinion.

Besides his *Arbeiterfrage*, Lange published the following economic writings:—*Jedermann Hauseigenthümer*, 1865, intended to naturalise in Germany the system of the English building societies; and *J. S. Mill's Ansichten über die sociale Frage und die angebliche Umwälzung der Socialwissenschaft durch Carey*, 1866, "the best general estimate of Mill as an economist."—Bonar, *Philosophy and Pol. Econ.*, 1893.

[Weinkauff in *Allg. Deutsche Biogr.*; Lippert in *Handw. der Staatswissenschaften.*] J. K. I.

LANGENSTEIN, HENRY OF (1325-1397), also called HENRICUS DE HASSIA from his native country in Germany. He was some time lecturer and vice-chancellor of the university of Paris, and from 1383 to 1397, the year of his death, professor in Vienna, where he was invited by the archduke Albert III. of Austria, founder of the faculty of theology in the high school of Vienna. Langenstein's *Tractatus de contractibus et de origine censum* is inserted in Joh. Gerson's *Tractatus diversi* (vol. iv. fol. 185-253), Cologne, 1484.

Langenstein is a staunch upholder of the mediæval canonistic views. By means of taxes, the temporal powers should maintain the *justum pretium*, taking, however, into account local considerations, the condition of men, and the disposition of the times. A few discreet elders (*discreti senes*) have to compute, after a careful examination, what each man actually wants according to his *status*, for *status* is more exacting than nature. Every commercial transaction must be based on the *equality of quantities*. He extends the prohibition of usury to the Jews, but would allow them to apply themselves to crafts, trade, and agriculture.

The purchase of rent-charges, very prevalent in Germany during the middle ages, as it allows men to live in idleness, is sinful, excepting as a way to provide for one's old age or as a remuneration of services rendered to the church or state. He also objects to the redemption of rents on the basis of a return of 12½ per 100 as dishonest.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 18-21, and Brants, *Les Théories Économiques aux XIII.e et XIV.e Siècles* (Louvain, 1895), pp. 71, 81, 119, 175, and 201.] E. Ca.

LAPSE OF TIME AS CREATING OR EXTINGUISHING RIGHTS. In most legal systems the mere lapse of time has been allowed some effect in creating or extinguishing rights. This principle has taken two forms—acquisition by prescription, and limitation of actions (see LIMITATION, STATUTES OF:

PRESCRIPTION). Prescription plays a more important part in Roman than in English law. Under the early civil law land might be acquired by two years', and movables by one year's uninterrupted possession. By the law of Justinian, ten years' uninterrupted possession gave property in land, if the person against whom the possessor claimed lived in the same province. But if he lived in another province, and, therefore, was less able to protect his rights, twenty years' uninterrupted possession was needed to turn the possessor into an owner. Three years' uninterrupted possession was necessary in the case of movables. But in all cases something more than the mere lapse of time was needed to transfer ownership. The possessor must have acted *bonâ fide*, believing himself to be entitled to the thing possessed, and his possession must have had its origin in some act which, if performed by the true owner, would have given him a legal title to the property, *e.g.* gift, sale, exchange, bequest. The later Roman law, however, recognised that mere uninterrupted possession for a very long period might by itself confer ownership. In English law prescription was not recognised as a means of acquiring property, except in the case of EASEMENT or SERVITUDES, *e.g.* right of way, right of water, right of ancient lights. Even here it was necessary to show enjoyment from time immemorial, *i.e.* from the first year of Richard I., although, where this could not be done, evidence of enjoyment for a long time past was admitted as proof of a lost grant of the right in question. Finally, the Prescription Act 1832 (2 & 3 Will. IV. c. 71) put the matter on a rational footing, by recognising the right of a person who had enjoyed the easement for a specified time—forty years in the case of a right of way, or twenty in the case of a right of light. The enjoyment must not have been merely by permission, nor by force, nor by stealth. By the limitation of actions is meant the loss of a right to sue which is not exercised within a given time. This principle was recognised in the later Roman law, but is much more prominent in English law. Thus at the present day every species of civil action, except an action against a fraudulent trustee, must be brought within a limited time. An action for the recovery of land must be brought within twelve years of the time when the right of action accrued. An action for breach of a simple contract must be brought within six years; an action for breach of a contract under seal within twenty years. Actions for TORT (*i.e.* civil injury) must be brought within the time fixed by statute in each case. It will be noticed that the limitation of actions does not, like prescription, transfer a right of property from one person to another. It only takes away from the aggrieved person the most effectual means of asserting his right. Thus if A owes B a debt for which B cannot sue because he has let the time slip by, and if A for any reason afterwards pays B a sum of money without mentioning the purpose to which it is to be applied, B can apply the money to payment of the time-barred debt. But it has been provided by statute that when the right to bring an action for the recovery of land has been lost by lapse of time, the title to the land shall also be extinguished. The lapse of time for the purpose either of prescription or of limitation of actions is always interrupted by any acknowledgment of the right of the party, against whom time is running, made by the other party.

The principle which underlies both prescription and limitation of actions has been keenly discussed by jurists. Some have argued that the loss of rights by lapse of time is a just penalty upon the person who neglects to enforce them, whilst others have laid stress upon the hardship of disturbing a long-continued possession, which is generally innocent, and others upon the public interest in limiting litigation. Litigation is at best a costly and uncertain remedy for wrong. But the longer the time which has elapsed since the right of action accrued, the greater becomes the expense and the smaller the chance of finding out the truth. He who does not set about asserting his right of property or obtaining redress for his wrongs within a reasonable time probably suffers little in losing his remedy.

The principle of prescription has a political as well as a merely legal application. History contains many instances of wholesale violence and injustice, revolutions, conquests, and confiscations which dispossess not a few individuals, but whole multitudes in order to enrich a crowd of new possessors. But when these changes have received the sanction of time, a statesman, however much he may deplore them, will not attempt to undo them by any sweeping act of restitution.

Catastrophes such as the Norman Conquest of England, or the English Conquest of Ireland, or the French Revolution, cannot be undone. Even if the old possessors of the land or their descendants had all their title-deeds in order, restitution could not be made except as the result of a prolonged civil strife. The new settlement has become the basis of innumerable transactions and is interwoven with immense interests. Remedial legislation for the social evils which it has generated may be most necessary. But such legislation must be based on the principle that no private person is responsible for the public crimes of a past generation. So far as there is any responsibility for those crimes, it rests upon the whole community, which is therefore bound to bear the burthen of whatever compensation to the victims or to their descendants may be thought just or necessary.

[Holland, *Jurisprudence.* — Markby, *Elements of Law.*—Moyle, *Institutes of Justinian.*—Gale on *Easements.*—Darby and Bosanquet, *Statutes of Limitations.*] F. C. M.

LARGE AND SMALL TRADE. See TRADE.

LA RIVIÉRE, MERCIER DE. See MERCIER DE LA RIVIÈRE.

LA ROCHEFOUCAULD LIANCOURT, ALEXANDRE FRÉDÉRIC, Duc de (1747-1827). Before the French Revolution he lived on his estates, where he busied himself with agriculture, was elected in 1789 a member of the national assembly, fled to the United States during the Reign of Terror, and published on his return the result of his observations in his *Voyage aux États unis d'Amérique fait en 1793-1798* (Paris, 8 vols. 1800).

He was one of those who attended the dinners of the *Économistes* at the home of the Marquis de MIRABEAU, and always took a zealous and active interest in questions of public and private charity. He published a condensed translation of Eden's *History of the Poor*, for the *Recueil de Mémoires sur les Établissements d'humanité* of DUQUESNOY (*q.v.*) (vol. vii., Paris, 1799-1804). His other publications are *Finances et crédit* (1789).—*Notice sur l'Impôt territorial en Angleterre* (1790 and 1804).—*Plan du comité pour l'extinction de la mendicité présenté à l'Assemblée Nationale* and *Travail du comité de mendicité* (both 1790).—*Les Prisons de Philadelphie* (1796 and 1819).—*Notes sur la législation anglaise des chemins* (1801) and a *Statistique Industrielle du Canton de Creil* (Senlis, 1826). A letter of his to Adam Smith is given by Dugald Stewart (see *Cat. of A. Smith's Library*, Macmillans, 1894). A. Smith's reply will be found in *Econ. Journ.*, March 1896. E. CA.

LA ROCHEFOUCAULD LIANCOURT, FRÉDÉRIC GAETAN, Marquis de (1779-1850). He was the son of the Duke of La Rochefoucauld who lived 1747-1827, and a member of the French house of deputies during the reigns of the restored Bourbons and of King Louis Philippe. He wrote almost exclusively on subjects connected with prison administration.

Mémoires sur les Finances de la France en 1816.—*Examen de la Théorie et la Pratique du système Pénitentiaire*, and as a sequel *Conséquences du Système Pénitentiaire* (1842).—*Examen du Projet de Loi de la Réforme des Prisons* (1844).—*De la Mortalité Cellulaire* (1844). E. CA.

LARRUGA, EUGENIO DE (about the middle of the last century), born in Saragossa, was placed by King Charles III. at the head of the government departments of the mines, the mint, trade and manufactures. He published, with the financial assistance of the king, his *Memorias políticas y económicas sobre los frutos, comercio, fábricas y minas de España* (Madrid, 45 vols., 1785-1800), a most copious source of documentary information on the economic policy followed in Spain from the reign of Philip II. to the author's own time. In his *Discurso Proemial* (preface), Larruga puts forward his own views as a steadfast opponent to the interfering and meddlesome spirit which animated Spanish princes and statesmen since the accession of the House of Austria; he lays great stress on the necessity of basing economic reasoning on accurate and extensive knowledge of facts. E. CA.

LASSALLE, FERDINAND (1825-1864), born at Breslau, the most conspicuous amongst the founders of the social democratic party in Germany. An able and brilliant man, he earned notoriety at an early age in connection with a social scandal, was conspicuous for his energy as an agitator and the vigour of his defence in repeated political prosecutions, and was killed at thirty-nine in a duel. His speculative activity, which was considerable, was devoted rather to general social philosophy and constitutional jurisprudence than to abstract economics, in which his views coincide generally with those of RODBERTUS or MARX, and have little originality. His earliest controversial pamphlet (1849) is his defence on his trial for incitement to resist the unconstitutional collection of taxes. In 1857 he published a treatise *Die Philosophie Herakleitos dargestellt*, reflecting the Hegelianism which underlay his own political philosophy. In 1859, *Franz von Sickingen*, a drama of the Peasant Revolt, indicated an approach to a less ideal attitude towards the social problems of his own generation, and a pamphlet on *The Italian War* further emphasised his growing absorption in the German revolutionary movement. Writings on constitutional and social philosophy followed, including the important *System of Acquired Rights* (*Das System der erworbenen Rechte.* Brockhaus, Leipzig, 1861). In 1862 he plunged deeper into burning economic and industrial questions in his *Working Men's Programme.* In this and in repeated similar utterances he combated the individualist philosophy, and the "laissez faire" political doctrine which the "Manchester school" had founded on abstract economics, asserting, against their "policeman's idea" of the state, the organic conception of the state as "the unity of individuals in an ethical whole," . . . furnishing individuals with an indefinite variety of "means for attaining a degree of culture, power, and freedom that would be to every one of them as individuals absolutely unattainable." He insisted that "by an iron and inexorable law . . . under the domination of supply and demand, the average wages of labour remain always reduced to the bare subsistence which, according to the standard of living of a nation, is necessary for maintenance and reproduction," that the preaching of "self-help" was idle in the face of the efficiency of consolidated capital, and produced only "the repulsive caricature of working men with working men's means and employers' minds," and that the only avenue towards freedom for the wage-

earning class lay through the application of its political power to the employment of the credit of the state in furnishing capital for productive enterprises to be carried on by democratic associations of workers. S. O.

In February 1863 Lassalle was invited by the Central Leipzig Committee to summon a general congress of the working men of Germany to meet in that city for the purpose of preparing a programme of labour agitation. He published an *Open Letter of Reply*, in which he dwelt on what he called the iron or "brazen law" (*ehernes Gesetz*) of wages, already laid down by Turgot and Ricardo, but which he stated in an exaggerated form—namely, that the remuneration of the labourer can never differ much from the minimum regarded in any state of society as necessary for the maintenance of his life and the continuation of his family. Hence he infers that the workman is entirely excluded from the benefits of the growing productivity of labour which accompanies the progress of civilisation. To improve his position he must get rid of the *entrepreneur*, and become himself a capitalist. And, to this end, productive associations of workmen must be founded, and the government must supply them with the capital, or credit, necessary for their operations.

In the same year Lassalle opened a correspondence with Rodbertus, hoping to win his co-operation; but, though their ultimate aims were similar, no argument could convince Rodbertus that the plan of productive associations with state credit would do any real good, nor any importunity induce him to admit that the socialists should be a political as well as an economic party.

In 1864 Lassalle published his *Herr Bastiat-Schulze von Delitzsch, der ökonomische Julian*, a clever but somewhat coarse production, in which he attacked Schulze-Delitzsch, an honourable and useful man, for the principles he had borrowed from Bastiat, and denounced his system of co-operation as an utterly insufficient solution of the labour problem, expounding at the same time his own views and vindicating his practical proposals. In this book, which had for second title *Capital and Labour*, occurs the celebrated passage in which he ridicules the "abstinence" theory of profit in what Böhm-Bawerk calls "his tumultuously eloquent, but absurdly rhetorical way." "The profit of capital," he says, "is the wage of abstinence! Happy, even priceless expression! The ascetic millionaires of Europe! Like Indian penitents or pillar saints they stand: on one leg, each on his column, with straining arms and pendulous body, and pallid looks, holding a plate towards the people to collect the wages of their abstinence. In their midst, towering up above all his fellows as head penitent and ascetic, the Baron Rothschild! This is the condition of society! How could I ever so much misunderstand it?" (See Böhm-Bawerk's *Capital and Interest*, Eng. tr. by W. Smart, p. 277.)

Lassalle's principles have not continued to find favour with the German social democrats; they have been supplanted by those of Karl Marx, who is now the undisputed oracle of the party. These two writers are in several respects contrasted. Lassalle was patriotic in his sentiments; at the time of the Italian war he had called on Prussia to take the opportunity of breaking with Austria and establishing German unity; "gross-Deutschland *moins les dynasties*" was his programme. Marx was cosmopolitan, and inspired the German socialists with the international idea. Lassalle was idealistic, and appealed to social justice. By Marx the necessity and nature of the predicted revolution were founded on the laws of the material development of society, as he conceived them. Lassalle was a believer in the ability and duty of the state to interfere for the protection of the working class against capital, and to introduce the new era which he regarded as about to open. Marx rejected the help of the existing state, and looked for a direct transformation through democratic force of the whole organisation of society.

Lassalle is said to have shown himself an original thinker by his work in the field of jurisprudence, but he is certainly not such in economics. He derived his principles, with eclectic freedom, from the English economists, from Louis Blanc, or from Rodbertus and Marx; the last, indeed, asserted that all the general theoretical propositions in his works had been borrowed from his (Marx's) published writings, and that he had not always understood them aright.

It was as an agitator that Lassalle was really great; of the names *Denker* and *Kämpfer* written on his tomb, he deserves the latter much more than the former. He created the German labour movement, and gave to it in its early days much of his own fire and energy. He also stimulated the growth of state socialism; it is thought by some that he influenced in this direction the views of Bismarck, who admired his talents and enjoyed his conversation. All must admit that he rendered at least one permanent service—that of fixing the attention and interest of all classes of the population on what is known as the social question. There was much that was unsound alike in his intellectual and moral character; he was more showy than solid, inordinately vain and arrogant, and somewhat theatrical in his public manifestations, and had little self-control or moral scruple; but he was true to the cause he took in hand, and fearless in its advocacy; and his action on his followers, though misleading, was not degrading.

[The best edition of his collected writings is that begun in 1892 by E. Bernstein. His letters to Rodbertus have been separately published, with a preface by Prof. Wagner. One of the best biographies of him is that by G. Brandes, a Dane, which has been translated into German—*F. Lassalle, ein litterarisches Charakter-bild*, 1877; 2nd ed. 1879. English readers will find a full and trustworthy account of him and of his political activity in *German Socialism and Ferdinand Lassalle*, by W. H. Dawson, 1888. Mr. George Meredith's *Tragic Comedians* is founded on the story of Lassalle's life, and a short biography of him is prefixed to the novel in the edition of 1892.

In the present sketch Diehl's article in the *Handwörterbuch der Staatswissenschaften* and Plener's in the *Allgemeine Deutsche Biographie* have also been consulted, and the former largely used. See also Bonar's *Philos. and Pol. Econ.*, 1893.—Rae, *Contemporary Socialism.*] J. K. I.

LASTRI, Marco (18th century). A Tuscan abbé and writer. For students of economic and statistical sciences his researches on the population of Florence are important as an early collection of statistics. Lastri worked through the baptismal registers of San Giovanni, Florence, and collected a long list of baptisms (1451-1774) from which, by calculating the proportion between births and population, he endeavoured to estimate the population of the commune of Florence. The researches of Lastri, which are based on sound statistical information, and permeated with a good knowledge of the literature of the subject, were continued by Zuccagni Orlandini down to the present century, when, in 1818, a system of civil registration was introduced into Tuscany and a regular census commenced.

Ricerche sull' antica e moderna popolazione di Firenze, per mezzo dei registri del battistero di San Giovanni, dal 1451 al 1774.—Florence, Cambiagi, 1785.

[Salvioni, *La Statistica storica*, in the *Rassegna Nazionale*, Florence, 1885.] U. R.

LATHES (of Kent), a very old division of the county, perhaps representing shires existing at the time of the heptarchic kingdom of Kent. The six lathes or "lests" found in Domesday do not quite correspond with the five modern districts of the same name. Three or more hundreds go to make a lathe, which, like the riding of Yorkshire and Lincolnshire, and unlike the rape of Sussex, was a judicial division, with a court higher in dignity and power than that of the hundred, lower than that of the county. The name of lath is found also applied to a court held for the management of Romney Marsh.

[Stubbs, *Const. Hist.*, i. 100.—Ellis, *Introd. to Domesday*, i. 178.—Hasted, *Hist. of Kent*, i. cxiii. For Romney Marsh, see Hasted, iii. 535.—Palgrave, *English Commonwealth*, p. 101.] E. G. P.

LATIFUNDIUM, a word used by Pliny and a few other classical authors to denote a large landed property, estate, or farm. It is not to be confused with the *latus fundus* of the *gromatici* (see Territorium). The effects produced by the proprietorship of large extents of the soil of Italy falling into a few hands are discussed by J. E. T. Rogers in his *Industrial and Commercial Hist. of Eng.*, p. 248, but the same subject is far more satisfactorily dealt with by Dr. Cunningham in his *Growth of English Industry*. Neither author has, however, given any measure of the excess to which this system had run under the Roman Empire, although the former quotes the well-known passage in Pliny's *Natural History*, xviii. 7: *Verumque confitentibus latifundia perdidere Italiam, jam vero et provincias. Sex domini semissem Africæ possidebant cum interfecit eos Nero princeps.*

Pliny here asserts that six persons owned half of the province of Africa—the modern Tunis—meaning, no doubt, the part known as Zeugitana, a region so fertile that its plains furnished Rome with its principal supply of grain. There may be exaggeration in the passage, but, roughly estimating Zeugitana at 8000 square miles, and assuming that an unusual proportion was waste, we find that each owner must have possessed some hundreds of square miles of corn-producing land. This would seem scarcely credible were it not for Seneca's words: *amnes magni, magnarumque gentium termini, usque ad ostium a fonte vestri sunt. Hoc quoque parum est nisi latifundiis vestris maria cinxistis.*

These words, though somewhat rhetorical, show that *latifundium* is, in truth, a term which belongs to geography rather than to land-surveying. Such tracts were cultivated by organisations controlling large bodies of men, originally slaves, later either slaves or serfs. The disadvantages of slave labour are shown in Pliny's words, *coli rura ab ergastulis pessimum est.* Whatever opinions may be held as to the relative merits of large and small farming generally, there can be no doubt that cultivation on the scale of the *latifundia*, by so notoriously inefficient a means as slave labour, must have been wasteful in the extreme.

This bad system, which prevailed in Italy as well as in the provinces, grew up, as Dr. Cunningham states, through the dying out, under the pressure of many wars, of "the old type of Roman citizen, who cultivated his own land and also fought in the armies of the republic." "Some," he adds, "were killed off, and many more were utterly impoverished, so that the old system of proprietary cultivation was superseded by the *latifundia* cultivated by dependants." It thus appears probable that when Pliny charges the system with ruining Italy, he points no less at the wastefulness of the slackened cultivation, which the surveillance of a single master could never render energetic, than at the loss of a sturdy race of free peasants who tilled the soil and defended their native country. The Licinian Rogations of 367 B.C., by limiting estates and insisting on the partial use of *free* labour, show how early these bad effects were felt.

The growth of this vast greed of land is described by Mommsen (vol. ii. pp. 397, 398, and vol. iii. pp. 427, 428). He treats specially of the *latifundia* in the second part of his *History of the Provinces*, pp. 333-334.

[Pliny, *Hist. Nat.*, xviii. 4, 7.—Seneca, *Epist.*, 88, 89.—Th. Mommsen, *Hist. of Rome*, translated by Dickson, Lond., 1868.—Fustel de Coulanges, *La Gaule Romaine.*] R. H.

LATIMER, HUGH (1472-1555). Latimer lived at a most interesting period in English history. The son of a yeoman, he rose to take a prominent position in his university (Cambridge) and the church, and he had ample opportunity of observing the changes which were going on in every rank of society and in many parts of the country. His views on economic as on other subjects are contained in his *Sermons*, and are either introduced by way of illustration, or are covered with fervid rhetoric like that of the Hebrew prophets denouncing the evils of their day. It was in this spirit that he attacked the progress of ENCLOSURES, and the proceedings of landlords who enhanced their rents. But his remarks on the coinage show that he understood the evils of a debased currency much more clearly than some of the professed financiers of his time, and that he was by no means a mere rhetorician, but a man who had thought carefully on the topics on which he spoke so forcibly. In this view, there seems to be considerable probability in the opinion put forward by Miss LAMOND, in her edition of the *Discourse of the Common Weal of this Realm of England*, that Latimer is the original of the doctor in that dialogue, and that the views expressed by Pandotheus may be attributed to him. His justification of competition is the only point in which the doctor goes beyond Latimer's known views, but this is not really inconsistent with the bishop's opinions so far as known.

[*Sermons* (Parker Society).—*Discourse of Common Weal of Realm of England.* Introduction, xxi.] W. C.

LATIN UNION (amounts in francs converted as 25 = £1). This name designates the monetary union organised in 1865 between France, Belgium, Italy, Switzerland, and (1868) Greece. Its originators and many of its leaders have continually had in view a greater international union that would eventually include the leading powers of Europe and accomplish some of the advantages that a uniform monetary system would bring. With these propagandist ends in view it may be questioned whether the name was well chosen, and whether the term "Latin" has not been the means of keeping out other nations than those of the Latin peoples. At all events, in the twenty-six years since Greece joined there have been no new members admitted. The union exists for purposes of maintaining a uniform and interchangeable coinage circulation among the five states which compose it, according to its treaty stipulations and the regulations adopted by its various conferences. Its basis is the French monetary system as established by the law of 7 Germinal An XI. (1803), with the franc composed of five grammes of silver nine-tenths fine as its unit. Subsequent treaties have altered the theoretical importance of this original decision, and have modified the real basis considerably.

In the four countries that organised the union there existed already for many years a similar coinage system, patterned more or less after the French system, and providing for full legal-tender gold and silver coins. Though no formal agreement existed, the coins of one of these countries circulated freely in the others. During the period immediately following the great gold discoveries in California and Australia, gold came freely to the mints which had a bimetallic basis. Public opinion feared a deluge of gold. A tendency to hoard silver and to underestimate gold made itself felt. Gold fell slightly in value. Silver coins began to disappear, especially the five-franc pieces, and a dearth of small change in silver coins, which were also full value silver and not token coins, was manifest. Some measure to protect silver was necessary. Switzerland was the first to act. By law of 31st January 1860 she made the five-franc piece instead of the franc her monetary unit, and reduced all smaller silver coins to token coins by making them $\frac{8}{10}\frac{0}{0}\frac{0}{0}$ fine. Italy, by law of 24th August 1862, took a similar course, except that she reduced the fineness of only the franc, fifty centimes and twenty centimes pieces to $\frac{8}{10}\frac{3}{0}\frac{5}{0}$ fine. Finally a French law of 24th May 1864 reduced the half-franc and twenty centimes pieces to $\frac{8}{10}\frac{3}{0}\frac{5}{0}$. Belgium alone maintained the old $\frac{9}{10}$ standard for all her silver coins, and of course she suffered most from the changes that were taking place. She therefore was the first to propose a remedy, though the time was ripe in other countries also, because three different standards of fineness for the small coins existed, and they did not circulate freely in all four countries as of old; commerce felt the strain; bankers' premiums became a disturbing element. Moreover, a kilogram of silver ($\frac{9}{10}$ fine) was now worth 200 francs (£8) in Belgium, 185·55 francs (£7 : 8 : 5½) in France and Italy, and only 177·77 francs (£7 : 2 : 2½) in Switzerland. Belgium proposed that delegates from all the four countries having the franc for their basis should meet in Paris to discuss some measure for united action. The other three governments accepted, and the conference thus called ended its labours by signing the first Latin Union Treaty on 23rd December 1865. Ratifications were exchanged at Paris, 19th July 1866, and it went into effect 1st August 1866.

The treaty only affected gold and silver money, and in general provided as follows: (1) for coinage of gold $\frac{9}{10}$ fine in coins of the denominations of 100, 50, 20, 10, 5 francs with specified weight for each, proportional to 1·61290 grammes for the five-franc gold piece; (2) for coinage of following silver coins, the five-franc piece $\frac{9}{10}$ fine, 25 grammes in weight; pieces of 2, 1, ½, ¼ francs based on one gramme of silver for the twenty centimes piece, $\frac{8}{10}\frac{3}{0}\frac{5}{0}$ fine. The legal tolerance and size was also

prescribed for each coin. All token coins not made according to these regulations were ordered to be withdrawn from circulation before 1st January 1869, except the Swiss two- and one-franc pieces coined in conformity to the law of 31st January 1860. All gold coins and the silver five-franc pieces were made legal tender in the public treasuries of all the states of the union so long as the effigies originally stamped on them had not disappeared, nor their weight been reduced by wear below ½ per cent for the gold coins, and 1 per cent for tolerance of the silver coins after deducting legal tolerance. The small silver coins were made legal tender for payments not exceeding fifty francs within the state in which they were coined, and were to be received without limit by the public treasuries of the state that coined them when presented by its citizens. The same coins must be accepted by the public treasuries of other states in payments not exceeding one hundred francs. The token coins were to be redeemed at any time at their nominal value, in gold or silver five-franc pieces, by the issuing state, when presented in amounts not less than one hundred francs by another state or by private parties, and this clause to continue in force for a period of two years after expiration of treaty. The total amount of subsidiary coins (2, 1, ½, ⅕ franc) issued by any state shall not exceed a sum equal to six francs per inhabitant. This sum, estimated not according to actual, but probable population at date of expiration of treaty, was fixed at 239,000,000 (£9,560,000) francs for France, 141,000,000 (£5,640,000) for Italy,[1] 32,000,000 (£1,280,000) for Belgium, and 17,000,000 (£680,000) for Switzerland; these figures to include the coins already issued by France under law of 1864, estimated at 16,000,000 (£640,000); by Italy under law of 1862, estimated at 100,000,000 (£4,000,000); by Switzerland under law of 1860, estimated at 10,500,000 (£420,000). The states agreed to furnish each other annually full information respecting their coinage and monetary condition. Any state might enter the union thus formed by simply accepting the gold and silver coinage system provided for in the treaty. The treaty was made to run for a period of fifteen years, and if notice for its termination was not given by any contracting state one year before the expiration of this term, it would continue in force for a further period of fifteen years, and so on from period to period of fifteen years each. Greece notified the union in 1868 of her adherence to the terms of the treaty, but she was not able to coin money at once, and did not, in fact, become a member of the union until 1876. The extraordinary events in Italy in 1866, and in France in 1870-71, causing a forced circulation of paper money for a time, interfered somewhat with the satisfactory development of the union. Of greater moment, however, was the change that soon took place in the value of silver. In the two years following 1866 the five-franc piece was an over-valued coin, and almost disappeared from circulation. In 1867, however, eighteen states, assembled in international conference at Paris, expressed themselves in favour of a single gold standard, and the great rush for gold commenced. Holland and Germany began to unload great quantities of silver on the Latin union, thus withdrawing its gold until general alarm was felt. Especially in Switzerland did this remelting and exchange process take place. The coinage of all four states, however, showed abnormal increase in output of five-franc pieces in the year 1873. Preliminary preventive measures were taken by France and Belgium independently of the union, and a new conference was called, which assembled in January 1874. At this conference Belgium reported that her coinage of five-franc pieces since 1866 had amounted to 463,000,000 francs (£18,520,000), of which 111,000,000 (£4,440,000) were coined in the year 1873; France had a total of about 400,000,000 (£16,000,000), and in 1873 had coined 154,000,000 (£6,160,000); Italy in a total of 160,000,000 (£6,400,000) for past five years, 42,000,000 (£1,680,000) in 1873. Belgium had already suspended coinage of five-franc pieces by law of 18th December 1873; France had limited it by ministerial decree (1873), first to 280,000 francs (£11,200) a day, and then to 150,000 francs (£6000); Italy had lowered her tariff in order to make coinage of five-franc pieces less profitable. A general proposal, therefore, to sanction these acts and for the future to limit the coinage of five-franc pieces met with universal favour. A new treaty, dated 31st January 1874, provided that coinage of five-franc pieces for the year 1874 should not exceed 120,000,000 francs (£4,800,000) divided as follows: France, 60,000,000 (£2,400,000); Italy, 40,000,000 (£1,600,000); Belgium, 12,000,000 (£480,000); Switzerland, 8,000,000 (£320,000); these figures to include the outstanding "bons de monnaie" (mint certificates for bullion not yet coined), amounting to 40,000,000 francs (£1,600,000) for France, Belgium, and Italy. Switzerland declined to coin any at all. Italy was accorded some special privileges on account of large silver reserve in bars held by her national bank, which wished to profit by coining it at once before the price of silver experienced a further fall, and also for the recoinage of a large number of old Bourbon silver coins which the Italian government was withdrawing from circulation. The new treaty put a restriction on the right of admission of new parties to the union, making it conditional on consent of all contracting

[1] After the war of 1866, when the territory of the kingdom of Italy was enlarged, this quota was raised to 156,000,000 francs (£6,240,000) by an Italian law of 1868, which was later approved by the other states of the union.

parties. The Bank of France and the National Bank of Belgium had closed their doors to the five-franc pieces, and the new treaty expressed the desire that they, as well as the public treasuries, should accept them. They agreed in letters to their respective governments to do so for one year. A better arrangement was adopted whereby statistics and information concerning the monetary circulation in the states of the union could be obtained, as the clause to this effect in the treaty of 1865 had remained a dead letter. France now assumed the presidency of the union for purposes of publication of such information. It was further agreed to hold annual conferences at Paris.

The situation in January 1875, when the third conference met, was much the same. Silver had continued to fall in price, and the product increased. Switzerland favoured further limitation of coinage. France and Belgium preferred to continue the arrangement adopted for the year 1874, which was done, the banks of France and Belgium continuing their agreement also. However, in compliance with Italy's request for more latitude in her recoinage, and in order to keep all states on the same footing, each state was authorised to coin one-fourth more than its quota for 1874. Italy was granted some further favours in that she was permitted to put in circulation the 20,000,000 (£800,000) reserve already coined under agreement of 1874 and held by her national bank. Switzerland again voluntarily renounced a possible profit by refusing to coin at all. The wisdom of her course is shown by her better position in possible case of dissolution of the union as regards the liquidation clause which was later adopted.

The conference of 1876 decided to return to the old 120 millions (£4,800,000) limit adopted in 1874, and of this sum Greece was allowed a disproportional share, amounting to 12 millions (£480,000), to enable her to fall in line with the system of the union. The banks renewed their obligation.

In 1877 a still more radical change was accomplished without a conference by diplomatic correspondence, the contracting parties agreeing to entirely suspend the coinage of five-franc pieces. The outlook was not a hopeful one, and not until November 1878 did the states assemble in a new conference, to consider the knotty problems that presented themselves. The condition of the silver market was appalling; the relation of the two metals had undergone a greater change since the commencement of the union than had occurred for centuries. Paper money, for which the union made no provision, was a source of trouble in several of the states. The date for the expiration of the treaty was near at hand. Therefore the conference of 1878 decided to regulate silver coinage for the year 1879, and then to adopt a new treaty, to go into effect in 1880. As for 1879, Belgium, Greece, France, and Switzerland agreed to coin no five-franc pieces, but Italy insisted on being allowed a quota of twenty million francs, in order to issue new coins with head of her new king; this was granted, and all five states then agreed to issue no "bons de monnaie" during the year. The chief features of the new treaty were—(1) the suspension of coinage of five-franc pieces, until, by unanimous consent of the contracting parties, it should be resumed; (2) a slight change in the apportionment of subsidiary coinage, still maintaining the six franc per inhabitant basis; (3) a special clause respecting paper circulation in Italy, by which the Italian government agreed to annul all notes for less amounts than five francs, and the other states agreed to collect and return to Italy all her minor coins in their territory; (4) special provision for the carrying out of Article 8 of treaty, providing for return of Italian coins, in which France was to be the banker from whom Italy was to redeem the same; (5) the new treaty was to remain in force for six years (to 1st January 1886), but if no notice has been given one year in advance, it is to continue from year to year, in all events to remain in force one year after notice of its termination has been given. A liquidation clause was discussed, providing that, in case of dissolution, each state would redeem in gold its five-franc pieces held by the other states. This did not meet with much favour, and no action was taken until 1885. Switzerland and Italy wished foreign coins to be made legal tender in France and Belgium, not merely in public treasuries, but also for individuals, as had long been the case in their territories, but France refused. The banks of France and Belgium, however, renewed their obligation for the whole period of the new treaty. In the next few years Switzerland had so large a part of her coinage in foreign silver that she desired some agreement on the question of what would be done in case of dissolution. She, therefore, in 1884, gave notice that she wished to terminate the treaty at date of its expiration, but was willing to consider proposals for a new one. A conference met at Paris, 20th July 1885, and 6th November signed a new treaty, which Belgium did not adhere to until a month later (12th December). No great change was made in arrangements adopted in 1878, except as regards the important liquidation clause, which caused the Belgian delegates to leave the conference. This clause provided that each state, in case of dissolution of the union, shall redeem from every other state of the union its five-franc pieces in five-franc pieces of the state presenting them, or in gold or convertible paper. Special provisions were made as follows:—France shall pay Switzerland all in gold, or in Swiss five-franc

pieces, her gold payment, however, not to exceed 60,000,000 francs (£2,400,000). Italy's maximum payment in gold or Swiss five-franc pieces to Switzerland shall be 20,000,000 francs (£800,000), and her maximum paper obligation 30,000,000 francs (£1,200,000). Switzerland had coined little silver, and thus received the most favourable conditions in the liquidation clause. Between France and Italy it was agreed that the maximum of balance to be settled by either party should be 200,000,000 francs (£8,000,000). In the special agreement, by which Belgium adhered to the treaty, it was provided that she should redeem only one-half of her five-franc pieces held by France, but that in order that France might dispose of the remainder in commerce, Belgium agreed not to alter her monetary system within five years of date of dissolution without being prepared to redeem the other half of her five-franc pieces in gold, and, furthermore, she guaranteed to pay in gold for all over 200,000,000 francs (£8,000,000) of the total balance held by France. The maximum payment by Belgium to Switzerland was fixed at 6,000,000 francs (£240,000), but in case a balance remained, the same agreement, not to change monetary system, held good as towards Switzerland. The banks of France and Belgium again agreed to receive all five-franc pieces during the period of new treaty. The new treaty was made to run for six years, until 1st January 1891, and then from year to year, in the same manner as provided in the treaty of 1880. This treaty is still in force (1896), and the chief question that has come up in the intervening period has had to do with the continual flow of Italian small silver into Switzerland and France, and the consequent dearth of change in Italy, owing to the disarranged financial condition of that country. So great was this dearth of small change in the summer of 1893, that private firms were compelled to issue credit coupons to meet their needs, and in many cases postage stamps were used as money. A conference was called in October 1893 to partially revise the treaty of 1885. The Italian subsidiary coinage question was the sole object of discussion, and an agreement was signed by which the other states are to withdraw from circulation all Italian coins of the denominations of 2, 1, ½, and ⅕ francs within four months after exchange of ratifications, and to receive the same no more in their public treasuries. The coins thus withdrawn are to be held in 500,000 franc (£20,000) lots at the disposition of the Italian government, bearing interest at 2½ per cent from the day that notice has been sent to Italy that the coins are at her disposal. The interest shall be 3½ per cent from tenth day after coins are sent until day of cash payment, and in no case shall this delay exceed three months. One-half of the value of such holdings shall be redeemed in gold pieces, in denominations of 40 francs or over, and the balance in government paper. France was charged with the executive management of details of this operation. The Italian government agreed to redeem a minimum of 45,000,000 (£1,800,000) during the first four months after ratification of agreement, and a minimum of 35,000,000 (£1,400,000) every three months afterwards until the whole sum is redeemed. After Italy has taken back all her small money she ceases to be obliged to receive in her public treasuries the subsidiary coins of other states of the union, according to terms of Act 7 of treaty of 1885, and may take measures to prevent her coins leaving her territory, as may the other states take prohibitory measures against their entrance into their own.

Looking back over the history of the Latin Union, no one will deny that it has played an important rôle in the monetary affairs of Europe, far as this rôle may be from the bright dreams of many of its founders and warmest supporters. It has not only fixed the monetary policy of five great nations, and thus affected the interests of 75,000,000 people, but has also influenced the monetary systems of Roumania, the South American States of Colombia, Ecuador, Venezuela, Peru, and Chili, Spain, Austria-Hungary, and Finland, all of which at one time or other had the same system, or issued coins that would circulate in the union, thus raising the population affected to at least 150,000,000. If external forces have been too strong for the union, and it has in self-defence been compelled to restrict its bimetallic principle, this fact has not been due in any way to an unfriendly attitude towards silver, as the record of its coinage will testify. From 1866 to 1902 the total coinage of gold has been a little over ten billion francs (£422,000,000), and that of silver (⅘ fine) in five-franc pieces, nearly six billion (£233,500,000). It has been said that several of the states of the union would prefer to be free again if it were not for fear of the difficulties of liquidation in case of dissolution. Though occasional proposals for dissolution have been brought up in one or two parliaments, this desire does not in any way meet with general approval in any one of the countries concerned. The advantages of international interchange of money are too great for any country of the union to wish to do away with them. In its most troubled periods the difficult problems that the union has had to meet have always been satisfactorily adjusted, and the most serious of these have had to do with more or less unwarranted suspicion of the future.

Somewhat similar experiments in international monetary unions may be profitably studied by comparing the history of the Austrian-German monetary union founded in 1857 between Austria and the states of the German ZOLLVEREIN, and the Scandinavian union organised in 1875 between Denmark, Norway, and Sweden, and still in force.

[*Procès-Verbaux des conférences de l'union latine*, Livres jaunes, 1874-94.—*Systèmes monétaires des*

différents pays, 1 fascicule. Paris, Imp. nationale, 1888.—Fauchille, "L'union monétaire latine." *Annales de l'école libre des sciences politiques*, October 1886.—Van der Rest, *L'union monétaire latine, son origine et ses phases diverses*, Revue de Droit international, vol. xiii. Brussels, 1881, pp. 5-21 and 268-280.—Bamberger, *Die Schicksale des lateinischen Münzbundes*, Berlin, 1885. Translated into French by R. G. Levy, "Le métal-argent à la fin du xix.e siècle," Paris, 1894.—*Report from Select Committee on depreciation of Silver*, 1876. Appendix, pp. 84, 85, 92-99.—De Parieu, *L'union monétaire de la France*, etc., Revue contemporaine, October 1866.—Serrigny, *Observations critiques sur la convention monétaire du 23 décembre 1865*, Revue critique de législation et de jurisprudence, vol. xxxiv. 1869.—*Report, Gold and Silver Comm.*, 1886.] S. M'C. L.

LAUDERDALE, Eighth Earl of (1759-1830). James Maitland, afterwards Earl of Lauderdale, entered parliament in 1780. He was appointed, in December 1787, one of the managers of Warren Hastings' impeachment. He succeeded to his Scotch peerage in 1789, and in the following year was elected a representative Scotch peer. As a politician he boxed the political compass. One of the founders of the "Friends of the People," he lived to oppose the Reform Bill of 1832. In private life he is described as violent tempered, shrewd, and eccentric. The same capricious character marked his literary work.

In 1804 he published an *Inquiry into the nature and origin of Public Wealth and into the means and causes of its Increase*, Edinburgh, 8vo (trans. into French by E. Lagentie de Lavaïsse, Paris, 1808), 2nd edition, greatly enlarged, 1819, 8vo, wherein—after an acute criticism of the view that labour affords an unvarying standard of value—a theory of value, as depending upon the interaction of demand and scarcity, and the influence of the distribution of wealth upon the direction which labour takes, is very clearly brought out. In his enforcement of the truth of Bacon's dictum, that money like muck is no good unless it be spread, he supplied considerations to some extent lacking in the *Wealth of Nations* (see Distribution); but the usefulness of the book is marred by captious criticisms of the principle of Division of Labour (*q.v.*), and by eccentric views on finance, which found further expression in *Three letters to the Duke of Wellington . . . wherein the nature and tendency of a Sinking Fund is investigated, and the fallacy of the reasoning by which it has been recommended explained*, London, 1829, 8vo. Saving and spending are the bad and good genii of Lauderdale's economy, and he maintains, with the utmost gravity, that a great extra expenditure is the most fertile means of increasing public wealth, and a sinking fund the most active means of diminishing it. In treating of the sources of wealth Lauderdale claims for capital a place by the side of land and labour. Capital produces a profit, either from its supplanting a portion of labour which would otherwise be performed by the hand of man, or from its performing a portion of labour which is beyond the reach of the personal exertion of man to accomplish. To Lauderdale belongs the credit of having been the first to put forward a connected theory on the nature of profit, in the form of a theory, and not of scattered observations. See Böhm-Bawerk, *Capital and Interest*, Engl. trans., London, 1890, 8vo, bk. ii. ch. iii.—"The indirect productivity theories." Lauderdale's importance in the history of economics lies, not in his conclusions, but in the fact that he was the first in England to consider systematically the fundamental conceptions on which the science is based. In this respect alone he is in advance of Adam Smith. (In this connection, see Bagehot's *Economic Studies*, "Adam Smith and our modern economy.") Among numerous other pamphlets and published speeches, he wrote *The depreciation of the Paper Currency of Great Britain proved*, London, 1812, 8vo, and *Further Considerations on the State of the Currency*, etc., Edinburgh, 1813, 8vo. The Journal of the House of Lords contains eighty-six protests under his signature. He was one of the earliest to allow that capital is in itself productive, and is the result of abstinence.

[*Dictionary of National Biography*, vol. xxxv. p. 355.—*Introduction to the study of Political Economy*, by L. Cossa, trans. by L. Dyer, London, 1893.] H. E. E.

LAUREL, English Coin. See Guinea, Introduction and Rating of.

LAVELEYE, Émile de (1822-1892), born at Bruges, died at Liège, was a remarkable thinker, and his writings were brilliant in style. Unfortunately for his fame, being not only an economist but also a philologist, an historian, a student of law, a politician, and a moralist, he was scarcely able to fathom the depths of all the subjects he undertook. Absolutely sincere in mind, he allowed himself some inconsistencies of expression which he fully admitted. At one time he frankly acknowledged himself a "socialist of the chair"; but towards the end of his life the disquieting spectacle of the progress of socialism appeared to draw him nearer to those whom earlier he had stigmatised as "orthodox economists."

His principal economic writings are—*Le Marché Monétaire et ses crises depuis cinquante ans*, 8vo, in which he announced himself in favour of the unity and monopoly of banks of issue. *Le socialisme contemporain*, 8vo, 1881; with essay on luxury, etc. (several editions have been published), in which he examined critically the doctrines of Rodbertus, Karl Marx, Ferdinand Lassalle, etc.; and *De la propriété et de ses formes primitives*, 8vo, 1873. He maintained that property was a civil institution, agreeing in this with John Stuart Mill. His last work was *Eléments d'économie politique*, 12mo, 1882, a text-book on the elements of the science. In monetary questions De Laveleye was a partisan of a double standard, and produced many works supporting bimetallism. He contributed to several periodicals of the day, among others to the *Revue trimestrielle*, to the *Libre recherche*, to the *Revue des deux Mondes*, and to this Dictionary the article on Commune. All men of science admired his sincerity, the boldness with

which he championed new ideas, his modesty, and his absolute truthfulness. These qualities gave his works an attractive power which won him many readers. The obituary notice of Emile de Laveleye, written by his pupil and successor in the chair of political economy at Liège, Professor Ernest Mahaim, in the *Economic Journal*, vol. ii., speaks of "the governing idea of his life as being found in the supremacy of justice. He was persuaded that the human race was marching toward an ideal of justice, an image of God, to which ultimately it would attain. He had faith in the boundless progress of mankind, and in the solidarity of all men; and he discerned in the future a society of love, peace, and justice, bringing universal happiness. Emile de Laveleye is a great figure in the century that is passing away."

Professor Mahaim describes de Laveleye as an academic socialist. He believed in the frequent necessity of state intervention to secure the triumph of the common interest over particularist egoism. His criticism, in the *Contemporary Review*, of Mr. Herbert Spencer's *The Man* versus *the State*, disclosed how far he repudiated the "orthodox" *credo*. ". . . He often sent articles to English newspapers, amongst others to the *Times* and *Pall Mall Gazette*. . . . He had a great affection for England; of its language he had perfect mastery; and on its soil he counted many of the most distinguished politicians among his friends." A. C. f.

LAVERGNE, Louis Gabriel Léonce Guilhaud de (1809-1880), was born at Bergerac, and died at Versailles. Rural economy was his special study, and in 1850 he was appointed professor in this subject at the recently-founded *Institut Agronomique*. The suppression of this higher-grade school in 1852 closed his class. It should here be mentioned that at the re-establishment of the *Institut Agronomique* in 1876 he was replaced in the chair of rural economy; but on this occasion illness broke off a course of lectures which were well attended and highly appreciated. Before 1848 he held several administrative positions, and represented the division of Lombez in 1846 as a deputy. The revolution of 1848 brought him some leisure, which he employed in the study of political economy, applying himself to agriculture, the subject in which his interests lay. In 1871 he was elected deputy for the department of La Creuse. In December 1875 he was appointed a life senator. Originally a constitutional monarchist, he courageously and unreservedly joined the republicans as soon as he ceased to believe in the possibility of the restoration of the monarchy. During the closing years of his life he declared himself in favour of the establishment of an import duty on grain. He considered that this duty would have countervailed the taxes imposed in France as compared with the countries whence the corn was imported. He sincerely believed that in doing this he did not derogate from those views on commercial liberty which he had always expressed, and appealed in support of this opinion to the part he had taken in the campaign in favour of free-trade at the end of the reign of Louis Philippe.

In 1854 he produced his first important work, the *Essai sur l'Économie rurale de l'Angleterre, de l'Ecosse, et de l'Irlande*, 18mo. This work, which has reached its fourth edition, won for him admission to the Institute (Academy of Moral and Political Science). He collected, under the title *L'Agriculture et la population*, a series of articles which had appeared (1855-57) in the *Revue des deux Mondes*. The first edition appeared 1857, the second edition 1860-61, 18mo. In 1860 he sent to the press *Économie rurale de la France depuis 1789*, 4to, which has attained three editions. In the same year (1860) he published *Les Voyages d'Arthur Young en France de 1787 à 1789*, 2 vols., and *En Italie et en Espagne en 1787 et 1789*, 18mo. This work also appeared in 8vo, preceded by an introduction. The translations were made by M. H. T. Lesage, one of his old pupils at the *Institut Agronomique*. In 1863 he produced *Les assemblées provinciales sous Louis XVI.*, 8vo, a work which was highly thought of by Guizot. In the following year (1864) he published in the *Revue des deux Mondes* an article entitled, "Le Banque de France et les banques départementales," in which he declared himself in favour of local banks. Finally, in 1870, he published in Guillaumin's collection of contemporary economists and authors, *Les Économistes français du XVIII.e Siècle*, 8vo. The appreciation of all these works has considerably increased since it became known how conscientious the author's investigations were, and how careful he was that every statement he made should be strictly accurate. A. C. f.

[The brilliancy of Lavergne's writings, the clearness of his style, his impartiality, and the correctness of his judgments, have been fully appreciated in the notice in the *Nouveau Dict. d'Écon. Pol.*, ed. Say et Chailley.]

LAVOISIER, Antoîne Laurent (1743-1794), was born at Paris; his occupation as a farmer-general brought him to the revolutionary scaffold in the same city. "The Republic has need neither of *savants* nor of chemists," was the brutal and disreputable reply of Fouquier-Tinville, the public prosecutor, when an effort was made to explain to him the irreparable loss science would suffer through Lavoisier's death.

Endowed with very rare qualities of mind, Lavoisier excelled in all that he attempted. At once a financier, a farmer-general, a deputy, and a highly-placed official, his discoveries as a scientific man have immortalised his name; but the time needed to complete his economic works was not granted him. Thus his work *De la richesse territoriale de la France*, remains unfinished—even a great part of that which once existed has disappeared. That portion of it which research has been able to recover is published in the first volume of *Mélanges d'économie politique* (1847), in the collection of Guillaumin, which also contains a fragment on *Les consommations de la ville de Paris*, and an *Essai d'arithmétique politique*. Count Roederer considered that the celebrated

geometrician Lagrange, the intimate friend of Lavoisier, might have been the author of this.

A. C. f.

LAW. The influence of law on the economic well-being and trade of a country is dealt with under separate headings, of which the most important are enumerated here: *e.g.* Agency, Law of; Allowance System; Angarie, Droit d'; Arbitration; Arrangement, Deed of; Articles of Apprenticeship; Articles of Association; Bankruptcy, Law and Administration; Bequest, Power of; Bill of Exchange, Law of; Canon Law; Civil Law; Code Napoléon; Combination Laws; Commandite, Société en; Companies, English and Scotch Law; Conflict of Laws, Foreign, Domestic; Conspiracy, Common-Law, Doctrine of; Contract, Law of; Copyright; Corn Laws; Courts of Law, England, Ireland, Scotland; Descent of Property; Domicil or Domicile; Entail, Law of; Factor, English Law; Factor, Scots Law; Factor's Acts; Factory Acts; Factory Laws in the United States; Foreign Law in English Courts; Foreign Traders and their Rights, History of; Frauds, the Statute of; Fraudulent Conveyance; Fraudulent Preference; Freehold, Legal; Game Laws; Gilbert's Act; Government, Economic Effects of; Government Regulation of Industry; Grangers and Granger Laws; Hire and Purchase Agreements; Homestead and Exemption Laws of the United States; Illegal Contract; Interest and Usury; International Law; Intestacy; Joint Stock Companies; Labour Statutes; Land, Law relating to; Land Legislation, Irish; Law Merchant; Legislation, Elizabethan; Lex Loci Contractus; Lien; Limitation, Statutes of; Liquor Laws; Local Option; Moratory Law; Mortgage; Negotiable Instruments; Onerous Property; Partnership; Poor Law; Poynings Law; Pre-emption; Primogeniture; Principal and Agent; Property; Restriction on Labour; Roman Law; Settlement (Poor Law); Trades Unions; Truck. The laws of political economy will be found described under their respective subjects.

LAW, JOHN (1671-1729), of Lauriston, was the son of James Law, an Edinburgh goldsmith. Condemned to death for killing Edward Wilson in a duel in London in 1694, the sentence was commuted for imprisonment, but an appeal being brought by one of Wilson's relatives, Law fled to Amsterdam, where he is said to have closely studied the operations of the bank (see BANKS, EARLY EUROPEAN). A pamphlet entitled *Proposals and Reasons for constituting a council of trade for Scotland* (1701) is sometimes attributed to him, but it appears to have been written by William PATERSON (*q.v.*), founder of the Bank of England (Saxe Bannister's *Life and Writings of Paterson*). In 1705 he submitted to the Parliament of Scotland a scheme for the establishment of a national bank, on lines indicated roughly in his pamphlet published the same year, *Money and Trade considered, with a proposal for supplying the nation with money*, Edinburgh, 4to; 2nd edit. London, 1720, 8vo; Glasgow, 1750, 8vo; Somers' *Tracts*, London, 1809, 4to, vol. 13. His scheme, however, was rejected, partly through Paterson's influence. During the next few years he made frequent overtures to various European governments to undertake some of his financial projects. His proposal for a bank in France was submitted to the council on October 24, 1715, but though it received the support of the Duke of Orleans, it was rejected in the form suggested, owing to the influence of the Duc de Noailles. On May 20, 1716, letters-patent were issued to Law and his associates for the establishment of a Banque Générale. The capital of the bank was divided into 1200 shares of 5000 livres each, payable in four instalments, one-fourth part in specie, and three-fourths in state notes. Each shareholder had one vote for every five shares he held, and the bank regulations were to be decided upon by a general meeting of the shareholders. The bank was authorised to issue notes payable at sight and to the bearer, to discount bills, and to receive money on deposit. It was stipulated on Law's notes that they should be payable in coin of the same standard and weight as on the day of issue, a provision of great importance in the fluctuating state of the French currency. On April 10, 1717, Law's notes were ordered to be received in payment of taxes. Law now embarked on his famous scheme of colonisation, known as the Mississippi scheme. His *Compagnie de la Louisiane ou d'Occident* was incorporated in August 1717. It absorbed the company founded by Antoine Crozat in 1712, and also the Compagnie du Canada. The rights conferred upon the company extended over the territory drained by the Mississippi, the Ohio, and the Missouri. The directorate consisted of Law and six others. In August 1718 the company acquired the monopoly of tobacco for a payment of 4,020,000 livres. In December of the same year, the Banque Générale was converted into the Banque Royale, and its notes guaranteed by the king. The change was effected by the government purchase of the 1200 shares of which the capital of the bank had been formed. On these shares only the first fourth had been paid, 375 livres in specie, and 1125 livres in paper whose value was not more than the 400 livres at the current rate. The purchase was made at par and in silver. In 1719 the Compagnie d'Occident absorbed the Compagnie des Indes Orientales and the Compagnie de la Chine, taking the name of the Compagnie des Indes. It absorbed also the Compagnie d'Afrique and the Compagnie du Sénégal. In the same year the company obtained the control of the mint, undertook the payment of the

national debt, and received the farm of the revenues. The bank and the company thus had complete control of the colonial trade of France, its currency, banking, and fiscal system. Speculation in the shares of the company and the bank reached a height unparalleled even in England in connection with the South Sea Bubble. Law introduced reforms, reduced taxation, promoted agriculture, industry, and in some directions encouraged free trade. It was confidently predicted that English trade both in the East and West Indies would be ruined. On 5th January 1720 Law became controller-general of the finances, and on 23rd February 1720 the Compagnie des Indes was united to the Banque Royale. But the reaction had already set in, and once the confidence of the public was disturbed, the downfall of Law's system was speedy and certain. Violent measures were resorted to in order to stop the drain of specie which began as soon as speculators exchanged the paper money for coin. The crisis was precipitated by the decree of 21st May 1720, gradually reducing the value of the bank-note to one-half. Panic followed; the decree was rescinded a week later, but the bank suspended cash payments. Law was soon after obliged to leave France; he died at Venice.

[There is a whole literature of books, etc., relating to Law and his "System." Refer to the histories of Lacretelle, Lemontey, Martin, Michelet, Voltaire, Louis Blanc, etc., and the following works:—Pierre Bonnassieux, *Les Grandes Compagnies de Commerce.*—P. A. Cochut, *The Financier Law: his Scheme and his Times.*—A. Macf. Davis, *An Historical Study of Law's System*, reprinted from the *Quarterly Journal of Economics* for April 1887.—Duhautchamps, *Histoire du Système des Finances pendant les années 1719 et 1720.*—Forbonnais, *Vue générale du Système de M. Law*, in his *Recherches et Considérations sur les Finances en France.*—J. Heymann, *Law und sein System.*—Jobez, *Une préface au Socialisme, ou le Système de Law et la chasse aux Capitalistes.*—Levasseur, *Recherches historiques sur le système de Law.*—Nicholson, *Treatise on Money*, and *Essays on present Monetary Problems.*—Pereire, *Enquête sur la Banque de France.*—Saint-Simon, *Mémoires.*—Thiers, "Hist. de Law" in *Revue Progressive*, 1826.—Vuitry, *Désordre des Finances et les excès de la spéculation.*—J. P. Wood, *Sketch of the Life and Projects of John Law of Lauriston.*—For Law's works, see *Œuvres de Jean Law*, Paris, 1790.—E. Daire, *Économistes Financiers du xviiie siecle.*—*Tafereel der Dwaasheid*[1] (Picture of Folly), 1720 (see TAVEREEL.)]

[See Life, *Dict. of Nat. Biog.*; arts. on DUTOT; MELON; SYSTÈME.] W. A. S. H.

LAW MERCHANT means the law applicable to merchants as such and to mercantile transactions. "Mercantile transactions" mean buying in order to resell, and a "merchant" is one who makes a profession of these transactions. Generally speaking, the sphere of law merchant is coextensive with what economists call EXCHANGE; but transactions with regard to land are usually excluded, and in France even land-jobbing is so; and although petty traders are as a rule included, it required in England a judicial decision, and in Leipzig (1682) a struggle, to include them; and the German and Spanish codes still exclude trading artisans. Productive industries ancillary to exchange, though excluded by early writers like STRACCA and SCACCIA, are now always included in its scope, *e.g.* the construction of ships for traffic, and the manufacture of raw materials (French "Code de Commerce," art. 632, 633; German do., 271-275; Italian do., 3; Spanish do., 325): and it extends to important "distributive" questions,—thus, the wage-law of sailors (assigned in England to the Admiralty Division of the High Court), the bankruptcy of traders (of which our judge in bankruptcy—who is sometimes a judge of the Chancery, sometimes of the Queen's Bench Division—takes cognisance), and of companies (over which a special judge, usually the judge in bankruptcy, has jurisdiction), the relationship of partners (between whom our Chancery Division takes accounts), of factors and principals, assurers and assured (who usually come before our Queen's Bench Division), form substantial chapters of English books on Lex Mercatoria, like those of MALYNES (1622) and Beawes (1751), and of every commercial code. If "law merchant" does not fit exactly into any one of the three departments of political economy, neither does it quite conform to any one legal conception. Most law merchant may be regarded as a particular application of the general idea of contract, yet Malynes', Beawes', or Jacob's (1718) "Lex Mercatoria" combine the instruction contained in Tate's *Modern Cambist* or Inglis on *Book-keeping*, with what we should call legal instruction; and the continental codes of commerce and the English Merchant-Shipping Acts still make book-keeping a statutory duty; and further "bills of exchange," which at first blush look like the merest contracts, are overladen with minute arbitrary rules which the most ingenious jurist could not have deduced from the idea of contract. The truth is that "law merchant" was a body of rules laid down by merchants for regulating their conduct one with another. Economical definitions of exchange and juristic definitions of contract are derived from these rules, not *vice versa*. In all the great matters relating to commerce, legislators have copied, not dictated. The copying of merchant rules into the statute book, though literal, has not been without effect. On the one hand, mischievous rules, like those relating to apprenticeship, combination, and monopoly, might have lived for ever had they not as state laws been exposed to the search-lights of a fiercer criticism;

[1] A remarkable collection of prints and pamphlets relating to Mississippi Scheme and Dutch East India Co.

on the other hand, good rules have been expressed in scientific language, and being thus expressed, have spread their influence over other walks of life. "Law merchant" has been by this means one of the chief incentives to progress. Its mode of action has been two-fold; it has either contributed directly to the main stream, or it has run in a bed of its own making.

The first mode of action is the rule in ancient Rome and modern England. Thus the idea of agency was at first represented in Roman law by two actions only, that of "traders" ("institores" or "negotiatores") and of "shipping merchants" ("exercitores"); later in the day these two actions were generalised, and the contract of agency was admitted as valid. And here is an instance of incorporation without generalisation. The "laws of the Visigoths" (xi. iii. 2), which were the western substitute for Justinian's Digest, enacted that transmarine "negotiatores" should carry their own judge with them, a custom followed by mediæval merchants, who were invariably accompanied by some travelling judge called "consule sul mare," "Hansgraf," "Kurt," etc. Some mercantile usages, however, existed side by side of the codes, like dialects by the side of civilised speech, *e.g.* the Rhodian sea-laws, which date back to classic Greece, and the principles of Sociétés en Commandite (see COMMANDITE, SOCIÉTÉ EN), which anticipate the latest company law (Silberschmidt's *Die Commenda*, etc., 1884). But this collateral existence of law merchant is a rare feature in Roman law.

Conversely during the middle ages, as upon the continent to-day, exclusion is the rule, incorporation the exception. "The grandeur and historical significance of the mediæval merchant is that he created his own law out of his own needs and his own views," writes Goldschmidt. This creative task was twofold. He had to create his own courts and his own jurisprudence.

(i) MEDIÆVAL COURTS were territorial, so that the traveller or merchant, the terms were once almost synonymous, had to carry his judge with him, or special courts had to be invented for him—just as there were special courts for ecclesiastics—or else he was beyond the pale of law. Mercantile courts may be divided, according to their constitution, into four kinds.

First, there was the gild type, whose most conspicuous development was witnessed in the Italian town. There, during the late 12th and 13th centuries, the system of having a special judge was borrowed by merchants at home from merchants abroad, and the "consule sul mare" became "consule del mare"; and at the same time the democratic and federalising tendencies of Italian institutions invested his character with a new importance. At that time gild, if "arte" may be so construed, federated with gild and formed some "curia mercatorum" or "curia maris" under the presidency of a consul, usually elected by those whose names were on the gild-register (matricola). Early in the 14th century and onwards, codes of customs, sometimes called "statuta," sometimes "consuetudines," were drawn up within the gild in order to define the functions which its officials exercised. In the early "codes of the merchants" ("brevia mercatorum") these functions are mainly administrative; the judicial element is meagre; but in administering the famous "Consolat del mar" of Barcelona (*circa* 1370), which had grown out of earlier Italian and Spanish codes, and soon became a general maritime code for the western Mediterranean, the "consul of the sea" was administering one of the civilised codes of the world. The Pisan "consul of the sea" was, during the 13th and 14th centuries, the judge who administered the sea-codes of Pisa, which were the most highly developed sea-codes prior to the "consolat," and included matters in any way connected with the sea (Schaube, p. 140). But Pisans who were not members of the sea-gild could, if they chose, demur to his jurisdiction (p. 141). Whatever he was practically he was not at this date theoretically the commercial judge of Pisa. Barcelona rounded off the work which Pisa had just failed to complete. There, the town was a stronger power behind the gild than in Italy, and during the 14th century it had appointed the sea-consul. And behind the town stood the king of Aragon, who gave the sea-consul of Barcelona exclusive and compulsory jurisdiction since 1347 in maritime, and since 1401 in all mercantile matters ("omnes causas civiles provenientes ex quibuscunque actibus mercantilibus ubicunque in terra et in mari," Schaube, p. 254). This was the first court of its kind; and the example of Barcelona was followed in Montpellier (1463) and even Paris (1563), where the "curia maris" and "consul maris" had had an indigenous origin under the respective titles "Métier de l'eau," "Prévôt des marchands de l'eau." The courts of "the aldermen of the merchant" or "the merchant" in the foreign factories of the Hanseatic League, though interesting as an incident in the history of the consulate, played no part in the evolution of the commercial court.

The "fair-courts" of France, which are connected with the Italian institution of federated merchant gilds (see MEDIÆVAL FAIRS), only ripened into permanent commercial courts of some definite district in 1669 (Troyes), and Leipzig (1682) was the first instance of a similar development in Germany. They were general in England under the name PIEPOWDER (*q.v.*) courts; but in the more important centres were, in and after 1353, overshadowed

by the courts of the STAPLE (*q.v.*). These sat for the purpose of administering "law merchant" instead of "common law," and were composed of "the mayor of the staple" (who was annually re-eligible by "the commonalty" of local merchants), at least two "constables" (elected by the "commonalty" of local merchants), and two assessors (elected by "the merchants strangers"); officials of the city where and when they sat had to enforce their orders (27 Edward III. stat. ii. c. 21-24). A few years later (36 Edward III. stat. i. c. 7) their jurisdiction was limited, in the case of English merchants, to "pleas touching merchandise, and surety of merchandise between merchants." The mediæval "fair-courts" of France and Germany had practically the same constitution as the "staple courts"; and the modern French commercial courts are similarly composed of "président," at least two "juges" and "suppléants," all elected by the "commercial notables" (see NOTABLES COMMERÇANTS) of a district; and the decisions of these courts are enforced by the ordinary courts. The courts of the staple vanished with the staple in the 16th and 17th centuries, and at the same date piepowder courts fell into disuse. For two or three centuries they fashioned and administered the unwritten "law merchant" as it was understood in England.

Secondly, there was the municipal type, which flourished most in Germany. Thus Nürnberg became a "free city of the empire," where justice was dispensed by a nominee of the imperial representative ("Schultheiss") jointly with nominees of the town council ("Schöffen"). In 1313 the "Schultheiss" was subordinated to the Schöffen for the purposes of trade-disputes ("statuta de rebus venalibus"). After 1497 other town-law followed in the wake of trade-law, and the "Schultheiss" was nominated by the town council. In 1508 trade-law ("Kaufmannshandel") was again separated from the mass of town-law; appeal to the imperial tribunal being disallowed in trade disputes. Meanwhile, Lübeck and Hamburg, which had had a somewhat similar history, celebrated their freedom by adopting almost identical "water-law" in 1270 and 1299. This town-law was the chief nucleus of the law of the Hanseatic league. What is not an adaptation of Lübeck town-law in "Dat Hogheste Water-Recht" (or as it is miscalled "The Wisbuy Ordinances") is a translation of "The Rolls of Oléron and Judgments of the Sea"; and "Dat Hogheste Water-Recht" was, it is believed, the code of the league until the league's commercial "recesses" (1369 to 1614) superseded, or (far more usually) re-enacted it. These "recesses" are still more essentially town-law; they were issued exclusively by deputies of the towns; they were inspired by Lübeck, the capital city of the league; and the only domestic judiciary referred to in them is "the council of the town," or simply "the town"; and that, although some of these towns contained a "shipowners' company" with "aldermen" (Recess 1591 art. 18 and 19). Yet the first sea courts of first instance are those of Hamburg (1623) and Lübeck (1655), neither of which developed into commercial courts until long after the latter were an accomplished fact in Nürnberg. It was not sea-law nor any court for sea-law which led to the institution of commercial courts in Germany, but "bourse" law and specifically "bank" law. In 1560 Nürnberg erected a bourse ("Herrenmarkt"); and as in London, Frankfurt, and elsewhere, its president ("Markts-Vorsteher") assumed disciplinary power over the brokers and factors connected with it. In 1621 the bank was started, and the "Markts-Vorsteher," together with five merchant deputies, were given exclusive cognisance of banking disputes which in 1624 were identified with mercantile disputes. Things, however, requiring "altiorem indaginem," or the examination of witnesses upon oath, were withheld from this tribunal until 1697, in which year it added to its old title "bank-court," a new title borrowed from the court of the fair at Botzen, namely, "mercantile court." Silberschmidt has conclusively traced the critical changes of 1621, and 1624, and 1697, if not of 1508, to an Italian origin. The mercantile court of Nürnberg was the first of its kind in Germany. In England, as in Nürnberg down to 1560, the town courts, in the absence of piepowder and staple courts, dispensed law merchant from the 12th and 13th centuries and onwards. The towns often represented the merchants politically; thus, when Edward I. wanted a tax on "merchandise" he got together deputies from forty-two towns (Stubbs' *Select Charters*, A.D. 1303). GILD MERCHANT is the most important economic attribute of town life; sometimes as at Preston it is the town (Hegel, i. p. 94). An elected judiciary is one of the commonest privileges of the earliest town charters. The towns are in the first instance called on to administer "law merchant" to foreign merchants under the "carta mercatoria" (Rymer's *Fœdera*, ii. 2, 747), and the Ipswich town-court set apart special days for administering "the law pypowdrous in time of fair and marine," "the law of merchandise and law of the sea" (*Black Book of the Admiralty*, ed. Travers Twiss, ii. p. 21-25). London, perhaps, had a separate court, "the court of the hustings," for mercantile matters (Hegel, i. 60); if so, it soon became a general civil court. No gild court ever exercised any important judicial duties in England (Gross, i. 113); so there was nothing to prevent English town courts from becoming

fountains of law merchant like Lübeck or Nürnberg; and perhaps if Marquardus instead of Lord Coke had been our 17th century jurist, we should learn that this was the case, but we have no proof of it. English town-courts, like the stannary courts for tinners in Cornwall, played a silent part in the growth of "law merchant."

Thirdly, there were central national courts. An appeal lay from the English staple courts to the chancellor (27 Edw. III. st. ii. c. 24), from the French fair courts at Troyes to the "parlement" at Paris. And there were national courts of first instance. The Arragonese code of 1266 ("Siete Partidas") mentions deputy admirals with judicial authority appointed by the king. In England the admiral was in the 14th century instructed by the king and council to appoint deputies "discreet in the ancient customs of the sea," "to exercise exclusive jurisdiction over maritime affairs" (*Black Book*, i. p. 3, 69), and to take the Rolls of Oléron as law. These deputies are the precursors of the modern judges of the admiralty division of the high court, who, however, lost their jurisdiction over maritime contracts before Lord Coke's time (2 Gallison's Reports, 398). The history of the French admiralty ran on similar lines down to 1790; the famous "Ordonnance de la Marine" 1681, which, along with the "Ordonnance de Commerce" of 1673, is the basis of the code of 1807, gave the deputy admiral (since 1554 called "admiralty judge") cognisance of maritime contracts; in 1790 this power was taken from him, and was shortly afterwards vested in the tribunals of commerce.

Fourthly, we find voluntary arbitrative bodies. A commercial college was in 1485 established at Antwerp for this purpose. In England the arbitration of "grave and discreet merchants" blossomed into the short-lived and impotent insurance court of 1601 (see 43 Eliz. c. 12); and stockbrokers and underwriters, before being admitted, agree to submit their mutual differences to their respective committees; agreements of this kind were first made binding in England in the case of "merchants and traders" only, in 1698 (9 & 10 Will. III. c. 15), as in France where at the present day these agreements are only valid if commercial. With these exceptions the control of the English exchange, in the city sense, over its members remains what it was in Frankfurt and Nürnberg at the close of the 16th century. Arbitration is the root of all law; and the peculiarly lay constitution of the Austrian "Wechsel-Gerichte" or bill of exchange courts of 1717, and of the modern French commercial courts, somewhat ostentatiously proclaim this origin for law merchant.

To sum up this section—the commercial courts arose in consequence of some branches of commercial law—sea-law or bourse-law—breaking away from the other branches of civil law. The branch that broke away was at the time growing very quickly; while the other branches were hardly growing at all.

(ii) MEDIÆVAL JURISPRUDENCE included such feudal barbarities as "ordeal of battle" and "compurgation," and took its tone from ecclesiastical prejudices which denounced the taking of interest upon capital, and whose spokesman, St. Chrysostom, wrote, "No Christian ought to trade, or if he did, he ought to be cast out of the Church" (Goldschmidt, p. 139). If then mercantile morality crystallised into laws, it might be expected that these laws would be animated by a very different spirit from that of the prevalent system of law. The characteristics of "law merchant" may be summed up under the following heads:

(*a*) It is non-national. It is part of the instinct of merchants to seek for points of agreement instead of difference with one another. How uncritical this instinct was may be illustrated by the odd details which pass from one code to another. Thus the 53rd chapter of the Consulat prescribes, as a scale for assessing damages, a compromise between that in Roman law and Oléron law. Pardessus regards this compromise as unique (II. 21), yet the very thing recurs in the "Coutumes d'Amsterdam," etc. (art. 33-34). The 54th chapter of the Consulat, in describing jettison, puts a speech into the captain's mouth; this Thucydidean expedient is taken from the corresponding article (8) in the "Rolls of Oléron." Indeed, borrowing was so reckless that none knew whence they borrowed. Frenchmen claimed the "Rolls of Oléron" as French, Flemings as Flemish, Swedes as Swedish, Englishmen as English. The Consulat has been disputed property between Spain, Italy, and the south of France. In the 17th century the process is more deliberate, but is still non-national; thus the opinions ("parere") of the "Markts-Vorsteher" in some German town circulated in other towns in Germany and Italy with an authority which recalls that of the "responsa prudentum." Even national unity which, in the 16th century, severed the wider unity which had prevailed for commercial purposes, has in modern times substituted a wider for a narrower unit; thus it made the code of commerce of 1861 into a German code in reality as well as in name, and it turned the Sardinian code of commerce of 1842 into the first Italian code of 1865. And national supplemented by international agencies have quite recently produced what is almost an international code for preventing collision at sea (Phillimore's *International Law*, vol. iv. ch. 41), and for copyright. The Roman dream of an universal law has never wholly faded away. Indeed,

jurists, forgetting that modern law is a new creation and not a reminiscence, have often overrated the influence of this dream upon the men of the market-place. The above-cited instances have nothing to do with Rome; they are caused by infection not heredity.

(*b*) A common attribute of mercantile jurisprudence is that its procedure is milder against the person and stricter and quicker against the property of the delinquent. The making of contracts by part payment has passed from law merchant into general law (Pollock and Maitland's *History of English Law*, 1895, ii. 207, cp. Pertile, 4, 474). English land was first made liable for debts under "The Statute of Merchants," 1285, "The Statute of the Staple," 1353, and the statutes relating to deceased traders only (1807-33); and English bankruptcy from 1571 to 1861 applied only to persons who "used the trade of merchandise," "sought their living by buying and selling," and the like. Diderot's definition of bankruptcy: "Faillite est lorsque un marchand ou négociant se trouve hors d'état de remplir les engagements qu'il a pris relativement à son commerce ou négoce," still holds true of France, Italy, and every Romance nation. The lien of shipowners and bankers on what is consigned to them *quâ* bankers and shipowners is Roman, but is also rediscovered in the fair courts and sea courts of the middle ages; and other special liens have been admitted into modern law (Code of Comm., Fr., 306-8; Ital., 508; Germ., 409; Span., 665); thus in Germany every trader has a lien against traders in respect of trade transactions (Co. Comm., 313). As for speed, which is generally the excuse for detaching commercial from other actions, in ancient Athens commercial causes (ἐμπορικαὶ δίκαι) had to be despatched in a month, and a month is the average delay in deciding an action entered on the "Commercial Cause List" recently instituted in the Court over which Mr. Justice Channell now presides (1905).

(*c*) The fundamental characteristics of sale, contract, and status differ in mercantile and other civil law. A purchaser of goods in "open market" (see MARKET OVERT), including a London shop, has in England a good title against all the world, and if you add "unless the real owner restore his purchase money to the purchaser" and leave out the word "London," you have French, Italian, and Spanish law (Co. Civ., Fr., 2280; It., 709; Sp., 1955, 464; cp. Co. Comm., Germ., 306-8). This law is mediæval, not Roman, and contradicts the general civil law of modern Europe. A sale or pledge by mercantile agents not authorised to sell or pledge passes a good title to the goods under the English FACTORS' ACTS (1823-77, re-enacted 1889), which only generalise a mediæval and modern maritime law, and COMMERCIAL INSTRUMENTS (*q.v.*) when "negotiable," which means assignable at "law merchant," pass a similarly good title; moreover, contracts embodied in them were assignable long before other contracts. It is a maxim of "law merchant" that a contract binds whether written or not; and this is allowed in most commercial codes (Fr., 17; Germ., 317, 34, etc.; It., 44; Co. Civ., Fr., 1341; It., 1341), and is enforced by extra-legal sanction on the London stock exchange (*Rules of the Stock Exchange*, Stutfield and Cautley, 1893, p. 39): and merchants obtained the concession that the consideration for a guarantee need not be in writing ("Mercantile Law Amendment Act," 1856, § 4), but otherwise in this matter civil have prevailed over commercial principles in England as in the last Spanish code (Co. Comm., 51; Civ., 1280). Passing to special contracts, in France and Spain the guarantee of a bill of exchange, in Germany and Italy every commercial guarantee, and in England every guarantee, enables the creditors to proceed directly against the guarantor; except in these cases, the creditor, as in later Roman law, must first proceed against the principal debtor (Co. Comm., Fr., 142; Germ., 281; It., 40; Sp., 487; Civ., Fr., 2021; Sp., 1137). Everywhere we find common carriers and common innkeepers liable for loss of or damage to goods entrusted to them, unless *vis major*, or intrinsic defect, cause the loss or damage (Smith's *Leading Cases*, 9th ed., 236, Co. Comm., Fr., 97-98-103; It., 400; Sp., 361; Germ., 395; Co. Civ., Fr., 1784; It., 1631; Sp., 1602, as to carriers; contrast, Co. Civ., Fr., 1789; It., 1636; Sp., 1182-83, etc.); or, as in Italy, Spain, and England, accident; an enactment which is Roman as well as mediæval. Where formalities are insisted on by the commercial code but not under the civil law, it is usually because a new entity is created;—thus partnerships and joint-stock companies, if commercial, are registered (Co. Comm., Fr., 42; Germ., 86, 151, 176, 210; It., 90; Sp., 16-17), except in England, where, however, companies, and under the rules of the stock exchange (39) stock exchange partnerships, are registered; or it is because a new status is conferred, *e.g.* on infant traders or married women. The status of married women has been hardly affected by Roman law, but is the result of secular conflicts between mercantile canon and feudal law, of which we see traces in the present law of nations. Before 1882, married women, if trading in "London," had "by custom," *i.e.* law merchant, in the city courts complete capacity, and if trading elsewhere with their husbands' consent, had capacity to contract, sell, and pledge, so far as their trade property was concerned; since 1882 the partition dividing traders from non-traders is broken down. Similarly, married

women trading with their husbands' consent have in Germany and Italy complete capacity, in France and Spain capacity to contract, sell, and pledge, so far as their trade property is concerned; (Commercial Codes, Germ., 7-9; It., 14; Fr., 5; Sp., 6, 10; contrast, Civil Codes, Fr., 217-226; It., 134-5; Sp., 59, 60, 1263); and this law came from mediæval town law or gild law (Pertile, iii. 243; Goldschmidt, p. 221, *n.* 117). Briefly, law merchant dismisses pedantic distinctions of outward form, of the personality of contracting parties, of title and of sex, in order that it may carry ideas of sale and contract to their last conclusions; and discusses the responsibility of married women and "infants" as it discussed that of the stranger on a broad human basis.

This section may be summed up thus: mercantile law was far better and is still somewhat in advance of other civil law. That will explain what is described above as the breaking away of the commercial branch from the other branches of civil law. But an interesting question arises—which was the trunk? On the one hand the arrangement of the French codes and the language of English judges assume that the civil law is primary and the commercial code is secondary; that the latter is an offshoot and variation of the former. If history had begun with Justinian's codes, this view would be right; but Justinian's codes were the last result of centuries of competition between civil and prætorian law, the latter being in the main law merchant; and besides history to a large extent started its course again in the middle ages. On the other hand, the new Italian, the new Spanish, the new Portuguese (1888), and the German commercial codes, erect "law merchant" into a self-centred body of law, like criminal law; and mediæval history is on the side of this view; law merchant was built up in courts of its own; these courts were invented at a time when mercantile law had little or nothing to learn from other contemporary civil law, and the latter had everything to learn from the former. Perhaps the question is incapable of solution, as we should first have to determine the origin of our ideas of contract and civil responsibility; it will be enough for our purpose to state that these ideas first attained clear expression in connection with mercantile transactions; and in modern Europe long after mercantile transactions had been relegated to autonomous mercantile courts.

[A. Lattes, *Il diritto commerciale nella Legislazione statutaria delle città Italiane*, 1882-83; *Studii di diritto statutario*, 1887 (Italian and mediæval).—Pertile, *Storia del diritto Italiano*, 1891-95.—A. Schaube, *Das Konsulat des Meeres in Pisa*, 1888, in Schmoller's *Staats und socialwissenschaftliche Forschungen*, vol. 8 (includes Italy, Spain, and Western Mediterranean).—W. Silberschmidt, *Die Entstehung des deutschen Handelsgerichts*, 1894 (includes Austria, and summarises the whole history).—L. Goldschmidt, *Handbuch des Handelsrechts*, vol. i., 1891 (ancient and mediæval; a mine of learning).

Refer also to C. Hegel, *Städte und Gilden der Germanischen Völker in Mittelalter*, 1891 (includes Scandinavian countries, North France, Paris, and Belgium).—C. Gross, *The Gild Merchant* (1890) (British).—Stracca, *Tractatus de Mercatura seu Mercatore*, 1553.—Marquardus, *Tractatus politico-juridicus mercatorum et commerciorum singularis*, 1662, and works of Malynes, Beawes, and Jacob mentioned in the article Commercial Law. The references to ancient and mediæval maritimes codes are from Pardessus, *Collection de lois maritimes antérieures au XVIIIe siècle*, 1828-45.] J. D. R.

LAWS OF POLITICAL ECONOMY—EXAMPLES.

Law of Constant Return, p. 582; Costs, p. 582; Demand, p. 582; Derived Demand, p. 582; Diminishing Returns, p. 583; Diminishing Utility, p. 583; Increasing Returns, p. 583; Indifference, p. 583; Satiable Wants, p. 583; Subordination of Wants, p. 583; Substitution, p. 584; Supply, p. 584.

Law of Constant Return.—In general, the increase of the scale on which an industry is carried on is accompanied by a change in the proportionate cost of its product; but when the increased difficulties of extractive industry (see Diminishing Returns) are set off against the economies arising from improved organisation in manufacture (see Increasing Returns) we may find an exact balance struck, and an increased produce obtained by labour and sacrifice increased just in proportion. In such a case, the law of *constant returns* is said to hold.

Law of Costs.—This is one of the names under which the well-known statement, that exchange value tends to an equality with cost of production, is referred to (see Cost of Production).

Law of Demand.—This law is practically as follows. In every case, the more of a thing is offered for sale in a market the lower is the price at which it will find purchasers, or, in other words, the demand price for each unit diminishes with every increase in the amount offered (see article Demand). (Marshall, *Principles of Economics*.)

Law of Derived Demand.—When a commodity is such that there exists no independent demand for it, the demand for the goods, in the production of which it is associated with a number of others, serves to determine a law of derived demand for the commodity in question. The aggregate of the prices at which the appropriate supplies of the other things, which are associated with it in the production of the goods, will be forthcoming, being subtracted from the price at which the corresponding quantity of those goods can find purchasers, the remainder is the limit of the demand price for a given amount of the said commodity.

LAW OF DIMINISHING RETURNS.—If one, or more, of the industrial agents, the co-operation of which is necessary for the production of any commodity, be increased, the others remaining unaltered, the amount of the product will generally be increased. If the increase of product be in a less proportion than the increase of the industrial agents considered, we express the fact by saying that in this case the product obeys the law of diminishing returns.

The usual definitions found in economic treatises combine a statement of the law with the assertion of its applicability to the case when increased capital and labour are expended on the same land. As the law is of far wider application, its statement, free from the reference to the particular case of land, seems to the writer to be desirable.

[For the limitations connected with the use of the law in the case of land, see DIMINISHING RETURNS.]

LAW OF DIMINISHING UTILITY.—The facts of human nature on which the law of demand is based are expressed in the law of diminishing utility. Professor Marshall states it thus:—"The *Total Utility* (that is, the total pleasure-affording power) of a commodity to a person increases with every increment of his stock of it, but does not increase so fast as his stock increases. If his stock of it increases at a uniform rate, the pleasure derived from it increases at a diminishing rate." A few lines later this is abbreviated, and at the same time expressed more precisely as follows:—"The marginal utility of a commodity to any one diminishes with every increase in the amount of it he already has."

Some of the few exceptions to the law as stated in this form, and mentioned in Professor Marshall's footnote, are excluded by the wording adopted by Jevons, viz.:—

"The degree of utility varies with the quantity of commodity, and ultimately decreases as that quantity increases."

The expressions "degree of utility" and "marginal utility" are used to signify the same thing, and these latter statements make it clear beyond any possible doubt that it is not the *total* utility but the *marginal* utility which diminishes. (For a full explanation of these phrases, see DEGREE OF UTILITY.)

LAW OF INCREASING RETURNS.—When, under the circumstances supposed above (see "Law of Diminishing Returns"), the increase of product is in greater proportion than the increase of the industrial agents concerned, the *Law of Increasing Returns* is said to be in operation.

The improved organisation of manufacturing industries which is possible when the scale of production is enlarged, causes the law to be applicable to them in general. Further, if the increase of numbers among a people be not accompanied by conditions leading to a decrease of the average of individual strength and energy, their collective efficiency will increase in greater proportion than their numbers, that is, the law of increasing returns will apply to the national industry at large (see also INCREASING RETURNS).

LAW OF INDIFFERENCE.—This is the name applied to the law that "In the same open market, at any one moment, there cannot be two prices for the same kind of article." This is a particular case of the law of substitution (see below), and the case of which the truth is most obvious, since the substituted commodity is similar in every respect to that which it replaces. It must be added that the hypothesis in dependence on which this law is formulated is that the dealers in the market considered are in possession of sufficient knowledge of what is taking place, and are sufficiently active in pursuit of their own interest, to lead them to refuse to pay to any person more than would be demanded at the same time and in the same place, by any other for articles precisely similar to those purchased (see INDIFFERENCE, LAW OF).

LAW OF SATIABLE WANTS.—This title is used by Professor Marshall as an alternative to that of the law of diminishing utility. The form of statement of this latter law, which Jevons quotes from Richard Jennings (see Jevons, *Theory*, p. 56), throws that feature of it into prominence which leads to the use of the title now under consideration. It is as follows:—"With respect to all commodities, our feelings show that the degrees of satisfaction do not proceed *pari passu* with the quantities consumed; they do not advance equally with each instalment of the commodity offered to the senses and then suddenly stop; but diminish gradually until they ultimately disappear, and further instalments can produce no further satisfaction." We need not proceed further with the quotation, which would merely yield us another expression of the law of diminishing utility at length. The concluding phrase of the passage quoted embodies the idea of "satiable wants."

LAW OF THE SUBORDINATION OF WANTS.—The same fact is expressed somewhat differently and, in some respects, more in accordance with actual experience, by Banfield, thus:—"The satisfaction of every lower want . . . creates a desire of a higher character." In commenting on this Jevons corrects and explains it as meaning "permits the higher want to manifest itself."

It would, perhaps, be more correct to say that the lower wants are not *absolutely* satisfied, but that, when their satisfaction has proceeded to a certain point, the desire to satisfy higher wants is more urgent than the desire to afford increased satisfaction to the lower wants. While

noting, however, that frequently the power of affording satisfaction by increasing the consumption of a given commodity is not exhausted when such increase ceases, and consumption of an entirely different nature substituted, it is not asserted that instances do not occur, and that frequently, in which, to use the words of Jennings, "further instalments can produce no further satisfaction." The statement of Banfield may be expressed differently, as, for instance, by Senior, who writes:—"It is obvious that our desires do not aim so much at quantity as at diversity." This is referred to by Jevons as Senior's so-called "law of variety." The further explanations which Senior gives are just the expression of the law of diminishing utility already seen to be practically identical with the law under consideration.

LAW OF SUBSTITUTION.—When there is more than one method of producing a given result, the least costly method available will be selected. If there be more than one of which the cost, taking all the circumstances into account, is the same, it will be a matter of indifference which is employed of these equally costly methods, but any less costly method which can be substituted will tend to displace the others.

The practical carrying out of such substitution as is referred to will depend, clearly, not only on its feasibility, but also on the knowledge of business men that such substitution is possible and would decrease the cost of production. A limitation of this nature might be expressed in the enunciation of the law if desired.

LAW OF SUPPLY.—The law of costs is practically identical with that now under consideration. For the limitations and explanations necessary, see SUPPLY. A. W. F.

For Law of Distribution, see DISTRIBUTION, LAW OF; Law of Population, see MALTHUS, REV. T. R.; POPULATION; Law of Wages (Iron), see LASSALLE; MARX, KARL; WAGES. See also Article on DEMAND; DIMINISHING RETURNS; INCREASING RETURNS.

LAWS OF POLITICAL ECONOMY, GENERAL PRINCIPLES. The observation of natural phenomena reveals many instances where two sets of facts are seen to accompany one another or of which the one is observed to follow the other in invariable connection. When such coincidences have been noted, they are frequently placed on record in a statement of the form: "The events A and B will always be found to occur together." A statement of this kind expresses in a general form the result of such experience as has fallen to the lot of the propounder of this "law" or "rule." A wider and more prolonged experience may show that the apparent connection is, after all, no more than a coincidence, or series of coincidences, and that there is no invariable link binding the observed events inseparably together; while, on the other hand, the closer observation of each event, which is naturally aroused by the apparent connection, may show that the generalisation rests on sound foundations, and that human experience presents no instance where the "rule" does not hold.

Sometimes the statement goes further and takes the form "The event A always produces, as its result, the event B." This is more than a mere statement of a definite sequence in time of the events, and implies a causal connection between them. Equally with the form of statement previously mentioned, the test of experience alone can suffice to establish confidence in the truth of such a rule as this. In some branches of science, the process of testing the truth of the hypothetical "law" suggested by the study and comparison of recorded facts, can be pursued by means of experiments all the details of which are under the control of the experimenter. If the statement be found, not only to agree with all recorded experience in the past, but to agree also with the experience obtained by conducting experiments and making observations directed to the special end of testing the truth of this particular allegation, confidence in its truth becomes firmly established, and what was alleged previously in a hesitating and tentative manner as a probable statement of general application may be referred to as a fully determined "law." The term is properly used in precisely the same sense in economic science as in physical science, and a "law" of political economy must be regarded in somewhat the same light as, for instance, Kepler's laws of planetary motion. It is a generalisation from past experience which is found to agree with all that is known, and to satisfy all tests, up to the present, which can be applied to determine its validity.

In every science, what may be called derivative laws are obtained, by combining the results of the rules which direct observation has established. These may be enunciated in the form of extremely simple "principles," the truth of which is established by the consideration that, only if these principles be accepted can observed results be accounted for; or they may be of a complex nature, obtained by the process of uniting the effects of many causes and thus obtaining the complex effect of a complex cause.

Some frequently quoted laws of political economy are of this nature, and much misunderstanding has resulted from an almost universal habit of omitting, in the enumeration of the causes supposed to be in action, some which are of extreme importance, but the absence of which is so unlikely that it is not contemplated or even recognised as possible. This causes little confusion with minds trained in this class of investigation, but is the source of serious error and of much distrust of economic theory in the popular mind. Too often, even

those who might be expected to have in mind the limitations in view of which a given effect may be expected to follow a given cause, have wholly overlooked such of these limitations as were considered to be so obvious as not to need explicit enumeration, and have consequently been led to results inconsistent equally with the rigid application of theoretical knowledge and with facts then or subsequently observed.

In economics the process of inductive demonstration of a general principle is often peculiarly difficult. The conduct of experiments specially devised to avoid the complications arising from the interaction of many causes is difficult if not impossible. The most that can be done is to obtain as many different combinations of causes as possible, so as to trace the common element in the varying combination of results with as much precision as can be attained. Similarly, when it is sought to apply our knowledge to predict the result of any proposed arrangements, the modifying effect of surrounding circumstances must not be left out of account, for, though each cause produces its own effect, the composite result may be quite other than is indicated, while attention is confined to a single cause with its appropriate effect.

It will be seen, therefore, that economic laws are not in any sense absolute statements. They relate to assumed conditions of society, and do not profess to do more than give certain clues to the probable result of any set of causes when those conditions are entirely changed. The reason of this is that though the laws which are known may be quite sufficient to unravel the complications of the changed conditions so far as the *kind* of result is concerned, the lack of precision as to *quantitative* relations between causes and effects which characterises most economic laws often renders it impossible to predict in detail the outcome of untried combinations. Within wide limits, however, the laws which are generalisations from past and present experience may render invaluable help in the prediction of the result of any hypothetical set of conditions in the future. Too much care cannot be taken to remember that we often state the laws without anything like a complete enumeration of the conditions in connection with which we always contemplate their operation. Further, to quote the words of Professor Marshall, "The laws of economics are statements of tendencies expressed in the indicative mood, and not ethical precepts in the imperative."—*Principles*, Pref. to 1st ed.

In addition to the laws which refer to human societies and to the influence of the human mind on the relations between things and persons, there are some statements of the result of observation of physical nature which are also frequently made use of in economic investigations, and are also generally regarded as laws of political economy. In the definitions which follow, an example of this class is found in the law of decreasing returns.

In conclusion, we may say that, being convinced by observation, though perhaps not wholly by observation, that the events of the industrial world manifest order in their mutual relations, we seek to determine, as far as possible, what is the nature of that order. The results, expressed in words, constitute the "laws" to which we have been referring.

[See Cairnes, *Leading Principles*, etc.; *Character and Logical Method*, etc.—Huxley, *The Progress of Science* (in Method and Results).—Jevons, *The Principles of Science.*—Keynes, *Scope and Method*, etc.—Mach, *Science of Mechanics.*—Marshall, *Principles of Economics.*—Mill, *Logic.*—Ritchie, *What are Economic Laws?* (in Darwin and Hegel).—Whewell, *Philosophy of Discovery.*—Bonar, *Philosophy and Political Economy.*] A. W. F.

For other articles connected with this heading see ECONOMIC LAW; GRESHAM'S LAW; LAW OF DIMINISHING RETURNS, see DIMINISHING RETURNS; LAW OF INCREASING RETURNS, see INCREASING RETURNS; LAW OF INDIFFERENCE, see INDIFFERENCE, LAW OF; SURPLUS, LAW OF.

LAWFUL HOURS. The state in some cases prescribes the time within which a trade may be carried on, or the number of hours per day, or per week, a class of persons may be employed. By the Licensing Acts, 1872-74, intoxicating liquors are only permitted to be sold during certain hours of the day. By the Factory and Workshop Act, 1878, the period of employment of young persons and women, in textile and non-textile factories, is to be between 6 A.M. and 6 P.M., or between 7 A.M. and 7 P.M.; but in the trades specified in Schedule III. pt. i., the period may be between 8 A.M. and 9 P.M. On Saturdays when work commences at 6 A.M., if not less than one hour is given for meals, manufacturing processes must cease, in textile factories, at 1 P.M., and all other work at 1.30 P.M., in non-textile factories all work must cease at 2 P.M. (see FACTORY ACTS). The act also contains special provisions relating to children, and to holidays. Under the Coal Mines Regulation Act boys between twelve and sixteen cannot be employed under ground for more than fifty-four hours per week, nor more than ten hours in any one day. Restrictions have also been imposed on the hours of boys, girls, and women working above ground. Premises licensed for the sale of intoxicating liquors in London, are to be closed on Saturdays from midnight until 1 o'clock on Sunday, and from 11 o'clock until 5 on Monday morning, and on other days from 12.30 midnight until 5 A.M. In towns outside London they are to be closed from 11 P.M. on Saturday until 12.30 P.M. on Sunday, on Sunday afternoons, and from 10 P.M. on Sunday until 6 A.M. on Monday; on other days they are to be closed from 11 P.M. until 6 A.M. the

following morning. In the country they are to be closed from 10 P.M. on Saturday until 12.30 P.M. on Sunday, and from 10 P.M. on Sunday until 6 A.M. on Monday; on other days they are to be closed from 10 P.M. until 6 A.M. the following morning. By the Factory and Workshop Act, 1895, restrictions are placed on the employment of young persons and women over time, and the employment of young persons at night, and the hours of work in laundries.

[Redgrave's *Factory and Workshop Acts*, 1878-1891, London, 1893.—Von Plener's *Factory Legislation*, London, 1873.—Pease's *Coal Mines Regulation Act*, London, 1888.—Paterson's *Licensing Acts*, London, 1892.] J. E. C. M.

LAWSON, JAMES ANTHONY (1817-1887). From 1840-1845 Whately professor of political economy at Trinity College, Dublin; was appointed solicitor-general in 1861; and in 1865 attorney-general for Ireland. He represented Portarlington in parliament 1865-1868, when he was made fourth justice of common pleas; in 1882 he was transferred to the Queen's bench.

During his occupation of the professorial chair at Trinity, Lawson delivered *Lectures on Political Economy* (London, Dublin, printed 1844, 8vo) in which he defined the subject as that "science which treats of the nature, and production of value, and the laws which regulate the distribution of wealth among the different orders of the community."

After vindicating the science from the charge of inattention to facts, he pointed out (lecture ii.) that a high state of civilisation implied inter-dependence, whether of states or individuals. In his third lecture he maintained Archbishop Whately's position against the Malthusians, and disputed the theory that population increases in geometrical progression as against the arithmetical ratio of the food supply.

He then went on to expose the fallacies of the mercantile system (lecture iv.), and (v.) the error of classing "consumption" as productive or unproductive. In an appendix to this series he attacked Colonel Torrens's defence of the expediency of "retaliation."

In 1855 Lawson addressed the Dublin Young Men's Christian Association on the *Duties and Obligations involved in Mercantile Relations*, advocating the economic necessity and expediency of commercial probity, and deprecating the criminality of speculation and improvidence.

[*Dictionary of National Biography.*] A. L.

Lawson was the first secretary, and was afterwards (1858 and 1870-72) president of the Dublin Statistical Society. He contributed to its transactions, besides a presidential address, papers on the connection between statistics and political economy, on the comparative advantages of direct and indirect taxation, on the over-population fallacy, on commercial panics, and on the patent laws. He was also (1849 and 1851) Barrington lecturer on political economy to the same society.

LAY DAYS. The contract entered into by a shipowner and the hirer of a ship usually contains a stipulation that the goods will be taken out of the ship within a certain number of days after her arrival. These days are called lay days. After the time has expired, the hirer, or party liable, is as a rule bound by the contract to pay a certain sum for every additional day taken for unloading (see DEMURRAGE).

J. E. C. M.

LEAKE, STEPHEN MARTIN (1702-1773), Garter King at Arms, writer on English coins. His father was Captain Martin, adopted by Admiral Sir John Leake as his heir, Leake having married Martin's wife's sister. Stephen Martin Leake held many public posts, and was Fellow of the Society of Antiquaries when about five-and-twenty. He had a life-long connection with the College of Arms, and wrote several essays (unpublished) on matters of heraldry. His chief work is *Nummi Britannici Historia; or, an Historical Account of English Money, from the Conquest to the Uniting of the Two Kingdoms by King James I., and of Great Britain to the Present Time.* The first edition was published in 1726, 8vo, pp. 144. The second edition, considerably enlarged and virtually rewritten, appeared in 1745 (8vo, pp. 428), and was reissued by the publishers in 1793: all published in London. Leake designed this work "for the use and benefit of the curious collector." It is a kind of chronological descriptive handbook to English coins, the first of its kind, taking the coinage reign by reign, with full descriptions, and with a few illustrative plates. M'Culloch, *Lit. Pol. Econ.*, p. 162, speaks of it as "this valuable treatise." Ruding, *Annals of the Coinage*, 1840, pp. viii., ix., considers that "as far as it goes it has great merit, but the plan is too much contracted . . . and is founded chiefly on the authority of printed books, instead of original records."

[Noble, *A History of the College of Arms and the Lives of all the Kings, Heralds, and Pursuivants*, etc., 1804, pp. 408-414, also on pp. 380, 383, 385, 394.—*Dictionary of National Biography*, art. "Leake, S. M."] E. D.

LEASE. A document under seal under which the use of any land or buildings is granted for a definite number of years, or for a period measured by the duration of any life or lives being in existence at the time when the lease is made. The person who grants the use of the land is called the lessor, the person to whom it is granted the lessee. A lease generally contains a number of covenants respectively to be performed by the lessor and by the lessee. The lessor's principal covenant is the covenant "for quiet enjoyment." The lessee's covenants, with the exception of the covenant to pay rent, vary according to the nature of the lease. In a building lease they generally include a covenant to build a house of a certain value and

nature on the demised land; and in most leases of houses the lessee undertakes to keep the premises in good repair. An agricultural lessee, as a general rule, enters into covenants as to the system of cultivation and the nature of the crops, and also as to keeping up flocks and preserving trees; and the lessee of mines promises to work them effectually. Leases mostly contain a proviso for re-entry in case of non-observance of any of the covenants, but the law, to a certain extent, protects lessees against an unfair use of this right (see ENTRY, RIGHT OF). Protection is now also given to agricultural lessees in respect of fixtures and unexhausted improvements (see AGRICULTURAL HOLDINGS ACTS; and as to agricultural leases in Ireland see LAND LEGISLATION, IRISH).

A lease is a very good illustration of the fact that the same legal form may be used for a number of transactions which, viewed in their economical aspect, have hardly anything in common. In the case of an ordinary building lease the lessee is for all practical purposes the owner of the property, and during the currency of the lease reaps the benefit of all improvements and increases in value; whilst in the case of a short-dated lease at rack-rent all changes in the value of the property affect the lessor to a much greater extent than the lessee.

In the case of a building lease the owner, on the expiration of the lease, enters into possession of his land and of a valuable addition to it; in the case of ordinary leases at rack-rents the property remains, as much as possible, in the same state; but in the case of a mining lease the subject-matter of the lease, viz. the minerals, is entirely taken away by the lessee. In the first-named case the principal advantage derived by the landlord is the addition to his property; in the second case his entire gain consists in the rent; in the third case there is generally a fixed rent, and in addition a royalty proportionate to the output. All these circumstances ought to be considered in schemes of taxation affecting the relations of landlords and tenants.

[As to the law relating to leases see Foa, *Relationship of Landlord and Tenant*, 3rd. ed. 1901.—Woodfall, *Law of Landlord and Tenant*, 17th ed. 1902.] E. S.

LEASEHOLD PROPERTY. Property held under a LEASE (*q.v.*). If the lease is for a term of years, however long, the lessee's interest is in the nature of personal as opposed to real property (see CHATTEL). Leaseholds let for a term of years of at least three hundred years, of which at least two hundred years are unexpired, not being subject to any rent having a money value, and not liable to be determined for condition broken, may now be converted into freeholds by the lessee without the concurrence of the lessor's successor in title.

[Conveyancing Act 1881, § 65; Conveyancing Act 1882, § 11.] E. S.

LEAST SQUARES, METHOD OF, is a rule for obtaining the best average result from a given set of observations. Suppose, for instance, that it is sought to ascertain the quantity of coin circulating in a country; and that by different modes of procedure, each purporting to be equally valid, there have been obtained several values for the sought quantity, say x_1, x_2, x_3, . . . x_n; the best result is in general obtained by determining x so that the sum of squares $(x-x_1)^2+(x-x_2)^2+ \ldots +(x-x_n)^2$ should be a *minimum*. This value of x proves to be $(x_1+x_2+ \ldots +x_n)\div n$, the arithmetic mean (see AVERAGE); so that in this case the method of least squares coincides with ordinary practice. It has a more distinctive character in cases where the data are more complicated. Suppose that each *datum* purported to be, not the value of the circulation, but of some quantity depending on the circulation and one or more *other* unknown quantities; as in the case of the statistics relating to the rupee circulation which Mr. F. C. Harrison has discussed in the *Economic Journal* (Dec. 1891). As argued by the present writer (*ibid.* March 1892), if we regard the circulation as possibly increasing during the years under observation, we should have *twelve* equations for two unknown quantities, viz. the-circulation-of-1890 and the yearly-rate-of-increase. Put x for the logarithm of the first quantity and y for that of the second; then from observations relating to successive years we obtain twelve equations of the form $x-ny-a=o$; where n specifies the year under observation and a is a numerical datum. Call the left-hand members of these equations respectively X_1, X_2, etc., X_{12}. The best value of x (and y) is obtained by determining x and y so that the sum of squares $X_1^2+X_2^2+$ etc. $+X^2_{12}$ should be a *minimum*.

In the examples above given the average sought has been an objective thing, not, as more commonly in statistics relating to social phenomena, a *type* (see AVERAGE). But there is no reason why the method of least squares should not be employed to determine averages of the latter class. However, the data from which types are elicited are seldom of the complicated sort above instanced. Accordingly the rôle of the method of least squares in the social sciences appears to be inconsiderable.

A voluminous catalogue of writings relating to the method of least squares has been compiled by Mr. Mansfield Merriman. His own text-book on the subject is remarkably clear and simple. It should be remarked that he appears to take for granted the prevalence of the Law of Error. Whereas it has been held by some mathematicians that the method of least squares is applicable even where that law does not prevail (see ERROR, LAW OF). F. Y. E.

LEBER, C. (1780-1859), was a head clerk in the French ministry of the interior.

He published the *Collection des meilleurs Dissertations, notices, et Traités Particuliers relatifs*

à l'Histoire de France (Paris, 1838, 20 vols.), and an *Essai sur l'Appréciation de la fortune privée au Moyen Age* (2nd ed., 1847), which first appeared in the 1st volume of the *Mémoires des Savants Étrangers*, printed by authority of the French Academy of Inscriptions. This "essay" was long considered as an authority on the subject of prices in France during the middle ages, and comprises sundry tables of prices, official salaries, etc., with the corresponding modern figures. The latter may be usefully compared with similar tables published by M. d'Avenel in the *Revue des Deux Mondes*, 15th June 1892, pp. 795 and 803, and in the latter's great work, *Histoire Économique de la Propriété, des Salaires*, etc., 1894. E. Ca.

LEBLANC, François (died 1698), a French numismatist, born in Dauphiny. Being a man of fortune, he took up the study of coins and medals, and formed a fine collection. In 1688 he travelled in Italy, and on his return published his *Traité historique des Monnoyes de France depuis le commencement de la Monarchie jusqu'à present*, Paris, 1690. This volume treats only of the regal coins, and contains numerous plates. A second, twice as long, which describes the seigneurial coinage, has never been printed. From the reign of Philippe le Bel the printed work is founded on the registers of the *Cour des Monnaies*, and contains elaborate tables giving the value of the mark of gold and of silver year by year, together with the value and degree of fineness of the *gros*, *blancs*, *testons*, and other coins, with the same chronological exactitude. In 1689 the author had published, at Paris, his *Dissertation sur quelques monnoyes de Charlemagne, Louis le Débonnaire, Lothaire et ses successeurs, frappées dans Rome*. This was reprinted with the larger work in the Amsterdam edition of 1692. R. H.

[Cantillon, *Essai* (Boston reprint 1892), p. 137 refers to Leblanc, *Traité des monnoyes*, Paris, 1692 (1711, 1714, 1723). This work is described by H. Higgs, Harvard *Journal of Economics*, vol. vi., p. 437, as "a practical little book on the working of a mint."]

LECLAIRE, Edmé-Jean (1801-1872), the founder of French Profit-Sharing, was the son of a village shoemaker. On leaving school he knew, at most, how to read and write, and never mastered the mysteries of spelling. At seventeen he migrated to Paris, and was apprenticed to a house-painter. Nine years later he set up in business by himself, and from the first prospered greatly. The idea of profit-sharing was first suggested to him by a M. Frégier in 1835, who, however, afterwards refused to believe in its feasibility. It was not till 1842 that Leclaire felt himself able to put the idea into practice. He informed his workmen of his intention of dividing among a certain number of them, afterwards termed the *noyau*, kernel, or *élite*, 50 per cent of the annual profits after deducting 5 per cent for interest on capital, and £240 for salary of management. At first the men looked on the proposal with suspicion, but when, as the result of the first year's working, he threw on the table a bag of gold, and proceeded to divide among forty participants sums amounting to over £11 each, the object lesson proved convincing. The sums received varied according to the amount of the yearly wage. In the following years, both the amount distributed and the number of participants steadily increased. In 1838 he had established a mutual aid society, which was reconstituted in 1853, and henceforth maintained altogether out of the annual profits, instead of by the members' own contributions. In 1864, though not without some opposition, retiring pensions were substituted for the right to future division of the funds of the mutual aid society, and it was made a perpetual sleeping partner, *commanditaire*, in the firm of "Leclaire & Cie." In the following year Leclaire retired from active management over the business, to Herblay, near Paris, where he endeavoured, with little success, to interest the country people in profit-sharing. In 1869 a formal deed was drawn up, setting out the manner in which profits were to be divided between the managing partners, the regular staff, and the mutual aid society. Two years after, Leclaire, taking to heart the taunt of a socialist workman, "Your house is nothing but a box of little masters who 'exploit' the others," threw open the benefits of participation to all workmen employed. In 1872, on the day following the distribution of £2000 among 600 men, as the annual bonus, Leclaire died, but the work of his life still lives in the firm that bears his name, and in the seventy firms which practise the system in Paris alone. He had himself always advocated profit-sharing on business lines. He left behind him a fortune of £48,000, and always maintained that had he followed the beaten track he could not have succeeded as well, even by sharp practices. Though his motives were in reality lofty, he carefully refrained from putting them forward. In the presence of death, he wrote that he was "the humble disciple of Him who has told us to do unto others as we would wish them to do unto us"; but such had not been his usual note. According to the present constitution of the firm, the capital is £32,000, £16,000 being provided by the mutual-aid society, and £16,000 by the managing directors, in unequal shares. To enable men without capital to be partners, it is provided that the out-going partner may not withdraw his capital until it has been replaced out of the sums accruing to his successor as share in profits. In fact, one of the present partners has risen from the ranks. In the case of the death or resignation of one of them, his successor is elected by the "noyau," who are themselves admitted by the "comité de conciliation," consisting of the partners, and eight other members, five workmen, and three

clerks, or foremen. Of the net profits, 25 per cent go to the managing partners, 25 per cent to the mutual aid society, and 50 per cent are distributed among the employees in cash. This 50 per cent is divided by the whole amount of wages and salaries paid during the year, to obtain the ratio of bonus to wages. Each man's earnings are then multiplied by this percentage to find the sum due to him. The ratio of bonus to wages averaged during a series of years over 20 per cent. Wages have always been paid at the highest rate current in the trade. In 1892 there were 936 participants. The mutual aid society has a capital of more than £110,840. It had, in 1893, 230 members. It provides, besides ordinary benefits, a pension of £60 to those over fifty who have worked for the firm twenty years, half of which is continued to the widow for life; and a lump sum of £40, payable to the family at the man's death. In addition, all employees, whether members of the society or not, can claim, if disabled while in the firm's employ, a full retiring pension, and in any case are entitled after reaching the age of fifty to one of £40, with £20 for widow.

[*Biographie d'un homme utile*, par Charles Robert, Paris, 1878.—*Profit Sharing between Capital and Labour*, by Sedley Taylor (pp. 1-25), London, 1884.—Reference to the principle, Mill, *Principles of Political Economy*, vol. ii., Appendix. —*A brief Sketch of the Maison Leclaire*, by Mary Hart, London, 1882.—*La Participation aux bénéfices*, par C. V. Boehmert, trad. par A. Trombert, Paris, 1888, 8vo, pp. 245-263.—*Profit-Sharing*, by N. P. Gilman, Cambridge, Mass., 1889, 8vo, pp. 66-105.—*Patrons et Ouvriers de Paris*, Paris, 1880, 8vo, pp. 127-134—See also the ann. vol.; commencing 1879; *Bulletin de la Participation aux bénéfices*.—Accounts of his progress by Leclaire, particularly *Compte rendu . . . sur les resultats de Paris*, 1865. The latest information is in the preface to an account of *Réunion solennelle pour l'inauguration de la rue Jean Leclaire*, Paris, 1894 (see also PROFIT-SHARING).] H. E. E.

LEET COURT. Without entering upon the difficult questions of the origin and development of the leet, of its relation to the sheriff's tourn and view of frankpledge on the one side, and to the court baron on the other, it must suffice here to describe it in its economic aspect. It enforced, and in part originated, numerous economic and social regulations which are now either considered unnecessary or committed to specialised local and central bodies. Besides some criminal offences which were presentable at the leet, but punishable at the next gaol delivery, the charge to the jury included various smaller crimes, such as the use of false weights and measures and breach of the peace; some police work, such as view of frankpledge; some manorial matters, such as the breaking of boundaries and hedges, the pursuit of villeins, the treatment of stray beasts; some unneighbourly acts, such as eavesdropping; and a great many regulations on social and economic subjects. Of these some were sanitary: waters were not to be corrupted, nuisances of various kinds were forbidden, diseased cattle were to be removed from commons, stale fish and meat were not to be sold. Others were directed towards the repair of highways, the practice of archery, the preservation of fish and game; and a considerable number of restrictions were placed on economic liberty, some of which would now be regarded as intolerable. For instance, apparel was to be minutely suited to the rank of the wearer, and the quality of French and Gascon wines to the rank of the consumer; the ASSIZE OF BREAD AND BEER was enforced, prices of victuals were fixed, and middlemen were expected not to make more than 5 per cent profit on their sales; trees were to be felled, and tanning was to be carried on, according to fixed rules; millers must not take excessive toll, one grain in twenty or in twenty-four being considered enough; forestalling was forbidden; certain trades were not to be united; and labourers were not to "conspire" to obtain shorter hours or increased pay.

These courts, which existed, though at first often without the name of leet, on very many manors, ranked as royal courts of record. They can still be traced in some places, but since the 16th century the growth of the commission of the peace has nearly destroyed them.

[For historical position of the leet, see Maitland's *Select Pleas in Manorial Courts*, Introd., with note A on meaning of the word.—For business of the court, see Kitchin's *Jurisdictions*, 1651.—Scriven's *Copyholds*.—Harland's *Manchester Court Leet Records* (Chetham Soc.).—Wilkinson's *The Manner and Forme how to keep a Court Leete*, 1620. —See also Stubbs, *Const. Hist.*—Garnier, *English Landed Interest*, pp. 364-379.—Pollock and Maitland, *History of England*.] E. G. P.

LEFÈVRE DE BEAUVRAY, PIERRE (1724-1790), was an advocate in the parliament of Paris.

He published in 1769 and 1770 (Paris and Amsterdam) his *Dictionnaire social et patriotique ou Précis raisonné des connaissances relatives à l'économie morale civile, et politique*, reprinted in 1774 under the title of *Dictionnaire de recherches historiques et philosophiques*. E. CA.

LEGACY. A legacy is a gift made by will of money or movable things. A legacy implies that the gift is made by a will; it is primarily payable out of personalty, but may be charged on the real estate. Where a testator desires to make his real estate liable for a legacy, he charges its payment on such estate. A legatee can claim his legacy only after the payment of the testator's debts, as the law prefers the claim of a creditor to that of a legatee. If after payment of debts there are not sufficient assets to pay all the legacies, the position of the legatees depends on the nature of the legacy.

1. If a legacy be *general*, *i.e.* if it does not refer to any specific thing, it is liable to be reduced in proportion to the deficiency of assets.

2. If a legacy is *specific*, *i.e.* if it is of a specific thing, the legatee is entitled to such thing unless the testator has parted with it in his lifetime.

3. If a legacy is *demonstrative*, *i.e.* if it is in its nature general, but a specific fund has been mentioned out of which it is to be paid, it is not affected by the alienation of such fund during the testator's lifetime, and it is not liable to be reduced until the fund out of which it is payable is exhausted.

[Snell's *Equity*, 14th ed. 1905.—Williams on *Executors and Administrators*, London, 1893.—The rule of perpetuities applies to legacies, *i.e.* the corpus cannot be rendered inalienable for a longer period than a life or a series of lives in being at the date of the testator's death and twenty-one years afterwards. A legacy for superstitious uses is void (Goodeve, *Personal Property*, London, 1892). As regards the limitation of the power of bequeathing legacies, see Mill's *Pol. Econ.*, bk. v. ch. ix.; and Bentham's Works, edited by Bowring, Edinburgh, 1843, vol. ii. (see BEQUEST, POWER OF; DEATH DUTIES)].

J. E. C. M.

LEGACY DUTIES. See DEATH DUTIES.

LEGAL TENDER. The phrase "legal tender," in its primary acceptation, denotes a valid offer of payment of a debt; in its secondary and derivative sense, that which can be validly offered—that particular species of money which, in the absence of special agreement to the contrary, creditors are by law bound to accept in payment of debts. Where the mode of payment has been clearly laid down in the original CONTRACT, governments have, save in the case of some particular species of contracts (see TRUCK ACTS), in general restricted themselves to enforcing when necessary the contract thus made. But, to avert the evils incident to uncertainty in the interpretation of contracts, it has usually been found necessary to give a precise definition of what will, in the absence of agreement to the contrary, constitute a legal tender of payment of a debt.

What money is legal tender? In this country the current coin of the realm is legal tender—gold for payment of any amount, silver for a payment not exceeding forty shillings, bronze for a payment not exceeding one shilling (33 Vict. c. 10, § 4). Bank of England notes, payable to bearer on demand, are, except at the bank itself or its branches, legal tender for all sums above five pounds, so long as the bank continues to pay on demand its notes in legal coin (3 & 4 Will. IV. c. 98, § 6). Bank of England notes, however, are not legal tender in Scotland or Ireland; nor are the notes of the English country banks, or of the Scotch and Irish banks, legal tender anywhere. But a tender of payment in money other than legal tender (*e.g.* country bank notes, or a cheque, or silver coin for a debt exceeding 40s.) will, if otherwise valid, be sufficient, unless objected to on that account.

In the United States of America, U.S. gold coins are (1895) legal tender for any sum; as also the U.S. silver dollar, except in the case of agreement to the contrary. The smaller silver coins are legal tender for a sum not exceeding ten dollars (say £2). For the extent to which United States notes are legal tender see BANK NOTE (U.S.A.). See also BIMETALLISM; CIRCULATING MEDIUM; CONVERTIBILITY OF BANK NOTES; COLONIES, CURRENCY IN; CURRENCY; DEBASEMENT OF COIN, HIST. OF; INCONVERTIBLE CURRENCY.

Supposing the *quality* of the tender unobjectionable, *what constitutes a legal tender of it?* By English law the debtor must produce and offer—unless the creditor clearly dispense with production—to the creditor, or to one who is presumably his authorised agent and does not disclaim authority, the sum due, at the proper time and place, and so that the creditor or his agent can examine and count the money. The tender must be unconditional, *e.g.* it must not involve an admission by the creditor that no more is due, or that it itself is not due. A tender by one of several joint debtors, or to one of several joint creditors, is valid as tender by, or to, all. Tender of more than is due is valid, but not if change is required and the creditor objects to give it. Tender of a part of an entire debt is not valid, and there can be legal tender of one of several distinct debts only if the debt be specified on account of which the tender is made.

[See Jevons, *Money and the Mechanism of Exchange*, 8th ed. 1887.—F. A. Walker, *Money*. 1878.—Smith's *Mercantile Law*, 10th ed. 1890, pp. 667 *seq.*—Benjamin, *On Sales*, 4th ed. 1888, pp. 714 *seq.*]

A. B. C.

LEGATUM, in Roman law, is a bequest to a person by will of a formal kind, charged by the testator on the universal successor, *heres*, to whom he leaves his entire property. The *legatarius* or legatee, the object of the testator's bounty, being only a particular successor, does not, like the *heres*, incur any liability for the testator's debts. The form of the *legatum*, which is not that of request, but of command, distinguishes it from the FIDEICOMMISSUM (*q.v.*).

E. A. W.

LEGISLATION (ELIZABETHAN). More than one hundred statutes, dealing with the social and economic questions of the reign of Elizabeth, were passed between 1558 and 1601. If we add to these the numerous private acts of a similar character and the public acts which had only an indirect relation to economic affairs, we have to contemplate a legislative achievement which for permanent and far-reaching results is without parallel in the history of England. It is impossible within the limits of an article to give a complete analysis of these statutes, still less to trace in detail the results of their operation. Whether

we regard the remarkable unity of purpose with which they are pervaded, the skill with which they make use of the social and political influences of the time, or the expedition with which they were framed, criticised, amended, and passed into law, they are of the greatest importance in the economic development of the country. To understand their full significance they should be considered in their mutual relations to one another. They represent a deliberate and, on the whole, a successful attempt to grapple with the problems of the reign of Elizabeth on the principles of the MERCANTILE SYSTEM (*q.v.*). They are, in fact, the embodiment of that system at its best, before it had degenerated into a mere chaotic mass of tariff regulations for the protection of the interests of small groups of merchants and manufacturers. In spite of the economic errors which it was difficult if not impossible to avoid in that age, the acts for the encouragement of agriculture and navigation, the statute of apprenticeship, and the acts dealing with pauperism, are, in relation to the political theories and social structure of the 16th century, worthy of the admiration with which they have been regarded. A list of the acts passed in a single year, the fifth of Elizabeth (1562-1563), will give some idea of the activity of the Elizabethan parliaments. There were acts (1) "for the mayntenance and increase of tillage" (c. 2); (2) "for the reliefe of the poor" (c. 3); (3) "touching dyvers orders for artificers, laborers, servantes of husbandrye, and apprentises"—APPRENTICESHIP, STATUTE OF (*q.v.*) (c. 4); (4) "touching certayne politique constitutions made for the maintenance of the navye"—NAVIGATION LAWS (*q.v.*) (c. 5); (5) "agaynste suche as shall sell any ware for appareill without readye moneye" (c. 6); (6) "for thadvoyding of dyvers forreyne wares made by handye craftsmen beyonde the seas" (c. 7); (7) "touching tanners, couriours, shoemakers, and other artyficers occupying the cutting of leather" (c. 8); (8) to revive 21 Hen. VIII., "touching servantes embeaselyng theyre maysters gooddes" (c. 10); (9) "agaynst clyppyng, washing, rounding, or fylyng of coynes" (c. 11); (10) "touching badgers of corne and droves of cattell to be lycensed" (c. 12); (11) to continue 2 & 3 Ph. and M. "for the amending of highe wayes" (c. 13); (12) "for the punishement of vagabondes callyng themselfes Egiptians" (c. 20); (13) "for the punishment of unlawfull taking of fishe, deare, or hawkes" (c. 21); (14) "agaynste the caryeing of sheepskins, etc., over the sea, not being staple wares" (c. 22). Of the more important of these acts, the statute of apprenticeship was not further amended during the reign of Elizabeth, though its operation was indirectly affected by the changes which took place in the poor-law (14 Eliz. c. 5; 18 Eliz. c. 3; 35 Eliz. c. 4; 39 Eliz. cc. 3, 4, 5; 43 Eliz. c. 2). For subsequent legislation in continuation or amendment of the act for the maintenance of tillage, reference should be made to 13 Eliz. c. 13; 31 Eliz. c. 7, 39 Eliz. cc. 1, 2, and some clauses of the Navigation Acts (1 Eliz. c. 13; 13 Eliz. c. 11; 23 Eliz. c. 7; 39 Eliz. c. 10) have an important bearing on the same subject. Other statutes which should be noticed are those making felony the exportation of leather, tallow, and raw hides (1 Eliz. c. 10), for the incorporation of merchant adventurers for the discovery of new trades (8 Eliz. c. 17), and "agaynst usurie" (13 Eliz. c. 8). The principles of this legislation were not new. The ordinance (1349) and the statute of labourers (1351) may be said to have contained the germ of subsequent legislation on the regulation of wages and pauperism. Navigation acts had been passed in the reign of Richard II. But there are seldom entirely new departures in economic legislation. It is the sagacity with which old laws were repealed, modified, or extended to new problems which distinguishes the reign of Elizabeth as a great constructive age. The bills which became law were only a small proportion of those actually considered by parliament or the committee appointed for that purpose. Statutes were framed and got through both Houses with great expedition, but not hastily or without careful consideration. The development of the poor-law well illustrates the procedure in regard to all the economic legislation of this period. The interest in the subject was so great in 1571 that there was a debate on the first reading of a measure introduced into the House of Commons. This bill was rejected or allowed to drop in the Lords, and a second bill introduced in that House on 12th May 1572. It passed the final stage on 4th June, although during the interval there had been considerable disagreement between the two Houses, and conferences had been necessary. In 1597, when the poor-law for practical purposes reached its final state, one committee had no fewer than eleven bills under consideration, all relating to pauperism. Sometimes there took place a lively debate in a full House, as in the case of the Usury Act of 1571. But as a rule the work was done by committees consisting of Bacon, Cecil, Raleigh, and other well-known men, who met day after day until the legislation was put into shape. An account of the administration of the Elizabeth acts would involve the economic history of England until the early part of the 19th century.

W. A. S. H.

LE GENDRE, François (17th century), was the author of *l'Arithmétique en sa perfection mise en pratique selon l'usage des Financiers, Banquiers, et Marchands*, which went through ten editions from 1646 to 1691, and was even reprinted in 1806 and 1813.

Le Gendre is thought by Professor Oncken to be probably the French merchant who, according to the *Mémoires Historiques* of de la Houssaye (1731), answered Colbert: "*Laissez nous faire,*" when consulted by the minister, with some other leading merchants, as to the best method for the improvement of trade. De la Houssaye puts the reply in the mouth of an Orleans merchant named Hazon. See Arts. on Laissez-Faire.

[August Oncken, *Die Maxime Laissez-faire*, Bern, 1886, pp. 22-38.] E. Ca.

LEGITIM. A term in Scots law. It signifies the right of succession of children to the personal estate of their father to the extent of one-third. This right vests in them at their father's death, and is indefeasible by his will. It may, however, be expressly renounced by any child, or discharged by special provision.

M. G. D.

LEGOYT, Alfred (1815-1885). Legoyt, an eminent French civil servant, statistician, and economist, began life as a lawyer, but soon entered the public service in the office of the ministry of the interior. In 1839 he already occupied the posts of *Chef de Bureau de l'administration générale*, and of *Secrétaire de la Commission Permanente des Archives*. In 1852 he succeeded Moreau de Jonnès as *Directeur du Bureau de la Statistique Générale de la France*, which post he held until an advanced age. He accomplished much useful work in his department, including the establishment of the extensive system of agricultural and industrial statistics which exist in France.

Among his later works may be mentioned his essay on *Les Forces Matérielles de l'Empire Allemand*, published in 1877, and his remarkable monograph on *Suicide*, published in 1881.

W. H.

LE HARDY DE BEAULIEU, Charles, (1816-1871), was born at Uccle near Brussels and died at Mons. He was one of the most scientific popularisers of economics of his time.

His remarks, "The intervention of the state in all branches of human activity is suitable in the infancy of societies: . . . The system of liberty characterises manhood," show a man deeply liberal in mind. He showed himself clearly the disciple of Adam Smith, of J. B. Say, of Bastiat, of Dunoyer, and of M. Gustave de Molinari. He was a very able mining engineer, but becoming blind at the age of forty-two, he devoted himself exclusively to moral and political science. A free trader by conviction, he laboured for the cause of commercial liberty in Belgium.

The chief of De Beaulieu's economic writings are, *Du Salaire*, 1st ed. 1858-59; 2nd ed. 1862, 8vo; *Traité élementaire d'économie politique*, 1861, 8vo; *La Propriété et sa rente*, 1862, 8vo. A. C. f.

LEIB, Johann Georg (beginning of the 18th century), was one of the numerous German authors whom the contemporary methods of the French administration filled with admiration; according to his opinion, everything "which belongs to *Oeconomia regia* was perfectly well understood in France."

In his principal work, *Von Verbesserung Land und Leuten*, Leipzig and Frankfort, 1780, Leib describes the leading object of statesmanship—"to keep money in the country and invite in money from its neighbours." He divides the population into the sustentative (*nahrhafte*) classes, comprising artisans, peasants, and merchants, and the unsustentative (*nichtnahrhafte*) classes; still, even peasants are only producers in so far as their productiveness conforms to the above leading principle.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 302.] E. Ca.

LEIBNIZ (Leibnitz), Baron Gottfried Wilhelm von (1646-1716), was too universal in genius and sympathies not to devote time and energy to the consideration of economic problems. In his correspondence he claimed to have studied them, and especially those connected with currency, even to the extent of studying mines and metallurgy, "as much as any one," and to have accumulated much material on this subject. He held that "political economy was by far the greatest part of political science" (Dutens, v. 214 *et seq.*), and urged that economic knowledge, "for lack of which Germany was perishing," should to a greater extent be imparted in education (v. 175 *et seq.*). But beyond the weight of his influence and counsels applied where his position as philosopher and statesman gave opportunity, and a few judgments on economic matters scattered amongst his political monographs and his letters, he has left no contribution to economic thought, but room instead for regret that a scholar so eminently fitted, as Roscher has remarked, by his philosophic breadth of vision, his mathematical and judicial perspicacity, and his sympathetic interest in, and sagacious judgments respecting, the actual condition and course of affairs, to have been a great economist, should not have anticipated Adam Smith by a century. The task of gleaning from his writings the scattered judgments alluded to has been efficiently carried out in Roscher's *Geschichte der Nationaloekonomik* (cp. xvii. pp. 329 *et seq.*), and may here be summarised. Leibniz formulated the sources of wealth by saying that "the strength of a country lies *in terra, rebus, hominibus*" (iv. 531), but especially *in hominum numero* (iv. 502); in connection with which latter statement we find him estimating the population of Prussia by multiplying the annual number of births by thirty. He would not admit opposing interests in trade and agriculture, but saw only an economic harmony which taxation should be so adjusted as not

to disturb. Agriculture was to commerce and manufactures as the root and trunk of a tree to the branches (v. 577). Elaboration of matter involves waste. A nation exporting raw material only to reimport it when made up is as a man who consents to buy of a thief a horse identical with the one of which he has been robbed, because of this sole difference that it has lost its tail (Onno Klopp, *Die Werke von Leibniz*, Hanover, 1864, i. 140). He warmly praised Locke's writings on currency, but held that our restoration of the coinage in 1696 was too costly, if magnanimous. He held it was no use to establish a sound currency without also establishing a *tarif raisonnable* of the prices of commodities, else we get into the circle of measuring money by money (Dutens, vi. 250). The regulation of the currency could only be effectively carried out by international agreement (233-266). He approved of interest (v. 480), but mostly hoarded his own capital, and he had a mathematician's weakness for lotteries (v. 533).

Leibniz' works are in several collections, not one complete. *Opera*, ed. G. G. Dutens (Geneva, 1768, 6 vols. 4to.); German ed. by Pertz and Gerhardt (19 vols., 1873-90), and by O. Klopp (11 vols., 1862-84), and one in French, by Foucher de Careil, 1859, etc., to which the pages quoted refer.) C. A. F.

LEMONNIER, Charles (b. 1808). A French advocate, in early youth a fervent disciple of St. Simon (*q.v.*), a selected edition of whose works he edited in 1859. He practised at the Bordeaux bar.

In 1843 he published *Commentaire sur les principales polices d'assurance maritime usitées en France* (*Paris, Bordeaux, Marseilles, Le Havre, Nantes, Rouen, Dunkerque, Bayonne*), Paris, 8vo, 2 vols., a work of recognised authority. Lemonnier was one of the founders of "la ligue internationale de la paix et de la liberté," and a regular contributor to its journal, *Les États unis d'Europe.*—*Les bases d'une organisation fédérale de l'Europe*, appeared in its pages. *La question sociale*, Paris, 1871, 8vo, is a reprint of an address delivered at a meeting of the League at Lausanne. Political economy, being a branch of morals, is founded, like the latter, on the independence and liberty of the individual. Following Rousseau and Locke, Lemonnier maintains that the foundation of the social contract is property; at the same time great alterations in the law are needed, to secure its proper diffusion.

[Introduction to *Les États unis d'Europe*, Paris, 1872, 16mo, by V. Poupin.] H. E. E.

LENDA or Lezda, inland custom duties paid by merchants in Aragon. The *lenda maritima* was equivalent to our modern customs. E. Ca.

LENZI, Domenico (14th century). A Florentine; among many writers on economic subjects, of that period, Lenzi, a corn chandler, is noted for a history of the prices of provisions, and of the complaints of the frequenters of the Mercato Vecchio, Florence, against the officials who levied the tax on provisions. He also initiated ideas of greater freedom in trade.

Specchio umano o Diario di Domenico Lenzi (1320-1335), pub. with illust. by P. V. Fineschi, ent. *Storia compendiata di alcune carestie edovizie di grano, occorse in Firenze*, Florence, Viviani, 1767.

[See G. Toniolo, *Scolastica ed umanismo nelle dottrine economiche al tempo del rinascimento in Toscana*, Pisa, Nistri, 1887.] U. R.

LÉONCE DE LAVERGNE (Louis Gabriel Léonce Guilhard de). See Lavergne, L. G. L. G. de.

LE PLAY, Pierre Guillaume Frédéric (1806-1882), though not, in many respects, to be classed among strict economists, exercised a profound influence upon economic study by the originality of his work and the strength of his following. The son of a custom-house officer, he was born at La Rivière Saint-Sauveur, a village near Honfleur, was educated at the *École Polytechnique* in Paris, where he distinguished himself in mathematics and natural science, and, on passing out of the school, entered the service of the state as a mining engineer, in which capacity he showed great energy and powers of observation. In 1832 he was appointed co-editor of the *Annales des Mines*, in 1834 head of the newly-formed permanent committee of mining statistics, and in 1840 professor of metallurgy at the school of mines. He systematically spent his long vacations in foreign travel, closely observing not only the nature of the soils and their mineral deposits, but also the peoples who dwelt upon them, and the works, especially of steel, iron, copper, etc., in which they were employed. He commenced these voyages in 1829 by a visit of seven months to Germany, Belgium, and Holland; and subsequently extended his travels to England, Spain, Denmark, Sweden and Norway, Austria, Hungary, Italy, Switzerland, Russia, and the west of Asia, returning to England, *e.g.*, as often as seven times. The early fruits of these studies are *Observations sur le mouvement commercial des principales substances minérales entre la France et les puissances étrangères, pendant les douze dernières années, et particulièrement pendant les années 1829-31* (published in the *Annales des Mines*, 1832); *Observations sur l'histoire naturelle et la richesse minérale de l'Espagne*, 8vo, 1834 (at the request of the Spanish government); *Vues générales sur la statistique, suivies d'un aperçu d'une statistique générale de la France*, 1840; and *Descriptions des procédés métallurgiques employés dans le pays de Galles pour la fabrication du cuivre, et recherches sur l'état actuel et sur l'avenir probable de la production et du commerce de ce métal*, 496 pp., 8vo, 1840. In 1851 he was sent by the government to London to report upon the cutlery and steel instruments exhibited at the great exhibition, and in 1855 was

entrusted with the arrangement and classification of products at the Paris exhibition, of which he became commissioner-general. He held the same post on behalf of France at the London exhibition of 1862, and at the French exhibition of 1867; and was created counsellor of state in 1855, and senator in 1867, in recognition of these services. After the senate fell with the empire in 1870 he did not seek to re-enter Parliament, but devoted the remaining twelve years of his life to the propagation of his views upon social peace and the reconciliation of material progress with industrial harmony. In the course of the travels already referred to, Le Play had minutely studied the lives and economic circumstances of some 300 families, considered by local authorities to be fairly typical of their class, and had noted a multitude of facts with regard to them in the hope that comparison and induction would disclose the factors upon which the well-being of families really depends. A selection of thirty-six of the most valuable and complete of these family monographs constituted his great work, *Les Ouvriers Européens* (1st edition, a luxurious folio printed at the Imprimerie Nationale, 1855; 2nd edition enlarged, 6 vols., 8vo, 1877-79). The core of each monograph is an elaborate budget of the yearly receipts and expenses of the family, each item figuring separately with its quantity and average price. Capital is also taken into account, and inventories with prices are given of every article possessed by the family, while income or consumption in kind is carefully accounted for, and every accessory portion of revenue is rigidly traced to its precise source. The budgets thus framed are the most technically exact and complete which have yet appeared, and must serve as models for all further studies of this kind. Grouped round the budget are numerous classified details which influence or explain the budget itself, such as the composition of the family in age, sex, number; history of the family; morals and hygiene; nature of employment; means of existence; mode of existence, number and nature of meals, kind of dwelling, furniture, clothing, recreation; and excursuses upon large general questions or small particular details incidentally suggested by the budget. The academy rewarded the book on its appearance with the Monthyon prize of statistics. In 1856 Le Play founded the *Société internationale des études pratiques d'Économie Sociale* to pursue these studies in different countries. The society received and has retained the support of a great number of persons, including the most eminent of French economists, and still publishes every three months a family monograph in its series *Les Ouvriers des deux mondes*. In 1881 the society commenced the publication of an economic journal, *La Réforme Sociale* (still flourishing, published fortnightly), which is read also by the two or three thousand members of the *Unions de la Paix Sociale*, or small local clubs, founded in 1872, to study and apply the methods of Le Play. The members of the *Société d'Economie Sociale* also meet periodically for discussions, banquets, etc.

The facts tabulated in the family budgets, while highly valuable, suggestive, and even inspiring, have not yet yielded any economic generalisations. On this side the study is merely objective, not inductive. The principal conclusions arrived at by Le Play himself bear rather upon the morals than the economics of industry. They are, *e.g.*, the duty of the employer to promote with paternal care (*patronage*), yet unobtrusively, the material comfort and moral well-being of his employés and their families, and not to content himself with a cash-nexus; the importance of preserving the family as a cohesive element in society, and, to this end, the advantage of free power of testation (see BEQUEST, POWER OF); the duty of the state to protect the weak and injured, and to provide, as in England, a remedy for seduction by an action for damages; the advisability of maintaining local and flexible customs rather than imposing from above general and inflexible regulations; and the advantages of perquisites and privileges as a sauce to wages. Such considerations, notwithstanding their importance, belong chiefly to the domain of the statesman rather than the economist. The careful studies of fact made and recorded by the school of Le Play, in their monographs and their journal, are of great value to economists; but Le Play himself rated theory too low to impose any dogma of theory upon his followers, and economists of varied shades of thought are thus enabled to unite among his following in spite of their divergencies of view.

The *Ouvriers Européens* was a collection of facts. *La Réforme Sociale* (2 vols., 8vo, 1864, 7th ed. 3 vols., 18mo, 1887) is the sequel of conclusions mainly moral. The other chief works of Le Play are *L'Organisation du Travail*, 1870 (an American translation by G. Emerson, Philadelphia, 1872; and a Spanish translation, 1894); *L'Organisation de la famille*, 1872; *La Constitution de l'Angleterre* (in collaboration with M. Delaire), 1875; *La constitution essentielle de l'humanité*, 1880.

Le Play had evidently no scientific training in economic theory. His grievances against Adam Smith and Malthus, for example, are largely imaginary, and would have been dispelled by personal acquaintance with their works. His ambition to achieve for social science the success which observation, classification, and comparison had rendered to natural science, can hardly be said to have been achieved; but his mineralogical knowledge, joined to natural sagacity and penetration, aid

him to throw into strong relief the influence of environment and "outside" circumstances upon the fate of industries and of individuals, while his close study of the family shows clearly the modifications which pure theory, on a hypothesis of perfectly "fluid" individuals, must admit before it corresponds to the facts of real life. His division of the stages of civilisation into three groups according as the family is patriarchal or stable (with community of goods), a *famille-souche* or family stock (with primogeniture and younger branches), or, lastly, unstable (with forced partition, as in France), belongs rather to sociology than to economics, and is not invulnerable to criticism. It was indeed partly from schism on this point, partly from other motives, that a small dissident group of Le Play's disciples has been formed, who claim to develop rather than stereotype his method. Their journal is *La Science Sociale*. The *Société d'Économie Sociale* has branches in almost all countries. The most active and vigorous is that of Belgium.

"The school of Le Play," says Professor Gide, "seeks to re-establish social peace by authority in a threefold form: that of the father in the family, the master in the factory, the church in the state, with the condition of reciprocal duties on the part of these social authorities" (*Prin. d'Écon. Pol.*, 4th ed. 1894, p. 35); and he points out that it has departed from the traditional optimism of the economists, classical and socialist, in France. This definition of their principles is not entirely accepted by Le Play's followers, who contend that devotion to social duty and moral responsibility rather than authority are the true watchwords of the school.

[See FRENCH SCHOOL; CHRISTIANITY AND ECONOMICS; (ROMAN CATHOLIC SCHOOL); article on "Le Play" by Henry Higgs, in *Harvard Quarterly Journal of Economics*, June 1890.—"Les cent monographies de famille comparées" . . . by Cheysson and Tocqué in *Bulletin de l'Institut International de Statistique*, 1893.—"Workmen's Budgets," by Henry Higgs, *Journal Royal Stat. Soc.*, June 1894.—F. Auburtin, "Le Play," in *Guillaumin's Petite Bibliothèque Economique*, 1893.—Ch. de Ribbe, *Le Play d'après sa correspondance*, 1883.—C. Jannet, in *Quatre écoles d'économie sociale*, Geneva, 1890.—P. de Rousiers, "Le Play and Social Science" (*Annals of American Academy*, 1894).] H. H.

LEPTON (modern Greek coin). Equivalent of the French centime (see CENT; CENTESIMI).

LEROUX, PIERRE (1797-1871), born and died at Paris, was a philosopher rather than a socialist. After hard but desultory studies he became a printer, and in 1824 established *Le Globe*, which periodical he devoted in 1831 to St. Simonism.

A few months after, he, with Bazard, separated himself utterly from his coreligionists, who met in the Rue Monsigny, on the occasion of the publication of Enfantin's views on, or rather against, marriage. Leroux then became chief editor of the *Revue Encyclopédique*; established in 1819 and abandoned in 1833, sixty-two volumes, two being tables. In 1838 he started, with Jean Reynaud, *L'Encyclopédie nouvelle*, a monumental work never completed through lack of funds; eight volumes only appeared, 1838-41, in small quarto.

Having been appointed a member of the constituent assembly in June 1848, he was implicated in the proceedings resulting from the attempt of 15th May against that body, but it was soon seen that he had been calumniated. He was again elected in 1849 to the legislative assembly. When the *coup d'état* of December 1851 occurred, he was exiled and lived out of France until his return at the end of the last empire. He died at Paris during the commune, and was honoured by a public funeral, being looked upon rather as the head of the socialist school than as a theosophist.

As a philosopher, Leroux opposed the ideas of the eclectic school as exemplified by Cousin and Henry Jouffroy, and substituted pantheism slightly tinged with materialism. He also believed in the transmigration of souls, a doctrine incompatible with individuality. Man is only part of a whole, proceeding thence at birth to return thither at death, and to leave it again, but on a higher level, —a progress repeated incessantly and eternally in the past and in the future. Again, with Pythagoras, he accepted the power of number. The "triad," or group of three, played an important part in the development of his philosophico-socialist ideas. Man is sensation, or sentiment, or intellect. He may be, and sometimes is, all three at once, but one of these tendencies predominates in him. The union of three individualities, one possessing sensibility (imagination), another sentiment (the heart), the third knowledge (reason), as the predominating quality is indispensable for the realisation of progress. Social harmony results from this triad, which Pierre Leroux discovers in God—as power, love, intelligence; in the family—as father, mother, and child; in the nation—city, commune, state; in the people—citizen, partner, functionary; in the motto of the French republic —Liberty, Equality, and Fraternity (perhaps author of it); in production—capital, labour, land, etc., etc. Pierre Leroux discovers it everywhere, attributing to it a secret power, recalling the astrologers of the middle ages. The reasoned proof of this pretended law must not be asked of Pierre Leroux; he takes little pains to demonstrate it—he asserts and prophesies at random. Besides this, though he never betrayed pontifical tendencies like Enfantin and Auguste Comte, he proposed to establish a religion. His socialism was entirely speculative. He neither sought to enthrall by brute force nor to inveigle people to his ideas. Thoroughly sincere in his errors, but convinced that he was right, he set forth his doctrines with warmth, with an eloquence often marred by wilful exaggerations, by intentional repetitions wearisome to the reader.

He was an ardent partisan of equality not only in public but in private life. He approved meals in common. Individuality according to him is an evil, collective action alone promotes the welfare

of humanity. The state holding the instruments of production in its own hands is to distribute work according to the capabilities of every man, to divide the results according to the necessities of every man. Property, through inequality, is the scapegoat charged with all the sins of this world. He thus reaches a collectivism and even a communism which anarchists would consider rather reactionary nowadays. However, he preserves the family and unreservedly asserts the existence of God. But he denounces Malthus and his disciples at least as vigorously as Proudhon did.

There is nothing new in the economic ideas of Pierre Leroux, except his intemperate declamations against society, embodied in a great mass of quotations generally warped from their right meaning by change of surroundings, but showing the extent of his reading, ill directed as it was. Pierre Leroux, with his great intelligence, could, by methodical and close study, have produced useful and durable works. He preferred the easier road of half-knowledge and substituted sophisms for science, thus flattering the ignorance of the masses and obtaining some popularity, though without having aimed at it.

Pierre Leroux was sincere and did not deserve the epithets of quack and mountebank which Proudhon less than any one else had the right to apply to him. He lived simply, even for a workman of his condition. His private life won the esteem of all who knew him.

Leroux wrote much ; the following are his principal works :—*De l'humanité*, 2 vols. 8vo, 1st ed. 1840, 2nd ed. 1845 (contains an article in the *Revue des deux mondes* of 15th February 1836 on "Le Bonheur").—*De l'Egalité*, 1st ed. 1838, 2nd. ed. 1848, 8vo, composed of articles which appeared in the *Encyclopédie nouvelle*.—*De la ploutocratie ou du gouvernement des riches*, 16mo, 1848, an article which appeared in 1843 in the *Revue indépendante*, a monthly republican publication established by Mme. Georges Sand in Nov. 1841, in opposition to the *Revue des deux mondes*, the monarchical periodical of that time. The *Revue indépendante* ceased to appear 24th February 1848, and forms 39 vols. 8vo).—*D'une religion nationale ou du culte*, 1844.—*Malthus et les économistes, ou y aura-t-il toujours des pauvres*, 1849 ; articles which appeared in 1846 in the *Revue Sociale*, a monthly periodical started by Pierre Leroux in October 1845, with this sub-title, *Ou solution pacifique du problème du prolétariat*. It ceased to appear in 1847.—*Discours sur la situation actuelle de la société et de l'ésprit humain ;* one vol. 8vo, in 1841, in two vols. 12mo, 1847,—a reproduction of several articles published before 1841.—*Le carrosse de M. Aguado*, a fragment, 8vo, 1848.—*Du christianisme et de son origine démocratique*, 12mo, 1848, an extract from the *Encyclopédie nouvelle*.—*Projet d'une constitution démocratique et sociale*, 8vo, 1848.—*La grève de Samarez*, a philosophic poem, Paris, 1864, unfinished, only three parts appeared. A. C. f.

LESLIE, Thomas Edward Cliffe (1825 ?-1882), was born in the county of Wexford, Ireland. The year of his birth is commonly said to have been 1827, and that date appears on his monument at Belfast; but according to the matriculation book of Trinity College, it was 1825. He was the son of an Anglican clergyman. After receiving some instruction in the classics from his father, he was sent to King William's College in the Isle of Man. In 1842 he entered the university of Dublin. It is worthy of notice that John E. Cairnes, William E. Hearn, author of *Plutology* and *The Aryan Household*, and Richard H. Walsh, afterwards professor of political economy at Dublin, and author of a work on *Metallic Currency*, were in the same class with Leslie. He obtained a scholarship in Trinity College, a distinction then to be won only by classical knowledge, and graduated as senior moderator in logics and ethics in 1847. He was called to the bar in 1848 ; but in 1853, ceasing to seek practice, became professor of political economy and jurisprudence in Queen's College, Belfast, continuing, however, to reside in London. He now devoted himself altogether to economic and social studies, and during the following years wrote many articles in different periodicals on questions of the day. He travelled on the Continent in his holidays, and studied personally the economic condition of France, Belgium, and Germany, especially of the rural population in those countries. The writings founded on these observations attracted much attention, and excited the admiration of J. S. Mill ; a good specimen of them is supplied by the essay on Auvergne. In the course of these tours he made the acquaintance of some distinguished men—amongst them, of L. de Lavergne and E. de Laveleye ; to the memory of the former of these he paid a warm tribute in an obituary notice in the *Fortnightly Review* for February 1881 ; and with the latter he continued in relations of cordial intimacy to the close of his life.

In 1870 he published *Land Systems and Industrial Economy of Ireland, England, and Continental Countries ;* and two essays of his appeared in volumes issued under the auspices of the Cobden Club, one on the *Land System of France*, 2nd ed., 1870, a defence of peasant proprietorship ; and the other on *Financial Reform*, 2nd ed., 1871, a criticism of the system of indirect taxation. In 1879 he collected a number of his scattered papers under the title of *Essays in Political and Moral Philosophy*. A second edition of this volume has appeared since his death, in which some of the essays have been omitted ; and others, written after 1879, have been included. Those who would either understand the character of his mind, or conceive aright his systematic views on political economy, must study both these volumes. He had now arrived at the fulness of his powers ; he had matured his opinions, and extended his experience and knowledge in various directions. It was natural to expect

from him something designed on a larger scale than anything he had yet produced. He was known to have been long engaged in preparing an economic and legal history of England. But the manuscript was, unfortunately, lost in some unexplained way during a tour in France, and the book was never rewritten. The article on the "History and Future of Profit" in *Fort. Review*, Nov. 1881, "is believed to have been in substance and form an extract from it." The papers he left behind contained many notes, references, and isolated passages, intended beyond doubt as materials towards this work, but nothing was found sufficiently complete or coherent to be given to the world. He had suffered for years from a painful malady, recurring at uncertain intervals, which often made intellectual exertion impossible; so that, whilst some perhaps thought he might have done more, those who knew him wondered that he was able to do so much. He sank under one of the attacks of this disease during a visit to Belfast on professorial duty.

Leslie has treated several special subjects, such as PRICES, WAGES, the DISTRIBUTION OF THE PRECIOUS METALS, and the Irish agrarian question, with great ability. But the eminent service which secures to him a permanent place in the history of social science was that of having founded the English historical school of political economy. He was the first of our fellow-countrymen to lay down and defend the philosophical principles on which the HISTORICAL METHOD rests. This he did to some extent in earlier writings; but what may be called his decisive manifesto on the subject was an essay which appeared in the Dublin university periodical, *Hermathena* (vol. iv. 1876), followed up by an article entitled "Political Economy and Sociology," in the *Fortnightly Review* for January 1879.

He has himself mentioned that the first influence which inclined him in this historical direction was that of Sir Henry Maine, whose lectures he had attended as a law student. Maine had represented existing juristic institutions as the result of a long evolution, and Leslie was thus led to apply the same method to the economic phenomena of society. At a later period he became acquainted with Roscher's *Geschichte der National-Oekonomie in Deutschland*, and gave an account of it in the *Fortnightly Review;* and he also mentions with marked commendation Knies's well-known treatise on economic method. He was, however, by no means a mere copyist of these works, but approached the whole subject from an independent point of view of his own, though well acquainted with the general line taken by Roscher and other German economists. He was also much influenced by the *Philosophie Positive* of Auguste Comte, of whose "prodigious genius" he speaks in one of his essays, though he did not accept the social polity or the religious system of that great thinker. But, after allowing for all these influences, there remain in the way in which he presents, vindicates, illustrates, and applies the method, such freshness and originality as show it to have been, in the form in which he conceived it, a genuine product of independent thought. Most of what he has left us is fragmentary, but it has a value far more than corresponding to its quantity. His labours, though they have largely modified contemporary opinion, have not yet by any means produced their entire effect, or fully received the recognition they deserve; it may be safely predicted that, with the progress of general sociology, they will be more and more highly appreciated, and he will be seen to have taken a leading part in a great work of scientific reform.

[*Encycl. Brit.*, 9th ed.—*Handw. der Staatswissenschaften.* The present article, like the two here cited, is largely founded on personal knowledge.] J. K. I.

LETROSNE (or LETRÔNE) GUILLAUME FRANÇOIS (1728-80), born at Orleans, died at Paris, began life as a writer on legal subjects and a pupil of the well-known Pothier. At first "natural rights" and the "rights of man" entirely absorbed his intellectual activity, but in 1764 he was attracted by Quesnay and became one of his followers.

Till 1777 Letrosne did not write more than articles for the *Journal de l'agriculture, du commerce, et des finances*, and pamphlets. His most important economic work is *De l'ordre social, ouvrage suivi d'un traité élémentaire sur la valeur, l'argent, la circulation, l'industrie, le commerce intérieur et extérieur*, 2 vols. 8vo, 1777. The first volume, a course of lectures on social order; the second contains a treatise with the special title "De l'interêt social par rapport à la valeur, à la circulation, à l'industrie, et au commerce intérieur et extérieur." This section is reprinted in the collection of Guillaumin (*Physiocrats*, 1846). This work is praiseworthy,—the style is more simple and clear than is usual among the physiocrats. Though Letrosne possessed the *lumen siccum*, he never attained the reputation of Mercier de la Rivière; but his book, *De l'administration provinciale et de la réforme de l'impôt*, followed by a *Dissertation sur la féodalité*, 1779, is still frequently quoted. It is a ponderous volume, scientific in tone, which, from the point of view of the financier, had the advantage of appearing four years before the work of Necker on the administration of the financial affairs of France; and from the point of view of the politician, of appearing ten years before the celebrated night of 5th August 1789. A. C. F.

Eugène Daire, in the short notice of Letrosne in the *Collection des Principaux Economistes*, remarks of tome ii. of the second section of the work mentioned above, *De l'interêt social par rapport à la valeur*, etc., "that it treats the economic questions with which it deals with a depth of view which it is impossible not to recognise."

The school of the physiocrats had complete confidence in the continuity of material progress and in its influence on the welfare of individuals. "No one can live without the aid of his fellows; the labour of others helps us; the transformations of matter, the improvements in transport; the improvements of the land, all inventions past and present, whether near or at a distance, all are useful to us."

The paragraph at the conclusion of Letrosne's book expresses these opinions with force and fulness. "I have shown in this work what is the origin of value and its influence on the revenues and the prosperity of a nation. I have marked out the functions of money, the source and the effect of circulation. I have described the nature of the results of industry and commerce, their usefulness in relation to our wants, but their absolute sterility in relation to the increase of our wealth.

"From these truths I have deduced the *unity of social interests and its conformity with the laws of justice*. . . . The philosophers . . . never cease to tell us that it is necessary to encourage cultivation. We must support industry and look on them as two sisters. Without doubt they are two sisters; but one an elder sister who supports the younger, and the elder sister has never sought for exclusive privilege nor for advantage, nor for bounty against her younger sister. Industry has to be supported, but this should not be by injuring either directly or indirectly the cultivation of the land which supports it. It is not through the leaves, it is through the roots that the tree grows; the leaves adorn it, and even contribute to its growth, but it is the roots which supply the sap which they employ."

LETTER OF ADMINISTRATION. See ADMINISTRATION, LETTERS OF.

LETTER OF ALLOTMENT. A subscriber to a new company, or to an issue of shares, bonds, or public securities, receives, in reply to his application, a letter, properly signed, in which is stated the amount, if any, allotted to him or her. It is usual, on this letter, to specify the amounts payable, and the dates on which they respectively fall due. The letter also contains a receipt for the amount already received from the subscriber.

When an issue takes place of shares of a company which are thought likely to proceed to a premium, the allotment of the shares is often very greatly sought for. Efforts are made by the applicants in many ways to obtain a share in an enterprise which may produce a considerable profit without any serious labour to the applicant, and an undesirable spirit of gambling is thus encouraged. A. E.

LETTER OF APPLICATION. When an issue of shares, bonds, or other securities is offered to the public, those who apply do so in the terms laid down and on the form provided by the PROSPECTUS (*q.v.*). The form is usually a mere request for the allotment of a specified quantity of the issue, the subscriber enclosing a cheque for the stipulated deposit—usually 5 per cent or more of the amount applied for—without which his application will not be entertained. A. E.

LETTER OF CREDIT. See CREDIT, LETTER OF.

LETTERS PATENT. See PATENTS.

LEŬ (Roumanian coin). The equivalent of the French franc (see FRANC).

LEV (Bulgarian coin). The equivalent of the French franc (see FRANC).

LEVANT COMPANY. See TURKEY COMPANY.

LEVANT DOLLAR. See DOLLAR, MARIA THERESA.

LEVANTINE THALER. See DOLLAR, MARIA THERESA.

LEVI, LEONE (1821-88), economist and statistician, born at Ancona of Jewish parents, in later life became a Christian and a devoted member of the Presbyterian Church. Trained to a commercial career, he went to Liverpool in 1844, to extend his brother's business as commission-agent and merchant. He became naturalised, and acquiring the English language, soon established a connection. After the crisis of 1847, however, the business failed, and he obtained employment in a mercantile house in Liverpool. In 1849 he advocated, in letters to the *Liverpool Albion*, the establishment of representative chambers of commerce, and of permanent tribunals of commerce, constituted of a legally-trained judge, with mercantile assessors. These letters formed the basis of two pamphlets, —*Chambers and Tribunals of Commerce, and proposed General Chamber of Commerce in Liverpool* (1849), and *The State of the Law of Arbitrament, and proposed Tribunal of Commerce* (1850). The Liverpool chamber of commerce was immediately established, with Levi as honorary secretary; similar institutions followed at Leeds, Bradford, Hull, and other centres of industry, and finally in London. As secretary to the Liverpool chamber, Levi acquired through official channels "exact information about foreign chambers of commerce, and the laws applying to commercial transactions in their respective countries." The result was a synopsis of the commercial law of Christendom which might serve as a step towards an international code of commerce. He interested the Prince Consort and other influential personages, and further expounded the scheme in lectures delivered in the chief cities and towns of the kingdom. In 1852 he wrote *Commercial Law: its Principles and Administration; or, the Mercantile Law of Great Britain compared with the Codes and Laws of Commerce of the following Mercantile Countries* (fifty-nine being enumerated), *and the Institutes of Justinian*. The publication became an international event, and gold medals and prizes were showered on the compiler. At Levi's suggestion, a congress was held in November 1852, to discuss practical measures for harmonising the laws of the three kingdoms.

As the result of a royal commission of inquiry, the Mercantile Law Amendment Acts of 1856 were passed, which removed some of the more conspicuous discrepancies between English, Scotch, and Irish law. The commission likewise examined into the expediency of introducing the principle of trading with limited liability into the law of partnership, but to Levi's disappointment reported against the proposal. In 1853 Levi gave evidence before a parliamentary committee in favour of the collection of agricultural statistics, but nothing of importance in this direction was done until thirteen years later. In 1855 he read a paper before the Law Amendment Society, *On Judicial Statistics*, and drafted a bill on the subject which Brougham introduced in the Lords but afterwards withdrew.

Levi was appointed, in 1852, to the newly-constituted chair of commercial law at King's College, London. He removed to the metropolis, and was called to the bar at Lincoln's Inn in 1859. He long and ably discharged the duties of his ill-remunerated professorship. A free-trader by conviction, and not content with arguing against protection on abstract grounds, he collected a large mass of statistics of a practical character. His communications to the meetings of the British Association, and his letters to the *Times* on commercial and financial subjects, gave him a high reputation as a statistician. He was a frequent contributor to the journals of the Statistical Society, and represented the society at foreign congresses. In 1861 he received from the university of Tübingen the degree of doctor of economical and political science. He was honorary secretary of the metric committee of the British Association, and of the international association for promoting one uniform system of weights, measures, and coins. In 1887 Levi visited Italy as a delegate from the Statistical Society to the congress of European statisticians held at Rome. He also visited his native town of Ancona, where he founded, in connection with the technical institute, a free scientific library and a lectureship on the laws of commerce in relation to science and moral international laws.

The following is a list of the most important of Levi's works:—In 1854 he published his *Manual of the Mercantile Law of Great Britain and Ireland*. In support of his views on international arbitration he published *The Law of Nature and Nations as affected by Divine Law*, 1855; *Peace the Handmaid of Commerce, with Remarks on the Eastern Crisis*, 1876; *War and its consequences, Economical, Commercial, Financial, and Moral, with Proposals for the Establishment of a Court of International Reference and Arbitration*, 1881; and *International Law, with Materials for a Code of International Law*, 1887. He also wrote *Annals of British Legislation, being a classified and Analysed Summary of Public Bills, Statutes, Accounts, and Papers, Reports of Committees and of Commissioners, and of Sessional Papers generally of the Houses of Lords and Commons, together with Accounts of Commercial Legislation, Tariffs, and Facts relating to Foreign Countries*, 1856-65. The fourteen volumes of this work were afterwards expanded into eighteen under the title of *Annals of British Legislation*, being a digest of the parliamentary blue-books to 1868.

To the condition, wages, and savings of the working classes Levi paid special attention—see reference to this in papers on Changes in Average Wages, etc., by A. L. Bowley, *Journal of Statistical Society*, June 1895. Among the reports and pamphlets which Levi wrote on those topics are *Wages and Earnings of the Working Classes, with some Facts illustrative of their Economic Condition, from Authentic and Official Sources*, in a report to Mr. Michael T. Bass, M.P., 1867. *Estimate of the amount of Taxation falling on the Working Classes of the United Kingdom*, a report to Mr. M. T. Bass, M.P., 1873. *Work and Pay, or Principles of Industrial Economy;* two courses of lectures delivered to working men in King's College, London, with the report of the committee of the British Association on combinations of labourers and capitalists, 1877. *The Economic Condition of Fishermen*, 1883, being a paper read at a conference at the International Fisheries Exhibition.—*Wages and Earnings of the Working Classes*, a Report to Sir Arthur Bass, 1885.

Levi's most important work was his *History of British Commerce and of the Economic Progress of the British Nation*, 1763-1870, published 1872, second edition 1880, with graphic tables, and a continuation down to 1878. The history embraced the researches of a lifetime, and became a standard work of acknowledged value. In addition to the above, the author published many separate lectures on economic or commercial subjects. He likewise edited treatises on the metric system of weights and measures.

[*Journal of the Royal Statistical Society*, vol. li.—*Men of the Time*, 12th ed.—*Dictionary of National Biography*, vol. xxx.; and the various works of Levi, together with an autobiographical fragment, *The Story of my Life*, privately printed in 1888.] G. B. S.

LEWIS, Sir George Cornewall (1806-1863), was an eminent scholar, author, and statesman.

In 1830, together with J. S. Mill, he attended Austin's lectures on jurisprudence at London University, and, as the first fruit of his studies in this line, there appeared, in 1832, his well-known and suggestive *Remarks on the Use and Abuse of some Political Terms*, an attempt "to illustrate the various uses of the principal terms belonging to political science," undertaken "with the view of affording to political speculation the assistance to be derived from a technical vocabulary" (p. 1).

In 1833 Lewis was appointed assistant-commissioner on the Irish Poor Inquiry Commission, and was shortly afterwards directed to make a particular inquiry into the condition of the poorer Irish resident in the United Kingdom. See his report in appendix to *First Report of Irish Poor Inquiry Commissioners* (*Parl. Papers*, 1836,

xxiv. 427-642), also his *Remarks on the Third Report of the Irish Poor Inquiry Commissioners* (London, 1837). Again in 1834 he was included in the commission to inquire into the state of church property and church affairs generally in Ireland. The facts that came to his knowledge, and the conclusions he arrived at on the Irish problem, are clearly set forth in his *Local Disturbances in Ireland and the Irish Church Question* (London, 1836), in which, *inter alia*, he advocates the introduction of an efficient workhouse system (cp. *Letters*, pp. 47-50, 83-85, 189-191). In January 1839 he succeeded his father, Sir Thomas Frankland Lewis, as one of the three principal poor-law commissioners, and held this difficult post till the commission was dissolved and reconstituted in 1847 (cp. *Letters*, pp. 102, 103, 149-151).

In 1847 Lewis entered parliament, and in Lord John Russell's first administration he held office, first as secretary to the board of control (1847-48), then as under-secretary to the home office (1848-50), and finally as financial secretary to the treasury (1850-52). While at the home office he endeavoured, though without success, to carry bills—(1) abolishing turnpike trusts and placing highways under a mixed county board; (2) amending the law of parochial assessment (*Letters*, pp. 204, 205, 220, 223). Defeated in the general election in 1852, he re-entered parliament in 1855, and shortly afterwards, on the invitation of Lord Palmerston, he reluctantly accepted office as chancellor of the exchequer. To him it fell to meet the financial drain of the Crimean war; and this, in his war budget of 1855 and his transition budget of 1856, he accomplished with a considerable measure of success. Of the total war expenditure, amounting to about seventy millions (see Buxton, *Finance and Politics*, vol. i. p. 155 n.), more than half was contributed by immediate taxation. While he borrowed, he at the same time imposed taxes sufficient, if maintained, to extinguish within a limited period the additional debt; and that this was not effected is to be ascribed mainly to the fact that his statesmanlike proposal, in his budget of 1857, to maintain taxation on a modified war footing till 1860, was only partially adopted. It was on the occasion of introducing the budget of 1857 that Lewis startled friends and opponents by protesting against the principle of simplicity in taxation advocated by Adam Smith (*Wealth of Nations*, M'Culloch's ed., pp. 397-400), and subsequently adopted with striking success as the guiding principle in the fiscal legislation of HUSKISSON, PEEL, and Gladstone. As against this he commended the doctrine of Arthur Young, that taxation should bear "lightly on an infinite number of points, heavily on none" (quoted by Northcote, *Twenty Years of Financial Policy*, p. 309). In November 1857, owing to the existence of an acute commercial crisis, the Bank Charter Act was suspended on Lewis's recommendation (see BANK NOTE; CRISES). To cover this action he obtained the passing of an Indemnity Act in the following month, and at the same time a select committee was appointed to inquire into the working of the Bank Acts.

Lewis was not a great speaker; he lacked the oratorical impulse. But he was at once a quiet, unpretentious scholar of great and varied learning, and a statesman of high principles and reliable judgment; a plain man who could not be ambiguous, and who never mixed, as BAGEHOT puts it (*Biog. Studies*, pp. 208, 209), the diagnosis with the prescription, whose character was marked by a straightforward simplicity, untiring industry, great regard for facts, and a born love of truth. His knowledge was as accurate as it was varied; his conversation itself had "the flavour of exact thought" (*ib.* p. 245). His writings, which cover a vast variety of subjects, and in most of which the influence of Austin's method and teaching is apparent, have suffered somewhat in popularity from their weight of learning. They would probably have been more influential had they been less exhaustive. Those most interesting from the economic stand-point are his works on philosophical and practical politics.

Remarks on the Use and Abuse of some Political Terms, London, 1832; new ed. with notes and appendix by Sir R. K. Wilson, Oxford, 1877.—*An Essay on the Government of Dependencies*, London, 1841; new ed. by C. P. Lucas, Oxford, 1891.—*An Essay on the Influence of Authority in Matters of Opinion*, London, 1849; 2nd ed., London, 1875.—*A Treatise on the Methods of Observation and Reasoning in Politics*, London, 1852, 2 vols. This great "organon for the use of the political inquirer" is, as its author anticipated, little read (cp. *Letters*, pp. 208, 219-220). Besides remarks on the relations between politics, ethics, and economics, it contains discussions on political terms, on the relations between history and theory, on the science, art, and practice of politics, on political induction, the province of experiment, prediction in politics, political ideals, etc., all more or less interesting to the economist (cp. Bagehot, *Biog. Studies*, pp. 238, 239).—*The Financial Statement, 1857, Speech of the Chancellor of the Exchequer in Committee of Supply*, London, 1857.—*Speech on the Introduction of the Bill for the better Government of India*, London, 1858.—*Speeches on Moving the Army Estimates in Committee of Supply in March 1862*, London, 1862.—*Letters of Sir G. C. Lewis to various Friends*, ed. by Sir Gilbert F. Lewis, London, 1870.

[Bagehot's *Biographical Studies*, ed. by R. H. Hutton, 1881, pp. 206-46, 330-33.—*Economic Studies*, 1880, pp. 58, 59, 78.—Walpole's *History of England*, 1880-86, vols. iii. iv. v.—Greville, *Memoirs*, ed. 1888, vols. vii. viii.—Sir S. H. Northcote, *Twenty Years of Financial Policy*, 1862, pp. 264-334, 343-347.—Buxton, *Finance and Politics*, 1888, vol. i. pp. 153-65.—*Dict. of Nat. Biog.*, vol. xxxiii., art. "Lewis, Sir G. C." The bibliography contains a full list of Lewis's contributions to the *Edinburgh Review*, some on economic questions.—*Encyclop. Brit.* vol. xiv.] A. B. C.

LEWIS, MATTHEW or MARK (latter part of 17th century), writer of school-books and of pamphlets describing various schemes for bringing in the millennium by the substitution of credit for money (see MURRAY, Robert). Lewis

apparently anticipated Murray by several years in the proposal to establish storehouses for dead stock on a kind of pawnbroking basis, upon which stock bills of credit were to be issued. Its worth may be estimated from the following example: "Suppose a silk man hath one thousand pounds, he buys silk with it, pawns it in the office for £800; this he lays out [on credit?] again in silk, and pawns that for £700, and so downward. By the help of these banks he lays in four or five thousand pounds' worth of commodities with one thousand pounds." By these methods all the unemployed are to be set to work, and "the running cash of the nation . . . increased it may be a hundredfold, answerable to the credit issued out." The *Proposals . . . how this Tax of £160,000*, etc., gives a brief account of a bank established by the "Signiors of Venice not many years since," by which a £100 bill of credit became worth £120 in specie. Nothing, Lewis contended, would be easier than to start such a bank at home, by raising a local land-tax and issuing credit upon it. This idea he developed in the following year in his *Large Model of a Bank*, and in a separate summary of the same: "Whoever can create such a fund that may give out such bills of exchange (or credit current) that shall be always answered with money when demanded, he doth in effect create so much money." His proposed bills are virtually cheques, drawn *not* on cash but on credit only. The one noticeable suggestion in his proposals (*Short Model*) is that by which the "precinct" in which a local branch of his bank is established is to make good all the acts of this branch in case of local loss or defalcation, a principle which bears some resemblance to the unlimited local liability basis of the German and Italian agricultural banks of the present day.

He wrote: *Proposals to Increase Trade, and to Advance His Majesties Revenue, without any hazard or charge to any body, and with apparent profit to every body*, 1677, 12mo, pp. 16.—*Proposals to the King and Parliament how this Tax of £160,000 per moneth may be raised, by a Monethly Tax for one Year, without any Charge to any particular person, and with great advantage to the whole Nation*, 1677, 8vo, pp. 7.—*Proposals to the King and Parliament, or a Large Model of a Bank; shewing how a Fund of a Bank may be made without much charge, or any hazard, that may give out Bills of Credit to a vast extent, that all Europe will accept of, rather than Mony*, etc., 1678, 8vo, pp. 42.—*A Short Model of a Bank, shewing how a Bank may be erected . . . with apparent profit to every body, except Thieves, Brokers, and Griping Usurers*, etc., n. d. 8vo, pp. 6.

[M'Culloch, *Lit. Pol. Econ.*, pp. 157-159.—H. D. Macleod, *Banking*, ch. ix.] E. D.

LEX LOCI CONTRACTUS. The law of the place in which a contract is made generally governs the rules as to its performance, unless a contrary intention appears from the facts of the case. In many cases, however, the law of the place in which the contract is to be performed (*lex loci solutionis*) must be deemed to be applicable, and, if the contract applies to real property, the law of the place in which the property is situate (*lex situs*). The formal requirements are generally determined by the law of the place where the contract is made, and the conditions as to the contractual capacity of the parties depend upon the law of their respective domiciles.

[As to the English opinions on these matters, see Westlake, *Private International Law*; as to the views of continental writers, see Von Bar, *Internationales Privatrecht*, 2 vols., 2nd ed., 1889.] E. S.

LEX MERCATORIA (see LAW MERCHANT).

LEYMARIE, ACHILLE (1812-1861), a French historian and economist.

Author of a *Histoire du Limousin*, 2 vols. (1845) and of a *Histoire des Paysans en France* (2 vols. 1856). In this work he almost exclusively deals with the legal status of the French peasantry from the Roman Conquest to the French Revolution, principally to the 17th century; their purely economic life, activities, etc., are not investigated. E. Ca.

LIABILITY, LIMITED. Trading with limited liability was sanctioned under the well-known maxim of Roman law, "Si quid universitati debetur singulis non debetur nec quod debet universitas singuli debent" (D. 3, 4, 7, § 1). The members of a corporation were not liable for the corporation debts. Corporate rights, however, were rarely granted in ancient Rome for trade purposes; Justinian's *Digest* mentions as principal instances of trading partnerships with corporate rights those "vectigalium publicarum . . . vel aurifodinarum vel argentifodinarum"; "pistorum . . . et naviculariorum" (D. 3, 4, 1 pr.). During the middle ages partnerships in which one partner was liable for a fixed sum only, known by the name of "commenda"—whence the modern "commandite,"—is derived (see COMMANDITE, SOCIÉTÉ EN), were a favourite form of association. Trading companies with many characteristics of modern limited companies appear in Italy from the 12th century downward. The most powerful of these was the Genoese "Società delle compere e dei banchi di S. Giorgio" existed 1407-1816 (see BANKS, EARLY EUROPEAN). The discoveries of the 16th century gave a fresh stimulus to corporate enterprise, and led to the formation of new companies with limited liability throughout Europe, among which the EAST INDIA COMPANY (*q.v.*) was the most prominent.

The legislation of the present century, which culminated in the English Companies' Act 1862, made it possible to obtain corporate rights by mere registration and without the necessity of a Royal Charter or special Act. This led to an enormous expansion of limited liability enterprise in this country (as to the economical effects

of this expansion, see COMPANIES, INCREASE OF). The bulk of this enterprise is no doubt carried on by companies in the usual sense of the word, but limited liability has also penetrated into private partnerships (see PARTNERSHIP).

[Salkowski, *Inst. des Röm, Privatr.*—Goldschmidt, *Universalgesch. des H. R.*—Silberschmidt, *Die Commenda.*—Primker, *Die Aktiengesellschaft* in Endemann's *Handbuch*, vol. i.—Lindley, *Company Law.*] E. S.

LIABILITIES ON SHARES. The liabilities on shares in companies vary according to the nature of the company and the special circumstances under which the shares are held. In companies with unlimited liability each shareholder is, in case of a winding up, liable to contribute without limit; in companies incorporated by charter the liability is determined by the terms of the charter, in many cases each shareholder in the event of a winding up is liable to contribute a sum equal to the amount of his holding in addition to the amounts, if any, remaining unpaid on his own shares. In companies limited by shares a shareholder who has paid up the nominal amount of his holding in cash is not liable for any further amount, unless the company issues bank-notes, in which case the shareholders are liable in the same way as if the company were registered as an unlimited company (see Companies Act 1879, § 6). This rule is of practical importance in the case of companies registered in England, but having branch establishments in foreign countries. If the shares are not fully paid the shareholders are liable for the amounts remaining unpaid; and in the case of a winding up former shareholders are also liable, unless they have ceased to be shareholders for more than a year before the announcement of the winding up; but their liability is restricted to debts incurred during the time of their membership, and they cannot be called upon for any contribution, unless the amount recoverable from the existing shareholders is insufficient to meet the debts owing by the company.

The Companies' Act of 1879, which was passed in order to enable unlimited companies to adopt limited liability—the failure of the City of Glasgow Bank and the consequent ruin of many of its shareholders having caused much misgiving among shareholders in banks generally—has introduced the principle of "reserve liability," viz. a liability which can be enforced in the case of a winding up only. Many of the large joint-stock banks had been established with unlimited liability, and had thereby been enabled to trade with a comparatively small capital. The act of 1879 enabled them to register as limited companies, and to increase their capital, on condition that the increased capital was not to be called up, except for the purpose of a winding up. This facility has been made use of to a very large extent, and the credit of the companies in question has, if anything, improved, as it has been generally thought that many wealthy and careful capitalists who had refused to subject themselves to an unlimited risk, do not object to a definite though considerable liability and become shareholders in the re-constructed banks. Reserve liability may also be introduced by any limited company in respect of any part of its uncalled capital (Companies Act 1879, § 5). Mr. Justice Vaughan Williams in his appendix to the report of the Board of Trade Committee, on Company Law Reform, recommends that a compulsory reserve of this nature should in future be attached to uncalled capital generally (see Report, c. 7779, p. xxiii.)

The original allottee and any subsequent holder with notice of shares credited as fully paid, in consideration of property transferred to a company, is liable to pay up the full amount unless an agreement relating to the issue of such shares was at the time registered at the registry of joint-stock companies (Companies Act 1867, § 25). Persons selling property to companies in exchange for fully paid up shares are frequently not aware of this rule, which in this way causes some hardship, but is on the whole useful.

[Lindley, *On Companies*, 6th ed. 1902.—Buckley, *On the Companies Acts*, 8th ed. 1902. Palmer's *Company Law*, 5th ed. 1905.] E. S.

LI. See CASH.

LIARD. A copper coin worth three DENIERS or the quarter of a SOU. It was first coined under Louis XI. The most probable derivation of the word, which is very uncertain, is from the name of a family in Dauphiné, where it was first used. The liard continued to be a coin in ordinary circulation till the time of Louis Philippe. R. L.

LIBER HOMO. A man who is personally free, as opposed to *servus*, a slave, and also, though in a far less marked way, to *villanus*, as is exemplified by the Domesday entry: *liber homo . . . qui modo effectus est unus de villanis.* The laws of Ina draw a wide distinction between the free man and the *theow*, fixing no wergild for the slaying of the latter. In Domesday the expression *liber homo* is very comprehensive, covering even tenants *in capite*, and in one instance a thegn is strangely recorded as *liber homo teinnus*. Geographically, however, the survey limits the class in a singular way to three of the Danish counties, for 9935 out of the total of 10,097 *liberi homines* are concentrated in Norfolk, Suffolk, and Essex, as are also, with practically no exception, the 2041 *liberi homines commendati*, freemen voluntarily placing themselves under the protection of powerful barons and paying for the privilege. The unfree classes in the survey, the *servi*, *bordarii*, *coscets*, and *cotarii*, and the *villani*, who represent the ceorls in a more or less degraded form and have as a body only a qualified sort of freedom, amount to 222,485. Various unsatisfactory theories have been started to account for the

practical absence of *liberi homines* from thirty-one of the English counties; but it is at least a curious coincidence that the bulk of them appear in the second volume of Domesday, which includes only Norfolk, Suffolk, and Essex, and is a digest of the original returns made on a slightly different plan from the first volume. Vinogradoff (p. 132), remarks that the conquest had cast free and unfree peasantry together into the one mould of villenage, while Bishop Stubbs adds that the Norman knight practically declined to recognise the minute distinctions of Anglo-Saxon dependence, and it is very probable that those who summarised the original returns for the first volume of the survey may have interpreted their instructions in a way adverse to claims of freedom. For further facts bearing upon this point, see LIBERE TENENTES.

A *liber homo* in possession of land was not bound to be in a tithing; his wergild was usually 200s.; his ordeal was by hot iron; but on the other hand he sometimes paid MERCHET. If he held land in villenage his status was not affected — indeed there are cases in Domesday of knights who so held — but he could have no action at law against the lord for recovering or defending an unfree holding. Sir H. Ellis shows that the vavassors who appear in the Suffolk part of the survey were reckoned in among the *liberi homines*, and the class certainly holds the inferior thegns and the allodial tenants. It was of course recruited by manumissions, intentional and otherwise, for the *nativus* of Norman times, as Bishop Stubbs remarks, who could obtain admission into a merchant-gild in a town, and was unclaimed by his lord for a year and a day, became a freeman. The church favoured the liberation of the peasantry, and manorial usages caused the growth of a class of customary tenants, predecessors of the copyholders of a later day, who crept by degrees into the position of freemen, the process being favoured by the tendency to commute labour services for fixed rents. Free land—land, that is, which provided rent not labour—was a continuous influence favouring an alteration in the personal status of its holders.

The gradual rise of the peasantry to the absolutely free condition they reached in the days of Elizabeth and James I. is ably sketched in Hallam's *Middle Ages*, c. viii. pt. 3.

[Ellis, *Introd. to Domesday*, i. 54, 55; ii. 488. —Kelham, *Domesday Book illustrated*, 1787.— Stubbs, *Constit. Hist.*, i. 417, 428.—Vinogradoff, *Villainage in England*, 1892.—Seebohm, *English Village Community*.] R. H.

LIBERE TENENTES. Free tenants or holders of portions of demesne land scattered over the open fields of a manor among the acres held in villenage. The expression *libere tenens* denotes primarily economic condition, a free tenure mainly by fixed money payment as opposed to the tenure of the *villanus*, which comprised base services—that is week-work, tallage often of uncertain amount, the payment of MERCHET and fines on sales of cattle; but a *libere tenens* was generally also a LIBER HOMO (*q.v.*), and was thus usually opposed in status to the unfree *nativus* or *rusticus*, who in his economic aspect was termed *villanus*. Between these two classes there were grades of peasantry, *free socmen*, *molmen*, and *censuarii*, who seem to have been more or less free in status. The difficulty of classification is further increased by the fact that villeins sometimes held free land, and by cases in which *libere tenentes*, as in the Ely survey of 1277, paid merchet and tallage, and attended boon-works with their labourers. On the other hand, the *Extenta Manerii* of 4 Edw. I. in the *Statutes of the Realm*, only recognises *libere* or *liberi tenentes*, *custumarii*, and *cotters*.

There is only a doubtful trace of the term in Domesday (Kelham, p. 255, *libere tenuerunt*), but there are some *liberi tenentes* on a manor in the fragment of a Domesday of St. Paul's. There were none on this manor at the time of the great survey, though there were then twenty-four *villani*. In 1181 there were eighteen *libere tenentes*, and in 1222 there were thirty-four.

In the lists of manorial tenants in the more complete of the returns called the HUNDRED ROLLS, about 1279, the *libere tenentes* emerge as a large class clearly divided from *villani*, though the same man is sometimes seen to be included in the list of tenants in villenage, and in the roll of freeholders. That this did not affect his free status is, however, apparent from records as well as from Bracton's statement that the fact of holding a villein tenement does not make a free man a villein.

The directions in the *Extenta Manerii* for taking the extents of manors are virtually the same as those in *Fleta*, which prescribe an inquiry *de libere tenentibus*; how many of them are within and without the manor; the nature and tenure of their lands, whether by socage, military service, fee-farm, etc.; which hold by charter; what rents they pay; whether they do suit at the lord's court; and what accrues to the lord at their death. These heads of inquiry render evident the legal position of the *libere tenentes*.

As regards economic position, the contrast is between the *libere tenens* and the *villanus*, the free man on land which chiefly pays rent, and the man more or less unfree on land which provides labour.

[Bracton, i. p. 192, Rolls ed.—*Fleta*, ii. c. 71. —*Rotuli Hundredorum*, Record Commission.— Ellis, *Introduction to Domesday*, i. pp. 63-66, 237 n.—Seebohm, *English Village Community*, 1884, pp. 33, 54, 86-89.—F. W. Maitland, *Select Pleas in Manorial Courts*, pp. 60-73.—Vinogradoff, *Villainage in England*, 1892, pp. 202, 203, 443.] R. H.

LIBERTUS, a freedman, *i.e.* a person who

has been manumitted from the legal state of slavery. A master who manumitted a slave became the *patronus* of his freedman, and had, as such, certain rights in respect of him and his property. Freedmen were subject to some legal incapacities.

[Smith, *Dict. of Antiquities.* (*Jus trium liberorum et Lex J. P. Poppæa.*)] E. A. W.

LICENSES FOR SALE OF GOODS, ETC. See TAXATION.

LICENSES, HISTORY OF. Licenses played a large part in the financial system of the English monarchy. From the 14th to the 16th centuries there was no department of civil life in which a dispensation from obligations, whether of customary or statute law, could not be obtained by the purchase of a license. Some of these were issued upon the theory that the subject matter was within the prerogative of the king as king (see the statute *De Prerogativa Regis*, in "Statutes of the Realm," i. 226). Such were those exempting from customs dues, the control of the ports being part of the royal functions. Others, such as licenses to enfeoff, not uncommon in early times, were granted by the king as feudal over-lord. The Rolls of Parliament exhibit their astonishing variety. As to land, licenses were granted for mortmain, for cutting wood by the lord of a manor within a royal chase, for dealing with reversions of land held in chief of the king, for enclosing and fortifying towns, for enclosing cemeteries, for alienating lands held of the king, for building castles, for enclosing parks or woods, for constructing conduits, and for founding chantries or religious houses. If a grant were made of a market or fair, the right could not be transferred by the grantee without the king's license. In this matter the system was adopted by the grantees themselves; no merchant, for example, being allowed to trade at the fair at Winchester without a license from the bishop. Wardships being within the prerogative, marriage of a ward of the king without license was an offence. A license was requisite to enable lords or commons to leave parliament; to send the precious metals out of the kingdom; to transact business by bills of exchange; to leave the realm; to carry arms in Wales, or cross-bows and guns in England. But those licenses which were the most profitable, and which occasioned incessant disputes, were licenses remitting customs, and those permitting export or import contrary to the tenor of statutes or of proclamation.

The principal licenses for export were those granted to wool merchants. With the exception of north-country wools, the entire export was directed by statute to the staple of Calais (see STAPLE). The object of this was to provide, by the duties levied at the staple, for the maintenance of the garrison, the mint, the fortifications, and the civil administration of Calais and its dependencies. But it was frequently worth the while of merchants to pay a high price to the king on condition of being allowed to export staple goods elsewhere than to the staple; for the staplers, straining their opportunities as monopolists, were accustomed to extort so high a price for wools as to leave a large profit to an exporting merchant whose goods had only been subject to the cost of the license to avoid their exactions. To the king the transaction furnished the advantage of ready money and independence of parliamentary control; while the nation in the long run had to supply the deficit created in the resources of Calais. These licenses were, therefore, repeatedly declared illegal by parliament, but persisted in by successive sovereigns. Other licenses of a similar character were those for the export of sheep and horses, of corn, cheese, and butter, when these were restrained either by statute or by proclamation. A comparison of the licenses granted for the import of wine, during the reign of Henry VIII., seems to point to the conclusion that the grants were regulated, not by the price of wine, but by the fluctuations in the revenue. The *Domestic State Papers* confirm this view, for the recipients were frequently officials of the royal household or tradesmen who had supplied goods to the king, and who were by this means satisfied of their debt.

While from the point of view of the modern constitutionalist, licenses of exemption from statutes were clearly illegal where those statutes expressly prohibited them, the contrary was held by the subservient judges of Henry VII. The growing independence of the Commons in time suppressed the system, but the question of the dispensing power and of its limits was not finally settled till the revolution of 1688 (see TAXATION). I. S. L.

LICENSES (Continental war). One of the clearest rules of International Law is that war puts an end to all commercial intercourse between the subjects of the belligerent states. Moreover the commerce of neutrals with the powers at war is subject to many restraints. But it is within the competence of either of the hostile governments to remove or suspend any of the restrictions imposed upon commerce by the laws of war; and when this is done, the relaxation takes the form of *licenses to trade.* Such licenses are *express* or *implied.* The latter, as being of comparatively slight importance, may be dismissed in a few words. An *implied license* to trade is given when the commander of a force in the enemy's country issues a proclamation inviting the inhabitants to bring provisions and other commodities into his camp for sale. *Express licenses* are either *general* or *special.* The former occur when permission is granted to whole classes of people to trade in particular articles or at particular places; the latter are granted to particular firms and individuals, and authorise them to

carry on a commerce described in the documents they receive and limited by the conditions expressed therein. The best example of a general license on a large scale is found in the permission granted to British subjects at the beginning of the Crimean war, by Order in Council of 15th April 1854, to trade with all unblockaded Russian ports in articles not contraband of war (see Halleck, *International Law*, Baker's ed., ii. 156 note). The Emperor Napoleon III. gave similar permission to French subjects, and the Russian government allowed free ingress to English and French goods, the property of English or French citizens, if brought in neutral vessels. These grants made such inroads on the ordinary rule of non-intercourse that no special licenses were required during the war; and so strong have commercial interests become during the present century, that in all probability similar permissions will be issued at the beginning of future wars between great trading nations, unless indeed private property at sea, not being contraband or destined for a blockaded port, is exempt altogether from belligerent capture, as it was in the war of 1866, between Austria on the one side and Prussia and Italy on the other. Considerations such as these make an examination of the law of special licenses less important now than it would have been at the beginning of the present century. And it must be noted that the practically universal adoption of the rule that the neutral flag covers enemies' goods, unless they are contraband of war, has operated as a general permission to all neutrals to engage in many kinds of trade that were forbidden them by the older practice of nations. Thus the importance of licenses has been still further diminished. Nevertheless they played so prominent a part in the great continental war with revolutionary and imperial France, that it is necessary to describe both the circumstances which led to their issue in enormous numbers, and the rules of law with regard to them which were enforced by the prize courts of the period, and are still referred to as authoritative in treatises on international law (see DECLARATION OF PARIS).

The prohibitions and restraints by which both England and France endeavoured to injure one another through interference with the commerce of neutrals, culminated in the Milan and Berlin Decrees of Napoleon I., and the retaliatory British ORDERS IN COUNCIL. The net result of these deplorable measures was that from the close of the year 1807 each of the two powers claimed the right to confiscate all ships, with some exceptions in favour of neutrals, that traded with the ports of the other or its allies. In addition Great Britain denounced the penalty of seizure and condemnation against vessels which carried a French *certificate of origin*, in testimony that their cargoes did not consist of British goods, and France declared that she would regard as good prize any vessel which touched at any English port, paid any tax to the English government, or submitted to the search of an English cruiser. These maritime measures were backed up on land by the CONTINENTAL SYSTEM (*q.v.*), which Napoleon developed out of the theories and tentative efforts of the Jacobinical leaders. He believed that it was possible to ruin England by excluding her manufactured goods and colonial produce from the continent of Europe. Wherever the arms or the diplomacy of France prevailed, the ports were closed against British commerce, and British goods found within the territory were destroyed. An enormous rise in the price of such commodities was the result, and a vast system of smuggling immediately arose. The attempt to put it down by espionage and military violence had no little effect in rousing the most apathetic populations to resist French domination. Bourrienne describes in his *Memoirs* how the possession of a little sugar from an English West-India island was held to be a crime of the deepest dye, and punished with terrible severity. But British colonial produce and British manufactured goods found their way into the continent of Europe in spite of all that French officers could do under the strictest rules of military occupation. Hamburgh became a centre of a contraband trade with northern Germany, and Bourrienne gives an amusing account of some of the devices which were discovered and stopped. On one occasion an extraordinary increase in the number of funerals attracted attention, and on the hearses being searched they were found to be full of English sugar. Yet so impossible was it to do without supplies which could come only from English sources or through English commerce, that Napoleon's generals were sometimes obliged to trade surreptitiously with England in order to meet the needs of the forces under their command. Great Britain, too, felt the consequences of the dislocation of trade caused by the violence of the belligerents, though she did not suffer to the same extent as her adversaries. The parliamentary debates of the period are full of the complaints of harassed interests and ruined merchants. On both sides circumstances were too strong for rulers. They were compelled to mitigate the severity of their restrictions by the grant of licenses to trade. These were issued in enormous numbers, chiefly to their own subjects, but sometimes to neutrals. The prize courts of the belligerent powers were constantly employed in deciding cases connected with them; and thus an elaborate law of licenses grew up. It will not be necessary to do more than give its main outlines, because in all probability much of its detail will never be wanted again.

The grant of a license is an act of sovereignty, and must therefore emanate from the central authority of the state, the law of each country deciding what department of its government has the right to issue such permissions. The only exception to this rule is to be found in the right possessed by all military or naval commanders, and all governors of occupied places, to give licenses to trade within the limits of their own commands. A state may, however, accept and ratify licenses given by subordinate authorities, in which case they acquire, by the fact of recognition, the validity they did not possess in their own nature. Licenses may be granted to enemies, to neutrals, or to subjects. Their effect is to remove all personal disabilities due to the war, in so far as such removal is necessary for the due conduct of the trade allowed by the license. Thus an enemy subject may sue and be sued in the courts of the country in respect of all matters connected with the transactions for which permission has been given, though the rules of International Law allow the subjects of one belligerent no standing in the courts of the other. But it must be noted that the possession of a license from one belligerent affords no protection against the warlike force of the other. Unless he, too, has allowed the trade in question, he may consider the possession of a permit from his enemy as in itself ground for capture and condemnation. The trade must be conducted according to the terms of the license reasonably and equitably construed. A small excess in the quantity of the goods allowed will not vitiate the license, but a material change in their quality will cause the forfeiture of vessel and cargo. A license cannot be transferred unless it is made negotiable by express words; but it may be used by the agent of those on whose behalf it was granted, provided that he is named in its clauses. The employment of two or more small vessels instead of one large one will be allowed, but the use of an enemy ship instead of a neutral ship will be regarded as fatal. A license to send goods to a particular port covers the return voyage in ballast, and will even protect both ship and cargo if it was impossible to deliver the goods at the destination named. Stress of weather and other unavoidable causes will excuse delay in the termination of a voyage, but it must always be commenced at the time stated in the license.

[The literature of this subject is very voluminous. C. Robinson's *Admiralty Reports* give many of the British cases, and others will be found in the *Admiralty Reports* of Dodson and Edwards. Hautefeuille discusses licenses in the continental war from an ultra-French point of view, in his *Droits et Devoirs des Nations Neutres, Discours Préliminaire.* A vigorous presentation of an English view, almost equally biassed, will be found in the famous work, *War in Disguise, or the Frauds of the Neutral Flags.* The law of the matter is summarised in Halleck's *International Law*, ch. xxx.; Wheaton's *International Law* (Dana's ed.), §§ 408-410, and note 198; Hall's *International Law*, § 196; Lawrence's *International Law*, § 235. An article by Rose in the *Historical Review* for October 1893, on "Napoleon and English Commerce," gives a clear and concise account of the continental system and its results.]

T. J. L.

LIEN (derived from the French word *lien* [Lat. *ligamen*] = tie) is the right to retain goods until payment of a debt due by the owner of the goods. It differs from a right of pawn or pledge inasmuch as it does not give a power of sale to the person retaining the goods. By the common law every one has a lien on articles delivered to him to work on for the amount of the value of such work. This is called a specific lien. Other liens are created by special agreement or usage of trade; these as a rule are general liens, that is to say, they authorise the detention of goods in respect of debts not specifically incurred in relation to the goods. Bankers', brokers', and innkeepers' liens belong to this category.

[Smith, *Mercantile Law*, 11th ed. 1905.—Coote, *On Mortgages*, 7th ed. 1904.] E. S.

LIFE INSURANCE. See INSURANCE.

LIFE TABLES. See INSURANCE.

LIGHT GOLD AND SILVER COIN, WITHDRAWAL OF, FROM CIRCULATION IN THE UNITED KINGDOM AND COLONIES.

United Kingdom.—Gold Coin. From 1816, when the present gold currency was introduced, until 1842, the law of the United Kingdom as to withdrawing light gold coin from circulation required every person receiving a sovereign below the least current weight (122·5 grs.) to cut and return it to the tenderer, the latter having no alternative but to suffer whatever loss the deficiency in the weight involved. This law remained practically inoperative. To carry it out would have required every person receiving either a sovereign or half-sovereign to possess a delicate balance with which to test the weight of the coin. The Bank of England and some Government Offices were the only places where the law was not ignored; great care, therefore, was taken by the public to prevent light gold coins from falling into the hands of the only institutions where it was liable to be cut. Full-weight pieces were also carefully selected for export and for melting for industrial purposes. Hence the gold currency became more and more exclusively composed of worn pieces.

On 8th June 1842 a Treasury minute was issued directing that a letter should be addressed to the Bank of England, "requesting them to give public notice of their readiness to receive gold coin not being of the weight at which such coin is authorised by law to be current, at the rate of £3 : 17 : 10½ per ounce, and to transmit the same, when received, to the Mint, for recoinage." From this date till 14th March 1845, a considerable recoinage of light gold coin was undertaken by the Mint, the coin received from

the Bank of England being of 2,860,282 ozs. in weight, and £11,137,223 in value.

During this recoinage the law that the loss arising from the lightness of the coins was chargeable to the last holder was strictly enforced. Much inconvenience was caused to the public by the endeavours of shopkeepers and others, who had to pay gold coin into their banking accounts in the ordinary course of business, to transfer this loss from their own to their customers' shoulders. Persons with no accurate means of testing the weight of a coin would calculate its value in some rough way, and decline to receive the same, except at a reduction of 6d. or even 1s. from its nominal value, though the actual deficiency in weight did not perhaps justify a deduction of more than half the amount thus estimated.

From 1845 to 1870 the Bank of England received light gold coin from the public at £3 : 17 : 6½ per oz., the deduction of 4d. from the "Mint price" being made to cover the expense of the assay, of melting the coin into bars, and of sending these to the Mint. The mint at that time declined to receive gold for coinage except in bars.

On 1st August 1870 the regulations of the Mint were altered so as to permit it to receive light gold coins, in parcels of not less than £100, for recoinage. The same *weight* of gold was returned to the importer, coined at the rate of £3 : 17 : 10½ per ounce, *free of charge*. The bank, being thus relieved from the necessity of melting worn coin into bars, raised its price for the coins to £3 : 17 : 9 per ounce, or only 1½d. less than the Mint price. The Mint required the importer of light gold coin to give two days' notice, and to wait an indefinite time for the coin to be re-struck and returned. On the other hand the Bank of England paid for the coin on its receipt, and the public, in practice, found it more profitable to accept at once the Bank's slightly lower price, than to incur the uncertainty connected with dealing directly with the Mint. This system remained in force from 1870 to 1889, during which time £21,421,697 in light gold coin was recoined at the Mint, the whole being received through the Bank of England.

In 1889 an Act of Parliament was passed directing the withdrawal of all gold coins issued before the present reign, at the expense of the State (see DEMONETISATION). This was the first time Parliament recognised the duty of the State to relieve the last holder of a light gold coin from the cost of defraying the loss on its withdrawal. This principle was re-affirmed by the Coinage Act, 1891 (54 & 55 Vict. c. 72), which provides that all light gold coins except those fraudulently dealt with shall be exchanged at full nominal value. Section 1 (sub-sect. 3) defines a greater deficiency in weight than three grains per piece as *primâ facie* evidence of illegal treatment.

By 31st December 1904, when this act had been in operation for about thirteen years, a very considerable improvement had been effected in the gold currency circulating in the United Kingdom, which, generally speaking, had been placed in a satisfactory condition. The following amounts of light sovereigns and half-sovereigns had been withdrawn from circulation :—

To 31st December 1904.	Amount withdrawn.	Loss through deficiency of weight.
Sovereigns .	£28,018,000	£290,927
Half-sovereigns	19,082,000	379,037
	£47,100,000	£669,964

Sterling-using Colonies.—Gold Coin. In Cape Colony, Natal, and Fiji, colonies in which the Coinage Act 1870 is in force, the law is the same as in the United Kingdom. No special arrangements exist in the remaining sterling-using colonies for the renewal of the gold coinage. In 1890, however, when pre-Victorian gold coins were demonetised, the Australian branches of the Mint were authorised to exchange such pieces at full nominal value, and there can be little doubt that a similar arrangement would be made in the event of the re-coinage of gold which is now in progress being brought to a close. For the present, it is open to colonists to export light gold coin to this country, for presentation at the Bank of England for exchange.

United Kingdom.—Silver Coin. The silver currency of the United Kingdom consists of token-coins, on the issue of which a profit accrues to the State. On the withdrawal of these coins, therefore, a loss is necessarily incurred. In England and Wales new silver coin is issued to the public, and worn silver coin withdrawn from circulation through the medium of the Bank of England. The Bank of Scotland and the Bank of Ireland perform the same service in Scotland and Ireland respectively.

Sterling-using Colonies.—Silver Coin. Worn silver coin circulating in colonies is collected by the Colonial Governments and shipped to London for exchange at its full nominal value. In addition to the loss on its recoinage, the Home Government bears the expense of the freight of such coin from the various colonies to London.

Loss on withdrawal of worn Silver Coin. The total amount of worn silver coin, from both the United Kingdom and the Colonies, exchanged at the Royal Mint at its full nominal value, the loss on which has been defrayed by the British government, has, from 1861 to 1904 inclusive, been as follows :—

	Worn silver coin.	Loss.
1861-70	£1,131,900	£156,110
1871-80	2,580,090	314,124
1881-90	2,653,522	324,866
1891-1900	3,300,962	337,634
1901	243,075	18,748
1902	409,536	40,179
1903	276,829	23,779
1904	638,857	61,083

Colonies in which sterling currency is not used bear the loss which arises from the wear of the coins in circulation, but at the same time, whatever seignorage accrues on the issue of the

subsidiary pieces is an addition to the colonial revenue.

The imperial bronze coinage, first issued in 1860, is as yet subject to no conditions as to withdrawal from circulation when worn.

[See *Annual Reports of the Deputy Master of the Mint.*] F. E. A.

LIMIT OF CREDIT. See CREDIT.

LIMITATION, STATUTES OF. "Time is a power the influence of which the human mind cannot resist; what has existed for a long time seems fixed and unchangeable, for the very reason that it has existed so long; it would be a public evil if this belief were allowed to result in disappointment" (Windscheid, *Pandekten*, i. § 101). The principle thus stated by one of the most eminent modern writers on law has been recognised in all countries and at all times. The lapse of time in all legal systems creates rights and extinguishes rights, or at least the power to enforce them. In the earlier Roman law *usucapio*, the acquisition of property by long enjoyment, was distinguished from *praescriptio*, the barring of the remedy for the enforcement of a right in consequence of lapse of time; but the two principles gradually became merged together, though in some systems of law they are still distinguished by different names (*e.g. Ersitzung* and *Verjährung* in German). In England the object of law, as established by the Statutes of Limitations, is not so much to create possessory titles—although this result in most cases is obtained incidentally—as to bar the remedy of persons who, through ignorance or neglect, have failed to exercise their rights for a considerable period. The length of the period depends on the subject matter of the right. The right to recover chattels, rights arising under simple contracts, and rights to claim damages for wrongful actions, are, as a general rule, all barred after the lapse of six years, but damages for assault and other similar torts cannot be recovered after the lapse of four years, and a person slandered by spoken words loses his remedy if he allows two years to elapse without making use of his remedy. Time does not run against infants or lunatics; they may respectively bring their actions within six years after attaining full age or recovering their sanity; absence beyond seas on the part of the plaintiff is no longer a ground for depriving a defendant of his right to rely on the statute, but if the defendant is absent from the United Kingdom the operation of the statute is interrupted. A written acknowledgment of a debt or any payment of principal or interest from which the existence of the debt can be clearly inferred is also sufficient to prevent it from becoming barred (21 Jac. I. c. 16; 19 & 20 Vict. c. 97, §§ 9-15; 4 & 5 Anne, c. 16).

Rights arising under sealed contracts are not barred before the expiration of twenty years, and with respect to these rights there are rules, similar to those mentioned above, as to the interruption of the operation of the statute by acknowledgment or by the fact that the creditor is an infant or a lunatic (3 & 4 Will. IV. c. 42).

The right to recover land must be exercised within twelve years from the time that the right accrues, unless the person entitled is under the disability of infancy or insanity; but even in the event of disability the lapse of thirty years is sufficient to take away the right to recover. It should, however, be pointed out that, even irrespectively of the possibility of disability, a person having been in possession of land for a period exceeding twelve years is not thereby made secure against interruption. If, for instance, a person having a life interest in land purports to sell the fee simple, the purchaser and any subsequent purchaser may be ejected within six years from the time at which the person entitled after the expiration of the life interest becomes entitled in possession. Thus, if the tenant for life is twenty-one at the time of his fraudulent sale, and dies at the age of ninety-one, seventy-five years of undisturbed possession may not suffice to prevent an ejectment (3 & 4 Will. IV. c. 27; 37 & 38 Vict. c. 57).

The statutes of limitation are not applicable to equitable rights, excepting equitable interests in land, but the courts of equity have, except in the cases of trust and fraud, adopted rules analogous to those of the statutes in question. As regards trusts, the former law was that no lapse of time prevented beneficiaries from recovering damages against trustees for breaches of trust,—however innocent, *e.g.* unauthorised investments; but since 1888 trustees, unless they have been guilty of fraud, or appropriated trust property for their own benefit, are entitled to plead lapse of time (Trustee Act, 1888, § 8), and directors of companies, who were formerly held to come under the same rules as trustees in respect of the statutes of limitation, are entitled, as well as trustees proper, to avail themselves of the benefit of this innovation (*re* Land Allotment Company [1894] 1 Chancery 616). There are special rules as to the limitation of proceedings directed against the crown, and of penal actions to which it is unnecessary to refer in detail.

Speaking generally, the statutes of limitation bar the remedy but do not destroy the right, but as regards real property the effect of the lapse of time is a divesting of title or a transference of title to somebody else (see Dawkins *v.* Lord Penrhyn, 4 Appeal Cases, 51).

[Darby and Bosanquet, *Statutes of Limitation*, 2nd edition, 1899.] E. S.

LIMITED COMPANIES. See JOINT-STOCK COMPANIES.

LIMITED LIABILITY ACTS. See LIABILITY, LIMITED.

LINGUET, SIMON NICOLAS HENRI (1736-

1794), a clever French barrister, historian, and journalist, threw himself into the midst of the political and philosophical controversies of his time, under the impulse of an innate and quarrelsome love of contradiction. Although he took good care to remain quiet during the Reign of Terror, he perished on the scaffold.

Linguet assailed the Physiocrats in his *Réponse aux docteurs modernes . . . avec la réfutation du système des philosophes économistes* (London, 1771). In his pamphlet on bread and corn, *Du Pain et du Blé*, London, 1774, reprinted in 1789 under the title *Du Commerce des Grains, édition augmentée d'une Lettre sur le mérite politique et physique du pain et du blé* (On the corn trade, with a letter on the physical and political properties of bread and corn) he wages war against the consumption of bread, which he calls a slow poison. He was also opposed to the cultivation of potatoes, which might acquire the fearful qualities of corn.

His following works may also be mentioned: *Annales politiques, civiles et littéraires du XVIIIe Siècle*, London, 1777-1792, xix. vols.—*La Dîme Royale avec des réflexions sur la contrebande*, 1764, reprinted under the title of *L'Impôt territorial*, 1787.—*Traité des Canaux navigables*, 1769.—*Réflexions des Six Corps de la Ville de Paris sur la suppression des Jurandes*, 1776 (Reflections of the Six Parisian Corporations on the Abolition of Crafts).

[Cruppi, *Un Avocat-journaliste au XVIIIe Siècle, Linguet*, Paris, 1895.] E. Ca.

The attack on Montesquieu made by Linguet in *La Théorie des lois civiles* (1767), provoked a reply from the abbé Morellet in *La Théorie du paradoxe*, which Linguet, always prepared for controversy, answered in *La Théorie du libelle, ou l'art de calomnier avec fruit*.

LIPS, Alexander (1779-1838), was a professor of political and economic sciences in the university of Marburg, who at the same time superintended the management of his own estate of Marlofstein, where he founded an agricultural school.

Professor Roscher calls him a queer fellow (*ein wunderlicher Kauz*) and in fact, the proposal brought forward in his *Universal Peace* (*der allgemeine Friede*), 1814, to abolish the hitherto military foundation of nobility, and to give it a basis purely according to population, is rather startling; the titles to be conferred were to be in strict proportion to the number of people sustained by each new nobleman. Lips is thus one of the last representatives of the *populationistic* school, which was so powerful in Germany in pre-Malthusian days.

Lips was most active in insisting on the necessity of spreading agricultural education, of breaking up entails, and of abandoning fallows and the three-field system for intensive modes of cultivation and the breeding of cattle.

But his attention was not monopolised by the improvement of cultivation, and although favourable to free trade as a principle, he considers protection to be indispensable to infant industries. In this respect, he is a harbinger of List.

Lips was a copious writer on topics of the day. He published, 1813, a *Staatswissenschaftslehre oder Encyclopädie und Methodologie der Staatswissenschaft*, in which the state is presented as the rightful interpreter of human reason; his main economic work is: *Deutschland's Oekonomie, ein Versuch zur Lösung der Frage, wie kann Deutschland zu lohnendem Ackerbau, blühender Industrie und wirksamem Handel gelangen?* (Germany's economy; an attempt to solve the question how Germany can secure a remunerative agriculture, flourishing manufactures, and an effective trade), 1830.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 992-993.] E. Ca.

LIQUID ASSETS are cash, and such other parts of a banker's assets as can be instantly converted into cash. A banker's assets are generally divided under the following heads:

1. Cash.
2. Money at Call.
3. Government Securities.
4. Bills of Exchange.
5. Loans and Advances.
6. Premises.

Of these the first three are usually reckoned as liquid assets, but cash alone is really liquid, whilst all the others are so in more or less degree. It is necessary to observe, too, that their degrees of fluidity will depend upon the extent to which they might be required to be converted, and the conditions under which the operation would have to be performed. In times of prosperity and confidence, securities of a miscellaneous character can generally be promptly turned into cash, but there are other times when consols alone are saleable. Another consideration arises with regard to "money at call." As an asset in the balance sheet of a single bank it is only second to actual cash, but in the aggregate, as appearing in the accounts of all the banks in a city, it has quite a different character. It is money lent to brokers against bills of exchange and other securities, and each broker relies on his being able to repay his debt to one bank by obtaining an advance from another. Thus the reduction of money at call in the accounts of one bank means the increase of the same item with another. Hence it might be that at a time of panic the liquid character of the whole asset would disappear, and it would be no more liquid than the bills or securities against which it had been lent. Ultimately, the fluidity of these assets depends largely upon the conditions under which legal tender notes are issued. Bills of exchange, though not usually reckoned as liquid, have some advantages of their own in this respect. They really represent floating capital, *i.e.* capital shortly replaceable by the results of its investment, and are therefore always gradually liquidating themselves. R. W. B.

[G. Rae, *The Country Banker*, 1886, and later editions.—R. H. Inglis Palgrave, *Notes on Banking*, 1873.—*Bankers' Magazine*, London, *passim*.]

LIQUIDATED DAMAGES. Where the parties to a contract agree that a fixed sum will be paid as damages for its breach in case a breach occurs. The object of such an arrangement is to secure the due performance of the contract and to avoid the necessity of resorting to a court in case of breach in order to have the amount of damages ascertained. The courts of equity disregarded the arrangement of the parties and introduced a distinction between liquidated damages and penalties. Where the primary intention of the parties was that if the particular act was not done, the fixed sum was payable, such sum was regarded as liquidated damages; but where the primary intention was to secure the doing of some act and the fixed sum was merely the machinery for securing that the act would be done, such sum was then regarded as a penalty, and the court, instead of ordering such sum to be paid, might award a reasonable compensation. The courts of common law did not recognise the distinction, but the result of the 8 & 9 Will. III. c. 2, § 8, was that where the court held the sum fixed to be in the nature of a penalty, the actual damage suffered only could be recovered; but if it was not a penalty, the amount agreed was payable.

[Mayne on *Damages*, London, 1894.—Story's *Equity Jurisprudence*, London, 1892.—White and Tudor's *Leading Cases in Equity*, London, 1895, for a summary of the principles on which the courts proceed in determining whether a fixed sum is a penalty or not.] J. E. C. M.

LIQUIDATION. The term "liquidation" is usually applied to the dissolution or winding up of a company incorporated by Act of Parliament in the manner prescribed by such act. An unincorporated company can be dissolved under the articles prescribed by its deed of settlement or by a court where the business cannot be carried on as intended, and a company incorporated by charter may be dissolved in the manner therein provided. But where a company is incorporated by act of parliament it cannot, without the assent of the legislature, be dissolved at the will of its members; and as a corporation is distinct from the persons composing it, the death or lunacy or bankruptcy of a member does not affect the existence of the body corporate. Acts of parliament were passed from time to time to give courts of bankruptcy jurisdiction over incorporated trading companies and to enable such courts to apply the assets to the payment of debts. Jurisdiction was also given to the Court of Chancery to compel members of a bankrupt company to contribute to the discharge of the company's debts where the assets were insufficient to pay the creditors in full. The drawbacks of these acts were: (1) that notwithstanding the winding up of a company the creditors might take proceedings against any shareholder for the full amount of his debt; (2) the creditors had to proceed against the company in bankruptcy, and frequently there arose a conflict between the courts of equity and of bankruptcy; (3) the shareholders could not initiate proceedings to dissolve the company; and (4) the expense of taking proceedings was very great. Between 1856 and 1858 some of these defects were removed, and at length in 1862 the Companies Act 1862 (25 & 26 Vict. 289) was passed to consolidate and improve the law. Under this act three modes were provided for winding up a company: (1) compulsorily, *i.e.* by the court; (2) voluntarily, *i.e.* by the shareholders without the intervention of the court; and (3) voluntarily but subject to the supervision of the court.

When a company resolves to go into liquidation or is ordered to be wound up, a person is appointed liquidator whose duty it is to collect all the assets, to pay all debts, and to distribute any surplus amongst the shareholders—due provision being made for the payment of all costs. When the affairs of the company are finally wound up, the court makes an order dissolving the company, and notice of this order is given to the registrar of joint stock companies, who makes a minute in his books to the effect that the company is dissolved.

In 1875 an important step was taken by the legislature with the object of assimilating the law of winding up to the law of bankruptcy. The Judicature Act 1875 (38 & 39 Vict. c.77) provided that as far as the rights of secured and unsecured creditors, and as to the debts and liability proveable, and as to the valuation of annuities, etc., the same rules should prevail on winding up as in bankruptcy. In 1890 a further step was taken by the Companies (winding up) Act 1890 (53 & 54 Vict. c. 63), which was passed for the object of introducing into the winding up of companies the same procedure as that which prevailed in bankruptcy, and of subjecting the administrative acts of liquidators to the control of a government department. It was alleged that under the system, which allowed the petitioning creditor to practically nominate the liquidator, the assets were wasted in unnecessary costs whilst the liquidation was unnecessarily prolonged (see Debate in House of Commons, 28 Feb. 1890). Under the act of 1890, the official receiver in bankruptcy is the official liquidator of companies; inquiries are of necessity instituted as regards the manner in which the affairs of the company have been carried on; whilst the board of trade is charged with the duty of seeing that the liquidator faithfully performs his duties.

The effects and the advantages of an official administration in the case of liquidation of companies are discussed in the reports of the board of trade under section 29 of the Companies

(winding up) Act 1890, published in 1893 and 1894, and in the Report, published in 1893, of the Inter-Departmental Committee appointed to inquire into limits of the action of the board of trade as regards the liquidation of companies.

J. E. C. M.

LIQUIDATOR (*a*) PROVISIONAL (*b*) OFFICIAL. (*a*) Previous to 1891 the court at any time after the presentation of a petition for winding up might appoint a provisional liquidator, though it was not usual to do so until the hearing of the petition. The object of the appointment was to protect the assets of the company; the order of appointment always stating what he was to do. Under the Companies Act of 1890 the only person who can now act as provisional liquidator is the official receiver. Upon the making of an order to wind up a company he becomes *ex-officio* provisional liquidator, but may be appointed as such if necessary at any time after the presentation of a petition.

(*b*) When no other person is appointed liquidator in a compulsory winding up, the official receiver becomes liquidator; in a voluntary winding up the shareholders appoint their own liquidator. A liquidator acts subject to the control of the committee of inspection, of the shareholders, and of the board of trade and of the court. With the consent of the committee he can carry on the business of the company and bring or defend actions, and compromise all claims. But he can without such consent sell the property of the company, collect assets, and distribute dividends. The directions of the shareholders override any directions of the committee. In matters of administration, the liquidator is controlled by the board of trade, and as far as his legal powers are concerned he is subject to the control of the courts.

J. E. C. M.

LIQUOR LAWS. British legislation for the regulation of the sale of intoxicating liquors practically begins with 9 Geo. IV., and has been subject to modifications and extensions, down to the present time. In some respects legislation is more advanced in the British colonies and in certain portions of the United States than it is in the mother-country. In Great Britain Sunday closing is partial, whereas it is very general in the colonies; while the principle of LOCAL OPTION (*q.v.*) has obtained in many colonies, and even total prohibition in certain districts of America. Great improvements were made in the licensing laws by the acts of 1872 and 1874, though they contain only a part of the statute law with regard to licensing. It has been remarked that a more thorough reform of the laws would have been effected by an act repealing all existing statutes and re-enacting their provisions in a codified form. As matters stand, it is difficult to grasp in full scope and detail the spirit of the numerous existing enactments. The Act of 1872 introduced by Henry Austin Bruce, home secretary, afterwards Lord Aberdare, is the principal act. It does not apply to Scotland, however, and only partially to Ireland. Severe penalties are imposed by the act on the illicit sale of liquor, on drunkenness in any public place or highway, upon permitting drunkenness or gambling, or the harbouring of prostitutes on licensed premises, upon harbouring constables on such premises during their hours of duty, and upon bribing or attempting to bribe them. The act further fixed the hours of closing, but empowered the local authority to grant exemptions from them when the convenience of many persons engaged in lawful business so required. Any licensed person, on a third conviction for offences against the act, is to forfeit his licence, and to be disqualified for five years, and his premises for two years, from receiving another; but a conviction more than five years old is not to be taken into account for the purpose of increasing any penalty. In every district a register of licences is to be kept showing particulars of all convictions, etc., which shall be open to inspection by any ratepayer, holder of a licence, or owner of licensed premises. A licensing committee of not less than three members is appointed annually by the justices in counties and boroughs. In boroughs, however, licences must be confirmed by the body of justices who would, but for the act, have been authorised to grant licences. An annual value is fixed by the act for all licensed premises according to their situation. Penalties under the act are recoverable by summary conviction, subject to an appeal to quarter sessions. No justice can take part in administering the act who has any beneficial interest in the manufacture or sale of intoxicating liquors. The act of 1874 modified that of 1872 as regards the hours of closing and other points, many of the modifications being of a mitigatory character. The statutes relating to the drink traffic embrace provisions with regard to the grant of licences, the qualifications of premises for a licence, the powers of licensing authorities, the transfer and removal of licences, protection of owners, the conduct and closing of premises, offences against public order, legal proceedings, refreshment houses, liabilities of innkeepers, brewers' licences, and various minor details touching the traffic. The public revenue is largely fed by the excise duties and licences. Pitt first produced a general scheme of excise in 1784, and this was embodied in the Consolidation Act of 1826, which forms the basis of the existing law. The malt duty was abolished in 1880, but brewers and distillers must still take out an excise licence, and pay duty on everything manufactured. A licence is also necessary to wholesale or retail dealers in beer, spirits, or wine. By the Local Government Act of 1888 the duties on retailers' licences

are transferred to the county councils. An act of 1830 allowed beer licences to be taken out without application to the magistrates, but later acts brought all beer-houses and refreshment-houses under their control. Special sessions are held once a year under the General Licensing Act of 1828, for the grant and renewal of licences, and at more frequent intervals for dealing with applications for transfers. The Wine and Beer-house Act of 1869 defines the regulations with regard to licences for the sale of drink to be consumed off the premises. In Scotland, the Home Drummond Act of 1828 regulates the general licensing arrangements, but the Forbes MacKenzie Act of 1853 (amended in 1862 and 1867) provided a new form of magistrates' certificate, which prohibited the sale of liquor between 11 P.M. in large towns, or 10 P.M. in the country, and 8 A.M., and during the whole of Sunday. The Irish licensing laws are similar to those of England, but with some modifications in favour of the publican. An act of 1874 introduced six-day licences, and in 1878 another act enforced total Sunday closing except in the five largest towns. The liquor regulations prevailing in the colonies are very diverse. New Zealand and Queensland are the two Australasian colonies with full powers of local option, but the privilege has been little used. Limited option prevails in the other colonies with the exception of Tasmania. In South Africa stringent legislation exists against the sale of intoxicants to natives, but there are frequent complaints that it is not sufficiently enforced. As regards whites, the laws are inefficient. Legislation in the crown colonies on the drink traffic is very varied, local option being met with as well as Sunday closing and the prohibition of the sale of drink to minors. The imperial parliament has periodically discussed the liquor question as affecting India and Ceylon. It has frequently been asserted—though by the Indian government denied—that the authorities have endeavoured to stimulate the sale of drink among natives for the purpose of improving the revenue, and a similar charge has been made against the colonial government of Ceylon. Whatever may be the cause, the sale of drink in India has increased of recent years, and parliament will no doubt be called upon to legislate on this matter. Canada has a local option law known as the Scott Act (1878), under which localities can close, by a majority of votes, all licensed premises without compensation; but when public opinion changes in any district the suppression may be reversed. Speaking generally, restrictive laws prevail in in some form throughout the whole of the Dominion, while in the North-West Territories there is total prohibition. Throughout the larger portion of Canada, the United States, and some of the Australasian colonies, two important provisions prevail, under one of which the relatives of any person who comes to his death through intoxicating liquor may sue the seller for damages; while under the other both magistrates and the relatives of intemperate persons may notify the sellers of drink not to supply it to such persons. This latter power is now being adopted in many colonial liquor acts. In many states of the American Union prohibitive legislation, as the Maine liquor law, obtains, and in others the high-licence system is adopted. Alike in Great Britain and the colonies public sentiment grows in favour of legislation which shall strike still further at the growth of the liquor traffic (see GOTHENBURG SYSTEM).

Recent acts passed are the Licensing Amendment (Scotland) Act 1897, the Habitual Inebriates Act 1898, and the Beer Retailers' and Spirit Grocers' Retail Licences (Ireland) Act 1900, and the Licensing Act 1902, which contains some excellent provisions in respect to drunkenness, the granting of licences, and the better regulation of clubs, but fails to embody many recommendations contained in the two Reports of the Royal Commission on Licensing Laws presented in 1899, including a large reduction in the number of licensed premises, and, in an addendum, entire Sunday closing and LOCAL OPTION. The Public-House Trust movement since 1902 has made systematic attempts to get public-houses into public hands, to eliminate the element of private profit, to maintain public-houses as refreshment and not as drinking saloons, to provide counter-attractions and only the most wholesome articles, and to establish canteens where required on large public works.

[Spofford, *American Almanac, Statistical, Financial, Political*, 1879-84.—*Chambers, Encyclopædia*, vol. vi.—*Hazell's Annual*.—Dewar, *Liquor Laws for Scotland*.—Stone, *Justices' Manual*.—*Economic Journal*, September 1902.] G. B. S.

LIRA (Italian coin). The equivalent of the French franc (see FRANC).

LIST, FRIEDRICH (1789-1846), was the son of a respectable tanner at Reutlingen. Not liking his father's business, he became a clerk in the public service. He continued a diligent course of self-culture, and already in 1816 had risen to the post of ministerial under-secretary. The king of Würtemberg, being desirous of calming popular effervescence in his State by liberal concessions, made Von Mangenheim his chief minister. List warmly supported the reform movement, and was appointed in 1817 professor of economics and "Staatspraxis" in the university of Tübingen. On the fall of the minister, List, having acted as adviser of the recently-founded society of trade and manufactures, which aimed at the abolition of internal duties as an impediment to commerce, was obliged in 1819 to resign his professorship. He was elected a member of the Würtemberg chamber, and worked earnestly for an extension

of self-government, for the introduction of jury-trial and publicity of proceedings in criminal cases, for the sale of the domains, and other reforms. He was in consequence expelled from the chamber and condemned to a ten months' imprisonment, from which he was released on promising to quit the country. He then emigrated to America, where he remained from 1825 to 1832, was successful as a journalist and as a speculator in coal and railways, and acquired favour with the Pennsylvanian manufacturers by his *Outlines of American Political Economy*, 1827, which contained a defence of protective duties. After having been employed on a mission to Paris, he became in 1832 United States' consul, first at Leipzig, and afterwards for Baden. On his settlement in Germany he devoted himself to the advocacy of a railway system for that country, to which, at the time, many interests and prejudices were opposed; and really gave a powerful impulse to its construction. He threw himself somewhat later into the agitation for a ZOLLVEREIN, and contributed greatly to its success by his ardour and eloquence. With this practical movement his name must always be closely associated, and through it, with the history of Germany. He was personally ill-supported by the public, and had to struggle with financial difficulties; and, bodily disease and suffering being added, he sank under the burden, and died by his own hand 30th November 1846.

Germany owes List a great debt of gratitude for the services he rendered in the promotion of her material prosperity. When residing in America, he said that his own country always lay in the background of his plans, and on his return he worked in her interest with extraordinary zeal and assiduity. As an author, he is known chiefly by his *Das Nationale System der Politischen Oekonomie*, of which the first and only published volume, dealing with INTERNATIONAL TRADE, appeared in 1841 (7th ed., by Eheberg, 1883). In this work he is much indebted to A. MÜLLER, a deeper thinker than himself, some of whose best thoughts are reproduced in it, though in a less abstract and more practical form. Like that writer, he takes up a position in some respects strongly antagonistic to Adam SMITH, who, in his opinion, kept private interests too exclusively in view, and, when he ceased to be individualistic, became cosmopolitan. The *national* idea is predominant in List. Between the individual and humanity —he says—stands the nation, a collective and continuous existence, possessing a deep-seated unity founded on a thousand bonds of feeling and interest—with a descent, a language, a literature, a history of its own, and laws, institutions and economic aptitudes peculiar to itself. To its permanent well-being, on which depends the ultimate highest good of all its members, the immediate interests of individuals, which do not always further it, should be strictly subordinated. The really important object is not the present creation of exchange values, but the development of the productive powers of the nation. The requirements of different nations must be met in different ways, depending partly on their respective characteristics, but chiefly on the degree of development which they have attained. All communities—at least those of the temperate zones—after emerging from the hunter and pastoral systems of life, pass through three successive economic stages: (1) that of agriculture; (2) that of agriculture united with manufactures; and (3) that of combined agriculture, manufactures, and commerce. The last of these forms of national economy, as it is the product of a higher grade of evolution, so also is greatly superior to the others in its reflex influence on civilisation. It marks the full maturity of a society; and it is the function of government to facilitate by suitable economic measures the natural movement of the community towards this highest stage. In the purely agricultural period, free trade with richer and more cultivated societies is the right policy as tending most to the advancement of the national culture. And it becomes so again when the productive powers of the nation have been fully developed. But in the intermediate stage a gradually introduced protective system is the proper resource for training and maturing the industrial capacities of a people, which, in its absence, could not hold their ground in the home market against the competition of more advanced communities. Thus the protective system ought not to be a permanent order of things, but temporary and provisional only. It is, in fact, a means of industrial education carried on at the expense of the nation, and ought to cease with the necessity for it. According to List, England alone in his time had reached the highest stage, and France was approaching it. For England free trade was the right policy. When Germany under, and by means of, protection, should have completed her industrial education, and so enabled herself to overcome the obstacles to her success in the markets of the world presented by the already-acquired superiority of other countries, free trade ought to become *her* policy also. And the adoption of that system by all nations under like conditions would realise the economic ideal and mark the consummation of general well-being. This theory, though stated too absolutely and thus requiring modification, seems certainly to contain some elements of truth. List, besides criticising effectually weak points in the systems of his predecessors, did much towards introducing the relative historical spirit into economic studies, and emphasising the political—and in some degree also the moral—considerations which often enter into the solution of industrial problems. His writings

referring for the most part, directly or indirectly, to questions of the day, had a powerful effect in Germany by interesting the middle classes in economic doctrines and making those doctrines subjects of general discussion.

Apart from his errors of principle, and the materialistic tinge which—though he would have repudiated the charge — undoubtedly colours his ideas, his chief faults are a tendency to exaggeration, the product in part of his eager temperament and exuberant rhetoric, his habit of unduly depreciating the economists whose views he controverted, and looseness and want of system in his exposition of scientific principles. He had the art, however, of catching the popular ear ; and indeed it is impossible not to be attracted by the freshness, the vigour, and the tone of profound conviction, which characterise his writings, as well as by his ardent patriotism, and his intense belief in the great future which awaited his country. The success of his principal book, though aided by the harmony of its doctrines with the contemporary circumstances and aspirations of Germany, was not exclusively due to this, but was the merited reward of its contributions to economic thought.

List also wrote much in the public journals of his time in favour of the creation of a railway system and the establishment of the ZOLLVEREIN, and founded, in 1833 and 1843 respectively, special organs for the advocacy of these objects. He also contributed a series of articles to the *Staats-Lexicon* of Rotteck and Welcker. Amongst his minor pieces may be mentioned, *Das Nationale Transport-system* (1838).—*Die Ackerverfassung, die Zwergwirthschaft und die Auswanderung*, 1842, in which he advocated the 'grande-culture,' and *Die politisch-ökonomische National-einheit der Deutschen* (1846). There is a collected, though not complete, edition of List's writings by Häusser (3 vols., 1850), with a biographical memoir of him. The *National System* was translated in America by G. A. Matile, preface by S. Colwell (1856), and in England by Sampson Lloyd (1885). New edition, Introduction by J. Shield Nicholson (1904).

[Leser in *Allg. Deutsche Biogr.*—Eheberg in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 970.—Kautz, *Die gesch. Entwickelung der N. O.*, p. 670.] J. K. I.

LITERARY PROPERTY. See COPYRIGHT.

LITTLE GOES. A species of lottery declared unlawful by 42 Geo. III. c. 119.

[Wharton, *Law Lexicon, sub voce.*]

LITH, JOHANN WILHELM VON DER (1709-1775), belongs to the numerous class of German writers and statesmen who, during the last century, considered most questions of administration and finance from the standpoint of what they called *populosity, i.e.* the development of population. This prepossession, natural in a country which had been depopulated by the havoc of religious and political wars, was pushed by them to an undue exaggeration, shared by the German princes anxious to strengthen their military power. For instance, these writers mostly advocated the excise system because excise duties are paid without compulsion, and do not excite the population to emigrate.

These and parallel opinions are maintained by Von der Lith in his *Politische Betrachtungen von verschiedenen Arten der Steuern* (Political Considerations on different kinds of Taxation), 1751, and in his *Neue vollständige erwiesene Abhandlung von denen Steuern und deren vortheilhafter Einrichtung in einem Lande nach den Grundsätzen einer wahren, die Verbesserung der Macht eines Regenten und die Glückseligkeit seiner Unterthanen wirkenden Staatskunst* (A new and complete Exposition of a beneficent System of Taxation on the principles of a true statecraft which furthers the power of a ruler and the happiness of his Subjects), 1766.—Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 425, describes the latter book, although dry and heavy, as showing a solid knowledge of German and foreign financial institutions and literature. E. CA.

LIVERY. The term "livery," meaning at first an allowance (*liberatio*) in food and clothing to the servants of great mediæval households, soon came to be restricted to the gift of clothing, and then to the clothing itself. It became common in England in the 14th century for the great lords to clothe their retainers in a uniform, and to give "livery of company" also to their friends and dependants, a practice which greatly increased the tendencies of the time towards baronial lawlessness and faction. Accordingly it was restricted by a long series of statutes, beginning in the reign of Richard II. ; though it was not until the accession of Henry VII. that the government was strong enough to enforce them.

[Dr. Stubbs, *Const. Hist.*, iii. § 471, was the first to lay stress upon the custom of livery as "an important element among the disruptive tendencies of the later middle ages." The well-known story of Henry VII. and the Earl of Oxford is told by Lord Bacon in his *Life* of that king (see, for another sense of the term, LAND, LAW RELATING TO ; SEISIN).] W. J. A.

LIVERYMEN. The wearing of a uniform LIVERY (*q.v.*) was not peculiar to baronial retinues ; it was common upon festive or ceremonial occasions with the members of fraternities of various kinds—including the fraternities of crafts. In a petition of 1389, the Commons prayed not only that the liveries of lords should be restricted, but also that no livery should be given "under colour of gild or fraternity," and "that no craft should give livery to any." In 1406, however, the statute concerning liveries expressly exempted "gilds and fraternities, and also the people of misteries that be founded and ordained to a good intent and purpose." At this time probably every member of the companies of crafts wore the livery from time to time ; but before the end of the century it had in London become a

mark of a certain superiority of some members over others—a change due perhaps to the increasing costliness of the attire, and the unwillingness of ordinary freemen to lose the time necessary for attending pageants. Among the drapers in 1493 there were 114 "of the craft in the clothing," 115 "of the brotherhood out of the clothing," and 60 in the bachelors' company. By about the middle of the 16th century the "livery" constituted in most of the crafts a higher grade to which the more substantial freemen were admitted by the court of assistants, upon the payment of heavy fees. In the smaller companies it would seem that the "livery" at first included all or almost all the employers, in the greater only the more substantial; but during the next century the companies began to lose their close connection with the industrial occupations from which they had arisen. An act of common council in 15 Edward IV., ordering the heads of the companies to come to elections "with the honest men of their misteries in their best liveries," led to the liverymen obtaining an exclusive right to vote both for the chief civic magistrates and, until 1835, for the members of parliament for the city; the gathering of the liverymen of the companies for the former purpose is known as the "common hall." The social position of liverymen during the last two hundred years is sufficiently indicated by the act of the court of aldermen in 1697, "that no person shall be allowed to take upon himself the clothing of any of the twelve companies unless he have an estate of £1000, of the inferior companies unless he have an estate of £500." At present, with about 10,000 ordinary freemen, there are some 7300 liverymen in the several companies; of these about 1500 constitute the courts of assistants (see also COMPANIES, CITY OF LONDON).

[The early history of the "livery" will be found in Ashley, *Economic History*, i. pt. ii. pp. 125-132. The present position of the livery in the various companies may be best studied in the *Report of H.M. Livery Companies' Commission* (1884), which is conveniently summarised in the *Introduction* to Mr. W. Carew Hazlitt's *Livery Companies* (1892), where also will be found some indications as to the peculiar privileges and burdens of liverymen.] W. J. A.

LIVERY COMPANIES. This term for those "companies" in London which have grown out of the old fellowships of crafts, and the LIVERYMEN (*q.v.*) of which had an exclusive right to the civic franchise, would seem to have come into use in the 18th or early 19th century, probably with the appearance of "companies" of another sort from which they needed to be distinguished. William Herbert, the librarian to the Corporation of London, entitled his book *The History of the twelve great Livery Companies* (1834), and the royal commission of inquiry appointed in 1880 was designated the "Livery Companies' Commission." But it does not seem that any clear distinction has been drawn by competent authority between "livery" companies and those other companies —of which several survived until quite recently —which had a somewhat similar origin (see COMPANIES, CITY OF LONDON). W. J. A.

LIVERPOOL, CHARLES JENKINSON, first Earl of (1727-1808), was born at Winchester, of an old Oxfordshire family. After a distinguished career at Oxford, he began to prepare for public life. In March 1761 he was appointed by Bute an under secretary of state, entered the House of Commons, and filled various minor offices until 1772, when he was appointed vice-treasurer of Ireland, and a privy councillor. Three years later he purchased from Fox the valuable patent place of clerk of the pells in Ireland, and became master of the mint. In 1778 he was appointed secretary at war under Lord North, and was supposed to possess almost unbounded influence over the king and the prime minister. Pitt, whose commercial and financial policy he warmly admired, appointed him a member of the board of trade in 1783. Jenkinson had a large share in framing the commercial treaty between Great Britain and America of 1784, and he also assisted to establish the South Sea fishery. In 1786 he was created Baron Hawkesbury, and was appointed chancellor of the duchy of Lancaster and president of the committee of council for the affairs of trade and plantations. He was created Earl of Liverpool in 1796.

Lord Liverpool's speeches in the House of Peers were almost entirely confined to economic and financial questions. In 1797 he defended the constitution and conduct of the committee appointed to report on the suspension of cash payments; and the following year spoke in defence of the Assessed Taxes Bill, by which an income tax of 10 per cent was imposed on incomes above £200.

Lord Liverpool wrote *A Discourse on the Conduct of the Government of Great Britain in Respect to Neutral Nations*, published 1758, 2nd ed. 1794; (this tract, which is described by M'Culloch, *Lit. Pol. Econ.*, as being "learned, moderate, and able," supports the view that "neutrals are not to be allowed to carry on a trade during war from which they had been excluded during peace,") and *A Dissertation on the Establishment of a National and Constitutional Force in England independent of a Standing Army*, 1756.

In 1785 appeared, in 3 vols., his *Collection of all Treaties of Peace, Alliance, and Commerce between Great Britain and other Powers, from the Treaty of Munster in 1648 to the Treaties signed at Paris in 1783.*

In 1805 Lord Liverpool addressed his well-known letter to the king (George III.), published as *A Treatise on the Coins of the Realm*, 1805, reprinted 1846, and in 1880 by the Bank of England, which "comprises . . . a greater amount of infor-

mation respecting the coins of the kingdom, and a more comprehensive and elaborate exposition of the principles on which the coinage should be conducted, than is perhaps to be met with in any other publication" (M'Culloch, *Lit. Pol. Econ.*).

This work was originally written, with the co-operation of George Chalmers, as a draft report for a conference of the privy council in 1798, appointed to enquire into the state of the coins, etc., and it had great influence in the adoption of the gold standard in 1816. (See second Earl of LIVERPOOL.)

[Yonge's *Life of the Second Earl of Liverpool.*—Stanhope's *Life of Pitt.*—*Annual Register*, 1808. —And *Dictionary of National Biography*, vol. xxix.] G. B. S.

LIVERPOOL, ROBERT BANKS JENKINSON, second Earl of (1770-1828), educated at Charterhouse and Christ Church, Oxford, entered parliament in 1790. Appointed in 1794 to the India board, he became, five years later, master of the mint. When his father was raised to an earldom he was known as Lord Hawkesbury. He was a close student of political economy and finance; in 1796 he maintained that the commercial condition of Great Britain—notwithstanding the pressure of the great war—was more prosperous than at any antecedent period, and regretted that the system of appropriating a million annually to the extinction of the national debt had not been adopted at the close of the previous war in 1748, as the burden would have since been lifted from the shoulders of the nation. Hence it was natural that he should regard the sinking fund established by Pitt as "unquestionably the greatest measure ever produced by the ingenuity or wisdom of man," and gave his adhesion to the financial axiom that the supplies, or a considerable portion of them, should be raised within the year.

As foreign secretary he negotiated the Treaty of Amiens in 1801. Two years later he was raised to the Upper House as Baron Hawkesbury during his father's lifetime. In 1808 he became Earl of Liverpool on the death of his father. In 1810 the bullion committee of the House of Commons reported on the depreciation in the currency. Lord King and other large landowners refused to receive their rents except in gold; and guineas were extensively bought at from twenty-three to twenty-seven shillings, by agents of the government, to remit to the Peninsula. Lord Stanhope introduced a bill in the House of Lords to make it illegal for any person to give more money for guineas, half-guineas, etc., than their lawful value. Lord Liverpool at first opposed this bill, but subsequently assisted in carrying it through.

During the same session he supported Mr. Vansittart's bill on the sinking fund, which repealed the act of 1802, but adhered to Mr. Pitt's original measure of 1792. Lord Liverpool also supported Mr. Vansittart's celebrated resolutions, in opposition to those of Mr. Horner, which advocated a return to cash payments. One of Vansittart's resolutions affirmed that bank-notes were equal to gold despite the fact that £100 of notes could only purchase £86 : 10 : 6 of gold. Party feeling alone can account for the support Vansittart received.

In 1812 Lord Liverpool came into power at the head of a purely Tory ministry, the first ten years of which witnessed much reactionary movement on the continent and at home, the mismanagement of the national finances, the increase in the duty on foreign corn, and the adoption of coercive measures for dealing with discontent in England. All these things were charged to the incapacity of the government. Personally, Lord Liverpool was a free trader, and regarded the corn law of 1815 merely as an experiment. When Huskisson and Canning joined the ministry, he began to liberalise the tariff, and desired to retain a portion of the property tax, a measure which would have greatly favoured the working classes. But opposed by Whigs and Tories alike, it was defeated in the Commons. In spite of its reactionary policy on certain national questions, and much vacillation of opinion, Lord Liverpool's ministry may be regarded as the pioneer administration of free trade.

Besides those already mentioned, the following are the principal financial events of Lord Liverpool's ministry. In 1816 he carried the measure entitled "An Act to provide for a New Silver Coinage, and to regulate the currency of the Gold and Silver coin of this Realm"; which established the gold standard in this country and made silver token money (coined at the rate of sixty-six shillings to the owner instead of sixty-two) the standard rate, and limited to forty shillings as legal tender. The effect of this act has been severely criticised, and it was commented on by W. HUSKISSON (*q.v.*) at the time. In 1818 he carried a proposal fixing the ensuing year as the time for the resumption of cash payments. He cordially supported Peel's bill to regulate the employment of children in factories. In 1819 reduction in taxation was followed by various measures in the direction of free trade; and in 1820 the premier expounded his liberal ideas on the subject of foreign commerce, but showed that our laws with respect to agricultural produce alone threw an insurmountable obstacle in the way of complete freedom of trade. The sinking fund was a blunder which has never been defended; but Liverpool's general policy with regard to the currency and commercial panics during the early years of George IV.'s reign has been both warmly eulogised and objected to as the cause of much financial trouble.

In 1821 the bill for the resumption of cash payments was carried through both Houses, and in defending the substitution of gold for £1 notes, to the extent of six or seven millions, Lord Liverpool also vindicated the measures taken to establish an efficient sinking fund, to the amount of five millions. He expressed himself as opposed

in principle to legislation which favoured or burdened one industry more than another, and had approved, on its own merits, a system of unrestricted trade; though he admitted that a country which had so long followed an opposite policy could not easily abandon it. But in 1826 he avowed that neither the corn law of 1815, nor that of 1822, was applicable to existing circumstances of prevalent distress and industrial depression. He declared himself individually responsible for the ministerial proposal to confer on the administration a discretionary power to permit a limited importation of corn; and this power was shortly afterwards exercised. In fact the premier's opinions were moving so rapidly in the direction of an amelioration of the corn laws, that he prepared a measure of relaxation which was introduced in the new parliament, though illness prevented him from personally conducting the measure.

The severe money panic in England at the close of 1825 led to the stoppage of a great number of banks, while the whole circulation of the country was practically paralysed. Government at once resolved to issue one- and two-pound Bank of England notes to relieve the country, and an extraordinary coinage of sovereigns was ordered. In the session of 1826 the Small Note Bill was passed, which provided for the suppression of notes under £5. By a further measure the law of 1708 was repealed, and banks with any number of partners were allowed to be established beyond sixty-five miles from London, while the Bank of England was permitted to establish branches to be carried on by its agents.

[*Memoirs of the Public Life and Administration of the Earl of Liverpool*, 1827.—*Life of the Second Earl of Liverpool*, by C. D. Yonge, 3 vols. 1868.—Kebbel's *History of Toryism*, 1886.—*Dictionary of National Biography*, vol. xxix.—*Annual Register*, 1828.] G. B. S.

LIVING WAGE. This expression is generally confused with the cognate "minimum wage," *e.g.* the lowest rate paid on a sliding-scale arrangement, which may be defined as the claim of labour to a definite low daily or weekly wage, without any guarantee of the permanent employment which would make it a wage sufficient to live on. It came to the front during the great coal strike of 1893. But it is impossible to limit the claim of a living wage to any section of workers,—by whom, indeed, it might be attainable given strict combination, limitation of numbers, and maintenance of price,—and the expression seems likely to take root as the claim of labour generally to a preference share in the total product of industry.

Plausible as the catchword seems, on examination it does little more than suggest questions. Is any preference share really possible—say that the guarantee of a living raised the sluice-gates of population? Suppose the claim granted, is the "living" in question mere physical subsistence or life at a conventional level? and is it a "family wage" or an "individual" one? If Great Britain's estimated income, divided by its population, gives some £36 per head, what kind of living wage does that income provide even on the footing of an equal distribution? Would the national income be maintained and increase if it were thus distributed? How far may the "living" of capital be reduced without reducing the national dividend and so reducing the living wage? Unless industrial efficiency increase proportionally with the living wage, how could our free-trade country compete with others? All the same, has labour not a better claim to a preference in the national dividend than any other factor? If equal distribution would give so small a sum per head, what kind of living does the present distribution afford to the masses?

The expression gives at least one valuable reminder. Giffen (*Essays in Finance*, second series, 1886, p. 463), comparing wages in 1883 with wages fifty years before, has calculated that the income of the manual labour classes per head has increased on the average much more than 100 per cent. Taking this with the fact that wealth in Great Britain seems to increase more than twice as fast as population, it is obviously possible that the standard of living should steadily rise; and it is right that average industry should claim a wage rising in correspondence — always remembering that a real rise in wage may be expressed in low prices, and that changes in currency may even disguise an increase of wage in lower money figures. But the dislocations seemingly inevitable in any system of competitive industry make any guarantee of a living wage by individual employers impossible, and throw doubt on the possibility of its being guaranteed under any imaginable organisation of human society.

[Giffen, *The Growth of Capital*, 1889.—Smart, *Studies in Economics*, 1895.—Marshall, *Elements*, ch. xii. § 16, cp. COMFORT, STANDARD OF.] W. S.

LIVRE. Of the many notable features in the financial history of France none is more remarkable than the complete distinction between money of account and the money in actual circulation. The distinction was neither unique nor original, but in no country was it so sharply drawn as in France from the 10th to the 18th century. The origin of the money of account is traced by all authorities to a capitulary of Charles the Great, which ordered that the pound of silver (*libra argenti*) should be divided into 20 *solidi*, and each SOLIDUS (*q.v.*) into 12 *denarii* (see DENARIUS). From this time the terms of commercial transactions, whether sales or contracts extending over a period of time, were expressed in *livres*, SOUS, and DENIERS. These always retained the same proportion to each other, 12 *deniers* to the *sou*, and 20 *sous* to the *livre*. In Frankish times all three terms may have denoted actual coins, but under the Capet kings these disappeared from circulation. In the 11th century

the MARK, containing 4608 grains, took the place of the *livre* or pound as the ordinary measure for the weight of bullion. From this time the *livre* ceased to connote any idea of weight, as it had already of coin, and thus the separation of the money of account was completed. In later times the names reappear, *e.g.* the *sou d'or* and the *denier d'or*, but the existence of these coins was very short-lived, and they had no connection whatever with the *sou* and the *denier* as terms of account. An infinite variety of coins were issued from time to time, such as the *agnel* or *mouton d'or* and the *gros* and *petits tournois* under Saint Louis, the *écus d'or* and the *blancs* of the Valois kings, the *louis d'or* and the *louis d'argent* of the Bourbons, etc. But the value of all these coins was expressed in the money of account, *i.e.* in *livres*, *sous*, and *deniers*.

The break-up of the Karolingian empire put an end to the monetary centralisation which Charles the Great had established. In *Francia Occidentalis*, which became France, the great vassals claimed and obtained the right of private coinage in their own domain. What is more extraordinary is that the money of account became localised as well as the circulating coins. Thus we hear of *livres*, *sous*, and *deniers* with local designations, *e.g.* Parisis, Tournois, Manceaux, Poitevins, Toulousains, Angevins, etc. The Capet kings, originally dukes of Paris, naturally adopted the *livre parisis* of their own domain. As time went on the power of the crown developed steadily at the expense of feudal privileges. Saint Louis ordered that the royal money should circulate everywhere side by side with that of the lords, and forbade the latter to imitate the king's coin. This policy, steadily pursued by his successors, resulted in the recognition of a single currency for the whole of France, and the local money, where it survived, was restricted to small copper coins with a very small area of circulation. But during the process of centralisation, one of the local monies of account came to be adopted by the crown. The *livre tournois* had come into general use in southern France, and when Languedoc was annexed to the royal domain, its method of reckoning was retained side by side with that of Paris. From this time we have two alternative monies of account, the *livre sou* and *denier parisis*, and the *livre sou* and *denier tournois*. The former money was always valued a fourth higher than the latter. A *livre parisis* equalled 20 *sous parisis* and 25 *sous tournois*. Thus when a mark of silver was valued at 2 *livres parisis*, it would at the same time be equivalent to 2½ *livres tournois*. This double system lasted till the reign of Louis XIV., who abolished the *livre parisis* and retained only the *livre tournois* and its divisions, which had long been the money of account in ordinary use.

Although the proportion between the *livre*, the *sou*, and the *denier* remained unaltered from the time of Charles the Great to the Revolution, their actual intrinsic value was subject to constant change, almost invariably in the direction of depreciation. It would take too long to trace the variations in the value of the *livre*, which have been treated with equal learning and acuteness by several French writers. A few salient facts must suffice. The exact weight of Charles the Great's *libra argenti* has been disputed, and the amount of silver it contained has been variously estimated as equal to 86 francs 97 centimes, or to 78 francs 20 centimes of modern money. Of course its purchasing power was infinitely greater, but it is simpler and safer to measure only intrinsic value in silver. Under Louis IX. (1226-1272) the *livre* was equivalent to only about 18 francs. By the 18th century it had fallen to practically 1 franc, and at times to about 80 centimes.

This steady depreciation of the money of account was primarily due to the fact that the coinage was in the hands of the king, who considered that he had a right to make a profit or SEIGNIORAGE on the process. It is obvious that the distinction between money of account and actual money offered to the French kings exceptional temptations and opportunities for debasement. In other countries, where no such distinction existed, the king could only debase by re-coining the metals either with less weight or with a larger admixture of alloy. In France the king could employ this method if he chose, but he could also have recourse to a simpler expedient. When the crown ordered the issue of coins, it was necessary not only to fix their proportion to the mark of gold or of silver, but also to settle their value in terms of the money of account. This latter value was not always expressed on the face of the coin, and therefore it was perfectly easy for a king to depreciate the *livre* by a new edict giving a greater nominal value to the same coin. The royal methods may be illustrated by two actual facts from the history of Philip IV., who is pilloried both in contemporary chronicles and in history as the *faux-monnayeur*. When he came to the throne he found a silver coin in circulation, called the *gros tournois*, issued by his grandfather, Louis IX. Fifty-eight of these coins were made from the mark of silver, and the value of each was 1 *sou*, or the twentieth part of a *livre*. Among the new coins struck by Philip was a *petit tournois*, of which 116 were made from the mark, and which should therefore have been worth 6 *deniers*, or just half the *gros* of Louis IX. Instead of this, the edict fixed its value at 7½ *deniers*. As the new piece could not have circulated side by side with the older coinage, a new ordinance raised the *gros tournois* from 1 *sou* to 15

deniers, without making any change whatever in the coin itself. The result of these two changes was to reduce the intrinsic value of the *livre tournois* from about 18 modern francs to about 14 francs 40 centimes. It is needless to insist upon the damage that must have been done to trade by such changes as these serve to illustrate, and history is full of the indignation which they excited. There was one obvious remedy for these abuses, viz. to fix bargains by weight of silver, so that the debtor should in the end pay to the creditor as many marks as he had received. This expedient was frequently attempted, but was as often prohibited as being an attack upon the royal prerogative.

With the old monarchy fell the monetary system which it had at once misused and upheld. The constituent assembly introduced the modern arrangement by which the mint is simply a business organisation for affixing a stamp to the precious metals, and charges nothing beyond the expense of the process, except in the case of coins whose legal tender is limited. This change was completed by the law of the 17th Germinal of the year xi. (28th March 1803), which fixed the franc at 5 grammes of silver with a fineness of nine-tenths. It is true that the law of 14th July 1866 lowered the intrinsic value of the franc and limited its legal tender. But by that time events had occurred which practically established a gold standard in France, confirmed by the law of 1875, closing the mint to the free coinage of silver. The change of standard makes no difference to the fact of the disappearance in France of that distinction between the money of account and the coin in circulation of which the *livre* is the most prominent illustration.

[See Ducange, *Glossarium*, s.v. "Moneta."—Le Blanc, *Traité historique des monnaies de France*.—Vuitry, *Études sur le régime financier de la France*.—P. Clément, *Jacques Cœur et Charles VII.*] R. L.

LIVRE DE RAISON, THE, was in old French (*liber rationum*) the ledger into which every banker and merchant was obliged to enter his receipts and expenditure. But in southern France, and especially in Provence, the term included family-books (*livres de famille*) in which the head of the family used to put down genealogical details and miscellaneous notices, for instance of political events and famines; the information yielded is often invaluable for the student of economic history.

[Attention was first called to the *Livres de Raison* by M. Charles de Ribbe, a friend and disciple of Le Play, in his *Famille au 16me Siècle* (1867). Since then many have been published, some of them going so far back as the 14th century; a bibliography on the subject occupies 52 pages in M. Tamizey de Larroque's *Livre de Raison de la Famille de Fontainemarie* (Agen, 1890). See also Ch. de Ribbe, *Le Play d'après sa Correspondance* (1884), pp. 127-139, and Lavisse, *Histoire de France* (1902), iv. 2nd part, pp. 152 and 159.] E. Ca.

LIVRET (Fr.), the little book workmen in France were formerly required to hold under a law of 1st December 1803. It was delivered by the mayor of the place of domicile, and served to contain the date of entering and leaving the service of each employer, and had to be presented for the *visa* of the mayor, or commissary of police of the district, on each change of employment or residence. Masters were forbidden to make any other entry, either favourable or unfavourable, concerning the conduct or qualifications of the workman, but, if the man owed money for wages advanced, the debt could be noted on the *livret*, and the next employer became liable for a sum not exceeding thirty francs, which he could recover by a deduction of 10 per cent from the workman's pay. The *livret* served as a passport in the interior, and workmen travelling without one were liable to be arrested as vagrants. *Livrets* were abolished by a special law of 2nd July 1890, but by the same law masters are compelled to give, if demanded, a certificate containing exclusively the date of entry and leaving, and the kind of work on which the man was employed. *Livrets* were at one time imposed by decree on domestics of both sexes, but the rule was rarely observed. T. L.

LLOYD'S. The name of the association by which UNDERWRITING business is mainly carried on in London. The meeting of merchants who, in 1688, habitually used the coffee-house of Edward Lloyd in Tower Street, and which afterwards migrated to his coffee-house in Lombard Street, gradually developed into the powerful institution incorporated by the act of 1871, with "all the rights and privileges of a corporation sanctioned by parliament. According to this act of incorporation the three main objects for which the society exists are—first, the carrying out of the business of marine insurance; secondly, the protection of the interests of the members of the association; and thirdly, the collection, publication, and diffusion of intelligence and information with respect to shipping."

The association is managed by a committee appointed by the members. Of these the "underwriting" members deposit security for the fulfilment of their engagements. The business is conducted in a very simple manner through brokers who write down the name of the ship, the master, the circumstances of the voyage, and the amount to be insured. Each underwriter who agrees to join subscribes his name and the sum he takes.

The immense development of the shipping business of this country in recent years (see FREIGHT) has been followed by a very large increase in the business of marine insurance, of which a great part is carried on at Lloyd's (see INSURANCE, MARINE).

LLOYD'S BONDS. Instruments under seal invented by a parliamentary draftsman, whose name was Horace Lloyd, issued by companies acknowledging indebtedness for a specified sum, and containing a covenant to pay that sum with interest on a specified day. They were at one time much used by railway companies for the payment of contractors, who thereby acquired a security which they could realise, or on which they could raise money. They could be issued in respect of an existing debt only, and not for the purpose of borrowing in excess of borrowing powers. As it is now usual for railway companies to obtain extensive power for the issue of debentures or debenture stock, the name of Lloyd's bonds is no longer seen except in legal text-books.

[Tarrant, *Lloyd's Bonds*, 1867.] E. S.

LOAN (MUTUUM), CANONIST DEFINITION OF. The arguments by which the canonist doctrine of usury were supported, rested, for the most part, on a particular conception of "lending," *mutuatio*, derived from the Roman law. The Roman lawyers had defined *mutuum* (as distinguished from *commodatum*) as involving a transference from one person to another, of the ownership (*dominium*, as distinguished from USUS), in the thing lent. From this definition the canonists deduced the conclusions (1) that the lender could not justly receive gain (*lucrum*) from the use of a thing that no longer belonged to him, and (2) that the burden of risk was transferred, passed to the borrower with the ownership, the lender being also, as a rule, secured against risk by holding a pledge or in some other way. Hence, *e converso*, when risk was shared (as in various forms of partnership, SOCIETAS), it was concluded that ownership had not passed; that there was therefore no *mutuum*; and that accordingly the prohibition of usury did not apply. (See MUTUUM.)

[The very name was derived, according to the Roman lawyers, from the change of ownership, The explanation, "mutuum appellatum est, quia quod ita tibi a me datum est, ex meo tuum fit," is given in almost identical terms in Gaius iii. 90, Paulus in *Dig.*, xii. 2, 2, and in Justinian *Instit.* xiv. Ignorance of the juristic distinctions of the middle ages frequently blunts the edge of modern criticism of the usury doctrine. They are given in a conveniently brief form in Miles Mosse, *Arraignment of Usury*, 1595: "*Lending* maketh a translation of the propertie: *letting* doth onely make an alienation of the use. . . . *Lending* is the translation of the dominion of a thing for no price; *selling* is the alienating of a thing for a set price to be paid. . . . In *lending* I looke for mine owne againe; in *exchanging* I looke for some other thing in lue of mine owne," etc. See also Ashley, *Economic History*, vol. i. pt. i. p. 152; pt. ii. pp. 419, 454; Böhm-Bawerk, *Capital and Interest*, p. 22; F. X. Funk, *Zins und Wucher*, pp. 170 *seq.*] W. J. A.

LOANS, FORCED. From a very early date English kings found it necessary to meet extraordinary expenses by borrowing on the security of future revenue. For a long time loans were chiefly raised from foreigners, such as the Jews; and after their expulsion in 1290, from firms of Italian bankers. The growth of wealth in the 15th century rendered it possible to raise large sums from native lenders, and the simultaneous revival of the royal power rendered it almost impossible to refuse the demands of the commissioners acting under authority of a privy seal. Under Edward IV. and the Tudors the exaction of compulsory loans from wealthy subjects became a frequent and almost regular expedient of the crown. Elizabeth, we are told, was extremely careful to repay these sums by a stipulated time, but her predecessors were by no means so punctilious. Twice in the reign of Henry VIII., in 1529 and 1544, parliament practically converted these loans into BENEVOLENCES (*q.v.*) by formally releasing the king from the obligation of repayment. That these exactions met with so little resistance was due partly to the formidable powers of the Star Chamber, and partly to the general popularity of the government. The mass of the people saw no reason to resent burdens which fell almost exclusively upon the wealthy. Things had completely changed when Charles I. and Buckingham endeavoured to raise the famous loan of 1627 for an unpopular war with France. No such general exaction had ever been attempted by the Tudors. The sum to be paid was five SUBSIDIES (*q.v.*), and every man rated in the subsidy books was to contribute in proportion to his rating. If any one refused, he was to be bound over to answer for contempt before the privy council. Considering the extreme doubtfulness of repayment, the demand was practically an attempt to levy a general subsidy without the authority of parliament. The terror inspired by the Star Chamber induced most people to pay rather than risk the penalties for refusal. But many prominent men, including Hampden, Eliot, and Wentworth, declined to comply with an illegal demand, and to contribute to an enterprise of which they disapproved. Seventy-six of the recusants were committed to prison on a special warrant of the king. But the failure of Buckingham's expedition led to increased resistance and forced Charles to summon his third parliament in 1628. This assembly drew up the Petition of Right, which demanded "that no man hereafter be compelled to make or yield any gift, loan, benevolence, tax, or such-like charge, without common consent by act of parliament." From this time the illegality of forced loans has been unquestioned.

[Hallam, *Constitutional History of England.*—Gardiner, *History of England*, vol. v.] R. L.

LOANS, LOCAL. See LOCAL GOVERNMENT.

LOANS, PUBLIC.

Method of Raising, p. 621; Internal Loans, p. 621; External Loans, p. 621; Conversion Loans, p. 621; Forms of Documents of Ownership, p. 622; Underwriting, p. 622; Issue of Loans, p. 622.

METHOD OF RAISING. Government loans are either internal or external. The special characteristic of an *internal loan* is that it is payable, interest and principal, within the country issuing it. A foreign holder of such a loan stands on the same legal footing as a citizen; but occasionally, and not as a matter of right, special arrangements have been made by foreign governments for the payment of coupons abroad, for the convenience of foreign holders, through an agent. Such an arrangement might, of course, cease at any moment.

An *external loan* is raised in part, or entirely, abroad, and its principal and interest are payable abroad as well as at home. Most countries have issued loans of both kinds. The means by which loans of either class are issued are:

A. Public issue:
   (1) By tenders at (or above) a *minimum* price per cent.
   (2) By tenders at a fixed price per cent.

B. By direct sale to a banking or financial house, which house sells again to the public when and how it pleases. In this case the first purchaser is said to take the loan "firm," and when retailing the loan to the public he may, of course, invite tenders either at a *minimum* or at a fixed price.

The selection of the mode of issuing the loan depends on circumstances. Countries whose financial position is good go direct to the public, merely paying a bank, or a financial house, a commission for the use of their premises and staff, if they do not issue through a bank of their own. French loans are issued through the bank of France, but when France was financially paralysed by the events of 1870-71 she raised a large loan through a great Anglo-American house. The British government makes issues through the Bank of England, the United States through its treasury; countries of less than the highest credit issue their loans through finance houses, with whom the loans are said to be "domiciled."

If the loan is issued at a *minimum* price, the competition for it among investors takes the form of the offer of prices above the *minimum;* if at a fixed price the competition takes the form of applications in excess of the amount really wanted. In the former case allotments are made on the principle of giving a certain percentage of the amount tendered for at a certain price, and giving all tenders above that price in full. The price will, of course, depend on the extent of the tenders. Sometimes a "syndicate" applies for more than the whole loan, and only gets a small proportion because it has not offered as much as the general public, but usually syndicates hit on a figure at which they get nearly all they wish for.

If tenders are made at a fixed price, the method usually followed in the case of foreign loans, the *nominal* amount of the tenders is sometimes enormous, but many of the largest applicants would be very sorry to be taken at their word. French government loans and the issues of the Credit Foncier have been applied for thirty or forty times over. The plan of the issuers in such cases is to allot to all small tenders in full, and the balance of the loan, after this is done, is divided *pro rata* among the larger applicants, whose tenders are assumed to be, and probably are, more or less speculative.

It does not come within the scope of this article to discuss the purposes for which public loans are issued, but it is not out of place to observe that when a finance house takes a loan "firm," this operation *may* mean that it has already lent the government money in some form or other, by an advance on treasury bills, for instance. When this is the case there is often a very considerable difference between the price the government obtains for the loan and that at which the finance house sells it to the public. In the past some very remarkable transactions of this kind have taken place, particulars of which will be found in the report of the House of Commons committee on loans to foreign states, 1875. The difference in price may be justified, for the money lent in the first instance may have tided the borrowing state over a period of difficulty and enabled it to improve its credit to such an extent that the price asked at a subsequent date is justified. In all such cases the character and position of the house which issues the loan is the real guarantee for its soundness, and intending subscribers to a loan cannot be too careful in considering the history, especially the recent history, of the house whose name they will have to rely on.

Conversion Loans.—Of late years loans of this class have been numerous, owing to the amount of capital seeking investment having increased much more rapidly than the volume of securities available for this purpose. All the great states of the world and many minor countries have taken advantage of this condition of things to convert their debts from a higher to a lower rate of interest. The method adopted is usually to announce a new issue at the lower rate, to which the holders of the older issues have the right to subscribe in bond on specified terms. If they do not wish to do this they are paid off at par with the money subscribed to the new loan by the public. Sometimes such a conversion fails, through

nearly all the old holders refusing to send in their bonds and the public subscribing nothing, the government having over-estimated its credit. On several occasions the credit of the government has been amply good enough to justify the operation, but its *right* to carry it out has been questioned by holders of the older loans, on the ground of the wording of the bond, which, it is contended, does not permit redemption before a certain date. The contention of the government, in such cases, usually is that the words relating to redemption mean that the loan must be redeemed at the date mentioned *at the latest*. The conversion of the Egyptian preference loan, in 1888, led to a serious dispute of this kind, and in 1894 the conversion of the Turkish tribute loans caused a similar discussion. It was thought that these precedents might reduce the readiness of the public to subscribe to loans in future, except at slightly lower prices, unless a specific pledge were given that the loan would not be redeemed or converted before a certain date. This has to some extent proved true.

Form of Documents of Ownership.—Loans are either registered as stock or are issued in the form of bonds to bearer, with a sheet of coupons attached representing the amounts of interest due half yearly (or quarterly). This last is the form in which the majority of external loans are issued, as such bonds are more widely marketable than registered stock. They are liable to be stolen, however, while certificates of registered stock are of no use *per se* to any one but the rightful owner.

Underwriting.—This term is used to denote an agreement entered into with an issuing house by capitalists who bind themselves to take part of a loan to be issued by such house at a certain price, in case the public do not subscribe for it. The majority of loans of any magnitude are thus "underwritten." The consideration for the service rendered is paid in the form of a commission. If the loan is sold to the public, the underwriters merely pocket their commissions, but if not they have to take up their quotas. In times of speculative activity many people of inadequate means make money in this way, but eventually some of them get caught, the speculative fever of the public having diminished. Many of the embarrassments which followed the financial collapse of November 1890 were due to incautious underwriting.

Issue of loans above or under par.—The decision as to the price at which a loan shall be issued is dictated by various circumstances. In the case of governments whose credit is only moderately good, the usual practice is to sell the loan at less than par, in order to make it more attractive, for a cautious investor who has made up his mind to choose one of two loans at different rates of interest, but yielding the same rate on the capital invested, will almost invariably take that which is under par. Governments in good credit, on the other hand, usually ask at least par for their issues, though this rule is not invariable, as it has, in some cases, been considered worth while issuing at a discount in order to establish a loan at a low rate of interest in the market. The most remarkable instance of this was the persistent issue by the British government of 3 per cents, which, until within the last few years, were usually under par. On the whole the policy has been justified by results, but in most cases unless the discount is moderate the creation of debt, which is only partly represented by the actual receipt of cash, is of doubtful wisdom, the better plan being to borrow at par at a higher rate of interest for a moderate term of years, which enables the country to take advantage of any improvement in its credit by refunding at a lower rate when the old loan matures.

W. H.

LOCAL FINANCE is a subject of increasing importance. The aggregate receipts of the local authorities of England and Wales for 1902-3, excluding receipts from loans, amounted to £93,935,417.

The principal items were :

Public Rates	£50,328,412
Imperial Contributions	12,782,803
Tolls, dues, and duties	4,127,130
Receipts from real and funded property	2,412,144
Sales of property	473,035
Fines, fees, penalties and licences	988,266
Revenue from waterworks	4,184,611
do. gasworks	7,168,705
do. tramways	3,797,758
do. electric works	1,881,265
do. markets, cemeteries, sewage farms, baths, wash-houses, libraries, fire-brigades, lunatic-asylums, hospitals, slaughter-houses, harbours, piers, docks; excluding receipts entered as rates, tolls, dues, etc.	3,940,443
Repayments in respect of private improvement works	1,850,845

The public rates, which constitute nearly the whole of local taxation, are levied upon the occupiers of real property; the sum payable by each occupier being in proportion to the annual value of the lands, premises, etc. occupied. The poor law provides for the assessment and collection of the poor-rate; and with this rate several others, *e.g.* the county council, rural district council, and parish council rates, are collected. The general district and other rates separately collected, are based on the poor-law valuation. There is, however, a reduced assessment of agricultural land, railways, etc. to certain urban charges, and it is suggested that the system should be generally modified in another direction by the levy of special rates for town improvements upon the persons primarily benefited. Financially speaking, the areas of the separate local authorities are independent; but the metropolis occupies an anomalous position — it is an aggregation of authorities whose financial independence of each other is modified by the presence of a common poor fund and an equalisation of rates fund.

The poor rate valuation of England and Wales in April 1904 was £243,061,842; of the metropolis alone £50,117,831. The sums raised 1902-3 represent for England and Wales an average rate of 5s. 7·4d., or £1 : 10 : 6 per head of the population. The average for the metropolis, however, is 6s. 9·6d., or £3 : 0 : 5 per head; for the provinces, 5s. 3·2d., or £1 : 5 : 8 per head. The rates show an increase in ten years of 56·18 per cent, a rate of growth about the same as that of taxation for imperial purposes. In considering further the geographical distribution of the burden, it will be found that the increase is mainly confined to urban districts. In the decade in question the rates rose in the metropolis 53·7 per cent; omitting school and poor rates, those levied by urban authorities increased 61·9 per cent. Those levied by extra-metropolitan poor law authorities increased 42·9 per cent. In addition to local taxation, £12,849,284 was received during the year from imperial taxation, and distributed thus:

County and District Councils .	£5,230,607
Poor Law Authorities . .	2,322,356
School Boards	4,253,139
Metropolitan Police . . .	1,037,854
Other Authorities . . .	5,328
	£12,849,284

Some £9,000,000 of the above arose from certain imperial taxes permanently granted to local authorities, and therefore was not a charge of annual supply, but belonged to the category of charges on the CONSOLIDATED FUND. The expenditure of the surplus from this sum, after meeting certain charges, is within the discretion of the grantees.

The aggregate local expenditure, excluding expenditure out of loans, was £92,882,545. The principal items were:

Relief of the poor, including salaries, but excluding pauper lunatics .	£9,646,440
Pauper lunatics . . .	2,779,759
Police	5,720,038
Education, including expenditure of school boards, school attendance committees, reformatories, industrial schools technical and intermediate education . . .	10,816,038
Highways, street improvements, and turnpike roads . . .	9,955,581
Gasworks . . .	5,381,018
Public lighting	1,992,845
Electricity supply (other than for public lighting) . . .	929,701
Tramways	2,417,711
Waterworks	1,725,075
Sewerage and sewage disposal works	1,961,702
Markets	449,029
Cemeteries	409,511
Fire brigades	475,293
Parks, pleasure grounds, etc. . .	707,543
Public libraries and museums .	473,552
Baths, wash-houses, etc. . .	393,908
Bridges and ferries . . .	278,751
Hospitals	1,602,584
Harbours, piers, docks, and quays .	1,889,235
Land drainage, embankment, river conservancy and sea defence .	£300,817
Other public works and purposes .	6,942,372
Private improvement works . .	1,465,225
Payment in respect of loans *raised for all the purposes mentioned* .	20,287,264
Salaries, establishment, legal and parliamentary expenses not charged to particular undertakings . .	3,886,533

The numerous and increasing duties imposed by parliament upon the local, especially the urban authorities, involves an expenditure which has in the past steadily grown, and which there is reason to believe will continue to increase in the future. Economies must therefore chiefly be administrative. Some supplementary means there are: for example, the making of an annual financial statement or budget by the county councils is compulsory; and the audit of accounts by the central authorities is general, the auditor disallowing any item of account which is contrary to law. Municipal corporations and metropolitan parishes, however, elect their own auditors, and form an important exception. In several instances the rate in the £ which may be levied is limited. It may also be noted that a considerable part of the outlay of urban authorities is upon undertakings of an industrial nature, and that the more important of these usually return a profit.

Scotland.—The receipts of local authorities, excluding loans, are for 1902-3 as follows:

Rates, including water-rates, £819,000	£5,806,000
Gas, £1,841,000, Electric Light, £338,000	2,179,000
Repayment on account of Private Improvements executed by Local Authorities	44,000
Tolls, dues, fees, fines, and rents .	1,477,000
Imperial contributions . . .	2,136,000
Other receipts (including tramways)	1,532,000
	£13,174,000

The expenditure is as follows:

By Unions and Parishes:	
Poor expenditure . . .	£1,235,000
Other do.	79,000
School boards	2,786,000
Burgh authorities . . .	9,588,000
County councils	1,746,000
Heritors for ecclesiastical purposes	58,000
Harbour authorities . . .	1,250,000
Other authorities . . .	25,000
	£16,767,000

Ireland.—Local receipts for 1902-3 were:—

Rates (including water rates) .	£3,007,000
Tolls, fees, stamps, and dues .	463,000
Other receipts	611,000
Imperial contributions . . .	1,327,000
	£5,408,000

The chief items of expenditure were:

By county authorities for police, roads, bridges, lunatic asylums, etc.	£1,596,000

By harbour authorities . . .	£481,000
By poor relief, etc. . . .	1,208,000
By rural district councils, other than above.	485,000
By town authorities for police, sanitary, and other public works.	2,249,000

The varied duties of those engaged in the complex task of local government can be best traced in the annual reports of the local government board. They include the inspection of workhouses, training-ships for poor-law boys, canal-boats, vaccination, adulteration of food, education, the control of motor-cars, municipal waterworks, the housing of the working classes, the care of the unemployed, and incidentally much more.

[Local taxation returns (England and Wales)—(Scotland)—(Ireland)—Reports of the local government board.—Return: *Local Taxation*, 10th April 1893 (168 of 1893).—*Report on Local Taxation*, Scotland (C. 7575 of 1895).—Wright and Hobhouse, *Local Government and Local Taxation*, 2nd ed., London, 1894.—G. H. Blunden, *Local Taxation and Finance*, London, 1895. For earlier dates: G. J. Goschen, *Reports and Speeches on Local Taxation*, London, 1872.—R. H. Inglis Palgrave, *The Local Taxation of Great Britain and Ireland*, London, 1871.—Danby P. Fry, *The Local Taxes of the United Kingdom*, London, 1846. Also see C. F. Bastable, *Public Finance*, London, 3rd ed. 1903.—H. Fawcett, *Manual of Political Economy*, London, 1883.—W. H. Smith, *Relation between Local and Central Taxation*, *Econ. Journal*, June 1895.] W. H. S.

LOCAL GOVERNMENT. The term "local government," often used somewhat vaguely, is best confined to denote the structure and operations of those smaller bodies which are needed to supplement the action of the central authority. Employed in this sense, it has to be distinguished from federalism, and from the government of COLONIES and dependencies. The organs comprised under the designation "local government" are completely subordinate to the central legislature, but have received a delegated power for their special functions. Owing to the greater size of modern states, this process of delegation, scarcely required in the classical city state (πόλις), has been largely carried out, and is likely to increase in importance. In many cases local legislative or executive powers mark the earlier existence of complete independence, which has disappeared under the gradual CENTRALISATION that has been so prominent a feature in European history. But quite apart from these survivals there has been deliberate and conscious creation of local institutions in most of the chief modern states, and even where older formations have been preserved, they are rather adapted to meet new ends than simply retained as relics of a past condition, as conspicuous examples the English legislation of 1888 and 1894 may be mentioned.

Amongst the reasons for assigning part of the public functions to local bodies, the primary one is the desire to entrust special interests to the persons chiefly concerned. It is on this ground that most of the work of municipal corporations and the similar rural councils has been regulated. The care of roads, the disposal of sewage, lighting and water supply, are obviously matters of greater interest to the inhabitants of each town or district than to the nation at large. It is but just that the cost of particular services should fall on those who benefit by them, and that they should have the direction and management of such works. Another class of duties that may advantageously be assigned to local governing agencies, is that on which rigid and minute supervision is likely to be beneficial. Thus, the management of the English poor law is probably more effective than it would be if placed directly under a centralised authority. Local administrators, from their acquaintance with the particular circumstances, can form a sounder judgment on matters of detail than the best organised central department.

Again, it is often desirable to secure diversity rather than uniformity: the same general function has to be discharged in different ways according to the varying needs of different communities. Special conditions and habits have to be taken into account, and met by suitable arrangements. The concession of liberty to the several localities is the natural and most effective way for attaining this object. Legislation and administrative action proceeding from a local source will not fail to bear the impress of the conditions and special needs of the area for which it was intended. Moreover, room is given for the trial of experiments, and for discovering by the test of experience the merits of several competing methods. The best modes of relieving indigence, or of regulating the drink traffic, are most likely to be discovered by the adoption of different plans by local authorities, leading ultimately to general imitation of the successful ones (cp. Jevons, *Methods of Social Reform*, pp. 266-270).

In constitutional countries a further reason for the diffusion of local government is the promotion of the public education of the citizens, a work in which "local administrative institutions are the chief instrument" (J. S. Mill, *Representative Government*, ch. XV.). Great Britain and the United States afford examples of the high value of the political training obtained by the exercise of "self-government," as opposed to the bureaucratic system resulting from CENTRALISATION (see BUREAUCRACY).

The extent to which this process of devolution can conveniently be carried is limited by the need for attending to the general interests of the nation. All matters of national concern

belong *prima facie* to the central power. General legislation, the national defences, and the more important administrative works are of this class. There is, besides, in many cases, an advantage in the existence of a uniform system, constructed on a single pattern, and directed from a common centre. The higher standard of intelligence and better technical skill at the command of the State is an additional reason for entrusting tasks that specially require these qualities to it, rather than to the smaller divisions.

Though profoundly influenced by historical conditions and by the accidents of recent politics, the division of tasks between central and local government very largely conforms to the principles stated above. Between the different sets of local authorities the same guiding rules are also applicable. "As the county is to the nation, so is the parish to the county," seems to be an approximately correct proportion. The areas of local government, and the subdivisions admissible, are to be determined on these grounds. One peculiarity of local government deserves special mention, viz. the predominantly economic character of its work. Indeed, it is possible to trace a resemblance between the private company and the MUNICIPALITY or COMMUNE. This feature leads to the belief that in the local governing body it is desirable to represent, not persons merely, but the various economic interests. Equal voting power, without reference to the condition and interests of the voter, is a more than questionable arrangement. This becomes very prominent in LOCAL FINANCE. One class of persons determines expenditure, and therefore necessarily the amount of taxation or local debt. Another class has to bear the burden, perhaps without compensating benefit.

In the execution of its allotted work the local authority may err by excess or defect. It may seek to unduly enlarge its functions, and trench on the field reserved for the State, or infringe the rights of individuals; so on the other hand it may fail to discharge its duties, and thus injuriously affect the welfare of the community or some section of it. Undue interference with property or excessive taxation may be given as examples of the former, neglect of sanitary precautions, inadequate or inefficient poor-law administration of the latter error. It is obvious that in a limited area special interests can more readily acquire power, and unpopular persons or groups are more open to oppression. Remedies for such evils are to be found partly in the cultivation of public spirit and the sense of responsibility; but where this fails it is necessary to protect those aggrieved, either by allowing them to seek redress from a court, or by application to a department of the central government, like the Local Government Board in England. The power of the state has, however, to be exercised in many cases in which no individual appears as complainant. The needs of modern society have led to the establishment of a system of inspection and control, limited, however, in its action, and chiefly dealing with poor-law administration (see LOCAL FINANCE). The advantages of centralised and of local government are to a great extent combined by the method of supervision applied by the central government to local activity.

A grave problem in local government is the assignment of suitable divisions. Poor-relief, education, sanitary administration, the maintenance of roads, etc., would appear to be distinct duties calling for the creation of as many separate agencies. Simplicity and uniformity in plan are, however, very desirable. The principle "that in each local circumscription there should be but one elected body for all local business" (Mill, *Representative Government*) is generally sound. English legislation has gone too far in the multiplication of local authorities with intersecting boundaries. In this respect the French system exhibits a marked contrast. The natural opposition between "town" and "country" makes a special form of local government necessary for the former, assuming, in such cases as London, a great complexity. Finally, separate administration is desirable for certain economic matters, such as a DOCK, and a harbour, and arterial drainage, where the chief interest appertains to the class of traders or landowners rather than the community at large. Deviations from the general plan of subdivision should always be justified by some special necessity.

[In addition to the various works on local government mentioned under LOCAL FINANCE, the following may be referred to: J. S. Mill, *Representative Government*, ch. xv., London, 1861.—S. Amos, *The Science of Politics*, ch. vii., London, 1883.—H. Sidgwick, *The Elements of Politics*, ch. xxv., London, 1891.—*Local Government and Taxation in the United Kingdom*, Cobden Club, 1882.—Jenks, *An Outline of English Local Government*, London, 1894.—Albert Shaw, *Municipal Government on the Continent of Europe*, 1896; *Do. in Great Britain.*] C. F. B.

LOCAL GOVERNMENT IN THE UNITED STATES. The form of local government in the United States is prescribed by the constitution and laws of each of the several states, each state having thus its own system. However, three general types may be distinguished: the town system, found especially in the New England states; the county system, found especially in the southern states; and the mixed township-county system, found in the central and north-western states.

In New England, the early settlers had mostly come from English towns, were members

of the same religious congregation, and there was among them no sharp line of division into social classes. The necessity of co-operation in much of their work, the danger of attack from hostile Indians, the fact that they had come to America for religious freedom and wished to worship together, kept them grouped into small settlements. It was but natural that their government, partly from tradition, especially from the pressure of local conditions, should be in form a pure democracy, though doubtless men of ability and means had great influence. The form exists to-day.

Regularly, at least once a year, and as much oftener as is needed to carry on well the town business, a town meeting is called by the town officers, the purpose of the meeting being stated in the call. Every grown man who is a voter is entitled to attend, and in the smaller towns the attendance is generally large, though the fine formerly imposed for non-attendance has been abolished.

At this meeting a presiding officer—the moderator—is chosen, and the town clerk acts as secretary. Each voter is entitled to make any motion relating to town business, and to speak. Here all questions relating to town improvements—roads, school-houses, drains, are discussed and acted upon; needed taxes are levied; general regulations regarding town matters, *e.g.* the running at large of cattle, the muzzling of dogs, are made; the reports, made in detail, of the town officers, and their recommendations and estimates for the ensuing year, are heard and acted upon; new officers are elected.

The officers are "selectmen" from three to nine in number, who have the general oversight and management of affairs not otherwise assigned; the town clerk, who keeps the records and registers; the treasurer; assessors who estimate the value of property for purposes of taxation; a tax collector; constables to keep the peace, serve legal papers for the local courts, etc.; a school committee; overseers of the poor; and various other officers as needed, and as suits the pleasure of the meeting. Usually there is a pound master to impound stray cattle, a path master to care for the local roads, sometimes a measurer of wood, sealers of weights and measures, fence-viewers, and others. These officers carry out the will of the town as expressed at the meeting, or as they have been given discretionary power. Within their province they are supreme, no county or state authority having right of control unless by securing a change in the law.

In New England, the county has almost no governmental functions, serving chiefly as a judicial district for certain courts of record; though in some states county officers, usually a board of commissioners, lay out roads connecting different towns, issue certain county licenses, see to the maintenance of county buildings, and care for some few other matters that concern several towns in common. It is noticeable that of late years the importance of the county in New England is increasing. In the main, however, the state is a group of towns.

The early settlers in Virginia, a typical southern state, had received their grants of land as individuals, not as congregations. Many of the estates were large; the county was well supplied with streams, so that access to them was easy. The chief crop was tobacco, for the production of which unskilled labourers working under overseers are fitted. In consequence, negro slaves were soon introduced, and the "poor whites" who were compelled to perform manual labour lost social standing. An aristocratic type of society soon developed. Instead of town meetings, for which the settlement in large plantations at a distance from each other, as well as the type of society, were ill-adapted, a representative parish system developed. The twelve vestrymen, in whose hands most of the local governmental functions were placed, were at first elected by the people; but soon they were granted or took the power of filling vacancies in their own number, and thus established their aristocracy. The minister presided at meetings, and had power of appointment of certain officers; the vestrymen appointed the churchwardens, apportioned parish taxes, acted as overseers of the poor.

Many of the functions exercised in New England by the town were here left to the county. The county was smaller generally than in New England. It was also the judicial district; but the court, besides judicial functions, had generally in the south administrative duties as well. It superintended the repair and construction of roads and bridges, dividing the county into highway districts and appointing local road surveyors. It estimated and assessed and collected the county taxes, cared for county buildings, etc. In later years, especially since the war of the rebellion, the courts have been confined more closely to judicial work, though in North Carolina, Tennessee, and elsewhere they still retain much administrative power, the sheriff, for example, collecting taxes, to the levying of which the judges must consent. In most of the southern states the chief administrative duties are given to a board of commissioners elected by the people, together with generally a county treasurer, auditor, superintendent of education, superintendent of the poor, superintendent of roads, etc. In many of the states the county is divided now into school districts which are in good part self-governing; in some, town government has been introduced. The tendency is clearly toward the adoption of some form of town government.

As the central and western states were settled, the forms of local government adopted

were naturally modelled after those of the states from which most of the settlers had come; but as the population was mixed, the advantages of both plans were seen as well as their weaknesses, and the result has been a mixed form, sometimes called the township-county form. Even those of the older states, situate between New England and the south, *e.g.* New York and Pennsylvania, have a mixed form. In nearly all cases the predominance of the town plan shows that the early settlers were chiefly from New England or from states settled first by New Englanders—for example, Michigan, Wisconsin, Illinois, while the predominance of the county idea is found in those settled chiefly by southerners, *e.g.* Indiana, or by the middle states having a mixed form of local government. Illinois furnishes an odd example of a state in which a compromise was made leaving to each county a choice between the two systems. At first the southern counties chose the county system, the northern counties the town system; but of late years the town system has been adopted in about four-fifths of the counties.

In the main we find two types of the mixed system. In one, *e.g.* in Michigan, the town has a town meeting, as in New England, with similar powers; but instead of a board of selectmen a set of town officers, each with a special function, is chosen, though the supervisor, clerk, and justice of the peace serve as a town board to audit accounts and perform a few other minor duties. The supervisor of each town, however, represents his town in a county board of supervisors that has wide powers. It provides for erection of county buildings, prescribes the form of county records, procures supplies for county officers, levies taxes, settles claims against the county, equalises taxes among the different towns, sets off and organises towns and gives them their names, alters and lays out main roads, and builds bridges, or grants subsidies to small towns to aid them in similar work, and performs many other duties that relate to territory larger than the town. The chief characteristic is the representation of the towns in the board.

In most of the states with the mixed town-county system there is no town meeting, but the town officers are elected to perform independently, under the statute, their duties. Sometimes there are many officers, sometimes, as in Indiana, the one township trustee has great power and performs many functions. In these states the towns are not represented in the county board; but the board, usually of three commissioners, is elected directly by the people, sometimes, as in Indiana, each one particularly representing a special district of the county in which he is resident, though chosen on a general ticket. The powers of the board of commissioners are substantially the same as those of the board of supervisors already described.

The counties have also the usual officers needed for so much administrative and judicial work: clerk, treasurer, registrar of deeds, auditor, sometimes assessor, superintendent of schools, surveyor, superintendent of the poor, sheriff, prosecuting attorney, county judge, judge of probate or county administrator, coroners, the names of whose offices explain their duties. One should also mention in connection with local government in rural districts the villages that have an organisation in many ways resembling that of cities (see MUNICIPALITY—UNITED STATES OF AMERICA). In many states, under general statute, a village of some 250 or 300 inhabitants and upwards, by special vote of the residents, may be organised into a corporate body independent in its local affairs of the town in which it is situated. It elects a president and small council with power to pass ordinances, to levy taxes for local improvements, sewerage, lighting, fire protection, etc., appoint officers to keep the peace and perform other needed functions.

As regards the relations of the local governments to the state, they are all under the constitution and statutes, so that by general laws the legislature may often materially modify their forms, and the county and town officers are often made to serve as state officers in duties for which they are suited by their position, *e.g.* collection of taxes, serving process for state courts, etc. Thus the government is a well-co-ordinated system throughout, with, generally speaking, no conflicting authorities.

[Howard, *Local Constitutional History of the United States.*—*Johns Hopkins University Studies in History and Political Science.*—Bryce, *American Commonwealth.*—Fiske, *Civil Government in the United States.*—The statutes of the several states.]

J. W. J.

LOCAL OPTION is a phrase recently brought into general use, which, perhaps, had its origin in a letter written by Mr. Gladstone in 1868, in which, dealing with the question of the Permissive Bill, he said that he was disposed to "let in the principle of local option wherever it is found satisfactory." This principle is wider in its scope than that of the old permissive measure, which, if carried, would have permitted the ratepayers from time to time to decide either entirely to prohibit or to leave alone the liquor traffic within their district, whether parish, burgh, or other local area. Local option is applied to such legislation as would enable a majority of the ratepayers of any district either to maintain unchanged, to increase, diminish, or wholly suppress, the houses for the sale of intoxicating liquors. As to the method of exercising these powers, it might be periodically, either by a plebiscite or through a board of representatives elected for the purpose by the ratepayers. The difficulty as regards legislation lies in the

great number of vested interests, as well as in the limitless variety of opinion as to the precise amount of restriction to be employed. Thorough defenders of the existing liquor traffic system in its entirety, however, are few in number. On the other hand, the GOTHENBURG SYSTEM (*q.v.*)—by which municipalities would take over liquor shops and manage them in the interests of the community—has not met with much support in Great Britain; nor has the American high-licence system any considerable body of supporters. At the same time, efforts have been made to restrict the publican's trade. The provisions in Bruce's act of 1872 led the way in this direction.

Local option was first brought formally before parliament in March 1879 by Sir Wilfrid Lawson, but his motion was rejected by a majority of 88. In March 1880 the proposal was defeated by a majority of 114, but three months later, in the new parliament, it was carried by 29. Nothing, however, of a practical nature came of the vote. Another motion was carried in 1881 by a majority of 42, and yet a third one in 1883 by 87. Other important questions intervened to prevent legislation, but it is almost universally admitted that something must be done to give localities practical control over licences. Among various forms of local option put forward, it may be noted that the United Kingdom Alliance desires a power of direct veto, by which the electors of any place might, if they so pleased, veto the issue of all licences for the sale of liquor, and thus prevent the sale of strong drink. One of the great difficulties in the way of practical action has been that of deciding what should constitute a "locality," who should be the constituents, and what should be the necessary majority for abolition. Compensation to those engaged in the trade is another moot point round which controversy has fiercely raged.

In 1892 the number of licensed victuallers in England and Wales was 73,480; beer-house keepers with licences for consumption on the premises, 31,092; and for consumption off the premises, 12,580; being a total of 117,152 public-houses and beer-shops, or one to every 250 of the population; an increase over previous figures. This did not include wine-licences for refreshment-houses, or the wine and spirit licences for consumption off the premises. During 1892 the expenditure of the United Kingdom on spirits, wines, and beer amounted to £140,866,262, or an average of £3 : 13 : 11 for each man, woman, and child. In 1902 the estimates made showed that between 1880 and 1902 £3,654,590,246 had been spent on intoxicating liquors, or an annual average of £158,895,228. In 1902 the expenditure of £179,499,817, or £4 : 5 : 6¾ a head, was smaller than in any year since 1898, when it was nearly £177,000,000. The increase in 1899 over 1898 was £9,000,000, the decrease between 1899 and 1900 £1,000,000, that between 1900 and 1901 £3,330,000, and that between 1901 and 1902 £2,250,000, or a total decrease of £6,500,000 since 1898 (*Parliamentary Returns* and Hoyle's *Statistics*). Convinced of the necessity for coping with this gigantic traffic, the government has on several occasions initiated legislation. In 1890 it proposed to arm the county councils with powers enabling them to reduce the number of public-houses; the compensation scheme, was, however, so vigorously attacked that the government was compelled to abandon its proposals. In 1893, Sir William Harcourt introduced in the House of Commons a bill to establish the control of the liquor-traffic by a popular vote operating through the direct veto, called the Direct Veto Bill, or the Liquor Traffic (Local Control) Bill. It was advanced through its first stages, but the exigencies of public business, and the difficulties it encountered, compelled its withdrawal. The bill was again introduced in the session of 1894, but it did not get beyond its first reading. Sir William Harcourt brought it forward for the third time in 1895, but it was dropped on the overthrow of the Government of which he was Chancellor of the Exchequer. Though local option is in legislative abeyance, it has been urged in the Reports of the Royal Commission on the Licensing Laws 1899, and by the promotors of the Public-House Trust Movement (see LIQUOR LAWS).

[*Chambers's, Encyclopædia*, vol. vi.—Reid, *Temperance Cyclopædia.*—*Hazell's Annual.*—Rae, *Handbook of Temperance History.*—*The Alliance News; Local Option*, Caine, Hoyle, and Dawson Burns.]

G. B. S.

LOCAL TAXATION. See LOCAL FINANCE.

LOCALISATION OF INDUSTRY. By localisation of industry is meant the concentration of different industries in different localities, a phenomenon in its international aspect aptly described in TORRENS'S phrase, "territorial division of labour" (*The Economists Refuted*, 1808, p. 14, quoted by Bastable, *International Trade*, 1887, p. 20). For the economic principle underlying DIVISION OF LABOUR (*q.v.*) finds its fullest expression in this specialisation of particular localities to particular industries—this arrangement of productional activities with special reference to the diverse aptitudes, capacities, and resources of different peoples and places (cp. Cairnes, *Leading Principles of Pol. Econ.*, 1874, pt. iii. ch. i. § i.).

The influence of the special industrial tendencies of different races is naturally most conspicuous as between widely divergent civilisations. But, generally speaking, in the industrial as in other spheres of human activity "nationalities are not disappearing but increasingly developing and characterising themselves" (Flint *Philosophy of History.*

1893, pp. 26-27). *National character* is thus a factor of increasing importance in determining the distribution of the world's industry. It is seen in greatest relief when, as in the case of the Dutch, it triumphs over circumstances seemingly the most adverse. Nevertheless, man's LABOUR (*q.v.*) is more productive in proportion, not as he combats, but as he utilises nature's forces—a truth to which the Anglo-Saxon race itself in its colonising character has done ample homage. And Dutch history, closely interrogated, merely shows, not that physical conditions are unimportant, but that many of the obstacles to industrial development thence arising are relative to the intelligence, energy, and enterprise brought to bear on them. At any given stage in the progress of CIVILISATION (*q.v.*), *physical conditions* have thus, independently of their bearing on character (cp. Marshall, *Principles*, bk. i. ch. ii. §§ 1, 3), an important influence on the localisation of industries, both as between different countries and between different localities in the same country. Under a competitive *régime* commodities tend to be produced "not only by the fittest men but in the fittest places" (Bastable, *Commerce of Nations*, 1892, p. 16). 1. Apart from its influence on the energy of man and the durability of his work, the *climate* of a place determines the nature of its vegetable and animal products, and, therefore, to a certain extent, of its industry. Hence the great trades of the world take place naturally between countries differing widely from each other in climatic conditions. "By means of glasses, hot-beds, and hot-walls," says Adam Smith, "very good grapes can be raised in Scotland, and very good wine, too, can be made of them, at about thirty times the expense for which at least equally good can be brought from foreign countries" (*Wealth of Nations*, M'Culloch's ed. p. 200). 2. *The geographical position* and *water communications* of a country are also important factors in determining its industrial *rôle*. The situation of Britain as regards the great COMMERCIAL ROUTES (*q.v.*), her abounding natural harbours and navigable rivers, have immensely aided in establishing her commercial supremacy. Such advantages, however, are in some degree relative to the economic environment of a particular epoch. "Britain has been in turn a great corn-growing, wool-growing, and coal-producing island; and the changes from one employment to another have been due, not so much to climatic or physical changes, as to the relations of trade in which its inhabitants have stood to other peoples" (Cunningham, *Growth of English Industry*, vol. i. pp. 12-13). 3. *The geological formation* of a country not only affects its superficial features and water supply, but determines the character of the soil and, thus, the nature and quality of the vegetation it supports, as well as the abundance or scarcity of its mineral wealth. These, however, are conditions which do not remain constant under the hand of man (*v.* Sidgwick, *Principles*, 3rd ed. bk. i. ch. iv.).

Within the same country, those elements of economic friction which impede COMMERCE (*q.v.*) and specialisation as between different countries—*e.g.* national prejudice, legislative restraints, differences in language or currency, in custom or law, risk in transport, etc.—are, in modern times, either altogether absent or present only in a modified degree. Here, therefore, the influence of physical causes is naturally more conspicuous. The commercial prosperity of cities like Liverpool and Glasgow, Clyde shipbuilding, Sheffield cutlery, the "lead pencils" of Keswick, even the pottery of Staffordshire, are typical of the influence of natural environment (cp. Marshall, *Principles*, pp. 327-328). But there are many examples of localised industries which cannot be thus accounted for, having had their origin in the now oft-forgotten social, political, and other conditions of a bygone age. Such is the order of things in countries where custom and tradition are still dominant. In England itself up to the time of the INDUSTRIAL REVOLUTION (*q.v.*) the settlements of foreign artisans made under Plantagenet and Tudor direction supplied in the main the key to the localisation of English manufactures (cp. Marshall, *Principles*, p. 328; Nicholson, *Principles*, vol. i. pp. 114-115). Even now, when each locality has to justify its claim at the bar of the keenest competition, cases of this sort are numerous. Some, like the silk weaving of Spitalfields in London, are slowly dying, but others continue to thrive. Indeed, an industry, once firmly established in any place, is often more than compensated for any chance inferiority in respect of physical endowment by the cumulative effect of its *acquired* advantages over would-be rivals, in the matter of (1) business connection based on its established reputation; the commodities of a town or district may win a name for themselves just like those of a single firm, and this is as much a source of income, and of industrial strength, to the inhabitants, as his professional reputation to the lawyer or physician (cp. Sidgwick, *Principles*, pp. 93-94); (2) perfected organisation, with facilities for drawing on abundant supplies of the different varieties of skilled labour (*v.* LABOUR, SKILLED) and of specialised machinery; which, in turn, is closely connected with (3) adequate support from the neighbourhood of (*a*) supplementary industries, which permit of economy of skill, and, by affording scope for the labour of some members of a family, tend to cheapen the labour of the others without lowering their standard of living (*v.* COMFORT, STANDARD OF), (*b*) subsidiary industries supplying the requisite tools and machinery, and furnishing the means

of conveyance and communication (cp. Marshall, *Principles*, p. 330 *seq.*, Sidgwick, *Principles*, pp. 373-4). The locality, however, if it is to retain possession, "must be the first to adapt itself to any new conditions" (Nicholson, *Principles*, vol. i. pp. 116-117). The increasing supersession of hand-made by machine-made lace is steadily concentrating this industry in Nottinghamshire and Derbyshire, at the expense of other English counties, notably Northamptonshire (*Census 1891, General Report*, p. 50). Possibly the most magnificent example at once of cumulative strength and of delicacy of operation is found in the history of the varied influences which have made, and maintain, London the world's "clearing house" (see CLEARING SYSTEM) (cp. Bagehot, *Lombard Street*, pp. 32-35 and ch. iii.; Goschen, *For. Exch.*, 5th ed. pp. 32-37). A powerful localised industry, moreover, while attracting supplementary and auxiliary industries, tends to outbid, and thus repel, industries competing with it for labour or elbow-room (cp. Sidgwick, *Principles*, p. 378). Glasgow, Liverpool, Hull, even Leeds and Manchester are becoming specialised for purely commercial purposes, while the pressure of ground-rent drives the manufactures into the surrounding districts. Owing to this "substitution of business premises for houses" the population of Central London has declined nearly 14 per cent in thirty years (*Census, 1891, General Report*, pp. 14-15). But, to resume, even within the same country the physical conditions of a particular time are clearly not all-powerful in determining the localisation of industries. The face of every old-inhabited country is dotted over with the evidences of a time when not only were the physical conditions, as already noted, other than they now are, but man's power of dealing with them was less than it now is, and, in the economic sense of the term at least (*v.* Bastable, *Theory of International Trade*, ch. i.), the present "nation" was not—"the Norwich merchant who visited London" being "as much of a foreigner there as the man from Bruges or Rouen" (Cunningham, *Growth of English Industry*, vol. i. p. 175).

It is worthy of note, as affecting localisation, that the progress of the industrial arts is perpetually changing the economic import of physical conditions. While charcoal was used in Britain for smelting—as even now in Sweden—and the blast furnaces were worked by water, the iron works were located where timber and water-power were most readily available. But, since coal came into use as fuel, and steam-power was introduced, this industry has become definitely localised in the districts of the north and west, where coal and iron are found together (*v.* Cunningham, *Growth of English Industry*, vol. ii. p. 461, 462). Similarly, the woollen manufacture, which early in the 18th century was widely distributed over England—flourishing chiefly where the raw material was plentiful—has, since the introduction of machinery, become concentrated in the north where power and mechanism are at hand (cp. Hobson, *Evolution of Capitalism*, pp. 26-28). Specialisation, too, implies organisation for EXCHANGE (*q.v.*) and it is in the removal of the barriers—physical, political, and social—which obstruct commercial intercourse that the progress of civilisation has, perhaps, most conspicuously affected the localisation of industries. If we take the history of England as typical, then the contrast is sufficiently striking between the 9th century, with its simple, all but self-sufficing, groups existing in mutually mistrustful isolation, and the complex, highly specialised, industrial organism of the 19th, with its security-based credit organisation, its world-wide connections and sympathies. Naturally, the advance has sometimes been more marked in one of its aspects, sometimes in another. From the 13th century onwards the influence of political and social consolidation is especially notable. As the authority of the central government grew, national life and organisation more and more superseded local or municipal feeling and regulations. "That there should be similar laws, similar customs, similar taxes, similar conditions of business throughout the length and breadth of the land was," says Professor Cunningham, "a very great gain for purposes of internal trade" (*Growth of English Industry*, vol. i. p. 244). But to trace the various steps of the advance is the province of industrial history. Production is no longer carried on with a view to local or even national requirements in the first place, with the merely incidental exchange of a surplus. This extension of the MARKET (*q.v.*) permits of greater specialisation, and, as a consequence, many of the industries which flourished in England when the area of COMPETITION (*q.v.*) was more restricted are now leaving her. Such *e.g.* is the case with certain branches of agriculture and of mining, glove-making, and the manufacture of straw-plait, of linen, and of silk (see *Census 1891, General Report*, pp. 43-57). Thus, evolution of the social as of the physical organism shows us alike "differentiation" and "integration," a greater subdivision of functions between its separate parts—a greater specialisation—on the one hand, and, on the other, a more intimate connection—a greater interdependence (cp. H. Spencer, *Principles of Sociology*, vol. i. 2nd ed. pt. ii.—Marshall, *Principles*, bk. iv. ch. viii. § 1).

[The increasing prominence of localisation in the industrial world is reflected in works on the general theory of *Economics*. The subject is admirably treated, from slightly different standpoints, by Prof. A. Marshall, *Principles of Economics*, vol. i. 2nd ed. 1891, bk. iv. ch. x.—Prof. J. S. Nicholson

Principles of Political Economy, vol. i. 1893, pp. 114-117, 129, 130.—Prof. H. Sidgwick, *Principles of Political Economy*, 3rd ed. 1901, bk. ii. ch. xi.—See also G. Schulze-Gävernitz, *Der Grossbetrieb*, Leipzig, 1892.—R. W. Cooke Taylor, *The Modern Factory System*, 1891.—J. A. Hobson, *Evolution of Modern Capitalism*, 1894, ch. ii., ch. iii. § 10, ch. iv.—Leonard H. Courtney, "The Migration of Centres of Industrial Energy" in *Fortnightly Review*, Dec. 1878, vol. xxiv. N.S. —Duke of Argyll, *Unseen Foundations of Society*, 1893, ch. xvi.—J. E. Thorold Rogers, *Six Centuries of Work and Wages*, 1886, pp. 46-47, also chs. iv. v.—Adam Smith, *Wealth of Nations*, bk. iii. ch. iii.—*Harvard Quart. Journ. Econ.*, Ap. 1896.—L. A. Ross, *The Location of Industries.*—W. Cunningham, *Growth of English Industry and Commerce*, vol. i. 1890, vol. ii. 1892, *passim.*—The sections on "Trade and Industry" in *Social England*, ed. H. D. Traill, in course of publication, vols. i. ii., 1893-94.—G. G. Chisholm, *Handbook of Commercial Geography*, 1889.] A. B. C.

LOCK-OUT. This term is contrasted with the term Strike in cases of industrial dispute. A strike is the weapon of the employed, while a lock-out is that of the employers. The masters close their works after a certain day if the men will not accede to their terms, whereas in the case of a strike the men cease from work after a certain day if the masters will not grant their demands. In strictness the term *lock-out* should, no doubt, be employed when the act leading to the dispute originates with the masters, and the term *strike* when the men are the aggressive party; but in practice it is difficult in many instances to determine which party really provoked the quarrel, and either may seek to fasten the responsibility on the other. In this case the term lock-out may be applied by the men to the dispute, while the masters may employ the term strike. Supposing, for example, that the masters give notice of a reduction of wages and the men decline to accede to it, they would still often be described as "striking," whereas the original motion would have come from the masters. Or, again, supposing that the men give notice of an appeal for an advance, and the masters say that rather than accede to the request they will close their works, it is very probable that the newspapers would report that the masters had locked the men out. In conclusion, therefore, it may be said that the use of the terms is not in practice strictly defined, but that the term *strike* is probably more common than that of *lock-out*.

[For books to be consulted see article on STRIKES.] L. L. P.

LOCKE, JOHN (1632-1704), the philosopher, was born at Wrington in Somerset. His father was a country attorney and small landed proprietor, who served on the Parliamentarian side in the civil war, which lasted through Locke's boyhood. Locke was educated at Westminster school, 1646-1652, and at Christ Church, Oxford, where he matriculated as a "Student" in 1652, took his B.A. in 1656 *N.S.*, and his M.A. in 1658. He held various college offices between 1660 and 1665. In 1665 he went as secretary to Sir Walter Vane on an embassy to the elector of Brandenburg, at Cleve. In 1666 he received a royal dispensation, allowing him to retain his studentship at Christ Church without taking holy orders, and studied medicine, but did not take his M.B. till 1675 *N.S.*, and never took his M.D. In 1666 he made the acquaintance of Lord Ashley, afterwards first Earl of Shaftesbury, at Oxford, and in the following year took up his residence with the Ashley family in London as physician and confidential adviser,—though he continued to reside at Oxford from time to time. He acted as tutor to Anthony Ashley, second Earl, negotiated his marriage with Lady Dorothy Manners, and assisted as accoucheur at the birth of the third Lord Shaftesbury (the philosopher), whose education he afterwards superintended. His connection with Lord Ashley brought him into active connection with public affairs. It was probably for Lord Ashley that he wrote an *Essay concerning Toleration*, first published in Mr. Fox Bourne's *Life*, which contains the ideas afterwards developed in his famous *Letters on Toleration* published 1689-1706. Ashley was one of the "lords proprietors" of the colony of Carolina, and *The Fundamental Constitutions of Carolina*, published among Locke's *Works* in 1720, were probably drafted by Locke, though it is only the articles on religion that reflect his own views to any extent. In 1668 Locke was elected a Fellow of the Royal Society, but seems to have preferred the less formal discussions of a small circle of friends. Through one of these discussions, probably about 1670-1671, he first came upon the project afterwards elaborated in his *Essay concerning the Human Understanding*. In his medical pursuits Locke enjoyed the friendship and shared the ideas of Sydenham. In 1672 he made a short tour in France, in the suite of the Countess of Northumberland. When Ashley was made Earl of Shaftesbury and Lord High Chancellor in 1672, Locke became his "secretary of presentations." In October 1673 he became secretary to the council of trade and foreign plantations, which office he retained till 12th March 167$\frac{4}{5}$, but he never apparently received his salary of £500.

From November 1675 to April 1679 Locke was abroad in France, chiefly at Montpellier, mainly for the sake of his health. During part of the time he had charge of a pupil. When he returned to London, Shaftesbury was again in power and office, as President of the Council, and Locke seems to have been occupied in political service for him. During the brief Oxford parliament of March 1681, Locke again occupied his rooms at Christ Church. After

Shaftesbury's arrest in July 1681, Locke's movements and frequent absences from Oxford were clearly regarded with suspicion by political opponents, though there is no evidence that he was directly engaged in the plots for making the Duke of Monmouth king. He left Oxford in the summer of 1683, and after a short visit to Somerset went to Holland where Shaftesbury had died in January 168¾. On 16th November 1684 the dean and chapter of Christ Church, in obedience to peremptory orders from the king —in which Locke was accused of "factious and disloyal behaviour"—deprived Locke of his studentship. Locke's residence in Holland gave him opportunity for literary work. His *Essay concerning the Human Understanding* was written there, and probably the greater part of his *Treatise of Civil Government*. Locke enjoyed the friendship of Limborch, professor of theology among the "Remonstrants" (Arminians), and of Le Clerc. To the former was addressed his *Epistola de Tolerantia*, not published till 1689, when it was almost at once translated into English by William Popple. In Le Clerc's *Bibliothèque Universelle*, one of the earliest literary and scientific periodicals, Locke published his plan for keeping a common-place book (*Methode Nouvelle de dresser des Recueils*) —his first publication, 1686, and an abstract of his *Essay*, January 168⅞. In February 168⅞, Locke returned to England with the Princess Mary and Lady Mordaunt. Through Lord Mordaunt, afterwards Earl of Peterborough, he was offered the post of ambassador to the Elector of Brandenburg and afterwards that of ambassador to Vienna, but declined both on the ground of bad health. He was made commissioner of appeals, and seems to have retained this small office till his death. There is a tradition that Locke himself negotiated the Toleration Act (1689), which, however, fell far short of his views. Unable to endure the smoke and fogs of London, Locke made an arrangement to live at Oates in the parish of High Laver, in Essex —the manor-house of Sir Francis Masham, whose wife was a daughter of Dr. Ralph Cudworth, the Cambridge "Platonist": and, except for occasional residence in London, Oates was Locke's home till his death in 1704.

The *Essay concerning the Human Understanding* and the *Two Treatises of Civil Government* and a *Second Letter on Toleration* were all published in London in 1690. In 1692 he published, anonymously, a tract entitled *Some Considerations on the Lowering of Interest and Raising the Value of Money in a Letter sent to a Member of Parliament:* the date of the dedication is 7th November 1691. The "Member of Parliament" was Sir John Somers, who Locke says had put him "upon looking out his old papers concerning the reducing of interest to 4 per cent, which had so long lain by forgotten." The date of these "old papers" must be 1672, when the exchequer was closed. In this tract of 1692 Locke controverts the view of Sir Josiah Child, that the rate of interest could be fixed at a low rate, say 4 per cent, by law. Locke, though ready to approve of a legal rate of 6 per cent, argues that "generally speaking" the price of the hire of money cannot be fixed by law; and that any attempt to fix the rate of interest below "the true and natural value" can only harass trade and is sure to be defeated by the devices of expert traders. Locke argued against Sir Josiah Child, *Observations concerning Trade* (1668 reprinted 1690) that the example of Holland did not prove that a low rate of interest fixed by law was the cause of national wealth; for in Holland there was no law limiting the rate of interest at all, and the low rate of interest was owing to the abundance of ready money. In the second portion of the treatise, Locke exposes the fallacy in the notion of "raising our coin" *i.e.* depreciating the currency. In 1692 Locke published a *Third Letter for Toleration:* and in 1693 *Some Thoughts concerning Education*, dedicated to his Somersetshire friend Edward Clarke, with whom he had corresponded when in Holland about the education of his children. A second edition of the *Essay*, with alterations and additions, appeared in 1694; and a third edition, which is only a reprint of the second, in 1695. A fourth, with alterations and additions, was published in 1699—dated 1700.

In 1694 Locke became one of the original proprietors of the Bank of England. In the spring of 1695 Locke took a leading part in bringing about the repeal of the Licensing Act, thus securing the principle under which what is called the liberty of the press exists in this country, viz. that every one may publish what he chooses in writing as in speech, without previous licence, but that he must be answerable for it afterwards. Locke is said to have drawn up the paper of reasons expressing the dissent of the Commons from the Lords' amendment, which reintroduced the statute; and, as Locke's friend Edward Clarke was the leading manager on the part of the Commons in the conference with the Lords, the statement is extremely probable. In the same year Locke was able to render another great service to his country. He drew up for the use of the lords justices, who were governing England during the absence of King William on the continent, and who included among them Locke's friends Lord Somers and the Earl of Pembroke, two pamphlets on the currency question: (1) *Some Observations on a Printed Paper entitled, For Encouraging the Coining Silver Money in England, and after for keeping it here* (this pamphlet, now lost, was an answer to Locke's treatise of 1692); and (2) *Further Considerations concerning Raising the Value of Money.* In these, resuming and enforcing the arguments of his

tract of 1692, he combats the proposal of William LOWNDES (*q.v.*), secretary to the treasury, who wished to raise the nominal value of the coins, making the crown-piece 6s. 3d., and so on in proportion, depreciating the whole currency to the extent of one-fifth. "An ounce of standard silver can never be worth an ounce and a quarter of standard silver. Nor can it ever rise or fall in respect of itself." The resolutions which were introduced into the House of Commons by Charles Montague—afterwards Lord HALIFAX,—and carried there, embodied Locke's opinions. The old standard value of silver coins was to be retained *both* as to weight and fineness. In this year (1695) also Locke published his *Essay on the Reasonableness of Christianity as delivered in the Scriptures*, which was followed by *A Vindication of the Reasonableness*, etc., and *A second Vindication* in 1697, in answer to the attacks of John Edwards, who accused him of heresy. The years from 1697 to 1699 were to some extent occupied by Locke's controversy with Stillingfleet, bishop of Worcester, on questions arising out of the *Essay concerning the Human Understanding*. But during these years Locke was also performing, so far as his health would permit, important public functions. From May 1696 to June 1700 he was one of the salaried commissioners in the council of trade and plantations, a revival of the body of which he had been secretary in 1673, and which was the predecessor of both the colonial office and the board of trade of the present day. The commissioners had also to consider questions affecting the condition of the poor. Locke, though in bad health and unable to stay in London, except in summer and autumn, was the most diligent member of the board, and had the most influence in it. His resignation in 1700, owing to increasing infirmity, was reluctantly accepted by the king. Among other duties we find that Locke was specially commissioned "to draw up a scheme of some method of determining differences between merchants by referees that might be decisive without appeal." In 1697 Locke's report on the means of discouraging the Irish woollen industry, and, by way of compensation, encouraging the Irish linen industry, was the report selected from among others and approved by the other commissioners. It is dominated by protectionist principles. In the same year another report of Locke's was adopted—on the employment of the idle or necessitous poor. Special features of Locke's proposals are industrial schools for children, with free meals as a substitute for a money allowance to parents with many children; and equalisation of poor-rates in each city or town, instead of separate rates for each parish.

During the last four years of his life, in his retirement at Oates, Locke was chiefly occupied with a commentary, published 1705-1707 (after his death), on some of the Epistles of St. Paul. A little treatise *Of the Conduct of the Understanding*, intended for an additional chapter in his *Essay*, never received his final revision, and was published among his posthumous works. His last literary effort was a *Fourth Letter for Toleration*, unfinished. He died 28th October 1704.

This sketch of Locke's life, and enumeration of his writings, will have sufficiently illustrated his extraordinary versatility. His *Essay concerning the Human Understanding* makes an epoch in the history of philosophy. He introduced the method, which became prevalent in England and France during the following century, of treating philosophical questions from the standpoint of psychology. Locke's cautious but unsystematic account of the origin and nature of knowledge was developed by Condillac and others into a thoroughgoing materialistic sensationalism, and by Hume into complete philosophical scepticism. By Voltaire and others Locke was regarded as the initiator of common-sense rationalism in opposition to the authority of both ecclesiastical and philosophical dogmatism. Similarly, by his plea for the simplification and diminution of doctrines in religion, Locke became the forerunner of the "Deism" of the 18th century. His writings on toleration did much to advance the cause of liberty of thought on the continent as well as in England. Locke indeed exempts Roman Catholics and Atheists from his tolerance, but on political, not religious, grounds. The Roman Catholic is to be excluded, not because of his belief, or the forms of his worship, but because he is the subject of a foreign potentate; the atheist, because he cannot be a good citizen. But Locke's principle of regarding religious belief as a matter with which the civil magistrate should not interfere became one of the watchwords of "liberalism." His *Treatise of Civil Government* was a philosophical defence of the principles of the revolution of 1688, and its contents came to be accepted as the true exposition of the Whig creed. Its leading ideas, that civil society is based upon a compact for the defence of the rights of liberty and property, and that a people may rebel against rulers who are no longer true to the trust reposed in them, and may change the form of their government—are the same as those formulated by ROUSSEAU in his *Contrat Social*, though Rousseau's logic is more relentless and his language less cautious. The very phrases of Locke's *Treatise*, as well as its ideas, are echoed in the American Declaration of Independence. In practical politics, Locke was the confidant of Shaftesbury in his anti-absolutist policy; he was, it would seem, directly concerned in the negotiations which led to William of Orange coming over to England; he helped the passing of the Tolera-

tion Act—an instalment at least of liberty; he succeeded, where Milton had failed, in bringing about the abolition of a literary censorship; he was a main instrument in giving the country a sound currency. As an educational reformer he was the advocate of many principles that have since been accepted. Amid all these claims to be remembered, it is often forgotten that Locke was a reformer also in medicine, and apparently a practical physician of no mean skill.

Locke's contributions to economic theory are to be found in the tracts on money which have been mentioned above, and in certain passages of his *Treatises of Civil Government*. The first treatise is a criticism of Sir Robert Filmer's *Patriarcha*, written about 1642, but not published until 1680, twenty-seven years after the author's death. Filmer had used the origin of government in the patriarchal family as an argument for absolute monarchy. Locke, in order to refute Filmer's absolutist theories, denies the historical connection between the patriarchal family and civil government. Civil government, Locke argues in the *Second* and more important *Treatise*, results from a compact by which mankind, originally free, equal, and independent, pass from the state of nature into the civil or political state. This original state of nature is not, however, as on the theory of HOBBES, a state of war of all against all, but has a "law of nature" to govern it. By the law of nature man already possesses rights of person and property; and it is for the better securing of these natural rights that government is instituted, and when a government fails to fulfil the purposes for which it was instituted, a change of government, though not to be lightly undertaken, is justified. Locke probably derived his conception of the law of nature largely from GROTIUS and perhaps also from Grotius's follower PUFENDORF, whose *De Jure Naturæ et Gentium* was published in 1672. The only previous writer on political theory on whom Locke expressly bases any of his opinions is "the judicious Hooker"—an authority acceptable to the ecclesiatical party, against whose political theories he had to argue. It is characteristic of Locke's unsystematic method of philosophising, that in his political treatise he makes use of that idea of a law of nature (see JUS NATURALE), which belongs to the same type of thinking that he attacked in his polemic against "innate ideas" in the *Essay*. Locke's own language about the supposed "state of nature" is studiously moderate, but he undoubtedly prepared the way for that idealisation of the state of nature which we find in Pope's *Essay on Man* ("The state of nature was the reign of God," etc.,) and in Rousseau's *Discourse on Inequality* (1754). The use of the idea of "nature" by the PHYSIOCRATS (*q.v.*) and by Adam Smith may also be traced to Locke's influence.

In treating of the subject of property, Locke, it should be observed, is primarily concerned to refute the idea of Filmer that kings have by descent from Adam (presumably according to the English custom of primogeniture!) dominion over all the creatures (see i. ch. 4). "God hath given the world to men in common. . . . Yet every man has a property in his own person. . . . The labour of his body and the work of his hands we may say are properly his. Whatsoever, then, he removes out of the state that nature hath provided and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property" (ii. ch. 5, §§ 26, 27). This theory, which bases property on labour, and which may have influenced but must not be confused with Adam Smith's basing of *Wealth* on labour (*Wealth of Nations*, Introduction), is applied by Locke only to the state of nature. In any given country, the property rights of individuals depend upon the law of the land, *i.e.* on compact (*ibid.* § 35. Cp. Grotius's theory): and thus, though the individual is by nature free to choose what society he will join himself to, he has to submit to the laws about property in any commonwealth of which he becomes or remains a member (ii. ch. 6, § 73). There seems some inconsistency between this acceptance of "consent" as the basis of actual property rights and the theory that government exists for the purpose of defending the natural right of property. Locke would doubtless have solved the contradiction by passing, as he constantly does, from the phraseology of the "law of nature" to utilitarian considerations. Locke is only concerned to prove the advantage of fixed and determinate laws, which may be changed for the "common good," against arbitrary government. His theory of property might be made a premiss for anarchical conclusions: he himself does not apply it in any such way. He fully recognises that "where there is no law, there is no freedom" (ii. ch. 6, § 57). The economic doctrines of Locke's three tracts on money have already been referred to. In his views about interest and about the currency Locke is in harmony with subsequent economic theory. On the other hand he was still completely under the influence of the MERCANTILE SYSTEM, maintaining incidentally, while discussing the other two questions, that the commercial prosperity of a country is to be measured by the excess of its exports over its imports.

D. G. R.

LOCKE ON CURRENCY.—Locke had always a good eye for economical facts; we read in his Journal, for example, how the expenses of the Languedoc canal were met (*Life of Locke* (1829), pp. 53, 55, cp. 272), and how salt was prepared and taxed at Picais (*ib.* p. 61), how the peasants in the Bordeaux country lived, and what wages they got (*ib.* p. 76), what was the mortality of

Paris as compared with that of London (*ib.* 80). His remarks on the comforts of the poorest civilised man as compared with the savage (*ib.* 84-86), are probably the original source of a well-known passage in Adam Smith (*Wealth of Nations*, i. end of ch. i.). His derivation of property from labour was, as he stated it, an original and suggestive idea, even if open to many criticisms; and his political philosophy has had its influence on political economy.

But his best-known economical writings are on currency. His biographer, Lord King, was himself an economist with decided views on the currency (see KING), and he describes Locke's proceedings in this regard with much feeling (*Life of Locke* (1829), p. 240 *seq.*). Before Montague and Somers carried out in 1695 their great reform of the English currency, they had taken Newton and Locke into their counsels. Locke had thought deeply on these matters for twenty years, he tells us, before his pamphlet *Some Considerations of the consequences of the lowering of Interest, and raising the value of Money* (written 1690, published 1691), and that pamphlet was but a new expression of long-formed views. The "Considerations" were drawn out against those who desired to reduce interest to 4 per cent by act of parliament; Locke says that interest will be high when "money"—and he is not always careful to distinguish metal money from loans—is scarce, and parliament cannot make it plentiful, though it can multiply perjury amongst borrowers and lenders, and obstruct trade by bad laws. As for the attempt to keep gold and silver within the country, he says it is an attempt "to hedge-in the cuckoo." He recognises the need of an adequate amount of metal currency in nations having any trade at all; it will be in proportion not simply to the trade but to the "quickness of circulation." "The very same shilling may pay twenty men in twenty days." The nature of the transactions must be considered, and also the habits and necessities of the parties concerned. Money will go further if there are many small payments at short intervals, rather than a few large payments at long intervals. He calculates that "it cannot be imagined that less than a hundredth part of the labourer's yearly wages, one eighth part of the landlord's yearly revenue, and one fortieth part of the broker's yearly returns in ready money, can be enough to move the several wheels of trade, and, how much the ready cash of any country is short of this proportion, so much must the trade be impaired and hindered for want of money" (*Considerations*, Works, vol. ii. p. 15, ed. 1740). The value of money is subject to the same variations as the value of other "consumable commodities." The quantity of ready money compared with the "vent" or the number, of buyers and sellers, determines the value of money (p. 16); and the vent and value depends on the necessity or usefulness of the articles.

The foregoing will be a sufficient sample of Locke's manner. The treatise, though nominally on the currency, is to a large extent a general discourse on the general principles of economics. There is even a hint of the doctrine of rent. "Were all the land in Romney marsh, acre for acre, equally good, that it did constantly produce the same quantity of equally good hay or grass, one as another, the vent of it, under that consideration, being of an equal worth, would be capable of being regulated by law," etc. (*ib.* p. 18). Locke refuses to consider the consumers as worthy of special account: "There are so few consumers," he says (p. 16), "who are not either labourers, brokers, or landlords." It is the labourers he most favours, tracing as he does all value as well as property to labour. His explanation of interest by the analogy of rent has been well said, by Dr. Böhm Bawerk, rather to discredit rent than to vindicate interest; "the unequal distribution brings you a tenant for your land, and the same unequal distribution of money brings me a tenant for my money" (p. 19). The one is as lawful as the other; but there is no more than an analogy; rent does not cause interest or interest rent, they vary differently (pp. 20, 21). On the other hand Locke is physiocratic; he thinks that all taxes fall eventually on the landholder (p. 31). In this treatise and in the appended short observations on a printed paper entitled, "For encouraging the coining silver money in England," Locke maintains boldly what is known as the QUANTITY THEORY of the currency, and he makes little or no distinction between demand for the metal money and demand for loans. He also (p. 33), not very logically, defends a legal rate of interest though refusing to fix it below current rates. As to the coinage, he prefers the new milled silver to the old hammered, but thinks that both will leave us speedily if our seignorage remains nominal, and especially if our foreign balance is against us (pp. 46, 47). The raising of the denomination or the increase of alloy he considers as debasement and fraud (pp. 43, 44). In respect of the standard, he is a silver monometallist, but, with his easy-going inconsistency, would have gold still coined, since, as a matter of fact, it is there and used among us.

"The effect indeed and ill consequence of raising either of these two metals in respect of the other is more easily observed and sooner found in raising gold than silver coin, because your accounts being kept and your reckonings all made in pounds, shillings, and pence, which are denominations of silver coins or numbers of them, if gold be made current at a rate above the free and market value of those two metals, every one will easily perceive the inconvenience. But there being a law for it, you cannot refuse

the gold in payment for so much. And all the money or bullion people will carry beyond sea from you will be in silver; and the money or bullion brought in will be in gold. And just the same will happen when your silver is raised and gold debased in respect of one another, beyond their true and natural proportion (natural proportion or value I call that respective rate they find anywhere without the prescription of law). For their silver will be that which is brought in, and gold will be carried out, and that still with loss to the kingdom answerable to the over-value set by the law. Only, as soon as the mischief is felt, people will (do what you can) raise the gold to its natural value" (p. 51).

"Money is the measure of commerce and of the rate of everything, and therefore 'ought to be kept (as all other measures) as steady and invariable as may be.' But this cannot be if your money be made of two metals whose proportion and consequently whose price constantly varies in respect of one another. Silver for many reasons is the fittest of all metals to be this measure, and therefore generally made use of for money. But then it is very unfit and inconvenient that gold or any other metal should be made current legal money at a standing settled rate. This is to set a rate upon the varying value of things by law, which cannot justly be done" (p. 51). "What then (will you be ready to say) would you have gold kept out of England? Or, being here, would you have it useless to trade, and must there be no money made of it? I answer, quite the contrary. 'Tis fit the kingdom should make use of the treasure it has. 'Tis necessary your gold should be coined and have the king's stamp upon it, to secure men in receiving it that there is so much gold in each piece. But 'tis not necessary that it should have a fixed value set on it by public authority; 'tis not convenient that it should, in its varying proportion, have a settled price. Let gold, as other commodities, find its own rate. And when by the king's image and inscription it carries with it a public assurance of its weight and fineness, the gold money so coined will never fail to pass at the known market rates, as readily as any other species of your money" (p. 52). "There being no two things in nature whose proportion and use does not vary, 'tis impossible to set a standing regular price between them. The growing plenty or scarcity of either in the market (whereby I mean the ordinary places where they are to be had in traffic), or the real use or changing fashion of the place, bringing either of them more into demand than formerly, presently varies the respective value of any two things. You will as fruitlessly endeavour to keep two different things steady at the same price one with another as to keep two things in an equilibrium where their varying weights depend on different causes. Put a piece of sponge in one scale and an exact counterpoise of silver in the other; you will be mightily mistaken if you imagine that because they are to-day equal they shall always remain so. The weight of the sponge varying with every change of moisture in the air, the silver in the opposite scale will sometimes rise and sometimes fall. This is just the state of silver and gold in regard of their mutual value" (*ib.*). "It is the interest of every country that all the current money of it should be of one and the same metal, that the several species should be all of the same alloy and none of a baser mixture, and that the standard once thus settled should be inviolably and immutably kept to perpetuity. For, whenever that is altered, upon what pretence soever, the public will lose by it" (52, 53).

When the government were known to be resolved on the reform of the coinage, William LOWNDES, secretary to the treasury, published his *Report concerning an Essay for the amendment of the silver coins* (dated Sept. 1695) and Locke was invited by Lord Somers, and challenged by Lowndes himself, to answer it. This he did in *Further Considerations concerning the raising the value of money, wherein Mr. Lowndes' arguments for it in his late report concerning "An Essay," etc., are particularly examined* (1695). The reasoning of this second pamphlet is substantially that of the first. There is the same faint tinge of mercantilism—"The other case wherein our money comes to be melted down is a losing trade, or, which is the same thing in other words, an over-great consumption of foreign commodities" (p. 82).—But the cogency of the reply is beyond dispute. There is no doubt that the government were wise in getting rid of the clipped money instead of levelling down the rest to the value of the clipped (see MERCANTILE SYSTEM; RECOINAGES; also HALIFAX, EARL OF (Chas. Montague); and NEWTON).

In 1696 Locke was made a member of the Council of Trade (*Life*, p. 143). His correspondent Molyneux writes to him from Dublin about the proposed bill for the encouragement of the linen manufacture in Ireland (Oct. 4, 1697, *Works*, vol. iii. 591): "I am apt to think that you will have the consideration and modelling thereof at your committee of trade." Locke is one of the economists who have been able to apply their principles to practical politics during their own lifetime. The influence of his political and educational writings has been considered elsewhere. Their bearing on economics, though indirect, is very important, and the same may be said of his general philosophy.

[Locke finds a place in all the chief histories of political economy. Roscher's account is perhaps the most full (*Zur Geschichte der Englischen*

Volkswirthschaftslehre (1851), pp. 93-106). Dr. Lippert's notice of him, in the *Handwörterbuch der Staatswissenschaften*, contains good references to literature. His theory of interest is criticised in Dr. Böhm Bawerk's *Geschichte und Kritik der Zinstheorieen* (1884), pp. 51, 52. Dr. Zuckerkandl examines his "quantity theory" of the currency in his book *Zur Theorie des Preises* (1889), pp. 137-141. For other remarks on this part of Locke's work, see H. D. M'Leod, *Bimetallism* (1894), pp. 25-34.—Miklashevsky, *Money* (Moscow, 1895), pp. 271-274. When Professor Ingram, *Hist. of Pol. Econ.* (1888), p. 54, finds fault with Locke for in any degree connecting lowered interest with gold discoveries, it is fair to remember the argument urged by Cliffe Leslie in his last published paper (*Fortnightly Review*, 1881), in favour of a connection.] J. B.

[Locke's *Complete Works* were published 1714, 1722, etc.; and in nine vols., London, 1853. The *Treatise of Civil Government* has been reprinted in Morley's *Universal Library*, 1884, and bk. ii. also in Cassell's *National Library*, 1889. Many previously unpublished papers of Locke's appeared first in Lord King's *Life of Locke*, 1829), (reprinted in Bohn's Series, 1858); Mr. Fox Bourne's *Life of Locke*, 2 vols., 1876, contains the fullest account of the man and his writings, published and unpublished. Shorter accounts are T. Fowler, *Locke*, English Men of Letters Series, 1880, and A. C. Fraser, *Locke*, Philosophical Classics for English Readers, 1890. Locke's economic theories are discussed in Dr. Bonar's *Philosophy and Political Economy* (1893). See BARBON; ENGLISH SCHOOL; INTEREST; LOWNDES.]

LOCOMOTION, TAXES ON. See TAXATION.

LOCRÉ, JEAN GUILLAUME, BARON DE ROISEY (1758-1840), a French jurisconsult, was appointed secretary to Napoleon's council of state in 1800.

His principal works are:

Législation Française, ou recueil des lois, des règlements d'administration, et des arrêts généraux basés sur la Constitution, Paris, 1801-4; only the first volume was published.—*Procès-verbaux du conseil d'état*, etc., Paris, an 12 de la république, 4to.—*Esprit du Code Napoléon*, etc., Paris, 1807, 8vo, 6 vols. (incomplete), only deals with first book of Code.—*Esprit du code de commerce*, 2nd ed., Paris, 1829, 8vo, 4 vols.—*Esprit du code de procédure civile*, etc., Paris, 1816, 8vo, 5 vols.—*Discussions sur la liberté de la Presse, la Censure*, etc., Paris, 1819, 8vo.—*Législation civile, commerciale et criminelle de la France*, Paris, 1827-1832, 31 vols. 8vo.

[*Nouvelle Biographie Générale*, Paris, 1860, vol. xxxi.] H. E. E.

LODLAND, a name sometimes given to land whose tenant was bound "to carry loads or possibly to load waggons," this being one of the various forms of compulsory manorial service.

[Vinogradoff, *Villainage in England.—Domesday of St. Paul's*, 1222, p. 49, with Archdeacon Hale's note, p. lxxvii.] E. G. P.

LOGIC AND POLITICAL ECONOMY. There is a certain alliance between the different sciences usually classed as "moral." In fact, in the earliest efforts at systematic thinking, the different departments of philosophic speculation were not clearly separated, and the more practical problems of ethical and social science were always treated along with purely theoretical questions. But there is perhaps a special reason for considering the connections between political economy and logic. For, of all the moral sciences, political economy has reached the highest degree of systematisation, and yet there remains considerable controversy as to the true logical method appropriate to the science. Hence it is not surprising that the same men have shown interest in the two subjects. This has been especially the case with English writers, of whom WHATELY, MILL, and JEVONS are the most notable. Though Whately's *Lectures on Political Economy* have not made the impression that their marked ability might seem to have warranted, yet any student of his logic must be struck with the ingenuity and aptness with which he enforces the formal doctrines of logic by illustrations of arguments, definitions, and fallacies taken from economic discussions. But, in England, the two writers who have in modern times exerted the greatest influence on economic studies—J. S. Mill and W. S. Jevons—have also been the two most noted contributors to logical theory. Mill narrates in his autobiography (pp. 157-166) his dissatisfaction with those methods of treating social and political questions that were current in his time, and records his prolonged attempts to discover the true method. This led him to work at the logic of the moral sciences, the results of which form the last book of his logic. One of the causes that induced him to search for the most appropriate logical method for political and social investigations was the controversy between James Mill and Macaulay, arising out of the former's *Essay on Government*. The method advocated by Macaulay was purely empirical, and was named by J. S. Mill the "chemical method," because, in his view, it was specially appropriate to such a science as chemistry, in which scarcely any laws were known connecting the properties of compounds with those of the elements of which they are composed. The method of James Mill's essay was, on the other hand, abstract and deductive, the final conclusions being derived from a small number of definitely-assigned postulates, in the deductions from which no allowance was made for causes mutually counteracting or modifying one another: and this J. S. Mill called the "geometrical method." He urged, on the one hand, that it was futile to apply comparative observation and experiment to the complex facts of social life, and, on the other hand, that a science like geometry, which excludes all time-relations and the interference of causes,

was not the type on which sociology should be moulded. He, therefore, looked to mathematical physics as the supreme science that applies a deductive method to phenomena of causation. In his view the principle of the composition of causes underlay the entire procedure of physics. The same principle seemed to him applicable to the various forces at work in shaping the characters of societies and of individuals. But, in his search for distinctions of method, J. S. Mill went farther and, taking a hint from Comte, distinguished the *indirect* from the *direct* application of this form of the deductive method. In the direct method, the investigator, starting from general tendencies expressed in abstract form, proceeds to combine the laws of these tendencies in order to deduce conclusions of successively increasing complexity. In the indirect method, he begins with the data of specific observation, and formulates empirical uniformities which have to be subsequently confirmed or modified by deduction from simple laws acting under known conditions. For political economy J. S. Mill seems to have held that the *direct* deductive method was adequate, but that the indirect method was required for moral and social science in general. In his own economic writings J. S. Mill broke loose still further from the influence of his immediate predecessors —BENTHAM, RICARDO, and James MILL—and reintroduced into political economy a good many of the historical characteristics so prominent in Adam SMITH.

In the case of Jevons we can similarly trace how the course of logical speculation may bear fruit in economic study. Jevons's own account of the general character of scientific method was very closely allied to Mill's special account of the DEDUCTIVE METHOD. He differed, however, from Mill, not only in his conception of the fundamental principles underlying scientific methods, but also in the view that a combination of deduction with induction was required in every science, and not only in the concrete human sciences. Jevons maintained with greater clearness than Mill the thoroughgoing *antithesis* between formal and empirical canons of inference, and at the same time urged the necessity of their *synthesis* in every scientific investigation.

On the formal side Jevons showed a bias towards mathematical modes of thought and expression, and this bias is indicated both in his logical schemes and in his most important contributions to economic theory. On the empirical side, Jevons was strongly impressed with the problematic character of all generalisation from experience; and his conception of the function of hypothesis is illustrated by the conjectural explanation he suggested of the periodicity of commercial crises as connected with that of the sun-spots. But what specially characterised Jevons's view of logical method was the prominence he attached to the combination of formal and empirical principles through the inverse application of the theory of probability. And this conception no doubt inspired his highly suggestive and valuable statistical researches into variations of prices, periods of commercial crises, etc.

[Apart from the above examples of writers equally devoted to logic and to political economy, the connection between the study of the two subjects is more definitely brought out by reference to works on the method of political economy which well-known economists have published, such as: Malthus, *The Definitions of Political Economy.* —Cairnes, *The Character and Logical Method of Political Economy.* — Neumann, "Grundbegriffe der Volkswirthschaftslehre," in Schönberg's *Handbuch.* — Menger, *Untersuchungen über die Methode der Staats-wissenschaften.* — Keynes, *Scope and Method of Political Economy.*—Sidgwick, *Principles*, and *Scope and Method of Economic Science* (address to Brit. Assoc.). — Marshall, *Present Position of Economics* (inaugural address at Cambridge). From such works as these we can appreciate the importance of combining with technical knowledge of the specialities of economic science, a habit of detached thought on the general forms of reasoning.] W. E. J.

LOMBARDS. From the time of Henry III. (1216-1272) to that of Edward III. (1327-1377) companies of Lombard merchants were bankers and money-lenders to the kings of England, and also traded largely in the wool of English monasteries, especially from Cistercian houses. Intercourse with Rome, and the collection of the Pope's taxes, brought to England many Italians, who not only acted as agents of the Pope, but often made loans to the people to enable them to meet the papal demands. And Italian merchants at Rome advanced money in the reign of John to agents of religious houses, and to ambassadors with letters of credit from the king. The enormous cost of the crusades (see CRUSADES, ECONOMIC EFFECTS OF), enabled money-lenders to charge a high rate of interest; (Close Roll, 32 Henry III., shows that the Jews charged 45 per cent.); the censure of the Church and the general opinion respecting usury gave the Jews and Lombards a monopoly. The Jews were protected by the king; the Lombards, to evade the charge of usury, granted gratuitous loans to which was added a sum, nominally the cost of repeatedly sending for payment if the debt was overdue. In 1235, however, Roger, bishop of London, excommunicated them for practising usury, and ordered them to leave his diocese, but he was summoned to Rome in consequence, and the Lombards continued to trade in London, where they built for themselves "nobilissima palatia." Matthew Paris, who speaks of them as "usuarii Transalpini quos Caursinos appellamus," says that the bishops dared not interfere with them

because they called themselves merchants of the Pope, and that the citizens dared not speak ill of them because they were protected by certain great men, "quorum ut dicitur pecuniam ad multiplicandum seminabant Templo Romanæ Curiæ"; but they were so hated as usurers and deceivers of the poor, that, had it not been for their costly mansions in London, hardly one would have stayed in England. Henry III., whose resources were exhausted by the demands of the Pope, pledged his gold and silver plate to Siennese merchants for £550. Lucca merchants sent money from England to Prince Edward in Palestine. The customs, fixed in 1275, were frequently assigned to the company of the Frescobaldi of Florence, who also became keepers of the Exchange and farmers of the New Custom imposed on aliens in 1303. Edward II. paid of his father's debts to the Frescobaldi £56,500, to the Bellardi £1800, to the Bardi £4600, and ordered the barons of the Exchequer to hear suits of the Frescobaldi for debt and to levy their debts as those of the King. In 1309, he granted the citizenship of London, to John Vanne, a merchant of Lucca, with exemption from the duties and taxes which citizenship implied. In 1312, the King writes to the Pope, asking that the Frescobaldi, who have left England for the Roman Court without accounting for the profits of the customs, may be arrested and sent back, but he promises that they shall not forfeit life or limb. The same year the discontent of the people led to the abolition of the New Custom which was resumed in 16 Edward III.; aliens were forbidden to receive customs, and the Frescobaldi were to be arrested until they rendered account. The Lombards, taking advantage of Edward III.'s need of money in the French war, and knowing his resources, charged a high rate of interest and grew very cautious in exacting security. Thus, in 1339, the King writes from Antwerp that he has with great difficulty contracted a loan, falling deeply into usury ("incidentes graviter in usurias"), and that no fees are to be paid to ministers of the Crown until his return, but all money due to the Exchequer is to be sent to him, save only that needed for defence against the Scotch and the sums owing to the Bardi and Peruzzi; four days later he enters into a bond with a merchant of Lucca, by which the Earls of Derby, Nottingham, Salisbury, and Suffolk promise that, if the debt is overdue, they will not cross the sea to England without permission of the great money-lender. But, in January 1345, despite their caution, the Bardi and Peruzzi became bankrupt, Edward III. owing to the former 900,000 gold florins, and to the latter 600,000. The firms had borrowed to lend to him, and when he failed to pay they lost credit, and the failure of other banking-houses followed. Lombards continued to trade in England and to negotiate bills of exchange. In 1361, Walter de Barde was appointed master of the mint at the Tower, and in 1364 of that at Calais. As the English cloth trade developed and less wool was exported, the Lombards imported made goods into England until this was prohibited in the interests of home manufacture. Some of the Frescobaldi and Anthony Cavallari, a merchant of Lucca, were employed by Henry VIII., and frequently appear as the King's debtors, but not as his creditors. After the fall of the great Lombard houses, Englishmen became the king's bankers in their place; this, with the more favourable conditions of commerce, contributed in the 14th and 15th centuries to the rise of English merchants.

[Bond, E. A. "Loans supplied by Italian Merchants to the Kings of England," *Archæologia*, xxviii., 234 (1840).—Cunningham, *The Growth of English Industry and Commerce* (1890).—Stubbs, *Constitutional History*, ii. (1880).—Hall, *History of the Custom Revenue* (1885).—Madox, *History and Antiquities of the Exchequer* (1711).—Ashley, *Introduction to English Econ. History and Theory* (1892).—Rymer's *Fœdera*, ii. iii.—*State Papers, Henry VIII., Foreign and Domestic*, i. ii.]. M. T. M.

LOMBARD LOAN, a name used on the continent for loans on stock-exchange securities.

[See Meier Rothschild, *Handbuch der Handelswissenschaften* (1880), vol. i. ch. vii., pp. 527-528, *Das Lombardgeschaft.*] E. S.

LOMBARD STREET, a synonym for the London money market.

[Cp. Bagehot, *Lombard Street.*]

LOMÉNIE, Louis de (1815-1878), a French Academician; known by his works on French society in second half of the 18th century, and especially by his book on the Mirabeau family:

Les Mirabeau, vols. i. and ii. 1879; vols. iii. iv. and v. 1889-1891; the three last volumes left unfinished, and continued by the author's son, M. Ch. de Loménie, deal with the great orator of the French Revolution. Having obtained access to a mass of unpublished papers and letters written by the Marquis de Mirabeau (*q.v.*), the economist, and his brother—a brave and shrewd naval officer, generally known under the name of the *Bailli* de Mirabeau, from his rank in the Order of Malta, commemorated by Carlyle, *French Revolution* as "the worthy uncle,"—M. de Loménie, determined "to attempt, with the necessary documents in hand, the revision of the sentence passed upon the marquis by posterity" (vol. i. p. 349), alluding to the unpopularity which became the latter's lot after his family squabbles and high-handed proceedings against his disgraceful wife and no less disgraceful children. In his impartial, interesting, and pleasantly-written book, M. de Loménie has successfully performed the task he undertook. The marquis certainly entertained and acted on early ideas as to the extent of his *patria potestas* and conjugal authority, but he was a respectable and high-minded man, a title to which the future member of the *Assemblée Constituante* had no claim whatever.

Of the abrupt conversion of the marquis to the

doctrines of QUESNAY (*q.v.*), and his life-long rather idolatrous devotion to the doctor's memory, the second volume gives many details, most of which have since been reproduced in the literature on the subject. Economists will regret that the correspondence between the marquis and his brother, the naval officer who sneered at the reformer Quesnay's post of physician to the king's mistress, was too voluminous to be given in full, instead of extracts only being published (vol. ii. pp. 213-217). E. Ca.

LOMÉNIE DE BRIENNE, ETIENNE CHARLES, COMTE DE BRIENNE (1727-1794):

Was brought up as a priest, became archbishop of Toulon, and in that capacity had a seat in the states of Languedoc. He gave his name to the Canal de Brienne, and became a member of the assembly of notables summoned by CALONNE at Versailles, 22nd February 1787. The public finances were in grave disorder. He vehemently opposed the plans proposed by Calonne, became president of the newly-appointed council of finance in April, and prime minister in August, of the same year (1787). "He had been pronounced by Hume to be the only man in France capable of restoring the greatness of the kingdom" (Rae, *Life of A. Smith*) but he "did much to precipitate the Revolution by his incapacity." The measures by which he proposed to rectify the public finances—a rearrangement of the tax of the VINGTIÈME, and a loan—were rejected by the parliament, and in August 1788 he was dismissed from office to make place for NECKER. The times were turbulent. The treasury was empty. The wealth of the country was in the hands of the privileged classes, and they were exempt from taxation. Thus the government was without resources. It would have required a more powerful grasp than that of Loménie de Brienne to restore order. Though subservient to the revolutionary authorities, he could not escape. He was arrested as a "suspect" during the Reign of Terror, and died in prison.

[Droz, *Histoire de Louis XVI.,—Nouveau Dictionnaire d'Économie Politique*, Paris, 1892.]

LONGFIELD, MOUNTIFORT (1802-1884), Irish judge, was the first professor of political economy at Trinity College, Dublin. A very learned real property lawyer, he was appointed one of the three commissioners under the Incumbered Estates Act 1849; and in 1858, when the landed estates court was set on foot, he became a judge of that court.

Longfield's *Lectures on Political Economy*, delivered in 1833, Dublin, 1834, 8vo, deal mainly with the distribution of wealth, and endeavour to show that the only order in which a correct analysis of the sources of revenue can be carried on is—(1) rent, (2) profits, (3) wages. From this analysis Longfield considers that the logical deduction flows that it is "impossible to *regulate wages generally* either by combinations of workmen or by legislative enactments." "The expense of supporting the labourer in that style which he has been accustomed to consider indispensable to his decent subsistence, has no effect in regulating the price of his labour." He criticises Adam Smith's statement that labour is the measure of VALUE (*q.v.*), and has some acute observations on the probable effects of a low rate of profit. The object of *Four Lectures on the Poor Law*, Dublin, 1834, 8vo, is to bring out the distinction between the two kinds of poor law, the one which aims at improving, by its means, the condition of the labouring classes, and the other, which only concerns itself with bare relief for the destitute. It was just because Longfield realised the evils attached to the former that he was in favour of the enactment of the latter, for fear that at some future time the two should be pressed forward together. The best known of Longfield's writings is the essay he contributed on "Irish Land Tenure" to a volume of *Cobden Club Essays*, London, 1870, 8vo. He also published, 1835, *Three lectures on Commerce, and one on Absenteeism.*

Longfield was second president (succeeding Archbishop Whately) of the Statistical Society of Dublin. He published in its Transactions, besides presidential addresses, papers on the limits of state interference with the distribution of wealth; on the legal impediments to the transfer of land; on banking, and a proposal for an act to issue law debentures in connection with sales in the landed estates court.

[*Dictionary of National Biography*, vol. xxxiv.] H. E. E.

LORD, ELEAZAR (1788-1871), wrote:

Extracts from a letter on National Currency addressed to the Secretary of the Treasury, Nov. 1861 (New York, 1864, 8vo); also *Six letters on the necessity and practicability of a national Currency* (New York, 1863, 8vo), in which he treated of (1) The necessity and measures requisite to the institution of a uniform national currency; (2) the resumption of specie payments by the state banks, and a new trial of the old system.

In 1834 he published an *Essay on Credit, Currency and Banking*, where in nine chapters he treats of the use of credit, a metallic currency, the principles and regulations of the currency, the present banking system and its proposed modifications, bank capitals, the regulations of banking, and a national bank. A. L.

LOTTERIES, CONTINENT OF EUROPE (francs converted as 25=£1; marks as 20=£1; Austrian florins as 10=£1). The first lottery with prizes in money is recorded at Florence in 1530. Lotteries with prizes in goods are stated to have taken place earlier. This form of gambling extended itself in a very short time throughout Italy, nearly all the large Italian towns appearing to have established one or other of these descriptions of lottery by the second half of the 16th century. The form in which it became most popular later on, and which is still in use in several countries, took its origin from a political act at Genoa. At the elections to the great council five names out of ninety had to be drawn every year in that city, and betting began to be carried on on these names; this led to the formal "lotto" or "number" lottery, in which the names were replaced by numbers. The player chooses in this system one or more

from all the numbers (ninety), five of which are drawn out as winners; the prizes he may get are widely different according to his having divined one (simplum), two (ambo), three (terno), four (quaterno), or five (quinterno) of these numbers. It can be played for any sum upwards beyond a certain minimum. The winnings consist in a multiplication of the stake; they are, however, always more or less smaller than the sum which had to be paid according to the mathematical probability of the especial number combinations. There are *e.g.* $\frac{90 \times 89}{1 \times 2} = 4005$ ambos in 90; $\frac{5 \times 4}{1 \times 2} = 10$ of which being drawn in the five winning numbers the mathematical chance is $= \frac{1}{4005} = \frac{1}{401}$. The prizes, however, paid by the states for the "ambo"-gain are only two hundred and forty times (Austria-Hungary) or two hundred and seventy times (Italy) the stake. The chance for a "terno" is $\frac{90 \times 89 \times 88}{1 \times 2 \times 3} = 117 \times 780$; $\frac{5 \times 4 \times 3}{1 \times 2 \times 3} = 10$; $\frac{1}{117} \frac{1}{780} = \frac{1}{11} \frac{1}{745}$. Stakes pay only a sum of four thousand eight hundred times (Austria-Hungary) or five thousand four hundred times (Italy) the stakes. At the end of the 17th and in the 18th century the lotto became exceedingly popular. It was introduced in Vienna (1752), in Berlin (1763), and in twenty-nine other German towns, also in France, Spain, and Belgium. The states perceiving the great profit which was to be made by such an undertaking, established a lottery monopoly nearly everywhere, and always either managed the play themselves or had it managed by farmers, who had to pay a large yearly rent. Soon, however, the moral and economic dangers of the play, which were overlooked at the commencement, became obvious, and the "lotto" scheme was vehemently attacked. To quiet their consciences, governments very often combined the play with charitable purposes. In Spain the expenses of the town hospitals and of other useful institutions were borne by the profit of the lottery. From the year 1777 the farmer of the lottery monopoly at Vienna was obliged to provide a dowry for five young girls, whose names were drawn together with the numbers of the lottery.

As, however, the bad influence of the system became more and more perceptible, lotteries being only games of chance, the aggregate number of players in which are sure to lose a part of their venture, the beginning of the 19th century proved very unfavourable for the lotto. It was replaced in 1810 throughout the greater part of Germany, and a few years later in Spain, by other forms of lottery; and, according to the example of England—where lotteries were not allowed after 1826, one sanctioned by mistake, temp. William IV. (see LOTTERIES, ENGLISH), was cancelled—all state lotteries were abolished in France (1836), in Belgium (1830), and Sweden (1841). The number lottery exists at the present day in Italy, Austria, and Hungary only.

Another chief form of lotteries, the "Class" or "Dutch" lottery, was originated in Holland at the beginning of the 16th century, nearly at the same time as the first money lotteries were played at Florence and in some other Italian towns. In this system, a certain sum is divided amongst a certain number of lots of various sizes (whole, half, and quarter lots) which are drawn in different "series" or "classes." There were always a few large and a great many smaller prizes, the amount of both augmenting with every "class," and the largest winnings being played at the last class. To induce people to play on *all* the series, States do not allow playing for a later class, unless lots have been played, or at least paid for, on all the series that had been previously drawn. For every lottery, two of which are instituted every year, 160,000 lots called *stammlöse* are issued, which are played in seven parts called classes or series. Now the price of the lots is *the same*, about 40 marks (£2) including the tax for every class, though the amount of the winnings augment with the series, 8000 prizes being played in the first, 10,000 in the second, 12,000 in the third, and 65,000 in the last class. Besides this the value of the prizes also greatly increases with the later classes. The smallest prize is 65 marks (£3 : 5s.) in the first, 105 marks (£5 : 5s.) in the second, 155 marks (£7 : 15s.), and 210 marks (£10 : 10s.) in the 4th; the largest 30,000 marks (£1500) in the first, 45,000 marks (£2250) in the second, 60,000 marks (£3000) in the third, and 600,000 marks (£30,000) in the fourth. It would therefore not be natural for any one to play on any but the last class had not the following system been put into force. A lot may be purchased for the price of 40 marks for every class, but this is only the case if the lot is bought at the beginning of the lottery for all the classes at the same time. If any one desires to buy a lot for the second class after the first has been played, he must pay the price for both classes (80 marks); after the second class is played the price is 120 marks, and after the third 160 marks. It would seem, therefore, as if every one who wants to play on the later classes ought to buy the lot for all the classes as well. This, however, is not quite the case. If a lot is drawn, the winner gets besides his prize a lot *without charge*, called *freilos*, for the next class. And as 30,000 lots are drawn in the three first classes, there is a good chance of saving the stake for the following classes and to play on the whole lottery for 40 marks (£2). This possibility is lost, of course, if the lot is bought for all the classes at once. The "class" lottery was introduced with some changes into England

and to the northern part of Germany, but did not attain the popularity of the "lotto" until the first half of the 19th century, when it took the place of the latter in many countries. It was abolished in England in 1816, and soon after in France, Belgium, Sweden, together with the lotto, as mentioned before. There is a "class lottery" at the present day, in the greater number of the German states (Prussia, Saxony, Hamburg, Brunswick, etc.), and in Spain, Denmark, Holland, and Servia.

After these two lottery schemes had been long in use, a third form, the "interest" lottery, was introduced in close connection with the growing want of credit of the states. To be able to get cheap credit the states combined some of their loans with a lottery of this description: the interest paid to the creditors of the state was a much lower one than the market interest of the country, but the bond-holders also shared in a lottery at the same time. The prizes were supplied by the state with one part of the profits, which accrued to it by paying less interest for the loan than it would have paid for the same sum had it not been combined with the lottery.

The great moral and economic mischief caused by lotteries is generally acknowledged. But the influence of the three state lottery systems which we have described is not equally mischievous. There is no doubt that the "number" lottery is the most dangerous. The very small stakes and the enormous winnings that may possibly be obtained, induce the poorest classes (working people, maidservants) to try their fortune, and very often this leads to a "systematical" play, thus absorbing continually a very large part of the income of many poor families. The great variety of the combinations of the numbers excites the imagination, and favours superstition, the interpretation of dreams (dream-books), as well as many swindles. All these evils are very seriously felt both in Italy and Austria-Hungary, where the "lotto" system still exists. The greater cost of the lots of the "class lottery" excludes most people to whom gambling might prove the most dangerous. Besides this the "class lottery" is in some countries, especially in Prussia, regulated in a manner so as to limit the play to the smallest possible circle. The selling of lots is confined to the "Einnehmers" (receivers), appointed by the "state lottery management" from the ranks of comparatively rich merchants, and even so they are very much checked as to the freedom of their transactions by minute restrictions. They have to pay down a deposit of 12,000 m. (£600). Most of the tickets are taken by "well-to-do" people, working people take them comparatively seldom—to an extent, it is estimated, of from 8 to 18 per cent of the whole. The whole class of women servants who play very wildly in Italy, Austria, and Hungary, hardly play at all in Germany. There is the less to be said against the "interest" lottery, because in the worst case the loss here only extends to one part of the interest, the capital always remaining assured for the bondholder.

The profit made by the states through the lottery is considerable. In the budget-year (1894) the gain of Prussia made through the lottery was 9,753,500 marks (£487,675), being 5 per cent of the public revenue; that of Saxony 5,200,000 marks (£260,000), 3 per cent; of Brunswick 1,240,000 marks (£62,000), 10·25 per cent; of Austria 7,486,720 florins (£748,672), 1·22 per cent; of Hungary 2,739,500 florins (£273,950), 0·6 per cent; of Spain 24,000,000 pesetas (£960,000), 2·5 per cent; of Italy 25,000,000 lire (£1,000,000), 2·8 per cent. In these countries, and especially in the smaller ones, the play is universal, and reaches enormous dimensions; in Brunswick, for instance, lots are reckoned to cost every year 60 marks (£3) per head of the public; in Schwerin 17·28 marks; in Hamburg 31·68 marks. The institution, when carried on by the state, is an attraction to many who would not think of gambling under other circumstances. It is not true that, as defenders of the lottery systems (Marcinowsky) have often said, "the rage for gambling" is sure to seek other opportunities when the opportunity of the lottery is taken away. Many facts prove the contrary. In France there was in 1837, the year after the abolition of lotteries, 525,000 francs (£21,000) more money deposited in the savings banks than the year before. In the same way a great increase of the deposits was stated in Bavaria after the lottery had been brought to an end (1861). At Brussels one year after its abolition there were 7837 fewer objects pawned and 3609 more pawns redeemed. All experience in countries where state lotteries have ceased, pleads for their abolition.

Beside the state lotteries, private lotteries occupy a large field in some countries, principally Germany, Austria-Hungary, Italy, Holland, Belgium, and France. They may be divided into two chief forms. (1) Lottery loans, managed after the example of the state interest lottery, with a long duration (generally seventy to eighty years), with series of drawings, the nominal value of the lots being generally paid back successively. (2) Ordinary lotteries (occasion lotteries) with a single drawing, sometimes with prizes in kind. The most common of the first sort of the private lotteries are the great city lottery loans. There are fifteen of these with a nominal value of 2,405,423,460 francs (£96,216,938) in existence at the present time in France; fifteen in Belgium and Holland, 510,416,820 francs (£20,416,673); 8 in Germany, 155,190,000 marks (£7,759,500); 8 in Austria, 263,266,300 florins (£26,326,630); 7 in Italy, 69,317,500

lire (£2,772,700). Some lotteries for charitable purposes, as, for instance, the well-known "red" and "white cross" lotteries, and the great lottery loans of some large banks, principally mortgage banks, are issued in the same manner.

As to the ordinary or "occasion" lotteries, they are arranged for the most different objects. From 1885 to 1893, for instance, 5771 of these have been permitted in Germany, amounting to a nominal value of 140,880,500 marks (£7,044,025), that is, 15,653,390 marks (£782,669) per year, 3020 of which were for charitable, 1652 for agricultural, 270 for art, 276 for church building, 223 for various other purposes. These lotteries need not be condemned if arranged in a manner that only those people should participate in them who take some interest in the purpose of the play, as for instance, the picture lotteries at the great art exhibitions. But in many hundreds of them it is only the dazzling prizes that attract players from all classes, who are rarely conscious of the very small chance of winning, and do not care the least about the object of the lottery.

In the last few years, new laws (*Loossperrgesetze*) have been enacted in Germany and Austria-Hungary, prohibiting the introduction of foreign lotteries and the arrangement of new lotteries, unless authorised by special act of parliament. Some of the minor occasion lotteries can be allowed by government license. It is therefore very probable that there will be, in a short time, a considerable decrease in these countries in which they were until now the most favoured, when the great lottery loans will be brought to an end and new ones will not be allowed.

[Heckel, "Lotterie und Lotteriebesteuerung," in the *Handwörterbuch der Staatswissenschaften*.—Roscher, *System der Volkswirthschaft*, Stuttgart, 1886, iv. § 30.—L. v. Stein, *Lehrbuch der Finanzwissenschaft*, Leipzig, 1885, ii. p. 345.—Marcinowsky, *Lotteriewesen im Königreich Preussen*, Berlin, 1892.—Block, "Lotterie" in the *Dictionnaire de l'Administration*.—Endemann, *Beiträge zur Geschichte der Lotterie und zum heutigen Lotterierecht*, etc., Bonn, 1882.—Lasson, *Lotterie und Volkswirthschaft*, Berlin, 1894.—Leroy-Beaulieu, *Traité de la science des Finances*, Paris, 1883, p. 341.—Roscher, *Von dem verderblichen Einfluss der Lotterie auf den Staat*, Leipzig, 1795.—Bastable, *Public Finance*, 2nd ed. pp. 221-222.—comp. Adam Smith, *Wealth of Nations*, bk. i. ch. x. "That the chance of gain is naturally overvalued, we may learn from the universal success of lotteries."] G. B.

LOTTERIES, ENGLISH. The first state lottery in England was announced in 1567 to provide funds for the repair of harbours and fortifications. It was officially described as a very rich lottery-general of money, "plate, and certain sorts of merchandises." The greatest prize consisted of £3000 in cash, and the value of £2000 in plate, tapestry, and other fabrics. The prizes were displayed at the house of Dericke, the queen's goldsmith, in Cheapside, and a woodcut was appended to the proclamation depicting a large show of plate; but the 400,000 lots were not quickly sold, as the drawing, according to Stow, did not begin until 11th January 1569. It was carried on day and night, until 6th May, in a building erected at the west door of St. Paul's. The lots cost 10s. each, but could be subdivided. The queen issued a second proclamation, and the lord mayor made an appeal to the people, while the Earls of Pembroke and Leicester, and Sir W. Cecil, wrote, on 30th August 1568, to urge the merchant adventurers to promote the lottery; but the people were distrustful, and the lots remained on hand until Elizabeth characteristically sent scolding missives to the justices of Kent and several other counties, and menacingly appointed an agent to report to her "the former doings of the principal men of every parish" with respect to the scheme. A copy of the original broadside still exists. For this and other interesting details as to this early lottery, see the 7th *Report of the Historical MSS. Com.*, App. pp. 619 *b*-621 *b*.

No lottery followed in the next year. The one for armour, mentioned by Stow, was certainly under royal consideration in 1585, as appears from a letter from the lord mayor to Walsingham, but the queen does not seem to have ventured on a third experiment.

Stow gives, under the year 1612, an account of "a liberall lottery" which James I. granted for the colonies in Virginia. Sixty thousand blanks were cast out on this occasion, as the lots were not fully taken up, but the prizes were not reduced. This is referred to in the *Domestic State Papers* for 1611-18, p. 120, which also mention, p. 130, a proposal for a private lottery, about this date, which was rejected by the lord mayor. The king's council, on 22nd February 1615, recommended another project for a Virginia lottery. A lottery is said to have been held in 1619 at Reading, and licence was given, in 1627, to Michael Parker, and another to raise money by a lottery to carry out the scheme for an aqueduct from springs at Hoddesdon to London. A fresh licence was given to Parker in 1631, and the matter seems to have been taken in hand by George Gage, and much money collected, which, about 1637, still remained on deposit, though the undertaking had failed.

A fresh project appears in the *State Papers* in 1640, when a "standing lottery" was sanctioned, "like that granted to the Virginia company."

Puritanism seems to have permitted the committee for lands in Ireland to hold a lottery at Grocers' Hall in 1653, but the *State Papers* from 1649 to 1659 are silent on the subject. In 1660, however, the mayor of Norwich com-

plained of the "puppet-shows and lotteries" which came with the king's licence and sign-manual, and injured the trade of the town.

A lottery was also granted in 1660 for the ransom of English slaves from the Mediterranean pirates. A private one was asked for in the same year, and licence for a game called *l'oca di Catalonia*, which, as afterwards appears from the *State Papers*, was really a lottery, was granted to F. Corbet, a groom of the queen's privy chamber.

In 1661 a lottery for the fisheries was allowed, and in August 1663 (*8th Rep. Hist. MSS. Com.*, 539) there are traces of the famous Royal Oak lottery. A letter of 1664 (*Dom. S. Papers*, pp. 454-455) shows that the *Oca di Catalonia* was changed into the "Royal Oak."[1]

On 27th January 1664 a royal declaration annulled the former grant to Corbet, who had transferred his rights to Sir A. des Marces and another, who were allowed thenceforwards "the sole exercise of lotteries, for the benefit of the Royal Fishing Company."

This "Royal Oak" seems, from letters among the *State Papers*, to have been carried on in the provinces by travelling agents who obtained the permission of mayors to stay for a specified number of days.

At an uncertain date, but about 1664, Thomas Killigrew obtained a licence to begin when the fishing company's licence, for two remaining years, should have run out. In 1665, however, the company tried for a monopoly of lotteries in England, and, in 1666, for one in Scotland for seven years. They seem to have succeeded, as in February 1667 there is a petition for permission to succeed the royal fishing company in the "sole licence of holding lotteries in his majesty's dominions," which request was granted for three years.

This patent monopoly lasted to the end of the century, the Royal Oak having been excepted from the operation of 10 & 11 Will. III. c. 17, which prohibited all other lotteries.

The government, however, from 1709 to 1825, acted shamelessly in raising large sums annually by lotteries in which the prizes were terminable or perpetual annuities. Contractors took up the tickets and sent itinerant salesmen through the country, who sold fractions of the £10 shares. Minor evils sprang up, as might have been expected, which had to be checked by the acts 19 Geo. III. c. 21, and 42 Geo. III. c. 119, and by Perceval's Act, 1806, which limited the drawings to one day.

In 1736 an act was passed for building Westminster Bridge by means of a lottery of 125,000 tickets at £5 each. This succeeded, and in 1774 the brothers Adam disposed of their property in the Adelphi, by permission of parliament, in a lottery of 110 prizes.

Towards the end of the century lotteries passed into the hands of the chancellors of the exchequer, and an average profit of nearly £350,000 was made for the public purse. Some benefit came from the evil, for the British Museum was aided; but public opinion at last demanded the abolition of the system, which was effected by 4 Geo. IV. c. 60, and the last lottery was drawn in October 1826. Private lotteries had been forbidden by 12 Geo. II. c. 28, and later statutes.

By a strange blunder, lotteries for the improvement of Glasgow were sanctioned by 1 & 2 Will. IV. c. 8, but they were suppressed by 4 & 5 Will. IV. c. 37. The last lottery of which the public has heard was Dethier's twelfth-cake lottery, which was stopped on 27th December 1860. Art unions were legalised by 9 & 10 Vict. c. 48.

[The tragedy as well as the buffoonery of these evil institutions will be found portrayed in Hone's *Everyday Book*, ii. pp. 1404-1535, while the Appendices to the 4th, 5th, 7th, and 8th *Reports of the Hist. MSS. Com.* contribute new and authentic details. See also *Brit. Mus. Additional MSS.*, Nos. 4458 (36), 5755 (1), 5801 (p. 460), 32,711 *f.* 521, 32,975 *f.* 428, and *Lansdowne MSS.*, 660 *f.* 120, 1215 *f.* 234.

Calendar of State Papers, domestic series, from 1547 to 1667.—J. Ashton, *English Lotteries*, 1893. —Dawson Turner's *Collection of Lottery Bills*, in the Brit. Museum, see "Lotteries" in the great catalogue.—*Encycl. Britannica*, art. "Lotteries." —Beckmann, *Inventions*, ed. Bohn, 1846, ii. pp. 414-429.] R. H.

LOTTIN, Antoine Prosper (1739-1812), was a Parisian bookseller.

He published under the pseudonym of Lambin de Saint Félix an *Essai sur la Mendicité* (Amsterdam, 1779); and, under the pseudonym of M. de Saint Haippy, a *Discours sur ce sujet: Le luxe corrompt les mœurs et détruit les empires*, Amsterdam and Paris, 1784. E. Ca.

LOTTO (see Lotteries, Continent of Europe).

LOTZ, Johann Friedrich Eusebius (1771-1838), a distinguished German economist, was born at Sonnefeld, then in the duchy of Sachsen-Hildburghausen, now belonging to Saxe-Coburg. He studied law at Jena, and held successively several official appointments in his native duchy.

[1] In Catalan Spanish the current term for goose is *oca*. The game of oca does not appear to be played in Spain nowadays, unless it be as a children's game; but it is thus described in the *Diccionario Enciclopedico Hispano-Americano*, Barcelona, Montaner and Simon, vol. xiv. p. 43, 1887 and onwards. "Oca—a game which consists in a series of sixty-three divisions arranged in a spiral ellipse painted on a board or card-board. These divisions represent different objects; every ninth number, counting from No. 1, represents a goose or "oca," and others represent rivers, wells, bridges, ships, or other objects at hazard. The game is played with two dice, and according as the numbers on them come out the game goes on." It would appear probable that the original name of the game may have been *Oca de Cataluna*, and under that name have passed into France, and into England. The game of goose appears to have been well-known in England. Goldsmith in the *Deserted Village* mentions

"The pictures plac'd for ornament and use,
The twelve good rules, the royal game of goose.

In 1819 the university of Bonn offered him the professorship of public law and state economy, which, however, he declined. In 1824 he became privy councillor in the service of Saxe-Coburg, and died at Coburg.

His most important writings were *Revision der Grundbegriffe der National-Oekonomie*, 4 vols., 1811-14, which, though prolix and excessively abstract, is yet, on account of the author's able analysis of fundamental conceptions, such as those of value and price, strongly recommended by Roscher to the careful study of all young economists; and *Handbuch der Staatswissenschaften*, 3 vols., 1820, 2nd ed. 1837, which, though a useful work, is much inferior to the preceding. Lotz was one of those who did most to make the doctrines of the *Wealth of Nations* known in Germany. Allowing for some physiocratic leanings, he belongs essentially to the school of Smith, though differing from him on special points; thus, not labour, in his view, but the creative powers of nature, and of the human intellect, are the great factors in the work of production; he regards Smith as having attended too exclusively to value in exchange, as distinguished from value in use; and he considers his praise of parsimony as too unconditional. He was an earnest reformer, though sometimes misled by a tendency to doctrinaire exaggeration. He treats political economy as a mere theory of enlightened self-interest. As a free-trader he goes even further than Smith, repudiating all intervention of the State in economic life. He chose for the motto of his *Revision* the words: "Ubi libertas, ibi divitiæ," and proclaimed as the one service he desired to render, that of assisting in the removal of the fetters which impeded industry. Perhaps his most serious error is the assertion of the unproductiveness of capital, which, though he was as far as possible from being a socialist, favours socialistic views; regarding this doctrine, however, he appears to contradict himself. His greatest general defect as a thinker is his want of historical sense, with which are connected the too absolute form which he gives to many of his theorems, and the practice of denouncing, as simply erroneous or perverted, ideas and institutions which ought to be treated as the natural fruit of the earlier stages of social evolution.

[Schumann in *Allgemeine Deutsche Biographie*, vol. xix. 1884.—Lippert in *Handwörterbuch der Staatswissenschaften*, vol. iv. 1892.—Roscher, *Geschichte der N.O.*, p. 655 *seq.*] J. K. I.

LOUIS, Dominique, Baron (1755-1837), born at Toul and died at Bry-sur-Marne, was minister of finance during many troublous times, as shown by the dates when he held the post—1st April 1814-20th May 1815 (first invasion); 9th July-26th September 1815 (second invasion); 30th December 1818-18th May 1819 (liquidation of an intense crisis); 30th July-1st November 1830 (Revolution); finally 13th March 1831-10th October 1832 (the ministry of Casimir Perier). On each occasion he showed a practical mind and a rare fertility of resource. Originally an abbé, he left his country when the Revolution broke out. On his return under the consulate, he rose, through the intervention of his friend Mollien, to high positions under government, and was appointed to the council of state, in which office he exhibited great energy. He maintained that a government which possessed the power to fulfil its engagements should unhesitatingly do so, and on one occasion answered Napoleon "a government must pay all it owes even for its follies." Appointed minister of finance at the fall of the empire, he re-established order and restored confidence. Though a supporter of free trade, he did not propose to sweep away all customs duties. When placed again at the head of the treasury, after the fall of the government of the 100 days, he did his best to overcome the innumerable difficulties which arose from the position of affairs.

Resolute but not overbearing, Louis respected the privileges of parliament in matters of public finance. When the *Chambre Introuvable*[1] opposed his broader views he resigned office, which he resumed in 1818 and established the small "*grand-livres*"—a decentralisation of the administration of the consolidated debt to the advantage of the departments. The formation of the retrograde Cabinet of Decazes caused Louis to leave the treasury 19th November 1819. When the revolution of 1830 broke out, the new government recalled him to his post. Here he maintained his high reputation, and after he had for the fourth time left the treasury when the ministry of Jacques Laffitte was formed, he was summoned to it again when Casimir Perier came into power. This was his fifth and last tenure of office. He retired at the age of seventy-seven.

Baron Louis always showed his respect for economic doctrine, and particularly for the famous maxims of Adam Smith on taxation. One of his best known sayings was "Give me a good policy and I will give you good finance." A. C. f.

LOUIS D'OR, History of. This gold coin was first struck in 1640 under Louis XIII., from whom it received its name. Its original value was ten livres: on one side was the head and name of the king, on the other four fleurs-de-lis with the legend, *Christus regnat, vincit, imperat.* The value of the louis d'or was subject to constant variations. Under Louis XIV. it was raised to twenty livres, and at one time to twenty-four. Under Louis XV. the value rose to thirty and even to thirty-six livres. Since the introduction of decimal coinage in 1795, the chief gold coin in France has been the piece of twenty francs. This was usually called a louis d'or after the Restoration and under Louis Philippe. During the second empire it was called a napoleon, but the term louis has survived to the present day in occasional use. R. L.

[1] The *Chambre Introuvable*, elected October 1815, was named thus because Louis XVIII. found it so reactionary in opinion as to be "more royalist than the King," hence it was dissolved in September 1816.

LOUIS D'OR. French gold coin issued during the reigns of Louis XIII.-XVI.

LIST OF COINS KNOWN UNDER THE TITLE "LOUIS D'OR."

Reign.	Denomination.	Weight.	Fineness.	Value in gold 916·6 fine at £3:17:10½ per oz.
		gr.		£ s. d.
Louis XIII. (1610) .	Louis . .	6·692	906	0 16 6¾
	Louis . . .	6·692	904	0 16 6¼
	Louis . . .	6·692	901	0 16 5½
Louis XIV. (1643) .	Louis au Soleil .	8·127	902	1 0 0¼
Louis XV. (1715) .	Louis . . .	8·127	902	1 0 0¼
	Louis de Noailles	12·163	902	1 9 11½
	Louis à la Croix .	9·774	904	1 4 1½
	Louis à la Croix .	9·774	892	1 3 9½
	Louis Mirletons .	6·480	896	0 15 10¼
	Louis . .	8·127	896	0 19 10¾
Louis XVI. (1774) .	Louis .	8·127	896	0 19 10¾
	Louis . .	7·649	900	0 18 9½
	Louis Constitutionel . .	7·649	902	0 18 10¼

[P. Bonneville, *Traité des Monnaies d'Or et d'Argent*, Paris, 1806.] F. E. A.

LOWE, JOSEPH (early 19th century), wrote: *An Inquiry into the State of the British West Indies* (London, 1807, 8vo) a broad-minded and sympathetic plea for the West India planter. The author advocates a generous colonial policy, and scouts the notion that England has suffered by the loss of America or the Irish union. In a series of five chapters he points out the value of the West Indies as a market for English manufactures, lays stress on the depreciation of sugar, which has caused the emigration of negroes and planters; and proposes, among various other remedies, either the reduction of the duty on that article, or the abolition of the monopoly (see also *Edinburgh Review*, vol. xi. 145). Jevons observes that the idea of the just standard of value described by G. P. SCROPE—see his pamphlet, *An Examination of the Bank Charter Question*, etc., 1833, also referred to as a tabular standard in Scrope's *Principles of Pol. Ec.*, 1833, ch. xvi.,—may have been suggested by the ingenious work of Joseph Lowe: *The Present State of England in regard to Agriculture, Trade, and Finance* (London, 1822, 8vo). In his 7th chapter, the author supports Mr. Simon Gray's as opposed to Malthus's theories of population, and maintains that the increase of our population "is replete with considerations equally satisfactory" in regard to "external" as "internal affairs, the stability of our finances, the reduction of the more injurious portion of our taxes" (see p. 245). Jevons adds that a second edition of this book appeared in 1823; and it was also reprinted (in German) in Leipzig the same year and in New York in 1824. A. L.

LOWE, ROBT. See SHERBROOKE, VISCOUNT.

LOWNDES, WILLIAM (1652-1724), secretary to the treasury, was appointed to that office in 1695. With a view to the recoinage of 1696, he was requested to undertake an investigation into the state of the currency, the results of which were published with the title, *A Report containing an Essay for the Amendment of the Silver Coins*, London, 1695, 8vo. In this important work, while he repudiated any measure which would have the character of debasing the currency, he suggested, as a necessary measure for placing it upon a satisfactory basis, that all denominations of the silver coin should be raised 25 per cent. Lowndes had carefully examined the records of the mint and other documents, and he ably defended his position with historical arguments based upon these materials. He also maintained that the price of silver had risen to 6s. 5d. *an oz.*, and that if the measure he proposed were adopted, persons who melted down the coin would have "less profit by fourteen pence half-penny in the crown." Further arguments he used in support of his scheme were that it would encourage the bringing of bullion to the mint to be coined, and would make the coinage "more in tale, more commensurate to the general need thereof." To meet the objection that people would lose 20 per cent on contracts already made, he maintained the scarcity of silver. He computed the amount of "weighty money" hoarded up at £1,600,000. The most famous of the replies to Lowndes' *Essay* was written by John LOCKE (*q.v.*), and was entitled *Further Considerations concerning the raising the value of money, wherein Mr. Lowndes' arguments for it in his late report concerning "An Essay," etc., are particularly examined.* While the opposition accepted the views urged by Lowndes, Montagu and the government adopted those of Locke, and the recoinage on the old standard was carried on Dec. 10, 1698, in the House of Commons, by 225 to 114. In addition to the part he took in the currency controversy of 1695-96, Lowndes was instrumental in bringing about an amalgamation between the Old and New East India companies. He died in 1724. While replying to Lowndes' *Essay*, Locke paid a high tribute to his ability. "He is a man known so able in the post he is in, to which the business of money peculiarly belongs; and has shewed himself so learned in the records and matters of the mint, and so exact in calculations and combinations of numbers relating to our coin, either already in use or designed by him, that I think I should have troubled the publick no more on this subject had not he himself engaged me in it; and brought it to that pass, that either I must be thought to renounce my own opinion or must publickly oppose his" (Preface to *Further Considerations*, etc.).

[A full account of Lowndes' life is given in the *Dictionary of National Biography*. For a discussion of the relative merits of the views of

Lowndes, Locke, and the other disputants in the currency controversy of 1695-96, and their historical importance, see LOCKE ; RECOINAGES.]

W. A. S. H.

LOYD, SAMUEL JONES (1796-1883), OVERSTONE, BARON, a banker, was the son of a Welsh dissenting minister, who became a partner in Jones, Loyd and Co., a Manchester banking firm, afterwards merged in the London and Westminster Bank. Born to great wealth and an influential business connection, Loyd made the fullest use of his opportunities. He was in the House of Commons from 1816 to 1823, but his importance, politically, lay in the influence which he exercised over successive cabinets and chancellors of the exchequer. Already in 1832 we find him a recognised authority on finance.

The evidence he gave before the committee of the House of Commons on renewing the charter of the Bank of England, was directed (1) against the multiplication of issues of paper money, and in favour of (2) a single bank of issue, (3) a regular publication of accounts, including bullion, and (4) the repeal of the usury laws (see INTEREST). (Preface to 1858 publication of evidence given before 1857 House of Commons Committee upon Bank Charter Act of 1844). In 1840 he had given similar evidence before another committee, when he urged the separation of the departments of the Bank of England. This plan had been supported by the bank directors, Mr. J. H. Palmer and Mr. G. W. Norman, who also gave evidence before the same committee (see BANK NOTE). The Bank Charter Act of 1844 followed mainly upon the lines he had set out, and its provisions were defended by him before committees of the House of Commons in 1848 and 1857. In 1844 he had succeeded his father as partner in the bank, and in 1850 he was made Baron Overstone. He was of course not infallible. His distrust of the joint-stock system of banking (see Bagehot's *Lombard Street*, ch. ix.) was unfounded. On his general currency theory, the opinion of economists is much divided (see CURRENCY DOCTRINE). The disadvantages of the bank act of 1844 are now fully recognised, and various attempts at improvement have been made. Some also will condemn his opposition to the DECIMAL SYSTEM (*q.v.*); but he combined with a complete mastery of the details of banking an active interest in the theoretic side of financial questions, and a singular lucidity in their illustration. He was, moreover, through a long life, the strenuous opponent of all schemes of inconvertible paper. Lord Overstone enabled M'Culloch to edit a collection of *Scarce and valuable Tracts* on (1) *The National Debt and Sinking Fund*, by Harley, Gould Pulteney, Walpole, Hume, Price, Hamilton, and others, London, 1857, 8vo ; (2) *Paper Currency and Banking*, by Hume, Wallace, Thornton, Ricardo, Blake, Huskisson, and others, 1857; (3) *Commerce* by Evelyn, Defoe, Richardson, Tucker, Temple, and others, 1859.—In 1858 M'Culloch edited a volume by Lord Overstone of *Tracts and other publications on Metallic and Paper Currency*, 8vo.—This contains (1) *Reflection on causes and consequences of pressure of money market*, 1837. (2) *Remarks . . . on the condition of issues of the Bank of England and of the country issues during* 1839-1840 ; (3) *Letters to J. B. Smith, Esq.*, 1840 ; (4) *Thoughts on separation of Departments of Bank of England*, 1840 ; (5) *The Petition of Merchants . . . or Bank Charter Act with comments on each clause*, 1847 ; (6) *Letters to the Times* on same, *and on state of Currency in 1855 ;* (7) Extracts from evidence before committee of House of Commons on banks of issue ; and (8) *Extracts from Evidence on commercial distress.*

[*Times*, Nov. 19th, 1883,—*Dict. of National Biography*, vol. xxxiv., and works referred to.]

H. E. E.

LUBBOCK, SIR JOHN WILLIAM (1803-1865), was educated at Eton and Cambridge, and early in life joined the banking and mercantile firms of Lubbock, Forster, and Co., and Lubbock and Co., of which his father, the second baronet of his name, was the head. Business and scientific inquiry, particularly astronomy, the theory of the tides, and mathematics, were his chief occupations. Perhaps the work on *Probability* (1838-1844), written jointly with Mr. Drinkwater Bethune, is the one by which Sir J. W. Lubbock is best known. It was the earliest, and, its size considered, the best of the modern English introductions to the subject. The book was anonymous, but by an extraordinary error of the binder the second edition was lettered on the outside as "De Morgan on Probabilities." Sir J. W. Lubbock did not discover the mistake for years, De Morgan very properly disclaimed it, but naturally did not think it was for him to do more. The business in which Sir J. W. Lubbock was engaged supplied a curious "illustration of the way in which the doctrine of probability applies in every subject. It is a paper contributed by Sir J. W. Lubbock on the clearing of the London bankers. By observation it was ascertained that the daily differences at the clearing house, the money actually wanted to balance the demands of those who are to receive and those who are to pay, is only, one day with another, £29,000. To meet daily contingencies, the banks keep in the Bank of England balances which amount to from two to three millions. Sir J. W. Lubbock recommends that the clearing balance should be paid out of a common fund, which would put the banks so far in the position of being one concern, and would enable them to employ a large part of the sums they must now leave idle. The goodness of the advice is manifest."

Sir J. W. Lubbock's researches in the lunar and planetary theories date from 1832 ; his separate work *On the Theory of the Moon and on the Perturbations of the Planets* was published, the principal portion 1834-1838, with supplementary parts up to 1850. His investigations on the tides and on the heat of vapours and on refraction, 1840, showed high scientific power. Those on the tides did valuable service for navigation,

and some of the tables he devised are believed to be still in use. He contributed nearly a hundred memoirs to the publications of the Royal and other scientific societies, and took an active part in the formation of the British Association. But perhaps the most striking achievement of Sir J. W. Lubbock's life was the vigour with which he maintained scientific study together with devotion to business.

Sir J. W. Lubbock was treasurer and vice-president of the Royal Society, 1830-35 and 1838-1845. He wrote a pamphlet *On Currency*, published anonymously in 1840, and also many anonymous scientific articles besides seventy or eighty memoirs in his own name: for the full list of these see the Royal Society's catalogue of scientific memoirs, 1870, p. 105, and for further particulars see obituary notice in the president's address, 1866.

LUCAS, Charles Jean Marie (1803-1889) a member of the institute of France and inspector of prisons:

He wrote in 1829 an essay on usury *De l'usure considérée dans ses rapports avec l'Économie Politique*, but from the beginning almost entirely devoted his activity to questions of penitentiary reform.—*Du Système pénitentiaire et de la Peine de Mort*, Paris, 1827.—*Du Système Pénitentiaire en Europe et aux États Unis*, 1828-1830.—*La Question Pénitentiaire en Europe et aux États Unis*, 1844.—*Observations sur l'Établissement de la Déportation*, 1853.—*La Peine de Mort et l'Unification pénale à l'occasion du Code Pénal Italien*, 1874.—*L'École Pénale Italienne*, 1877.—*De l'État anormal en France des crimes capitaux*, 1885. He also wrote *Le Droit de légitime Défense dans la Pénalité et dans la Guerre*, 1873, and *La Conférence de Bruxelles sur les lois et coûtumes de la Guerre*, 1874. E. Ca.

LUCK. The husbandman and the merchant are properly represented by Horace as suppliants of fortune. For every *entrepreneur* is an "adventurer," exposed to the whole chapter of accidents which have been indicated under the head of Conjunctur.

The entrepreneur who had produced a commodity, or acquired skill and position, or connection, does not obtain in each particular case a remuneration proportioned to the efforts and sacrifices which he has undergone. Rather his advantage is governed by the law of Rent. And yet it is not a true rent. For the properties which yield it are not "original" (Ricardo), but acquired; and there is a correspondence between the cost of acquiring these properties and their quasi-rent (Marshall); discernible in the long run, though obscured by the action of chance in individual cases. An industry cannot continue unless the prospects of success in it are sufficiently brilliant to elicit the efforts and sacrifices which it costs to embark upon it. The question, how the attractiveness of a business is affected by its riskiness, has been discussed under the head Aleatory.

An average or "normal" correspondence between cost and value being recognised by theory; how large, in fact, are the fortuitous divergences on either side of this position of equilibrium? A gloomy answer to this question is supplied by Prof. Wagner in a passage referred to under Conjunctur. "It is not," he concludes, "personal merit, or one's own fault; it is *not* work, or thrift, or foresight; not idleness or extravagance, or improvidence, but chance (*Conjunctur*) which is the decisive factor in determining the fate of most economic interests." (Compare J. S. Mill, *Chapters on Socialism. Fortnightly Review*, 1879, p. 226). Some of the numerous authorities, cited by Prof. Wagner, countenance the opinion that trade and industry are continually becoming more aleatory. On the other hand, Schäffle holds (*Aussch. Verhält.*, p. 35) that the sphere of chance becomes smaller as that of intelligence becomes larger. The remark is specially true of those calamities which physical science can guard against. But credit-waves and price fluctuations, changeable fashions and migratory customers, new inventions rendering old plant unsaleable, are elements of chance which do not seem to diminish with the progress of intelligence.

Civilisation certainly brings one remedy to insecurity, insurance. The principle is not confined to insurance offices; "when a great company, or even a great merchant, has twenty or thirty ships at sea, they may, as it were, insure one another" (*Wealth of Nations*, bk. i. ch. x.). Antonio having had "an argosy bound to Tripolis, another to the Indies, . . . a third at Mexico, a fourth for England, and other ventures," Bassanio might well ask with surprise: "Have all his ventures failed? What! not one hit!" This sort of insurance is connected by Prof. J. B. Clark with the philosophy of utility in an important article in the *Quarterly Journal of Economics*, 1893. (Cp. art. by John Haynes, *Risk as an Economic Factor*, *ibid.*, 1895).

Co-operation, also, in the modern form of a combination or concert between producer and consumer, should be mentioned as a corrective of the aleatory element in trade. Socialism offers more drastic remedies—themselves perhaps somewhat aleatory. This much certainly may be demanded of governments, that they should not aggravate insecurity by fitful taxation and unstable currency. F. Y. E.

LUCRUM CESSANS, *i.e.* the gain to one person that is hindered by the non-return by another of a loan at the appointed time was recognised as justifying a claim for compensation or "interest," in the early sense of that term, even by some canonists and schoolmen contemporary with Aquinas, though he himself refused to admit it, and in the 15th century it was very generally accepted by the best theologians. They could argue with some force

that the increase of opportunities for reasonably safe investment destroyed the force of Aquinas's argument that damage done could be more readily measured than opportunities missed (see DAMNUM EMERGENS).

[With the Roman lawyers "interest" was the measure of compensation in breach of contract, and this included "lucrum"; see Puchta, *Instit.* (9th ed.), § 260; Windscheid, *Pandektenr.* (7th ed.), § 258. But the term, "lucrum cessans," seems to date from Accursius (d. 1260).—Endemann, *Studien in der romanisch-kanonistischen wirthschafts- und Rechtslehre*, ch. viii., §§ 1, 4; Ashley, *Econ. Hist.*, i. pt. ii. § 65.] W. J. A.

LUDDITES. The riots of 1816, which resulted in the breaking of many knitting frames in Nottingham and the neighbourhood, were deliberately and carefully organised. Those who engaged in them were known as "Luddites," a word derived, it is said, from the name of a half-witted lad, Ned Lud, who (1779) broke a frame under considerable provocation. The condition of the framework knitters was very miserable; the trade was habitually overstocked with apprentices, and there were large numbers of skilled hands, among whom, when trade was bad, a small amount of employment was spread. The riots appear to have been directed as acts of vengeance on certain unpopular masters. The organisation was secret, and in the then state of the law, apart from overt acts of violence, was criminal; those who took part in the operations were bound by oaths, and there appears to have been a close connection between the Luddite riots and the outbreak about the same date of the Shearmen in Yorkshire. Economically, however, the grievances of the two were very different; the framework knitters broke up machinery which had been used with but little alteration for two hundred years; the operations of the Shearmen were directed against the substitution of machine for hand labour in the finishing of cloth. Besides the accounts in the *Annual Register*, the curious may consult Mrs. Linnæus Banks' *Bond Slaves*, an historical novel, founded on personal reminiscences and private information regarding these struggles.

["*Swing*,"—Cobbett, *Letter to the Luddites.*] W. C.

LUDER, AUGUST FERDINAND (1760-1819) was born at Bielefeld, studied at Göttingen, became professor of history at the Brunswick Carolinum 1786, Hofrath in Brunswick 1797, professor of philosophy in the university of Göttingen 1810, and in 1817 honorary professor at Jena, where he died. He was one of the group of economists who were the first to diffuse in Germany a knowledge of the principles of Adam Smith, Kraus and Sartorius being the others. He began his literary career with publications on geography and statistics, and in his principal work on economics, *National-industrie und Staatswirthschaft*, which Roscher calls a paraphrase of Smith's system, he seeks to illustrate the doctrines of the *Wealth of Nations* by means of geography and books of travel. In his *Nationalökonomie oder Volkswirthschaftslehre*, which appeared in 1820 after the author's death, he still follows Smith. He holds that all history speaks in favour of free competition, and maintains—in this going beyond his master—that the interest of the individual can *never* be at variance with that of society at large. He claims to have been the first to reform politics and the historical sciences by developing the influence of industry on intellectual and moral culture, but surely some acknowledgment of Hume was here called for.

Besides his economic writings, and many translations of French, English, and Dutch books on the condition and resources of different countries, Lüder published two works—*Kritik der Statistik und Politik*, 1812, and *Kritische Geschichte der Statistik*, 1817—the object of which was to show the worthlessness, and even the misleading tendency of political theory and statistics, studies to which he had himself devoted much time and labour. He points to the many calculations and predictions of political speculators which had been falsified by the events of his own time; and he succeeds in exposing the superficiality, narrowness of view, and especially the materialistic one-sidedness with which statisticians were often chargeable. But he falls into extravagance in his censures, and carries his scepticism to such a length as would make trustworthy history impossible, because perfect accuracy is unattainable. It may be, however, as some have thought, that even his exaggerations were useful as representing a necessary reaction against the unduly high estimate of statistics entertained by some of his predecessors and contemporaries.

[Leser in *Allg. Deutsche Biogr.*—Stammhammer in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 619.] J. K. I.

LUDEWIG, JOHANN PETER (1670-1743), a professor of law in the university of Halle, and steady admirer of King Frederick William I. of Prussia.

He principally lectured on German legal and economic history, and published *Germania Princeps* (1702), and in 1709 an Introduction to the monetary history of Germany during the Middle Ages,—*Einleitung zum deutschen Münzwesen mittlerer Zeiten.*—But his most noteworthy work is his *Panegyricus* (1727), written on the occasion of the foundation by Frederick William of a chair of economy, policy, and cameralistic in the university of Halle, emphasising the fact that a sound economic policy is the real basis of military power; the ascendency of Rome in old times, and of France under Henry IV. and Louis XIV., he ascribes to the wise economic policy of their rulers. All their qualities are found gathered in the person of "our anointed Salomo." Quite naturally Ludewig has nothing but words of

blame for historians, who only care about wars, and neglect "great deeds performed at home."

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 356-359.] E. Ca.

LUNACY, Law of. The economic position of the persons and the property of those whose absence of mental power incapacitates them from taking charge of their own affairs, has in England been the subject of numerous statutes during the last sixty years, which, in so far as they remained in force, were all consolidated by the Lunacy Act 1890, amended in respect of some minor details by the Lunacy Act 1891. There can be no doubt that the legislation on the subject has produced excellent results, and that the detention of persons falsely alleged to be of unsound mind or the infliction of inhuman treatment on those who are detained as lunatics, could now but rarely occur. The law as it stands secures (*a*) a competent supervising body having jurisdiction in all matters concerning persons of unsound mind; (*b*) appropriate establishments for the reception of lunatics; (*c*) an efficient investigation of the condition of the patient prior to his reception as a lunatic; (*d*) humane treatment during detention and ample opportunities to be discharged on recovery; (*e*) the protection of the property of persons who are unable to manage their own affairs.

(*a*) *Lunacy Authorities.*—The principal control in lunacy matters is exercised by the lunacy commissioners—a government department consisting of four unpaid, three paid legal, and three paid medical commissioners, one of the unpaid commissioners being the chairman, and of a legally-trained secretary. They have to supervise and inspect all establishments in which lunatics are received, and to see that all the regulations for the welfare of the inmates are properly carried out. They investigate complaints made by persons detained as lunatics, and have wide powers as to directing the discharge of any patients. The jurisdiction as to inquisitions and the management of the property of lunatics is exercised by the Lord Chancellor and the Lord Justices of Appeal, but most of their functions are now delegated to the two Masters in Lunacy, who must be barristers of at least ten years' standing. There are also legal and medical chancery visitors, whose duty is to visit the persons who are found lunatics by inquisition (see below).

(*b*) *Establishments for the Reception of Lunatics.* A lunatic may be detained in one of the following ways:—(1) in an asylum or workhouse, (2) in a registered hospital, (3) in a licensed house, (4) as a single patient. Asylums principally used for pauper patients are provided by counties or boroughs; but they may also receive private patients against payment. A pauper patient may also be detained in a workhouse on a certificate by the medical officer that it is not necessary to remove him to an asylum, and that the accommodation in the workhouse is sufficient; and the county or borough authorities may also send pauper lunatics to hospitals or licensed houses.

An asylum is under the supervision of a visiting committee appointed by the county council or borough council to the jurisdiction of which it belongs. The unions to which the pauper inmates are chargeable have to pay a weekly sum in respect of each patient, the amount of which is fixed by the visiting committee, and may be altered from time to time so as to ensure as far as possible that the receipts cover the expenses, including the salaries of officers and attendants.

Registered hospitals are charitable establishments generally intended for the reception of patients of small means not being paupers, who are admitted free of charge or against a small annual payment; but in many of these establishments there is a separate department for persons paying at a higher rate. Prior to the registration of a hospital the regulations must be approved by the Home Secretary; and it is the duty of the commissioners to see that the regulations are properly carried out. It is a criminal offence for the superintendent of a hospital to receive more patients than the certificate of registration allows. The accounts of hospitals, in so far as they do not come under the jurisdiction of the charity commissioners, must be submitted to the commisioners in lunacy.

Licensed houses are private establishments for the reception of lunatics. The licensees whose licence is dated prior to the Lunacy Act of 1889 enjoy a practical monopoly, as no new licences are granted except to them or their successors in business. The licensing jurisdiction in the metropolis and its immediate neighbourhood is exercised by the commissioners in lunacy; in all other places the licences are granted by the justices of the county or borough in which the house for which the licence is required is situated. A licence states the number of patients it authorises; its duration is left in the discretion of the licensing authority, but must not exceed thirteen months, and it may at any time be revoked by the Lord Chancellor on the recommendation of the licensing authority. The commissioners in lunacy may, with the sanction of the Home Secretary, make regulations for the government of any licensed house. In each county or borough in which the justices are the licensing authority they must appoint at least three of their number and also a medical practitioner to act as visitors of licensed houses within the county or borough.

Single patients received in unlicensed houses are in various ways subject to the control of the commissioners in lunacy.

The average number of patients resident on Jan. 1, 1905, in the various establishments described above was:—

	Males.	Females.	Total.
County and borough asylums	40,155	46,936	87,091
Registered hospitals . .	2,201	1,996	4,197
Licensed houses . . .	1,437	2,244	3,681
With relatives and others .	2,315	3,768	6,083
There were also:—			
In naval and military hosps.	212		212
In Broadmoor Crim. Asylum	562	197	759
In Workhouses . . .	8,287	9,519	17,806
	55,169	64,660	119,829

(*c*) *Detention of Lunatics.*—It is a criminal

offence to receive or detain a lunatic against payment unless the fact of his being of unsound mind has been established in one of the prescribed ways.

When persons have considerable property it is usual to have an inquisition with or without a jury, and if the judge or master in lunacy or the jury find that the patient "is of unsound mind and incapable of managing himself or his affairs," he is placed under the care of a "committee of the person," for which office a near relative is generally chosen. A "lunatic so found by inquisition" may be detained in any establishment for the reception of lunatics or as a single patient, but in all other cases a "reception order" is required. A reception order is either made on petition or on summary process by a justice of the peace, the latter method being adopted in the case of paupers or lunatics wandering at large, and the former in all other cases, and is never made unless two medical practitioners certify independently of each other that the patient is of unsound mind. A reception order is not valid beyond a certain period, unless a report be made by the medical attendant to the effect that the patient is still of unsound mind. It is also necessary for the medical attendant, whenever a new private patient is received, to send a special report to the commissioners in lunacy, and the patient is thereupon visited; and if in such visit it appears that the detention is improper, the commissioners may order his discharge.

In cases of imminent danger patients may be detained for seven days on an urgency order accompanied by one medical certificate. Inquisitions have lately become very rare, and most patients are now detained under reception orders.

(*d*) *Treatment of Lunatics.*—The proper treatment of persons of unsound mind is provided for in various ways, particularly by the compulsory visits which must be paid to all establishments in which lunatics are kept by the commissioners, and, as regards lunatics coming under their jurisdiction, also by the chancery visitors, visitors of licensed houses, and asylum visiting committees.

It is also provided that every hospital and licensed house may at any time, by day or night, be visited by any one or more of the commissioners in lunacy. There are also various provisions for ensuring the right of every person detained as a lunatic to communicate with the lunacy authorities and to receive visits from his friends; for securing regular medical attendance; for regulating the use of mechanical means of restraint; and for facilitating the discharge of patients after recovery. The commissioners in lunacy publish annual reports about their visits and other matters coming to the notice of their department.

(*e*) *Property of Lunatics.*—The property of lunatics so found is placed under the care of a "committee of the estate," who may be the same person as the "committee of the person" (see above). It is now also possible to obtain powers of management as to the property of persons of unsound mind not being lunatics so found by inquisition. The committees and other persons who manage the property of lunatics are under the control of the lunacy judges and of the masters in lunacy (see above).

[The Lunacy Acts 1890 and 1891; see also the Reports of the Select Committees appointed to inquire as to the Treatment of Lunatics, dated 1859, 1860, 1877, 1878. As to the state of the law prior to 1845 see Dr. Forbes Winslow's edition of the act of 1845; see also INTERDICTION.] E. S.

LUNDINARIUM or Mondayland, a name often found in manorial records for the small plots of land held by cotters, the lowest class of villeins, who were bound to work for their lord only on one day in the week, generally Monday.

[Vinogradoff, *Villainage in England*, 1892, pp. 153 note, 256, with references to cartularies of Christchurch Canterbury, and of Gloucester.] E. G. P.

LUNETTI, VITTORIO (17th century); born at Naples, of Genoese descent. He wrote on the commercial side of political economy, and carried on the discussion on the serious state of affairs—economical, monetary, and financial—in the kingdom of Naples—a discussion in which De Santis, Serra, Biblia, and Turbolo had taken part. To meet the exceptional scarcity of coin and the high rate of exchange then ruling in Naples, he proposed to establish a fixed equitable rate of exchange and to forbid the export of coin. He desired to abolish customs and duties and to leave imports and exports free, but at the same time would restrict the privilege of trade in grain to the government. His writings as a whole, compared with those of his predecessor, Antonio SERRA, are not of first-rate importance. Serra had previously discussed, with considerable acumen, the question of international payments, advocating free export of money and free exchange.

Lunetti's works are: *Politica mercantile: degli espedienti et arbitrii per publica utilità*, etc., Naples, 1630.—*Ristretto dei tesori di tanti utili ed incredibili avanzi che si avra con la esecutione della Regia Tavola nella fedelissima città di Napoli*, Naples, 1660.

[For Lunetti, see L. Cossa, *An Introduction to the Study of Pol. Econ.*, translated by Dyer, Macmillan, 1893.—U. Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, 1889, pp. 318-326.—T. Fornari, *Delle teorie economiche nelle provincie Napolitane*, Milan, 1882, vol. i. pp. 293-301.] U. R.

LUPO, GIAMBATTISTA (16th century). A scholastic theologian of San Gemignano, Tuscany, who wrote a Latin work on usury in which he discusses that question, expounding the traditional reasons for its prohibition and the exceptions rendering it permissible. Lupo differentiates between the various forms of usury, and examines various contracts—especially those of exchange, to show at what point they cease to be lawful and become usurious; he maintains that, when in doubt, the judges are not to assume usury. In Lupo's comments

on the scholastic theory of just price (see JUSTUM PRETIUM), which contain some of the germs of the present theories of value, he divides just price into "naturale" and "legitimum."—Natural price is that which usually prevails in the place and time where a contract is made ; it depends on the conditions of place, time, and custom of the contractor, on the quantity of goods and money, buyers and sellers, etc. "Tantum valet res, quantum vendi potest." The law of demand and supply is evidently referred to here. Lupo further says that legitimate price is fixed by the law of a prince or of those in like authority. Whoever fixes it must consider the intensity of the need, the copious supply or scarcity of the article and of the labour employed in its production, the disagreeableness of the business, the changes for better or worse in the goods, etc. Finally legitimate price must be based on natural price. Lupo divides "just price" into maximum, medium, and minimum.

Lupo wrote : *De usuris et commerciis illicitis*, Venetiis, apud Giuntas, 1577.

[See Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, Hoepli, 1889.—Montanari, *Contributo alla storia della teoria del valore negli scrittori italiani*, Milan, Hoepli, 1889.] U. R.

LUSHBOROUGHS, OR LUSSHEBOURNES, were imitated English pennies, or sterlings, coined abroad, to be distinguished from crocards, pollards, and other prohibited coins, which were genuine foreign coins, but imported into England in the 13th century as being of less weight and value than the English sterlings. In most instances even lusshebournes need not be regarded as counterfeit coins ; though the reverse was always more or less closely copied from the English sterling, the obverse usually bore an honest legend, the real name of the prince who issued them, and of the town where they were minted. More often than not, however, the portrait followed the type used by one or other of the English kings, chiefly the three Edwards, but the portrait itself was not seldom absent and replaced by some local symbol. The cross of the reverse was never omitted, and was generally accompanied by the pellets of the English type, though in the place of these it is not uncommon to find letters, or trefoils, roses, birds, or other ornaments, and occasionally the angles of the cross are left unfilled. It is the reverse by which these foreign coins are identified. They were generally of less value than the English original.

These "counterfeit sterlings" had a wide circulation. Public and private interests were alike served. An international currency, even imperfect, was advantageous to trade, and lords and bishops found the advantage of coining money which was acceptable beyond the narrow limits of their domains. As that money which had the best credit was most likely to be imitated, and as much of the trade of the Low Countries was with England, the English sterling naturally became the type of the foreign imitations. The Low Countries were the chief centre of trade, and the chief issuers of sterlings, the circulation of which was favoured by the political alliance of the Flemings with the first and third Edwards.

The sterlings of Hainault, Namur, Cambrai, and the Flemish provinces proper must especially be regarded as a *bonâ-fide* coinage, but the case is different with Luxemburg, where real counterfeits were issued, and from which the English appellation for these foreign sterlings was derived. Luxemburg, or the corruptions lusshebourne and lushborough, became a popular name for all imitated or false coins. The sterling type reached Luxemburg towards the close of the 13th century through Brabant, and some were issued by the Count Henry, afterwards the emperor Henry VII. His son, John the Blind, 1309-1346, minted false sterlings of inferior value, with the name, or some misspelt approach to the name, of the English king, or with some other alteration of the legend with intent to deceive.

Not many foreign sterlings were struck after the third quarter of the 14th century, but they continued in circulation altogether for more than two centuries in spite of the attempts made in England during Edward III.'s reign to stop their introduction. English merchants made their profit out of the importation of them. In 1346 lusshebournes were worth only 8s. a pound, or even less. An ordinance forbade their introduction under heavy penalties, yet the next year several merchants were put to death or fined for bringing them in. The Statute of Treasons, 1352, made the introduction of lucynburghs treason, yet Langland in his *Piers Ploughman*, written about 1362, and Chaucer in the *Canterbury Tales* (Monk's Prologue), written after 1386, both use lusshebourne as a word familiarly known.

The following are the principal places at which foreign sterlings were minted :

Brabant, Bonn, Bremen, Cambrai, Cologne, Flanders, Hainault, Holland, Liège, Lorraine, Louvain, Luxemburg, Maestricht, Mainz, Metz, Namur, Strasburg, Trèves, Utrecht. Chantard gives plates of coins minted at forty-two other places, chiefly German and Flemish, besides the English issues of Aquitaine and Calais, and a few specimens from more distant parts of Europe,—Aragon, Castile, Majorca, Norway, Portugal, and Sweden.

[The fullest account is given by Chantard, *Imitations des Monnaies au Type Esterlin*, 1871, —See also Snelling, "View of Counterfeit Sterlings," in his *Miscellaneous Views*, 1769.—Ducange, *Glossarium*.—Knyghton, *Chronicle*, an. 1347.—Ruding's *Annals*, i. 22.—*Numismatic Chronicle*, 1st. ser. vi. p. 76, 1844.—Pike's *Hist. of Crime*, i. 267, with ref. to *Controlment Roll*, m. 66. Yorkshire, for case of prosecution.] E. G. P.

LUTHER, MARTIN (1483-1546), the German reformer, is an interesting figure in economic history, both because he gave forcible expression to a large body of contemporary opinion, and also because he exercised a distinct influence on the action and thought of his time. A trained theologian, he was conversant with the economic teaching of the fathers, the greater schoolmen, and the earliest canonists: a man of warm sympathies, he had a keen sense of social evils around him, and was ready to apply the lessons of the church with but little regard to practical difficulties: a peasant's son, he looked with peculiar distrust upon the trading class, and regarded the great centres of commerce as but little better than "robber-towns." He shared in all the popular notions of his time; attributed the rise in prices to monopoly and the new great trading companies; thought that the import of foreign wares, like English cloth, was robbing the land of its gold and silver, and would soon leave it penniless; and held that men who were ready to work ought to marry young, and leave it to God to provide for their offspring. In economic thought his influence was probably felt most strongly in relation to usury. Like others among the reformers, he helped to bring about a temporary reaction towards the severer doctrine of earlier centuries; he expressed himself in more sweeping terms than the theologians of the previous generation, and, in particular, expressed his disapproval of certain views with regard to INTEREST, in its narrower and original sense, and "rent charges" (Rentenkauf), which were already coming to be widely accepted. It is not unlikely that the example of the protestant divines contributed to bring about the similar temporary reaction in the Roman Catholic Church during the "counter-reformation." His influence in another direction may be praised with less qualification. He pointed the way to the establishment of a wise system of poor-relief, based on the three principles that mendicancy should be prohibited, that each town should be responsible for its own poor, and that there should be proper investigation by the parson and other qualified persons. In his constitutional and social views Luther was intensely conservative; he regarded the PEASANT'S REVOLT as likely to produce anarchy, and he had no scruple in urging the princes to resort to severe methods of repression.[1]

[Luther's most important writings in this regard are, *Der Grosse und Kleine Sermon von Wucher* (1519), *An den christlichen Adel deutscher Nation von des christlichen Standes Besserung* (1520), *Ordnung eines gemeinen Kastens* (1523), *Von Kaufshandlung und Wucher* (1524), *An die Pfarrherrn, wider den Wucher zu predigen* (1540). For an abstract of his utterances, with typical specimens, see H. Wiskemann, *Darstellung der in Deutschland zur Zeit der Reformation herrschenden nationalökonomischen Ansichten* (1861), which needs, however, to be supplemented by the references scattered through G. Schmoller's *Zur Geschichte der nationalökonomischen Ansichten in Deutschland während der Reformationsperiode* (1861). Neither of these writers, indeed, sufficiently indicates Luther's relation to the previous teaching of the church.] W. J. A.

LUXURY is defined as the consumption of commodities which are not necessaries (*Wealth of Nations*, bk. v. ch. ii. art. iv.). "By necessaries I understand," says Adam Smith (*loc. cit.*), "not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even of the lowest order, to be without. A linen shirt, for example, is, strictly speaking, not a necessary of life. . . . But, in the present times, through the greater part of Europe a creditable day-labourer would be ashamed to appear in public without a linen shirt." A more precise definition of luxury is derivable from Prof. Marshall's use of the term "necessary." "The income of any class in the ranks of industry is below its *necessary* level when any increase in their income would, in the course of time, produce a more than proportionate increase in their efficiency" (*Principles*, bk. ii. ch. iv.). Whether a particular article is necessary, in either sense, depends upon habits and climate. A definition of luxury irrespective of those circumstances is unattainable. However, the description given by Butel-Dumont "jouissances superflues" is sufficiently accurate for the expression of the principal economic theories on the subject.

Modern economists, unlike ancient philosophers, do not denounce luxury. Hume maintains that "the increase and consumption of all the commodities which serve to the ornament and pleasure of life are advantageous to society; because at the same time that they multiply those innocent gratifications to individuals they are a kind of storehouse of labour which, in the exigencies of state, may be turned to the public service" (*Essays*, pt. ii., Essay 1-2 *Of Refinement in the Arts*, and compare Essay 1, *Of Commerce*). M'Culloch dignifies as productive any gratification, however trivial,—*e.g.* "blowing soap-bubbles"—to attain which a person is stimulated to work. J. S. Mill looks rather to the educational effect of luxury. "To civilise a savage he must be inspired with new wants and desires, even if not of a very elevated kind, provided that their gratification can be a motive to steady and regular bodily and mental exertion" (*Pol. Econ.*, bk. i. ch. vii. § 3). "The opening of a foreign trade . . . sometimes works a sort of industrial revolution . . . inducing those who were satisfied with scanty comforts and little work to work harder

1 Luther "anticipated A. Smith's proposition that labour is the measure of value."—Cliffe Leslie, *Fortnightly Review*, July 1875.

for the gratification of their new tastes, and even to save and accumulate capital for the still more complete satisfaction of those tastes at a future time" (*Ibid.*, bk. iii. ch. xvii. § 5). Moreover, a "stock of labour" employed in manufacturing luxuries may supply men (Hume, *loc. cit.*), or at least money, for the maintenance of fleets and armies. It has been said that Napoleon was crushed by the English manufacturers. In case of famine, too, labour usually employed in procuring luxuries may be diverted to the production of necessaries; directly, or in exchange for exported manufactures. Another sort of provision against a national disaster is constituted by luxury in the form of precious ornaments (cp. Adam Smith, bk. ii. ch. iii., concerning expenditure on "durable commodities"). Luxury not only remedies an occasional deficiency in the food supply of a people, but also prevents population increasing in excess of subsistence, by forming a standard of comfort below which prudence forbids to populate (Senior, *Lectures on Population*, J. S. Mill, *passim*, and other classical economists). So various are the benefits of luxury. So truly does Voltaire say of modern society: "Le superflu, chose très nécessaire."

Because economists do not follow the ascetic moralists in denouncing luxury, they do not therefore follow MANDEVILLE in applauding "the unmixed prodigality of voluptuous and heedless men" (*Fable of the Bees*, remark *k*). The celebrated dictum, "Private vices public benefits," is plausible only when applied to the extravagance of a particular class. The question is whether the expenditure of the "unnecessary" wealth of the upper classes is more beneficial to the working class than other ways of dealing with that wealth: which are principally—destroying it, investing it, giving it away.

Pace Fawcett (*Manual*, bk. i. ch. iv. p. 23, 4th ed.), destroying wealth is worse than giving it to workmen in exchange for some service, however futile. Investment tends (*a*) to increase the amount of fixed capital, or more generally to diminish the amount of waiting between effort and fruition; (*b*) to increase the remuneration of labour. The first tendency (*a*) can hardly be other than beneficial, the saving in question being by hypothesis confined to a particular class of society. This seems to be the principal lesson to be derived from Mill's discussion of the question (*Pol. Econ.*, bk. i. ch. v. §§ 5 and 8). The second tendency (*b*) the offer of better terms to the working class may have various results. (1) It may lead merely to the increase of population; which all would not regard as beneficial. (2) It may lead merely to an increase of idleness. "At one time," says the hero of Miss Edgeworth's *Ennui*, "I had a mind to raise the wages of labour, but Mr. Macleod said, it might be doubted whether the people would not work less when they could with less work have money enough to support them." (3) Increased wages may be expended on luxuries which may possibly be less liberal than the luxuries foregone by the wealthy. (4) The result may be to increase efficiency and to further increase wages; the expenditure of the capitalist class being restricted to necessaries. Altogether, considering the diversity and remoteness of these deductions, it may be doubted whether economic reasoning much strengthens the motives to saving which ordinary prudence supplies to the wealthy classes. Lastly, Dives might give away part of what he now spends on himself. It is difficult to believe that rational benevolence cannot discover a better way of employing money than to spend half a guinea on a dish of green peas (Hill's *Boswell*, p. 56 and cp. note). When Dr. Johnson asked, "Has it not gone to the *industrious* poor, whom it is better to support than the *idle* poor," he forgot that the industrious poor would be equally employed in making things to be given away as in making objects of luxury. As Hume says (*Essays*, pt. ii. 2), "that labour which at present is employed only in producing a slender gratification to one man would relieve the necessitous and bestow satisfaction on hundreds." On the other hand, charity often defeats its own end; and the disinterested resignation of luxuries must be preached with caution. To resign all luxury is a rule of conduct which cannot justly be prescribed for one class only, and which becomes absurd when applied universally. This absurdity is happily illustrated by Miss M. Benson, *Capital, Labour, and Trade*, ch. iii. "The end of it would seem to be an immense population working all their days, living on the bare necessaries of life,"—like ants.

The old and noxious fallacy that the extravagance of the rich is necessary for the employment of the poor is now nearly extirpated. But there is some appearance in contemporary socialist literature of an opposite misconception. It seems to be held that production on a large scale is not possible unless the masses are large consumers, beyond what is necessary for efficiency—for otherwise the proposition is a truism. The most intelligible argument in favour of this thesis is that the unsteadiness of the demand which a wealthy class has for whimsical luxuries is apt to discourage production.

The attempt to restrain luxury by SUMPTUARY LAWS, or to utilise it by TAXATION will be treated elsewhere.

[Mandeville, *Fable of the Bees.*—Cantillon, bk. i.—Berkeley, *Querist.*—Melon, *Essai Politique sur le Commerce.*—Hume, *Essays*, pt. ii. Essays 1 and 2.—Voltaire, *Le Mondain, Défense du Mondain ou l'Apologie du luxe.*—Butel-Dumont, *Théorie du luxe, ou traité dans lequel on entre-*

prend d'établir que le luxe est un ressort non-seulement utile, mais même indispensablement nécessaire à la prosperité des États. —Steuart, *Principles of Political Economy*, bk. ii. ch. 20.—Ferguson, *Essay on Civil Society*, pt. vi. § 2.—Say, *Cours Complet*, vols. 1 and 2 *passim.*—Rau, *Ueber den Luxus* and *Lehrbuch.*—Roscher, *Ueber den Luxus* and *Volkswirtschaft*, etc.—Mangoldt, Article on "Luxus" in Bluntschli, *Staatswörterbuch*, vol. vi.—H. Sidgwick, "Luxury" article in the *International Journal of Ethics*, October 1894.—Baudrillart, *Histoire du luxe.*—M'Culloch, *Principles*, pt. iv. On Consumption.—J. S. Mill, *Pol. Econ.*, bk. iv. ch. vi.—De Laveleye, "Le luxe" in *Socialisme Contemporain.*—Gunton, *Wealth and Progress*, pt. i. ch. 2.—Sidgwick, *Princ. of Pol. Econ.*, bk. iii. ch. ix. § 5.—Locke, *Considerations on the Lowering of Interest*, mentions the preference people have for things because of their dearness.] F. Y. E.

LUZAC, Elie (1723-1796), born at Noordwyk, studied law at Leyden, became a bookseller and publisher, and, after having graduated in 1759, also a lawyer; he wrote many juridico-philosophical works, and translated Montesquieu's *Esprit des Loix.*

His economical work is entitled *Holland's Rijkdom* (Holland's wealth), and is a translation of a French work, *Commerce de la Hollande, par Accarias de Sérionne* (Londres, 1778), but greatly amended and completed. A German translation of the French edition by Beuzler appeared 1778, two of the Dutch editions by Engelbrecht (Greifswold, 1788), and by Luder (Leipzig).

The work contains an historical exposition of the growth and decline of the Dutch trade from the middle ages to the author's time, followed by an inquiry into the causes of its decline and the means of restoration. Under the first—excluding moral and political causes—he mentions the levying of high taxes on necessary victuals as causing high wages, and in consequence high prices, and the importation of East Indian articles which could be obtained at home. As efficient means of redress he considers the establishment of a limited free port; taxes principally on articles of luxury; the granting of privileges of various kinds to manufacturers and their workmen with a view to lowering prices, etc. The historical part of the book is by far the most interesting.

A. F. V. L.

MABLY, Gabriel Bonnot, Abbé de (1709-1785), elder brother of Condillac, born at Grenoble, died at Paris, was a communist in theory, but he neither aimed at being the leader of a school nor expected to put his ideas into practice. In character he was upright, never trifling with his duty. At first it seemed that he was destined to take orders,—he was educated by the Jesuits at Lyons and afterwards at their seminary of St. Sulpice in Paris. But early in life he entered on a secular career and became the secretary of his uncle, Cardinal de Tencin, then minister of state. The Cardinal seems to have been singularly incapable, for it was the duty of Mably to draw up even his simplest notes. In this position Mably was so highly thought of that he was charged with important diplomatic missions; thus in 1743 he was sent to Prussia to conclude a secret treaty against Austria; and in 1746 he drew up the instructions for the plenipotentiaries who were engaged at the Congress of Breda. But he soon came to a disagreement with Cardinal de Tencin, and in a cause which was entirely to his honour. The Cardinal wished to disannul a protestant marriage. Mably opposed this energetically. "I wish to act as a cardinal," his uncle said to him; "act as a statesman," replied Mably, who left him and a settled career for authorship.

In his first work, *Parallèle des Romains et des Français par rapport au gouvernement*, 1740, 2 vols. 12mo, Mably by no means appeared as the communist leveller he afterwards became. In it he extolled absolute monarchy, regarding men as incapable of governing themselves; and he was warm in praise of luxury. This phase of thought did not last long. In 1748 he produced the 1st ed. of *Le Droit public de l'Europe fondé sur les Traités*, 2 vols. 12mo (the 3rd edition in 1764 was continued to the treaty of Paris, 1763, in 3 vols.), in this, after having approved negro slavery in the colonies, he began to show the extent of existing social inequalities. In 1763, he published *Les Entretiens de Phocion sur le rapport de la morale avec la Politique traduits du Grec de Nicoclès*, 12mo. This travesty, as it may almost be called—the best of his writings in style, and a happy example of rhetorical exaggeration—eulogises the institutions of Lycurgus, and marks the author as a member of the school of J. J. Rousseau. It is a step towards those socialistic ideas which caused Mably to be placed among the forerunners of communism, though of itself it would not have been a sufficient basis for the reputation which later years have awarded him. In 1768, Mably addressed to the economists, in the person of Mercier de la Rivière, his *Doutes proposés aux philosophes économistes sur l'ordre naturel et essentiel des sociétés politiques*, 12mo. This publication embodied an attack on landed property. "It is property which introduced indolence and sloth into the world . . . I see, from the moment that property in land was established, inequality in fortunes begin; are not clashing and conflicting interests the necessary result of inequality in fortune,—all the vices of riches, the vices of poverty, the impoverishment of mind, the corruption of habits, etc. . . . ? Property has peopled the earth only with brigands and thieves. The greater the effort we make to return to equality, the nearer we shall be to happiness." Personal property alone found favour with

him. In 1776, in his work, "*De la législation ou principes des Loix*, 2 vols. 12mo, and in the work *Des Droits et des Devoirs des Citoyens*, which only appeared after his death, he supported the system of community in goods. He feared, however, that property would not allow itself to be abolished as easily as he wished. Plato had said 2000 years before, "This would be too much to ask of men born and brought up as they are now." Like Plato, Mably exclaimed, "The evil at the present time is too inveterate to allow us to hope for a cure." And he admits as transitory methods of improvement—better land laws, limitation of fortunes, a Spartan education, sumptuary laws, the abolition of the right of bequest, the interdiction of trade, and the abasement of arts and industries. He proscribed neither family life nor religion; he even wished for an established religion and selected the Catholic religion. He maintained it was necessary that the state should be intolerant. Instead of a centralised state he wished for a federation; and to promote this, he published in 1784 his *Observations sur le gouvernement et les lois des États-unis d'Amérique*, 12mo, in which he prophesied the fall of that country, if it continued to give to commerce and industry the pre-eminence which has since been the basis of its prosperity. As has been seen, Mably took, though in error, a step beyond J. J. Rousseau. The latter preached equality and a return to what he called the state of nature. Mably demanded, as the means for realising this ideal, a community of goods without inquiring, as Cabet did later, into the details of the means of bringing it about. And yet in the following passage of his book, *Le Droit public de l'Europe fondé sur les traités*, vol. ii. pp. 417-418, 3rd edition, 1764, Mably had given proof of a power of intuition which ought to have saved him from the mistakes just described. "What would cause a singular revolution in Europe would be if America shook off the yoke of Spain in order to govern itself by its own laws. No doubt the rebels, with a view to interesting Europeans in their fate and preventing them from supplying help to their opponents at the court of Madrid, would be willing to open to them all their ports and to lavish their wealth on them, but this event would only give a transitory prosperity to our avarice. The Americans will soon possess our arts and manufactures, their land will soon bear our fruits; and in consequence, as they will have no longer any need of our merchandise or our produce, Europe will gradually fall into the same state of indigence she was in four centuries ago."

The complete works of Mably were published after his death in 1789, 12 vols. 8vo; in 1793, 26 vols. 12mo; in 1794, 15 vols. 8vo; finally in 1797, 12 vols. 8vo. His posthumous works appeared in two editions, 1790-91, 4 vols. 12mo; 1797, 3 vols. 8vo. A. C. f.

[See Sudre, *Histoire du Communisme.*]

MACADAM, JOHN LOUDON (1756-1836), invented the "macadamised" system of road-making, which effected "the greatest improvement in the means of inland communication subsequent to the introduction of canals and before the great extension of railways" (Waller's *Imperial Dictionary of Universal Biography*, art. Macadam). It was while acting as road trustee in his native county of Ayrshire that Macadam's attention was drawn to the condition of highways. In 1811 he laid the result of his investigations before parliament. In 1815, as surveyor-general of the Bristol roads, he so successfully applied his methods that in 1823 parliament granted him £10,000 in return for his expenses in the public service.

Macadam published *A Practical Essay on the Scientific Repair and Preservation of Public Roads*, London, 1819.—*Remarks on the Present System of Road-making*, 5th edit., 1822; 9th edit., 1827 (Longmans).—*Observations on the Management of Trusts for the Care of Turnpike Roads*, London, 1825. A. L.

The use of stones of uniform size broken into angular pieces, which have a tendency to lock together into a hard and compact mass, was the prominent feature of the system carried out by Macadam—"Such a size as you can comfortably put into your mouth," was his rule with his workmen (see also Life, *Dict. Nat. Biog.*). The economic advantages of improved methods of communication are almost incalculable (see CANALS; COMMUNICATION, MEANS OF; TRANSPORT, COST OF INLAND).

MACANAZ, MELCHIOR DE (born about the end of the 17th century), became *Intendente general* of Aragon, and on behalf of King Philip V. carried on negotiations in Paris with the papal nuncio for the repression of the abuses existing in the Spanish church. He defended the prerogatives of the crown with such acrimony that he roused the permanent hatred of the Spanish clerical party, and was obliged to cross the French frontier. On his return to Spain some years later he was apprehended and confined in the castle of Segovia, where he remained till the accession of Charles III. He did not survive his liberation many years.

The most noteworthy economic writings of Macanaz are the *Auxilios para bien gobernar una Monarquía Catolica* (Helps for the Right Government of a Catholic Monarchy), published separately after his death in 1789, and also included in the *Semanario Erudito* of Valladares (Madrid, 1788, vol. v.); the *Avisos Políticos, Máximas prudentes y Remedios universales*, presented to King Ferdinand VI., and his *Representacion expresando los notorios males que causa la despoblacion de España* (Representation on the Notorious Evils Caused by the Depopulation of Spain). Many of his writings have not been printed.

Macanaz is a warm follower of COLBERT (see *Auxilios*, pp. 233-236, 243, 287-289, vol. v. of *Semanario Erudito*). He also lays down some of the principles on which the assessment of taxes should be based. Adam Smith later insisted on similar rules: taxes "must be . . . adjusted to the means of the subjects (p. 290) . . . the raising them must not weigh heavily on the tax payers" (p. 292). At the same time, he rejects all taxes whatever on food (bread, meat, wine, and salt), and recommends the establishment of an official and exact return of the means of each individual subject, on which a tax of 10 per cent, including all kind of taxes on eatables, might be assessed (pp. 290-291). E. Ca.

M'CULLOCH, JOHN RAMSAY (1789-1864), statistician and economist, born at Whithorn in Wigtownshire, studied in Edinburgh, and entered the office of a Writer to the Signet there.

He soon abandoned the law, and devoted himself to the study of economics. His first publication (1816) was *An Essay on a Reduction of the Interest of the National Debt*, in which he sought to prove that such reduction was the only possible means of relieving the distresses of the commercial and agricultural interests; while it was also a just measure, and one founded on the surest principles of political economy. For ten years (1817-1827), M'Culloch contributed the economic articles to the *Scotsman*, and for two years (1818-1819) he was editor of that journal. In 1818 he wrote an article in the *Edinburgh Review* on Ricardo's *Principles of Political Economy*, and for nearly twenty years after that he contributed almost all the economic articles to the *Review*.[1] Proceeding to London in 1820, he formed classes for the study of political economy, and in 1824 delivered the Ricardo lectures. The materials in these lectures were afterwards expanded into an article on political economy for the supplement to the *Encyclopædia Britannica*, and they were also substantially utilised in a separate publication entitled *A Discourse on the Rise, Progress, peculiar Objects, and Importance of Political Economy*, 1824-1825. Subsequently M'Culloch published a still more extended and formal treatise on *The Principles of Political Economy; with a Sketch of the Rise and Progress of the Science*, 1825. Between 1830 and 1886 six other editions of this work appeared in London and Edinburgh.

M'Culloch was examined before the parliamentary committee on the state of Ireland in 1825, when "he argued that absenteeism could not materially injure that country, because rent was ordinarily remitted through the medium of bills of exchange drawn against exports." This theory was trenchantly attacked in *Blackwood's Magazine* (vols. xix. and xxiv.). In 1828 he was appointed to the new but unendowed chair of political economy in University College, London, which he resigned in 1832. M'Culloch published, in 1826, an *Essay on the Circumstances which determine the Rate of Wages and the Condition of the Labouring Classes*. This was perhaps his most distinctively original work, but the famous "wages fund theory" which he propounded, and which was very largely accepted for at least a generation, was ultimately abandoned by the best economic authorities. *A Treatise on the Principles, Practice, and History of Commerce*, which M'Culloch contributed to the *Library of Useful Knowledge*, 1831, was remarkable as an early exposition and defence of the principles of free trade. It was followed in 1832 by M'Culloch's important statistical work, *A Dictionary, Practical, Theoretical, and Historical, of Commerce and Commercial Navigation*. This comprehensive publication embodied the researches of twenty years. It was succeeded in 1837 by *A Statistical Account of the British Empire*, undertaken by M'Culloch, with the aid of a body of specialists, for the Society for the Diffusion of Useful Knowledge.

In 1838 M'Culloch was appointed comptroller of Her Majesty's stationery office, a post which he held until his death. He did not relax his economic studies after his appointment to the comptrollership, but published in 1841 his *Geographical, Statistical, and Historical Dictionary*, which contained brief descriptions of the various countries, places, and principal natural objects in the world. In 1845 appeared his *Treatise on the Principles and Practical Influence of Taxation and the Funding System;* and during the same year he published his *Literature of Political Economy*, "a classified catalogue of select publications in the different departments of that science, together with historical, critical, and bibliographical notices," a work of great use to the economic student. The results of M'Culloch's inquiries into the influence of primogeniture, entails, compulsory partition, etc. over the public interests, appeared in his *Treatise on the Succession to Property vacant by Death*, issued in 1848; and a work of his on *Economical Policy*, containing treatises and essays on various subjects, and memoirs of Quesnay, Adam Smith, and Ricardo—was published five years later. He edited in 1856 for the Political Economy Club,—of which he was one of the original members—a *Select Collection of Valuable Tracts on Money*, by Vaughan, Cotton, Petty, Lowndes, Newton, and others. In 1856 he edited *Early English Tracts on Commerce*, by Mun, Roberts, North, and others: for Lord Overstone, in 1857, *Tracts on the National Debt and the Sinking Fund*, by Harley, Gould, Pulteney, Walpole, Hume, Price, and others:—in 1857, *Tracts on Paper Currency and Banking*, by Hume, Wallace, Thornton, Ricardo, Blake, Huskisson, and others;—in 1859 pamphlets on *Commerce*, by Evelyn, Defoe, Richardson, Tucker, Temple, and others;—in 1859, *Economical Tracts*, by Defoe, Elking, Franklin, Turgot, Anderson, Schomberg, Townsend, Burke, Bell, and others. He also collected Lord Overstone's *Tracts and other Publications on Metallic and Paper Currency*, 1857, and his *Evidence before the Select Committee of the House of Commons of 1857 on Bank Acts*. In 1860 he contributed to the *Encyclopædia Britannica* (8th edition) the article on *Taxation*, which was separately reprinted the same year.

In addition to the works specified above M'Culloch wrote a great number of minor pamphlets, tracts, and articles on subjects connected with political economy. He edited A. SMITH'S *Wealth of Nations* with copious notes, etc. (1828, 2nd ed. 1838, 3rd ed. 1863), and also the works of RICARDO, with a life of the author (1846, 2nd ed. 1852). M'Culloch was no original thinker, but a close student and follower of Smith and Ricardo, whose principles he expounded, and he assisted in the dissemination of the ideas on economic questions which prevailed at the beginning of the 19th century, and furthered useful legislation with regard to them. His treatment of these questions was little marked by breadth or elevation; this and his habit of dogmatism tended to alienate many from the science of which he was, at the time, one of the prominent exponents. Until the

[1] For a list of these, see *Notes and Queries*, 5th October 1878.

rise of Mill, his *Principles* had a considerable vogue among English and European students of political economy. His description of his own Library, *A Catalogue of Books the property of a Political Economist* (privately printed, London, 1st ed. 1856, 2nd with adds. 1862), and the critical notices of the books it contains, are evidence of the extent of his studies.

[*Annual Register*, 1864; "Men of the Reign," *Scotsman*, Nov. 12, 13, 1864.—*Dictionary of National Biography*, vol. xxxv.—Bain's *Life of James Mill.*—*Chambers's Encyclopædia*, vol. vi.; Quaritch, *Dictionary of English Book-Collectors*, pt. vi., Feb. 1895, gives, along with life, portrait and facsimile of letters.] G. B. S.

MACE. A denomination of the Chinese money of account, but not a coin. 100 cash = 1 mace (*see* CASH). F. E. A.

M'FARLAN, JOHN (fl. end of 18th century), clergyman and philanthropist, was one of the ministers of the Canongate, Edinburgh. When he published *An Inquiry concerning the Poor*, Edinburgh, 1782, 8vo, he had been for fifteen years connected with almost every charitable foundation in Edinburgh. The *Inquiry* treats of the causes of poverty, and the different methods employed to provide for the poor, and then proceeds to suggest reforms, of which the more important are, an improved police, efficient voluntary managers, and paid inspectors, and the building of houses of correction in every parish. The book is dedicated to Lord Kames, to whose suggestions it owed much. H. E. E.

MACGREGOR, JOHN (1797-1857), was a native of Scotland, eldest son of David Macgregor of Stornoway. He emigrated to Canada early in the century, became a member of the house of assembly of Prince Edward's Island, and later travelled through North America, returning to England in 1828. He was a friend of J. Deacon HUME of the board of trade, and with him projected a vast work on the statistics of the British empire, which was never undertaken: he occupied his time, however, with other works on history and statistics. In 1840 he succeeded Hume as joint secretary at the board of trade, but resigned in 1847. Macgregor expressed his views with vigour alike in his writings and in evidence before several committees of the houses of parliament. His views were favourable to free trade, and his evidence before the committee of 1840 was considered a severe blow to protection. The general tendency of his opinions was strongly utilitarian.

Of his more purely economic or statistical works, the chief were:—*The Resources and Statistics of Nations*, London, 1835, 8vo.—*Commercial and Financial Legislation of Europe and America*, London, 1841, 8vo.—*The Preference Interests or the miscalled Protective Duties shown to be Public Oppression*, 1841.—*Financial Reform*, 1849.

[See *Dictionary of National Biography.*] C. A. H.

MACHAULT D'ARNOUVILLE, JEAN BAPTISTE (1701-1794), one of those few ministers of Louis XV. who were both honourable and able. He never aimed at becoming a financier, and was master of appeals when D'Argenson, who had divined his ability, procured his appointment as commissary of the treasury at Valenciennes, from which he was subsequently promoted, without his knowledge, to the office of controller-general in place of Philibert Orry, a functionary who was a faithful slave to the ideas of Cardinal Fleury. Machault was raised to power at a difficult time. For four years Europe had been in confusion through the war of the Austrian succession. France was the preponderating force in the struggle, and though she obtained military success, her financial affairs felt the disastrous effects. Cardinal Fleury was dead, and with him the system of economy which, though blamed by some, had at least the advantage of easing the shoulders of the taxpayers. The era of senseless prodigality and the costly reign of recognised mistresses began. Madame de Pompadour was the first of these. Machault had to meet this order of things, and to deal with the most urgent claims. The commencement of his ministry (1745-48) was entirely given up to shifts of all kinds which there is no need to detail. The Treaty of Aix-la-Chapelle (1748) gave peace to Europe, and made the state of affairs more bearable. Machault profited by this to establish reforms in taxes and in the management of the national debt. Instead of the tax of the tenth, a war tax not paid by all classes, he established the tax of the twentieth (VINGTIÈME *q.v.*), a permanent and general contribution. The nobility and clergy were called on to pay it like the rest of the population. The produce of the twentieth was employed to maintain a sinking-fund, intended to lighten the weight of the national debt. Machault then introduced liberal measures which reanimated business, and showed for a moment a glimpse of prosperity and abundance. His reforms excited unanimous opposition among the privileged classes. The clergy bestirred themselves to such effect that they were exempted from paying the tax on condition of making a donation. The *Pays d'états* (see INTERNAL CUSTOMS AND TOLLS) obtained the same exemption by a trifling contribution. These checks and others of the same class determined Machault to resign the controllership (1754), and he passed to the admiralty, to which his great administrative ability enabled him to render valuable services. A court intrigue was the cause of his definitely giving up the admiralty and at the same time the keepership of the seals which he had held since 1750. In 1757 he returned to private life, which he only left to die in prison. The reforms he had instituted did not last, and the foundations he had laid were broken up as soon as he retired from office.

[M. Marion, *Machault d'Arnouville: étude sur l'histoire du contrôle général des finances de 1749 à 1754*, Paris, 1891, 8vo.] A. C. f.

MACINATO, or grist tax, in Italy. The idea of taxing the grinding of cereals is of old date in Italy. In Sicily a tax of this description existed in the middle ages; probably the Arabs introduced it. Such a tax certainly existed as a right of the crown under the Normans (1168).

The tax was in force at Florence in 1288,—at Milan in 1333; and it was rearranged, suppressed, and reimposed several times. Towards 1650 the grist tax became general nearly all over Italy—imposed with minute care in Florence, Sicily, Piedmont, and the Venetian republic. In Tuscany a law of Cosimo I. (7th Oct. 1552) graduated the grist tax from $3\frac{4}{10}$ *soldi* down to $1\frac{4}{10}$ *soldi* for every *staio* (a measure of the period), according to the various species of cereals, and comprised every grain, from corn to maize, barley, beans, etc.

This tax was levied throughout Tuscany, but with a higher tariff in Florence.

Introduced only for three years, to raise the funds for war, it gave such satisfactory results that it was continued 126 years without interruption, and gradually brought to perfection in technical details. In 1675 the government farmed the tax out till the 1st of June 1678, when it was suppressed and a personal tax substituted for it. Only in some districts the taxation of flour was continued in an OCTROI at the town-gates, till, with the progress of free-trade principles, this duty also disappeared in Tuscany.

In Sicily the grist tax was universal when parliament regulated it in 1565. This charged the collection of the tax on the local governments—the central government dividing it amongst the towns and rural districts, and avoiding direct contact with the taxpayers.

As, however, a great deal of clandestine grinding was carried on, the government made contracts with the landlords or their tenants, to commute for a fixed annual charge the liberty of grinding the corn necessary for themselves and their dependents. In this way a distinction between the civic and the rural gristing tax was introduced.

In Sicily the grist tax did not answer so well as in Tuscany. It was modified several times and temporarily suspended on several occasions as on the revolution of 1648, against the viceroy. In 1843, by a decree of the 22nd July 1842, the government took the grist tax directly into its hands, except for Palermo and Messina, and leased it out for six years. Every mill was put under the control of an official who weighed the quantity ground. The revolution of 1848 suspended the tax, but it was re-imposed, with a lower tariff, by the revolutionary government itself, and continued by the Bourbons, as soon as they returned. In 1860, Garibaldi, as Dictator, abolished the tax, 19th May 1860, and Sicily has never again been subject to it.

In Piedmont the grist tax was first introduced in 1577, as a duty due to the ducal mills of Fossano; in 1614, Carlo Emanuele I. extended it to the whole of his dominions to provide for his army, but he substituted a capitation tax for it the next year.

In 1616 the grist tax was reintroduced, unsuccessfully leased out in 1619, abolished in 1621, re-established in 1622. A hearth tax (*fuocaggio*), was substituted for it in 1635. The grist tax was re-introduced in 1691, but it was transformed into a direct tax on mills. In the next year a capitation tax was substituted, which in 1701 again gave way to the grist tax, definitively abolished in 1713 by Victor Amedeo.

In the Venetian republic, the grist tax was introduced in the beginning of the 16th century, and continued till the downfall of the republic.

In the remainder of Italy the history of the *macinato* is uniform. Everywhere it seemed indispensable: at Milan, at Parma, in Genoa, in the papal states. Only in Naples the grist tax seems to have been generally a communal tax or local government tax, and not connected with the central government. With similar traditions it was quite natural that the Italian government, when the budget deficit increased to 400 millions of lire (16 millions sterling), and made it necessary to find a tax with a broad basis and a rapid effect, should have fallen back on the grist tax.

Nevertheless the chamber of deputies did not immediately accept it, from repugnance to a tax which had been very odious in ancient times, and which could by a very small variation of the tariff be transformed into an instrument of great fiscal pressure.

Sella proposed it, 13th Dec. 1865, and parliament would not even consider his bill. His successor, Scialoja, re-introduced it, 26th January 1866, and the financial committee of the chamber rejected it.

After the war of 1866 Scialoja re-introduced, 16th January 1867, a grist tax, and again was beaten. His successor, Depretis, re-introduced the same bill as Scialoja had done, 11th June 1867. The chamber appointed a special commission of eighteen members to consider the bill, and this commission re-introduced it with modifications 21st April 1868. But the chamber rejected the proposals of its commission, inviting it to study the proposition over again, and a second report was presented 30th May 1868. On the 7th July 1868 the bill passed the chamber and became law 1st January 1869. The system adopted consisted in applying an instrument in the mills which registered the

revolutions of the millstone or those of the cylinders and taxed the miller in accordance, giving him the right to charge every customer a fixed rate, according to the weight of the cereals ground, viz. 2 lire for every hundred kilogr. of corn; 1 lira for maize and barley; 1.20 lire for oats and 0.50 for other cereals. As the instruments which ought to have been applied were at first not ready in sufficient number, much arbitrary taxation took place, and provoked riots, in repressing which blood was shed. The tax gave, immediately after the first year, extraordinary results, as the following figures prove:

Year.	Lire.
1869 . . .	17,582,410
1870 . . .	26,957,284
1871 . . .	44,585,709
1872 . . .	59,109,999
1873 . . .	64,347,323
1874 . . .	68,879,570
1875 . . .	76,642,310
1876 . . .	82,521,093
1878 . . .	83,139,767

After 1878 the tax began to be partially reduced. The tax was abolished completely in 1884. The results for the four years after 1878 were:

Year.	Lire.
1879 . . .	75,485,305
1880 . . .	56,627,279
1881 . . .	57,617,701
1882 . . .	51,607,695

In 1874, the methods for applying the tax reached their greatest perfection by the invention of a new instrument which weighed the corn which was being ground, instead of counting the revolutions of the millstone.

In 1876, however, a new political party came into power, and sought popularity by reducing the macinato provisionally and voting for its abolition in 1879. The proposal was rejected at the time, but this vote was the primary cause of the financial troubles Italy soon after experienced (see MAGLIANI). The tax was abolished completely in 1884. M. P.

MACLEAN, J. H., Scotch advocate, was the author of *Remarks on Fiar Prices and Produce Rents*, Edinburgh, 1825, 8vo. By FIARS PRICES are meant, the prices of the various kinds of grain, as determined by juries summoned by the sheriffs for the purpose. The juries, which consist of experts, meet in February and March, and, having examined witnesses and returns of sales, specify in their verdict the average prices of the different descriptions of grain in the county during the preceding year; and the sums, stipulated to be paid in lieu of grain, etc., are determined by the results of their verdicts. They appear to have been struck as early as the end of the 16th or beginning of the 17th century.

[Adam Smith, *Wealth of Nations*, bk. i., ch. xi.—M'Culloch's *Literature of Political Economy*, p. 196.] H. E. E.

M'LENNAN, JOHN F. (1827-1881) anthropologist, contributed the article on "Law," to the *Encyclopædia Britannica*, 8th ed. In 1865 he published *Primitive Marriage*, wherein the very curious and widespread custom of marriage by capture was first carefully considered. Promiscuity, with complete absence of the sense of kinship, kinship through female only, polyandry with its modifications, leading in turn to kinship through the father;—these, according to M'Lennan, represent the successive stages of social progress. In the course of his argument, he was brought into conflict with the theories of Sir Henry Maine. *The Patriarchal Theory*, edited and completed by his brother, and published in 1885, contains a more detailed criticism of Maine's position. *Studies in Ancient History*, published in 1876, contained a reprint of *Primitive Marriage*, together with other essays.

The most important of the other writings of M'Lennan were articles on Totemism in the *Fortnightly Review*, N.S., vols. vi. and vii. Although the services of M'Lennan as a pioneer have been generally recognised, his conclusions have not, as a rule, found favour with subsequent writers, *e.g.* Herbert Spencer, *Principles of Sociology*, vol. i. ch. iv.-vi.—C. N. Starcke, *The Primitive Family*, London, 1889, 8vo (International Science Series).—and E. Westermarck, *The History of Human Marriage*, ch. iv.-vi., xiv. and xxii., London, 1891, 8vo. See, however, W. Robertson Smith, *Kinship and Marriage in Early Arabia*, Cambridge, 1885, 8vo, who finds striking confirmation to the general soundness of his construction "in the field of Semitic facts." Sir H. S. Maine, *Early Law and Custom*.—A. Lang, *Custom and Myth*.

[*Dictionary of National Biography*, vol. xxxv. p. 210.] H. E. E.

MACNAB, HENRY GREY (1762-1823) M.D., social reformer, was a pupil of the philosopher Reid at Glasgow university, where he afterwards held an appointment. In 1786 he published a *Plan of Reform in the mode of Instruction practised in English Schools*, Glasgow, 4to. In *A Letter addressed to John Whitemore, Esq., M.P.*, London, 1801, 4to, on the subject of the London coal supply, he incidentally states that he had lived his whole life in a coal mining country, and had had many opportunities of investing in mining speculations, but had always avoided them on the ground that the average profits did not compensate for the capital required and the attendant risks. At the time of the rupture of the Treaty of Amiens, Macnab, being in France, was detained as a hostage. He was, however, allowed to pursue the practice of medicine and the study of social questions. At the close of the war he preferred to remain in France.

In 1818 he published *Analysis and Analogy recommended as the means of rendering Experience useful in Education*, Paris, 4to, a not very lucid treatise on a difficult subject. Macnab took

great interest in the experiments of Robert OWEN (*q.v.*), and in 1819 published *The new views of Mr. Owen impartially examined*, London, 8vo. The sympathy shown by the Duke of Kent to Owen may have been due to the influence of Macnab, who had been appointed the Duke's physician. In his last work *Observations on the Political, Moral, and Religious State of the World*, London, 1820, 4to, he seems, to some extent, to have anticipated the theories of Froebel.

[*Gentleman's Magazine*, 1823, i. p. 378.—Alger's *Englishmen in the French Revolution*, London, 1893.—*Biographie Universelle*, vol. lxxii. *supplément*, p. 654.—*Dictionary of National Biography*, vol. xxxv.] H. E. E.

MACPHERSON, DAVID (1746-1816) historian, was the son of an Edinburgh tailor and clothier. He started in life as a land surveyor. About 1790 he settled in London, and henceforth devoted himself to authorship.

Macpherson edited Andrew Wyntoun's *Orygynal Cronykil of Scotland*, 1795, 4to, 2 vols. In 1796 he published *Geographical illustrations of Scottish History*, 4to. His chief work was *Annals of Commerce, fisheries, and navigation*, London, 1805, 4to, 4 vols. The first vol. deals with the earliest accounts, up to the discovery of America, and for this Macpherson is solely responsible. In the second and part of the third volumes, dealing with the period from 1492 to 1760, he merely edits and alters the *History of Commerce* by Adam ANDERSON (*q.v.*). The last volume carries the history down to the meeting of parliament, after the union with Ireland. The book displays much labour and research, and has been generally accepted as a leading authority on the subjects dealt with, especially in the later years chronicled. In 1812 appeared a *History of European Commerce with India*, London, 4to, wherein he opposes the views of Adam Smith on the subject of the East India Company. Macpherson was for some time one of the deputy-keepers of the public records.

[*The Historians of Scotland*, edited by D. Laing, vol. ix. pp. xxxvii.-xlix.—*Dictionary of National Biography*, vol. xxxv. p. 258.] H. E. E.

MACUTA, a native African word, appears to have been originally simply a method of counting in certain parts of West Africa; a macuta being composed of ten units. Montesquieu, *De l'esprit des Lois*, livre xxii. ch. viii., describes the *macute* as "un signe des valeurs sans monnoie; c'est un signe purement idéal." Thence it became a money of account.

The Portuguese at Angola adopted it as a denomination in their local coinage, making it equal to 50 reis. The Sierra Leone Company in like manner, from 1791 to 1805, made it the basis of their monetary system, striking a dollar of 10 macutas, equal in weight, but not in fineness, to the Spanish dollar; they also struck a small silver coin to represent the macuta or 10 cents, but these appear to have had but a small circulation.

[Chalmers, *Colonial Currency*, p. 208.] C. A. H.

MADDISON, SIR RALPH (1571?-1655?) was knighted in 1603 by James I., by whom he was frequently employed in commercial affairs. In 1640 he protested against the proposed debasement of the coinage, and, during the Commonwealth, appears to have held office at the mint.

He was the author of *England's Looking in and out*, London, 1640, 8vo, reprinted in 1641. The second chapter contains a statement of the theory of the BALANCE OF TRADE (*q.v.*). The book was reissued in 1655, under the new title of *Great Britain's Remembrancer, looking in and out*, London, 8vo, with new chapters on the establishment of a bank, a council for the affairs of the mint, and free ports.

[*Dictionary of National Biography*, vol. xxxv. p. 297.] H. E. E.

MADISON, JAMES (1751-1836), the eldest son of a Virginian planter, entered public life in 1776 as a delegate to the Virginia convention, which framed the state constitution. He was a member of the first assembly, and in 1780 was elected delegate to the Continental Congress. In 1787 Madison again became a member of congress, and took a leading part in the Philadelphia Convention of that year, which framed the present American Constitution. He was elected to the new congress in 1789, and continued a member until 1797. From 1801 to 1809, during the two terms of Jefferson's presidency, Madison was secretary of state, and from 1809 to 1817 president. His claim to be the "father of the constitution" is based on the grounds, that the Annapolis Convention of 1786, from which the Philadelphia Convention took its rise, was proposed by him; that the "Virginia plan," out of which the constitution was evolved, was mainly his; and, lastly, that it was owing to him that the Virginia Convention adopted the new constitution. His subsequent public career opens out more controversial matter. By a curious irony of fate, the denouncer of "faction" (see *Federalist*, No. x.) became himself, with more or less reason, counted among the factious.

It is as one of the authors of the *Federalist* that Madison will be best remembered. These papers, written in support of the new constitution in 1787 and 1788, have taken rank among classics. That they should have issued through the medium of newspapers speaks very highly for the intelligence of the public thus addressed. Of the eighty-five papers, fourteen were undoubtedly by Madison, and three others were almost certainly the joint work of him and Hamilton. On the question of the authorship of Nos. xlix., lviii., lxii. and lxiii. there has been much controversy. In forming a judgment, internal evidence does not help, as the style is throughout uniform, grave, sonorous, based it would seem on Addison in his more serious mood. The Nos. xxxvii.-xlviii. contain a masterly general view of the powers conferred by the new constitution.

[*The Federalist*, edited by Henry Cabot Lodge, London, 1888, 8vo, the editions are numerous,

but the above is an excellent one, in one volume. —W. C. Rives, *Life and Times of James Madison*, Boston, 1859, 8vo. — Sydney H. Gay, *James Madison* (in American Statesmen Series), Boston, 1889, 8vo.] H. E. E.

MADOX, Thomas (1666-1727) studied law and was admitted to the Middle Temple. He was a clerk in the lord treasurer's remembrancer's office, and afterwards in the augmentation office. In 1714 he was appointed historiographer royal. He died without issue at Arlesey in Bedfordshire. In 1702 his *Formulare Anglicanum, or a Collection of Ancient Charters* was published. His most important work, *The History and Antiquities of the Exchequer of the Kings of England to the end of the Reign of Edward the Second*, appeared in 1711 (2nd edition, 1769). He says that it is not only a history of the exchequer, "but likewise an apparatus towards a history of the ancient law of England." This was followed by his *Firma Burgi, or an Historical Essay concerning the Cities, Towns, and Buroughs of England*, 1726; and *Baronia Anglica*, 1736 (reissued in 1741). He also intended to write a feudal history of England. The materials collected by him for the works which he prepared for publication, and for others which he projected, are now in the British Museum, comprising ninety-four volumes of notes and transcripts. Madox had a high conception of his duty as an historian. He says that "writing of history is in some sort a religious act, and ought to be undertaken with purity and rectitude of mind." He is generally cautious in his statements, and always tries to confirm them "by proper vouchers." His vouchers are copious extracts from the pipe rolls, the memoranda of the exchequer, and from other ancient records. "The public records," he says, "are the foundation (*sic*) which sustain the whole fabrick of this history [of the exchequer], a foundation solid and unshaken." This foundation was laid so broad and strong in both the *History of the Exchequer* and the *Firma Burgi* that they will long continue to be of great value to students of economic, legal, and constitutional history.

C. Gr.

MAFFEI, Scipione (1675-1755). Was born in Verona and studied literature. He fought in the Bavarian army at the battle of Donawerth. In 1710, he, with the assistance of others, started the *Giornale dei letterati*. He travelled a great deal in Europe.

In his work, *Dell' impiego del danaro* (3 vols., Verona, 1774), he deals in a striking manner, though without much novelty in argument, with the question of interest, and endeavours to reconcile the church doctrine hostile to usury with the varying requirements of commerce, maintaining that to receive compensation for the loan of money is opposed neither to morality nor to the Gospel. This book of Maffei's aroused against its author much angry feeling and recrimination. It provoked the censure of Ballerini and Concina, and drew from Benedict XIV. the encyclical letter "Vix pervenit" (1745). Ultimately it caused the author's banishment by the Venetian government.

[G. Maffei, *Storia della letteratura italiana*, Milan, 1834.—Giuliari, *Bibliografia Maffeiana*, in the *Propugnatore*, vol. xviii., Bologna, 1885.—Cossa, *Introduction to the Study of Political Economy*, London, 1893.] U. R.

MAGENS or Magen, called by Adam Smith Meggens, by Steuart, Megens, and in *Dictionnaire de l'économie politique*, Paris, 1853, Magends, Nicholas (d. 1764), a German merchant, was for many years resident in England, and gained a great reputation in commercial matters.

He was the author of the *Universal Merchant*, London, 1753, and its *Postscript*, 1756, which were translated by W. Horsley (*q.v.*). The titles of later German editions are given in C. J. Kayser's *Index Locupletissimus librorum*, Leipzig, 1834, etc., 4to, 4th part, as *Der allgem. Kaufmann Worinnen das Theoretische u. Praktische der Handlung enthalten ist*, Berlin, 1762, 4to, and *Beitrag zu allgem. Kaufmann od. Traktat von d. Handlung u. d. Vortheilen die aus d. Reduction des Geld-Interesse entspringen, nebst einen Traktat wider den Wucher: aus d. Engl. ubers u., als ein 2 theil des allgem. Kaufmann zu gebrauchen*, Potsdam, 1763-64. The author, after a general treatise on trade and on wealth, by which is meant not merely gold and silver, the common medium of trade, but a pre-eminence of industry, manufactures, and commerce, enters into an enquiry concerning bullion, after which he considers the nature, operation, and effects of banks in general and in particular. The treatise concludes with "a further illustration of the business of exchange from the tables of Sir Isaac Newton, with remarks and additions."

In the British Museum Catalogue the only works under the name of Magens are *Versuch über Assecuranzen, Havereyen und Bodmereyen insgemein*, etc., Hamburg, 1753, 4to, and a translation, *Essay on Insurances, to which are annexed some brief hints to Merchants and Insurers concerning risks to which navigation is exposed in time of War*, etc., London, 1755, 4to. The author gives as his reason for publishing, the want of any treatise in English on maritime and mercantile insurance. The translation is so much increased and amended as to make a new work. It is chiefly devoted to foreign views. "Those persons advance too much who insist that all insurances made in Great Britain on the shipping and products of foreign countries are beneficial to this nation" (Pref., p. 5). After introductory remarks on insurance, general averages, etc., the rest of the first volume is devoted to leading cases. The second volume is taken up with a collection of ordinances and laws of various dates.

[*An Inquiry into the Principles of Political Economy*, vol. 2, pp. 158-9 by Sir James Steuart, London, 1767, 4to.—*Quarterly Journal of Economics*, vol. 5, p. 356.—*Gentlemen's Magazine*, vol. xxxiv.] H. E. E.

MAGLIANI, AGOSTINO (1825-1891). An Italian economist and financier; born in Saurino, in the Neapolitan provinces. He studied law. Originally an official under the Neapolitan government, which he defended in a pamphlet published in 1857, he entered, after 1860, the service of the kingdom of Italy. In a short time he was appointed senator, and then a councillor of the court of cassation. He was minister of finance of the kingdom of Italy three times, and on the last occasion he held this post for ten consecutive years, 1879-1889.

Magliani wrote with ability, and in a bright and elegant style, on economical and financial matters, and was also an impressive parliamentary orator, well acquainted with the theory of finance, and a most able financier in practice. His most important measures were the abolition of the forced currency (1883), and of the duties on the grinding of cereals (1884) (see MACINATO), and the law effecting the organisation and readjustment of the land-tax (1886).

He was a powerful financier, of great breadth of view, confident in the future of his country. The time has perhaps not yet come for judging the full effects of his work; but this has left deep traces on Italian finance and the economic condition of the country.

Magliani won much praise, but he incurred also, more especially in his latter years, bitter reproaches for the weakness by which he first countenanced lavish expenditure and then wasted the resources of his financial capacity in devising temporary remedies, and the system of finance under which Italy still trembles on the verge of disaster.

Amongst Magliani's economical and financial works may be noted:

La quistione monetaria, 1874. Numerous articles in the *Nuova Antologia*, Rome, amongst them; *Sistemazione delle imposte dirette.—L'azione economica dello stato.—La Finanza e la liberta politica.—Le imposte locali ed i comuni.*

Amongst his numerous financial speeches published in the Italian parliamentary records, we cite as the most important:

Abolizione graduale della tassa sulla macinazione del grano (The Gradual Abolition of Duty on the Grinding of Grain) (in the senate, 1880).—*Sul provvedimenti finanziarii* (On Financial Provisions) (in the chamber of deputies, 1882), and the financial statements made in the chamber in 1882, 1888, etc. U. R.

MAITLAND, JAMES. See LAUDERDALE, EIGHTH EARL OF.

MAIZIÈRES, PHILIPPE DE, also MEZIÈRES (1312-1405), a French knight who was sometime chancellor of Lusignan, the French king of Cyprus, and made war against the Saracens. About 1370 he entered the service of king Charles V. of France, and was some years in charge of the education of the dauphin, the future Charles VI.

Maizières retired in 1379 to a convent in Paris, where he wrote his *Songe adressant au Blanc Faucon à Bec et Pieds Dorés*, 1389, the White Falcon being in fact the king of France in person. The author in the capacity of a pilgrim (the book is sometimes called the *Songe du Pèlerin*), leads *Vérité* through the countries he had himself visited in his travels, and points out the abuses and disorders he has noticed and the remedies which he suggests. One of the grievances is usury as practised by the Jews, and the remedial scheme of Maizières may be shortly summarised as follows: The king ought to constitute an initial fund derived from the proceeds of aids (taxes) and domains, and entrusted to the management of honest and pious men, who were to lend these monies to the poor people of each diocese or manor, *châtellenie*, on good security or pledge, "namely, which is to be worth more than the money they have received." At the end of the year, the debtors would "repurchase," without usury, the objects given in pawn, but in token of gratitude they would offer "freely" a tithe or one-tenth, to be converted to the increase of the sum originally given by the king. Still Maizières appears to have been suspicious about the punctual payment of these free offerings, for he elsewhere advises the States General, "in order to lay down all scruples, to determine, by mutual agreement with the Church, the amount of the alms to be offered to God, this agreement to be published as a law or good custom approved by the *Cour Royale.*" In Maizières' plan we meet all the features of the charitable *Montes Pietatis* (see MONTS DE PIÉTÉ), which were first founded in Italy about eighty years later, and were then under the influence of the Franciscans imitated from the Italian state *montes*, whose object had been purely financial.

[Professor Victor Brants, *Philippe de Maizières et son projet de Banque Populaire* (a short tract of 16 pages, Louvain, 1880), and the same writer's *Théories Économiques aux XIIIe et XIVe Siècles* (pp. 159-162), Louvain, 1895.]

E. CA.

MAJESTAS. The *crimen majestatis*, or *læsæ majestatis*, is the *crimen* of treason, *i.e.* the charge or the crime of injuring, or attempting to injure, in various ways, the sovereign power and greatness (*majestas*) of the Roman people, or of its representative, the emperor. (See Smith's *Dict. of Antiquities*, *s.v.*). E. A. W.

MAJOR, JOHN (?1469-?1549), was one of the most distinguished of the later schoolmen, and a leader of the nominalist party. A Scot by birth, he became famous as a professor of theology at Paris, and then spent the last eighteen years of his life as provost of the college of St. Salvator at St. Andrews. In his *Commentaries on the Sentences*, published about 1516, he touched current economic discussion in several points. His opinion that a community might properly restrain the liberty of public begging was of great assistance to those in Catholic countries who sought to introduce reforms in the relief of the poor. On the other hand, his opinion that the "triple contract," *contractus trinus*, defended by ECK (*q.v.*), was not usurious, was overborne for the time by the Catholic counter-reformation.

[CANON LAW. See for estimates of Major's position as a theologian, T. G. Law in *The Scottish Review*, April 1892; and the *Life* prefixed to Major's *History of Greater Britain* (Scottish Hist. Soc., 1892), by H. T. W. Mackay. For his economic opinions, see Ashley, *Econ. Hist.*, i. pt. ii. pp. 340-341, 443-446.] W. J. A.

MAJORAT, the French and German term (in Spanish *Mayorazgo*) for an entailed real estate annexed to a title of nobility and descending by right of PRIMOGENITURE (*major natu*). Abolished in France at the time of the French Revolution, majorats were re-established in 1806 by Napoleon under two forms: the *majorat de propre mouvement* founded by the head of the state with a grant of real estate or a pension for distinguished services, and the *majorat sur demande*, by which heads of families were legally authorised to settle thus their previously acquired real property. The pensions hitherto paid by the state have been redeemed this year (1905). After 1830, when the peerage ceased to be hereditary, the creation of new *majorats* was prohibited, and the existing *majorats sur demande* were restricted to two *degrees* or lives. Since 1848 the whole subject is controlled by articles 896 and 1048 of the *Code Civil*; these enact that *substitutions*, —entails of property,—either real or personal, are only valid for one life, and in favour of grandchildren, or of children of the brothers and sisters if the Donor dies without children; this concession only applies to such portion of his property as the testator, if he has children, is allowed to bequeath (see BEQUEST, POWER OF). In Germany, the foundation of *majorates* is still allowed by law and such entailed property is included under the general judicial name of *Familienfideicommisse*. Personal as well as real property may be settled thus, but generally only when the value exceeds a minimum which varies in each particular state. In Prussia a settlement of personal property cannot be less than a money capital of 30,000 marks (say £1500), and a real estate thus disposed of must at least yield a net income of 7500 marks or £375. In other respects, the conditions required also vary between one state and another; for instance in Prussia the real estates must be rural estates, *Landgüter*, houses being excluded. The general principle is that the settled estate must be important enough to uphold the prosperity of the family, which consequently is endowed by law with a permanent right of control.

In the eastern provinces of Prussia 1975 estates covering 1,408,860 hectares (3,522,150 acres), of land, or 6·20 per cent of the whole territorial area are thus owned mostly by princely and noble families. This proportion of the total territory is larger than it is in Cis-Leithan Austria, where it only reaches 4·1 per cent, covering 880 estates. This description of limited ownership is, in fact, only met with in the districts where feudal influences and traditions have maintained their former ascendency. Of the above-mentioned East Prussian estates 197, or 92 per cent, have an area larger than 1000 hectares (2500 acres). More than 300 estates have been settled thus since the end of the first half of the present century; however, it ought not to be forgotten that the larger portion of *Familienfideicommisse* (see FIDEICOMMISSUM) established during this century were formerly held by feudal tenures, which have disappeared. Of the estates larger in extent than 1000 hectares (2500 acres), 43·4 per cent are farmed, 34·2 managed by stewards and only 22·4 *administrirt*, *i.e.* personally managed, by the holder himself.

This survival of aristocratic tenure of land is not always considered as invariably advantageous, and fears have often been expressed that it may lead to an excessive concentration of landed property in the hands of a few families, and, when the owner for the time being is heavily in debt, to an inferior system of cultivation. It is also pointed out that this concentration leading to the extension of the LATIFUNDIUM (*q.v.*) is especially to be deprecated in a country where the population is rapidly increasing, and where an increasing proportion of the inhabitants may thus be cut off from the possession of land.

To conclude, the German *Anerbe* and *Hofrecht* in its modern form, to a certain extent founded on the same principle as the American HOMESTEAD AND EXEMPTION LAWS, is intended to protect small peasant ownership against the risk of division, but it is not enacted that the *Hof*, the family dwelling *with* land, shall be inherited by the eldest heir. In some districts it is transmitted by MINORAT, in others recourse is had to ballot or even to drawing by lot, whenever the owner has not exercised his right to appoint the heir expectant among his natural and legal heirs. The former has always to indemnify the latter. (Miaskowski, *Das Erbrecht und die Grundeigentumsverteilung in Deutschland*, 1882-4.)

[See *Majorat* in Holtzendorff, *Encyclopædie des Rechts* (Leipzig, 1870), and *Fideicommisse* in Conrad's *Handwörterbuch der Staatswissenschaften*.] E. Ca.

MAKER (of Promissory Note). A promissory note is a signed unconditional promise in writing to pay a certain sum to, or to the order of, a specified person, or to bearer. The person who makes the promise is called the maker of the note. Sometimes he is spoken of as the "drawer," but he must be distinguished from the drawer of a bill of exchange. The drawer of a bill is only liable if the drawee or acceptor dishonours it. The position of the maker of a note is analogous to that of the acceptor of a bill. He is the principal debtor on the instrument. He undertakes "to pay it according to its tenour," and is "precluded from denying to a holder in due course the existence of the payee and his then capacity to indorse."

[Bills of Exchange Act, 1882, §§ 88, 89.] M. D. C.

MAKING-UP (on the stock exchange). Twice every month a general settlement takes place

in the stock exchange, when accounts are made up in all stocks and shares other than those in the consols department, in which the settlement takes place only once a month. A settlement is prolonged over three days. On the first day attention is given to the making-up of accounts. For speculators, this is a very important matter. It is then that they discover the exact amount of "differences," to be paid or received, on running accounts. A speculator has, say, an account open for the rise in a certain stock which he has bought at 80; the stock, at the time of making-up, is 81, and the gross difference due to him is 1 per cent of the amount bought. The real difference is less by the broker's charges. If the stock has fallen to 79, he has to pay a difference of 1 per cent in addition to the broker's charges. On the making-up day, accounts are also carried over, if it be found possible to renew bargains, till the succeeding settlement, when a Contango or a Backwardation (*q.v.*) is charged for the accommodation. Speculators inquire keenly about the state of markets on making-up day, indications being obtainable of the extent and strength or weakness of the speculative account open. As a rule, but not invariably, the account is unwieldy when the contangoes are high, and strong when those charges are low. A. E.

MALA FIDES. See Fides, Bona, Mala.

MALATOLTA, MALETOUTE, MALTOLTE. The origin of Customs Duties (*q.v.*) in England is wrapped in great obscurity. Probably they arose from an early royal right of Prisage and Pre-emption, which developed into Purveyance in the case of domestic produce, and into customs in the case of exports and imports. Originally the charges at the ports were arbitrary and uncertain, but they were gradually limited and fixed by custom. Any charge over and above the customary dues was called *mala tolta*, or evil tax. Thus in art. 41 of *Magna Carta*, merchants are granted freedom to enter and quit the kingdom *sine omnibus malis toltis*. In 1275 the first parliamentary grant of customs is made to the crown, namely half a mark on the sack of wool and on three hundred wool fells, and a mark on the last of leather, and these export duties came to be known as the *magna sive antiqua custuma*. From this time the word maltolte acquires a definite and technical meaning, viz. an additional charge of forty shillings on the sack of wool levied by the arbitrary authority of the king. In this sense it is expressly prohibited in clause vii. of the new articles added to the charter in the great confirmation of 1297. From this time any exceptional charge upon wool, over and above the recognised customs, can only be made by authority of parliament: in other words the *mala tolta* becomes the Subsidies.

[Stubbs, *Select Charters.*—Hall, *The Customs-Revenue of England.*] R. L.

MALCHUS, Karl August von (1770-1840), was minister of the kingdom of Westphalia in the times of Napoleon, and later on minister of finance of the kingdom of Wurtemberg.

He wrote, besides minor works, the *Organismus der Behörden* (organisation of state officials), 1821; the *Politik der inneren Staatsverwaltung* (Policy of the interior administration of the State), 1823; a *Statistik und Staaten Kunde* (The science of Descriptive Statistics), 1826, and his *Handbuch der Finanzwissenschaft und Finanzverwaltung* (Handbook of the science and administration of Finance) 1830, the latter dedicated to the King of Prussia. Roscher considers him as having been a trustworthy official, but deficient in systematisation, range of ideas, and historical knowledge, still trustworthy for information on contemporary institutions and statistics (*Gesch. der Nat. Oek. in Deutschland*, pp. 741-749). He also published in 1838 a survey of the regulations adopted by saving banks throughout Europe, *Die Sparkassen in Europa.* E. Ca.

MALEBRANCHE, Nicolas (1638-1715), a priest of the Roman Catholic church, and a member of the oratory at Paris, was one of the ablest of the followers of Des Cartes, while his ascetic training held him back from being an absolute adherent of his philosophy. Though not himself a direct contributor to economic theory, Malebranche is of interest to the students of economics; his works form a good example of the influence which those whose philosophic thought is deep, but general, may exercise over that special study; he is considered to have inspired Quesnay and his pupil (Victor) Mirabeau with their ultimate postulate of an order of nature, as "the principle and basis of natural rights and natural law" (Mirabeau, *loc. cit. infra*). Quesnay devoted himself during his youth to the study of Malebranche's writings, and Mirabeau quotes the whole of the second chapter of the *Traité de Morale* in the preface to the *Philosophie rurale* (1763), as giving an ideal exposition of "order" as "the central and rallying point of true wisdom." It should be noted, however, that whereas by "order," Mirabeau means the course of "the physical laws of nature," observation of, and obedience to, which is man's "sole and worthy guide"; and apart from which he only "begets abstract and general ideas, and is lost in the crowd of the phantoms of his imagination," he would, had he studied the first chapter, have seen that a recluse like Malebranche virtually took the opposite view. The latter distinguishes "order" from "nature," calling it "l'ordre immuable," knowable only to reason, its subjective counterpart, when sense and imagination are shut out; and to follow which alone is virtue, while to follow nature is sometimes to "wound order." He rejects the stoic identification of following God with following nature, and merely allows, that, "although the order of nature is not precisely our law, and submission to it is in no

way a virtue, it must be observed that one has often to take account of it," *i.e.* when "the immutable order" requires it. Malebranche's order is not the moral order, if positive morality be meant. "Morality changes according to countries and times." It was rather an ideal order, or order of "abstract ethics," viewed as part of the divine plan of the universe, in which spirit was considered almost to the exclusion of anything so transient and uninteresting as matter.

[*Traité de Morale* (1684, 1697, 1707), ed. H. Joly, Paris, 1882.—Cossa, *Introd. to the Study of Political Economy*, London, 1893, p. 266.—Mirabeau, V., *Philosophie rurale*, Paris, 1763.—*Nouv. Dict. de l'Économie politique*, art. "Quesnay."—Bonar, *Philosophy and Pol. Econ.*, 1893, p. 145. See especially Hasbach *On Malebranche's Influence on Quesnay and the Physiocrats.*] C. A. F.

MALESHERBES, Chrétien Guillaume de Lamoignon de (1721-1794), was, under Louis XV., president of the court of Aids and director of the *Librairie* (office of the Censorship, and for licensing the printing of books), evinced a most liberal spirit in these functions, and was exiled from Paris when, in the last years of this reign, the courts of justice were dissolved by authority of the king. Under Louis XVI., Malesherbes was recalled, made a minister at the same time as his friend Turgot (*q.v.*), 1774, and again in 1787; he defended the king during his trial before the national convention. He perished on the scaffold.

Malesherbes, who was a member both of the Paris academy of sciences and of the French academy, has written a great number of memorials and notices on various subjects; only a few of these have been printed. The following should be noticed here: The *Mémoire sur les Moyens d'accélérer l'Économie Rurale en France*, 1790—read before the Royal Society of Agriculture; it insists that the society should establish branches in the provincial towns, so as to be a board of correspondence and of diffusion of useful theoretical and experimental knowledge both for scientific men and resident professional agriculturists—and the *Idées d'un Agriculteur patriote sur le défrichement des terres incultes*, 1791. Waste lands are generally dry and meagre; to bring them under cultivation requires either heavy investments of money, which capitalists are unwilling to supply, or a very strict economy in their working which can only be expected if the labourer himself works for his own profit. The best solution of the problem would be to let such lands to tenants according to the system of *Domaine congéable* (see Land Tenures) used in Brittany.

E. Ca.

MALESTROIT, Seigneur de—(second half of 16th century) member of the royal council of France, and comptroller of the mint (*du fait des monnoies*), was the author of *Les Paradoxes sur le fait des Monnoies* (Paris, 1566).

Malestroit would be quite forgotten if his book had not called forth the celebrated *Réponse* and *Discours . . . pour réponse aux paradoxes du sieur de Malestroit*, by Bodin (*q.v.*). Malestroit maintained that prices had not risen in France for three centuries, goods being always exchanged for the same quantities of gold or silver, the standard of the coins having been lowered in the same proportion as the prices had *apparently* risen. "The metals being the true and just criteria of the high or low prices of things," this lowering would have been harmless for the subjects of the French monarchy if their rebellious temper had not led them to refuse the coins at the value imposed by the lawful will of the sovereign. In fact, Malestroit adheres to the doctrine of some Canonists respecting *valor impositus* and *valor extrinsecus*, and considers coins as purely representative signs of value, destitute of any intrinsic value of their own (see Canon Law).

[Baudrillart, *Jean Bodin et son temps*, 1853, pp. 168-169; see also Malynes.] E. Ca.

MALLET, Jean-Roland (d. 1736), head of the finance department of Louis XIV., under the controller-general Desmarets, by whose orders he wrote:—

Comptes rendus de l'administration des finances du royaume de France pendant les onze dernières années du règne de Henri IV., le règne de Louis XIII., et soixante-cinq années du règne de Louis XIV., avec des recherches sur l'origine des impôts sur les revenus et dépenses de nos rois, depuis Philippe le Bel jusqu'à Louis XIV., et différents mémoires sur le numéraire et sa valeur sous les trois règnes ci-dessus. Paris, 1720. Reprinted by Necker with pref. and introd., 1789. A. L.

MALLET, Sir Louis (1823-90), grandson of Mallet du Pan, and son of John Lewis Mallet, who was placed by Pitt in the audit office about 1800, entered the same office in 1839, and in 1847 the board of trade. In 1860 he was appointed an assistant commissioner for drawing up the tariff under the treaty of commerce with France. He was made a member of the council of India in 1872. In 1875 he became permanent under secretary of state for India and had a leading share in the reconstruction of the customs tariff. He was a bimetallist.

His son Mr. Bernard Mallet collected his articles and pamphlets, *Free Exchange* (1891)—and wrote *Sir Louis Mallet: a Record of Public Service and Political Ideals* (1905). H. R. T.

MALLET DU PAN, Jacques (1749-1800), born near Geneva, died in England, collaborated with Linguet in his *Annales*, to which he published a supplementary series *Mémoires historiques, politiques et littéraires* (1779-82). He went to Paris in 1784 and contributed to the *Mercure de France*, in which his account of the debates of the assembly in the early revolutionary period is very valuable. He also edited *Journal historique et politique de Genève* (Paris, 1784-88). He came to England in 1798, where he made many friends and founded the *Mercure Britannique* (1798-1800).

Besides some economic contributions to the above-mentioned periodicals, Mallet du Pan added

notes to the translation from the English of *Remarques sur le tarif du Traité de commerce conclu entre la France et l'Angleterre* (Paris, 1788, 8vo). H. R. T.

MALLET, P. H. (1730-1807), a professor at Geneva, wrote *De la ligue Hanséatique*, Genève, 1805, 8vo., which only claims to be a résumé and not a history. H. E. E.

MALON, BENOÎT (1841-1893). Born in a village of central France, he made his way to Paris as a workman, and from 1866, the year of his affiliation to the INTERNATIONAL, took an active part in most of the strikes and republican manifestations during the later years of the empire. A member of the COMMUNE (*q.v.*) of Paris, 1871, Malon escaped after its suppression, to Geneva, and studied the works of the leading sociologists and economists. Of these, J. Stuart Mill appears to have been his favourite author. He then began to write on social subjects; in this he was indefatigable; and, returning to France, founded the *Revue Socialiste*, of which he was editor. This publication is the organ of the so-called French scientific socialists.

As stated in his last book *Le Socialisme Intégral* (1892), Malon's views may be summarised as follows. He agreed with MARX that the working class is at the present time the victim of a financial and industrial capitalism, founded through an abuse in the appropriation of part of the produce of labour. He demurs to Marx's statement that in its course the whole history of mankind has always been determined by purely economic and materialistic causes; he asserts that idealistic motives have also often inspired great historical movements. Consequently for him, socialistic reforms, to be complete, must be "integral," in other words give satisfaction to "all the sentimental and moral forces which reside in the human soul." His ultimate aim is the socialisation of all the agents of production. This would produce a state of social organisation where "the means of production will be in common, the produce distributed according to justice, and consumption remain free." Deprecating violence, Malon urges as a transitional measure the immediate resumption by the state of banks, railways, mines, and quarries, and the municipalisation of gas and water companies, tramways, and even cabs, as well as the foundation of a ministry of labour and an eight hours bill. For a self-taught man, the extent of Malon's reading was really considerable, though his inquiries into the conditions of life during the middle ages strike the reader by want of insight. This is no doubt due to his passionate antagonism to the Church.

Besides the *Socialisme Intégral*, Malon published *l'Internationale, son histoire et ses principes* (1872).—*Spartacus* (1873).—*l'Histoire critique de l'Économie Politique* (1876).—*l'Histoire du Socialisme* (5 vols. 1882-85)—a French translation of Lassalle's *Arbeit und Capital*, and of Schaeffle's *Quintessenz des Socialismus*, and contributed numberless articles to socialistic reviews and newspapers. E. CA.

MALOUET, PIERRE-VICTOR, Baron (1740-1814), was a distinguished naval and colonial administrator, the minister and friend of Louis XVI. In 1763 he entered the Admiralty, and was sent to Rochefort, where he superintended the embarkation of the expedition for colonising Guiana. He was sub-commissioner and intendant at San Domingo from 1767 to 1774, and it was here that he prepared the materials for his subsequent work on colonial administration. He came under the notice of M. de Sartines, who entrusted him with the examination of the projects submitted for the colonisation of Guiana. Malouet, now naval commissary-general, obtained the adoption of his own views, and was sent to Cayenne charged with their execution. In 1779 he was recalled, but his schemes were carried out by the engineer Guisan, to whom he had explained them.

In 1780, after negotiating a loan of £6,000,000 from the Genoese, he was appointed naval intendant at Toulon; an office he retained for eight years. In 1789 he was elected deputy for Riom. He continued to be a firm adherent of the Bourbon cause, and an admirer of the British constitution. In 1792 he was obliged to seek refuge in England. In 1801 his advice was courted as to the best way of reorganising the French navy. He was appointed naval commissary-general, and in 1803 was sent to superintend the new arsenal at Antwerp. Here he remained for six years, directing the immense naval undertakings and co-operating in the measures which obliged the English to withdraw from Walcheren. In 1810 he was nominated counsellor of state, but in 1812 his independent expression of opinion caused him to be exiled from Paris. In 1814 he was once more entrusted with the administration of the navy, but he died before he could complete the work.

Malouet wrote:—*Mémoire sur l'esclavage des nègres*, Paris et Neufchâtel, 1788, 8vo.—*Lettres à ses commettants*, 1789, 8vo.—*Mémoires sur l'administration de la marine et des colonies*, 1789, 8vo.—*Opinion sur les mesures proposées par MM. de Mirabeau et de Lameth, relativement à la sûreté intérieure et extérieure du royaume*, 1789, 8vo.—*Collection de ses opinions à l'assemblée nationale*, Paris, 1791-92, 3 vols. 8vo.—*Défense de Louis XVI.*, 1792, 8vo.—*Examen de cette question: Quel sera pour les colonies de l'Amérique le resultat de la révolution française, de la guerre qui en est la suite, et de la paix qui doit la terminer?* Paris, 2nd ed., 1796, 8vo (1st ed., London).—*Lettre à un membre du parlement sur l'intérêt de l'Europe au salut des colonies de l'Amérique*, 1797, 8vo.—*Collection de mémoires et correspondances officielles sur l'administration des colonies et notamment sur la Guiane française et hollandaise*, Paris, an X. (1802), 5 vol. 8vo, avec cartes et plans.—*Considérations historiques sur l'empire de l'armée chez les anciens et les modernes*, Anvers, 1810, 8vo. A. L.

MALT SILVER is defined by Jacob under the name of *malt-scot* as money paid for making

malt. *Scot* is A.S. *sceat* = money. In the custumal of Meopham, Kent, it occurs in the form of *malt-gavel*, and in the rental of Eastry in the same county as *malt-rent* and *malt-penny*. Those who owed service to the lord of the manor were obliged to use the village mill or pay a fine. Prof. Thorold Rogers, in *Agriculture and Prices in England*, gives the prices paid for the manorial service of making malt for several years between 1270 and 1400, chiefly from the south-eastern counties. These prices vary from 1d. a quarter in 1270 to 6d. in 1361, and 2d. in 1380. The mill being the franchise of the lord, he paid no fixed price for the service, and hence the variation in payments. Malt silver, which is money paid by, not to, the tenant, if connected with this service of making malt, means the fine paid to the lord for exemption therefrom. The word silver, however, in compound words has generally the meaning of toll, and malt silver or scot was more probably the fine paid by tenants for liberty to make their own malt.

[Jacob's *Law Dictionary*. — Somner, W., *Treatise of Gavelkind* (1660).—Thorold Rogers, *The History of Agriculture and Prices in England*, i. ii. (1866).] M. T. M.

MALT TAX. See TAXATION.

MALTHUS, THOMAS ROBERT (1766-1834). The name appears variously in parochial registers, but the form Malthus is as old as the 15th century, and the two branches of the family, the Yorkshire and the Berkshire, can be traced from that date. The economist belongs to the Berkshire branch, to which also most probably belonged Francis Malthus, the author of a book in French and in English on *Military Fireworks* (1629, etc.), and Thomas, the publisher and printer (end of 17th century). The great-grandfather of the economist was Daniel Malthus, Queen Anne's apothecary, and the friend of Sydenham the physician, after whom he named his only son Sydenham. The son of Sydenham Malthus, Daniel, father of the economist, was a man of considerable attainments. He corresponded with Voltaire, and was the literary executor of Rousseau. On his little estate, the Rookery, near Dorking in Surrey, his second son, Thomas Robert, was born. Thomas Robert was educated first under the Rev. Richard Graves at Claverton, near Bath, and then under Gilbert Wakefield in his private school at Nottingham. In 1785 he went to Jesus College, Cambridge, where he took his degree (B.A.), and was ninth wrangler, in 1788. He became fellow of his college in 1797. In all his early life Malthus was brought into close contact with the supporters of radical not to say revolutionary views; and his father was a zealous partisan of the new doctrines. Yet the son, when he first thought of authorship in 1797, and wrote the *Crisis*, a political pamphlet never published, was a cautious and moderate whig, as he remained all his life. He took orders and a curacy at Albury, whither his father had removed in 1787. Godwin's *Enquirer* (1797) was naturally a topic of conversation between father and son; their discussion "started a general question of the future improvement of society; and the author at first sat down with an intention of merely stating his thoughts to his friend, upon paper, in a clearer manner than he thought he could do in conversation. But, as the subject opened upon him, some ideas occurred which he did not recollect to have met with before" (Preface to Essay, 1798), and he accordingly wrote and published a book called *An Essay on the Principle of Population as it affects the Future Improvement of Society, with remarks on the Speculations of Mr. Godwin, M. Condorcet, and other Writers.*

In his preface (dated 7th June 1798) the then anonymous author says he has "read some of the speculations on the future improvement of society in a temper very different from a wish to find them visionary," but he sees "great and unconquerable difficulties" in the way of human improvement (p. 7). The power of population is indefinitely greater than the power in the earth to produce subsistence for man (p. 13). This proposition depends on the two "postulata": i. "That food is necessary to the existence of man; ii. that the passion between the sexes is necessary, and will remain nearly in its present state" (p. 11). "Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio" (p. 14); but, "by that law of our nature which makes food necessary, the effects of those two unequal powers must be kept equal" (p. 14). Writers like Adam SMITH, HUME, and especially WALLACE (p. 8), have seen this before; but they have not shown the way in which the levelling must take place. There is a constant check on population from the difficulty of subsistence. It is no difficulty peculiar to man. The race of plants and the race of animals experience it; nature scatters the seeds of life profusely, but is sparing in the nourishment necessary for the rearing of them; the results are waste of seed, sickness, and premature death. Among mankind the effects are misery and vice—the former certain, the latter probable (pp. 15, 16). In no place and at no time "has the power of population been left to exert itself with perfect freedom" (p. 19). The manners have never been so pure and simple or the food so abundant that no check has existed to early marriages "among the lower classes from a fear of not providing well for their families, or among the higher classes from a fear of lowering their condition in life" (pp. 18, 19). Yet in all societies the instinct is so strong that there is "a constant effort towards an increase of population. This effort as con-

stantly tends to subject the lower classes of society to distress, and to prevent any great permanent amelioration of their condition" (p. 29). It results in oscillations between comparative comfort and distress—the distress caused by the increase of population due to previous comfort, and the comfort caused by the thinning down of the previous excess of population (pp. 29-31). This phenomenon is veiled by the difference between nominal and real wages, and it is subject to many other "interrupting causes" in modern times. But the general principles remain true of all states of mankind, the savage and barbarian (ch. iii.), and the European (ch. iv.), including England. Where the positive check, repressing an increase already begun, is not traceable (p. 71), there is the preventive, which "operates in some degree through all the ranks of society in England" (p. 63). Even the lowest classes have a love of independence and fear of letting their families sink in the scale of comfort. "The parish law of England, it must be confessed, is a system of all others the most calculated gradually to weaken this sentiment" (p. 68). The poor laws "tend to depress the general condition of the poor"—(1st) by tending to increase population without increasing food; (2nd) by diminishing the share of the industrious (pp. 83, 84). They have contributed to raise the price of provisions, and lower the real price of labour (p. 86). Mr. Pitt's Poor Bill (then under discussion, 1797-98) has the defect mentioned; it tends to increase population without increasing the food (p. 94; cp. p. 134).

That these checks are the true causes of the slow increase of population in Europe is shown, Malthus thinks, by the comparatively rapid increase that follows the removal of them. In a new colony, as in America, there is much room and food, and the "knowledge and industry of an old state operate on the fertile unappropriated land of a new one" (p. 137). "Throughout all the northern colonies the population was found to double itself in twenty-five years" (p. 105), in some even in fifteen (p. 106), while the settlements first colonised increased slowly or came to a standstill (p. 107). WALLACE and CONDORCET are both wrong in supposing that the difficulty of an "overcharged population" can only occur in a very remote future (p. 142 *seq.*). It has always been felt, and is felt now (cp. p. 153). Condorcet's plan for providing every one with a comfortable provision for a family would only lead to a greater increase of population (p. 150). Condorcet's idea of the "organic perfectibility" of the race, including the indefinite lengthening of life, is not founded on scientific argument, that is to say, on observed facts (pp. 157, 158). By attention to breed, and condemning all the bad specimens to celibacy, no doubt "a certain degree of improvement similar to that among animals might take place among men" (p. 170). Otherwise the increase in longevity would only give greater weight to the "argument of population" (p. 171). GODWIN'S system of equality, to be produced by reason and conviction, "wears much more the promise of permanence than any change effected and maintained by force" (p. 174). But Godwin dreams that all can live in the midst of plenty and share alike in the bounties of nature (p. 178), all causes of misery and vice being removed, reason governing instead of passion (p. 180 *seq.*), useless luxuries being abandoned unanimously, and "the spirit of benevolence, guided by impartial justice, dividing the produce among all the members of the society according to their wants" (p. 182). Such a society would tend even more than a new colony to favour population, especially as Godwin would abolish the form of marriage; and, in spite of the increased production due to a better distribution of property, there would be such a growth of numbers that the new equality would disappear, and the old struggle, as well as the old inequality, would come back (pp. 180-190, cp. pp. 194-198). A cause of distress is at work here which cannot be traced to human institutions, but is due to human nature itself (p. 191); and Godwin's "society without government" would feel the force of it as much as the present societies with governments. It would be found necessary in Godwin's society to put some check on population, and the most natural and obvious would be "to make every man provide for his own children" (p. 199). "And thus it appears that a society constituted according to the most beautiful form that imagination can conceive, with benevolence for its moving principle instead of self-love, and with every evil disposition in all its members corrected by reason and not force, would, from the inevitable laws of nature and not from any original depravity of man, in a very short period degenerate into a society constructed upon a plan not essentially different from that which prevails in every known state at present, I mean a society divided into a class of proprietors and a class of labourers, and with self-love for the mainspring of the great machine" (pp. 206-207).

But the same argument which proves that Godwin's society would collapse if founded, serves also to prove that it never could be founded at all (p. 210 *seq.*). The passion between the sexes shows no tendency whatever to disappear, and we have no reason to believe with Godwin that in the future it will be the obedient servant of cool intellect. It is also a passion perfectly in harmony with the nature of man, and in no wise an evil in itself (pp. 211-216).

After disposing of Godwin's attempts to prove the indefinite physical improvement and lon-

gevity of man (ch. xii.), Malthus finds fault with the abstract character of his reasoning (ch. xiii.), and points out how subordinate is the part played by mere reasoning in the affairs of life. The later discussions in the *Essay* (*e.g.* ch. xiv. on "Perfectibility," etc.) add nothing essential to the main arguments, though there are remarks on wages, wealth, and capital of importance in view of his general economic doctrines (*e.g.* ch. xvi. 321 ; ch. xvii.). After telling us how Dr. Price had unwittingly been the means of convincing him of the truth of his new views on the ratios of increase, Malthus concludes his book with a brief statement of his own philosophical view of the world. The world is to man a state of trial ; without the wants of the body, and the difficulty he finds in supplying them, his intellect would not be developed. The law "that population should increase much faster than food" (p. 361) is calculated to produce exactly the strong stimulus that was needed for intellectual activity as well as for industry of any kind. In the same way moral evil seems necessary to the creation of moral excellence (ch. xix.).

The *Essay* of 1798 was anonymous, but it made a great sensation, and its author was soon known. Godwin and he met in London in August 1798, and a correspondence followed, of which something is given in Godwin's *Life* (ch. i. p. 321). The arguments of Godwin and others made some impression ; and in thinking of a new edition the "author of the essay" revised his work not only by the aid of travels of his own in 1799 and 1802, but in the light of abundant criticism poured upon him from all sides. *An Investigation of the Cause of the present High Price of Provisions* (1800) contained a promise to make the *Essay* bear more directly on present society, as well as to illustrate its principle "from the best authenticated accounts we have of the state of other countries" than England. Accordingly in 1803 Malthus published under his own name the stout quarto that embodies his mature views of his subject (*An Essay on the Principle of Population, or a view of its past and present effects on Human Happiness*, a new edition, very much enlarged). Besides hearing of vice and misery, we now hear of moral restraint as a check on population. "Of the preventive checks, that which is not followed by irregular gratifications may properly be termed moral restraint" (2nd ed., p. 11). The author confesses in his preface that he had taken too gloomy a view of human nature in his first essay. Accordingly, in this second, an allowance is made throughout for the influence of moral restraint. In the fourth book there are two chapters entirely devoted to this subject. He recommends a "virtuous celibacy," a "prudential restraint," a "period of delayed gratification," the result of which, if generally adopted, would be (he thinks) that "all squalid poverty would be removed from society, or at least be confined to a very few who had fallen into misfortunes against which no prudence or foresight could provide" (p. 495). Whatever may be thought of the possibility of the general observance of such a rule of conduct, there is no doubt that Malthus sincerely believed that the chastity he recommended "has the most real and solid foundation in nature and reason, being apparently the only virtuous mean of avoiding the vice and misery which result from the principle of population" (*ib.* p. 496).

Apart from this introduction of moral restraint, the principles of the first essay remain unaltered. But the application is different. Instead of very general illustrations, there are now detailed descriptions of typical savage, barbarian, and civilised countries, drawn from a wide range of authorities. These occupy more than half of the book. The utopias of Godwin and Condorcet are dismissed in three short chapters (pp. 354-386), after which emigration and the poor laws are discussed, and the author slides into what may be called economics proper, the relations of wealth to wages, of commerce to agriculture, and the effects of bounties on corn. Various aspects of the principle of population, especially its bearings on charity and on civil liberty, are then considered. With all its qualifications of the theory of the first edition, this second gave much offence by some indiscreet phrases and illustrations. The solemn contrast of the matron and the maiden lady, to the advantage of the latter, occurs in the second edition, pp. 549-550; and disappeared afterwards. The famous passage, describing "nature's mighty feast" and the uninvited guests, occurs there too, in connection with civil liberty (bk. iv. ch. vi. p. 531). It involves a denial of the *right* to support, in the strict sense of the word *right;* and, though it occurs only in this edition of the Essay, Malthus never abandoned the position maintained in it. He considered that our poor laws, in conceding the right, were "attempting to reverse the laws of nature." Hence his proposal that public notice should be given that no child born of any marriage taking place after a year from the said notice, and no illegitimate child born two years from said notice, should be entitled to parish relief,—also that the clergy when conducting the marriage service should call the attention of the husband to his obligation to support his own children and the wrongfulness of his marrying without a fair prospect of being able to support them (bk. iv. ch. vii. p. 538). He does not approve of the prohibition of marriage by the state even where there is no such prospect ; it is enough to leave foolish men to the "punishment provided by the laws of nature" (p. 539).

There was much opposition to the views of

the essay. Many of the replies to it are largely rhetorical and do not concern us here. Malthus disposed of his critics very temperately in the successive appendices to his various editions. The substantial soundness of his main positions is not disputed by economists now, and his influence on the study of statistics is admittedly great. The effect of his essay and other works on general economic speculation will be considered below.

But the essay seems fairly open to the following comments.

1. The necessity of food and the necessity of the instinct of sex, his two postulates, are not equally absolute.

2. The growth of population and the increase of food are not well illustrated by a mathematical formula (geometrical and arithmetical ratio) which suggests greater exactness than the case allows.

3. The expression "tendency" is not applicable to the growth of population in the same sense as to the increase of food. Malthus admits this, but not perhaps with sufficient prominence and frequency.

4. The periods of the doubling of population and of the doubling of food are stated too absolutely, in so far as the idea is sometimes conveyed that, without respect of climate, race, and country, the periods will be nearly the same for all human beings, if only the moral, political, and social conditions are identical.

5. Malthus often speaks as if population must always increase up to the limits of the food as soon as these are sufficient to secure the standard of living (cp. *Tract on Rent*, p. 8). But such an instance as France shows that the standard may be secured and yet no increase take place. Hence it is not evident now, whatever it was in his days, that all countries feel the pressure of population, except in the sense that all either exercise preventive checks or suffer from the positive.

6. The argument of the biologists, expounded by Mr. Herbert Spencer, would show that possibly in the future the intellectual energies of man may grow at the expense of the sensual. The basis of this argument, however, is not very firm (see POPULATION).

7. Malthus proposed late marriages as a remedy for over-population; the neo-Malthusians, admitting the full force of his general argument, propose as a remedy early marriages with restriction of family (see BRADLAUGH; James MILL; PLACE). The name Malthusian in its widest sense is applied to all who recognise the existence and the need of any checks on population.

The first achievement of Malthus was the exposition of the theory of population; and his name has been associated so closely with this theory that, like Darwin's, it has added a new adjective to the language of civilised peoples. His second achievement was his contribution to the economic doctrine of rent.

When the East India Company resolved in 1805 to found a College at Haileybury (Hertford) for the preparation of their cadets, they made Malthus their first professor of history and political economy, and he began his duties at the opening of the college in 1807, continuing till his death in 1834. He twice appeared in print in defence of his college against the criticisms of Lord Grenville and others. He lived at Haileybury very contentedly and industriously, and was blessed with good physical health all his life. The pamphlet on the *Nature and Progress of Rent* (1815) contains the substance of lectures delivered at Haileybury (see "Advertisement," or preface, of the pamphlet). Malthus had intended to keep these notes till he could include them with others in a regular treatise on political economy; but the agitation on corn duties, which was then at its height and had already drawn from him one pamphlet, induced him to follow it up by this other. In the first (*Observations on the Effects of the Corn Laws*, 1814) he had stated the arguments for and against protection of agriculture, holding the balance between the two opinions, but hinting that the political dependence caused by a free trade was a serious evil, and that agriculture was more important than manufacture. In a third pamphlet (*Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn*, 1815), he plainly advocated a temporary protection, to keep up prices in order to keep up high farming. Between the two others came the tract on *Rent*, of much more consequence than either. "The rent of land," he says, "is that portion of the value of the whole produce which remains to the owner of the land after all the outgoings belonging to its cultivation, of whatever kind, have been paid, including the profits of the capital employed, estimated according to the usual and ordinary rate of the profits of agricultural stock at the time being." This is the point towards which actual rents are constantly gravitating; and the immediate cause of rent is the excess of price above cost of production. How is such excess possible? It is not due, as SAY and BUCHANAN think, to the monopoly of property, though the idea is sometimes countenanced by Adam SMITH, but to three causes: (1) that the soil yields more than enough to support the cultivator; (2) that the food and materials thus procured cause an increase of population in proportion to them; and (3) that the fertile lands are comparatively scarce, (p. 8, cp. p. 10). Hence the paradox that "the cause of the high price of the necessaries of life above the cost of production is to be found in their abundance rather than their scarcity" (p. 13). In the case of real monopolies like choice

vineyards, the supply does not raise up its own demand. It is otherwise with agriculture, where a lessened fertility diminishes the demand by diminishing the population. On the other hand, where fertile lands are to be had in abundance, as in the earlier periods of society or in the colonies (p. 17), the result is high wages and profits, but little or no rent. But the diversities of soil make their effect felt as time goes on. "The accumulation of capital beyond the means of employing it on land of the greatest natural fertility and the greatest advantage of situation must necessarily lower profits, while the tendency of population to increase beyond the means of subsistence must, after a time, lower the wages of labour" (p. 17). The cost of production will thus fall; but the value of the product will rise, and its rise creates an excess which is rent (p. 18). "The separation of rents as a kind of fixture upon lands of a certain quality is a law as invariable as the action of the principle of gravity." Rents are thus due not to human artifice but to the laws of nature (p. 20).

The rise and fall of rents are governed by the four causes of the diminution of cost of production—(1) accumulation of capital and consequent fall of profits; (2) increase of population and consequent fall of wages; (3) agricultural improvements and consequent diminution in the number of hands needed; (4) increase in the price from increased demand, especially in a manufacturing nation, and consequent lowering in the *proportion* of cost to price (p. 22). But these causes need not act together (p. 26, cp. p. 34).

The general principle is true that "rents naturally rise as the difference between the price of produce and the cost of the instruments of production increases" (p. 27). It is also true that "a progressive rise of rents seems to be necessarily connected with the progressive cultivation of new land and the progressive improvement of the old," while "a fall of rents is as necessarily connected with the throwing of inferior land out of cultivation and the continued deterioration of the land of a superior quality" (p. 32). It follows also that "the price of produce in every progressive country must be just about equal to the cost of production on land of the poorest quality actually in use, or to the cost of raising additional produce on old land, which yields only the usual returns of agricultural stock with little or no rent" (p. 35, p. 36). "Corn, in reference to the quantity actually produced, is sold at its necessary price like manufactures" (p. 39). It is as with machinery in manufactures; when improvements are introduced but not carried out universally, the employers of the improved machines will reap surplus profits (cp. p. 55 note), the manufactured article being demanded in greater quantities than the improved machines can supply, and the price being accordingly fixed by the cost of producing the article by means of the old fashioned ones (cp. pp. 37-39, 41, 45).

The Law of DIMINISHING RETURNS was thus clearly formulated in this tract on rent. Though logically implied in the theory of population, it was not expressly stated in the essay of 1798; there are hints of it (especially p. 46 for extensive cultivation, pp. 90 and 107 note for intensive, cp. 186-188). The 2nd edition of the essay (1803) is somewhat clearer on the subject (p. 5 for intensive, p. 7 extensive, cp. the comment on ANDERSON, p. 472). The essay did not contain the author's mature views on rent till its 5th edition (1817). These views appear also, as might be expected, in the *Political Economy* (1820 and 1836). They were very little affected by the long correspondence of Malthus with Ricardo on the subject, still less by the public criticisms of the latter and of M'Culloch, Torrens, and many others. The view of Malthus that agricultural improvements raised rents has on the whole been justified by experience rather than Ricardo's to the contrary effect.

The bearing of the law of population on wages is so close that this subject occupied the thoughts of Malthus from the first. He observes (Essay, 1798, p. 35), that "the want of freedom in the market of labour, which occurs more or less in all communities, either from parish laws or the more general cause of the facility of combination among the rich, and its difficulty among the poor, operates to prevent the price of labour from rising at the natural period, and keeps it down some time longer, perhaps till a year of scarcity, when the clamour is too loud and the necessity too apparent to be resisted." "It must have risen long before, but from an unjust conspiracy" of the rich (*ib.* p. 36). He starts therefore with no class prejudices in favour of the employer but his "principle of population" compels him to believe that "no possible form of society could prevent the almost constant action of misery upon a great part of mankind if in a state of inequality, and upon all if all were equal" (p. 36). Even though an English labourer does not marry without reflection, or at the earliest possible age, he does so soon enough and improvidently enough to find his children more sickly than those of the richer classes. The healthiness of a country life is proverbial; yet "the lads who drive plough are very rarely seen with any appearance of calves to their legs" (p. 73). Combination itself, which, he allows, might quite possibly secure a shorter day's labour (of 6 or 7 hours) to the labourers without prejudice to production (p. 298, cp. p. 301), would hardly stand against

the necessities of the poorest. "Those that had large families would naturally be desirous of exchanging two hours more of their labour for an ampler quantity of subsistence," and it would be "a violation of the first and most sacred property that a man possesses to attempt by positive institutions to interfere with his command over his own labour" (p. 299).

Real wages ("the comforts of the labouring poor") depend on the "funds destined for the maintenance of labour and will be very exactly in proportion to the rapidity of this increase" (p. 305), but Adam Smith was wrong in supposing that whatever increases "the revenue or stock of a society" increases these funds. It is not so unless the additional revenue is convertible into a proportional quantity of food; and this last is true in agriculture but not in manufacture (p. 306 *seq.*).

A rise of wages caused by an extension of manufacture will be merely nominal if there is no proportional increase of provisions (p. 307), for then the price of provisions will rise and the real wages remain as they were before. Importation can never in a large country like ours be sufficiently great to prevent this (p. 311). Hence Malthus thinks Dr. PRICE might have plausibly supported his view of the depopulation of England by arguing that the increased trade and manufacture created no new supplies of food, and therefore provided for no increased numbers (pp. 312, 313). In this respect Malthus is physiocratic (p. 327); and, in the first essay at least, he supposes wages to be close to the physical necessaries of life, and the most important of these to be bread. He is consistently physiocratic too in reckoning manufacture unproductive to society in comparison with agriculture (p. 333), though often very remarkably productive to individuals (p. 334). In later works he makes much more ample allowance for the difference between a high and a low standard of living, as affecting wages and population.

His maturer views of wages were developed with constant reference to the rival theories of RICARDO. Malthus refused to consider mere necessaries "the natural price of labour"; that is a "most unnatural" price, for it implies a stationary society and standard of comforts. The true definition of natural wages is "that price which in the actual circumstances of the society is necessary to occasion an average supply of labourers, sufficient to meet the average demand" (*Pol. Econ.*, 1820, p. 247). The market rate is sometimes above and sometimes below this point. The resources of the country and the demand for labour may increase; and then the rate of wages goes up, and the habits of the people will be probably so affected that a higher standard of comfort will be adopted; or they may stand still or decrease, and the rate go down and the standard of comfort be lowered. A high standard of comfort is the effect as well as the cause of high wages (*ib.* pp. 248-249, 256-257). The standard is now so complex that happily wages do not depend wholly on the price of corn (*Pol. Econ.*, 1820, p. 291). By high and low wages Malthus does not mean, like Ricardo, a high or low proportion to profits, but a greater or a less command of the comforts of life (*ib.* pp. 91, 326, 327, 214 n. etc.).

The relation of wages to capital (defined as "that particular portion" of material wealth, "which is destined to be employed with a view to profit," *Pol. Econ.*, 1820, p. 293) is not regarded as one of simple dependence; the demand for labour depends not only on capital but on revenue (pp. 248, 261, 301 n.). Here as elsewhere Malthus objects to the Ricardian neglect of "demand" and exclusive attention to "supply." Nevertheless he allows that the proportion which capital, whether fixed or circulating (p. 261) bears to labour has a very important influence both on wages and profits (pp. 301, 302). He did not formulate the theory of a WAGES FUND; but he was to some extent the cause of it (see especially *Pol. Econ.*, 1820, pp. 301 *seq.*, a good example of the abstract or deductive method). He even states that "if the market were comparatively understocked with labour, the landlords and capitalists would be obliged to give a larger share of the produce to each workman. Every effort to ameliorate the lot of the poor generally, that has not this tendency, is perfectly futile and childish. It is quite obvious, therefore, that the knowledge and prudence of the poor themselves are absolutely the *only* means by which any improvement in their condition can be effected. They are really the arbiters of their own destiny; and what others can do for them is like the dust of the balance compared with what they can do for themselves" (p. 306).

But profits do not depend, as Ricardo supposes, purely on the cost of obtaining the labourer's necessaries, any more than the value in exchange of commodities generally depends wholly on their cost in labour. Ricardo takes demand as constant, and explains all values by the cost of their supply (pp. 308-11, etc.; but see RICARDO).

Malthus differed from what he called the new school of political economy (see *Quarterly Review*, January 1824), meaning Ricardo and his followers M'Culloch and James Mill, in regard to their three main principles. The first was that the natural or normal value, in exchange, of a commodity is determined by its cost, and that its cost means labour. The second, that demand affects values very little or not at all. The third, that profits are determined not by competition of capitalists but

by the fertility of the least fertile land which it is worth while to cultivate. Thus in value profits play so small a part that they may be neglected. Malthus questions all three of these propositions. Cost, or as he prefers to say, the "conditions of supply," includes a reference to demand and supply; "natural prices" are "regulated by the ordinary and average relation of the demand to the supply" instead of their extraordinary and accidental relations (*Political Economy*, 1820, p. 84). Profits also must enter into the conditions; and the "varying quickness of their returns" is of importance in the determination of prices (*ib.* p. 88, cp. *Tract on Value*, p. 12 n.). "The articles which were of a nature to require a long preparation would be comparatively very scarce, and would have a great exchangeable value in proportion to the quantity of labour which had actually been employed upon them, and on the capital necessary to their production" (*ib.* p. 89). The varying proportions of fixed capital entering into different commodities were recognised by Ricardo himself as requiring a qualification of his principle (*ib.* p. 90, see RICARDO).

Malthus attached great importance to the search after a measure of value; and the lukewarmness, as well as scepticism, of Ricardo on the subject is partly explained by the fact that Ricardo had not a "historical mind." Malthus was anxious to have a key to the interpretation of economic history, especially the statistics of prices and wages in past times, and particularly since 1790. In his *Political Economy* (1820) he thought that a mean between corn and labour was the measure he desired (pp. 132, 133), except for corn itself, of which the best measure was the labour commanded. In his tract on the *Measure of Value* (1823) he confesses that he was wrong (p. 23 n.) and that "labour alone is the true measure." He quotes Ricardo's dictum "in all countries and at all times profits depend on the quantity of labour requisite to provide necessaries for the labourers on that land or with that capital which yields no rent," only to deduce from it the constant value of labour (*Value*, p. 29 n.); and thinks that if the value of labour be constant, labour is capable of being used as a measure of all other values (cp. pp. 30, 31). "The labour worked up in a commodity could not in many cases be ascertained without considerable difficulty; but the labour which it will command is always open and palpable" (p. 54 n.). This was Adam Smith's doctrine, though he was not always consistent. Malthus may be more consistent, but he was hardly more successful in the practical application of labour as a measure of value. Ricardo's attitude of suspense and scepticism seems justified. In our own time Professor Marshall (Gold and Silver Commission, evidence, December 1887, final report, pp. 1, 3) uses labour as a measure of the value of gold, but does not put it forward as a universal measure.

It was obvious, of course, that the precious metals had no constant value; and the question of the changes in the value of gold and silver was pressed on the attention of all economists at the epoch of the great war. The fluctuations of general prices from the war and of corn from the seasons were complicated by variations due to the state of the currency, and especially to the suspension of cash payments authorized in 1797 and continued till 1821. An economist who had lived through the first two decades of the new century would necessarily be expected to have an opinion about the cause of the high price of food in 1800, about the effect of the CONTINENTAL SYSTEM 1806-12, about the disappearance of guineas in those times, about the Bullion Committee 1810 (see BULLION COMMITTEE, REPORT OF), and about a "general glut" after the war.

From the end of 1808 the foreign exchanges had become very unfavourable to this country, and the bullion committee reported in 1810 that this low state of the continental exchanges, together with the high price of bullion, measured in notes, was caused by "an excess in the paper circulation," due originally to the suspension of cash payments. Malthus and Ricardo agreed with this conclusion, but differed about the general relation of currency to the exchanges. Ricardo considered that "the exportation of the coin is caused by its cheapness, and is not the effect but the cause of an unfavourable balance" (*Works*, p. 268). Malthus thinks, on the contrary, that the unfavourable balance might be due to purely commercial causes, of which the exportation of gold and silver would be only the effect. A view very like Ricardo's has been maintained by Professor Marshall before the Gold and Silver Commission (*Evidence*, final report, December 1887 and January 1888, pp. 11, 48-50); but economists have not yet reached unanimity on the subject.

In regard to the apparent general glut that followed the war, it was the view of Malthus (see *Political Economy*, 1820) that a general over-production had really occurred, and was the explanation of general low prices; a certain amount of luxurious living was, he thought, really good for trade. Consumption must keep pace with production; in England in his day the latter seemed to him to have outstripped the former. J. B. Say (*Lettres à M. Malthus*, 1820), Ricardo, and James Mill were no doubt right in pointing out that general could not mean universal, for supply involves demand. But they were wrong in leaving the impression that particular cases of over-production could never be numerous enough to cause any wide distress; and it seems fair to say that the theory of population can bear

to be applied on the one side or the other with equal plausibility.

The theory of population remained after all the greatest achievement of Malthus; and this notice of him may be fitly concluded by some account of his applications of it to the poor law.

"To remedy the frequent distresses of the common people," he wrote in 1798, "the poor laws of England have been instituted; but it is to be feared that though they may have alleviated a little the intensity of individual misfortune, they have spread the general evil over a much larger surface." He adds that it is often remarked with surprise that, notwithstanding the immense sum, nearly three millions, that is annually collected for the poor in England, there is still so much distress among them. "Some think that the money is embezzled, others that the church wardens and overseers consume the greater part of it in dinners. All agree that somehow or other it must be very ill managed" (*Essay*, p. 74). But, if there were a rate of 18s. in the £1 instead of 4s., the case would not be materially different. If wages were from 1s. 6d. a day made up to 5s., the labourers, it might be said, could then eat meat every day. But the transference of 3s. 6d. to every labourer would not increase the stock of meat, but by increasing the number of buyers would simply raise the price. If it caused more cattle-rearing, there would be less corn-growing, and corn would rise (pp. 75, 76). "When subsistence is scarce in proportion to the number of people, it is of little consequence whether the lowest members of the society possess 1s. 6d. or 5s. They must at all events be reduced to live upon the hardest fare and in the smallest quantity." Moreover, there would on the first receipt of the additional wages be less inclination for work and a greater impulse to an increase of numbers (pp. 76, 77). "I cannot by means of money raise a poor man and enable him to live much better than he did before without proportionably depressing others in the same class" (p. 79). The poor laws tend to increase population without increasing the food, and they decrease the share of the industrious poor for the benefit of the pauper (pp. 83, 84). They diminish both the power and the will to save among the common people (p. 87). It is good for society that dependent poverty should be held disgraceful (p. 85). The very possibility of falling back upon parish relief removes a strong motive for providence and for avoidance of the ale-house (pp. 88, 89). In order to give an assistance to some which is a doubtful blessing to them, we subject the whole of our people to "a set of grating, inconvenient, and tyrannical laws totally inconsistent with the genuine spirit of the constitution" (p. 92) namely, the laws of settlement. It is not good to "force population" as Pitt's bill of 1796 seemed to do. There is no real gain to the public from the resulting low wages (p. 134, cp. p. 94).

Such was the strain of reasoning in the first essay; and it recurs in the later writings. The tract on the high price of provisions (1800) contends that the high price is mainly due not to over-issues of the country banks but to the attempt of the poor-law authorities to increase the allowances in aid of wages, so as to overtake the price of corn,—an attempt which caused the poor to compete with the rich in raising the price still further. The dealers were not at fault; by keeping their supplies till prices were highest they furnished supplies when they were most needful; and, after all, the high price has been a real benefit conferred on us for once by the poor laws. So many more of our fellow-citizens have been made by it to feel the effects of the scarcity and economise, that the stock of food has gone farther than it would otherwise have done, the farmers have been encouraged to add to the supply by extended cultivation, and the merchants by importation (*High Price*, pp. 19, 20). That at such a time, too, it would be impossible to leave the poor simply to shift for themselves, he does not expressly concede till the 3rd ed. of his essay (1806, vol. ii. p. 169). Otherwise the tract of 1800 may be said to have been incorporated in the essay without change. The remarks on the part played by the issues of the country banks are expanded. Coming first as an effect of the rising prices, the issues became in their turn a cause of them (see 2nd ed. pp. 402-403; 7th, p. 299; *High Price*, pp. 23-24).

In the 2nd ed. (1803) of the essay, and all the later ones, the poor laws take a much larger place than before. More stress is laid on the impossibility of their requirements. He had said (1st ed. pp. 98, 99): "We tell the common people that, if they will submit to a code of tyrannical regulations, they shall never be in want. They do submit to these regulations. They perform their part of the contract; but we do not, nay cannot, perform ours; and thus the poor sacrifice the valuable blessing of liberty and receive nothing that can be called an equivalent in return." In the 2nd ed. (bk. iii. ch. vi.), he shows this in detail of the promise to find work, quoting DEFOE and EDEN. He quotes HANWAY and HOWLETT to show the great mortality of parish children, whose protection (be it remembered) was the object of the first FACTORY ACT (1802), and concludes "that the poor laws have destroyed many more lives than they have preserved" (p. 416). Moreover, though marriage is encouraged by the poor laws, it is hindered by the deficiency of cottages and the reluctance of the landholders to build new ones (bk. iii. ch. vi. 3rd ed. vol. ii. p. 182).

The proposal of Malthus for the abolition of the poor laws has been already mentioned. He would rely on private charity, and he sees (2nd ed. p. 540) that "the only difficulty would be to restrain the hand of benevolence from assisting those in distress in so liberal a manner as to encourage indolence and want of foresight in others" (*ib.*). He is stern in allowing the sins of the parents to be visited on the children (p. 543). The parish support of deserted children multiplies the desertions (p. 541). What we ought to encourage is family affection and the self-reliance and responsibility of the head of the family. To force a man to marry, however, as is done by some parishes after a case of seduction, is to add evil to evil (p. 542).

If the poor laws were removed, the English people would show, even more strongly than before, their "spirit of industry and foresight." Without the general prevalence of the "strong desire of bettering their own condition" the poor laws would have ruined them in time past (pp. 545-546). But Malthus recognised that abolition must be gradual. "I should be sorry to see any legislative regulation founded on the plan I have proposed till the higher and middle classes of society were generally convinced of its necessity, and till the poor themselves could be made to understand that they had purchased their right to a provision by law, by too great and extensive a sacrifice of their liberty and happiness" (*Letter to Whitbread*, 1807, pp. 6, 7). One valuable preparation would be popular education, especially if it included among its subjects political economy (*Essay*, bk. iv. ch. ix.). Malthus is at all times unwilling "to push general principles too far" (2nd ed. p. 418), and he is patriotic and statesmanlike. Though he sent nothing to the press that is not connected either with political economy or with his college, he was a man of wide reading, varied tastes, and not simply a man of one idea. He was genial and hospitable, and made no private enemies. Sydney Smith, Harriet Martineau, and Mackintosh are loud in his praise. Thomas Love Peacock who satirises his views in *Melincourt* (1818) treats "Mr. Fax" with a good-nature and respect entirely withheld from M'Culloch ("MacQuedy") in *Crotchet Castle* (1831).

The popular notion of his person was for a long time even more inaccurate than of his writings. "No economist of the first rank has been so utterly misrepresented" (Prof. Nicholson, *Pol. Econ.*, i. p. 175, 1893). He was not without honour, however, in his lifetime. He was Fellow of the Royal Society, and of the Royal Society of Literature, a foreign member of the Institut, and of the Berlin Academy of Sciences. He helped to found the Political Economy Club and the Statistical Society. His book on *Population* was translated into nearly all European languages, and has probably received more refutations than any other economical work whatsoever.

The Crisis, 1797 (not published).—*Essay on Population* (see above), 1798, 8vo (anonymous).—*An Investigation of the Cause of the Present High Price of Provisions*, 1800, 8vo (anonymous).—*An Essay on the Principle of Population, or a View of its Past and Present Effects on Human Happiness, with an Inquiry into our Prospects respecting the Future Removal or Mitigation of the Evils which it occasions*, by T. R. Malthus, 4to, 1803.—The same, 3rd ed. in 2 vols. 8vo, 1806, including an appendix with replies to critics. The appendix was also printed separately in 4to, 1806.—*A Letter to Samuel Whitbread, Esq., M.P., on his proposed Bill for the Amendment of the Poor Laws*, 8vo, 1807 (March),—*Essay on Population*, 4th ed. in 2 vols. 8vo, 1807 (same as 3rd).—Review of Newenham's Inquiry into the Population of Ireland, *Edinburgh Review*, July 1808, and probably the 1st part of a similar review of same author, April 1809.—Review of Mushet, Blake, Huskisson, Ricardo, Bosanquet, on the Depreciation of paper currency, *Edinburgh Review*, February 1811.—*Letter to Lord Grenville on the East India Co.'s Establishment for the Education of their Civil Servants*, 1813.—*Observations on the Effects of the Corn Laws and of a Rise or Fall in the Price of Corn on the Agriculture and General Wealth of the Country*, 1814 (3rd ed. 1815).—*An Inquiry into the Nature and Progress of Rent and the Principles by which it is regulated* (February), 1815.—*The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn, intended as an Appendix to Observations on the Corn Laws* (February), 1815.—*Statements respecting the East India College, with an Appeal to Facts in Refutation of the Charges lately brought against it in the Court of Proprietors* (January), 1817, a reply to Joseph Hume and Randle Jackson; a skilful defence of Haileybury College.—*Essay on Population*, 5th ed. in 3 vols. 8vo (January), 1817, the additions being also, as before, printed separately, under the title "Additions to the 4th and former editions of an *Essay on the Principle of Population*," 1817 (preface dated 7th June).—*Principles of Political Economy considered with a view to their Practical Application* (April), 1820 (Preface dated 1st December 1819.—Review of Godwin's Inquiry concerning the Power of Increase in the numbers of Mankind, *Edinburgh Review*, July 1821 (authorship not certain).—*The Measure of Value stated and illustrated with an Application of it to the Alterations in the Value of the English Currency since 1790* (April), 1823.—Review of Thomas Tooke's Thoughts and Details on the High and Low Prices of the Last Thirty Years, *Quarterly Review*, April 1823.—Review of the Essay (by M'Culloch) on Political Economy in the Supplement to the 4th, 5th, and 6th editions of the *Encyclopædia Britannica*, *Quarterly Review*, January 1824.—Article on Population in above, Supplement, 1824.—Paper contributed to the *Transactions of the Royal Society of Literature:* "On the Measure of the Conditions necessary to the Supply of Commodities" (4th May), 1825.—*Essay on Population*, 6th ed.

2 vols. 8vo, 1826 ("Advertisement" dated 2nd January), the last ed. published in the author's lifetime.—Evidence before Select Committee of House of Commons on Emigration, *Third Report*, pp. 311-327 (5th May), 1827.—*Definitions in Political Economy preceded by an Inquiry into the rules which ought to guide Political Economists in the Definition and Use of their Terms, with Remarks on the Deviation from these rules in their writings*, post 8vo, 1827. (A criticism of Adam Smith, J. B. Say, Ricardo, James Mill, M'Culloch, and Samuel Bailey). The later ed. by Cazenove is garbled.—Paper contributed to the *Trans. of the Roy. Soc. of Literature*: "On the Meaning which is most usually and most correctly attached to the term Value of Commodities" (7th Nov.), 1827.—*Letters to Professor W. N. Senior on the Subject of his Lectures on Population* (letters dated 23rd and 31st March), printed with said lectures 1829.—*A Summary View of the Principle of Population*, containing the gist of article on "Population" in Supp. to *Ency. Brit.*, 1830.—*Principles of Political Economy considered with a view to their Practical Application*, 2nd ed. with considerable adds. from author's own MS., and original memoir (by Otter, Bishop of Chichester), 1836.—There may still be in existence—(1) The Crisis; (2) The letters to Ricardo corresponding to the series mentioned below;[1] (3) Notes of his lectures at Haileybury. He had thoughts of converting one course at least (on Adam Smith) into a book (see Ricardo's *Letters*, p. 56). One set of student's notes (taken *c.* 1830) exists, but adds little to our knowledge of Malthus. A 7th ed. of the *Essay* was published by Reeves and Turner (1872), and a new ed. with biography, etc., Ward and Lock, 1890, ed. G. T. Bettany. Parallel chapters from 1st and 2nd eds. of the *Essay* are given in Macmillan's Economic Classics (ed. Prof. W. J. Ashley), *Malthus*, 1895.

[A good portrait is given with the art. Malthus in *Dict. de l'Écon. Pol.*, 1852; those in the *Petite Bibliothèque Économique*, 1889, and Dr. Drysdale's *Life of Malthus*, 1889, are inferior.—Bonar (J.), *Malthus and his Work*, 1885; *Philosophy and Political Economy* (1893).—Bagehot, W., *Economical Studies*, 1880.—Cannan, E., *Theories of Production and Distribution*, 1776-1848 (1893).—Cairnes, J. E., *Logical Method of Pol. Economy*, 2nd. ed. (1875).—Comte, Charles, *La Vie et les Travaux de Malthus* (Acad. des Sciences morales et politiques, 28 Dec. 1836).—"Hans Ferdy" (A. Meyerhof), *Beschränkung der Kinderzahl*, 1894.—Held, A., *Zwei Bücher zur sozialen Geschichte Englands*, 1881.—Hollander, J. H., "Concept of Marginal Rent" (*Quart. Jour. of Econ.*, Jan. 1895).—Garnier, Joseph, *Du Principe de la Population* (1857).—John, Prof. V., *Die Jüngste Entwickelung der Bevölkerungs theorie* (Intern. Congress of Demography), (Vienna), 1887.—Keynes, J. N., *Scope and Method of Pol. Econ.* (1891).—Kautsky, K., *Einflusz der Volksvermehrung auf den Fortschritt*.—Lebrecht, V., *Il Malthusismo ei Problemi Sociali* (1893).—Leser, Prof. E., *Untersuchungen zur Geschichte der National-ökonomie*, 1881.—*Malthus Drei Schriften über Getreidezölle* (1896).—Mill, J. S., *Pol. Econ.*, 1848, and *Autobiography*, 1873.—Payne, J. O., *History of the Family of Malthus* (1890).—Soetbeer, Heinrich, *Stellung der Sozialisten zur Malthusischen Bevölkerungslehre* (1886).—Ricardo, *Works, passim*, and *Letters of Ricardo to Malthus*, 1810-23 (1887).—Smissaert, H. B., *Overzicht der Bevolkingsleer van Malthus*, 1879. (A good analysis of the whole essay).—Toynbee, A., *Industrial Revolution*, 1884.—Patten, Prof. S. N., *Malthus and Ricardo*, 1889. See also the French and German dictionaries. Malthus is noticed in almost every general treatise on political economy.] J. B.

MALTHUSIANISM. See MALTHUS.

MALYNES, GERARD DE (early 17th century), merchant, was born at Antwerp of English parentage. About 1586 he was a commissioner of trade in the low countries. He came to London and was frequently consulted on commercial questions by the privy council in the reigns of Elizabeth and James I. He was an assay master at the mint. With William Cockayne he obtained a patent to supply farthings, April 1613, but in a petition addressed from the Fleet prison, complained six years later that he had been ruined by being paid in his own coins. Among his projects was one for a system of state pawnbroking. He was called upon by the standing commission on trade for evidence on the state of the coinage, and published the following pamphlets in course of a controversy with Ed. MISSELDEN (*q.v.*).

The Maintenance of Free Trade according to the essential parts of traffique, namely, commodities, moneys, and exchange of moneys by bills of exchanges for other countries, or an answer to a Treatise of Free Trade, or the meanes to make trade flourish, lately published [by Ed. Misselden], London, 1622, 12mo.—Commodities are the body, money the soul, and exchange the faculty of the soul. "All the causes of the decay of trade are almost all of them comprised in one, which is the want of money" (p. 104).—*The Centre of the Circle of Commerce: Or a Refutation of a Treatise entitled the Circle of Commerce or the Balance of Trade*, also directed against Misselden, appeared in 1623, 4to. His chief point is that his opponent did not consider the "predominant part of trade," "viz. the mistery of exchanges," "showing his maine scope to be, to have the moneys of the realme inhaunced, and the foreine coyne to be currant at an equall value."

By far the most remarkable work of Malynes was—*A Treatise of the Canker of England's Commonwealth, divided into three parts; wherein the author, imitating the rule of good phisitions, first, declareth the disease; secondarily, sheweth the efficient cause thereof; lastly, a remedy for the same*, Lond., 1601, 16mo. In this publication Malynes argues that the disease is the decrease of our wealth by (1) transportation of money or bullion; (2) selling our home commodities too cheap; (3) buying foreign commodities too

[1] One, and only one of the series has been found in the M'Culloch collection, Brit. Mus., and published by Dr. Hollander. It is dated 11th August 1823.

dear. All this results in the overbalancing of our exports by our imports; and the cause of this overbalance Malynes shows to be the abuse of the money exchange between England and other countries. He insists that "gain is the cause of exportation of our monies," as the result of which home prices fall and foreign prices rise. After giving a description of the foreign exchanges, the author proposes as remedy: (1) the exchange for all places to be kept at a certain price; (2) higher customs to be placed on imports and paid by the foreigner; (3) the transport of bullion to be prohibited. His leading idea was that public authority alone could fix the terms of exchange and even the value of money, quite irrespective of the cost of the precious metals. He strongly urged the bullionist policy.

Saint George for England, Allegorically Described (R. Field, Lond., 1601, 8vo), is an account of the social evils in the state. "This dragon," Malynes says, in his preface to the reader, "is 'fœnus politicum,' his two wings are 'usura palliata' and 'usura explicata,' and 'his taile unconstant cambium.' The virgin is the king's treasure. The champion S. George is the king's authority."

He also published *England's View in the Unmasking of two Paradoxes* (by De Malestroict); *with a replication unto the answer of Maister J. Bodine* (Lond., 1603, 12mo).—*Lex Mercatoria*, a compendious collection containing the sea laws of Edward III., the Hanse sea laws, and certain books treating of merchants' accounts and the law merchant (Lond., 1622, fol.; 1629, fol.; 1636-51, fol.; 1653, 1655, 1656, 1660, fol.; 1686, fol.).—*The Commonwealth of Bees, represented by Mr. G. Malynes by way of a digression in his great book called Lex Mercatoria*, 1655, 4to.

[See ENGLISH EARLY ECONOMIC HISTORY).—*Dict. of Nat. Biogr.*, vol. xxxvi., pp. 9-11.]

A. L.

MANAGEMENT, PAYMENT FOR. See EARNINGS OF MANAGEMENT.

MANCHESTER SCHOOL, THE. The group of ideas comprehended in the term "Manchester school" has for its centre and source the doctrine of free trade derived from Adam SMITH. The illustrious Scotchman, indeed, declared that to expect that the doctrine would ever become a practice in the United Kingdom was as absurd as to expect the establishment of a Utopia. The principal ground of his scepticism was the political power of the protected interests—of manufacturers chiefly, who, he said, were formidable to the government, and who, upon occasion, were accustomed to overawe the legislature. The course of events has shown that, in England at all events, the power of the monopolists has not been so insurmountable an obstacle to the progress of free trade as Adam Smith anticipated. This fact is traceable to the influence of the Manchester school. The *Wealth of Nations* was published in 1776, and its teachings were apparently unheeded for many years. But the leaven was silently working, and before the end of the century it had taken possession of the mind of Mr. Pitt, whose policy during his prime ministry, from 1783 to 1801, was visibly influenced by the book, which he read diligently. To it may be ascribed, with some confidence, the portion of the Act of Union with Ireland (1800) providing for the abolition in 1820 of all customs duties between Great Britain and Ireland. In the latter year the policy of free trade was for the first time boldly advocated, as the basis of a comprehensive fiscal reform, in the famous petition to parliament of the merchants of London, drawn by Thomas Tooke (see MERCHANTS' PETITION). This was almost immediately followed by a similar petition from the chamber of commerce of Edinburgh. The presentation of these documents led to the appointment of a select committee of the House of Commons, and its report, published on 18th June 1820, was in harmony with the argument and prayer of the petitions. The investigations and conclusions of the committee were not entirely abortive, for they were the cause of the tariff reforms initiated in 1825 by HUSKISSON, who, with Mr. Gladstone, the father of the Right Hon. W. E. Gladstone, had shared in its labours. Meanwhile one retrograde step had been taken. In 1819 the provision for the complete liberation of trade between Great Britain and Ireland was abandoned by an act extending the then existing customs arrangements for a further period of twenty years, but reducing the duties by one-fourth at the end of every five years.

In 1820 the Manchester chamber of commerce was founded, or rather reconstituted, for it had previously existed under the title of the Commercial Society, established in 1794, the minutes of which are still preserved. One of the first acts of the new body was to protest against this backward step "as an infraction of the act of union, and an unnecessary continuance of restrictions highly injurious to both countries." The protest, which was put forward by deputation to government and by petition to parliament, was, after some delay, successful. Thenceforward opinions in favour of the abandonment of protection gained a permanent hold upon the minds of leading merchants and manufacturers in Manchester, and found expression almost every year at the chamber of commerce. In particular, import duties on foreign grain were the subject of strong condemnation, on the ground that they raised the cost of food and restricted trade with foreign countries. Towards the close of 1838 the agitation culminated in a broad and emphatic denunciation by the chamber of the policy of protection, Richard COBDEN taking the leading part in this act. Immediately afterwards the ANTI-CORN LAW LEAGUE (*q.v.*) was founded, and it was not dissolved until its

object was accomplished in 1846. The vigour and the variety of resource and method by which the work of the League was carried on, as well as the educational effect of its constant demonstration of the soundness of the principle of free trade, gained for the League world-wide attention. Thenceforward the doctrine of free trade became associated with the birthplace and home of the body which had made it a living force in national politics.

The name "Manchester school" did not originate with the League. It was bestowed from without, and has had an extensive recognition in Germany, where it has acquired a meaning wider than the speeches and writings of its exponents warrant, although undoubtedly the main ground upon which the policy of free trade was advocated impelled them to take up a distinct position on other questions besides that which was the main object of their efforts. LAISSEZ-FAIRE was in general their guiding maxim, but not without regard to other controlling principles. Among these separate questions the most prominent were war, colonial policy, and factory legislation.

From the idea of free interchange of the products of industry to that of international peace, the transition of thought is natural and obvious. When therefore the leaders of the Manchester school had secured legislative acceptance of the principle of free trade, they turned their attention to other obstacles to its progress. One of these they found in international jealousies and mistrust, which they ascribed partly to mutual ignorance, and partly to the practice of maintaining large armaments. These, they said, produced two evils. They laid heavy burdens on industry in the shape of excessive taxation, and they discouraged trade by preventing the growth of commercial confidence, and by furnishing an excuse for upholding the system of protection abroad. Peace, non-intervention in foreign political affairs, and reduction of warlike expenditure were consequently among their watchwords. But Cobden did not seek these objects merely because he thought they would promote material prosperity. Peace was rather the end, and free trade the road to it. Speaking on one occasion in 1850, he said, "Do not suppose that I advocated free trade merely because it would give us a little more occupation in this or that pursuit. No; I believed free trade would have the tendency to unite mankind in the bonds of peace, and it was that more than any economic consideration which actuated me in the struggle for free trade." Their earnest advocacy of peace and non-intervention when speaking on questions of public policy, and their undisguised sympathy with the peace society, led to the misconception, somewhat widely entertained, that Richard COBDEN and John BRIGHT, the chief apostles of the Manchester school, were in favour of "peace at any price." Both of them, however, took pains to repudiate the doctrine of non-resistance—Cobden frequently, and Bright on at least one occasion. At Wrexham, in October 1858, Cobden said, "I have not, as you have observed, pleaded that this country should remain without adequate and scientific means of defence. I acknowledge it to be the duty of your statesmen, acting upon the known opinions and principles of ninety-nine of every hundred persons in the country, at all times, with all possible moderation, but with all possible efficiency, to take steps which shall preserve order within and on the confines of your kingdom."

It was a part of the teaching of the Manchester school, that the relations between the colonies and the mother country should be radically altered. Its exponents contended that the heavy charge then imposed upon the home treasury as a contribution towards the expenses of administration and defence of the colonies should be abolished, and that the preferential treatment at British custom houses of certain colonial productions should be discontinued. Both these changes have long since been made, but the advocacy of them fifty years ago formed the basis of a charge that the Manchester school desired to sever the political connection of the country with the colonies. This charge also was explicitly denied. Mr. Cobden declared in 1849, in answer to it, that he wished to retain them, "not by the sword, but by their affections," and in justification of his objection to the maintenance of forces there at the expense of the British exchequer, he affirmed that the colonists were more lightly taxed than the home population, and were well able to bear the cost of their own defence.

The attitude of the school towards factory legislation cannot be described as in all respects friendly. Of the practice of forbidding by law the employment in labour of the young its exponents usually approved, but they were, as a rule, opposed to all interference with the liberty of grown persons (see FACTORY ACTS). In 1836 Mr. Cobden wrote, for the information of the electors of Stockport, respecting the protection of young persons from excessive labour, "I will not argue the matter for a moment with political economy. It is a question for the medical and not the economical profession. . . . Nor does it require the aid of science to inform us that the tender germ of childhood is unfitted for that period of labour which even persons of mature age shrink from as excessive. In my opinion—and I hope to see the day when such a feeling is universal—no child ought to be put to work in a cotton mill at all so early as at the age of thirteen years; and after that the hours should be moderate, and the labour light, until such time as the human frame is rendered by nature capable of enduring the fatigues of adult labour. Had I been in the House of Commons during the last session of Parliament, I should have opposed with all my might Mr. Poulett Thomson's measure for postponing the operation of the clause for restricting the hours of infant labour." The point of these observations, so far as they bear upon the general question of factory legislation, is that the man who may be regarded as, before all others, the exponent of the doctrines of the Manchester school, here emphatically declares that economic considerations are subordinate where considerations of humanity are in conflict with them. *Laisser faire* was therefore not an invariable tenet of the school.

The educational work of the Anti-Corn Law League, its struggles and its triumph, made a deep impression upon the minds of economists and statesmen in foreign countries, especially in Germany, France, and Italy. When, therefore, in 1846 and 1847, Mr. Cobden visited several of the European capitals, he was received as the hero of a beneficent revolution, and the principles of the Manchester school were proclaimed as a kind of gospel. Hardly any practical result in the shape of legislation abroad was realised, but the opinions and the hopes of economic thinkers with regard to the prospects of free trade, especially of those who had already been influenced by the teachings of the PHYSIOCRATS and of Adam Smith, were greatly strengthened. But the influence of the Manchester school has not remained extensive, except perhaps in Holland (see DUTCH SCHOOL). It is still strong amongst a comparatively small number of able writers and statesmen in France, who, however, have little force in practical politics. In Germany it has been largely extinguished by the teachings of the historical and socialist schools. At the hands of their exponents it has received severe and sometimes ill-founded criticism. Schönberg has attributed to the Manchester school, as its fundamental base, the doctrine that selfishness is the most energetic and the sole legitimate economic motive, and that its free expansion can alone establish the best economic condition. There can be no doubt that individualism, with a minimum of restraint, was constantly proclaimed or implied in the speeches and writings of Cobden and Bright. It must be remembered, however, that they were confronted by an actual condition in which a long course of interference with individual freedom of commerce and industry had produced formidable evils which naturally evoked reaction in observant and energetic minds.

A survey of the work of the Manchester school presents two prominent facts of essential importance. The first is that its leaders made no attempt to write systematic treatises of economics, nor even to expound methodically a particular set of economic ideas. They were men of action rather than students, although they were both. Thoroughly imbued with the teachings of Adam Smith, they saw in the legislation, and in the ruling economic maxims of their time, a state of things extensively opposed to the principles of their master. And fortune had given them a practical as well as a theoretical interest in labouring to make these principles a living and successful force in politics. The second fact is that their sphere of employment was not the study nor the lecture-room, but the popular platform, the floor of Parliament, the newspaper, and the pamphlet. Denunciation of their opponents, appeals to sectional interests, and various other weapons of popular controversy, as well as connected argument and methodical reasoning, were frequently brought into their service. The task they had undertaken was not only to convert a nation but to overthrow powerful interests whose supremacy seemed to Adam Smith invincible. Vehemence and passion were therefore not seldom displayed, with the inevitable result that the motives of their opponents were sometimes unjustly represented, and occasionally what was simply ignorance in high places was described as a kind of malevolence. These faults were perhaps inseparable from an enterprise eminently one of political warfare, quickened by the sight of widespread suffering, due largely to bad laws. They have also, however, inevitably perhaps given ground for unfavourable judgments upon the Manchester school, and for some misapprehension as to its doctrines and aims. In the light of history, however, the results of its labours are allowed to be in the highest degree beneficent, and the published speeches and writings of Cobden and Bright may fairly take rank as classical. For apart from what is of historical or temporary interest, they deal with principles of abiding importance. Moreover, the "unadorned eloquence" and homely persuasiveness of Cobden's utterances, not less than the surpassing beauty frequently found in those of Bright, give them a permanent value.

Much of their work and of their teaching has stood the test of time, even if further progress has not been made. Free trade holds still, theoretically and practically, an unassailable position in the United Kingdom. Elsewhere it has gained little ground, mainly because no means have yet been found in protectionist countries of overcoming those dominant interests which induced Adam Smith to despair of the triumph of free trade even in England. Non-interference in foreign affairs, and the avoidance of entangling political alliances have, to a large extent, been accepted as the basis of foreign policy. The financial independence of the colonies has become a fact. On the other hand, warlike expenditure and the cost of government have increased enormously at home and abroad. The functions of government too have grown at the expense of individualism. In these respects the march of events has gone mainly in opposition to the doctrines of the Manchester school. Its exponents were indeed strongly in favour of the maintenance and spread of popular instruction under the control of public authority, and of the extension of local administration. They would, however, have opposed much of that interference with trading operations, of which the Merchandise Marks Act is a type. The school is gone, although its work remains. But both its work and much of its teaching have taken a firm hold of the organisation and the mind of the British nation. See A. J. Balfour's Essay on Cobden and the Manchester School, published in *Essays and Addresses*, Edinburgh, 1893.

[Archibald Prentice, *History of the Anti-Corn Law League*, 2 vols., 1853.—Henry Dunckley, *The Charter of the Nations*, 1854.—Henry Ashworth, *Cobden and the League*, 1876.—*Annual Reports of the Manchester Chamber of Commerce*, 1820-1846.—Richard Cobden, *Speeches*, edited by John Bright and James E. Thorold Rogers, 2 vols., 1870.—John Bright, *Speeches*, edited by James E. Thorold Rogers, 2 vols., 1868.—John Morley, *Life of Richard Cobden*, 2 vols., 1881.—Dr. Gustav Cohn, *A History of Political Economy*, translated by Dr. Joseph A. Hill, Philadelphia, 1894.—J. E. Cairnes, *Essays in Political Economy*, 1873.—Dicey, *Law and Opinion during 19th Century*, 1905.]

E. H.

MANCINI, Celso (died 1612), a philosopher and politician, was born in Ravenna, the exact date not known. He taught moral philosophy at the university of Ferrara, and was made a bishop by Clement VIII. His principal work is *De Juribus principatum*, Libri novem, Romæ, 1596. The fifth book contains economic and financial matter of considerable merit. Mancini displays sound ideas on exchange and the theory of money. He distinguishes between the two duties of the state in reference to money, the care required for its maintenance, and the determination of its value, which both must correspond to the relations of the market. Mancini maintains the exclusive right of a prince to coin money—but he denies his right to debase it. Agreeing in this with other political writers of his day, Mancini regards it as the duty of a prince to maintain abundance in his dominions, exercising a paternal influence over them. The most important part of the fifth book is on finance, especially taxation. He enumerates the different taxes adopted in his day and proposes a rational classification of them, establishing the fundamental rules of finance, as the relation between taxes and the amount of public expenditure, and the proportion they should bear to the wealth of the citizens. Mancini's arguments throw considerable light on the subject of taxes, and indicate the first outlines of a doctrine which was developed much later; he also discusses tithes.

[See Gobbi, *L'economia politica in Italia negli scrittori italiani del secolo XVI-XVII*, Milan, 1889.—Supino, *La scienza economica in Italia nei secoli XVI-XVII*, Turin, 1888.—Rava, *Celso Mancini, filosofo e politico del secolo, XVI*, Bologna, 1888.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.—Ricca-Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1880.] U. R.

MANCIPATIO, according to Gaius (I. 119, Poste's translation), is an imaginary sale which is only within the competence of Roman citizens, and consists in the following process:—In the presence of not fewer than five witnesses, citizens of Rome above the age of puberty, and another person of the same condition who holds a bronze balance in his hands and is called the balance-holder, the alienee, holding a bronze ingot in his hands, pronounces the following words: "This man I claim as belonging to me by right quiritary, and be he (or, he is) purchased to me by this ingot and this scale of bronze." He then strikes the scale with the ingot, which he delivers to the transferor by way of purchase money. Gaius adds (I. 122), "The reason of using a bronze ingot and a weighing scale is the fact that bronze was the only metal used in the ancient currency, which consisted of pieces called the as, the double as, the half as, the quarter as; and that gold and silver were not used as media of exchange, as appears by the law of the Twelve Tables; and the value of the pieces was not measured by number but by weight."

In early Roman law *mancipatio* was an actual sale of property; but in course of time it became merely a form of transfer, the money (*æs, rauduscŭlum*) paid to the transferor by the transferee being a merely fictitious payment. When conveyance by delivery was established, *mancipation*, or cession in court, was still necessary for transferring legal ownership in *res mancipi—i.e.* land in Italy, rural servitudes, slaves, fourfooted beasts of draught and burden. "The list of *res mancipi* thus comprises the principal appendages, movable and immovable, of an old Italian farm" (Sohm, *Institutes of Roman Law*, trans. by Leddie, p. 230).

Mancipatio was used for the purpose of transferring family rights over persons as well as rights of property. It was also a means of making a will, established by the law of the Twelve Tables. E. A. W.

MANCUS, a denomination used in Anglo-Saxon times and till the 12th century; almost certainly not a coin but only money of account, equivalent to a weight of 675 grains troy of silver, to thirty pennies or six shillings in value.

[Ruding (*Annals of the Coinage of Great Britain*, ed. 1840, pp. 103, 111) thinks that an Italian gold coin of this name may have been imported into England, but used only for a short time. The mancus was reckoned in either silver or gold.—Eccleston, *Introduction to English Antiquities.*] E. G. P.

MANDAT (Fr.). An order or authorisation to pay a sum of money. The term is employed in French administrative departments, the *mandat* being signed by the director, or by the treasury, or the receivers-general of taxes, in which case it is called a *mandat du trésor*.

The Mandat de Change, now obsolete, was an imperfect letter of exchange, which by custom the drawee was not bound to accept, and which was not protested in default of acceptation. There was no special legislation with regard to the *mandat de change* as for letters of exchange, and more recently for the cheque, now substituted for the *mandat*.

Mandat de Poste, a post office order.

Mandats territoriaux were a paper money during the revolutionary period. The Assignat having become valueless in 1795, the material of which they were made was destroyed publicly with some ceremony. The government was shortly again embarrassed for money, and, by a law of the 18th May 1796, ordered the issues of 2,400,000,000 of francs of *mandats territoriaux* secured on national or confiscated property, the sale of which was decreed at twenty times the revenue it produced. The public had, however,

no confidence in this new paper, and on the first day of its issue it lost 82 per cent of its value, 100 francs in mandats being exchanged for 18 francs in coin. In less than a year the mandats had become so much depreciated that they were abolished as a legal tender, although they continued to be received for a short time in payment of arrears of taxes.

MANDAT, a proxy; its effects are described in articles 1984 to 2010 of the civil code. T. L.

MANDATUM, a contract, binding by mere agreement between the parties, whereby one of them, "*mandator*," gives, and the other, "*mandatarius*," undertakes to perform, a commission without any payment being promised for its execution. Each party may revoke the contract at pleasure, but the mandatary is liable, if by so doing he causes loss to the mandator. The mandatary can claim compensation for necessary outlay in the execution of his commission. E. A. W.

MANDEVILLE, BERNARD DE (1670?—1731), satirist, was born in Holland, where he practised as a physician. Of his life, after his settlement in England, little is known. After producing several works of an ephemeral character, Mandeville became suddenly famous as the author of the *Fable of the Bees, or Private Vices Publick Benefits*. The poem had been published as early as 1705, under the title of the *Grumbling Hive*, in a sixpenny pamphlet, and had apparently not attracted much notice. In 1714, it appeared, 12mo, under its new title with numerous notes. A second edition followed in 1715, with additional notes, and an essay on "Charity and Charity Schools." Mandeville may be right in his surmise that the powerful interests attacked in the latter essay may have drawn attention to the *Fable*. In any case, the 1723 edition was presented as a nuisance by the grand jury of Middlesex, and the work denounced by writer after writer. New editions followed in quick succession, until in 1806 it had reached its eleventh. The vogue appears, henceforth, to have waned, and the *Fable of the Bees* is now more often alluded to than read. The merits of Mandeville lie rather in a style often singularly powerful for the pen of a foreigner, in poignant hints, scattered in the byways of the book, *e.g.* the passage in which he anticipates the modern view that hospitals should be as much schools of medicine as places of cure, and in his remorseless exposure of the seamy side of human nature rather than in his central paradox. So far from private vices being, in themselves, or, "by the dextrous management of a skilful politician," public virtues, it can be clearly demonstrated that every private vice involves a direct public waste to the community. In discussing the subject, Dr. Johnson quoted the words of Sir Thomas Browne, "Do devils lie? No, or hell would not subsist." Vice is, in its essence, anti-social, and on this "the truth, the whole truth, and nothing but the truth" is contained in Plato's *Republic*. The most reasonable statement of the case is contained in a passage, wherein Mandeville says, "Those who can enlarge their views . . . may in a hundred places see good spring up, and pullulate from evil as naturally as chickens do from eggs"; but the evil which is inchoate good is different from vice. Mandeville's imposing structure of moral paradox rests for its basis on an economic fallacy. The proposition, that private vices are public benefits, is the ethical equivalent to the economic delusions that spending, of necessity, benefits the community, and saving injures it; that luxury, as a matter of course, is good for trade, that it is "prudent to relieve the wants of the poor, but folly to cure them"; that "ignorance is a necessary ingredient in the mixture of society"; that the aim of the legislature should be to keep labour cheap; and, lastly, that the yearly imports should never exceed the exports. Experience, no less than theory, has abundantly shown the falseness of all these notions. It must be remembered that Mandeville lived before the growth of the modern industrial system (see INDUSTRIAL RÉGIME). A society wherein the steady demand of the working classes themselves should afford the best custom to manufactures; wherein the capricious and fluctuating requirements of luxury could be regarded as an evil, however inevitable: wherein trade pre-eminence should largely depend upon the technical education of the workers, and high wages by no means of necessity spell low profits; wherein the main of imports should be to supply the raw produce of manufacture, and to feed the producers at the cheapest rate, —such a society was not dreamt of in Mandeville's philosophy.

In the essay on "a search into the nature of society," added in the 1723 edition, Mandeville contends with much force that it is the power of the evils which surround them which drives men to be sociable. In a second part to the *Fable*, published in 1728, 2nd ed. London, 1733, 8vo, he endeavours, in six dialogues, to show up the real character of human virtue and the meanness of the motives of which it is the outcome. *An Inquiry into the origin of Honour*, 8vo, appeared in 1732.

[*Dictionary of National Biography*, vol. xxxvi., article by Mr. Leslie Stephen contains the few facts known as to his life.

The more notable of Mandeville's critics were—Bishop Berkeley, in *Alciphron*, dialogue 2, wherein Lysicles is Mandeville, 2nd vol. of *The works of George Berkeley*, 4 vols., London, 1871, 8vo.—Adam Smith, *Theory of Moral Sentiments*, pt. vii. § 2, an unfavourable opinion both from the economic and ethical points of view.—W. Law, whose *Remarks, etc.* were republished in 1844, with a characteristic introduction by F. D.

Maurice. — Hutcheson, *Inquiry into the original of our ideas of Beauty and Morals*, 1726. See also Leslie Stephen, *English Thought in the 18th Century*, 1876, 2 vols., 8vo, ch. ix. § 34-44 and ff. "Mandeville, by attempting to resolve all virtue into selfishness, stimulated the efforts towards a scientific explanation of the phenomena." H. E. E.

MANGOLDT, Hans Karl Emil von (1824-1868), was born at Dresden and studied law and political science at Leipzig, Geneva, and Tübingen. In 1848 he was employed by the Saxon minister of foreign affairs; and the department of the interior entrusted to him, in the same year, the preparation of a history of the industries of that state. But in June 1850 a reactionary *coup d'état* was carried out by the government of Von Beust, and Mangoldt sent in his resignation, stating his reasons for the step. He not only thus lost his official position, but in consequence of the act was often afterwards pursued by the enmity of the minister. Having further studied economics at Leipzig, he undertook in 1852 the editing of the *Weimar Gazette*, which however he soon resigned, again on the ground of political convictions. In 1855, by the publication of his principal work, *Lehre von Unternehmergewinn*, he established his scientific reputation, and in 1858 became extraordinary professor of political economy in the university of Göttingen, in which capacity he visited the London Industrial Exhibition of 1862 at the cost of the Hanoverian government. He was appointed in the same year to the chair of political and cameral sciences at Freiburg; and, after a visit to the Paris exposition of 1867, he fell into ill health and died at Wiesbaden.

In 1863 Mangoldt published *Grundriss der Volkswirthschaftslehre*, which Cossa thinks one of the best existing compendiums of the science; a 2nd ed. appeared in 1871. In 1868, he began in the *Bibliothek der gesammten Handelswissenschaften* a treatise on political economy, which he did not live to finish. He also contributed a number of articles to Bluntschli and Brater's *Staatswörterbuch*, amongst which are estimates of Colbert, Carey, Bastiat, and Mill.

Mangoldt's special importance in the history of economics is due to his having been the first, with a partial exception in favour of Hufeland, to submit what is now called "the earnings of management" to a thorough investigation. He was, in essentials, a follower of Adam Smith, but, says Adolf Wagner, "kept himself free from the one-sided views of the radical Manchester school" which exaggerated or perverted the doctrines of the great Scotsman. Roscher describes him as a somewhat dry writer, but possessing a sagacious and penetrating intellect; he particularly admires his definition of the science of economics as "the philosophy of the history of (practical) economy," and approves his saying that an economic fact is not scientifically explained till the inductive and deductive explanations of it coincide.

[Leser in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Cossa, *Introd. Pol. Ec.*, London, 1893; Roscher, *Gesch. der N. O.*, p. 1039. See also German School.]

J. K. I.

MANIFEST is the British term for one of the most important of a ship's papers, which sets forth (manifests) the particulars of the cargo. To the customs department, especially where most articles are dutiable, as in many British colonies, it is an essential document; all ships making an entry in such ports are required to furnish a duplicate of the manifest, and by it the duties are checked. C. A. H.

MANLEY, Thomas, was one of a number of 17th-century agitators for the better regulation of English trade and commerce. He was anxious for a strictly protective foreign policy, and in 1677 published his *Discourse*, showing that the export of wool is destructive to this country. He advocated the prohibition of unprofitable imports, such as foreign wines, "brandies and baubles," and actually proposed the revival of the ancient sumptuary laws—with a view to encourage the English woollen manufacture which, in the face of foreign competition, was obviously declining.

Manley fell into the error of wishing to promote the interests of the manufacturers at the consumers' expense.

In 1669 Manley published his *Usury at 6 per Cent Examined*, in which he opposed the liberal theories of Sir Thomas Culpeper, and J. C. (Sir Josiah Child), who had advocated the cheapening of money. Manley was anxious to keep up a high rate of interest, from a fallacious notion that it was advantageous to trade.

Manley's works are: *A Discourse shewing that the export of wool is destructive to this kingdom, wherein is also shewed the absolute necessity of promoting our woollen manufacture, and moderating the importation of some commodities and prohibiting others, with some easie expedients tending thereunto.* Licensed 8th March 1676, London, printed, 1677.—*Usury at 6 per cent examined and found unjustly charged by Sir Thos. Culpeper and J. C., with many crimes and oppressions whereof 'tis altogether innocent. Wherein is shewed the necessity of retrenching our luxury and vain consumption of foreign commodities imported by English money; also the reducing the wages of servants, labourers, and workmen of all sorts, which raiseth the value of our manufactures* 15 *and* 20 *per cent dearer than our neighbours do afford them by reason of their cheap wages; wherein is likewise hinted some of the many mischiefs that will ensue upon retrenching usury; humbly presented to the High Court of Parliament now sitting*, London, 1669. A. L.

MANOR, The (Historical). The starting-point in the economic history of the early and middle ages is the manor, and in consequence, a knowledge of the character and transformation of its constituent parts is essential to an understanding of the progress of agrarian and industrial life. In origin the manor is

probably connected with the tribe. Although scholars are not agreed as to the stages of manorial development, yet the tendency of current investigation is to associate it with certain economic processes which accompanied the transition from tribal to territorial life. Those who are unwilling to give up entirely the older views of Von Maurer, Kemble, and Maine see between the tribal and the manorial stages a distinct transitional form distinguished from the tribe by its territorial basis, from the manor by the freedom of its members, and from both by the extent of its self-government (Vinogradoff in *English Historical Review*, July 1893, p. 542). Others, more radical in their rejection of the old theory, deny the existence of such a stage, and connect the manorial directly with the tribal stage by an unbroken chain of rank, wealth, serfdom, and private property.

When historical information begins, the landed estate is found to exist with many of the features of the fully-developed manor. The earliest evidence is, however, inconclusive, owing to its meagreness and to the uncertainty regarding the dates of the first praedial documents, the custumals of Hysseburne and Dyddenham. In Anglo-Saxon times the manorial unit is rather economic than legal, and although the seignorial element was fully developed in that period, nevertheless the fully feudalised estate does not appear even in the *Rectitudines Singularum Personarum*, the chief pre-Norman document. Economic life had become manorialised but not feudalised. There existed, on the one hand, the manor house with its court, and the lord's demesne, under the *gerêfa*, or reeve, at this time the sole officer in control; on the other, the agricultural community with the dependent tenantry, the meadows, pastures, commons, and waste.

The manorial unit was therefore composed of two essential parts, one the seignorial, distinct from the point of view of jurisdiction and taxation; the other the vill or township, a unit in matters of service and labour. Seignorial rights, in part traceable to royal grants, are in greater part the result of causes both tribal and military. The measure of the Roman influence in creating such rights is as yet indeterminate. Although there is no express mention of such rights in the early charters, yet there is reason to believe that the right to hold a court of one's tenants and the right to exact fines arising from the judgment of such court is older than the first express grant of *sake* and *soke* in the charter of Cnut of the year 1020. The powers exercised in such a court were purely civil. Criminal and penal jurisdiction was probably of a later date, and originated in an express grant from the king. The determination of this question regarding seignorial rights is important; for the manorial court represents the close unity between the lord and the vill quite as much as does the open field system, inasmuch as the court was the meeting of the village community with the lord or the gerêfa as the presiding judge. It was a single court exercising police duties and certain criminal functions according to the terms of the charter by which jurisdictional powers were conferred. The second constituent element was the agricultural community, of which the lord was a part as his demesne lay largely in the open fields, and was subject to the rules that regulated the cultivation of those fields. The tenantry were of two classes; first, the *gebûras*, each of whom held in addition to his house and outfit of oxen a yardland normally of thirty acres, scattered in acre and half-acre strips throughout the open fields; secondly, the *cotsetlas*—in origin probably of the 9th or 10th century—each of whom had a cot and five acres of land scattered like those of the gebûras. The cotsetlas rendered no GAFOL—payment in money, produce, and work—and had no outfit of oxen. The *geneâtas*, if a separate class, could not have been numerous, and may have been of the nature of riding-men. Their identity is problematical. The obligations of the tenantry were divided into three groups; the gafol, the regular work upon the demesne, known as WEEK-WORK, and the PRECARIUM or special work in ploughing time and harvest. These services were originally personal, but afterwards became attached to the land. The main interest of the estate was agricultural. Cattle were kept for draught animals, cows for their calves, their beef, and their milk, sheep for their mutton and fleece. Nearly all necessities were supplied by the estate itself. Artisan work, largely that of slaves, was subordinate to the agricultural needs, and furthered mainly the agricultural economy. Yet, with all its isolation, each estate had some communication with the outside world. Surplus produce was sold for money or exchanged for metals and salt. The stage was one of self-sufficing economy, a stage in which the seignorial and the agricultural elements became so firmly bound together as to require the forces of centuries to disintegrate them. Yet the two parts were quite separate, the lord and the manor-court standing above the gafol-payers and exercising authority over them. In this sense the gafol-payers were in a position of dependence, a servile community under the gerêfa, who with the four best men attended the hundred and shire-moots. If such representations be incident to Anglo-Saxon times it witnesses to the legal position of the townsmen as being folk-free. The gebûr and cotsetla were "frigean men," though freedom was purely a relative quantity. In the 13th century, when the place of the reeve and four men in the county and hundred courts can be traced

in the evidence of the extents, it is clear that they were in the majority of cases a VILLEIN. At that time reeveship was a mark of servile status.

In the general organisation of the manor, we find no change in Domesday book. The *villani* are the gebûras, the *cottarii* and *bordarii* the cotsetlas. The amount of land held is practically the same, a virgate to the villein, a portion normally five acres to the cottar. Although the Norman Conquest increased but little the number of manors, yet it rendered them more powerful, by giving them a distinctly feudal character. Its feudalising influence tended to define the social status of the villeins, to place the free and the unfree in a common classification, and to prevent villeinage from lapsing into slavery. The manorial system became more complex, the feudal lord was the centre of many manorial units, each complete in itself, and a duplication of offices thus became necessary. The seneschal, as deputy of the lord, presided at the courts, audited accounts, conducted sworn inquests and extents. The bailiff managed the demesne, and collected rents and dues. But the reeve and bydel still continued to serve in subordinate capacities, and on smaller manors still remained the sole officers in charge under the lord. From the agricultural standpoint, manorial enterprise during this period was still collective rather than individual, and in consequence expansion and change took place very slowly.

But the breaking down of the cumbersome system of labour rents tended to increase the number of social groups upon the manor. In this respect the post-Domesday estate is exceedingly complex. LIBERE TENENTES, including those holding by military and free service, whose earlier existence has been denied because of their omission in Domesday, now appear. Below the freeholders are to be found many groups of those holding by base tenure, arranged in classes, not necessarily exclusive of each other, but indicative of dwelling, status, service, or holding. Of the first class are the villani, of the second the *nativi*, of the third the *consuetudinarii*, *custumarii*, *akermani*, *carucarii*, of the fourth the *hidarii*, *virgatarii*, *ferendelli*, and the more local classes, *landsettagii* in north Norfolk, *tenentes Honilond*, *tenentes Forlonda*, *tenentes Penilond* at Gloucester Abbey, etc. As the result of commutation MOLMEN began to appear who, by paying rent, were freed from work, thus in service, though not in status, approaching the free tenantry. *Gavelmanni* and *censuarii* may represent a line of rent-paying tenants, who, though living in villeinage, had never been bound to labour services. *Lundinarii*, *cotlandarii*, *cotarii*, *coterelli*, as successors of the old cotsetlas, had as a rule no part in the common arable, and were inferior to the villeins, and sometimes served under them.

Judicially there is no reason to believe in an extensive increase of curial functions. It is uncertain what is to be understood by *manerium* in Domesday, and there is little evidence of the smaller jurisdiction of manors in the reign of Henry I.

Three processes were taking place which were to destroy eventually the compactness and unity of the village and manorial group. Such disintegration was the inevitable outcome of the opening of markets, roads, and lines of communication with the continent, the growth of commerce, the political centralisation within the kingdom itself, and above all the increasing dominance of industry over agriculture. Rearrangements in state and society led to rearrangements in the manorial organisation. The first process, commutation, tended to free the individual from bondage to the lord and the land, and to break down an archaic relationship, which has its historical justification in having been an economic necessity in an age of decentralisation. The second, the increase of separate plots, farms, leases, and enclosures, destroyed the open field system, and the old forms of agriculture. The third, the absorption of manorial rights of justice by the royal courts, led to the gradual withdrawal of all real power from the manorial courts. To these may be added the growth of hired labour, the increase of exchange, and the consolidation of holdings, wherein the single acre strips begin to get united into larger strips, while still preserving the open field system.

Commutation began very early. The later system of money rents cannot be said, however, to have grown in every instance out of a system of labour services. It is quite possible to see in such payments an unbroken continuity of rent-paying tenants from Anglo-Saxon times. Money payments were made by the gebûr as a part of his obligation to the lord. In Domesday book the value of works performed is estimated in money, and on post-Domesday manors this became a regular part of the bailiff's accounts. While labour-rents were expressed in money-values for convenience in estimating the profit or loss of the manor, a few of the villeins who formerly did work began to pay money, as in the case of the molmen who still remained technically villeins. An examination of early mediæval evidence would probably show many cases of commutation where manorial conditions made this possible. The 13th and 14th centuries show a steady increase in this transformation; which was inevitable from the pressure of external economic forces. Payments in kind, and in labour service, rapidly gave way to payments in cash. On later manors it would seem that the lord preferred the old custom of labour-rents; and bailiffs' accounts of this period furnish instances of a reckoning in works, while the payment was actually made in money. It

would seem to have taken a long time for commutation to have become an established fact. But the obligations of barons and holders *in capite* to pay scutage (though but two were levied after 1306), aids and hidage, the inconveniences of festivals and the changes of weather, the simplifying of manorial accounts, and the necessity of paying in cash for goods purchased off the estate, made the change unavoidable, even though it was resisted by the manorial lords. Such resistance was in part due to conservatism, in part to the fear of giving bondmen the standing of free men, and in part to the uncertainty of obtaining hired labour. The change was effected earlier on the royal demesne than on the ecclesiastical estates. The emancipation of the bondmen, due to the influence of the royal courts of justice, the winning of privileges by the chartered towns, and the teachings of Protestantism, went steadily on by the side of the commutation movement. It was not, however, until the days of Elizabeth that villeinage began to approach its end. At that time public opinion turned against the institution; the last case of bondage was pleaded in 1618, and, though a few cases of servitude lingered on, it shortly became extinct.

With the growth of commutation went also the transformation of the farm, and the rise of the wage-system. Where, as in the case of the chapter of St. Paul's, a general assessment of a certain amount of produce for the benefit of the chapter was made upon all the manorial estates of a lord, each estate was put under the charge of a *firmarius*, who acted toward that estate *in loco domini*, retaining for himself all received over and above the assessment. The *firmarius* was sometimes one of the residentiary canons, as at St. Paul's, sometimes the bailiff or steward, sometimes the village itself. The inconvenience of transportation, and the growth of money payments within the village, soon necessitated a single cash payment, though for a time it was optional for the lord to receive either produce or money. Rentals became very common after the 13th century.

The payment of wages began as a commutation of labour either during special seasons of the year or for special classes of work. Week-work was probably the first labour to be commuted, and *precariæ* probably were the last. Hired labourers were in the first instances the old villeins. In the 13th century labourers engaged in threshing, winnowing, mowing, and harvesting were paid a regular wage, as also were those engaged in special duties, as the swine-herd, sheep-herd, and others, who in earlier times received perquisites or exemption from certain duties. Many of these were doubtless freeholders, and the custom first began upon the lord's demesne. The use of hired labour increased in the period preceding the Black Death, but that event struck it a severe blow. The increase of leases and sheep farms was an unavoidable result of the scarcity of labour. But, as the population recovered itself, commutation made it necessary and possible for the lord to hire labourers, and in the 15th century such labour was generally paid by piece-work. By 1450 there existed on every manor, besides the freeholders and customary tenants, a small body of labourers who were largely dependent on wages, though they supported themselves from the produce of small plots of land as well. But the class of wage-receivers was not confined to those resident on the estate. Itinerant artisans, serving sometimes two or three villages, sometimes a number of manors, passed from place to place paid by the day because unattached to a holding. It is probable, however, that some manors still retained their own smiths, wrights, shoemakers, etc.

The changes which altered the agrarian condition of England made the dissolution of the village community most evident. The manor house and the lord's demesne, the freehold plots, the lands in villeinage, the meadows, pastures, commons and waste were parts of one organic whole. But when a profit-gaining economy took the place of the old self-sufficing economy; when a stage of industry took the place of a stage of agriculture, to be in turn supplanted by an era of commerce and trade; when a convertible husbandry followed by rotation of crops took the place of the open-field system, then this agrarian unit dissolved. The earliest change in the primitive order was the introduction of the cottar holdings in Anglo-Saxon times, and of the freeholdings later. After the conquest, portions of demesne fell into the hands of rent-payers, and small holders and irregular plots increased. The earliest innovations took place on the demesne lands, which, as directly under the charge of the bailiff, were let out or enclosed for pasture. There is reason for thinking that by the 15th century the lords had succeeded in partially withdrawing their portions from the open fields. The process of inclosing lands not merely for sheep-rearing, but for more economical husbandry, began with the demesne, the freeholder's plots, and the common. The enclosure of the common fields, and the eviction of tenants which began in the 15th century, is the most important phase of the new movement, and some doubt exists regarding the security or insecurity of villein tenure. The evictors were lords of manors, *firmarii*, and the customary tenants themselves; the evicted were doubtless *nativi*, holders *ad voluntatem* on the lord's demesne and waste, and customary tenants holding in the open fields. Evictions cannot have been limited to any special class. Freehold evictions are occasionally recorded, though this was clearly illegal (see Leadam, *Inquisition*

of 1517, p. 189). On the whole, security of tenure for the customary tenants, and later the copyholders, seems assured, although it would be rash to offer a final opinion until a thorough examination has been made of manorial court rolls. Enclosures of demesne, meadow, and pasture, important as they were in transforming the appearance of the old manor, were not so vital to the mediæval economy as were the enclosures of the open fields. These struck at the root of the old system, and when complete, the agrarian individuality of the manor was destroyed. The minute subdivisions of the old virgate system had already begun to give way to the union of strips whenever possible, and the two processes continued side by side through the 18th century. The enclosure of the common fields was at its height in the latter part of the 15th century, and again from 1760 to 1844, when nearly 4000 acts were passed (see ENCLOSURES). These acts were the result of new economic conditions due to rotation of crops, the demand for food from manufacturing towns, and the increase of capital. England could not afford to retain the open field system; it was too uneconomical. Its place was filled by a system of consolidated farms, large capitalists, and division of labour. Traces of the old order can be seen not infrequently to-day, as near Manchester, in Gloucestershire at Upton, at Stogoursey near Bridgewater.

If commutation and enclosure affected chiefly the agricultural element of the manor, the loss of rights of justice affected the seignorial element. Under Henry III., so extensive were the assumptions of REGALIA by the lords, and so effective were their encroachments upon the jurisdiction of the king's justices, that the period preceding the reign of Edward I. may be considered as the era of greatest manorial jurisdiction. This led to an inquiry by king Edward into the seignorial warrant for such privileges, the important results of which were the return known as the HUNDRED ROLLS, the Statute of Gloucester of 1278, the writ Quo Warranto, and a general limitation of the franchises, although the forfeited privileges were often restored for a sum of money. The end of the 13th century marks, therefore, the beginning of the decay of the larger jurisdiction of the manorial courts. They lost in large part the exercise of high justice, and by interpretation of the Statute of Gloucester actions in civil cases were limited to forty shillings. The courts became local, possessing a mixed civil and criminal jurisdiction of a limited character. The presentment was made by the full court, or by the body of selected jurors, and the law of the court was mainly the custom of the manor. Through the 13th and 14th centuries there seems to be no evidence to show that there was more than one court upon the manor, or more than one way of constituting that court. In time, however, a distinction began to be made between cases that affected free men and those that affected unfree men, and the court baron, the court of the free tenants, and the customary court, the court of the villeins, made their appearance. Much earlier, however, many lords had begun to exercise a royal franchise in the view of FRANKPLEDGE twice a year; occasionally oftener. This was the beginning of the court leet, a name which appears toward the end of the 13th century. The correct title of this court was, however, always, *Visus franciplegii*.[1] The court baron and the customary courts were lord's courts and existed on all manors. The court leet was the king's court, and existed only on such manors as had the view of frankpledge. In the former the suitors were the judges, in the latter the lord or his steward. With the decay of villeinage the customary court ceased to be held, while the officers and functions of the court leet steadily increased by statute. The court baron and the court leet became the only local courts (except the *curia militum*) in the 15th century. The former concerned itself with tenures, admittances, rents, trespasses, civil actions of forty shillings, waifs and strays, etc.; the latter took the view of frankpledge, preserved the ASSIZE OF BREAD AND BEER, judged breaches of the peace, regulated commons, fences, nuisances, etc. But the intricacies of their own cumbersome machinery led to a rapid cessation of their activity. Their judicial power in civil cases was nearly gone by the time of Henry VIII., and there seems to have been a period between this time and the rise of the justice boards, established by many towns and parishes for their own needs, when many of the lesser cases were not taken up at all. Still, on some manors, with the increase of duties under new statutes, the activity of the courts continued. Though they met with regularity, yet the cases with which they concerned themselves grew fewer and fewer, until by the beginning of the 18th century the court leet had practically fallen into disuse. Its functions have been absorbed by municipal authorities, local boards, sanitary authorities, etc.

[The literature of the manor is so extensive that it will be possible to indicate here only the representative works upon the subject. Palgrave, Kemble, Freeman, Stubbs, Maine, Green, and others have discussed the origin and earlier history from the older point of view. For more recent opinions, see Seebohm's *English Village Community*, 1883.—Ashley, *Economic History*, pt. i. ch. i. 1888.—Earle, Introduction to *Land Charters and Other Saxonic Documents*, 1888.—Andrews, *Old English Manor*, 1892. For the mediæval and later history see Nasse, *Agricultural Community*

[1] = View of frankpledge. See Stubbs, *Constit. Hist. of England*, i. 88, 108; ii. 434.

of the Middle Ages, 1871.—Thorold Rogers, *History of Agriculture and Prices; Work and Wages.*—Scrope, *History of the Manor and Ancient Barony of Castle Combe*, 1852.—Scrutton, *Commons and Common Fields; Land in Fetters.*—Prothero, *The Pioneers and Progress of English Farming*, 1888.—Vinogradoff, *Villainage in England*, 1892.—Ashley, *Economic History*, pt. ii. ch. iv. 1893.—Cunningham, Introduction to *Walter of Henley* (edited by Miss Lamond for R. Hist. Soc., 1890).—*Growth of English Industry and Commerce*, 1890, 1892.—Leadam, "The Last Case of Bondage in England," *Law Quarterly Rev.*, vol. ix. p. 348.—Cheyney, *Enclosures of the Sixteenth Century*, 1895.—*A Discourse of the Common Weal of this realm of England* (edited by Miss Lamond), 1893.

The controversy regarding the security or insecurity of villein tenure will be found in Ashley, *Economic History*, pt. ii. ch. iv.; "The Character of Villain Tenure," *Engl. Hist. Rev.*, April 1893, pp. 294-297.—Leadam, "Inquisition of 1517" in *Transactions of R. Hist. Soc.* (N.S.) vol. vi. pp. 167-314; vol. vii. pp. 127-292; vol. viii. pp. 251-331, "The security of Copyholders in the Fifteenth and Sixteenth Centuries," *Engl. Hist. Rev.*, Oct. 1893, pp. 684-696; "Villeinage in England," *Pol. Sc. Quart.*, Dec. 1893, pp. 653-676. The history of manorial jurisdiction has never been fully treated. See, however, Pollock and Maitland, *History of English Law*, 1895.—Liebermann, *Uber die Leges Edwardi Confessoris*, 1896.—Maitland, Introduction to *Select Pleas in Manorial and Other Seignorial Courts* (Selden Society, 1888).—Stephen, *History of the Criminal Law of England*, vol. i. 1883.—Blakesley, "Manorial Jurisdiction," *Law Quart. Rev.*, vol. v. p. 113.—Lambard, *Eirenarcha*, 1614.—Kitchin, *Le Court Leete et Court Baron*, 1623.—Wilkinson, *Treatise . . . with . . . method for keeping of a Court Leet, Court Baron, and Hundred Court*, 1628.—*Durham Halmote Rolls* (Surtees Soc.).—*Manchester Court Leet Records*, 12 vols. For a graphic representation of the open field system, see *Sixteen Old Maps of Properties in Oxfordshire*, Clarendon Press, 1888. Also articles named in text and AID; KNIGHT'S SERVICE (SCUTAGE).]

C. M. A.

MANORIAL ACCOUNTS. See COURT ROLLS.

MANORIAL EXTENTS. See MANOR.

MANSFIELD, WILLIAM MURRAY, FIRST EARL OF (1705-1793), lord chief justice of England from 1756-1788, and leader of the tory party which opposed the great Pitt. Murray was called to the bar in 1731. In 1742, he entered parliament as member for Boroughbridge, and was created solicitor-general. In 1754 he became leader of the House of Commons, and attorney-general. In 1756 he was created a peer by the title of Baron Mansfield of Mansfield, Notts, and made chief justice of the King's Bench, an office which he held for over thirty years, until obliged to resign through bodily infirmity. During his long occupation of the bench, Lord Mansfield was busied in reforming many abuses of procedure, and was noted for his prompt and admirable judgments.

Mr. Justice Buller, in delivering an important judgment, observed that Lord Mansfield might be called "the founder of the commercial law of this country." In this sense his influence over business transactions has been long enduring.

A. L.

MANSUS (MANSUM), generally the chief mansion, manor house, hall, or court of a lord; but the word has several shades of meaning, including *farm*. Brompton (Twysden's *Decem Scriptores*, 913, 12) uses it for the house of a chieftain; Richard of Hexham writes of a *mansum* in Carlisle granted to his monastery, and of a *mansum* elsewhere, for use for the herring-fishery; Matthew Paris mentions a *mansus* suitable for a vicar of a church, in fact, a manse. It is used in other cases (Ramsey, *Cartul.* i. 284-5) in which it implies a house with land around it inhabited by a husbandman. For the word as a measure of land, see Stubbs, *Constit. Hist.*, i. 83, n. 2 (1880).

R. H.

MANTELLIER, PHILIPPE (1811-1884), a French judge and antiquary:—

Published first in the *Mémoires de la Société Archéologique d'Orléans* and later on separately, his *Histoire de la Communauté des Marchands fréquentant la rivière de Loire*, Orléans, 1863 and 1869, and his *Mémoire sur la valeur des principales Denrées et Marchandises, qui se vendaient ou se consommaient en la ville d'Orléans au cours des 14e-18e siècles*, Orléans, 1862.

E. CA.

MANUFACTURE. As in the cognate instance of the word factory (see FACTORY SYSTEM), a remarkable transformation has occurred in both the popular and technical meanings of the word manufacture. Originally this term signified hand labour, as its derivation indicates, but now more generally machine labour—exercised in the production of a saleable commodity. In the opinion of some authorities, indeed, this transformation has been complete. "Manufacture," says Dr. Ure (*Philosophy of Manufacture*, bk. i.), "is a word which in the vicissitudes of language has come to signify the *reverse* of its intrinsic meaning, for . . . the most perfect manufacture is that which dispenses entirely with hand labour." This statement seems rather too uncompromising in view of well-known facts. It was not quite correct to say then, and it is certainly not correct to say now, that either in technical or popular parlance manufacture invariably connotes the idea of machinery. It may be that factory legislation has shown a tendency in that direction, but it is also a tendency at issue with some among its own express enactments. Thus the Factory Acts Extension Act 1867 contained a definition of "manufacturing process" as "any *manual*

labour exercised by way of trade or for purposes of gain in or incidental to the making of any article"; and this conception is continued throughout subsequent acts without any further qualification. A distinction, indeed, is also made in them between *making* and *manufacturing*, which might appear to give some colour to the above presumption: commodities being held in a general way to be made or manufactured according as to whether the productive act is performed in a factory or workshop—that is to say, by hand only or with the assistance of other motive power; but from this general implication a considerable number of purely manual industries were nevertheless excepted from the first and made factory industries by law. Still less is Dr. Ure's definition acceptable to popular usage. In ordinary conversation it is commonly the comparative size of producing establishments which decides whether they shall be styled manufactories, and, more properly, the circumstance of whether the industries pursued there are carried on by means of congregated and divided labour. Mr. BABBAGE (*Economy of Machinery and Manufactures*, ch. xiii.) makes the distinction here under discussion in something like that way. "A considerable difference exists," he says, "between the terms *making* and *manufacturing*. The former refers to the production of a small, the latter to that of a large number of individuals"; and in fact it is difficult, in view of the rapid changes in productive methods together with the vagaries of statutory treatment, to ignore the element of magnitude as one necessary criterion of any sound working definition. Some novel and interesting views on this subject are propounded by Marx (*Capital*, pt. iv.). The organisation of manufacture, he contends, "has two fundamental forms—" that in which the manufactured article "results from the mere mechanical fitting together of partial products made independently," and where it "owes its completed shape to a series of connected processes and manipulations." He passes these two forms under review, naming them respectively heterogeneous and serial manufacture, and raising some nice distinctions between them, but to no great practical result. He is content to find, finally, in the division of labour "the distinguishing principle of manufacture"; and this, with some accretions born of modern mechanical methods of production, is probably as near to a specific idea of the nature of the process as, in the absence of a more authoritative definition of it, we can attain.

[Dr. Ure, *Philosophy of Manufactures*, Bohn's ed., 1861.—Charles Babbage, *Economy of Machinery and Manufactures*, 1846.—Karl Marx, *Capital*, English translation, 1887.—R. W. Cooke-Taylor, *Introduction to a History of the Factory System*, 1886, ch. i.—George Jarvis Notcutt, *The Factory and Workshop Acts*, 2nd ed., 1879.] R. W. C. T.

MANUMISSION. The act of freeing a slave or serf. A term adopted from Roman law. In the early Roman republic this could only be accomplished by a solemn public act in one of three ways: (1) *per vindictum*, a ceremony before the prætor; (2) *per censum, i.e.*, the enrolment of the slave's name on the quinquennial census of Roman citizens; (3) by testament; the slave becoming in each case a Roman citizen. Later, slaves were freed more simply, but with restrictions on the number freed; and freedmen were not admitted to full citizenship. Justinian however abolished these restrictions and made all freedmen citizens. In England, at the time of the Norman Conquest, the act of manumitting a serf was a symbolical one. The lord led his villein before the sheriff in a full meeting of the country or to some other public place such as a church, and there declared his intention of setting him free, invested him with the freeman's arms, the sword and spear, pointed to the roads lying open to him in all directions, and the ceremony was complete. In later times manumission was effected either directly by charter or indirectly by a collusive action at law, in which the serf was, with his lord's consent, made to occupy a position which could only be occupied by a free man.

[Du Cange, *Glossarium mediæ et infimæ Latinitatis*.—Pollock and Maitland, *History of English Law*, Cambridge, 1895.—Hunter, *Roman Law*.] A. E. S.

MANUOPERATIONES (MANOPERA). These form one of the three great classes of service anciently due from manorial tenants to their lords, the others being *araturæ* and *averagia*, ploughings and carryings. The *manopera* were rendered in actual labour, principally of a purely agricultural character, and are frequently described in cartularies under the terms *operationes*, *hand-dainæ*, *day-werke* or *week-work*. These were in a special way a mark of servile status, but like other indications of that kind, cannot be absolutely trusted without clear confirmatory evidence. In the 13th-century manorial extents, in the Ramsey cartulary, many instances of day-labour occur, with values of the service attached. In one case the labour of a man for five days in the week, on unspecified and therefore probably miscellaneous, services from 1st August to 29th September, is reckoned to be worth four shillings to the monastery, about a penny a day. In a case in the Gloucester cartulary, iii. 54, the valuation is only one half-penny a day.

[Vinogradoff, *Villainage in England*, pp. 287, 288.—Seebohm, *English Village Community*, 2nd ed., p. 79.—Ramsey Cartul., Rolls Series.] R. H.

MANZONI, ALEXANDER (1784-1873), the celebrated Italian poet and novelist.

Between 1821 and 1823 he wrote the work which entitles him to notice in these pages,

—*I promessi Sposi* (The betrothed Lovers), a romance. The story is based on an elaborate study of the social conditions of the people of Lombardy in the 17th century, of interest to the economic student. Manzoni was a fervent patriot.

He lived quite retired from the world. In 1834 he published his *Osservazioni sulla morale Cattolica*, a defence of his religion against the attack made by Sismondi in the 127th chapter of his *Italian Republics*. In 1842 appeared Manzoni's *Storia della colonna infame*, an historic appendix to the description of the Plague of 1630, which forms the most interesting episode in his *Promessi Sposi*.

In 1860, Manzoni was nominated a senator of the kingdom of Sardinia.

I promessi Sposi, storia Milanese del secolo xvii., Paris, 1827, 3 vols. 12mo. The best French translation is that of Rey-Dusseuil, Paris, 1828, 5 vols., 12mo, 1841, 12mo. English trans., the Minerva Library, ed. by G. T. Bettany, 1889.

[See Cossa on the success with which Manzoni maintained that the study of economics was not incompatible with sound moral principle.—Cossa, *Introduction to the Study of Pol. Econ.*, p. 107, Eng. trans., London, 1893.] A. L.

MARACHIO, Massimo (18th century), a Venetian ; one of the later absolute defenders of trade corporations. In 1789, the academy of agriculture, arts, and commerce of Verona offered a prize on the then much debated question : Is it advisable or not to allow trades to be united in corporations with power of control and privileges ; what are the advantages and disadvantages of this ?

Marachio sent in an essay, full of mistakes and prejudice, inspired with ideas of a most exclusive character, in defence of the corporations. He complains of certain abuses in them, but on the whole considers them excellent ; arguing in their defence against the many writers who opposed their privileges. He advocates minute division of trades, and attributes the faults of the system entirely to human weakness.

Istituto di tenere in corpi le arti riguardato nelle sue teorie e nelle sue forme, Venice, 1794.

[G. Alberti, *Le corporazioni d'arti e mestieri e la libertà del commercio negli antichi economisti italiani*, Milan, 1888.] U. R.

MARC. See Measures and Weights.

MARCET, Mrs. Jane (1769-1858), was the daughter of Francis Haldimand, a Swiss merchant resident in London. She married in 1799 Dr. Alexander Marcet, a physician of distinction, and published in 1806 *Conversations on Chemistry*, a book for beginners which had an enormous success. This was followed by *Conversations on Political Economy, in which the Elements of that Science are familiarly explained* in 1816, and by numerous other works, among which *John Hopkins' Notions on Political Economy*, 1833, and *Rich and Poor*, 1851, relate to the subject of this dictionary. The first edition of the *Conversations on Political Economy* is of some importance to the historian of economic theory, as it shows what were the accepted doctrines just before Ricardo's *Principles* appeared. J. B. Say remarks that it "presents very good principles in a very pleasant form" (*Traité*, 8vo ed. p. 42 n.), and Ricardo uses a phrase which implies that it generally keeps "on neutral ground" (*Letters*, ed. Bonar, p. 133). In regard to the theory of rent it shows how much of Ricardo's work was already done by the discussions in which he had taken part about the corn law. In regard to profits, it appears rather to halt between the Smithian and the Ricardian view. The rate of wages, it says plainly, "depends upon the proportion which capital bears to the labouring part of the population of the country" (p. 117). It contains J. S. Mill's first fundamental proposition respecting capital, almost in the same words—"industry is limited by the extent of capital" (p. 153). A second edition was called for very soon (Ricardo's *Letters*, ed. Bonar, p. 132), and published in 1817, and a seventh was reached by 1839. Though the fact does not appear to be recognised or stated in any case except that of Miss Martineau (*Autobiography*, vol. i. p. 138), it is probable that the work exercised considerable influence on the economic theory of the middle of the 19th century by helping to form the first impressions of young economists. The other two economic works are of less importance. The fact that they were intended, in part at any rate, for the use of the working class, shows a significant change of opinion, inasmuch as in the *Conversations* the principal interlocutor gives a ready adhesion to the exclamation of her pupil, "Surely you would not teach political economy to the labouring classes, Mrs. B. ?" The tendency of *Rich and Poor* is sufficiently indicated by the following passage from the preface : "These dialogues contain a few of the first principles of political economy, and are intended for the use of children, whether rich or poor. No portion of that science is more important to the lower classes, as it teaches them that the rich are their friends, not their foes."

[*Dict. Nat. Biog.* and works cited in text.] E. C.

MARESCOTTI, Angelo (1815-1892). Born in Lugo in Romagna, Italy. He first studied medicine, which he practised until 1848, he then took part in the wars of Italian independence, and was entrusted with important political duties in 1859. Afterwards he became a deputy and finally senator of the kingdom of Italy. He was appointed professor of political economy at the university of Bologna, which chair he held for many years. "Italy," wrote Minghetti, "owes her thanks to Romagnosi and Marescotti for making her first aware of that

harmony between the elements of law and economics which we find so well sustained by German economists."

Marescotti wrote many economic works, often brusque in style. Amongst them we note the following :—

Discorsi sulla economia sociale (4 vols.), 1856.—*Le finanze e gli organismi finanziarii*, 1867.—*Conferenze sull' economia studiata col metodo positivo*, 1878.—*I fenomeni economici e le loro cause*, 1880.—*La legislazione sociale e la questione economica*, 1886.—*L' economia sociale e l' esperienza*, 1888.

U. R.

MARGIN (in monetary transactions). On a security the difference between the amount advanced against goods or securities and their market value. In the practice of banking this ranges from 10 to 25 per cent according to the nature of the pledge, and the usual range of fluctuations in its value. Should the security become depreciated, the margin has to be kept up by an additional deposit. Speculation "upon margins" or "upon cover" is conducted upon the deposit of a certain amount of cash, usually 5 or 10 per cent of the value of the purchase, the transaction being closed immediately the cover has "run off." Business of this sort in relation to stocks or shares is usually conducted by brokers outside the stock exchange; and for speculation "upon margins" in produce of different kinds special institutions exist, as the Produce Clearing House in London; and similar organisations in other cities (see CLEARING SYSTEM).

R. W. B.

MARGIN (in economics) denotes a limit fixing the position of economic equilibrium. If, in mathematical language, the advantage of the economic man is regarded as a function of several variables, those values of the variables for which the value of the function is a maximum, are margins. There are thus as many margins as there are variable economic quantities. They may be classified under the heads (I.) production, and (II.) consumption.

I. Producers being divided into (A) the owners of AGENTS OF PRODUCTION, of three species, and (B) the ENTREPRENEUR; we have a corresponding classification of margins.

A. (1) There is the "final" or marginal disutility of labour. "Labour will be carried on until the increment of utility from any of the employments just balances the increment of pain" (Jevons's *Theory of Political Economy*, ch. v. p. 201, 2nd. ed.). It is argued by Prof. Patten (*Dynamical Political Economy*) that in a prosperous society where amusements are open to the labourer, and the choice between work and rest is not his only one, he will not work on up to the limit of marginal disutility; "disutility" implying positive pain, not merely diminution of pleasure. It seems best to define with Prof. Marshall "the discommodity of labour" as what "may arise from bodily or mental fatigue, or from its being carried on in unhealthy surroundings, or with unwelcome associates, or from its occupying time that is wanted for pastime, or for social and intellectual pursuits" (*Principles of Economics*, 3rd ed. bk. iv. ch. 1, § 2). (2) There is also for the capitalist a margin of investment; a point at which he will decline to forego present consumption for the sake of the "discounted pleasures" of the future (Marshall, *Principles*, bk. v. ch. iv. § 1 *et passim*). (3) The landlord's offer of his agent of production is not limited by a margin on the supposition that he has no other use for the land. But where he has a choice between letting the land and using it for his own pleasure or profit, there may be a margin limiting the amount.

B. The outlay of the entrepreneur on each factor is similarly pushed up to a margin. There will be (1) a "marginal shepherd" (Marshall), and (2) a marginal "dose" of capital. The idea of a marginal increment of land (3) is less familiar, but is discernible in the case of a manufacturer hesitating whether he will rent an additional site for a new building, or add a new story to an old building (Marshall, *Principles*, bk. v. ch. viii. § 6). The older writers employ the idea if not the term with reference not to the quantity, but the quality of the land rented (Ricardo, *Pol. Econ.*, ch. ii.; Mill, *Pol. Econ.*, bk. iv. ch. iii. § 5). The "margin of cultivation" denotes the lowest quality of land which is just worth the farmer's while to cultivate "below which the cultivation of land cannot descend" (Fawcett, *Manual*, bk. ii. ch. iii.).

The entrepreneur's products are sold either to other entrepreneurs, whose purchases have been already considered under the head of capital, or (II.) to consumers who extend their outlay on each commodity up to a certain margin. The margin of consumption is defined by the condition that in every branch of a consumer's expenditure, the "last" increment of money—that pound, or penny, about the application of which he hesitates—will procure the same amount of utility, called "marginal" or "final." Of course the marginal utility procured by a unit of money may differ for different consumers, and for the same consumers at different times.

Margin thus conceived as a point of maximum advantage is correlative to that quantity which it is sought to maximise; sometimes called a RENT or Surplus.

[The subject is treated by almost all mathematical economists, and by those who employ more or less clear mathematical conceptions without explicit symbols. Jevons's exposition of "final" utility in his *Theory of Pol. Ec.* forms an admirable introduction to the subject. The fullest and most accurate exposition of the different kinds of margin and their relations is to be found in Prof. Marshall's *Princ. of Econ.* A clear and simple statement, unencumbered by mathematical phraseology, is

given by Prof. J. B. Clark in his paper on the *Three Rents*. A similar praise is deserved by the writings of the Austrian school, so far as the general principle is not obscured by their peculiar doctrines of "pseudo-marginal" utility, "imputed" value, and other "casuistical complications." The marginal value of money is treated by Prof. V. Pareto and Signor Barone in the course of a series of articles in the *Giornale degli Economisti*, which are summarised in the *Economic Journal* for March 1895. The unit in which marginal utility is to be measured is considered by Dr. Irving Fisher in his *Mathematical Investigation*. He has exhibited the analogies between economic margin and physical equilibrium. See also *The Alphabet of Economic Science*, 1888, by Wicksteed, who first used the phrase "marginal" instead of "final utility," and FINAL DEGREE OF UTILITY.] F. Y. E.

MARGINAL LABOUR. See MARGIN.

MARGINAL UTILITY. See FINAL DEGREE OF UTILITY and MARGIN.

MARIANA, JUAN DE (1536-1623). This celebrated Jesuit father, best known by his *Historia de España* and his apology of tyrannicide in his treatise *De Rege et Regis Institutione*, lectured during his youth on theology in Rome and in Sicily, and on the doctrines of St. Thomas Aquinas for five years at the university of Paris. At the end of an absence of fifteen years he returned to Spain and settled in Toledo, where he resided until his death. The publication of his treatise *De Monetæ Mutatione*, which he himself translated into Spanish, brought him into trouble, and he was confined for a year in a convent in Madrid. Some bold strictures on the Society of Jesus, to which he belonged, entitled *Discursus de Erroribus qui in formâ gubernationis Societatis Jesu occurrunt*, written after the elections of the Neapolitan Acquaviva as General, bitterly complained of the ruin of Spanish influence at Rome.

In 1609, at the date when Mariana wrote his treatise *On the Alteration of Money*, the Duke of Lerma was flooding Castile with masses of debased small coins (*vellon*), a practice which, under the influence of the so-called *arbitristas*, or financial schemers, did not abate until the accession of the Bourbon dynasty. Charles V. and Philip II., although not irreproachable, had been far more cautious in this respect than their successors. Mariana fearlessly maintained that "the king, having no right to tax his subjects without their consent," had no right to lower the weight or the quality of the coinage without their acquiescence. "Two things are certain: the king enjoys the prerogative to alter the outward form of the coins, provided he does not make them worse than they were before; . . . secondly, in case of necessity —as, for instance, during a war—he may be allowed to lower the coinage under two conditions —the first that this be done for a short time not exceeding the period of necessity; the second that, the necessity being over, due damages be granted to the people who have suffered (ch. iii.)." But, "money having two values—one intrinsic and natural which depends on the purity and weight of the metal, to which may be added the cost of the coinage, which is worth something; and a second value, which may be called legal and extrinsic, fixed by the prince, . . . the real use of money — what has always been done in well-managed states—is secured when these two values are exactly adjusted (ch. iv.)." The following chapters give historical details on the Spanish mint.

Three chapters of the *De Rege* are also devoted to economic subjects: taxation, the means of subsistence, and the poor; here also Mariana evinces his strong spirit of justice, as when he opposes taxation of necessaries, but his views on foreign imports, the cultivation of corn, etc., are mainly those of his contemporaries.

The tract on money was printed at Cologne in 1609, and the *De Rege* at Toledo in 1599 and Frankfort in 1611. Both are published (in Spanish) in the *Obras de Mariana* in the *Coleccion de Autores Españoles* of Rivadeneyra (2 vols., Madrid, 1854).

[Dr. Contzen, in his *Geschichte der volkwirtschaftlichen Literatur im Mittelalter* (1872), deals almost exclusively with the treatise *De Rege*, of which he gives a summary analysis (pp. 207-222). —See also the article "Mariana" in Bayle's *Dictionnaire Historique*.—Hallam, *Literary History of Europe*, ii. pp. 142-144 (edit. 1872).—Colmeiro, *Historia de la Economia Politica en España*, ii. pp. 476-484.] E. Ca.

MARINE INSURANCE. See INSURANCE, MARINE.

MARITAGIUM. Usually *maritagium* means the feudal right of a guardian to give in marriage his ward, whether male or female, though the word often means the dowry or estate which passes to the husband with the lady. At other times it is used in the sense of *valor maritagii*, the sum the guardian could get for the match by sale. It is asserted that in the reign of Henry III. a sum of 10,000 marks was paid on one occasion. On the other hand in the Pipe Roll of 5 Hen. II., p. 65, there is a payment of 5 marks. An interesting case which illustrates the subject, and supplies original documents, may be found in the *Chronicon Petroburgense*, Camden Society, 1849, pp. 61, 62, and 72-77.

[Ducange, *Glossarium mediæ et infimæ Latinitatis* (Henschel and Favre).—Hallam, *Middle Ages*, c. 2, pt. 1.] R. H.

MARITIMA ANGLIÆ is defined by Cowell as the revenue accruing to the king from his rights over the sea. It included such items as wreck and fish royal, the latter being all whales and sturgeon cast upon the seashore. This revenue was originally accounted for by the sheriff of each county, but in later times was entrusted to the admiral (see DROITS OF ADMIRALTY).

[Cowell, *Interpreter*.— Blackstone, *Commentaries*.] A. E. S.

MARK (English money). The Anglo-Saxon mark, as well as the half-mark, was money of account only, in value 13s. 4d., reckoned in

either gold or silver as equivalent to 3600 grs. troy of silver. Its value early in the 10th century was estimated at 100 pennies, but in the 12th and afterwards the mark was worth 160 pennies. It was a denomination probably of Danish origin, and is first found in 878.

[Eccleston, *Introd. to English Antiquities.*—Ellis, *Introd. to Domesday*, i. 164.] E. G. P.

MARK (GERMAN). In 1873 the gold mark, of 100 pfennige, was adopted as the standard of value, and as the money of account, of the new German Empire.

The mark consists of ·3982 grammes (6·146 grains) of gold 900 fine, and is equal to English standard gold of the value of 11·747 pence.

There is no standard coin of less value than five marks, the metallic currency consisting of the following pieces:

COINS OF THE GERMAN EMPIRE.

Standard Coins, Gold.

Denomination.	Weight.		Fineness.	Value in gold 916·6 fine at £3:17:10½ per oz.
	Grms.	Grains.		s. d.
Twenty marks	7·965	122·917	900	19 6¾
Ten marks	3·982	61·458	900	9 9¼
Five marks	1·991	30·729	900	4 10¾

Subsidiary Coins, Silver.

Denomination.	Weight.		Fineness.	Value in silver at 5s. 6d. an oz.
	Grms.	Grains.		s. d.
Five marks	27·777	428·676	900	4 10¾
Two marks	11·111	171·470	900	1 11½
Mark	5·555	85·735	900	11¾
Fifty pfennige	2·777	42·867	900	5⅞
Twenty pfennige	1·111	17·148	900	2⅛

In addition to the above gold and silver coins there are nickel pieces of the nominal value of 20, 10, and 5 pfennige, and copper pieces of 2 pfennige and 1 pfennige.

The valuation at which the subsidiary silver coins are current bears practically the same ratio to that of the gold pieces as in the case of British coin; the value of the standard gold mark exceeding that of the silver mark piece, when reckoned at 5s. 6d. an oz. troy, to the extent only of ·27d.

The total amount of German imperial coin issued since its introduction in 1873 to the 31st December 1903 is given below. The coins have been manufactured at the mints of Berlin, Munich, Dresden (now Muldene Hütte), Stuttgart, Carlsruhe, Hamburg, Hanover, Frankfort, and Darmstadt.

IMPERIAL GERMAN COINAGE, 1873-1903.

	Marks.	£
Gold	4,000,677,405	200,033,871
Silver	699,458,144	34,972,907
Nickel	75,935,769	3,796,788
Bronze	16,136,884	806,844
Total	4,792,208,203	239,610,410

F. E. A.

MARK SYSTEM, THE, is the term customarily used to designate the social and agrarian organisation of society which, it has been believed, preceded the manorial and feudal systems, and formed the basis upon which those systems rested (see FEUDALISM; MANOR). The unit of this system is the mark, a region greater or less in extent, independent, isolated, and occupied by a group of self-governing cultivators, politically free, who held and cultivated land in common with periodical distribution of the arable. The essential characteristics of the mark system are, therefore, personal freedom, self-government, and communal ownership of land.

The mark theory has occupied so important a place in modern historical and economic discussion that a brief résumé of the circumstances of its origin and development is necessary. The theory did not spring full grown upon the world; that portion of the theory which relates to the freedom and the social status of the primitive marksman has a long history behind it. *A priori* reasoning has tended at all times to give to man at the beginning of his economic and political development certain natural rights. Independent of and preceding any theory of the mark, these accepted teachings regarding primitive man were based upon the ancient philosophy, the Bible, and the *jus naturale* that entered into the mediæval thought at the time of the reinvigoration of the Roman law. This idea of original freedom was present in the dogmas of the church, and was vaguely and speculatively held by the philosophers of the 18th century. Through the teaching of Rousseau it became a political power, while it entered the economic system through the speculations of the PHYSIOCRATS. From the same source there sprang the cardinal doctrine of the romantic school, namely, the freedom of the natural man; and the whole theory became more definite when it was used as a political weapon against reactionism in France and Germany, and for reform in England by the liberal school. This school in its analysis of the fundamental rights of man brought into being the imposing figure of the primitive Teuton, thus localising the theory. Grimm and others, as the result of their studies in Germanic origins and philology, believed that the primitive Germans lived in groups, the members of which were united by ties of blood and religion. When this point was reached the

agrarian element only was needed to complete the theory.

In the period from 1840 to 1850 certain historical students, Olufsen, Haxthausen, and Hanssen, began to investigate the subject of the village communities of Denmark and lower Germany; and in 1854, after years of penetrating and exhaustive study, von Maurer published the results of his researches in the same field. In consequence of these investigations and of the conclusions drawn from them, the group, *sibbe* or *sept*, of Grimm and his fellow scholars became a part of the primitive social unit, the village community, with its open fields, communal land-holding, and co-operative agriculture. In the meantime in England, Kemble, representing the new historical interest in Anglo-Saxon institutions, the desire for precedent in the reform agitation of the period from 1832 to 1846, and, under the stimulus of German romanticism, the spirit of German historical investigation, had presented, five years before von Maurer's work appeared, a similar theory for England. His theory, however, was characterised by vagueness and by absence of detail. To him the original settlement was based on possession of land only, and the smallest and simplest of the divisions was the mark. The word mark, as used by Kemble, connoted:— first, the forests and wastes beyond the arable, that is, the boundary land that separated the possessions of one community from those of another; secondly, the whole district occupied by the community; and finally the community itself, a group of families or households, settled on the plot enclosed by the boundary. The original basis of Teutonic society was, he thought, this community, a voluntary association of freemen, originally united by ties of blood—a relation, however, that in the process of time tended to give way to territorial and political interests. This group, zealously excluding others, developed and carried on a system of cultivation for the good of all its members. Various marks covering England, existing in independence and isolation, seised of full power and authority to regulate their own affairs, differed greatly in size, powers, and customs. Each possessed a court, and exercised supreme jurisdiction. Kemble was indebted for the first idea of the mark to the writings of Zeuss and Grimm, and he found evidential support for it in the occurrence in Beowulf and the charters of the words *mearcmôt*, *mearcbeorh*, *mearclond*, and furthermore in patronymics, and on these he laid great stress. He represented the marks as "great family unions comprising households of various degrees of wealth, rank, and authority; some in direct descent from the common ancestors, or from the hero of the particular tribe, others more distantly connected, through the natural result of increasing population; some admitted into communion by marriage, others by adoption, others even by emancipation, but all recognising a brotherhood, a kinmanship, or sibsceaft; all standing together as one unit in respect of other similar communities; all governed by the same judges, and led by the same captains; all sharing in the same religious rites, and all known to themselves and their neighbours by one general name" (*Saxons in England*, vol. i. pp. 56-57).

Beyond the evidence above mentioned, Kemble brought forward nothing to support his view. But von Maurer in Germany did what Kemble had not done, he gave the minutest detail of the social and agrarian life, and supported it with what seemed to be indisputable evidence, namely, the customs of the 11th and 12th centuries, which he considered the survivals of an earlier age, and the occasional statements in earlier documents, which he interpreted in the light of the mark theory. In 1869 Nasse strengthened the theory by further English evidence, drawn from the laws and charters. But he, taking the existence of the mark for granted, concerned himself chiefly with the agrarian aspects; and, although he recognised the presence of free peasant proprietors and found traces of communalism, he hardly touched the questions of freedom and communal ownership.

It was left for Sir Henry Maine and Emile de LAVELEYE to extend and to give greater currency to the conclusions already reached. In 1871 Maine, in his *Village Communities in the East and West*, both summarised the views thus far presented by Maurer, Nasse, Landau, Gessner, Haxthausen, and others, and widened the field of investigation by evidence collected in India. Here he saw, not survivals of primitive life, but actual communities, living types of the western mark. The Indian village community became of great importance, and Maine threw out suggestions for further investigation in calling attention to the village communities of America and to the house communities of the South Slavonians. This phase of the subject found expression and elaborate extension in Laveleye's *De la propriété et de ses formes primitives*, 1877, in which was gathered evidence from almost every part of the globe to show the universality of the mark system and of its analogues. When this point had been reached historical scholars very generally accepted the theory. Maine readily transformed the mark into the manor through the extension of Kemble's idea regarding the first marksman; and Freeman and others, following further suggestions of Kemble, and conceiving of history as a continuous development, brought forward the theory that the mark was the germ whence had evolved the life of the state, the protoplasmic cell, containing within itself, as it were, the laws of its own growth.

But in a theory based so largely upon subjective foundations a reaction was inevitable. As historical criticism became keener the evidence appeared more and more insufficient and incohesive; with the change of political ideals, the question came to be recognised as strictly historical; exaggerations due to over-enthusiasm underwent correction, and gradually the problem was reduced to its proper proportions. The mark as drawn by Kemble and von Maurer is not at present supported by any historical scholars. The attack, as thus far completed, has destroyed the idealism of the primitive mark; it has disproved the exaggerated freedom of the Teuton, and the existence of the first marksman and the court of the mark; it has denied the Kemble-Maurer interpretation of the word *mearc* itself, and has thrown doubt upon the supposed symmetry of the primitive land system; it has made prominent the tribal character of early Teutonic life, and has questioned the independence and self-consciousness of the primitive folk; it has removed from the support of the theory the evidence from America, Russia, and Switzerland, and, through the work of Baden-Powell on *The Land Systems of British India*, it has struck a heavy blow at the accuracy of the evidence derived from the east; and, finally, it has demonstrated that except for a judicious use of the comparative method, the evidence for each country must be interpreted by itself.

The movement against the mark theory was practically begun by Seebohm in 1883 and by Fustel de Coulanges in various writings from 1886 to 1890. By them the two most essential characteristics, freedom and communal ownership, were categorically denied, and a theory of primitive serfdom and private property was substituted. This has given rise to a new school, which, denying the existence of the free village community, has connected manorial institutions directly with the tribal, has recognised a predominant influence of Roman custom, has set up the manor as the prevailing type of local life and has declared the mass of the population to have been originally in serfdom.

A large body of the more conservative historians still advocate, however, a modification of the old doctrine, and believe that Seebohm, Fustel de Coulanges, and their followers are too extreme in their views. The best representatives of this school, Vinogradoff, Round, Glasson, and Flach, are willing to admit the presence of private property, inequality, and in a measure serfdom, but assert the existence of a free village community stage differing from the tribal system on the one hand and the manorial on the other. Although recognising, at a later time, the coexistence of the village community and the manor, they would still preserve the essential characteristics of the mark system without its exaggerations.

[Brentano, *Volkswirthschaftslehre*, 1893.—V. Maurer, *Einleitung zur Geschichte der Mark, Hof, Dorf, und Stadtverfassung*, 1854.—Kemble, *Saxons in England*, 1849, new ed. 1876.—Nasse, *Ueber die mittelalterliche Feldgemeinschaft und die Einhegungen des sechszehnten Jahrhunderts in England*, 1869, transl. 1871.—Maine, *Village Communities in the East and West*, 1871.—Laveleye, *De la propriété et de ses formes primitives*, 1877, new ed. 1891.—Seebohm, *The English Village Community*, 1883; *Tribal System in Wales*, 1895.—Fustel de Coulanges, *Recherches sur quelques problèmes d'histoire*, 1886; *Le problème des origines de la propriété foncière*, 1889; *L'Alleu et le domaine feodal*, 1890.—Glasson, *Histoire du droit et des institutiones de la France; Les communaux.*—Vinogradoff, *Villainage in England*, 1892.—Andrews, *Old English Manor*, 1892.—Flach, *Origines de l'ancienne France*, 1893.—"Village Communities in Spain," *Quarterly Review*, October 1895.] J. M. A.

MARKED CHEQUE. In London, after the clearing house closes, the bankers send round and present at the various offices any cheques that have been shut out of the clearing, a cashier being in waiting at each bank to "mark" or "answer" the cheques. Marked cheques are payable in the first clearing of the next day, and cannot be refused for any reason. In some places it is the practice of bankers to mark cheques drawn upon them by writing across the face "Good for £ ," the marking being officially signed. A cheque so marked is available for completing important transactions, thus avoiding the risk and trouble of carrying cash.

In the United States, and particularly in New York, the practice of marking, or "certifying," cheques has been carried to very great lengths. Certified cheques are largely used in daily business, especially by brokers, and the certification is given, in many cases, against securities, or even only on the credit of the drawer. By the National Bank Acts, banks organised under that system are prohibited from certifying cheques for amounts beyond that which the drawer has at his credit at the time, but banks organised under the laws of the state of New York are subject to no restrictions in the matter. By judicial decisions the certification of a cheque is an acceptance, and renders the bank liable indefinitely as to time of presentment.

[For extent of the practice in New York, see *Report, Comptroller of Currency*, Washington, 1882; also *Journal of Inst. of Bankers*, vol. iii. p. 400; and vol. v. p. 278.] R. W. B.

MARKET AS PLACE OF SALE. Determinate areas and times for intercourse between buyers and sellers were a necessity of trade before communication and transportation were facilitated by the inventions of the present century; and, even now, for the sale of some commodities, such as live stock and dairy produce, they are but slowly losing their practical importance, in spite of the modern middleman and shopkeeper.

In the middle ages the right to carry on trade, or to permit it to be carried on, at a particular time and place, was called, like the place itself, a *market* (Fr. *marché;* Ger. *Markt*); and this term included in its widest sense both the weekly or semi-weekly market, lasting but a few hours, and the more considerable annual mart, lasting several days, known as a fair (Fr. *foire;* G. *Messe, Jahrmarkt*). Coke lays it down that "every fair is a market, but every market is not a fair." The term *market* was, however, more commonly reserved for the smaller and more frequent assembly (Ger. *Wochenmarkt*); and these alone will be considered here (see FAIRS AND MARKETS; MEDIÆVAL FAIRS).

In England, during the later middle ages, not only did every borough possess a market, but also the lords of most considerable and of many inconsiderable villages; and the right to demand toll thereat was a valuable franchise. From an early date the right to establish a market was held to belong exclusively to the crown; and no market could be defended in the courts save upon the ground of such a grant or of immemorial prescription. In the 10th century an attempt seems to have been made by repeated decrees of the witan to limit all sales to "ports" or market-towns, a measure closely connected with the insistence upon the witness of "credible" men to every transaction. But this policy was either defeated or abandoned, for the number of markets in the rural manors evidently began to increase about this time. The Domesday Survey records some fifty markets or fraction of markets (*i.e.* rights to receive fractions of the profits), and it registers many complaints as to the setting up of markets without authority and the exaction of undue tolls. The pecuniary advantages derived from the possession of a market were, however, so large that every considerable magnate sought to obtain a grant from the crown, and many did not scruple to set up markets without waiting for permission. The chief obstacle to their success lay in the vested interests of markets already established. Before making a grant it was usual to inquire, on a writ *ad quod damnum*, whether it would be prejudicial to existing rights. When a market was established without a grant some neighbouring lord or borough was pretty sure to bring a suit against the new rival on account of the "nuisance" or "damage" he occasioned. The rule laid down by Bracton is that a market becomes a nuisance if set up within six miles and two-thirds of one already existing, on the ground that sellers could travel on foot that distance, sell their wares, and return within the compass of a day. The illegal assumption of market rights was probably put an end to by the *Quo Warranto* inquiries of Edward I. Grants of market privileges were made in the 13th century in more than 3000 instances, in the 14th in more than 1500. By that time the country was pretty well supplied with such facilities for trade; so that in the first 82 years of the 15th century only some 100 grants are to be found. By the first statute of Westminster (3 Ed. I. c. 31), the king was empowered to take into his own hand the franchises of markets where outrageous tolls were demanded. Markets were commonly held during the earlier centuries in churchyards and on Sundays. The former custom was prohibited by the statute of Winchester (13 Ed. I.); the latter was abandoned in many places early in the 13th century, as a result of the moving sermons of Eustace de Flay, and was finally prohibited by 27 Henry VI. c. 5. It was in the markets and by the market officers that the men of the middle ages sought to introduce and maintain their simple-minded ideals of trade. All the rules with regard to Forestalling (see FORESTALLERS AND REGRATORS) aimed at bringing consumer and producer as nearly as possible face to face in the open market. Yet while restrictive in some respects, in others market intercourse led to a relaxation of previous restraints. Thus during the period of the dominance of the merchant gild it was common to suspend on market days, in whole or in part, the regulations limiting freedom of trade on the part of non-members. And the same tendency is illustrated by the growth in England and abroad of the rule of MARKET OVERT, by which a *bona fide* sale, made on the market day and at the place assigned for the market, transfers the legal property of the thing sold to the vendee, so that his title is good against all save the king, however defective that of the vendor may be (see also MANOR).

[The English material for the history of fairs and markets is conveniently brought together in the Report by Messrs. Elton and Costelloe for the *Royal Commission on Market Rights*, vol. i. (1889). It has a large appendix of documents, a calendar of grants from 1 John to 22 Ed. IV., lists of fairs in 1792 and 1888, and a list of general and local acts of parliament. See also the chapter on "The Town Market" in Mrs. Green's *Town Life*, vol. ii. (1894). In many English and continental towns a stone cross was erected in the centre of the market place in the later middle ages. For a description of the farmers' wives and daughters sitting with their butter and eggs on the steps of the cross "until a certain hour in the afternoon, after which, if all their goods were not disposed of, they took them unwillingly to the shops and sold them at a lower price," see Mrs. Gaskell's novel of *Sylvia's Lovers*, ch. ii. These market-crosses were often "polygonal buildings with an open archway on each of the sides, and vaulted within, large enough to afford shelter to a considerable number of persons; of these good examples remain at Malmesbury, Salisbury, Chichester, Glastonbury, etc." (Parker, *Concise Glossary of Architecture, s.v.* "Cross"). In more

recent times market halls have been generally erected by municipalities, though the market women can by no means always be induced to pay for the privilege of shelter.

There has of late been an animated discussion among German scholars as to the part played by the market in the growth of the municipal constitution. A summary of the evidence and arguments on one side will be found in L. Goldschmidt, *Universalgeschichte des Handelsrechts* (vol. i. of his *Handbuch des H.*, 1891), pp. 126 *seq.*, who goes so far as to say "The town tribunal is originally and essentially the market tribunal, the town itself a market, the town peace a market peace." For the keenest criticism of this view, see G. von Below, *Der Ursprung der deutschen Stadtverfassung* (1892).] W. J. A.

MARKET (on the stock exchange). The stock exchange is a remarkable case of development of the original meaning of a "market." Within the stock exchange the consol market, the home railway market, the foreign stock market, the American market, the miscellaneous market, the mining market, with its off-shoot the "Kaffir" market for South African shares, —each is spoken of as an assemblage of dealers standing ready to buy or sell the various stocks and shares indicated by the titles of their respective markets. Outside the stock exchange a market is not so regarded. A person wishing to buy or sell sends in his broker to inquire as to "the state of the market" in consols, or American shares, or mining shares, as the case may be. The broker goes to the dealers, knowing exactly where to find his men, and gets their quotations of price and tendency, and, what is important, he has the opportunity to examine the prices "marked"—on a board provided for the purpose—at which previous business had been done. Thus it is possible to get at once the record of price and the personal opinions of competitive dealers, both being elements of a market. Further, the quotations of price which the dealer gives are not simply an expression of opinion; if he quotes a price for a given amount of stock or quantity of shares, he must deal. For example, if the dealer quotes 90 to 90¼ for a specified quantity of Italian bonds of £100 each, he must take them at £90, or sell them at £90 : 5s. Nothing could be a more definite quotation, a more exact reflection of the actual state of the market. There is little possibility of picking up stock cheaply, as a connoisseur could pick up a fine old Italian violin from some ignorant villager; on the other hand, there is little risk of fraud upon an ignorant seller. The member of the stock exchange who attempted to cheat an outside seller, or his broker, would be subject to the severest censure from the committee for general purposes (see EXCHANGE, STOCK), and would be sent to Coventry by the more scrupulous of his colleagues. Nothing, then, could be a more complete instance of a market than is given by the stock exchange. We get records or markings, the opinion of a concourse of dealers, competition, and a check upon dishonest dealing.

[For defin. of market, Jevons's *Theory of Pol. Econ.*, ch. iv.; *Theory of Exchange*. Also Cournot, *Recherches, etc.*, 1838, p. 55 n.—Giffen, *Stock Ex. Speculation*. See Art. HIGGLING OF THE MARKET.] A. E.

MARKET OVERT. The law of market overt constitutes a fitful and illogical application to English law of the French maxim "en fait de meubles, possession vaut titre." The general rule in England is that no one by transferring goods to another can give a better title than he himself possesses. But when a person in good faith buys goods in "open market" and according to the usages of the market, he acquires a good title to them, in spite of any want of title in the seller. The rule only applies to ancient, and not to modern statutory markets. All sales by shopkeepers in the city of London, when the goods themselves are in the shop, are by custom sales in market overt, but the custom does not extend beyond the city limits. Hence if a stolen watch be sold in Fleet Street, the buyer may get a good title to it, while he gets no title to it if he buys it in the Strand. Wholesale mercantile transactions, it may be noted, are to a great extent protected by the Factors Act, 1889.

[Benjamin *on Sales*, ed. 4, p. 9, and the *Reports of the Markets and Fairs Royal Commission*, 1888.] M. D. C.

MARKET VALUE. See VALUE.

MARKETS AND FAIRS. See FAIRS AND MARKETS.

MARKKA (Finland). The metallic currency of Finland consists of the following coins (imperial decree of 8th November 1865):

Denomination.	Weight grammes.	Millesimal Fineness.	Intrinsic Value.	
			English Standard. Gold: £3:17:10½ per oz., 916·6 fine. Silver: 5s. 6d. per oz., 925 fine.	French Standard. Gold francs, 900 fine. Silver francs, 900 fine.
Gold—			s. d.	francs.
20 markka	6·452	900	15 : 10½	20
10 "	3·226	900	7 : 11·125	10
Silver—				
2 markka	10·365	868	1 : 8½	1·99
markka	5·182	868	10½	·90
50 penni[1]	2·549	750	4½	·42
25 "	1·274	750	2	·21

There are also bronze coins of the nominal value of 10, 5, and 1 penni.

The standard gold markka (not a coin) is the

[1] The piece of money which, reckoned in French standard silver francs, is only worth ·42 franc, is in reality a token coin passing as the half of a *gold* standard markka.

equivalent of the gold franc, that is to say, about 9½d., or 25·22=£1, the penni being of the same nominal value therefore as the French centime. F. E. A.

MARLO, KARL. This was the pseudonym under which Karl Georg WINKELBLECH (1810-1865) published his economic writings. Winkelblech was born at Ensheim, near Mainz, studied physics and chemistry at Giessen—the latter under Liebig—became *privat-docent* at Marburg in 1837, and in 1843 was appointed professor of chemistry in the higher trade-school at Cassel. In early life he showed strong literary tastes, carrying about with him habitually a volume of Goethe, Schiller, or Lessing. The impulse which made him an economist came from a German workman whom he met during a journey in Sweden undertaken for technical objects. This casual companion drew so vivid a picture of the sufferings of the class to which he belonged that Winkelblech resolved to devote for the future his most earnest studies to the condition of the workers, rather than, as previously, to the instruments and processes of industry.

His principal work, which remained unfinished at his death, is *Untersuchungen über die Organisation der Arbeit, oder System der Weltökonomie*, 3 vols., 1850-59. It produced little effect in Germany, perhaps—as Lippert suggests—in consequence of the social discouragement and apathy then prevailing. It was highly praised by Schäffle in his *Kapitalismus und Socialismus* (1870), and the attention thus drawn to it led to the publication, in 1884-86, of a posthumous second edition, enlarged and containing a biographical sketch of the author.

The book opens with a history and criticism of the progressive life of the most important civilised nations—France, England, the United States of America, and Germany, and a study of their comparative ripeness for what he regards as a necessary transformation of the basis on which their economic systems rest. The tendency of modern changes in the industrial sphere had been to abolish the smaller capitalists, and to create a great mass of *prolétaires*, who can never hope to attain social independence, and whose wages will never suffice for much more than to sustain their lives. Employment, too, has become uncertain, and the increased division of labour has made work monotonous and uninteresting. The working classes do not enjoy any true domestic life; wives and mothers spend their days in factories, and cannot superintend their families; and morality suffers from the employment of the younger women in manufactures. The physical condition of these classes is deplorable, their dwellings are overcrowded, their food is insufficient, and drunkenness, improvidence, and a spirit of revolt are the necessary results of their entire position. The modern *prolétaire* is the successor of the ancient slave and the mediæval serf; and it may be doubted whether he is more advantageously situated than those who had at least an assured existence. This is, it will be seen, the picture habitually drawn by the socialists, in which the dark side of our industrial life alone appears. But it is real enough in many of its features to make us ask anxiously for the remedies which the author suggests.

According to his view of economic history, there have successively prevailed two different ideas of right, which he calls the Pagan and the Christian respectively. Under the reign of the former it was regarded as natural and legitimate that the masses should be sacrificed to ensure enjoyment and splendour to the few; whilst the Christian idea asserts the equality of all, and requires that each member of the community should have a share of the produce of the social labour proportional to his useful participation in the work. The former principle, to which he gives the name of *Monopolismus*, is represented by ancient slavery,—and its later modifications, serfdom and forced labour,—and continued to reign down to the French Revolution. The Christian principle, though accepted by the general conscience, has as yet only partially influenced practice; privileges, monopolies, and gambling speculation still exist, sometimes in aggravated forms. Two efforts have been made to realise the new principle—Liberalism, aiming at universal liberty, and Communism, aspiring after a *régime* of equality. But both these systems are one-sided and erroneous. Liberalism, based on the merely negative idea of unlimited competition, after demolishing the old privileges, has become the parent of plutocracy, whilst communism, distributing products according to wants, not services, and so weakening the motives to exertion, would infallibly beget indolence. These opposing systems he sought to reconcile, and to unite true liberty with true equality by the establishment of a *panpolismus*, the aim of which would be to raise to the highest attainable level the self-development and legitimate life-enjoyment of all the members of the community. Under this *régime* the obligation to labour will be universal, every one will have a right of access to the means of production, and will be supplied with work, and each will obtain for his personal use the entire amount of his contribution to the common stock. The state will take into its hands not only railways and roads, postal communication, water-supply, banks, and educational institutions, but also forestry, mining, fisheries, and trade—so far as it has to do with such raw products or manufactures as are fitted for exhibition and sale in warehouses. Under private management will be agriculture, cattle-rearing, and trade and transport in the narrower sense; but these occupations will be carried on not by independent speculators, but by guilds or industrial societies (*Zünfte*), organised by the state. Existing capitals in the possession of individuals at the instalment of the new system will not be interfered with; but its operation will prevent their subsequent increase. The instruments of production will be common property, but the instruments of enjoyment—the fruits of industry—will be the property of individuals. Foreign competition will be limited by protective duties. Winkelblech admits that his own, like every other social plan, must fail, if provision is not made against an undue multiplication of the workers. "Whoever," he says, "promises to the people to

rescue them from wretchedness without setting himself against over-population, excites expectation which can never be realised, and should be looked upon as a dangerous demagogue." Adopting the theory of MALTHUS, Winkelblech regards the practical safeguards proposed by its author as altogether insufficient. Agreeing with him in advocating the suppression of a state provision for the destitute, he would go farther, and would enforce by law the abstinence from marriage in certain cases, which his predecessor only contemplated recommending as a moral duty. He would make it obligatory upon every member of his societary system to contribute to an assurance fund against the consequences of age, sickness, or misfortune, and for the maintenance of the widow and orphans he might leave at his death. No one should be permitted to marry until he could show that he had sufficient means to guarantee his payments to such a fund, and additions should be made to this "marriage capital" according to the number of his children. Such individual cases of distress as might continue to exist under the new order of things would be left to be dealt with by private beneficence.

ROSCHER speaks of Winkelblech as one of the most solid (*gründlich*), moderate, and conscientious of the socialists, and he appears to deserve that description. He took no part in political agitation, but maintained throughout the attitude of a thinker. His denunciations of the existing economic system were dictated, not by class-hatred but by genuine sympathy with the working people. But he expected too much from his new social order, even if it were possible to establish it. As Cossa remarks, whilst he saw clearly the difficulties which every form of socialism has to encounter in its almost certain results of insufficient production, excessive consumption, and the stimulus to an indefinite increase of population, he had at the same time a very undue degree of confidence in the precautions he suggests against those dangers.

[Lippert in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 1021—Cossa, *Introd. to the Study of P. E.*, p. 539.—Rae, *Contemporary Socialism*, ch. ii.—W. H. Dawson, *German Socialism*, p. 48.] J. K. I.

MARMONTEL, JEAN FRANÇOIS (1723-1799), a distinguished 18th-century prose and verse writer.

Voltaire encouraged him to produce plays for the stage, and by the favour of Madame de Pompadour, he was appointed clerk of public buildings. In 1763 he entered the Academy, to which he became Perpetual Secretary. He was a member both of the electoral assembly of 1789 and of 1797, but was degraded for his moderation. His connection with political economy lies mainly but not entirely in the fact of the emotional interest the perusal of his *Mémoires* excited in the mind of J. S. Mill, at a very critical stage of that writer's career. His *Mémoires* have allusions to QUESNAY and other matter of economic interest.

[Mill's *Autobiography*, p. 140, ascribing to the experiences of this period "marked effects on my opinions and character"; also see Cossa, *Introd. to the Study of Pol. Econ.*, translated by L. Dyer, London, 1893, p. 331.—Marmontel's *Works* in 32 volumes, were published in 1787, 8vo.] A. L.

MAROGNA, CONTE GIAN GIUSEPPE (18th century), born in Verona; wrote on trade corporations for the prize competition offered for this subject by the academy of Verona, 1789 (see MARACHIO).

Marogna holds an intermediate place between the advocates of free labour and the supporters of old restrictions; he shows the disadvantages of some of the trade corporations, and suggests their partial abolition. Desiring to promote the improvement of manufactures, he suggested the uniting in trade corporations only those crafts which required skill and intelligence, leaving the rest free, and suppressing the corporations of merchants and dealers. For these latter, rather than for those of artizans, he fears the injurious effect of monopoly. Though Marogna advocates abolishing the corporations of merchants, he does not support free trade, but, on the contrary, recommends state interference in determining prices.

Sul governo delle arti-ragionamento, Verona, Moroni, 1792. [G. Alberti, *Le corporazioni d'arti e mestieri, e la libertà del commercio negli antichi economisti italiani*, Milan, 1889.] U. R.

MARPERGER, PAUL JACOB (1656-1730), was originally a merchant, before he entered the Danish and the Prussian civil services. At the time of his death he was an aulic and commercial councillor in Dresden.

Until the middle of the last century Marperger enjoyed a great reputation in Germany as being "perhaps the most distinguished supporter of cameralistic science," and "almost the only German author on trade." He was an inexhaustible writer on commercial subjects; his book on Banks (1716) is best known. Roscher is very severe on Marperger, and considers him as having simply diluted anterior publications and added to them some very trite moral sentiments (*Gesch. der. Nat. Oek.*, pp. 301-302). E. ca.

MARQUE, LETTERS OF. This term is derived from the mediæval Latin word *marcha*, a frontier, a letter of marque being a licence granted by a sovereign to a subject who has sustained wrong and been denied justice in a foreign state, to cross the frontiers and execute reprisals, that is, recover his property or seize an equivalent by way of compensation. Hence the full phrase is "letters of marque and reprisal." The fundamental idea, which was borrowed from the Roman law, was that nations formed a *societas* or partnership, with the customary incident of unlimited mutual liability. So far as the individuals were concerned upon whom such reprisals were taken, it was argued by the mediæval civilians that they could obtain indemnity from their countrymen, members of the same "societas"; whilst between them and the foreigner no such tie existed. Letters of marque

were granted by John and Edward III. The earliest case mentioned by Ducange is in a charter granted by James, king of Aragon, in 1326. In the black book of the Admiralty, I. 385, is a complaint laid by a merchant of Danzig in 1409 against Henry IV.'s step-son, John, Duke of Brittany, and his subjects for the plunder of his ship. He was granted letters patent to seize Breton ships and goods in Irish waters to the amount of his loss, "nomine distrucçionis vocate marquæ." The peculiarity of this case is that the grantee was an alien who claimed as being in amity with England. In 1416 a statute was passed reciting the wrongs and injuries sustained by English subjects at sea, and empowering the lord chancellor, where justice was denied to letters of request, to grant letters of marque (4 Hen. V. st. 2, c. 7). Such letters were not regarded as a breach of the peace. They were issued not only on behalf of individuals but of particular towns, as in 1487 by the emperor on behalf of Cologne against Scotland (Macph. I. 707). The feeling grew up in the 15th century that they were incompatible with treaties of peace, and Henry VII. remonstrated at their issue against the English by Ferdinand and Isabella in 1488. (*S. P.*, Sp. 17, p. 4; 21, p. 12; 34, p. 22, etc.). But numerous instances occur during the reign of Henry VIII. in which this practice continued. (*S. P.*, Dom. Hen. VIII. III. 2224. Acts Priv. Counc., I. 107, 108, etc.).

A limitation was, however, introduced into treaties, as into that between England and France on 7th August 1514, binding the sovereigns on either side only to issue "letters of reprisals, marque, or counter-marque" against principal delinquents and then only in case of denial of justice. (Rym. *Foed.* Hague ed. VI. i. 65). An example of such letters is given in Molloy, I. 46, dated 17 Car. II. Such letters of marque are now disused, and the term "letters of marque" is applied to commissions issued in time of war by the lords of the admiralty in conformity with various acts of parliament to owners of merchant vessels, called privateers, allowing them to capture ships of the enemy and to divide the prizes, which would otherwise belong to the crown. During the Crimean War the allied powers issued no letters of marque. By the Declaration of the Conference of Paris in 1856 privateering was abolished so far as the contracting powers were concerned. These were Great Britain, France, Austria, Russia, Prussia, Sardinia, and Turkey. Spain, Mexico, Venezuela, and the United States have refused assent to this agreement.

[Ducange, *Glossar.*—Molloy, *De Jure Maritimo*, 1769. — Blackstone, *Commentaries.* — Halleck, *International Law*, London, 1893.] I. S. L.

MARRIAGE (FEUDAL SYSTEM). The lords of tenants by knight's service had the right of bestowing in marriage their female wards while under age. This right, which was probably of gradual growth, makes its appearance as settled law about the 11th century. Its operation was soon extended, and a gift by the king, of a widow, in marriage, and her lands, is recorded in Domesday (Ellis, i. 337). It was required that the match should be, as Blackstone says, without "disparagement or inequality," and that the king's license should be given. This was to avoid marriages to the king's enemies. The right was afterwards extended to the case of male wards. If the infant refused to obey, he or she forfeited the value of the marriage, that is the sum actual or assessed which the guardian could have received for it. Marriage without the guardian's consent entailed a double forfeit. The right was only valuable in the case of the children of tenants by knight's service, for though, as Littleton states, it was in a sense also an incident of socage tenure, the *valor maritagii* did not in that case belong to the guardian—who was not an overlord, but was the person nearest of kin to the ward who was not in the line of inheritance. The MERCHET, or fine, for permission to manorial tenants of the villein class, and sometimes even to the freeholders, to marry was a minor source of revenue to the lord; but it was totally different in origin from the feudal right. Henry I. by his charter of 1101 declared the right abolished, but his decree was inoperative in this respect. It reveals incidentally that widows as well as children of the king's barons, and *homines* were, as stated above, liable to the oppression, and that the barons claimed the same right over their own tenants by knight's service. The *Rotuli de dominabus et pueris et puellis de donatione regis*, drawn up in the 31st year of Henry II., gives a list of widows, their ages, children, and lands, thus showing the system in full operation. A special condition as to heirs, and the abolition of the right over widows, was granted by Magna Charta, but the sale of wards is recognised by the statute of Merton (20 Hen. III. c. 6), and the Hundred Rolls (*temp.* Edw. I.) include a return as to marriages and wardships. The whole system became intolerably oppressive in the 16th and 17th centuries, and was finally abolished by statute, 12 Car. II. c. 24. A vast bulk of original documents respecting wards and minors down to the time of the act exists in the Public Record Office (see MARITAGIUM and WARDS).

[*Fleta*, bk. i. c. 13; bk. iii. c. 11.—*Bracton*, ii. pp. 2-46 (Rolls ed.).—S. Grimaldi, *Rotuli de dominabus*, 1830, p. 4.—Spelman, *Feuds and Tenures*, cap. xv.—Blackstone, *Comment.* bk. ii. c. 5.—Hallam, *Middle Ages*, c. ii. pt. i.—Ellis, *Introduction to Domesday*, i. 337, 338.—Stubbs, *Select Charters*, 1881, pp. 100, 101, 297, 298.—Maitland, *Select Pleas in Manorial Courts*, p. 24, etc.—Scargill-Bird, *Guide to the Public Records*, 1891, pp. 113-117, 336-338.] R. H.

MARRIAGE-RATE may be defined as the ratio between the number of persons belonging to a certain population who marry in a year, or other unit of time, and the number of the population. This is the sense in which the term is used in the English registrar-general's tables. In other countries the number of marriages, not of persons married, is often used as the numerator of the fraction which forms the marriage-rate. It has been proposed to use for the denominator not the entire population, but only the marriageable part of it. Some international statistics of this "specific" marriage-rate are given by Bertillon in his masterly discussion of "Matrimonialité," in the *Annales de Demographie Internationale*, vol. i. p. 20.

The definition of marriage-rate presents a difficulty which has been met in the case of other rates, viz. that the population cannot be supposed constant during so long a period as a year. This difficulty might be serious if the population were very small, especially in a peculiar case mentioned by Prof. Westergaard, (in the *Revue d'Économie Politique* for May-June, 1891, p. 443), where the occurrence of a marriage tends to diminish the population under consideration, namely, the persons belonging to a certain occupation, which is usually abandoned on marriage.

The marriage-rate acts through the birth-rate on the increase of population. How indirect is this action appears by observing that in countries which have a particularly small natural increase, *e.g.* France and Massachusetts (·16 and ·65 per cent respectively, for the period 1865-1883, while the average for Europe is 1·06), the marriage-rate is either not particularly small (in France ·78 marriages per 100 living compared with ·83 for Europe), or even particularly large (in Massachusetts ·94 marriages per 100 living). For the number of the children to a marriage is particularly low in these countries (Marshall, *Principles of Economics*, note to ch. iv. bk. iv.).

Among the causes of variations in the marriage-rate, vicissitudes in material prosperity are prominent. Dr. Farr, surveying the ups and downs of the marriage-rate in England for nearly forty years, assigns an external cause for each fluctuation, now the influx of Australian gold in the year of the great exhibition, now a commercial panic, or the Crimean, or even the Abyssinian war. A similar explanation is attempted by Dr. Bertillon in the publication above referred to. The price of the principal article of food is a main factor under this head; especially where the population is poor and near the brink of subsistence. The connection between the price of grain and the frequency of marriage is apparent in the statistics of Sweden and other continental countries[1] (cp. Sir Rawson Rawson, *Statistical Journal*, 1885, Quetelet, *loc. cit.* and most of the general treatises on statistics). In more advanced countries commercial crises and the state of international trade have at least as much effect as variations in the price of wheat on the marriage-rate. In England a fall in the marriage-rate has often been accompanied by a fall in the price of wheat (Dr. Ogle, *Journal of the Statistical Society*, vol. liii. (1890), p. 258). "The statistics even seem to suggest," says Prof. Marshall, "that this is not a casual coincidence," and he suggests an interesting explanation of the paradox (*Principles of Economics*, bk. iv. ch. 4, § 7).

It may happen that though wealth increases, yet the standard of comfort increasing more quickly, the marriage-rate declines. This may be in part the explanation of the decline in marriage-rate which has occurred in recent years in many civilised countries [see Sir Rawson Rawson's *International Statistics*, p. 521, also *Movimento dello Stato Civile: Confronti Internazionali*, 1865-83, Tavola I. *bis*; and *Bulletin de l'Institut International de Statistique*, Table I., *bis*].

As another cause of variation in marriage-rates may be mentioned the different proportions of persons at each age in different populations. The manner in which the frequency of marriage varies with age is strikingly shown by a *stereogram* due to the Italian Statistical Museum, of which there is a copy in the rooms of the London Royal Statistical Society, an explanation in the society's jubilee volume, 1885, p. 247, and a criticism in the Journal for March 1894 (cp. Quetelet, *Physique Sociale*, vol. i. p. 275 and context).

Difference of season is also a cause of variation of marriage-rates, referred to periods shorter than a year. The deterrent influence of Lent is marked in Roman Catholic countries. A minimum in the month of March is matched in the adjacent months by maximum—or at least large—numbers of marriages displaced, as it were, from their natural position. On this head Quetelet well says: "Les lois naturelles ne sont point totalement effacées sans doute, mais il est difficile de saisir leurs effets au milieu des lois religieuses et des habitudes civiles." (*Physique Sociale*, vol. i. p. 261.)

The delicacy with which marriage-rates thus respond to the action of assignable causes is not inconsistent with the peculiar constancy which has been attributed to these statistics. The oscillations are not only precise, but also minute as compared with other coefficients in vital statistics—in particular with death-rates. This contrast is well shown by the diagram in Dr. Longstaff's *Studies in Statistics*, which presents the variation of the two rates from year to year in England. That of the two rates the one which depends more upon human volition should be the steadier is a circumstance deserv-

[1] See diagram, *Marriage-rate and price of rye in Prussia compared*, in art. on GRAPHIC METHOD.

ing the attention which it has received from Quetelet (*loc. cit.*) and others. It may be ranked with the stability of the numbers of suicides as one of the wonders of moral statistics. It is not unreasonably used as proof that the reign of law extends over the domain of volition. (Cp. Mill, *Principles of Logic*, bk. vi. ch. ii.—Venn, *Logic of Chance*.)

[In addition to the works cited in this article the general treatises referred to in the article on DEATH-RATE should be consulted.] F. Y. E.

MARRIAGE SETTLEMENT (also called ante-nuptial settlement), a settlement made, in contemplation of marriage, of funds respectively contributed by the intending husband and wife or their respective relatives or friends. The usual trusts of such settlements are: to pay the income of the husband's fund to the husband for life and the income of the wife's fund to the wife for life; after the death of either of them to pay the whole income to the survivor for life or until remarriage; after such death or remarriage to divide the fund among the children or issue of the marriage in such shares as the husband and wife or the survivor shall have appointed, and in default of appointment among the children of the marriage who shall attain the age of 21 years or, being daughters, marry under that age.

A marriage settlement, not being considered a voluntary settlement, is not defeasible in the settlor's bankruptcy.

One of the reasons which brought marriage settlements into general use, viz. the extensive rights which the law gave to a husband over his wife's property, has been removed by the Married Women's Property Act 1882 and the amending Acts, but the custom to have marriage settlements has remained unchanged.

No doubt the desire on the part of the friends of persons who are about to marry to secure an adequate and indefeasible provision for the intending husband and wife and their children is justifiable, but the practice of settling property, on marriage or otherwise, cannot, on the whole, be considered advantageous to the community. In the first place it diverts a considerable amount of capital from trade and industrial enterprise, and creates an artificial demand for so-called trustees' securities—thereby unduly increasing the facilities for borrowing of a special class of companies and public bodies. But its principal disadvantage is the fact that the persons concerned—knowing that in any event they can rely on a comfortable income—are less inclined to resist any temptation leading them to extravagance or recklessness. A system which allows a large number of persons to enjoy every comfort and luxury while their creditors must be satisfied with a small dividend on their claims, should not be encouraged by the law. If it were made illegal to impose any restraints on anticipated dealings with income, a great part of the mischief would be avoided. As the law stands, restraints on anticipation in express terms are invalid, except in the case of married women, but the ingenuity of draftsmen has overcome this difficulty by the insertion of clauses in many settlements declaring that the income is to be forfeited on any attempted alienation or on bankruptcy, and that on such forfeiture it is to be applied by the trustees for the benefit of the person to whom it originally belonged in his or her family. In this way the enjoyment of the income is virtually retained, and it is only the creditors who suffer by the forfeiture.

Marriage settlements like other settlements have always been subject to succession duty, and, when the interest of any successor exceeded £10,000, to Mr. Goschen's estate duty, of 1 per cent, and now they are subject to Sir William Harcourt's graduated estate duty. E. S.

MARRIED WOMEN IN FACTORIES. See FEMALE LABOUR.

MARSHALL, WILLIAM (1745-1818), was one of the few really noteworthy English writers on agriculture; to the student of agrarian development his works are probably quite as valuable as those of his contemporary and rival Arthur YOUNG, though their style and arrangement prevented their obtaining the same popularity. He came of farmer stock in the North Riding, and began his long series of agricultural experiments, and of treatises describing them, in 1774. His most important works fall into two groups. First come the twelve volumes in six pairs, describing the *Rural Economy* of Norfolk (1787), Yorkshire (1788), Gloucestershire (1789), the Midland Counties (1790), the West of England (1796), and the Southern Counties (1798), respectively. In these he carried out the *Plan* he had submitted to the Society of Arts in 1780; that is to say, he resided for a year or more, sometimes acting as agent or manager of estates, in one district after another, "minutely registering the provincial practice." Some time before, "in a journey of four or five hundred miles through the central parts of the Island, I experienced the inutility of a *transient view*,"—a thrust at the contemporary *Tours* of Arthur Young. The new Board of Agriculture and its secretary, Young, found in him an indefatigable critic; and the *Reports* or *Surveys* drawn up under its authority occasioned a second series of volumes from Marshall's pen. To show how much better he could arrange the material, he drew up in five volumes *A Review and Complete Account of the Reports to the Board of Agriculture* for the Northern (1808), Western (1810), Eastern (1811), Midland (1815), and Southern and Peninsular (1817) "departments," respectively. In 1808 he retired to an estate he had purchased on the vale of Cleveland, and died

there, while busy upon the construction of a building at Pickering for his proposed rural institute or college of agriculture.

[A list of his other works will be found in John Donaldson's *Agricultural Biography* (1854). Perhaps the most important of them are *Minutes of Agriculture, made on a farm of 300 acres of various soils, near Croydon, Surrey* (1778).—*Planting and Rural Ornament* (1796).—*On the Appropriation and Enclosure of commonable and intermixed lands* (1801).—*A Treatise on the Landed Property of England* (1806).] W. J. A.

MARTIN, Frederick (1830-1883), started in 1864 that useful publication *The Statesman's Year Book*, and edited it until the December of 1882.

Among his works are :—*Commercial Handbook of France*, London, 1867, 8vo.—*The History of Lloyd's and of Marine Insurance*, London, 1870, 8vo.

[*Dictionary of National Biography*, vol. xxxvi., p. 275.] H. E. E.

MARTIN, Robert Montgomery (1803-1868), historical writer and statistician, is said to have been born at Tyrone, Ireland. He studied medicine, but apparently never practised. In 1820 he visited Ceylon, and thence travelled to the Cape of Good Hope, Australia, and India. From 1831, when he completed his *History of the British Colonies*, to 1844, he lived in England, taking a great interest in colonial trade questions, and devoting an untiring energy to the compilation of statistics. He gave evidence before the committee on the China trade. In 1844, he was appointed treasurer of Hong-Kong, but did not succeed in that capacity. Soon returning to England, he gave himself up once more to statistical research.

His chief works, apart from his *History of the Colonies*, were :—*Ireland before and since the Union*, 1844.—*Political, Commercial, and Financial Condition of the Anglo-Eastern Empire*, London, 1832.—*Analysis of the Parliamentary Evidence on the China trade*, 1832.—*Ireland as it was, and ought to be*, 1833.—*Poor law of Ireland*, 1833.—*Taxation of the British Empire*, 1834.—*Statistics of the British Colonies*, 1839.—*Monetary System of British India*, 1841. In 1848 he republished his two works on Ireland under the title *Ireland as it Was, Is, and Ought to Be*, in order to show that "no greater evil could befall Ireland than a disunion of the solemn legislative compact of 1801." [*Dictionary of National Biography*.] C. A. H.

MARTINEAU, Harriet (1802-1876), became first famous through the publication of *Illustrations of Political Economy*, 18 vols. in 9, London, 1832-34, 16mo ; the form of which was suggested by Mrs. Marcet's *Conversations on Political Economy*. In the curious autobiographical notice left behind for the *Daily News*, she wrote, "The original idea of exhibiting the great laws of society by a series of pictures of selected social action was a fortunate one ; and her tales initiated a multitude of minds into the conception of what political economy is, and of how it concerns everybody living in society. Beyond this there is no merit of a high order in the work. It did not pretend to offer discoveries or elucidations of prior discoveries. It popularised in a fresh form some doctrines and many truths long before made public by others." Difficult as it may be to a generation which has been taught that *les dénoûments ne sont pas des conclusions* to credit it, the success of these tales was extraordinary. Within a few years their circulation reached to 10,000. Cabinet ministers, newspaper editors, and politicians appear to have vied for the privilege of having their proposals supported by the stories. A further series, *Poor Laws and Paupers illustrated*, 4 vols. in 2, London, 1833-34, 16mo, was undertaken at the suggestion of Lord Brougham. *Illustrations of Taxation*, 2 pts. 1834, 12mo, completed this branch of Miss Martineau's work. In her *History of the Thirty Years' Peace, 1815-1846*, 1849, 8vo, 2 vols., however, and in her *British Rule in India*, London, 1857, 8vo, considerable attention is given to the economic aspects of history. Her views on economic questions underwent great alterations. At first a "strict Benthamite," and adherent of the classical political economy, her American experiences considerably modified her views on the subject of property. She was led to expect further changes "which will probably work out in time a totally new social state," wherein the ideals of R. Owen (*q.v.*) would to some extent be fulfilled. Her breach with the old orthodox political economy was no doubt widened by the positivist influences under which she came.

[*Harriet Martineau's Autobiography, with Memorial by M. W. Chapman*, 3 vols. 1877, 8vo.—*Dictionary of National Biography*, vol. xxxvi. p. 309.] H. E. E.

MARTINEZ DE LA MATA, Francisco (middle of the 17th century). The author describes himself as a brother of the order of penitents and servant of the afflicted poor, on the title of his *Memoriales ó Discursos en razon del remedio de la despoblacion, pobreza y esterilidad de España*, which were published about 1650, and reprinted by Campomanes (*q.v.*) in his *Apéndice á la Educacion Popular*, vol. i., Madrid, 1775. Some extracts will also be found in Sempere y Guarinos, *Bib. Ec. Pol.*, vol. iii., Madrid, 1804. Martinez de la Mata is a fervent representative of the later form of mercantilism : "Kingdoms and republics flourish by the manufacturing and traffick of the produce of industry, tillage, and breeding ; these reciprocally assist each other, but the *principal* nerve is manufactures (*artes*), which increase the population. . . . Labourers only bring into existence the fruits of the soil and leave them in the state in which nature supplies them ; as long as they remain thus their value is

low, but this multiplies even a hundredfold when they are handed over to manufacturers," p. 3.

"France, Genoa, Venice, Florence, Holland, and England, have grown rich through the permission given to the subjects of Spain to consume their merchandise. . . . This is how they became deluged with gold and silver," p. 7.

He gives the list of the crafts (*gremios*) which had disappeared, p. 31; complains of the introduction of 120,000 foreigners, p. 130; describes, with many particulars, the professions which the latter had acquired, pp. 134 *seq.*; and gives details on the decline of some branches of industry, such as gloves in Ocaña, p. 252, and hosiery in Toledo, p. 261.

[Colmeiro, *Biblioteca de Economistas Españoles*, p. 115.] E. ca.

MARULLI, Vicenzo (18th century), a Neapolitan; one of the many Italian writers who in the 18th and beginning of the 19th century wrote on charity organisation then engrossing the attention of governments, and the labours of the studious. Marulli's work, like others, owed its origin to the inquiry made by the Neapolitan government in 1802, as to "the best means of maintaining and employing the poor of the kingdom of Naples and in the houses of correction." Marulli objects to begging, and would suppress it; he advises poor relief being carefully regulated in order that poverty may not be increased by it. He advocates establishing asylums, hospitals, etc., and especially a good organisation of public charity in order to avoid the disadvantages and incitement to idleness often arising from indiscriminate private charity. Begging can only be strictly forbidden when well-organised systems of charitable relief are established to meet the wants of the poor.

Ragionamento sulla mendicità, Naples, Stamperia Simoniana, 1804.

[Fornari, *Delle teorie economiche nelle provincie napoletane*, vol. ii., Milan, 1888.] U. R.

MARX, Heinrich Karl (1818-1883), distinguished as a socialistic theorist and agitator, was born at Trier. His father, who with his family passed in 1824 from Judaism to Protestantism, was a legal official. After receiving instruction at the gymnasium of his native place, Marx studied from the year 1835, first jurisprudence, then philosophy, at Bonn and Berlin. He settled at Bonn with the view of becoming a docent in the university. But his friend Bruno Bauer's difficulties with the government, arising from his theological views, convinced Marx that he too would find it difficult to maintain an academic position under Prussian rule. He and Bauer began, in 1842, at Cologne, the publication of the *Rheinische Zeitung* in the interest of the radical opposition. Towards the end of the same year Marx undertook the management of the journal, and removed from Bonn to Cologne. The government forbade the continuance of the paper from 1st January 1843; and Marx, accompanied by Arnold Ruge, now went to Paris, having first married a young German lady to whom he had been for years betrothed. He and Ruge entered on a joint journalistic enterprise, which, however, speedily came to an end, partly from a difference of principles between the two associates. Ruge attached himself to the Hegelian philosophy and political radicalism; Marx studied economics, and through the influence of French writers, notably Proudhon, became a socialist. In 1844 began the relation between Marx and F. Engels, which terminated only with the death of the former. Marx took part in producing a weekly journal published in Paris with the title *Vorwärts*, which covered with ridicule the absolutism and sham constitutionalism of the German princes. The Prussian government applied to the Guizot ministry for the expulsion of Marx from France, which was granted; and accordingly, at the beginning of 1848, he removed to Brussels, where he was joined by Engels. The two friends prepared, January 1848, the manifesto of the communist party at the request of a secret propagandist league; many German editions of this document have since appeared, and it has been translated into most of the European languages. The February revolution having broken out, Marx was expelled from Belgium, and at the invitation of the provisional government of the French republic, returned to Paris. He went to Cologne in the same year, and set on foot the *Neue Rheinische Zeitung;* among the contributors to this journal was Lassalle. After having been twice before the courts of law for advising resistance to the government, Marx was expelled from Prussia. Retiring to France, he was forced to quit that country also, and fixed his permanent residence in London. During the following years he wrote much on current politics, and was the English correspondent of the *New York Times*. The first-fruits of his long-continued economic studies appeared in his *Zur Kritik der politischen Oekonomie*, pt. i., 1859. But, finding himself not yet in a condition to develop the consequences of his fundamental principles, he discontinued this work, and, returning to his studies, embodied his views finally in *Das Kapital*, of which the first book was published 1867, the second was edited after the death of the author by Engels 1885. The third part appeared in 1894.

In 1864 the International Association was founded, and Marx early took a leading part in its proceedings. His plan of a body of statutes and his inaugural address were preferred to those of Mazzini, which were put in competition with them; and thus he became the chief of the organisation, and wrote all the documents issued by the general council. The watchword

of the party now became "Proletariate of all countries, unite." The fall of the French commune made the maintenance of the International in Europe impossible; the anarchists created internal discussions in the body; and the general council was transferred to New York. Marx now devoted himself diligently to the extensive studies required for the completion of his treatise, learning—it is said—with a view to this, the Old Slavonic, Russian, and Servian languages; he continued, however, to exercise great influence by correspondence and personal interviews with the socialist leaders in different countries. But his failing health increasingly impeded his work; and after the loss of his wife and of his eldest daughter, he died, sitting in his arm-chair. He was buried in Highgate cemetery.

The characteristic features of Marx's system are his view of the nature of capitalistic production, and his materialistic theory of history. According to him labour alone creates value, and the value of a commodity is measured by the quantity of labour which is socially, *i.e.* normally, necessary for its production. In existing society, the instruments of production are in comparatively few private hands. The other members of the community have nothing but their labour-power to sell. This is bought by the capitalist; but, even when he pays its market-price, he does not pay its full value; he appropriates to himself a portion of the product of the workman's labour, the whole of which ought to go to the workman; and what is so appropriated, called by Marx the *surplus-value* (*Mehrwerth*), is the source of the capitalist's income. A value equivalent to the workman's subsistence, or, in other words, to the wages actually paid him, would be produced in a small number of hours; but he is forced to work longer for those wages, and the product of this additional work, the surplus-value, goes into the capitalist's pocket, though he has no right to it. Hence, the effort of the capitalist to lengthen the working day, and of the workman to shorten it; and in this struggle, so long as it is a purely economic one, the weaker—the workman—goes to the wall. When the capital embarked in a successful enterprise is increased, the surplus-value, as a whole, is enhanced; and, as the productivity of labour rises with the progress of society, and as the workman's subsistence is thus supplied by a shorter labour-time, again the surplus-value is increased. Accordingly the tendency of the industrial world is to the development of industry on the great scale, and to the ever greater use of machinery; and the increased division of labour, thus rendered possible, leads to the employment of women and children in manufactures—a new exploitation of the working-classes for the advantage of the capitalist, which also depresses the wages of men. An intense war of competition goes on between different capitalists, and, whilst there is perfect organisation within the individual factory, there is anarchy in social industry, regarded as a whole, which results in periodically recurring crises. The changing proportions of "constant" and "variable" capital, *i.e.* of the permanent instruments of production on the one hand, and labour-power on the other, leads to fluctuations in the movement of population; and the result is the creation of a disposable industrial "reserve-army," on which capital can call to meet any special demand; and the existence of this class makes those who are actually employed more dependent and more willing to submit to the dictation of the capitalist. All this had been said in substance by other socialists; but Marx here introduces what appears to be a new conception of his own. The capitalist system, he says, contains within it the seeds of its own destruction. The concentration of vast enterprises in the hands of a few magnates, the centralisation of the means of production in modern industrial establishments, and the associated form which labour takes in these establishments, will make it easy, when the due time arrives, for the state, once subjected to the political control of the proletariate, to step into the place of the capitalist. Those who have been hitherto the expropriators of the workmen will now themselves be forcibly expropriated; all private will be transformed into collective enterprises, and the instruments of production will be used by the whole of society on a definite plan for its common ends.

The new social system thus to be arrived at is the last stage of a historical progress which Marx conceives as follows:—He adopts the view of Hegel (not peculiar, however, to that philosopher or his school) that the life of society is one of ceaseless change, the ideas and institutions of each period having only a rotative and temporary *raison d'être*, and necessarily giving place in due time to others which succeed as members of an ordered series. Marx holds—here diverging from his master—that the determining factor of these changes is purely material. The fundamental and causal element of the social evolution is economic. All other social forms—the legal, literary, religious,—in fact the entire civilisation of an epoch, is the outcome of its economic constitution—of the contemporary modes of production and exchange. The political state of a country at any period reflects the economic requirements of the class then dominating production; and thus all history, subsequent to the primitive community of land-ownership, is a picture of the successive wars of classes. In each period are developed under the ruling class new productive powers which ultimately become irreconcilable with the existing forms of production; and the class which represents these forces, and through them rises into importance, struggles with and overcomes that previously supreme. The constitution of society is changed, and a new order introduced. Thus feudalism was vanquished by the insurgent bourgeoisie; and the bourgeoisie in its turn will be overthrown by the class it now plunders and oppresses—the proletariat. This will be brought about not by any moral triumph of ideas of justice, but by a historical necessity inherent in the existing conditions and movement of industrial life. The long-continued series of social struggles will then be closed; class wars will be brought to an end by the disappearance of classes.

The adherents of Marx's doctrine speak of it as "scientific socialism," in contrast with the "utopian socialism" which in various shapes preceded it. This is certainly unjust, especially to RODBERTUS: if there be such a thing as scientific socialism, Rodbertus is entitled to be regarded as its founder. But, however this may be, Marx's work represents the now-prevalent form of socialism. *Das Kapital* has become, we are told, "the Bible of the social democrats." But it can only be a storehouse of facts and arguments for the leaders; it must be "caviare to the general." An English socialist has described Marx's style as "singularly brilliant"; but that is not the ordinary estimate. Roscher speaks of his "schwerfällig abstracte und doch unpräcise Ausdrucksweise," and Cossa characterises it as "stile sempre oscuro e talvolta inintelligibile."

Das Kapital has been translated into English by S. Moore and E. Aveling. Marx's friend Fr. Engels published in 1878 (2nd ed. 1886) *Herrn Eugen Dühring's Umwälzung der Wissenschaft;* and three chapters of this book were arranged as a pamphlet and translated into French by Marx's son-in-law Paul Lafargue (1880), with the title, *Socialisme utopique et Socialisme scientifique.* A good English version of this tract, bearing the same title, has been published (1892) by E. Aveling, and may be recommended as giving a clear and vigorous statement of the main lines of Marx's doctrine. The most remarkable of Marx's minor publications are the following:—*Einleitung zur Kritik der Hegelschen Rechtsphilosophie*, and *Zur Judenfrage*, 1843, in the former of which appear germs of thought which he afterwards more fully developed, especially his materialistic theory of history; *Die Heilige Familie*, 1845, written in conjunction with Engels in opposition to the philosophic views of Bruno Bauer; *Misère de la Philosophie*, 1847, in which he keenly criticised the *Philosophie de la Misère* of Proudhon, who had at one time much influenced his opinions, and in which the essential features of Marx's general economic system are already distinctly visible; *Discours sur la question du Libre Échange*, 1848; and *Der achtzehnte Brumaire des Louis Bonaparte*, a commentary on the history of the *Coup-d'État*, inspired by fierce indignation against L. Napoleon, and admiring sympathy with the insurgents of June 1848.

[For Marx's biography see art. on him by Fr. Engels in *Handw. der Staatswissenschaften.* Criticisms on his theories will be found in the same work, art. *Sozialismus und Kommunismus*, by Adler; in E. de Laveleye's *Socialisme Contemporain* (English trans. by Goddard Orpen), ch. iv.; Rae's *Contemporary Socialism*, ch. iii.; Bonar's *Philosophy and Political Economy*, bk. v. ch. i.; and the preface by Vilfredo Pareto to a series of extracts from *Das Kapital* published in the *Petite Bibliothèque Economique.* For the chief difficulty in the theory of surplus value and Marx's own way out of it, see Engel's Preface to *Kapital*, vol. iii., 1894, and the article on it by F. Butlin in *Econ. Journal*, 1895.] J. K. I.

MASERES, FRANCIS (1731-1824), mathematician and social reformer, was called to the bar in 1758. During the years 1766-69 he was attorney-general of Quebec. In 1773 he was appointed cursitor baron of the exchequer, a post he held till his death. He is said to have refused an increase of salary, but his private means were large. In 1774 he became a bencher of the Inner Temple, and is among the old benchers immortalised by *Elia.*

Maseres was the author of a *Proposal for establishing Life Annuities in Parishes*, London, 1772. A bill, embodying his scheme, passed the House of Commons in the session of 1772, but was thrown out by the lords. He defended it, in *Considerations on the Bill for enabling Parishes to grant Life Annuities*, London, 1773, 8vo, and again in his magnum opus, *The Principles of the doctrine of Life Annuities familiarly explained*, London, 1783, 4to. Its provisions, which enabled parishes to grant life annuities, and to invest the moneys received in the 3 per cent bank annuities in their own names, are worth noting, inasmuch as some politicians are advocating a solution of the Old-Age Pension question, by leaving to localities a large discretion in the initiation of various schemes. It is but fair, however, to say that Maseres did not believe that the life annuities he proposed would be bought by "day-labourers in husbandry, who are hardly able to save anything out of their wages."

The Principles, etc. is a volume of over seven hundred pages, but the great bulk of this is taken up with applications and illustrations. The actual principles are contained in the first ninety pages. Maseres made use of the tables of KERSSEBOOM and DEPARCIEUX, as given in the appendix of De Moivre's *Treatise on the Valuation of Annuities.* Maseres was also the author of numerous mathematical treatises, of pamphlets on subjects connected with North America, and of translations from the French. He also edited a great number of reprints of historical works.

[*Dictionary of National Biography*, vol. xxxvi. p. 407.] H. E. E.

MASLOV (19th century), a Russian economist, was the author of *Systems of Economics*, 1820; mentioned in Cossa's *Introduction to the Study of Political Economy*, p. 452 (trans. by L. Dyer, London, 1893) as belonging "to the domain of the history of economic literature."

H. E. E.

MASSELIN, JEAN (died in 1500), was a canon of Rouen after 1468 and *orator* of the Norman clergy. Elected by the *bailliage* (bailiwick) of Rouen as its representative in the states general of 1484, he left a journal of their proceedings (*Diarium Statuum Generalium Franciæ*), and was himself on several occasions their spokesman, insisting with a firmness tempered by moderation on the necessity of financial reform.

The *Diarium* of Masselin was published 1835 (text and translation) in the *Collection des Documents Inédits pour l'Histoire de France.* E. Ca.

MASSIE, JOSEPH (d. 1784), economist and pamphleteer. He occupies an important position in the economic history of the 18th century, as a critic of the views of LOCKE and Sir Wm.

PETTY, and as having anticipated certain economic points more generally known in connection with the names of HUME and Adam SMITH. He wrote with insight on the causes of social and industrial evils, *e.g.* begging, prostitution, and theft; and foresaw what a noxious and plentiful crop of ills was springing up for a later generation to deal with, through sentimental philanthropy, the unreformed poor-law, and the herding of deserted and pauper children in barrack "homes." Above all, considering the epoch, he is noteworthy as having been one of the earliest advocates of the systematic study of economic and commercial matters upon a wide and well-verified basis of statistics and history, by applying to economics the inductive method of the Baconian philosophy. His extant works are mainly fiscal, dealing with monetary problems, various branches of trade, and questions of taxation (*v. infra*, Nos. 1-7, 10-12, and 14-25); some of these are quite short, and such as might now be published in the reviews, or even in the daily papers.

The most important of his works are five in number—the *Essay on the Governing Causes of the Natural Rate of Interest* (No. 1), *Calculations of Taxes* (No. 3), the *Plan for the Establishment of Charity-Houses* (No. 8), the *Knowledge of Commerce as a National Concern* (No. 16), and *Observations relating to the Coin of Great Britain* (No. 17).

In the *Natural Rate of Interest*, Massie criticises what he gathers to be the opinion of Locke, that the rate of interest at any given time depends on the proportion which the quantity of money in a country bears to the debts of its inhabitants to one another, and to its trade; that the profits of trade are instrumental in raising interest; and that the proportion which money bears to trade not only governs interest, but the profits of trade as well; while to Sir Wm. Petty, the rate of interest depended upon the quantity of money alone. Massie, on the other hand, who may or may not have been acquainted with Nicholas BARBON'S *Discourse of Trade* (1690), of which there seems to have been no copy among the fifteen hundred economic books and pamphlets which Massie collected at great outlay of time and money, and who anticipated Hume's published opinion on the same line of thought by two years, believed the governing causes to be (1) natural necessity; (2) liberty; (3) the preservation of men's private rights; (4) public security. He therefore concludes that the natural rate of interest is governed "by the profits of trade to particulars"; that the profits of trade are governed by the proportion which the number of traders bears to the quantity of trade; and that the number of traders in turn is governed by the necessity of trade, and the encouragement with which it meets.

In *Calculations of Taxes*, Massie pours mild ridicule on the "ingenious men" who had evolved the proportion of taxation to incomes out of their inner consciousness. No calculations could be valid unless based on the following data: (1) the number of people in the nation; (2) the pecuniary amount of their incomes or needful expenses; (3) the rise in prices both of commodities and of labour, which is caused by taxation; (4) the total sum paid annually in taxation throughout the whole kingdom. At the time Massie wrote the last item alone of these data was verifiable in the ordinary way. In order to arrive at some approximate idea of the proportionate amount of taxation contributed by individuals, he works out thirty typical cases, each containing such an annual balance-sheet as might naturally be worked out by each of thirty different heads of families in receipt of thirty different incomes, from a wealthy nobleman with a rent-roll of £20,000 a year to a rural labourer on 5s. a week.

The *Plan for the Establishment of Charity-Houses* and the other essays on social reform in the same volume are not only among the most interesting of Massie's writings in themselves, but are valuable on account of three positions which he there lays down, viz. (1) that the Elizabethan poor-law was a *causa causans* of evils which it was intended to cure; (2) that the removal of multitudes of people from "our natural and fixed basis, land, to the artificial and fluctuating basis, trade," is fraught with grave social and industrial evils; and (3) that the problem of prostitution is really not so much moral as economic. The remedies which Massie proposed were the equalisation of poor-rates in different localities, and the abolition of the settlement clauses of the poor-law; the union of parishes to support a workhouse; the entire separation of the honest and respectable poor from the loafer, the casual, and the "suspect," the three latter to be punished and put to hard labour in quite separate but neighbouring establishments, while the taint of pauperism was not to be attached to the former; the teaching of new trades to the honest and respectable poor, and the careful selection of new trades so as to avoid increasing the keenness of competition among persons already provided with suitable employment elsewhere; the establishment of charity-houses or "preservatories" for unemployed, deserted, or destitute women and girls, where they would be quite safe, and free from workhouse taint, and which would serve both as labour-bureaux and as training schools in newer industries. Massie laid great stress on national care for working women and girls, partly for the sake of the next generation; partly because competition for work, being within much narrower limits, is keener for women who stand alone than for men; partly from humanity, because they cannot resist brute force; and partly because a ruined woman almost inevitably becomes a social danger. In return for the national service rendered by women in every rank of life Massie held that the nation, and particularly London, should protect them from being driven to evil courses by economic distress, by means of a penny rate levied on all houses in the metropolis on the basis of the poor-rate assessment, in addition to voluntary contributions. Other contributory causes of 18th-century lack of employment Massie held to be the decline of the woollen trade, the enclosure of commons and waste lands, and the growing practice of letting *e.g.* 500 acres to one farmer rather than 50 acres to each ten farmers.

The *Representation concerning the Knowledge of Commerce as a National Concern* is a plea (1) for such organised national collection and systematic storage of economic and commercial facts as is now provided for, to a limited but increasing extent, by the various departments of the Board of Trade; (2) for the compilation of adequate outlines of commercial history—Massie here incidentally mentions that though he had spent twelve years in collecting some 1500 tracts, treatises, pamphlets, etc., on economic subjects, he yet found it impossible to compile satisfactory outlines of the history of any one British industry; and (3) for the recognition of economics as a branch of liberal education and learning, to be dealt with by persons of wide knowledge, trained intelligence, and impartial soundness of judgment, who would discover "fixed principles" instead of trying to further personal commercial interests.

Observations relating to the Coin of Great Britain criticises Locke's views on money, and contains Massie's own suggestions as to remedying the then scarcity of silver and the over-valuation of gold, and a reprint of Sir Wm. Petty's *Quantulumcunque*. In Massie's opinion the main thesis, which Locke had failed to *prove*, was that "money cannot be raised above its intrinsic value, or, in other words, be made to pass current for more than the gold and silver in it is really worth as bullion"; that an artificial over-valuation cannot be maintained, and that the only effect of such attempt is to cause a proportionate rise in prices. "The proper remedy for the present scarcity of silver money is reducing the current rates of guineas, and of other gold coins, which have long passed for more shillings and pence than the gold contained within them in bullion, when compared with the value of silver in bullion."

Massie's lesser works contain shrewd remarks apropos of *inter alia* the habitual fleecing of the British consumer by the West Indian sugar-planters; the fatuity of imposing a new cyder-tax just when the woollen trade showed a tendency to migrate from the cyder counties into beer-drinking Yorkshire; the raising of extra means to carry on the war (1757) by the commercially harmless plan of laying a tax on bachelors and childless widowers; and the view that the North American colonies were a distinct hindrance rather than an advantage to British trade.

Massie wrote and published at London, usually, if not always, at his own expense, the following works:

(1) *Essay on the Governing Causes of the Natural Rate of Interest*, 1750, 8vo.—(2) *Observations upon Mr. Fauquier's Essay on Ways and Means for raising Money to support the present War*, 1756, 8vo.—(3) *Calculations of Taxes for a Family of each Rank, Degree or Class: for one year*, 1756, 8vo.—(4) *A Letter to Bourchier Cleeve, Esq.; concerning His Calculations of Taxes*, 1757, 8vo.—(5) *Considerations on the Leather Trade of Great Britain*, 1757, 8vo.—(6) *Ways and Means for Raising the Extraordinary Supplies to carry on the War for Seven Years*, etc., 1757, 8vo.—(7) *Reasons humbly offered against Laying any further British Duties on wrought silks of the manufacture of Italy, the Kingdom of Naples and Sicily, or Holland*, 1758, 4to.—(8) *A Plan for the Establishment of Charity-Houses for Exposed or Deserted Women and Girls, and for Penitent Prostitutes; Observations concerning the Foundling-Hospital, Shewing the Ill Consequences of giving Public Support thereto; Considerations relating to the Poor and the Poor's-Laws of England; also A New System of Policy, most humbly proposed, for Relieving, Employing, and Ordering the Poor of England;* and *Forms of the principal Accounts necessary to be kept for those Purposes*, 1758, 4to.—(9) *Orders appointed by His Majestie (King Charles I.) to be straitly observed, for the Preventing and Remedying of the Dearth of Graine and Victuall* (a reprint), 1758, 8vo.—(10) *A Proposal for making a Saving to the Public of Many Thousand Pounds a Year in the Charge of Maintaining His Majesty's Marine Forces*, 1758, 4to.—(11) *Calculations and Observations relating to an Additional Duty upon Sugar*, 1759, s. sh. fol.—(12) *A State of the British Sugar-Colony Trade; shewing, that an Additional Duty of Twelve Shillings per 112 Pounds Weight may be laid upon Brown or Muscovado Sugar*, 1759, 4to.—(13) *Farther Observations concerning the Foundling-Hospital*, 1759, 4to.—(14) *A Computation of the Money that hath been exorbitantly Raised upon the People of Great Britain by the Sugar-Planters, in One Year, from January 1759 to January 1760*, 1760, s. sh. fol.—(15) *To the Printer of the Gazetteer. A list of the various classes of people employed in . . . the Woollen Manufactory; A State of the Exports to and Imports from the British Sugar-colonies; Facts . . . relating to the new Malt Tax*, etc., etc., 1760, obl. fol.—(16) *A Representation concerning the Knowledge of Commerce as a National Concern*, 1760, 4to.—(17) *Observations relating to the Coin of Great Britain . . . whereunto is annexed, Sir William Petty's Quantulumcunque concerning Money*, 1760, 4to.—(18) *Reasons humbly offered against laying any farther Tax upon Malt or Beer*, 1760, s. sh. fol.—(19) *General Propositions relating to Colonies*, 1761, s. sh. 4to.—(20) *Brief Observations concerning the Management of the War, and the Means to prevent the Ruin of Great Britain*, 2nd ed., 1761, 4to.—(21) *An Historical Account of the Naval Power of France, from its first Foundation to the present Time, with a State of the English Fisheries at Newfoundland for 150 Years past . . . to which is added, a Narrative of the Proceedings of the French at Newfoundland, from the Reign of King Charles the first to the Reign of Queen Anne . . . First printed in the Year 1712, and now reprinted for general Information*, 1762, 4to.—(22) *Observations relating to British and Spanish Proceedings . . . to which is added a Proposal for replacing the New Taxes on Malt and Beer*, 1762, 4to.—(23) *Observations on the new Cyder-Tax, so far as the same may affect our Woollen Manufactures, Newfoundland Fisheries*, etc., 1764, fol. and 4to.—(24) *Brief Observations and Calculations on the present high Prices of Provisions*, 1765, s. sh. fol.—(25) *The Proposal, commonly called Sir Matthew Decker's Scheme, for one general Tax upon Houses, laid open, etc.*, date uncertain, but probably in or shortly after 1757.—(26) Papers of ephemeral political interest.—(27) MS. catalogue of Massie's

collection of economic books, pamphlets, etc., dated 29th November 1764, Lansdowne MS. 1049 in British Museum.

[Roscher, *Political Economy*, vol. i. p. 150, tr. Lalor, New York, 1878.—Dr. W. Cunningham, *Growth of English Industry and Commerce*, vol. ii., see index; and in *Economic Journal*, 1891, p. 81.—L. Cossa, *Introduction to the Study of Pol. Econ.*, tr. L. Dyer, 1893, pp. 224, 243.—M'Culloch *Lit. Pol. Econ.*, pp. 251, 330-31.—For date of death, *Gentleman's Magazine*, 1784, pt. ii. p. 876.]

E.D.

MASTER AND SERVANT. The early history of the relation of master and servant in England is that of a gradual transition from a relation of status to one of contract. In Anglo-Saxon times there were two classes of workers, the *ceorls* and the *theows*, whose condition differed somewhat. The ceorls were in a condition intermediate between slavery and freedom, corresponding to that allowed by a conquering race to friendly natives of an invaded country: they had a certain choice of masters; they could hold land; they sometimes had slaves of their own; they had certain rights in the township lands; they might acquire property, might purchase their freedom and might even become thanes. The theows were real slaves, as if they represented conquered hostile natives (*nativi*): they were not allowed to leave the land; they had no remedies against violence on the part of their master, and an injury done to them was a wrong done to the master; and they were, in fact, frequently sold abroad. The number of these slaves was increased by constant wars and by the practice of selling oneself to buy food or to pay a weregeld or to maintain a privilege of asylum. On the other hand, slavery tended to disappear under the influence of the church, which encouraged manumission; but at the same time the ceorls probably tended to become worse off. After the conquest, the condition of the actual slaves seems to have become better, while that of the ceorls and the Saxon masters was depressed; so that we find them mostly grouped as different varieties of one class of serfs or villeins. As time went on, the lot of the villein, though painted by Bracton in 1289 in miserable colours from the legal point of view, seems to have undergone substantial amelioration: various modes of becoming a freeman became available, such as becoming a member of a gild in a privileged town and remaining in that town for a year and a day, escaping as runaways and not being followed up, being emancipated in order that they might be engaged as soldiers, and so forth; and in particular, he who had entered into a contract with his lord was considered as a freeman, and such contracts became very frequent, for the indefinite villeinage services were largely commuted for fixed money payments. Thus we find villeins holding land in their own right and employing labourers; so that except locally, in particular manors, the grievous incidents of villeinage (*see* VILLEINAGE) as described by Bracton seem, as Professor Thorold Rogers has pointed out, to have died out by the end of the 13th century, at any rate in their extreme form. The tendency to loosen the bonds of villeinage through neglect on the part of the lords, or through commutation of indefinite services for definite money rents, was at the same time somewhat neutralised by a tendency to read into the institution of villeinage the doctrines of SERVITUS (*q.v.*) of the Roman law; but the burden of proof came to rest on the lord asserting a claim, for much land had come to be held under villeinage tenure by persons whose status was that of freemen; and in the meantime the presumption of law was in favour of freedom, so that no seizure could be effected of any person alleged to be a villein. Thus things went on until the year 1349. In the meantime a great class of free labourers or craftsmen had sprung up in the towns; united in GILDS (*q.v.*) they were free as against the world, but were much restricted by the bye-laws of the gilds, which themselves restricted the individual liberty of non-members as far as they could, through prescription or custom, assert the right of doing so. In 1349 came the great plague, which thinned the ranks of labourers and raised the rate of wages. This was felt by the employers of the day to be a great evil; the old rights of villeinage were reasserted, and various attempts were made to enforce them. From the middle of the 13th to the middle of the 14th century the struggle lasted. The villeins resisted being interfered with, by litigation, by force, by rebellion, by ignoring the Ordinance of 1349 and the confirming statute of 1351 which attempted to regulate wages; and on the other hand, passports for travelling, poll-taxes, attempted exclusion from apprenticeship, investigation of pedigrees, and the like, were set in force; but the upshot was a practical defeat of the lords, for we find no averment in Jack Cade's rebellion of 1450 that the exactions of the lords were a grievance. By the time of Edward VI. and Elizabeth, villeins in gross—that is, persons whose personal status was that of villeinage—had almost died out; villeins regardant—that is, persons holding under villeinage tenure, and who might possibly be freemen—became merged in the copyholders; and the last reference to villeinage occurs in a law-suit of the year 1618, in which it was pleaded. Simultaneous with the decadence of the villeinage system was the growth of free labour; but its grievance was the want of work. The population grew much more rapidly than the means of support; and though many became attached to the manor-houses as "idle serving men" whose wages were nominal but who were fed and lodged, there

were still many reduced to vagrancy. This feature of English life first becomes extremely prominent during the reign of Henry VIII., and it was thought fit to enact the most severe laws against vagrancy or wandering in search of employment, from the place of settlement, without licence to do so. The attempt to suppress vagrancy was combined (5 Eliz. c. 4) with an attempt to regulate wages and to keep craftsmen under control: apprenticeship was enforced; craftsmen must render service in their craft when called upon, and that at rates to be fixed by the justices at Easter sessions; and refusal to do so was enforceable by imprisonment. As regards workmen, the policy of the act of Elizabeth was the policy of English law until 1867: breach of contract of service remained until that year an offence punishable by imprisonment; and a long series of acts extended the principle to particular cases and made it, after the Union, apply to Scotland. Any able-bodied person not having any visible means of livelihood could, at law, be put to service; but a large part of the original act had long fallen into abeyance, for the justices had long ceased to assess wages at sessions. Overlapping these acts were the series of FACTORY ACTS from 1802 onwards, and the Merchant Shipping Acts; and in 1867 the contract of service was finally reduced to the same condition as any other contract, and breach of it made punishable, except in particular instances, only by damages, while combination was no longer illegal as a means of keeping up or raising wages, and the restrictions on the emigration of workmen were removed. The relation of master and servant is thus now a question of contract: but Mr. Macdonell points out in *Master and Servant* that there are still some points in respect to which the maxims of English law seem to a greater or less extent to have been founded on the relation of status. These are: that a master is justified in committing an assault in defence of his servant, or a servant of his master; that possession by the servant is possession by the master, and that the master is liable for his servants' acts, apparently to an extent beyond that traceable to mere agency; that an action lies for enticing away or harbouring a servant; that the master has, in theory, a right of correcting his servant, though this is now probably not the law; and that in many cases somewhat outside the domain of mere agency, acquisitions by the servant are acquisitions for the master. Besides this, the older ideas seem to cling to the word "servant," so that it is very difficult to frame a definition of it, applicable to all cases, from those of a Carriers Act to an action by a father for loss of his daughter's services by seduction of her. Mr. Macdonell suggests the following: —"One who for a consideration agrees to work subject to the orders of another."

[An excellent historical summary, with full references, is given in Macdonell's *Master and Servant;* which, with Smith's *Master and Servant*, and Eversley's *Law of the Domestic Relations*, may also be consulted for the law. For the Scots law, see Fraser's *Master and Servant.*—See Vinogradoff, *Villainage in England.*—Broom, *Constitutional Law* (Somersett's case and the notes upon it). See MANOR.] A. D.

MASTERS' ASSOCIATIONS. Some of these societies aim at providing the benefits of insurance and trade protection for their members, without any special reference to their relations with their work-people, while others have been formed for the express purpose of joint resistance when individual employers have found themselves too weak to cope with the growing strength of the men's trade unions. The majority, however, may be considered to have both objects in view. There are at present about 100 of these masters' associations in existence, about a quarter of the total number being connected with the building trade. Being "temporary or permanent combinations for regulating the relations between workmen and masters, or masters and masters," they are trade unions within the meaning of the trade union acts. Very few of them, however, are registered under those statutes (see TRADES UNIONS). T. G. S.

MASTROFINI, MARCO (19th century), born at Monte Compatri near Rome. He became an abbé, and is best known to economists through his book on usury, *Le usure* (Rome, 1831), which was well received, republished several times, and gave rise to much discussion. Though Mastrofini lived in this century, his opinions entitle him to be ranked among the canonists. His book in fact revives the old disputes as to the lawfulness of interest (see CANON LAW).

Mastrofini analyses the question of usury, taking it primarily from the standpoint of the ecclesiastic and of the moralist, rather than from that of the political economist. He argues from a desire to reconcile the doctrine of the church with the requirements of economics, and with a somewhat ostentatious display of learning in support of a theory, already broached by other writers, that the prohibition of the canonists referred not to interest received on money, but to usury in its more modern sense, that is to say, to exorbitant interest. He therefore asserts that a moderate compensation for the loan of capital is theologically permissible. He further maintains that the church prohibition had reference only to poor debtors. But while we may appreciate Mastrofini's endeavours to legalise, from a theological point of view, a fact which is rooted in the public economy of the world, we must recognise that his assertions are historically incorrect, and not based on a thoughtful interpretation of those on whose testimony he relies.

[Cossa, *Introduction to the Study of Political Economy*, London, 1893.—Graziani, *Le idee eco-*

nomiche degli scrittori emiliani e romagnoli, etc., Modena, 1893, p. 164, and others.] U. R.

MATERIAL PROPERTY. See PROPERTY.

MATERIAL SERVICES. See PERSONAL SERVICES; SERVICES.

MATHEMATICAL METHOD IN POLITICAL ECONOMY. The idea of applying mathematics to human affairs may appear at first sight an absurdity worthy of Swift's Laputa. Yet there is one department of social science which by general consent has proved amenable to mathematical reasoning—STATISTICS. The operations not only of arithmetic, but also of the higher calculus, are applicable to statistics (see ERROR, LAW OF, and PROBABILITY). What has long been admitted with respect to the average results of human action has within the last half-century been claimed for the general laws of political economy. The latter, indeed, unlike the former, do not usually present numerical constants; but they possess the essential condition for the application of mathematics: constancy of *quantitative*—though not necessarily numerical—relations. Such, for example, is the character of the law of DIMINISHING RETURNS (*q.v.*): that an increase in the capital and labour applied to land is (tends to be) attended with a less than proportionate increase in produce. The language of FUNCTIONS is well adapted to express such relations. When, as in the example given, and frequently in economics (see Marshall, *Principles*, preface, p. xiv.), the relation is between *increments* of quantities, the differential calculus is appropriate. In the simpler cases the geometrical representations of functions and their differentials may with advantage be employed (cp. CURVES and FUNCTIONS).

Among the branches of the economic calculus *simultaneous equations* are conspicuous. Given several quantitative—though not in general numerical—relations between several variable quantities, the economist needs to know whether the quantities are to be regarded as *determinate*, or not. A beautiful example of numerous prices determined by numerous conditions of supply and demand is presented by Prof. Marshall in his "bird's-eye view of the problems of joint demand, composite demand, joint supply, and composite supply" (*Principles*, Mathematical Appendix, note xxi.). "However complex the problem may become, we can see that it is theoretically determinate" (*Ibid.*, cp. Preface, p. xv.). When we have to do with only *two* conditions, two *curves* may be advantageously employed instead of two *equations* (see CURVES and FUNCTIONS).

The mathematical operations which have been mentioned, and others—in particular the integral calculus, are all contained in the calculus of *maxima* and *minima*, or, as it is called, *of variations;* which seems to comprehend all the higher problems of abstract economics

For instance, Prof. Marshall, after writing out a number of equations "representing the causes that govern the investment of capital and effort in any undertaking," adds, "they may all be regarded as mathematically contained in the statement that H − V [the net advantages] is to be made a maximum" (*Principles*, Mathematical Appendix, note xiv.). It was profoundly said by Malthus, "Many of the questions both in morals and politics seem to be of the nature of the problems *de maximis et minimis* in fluxions." The analogy between economics and mechanics in this respect is well indicated by Dr. Irving Fisher in his masterly *Mathematical Investigations*.

The property of dealing with quantities not expressible in numbers, which is characteristic of mathematical economics, is not to be regarded as a degrading peculiarity. It is quite familiar and allowed in ordinary mathematics. For instance, if one side of a plane triangle is greater than another, the angle opposite the greater side is greater than the angle opposite the less side (*Euclid*, Book I.). Quantitative statements almost as loose as those employed in abstract economics occur in the less perfectly conquered portions of mathematical physics, with respect to the distances of the fixed stars, for instance (see Sir Robert Ball, *Story of the Heavens*, ch. xxi.); *e.g.* before 1853 it was only known that "the distance of 61 Cygni could not be *more* than sixty billions of miles." It is really less than forty billions.

The instance of astronomy suggests a secondary or indirect use of mathematical method in economics, which physical science has outgrown. As the dawn of the Newtonian, or even of the Copernican, theory put to flight the vain shadows of astrology, so the mere statement of an economic problem in a mathematical form may correct fallacies. Attention is directed to the data which would be required for a scientific solution of the problem. Variable quantities expressed in symbols are less liable to be treated as constant. This sort of advantage is obtained by formulating the relation between quantity of precious metal in circulation and the general level of prices, as Sir John Lubbock (senior) has done in his pamphlet *On Currency* (anonymous, 1840). Thus the mathematical method contributes to that negative or dialectic use of theory which consists in meeting fallacious arguments on their own ground of abstract reasoning (see some remarks on this use of theory by Prof. Simon Newcomb in the June number of the *Quarterly Journal of Economics*, 1893; and compare Prof. Edgeworth, *Economic Journal*, vol. i. p. 627). The mathematical method is useful in clearing away the rubbish which obstructs the foundation of economic science, as well as in affording a plan for the more regular part of the structure.

The modest claims here made for the mathe-

matical method of political economy may be illustrated by comparing it with the literary or classical method in the treatment of some of the higher problems of the science. The fundamental principle of supply and demand has been stated by J. S. Mill with much precision in ordinary language (*Pol. Econ.*, bk. iii. ch. 2, §§ 4, 5, and, better, review of Thornton, *Dissertations*, vol. iv.). But he is not very happy in indicating the distinction between a rise of price which is due to a diminution of supply—the dispositions of the buyers, the DEMAND CURVES remaining constant—and the rise of price which is due to a displacement of the demand curve. He appears not to perceive that the position of equilibrium between supply and demand is *determinate*, even where it is not *unique*—a conception supplied by equations with multiple roots or curves intersecting in several points. The want of this conception seems to involve even Mill's treatment of the subject in obscurity (*Pol. Econ.*, bk. iii. ch. 18, § 6).

The use of simultaneous equations or intersecting curves facilitates the comprehension of the "fundamental symmetry" (Marshall) between the forces of demand and supply; the littérateurs lose themselves in wordy disputes as to which of the two factors "regulates" or "determines" value.

The disturbance of the conditions of supply by a tax or bounty, or other impediment or aid, gives rise to problems too complicated for the unaided intellect to deal with. Prof. Marshall, employing the mathematical theory of CONSUMERS' RENT, reaches the conclusion that it might *theoretically* be advantageous to tax commodities obeying the law of decreasing returns in order with the proceeds to give bounty to commodities following the opposite law (*Principles*, bk. v. ch. xii. § 6). The want of the theory of consumer's rent renders obscure Mill's treatment of the "gain" which a country may draw to itself by taxing exports or imports (*Pol. Econ.*, bk. v. ch. 4, § 6; cp. bk. iii. ch. 18, § 5). This matter is much more clearly expressed by the curves of Messrs. Auspitz and Lieben (*Untersuchungen*, Art. 81).

The preceding examples presuppose free competition; the following relate to monopoly. The relation between the rates and the traffic of a railway is shown with remarkable clearness by the aid of a diagram in the appendix to Prof. Hadley's *Railroad Transportation*. By means of elaborate curves Prof. Marshall shows that a government having regard to the interest of the consuming public, as well as to its revenue, may fix a much lower price than a monopolist actuated by mere self-interest. The taxation of monopolies presents problems which require the mathematical method initiated by COURNOT. His reasoning convinces of error the following statement made by Mill (bk. v. ch. 4, 6) and others: "A tax on rare and high-priced wines will fall only on the owners of the vineyard," for "when the article is a strict monopoly . . . the price cannot be further raised to compensate for the tax." Cournot obtains by mathematical reasoning the remarkable theorem that in cases where there is a joint demand for articles monopolised by different individuals, the purchaser is apt to come off worse than if he had dealt with a single monopolist. This case is more important than at first sight appears (see Marshall, *Principles*, bk. v. ch. x. § 4).

Under the head of monopoly may be placed the case of two individuals or corporate units dealing with each other. The indeterminateness of the bargain in this case is perhaps best contemplated by the aid of diagrams (see on this case article on EXCHANGE, VALUE IN, and references there given).

These examples, which might be multiplied, seem to prove the usefulness of the mathematical method. But the estimate would be imperfect without taking into account the abuses and defects to which the method is liable. One of these is common to every *organon*—especially new ones—liability to be overrated. As Prof. Marshall says, "When the actual conditions of particular problems have not been studied, such [mathematical] knowledge is little better than a derrick for sinking oil-wells where there are no oil-bearing strata." Again, the mathematical method is a machinery, the use of which is very liable to be overbalanced by the cost to others than the maker of acquiring it. Not only is mathematics a foreign language "to the general"; but even to mathematicians a new notation is an unknown dialect which it may not repay to learn. As Prof. Marshall says, "It seems doubtful whether any one spends his time well in reading lengthy translations of economic doctrines into mathematics that have not been made by himself."

This estimate of the uses and dangers of mathematical method may be confirmed by reference to the works in the subjoined list; which does not pretend to be exhaustive.

[Auspitz, R., und Lieben R., *Untersuchungen über die Theorie des Preises.*—Cournot, A., *Recherches sur les Principes Mathématiques de la Théorie des Richesses*, 1838.—Dupuit, E. T., *De la mesure de l'Utilité des Travaux Publics*, Annales des Ponts et Chaussées, 2e serie, 1844; *De l'influence des Péages. . . .* Ibid. 1849.—Edgeworth, F. Y., *Mathematical Psychics*, 1881; Presidential Address to Section F of the British Association 1889.—Gossen, H. H., *Entwickelung der Gesetze des menschlichen Verkehrs*, 1855, new ed. 1889.—Jenkin, Fleeming, *Graphic Representation of Laws of Supply and Demand*, and other papers, collected in *Papers, literary, scientific*, etc., 1887.—Jevons, W. Stanley, *Theory of Political Economy*, 2nd ed. 1878, 3rd ed. 1888.—Keynes, J. N., *Scope and Method of Political Economy.*—Launhardt, W., *Mathematische Begründung der Volkwirthschaftslehre* 1885.—Marshall, Alfred, *Principles of Economics*

2nd ed. 1892. — Pantaleoni, M., *Principii di Economia Pura.*—Pareto Vilfredo, Articles in the *Giornale degli Economisti* (1892 and 1893, summarised in the *Economic Journal* for March 1895, p. 113).— Walras, Léon, *Éléments d'Économie Politique pure*, 2nd ed., and other writings.— Wicksteed, P. H., *Alphabet of Economic Science.*— A list of mathematico-economic books is given in the first appendix to Jevons's *Theory.* F. Y. E.

MATHIAS DE SAINT JEAN, Jean Éon (1600-1681), known as *Frère procureur général* of the Carmelite friars in France, pub. under the name of "an inhabitant of Nantes," *Le Commerce Honorable ou Considérations politiques contenant les motifs de nécessité, d'honneur et de profit qui se trouvent à former des Compagnies de toutes personnes pour l'Entretien du Négoce de Mer en France*, Nantes, 1646.

As shown by the title, this book initiates the policy followed later by Colbert when he encouraged the foundation of the great trading companies with both Indies, the Levant, and Senegal. Mathias has a general and a special object. His general object is to demonstrate the natural usefulness and legitimacy of international trade and navigation, "which afford the most convenient and easy means granted by God to establish a perfect and universal society amongst the nations of the earth" (p. 133), an argument on which Mathias extensively dilates with great warmth and insight. His special object is to prove that French navigation being in a condition of utter decay, which he ascribes to the national want of enterprise, to depreciation of trade as a profession, and to the keenness of foreign competition, the securest way to emerge from this state of stagnation is to establish powerful trading and maritime companies, the shares of which ought to be subscribed by the French *noblesse;* this, he maintains, can be done without any fear or danger of a loss of status on their part. He also gives detailed statistical information on the imports effected in French ports by foreign bottoms, and calculates the profits which foreigners derive from these imports.

As to the practical legislation recommended, Mathias is not very consistent with his premises on the inherent usefulness of international trade. In his opinion the exclusion of foreign flags and strict reciprocity of custom-house duties would be insufficient to restore prosperity to French trade, and he advocates the return to the "just and wise by-laws" (p. 61), against foreign merchants which compelled them to take up their abode in the house of a known merchant,[1] and to offer their wares for sale at once. But he did not allow them to act as agents of foreign commercial houses. E. Ca.

MATTIA (di), Nicola (18th century). Mattia, in reply to the inquiry made in 1802 by the Neapolitan government as to the best means of maintaining the poor (see Marulli), says that charity can be but a temporary remedy in doing this which can only be secured by placing poor citizens in a position to supply their wants by their own work. The real remedy for begging and vagrancy is to eliminate the causes of the evil by encouraging the sources of wealth. Charitable assistance should be temporary, and only given to those incapable of work. Almshouses even should be temporary, because the hope of finding an asylum in them encourages idleness. Vagrancy should be remedied by cultivating the uncultivated land in the kingdom of Naples, and thus forming a civilised and industrious nation. Mattia proposes the establishment of houses of correction and the assigning to them of waste land for cultivation.

Riflessioni su l'impiego dei poveri e dei vagabondi, e sul modo di estirparli dalla società civile, relativamente al Regno di Napoli, Naples, 1805.

[See Fornari, *Delle teorie economiche nelle provincie napoletane*, vol. ii., Milan, 1888.] U. R.

MATRICULATION TAX. See Finance, Germany.

MATURITY OF BONDS. A bond, or debenture, usually matures after a given time, and is then presentable for redemption to the issuing state or corporation like a matured bill. Sometimes a bond is "drawn" by lot, and is then redeemable at par, or at some specified price, and those who possess bonds, subject to such drawings, should ask their banker or broker to make proper inquiry from time to time. A. E.

MAUGHAM, Robert (d. 1862), co-founder with Bryan Holme of the Incorporated Law Society, and its first secretary. Maugham was an active promoter of the interests of the legal profession, and wrote several legal textbooks and handbooks. His chief work, from the economic standpoint, is his *Treatise on the Principles of the Usury Laws*, in which, taking as a motto Shakespeare's "Borrowing dulls the edge of husbandry," he briefly traces the history of the statutory regulation of interest on loans, adversely criticises the proposal made in the early years of this century to repeal the usury laws which fixed the maximum rate of interest at 5 per cent, and contends that, while the laws may occasionally press hardly on individuals, it is essentially desirable, in the interest of the nation generally and on general principles of public utility, that there should be some legal restriction upon the rate of interest demanded. Further, he maintains that there are excellent reasons, given in detail, why there should be some distinction in the law between dealing in money and dealing in other species of property. He criticises Bentham's *Defence of Usury* closely and in detail, and also examines the criticism of Lord Redesdale's views by Sir W. D. Evans, quotes from Grotius, Pufendorf, Vattel, Paley, Bacon, Blackstone, and Adam Smith, and refers also to the Jewish regulations, which were political rather than ethical. Maugham also wrote a treatise on the

[1] See for similar English custom, Merchants, Alien.

law of copyright, giving a brief historical view, and examining the library tax, piracy, transfer, principles of the laws, the then state of copyright law, with extensive citation of cases, precedents, etc.

A Treatise on the Principles of the Usury Laws; with Disquisitions on the Arguments adduced against them by Mr. Bentham and other writers, and a Review of Authorities in their Favor, London, 1824, 8vo, pp. 81.—*A Treatise on the Laws of Literary Property, comprising the Statutes and Cases relating to Books, Manuscripts, Lectures; Dramatic and Musical Compositions; Engravings, Sculpture, Maps, etc. Including the Piracy and Transfer of Copyright; with a Historical View, and Disquisitions on the Principles and Effect of the Laws*, London, 1828, 8vo, pp. 261.

[*Solicitor's Journal and Reporter*, vi. pp. 699, and 727.—*Dictionary of National Biography*, art. "Maugham, Robert."] E. D.

MAUNDY MONEY. The royal alms, known as "His Majesty's Royal Maundy," are distributed annually by the Lord High Almoner on Maundy Thursday, on behalf of the King. They consist of various cash payments made to persons of both sexes over sixty years of age, who are in necessitous circumstances, and who have at one time given employment to others and paid rates and taxes.

One of the maundy gifts is a payment, made in silver coins, of the value of as many pence as the years of the reigning sovereign's age, to a like number of persons of both sexes. In the present year (1905), therefore, sixty-four men and sixty-four women receive the sum of 5s. 4d. apiece. The money is paid entirely in silver coins of the nominal value of 1d., 2d., 3d., and 4d. respectively, and it is to these small silver pieces, which are struck specially at the Royal Mint for the purpose, that the title "Maundy Money" is applied. These coins bear on the obverse the effigy of His Majesty, with the inscription, "Edwardus VII. D : G : Britt : Omn : Rex : F : D : Ind : Imp : ; and on the reverse the figure "1," "2," "3," or "4," surrounded by a wreath of oak and laurel leaves, and surmounted by the royal crown. The edges of the coins are not milled, and the threepences, therefore, are identical with the coins of that denomination struck for general circulation. Collectors of coins frequently purchase the maundy monies from the original recipients, at enhanced prices, and with the exception of the threepences, a few of which may occasionally find their way into circulation, maundy coins do not pass into general use. The first coinage of small silver pieces intended solely for distribution on Maundy Thursday was struck in 1663. Prior to that date silver pence had been struck for general circulation, and the coins which formed part of the maundy alms were such as were to be found in the ordinary currency of the country.

The title Maundy, applied to the Thursday before Easter, is derived from "dies mandati"—the day of the mandate—as, on the day before Good Friday, Christ, after washing the disciples' feet, gave his new commandment, "That ye love one another" (John xiii. 34). Hence arose the custom of washing the feet of the poor by royal and other distinguished persons. This ceremony, which was accompanied by doles of food and clothing, can be traced back to the 4th century. James II. was the last king of England who washed the feet of the recipients of the maundy doles, but the custom is still occasionally observed in Austria and other European countries. The baskets from which the "mandate bread" was given away became known as "maunds."

At the ceremony of washing the feet of the poor, it was an ancient custom of the kings and queens of England to present one or two of the most necessitous with a gown from the royal wardrobe. This gift was, however, subsequently redeemed by a money payment supposed to represent the value of the garment.

As no provision was made to ensure the suitability of the maundy gifts to the various requirements of the poor persons, somewhat rough bartering among the recipients frequently took place, and, with a view to check these practices, the various doles were from time to time substituted by money payments, the last of the gifts in kind to survive being that of clothing for the men, which was distributed so recently as the year 1881. It having been found, however, that in most instances the men parted with the goods for less than their original cost, a sum of £2 : 5s. per head is now given instead of clothing. Thus the maundy alms are at the present time composed entirely of cash payments, amounting in all to about £5. The total sum is made up as follows: (1) The gift of pence per year of the sovereign's age, which is handed to the selected persons in a white leather purse; (2) sums of £1 : 10s. in lieu of provisions, and £1 in lieu of the gown formerly given by the sovereign, inclosed in a red leather purse; and (3) a further gift of 35s. to the women, or 45s. to the men in lieu of clothing, this last gift being inclosed in a paper packet.

The ceremony of the distribution of the maundy alms, which is of much interest, took place in the Chapel Royal, Whitehall, from 1714 to 1890, but since the latter date, the chapel having been closed, the gifts are distributed in Westminster Abbey. F. E. A.

MAURICE, JOHN FREDERIC DENISON (1805-1872), is noticed here for his connection with the Christian socialists (see CHRISTIAN SOCIALISM). We must remember, however, his protest against the "attempt to treat a human being as composed of two entities, one called religious, the other secular." As early as 1836 he expressed

his conviction that "political economy is not the foundation of morals or politics, but must have these for its foundation or be worth nothing." For many years he brooded over social questions. As chaplain at Guy's Hospital, we find him regretting his own helplessness. In 1840 and again in 1842 weighty letters from Mr. Daniel Macmillan, on the divorce of the Church and the leaders of the working classes, addressed to Archdeacon Hare, and forwarded to Maurice, gave much food for thought. In 1844 he made acquaintance with C. KINGSLEY and was appointed in 1846 chaplain at Lincoln's Inn. In the same year Mr. Ludlow suggested to him a scheme for bringing the leisure and good feeling of the Inns of Court to bear upon the destitution and vice of the neighbourhood. In 1848 he became editor of *Politics for the People*, a weekly publication, which only lived through seventeen numbers. The first number, on 6th May, contained a characteristic article by him on "Fraternity." In December of the same year the Bible readings were begun, from which sprang the meetings with working-men, held at Maurice's house during 1849. These meetings bore fruit in the starting of a Tailors' Co-operative Association. Maurice had appeared, at times, somewhat lacking in enterprise; he had a natural distrust of the spasmodic energy of the "go ahead." In advocating co-operation, he did not commit himself to any specific social plan. He remained throughout true to the conviction that the fundamental fallacy lay in "assuming that lands, goods, money, or labour are the basis of society, whereas human relations not only should, but do, lie beneath." In November 1850 appeared the first number of the *Christian Socialist*. By socialism Maurice meant "the acknowledgment of brotherhood in heart, and fellowship in work." The name suggested a struggle with unsocial Christians and un-Christian socialists. Years afterwards he justified its use on similar grounds. Yet above all he dreaded the formation of a new party with himself as leader. He protested against elaborate machinery, and held that to build associations upon decrees of a central board, was to build upon the sand. He saw clearly the danger of weakening moral influence by intermeddling with commercial details, and recognised in the Working-Men's College, founded in 1854, a more excellent way of serving co-operation. The following passage, written in 1849, and repeated almost verbatim in 1868, represents his economic faith. "The state, I think, cannot be communist; never will be; never ought to be. It is by nature and laws conservative of individual rights, individual possessions. . . . But the church, I hold, is communist in principle; conservative of individual rights and property only by accident. . . . The union of church and state . . . is precisely that which should accomplish the fusion of the principles of communism and property." It is noteworthy how closely this view resembles that of the CANON LAW (*q.v.*) towards private property. Nothing is easier than to criticise the Christian socialists: that the co-operative societies started by them mostly failed, while those started by the hard-headed workmen of the north (see CO-OPERATION) succeeded, was only what was to be expected. Yet even the direct results were not without importance, since the act of 1852, which legalised the position of such societies, was mainly their work. It is, however, to the indirect results that we must chiefly look. If the whole attitude of the working-class leaders towards religion and culture has been revolutionised, if the church of England, in its relations with the English people, has felt the breath of a new spirit, it is to the Christian socialists, and above all to Maurice, that the result is in large measure due. When he died there was a burst of popular grief such as had not been, it was said, since the death of the Duke of Wellington. Mystic, subtle, as he might be, working men understood him, because he understood them and their requirements—that a message for them to grasp must be something other and more living than mere opinions.

Of his forty-eight published volumes, not one is directly concerned with economic questions, and yet of all of them it may be said, as of his preaching at Lincoln's Inn, that whatever turn they take, they bring one's thoughts to the present day. As a good example of his manner may be cited the Lecture on masters and servants, in *Social Morality*, London, 1869, 8vo.

[For his attitude towards social questions see the correspondence in his life, edited by his son, Frederic Maurice, London, 1884, 8vo, 2 vols., and Charles Kingsley's Life, edited by Mrs. Kingsley, London, 1877, 8vo, 2 vols.—Art. by Prof. John on "Genossenschaftsbewegung" in *Zeitschrift für Volkswirthschaft* (Wien, band iii. heft iii. October 1894).—Art. by Thos. Hughes in *Econ. Review*, April 1891.] H. E. E.

MAUVILLON, JAKOB (1743-1794), an eminent German economist of the school of the PHYSIOCRATS, was born at Leipzig, the son of a Frenchman settled there as teacher of languages. He studied the science of engineering, and in 1771 entered the Carolinum at Cassel as teacher of military architecture; here the title of captain was conferred on him in 1778. In 1784 he was called to the Carolinum at Brunswick as teacher of politics and military tactics; here he attained the rank of lieutenant-colonel. His literary career began with translating French and English works and treatises into German, particularly the *Histoire philosophique et politique des établissements et du commerce des Européens dans les deux Indes*, by RAYNAL (Hanover, 1774-78). His conversion to the doctrines of the physiocrats was brought

about by translating Turgot's *Réflexions sur la formation et la distribution des richesses.* This appeared at Lemgo in 1775, under the title of *Untersuchungen über die Natur und den Ursprung der Reichthümer und ihrer Vertheilung unter den verschiedenen Gliedern der bürgerlichen Gesellschaft* (Enquiries into the nature and origin of Riches, and their distribution among the various members of Society). He came forward as a convinced adherent of the new doctrine in the *Sammlung von Aufsätzen über Gegenstände aus der Staatskunst, Staatswirthschaft und neuesten Staatengeschichte* (Collection of Essays on matters of Politics, Political Economy, and the most recent State-History), 1st vol. 1776, 2nd vol. 1777. Besides a number of economic treatises by foreign authors, including J. TUCKER'S *Four Tracts,* the work also contains an exhaustive essay by Mauvillon himself:—*Von der öffentlichen und privaten Ueppigkeit und den wahren Mitteln ihr zu steuern, nach den Grundsätzen der neueren französischen Physiokraten* (On Public and Private Luxury (*Luxe*), and the true means of checking it, according to the principles of the later French Physiocrats). This essay is remarkable, that in it for the first time, evidently borrowed from the French compilation "Physiocratie," by Du PONT (1768), the expression "physiocratic system" was employed for Quesnay's doctrine, and "Physiocratists" for his followers.[1] Mauvillon dedicated the book to C. W. Dohm, his colleague, at that time professor of cameralistic science at the Carolinum at Cassel, whose antagonism to the "physiocratic system" he knew, and whom he, in the dedication, invited to a rejoinder. Thence a literary conflict arose round the "physiocratic system," in which there took part, besides Dohm, who answered in a treatise published in the Deutsches Museum, *Kurze Darstellung des physiocratischen Systems* (Short explanation of the Physiocratic System) (1778), a large number of other political authors. (On this conflict, see article GERMAN SCHOOL OF POLITICAL ECONOMY.) In 1780, Mauvillon published a rejoinder, *Physiokratische Briefe an den Herrn Professor Dohm* (Physiocratic Letters to Professor Dohm). This is his principal work in economics.

Mauvillon is described by W. Roscher as intellectually the most important of the German physiocrats. That, however, is saying too much, since this position is undoubtedly due to SCHLETTWEIN (*q.v.*). Mauvillon acknowledges in the *Physiocratische Briefe* (Physiocratic Letters) themselves, that he has read but little of original physiocratic compositions. "There may thus perhaps be many things in my essays that are not entirely physiocratic, or that have not been said, or have been expressed differently, by the French economists. All that I desire is, that what I have said should be proved to be true. But if a name is needed, call it *Mauvillonish*" (p. 202). This "Mauvillonish" idea apparently causes him, in the treatise on "Luxury," to arrange the three social classes in such a manner that the landed gentry form a member of the productive class; but on the other hand besides the sterile unproductive class is made a special *salaried* class, composed of public officials, clergy, artists, and so forth. Mauvillon shares the full enthusiasm of the French physiocrats for their opinions. Quesnay's system is not to him like any other, that has advantages and disadvantages, but it is the only true system; it must, like virtue, be the best under all circumstances.—The co-operation of Mauvillon, in the work published by Count H. G. Mirabeau: *De la Monarchie Prussienne sous Frédéric le grand,* 1788, is well known. Mauvillon also published this work, some years afterwards, in German, under the title of *Von der Preussischen Monarchie unter Friedrich dem Grossen unter Leitung des Grafen von Mirabeau abgefasst und in deutsche Uebersetzung herausgegeben von J. Mauvillon Herzogt Braunschweigischen Oberstlieutenant* (On the Prussian Monarchy under Frederick the Great. Composed under the direction of Count Mirabeau, and published in German translation by J. Mauvillon, Lieutenant-Colonel of the Duchy of Brunswick), 1793. In the preface he describes his own share of the work as follows:—"Count Mirabeau really did not write this work, and the calumnious rage of his enemies and mine has compelled me to make this known. Only a few additions in the first and last books, and in the article on silk manufactures are by him. But to him, nevertheless, is mainly due the honour of the book, for he had conceived the idea of it, instilled it into me, gave me the means of accomplishing it, directed my work, and improved it very much after it left my hands." Mirabeau's *Lettres à un de ses amis en Allemagne, écrites durant les années 1786-90,* Brunswick, 1792, were addressed to Mauvillon, who published a German translation of them that same year.

Mauvillon also wrote several works on military science and history which, as remote from economic subjects, need not be noticed here.

[E. Leser, art. "Mauvillon" in the *Allgemeine Deutsche Biographie.*—W. Roscher, *Geschichte der Nationalokonomie in Deutschland* (History of National Economics in Germany).—Coquelin and Guillaumin, *Dictionnaire de l'Économie Politique,* art. "Mauvillon."] A. O.

[1] Du Pont has generally been regarded in economic literature as the originator of the expression "Physiocracy." In my edition of the *Oeuvres de Quesnay,* (Frankfurt A. M., 1888), I have, at p. 696 note, shown that this expression occurs half a year before the publication of Du Pont's work, in the *Ephémérides du Citoyen,* and indeed in an essay by the Abbé Baudeau. As Quesnay had, as editor, assisted in arranging the title-page of the *Physiocracy,* in which his writings are collected, I believed the authorship of the word belonged to Quesnay, and all the more because Du Pont himself had never claimed it. A. O.

MAXIMUM. See REVOLUTION, FRENCH.

MAXIMUM SATISFACTION is the object towards which the economic man strives; the MARGIN, which constitutes economic equilibrium. A great part of economic theory may be regarded as a statement of the conditions of maximum satisfaction (cp. Marshall's *Principles*, mathematical appendix, note xiv.). Thus the theory of market price—that the demand at that price should equal the supply at it (Mill, bk. iii. ch. 2)—may be deduced as the condition of the price for which the satisfaction of the buyers and sellers should be a maximum.

It is understood that this maximum is subject, or—as the mathematicians say, *relative*—to certain limitations. Thus, in a market, it is assumed that property passes only by exchange. It is not denied that an equalisation of property would—abstracting ulterior consequences—be productive of a greater sum total of utility than is produced by the play of the market under a regime of unequal property (Sidgwick's *Pol. Econ.*, bk. iii. ch. vii.; Jevons's *Theory*, 2nd ed. p. 153; Marshall's *Principles*, bk. v. ch. xii.).

It should be understood also that the *maximum* value of a function (see FUNCTIONS) is not necessarily the greatest possible value, but only the greatest of all values in the neighbourhood—a peak, but not the summit. There may be more *maxima* than one; and one *maximum* may be greater than another (Marshall, *loc. cit.* note). Accordingly, while it is true that any disturbance by which trade is shifted from an equilibrium to a neighbouring position, causes a diminution in the sum total of utility, it is also true that a disturbance, by which trade is shifted to the neighbourhood of a new equilibrium, may cause an increase in the sum total of utility. The latter kind of change is apt to occur when, by a stimulus to increased production, the advantages of production on a large scale are secured. Now it is quite conceivable that such a stimulus should be given by governmental interposition. Thus, while it is right to hold with Messrs. Auspitz and Lieben (*Theorie der Preise*, p. 425) and the classical economists, that a bounty causes a diminution in the sum total of utility, the organisation of industry being supposed unchanged; it is also right to hold with Professor Marshall that bounty, by bringing about a re-organisation of industry, may cause an increase in the sum total of utility.

Altogether, the doctrine that maximum satisfaction, or the greatest general good, is attained by exchange free from government intervention, is theoretically true in a much narrower sense than has been supposed by many publicists, and even by some theoretical economists. Its validity as a handy rule for practice is not denied.

[There is implied in the preceding argument a certain conception, which it is impossible here to express fully, concerning the modification of the law of supply—or SUPPLY-CURVES—which is involved in a re-organisation of industry, consequent on an enlarged scale of production. The view expressed on this subject by Mr. H. Cunynghame in the *Economic Journal* for March 1892 may be compared with the view expressed by Professor Edgeworth in the *Econ. Journal*, vol. iv. p. 436, and vol. xv. p. 62. In his *Mathematical Psychics*, he has pointed out analogies between the principle of maximum utility in economics and the principle of maximum energy in physics.] F. Y. E.

MAYOR, the annually-elected chief magistrate of a corporate town in England.

At the date of Domesday Book towns were governed by a *præpositus*, or reeve, and in many the payments due from the inhabitants to the king had been commuted for a fixed annual amount, the *firma burgi*, but there was, as yet, no municipal organisation unless the claims of London, set forth in the *Statement* addressed by the corporation to the city of London commission (1893), are historically valid. Under Henry I., however, London obtained by charter the election of its own sheriff, perhaps in place of the portreeve, and, in 1191, the citizens extorted the recognition of the *communa* they had long been trying to gain. This implied complete municipal self-government under a mayor, to the exclusion of all royal officers except the judges; but the *communa* must not be confounded with the merchant gild, from which it is essentially distinct in idea, though Glanville, in one passage, seems to treat the two as convertible terms. Indeed, it cannot be proved that London ever had a *gilda mercatoria*.

Henry Fitz-Alwyn, the first mayor of London, showed, in the affair of William Fitz-Osbert, that a corporation was not, in any modern sense, the champion of liberty; and in the year 1200, by purchasing a charter for the abolition of the ancient weavers' gild, the new municipality manifested a determination to control, without a rival, the trade and manufactures of the city.

The mayoralty of London is typical of the office in all other places, the charters of provincial towns frequently containing direct references to the customs of London as a standard. Some towns were allowed to have mayors at an early date—Leicester, for example, in 1208, but Norwich had no mayor until 1402.

The *Liber de Antiquis Legibus* assigns the date 1189 for Fitz-Alwyn's mayoralty, but not being a contemporary authority, its evidence must yield to that of Richard of Devizes and Benedict of Peterborough, who fix the year 1191 for the *communa*. Fitz-Alwyn held the office for life, and, in 1215, two years after his death, the king granted to the city the right of electing the mayor annually; but many of the subsequent mayors served for four or more years.

The customs of London were confirmed by

the 13th article of Magna Charta, and the high position of the mayor is shown by the fact that the *major de Lundoniis* was one of the twenty-five barons charged with carrying out the provisions of the charter.

A mediæval mayor played an active part in regulating the trade of his town. All questions arising from contracts between merchants, and all matters relating to apprentices, came before him, and he enforced the assize of measures, and the Assize of Bread and Beer. Wine, also, was tested by his authority, and the price of it might be fixed by his directions. All matters, too, relating to breaches of the regulations of the craft gilds were determined by him, and he thus gained a controlling influence over manufactures.

But more direct methods were not wanting, by which the mayor, with the advice, of course, of his council, settled matters which would now be left to the free bargaining of the parties concerned, and the *Liber Albus* of London may be consulted to show (pp. 289, 711, 712) that there was no hesitation about fixing the prices of meat, poultry, and fish, or the wages of carpenters, masons, and other workmen within the city, while on p. 418 of the same record may be read a document which is nothing less than a commercial treaty with Amiens and other towns.

An excellent idea of the position of a mayor in a provincial manufacturing town may be obtained from Blomefield's *History of Norfolk* (Norwich volume).

The history of the London mayoralty, from the reign of John, is the history of London itself, for which vast materials may be found in the records already quoted, and in the *Statutes of the Realm*. The mayor of London is supposed to have been first styled *Lord Mayor* in 1354, when the fourth charter of Edward III. gave him the honour of having gold or silver maces. He is summoned to sit and sign with the privy council the proclamation of a new sovereign. The mayor of Dublin, first appointed in 1409, was styled Lord Mayor by Charles II. in 1665, and the mayor of York has also for some time been entitled to the same special dignity, which recently was also conferred on the mayors of Belfast, Birmingham, Liverpool, and Manchester.

Mayors are now elected under the Municipal Corporations Act of 1882, 45 & 46 Vict. c. 50, from among "the aldermen, or councillors, or persons qualified to be such," on the 9th of November in each year, but the lord mayor of London is elected by the liverymen from the number of aldermen, the city of London not coming under the provisions of the above-mentioned statute. The chief functions of a modern mayor are to preside over the meetings of the council, to act as a justice of the peace for the borough, to act as returning officer at parliamentary and municipal elections, and to revise, with the aid of two assessors, the burgess lists when the borough is not represented in parliament.

[A. Pulling, *Laws, Customs, etc., of London*, 1854.—W. Maitland, *Hist. of London*, 1756.—Stubbs, *Constit. Hist.* and *Select Charters*.—James Thompson, *Essay on Eng. Municipal Hist.*, 1867.—H. A. Merewether, *Hist. of Boroughs*, London, 1835.—*Liber de Antiquis Legibus*, Camden Soc., 1846.—*Liber Albus* (*Munimenta Gildhallæ Londoniensis*, Rolls series).] R. H.

MEAN is generally used in the same sense as Average. Some statisticians restrict the term to that species of average which is the centre of a group fulfilling the Law of Error (see Error, Law of). F. Y. E.

MEAN AFTERLIFETIME. This word was proposed by Dr. W. Farr (*q.v.*) to express what is often called the Expectation of Life, *i.e.* the calculated length of time that persons, in the aggregate, live. "The idea intended to be expressed by 'expectation of life' is the mean time which a number of persons at any moment of age will live after that moment: it is the French *vie moyenne*. And this technical idea is strictly and shortly expressed by *after-lifetime*, a pure English word, formed on the same analogy as *afterlife*." W. Farr, *Vital Statistics*, p. 478.

MEAN, ARITHMETICAL. See Average.

MEAN PRICES. See Prices.

MEANS, Method of. The method of means or averages is mainly directed to two purposes: (1) to ascertain an objective quantity, such as the stature of a certain man, by taking the mean of several fallible observations; (2) to find a so-called "subjective mean," such as the stature of the "mean man" (Quetelet) which may represent or typify the members of a species. Of these problems the latter kind is more frequent in the statistics with which political economy is concerned.

[See Average, and the references given under that head.] F. Y. E.

MEASURE OF VALUE. See Standard.

MEASURES AND WEIGHTS. The measures and weights here dealt with are those which were in use in this country during the five centuries after the Norman conquest. At the beginning of that period the various systems were beginning to emerge from a state of chaos, at the end they were, except for scientific definition, almost the same as now. During this time the units, which were destined to survive, were standardised; statute after statute was promulgated, ordering standards to be kept in various places for reference, and officers were appointed to examine and condemn false weights and measures. The immediate object of these acts was mainly fiscal, namely the prevention of the frauds on the customs revenue which were perpetrated by skilfully varying the size

of the customary measures. As an instance of this fraud may be quoted the chaldron of sea-coal which grew enormously in size through the imposition of a duty on each chaldron landed.

Some commodities were sold by number, and here it must be remembered that our ancestors counted by the score, not the hundred, the latter not meaning necessarily 5 score, but 5 score and 8, 5 score and 12, or 6 score, according to the locality and the nature of the articles enumerated. A thousand being 10 hundreds, might be and sometimes was 1200. A dicker was 10, a dozen generally 12, but a dozen of iron was 6 pieces; a bind of eels 10 sticks of 25 each; a bind of skins 30 timbres of 10 each; a hundred of garlics 15 ropes of 15 each; but a hundred of most things was 6 score, of horse shoes 5 score; a cade of red herrings was 6 hundreds, each of 6 score; a last of herrings 20 thousands.

Linear and area measures have not altered much since the 13th century. The table contained in *De admensuratione terræ* printed among the *Statutes of the Realm* as of uncertain date, but probably compiled about A.D. 1300, is, except for the omission of the land chains, exactly the same as our modern long measure and area measure. At the time of the compilation of Domesday Book, however, and for a considerable time after, the area of the acre seems to have varied locally, but the acre, rod, and furlong, although originally independent units, were already definitely related to each other; the length of the ordinary field in the direction of the furrows being a furlong, a field a rod wide was called a rod or rood and four roods made an acre. The yard at this time was not looked upon as a subdivision of the furlong, but was merely a cloth measure. The Roman measures—the mile, and the foot with its subdivisions, were unknown; the measure for long distances was the leuca of 12 quarentines or furlongs, which, however, in Domesday book was only used for measuring woodland. The two other Domesday units of land measurements, the HIDE and the carucate (see CARUCAGE), have long puzzled antiquaries. The hide seems to have been a unit for the assessment of taxation, not a true measure, although a hundred years later in the *Dialogus de Scaccario* it was stated to be 100 acres. The carucate was as much land as required one plough team, the bovate or oxgang being the share attributed to each beast, an eighth of a carucate if eight oxen made a team. These two units soon lost their meaning and became obsolete, the carucate first, the hide after. The first recorded attempt at standardising was that of Henry I. who ordered that the *ulna* or yard, hence called *ulna regis*, should be as long as his own arm. His example was followed by Richard I. and John, who caused standard yards to be made of iron. This yard was not the cloth yard, which does not seem to have been legally determined till the 14th century. Of miscellaneous measures of length and area may be mentioned—the solanda or double hide; solium, about 120 acres; virga or customary yard; tey, toise, or fathom of two yards.

The standard weight from the conquest till the time of Henry VIII. was troy weight. The troy pound seems to have been an arbitrary standard, although attempts were made to base it upon the weight of a grain of corn, by defining the pennyweight as the weight of 24 grains of wheat, and when it was found that this was not true, altering the number to 32. An old weight called the auncel was abolished by the statute of 25 Edward III. Although the legal pound was the troy pound, the merchants of the 15th century seem to have preferred a pound of 16 ounces; this pound was finally legalised by the act 24 Henry VIII. c. 3, where it is called *haber de payes;* it had already superseded the troy pound for most practical purposes. The most important table of weights in the middle ages was the wool weight.

7 lb. = 1 clove or nail, sometimes called great pound.	13 stone = 1 pocket or sarpler.
14 lb. = 1 stone.	16 stone = 1 pack.
2 stone = 1 tod.	26 stone = 1 sack.
12 stone = 1 wey.	12 sacks = 1 last.

A load varied from 168 to 175 stone. Although this was the table ultimately established by law, it was actually subject to great local variations. The clove or nail was often 8 lb. The stone varied locally from 7 lb. to 20 lb., and a long string of statutes did not succeed in making it uniform. The same remark applies to the sack. A weight called *pondus* was sometimes used and seems to have been about 20 lb.

For butter—

3 lb. = 1 quart.
2 quarts = 1 pottle.
7 or 8 lb. = 1 clove.
14 lb. = 1 pot.
56 lb. = 1 firkin.
112 lb. = 1 kilderkin.

The stone or petra of lead was 14 lb.

5 stone made a pig, pes, formel, fodmael or fontinellus.

30 pigs made a charrus, carecta, or plaustrata, which weight, however, seems not to have been distinguished from the fother of 19 hundreds of 108 lb. each.

The following were the most common miscellaneous weights.

The bundle or garb of steel contained 30 pieces, and 25 pieces made a hundred of 108 lb., the bundle was also used for vetches, etc.

Mark of gold or silver = ⅔ of a troy pound.

Quintal of iron contained from 96 lb. to 120 lb.

Seem or sum of glass was 20 stone of 5 lb. each.

Wey of cheese was by statute 224 lb., but varied locally from 168 lb., *i.e.* 6 quarters, to 300 lb.

Wey of barley, malt, or tallow was 6 quarters or 108 lb.
Wey of salt, 25 quarters.

The table of corn measures which can be drawn up from 14th century accounts is identical with that now in use. There was, however, in use till the reign of Edward III. a bushel of 9 gallons (or 2145 oz.), which only became obsolete after being declared illegal by numerous statutes. The first attempt to combine weights and measures into one system seems to have been made by the act of 12 Henry VII. c. 5 which declared that the gallon of wheat was to contain 8 lb. troy. There were a great number of customary dry measures; the following list omits those of which the name only is known.

Boll = 6 bushels.
Butt of salmon = 84 gallons.
Cade of tar = 12 gallons.
Celdra or chaldron of sea-coal or oats = 4½ quarters, but the coal chaldron varied considerably at different dates.
Cipha or sieve = about 5 quarters.
Coomb of east coast or ring of Huntingdonshire = ½ quarter.
Crannock (Irish) of oats = 16 bushels.
Last = 80 bushels of corn or 12 barrels of fish.
Load, seem, or sum = 6 or 8 bushels, or 12 trugg, but a sum of oats was 24 trugg or 2 quarters.
Mitta or met of salt = 2 bushels.
Pottle of butter = 2 quarts (*v.s.* under weights).
Strike = ½ quarter.
Windle of nuts, a Cumberland measure, was a bushel.

A measure called "water-measure" was in use in the 15th century containing 5 pecks; it was originally legalised for use on board ship, and continued to be used for fruit till modern times.

The liquid measures did not become important till the development of the wine trade in the 14th and 15th centuries, when a great number of strange measures were introduced from abroad. The barrel was a very variable quantity, almost every liquid having a different standard. The following wine measures were defined by statutes 2 Henry VI. c. 14, Richard III. c. 13, and 23 Henry VIII., viz.: tun, 252 gallons; pipe or butt of Malmsey, 126; tertian or puncheon, 84; hogshead, 63; tierce, 41; barrel, 31½; and runlet, 18½ gallons.

It must be remembered that, in dealing with any set of mediæval accounts, the equivalent of the various weights and measures given above must only be used as a rough approximation, to be verified or corrected by collating a number of accounts of the same place and date.

[Thorold Rogers, *History of Agriculture and Prices*, Oxford, 1866-1887.—Martin, *Record Interpreter*, London, 1892. — Halliwell, *Dictionary, Archaic and Provincial*, London, 1847.—Donisthorpe, *Measures*, London, 1895. — Round, *Domesday Studies*, London, 1888.—Ellis, *General Introduction to Domesday Book*, London, 1833.]

A. E. S.

MECHANICS OF INDUSTRY. Just as all the physical sciences have their basis in the general principles of the abstract science of statical mechanics—the same primary laws of motion governing phenomena, whether of solids, liquids, or gases—so, according to JEVONS, does the structure of economic science, in all its branches, rest on an abstract theory of political economy, which concerns itself only with general laws, simple in nature, and deeply grounded in the constitution of man and the outer world, and which he designates "the mechanics of self-interest and utility" (*Theory of Political Economy*, 2nd ed. 1879, pref. xvii.-xviii., p. 23; art. on "The Future of Political Economy" in *Fortnightly Review*, November 1876, vol. xx. N.S., pp. 624-626). This, he says, "is entirely based on a calculus of pleasure and pain" (*Theory*, p. 25; cp. pref. vii.). For just as the theory of statics rests on "the equality of indefinitely small amounts of energy," so here economic phenomena are "explained by the consideration of indefinitely small amounts of pleasure and pain" (*ib. loc. cit.*); and the laws of exchange-value "are found to resemble the laws of equilibrium of a lever as determined by the principle of virtual velocities" (*ib. loc. cit.*, also ch. iv., see EQUILIBRIUM). Similarly, in the work of Professor Marshall (*Principles of Economics*, vol. i. 2nd ed. 1891), in which VALUE (*q.v.*) is recognised as the central idea in economics, the whole structure is at once seen to rest on the balancing of indefinitely small increments of utility against the corresponding increments of disutility (see DISCOMMODITY; FINAL DEGREE OF UTILITY). Still the theory of UTILITY, which results from the conception of "a calculus of pleasure and pain," is, as Dr. Keynes insists, rightly to be regarded as an essential premiss rather than as an integral portion of economic science (cp. *Scope and Method of Political Economy*, 1904, p. 91. n.).

A. B. C.

Dr. Irving Fisher in his *Mathematical Investigations in the Theory of Value and Prices*, has a good chapter on "Mechanical Analogies." Of these the most essential appears to be the analogy between mechanical equilibrium considered as a position of maximum energy, "where the impelling and resisting forces along each axis will be equal," and economic equilibrium considered as a position of maximum TOTAL UTILITY, "where the marginal utility and marginal disutility along each axis [each branch of production or consumption] will be equal." So in Prof. Edgeworth's *Mathematical Psychics*, pt. i. § 2, there is considered the analogy between the first principles of economics and "those principles of maximum energy which are among the highest generalisations of physics, and in virtue of which mathematical

reasoning is applicable to physical phenomena quite as complex as human life." Professor Marshall too has indicated that all the conditions of economic equilibrium may be comprehended in the one condition that the total utility or net advantages should be a maximum (*Principles of Economics*, Mathematical Appendix, 2nd ed., note xiv.). But in his third edition (*ibid.* note xiii.) he appears to shrink from the wider applications of this principle to "every field of economics." . . . "Such discussions have their place, but not in a treatise like the present."

MEDIA ANATA, a tax of 50 per cent on the amount of their salary, which, from the time of Philip IV., was levied on all Spanish officials during the first year of their appointment. E. Ca.

MEDIÆVAL FAIRS. The great continental fairs are one of the prominent characteristics of mediæval mercantile life, and the part they took in the development of international commerce and mercantile law is of conspicuous importance. Their origin must be ascribed to the great religious festivals which attracted large numbers of people to certain places at fixed periods, and therefore created exceptional opportunities for mercantile intercourse; this explains their names ("fair" and "foire"—derived from "ferial"; "messe" = "mass"), and also the special protection which was given to their frequenters. The records of some of them, as, for instance, the fair of St. Denis in Paris, go back to the 7th century, but the time of their fullest development is reached in the 12th century, when the six fairs of the Champagne country were successively held at Provins, Troyes, Bar, and Lagny, at periods extending over the whole year, and were frequented by merchants coming from France, Italy, Spain, Savoy, and Switzerland, Flanders and Brabant, England and Germany. These merchants enjoyed numerous privileges; they were under the protection of the counts of Champagne, not only while they were taking part in the fair, but also on their way to the same, and on their homeward journey (*conductus nundinarum*), which, at a time when the plundering of traders was a regular source of income for the noble inhabitants of the castles near which their roads passed, was a considerable advantage, and they could not be arrested for debts previously incurred. On the other hand, claims arising from debts incurred at the fair were specially privileged both as regards procedure and priority.

A special "fair" tribunal was established, which had exclusive jurisdiction in respect of all transactions entered into at the fair, and in the case of persons returning to their houses without paying their debts, had power to issue a writ requiring the court of the place in which the defaulter was resident, to proceed against him. If such requisition was not complied with, the city or country to which the court belonged was placed under "interdict," which involved an exclusion of all its citizens from the privileges of the fair.

Being the great international meeting-places, these fairs offered exceptional opportunities for all money-changing transactions; and on the other hand, the coins issued in Champagne were largely used for international payments; hence the expression "troy" weight = weight of Troyes.

Promissory notes and bills of exchange payable at the fairs were convenient remittances in all mercantile countries, and the bankers who frequented the fairs seem to have established a regular system of clearing among themselves. Thus it was that not only through the interchange of goods, but also through personal contact, a feeling of community of interests was established among traders of all nations which could not fail to have a civilising influence in all countries. A uniformity of prices and mercantile customs was established to the great advantage of the general public, and the facility for the enforcement of debts and mercantile engagements generally by means of the extensive powers of a central tribunal, fostered trade by diminishing its risks.

Through local causes, the fairs of the Champagne began to decay in the middle of the 14th century, and some time afterwards those of Lyons began to assume an increased importance, which reached its climax in the 17th century. At the same time the fairs in Germany, especially the one at Frankfort-on-the-Main, began to develop, without however at any time attaining the international importance of the French ones. The Leipzig fair obtained pre-eminence in the 18th, and had great importance throughout the present century, but it has now ceased to exercise any material influence. The great fair of Nijni Novgorod in Russia is likewise failing.

[The information given above is mostly derived from Goldschmidt, *Universalgeschichte des Handelsrechts*, a book full of interesting economical information. See also the numerous authorities quoted by Goldschmidt, especially:—Bourquelot, *Études sur les foires de Champagne;* see also Dr. Rathgen's article: *Märkte und Messen* in Conrad's *Handwörterbuch*, and the authorities mentioned therein; article "Foire" by Turgot, in *Encyclopédie* of Diderot and D'Alembert; see also MARKET.]

E. S.

MEDICI, THE. Though Florence was long shut out from unrestricted access to the sea, her trade and industry early exceeded those of towns such as Pisa and Lucca, which had the command of ports. The feudal aristocracy was overthrown by the industrial classes; the nobles were compelled to live within the walls and to submit to republican rule; and their repeated

attempts to recover their former ascendency never succeeded for any length of time. The commonwealth rested essentially on commerce and the arts. The population, for political as for other purposes, was regimented in trade gilds; associations of this kind had long existed, but they received their definitive organisation only in the latter part of the 13th century. Their number, after several changes, was fixed at twenty-one—seven greater and fourteen lesser. The most important industries were represented by the greater gilds, especially by the cloth-weavers, or Calimala,[1] the silk-weavers, and the money-changers. The wools of Italy were coarse, from the neglected condition of pasturage, as of agriculture generally; and the cloth-weavers imported wool from France, Flanders, Spain, and Portugal, England, and Scotland. The manufacturers of the Calimala were forbidden by statute to deal in home-made cloths; they imported the foreign fabrics made from the finer wools of Flanders, Holland, and Brabant; these they dyed and dressed, and then sold, at first in Italy and the East, and at a later period in France and England, and even in the countries from which, in the undressed state, they had been brought. Many of these manufacturers were members of distinguished families whose names often recur in the history of Florence. The silk-weavers were already numerous in the early part of the 13th century, and rose to greater importance when the cloth manufacture declined in consequence of the growth of the corresponding crafts amongst the Flemish, French, and English, which sought to exclude the Italian wares. But money-changing was the business which was the chief source of the wealth of the city. The origin of bills of exchange, placed in 1199, has been attributed to the Florentines; the commerce of Florence at least greatly extended their use. Banking was more flourishing there than in any other centre at the opening of the 13th century. In that century the Florentines had monetary dealings with Henry III. of England, and conducted the financial affairs of the holy see, which they long continued to manage to their great profit. Notwithstanding several reverses, arising from the action of the French and English sovereigns, the Florentine banks were numerous and powerful at the beginning of the 15th century. The Medici, the Bardi, the Acciajuoli, the Buonacorsi, and other great Florentine houses, had agents or branch establishments in London, Bruges, Paris, Lyons, Avignon, and Marseilles, besides those at Rome, Genoa, and Naples. In 1422 seventy-two exchange houses and tables are said to have existed at Florence in the *Mercato Nuovo* or its vicinity. The Florentine merchants of the period were notable, not merely for ability as men of business, but for personal dignity, public spirit, munificence, and patronage of art, to a degree not equalled by those of any other country; and of this combination of qualities several of the Medici presented eminent examples.

The Medici family first appears about the end of the 12th century. Giovanni de' Medici was a leader of an armed expedition of Florentines in 1251, and another member of the family took part in the expulsion of Walter de Brienne in 1342. They put themselves at the head of the *popolani grassi*, or superior trading classes, composing the greater gilds, who wrested the supremacy from the nobles in 1344. But the founders of the greatness of the family were Salvestro, and Giovanni surnamed di Bicci. Salvestro, who was gonfalonier in 1378, led a popular movement against the tyranny and proscriptions of the Albizzi. His son Veri was averse to public life, and devoted himself to commerce, which had already enriched the family. The defence of popular interests against the aristocracy became the hereditary policy of the Medici, and was effectively maintained by Giovanni di Bicci, who belonged to a different branch from Salvestro. Born in 1360, he inherited great wealth from his father Averardo, which he increased by his own ability, diligence, and prudence. In the register of property, 1427-1430, for purposes of taxation, Giovanni was second in the list of contributors. He had business relations, not only with the other Italian states, but with France and Flanders. All the great monetary affairs of Italy were transacted by him, notably those of Pope John XXIII. He expended largely from his private resources on public objects. As a politician his efforts were steadily directed to appeasing the enmities of classes and maintaining the internal peace of the republic. Giovanni's eldest son was Cosmo (1389-1464). He followed in the footsteps of his father. As a merchant he was skilful and successful. He had banks in all the countries of the west and was ruler of the European money-market. The agents who conducted his foreign speculations shared his prosperity; and hence, as Machiavelli informs us, originated many enormous fortunes in the hands of Florentines, as in the cases of the Tornabuoni, the Benci, the Portinari, and the Sassetti. His great profits from banking, trade, and farming, added to his inherited property, enabled him to spend large sums in the erection of churches and convents, as well as on his own household and social expenses, which latter, however, he restricted within prudent limits, thus avoiding public prejudice. The loans which he made to the state and to private citizens established his popularity, and, after his temporary fall and brief exile, were amongst the solid foundations of the power which he retained without interruption to the end of his life. He guided his political party amidst great difficulties with consummate skill, and conciliated opinion by his uniform courtesy

[1] "The term seems to have been taken from the name of the street in which the guild is situated. The street led to a house of ill-fame; hence the name *Callis Malus*, in the sense of *Via Mala*, evil road or lane."—*Villari*.

and his freedom from ostentation. Though practically the supreme director of the state, he assumed the manners rather of the first citizen of Florence than of its dictator. He did much for the furtherance of learning and art; and, on the whole, well deserved the title of *Pater Patriæ*, which by public decree was inscribed above his tomb.

Some members of the liberal school of the present century, who habitually exalted what they vaguely called liberty above good government, have spoken in a hostile, or at least a grudging, spirit, of the early Medici, because, from circumstances much less dependent on their personal efforts than on the condition of Florence in their times, the administration of the state came into their hands. But Voltaire has justly said that there never was a family whose power rested on more legitimate grounds, and it would be difficult to find, in the period to which he belonged, a nobler type than that of Cosmo.

His son Piero (1416-1469) was an excellent and highly esteemed citizen, but much inferior to his father in political acuteness and practical sagacity; and his grandson Lorenzo "the Magnificent" (1448-1492), though a brilliant and imposing figure, did not approach at all so nearly as Cosmo to the ideal of the chief of an industrial republic. As the Medici took more and more upon them the character of princes, they "forgot to be merchants." Their agents often neglected or mismanaged their affairs; and the commercial wealth of the family became completely dilapidated. Piero is thought to have seriously injured their political influence by demanding back loans which his father had made to many private persons—a proceeding which led to the insolvency of a number of merchants. But the failing resources of the Medici were largely supplemented out of the revenues of the state; and the republic, by diminishing the interest on the public debt and by other expedients, as Hallam says, "screened their bankruptcy by its own."

The later Medici cannot be followed here; they were no longer engaged in commerce, and in their political action did not rise above the other Italian rulers of their times.

[Machiavelli, *History of Florence.*—Guicciardini, *History of Florence.*—A. von Reumont, *Lorenzo de' Medici*, English translation by R. Harrison, 1876.—Pasquale Villari, *Two First Centuries of Florentine History*, English translation by Linda Villari, 1894.] J. K. I.

MEDINA, FRAY JUAN DE (lived towards the middle of the 16th century), was a Benedictine monk, and became the abbot of the monastery of this order in Salamanca. On the occasion of the regulations proposed by the government of Castile against the swarms of professional beggars who infested the country, a Dominican monk, fray Domingo de Soto, in his *Deliberatio in causa Pauperum* (Salamanca, 1545), had maintained their natural right to beg, and to pass from poor and destitute regions to other and richer parts of the monarchy. In his treatise entitled *De la órden que en algunos pueblos de España se ha puesto en la limosna para el remedio de los verdaderos pobres* (On the Regulation of Almsgiving for the Remedy of the Real Poor), also printed in Salamanca in 1545, by the same printer and reprinted in Valladolid in 1757 under the new title of *La Caridad discreta con los Mendigos*, Medina asserts the right and the obligation of the local authorities to provide for the wants of their own and honest poor, and to expel, without mercy, all shameless and able-bodied beggars strangers to the locality. "Justice must temper mercy, and almsgiving must be dealt with in an unambiguous way."

[The debate between the two reverend antagonists is very clearly summarised by Don Manuel Colmeiro in his *Hist. Ec. de España*, vol. ii. pp. 34-36.] E. Ca.

MEDIUM OF EXCHANGE. See MONEY.

MEDJIDIE. Two Turkish coins bear the name Medjidie (after the Sultan Abdul Medjid); the gold medjidie, or Turkish pound, and the silver 20-piastre piece. The gold medjidie, of 100 piastres, is a coin weighing 111·366 grains of gold of the millesimal fineness of 916·6̇, and is equivalent in sterling value to 18s. $0\frac{3}{4}$d. or to 22·78 francs of French standard gold, $\frac{9}{10}$ fine. The silver medjidie is a token coin weighing 371·22 grains, with a millesimal fineness of 830. F. E. A.

MEEK, Sir JAMES (1778-1856), was appointed in 1830 comptroller of the victualling and transport services at the admiralty. In 1841 he visited various foreign ports and cities to collect information as to the cost and supply of agricultural produce, etc. His report, which was printed by order of the House of Commons (*Parliamentary Papers*, House of Commons, 1842, vol. xl. No. 7), contained a mass of information, arranged in a tabulated form. It was of much service to Sir R. Peel in the preparation of his free-trade measure of 1846.

[*Dictionary of National Biography*, vol. xxxvii. p. 209.] H. E. E.

MEES, WILLEM CORNELIS (1813-85), was born at Rotterdam. He studied law at Utrecht, 1830-38, practised as a lawyer at Rotterdam (1838-47), where in 1843 he was also appointed secretary of the chamber of commerce. In 1849 he became secretary of the Netherland Bank, and 1863 president, which post he continued to hold until his death. Before he took his degree he wrote *Proeve eener Geschiedenis van het Bankwezen in Nederland* (History of the Banking System in Netherland), Rotterdam, 1838. His academical dissertation was entitled: *De vi mutatae monetae in solutionem pecuniae debitae.*

He also wrote the following works on economics:—*De Werkinrichtingen voor Armen uit een staathuishoudkundig oogpunt beschouwd* (The Workhouses for the Poor, from an Economic Point of View), 1844; *Het Muntwezen*

van Nederlandsch Indië (The Currency System of Dutch India), Amsterdam, 1851; *Overzecht van enige Hoofdstukken der Staathuishoudkunde* (Leading Chapters of Political Economy), Amsterdam, 1866. Of several speeches delivered in the Royal Academy of Sciences, the following are the most remarkable:—(*a*) *De Muntstandaard in verband met de pogingen tot invoering van eenheid van Munt* (The Standard of Currency, in Relation to the Efforts to Institute Unity of Currency); (*b*) *Opmerkingen omtrent gelijke verdeeling van Belasting* (Remarks on an Equal Division of Taxes); (*c*) *Poging tot verduidelijking van eenige begrippen in de Staathuishoudkunde* (An Attempt to give General Information on Political Economy).

Mees was essentially a man of science, and a very correct thinker on economical subjects. He generally agreed with the doctrines of Ricardo and Malthus. Intellectual and moral development was considered the best means for improving society. His *Chapters* is a very remarkable book, tending especially to set forth the connection between the rate of interest and the rate of wages, and the bearing of both on prices. The *History of Banking* is very complete.[1] He was a bimetallist by conviction; he advocated this system not only in his writings, but also at the Paris monetary conferences of 1867-68 as a delegate of the Dutch government. It may be claimed for him that he was one of the first who sought to place the doctrines of bimetallism on a scientific basis. As secretary and president of the Netherland Bank he gained great reputation; his management of that institution was greatly admired, and he largely contributed to its extension and improvement. A. F. v. L.

MEETING, Company. The Companies Act 1862 makes it obligatory for every company incorporated under its provisions (§ 49) to hold once a year at least a general meeting. Minutes of all resolutions and proceedings must be entered in the proper books (§ 67), and, under Companies Act 1900, § 12, a first (statutory) meeting must be held within a prescribed period. The articles usually provide for one general meeting to be held at a certain date each year, to be called the "ordinary" general meeting of the company, power being given to the directors and a certain number of shareholders to convene "extraordinary" special meetings. (See Table A., art. 29-34.) E. S.

MELANCHTHON, Philip (1497-1560), like Luther (*q.v.*) and the other Reformers, dealt freely and at length with the economic topics of the time in his sermons and other writings. In his general attitude, as we might expect, he resembled Luther; but his less passionate temperament, and his more scholastic learning show themselves in several matters. Especially was this the case in regard to the burning question of usury (see Interest and Usury). He follows the later canonists in approving of each of the three methods, and these in their most liberal form, by which a profitable investment was sought for capital,—the purchase of rent charges (*Census, Zinskauf*), partnership, and "interest" in its earlier sense. In the case of the last, while abiding by the old principles that the lender must lose a real opportunity of profit to have a just claim for recompense, and that the compensation must be reasonable, he took the decisive step of distinctly maintaining that compensation could justly be bargained for to run from the moment of the loan, and not simply on account of "Mora," or delay in repayment after an appointed time. See also Navarrus de Azpilcueta.

[Citations from his *Dissertatio de Contractibus*, and other works will be found in H. Wiskemann, *Darstellung* (1861), etc., and in G. Schmoller, *Zur Geschichte*, etc. (1861).—For an account in English see Ashley, *Economic History*, i. pt. ii. p. 457.] W. J. A.

MELON, Jean François (16——1738), born at Tulle, died at Paris. Originally practising as a lawyer at Bordeaux, he became in 1712 the paid secretary of a literary society, and then was appointed to the financial council established at Paris on the death of Louis XIV. He was then employed by D'Argenson and appointed inspector-general of *fermes* at Bordeaux. Afterwards he became the secretary of John Law, with whom he remained until the *Système* ceased to exist. Thence he passed into the service of the regent. At the death of the Duke of Orleans (1723) he returned to private life.

These successive occupations show a variety of ability which explains the welcome given by Melon's contemporaries to his *Essai politique sur le Commerce* (editions in 1734, 1736, 1742, 1761), and the influence he exercised in his time. The writings of Melon influenced Dutot (1738), and the writings of the latter gave the tone to Paris Duverney (1740). The "inside" account of the *système* of J. Law, which Melon gives, is important. He favoured slavery in the colonies, the mercantile system, and the balance of commerce; but he did not support a protective system as at present understood, and was aware that the interest of the consumer precedes that of the producer. He shows a mind which might have been favourably influenced by Quesnay and Adam Smith, had he lived half a century later.

Guillaumin's collection (*Économistes Financiers du XVIIIe siècle*, 1843) contains his *Essai politique sur le Commerce* as well as the *Réflexions politiques sur les Finances et le Commerce*.

[See reference to Melon—Hume, *Essays*, No. I., *on Commerce*—as to occupations of population in France, and in note Q, in which Melon's opinions are criticised. Turgot thought Melon eclipsed by Montesquieu and others, including Quesnay. *Œuvres*, ed. Daire, v. ii.] A. C. f.

[1] It clears up much on the history of the Netherlands Bank, misunderstood by A. Smith.

MEMORANDUM OF ASSOCIATION. Certain particulars respecting a company to be formed under the Companies Acts must be embodied in a document signed by at least seven members of the company, which document is called the memorandum of association. In the case of a company limited by shares, the required particulars are (1) the name of the proposed company; (2) a statement as to whether the registered office of the company is in England, Scotland, or Ireland; (3) the objects for which the company is to be established; (4) a declaration that the liability of the members is to be limited; (5) the amount of capital, and the number of shares into which it is to be divided. The directions as to the rights and duties of shareholders and directors, and as to the manner in which business is to be carried on, are generally given by a separate instrument, the name of which is "articles of association," but which, in the case of a company limited by shares and willing to abide by the regulations laid down by "Table A" (in the schedule to the act of 1862), is not required. A great difference between the memorandum and articles arises from the fact that the latter can at any time be altered by special resolutions, whilst the former cannot be altered even by the unanimous vote of the shareholders, except subject to certain conditions and restrictions. Before 1890 the only alteration which was permissible was an increase of the capital of a company limited by shares, but the Companies (Memorandum of Association) Act, 1890, provides that, subject to the consent of the court, and to the compliance with certain formalities, alterations, as regards the objects of the company, may be made if it appears that they are required in order to enable the company (*a*) to carry on its business more economically or more efficiently; (*b*) to attain its main purpose by new or improved means; (*c*) to enlarge or change the local area of its operations; (*d*) to carry on some business which may conveniently be combined with the former business; (*e*) to restrict or abandon any of the objects specified in the memorandum.

If any alterations are required which cannot be effected in the above-mentioned manner, a reconstruction of the company becomes necessary.

[Palmer, *Company Law*, 5th ed. 1905.]

E. S.

MENDICITY. Mendicity differs in character in different countries and at various times, but it everywhere embodies two ideas, viz. living at the cost of others, and wandering from place to place in search of the means of subsistence. In ancient Greece the mendicant was a familiar figure, he was tolerated if not encouraged, as witness the combat between Odysseus and Irus, for the post of "gaberlunzie" in Ithaca. In Rome mendicancy was common and was not forbidden by law, though in the later days of the empire repressive measures were adopted. The early days of Christianity were marked by an absence of the mendicant class, but it soon began to grow, and the laws of Justinian on the subject were necessitated by the halo of sanctity with which the church at times surrounded the beggar. In this country, the attitude of the ruling power towards mendicancy has varied greatly. The 14th century saw a series of acts passed, each more stringent than the last, on this subject. Sturdy beggars were to be put in the stocks, sent to gaol, and generally treated as a public nuisance, and with great wisdom the act of 1349 punished with imprisonment those who gave to such. But the law was almost powerless in the face of the encouragement which the beggar found at the religious houses throughout the country, and in the countless forms of indiscriminate charity. There is ground for thinking that mendicancy flourished during the 15th century, and it was only towards the middle and end of the 16th that measures against it were enforced, possibly in part owing to the sounder teaching of the reformers on the subject. Then we find Southampton ordering that beggars should have their hair cut, and parliament decreeing punishment in a progressive scale of severity. Whipping, branding, cutting off the gristle of the ear, even death, were the penalties assigned; whilst a loophole, so to say, was given by the provision which empowered the granting of licenses to beg. Lastly, in 1576 it was enacted that houses of correction should be provided in which the unemployed, who were generally vagrants, should be set to work. The end of the century saw a considerable abatement of the evil. From 1601 onwards the treatment of mendicancy has been a part of the general poor-law system of England. But the "rogue and vagabond" is the despair of the framers of acts for the relief of the poor, and dealing with settlement. Thus a consolidating act of 1713 lays it down that any person wandering about the country on any one of a long list of pretences is to be summarily arrested and removed to his settlement, or if he have none, to be dealt with by the poor-law authorities of the parish in which he is apprehended, but previously he may be flogged or set to hard labour, or committed for seven years to the custody of any person who will undertake to set him to work in Great Britain or the colonies. By the act of 1744 even women are to be flogged for vagrancy, and as late as 1824 flogging is retained as the appropriate punishment for "incorrigible rogues."

Under the new poor law of 1834 the vagrant was not distinguished from the ordinary pauper. Admission to a workhouse was a right enjoyed by all the destitute alike, with a corresponding freedom of discharge. Hence the vagrant found

in the workhouse a convenient and cheap resting place. This led to the provision of 1842, by which the guardians were empowered to prescribe a task of work to be done before he quitted the workhouse, and punishment for neglect to do it. By the act of 1871 he was to be detained till 11 o'clock, and if he reappeared at the same workhouse twice in a month, he was liable to detention till 9 A.M. on the third day after his admission. Special provision is now made for him in accommodation and diet. The number of casuals relieved on the night of July 1, 1905, was 8556. But mendicancy cannot be solved by act of Parliament. The legislature may provide for the treatment of "casuals," and make begging a crime, but such preventive measures will only be effective so far as they are supported by public opinion. The ordinary man feels compunction in "giving a beggar in charge," he has a certain sympathy with him, he lends a willing ear to his sad tale, he shirks the trouble of inquiry, he too often believes him. And so long as the demand for beggars in this shape continues, so long will the supply be forthcoming. Mendicancy takes many forms: the travelling hawker, duly furnished with a police license, the wandering musician, are in reality mendicants, for the sums they receive are out of all proportion to the services they render. The life of the mendicant has attractions of its own, as shown by the character of Edie Ochiltree in Scott's *Antiquary*, and the disinclination of mendicants to accept an offer of regular employment. Attempts to provide such employment are not wanting, they are seen in the work of the Salvation Army and the labour homes of the Church Army. In the same spirit philanthropists in Holland and Germany have founded INDUSTRIAL COLONIES (*q.v.*) in which vagrants may be gradually trained in the ways of regular and civilised living.

[For early and mediæval mendicancy, W. J. Ashley, *Economic History*, vol. i. pt. 2, ch. v., giving list of authorities; for English mendicancy, C. J. Ribton James, *History of Vagrants;* for the attitude of the legislature, Nicholls, *History of the Poor Law*, and Aschrott, *The English Poor Law System*. Interesting experiences in Flynt's *Trampings*.] L. R. P.

MENGOTTI, FRANCESCO (1749-1830). An economist and statistician, born near Feltre (Belluno). He was appointed in 1806 president of the general administration of finance in the Venetian provinces, and afterwards held the same post at Ancona; he was a senator in the first kingdom of Italy. When the Austrians returned into Italy, Mengotti became a councillor of the Venetian government, and vice-president of the board of taxation in Milan, where he died.

His best-known work is on *Commerce*, called by him "Colbertism" from Colbert. This was a prize subject, set in 1791, by the "Accademia dei Georgofili" at Florence, and the prize was adjudged to Mengotti's paper. In this essay the writer endeavours to reconcile the MERCANTILE SYSTEM and the doctrines of the PHYSIOCRATS. He advocates free competition, and suggests the measures necessary for the adoption of free exchange. He, however, commits the error of attributing the origin of mercantilism to Colbert, who, while he frequently experimented in and applied its methods in France, was not its inventor. Mengotti's style is pleasing; his work had great success, and went through several editions.

Mengotti also wrote an essay (1787) on the commerce of the Romans, which obtained a prize at the Academy of Inscriptions in Paris. In this work the author maintains the theory that the Romans did not understand the importance of trade, that they thought only of enriching themselves with the spoils of every nation, and that their sole commerce was that of transporting into Italy all the riches of the countries they had conquered. Finally, Mengotti wrote a work on treasuries and public loans.

Del commercio dei Romani dalla prima guerra punica a Costantino, dissertazione, 1787. —*Il Colbertismo, dissertazione*, Florence, 1792.—*Se sia piu saggio il sistema degli antichi di avere un tesoro ovvero quello dei moderni di fare degli imprestiti per sovvenire di pubblici bisogni*, 1828.

[Lod. Bianchini, *Della scienza del ben vivere sociale*, Palermo, 1845, pp. 279, 280.—Pecchio, *Storia dell' economia pubblica*, Turin, 1852, pp. 209-213.—Cossa, *Introduction to the Study of Political Economy*, London, 1893.—F. Facen, *Mengotti e le sue opere* (1875, nella Rivista Veneta).] U. R.

MENIER, ÉMILE JUSTIN (1826-1881), a great French chocolate manufacturer and a member of the house of deputies.

Author of: *Théorie et Applications de l'Impôt sur le Capital*, 1874; *L'Avenir Économique*, 2 vols., 1875 and 1879; *La Réforme Fiscale;* and *Les Travaux de Paris par l'Impôt sur le Capital;* —made himself prominent as an indefatigable advocate of the taxation of fixed capital, and the immunity of circulating capital from all taxes.

E. Ca.

MENSARIUS. In a general sense *mensarius* (cp. *trapezita* in Plautus) means a banker or a money-changer, and if it was not originally the precise equivalent of *argentarius* (see ARGENTARII) it probably became so in the closing days of the Roman republic, for Suetonius (*Augustus*, 2 and 4) in one passage applies the term *argentarius* to the grandfather of Augustus, and in another describes him in the same sentence as *nummularius* and *mensarius*, two words which Festus shows are equivalent by explaining one by the other. But these words may conceivably have denoted different aspects of his business. Livy (vii. 21) supplies a safer clue in the passage: *quinqueviris creatis, quos mensarios ab dispensatione pecuniæ appellarunt;* and again, (xxvi. 36) *argentum, æs signatum, ad triumviros mensarios referamus.* From these words it appears probable that *mensarii* were bankers in

an especially public sense, and controlled the payments and loans made from public money; but the matter is one upon which opposite views have been held by scholars.

[Smith, *Dict. of Greek and Roman Antiquities.* —Mommsen, *Hist. of Rome*, 1894, ii. pp. 86, 343, iii. 83.—Deloumie, *Les Manieurs d'argent à Rome.*]

R. H.

MERCANTILE SYSTEM. By the mercantile system we mean the economic policy of Europe from the break-up of the mediæval organisation of industry and commerce to the dominance of the system of LAISSEZ-FAIRE (*q.v.*). Strictly speaking, there is only one country, viz. England, in which the mercantile system can be studied in all its phases. In other European countries the growth of the system of *laissez-faire* has been arrested, or a revival of mercantilism has taken place, from various causes, such as the creation of the German empire, and increased military expenditure. It is conceivable also that even so far as England is concerned there might be some return to mercantilist principles if a definite attempt were made to carry into effect a scheme of imperial federation. The object of the mercantile system was the creation of an industrial and commercial state in which, by encouragement or restraint imposed by the sovereign authority, private and sectional interests should be made to promote national strength and independence. Writers of the mercantilist school regarded political economy as a branch of the science of statesmanship, and, unlike the early advocates of *laissez-faire*, held that private interests did not necessarily, or even usually, coincide with the interests of the community. There are many points of resemblance between the mercantile system and state socialism (see SOCIALISM). An organised industrial and commercial state is an ideal common to both, and many of the measures adopted under the former would no doubt reappear if any considerable approach to the latter took place. But they differ in the ultimate end proposed. The object of the one was national self-sufficiency; of the other, it is the improvement of the lot of the wage-earners. The mercantile system involved regulation and control by the central authority, but not necessarily the imposition of protective duties. Thomas MUN (*q.v.*), its principal English exponent, admits cases in which free importation or exportation is desirable, and many of the early writers regard with great approval the "lowness of customs" imposed by the Dutch republic. Whether, on the principles of the mercantile system, a duty should be imposed or not, would depend upon the relation of the industry or trade concerned to the general economy of the nation. But in effecting their objects mercantilist statesmen did, as a matter of fact, find it necessary to invent a very elaborate system of DISCRIMINATING DUTIES (*q.v.*), and so long as the principles of the mercantile system were accepted, any considerable approach to freedom of trade was impossible. Adam SMITH makes the theory of the BALANCE OF TRADE (*q.v.*), as elaborated in MUN'S *England's Treasure by Foreign Trade* (1664), the central doctrine of the mercantile system. He represents that most of the restraints and prohibitions of that system were the result of its teaching, or of ideas to which Mun gave expression. But in the light of modern historical research it can scarcely be maintained that the mercantile system was merely the outcome of a failure to distinguish between wealth and money. Mun's work, all of which was written before 1628, though not published until 1664, taken together with the pamphlets of Edward MISSELDEN and other writers, no doubt gave to the mercantile system something in the nature of a theoretical economic basis, but the system was "established" long before the controversy on the balance of trade and the bullion policy of the EAST INDIA COMPANY. The NAVIGATION LAWS, the CORN LAWS, the acts for the encouragement of tillage, the statute of apprenticeship, the Elizabethan poor law, and other great measures which constitute the mercantile system (see APPRENTICESHIP, STATUTE OF; LEGISLATION, ELIZABETHAN), cannot be traced to the influence of any group of economic writers. They were the result of the efforts of statesmen so to direct the economic forces of their time as to create a strong and independent State. In Adam Smith's time the conditions which had really inspired the old regulations had practically disappeared. He made the mercantile system seem ridiculous by showing that it was based upon a mere popular fallacy. Apparently unconscious of the gulf between the 16th or the 17th century and his own time, he attacked the mercantilists because they had not fulfilled objects they had never had in view. His chapters are admirably designed for the demolition of an already undermined and tottering system of political economy, but they do not convey a true impression of the real character and aims of his opponents. His defence of the Navigation Act of the Long Parliament, and his distinction between productive and unproductive labour and consumption, transferred to the sphere of practical statesmanship, would afford a complete justification of the mercantile system.

It is impossible, within the narrow limits of an article, to give even a sketch of the rise, progress, and decay of the mercantile system, or to estimate its results. Only a brief indication of the general lines of development can be attempted. The influence of the system at any time depends upon a variety of circumstances, —the wealth of the country, the state of industry and commerce, the nature and the

extent of foreign trade, the degree of political consolidation, the strength of the sentiment of nationalism, the power of the central authority and its relation to local or municipal bodies. Some of the earlier phases of the movement can be usefully studied in the commercial and industrial policy of James I. of Aragon. In the case of Barcelona, as in that of England, mercantilism succeeded a policy of free trade. In England the efforts of Edward I. to bring the industry and commerce of the country under the control of the government, and Edward III.'s free trade policy, were followed by a mercantilist regime. During the 15th century the development of the system can be traced in the struggles and rivalries of the staplers, a mixed body of English merchants and foreigners, the Hanse merchants, and the merchant adventurers, and the trade regulations of Edward IV. (see ADVENTURERS, MERCHANTS; HANSE OF LONDON; STAPLE; etc.). By the end of the century the general features of the mercantile system are well defined.

The general character of the economic problems which English statesmen had to grapple with in the 16th century has been indicated in a former article (see ENGLISH EARLY ECONOMIC HISTORY). The result was the mercantile system as embodied in the legislation of Elizabeth (see LEGISLATION, ELIZABETHAN); the organisation of the trading companies (see TRADE, FOREIGN, REGULATION OF); and the NAVIGATION LAWS (*q.v.*). An instructive parallel may be drawn between the economic policy of England at this period and that of France, Sweden, and other European countries. Henri IV. "dressed a new plan of the French monarchy; and though his great designs were intercepted by an immature death, and also by a succeeding minority, yet the great Cardinal Richelieu resumed it again. He first taught France that the *fleur de luces* could flourish at sea as well as on land, and adorned the sterns of his new-built ships with this prophetic inscription, '*Florent quoque lilia ponto*'" (Sir Philip Medows). But it was not only in this direction, but in his general policy, that he acted in accordance with the principles of the mercantile system; while Cardinal Richelieu was still more active in the same direction. The history of the system during the 17th century is practically the history of the internal measures, and the trade and diplomatic relations of England, France, Holland, and Sweden. Cromwell in England, and Colbert in France, are generally regarded as typical mercantilist statesmen. But this is scarcely true of Cromwell, Strafford approaching much nearer the ideal. In the time of the Commonwealth and protectorate, unmistakable signs can be discovered of the break-up of mercantilism, and the approach of a period of *laissez-faire*, particularly in relation to the trading companies, the poor law, and certain industrial statutes; and by the end of the 17th century the decay of pure mercantilism was very marked. It is curious to notice how closely in this respect France and England kept pace with each other. The causes of the decay of the mercantile system have already been briefly indicated (see ENGLISH EARLY ECONOMIC HISTORY; FREE TRADE, EARLY HISTORY OF). It is necessary to observe, however, that economic policy was in certain directions in advance of economic theory. That nations should pass through a mercantilist "stage" seems inevitable. In the economic policy of the Great Elector, Frederick William (reigned 1640-1688), and Frederick the Great (reigned 1740-1786), features similar to those of England at an earlier date can be discerned. Though the theory of the balance of trade has disappeared, the policy of regulating industry and commerce with a view to national interests as distinct from those of the consumer is still prevalent throughout Europe and in the colonies. It cannot be said, therefore, that the mercantile system, in some of its essential characteristics, has by any means disappeared.

[Schmoller, *Mercantile System*, trans. by W. J. Ashley. Macmillan.] W. A. S. H.

MERCANTILISM. See MERCANTILE SYSTEM.

MERCERS. The early history of this craft is obscure. They seem to have been originally traders in small wares, and "mercer" and "merchant" were frequently used interchangeably. But the term soon came to be restricted to dealers in what is now called haberdashery; and during the 15th century silks and velvets became their main articles of trade.

In London the mercers rose to importance during the reign of Edward III. Like some other misteries, their first formal association was probably in the form of a religious fraternity; and such a "fraternity of mercers" is mentioned as early as 1321. In 1365 they contributed more than all, save three other London misteries, to the expenses of carrying on the war in France; in 1377, like eight other misteries, they elected six members of the common council. It was not, however, until 1393 that the men of the mistery of mercery of the city of London secured by the payment of a heavy fine letters patent from Richard II., licensing them "to have a perpetual community" with power to elect four wardens to regulate the craft. The reason assigned for the license shows not only that the community was still largely of a religious character, but also that the mercers of that date were no longer content to deal in goods imported by others, but were themselves beginning to engage in foreign trade. It sets forth that "several men of the mistery often by misfortunes of the sea and other unfortunate casualties had been impoverished . . . where-

fore the men of the mistery desired to ordain some certitude for the sustentation of such poor, as well as of a chaplain to celebrate divine offices." Among the most successful of the great merchants of the mercers' company was Sir Richard WHITTINGTON (lord mayor in 1398, 1407, and 1420), who appointed it by his will (1421) trustee of his college, almshouse, and other charities. The company had already, in 1393, received permission to hold lands to a certain value in mortmain; by letters patent in 1424 it was expressly given the right to have a common seal, and to sue and be sued as a corporate person. It was from among the mercers that the organisation of Merchant Adventurers (see ADVENTURERS, MERCHANTS), arose early in the 15th century; and the two bodies long remained closely connected. So rapidly did the wealth of the mercers and their corporate dignity increase that during the second half of the 15th century the mercers' company was frequently placed first among the London misteries on ceremonial occasions, and this precedence was definitely confirmed to it by an order of the court of aldermen in 4 Henry VIII. In 1511 and subsequent years, Dean Colet, the son of a mercer, made the company trustee for his newly-founded school at St. Paul's, and granted to it considerable estates for the purpose. It built for itself a hall and chapel during 1517-52. During the later Tudor reigns the company grew in wealth and importance; it shared in the reputation of its member Sir Thomas GRESHAM; and it contributed largely towards the provision of troops, the storing of the city granaries, and other public purposes. Its position in the economic history of the 17th century is rendered sufficiently evident by the facts that it was in Mercers' Hall that the Council of Trade held its meetings in 1660, that there the earliest operations of the Bank of England took place in 1694, and that there subscriptions were received for the United East India Company in 1698. By this time, however, the company had come to be dissociated from the occupation whose name it bore. The loss of its buildings in the great fire of 1666 seriously embarrassed its finances: to pay off its debts it engaged, in 1698, in a most unprofitable scheme of granting annuities, from the disastrous effects of which it was only enabled to recover by means of a lottery authorised by 4 George III. During the present century its income has been enormously increased by the falling-in of building-leases in London. The annual revenue in 1879-80 was £82,758 (corporate, £47,341; trust, £35,417); and the livery in 1892 numbered 185.

There arose mercers' companies during the 15th, 16th, and 17th centuries in most other important English towns. The statute of apprentices (5 Eliz. c. 4) placed the craft of the mercer next after that of the "merchant trafficking into any parts beyond the sea" in the list of those occupations for apprenticeship to which a larger than the ordinary property qualification was necessary on the part of the parents. In the curious unions of incongruous crafts which were effected in the 16th and still more in the 17th century, it was frequently the mercers who gave their name to the chief craft organisation in the town. The main purpose of these later organisations was to enforce the law of apprenticeship, and to exclude strangers from the industry and trade of the several towns.

[For the London Company, see W. Herbert, *History of the Twelve Great Livery Companies* (1834), vol. i., and W. C. Hazlitt, *The Livery Companies of the City of London* (1892).—For other English towns a list of references will be found in C. Gross, *Gild Merchant* (1890), i. 129 *n.* 1; 139 *n.* 2.—*The Laws of the Mercers Company of Lichfield* of 1623, transcribed by Mr. W. H. Russell, are printed in the *Trans. of the R. Hist. Soc.*, N. S., vii. (1893).] W. J. A.

MERCHANDIZE, MARKS ON. See TRADE MARKS.

MERCHANTABLENESS, IMPLIED WARRANTY OF. According to the civil law which is followed in many continental countries the seller of a thing is held to guarantee the buyer against any latent defect in it. But the general rule of English law is *caveat emptor*. The buyer is entitled to have the article he contracted for, but its quality and condition must be the subject of express stipulation. In modern times the tendency is to narrow the rule of *caveat emptor*, and a notable exception engrafted in it is the implied warranty of merchantableness. When goods are bought by description from a manufacturer or dealer, and the buyer has no opportunity of inspecting them before purchase, the law implies a warranty or condition that they shall be merchantable, that is to say, that they shall be reasonably fit for the purposes for which such goods are ordinarily used.

[Benjamin on *Sales*, 2nd ed. p. 549.—Chalmers, *Sale of Goods Act*, 2nd ed. p. 29.] M. D. C.

MERCHANT ADVENTURERS. See ADVENTURERS, MERCHANTS.

MERCHANT LAW. See LAW MERCHANT.

MERCHANTS, STATUTE OF. See LAW MERCHANT.

MERCHANTS, STAPLE. See STAPLE.

MERCHANTS.

Merchants, History of English, p. 729; Merchants, Alien, p. 731.

MERCHANTS, HISTORY OF ENGLISH. Before the conquest, as long after, the merchant united several functions which subsequently became differentiated. He was the owner, whether individually or as a partner with others (CANON LAW; PARTNERSHIP, CANONIST THEORY OF), both of the goods transported and of the vessel in which they were carried. "I enter *my* ship with

my merchandise and sell *my* things," says the merchant in Archbishop Ælfric's *Colloquium*. On the other side, the merchant vendor of ready-made articles was at first indistinguishable from the artisan, who was eligible to the gild merchant (see GILDS). The merchant shipowner was necessarily a man of considerable wealth, and by a law of Ina of the 8th century, every merchant who had made three voyages was "thaneworthy," even though by birth a serf. The enumeration, in the dialogue above referred to, of the articles imported, points to a southern trade for the most part. "What do you bring to us?" the English merchant is asked. He replies: "Skins, silks, costly gems, and gold, various garments, pigments, wine, oil, ivory and orichalcus, copper and tin, silver, glass, and such like." The metallic imports, excepting gold, were probably the fruit of a coasting trade with Cornwall; the skins from Scandinavia.

The Norman conquest and the military ideas which then became dominant repressed mercantile activity. Internally trade was hampered by local privileges and tolls; at the ports by excessive duties. But in the middle of the 13th century the creation of the STAPLE showed the importance which the kings were beginning to attach to the export of wool to the low countries, where it was manufactured into cloth, large quantities of which were imported into England. About the same time began the endless disputes between the kings and the corporation of London as to the rights of alien merchants, showing the influence which the English mercantile class was beginning to assert. To the same period belongs the statute of merchants (see LAW MERCHANT). The great development of this class dates, however, from a century later, and was due to a concurrence of various causes. The first was the successful rivalry of the staplers with the Italian exporters of wool, who were privileged to ship wool without paying staple dues, and who in return supplied the kings, especially Edward III., with money for the necessities of state. The second was the expulsion of the Jews (see JEWS, ECONOMIC POSITION AND INFLUENCE OF) in 1290, which had set free their hoarded wealth. Thirdly, the dissolution of the order of the Temple in 1308 (see TEMPLARS) set free large accumulations of capital during the twenty-six years which elapsed before the bulk of the Templars' property, though by no means all of it, was transferred from the crown to the Knights Hospitallers. Fourthly, the northern coal-trade and the manufacture and export of cloth, specially stimulated by the invitation of Flemish artisans to this country by Edward III., created the first wealthy class of manufacturers and the first wealthy class of exporters of finished goods. This class, represented in both branches by the Canynges of Bristol, sprang up with extraordinary rapidity, aided by the favouring circumstances already enumerated. Its rise suggested to Edward III. a means of disembarrassing himself of his Italian creditors, whose resources he had seriously drained, and whom he felt himself wholly unable to repay. In 1338 he made a proposal to the English merchants of the pre-emption of the 30,000 sacks of wool granted him as a subsidy. After pressure put upon them by the king and council, and by the Commons, a group of English speculators appears to have contracted for the wool upon conditions which, it may be inferred, were prejudicial to the Italians, who were in the same year generally arrested throughout the kingdom. In 1342 the merchants met in London, as a sort of sub-estate of the realm, and granted Edward III. a subsidy of 40s. a sack without consent of parliament. In requital they were gratified, in 1343, by the statutory raising of the price of wool, a policy possible to a country which enjoyed a monopoly. Two years later the king's creditors—the Bardi and Peruzzi—failed, and the English speculators assumed the title of "The King's Merchants," together with the financial functions which had for a time enriched their Italian rivals. They farmed the CUSTOM, large latitude being allowed to their impositions. They favoured the export of their own wools, and placed impediments in the way of those of their competitors. They farmed the SUBSIDIES (*q.v.*), buying the wools cheap and selling them, as the Commons complained in 1348, at a profit of 60 per cent. They acquired vast wealth as royal exchangers (see EXCHANGER, ROYAL) and as masters of the MINT, in which last capacity they were accused, in 1351, of malpractices with the coinage. They contracted for PURVEYANCE—buying provisions at nominal prices in the king's name, and reselling them at large profits,—for provisioning garrisons, and for raising troops, whose number and quality did not always tally with the muster roll. To this period belongs the rise of the great London trading companies, such as the pepperers or grocers, and drapers, and of the great capitalists, of whom the De la Poles and Whittington are the most notable. It is to be observed that Richard de la Pole, who belongs to a generation earlier, built up his fortune at the beginning of the reign of Edward III. by such contracts with the crown, while Whittington lent money on the security of subsidies. In 1406 to the merchants was entrusted the keeping of the sea, and one of their number, Nicholas Blackburn, was made admiral of the fleet.

After the Wars of the Roses the financial organisation of the kingdom was more complete, and transactions between the crown and its subjects were conducted through the agency of the two great mercantile societies of the staple and the merchant adventurers (see

ADVENTURERS, MERCHANTS; STAPLE), with one or both of which bodies eminent merchants, such as the Greshams, were as a rule associated. The internal tranquillity which followed upon the accession of Henry VII. was naturally advantageous to this class, and when public opinion became stirred, in the close of the 15th century, against the practice of inclosure, the "merchants, clothiers, and others," were attacked as engrossers of land and evictors. Even Thomas Cromwell, himself sprung from their ranks, contemplated an act in 1535, "That no merchant shall purchase more than £40 lands by the year." A bill to this effect, limiting the sum to £50, was actually introduced into parliament in 1559. These are evidences of the opulence of the class who, emulating the example of the De la Poles, extended their influence by aristocratic or, in the case of the Boleyns, even royal alliances.

During the decay of the staple under Henry VIII., and after its ruin on the capture of Calais under Mary, English mercantile enterprise availed itself of the new discoveries. The Thornes of Bristol made their way to the New World; Hawkins of Plymouth to Guinea and Brazil; Hore of London founded a colony in Newfoundland. These expeditions led to the formation of such trading companies as the RUSSIA; the TURKEY; the Guinea (see GUINEA TRADE); and the EAST INDIA and the VIRGINIA companies (see notices of these COMPANIES). It was through connection with these companies that the best known among the merchant princes of the 17th century gained their fortunes, such as Sir Thomas Smythe, Dudley NORTH, Sir Josiah CHILD, and Edward Colston of Bristol. The closing of the exchequer by Charles II. (EXCHEQUER, CLOSING OF THE) was an influential factor in determining the sympathies of the mercantile class towards the revolution, and it was to them that the foundation and success of the bank of England, a mainstay of William III.'s government, was due. The general diffusion of wealth during the last century, due to the development of manufacturing industry, caused the disappearance of the line of demarcation which down to that time had distinguished the merchants from other classes.

To sum up. The great age of English merchants was the 14th century, when they were enriched partly through extension of trade, but more especially through financial business with the crown. The second period of prosperity, associated with the staple and the merchant adventurers, lasted from the conclusion of the Wars of the Roses till towards the close of the reign of Henry VIII. The third began with the exploitation of the new discoveries by the great trading companies, and lasted till the Civil War. The fourth was due to the extension of trade with America and India during the close of the reign of Charles II. After this time great fortunes were amassed by the development of internal trade, the term merchant reverting to its ancient signification, and no longer necessarily bearing a connotation of foreign adventure.

[Stubbs, *Const. Hist. Eng.*, vol. ii.—Schanz, *Englische Handelspolitik*, 1881, 2 bde.—*Trans. Roy. Hist. Soc.*, 1895.—H. R. Fox Bourne, *English Merchants*, 2 vols., 1866.—J. W. Burgon, *Life of Sir T. Gresham*, 2 vols., 1839.—W. S. Lindsay, *Hist. of Merchant Shipping*, 4 vols., 1874.—State Papers, Domestic, Hen. VIII.—Sir F. Palgrave, *The Merchant and the Friar*, 1837, 2nd ed. 1844.] L. S. L.

MERCHANTS, ALIEN. Under the Anglo-Saxon kings and for two centuries after the conquest, the attitude of the English people and government towards aliens trading in this country was, as might be expected from the backward condition of our civilisation, one of suspicion and hostility. Safe conduct was at first granted to individuals, then to nationalities, as to the subjects of the emperor by Ethelred II. The reign of John was marked by an unprecedented liberality of treatment. Upon his accession John issued circular letters to his officials at the ports forbidding the oppression of alien merchants in the matter of tolls, and ordering that they should enjoy the same security as English merchants in their respective countries. Similar provisions were embodied in §§ 41, 42 of Magna Carta. These gave rise to long contention as to the meaning of the phrase *sine omnibus malis toltis* (see MALATOLTA), from which foreign traders were to be exempt, and which was eventually decided to include all duties not voted by parliament. With regard to the stipulation for freedom of trade, the interests of the chartered towns were opposed to those of the crown and aristocracy. London from the first led the opposition to aliens, and on this account supported the barons against Henry III., during whose reign extensive immigrations took place. The alien merchants, on the other hand, learnt to associate themselves in nationalities or cities and to conclude private treaties, promising reciprocity for such trading privileges as the citizens were disposed to concede to them. Such an arrangement was entered into with London by the merchants of Amiens, Corby, and Nesle in 1237. In 1267 the HANSE (see arts. on subject) established a factory in London, and soon afterwards the English a similar one in Danzig. But the normal policy of London was one of petty persecution of aliens. With the accession of Edward I. the system of reciprocity between towns was replaced by the control of the central government. Edward seized the city's charters and extended the trading privileges of the aliens. Upon the restoration of the privileges of London in 1298 a renewal of former repressive ordinances against foreigners took place. In 1303 Edward issued the Carta Mercatoria

in favour of foreign merchants. This is one of the most notable documents of English history. It had a national scope. It guaranteed personal safety to all foreign merchants. It allowed them to import all kinds of wares; to sell wholesale both to freemen of towns and to strangers, and to sell retail to all both spices and mercery. Authorities in towns and markets were to be attentive to their complaints and to administer justice according to the LAW MERCHANT. Alien merchants were entitled to demand mixed juries in trials between aliens and Englishmen, and a judge was specially appointed to take cognisance of cases in which they were concerned. They in return were to pay additional customs. All that was left of the exclusive privileges hitherto so jealously insisted upon by the towns was the retail trade. In 1311, under the feeble government of Edward II., the Londoners, with the assistance of the barons, procured a repeal of the articles of this charter as to residence and retail trading, and restricted the stay of foreign merchants to forty days. Although in 1322 Edward II. felt strong enough to restore the charter, a reaction in favour of the city set in with the accession of Edward III. The restrictions upon aliens' freedom of trade were renewed. The necessary consequence was a rise of prices, which led to the re-establishment of the aliens in their privileges. This was followed by a series of acts protecting aliens against unjust arrest for the debts of others, allowing them to make sales on board their ships, affording them an interval after the outbreak of war for the removal of their goods, accepting their own declarations as the basis of payment of customs, and exempting them from the exactions of royal purveyors. But the opposition of the city was persistent, and the tide again turned at the end of Edward III.'s reign. While Richard II.'s policy was wavering, Henry IV. cultivated the good-will of the city by large concessions, so that in 1406 the clothworkers and merchants of the country complained of exclusion from direct dealings with the foreigner. A relaxation was then made, allowing wholesale dealing between English and foreign merchants everywhere. Subject to this provision, the ascendency of the city was definitely established. The high water mark of protection against alien merchants was an act of 1439 (18 Hen. VI. c. 4). By this act trade among foreign merchants was prohibited; hosts were to be appointed with whom they should lodge, and who should supervise their contracts; a stay limited to eight months was allowed for the transaction of business, and goods were to be taken out in exchange for those imported, the object of which was to check an alleged depletion of gold. The effect of this rigorous act was to drive the foreign merchants from places where it was enforced into the country, where they embarked in the trade of export of wool. By an act of 1465, directed against the Italians, who were foremost in this business, executory contracts for the purchase of wool were forbidden (4 Ed. IV. c. 4). But foreign merchants profited from the struggle between the rival houses of York and Lancaster. The Italians generally supported the Lancastrians, and received concessions in the way of customs dues from Henry IV. Edward IV. leaned on the Hanse (see HANSE TOWNS), and in return for their aid in his restoration in 1471 concluded with them the Treaty of Utrecht (1475), conceding to them extensive privileges in England. With the object of gaining the favour of the commercial classes, Richard III. pursued the anti-Italian policy of his brother. The act of 1485 "touchinge the Marchauntes of Italy" (1 Ric. III. c. 9) restored many of the restrictions of the act of 1439 which had expired, but its effects were probably more felt in the country than in the towns, which protected themselves in their privileges by the sedulous enforcement of their customs. This perhaps accounts for the fact that Henry VII. ventured, immediately after his accession, to repeal the portions of Richard's act which affected Italian merchants (1 Hen. VII. c. 10), which he would scarcely have done had London been vitally interested in their maintenance. Possibly the Italians, who, as we know from the *Libelle of Englyshe Polycye*, were notorious for their skill in bribing the official classes, took advantage of Henry's financial difficulties and rendered a pecuniary equivalent for the restoration of their privileges. The country gentry also would favour concessions facilitating the operations of profitable customers. But three years later Henry revived the act of 1465 against executory purchases of wool (4 Hen. VII. c. 11). This act expired in 1499, and an interval of comparatively free trade followed accompanied by numerous immigrations and consequent dissatisfaction in London and other large towns. In 1514 the trading companies of the whole kingdom joined in a remonstrance to the king, and petitioned for a revival with increased stringency of the act of 1439. This petition proving ineffective, it was followed three years later by the riot long after known as "evil May day," directed, however, principally against foreign handicraftsmen. In 1523 the exclusive trading privileges of the city of London were invaded by an act permitting country clothiers to deal directly with foreign merchants (14 & 15 Hen. VIII. c. 1). Discontent was also expressed, as it had been by the parliaments of Edward IV. and Henry VII., at the exemptions from aliens' customs duties obtained by means of letters of naturalisation. In 1530 parliament laid down the principle that naturalised aliens should continue in future to pay aliens' dues (22 Hen. VIII. c.

8), which involved a large protective difference in favour of the English merchant. But a notable reversal of policy was effected by Cromwell in 1539, when by an exercise of high prerogative alien merchants were for a fixed period of seven years placed, as far as customs duties were concerned, upon the same level as Englishmen. Pursuing the same policy, while bidding for popular support by discouraging alien handicraftsmen, Cromwell, as Henry a century earlier, favoured alien merchants by suspending in their favour the execution of the act "concerning strangers" of 1540 (32 Hen. VIII. c. 16). This act revived that of 1483 (1 Ric. III. c. 9), which limited to eight months the time allowed to foreign merchants within which to dispose of their wares. But it was only enforced for the purpose of recruiting the treasury with the fees paid upon naturalisation. Upon the expiration of the proclaimed period in 1547, a return was made to the policy of differential duties on exports which were finally abolished by an act of 1672 (25 Car. II. c. 6). A collection of documents has been printed by Schanz, ranging from 1485 to the reign of Elizabeth, which set out the grievances of alien merchants. These may be classed under three heads—complaints against English commercial law, such as the navigation acts; against the customs, and against officials, whether of the crown or of the towns, especially of London. Among the first class of grievances were the prohibition to buy what were known as STAPLE wares except through the middleman, the stapler, and those forbidding the export of manufactures in an unfinished state, or of raw material, except at the cost of an expensive licence. It was also disadvantageous to the foreign importer to be compelled to take English goods in exchange, burdened with the enormous profits of the staplers, rather than to ship tin and hides from the warehouses of the Hanse. To enforce this regulation a vexatious system of demanding surety had been devised (5 Hen. IV. c. 9; 4 Ed. IV. c. 6). Against "Customers"[1] there were many complaints. An act of 1487 (3 Hen. VII. c. 7) provided that merchandise should be entered in the customers' books in the name of the true owner. This, until repealed by 1 Hen. VIII. c. 5, furnished numerous pretexts for confiscation. In 1530 an attempt was made to revive a statute of 1381, forbidding foreign merchants to transact business by letters of exchange without a royal licence. This was done to check the decline in English exports. The measure, opposed by GRESHAM, was only maintained *in terrorem*, a common policy of this period. Liberty of exchange was granted by proclamation in 1538.

Numerous complaints arose out of the multitudinous petty exactions levied under the pretext of local customs and tolls upon foreign merchants. Some four-and-twenty of these are enumerated. In the roadstead, at the port of unlading, in the market-places of the towns, upon lading the return cargo, upon clearing, upon entering at the customs, whether outwards or inwards, excuses were found for these demands. As English merchants, especially citizens of London and other chartered towns, were exempt from many of them, besides enjoying the advantage of differential customs, they were not unpopular in England, so far as they increased the protection enjoyed by native subjects. It was affirmed on the one side and denied on the other that these exactions had been multiplied during the first half of the 16th century. It is significant that the grievance of "going to host" had disappeared, that invention having been found to result in surreptitious partnerships between the foreign merchants and their hosts, in which they had secured the advantages intended to be reserved to Englishmen (cp. the "act for the trewe payment of the kinges customes," 1 Hen. VIII. c. 5). Resident alien merchants were made to contribute to the subsidies, a line of distinction being generally drawn by the subsidy acts between aliens in possession of property up to a certain value and those in receipt of wages.

The history of the relations of the English government to alien merchants during the 16th century shows the growing enterprise of English merchants and their dissatisfaction at the privileges enjoyed by favoured corporations, like the Hanse, or by individuals wealthy enough to purchase royal letters of licence (see LICENSES). With this national feeling the Tudor governments gradually associated themselves. With the disestablishment of the Hanse, begun under Edward VI. and practically completed under Elizabeth, the exceptional position of alien merchants in this country came to an end.

[Schanz, *Englische Handelspolitik*, Leipzig, 1881, 2 vols.—Ochenkowski, *Englands wirthschaftliche Entwickelung*, Jena, 1879.—R. Jones, *Pol. Econ.*, ed. 1859, pp. 309-315.—Ashley, *Economic History*, etc., pt. i. 1888, pt. ii. 1892. *Statutes of the Realm.*] I. S. L.

MERCHANTS' PETITION OF 1820, THE. A very able document, drawn up by T. TOOKE (*q.v.*), subscribed by all the most eminent merchants in London, and presented to the House of Commons in 1820 by Mr. Alexander Baring. The contents of its fifteen paragraphs may be thus summarised.

The end of foreign commerce is to import what can be best produced abroad, and to export, in payment, what can be best produced at home. This end can only be attained where there is freedom from restraint. The maxim, "to buy in the cheapest and to sell in the dearest market," applies to international

[1] Officers of customs, H. Hall, *Customs Rev. of England.*

transactions. Unhappily, a very different policy has prevailed, and "jealousy and hostility" have taken the place of "mutual benefit" and "harmony." The fallacy of the protectionists consists in supposing that imports from abroad tend to discourage home products, whereas they actively stimulate such industries as are in fact suitable to the importing country. This follows from the rule that exports must, in the long run, pay for imports. Protection seldom benefits the protected, and never to the extent of the loss occasioned to others. When once the road of protection is travelled, there is no halting, until all foreign commerce whatsoever is destroyed; indeed England might, with as good reason, demand protection against Scotland, or Scotland against England, and the different counties of each country against each other.

An inquiry would probably show a connection between a protective policy and the distress prevalent. A declaration in favour of free trade would carry weight abroad, where protectionists can point to the authority and example of England, and would tend to counteract the commercial hostility of foreign nations. Although a policy of RECIPROCITY (*q.v.*) may be defended, in particular cases, on diplomatic grounds, "it does not follow that we shall maintain our restrictions in cases where the desired concessions cannot be obtained. Our restrictions would not be the less prejudicial . . . because other governments persisted in preserving impolitic regulations." In any case "the recognition of a sound principle or standard" may be expected to have a salutary influence on other states. The petition does not complain of duties collected for purely revenue purposes. "It is against every restrictive regulation of trade, not essential to the revenue, against all duties merely protective from foreign competition, and the excess of such duties as are partly for the purpose of revenue, and partly for that of protection" that its prayer is addressed.

The language, as to reciprocity, quoted above, is noteworthy, as it is often said that the case for free trade rested on the expectation that other nations would follow England's example. It is related that the second Lord LIVERPOOL (*q.v.*), after reading the petition, expressed his hearty agreement with every word of it. Some time had to pass before free trade was seriously considered. The petition, however, was "the originating impulse to the movement, which, by progressive steps, had led to the final establishment of the principles therein enunciated."

[Tooke's *History of Prices*, vol. v. p. 396; and vol. vi., London, 1838-57, 8vo: app. 1, pp. 331-344, where the petition itself is printed in full, with Mr. Tooke's account of the circumstances in which it originated.—Smith's *Wealth of Nations*, edited by M'Culloch, 4th edition, note xv., Edinburgh, 1850, 8vo.—Nassau Senior's *Three Lectures on the transmission of the Precious Metals, and the mercantile theory of Wealth* (delivered at Oxford in 1827), London, 1830, 8vo.] H. E. E.

MERCHET was the payment due from a villein tenant on a manor to his lord for leave to give his daughter or his sister in marriage. With the exception of an uncertain tenure, it was probably the most constant mark of serfdom, yet cannot be considered as an absolute test, as it was neither universal among holders who were certainly villeins, nor entirely absent from SOCMEN on ancient demesne. Occasionally, it seems, the payment was only due if the marriage would remove the woman from the manor or the hundred to which she belonged.

[Bracton's *Note-Book*, ed. Maitland, 1887, cases 395, 753.—Ducange, *Glossarium*.—Vinogradoff, *Villainage in England*.] E. G. P.

MERCIER (*alias* LEMERCIER) DE LA RIVIÈRE, PAUL PIERRE (1720-1794), was a member of the parliament from 1747 to 1759, where his attractive but determined character, his high integrity and loyalty, made him respected. In 1757 he was appointed steward of the island of Martinique, and discharged his duties there with great disinterestedness and fertility of resource. He even devoted his personal credit, and when necessary his own money, to the public service. He reaped nothing but ingratitude from this at first. The Duc de Choiseuil, then minister for the navy and foreign affairs, took umbrage at his applying the principles of free trade to the colonies which he governed in complete opposition to the colonial system in force at that time. He was recalled; but he had anticipated this and returned to France by order of his doctor, July 1764.

On his retirement to private life he wrote and published, in 1767, *L'Ordre Naturel et Essentiel des Sociétés Politiques* (1 vol. 4to, or 2 vols. 12mo), a work which made such a sensation in his time that some of his contemporaries placed it, not only on a level with, but even above *L'Esprit des lois*. This book, apart from its physiocratic errors and inordinate overpraise of absolute power (the author suggests the despotism of China as an ideal model), contains some fine passages which were obscured by the tone of exaggeration in it. It explains the ideas of the PHYSIOCRATS. Their economic opinions, which are very simple, may be summed up thus: there is only one industry which gives a net product capable of increasing social wealth —this is agriculture. Other industries can only produce an equivalent to the amount employed in them. In one word, agriculture alone is really productive. Hence, taxation is in the end always borne by agriculture, and to avoid useless and costly repercussion of taxation it would be better to have a single tax—the IMPÔT UNIQUE. Adam Smith, who was in a position to judge this book impartially, says (*W. of N.*, bk. iv. ch. ix.) that it contains "the most distinct and best connected account of this doctrine," that of the

ÉCONOMISTES (*q.v.*). The Empress Catherine II. invited Mercier de la Rivière to St. Petersburg. According to her account of the matter, by his pretentiousness and want of tact, he made himself ridiculous there. He returned, according to the Czarina, dismissed, but largely rewarded by her. This had little in common with the disinterestedness he had shown at Martinique. Mercier, according to his own statement, refused the position and pension he was offered, only taking what had been agreed on when he left France. This seems nearer the truth. Catherine sneered at him; "He believed," she wrote to Voltaire, "that we walked on all fours and he came charitably to set us on our hind legs."

Mercier de la Rivière wrote many works, but only those on political economy are quoted here. *L'intérêt général de l'état ou la liberté du commerce des blés*, 1770, 12mo.—*De l'instruction publique*, 1771, 4to.—*Procès pendant au tribunal du public; lettre sur les économistes* (undated, probably 1787). Du Pont (de Nemours) has cleverly summed up *L'ordre naturel* in *De l'origine et des progrès d'une science nouvelle.* This, as well as the work of which it is an abridged version, is printed in Guillaumin's collection (*Physiocrates*, 1846).

[For the less-known events of the life of this author see the notice read in 1858 at the Académie des Sciences morales et politiques, by M. Felix Joubleau. See also account in L. de Lavergne, *Les économistes français du XVIIIe siècle.*]

A. C. f.

MERCIER, LOUIS SÉBASTIEN (1740-1814), a Parisian barrister, journalist, and member of the convention during the revolutionary period, —was a most copious and voluminous writer; and it is impossible to give here a complete list of his writings.

His best-known work is the *Tableau de Paris* (12 vols., Amsterdam, 1783-1788), which, notwithstanding its desultory and declamatory form, is valuable evidence of the moral and physical aspect of Paris on the eve of the revolution; it is full of life and keen observations. In 1792 he published a pamphlet, *Réflexions d'un Patriote sur les Assignats, les craintes d'une banqueroute Nationale, etc.*, intended to demonstrate that the fears concerning an impending national bankruptcy were unfounded. One of the first in date of his works is *L'An 2440, rêve s'il en fût jamais* (1771, reprinted 1800); it is the dream of a disciple of Voltaire and Rousseau, but free from any tendency towards a communistic reform of society. E. Ca.

MEREDITH, Sir WILLIAM (1724-1790), Whig politician, succeeded to the baronetcy in 1752. In 1765 he was appointed a civil lord of the admiralty. Horace Walpole describes him as inflexibly serious but of no great head, a judgment which his *Historical Remarks on the Taxation of Free States*, London, 1778, 4to, belie. In this work, in the form of letters to a friend, Meredith points the moral of the folly of attempting to tax the American colonists, by the examples of Carthage, Rome, Sparta, and Athens.

[*Dictionary of National Biography*, vol. xxxvii. p. 271.] H. E. E.

MERELLO, MICHELE (17th century). An economist who wrote on the deposit banks established in Italy in the 16th century. He describes the establishment of the historic bank of St. George, Genoa (see BANKING), founded to consolidate and provide for the redemption of the debts of that republic by uniting the creditors in a single institution and allowing them the proceeds of certain taxes for a certain number of years. The unification of these creditors was called *compera*. Merello, who objected to taxes, praises this system because the cession made by the state was for a certain number of years only and did not entail a perpetual burden on the citizen.

Della guerra fatta dai francesi . . . con una breve dichiarazione dell' istituzione della compera di San Giorgio, Genoa, 1607.

[Gobbi, *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, 1889.—Ricca-Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1880.] U. R.

MERENDA, ANTONIO (17th century), was professor of civil law at the university of Pavia, and author of a treatise on exchange. The important changes in economics had weakened the old doctrines, and admitted the lawfulness of profits made from productive employment of money. Merenda protested in the name of CANON LAW (*q.v.*) against the comparatively liberal opinions of many writers of his day; who, though they proclaimed the most absolute respect for the principle that loans should be gratuitous, in practice sacrificed the enforcement of this doctrine, leaving openings for evasion. Merenda opposes any reconciliation between ecclesiastical precepts and the requirements of common life. He does not deny that LUCRUM CESSANS (*q.v.*) supplies a lawful motive for demanding compensation, but he requires such absolute and complete proof, almost impossible ever to obtain, that the efficacy of this principle is effectually annulled. Merenda does not doubt the lawfulness of a true and real exchange, but he adds that it becomes unlawful as soon as the suspicion arises that payment is to be made in a different place from that fixed in the contract. Merenda, distinguishing loans from exchange, and contrasting gratuitous loans with onerous exchange, is opposed to those forms of exchange which conceal usury (see INTEREST AND USURY), and criticised those authors who, by defending the means adopted by traders, regarded them as lawful. He also opposed fairs where usurious exchanges were effected.

De cambio nundinali Tractatus, Pavia, 1645.

[Cossa, *An Introduction to the study of Political Economy*, trans., London, 1893.—Gobbi, *L'economia politica negli scrittori italiani dei secoli XVI.-XVII.*, Milan, 1889.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli* Modena, 1893.] U. R.

MERGER. The term merger signifies the ending of a legal right by its absorption into a higher right of the same kind. Thus when a lessee purchases the property let to him, his rights as a tenant merge in his more extensive rights as a proprietor. When a man entitled to a servitude or an easement over his neighbour's land (*e.g.* a right of way) buys that land, his servitude or easement is similarly merged. Again, a simple contract is merged in a subsequent contract under seal, if made between the same parties and dealing with the same subject-matter. For a contract under seal confers more extensive rights than a simple contract does. Thus, a simple contract must be sued upon within six years of making. A contract under seal can be sued upon at any time within twenty years of making. F. C. M.

MERIVALE, HERMAN (1806-1874), was trained at Oxford, where he took a first in classics, and was elected fellow of Balliol, 1832. Recognised by his contemporaries as "one of the two best educated men in his university generation" (Dr. Vaughan, Funeral Sermon at the Temple Church, Feb. 1874), he maintained this position during life, for, according to an obituary notice in the *Economist*, he was "one of the most acute and best read political economists of his time." In 1837 he was elected to the newly-instituted chair of political economy at Oxford. In his preliminary lecture the professor distinguished between political economy the science and political economy the art, defending the science from the attacks of those who have looked to it as to a sort of philosopher's stone which would turn everything it touched into gold. Its object, he maintained, was *not to create but to prove;* and he utterly repudiated the idea that political economy was based on a degrading estimate of human nature.

He then considered the principles on which colonisation should be conducted, as connected with emigration, employment of labour, the disposal of public lands, and the system of E. G. WAKEFIELD (*q.v.*). His eighth lecture exposes the fallacy of the colonial system then in vogue. He pointed out that "altho' under certain conditions . . . a country might gain by the possession of an artificially monopolised market for its manufactured commodities, yet in actual practice such gain is found to be wholly illusory."

The publication of these lectures led to his employment under government; he became under-secretary of state in two of the most important departments of government for the long period of twenty-six years—from 1847 until his death in 1874.

The late Lord Lytton wrote, in his copy of Merivale's *Historical Studies:* "The author is one of the most remarkable men I have ever met. The main characteristic of his intellect is massiveness—and it is the massiveness of gold . . . he belongs to the very highest order of mind in my time and country. I can compare him to no other of less calibre than Macaulay . . . Macaulay is the finer artist, and Merivale the more original thinker."

Five Lectures on the Principles of a Legislative Provision for the Poor in Ireland, 1838.—*Lectures on Colonisation and the Colonies*, 1st ed., 1841; 2nd ed., 1861. A. L.

MERTON, THE STATUTE (OR PROVISIONS) OF, 20 Hen. III. (1235-36), contains several chapters, but that of most economic importance is c. 4, which is what is commonly understood when the "Statute of Merton" is referred to. "Whereas," it runs, "many magnates of England, who have infeoffed their knights and free tenants of small tenements in their great manors, have complained that they cannot make their profit (*commodum*) of the residue of their manors, as well as of the wastes, woods, and pastures . . . it is provided that whenever such feoffees do bring an assize of novel disseisin for their common of pasture, and it is acknowledged before the justices that they have as much pasture as suffice to their tenements, and that they have free ingress and regress from their tenement into the pasture, then let them be content therewith." If it is proved that they have not sufficient pasture, they shall recover their seisin, and the disseisors shall be amerced and pay damages; if they have, then "let the others make their lawful profit of the residue."

[The statute is printed in *Statutes of the Realm* (1810), i. p. 1. The comments of Bracton, with a translation and some observations thereon, will be found in Digby, *Hist. of the Law of Real Property* (4th ed. 1892), pp. 190-208. It will be observed that the statute guaranteed only the rights of free tenants. Lord Chancellor Herschell has recently declared in the House of Lords that "the Statute of Merton has been practically obsolete for centuries, and it is only in comparatively recent times that it has been revived and again put in force," and that "the means of trying the right of the lord to enclose is a process which is not only obsolete, but which has ceased to exist." *Times* Report, 28th July 1893.]

W. J. A.

MESNIL MARIGNY, JULES DU (1810-1885). His *Économie Politique devenue science exacte* (Political Economy made an Exact Science, Paris, 4 ed. from 1859 to 1883) is principally written to confute J. B. Say's theory of exchanges, and to maintain that "the benefits which two nations reap from mutual exchanges of the same value may be very unequal." This leads to the assertion that "each nation must have its own political economy appropriated to its physical conditions and to its national character."

The avowed scope of his *Histoire de l'Économie Politique des Anciens Peuples de l'Inde, de l'Egypte, de la Judée et de la Grèce* (Paris, 3 vols., 1878, 3rd ed.) is to prove "in an irrefutable way, and by a

great number of instances, that the system of protecting national manufactures . . . was very often followed in antiquity." E. Ca.

MESSANCE, M. (18th century), an eminent statistician, revenue officer at S. Etienne-en-Forez in the reign of Louis XV. In 1759 he became under secretary to M. de la Michodière, intendant of Auvergne, and in this capacity he continued the statistical investigations instituted by his chief, with a view to disproving the theory of the author of *L'ami des hommes*, the Marquis de Mirabeau, as to the decline of population in France. In 1763 he presented the result in book form to the intendant, who insisted on its being printed in Messance's name [*Nouvelles Recherches*, p. 5].

In 1775 Messance sent a table of mortality, which he had prepared, to Voltaire, who in a humorous reply commented on its accuracy and utility. Messance's two works on population were issued at an interval of twenty-two years; in the second of these he refers to Necker's *Administration des Finances*, and Adam Smith's *Wealth of Nations*, both which publications had preceded it. His works are entitled:

Recherches sur la population des généralités d'Auvergne, de Lyon, de Rouen, et de quelques provinces et villes du royaume, avec réflections sur la valeur du blé, tant en France qu'en Angleterre, depuis 1674, jusqu'en 1764, Paris, Durand, 1766, 4to.—*Nouvelles recherches sur la population de la France avec des remarques importantes sur divers objets d'administration*, Lyon, 1788, 4to.

[*Dictionnaire de l'Économie politique*, p. 158.]

See also references in *Wealth of Nations*, bk. i. chs. viii. and xi., where A. Smith speaks in high terms of the investigations which Messance had made (cp. Levasseur, *La population française*). A. L.

MESSOR, an officer found on large estates, whose duty was to superintend the harvest on the manor, and in some cases to collect fines due to the lord from his tenantry. Under the manorial agricultural system there was an official, either elected or appointed, for almost every separate function.

[Vinogradoff, *Villainage in England*.] E. G. P.

MESSUAGE (Low Lat. *Mesuagium*), a dwelling, means properly a dwelling-house with the land belonging to it, but is often used for a garden, stable, or any kind of domestic building.

[Cowel, *Interpreter*, London, 1727.] A. E. S.

MESTA. "The *mesta*"—writes, towards the very end of the last century, M. de Bourgoing, a French diplomatist, who had a long experience of Spain,—"the *mesta* is a company of powerful sheep-owners, rich monasteries, Spanish grandees, wealthy individuals, who have succeeded in feeding their (migrating) flocks at the expense of the public during all the seasons of the year, and in obtaining unconsidered legal enactments to sanction a state of things which has been at first prompted by necessity" (*Tableau de l'Espagne*, vol. i. pp. 75-123, edit. 1807. The two first editions of 1789 and 1797 are anonymous). This necessity resulted from natural circumstances—the difference of climate between the cold mountains of northern and the warm plains of southern Spain, and from historical conditions—the existence, during the centuries of warfare between the Moors and the Christians, of an extensive debateable land, exposed to armed incursions and destitute of the security which is the primary requisite of agricultural cultivation. In 1200 king Alonso VIII. of Castile first granted the itinerant cattle herds the privilege of grazing on all waste and open lands, but subject to the obligation to compensate the owners for all damage to inclosed fields, vines, gardens, standing crops, etc. This privilege, gradually enlarged and confirmed under subsequent reigns, led to most abusive encroachments, especially under the growing influence of the *Honrado Concejo de la Mesta* or Honorable Association of the Cattle-owners. The exact date of its foundation is unknown, but it certainly goes back very far into the middle ages. About 1500, Ferdinand and Isabella, being in want of money, listened to the solicitations of the *Concejo de la Mesta* and gave it an official status by appointing a president and calling to that post a minister and member of the royal council. In 1511, the ordinances and laws concerning the *mesta* were by royal command collected by Palacios Rubios, a celebrated jurisconsult of the time, approved and promulgated. The privileges thus confirmed may be epitomised as follows:

1. The right of pasture on all open lands, which led to constant and successful interference of the *mesta* against all attempts of inclosing or even putting under tillage hitherto unbroken land. Their pretensions were formally recognised by a law of 1633, forbidding the plantation of new vines and the ploughing of previously uncleared land.

2. The obligation to keep open at all times *cañadas* or broad tracks for the free and unimpeded passage of the cattle, which were to be able to move "grazing." No inclosures were tolerated on either side of the *cañada*, and the flocks unmercifully invaded the neighbouring gardens and fields.

3. The exemption from several taxes and tolls, which indirectly led to new burdens imposed on the already overburdened tillers of the soil.

An official census of 1480 puts down at 2,694,032 the heads of cattle, which in 1477 had migrated through the passes of Castile; another account of 1563 gives the following numbers: 2,303,027 sheep and goats, 14,127 oxen, and 25,215 pigs. In 1724, Ustaritz (*q.v.*) computes the number of migrating sheep at 4,000,000 (which figure is confirmed by an official census of 1746), with a much higher estimate for settled and permanent flocks.

The devastations caused by the wandering flocks of the *mesta* have been the main cause of the ruin of Spanish agriculture. This frightful oppression lasted until the end of the last century, and only receded before the strenuous endeavours of the enlightened statesmen of the time, Florida-Blanca, Rodriguez de Campomanes, and most of all JOVELLANOS (*q.v.*).

[A substantial historical account of the *mesta*, and of the Spanish literature on the subject, is to be found in chs. xxxiv. and lxiv. of Colmeiro's *Historia de la Economía Política en España*. See also Bonwick's *Romance of the Wool Trade* (1887).—Haebler's *Wirtschaftliche Blüte Spaniens im 16 Jahrhundert* (Berlin, 1888).—Goury du Roslan's *Essai sur l'Histoire Économique de l'Espagne* (Paris, 1888).—Cos Garayon's articles on *La Mesta* in the *Revista de España* (vols. ix. and x.).—M. Ansiaux, "Hist. de la Décadence économique de l'Espagne," in *Révue d'Écon. Pol.*, 1893-94.—The leading legislative enactments have been collected in the 3rd book of the *Nueva Recopilacion de las Leyes de España.*] E. CA.

METALS, PRECIOUS. See GOLD; PRECIOUS METALS, Discoveries of; SILVER.

MÉTAYAGE; MÉTAYER, called in legal phraseology *colonat partiaire*—an expression taken from Roman law—refers to a cultivator who pays his rent in kind: it is a particular method of *fermage* or farming land. *Métayage* differs from *fermage* in that the rent, instead of being paid in *money* and *fixed* throughout the whole period of the lease, is paid *in kind*, and consequently *varies* with the yield itself; a portion of the yield, usually the half, being set aside for this purpose.

This arrangement is very usual in certain countries, as in Italy, Portugal, the countries bordering on the Danube, in Russia, and also in France. In France, out of 33 million hectares cultivated (nearly 82,000,000 acres), 4½ millions (11,000,000 acres)—14 per cent—are managed on the *métayer system*, 27 per cent under the usual arrangements for farming; the remainder, 59 per cent, being cultivated by the proprietors themselves. In Italy, out of less than 11 million hectares cultivated (27 million acres), 5½ millions, or 50 per cent, are managed on the *métayer* system.

Métayage appears to have been much more in use formerly than at present. Arthur Young, at the time of the revolution, estimated the land cultivated on this system in France to be ⅞ or 87 per cent of the whole. From this continued decrease it might be concluded that *métayage* is an antiquated institution, condemned sooner or later to disappear.

It is true that *métayage* seems better adapted to poor districts, and that it may be in time superseded by *fermage*, that is by money rents, or by the proprietor cultivating his own land himself, in proportion as the district becomes richer and the cultivation better, that is, more intensive. The *fermier*, in fact, is always a capitalist, and even, more generally in England, a fairly large capitalist, while the *métayer* generally has no capital, and possesses nothing but his labour and some agricultural implements of little value. He tills the ground himself and avoids everything connected with an expensive mode of cultivation, what is called in France *la culture intensive*, for what good would there be in his spending, for instance, £100 more a year to increase the raw product by £200? He would only get the half of this product (£100), and in consequence would not gain a penny. On the other hand the owner himself hardly cares to invest a large capital in working the farm, for the dividing by half the addition to the raw product arising from the employment of this capital, would be too disadvantageous to him.[1]

However, if *métayage* appears inferior to *fermage* from an economic, it is superior to it from a moral point of view. And this superiority has been sufficient to maintain the institution in many countries, and even now rallies round it more supporters perhaps than formerly. This moral superiority springs from the following causes:

(1) While *fermage* establishes enmity between the owner and the *métayer*, *métayage* establishes a unity of interests between them. Both share alike in good and bad fortune; there is a real association between them, and it is one of the oldest and most admirable forms of PROFIT SHARING which those who see in co-operation the solution of all social difficulties should regard with favour.

(2) The *métayer* is never straitened by the mode of payment, because he pays in kind. He only gives the proprietor what the earth itself gives—nothing, if it yields nothing—much if it yields generously. He never has to pay the landlord anything out of his pocket.

On the other hand the *fermier* is always compelled to provide the money even when the land yields him nothing, is often straitened, and comes to regard the proprietor as an oppressor, a kind of tax-collector.

(3) The *métayer* is guaranteed against injurious exploitation to which the *fermiers* so often find themselves exposed through competition among themselves, which sometimes raises the rent to an exorbitant amount (rack rent).

Métayage, by its customary fixing the division of the product into halves, wards off completely the influence of competition on price, quenches all controversy as to the amount of the rent, and does not permit the proprietor to monopolise all the profit (FAIR RENTS, *q.v.*).

(4) *Métayage* gives better assurance of a long duration of lease than *fermage*. In *fermage*, as a matter of fact, the owner is always seeking for a new *fermier* who will pay him a higher

[1] This may be modified by a certain standard of farming being required by the *usages locaux*.

rent than the former tenant. But in the *métayer* system, what is the good of a change of *métayer*, since the rent is the same whoever be the tenant? The owner has no reason for dismissing his tenant, or at least none but personal reasons. There are *métayer* farms which remain constantly in the same family, passing from father to son, as in the Limousin is stated to have been the case for 300 years.

(5) Finally in *métayage* the owner necessarily takes much more interest in the cultivation of the land and the success of the harvest—since his share depends on it—than in *fermage*, as in this case he receives his rent in money whatever occurs. Hence intercourse is more intimate and even familiar between the owner and the *métayer*.

For all these reasons the *métayer* system may be considered as an element of social peace and capable of solving in certain cases the agrarian question.

Moreover, the contract according to the *métayer* system can be modified according to the circumstances, and thus lends itself better to the exigencies of an improved culture. For example there might be a system of *métayage* in which the *métayer* would provide more or less considerable capital. This is the case in the south of France, and assists the planting of some large vineyards there. The proprietor merely provides the ground; the *métayer*, the "vine-dresser" as he is termed, plants this at his own expense, employing large capital, but the vintage is divided with the owner only after the 5th or 7th year. A system of *métayage* might also exist in which the landowner would advance the capital, stipulating for the payment of a moderate interest, and this might assist a solution of the problem of agricultural progress. In a word the time-honoured system of *métayage* might be re-instituted in different ways and adapted to new requirements, while still keeping those essential characteristics which are its great recommendation, namely that it forms an "association of gains and losses" as defined in the old French law.

[H. Higgs, "Metayage in Western France," *Economic Journal*, March 1894.—Du Maroussem, "Métayers du Confolentais," *Ouvriers des Deux Mondes*, 1890.—Vladimir Pappafava, "Étude sur le colonage partiaire," *Bulletin de la Société de Législation Comparée*, June 1885.—*Discussion à la Société d'économie politique de Paris sur le métayage: compte rendu dans le Journal des Économistes*, April 1891.—A. Smith, *W. of N.*, bk. iii. ch. ii.—J. S. Mill, *Pol. Econ.*—Jas. Caird, *Report on India*, 1880, p. 6.—Roger Merlin, *Le métayage et la participation aux bénéfices*, Paris, 1898.—Emile Guillaumin, *La vie d'un simple; Mémoires d'un métayer*, Paris, 1805.]

G. G.

MÉTAYER, in West Indies. The métayer system of cultivation has an interesting example in some of the West Indian colonies—notably Grenada, St. Vincent, and Tobago, where it is also termed "métairie" or "métayage." It was introduced for the purposes of sugar cultivation when these islands were under French rule, and has subsisted to this day. Up to 1887 or 1888 there had been very little friction between the owners and métayers, but about that time certain judgments of the then chief justice of Trinidad and Tobago caused a stir in the latter island, and in 1889 a committee investigated the whole question of the relations of the two parties to the contract. The contract had originally been, as a rule, a *parol* agreement; there had recently been a tendency to employ written agreements, and in 1888 the legislature of Tobago had proposed to regulate the contract by local ordinance.

The agreements between landowner and métayer vary considerably in their details, but their usual outline is as follows:

(*a*) The *landowner*—
- (1) provides land for sugar cultivation,
- (2) at crop time gives the use of mill and machinery, carts and mules, or one of these, and also provides certain skilled hands for manufacture.

(*b*) The *métayer* undertakes—
- (1) to cultivate the land to the best of his ability,
- (2) to keep the roads across or around his land in good repair,
- (3) to give his labour on other parts of the estate at a fixed rate for certain days in each month,
- (4) to resign to the landowner half the sugar made from his land, besides a considerable proportion of the molasses.

The proportions with which the produce is divided are not always the same; but a fairly even division is the basis of the arrangement.

The system has never been the economic success which one might have hoped; the sugar was usually roughly manufactured, and owners complained that their mills and boilers were often damaged. But it has been useful where, as in Tobago, there has been great dearth of floating capital to pay the wages of labour.

C. A. H.

METHOD OF POLITICAL ECONOMY.

(*a*) Scope of Economics, p. 739; (*b*) Economics and General Sociology, p. 741; (*c*) Divisions of the Science, p. 741; (*d*) Formal Economics, p. 741; (*e*) Narrative Economics, p. 742; (*f*) Constructive Economics, p. 743; (*g*) Inductive Methods, p. 744; (*h*) Deductive Methods, p. 746; (*i*) Criticism and Combination of Methods, p. 747.

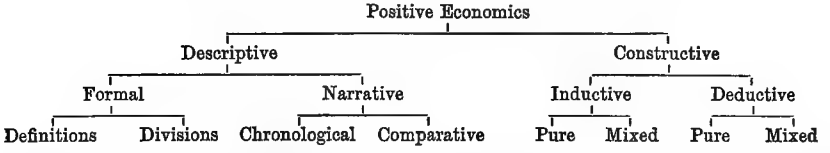
(*a*) *Scope of Economics.*—Before treating of the various methods applicable to economic investigation, a brief examination of the scope of political economy is necessary. It is almost universally agreed that economics deals with wealth, or, more precisely, with those human

activities the end of which is the appropriation of wealth. But admitting this common standpoint, there are yet two different directions in which economic study may proceed. The science may aim at merely ascertaining facts or at directly regulating conduct—its propositions may be couched either in the indicative or in the imperative mood. On the former view economics is called a positive or theoretical science, on the latter a regulative or practical science. But, whichever of these two views is taken, a further distinction must be made according as the propositions of the science have an abstract and general or a concrete and special application. The precepts of regulative economics, and the uniformities of positive economics, cannot be immediately applied to the guidance of conduct or the interpretation of phenomena. For every rule must be modified in consideration of the peculiar conditions of the society and epoch to which it has to be applied; and the recognition of the single pursuit of wealth must be qualified by consideration of other ends and motives. Thus the precepts laid down by the regulative science may be either *general, i.e.* applicable to all societies, or *special, i.e.* having reference to the particular conditions of a given society. And again they may be either *abstract, i.e.* restricted to the consideration of a single end, such as the maximising of production, or the equalising of distribution; or *concrete, i.e.* prescribing a due co-ordination and subordination of different human ends. Similarly, the facts described by positive economics may be either of *general* applicability to all societies, or may take account of the peculiarities of *special* social institutions and forms of civilisation. And again they may treat of men in an *abstract* form, so far as they pursue wealth alone; or in a more *concrete* form, as subject to various influences that conflict with the pursuit of wealth.

Although the distinction between precepts and facts—between a regulative and a positive science—has been maintained as essential, especially by British economists from SENIOR onwards, yet there are some grounds for merging the two aspects in a single treatment. In the first place, a precept may always be expressed as a conditional uniformity—"If such conduct is adopted, such a result will follow," *e.g.* if pauperism is encouraged, the average wages of the working man will be lowered. The reader may then be left to his own judgment to decide whether the result in question or its avoidance is desirable. Secondly, in many cases there is practical unanimity in regard to the desirability of certain ends. Other things being equal, greater wealth, or the more equal distribution of wealth, may be assumed as a desirable result. Agreement as to the end in view is more particularly obvious in technical problems, such as banking, currency, state finance, and taxation. In the third place, it may be urged that the aims of individuals as well as governments are determined by their ethical ideals; and that therefore it is impossible, or at least undesirable, to separate the actual from the moral aspect of human pursuits. For these reasons it may be maintained that the distinction between the positive and the regulative sides of economic study is less fundamental than that between its abstract and its concrete aspect. In the actual course of discussions on method, it has been often supposed that the positive treatment of the science will necessarily assume an abstract character, and that the regulative treatment must assume a concrete character. For those writers who have aimed at regulating conduct in the interests of a given society have naturally recognised the need of examining its complex conditions; and those who are only concerned with theorising on economic phenomena have naturally tended to treat in isolation the single pursuit of wealth. In the latest development of the controversy, it has been acknowledged by the more impartial writers on both sides that there is room for work in all fields. The ultimate aim of economic investigations is, no doubt, practical, *i.e.* to guide conduct in the actual conditions of affairs. For this purpose we must understand the operation of causes in the society in which we move. But, further, we require a general estimate of the comparative values of different ends of human pursuit. And, in order to understand the particular facts of any one individual society, we need the guiding principles of general theory. The propositions of economics expressed in their most accurate form will be doubly conditional, thus: "Given such or such a constitution of society, if such or such measures are taken, such or such a group of effects will follow." Of the effects produced some will be desirable, others undesirable. To determine whether the balance is towards the good or the evil, some reference to ethical considerations is necessary. Again the results to be anticipated from any course of action depend on the nature of the society for which the measures are proposed. Complexity of conditions and complexity of effects have thus to be taken into account. As a basis of practical economics we need, on the one hand, a general theory of the action of industrial forces; and, on the other hand, an ethical survey of the value of human ends. The former is a necessary preliminary for the explanation of the concrete facts of society, and the latter for the discovery of right rules of conduct appropriate to these concrete facts. It follows, then, that a *science* of economic causes and effects must precede the *art* of political economy; and that this art is related to the science in the same way as any branch of applied knowledge is related to the corresponding theoretical knowledge.

(*b*) *Economics and General Sociology.*—Although the name political economy is still preserved, the science, as now understood, is not strictly *political: i.e.* it is not confined to relations between the government and the governed, but deals primarily with the industrial activities of individual men. On the other hand, the science does not deal with individuals, *qua* individuals. It is not, therefore, in any sense a branch of psychology. Even when it discusses the utility of objects of desire, and the sacrifice incurred in procuring them, it only measures utility and sacrifice, not subjectively, but as embodied in objective form. Hence the subject matter of economics gives it a place among the social, rather than the political or the psychological, sciences. Being admittedly a social science, the question has arisen as to its relations with other social sciences, and its position relatively to general sociology. Some writers, under the influence of COMTE, have maintained that economics cannot be profitably treated at all as an independent branch of study. They hold that there is such an intimate consensus amongst all the causes and effects of social life, that it is impossible to isolate any one group of phenomena—such as the industrial—and to treat this apart from the others. On this view economic facts cannot be explained without taking into account all concurrent causes, and rules for economic guidance cannot be formulated without taking into account all concurrent effects. All thinkers allow that no one group of social phenomena is completely isolated from another. But, in answer to the extreme Comtist view, it is urged that there are certain kinds of effects which are predominantly due to a single kind of cause, and that there are certain kinds of causes which produce a single predominantly important kind of effect. So far as this is true, the explanation of economic phenomena and the regulation of economic conduct may be treated independently of other sides of social life. Science has never been advanced except by specialisation. A distinction may, however, be made between two parts of economic doctrine. When the economist attempts to trace the general forms of transformation which economic phenomena present in the course of development, and to make broad comparisons between one society and another, it is true that economic phenomena cannot usefully be treated apart from the influences of religious, moral, intellectual, and political conditions. But when tracing the modes in which industrial forces operate under given social conditions, he need not enter into a scientific analysis of these conditions, and, assuming them to be relatively stable, he need not analyse the slow and gradual changes which they undergo. In brief, even though the theory of economic *evolution* may properly be subsumed and absorbed under the general science of social evolution, yet the doctrine of what may be called the statics and dynamics of industrial forces is rightly treated in entire independence of other branches of social science.

(*c*) *Divisions of Economic Science.*



Putting aside the ethical function of criticising economic ideals, and regarding rules of conduct as properly expressed in the form of conditional statements assigning the connection between measures and their consequences, we may confine attention to economics as a *positive* science that deals with relations of fact. So regarded it falls into two main divisions, which may be called respectively *descriptive* and *constructive*. The former branch describes the conceptions and facts with which the science deals; and the latter establishes laws or uniformities. Descriptive economics again divides into a *formal* and *narrative* branch; of which the former analyses and classifies the conceptions needed for understanding the science in its widest applications, and the latter investigates historically and comparatively the various forms of economic life exhibited by different communities and at different epochs. Constructive economics, again, adopts a method which is either predominantly inductive or predominantly deductive; and under each head we must recognise a mixed method in which induction is modified by deduction, or deduction modified by induction. The above table will serve to show the scheme of the chief departments of economic science.[1]

(*d*) *Formal-Descriptive Economics.*—It must be acknowledged at once that the various departments of economics cannot be treated altogether independently of one another. The descriptions of economic phenomena must be regarded as in the first place provisional, and

1 See also arts. on ABSTRACT POL. ECON.; ANALYTICAL METHOD; A POSTERIORI REASONING; A PRIORI REASONING; DEDUCTIVE METHOD; EXPERIMENTAL METHODS IN ECONOMICS; GRAPHIC METHOD; HISTORICAL METHOD; HYPOTHESIS; INDUCTIVE METHOD; LEAST SQUARES, METHOD OF; LOGIC AND POL. ECON.; MATHEMATICAL METHOD IN POL. ECON.; MEANS, METHOD OF; OBSERVATION (as distinct from Experiment); STATISTICAL METHOD; SYNTHESIS AND SYNTHETIC METHOD.

the form that they ultimately assume is necessarily dependent on theory. However, a general survey of ideas and facts must precede any investigation into the uniformities and dependencies among economic phenomena. In the formal-descriptive branch a provisional understanding is supplied of such general conceptions as those of wealth, capital, labour, appropriation, exchange, barter, money, and of the various subdivisions into which these conceptions fall. This branch of investigation involves the logical process of *definition* and *division*. Some writers are impatient of discussions of this purely formal character. Questions of definition are regarded as trivial, on the ground that they lead to merely verbal controversies. Definitions are, however, necessary mainly to prevent the confusion so prevalent between controversies about words and controversies about matters of fact or theory. Economics, in particular, has to borrow words from common speech, and common speech is ambiguous; hence, in default of a clearly assigned connotation, the economist is liable to introduce into his own writings confusion, misunderstanding, or inconsistency. Many disputes, for example, about capital have arisen from the failure to observe that different persons understand the term in different senses: and this applies to professed economists as well as to the ordinary man. The problem of definition gives rise to several difficulties. (1) Most of the terms employed, though in current use they cover a fairly understood range of application, are yet without any precise connotation. Definition therefore requires at the outset an *inductive* process of analysis and comparison to discover the characteristics common to all the various applications of the term. Often, however, a term is used so loosely that any possible definition will lead to a modification of its generally recognised scope in the direction either of expansion or of restriction. Nevertheless, the ordinarily understood range of a term in common use ought to be attended to; and it not infrequently turns out that the inductive investigation of popular usage will disclose important points of agreement or difference between classes of phenomena that would probably be overlooked if a more *a priori* mode of definition were adopted. (2) But, secondly, the process of defining a term is further complicated by the fact that some proposition into which the term enters is assumed to be true. For example, in the definition of capital it will be assumed that capital is a form of wealth which co-operates with other independent factors in the production of wealth. The definition of capital from this point of view provides an answer to the question "What other factor besides the raw materials supplied by nature and the efforts of human beings contributes to the production of wealth, and how far can this factor be conceived as independent of the others?" Or the definition of capital may implicitly answer the question "What is the nature of the service to the community and of the sacrifice to the individual which secures the payment of interest?" (3) Again, definitions involve a classification of economic phenomena, and so necessitate consideration whether the resulting classes are mutually exclusive and collectively exhaustive. Now the question of exclusiveness and exhaustiveness cannot be answered on merely logical grounds, but requires an investigation into matters of fact. Indeed the results of any such investigation may vary with variations in the stage of society considered. Hence even definitions partake of the character of relativity ascribed to all economic formulæ. (4) But more important than any other consideration is the question of framing a classification that will subserve the purposes of scientific investigation. Our definitions should lead to the formation of classes of which *universal* propositions of the greatest number and importance can be asserted, and between which the most impressive differences subsist. This latter aim is difficult to achieve because of the continuity of economic phenomena, *i.e.* the fact that different classes imperceptibly merge into one another leading often to limiting cases. The recognition of this principle of continuity is perhaps the most important characteristic of modern economic theory. (5) Definitions have finally to be completed by the construction of a nomenclature and terminology, in which a compromise has to be made between the claims of technical precision and convenience on the one hand, and of current phraseology and intelligibility on the other.

(*e*) *Narrative Economics.*—In narrative or historical economics are included not only accounts of past events in chronological order, but also comparisons between different societies, whether contemporaneous or not. Here we deal with particular facts ascertained by specific experience. In contrast with the *formal* branch of descriptive economics, the historical deals with actual phenomena having a definite position in time and space, and is thus concrete and circumstantial. But even the narrator must *select* his facts, and use his judgment as to what is of importance in reference to the particular species of phenomena which circumscribes his narrative. Again, no mere record of isolated events can be of service to science. The grouping of facts—whether as simultaneous or as successive—must be guided by assumptions of causal connection. In the first place, then, economic history cannot be comprehensible or instructive without a previous survey of the special conceptions systematised by formal economics. But this is not all. As formal economics requires reference to facts in order to procure appropriateness to its conceptions, so history requires reference to ideas in order to secure

coherence and systematisation in its presentation of facts. History is unavoidably coloured by the writer's theories of causal relations. Narrative economics, which occupies a middle position between formal and constructive economics, looking backwards, leads to modifications of the conceptions formulated by formal economics, and, looking forwards, becomes itself subject to modifications from constructive economics. One very important division of narrative economics is *Economic Statistics*. Although the range and implication of the term statistics appear to be very variously understood, yet we may at any rate regard statistics in the first instance as merely a descriptive-narrative department, dealing specially with numerical or quantitative results. The arrangement of such results in a coherent and instructive form requires not only logical and mathematical knowledge of a technical kind, but also special economic acquaintance with the action of industrial forces. The mere descriptive function of statistics is of course subordinate to its function of suggesting or verifying uniformities of cause and effect.

The importance to the economist of a wide knowledge of the various forms of economic institutions and habits that have actually appeared at different times and places, cannot be exaggerated. Some would hold that this historical knowledge is no part of economic science proper; others, that it practically exhausts the whole of the science. Since, however, it is one of the functions of history to criticise theory, and one of the functions of theory to criticise history, it would seem that acquaintance with particular facts and understanding of general laws are so intimately bound up, that there is as much need to protest against the exclusion of history from theory as against the exclusion of theory from history. The historian of industry requires training in economic reasoning, and the economic reasoner requires constant appeal to concrete facts. On these grounds narrative economics should be included as an introductory though necessary part of the whole of economic science.

(*f*) *Constructive Economics.*—The central aim of the science of political economy is the discovery and establishment of general truths relating to industrial life. The uniformities investigated may be divided on several different principles. Perhaps the most important distinction is that previously alluded to between *laws of industrial development* and *laws of the statics and dynamics of industrial forces*. The former department is a branch of the science of social evolution:—the science which traces regularity in the tendencies according to which one stage of society is in the course of time supplanted by another. This study necessarily regards man and society as in some sense organised wholes; *i.e.* it recognises all sides of human and social nature as co-operating towards some end consciously or unconsciously pursued. Not only are comparisons instituted between different stages of the same developing community, but also between any different communities that offer examples of different stages of development. On the other hand, the interactions between industrial forces present problems of an entirely different kind. Here the general condition of the society to which the investigation relates is accepted as a *datum*, not accounted for as a result of development. Hence in this treatment, no elaborate analysis of the various sides of social life is necessary. Whether it be the play of competition or the *vis inertiæ* of habit and custom, whether it be legalised serfdom or *laisser faire* that is assumed as the dominant characteristic of the society, either hypothesis is taken merely as a starting point for further investigations. Associated with this distinction of scientific aim is the distinction of scientific method. There is a natural alliance between laws of development and an inductive method based exclusively on experience; and a similar alliance between laws of interaction and a deductive method based mainly on calculation. Nevertheless there have been not a few writers who have treated evolution by highly *a priori* methods, while there have been many writers working with a fixed background of social conditions who have used the method of specific experience. In short, we have no right to identify the theorems of evolution with the inductive method, nor the theorems of dynamics with the deductive method. There is another distinction, viz. that between *abstract* and *concrete* economics which is liable to be identified with the distinction between the deductive and the inductive methods. By an abstract treatment of economic problems, is meant one in which the forces in operation are fictitiously simplified for purposes of investigation or exposition. The deductive method necessarily *begins* with an abstract treatment; but, in its complete form, qualifying conditions are gradually introduced which render the treatment approximately truthful to the real complexity of human life. The inductive method, on the other hand, begins with the complexities of actual economic conditions; but as it mounts up to higher and higher laws its statements become more and more general and, therefore, in a sense abstract. Pure induction starts with concrete detailed instances as its data, or premisses, and works up from these to uniformities of increasing simplicity. Pure deduction starts with abstract elementary principles as its data or premisses, and works down from these to uniformities of increasing complexity. The former passes from statements of greater to those of less circumstantiality; the latter from statements of less to those of greater circumstantiality. Symbolically from such premisses as "*ab* is *pq*, *ac* is

pr, *bc* is *qr*"; induction infers that "*a* is *p*, *b* is *q*, *c* is *r*"; while deduction infers the former from the latter. But no known writer has ever confined himself to the method either of pure induction or of pure deduction. There are two ways in which the methods of induction and deduction mutually co-operate in science; firstly, either method may be used to confirm or refute the *conclusions* of the other; and secondly, either method may be used to control or determine the *premisses* of the other. As to the former point, the term *verification* is usually given to an *a posteriori* confirmation of a deductively inferred result; and the term *explanation* to an *a priori* confirmation of an inductively inferred result. Whether the treatment of a question is to be called inductive or deductive depends on the preponderance of intellectual labour involved. If this be chiefly devoted to the collection, description, and comparison of facts, the method would be characterised as inductive; if to the consideration of alternative possibilities, the calculation of forces in combination, and the tracing out of chains of effects on general principles, then the method would be characterised as deductive. In induction the writer relies mainly on the number and variety of the instances cited, and on the degree of circumstantiality with which each case can be described in both its quantitative and its qualitative aspects. But here the results cannot be safely applied except within a narrow range of experience. Hence the need of *a priori* confirmation, which will often determine the limits of applicability of the empirically obtained uniformity. In deduction, the writer relies on exactness in the statement of postulates, exhaustiveness in the survey of alternative possibilities, and thoroughness in the tracing out of a chain of effects dependent on any postulated change. But here the result must be regarded as expressing only a *tendency* which may or may not be realised in the actual complexities of life. Hence the need for an *a posteriori* confirmation, which will transform the statement of a mere tendency into one of realised fact. It should be specially noted that the confirmation by one method of a result reached by the other does not usually amount to an independent establishment of it. For the examples brought forward to confirm an *a priori* deduction may often be few and incompletely analysed; and the principles adduced in confirmation of an *a posteriori* induction may often be indeterminate and incompletely synthesised. A method is to be characterised as inductive or as deductive, according as the form in which *facts are analysed*, or that in which *principles are synthesised*, is the more logically cogent. We next examine how either method is used in regulating the *premisses* of the other method. The premisses of the deductive argument are conclusions derived from observation, which may be either of a very general kind, or of a more special kind applicable to a given state of society and dependent on scientific analysis of economic phenomena. Such premisses refer either to the action of single isolated forces, and thus supply major premisses or principles; or else to the particular conditions of the society under consideration, and thus afford minor premisses. Somewhat in the same way as induction supplies premisses for deduction, so the results of deduction determine the form assumed by the premisses of the inductive process. For in order to bring facts together to any purpose, it is necessary to know in general outline the agency of economic forces. The relation of cause and effect does not involve merely or necessarily contiguity in space and time. Hence the collector of facts needs the guidance of theory in order that his analytical descriptions may include all that is relevant and exclude all that is irrelevant.

(*g*) *Inductive Methods.*—The inductive method rests on a collection, analysis, and comparison of concrete instances, with the view of discovering, within the range of observation, uniformities that may be extended beyond that range. The instances are collected as they agree or differ in respect to some one circumstance, which it is sought to connect causally with some other circumstance. There are thus two fundamental methods of induction, that of *agreement* and that of *difference*. Each of these methods assumes several subordinate forms, and these varieties of form may be combined so as to increase the cogency of any inference. In the method of difference, we infer with respect to some circumstance in which the compared instances *differ* from one another; in the method of agreement, with respect to some circumstance in which the compared instances *agree* with one another. In the method of difference it is essential that the instances compared shall *agree* with one another as closely as possible in all circumstances not known to be irrelevant; in the method of agreement, that they shall *differ* from one another as far as possible in all such circumstances. Expressing the methods symbolically, in comparing instances AB and AC, when the conclusion relates to A, we are employing the method of agreement, when to B or C, the method of difference. For example, if we compare two countries resembling one another only in the fact that both have adopted a policy of free trade [A], and infer that their prosperity is due to this policy, we are employing the method of agreement. If we compare two countries differing from one another only in the fact that one has adopted free trade [B] and the other protection [C], and infer that the superior or inferior prosperity of one is due to this difference of policy, we are employing the method of difference. It should be pointed out that the functions of the

two methods are not precisely identical. The method of difference proves—not that the differential circumstance would in *all* cases be efficient—but only when conjoined with the accompanying circumstances of the case. By this method alone it is impossible to discover how many of these accompanying circumstances were part-agents in producing the effect observed. It is therefore impossible to determine the range over which the causal relation may be extended. In order to *generalise* with respect to any one circumstance, we require the method of *agreement*, by which all other circumstances are shown to be irrelevant. Thus, if we can find a sufficiently varied group of strikingly prosperous communities, agreeing with one another only in the adoption of FREE TRADE, we have evidence that free trade *under any circumstances* will lead to prosperity. Causal connection in any single instance can only be proved by the method of difference, while a generalisation or uniformity can only be established by the method of agreement. The latter method determines, within certain limits of probability, the range over which we may extend any causal connection otherwise established. The explanation of this contrast is as follows: The law of causation tells us that *total agreement* between the causes operative in two instances would ensure *total agreement* between their effects; and conversely. Hence, if there is a *partial difference* between the effects in two instances, there must always be at least a *partial difference* between the causes; and conversely. This principle is that upon which the method of difference rests. On the other hand, it is not in general true that a *partial agreement* between the effects manifested in two instances would ensure even a *partial agreement* between their causes; and conversely. The method of agreement is, therefore, not absolutely reliable, since it depends on a principle which is not universally and without qualification valid. The two methods of agreement and of difference are necessary to supplement one another; the latter being required to establish *causal* connection in a single instance and the former to establish *uniformity* of connection.

Since, however, we can seldom fulfil the requirements of either of the two methods, we must practically have recourse to the *joint method*. Here we collect two sets of instances—one circumstance that is present in every instance of the first set being absent, or otherwise modified, in every instance of the second set. The more closely any pair of instances taken from the two sets agree, the more nearly we approach the requirements of the method of difference; and the more the instances in each set vary among themselves, the more nearly we approach the requirements of the method of agreement.

So far, in analysing the above methods, reference has been made to circumstances as simply *present or absent*. But the most important applications of induction are—not to mere *qualitative* agreement or difference—but to *quantitative* agreement or difference. Precisely the same methods apply to quantitative variations as to qualitative presence or absence, except that instead of taking only *two* instances, or two *sets* of instances of presence and absence respectively, we take any number of instances, or any number of *sets* of instances, in each of which a different magnitude of the variable quantity is presented. This method is called the *method of concomitant variations*. If the instances taken agree in all respects except in the magnitude of the variable quantity, the method is a mere extension of the *method of difference*. But the case in which instances are arranged in *groups*, according to the magnitude of the quantity present, is an extension of the *joint method*. This, in fact, constitutes the *complete method of pure induction*. Instances are arranged in separate heads, according to the various modifications of which some phenomenon is susceptible. Instances under each head, agreeing in some particular modification, are chosen which shall *differ* as far as possible as regards other accompanying circumstances; while instances under different heads are chosen which shall *agree* as closely as possible in regard to all other accompanying circumstances. When, from such a group of instances it is found that one variable quantity remains constant whenever another is constant, and differs when the other differs, we have the highest, purely empirical, ground for inferring causal connection between the two quantities.

The complete method of pure induction not only assigns causal connection between two phenomena on the ground of the concomitance of their quantitative variations, but it further determines the *law* according to which the variations in the one phenomenon follow variations in the other. Thus, if the method could be applied to economic data, not only would it establish a causal relation, say, between the price of corn and the marriage-rate, but it would determine the one quantity as a *function* of the other. Similarly, in connecting the price of corn with the amount supplied. To elicit, from a number of arithmetical data, the most probable law of variation involves special mathematical and logical canons, for which the articles on STATISTICS; LEAST SQUARES, METHOD OF; AVERAGE, etc., should be consulted.

Theoretically, the chief difficulty of applying pure inductive methods to economic phenomena is owing to the *composition of causes*. An effect in the economic world is invariably due—not to one kind of cause—but to the co-operation and interaction of a number of different causes, which all contribute to determine the actual phase or degree manifested in the effect. Hence,

by mere observation, it is impossible to detect the underlying agreement in different instances of the effect of any one cause,—the effect due to this one cause being modified through intermixture with the effects due to others. Instances compared according to the method of difference are not, however, in the same way vitiated by the action of the composition of causes. If the force operative in two instances, otherwise similar, differs in kind or intensity in the two instances, then any observable difference in the effect may be ascribed to this difference in the cause, although other forces may be operating in conjunction with that observed. A special variety of the method of difference applied to cases of composition of causes, is called the *method of residues*. This method is partly of an *a priori* and deductive character. It applies to cases in which the effects of all but one of the causes in operation are known, both as regards number and magnitude. If then, the actually produced effect is compared with that which would have been produced by the composition of the causes whose effects are known, the difference will determine the amount due to the cause in question. A simple example in economics of the method of residues is supplied by examining the rates of exchange of foreign bills. If the rate of discount current at the time is known on *a priori* or independent grounds, then a comparison between the exchange and the rate of discount will determine how much of the effect is to be put down to the temporary inequality of mutual indebtedness between the countries.

(*h*) *Deductive Methods.*—The character of the results reached by the deductive method will depend mainly upon the nature of the data or postulates which are assumed as premisses. It would not be possible to enumerate all the assumptions that have been made by different economists and for different purposes, but there are some half dozen which may be taken as typical and almost universally applied. Of these six data, two belong to each of the divisions, physical, psychological, and social. (1) The two physical or natural laws presupposed are the law of DIMINISHING RETURNS, which arises from the necessity of having recourse to inferior agents of production, or to their use under less advantageous circumstances; and the law of INCREASING RETURNS which results from the increased possibilities of industrial organisation under extension of supply. Both these laws represent *tendencies* ascertained by ordinary observation, which work in opposite directions. Hence more exact knowledge as to the magnitude of the forces in particular circumstances has to be supplied by further detailed observation. (2) The two psychological data are general expressions of the nature of DEMAND and of SUPPLY, so far as these depend on the characters of individuals. The law of demand is to the effect that the utility afforded by any increment of any kind of desired object diminishes with increase of the amount possessed: the law of supply is to the effect that every one tries to procure material well-being with the least possible sacrifice. These assumptions are common to almost all economic reasonings of a deductive type, though they are not always explicitly formulated. Here, as in the case of the physical presuppositions, further detailed observation is required to determine the precise degree in which these psychological forces act under any circumstances. In particular, the law of supply requires to be made more definite by an estimate of the influences of habit, inertia, ignorance, or custom, which materially affect its application. (3) The two sociological data relate to the conditions of freedom and restraint under which the economic activities of a community take place. Speaking generally, it is assumed on the one hand that individual action is controlled by certain legalised institutions with regard to property, and, on the other hand, that individuals are free to act according to their own will within certain limits. A similar remark applies here, as before, namely that the precise degree of freedom or of restraint, operative under any circumstances, has to be determined by specific observation. In analysing the postulates of deductive economics, reference is generally made to *competition*; but under this term a good many ambiguities are concealed. Competition is sometimes used to exclude any form of combination; but abstract economics does not exclude any form of combination which individuals may find it to their interest to enter into. Again, competition sometimes implies merely legislative freedom for every one to act for his own interest; but at other times it implies that equal remunerations are secured for equal services. Now this latter depends on the *effectiveness*, not on the mere *freedom*, of competition. Again, freedom of competition may imply the absence — not merely of governmental interference—but also of all sentiments, habits, or dispositions which might check the active pursuit on the part of every one of his own interests. There is a distinction between the restraints imposed by the social and legal environments and those due to psychological and individual character. Now, with respect to all these and similar presuppositions of deductive economics, considerable difference of opinion has arisen as to their validity or import. Some writers hold that they are of universal application, though, of course, requiring further determination by specific observations of particular communities (cp. Jevons, "The Future of Political Economy," *Fortnightly Review*, vol. xxvi. p. 625). Others hold that they express tendencies only which are liable to be counteracted by various forces of a secondary

kind (cp. Mill, Cairnes, etc.). Others, again, hold that the postulates of economics relate to societies within a narrowly limited range, viz. those which have reached the most highly developed and complicated form of industrial organisation (cp. Bagehot, *Economic Studies*, pp. 19, 20). Lastly, some have held that the premisses of deductive economics are absolute fictions, applicable to no society of individuals that has existed or ever could exist (cp. F. Harrison, Cliffe Leslie). The truth is that, without further modification, few of the conclusions of deductive economics can be applied to the explanation or regulation of concrete circumstances; but that the method is necessary for controlling and guiding inductive observation. Moreover, the different postulates of deductive economics have different values in relation to different classes of phenomena. In some cases many more qualifications are needed than in others. These qualifications suggested by inductive observation can often be introduced into the deductive process itself. But, in any case, the limits of validity of deductively reached results must be examined by comparisons with experience; and in this consists the importance of deduction, checked, tested, and confirmed by induction.

(*i*) *Criticism and Combination of Methods.* In political economy *induction* alone is inadequate for the following reasons: (1) There is hardly any scope for experiment, whereby the effect of a single cause coming suddenly into operation in the midst of an unchanging environment could be observed. (2) The cause of any effect consists always of a conjunction of a large and intricate number of conditions which cannot be measured or empirically observed in separation. (3) The effects produced are often at first inappreciable; and cannot in any case be looked for until long after the first introduction of the cause. (4) Hence the effects are continually liable to be modified and interfered with by other co-operating or conflicting agencies, which come into operation after the special cause under investigation. On the other hand, *deduction* alone is inadequate for the following reasons: (1) The data or first principles of the science cannot be ascertained with quantitative exactness. (2) The character of the objects to which the science applies is liable to fundamental changes, so that there is no permanent basis upon which calculation can rely. (3) Even in a stationary society, the kind and degree of qualifying circumstances that modify the results cannot be known *a priori*. (4) No principle is known, like the parallelogram of forces in physics, according to which the effects of various forces in combination can be calculated.

In face of these obstacles to cogent inference by either the inductive or the deductive method, the fact that so much has been written in political economy which professes to employ one or other of these methods requires explanation. The answer is to be found in the consideration that much of what has been written comes rather under the *descriptive* than under the *constructive* head. Much of what is called deductive economics concerns itself with the preliminary process of clearing up misconceptions and presenting alternative possibilities in an exhaustively systematic form. So far as inferences have been worked out, they have merely made explicit what is involved in the postulates assumed at the outset, by carrying them to their inevitable consequences. This work of clearing up ideas, in so complicated a subject as that of the interaction of industrial forces, is so difficult, that no amount of care and trouble is thrown away in attempting to execute it efficiently. On the other hand, much of so-called *inductive* economics is concerned with the process of enlarging one's views of the varied forms in which economic life has been manifested from time to time, and of presenting problems from experience for theory to solve. So far as inference has been here introduced, it has consisted mainly in propounding a mere *suggestion* that, where agreements or differences have been observed, there is probably some causal connection which theory is required to explain. Such work is also extremely useful. What can alone be called *constructive* economics—involving genuine inference from the known or postulated to the unknown—has actually involved the co-operation of deduction and induction. Here, again, there is room for workers of opposite tastes and abilities, for we may still distinguish a method that is predominantly inductive but aided by deduction from one that is predominantly deductive but aided by induction. In the former, the facts of history are collected and prepared in the light of general theory, and an explanation of their connections is sought for on universal *a priori* principles. In the latter, the principles assumed are chosen on the ground of general conformity with experience, and a verification of the conclusions inferred is sought for in specific experience. So far as inductive generalisation fails to receive confirmation from indubitable general principles, it is led inductively to examine its facts more comprehensively. And so far as deductive calculation fails to receive confirmation from indubitable particular experiences, it is led deductively to apply its principles more concretely. Thus each method may learn from the results of the other without losing its own distinguishing characteristics.

[The English works in which the subject has been exhaustively treated are J. N. Keynes, *Scope and Method of Political Economy*, and J. E. Cairnes, *Character and Logical Method of Political Economy*. But almost all systematic writers on political economy have dealt more or less incidentally with the question of method. Without pro-

fessing to supply an exhaustive bibliography, the following important works may be mentioned:—

W. J. Ashley, *English Economic History and Theory*.—W. Bagehot, *Economic Studies*.—M. Block, *La Science Économique*.—A. E. Cherbuliez, *Précis de la Science Économique*.—G. Cohn, *Grundlegung der Nationalökonomie*.—L. Cossa, *Guide to the Study of Political Economy*.—C. F. Dunbar, "Reaction in Political Economy" (*Quarterly Journal of Economics*, October 1886).—B. Hildebrand, "Die gegenwärtige Aufgabe der Wissenschaft der Nationalökonomie" (article in *Jahrbücher für Nationalökonomie und Statistik*, vol. i., 1863).—J. K. Ingram, *History of Political Economy*.—W. S. Jevons, "The Future of Political Economy" (*Fortnightly Review*, November 1876), and *The Theory of Political Economy*.—K. Knies, *Die politische Oekonomie vom Standpunkte der geschichtlichen Methode*.—T. E. Cliffe Leslie, *Essays in Political and Moral Philosophy*.—F. List, *The National System of Political Economy*.—T. R. Malthus, *Definitions in Political Economy*.—(Also J. Bonar, *Malthus and his Work*).—A. Marshall, *Principles of Economics; Present Position of Economics*.—C. Menger, *Untersuchungen über die Methode der socialwissenschaften und der politischen Oekonomie insbesondere*, and *Die Irrthümer des Historismus in der deutschen Nationalökonomie*.—J. S. Mill, *Essays on some unsettled questions of Political Economy*, and *Logic*, bk. vi.—W. Roscher, *Principles of Political Economy*.—E. Sax, *Wesen und Aufgaben der Nationalökonomie*.—H. von Scheel, "Die politische Oekonomie als Wissenschaft" (Schönberg's *Handbuch*, vol. i.).—G. Schmoller, *Zur Litteraturgeschichte der Staats und Sozialwissenschaften*.—G. Schönberg, "Die Volkswirthschaft" (Schönberg's *Handbuch*, vol. i.).—N. W. Senior, *Political Economy*, and *Introductory Lectures before the University of Oxford*.—H. Sidgwick, *Principles of Political Economy*, and *Scope and Method of Political Economy*.—C. Supino, *Il mètodo induttivo nell' economia politica*.—"Science Economic Discussion" (*The Science Company*, New York, 1886).—A. Wagner, "Grundlagen der Volkswirthschaft" (*Handbuch der politischen Oekonomie*, vol. i.).] W. E. J.

METHUEN TREATY. Portugal had been closely allied with England since the marriage of Charles II. with Catharine of Braganza (1661) and the recognition of Portuguese independence (1668) to which English arms and diplomacy had essentially contributed. But when the great question of the Spanish succession was raised in 1700, Pedro I. of Portugal was induced by France to acknowledge the Bourbon claimant, Philip V. It was a notable success for the Grand Alliance when, in 1703, Portugal deserted the Bourbon cause and joined in the war as a partisan of the Archduke Charles. In the negotiations which led to this change of sides a prominent part was taken by John Methuen, the English envoy at Lisbon. Methuen now seized the opportunity to secure commercial advantages for England by reopening the Portuguese market to English wool, which had been excluded from that country since 1680 in the hope of encouraging native agriculture and manufactures. On 27th December 1703, he succeeded in concluding the brief but famous treaty which has immortalised his name. It consists of two simple and straightforward articles: British woollen manufactures are to be admitted into Portugal on the same terms as before the prohibition, provided that Portuguese wines shall pay in Great Britain a duty one-third less than that charged upon wines from France. For more than seventy years this treaty was consistently observed, with the result that the cultivation of the vine was vastly extended in Portugal, and that in England port superseded burgundy as the ordinary wine drunk by the gentry. The treaty was regarded as specially advantageous to England, because a large portion of our exports were paid for in the gold which Portugal derived from Brazil. Hence the mercantilists reckoned that the balance of our trade with Portugal was more favourable than that of trade with any other country. This contention led Adam Smith to make a special attack upon the Methuen Treaty, which he condemned on three grounds: (1) British capital could have found more advantageous employments than the Portuguese trade into which it was artificially attracted; (2) we gave differential advantages to Portuguese wines, while Portugal promised none to English woollens; (3) England was forced to undertake the burdensome task of defending a very weak ally against Spain and France. It is undoubtedly true that the disadvantage at which French wines were placed in the British market contributed to strengthen and prolong the hostile feelings between France and England during the 18th century.

The first blow to the Methuen Treaty was dealt by the great Portuguese minister, Pombal. The market for British goods was restricted by sumptuary laws and by the systematic protection of native industry. In 1767 it was reckoned that our exports to Portugal had fallen from £1,500,000 to £735,000, and that the balance of the precious metals had sunk to £105,000. The dissatisfaction thus created facilitated Pitt's negotiations with France, and art. 6 of the famous commercial treaty of 1786 stipulated that "the wines of France, imported directly from that country, shall pay no higher duties in Great Britain than those now paid by the wines of Portugal." This was a virtual abrogation of the Methuen Treaty, but the subsequent outbreak of the long wars with the French republic and empire prevented the new agreement from being fully carried out. During the war, Portuguese wines paid 9s. 1d. a gallon and French wines 13s. 9d., and thus port retained its ascendency over burgundy and claret during the early part of the present century. In 1825 the duties were reduced,

but the same proportion was retained, and it was not till 1832 that Lord Althorpe, as chancellor of the exchequer, carried the equalisation of duties upon foreign wines at 5s. 6d. per gallon. In 1836 Portugal formally released England from the obligations of the Methuen Treaty.[1]

[Adam Smith, *Wealth of Nations*, bk. iv. ch. 6.—Macpherson, *Annals of Commerce*, vol. ii. —Leone Levi, *History of British Commerce*.]

R. L.

METRIC SYSTEM—ENGLAND. The action of England in respect to the metric system of weights and measures has been characterised by precisely the same slowness and vacillation as has been described under the heading of DECIMAL SYSTEM in relation to coinage. Had it not been taken up, with more or less of zeal and perseverance, by various private individuals in the last hundred years, no English government or its executive would have so much as given it a thought. Space compels us to do no more than briefly refer to what was done during the second half of the nineteenth century. Entirely through private agitation, and mainly through that of the Metric Association, founded in London by some few leading men of science and business, a parliamentary committee was named in 1862 for the consideration of suggested reforms in our system of weights and measures. They recommended, with unanimity, a cautious but steady introduction of the metric system, and its legalisation, but not compulsorily until sanctioned by the general conviction of the public, and that a department of the board of trade should undertake the care and verification of the standards under the new system, and spread the knowledge of it in government departments and among the people, and use it alongside the present system in levying customs duties and in government contracts. It was also to be made one of the subjects for examination in competitions for entering the civil service. The *gramme* was to be used as a weight for foreign letters and books at the post-office. The metric system was to be taught in all schools receiving grants of public money. The recommendation of the International Statistical Congress, as to its use in our public statistics, was adopted; this was that its use should be allowed in private parliamentary bills, and metric and imperial measures exclusively used until the former came to be generally adopted. A bill was introduced into parliament to make the chief of these recommendations compulsory at a date to be fixed, say at end of three or more years. In committee the government objected to the compulsory provision, and substituted a permissive bill which was agreed to, and became the "Metric Act" of 1864. In 1868 a bill, afterwards abandoned, was brought in to introduce the metric system by compulsion, after a period to be inserted by government. In 1871 a bill with the same object was introduced, but Mr. J. B. Smith, then member for Stockport, who had long laboured with the Metric Association in discussing and arranging the terms of this bill, was defeated on a second reading by a majority of five. In the last quarter of the century, mainly arising from the decease of some of the most active and influential members of the Metric Association, and partly from the few survivors being tired of the apathy of the general public on this question, there arose a certain positive retrogression in the interest taken in it. At the close of the century a new body, under the revived name of the Decimal Association, again took it up, and a parliamentary committee, after resuming the task of taking evidence, reported almost unanimously in favour of legalising the metric weights and measures immediately, and of making their use obligatory at the end of two years, with provision for teaching the system in the meanwhile in every public school as a necessary and integral part of arithmetic. It would be a welcome sign of progress, if, in the public advantages expected to accrue from the recently elected strong government and executive, these recommendations were allowed to result in a complete reform. This ought, however, in our opinion, to be extended also to coinage, as if so important a step in the commercial and daily life, and in the education of the people, be once taken, it should not be in a piecemeal, but in a complete manner. The precedents of other European countries should be kept in view. They have not feared the change, but, greatly to their advantage, have successfully carried it through.

F. H.

METRIC SYSTEM (FRANCE, etc.), the system of weights and measures established in France by the law of 18 germinal, year III. (17th March 1795), and since adopted by a great number of other countries. The idea of a scientific basis for a standard from which all weights and measures could be derived had been put forward a century earlier by the astronomer Picard. The unit he proposed for his standard was the length of a pendulum, beating one second at the sea-level at forty-five degrees of latitude. No uniform system of weights and measures then existed in France, and although the *toise*, and the *livre*, were common expressions, the length of the one, and the weight of the other varied in the different provinces, and even between towns of the same province. A general reform of the

[1] Contemporary opinion differed as to the effect of the impost.

"Firm and erect the Caledonian stood,
Good was his mutton and his claret good.
'Let him drink port,' the English statesman cried.
He drank the poison and his spirit died."

Contra:—

"Drink the port; the claret's dear, Erskine, Erskine.
Ye'll get fou on't, never fear, my jo Erskine."

various systems was one of the desiderata contained in several of the "cahiers" submitted to the *États Généraux* which preceded the revolution of 1789, and the subject was taken up by the constituent assembly on a proposal by Talleyrand. By a royal decree of the 8th of May 1790, the king of England was to be invited to appoint a commission of savants to meet one of French academicians, and determine the length of the pendulum, as proposed by Picard. Political events prevented the execution of this project, but the French academy of sciences named a committee formed of Borda, Lagrange, Laplace, Monge, and Condorcet, to carry out the work. That body, however, set aside Picard's plan of the length of a pendulum as the basis of the new system, as well as a proposal to take a fraction of the length of the equator, and adopted as the initial measure, to be called the mètre, the ten millionth part of a quarter of the terrestrial meridian, with decimal multiples and divisions. There, however, remained to determine the length of the quadrants. Many savants had, during the century, taken measurements of parts of the meridian, but the results differed considerably. Picard fixed the length of the degree at 57,060 toises of six feet. Some astronomers put the degree as high as 57,422 toises, others as low as 56,750. Fresh surveys were ordered, and Delambre and Méchain were charged in 1792 to measure the arc of the meridian between Dunkirk and Mont Jouy near Barcelona. Those limits were selected as being at about equal distances, the one from the north pole, the other from the equator, each extremity being at the sea level. The result of their labours, which spread over a period of seven years, was to fix the distance from the poles to the equator at 5,130,740 toises, a ten millionth part of which was taken as the standard mètre. The length of the degree according to their calculation was 57,008 toises, differing but slightly from the 57,060 toises obtained by Picard more than a century earlier. A committee of weights and measures was then appointed to complete the work, by composing a system of weights and measures based on the metre, with decimal multiples and divisions. To indicate the multiples the Greek prefixes, *deca* ten, *hecto* a hundred, *kilo* a thousand, and *myria* ten thousand, were adopted; and for the divisions, the Latin, *deci* a tenth, *centi* a hundredth, *milli* a thousandth. A *décamètre* is consequently a lineal measure of ten *mètres*, a *décimètre* a tenth of a mètre, a *kilomètre*, the ordinary measure of road distances, one thousand mètres, a *millimètre* a thousandth of a mètre. Other measures and weights are derived from the mètre. For surface measurement the unity is the square of a mètre on each side; with the multiples square décamètre, having sides of ten mètres, and the divisions of a square decimètre, or sides of one-tenth of a mètre, etc. For land measurement, the square décamètre, containing 100 square mètres, is called an *are*, and 100 ares, or 10,000 square mètres, an *hectare*. For solids the principal measure is the cubic metre of a square mètre on each of the six faces, the same bulk of water forming the ton weight of liquids. The *litre* is a thousandth part of the ton, or a measure having a tenth of a mètre, or ten centimètres on each face. The weight unit is also derived from the measurement of liquids, a cubic centimètre, or cube of one hundredth of a mètre on each face of distilled water, at the temperature of greatest density, forming the *gramme*; a thousand grammes make the *kilogramme*, or French double pound, which is the principal commercial unity of weight. The division of the mètre and the gramme into one thousandth parts, the *millimètre* and the *milligramme*, permits calculations of great nicety, and those weights and measures are now commonly employed in the sciences and industrial arts in countries which have not adopted the metric system generally.

Comparative tables of the English equivalents of the French weights and measures are to be found in most books of arithmetic and works of reference, and it will suffice here to state that the mètre is 39·370 inches, or 1·093 yards; the litre, 61·027 cubic inches, or 1·760 pints; the hectolitre, 2·751 bushels; the gramme, 15·432 grains; the kilogramme, 32·150 ounces troy, or 2·204 pounds avoirdupois; the square mètre, 10·764 square feet; the hectolitre, dry measure, 2·751 bushels; the kilolitre, or ton measurement 35·316 cubic feet. Conversely the English inch is 0·025 metres; the yard, 0·914 mètres; the mile, 1609·31 mètres; the square yard, 0·836 square mètres; the acre, 0·404 hectares; the pint, 0·567 litres; the gallon, 4·543 litres; the bushel, 36·347 litres; the grain, 6·479 centigrammes; the ounce avoirdupois, 28·349 grammes; the pound, 453·592 grammes; the cwt., 50·802 kilogrammes. In the above equivalents decimal figures beyond three in number are omitted.

The metric system was definitely constituted by a law of the 10th December 1799, and became compulsory from November 1801, but did not apply to the currency. The famous law of the 7th Germinal year xi. (28th March 1803), however, established the monetary system on its present bases, the weight of the coin being fixed in grammes with decimal subdivisions of the franc into decimes and centimes, or tenths and hundredths of the franc. The new system had to contend with old habits and prejudice. The population continued to employ old names adapted to divisions of the new weights and measures, such as a foot of a third of the mètre, an *aune* or ell of 1·20 mètres, a pound of 500 grammes, an *arpent* or acre of two-fifths of an hectare, etc., and those infractions of the law

were tolerated by successive governments until a law was passed in 1837, interdicting, from the 1st January 1840, under severe penalties, the use of any other weights and measures than those of the metric system. The principal exceptions to the use of the metric or decimal system in France, are in the divisions of time, and the measurement of angles, for which the old numeration is preserved, and all attempts to bring those quantities into concordance with the system have been abandoned. Absolute perfection is difficult, and the original idea of taking for the standard a certain and incontestable lineal measure has not been completely realised. Since the first mètre was cast in platinum, and deposited at the archives in an iron safe, secured with four locks, other measurements of the meridian have been taken, and have proved that the real length of the quadrant is 5,131,180 *toises*, or 440 more than obtained by Delambre and Mechain. The latter of those savants is said to have himself discovered an error in his calculations, but did not dare to reveal it for fear of raising doubts on all the work of the commission. The mètre has remained as first established, in spite of that imperfection.

An international convention met in Paris in 1875, and decided on the formation of a permanent bureau of metric weights and measures. The countries represented were France, Belgium, Italy, Spain, Portugal, Sweden and Norway, Germany, Austria, Switzerland, Denmark, Russia, Turkey, the United States of America, Argentina, Peru, and Venezuela. England did not send any delegate, but gave her adhesion in 1884, and some other states, including Japan, have since joined in. The international bureau is established in a government building, in the park of St. Cloud, with a permanent staff charged to make and provide prototypes of the mètre and the kilogramme, the expense being borne in common. Besides the original mètre, preserved at the Paris archives, exact reproductions are also deposited at the Observatory, and the Conservatoire des Arts et Metiers. The international prototypes are made of 90 parts of platinum, and 10 of iridium, and have a length of 102 centimetres, the mètre being marked by indented lines at one centimètre from each end. Most of the states above named have adopted entirely the metric system, others, including England, have legalised it, while a third class of states have decimal monies, weights, and measures, not concording with the metric system, but which are a step towards it, and will facilitate a future adhesion to it. The merits of the system as a whole are so universally admitted that they do not require to be demonstrated.

[P. Leyssenne, *Traité d'Arithmétique.*—Larousse, *Grand Dictionnaire du xixe. Siècle* (*s.v.*)—Duvergier, *Collection des Lois et Décrets depuis* 1788.]

T. L.

METROPOLIS, MANAGEMENT OF (see also COMPANIES, CITY OF LONDON). For purposes of local government London is divided into two distinct areas, the City of London—formerly the City and County of London—and the modern administrative County of London. The former comprises the area within the old city walls, and some districts near, in all some 673 acres, about one square mile, with a population by day (1891, the latest census) of 301,384, and by night 26,923 (1901). The corporation of the City of London consists of the lord mayor, the two city sheriffs, the court of aldermen, and the court of common council. The elective bodies are the liverymen and the ratepayers. The LIVERY are the freemen of the city companies or gilds, which are now (1904) 77 in number, and have 9083 members, who are entitled to vote in common hall. The ratings are 11,280 in number, giving 32,647 municipal voters, the total assessment being £5,105,874. The aldermen, 26 in number—one for each ward,—are chosen by the ratepayers, and hold office for life. The alderman for the ward of Bridge Without is not elected by the ratepayers of that ward, but the seat, when vacant, is taken, generally by seniority, by one of the other aldermen, whose ward immediately elects a fresh representative. The ratepayers also elect common councilmen, varying from 4 to 16 for each ward, and amounting in all to 206, who hold office for one year only, the elections taking place annually on St. Thomas's Day. The lord mayor, who must previously have served the office of sheriff, is chosen annually, on the 29th September, by the court of aldermen, from two members of their own body selected on the same day by the liverymen in common hall. Both the selection of the livery and the choice of the aldermen usually fall upon the next in seniority. The two sheriffs are also elected by the livery. From the time of Henry I. the livery possessed the right to elect both the city sheriff and the sheriff of Middlesex, but by the Local Government Act of 1888 the last-named right was withdrawn, and the citizens now elect two sheriffs for the city.

The corporation has complete and exclusive powers of local government throughout its own area. It maintains and controls its own police, and administers justice at the Guild Hall and Mansion House. It appoints judges to hold courts of assize for criminal cases at the Old Bailey—the aldermen being justices of that court, and throughout the city, and having, besides, special powers enabling any of them to do alone any act which in any other place requires the presence of two justices of the peace. The court of aldermen holds licensing sessions for the city. It also appoints judges for the trial of civil causes in the City of London Court, and the Mayor's

Court, the latter having exclusive jurisdiction in a variety of causes arising out of city customs, and also in causes in equity, if arising entirely within the city. The court of aldermen holds separate meetings for its special duties, but for administrative purposes the aldermen sit in common council with the councillors, and have equal powers.

The Administrative County of London comprises urban and suburban districts outside the city boundaries, extending for some nine or ten miles on every side. It extends over some 121 square miles, and contains an area of 74,839 acres, not including the city, with a population (1901) of 4,536,541. This area was formerly without any joint or corporate administration, its local government being entirely in the hands of the vestries of the different parishes, but by the Metropolis Local Management Act of 1855 the metropolitan board of works was established, with powers for drainage, sewerage, lighting, cleaning, and general improvements. By the Local Government Act of 1888 this body was superseded by the London County Council, with extended powers of government over the same area under the title of the Administrative County of London. This body consists primarily of 118 councillors, who are elected by the electors of the parliamentary boroughs in the metropolis, including the city, the number of councillors for each division being double the number of members it returns to parliament. The councillors at their first meeting elect a number of aldermen, not exceeding in all one-sixth of their own number. From this enlarged body they elect a chairman, a paid deputy, and a vice-chairman. All the members of the council sit together, and have equal powers. The councillors hold office for three years, and retire all together. The aldermen hold office for six years, nine or ten of them retiring every three years. At present (1905) there are 118 councillors including the chairman, and 19 aldermen.

The funds of the council are raised by levies upon the different parishes and districts within its area, all parishes paying an equal rate per £1. The rateable value (1905) is £41,647,310. By the Equalisation of Rates Act 1894, a rate of 3d. in the pound may be made half-yearly to form an equalisation fund, which is to be distributed among the parishes on the basis of population. It has also power to raise money by loan, and the gross debt amounts (1905) to £71,587,175, including £18,061,140 in loans to different vestries and school boards.

For judicial purposes the London County Council has power to direct, with the approval of the home secretary, the holding of quarter sessions for the county of London, and has the right to petition the crown to appoint a chairman therefor. The chairman of the county council is a justice of the peace *ex officio*.

The sheriff of the county of London is appointed by the crown in the same way as the sheriffs of Middlesex and other counties.

For educational purposes it was administered by the London school board, established under the Elementary Education Act 1870, whose district was the same as that of the London County Council. By the Act of 1903 the care of education was confided to the London County Council, who act through their education committee, which consists (1905) of 38 members of the council, with 10 co-opted members, of whom five are ladies.

For general criminal jurisdiction the county of London is in the district of the Central Criminal Court: a district comprising 269,14 acres, say 420 square miles including the city with a population (1901) of 6,101,664. The Central Criminal Court holds quarter sessions and sessions every month. For police jurisdiction the county of London is comprised, by act of 1829, in the Metropolitan Police District, which extends over a radius of 1 miles from Charing Cross, and covers 442,74 acres, or 692 square miles, not including the city, having a population (1901) of 6,554,449 The metropolitan police are under the direct control of parliament, acting through a commissioner appointed by the home secretary One-half of the cost of police is voted by parliament, and the other half is raised by precept upon the different parishes according to rateable value.

Many important matters relating to the health of the metropolis, such as fever and small-pox hospitals, and the care of imbeciles are under the control of the metropolitan asylums board, one-third of whose members are nominated by the local government board the remainder being elected by the various bodies of poor-law guardians.

Matters relating to the port of London and the river Thames are in the hands of the city corporation as port sanitary authority, and the Thames conservancy. This body consists of 38 members, of whom 8 are nominated by the corporation, and a like number by the London County Council.

The water-supply is controlled by the Metropolitan Water Board created by the act of 1902, which consists of 66 members, of whom 14 are nominated by the London County Council and the remainder by different municipal bodies interested.

The vestries of the different parishes within the county of London were, by the act of 1899 superseded by borough councils, to the number of 29, which consist each of a mayor, and certain number of councillors, not to exceed 60 who have power to elect aldermen not exceeding one-sixth of their number.

The lieutenancy of London is in a commission named by the crown under the privy seal, and under act of 1673, and consisting of the members and chief officers of the corporation, but not all of the councillors, and other merchants and bankers of the city who are recommended by the lord mayor. The court of lieutenants has the same powers with regard to the reserve forces as the lords lieutenant of the counties. R. W. B.

METZ NOBLAT. See DE METZ-NOBLAT.

MEUBLES. See IMMEUBLES.

MEYNIEU, MADAME MARY (died in 1877); an Englishwoman by birth, married to a Frenchman. She became a widow after fifty years of wedded life, but continued to live in France. Highly cultivated and accomplished, she was one of the few women who have written on political economy, and she was highly successful in popularising the science.

Her principal works are: *Eléments d'économie politique*, a statement in a series of dialogues between a teacher and pupil for the use of the primary normal schools, Paris, 1839, 8vo.—*Histoire du paupérisme anglais*, 1841, 8vo.

A. C. f.

MÉZAGUES, VIVANT DE (18th century), believed to be the author of a "letter" on the general condition of England, under the initials M. V. D. M., is stated by his translator to have been at the head of the finances of France (*c.* 1754-60). The object of the "letter" is to show that the wealth and trade of England were not greater than those of France. With this view the author examines into the balance of trade between England and other countries (including Ireland), the national income and debt, exchanges, imports and exports of bullion, war expenditure, etc. He concludes that England, after having been a gainer by her trade during the 17th century, was in 1761 a loser from a monetary point of view. He supports his argument by statistics from official and the best private estimates, and carefully considers objections. He calculates that the "territorial income" of England about 1760 was £20,000,000 sterling; also that from two-fifths to a third of the national debt was held by foreigners.

Bilan général et raisonné de l'Angleterre, depuis 1600 jusqu'à la fin de 1761; ou Lettre à M. L. C. D. sur le produit des terres et du commerce de l'Angleterre, par M. V. D. M., 1762; translated into English under the title *A general view of England respecting its policy, trade, commerce, taxes, debts, produce of land, colonies, manners, etc., argumentatively stated from the year 1600 to 1762, in a letter to M. L. C. D. by M. V. D. M.*, London, 1766. [See Andrew HOOKE.]

[Coquelin and Guillaumin, *Dictionnaire de l'Économie politique*, Paris, 1854.—R. Giffen, *Growth of Capital*, London, 1889.] R. H. H.

MICHAELIS, OTTO (1826-1890), was successively a journalist, a member of the Prussian chamber of deputies, of the imperial *Reichstag*, and a councillor of the German chancery. He was one of the most steadfast and brilliant representatives of the German free-trading party; when Prince Bismarck's leanings towards a protective policy became notorious, he resigned his office in the imperial chancery, but was placed at the head of the board of the *Invalidenfonds*. He was with Julius FAUCHER (*q.v.*) one of the founders of the *Vierteljahrschrift* and an honorary member of the Cobden Club.

After having published a book against the state monopoly of railways (*Das Monopol der Eisenbahnen* 1861), Michaelis later on showed himself willing to make concessions on this subject; his *Volkswirthschaftliche Schriften*, 2 vols., 1857, which deal with the management of railways, the commercial crisis of 1857, commercial speculations, public loans and banking, and his contributions to the *Vierteljahrschrift*, deserve to be noticed. In his chapter on value (*Das Kapitel vom Werthe*), which first came out in the same periodical, he states that the notion of value is purely subjective, and springs from the efforts to be made in order to get possession of a thing, leaving aside the further purpose of exchange. He was a strong opponent of a fiduciary circulation of bank-notes. E. CA.

MICHEL, FRANCISQUE (1809-1887), editor of the first volume of the Gascon Rolls (*Rôles Gascons*) in the *Collection des Documents Inédits*, of municipal records of Bordeaux, etc. His writings, chiefly on antiquarian subjects, are numerous.

His *Histoire du Commerce et de la Navigation de Bordeaux* (2 vols., Bordeaux, 1867-68), entirely based on local and on national (English and French) records, is highly esteemed and full of information on the intercourse between Bordeaux and England during the period of English dominion.

E. CA.

MIDDLEMAN. A "middleman," in the broadest sense, is one through whose hands goods pass from one trader to another or to a consumer. Owing to the inaccurate habits of thought prevalent respecting economics, the term has acquired a dyslogistic meaning in consequence of the considerable profits which are frequently made by the persons or corporations included under it. The middleman is supposed in some mysterious and blameworthy manner to have insinuated himself between the producer and the consumer, taking an exorbitant profit from both, and various wild schemes have from time to time been devised for "eliminating the middleman" who is figured by half-educated people as a person with no real *raison d'être*, since he performs no useful function. This idea is, in the main, absurd, but like most widely spread opinions it is based on a truth. To get rid of *all* intermediate agencies between producer and consumer is a dream which even the most rabid assailant of the middleman would admit to be impossible of realisation, but there is no doubt

that in certain cases middlemen continue to obtain business long after the economic justification for their existence has ceased. To do what has always been the custom is easier than to strike out a new path, and for this reason people follow the old ways in their daily business unless a very great advantage can be shown to result from a change.

CO-OPERATION as applied to DISTRIBUTION is a device, and a very effective device, for getting rid of a number of middlemen. Various attempts have been made to "bring producer and consumer together," especially in the case of agricultural produce, the profits of the salesman, in the case of meat especially, being supposed to be excessive. They probably are in many cases; for though retail tradesmen are fierce competitors one with another in large towns, their competition does not take the form of cutting down prices to any serious extent, and in small towns a practical monopoly of the supply of such articles as meat often exists. Moreover, the strong demand arising from the wants of the big towns, especially London, tends to keep up prices, for the London salesman would be quick to take advantage of any unusual cheapness. It is, however, difficult to avoid the conclusion that middlemen are essential to nearly all businesses involving movements of commodities over considerable distances, and as there is competition even among them, their profits cannot be more, on the average, than the services rendered justify, though occasionally an excessive profit may be made for a time. W. H.

MIDDLE PRICE. Dealers on the stock exchange, when asked the price of a given security, sometimes say, "87 middle," or some other middle price, at which they are not prepared to deal, but which is half way between the prices which buyers offer and sellers are prepared to accept. A middle price is therefore not a formal QUOTATION (*q.v.*), although transactions are sometimes based on it (see also MARGIN). A. E.

MIL. The 1000th part of a monetary unit. It is perhaps more frequently applied to the United States dollar than to any other coin. The smallest United States coin issued appears to be a copper half-cent, of which $39,926.11 coined by the mint of Philadelphia were stated to be outstanding in 1894. These half-cents each = 2½ mils. The value of the mil is about ⅛ of 1 farthing.

[*Report of the Director of the United States Mint*, 1894. The mil was proposed as the smallest coin of the DECIMAL SYSTEM (*q.v.*) Some comments on the use of the mil will be found in Bagehot, *A Universal Money*, pp. 45-62, 2nd ed. 1889.]

MILL. A mill is properly "an engine or machine for grinding or comminuting any substance" (Webster), and is an implement of great antiquity, its rudimentary form being preserved in the quern or hand-mill from time immemorial used for grinding corn, and occasionally to be met with still in remote places. At what period in the history of ancient civilisation mills of a larger construction began to be used is uncertain; but a persistent tradition, founded on a remark of Strabo's, points to the first water-driven corn mill as having been in use near the palace of Mithridates, in Asia Minor, who died 63 B.C. Such mills were introduced into Britain by the Romans, and were common throughout Europe during the middle ages. Gradually they were applied to other purposes, to grinding colours, crushing oil, and sawing stone and timber. Later still a use was found for them in connection with metal manufacture; as an alternative to hammering by hand; and in textile manufacture, in the special process of *fulling*,[1] or pounding cloth. At the time of the introduction of the modern FACTORY SYSTEM their utility was extended in a variety of directions; and about the same time that astonishing series of mechanical inventions commenced which resulted in the possibility of *spinning*, and at length of *weaving*, by machinery. The places where these operations were performed seem to have been called at first mills or factories indifferently, partly, we may judge, because of the extension of their utilities in these directions, partly because many old mills—corn mills and fulling mills—were then turned into factories. The earlier factory acts, accordingly, made no distinction between these terms, and the original technical signification of the former seemed in some danger of being lost in this connection. Subsequently the term mill was dropped, except in certain specific relations which are defined, as *mill-gearing*, *iron mill*, but a survival of this confusion of nomenclature may still be noted in the factory districts, where that part of a textile manufactory where spinning is carried on is often spoken of as distinctively the mill, whilst the part where weaving is performed is called the factory, with obvious reference to those earlier meanings.

[John Beckman, *History of Inventions*, articles "Corn Mills," "Saw Mills" (Bohn's edition).—R. W. Cooke-Taylor, *Introduction to a History of the Factory System*, ch. i.] R. W. C. T.

[1] "The operation of *fulling* bore a sufficiently near resemblance to the earlier and proper processes of mill work, not to appear utterly foreign from the older conception of a mill, and was in fact sometimes called 'milling,' in obvious accord with this view. Soon, however, the term began to include other processes more remote. In 1551 complaint is made to parliament of the establishment of 'gigge mills'—contrivances, that is, for raising a *pile* or *nap* on cloth, a process, therefore, wherein little trace of the original meaning of the word 'mill' remains; and at length *winding*, *spinning*, and a variety of operations dealing with the treatment of fibrous material are found spoken of as performed in mills; operations wherein the original technical signification is altogether lost" (Cooke-Taylor. *Introduction to History of Factory System*, p. 11).

MILL, JAMES (1773-1836) was born in the village of Northwater Bridge, Forfarshire. His father was a shoemaker. His early years were exempted from the drudgery of manual labour by the discerning partiality of his mother. He was sent to the university of Edinburgh at the age of seventeen, and having completed the usual studies, became licensed as a preacher. But abandoning this career, Mill went to London in 1802, and supported himself by literature. He married in 1806, and in course of time had a family of nine children—"conduct than which nothing could be more opposed," as his son says, "to the opinions which, at least at a later period of his life, he strenuously upheld." Struggling and burdened as he was, he had the energy to compose a great book, *The History of India*. The publication of this work in 1818 led to Mill's obtaining a lucrative appointment in the India office. His position in the office continued to rise in dignity and emolument up to his death.

Mill's earliest work was economic, *An Essay on the Impolicy of a Bounty on the Exportation of Grain and on the Principles which ought to regulate the Commerce of Grain*, 1804; a rare pamphlet which, from M'Culloch's notice of it, seems to have referred to the restrictions on the trade between England and Ireland. In 1807 he wrote *Commerce defended: an Answer to the Arguments by which Mr. Spence, Mr. Cobbett, and others, have attempted to prove that Commerce is not a source of National Wealth*, which led to his acquaintance with Ricardo. The advantages of the territorial division of labour are well expounded; but the following view of the gain by international exchange appears less orthodox: "Whenever a cargo of goods of any sort is exported, and a cargo of other goods bought with the proceeds of the former is imported, whatever the goods imported exceed in value [*i.e.* money-value, as the context shows] the goods exported beyond the expense of importation is so much clear gain to the country." In 1808, reviewing Thomas Smith, "Money and Exchange" in the *Edinburgh Review*, Mill asserts the principle that money is a commodity, and thus describes its uses. "First we go to market with money. Secondly, we account by means of it. . . . Abstract ideas or ideal standards are of no use in going to market," or for any other purpose. Some years later (1816-23) Mill contributed several articles to the supplement to the *Encyclopædia Britannica* (1823), of which the most famous, criticised by Macaulay, *Edinburgh Review*, 1829, is that on *Government*. The articles in the Supplement which most deserve notice here are on *Banks of Savings*, *Beggars*, *Benefit Societies*, and *Colonies;* containing strong assertions of the Malthusian doctrine (see especially p. 246 of *Supplement*, vol. i.). The article on *Economists* treats only of the political principles of the French school.

Much of the matter contained in the writings which have been referred to is presented in a summary form in Mill's masterpiece, *Elements of Political Economy*. This composition originated in 1819, as J. S. Mill tells us, in instructions given to him by his father in the course of their daily walks. The abstracts of these lessons, prepared by the son, served the father as notes from which to write his book, which was published in 1821. A second edition—considerably altered—appeared in 1824; a third in 1826. Several of the alterations in the third edition were founded on criticisms made by J. S. Mill and his friends. Although the book, in J. S. Mill's words, "has now for some time finished its work," it is still interesting as a type of the classical political economy (J. S. Mill's *Autobiography*, p. 121). The capable author proposing "to compose a schoolbook of political economy" (Preface) "an epitome of the science" (ch. iii. § 10), and professing "to have made no discovery" (Preface), is naturally regarded as the interpreter of his contemporaries, especially of Ricardo his intimate friend (cp. Prof. Ashley on the *Rehabilitation of Ricardo*, *Economic Journal*, vol. i. pp. 478-479). Admirable as the work is, considered as a summary representation of received theories, there are two features of the original which seem to be exaggerated in the miniature picture (1). With M'Culloch, James Mill represents value as depending wholly on quantity of labour (cp. M'Culloch, *Principles of Political Economy*, pt. iii. § 1). He explains away the part played by *waiting* (as we should now say). "If the wine which is put in the cellar is increased in value one-tenth by being kept a year, one-tenth more of labour may be correctly considered as having been expended upon it." . . . "How then can it [time] create value? Time is a mere abstract term. It is a word, a sound" (*Elements*, 2nd ed. p. 97-99). This view is criticised with just severity by S. BAILEY (*Critical Dissertation on Value*). (2) The theory of population as presented by James Mill appears particularly dismal; owing partly to his very precarious "proof that capital has a less tendency than population to increase rapidly" (*Elements*, ch. ii. § 2, art. 3), partly to his not taking sufficient account of improvement in the arts of production. "The grand practical problem, therefore, is to find the means of limiting births." A more original feature is the proposal to tax additions to rent—J. S. Mill's "unearned increment."

Upon the whole political economy, as treated by James Mill, may afford one of the advantages which he claims for the science in the dialogue entitled "Whether Political Economy is useful" (*London Review*, 1836) namely, contemplative

pleasure. Even Dr. Ingram allows to the *Elements* "the character of a work of art." But Mill's work does not afford another advantage which he claims for political economy in the same dialogue, namely, a "comprehensive commanding view" such as that by which a general is enabled to realise his practical purpose. James Mill's work in political economy, as in politics, seems to be vitiated by the excessive use of deductive reasoning—what his son calls the geometrical method (*Logic*, bk. vi. ch. viii.). His principal services to political economy were indirect—to have instigated Ricardo to write (see J. S. Mill's *Autobiography*) and to have been the father and the teacher of J. S. Mill.

[*Life*, by Professor Bain, 1882.—*J. S. Mill*, by Professor Bain (full of references).—MacVey Napier, *Correspondence*.—J. S. Mill's *Autobiography*.—Mrs. Grote's *Personal Life of George Grote*, pp. 21-25. See an exposition of fallacies on rent tithes, and containing an examination of Mr. Ricardo's theory of rent, viz. the doctrine of the impossibility of a general glut and other propositions of the modern school. . . . Being in the form of a review of the third edition of Mr. Mill's *Elements of Political Economy*, by Perronet Thompson. —*History of Theories of Production and Distribution*, by E. Cannan.] F. Y. E.

MILL, JOHN STUART.

Early Works, p. 756; *Essays on some Unsettled Questions of Pol. Ec.*, p. 756; *Principles of Political Economy*, p. 757; Other Works, p. 763.

John Stuart Mill (1806-1873), was the eldest son of James Mill, by whom he was educated. The teacher was exacting, the pupil precocious; and John, at a marvellously early age, attained proficiency in all the principal branches of learning, particularly the speculative sciences. At the age of thirteen he received from his father peripatetic lectures on political economy; and it must have been about the same period that, in his own words, "Mr. Ricardo invited me to his house and to walk with him in order to converse upon the subject" (*Autobiography*, p. 54). At the age of sixteen he wrote in the *Traveller* in defence of Ricardo and James Mill, his first appearance in print. He contributed frequently to the *Westminster Review*, which was started in 1824, thirteen articles, he says (*ibid.* p. 97), of which only some are specified by him. Those on the game laws, the law of libel, and the corn laws, attest the versatility and precociousness of the writer. Among the "reviews of books of political economy," which he speaks of having written, may probably be placed the review of the *Critical Dissertation on Value* (by S. Bailey) in the fifth number of the *Westminster* (Jan. 1826). The relation of cost of production to value is, according to the writer, like the relation of the pendulum to a the movement of a clock—a regulator, not a cause. "Demand is the cause of value." The issue between the author of the *Dissertation* and James Mill as to the influence of Distance in Time on value is avoided.

Other youthful essays were published in the *Parliamentary History and Review*, the first two numbers of which relating to the sessions 1825 and 1826 are to be found in the Bodleian. The first contains—beside the article on the *Catholic Association*, acknowledged by Mill (*Autobiography*, p. 118)—some remarks on combination and combination laws (*Review*, for 1825, p. 730), which may perhaps be attributed to Mill. The theory that "the rate of wages must in the long run depend on the relation between the capital of a country and its population," is employed to prove the impossibility of raising general wages by combination. The second number contains an article headed *Paper Currency — Commercial Distress*, justly referred to in the *Autobiography* (*loc. cit.*), as an "elaborate essay." The remarks on theory and experience (*Review*, for 1826, pp. 654-659), and on the "double standard" (*Hist.*, p. 659) are characteristic. This essay and that on the Reciprocity principle in Commerce are described by Mill (in his *Autobiography*) as "original thinking." They were not, however, included by him among the articles which he has republished in his *Dissertations and Discussions*. Among ephemeral writings which have not been reprinted may be noticed the *Notes on Newspapers* in the *Monthly Repository* of 1834. They evince that rare union of qualities which he himself has characterised as "practicality" and devotion to "large generalisations" (*Autobiography*, p. 190). Referring to the then burning question of trades unions, he maintains that workmen cannot keep up the rate of wages by combination, but that they ought not to be prevented from learning this by experience (*Monthly Repository*, 1834, pp. 247, 366, 435).

Meanwhile the young philosopher had cultivated his dialectic powers by taking part in debating societies, formed largely but not exclusively of the followers of Bentham. The picked band which used to meet in the morning in Grote's house "brought out new views of some topics of abstract political economy." To this origin Mill refers the first and fourth of the essays, which are contained in the *Essays on some Unsettled Questions of Pol. Econ.* . . . These *Essays* were written in 1829 and 1830, but (with the exception of the fifth, which appeared in the *Westminster Review*) they did not find a publisher till 1844. The *Essays* deserve to be studied as anticipating, and sometimes transcending, the *Political Economy*.

Of the first essay the substance, and in large part the very words have been embodied in the great chapter in the *Political Economy* on "International Values" (bk. iii. ch. xix.), and in the

important section which deals with protection (*ibid.* bk. v. ch. iv. § 6). With this should be read the passages in the preface to the *Essays*, which expresses the opinion that the relaxation of non-protective duties beyond what may be required by the interest of the revenue should in general be made contingent upon the adoption of some corresponding degree of freedom of trade by the nation from which the commodities are imported. In the second essay the influence of consumption upon production is stated more fully than in the passages of the *Political Economy* which are below (p. 758) referred to as corrective of a wrong interpretation of the doctrine "Demand for commodities is not a demand for labour." In the third essay there is obtained a definition of wealth as consisting of "permanent sources of enjoyment," and a corresponding definition of productive labour, more philosophical perhaps than the definitions which in deference to popular opinion have been adopted in the *Political Economy* (bk. i. ch. 3). The fourth essay explains and corrects Ricardo's doctrine that "profits depend upon wages; rising as wages fall and falling as wages rise." The justice of the correction will be evident if we regard "wages" as paid in a money of which the unit is a product of a constant quantity of labour (Ricardo, *Pol. Econ.*, ch. 1, § 6). But this monetary standard is not quite perfect, and the Ricardian proposition is not quite true, unless we use "labour" as short for "effort and sacrifice," and take account of variations in the quantity of *abstinence* or waiting which is required for the production of a unit of the standard (cp. *Memorandum on variations in the value of the Monetary Standard*, Report of the British Association, 1889, § vii.) This refinement is reproduced in the *Political Economy* (bk. iii. ch. xxvi. § 3, but not in the corresponding passage bk. ii. ch. xv. § 7). In the fifth essay the not very epigrammatic definition of *Political Economy* agrees with that which is adopted in the "Preliminary Remarks" of the *Political Economy*. Discussing the method of the science, Mill holds the balance between abstract reasoning and observation. The *a priori* method is the only certain or scientific mode of investigation. But he who does not "sift and scrutinise the details of every specific experiment must rest contented to take no share in practical politics, to have no opinion, or to hold it with extreme modesty," on the applications of his doctrines. There is a most weighty caution against the "danger of *overlooking* something." The only remedy is to place oneself at the point of view of an opponent, and either to discern what he sees or thinks he sees, or make out clearly that it is an optical delusion. A beautiful example of this procedure is afforded in the second of the *Essays*, where Mill points out that the descriptions which have been given of OVER-PRODUCTION are applicable to a commercial crisis.

The method of political economy was further elucidated in the *Logic* published in 1843. His dominant idea is thus expressed: "I always regarded the methods of physical sciences as the proper models for political" (*Autobiography*, p. 165; cp. *ibid.* p. 160).

The combination of *a priori* reasoning from general propositions with specific verification, the direct deductive method, which has proved so successful in mathematical physics is prescribed for political economy (*Logic*, bk. vi. ch. ix.). It is a question whether this view was, or could consistently be, retained by Mill, when he began to doubt the universality of the principle of self-interest, which he once had regarded as the foundation of economic reasoning (*Essays*, p. 138), when under the influence (see also A. COMTE) of the St. Simonians "his eyes were opened to the very limited and temporary value of the old political economy" (*Autobiography*, p. 166), and when, under a more intimate influence, he looked forward to a time when "it will no longer either be, or be thought to be, impossible for human beings to exert themselves strenuously in procuring benefits which are not to be exclusively their own" (*ibid.* p. 230 *et seq.*; cp. on the ultimate premisses of Political Economy, Marshall, *Principles of Economics*, bk. i. ch. v. § 5).

Thus prepared, Mill began his treatise on *Political Economy* in 1845, and finished it in 1847 with marvellous celerity. An analysis of this classical work may be useful.

J. S. Mill's *Principles of Political Economy*, for a work that has been so much read, has been but little commented on. To remedy, in however slight a degree, this deficiency is the design of the following paragraphs.

The preliminary remarks contain a sketch of the progress and a description of the object of political economy. The definition of wealth as "all useful or agreeable things which possess exchangeable value," leaving in uncertainty the question "whether immaterial products are to be considered wealth," should be compared with the discussion of this question in Mill's *Unsettled Questions* (Essay 5), and in one of the chapters of his *Political Economy* (bk. i. ch. iii. § 3). In his earlier view, the "skill and the energy and perseverance of the artisans of a country are reckoned part of its wealth, no less than their tools and machinery" (*ibid.*); but in the later treatise the term is applied only to "what is called material wealth."

The first inquiry about wealth relates to its cause. "The requisites of production are two: labour and appropriate natural objects" (bk. i. ch. i. § 1, par. 1). These are the "primary and universal requisites" (bk. i. ch. i. § 1, par. 1). But since "there is another requisite, without which no productive operations beyond the rude

and scanty beginnings of primitive industry are possible" (bk. i. ch. iv. § 1, par. 1), we may say that "the essential requisites of production are three: labour, capital, and natural agents" (bk. i. ch. x. § 1, par. 3; cp. AGENTS OF PRODUCTION).

A "general survey" (ch. vii., first sentence), of the requisites of production, occupies the first six chapters. The "conceit . . . that nature lends more assistance to human endeavours in agriculture than in manufactures," is refuted in the first chapter. In the first section of the second chapter it is shown how "an article fitted for some human use" (an article of the "first order," as it is now the fashion to say)—such as bread—is produced, partly by labour employed directly about the thing itself—such as that of the baker—and partly by the indirect labours of the reaper, the ploughman, the ploughmaker, who all "ultimately derive the remuneration of their labour from the bread or its price." This important passage is referred to at a more advanced stage, as setting forth the "component elements of cost of production" (bk. iii. ch. iv. § 1). The modes in which labour is indirectly instrumental to the production of a thing are analysed in the remainder of the second chapter; the term "indirect," it may be observed, sometimes importing simply the relation of means to end (§ 1, § 3, par. 1); sometimes, as in the case of savants (§ 8, last par.), that "the material fruits, though the results, are seldom the direct purposes of the pursuits of the savants, nor is their remuneration in general derived from the increased production which may be caused incidentally . . . by their discoveries" (cp. § 7, par. 1).

Capital is defined as the physical requisites of production which are the products of labour (ch. iv. § 1, par. 12; cp. ch. x. § 1, par. 3). The term admits of nice divisions which are traced in the fourth chapter. The "fundamental propositions respecting capital" which form the fifth chapter, may be described without much exaggeration in Prof. Nicholson's words, as "a strange combination of axiom and paradox, of error exposed and truth suppressed, of practical wisdom and unreal hypothesis" (Nicholson's *Principles*, bk. i. ch. vi. § 7). More than one of the propositions at least "expresses his [Mill's] meaning badly"; as Prof. Marshall says (*Principles of Economics*, note to bk. vi. ch. ii.).

The proposition which has most "exercised the ingenuity of all subsequent writers" (Nicholson), is the fourth, that "demand for commodities is not demand for labour." The following is a contribution to the interpretation of this *locus vexatissimus*.

Mill does not mean to deny that consumption is the motive to production. The fact that desire evokes labour is constantly present to him (see Preliminary Remarks, two passages in the middle, pp. 13, 19, ed. 1878, bk. i. ch. vii. § 3; bk. i. ch. viii. § 2, last par.; bk. i. ch. xiii. §§ 1 and 3; bk. iii. ch. xvii. § 5, and cp. *Unsettled Questions*, Essay 2). He may be credited with making two assertions, one correct and one not so. The true lesson to be derived from the passage is that capitalisation is apt to be increased by the postponement of the consumption (Marshall, *loc. cit.*). But it is erroneously implied that "to spend money on the direct hire of labour is more beneficial than to spend it on hiring commodities" (Marshall). *Ceteris paribus* it comes to much the same whether a rich individual spends his money on "velvet" (Mill's favourite instance), or in payment of workmen to roll the "velvet green" (Ruskin). The most serious refutation of this error is that which forms the appendix to bk. iv. of Prof. Simon Newcomb's *Political Economy*. The great difficulties which Mill's doctrine presents may further be illustrated by the parallel passage in Fawcett's *Political Economy*, and by the explanations of the doctrine which are offered by Prof. Sidgwick (*Pol. Econ.*), Prof. Laughlin (Edition of Mill), Mr. Herbert Thompson (*Theory of Wages*), and others.

After the general survey of the requisites of production (bk. i. ch. vii. § 1), we "advance to the second great question in political economy, on what the degree of productiveness of these agents depends" (*ibid.*). Among causes of superior productiveness (chs. vii. viii.) a prominent place is given to combination of labour, or co-operation, including division of labour as a species. Most of the advantages attending division of labour are enumerated in the chapter on co-operation. One advantage described by Jevons as the "multiplication of services" in cases where "nearly the same time and labour are required to perform the same operation on a larger or on a smaller scale" (Whateley, *Lectures on Political Economy*, lecture 6), is postponed by Mill to the chapter on "production on a large and on a small scale" (bk. i. ch. viii.) Two important cases of production on a large scale are presented by joint-stock companies (*ibid.* § 2), and the *grande culture* in agriculture (§ 4). The distinction which Mill draws between gross and net produce per acre (*ibid.*) is vital.

Having considered the means by which the efficacy of the agents of production is promoted (bk. i. ch. x. § 1, par. 1), we proceed to consider the "law of the increase of production" with respect to each of the agents (*ibid.* par. 4). The term "law" applied to the rough generalisations which alone are possible on these subjects is open to criticism (cp. Sidgwick, *Pol. Econ.*, bk. i. ch. vi.).

"The increase of labour is the increase of mankind, of population;" the theory of which is here opened (ch. x.).

The law of the increase of capital (ch. xi.) involves the "effective desire of accumulation," which has been considered in the article on DISTANCE IN TIME AS AN ELEMENT OF VALUE.

The "law of the increase of production from land" (ch. xii.) is what is now called the *law of diminishing returns*. The relation of this law to that of *increasing returns* is thus well expressed by Mill (*ibid.* last par.): "All natural agents which are limited in quantity are not only limited in their ultimate productive power, but, long before that power is stretched to the utmost, they yield to any additional demands on progressively harder terms. This law may, however, be suspended or temporarily controlled by whatever adds to the general power of mankind over nature, and especially by any extension of their knowledge, and their consequent command of the properties and powers of natural agents." The "consequences of the foregoing laws," the dangers of over-population, are set forth in a concluding chapter (bk. i. ch. xiii.). Of Mill's gloomy views on this subject, Prof. Nicholson has said, "surely in the whole range of social philosophy it would be difficult to discover a more striking instance of the overbearing influence of a dominant idea"—considering that Mill himself has given "what is probably the most complete account yet published of the modes in which this law of diminishing returns may be counteracted" (Nicholson, *Principles*, bk. i. ch. x. § 4).

"The principles which have been set forth in the first part of this treatise (bk. i.), are in certain respects strongly distinguished from those on the consideration of which we are now about to enter. The laws and conditions of the production of wealth partake of the character of physical truths." But the distribution of wealth which forms the subject of the second book, is "a matter of human institution solely." "Society can subject the distribution of wealth to whatever rules it thinks best" (bk. ii. ch. i. § 1, cp. *Autobiography*, p. 246). The distinction thus drawn is objected to by Prof. Nicholson (*Principles*, bk. ii. ch. i.) and others, *e.g.* Mr. J. H. Levy, *Outcome of Individualism*, p. 16. But there is surely a very intelligible difference, in degree at least, between the two classes of "laws."

Considering the different modes of distributing the produce of land and labour, Mill compares the institution of private property with communism and socialism, and suggests that "the decision will probably depend mainly on one consideration, viz. which of the two systems is consistent with the greatest amount of liberty and spontaneity" (bk. ii. ch. i. § 3). The following weighty sentence condenses much that Mill has taught in his book on *Liberty*—"it is yet to be ascertained whether the communistic scheme would be consistent with that multiform development of human nature, those manifold unlikenesses, that diversity of tastes and talents and variety of intellectual points of view which not only form a great part of the interest of human life, but, by bringing intellects into stimulating collision, and by presenting to each innumerable notions that he would not have conceived of himself, are the mainspring of mental and moral progression" (*Pol. Econ.*, bk. ii. ch. i. § 3 end).

Before condemning private property we must consider it not as it is, but as it might be in its best form (*ibid.* penultimate par., cp. L. H. Courtney, "Difficulties of Socialism," *Economic Journal*, vol. i.); which implies the "guarantee to individuals of the fruits of their own labour and abstinence," but "not of the fruits of the labour and abstinence of others transmitted to them without any merit or exertion of their own" (*ibid.*); not unlimited power of bequest, nor unrestricted property in land, nor any proprietary rights in abuses (ch. ii.).

"Private property being assumed as a fact" (ch. iii. § 1, par. 1); we go on to consider the distribution of produce between the three classes "whose concurrence, or at least whose permission, is requisite to production," viz. landowners, capitalists, and labourers—not necessarily different persons (ch. iii.).

"Under the rule of individual property the division of the produce is the result of two determining agencies, competition and custom" (ch. iv.). The cautions with respect to the imperfect degree in which "the natural effect of unimpeded competition" is realised (*ibid.* § 3), may be read with other passages relating to method; such as bk. iii. ch. i. § 5 (guarding against "improper applications of the abstract principles of political economy") bk. ii. ch. xvi. § 4; "the truths of political economy are truths only in the rough"—bk. iii. ch. iv. § 6 (on the danger of "sweeping expressions").

Mill's attempt in the later chapters of the second book to deduce the action of competition on distribution before he has formulated the law of supply and demand which governs that action, is open to grave objection (Marshall, *loc. cit.*).

Mill's recognition of the empirical or historical method is abundantly illustrated by the chapters on *Peasant Proprietorship and Métayers* (bk. ii. chs. vi. vii. viii.), which teem with evidence; out of which, the extracts from Sismondi, Michelet, and Arthur Young may be selected as of permanent interest.

From métayers Mill proceeds to cottiers (ch. ix.), with especial reference to Ireland; and argues that, almost alone among mankind, the cottier is in this condition that "he can scarcely be either better or worse off by any act of his own." The "means of abolishing cottier tenancy," proposed by Mill, have partly passed into legislation. The principle of judicial

rents is thus sanctioned: "rent paid by a capitalist who farms for profit, and not for bread, may safely be abandoned to competition; rent paid by labourers cannot, unless the labourers were in a state of civilisation and improvement which labourers have nowhere yet reached, and cannot easily reach under such a tenure."

It might be difficult to answer the question —why upon the same principle the bargain between employers and labourers should not be sheltered from competition. One answer is afforded by the wage-fund theory, which is stated at the beginning of the chapter on wages (bk. ii. ch. xi.). It was subsequently renounced by Mill (see below, p. 763). But that theory, though left standing in the latest editions of the *Political Economy*, was recanted by Mill in his review of Thornton; when, as Prof. Marshall thinks, "he took to himself blame for confusions of thought of which it is not certain that he had been guilty" (*Principles of Economics*, note at the end of ch. ii. bk. vi.).

The overthrow of the wage-fund theory does not involve the fall of Mill's practical conclusions concerning wages. They are at best strengthened and heightened by that theory (see *e.g.* ch. i. § 6, penultimate par., ch. xii. § 1, pt. iii.). But it is rather on the theory of population set forth in the first book that Mill grounds his rejection of "popular remedies for low wages" (ch. xii.), and his own prescription which is, that the overcrowding of the labour market is to be prevented by "a due regulation of the numbers of families" (ch. xiii.).

Among accessory recommendations should be noticed Mill's preference for an heroic measure, "a sudden and very great improvement in the condition of the poor" (ch. xii. § 4, pt. iv.; ch. xi. § 2, last par.; ch. xiii. § 3, par. 1, § 4, par. 3). "Small means do not merely produce small effects, they produce no effect at all" (ch. xiii. § 4, par. 3).

The chapter on differences of wages (bk. ii. ch. xiv.), in different employments, corrects Adam Smith's classical exposition of the subject. The theory of non-competing groups, commonly ascribed to Cairnes, is implied in § 2 (as pointed out in Prof. Marshall's article in *Fortnightly Review*, 1874). The short passage on the wages of women (§ 5 and end of § 4), has been little improved on.

The chapter on profits is free from certain errors which have been attributed to the classical economy. The function of superintendence is recognised (§ 1). Absolute equality of profits is not postulated. "That equal capitals give equal profits, as a general maxim of trade, would be as false as that equal age or size gives equal bodily strength; or that equal reading or experience gives equal knowledge. The effect depends as much upon twenty other things as upon the single cause specified." Cliffe Leslie himself could say no more (§ 4). In the last section of the chapter, the definition of "cost of labour" demands attention (cp. bk. iii. ch. xxv.), and *Unsettled Questions* referred to above, p. 756.

The chapter on rent (bk. ii. ch. xvi.), taken with the subsequent chapter on *Rent in Relation to Value* (bk. iii. ch. v.), forms a luminous statement of the Ricardian theory. Yet notwithstanding his apparent clearness, Mill is really "a little inconsistent," as Prof. Marshall has said (*Economic Journal*, vol. iii. p. 86), on the fundamental question whether rent enters into the cost of production when there does not exist a no-rent margin of land. The affirmative is distinctly asserted (bk. iii. ch. v. § 2, par. 3); and elsewhere (bk. ii. ch. ii. § 2, par. 1), it is implied that there is an essential distinction between "countries fully occupied," and those which are not. Whereas the distinction appears to be unessential in an earlier passage (bk. ii. ch. xvi. § 4). Rent is said to be an "element of cost of production," under peasant production (bk. iii. ch. vi. § 2).

At length, at the beginning of bk. iii., the theory of value is introduced. Mill's definition of the "value or exchange value of a thing" as its general power of purchasing, the command which its possession gives over purchasable commodities in general" (bk. iii. ch. i. § 2), suggests something deeper than a mere ratio (see EXCHANGE, VALUE IN).

Mill's threefold classification of valuables (ch. ii. § 2; cp. DIFFICULTY OF ATTAINMENT) has been criticised as omitting the category of things which are produced in greater quantities at a less cost. Moreover the first class "things of which it is physically impossible to increase the quantity beyond certain narrow limits," of which the characteristic is that "the value depends on the demand and the supply," is defined in terms too narrow to include all the objects which possess that attribute, viz. labour and articles of foreign trade (bk. iii. ch. ii. § 5, last par.), and loanable capital (bk. iii. ch. xxiii. § 1).

The general theory of demand and supply seems to be stated by Mill as clearly as is possible without the aid of mathematical apparatus (bk. iii. ch. ii. §§ 3 and 4). Distinct intimations of the phenomenon which would now be described as the greater or less elasticity of the demand curve are to be found (bk. iii. ch. ii. § 4, par. 1; *ibid.* ch. xviii. § 8, referring to "extensibility of demand").

The third and fourth chapters of the third chapter are concerned with "necessary" (ch. iii. § 1) value, that which depends on *cost* of production. The different senses in which Mill uses cost may be distinguished by observing that the term is applied sometimes (1) to the efforts and sacrifices attending production, some-

times (2) to the pecuniary equivalent of the same (the "expenses" of production in Prof. Marshall's phrase); and that the expenditure, whether in the way of labour or of money, may relate either (*a*) to the finished commodity, or (*b*) to the workman's part therein, exclusive of the capitalist's (and entrepreneur's) effort and sacrifice or the (pecuniary remuneration thereof). For instance, 2 (*a*) must be understood when it is said that "Profits as well as wages enter into the cost of production which determines the value of produce" (bk. iii. ch. iv. § 4, par. 1). The following are instances of (*b*): bk. ii. ch. xv. § 7; bk. iii. ch. iii. § 1, par. 1, ch. iv. § 1. In connection with international trade *cost* is used in sense 1 (bk. iii. ch. xviii. § 9).

The theory of value having been summed up (bk. iii. ch. vi.); the second volume enters on the subject of money. The functions of money described by Jevons as a "measure of value" a "medium of exchange" and "a standard for deferred payments," are in other words stated in the first chapter of the second vol. (bk. iii. ch. vii. §§ 1, 2). The relation between demand and supply and cost of production is made particularly clear in the case of money (bk. iii. chs. viii. and ix.). The "quantity-theory" of money and its limits could not be better stated than in the proof which is given of the antithetical statements: "That an increase of the quantity of money raises prices, and a diminution lowers them, is the most elementary proposition in the theory of currency, and without it we should have no key to any of the others" (bk. iii. ch. viii. § 4): "That the value of the circulating medium . . . is in the inverse ratio of the quantity" is to be received with "qualifications which, under a complex system of credit like that existing in England, render the proposition an extremely incorrect expression of the fact" (ch. viii. end). However, objection has justly been taken to the statement that, "the natural and average prices of commodities are not affected by credit" (ch. xii. § 1, par. 1).

The chapters on a "double standard" and "on a measure of value" (chs. x. xv.), may be selected as bearing on questions of great interest at present. In the former, Mill does not consider *international* bi-metallism. In the latter, he seems to contemplate two of the principal methods of measuring a change in the value of money: viz. the labour and the consumption standard (see INDEX NUMBERS). With reference to Mill's disparaging remarks on "the necessary indefiniteness of the idea of general exchange value" (ch. xv. § 1), Prof. Sidgwick has pointed out (*Pol. Econ.*, bk. i. ch. ii. § 3) that Mill himself has employed some such conception in the passage where he maintains that during the last five years of the French war "the value of the standard itself was very considerably raised" (Mill, *Pol. Econ.*, bk. iii. ch. xiii. § 7).

The chapter on "some peculiar cases of value" is of peculiar interest as showing Mill's conception of the relation between "cost of production" and "a law of value anterior to cost of production, and, more fundamental, the law of demand and supply"; which "when cost of production fails to be applicable . . . steps in to supply the vacancy" (bk. iii. ch. xvi. § 1).

The antecedent law of supply again "steps in" in the theory of international values (ch. xviii. § 1). The great chapter on this subject may be divided into two parts, the original draft (§§ 1-5) and the additions suggested by "intelligent criticisms," chiefly Thornton's (§ 6 *et seq.*). The first part deals mainly with two problems (1) the case of a trade being established—a "barrier" (Cournot) being removed—between two countries (§§ 2-3), and (2) the case of an already established trade being facilitated by an improvement in the process of manufacture of an export. In the latter case benefit does not necessarily accrue to the country in which the improvement has taken place (§ 5). In both cases it may be objected that benefit is estimated by an improper measure, that of exchange-value (see *Theory of International Values*, pt. i., by Prof. Edgeworth, *Economic Journal*, vol. iv. pp. 35, 424, 606).

Of the second part of the chapter (§§ 6-9) it is well said by a high authority on international trade: "Nothing is gained by the laborious and confusing discussion" (Bastable, *International Trade*, p. 29). The introduction justifying the addition is particularly objectionable. "It is conceivable that the conditions might be equally satisfied by every numerical rate which could be supposed" (§ 6, last par.). "The equation of international trade" would thus be a very odd sort of equation!

Reinforced by the principles of international trade, Mill returns to the theory of money (chs. xix.-xxii.). He continues the subject of international trade in the chapter on "the competition of different countries in the same market" (criticised in part iii. of Prof. Edgeworth's theory of international trade, *Economic Journal*, vol. iv.).

It is impossible here to notice in detail the many detached topics which are treated in bk. iii. The "rate of interest" (ch. xxiii.) has already been referred to as a case of demand and supply, rather than "necessary" value which depends on cost of production. In the immediately following chapter, by a not very obvious transition, the rival theories respecting the influence of bank issues on prices—the so-called currency theory and banking principle—are discussed with moderation (see Walker, *Money*.—Cp. FULLARTON).

The Dynamics of Political Economy (bk. iv. ch. i. § 1) is the subject of the next book. It is attempted to compound the counteracting

tendencies which we now call the law of decreasing and the law of increasing returns; though Mill will not allow that "even in manufactures increased cheapness follows increased production by anything amounting to a law" (*ibid.* ch. ii. § 2). Considering the three factors of industrial progress, capital, increase of population, and improvements in production, Mill inquires how the increase of one or more of these affects wages, profits, and rent (*ibid.* ch. iii.). For example, one case is: Capital increasing, population and the arts of production stationary. In this case wages will rise, profits will fall, rent will rise if the labourers consume more, or more costly, food (*ibid.* § 2). The case of arts of production progressive, capital and population stationary, presents most difficulty (*ibid.* § 4). *Primâ facie* wages would rise, profits would be unaffected, rent would fall. The Ricardian paradox that landlords may be injured by agricultural improvements is supported by reasoning which, as pointed out by Prof. Marshall (*Principles of Economics*, note to bk. vi. ch. ix.), is deficient in generality. Attention should be called to the generalisation contained in the following passage: "It is quite in accordance with common notions to suppose that if, by the increased productiveness of land less land were required for cultivation, its value, like that of other articles for which the demand had diminished, would fall" (bk. iv. ch. iii. § 4). Here a problem of distribution is treated simply as one of value; and indeed throughout the chapter there is, as Professor Marshall has pointed out (*Principles of Economics*, note to ch. ii. bk. vi.), "scarcely any trace of those confusions in his discussion of the theory of distribution" which disfigure the second book.

The chapters (chs. iv. and v.) on the "tendency of profits to a minimum," are important as bearing on the question: How far is it safe for the working classes to press on the gains of the saving classes (see Cairnes, *Leading Principles*, bk. ii. and cp. Marshall, *Economics of Industry*, 2nd ed. bk. ii.).

The chapter on the stationary state (ch. vi.) is particularly characteristic of the author. Of an increase of population he says, "even if innocuous, I confess I see very little reason for desiring it."

The last chapter of the fourth book "on the probable futurity of the labouring classes," enjoys the distinction of being "entirely due," according to a statement in the *Autobiography*, to Mrs. Mill. Her hand is perhaps to be traced in the delicately ironical description of what may be called the aristocratic theory of the relation between the great and the labouring poor—"a theory also applied to the relation between men and women" (ch. vii. § 1). The principal hope which the Mills hold out for the futurity of the labouring classes is productive co-operation—a hope which does not seem at present in the way of being fulfilled. There are many now who disagree with the favourable estimate of *competition*, which concludes the chapter. "If the slopsellers and others of their class have lowered the wages of tailors, and some other artisans, by making them an affair of competition instead of custom, so much the better in the end."

The fifth book treats of *government;* the functions of which are described with a freedom which might not have been expected from the son of James Mill; "the admitted functions . . . embrace a much wider field than can easily be included within the ring-fence of any restrictive definition." As explained in the first chapter (par. 2, § 3), the "necessary" and acknowledged functions (1) are first considered (chs. ii.-ix.); then (2) "optional" interferences of government (*a*) grounded on erroneous theories (ch. x.); (*b*) really advisable (ch. xi.). Of the chapters relating to the "necessary" functions, five (chs. ii.-vi.) are devoted to taxation. In the chapter on the general principles of taxation, "equality of sacrifice" is assumed as the first principle (ch. ii. § 2). In applying this principle to progressive taxation, Mill employs considerations which would now be connected with the doctrine of "final utility" (ch. ii. § 3, par. 2). (See FINAL DEGREE OF UTILITY.) That doctrine had been asserted by him more explicitly in an earlier passage: "the difference to the happiness of the possessor between a moderate independence and five times as much, is insignificant when weighed against the enjoyment that might be given . . . by some other disposal of the four-fifths" (bk. ii. ch. ii. § 4, last par.). The incidence of various taxes is discussed by Mill with Ricardian rigour (bk. v. chs. iii.-vi.); and other ordinary functions of government are considered as to their economical effects (chs. viii., ix.).

Of "optional" interferences grounded on erroneous theories (ch. x.), protection is first discussed in a splendid and candid section, in the course of which occurs the often quoted passage, in which protecting duties are said to be defensible "on mere principles of political economy, when they are imposed temporarily (especially in a young and rising nation), in hopes of nationalising a foreign industry, in itself perfectly suitable to the circumstances of the country." Another *locus classicus* in this chapter is the section on *combination*.

In the last chapter it is maintained that LAISSEZ-FAIRE is the general rule; but liable to large exceptions. Among these one of the most striking is the admission that upon certain assumptions the legal limitation of the hours of work might be advisable. A still more stringent governmental interference — transcending the proposals even of socialists—is put forward in a former chapter: to restrict the numbers of population by law (bk. ii. ch. xiii. § 2).

It will be understood that what has been attempted here is not to construct a table of contents magnified in a uniform proportion, but to select some leading topics and characteristic passages which may assist the student to comprehend Mill's system.

The *Political Economy* was revised in successive editions, but not much altered. Some of the changes in the second edition (1849) were favourable to socialism, one of the additions to the third edition (1852) is probably not an improvement, namely the sections 6-8 in the chapter on "International Values" (bk. iii. ch. xviii., cp. Bastable, *International Trade*, p. 29).

Some modifications of the doctrines stated in the *Political Economy* are to be found in Mill's later writings. In a review of Thornton in the *Fortnightly Review*, 1869, republished in the *Dissertations and Discussions* (vol. iv.), Mill recants the wage-fund theory. He did not, however, in his latest editions, withdraw the passages in chapter xi. of the second work. He seems to have regarded the correction as "not yet ripe for incorporation in a general treatise on political economy" (preface to eighth edition). In three posthumous articles on socialism published in the *Fortnightly Review*, 1879, Mill perhaps states the case against existing institutions more forcibly than in the *Political Economy*. However, he exposes the exaggerations of socialists with respect to the remuneration of capital and business power. He looks, not for a total renovation of society, but for such a modification of the idea of property as will make the institution work better than at present.

The rest of the acts and writings of J. S. Mill should occupy much space in a complete biography. But for the present purpose they need only be briefly referred so far as they contain applications and completions of his economic doctrines. In his *Liberty*, he continues the discussion of the limits of governmental interference, cp. *Pol. Econ.*, bk. v. In his *Subjection of Women* (1869), he advocates a cause in favour of which he had already stated what may be called the economic arguments (*Pol. Econ.*, bk. ii. ch. xiii. § 2, ch. xiv. § 5). The appropriation by the state of the "unearned increment" of land was agitated by Mill in papers and speeches which are collected in the fourth volume of the *Dissertations and Discussions*. With respect to this proposal it is forcibly urged by Thorold Rogers that "if, more than twenty years ago, Mr. Mill's scheme had passed into the region of practical politics, the purchase [of the land by the state] would have been disastrous . . . to the people of the United Kingdom" (*Economic Interpretation of History*, p. 515). The creation of a peasant proprietary, which Mill had proposed so far back as 1846 in the *Morning Chronicle* (see *Autobiography*, p. 235, and *Pol. Econ.*, appendix to vol. i.) was advocated in his pamphlet on *England and Ireland* (1868). Many of the causes which have been mentioned were promoted by Mill during his parliamentary career (1866-68). Among the measures which he advocated in parliament, the proposal to create a municipal government for the metropolis and to pay off the national debt are also of economic interest.

It would be impossible here to enumerate all the points at which Mill brought economic theory to bear upon practical politics. Like Adam Smith, he "associates the principles with their applications" (preface to first edition of *Pol. Econ.*). He treats political economy "not as a thing by itself, but as a fragment of a greater whole" . . . "for practical purposes inseparably intertwined with many other branches of social philosophy." The breadth of view required for this wider treatment of the science was obtained by his pre-eminence in general philosophy. In this respect also he, and he alone, is comparable to Adam Smith.

Among the circumstances which influenced Mill's intellectual life, must be mentioned his connexion with the India Office; where he was constantly occupied for thirty-five years, down to 1858, when the government of India was transferred to the crown. He himself has attributed a salutary influence to this official work. He has also acknowledged a large debt of inspiration to his wife, formerly Mrs. Taylor, whom he married in 1851. He ascribes to her, not the abstract parts of his political economy, but some of the socialistic elements; in particular, the chapter in the fourth book on the futurity of the labouring classes. Her influence did not cease with her death (1858). "I bought a cottage as close as possible to the place where she is buried, and there her daughter . . . and I live constantly during a great part of the year. My objects in life are solely those which were hers; my pursuits and occupations those in which she shared or sympathised."—*Autobiography*. Thus cherishing her memory as a religion, Mill lived at Avignon up to the year 1873, when he succumbed to a local endemic disease.

[The chief original source of information as to the facts and feelings of Mill's life is his *Autobiography*. It is supplemented by Prof. Bain's *J. S. Mill*. See also *John Stuart Mill*, by W. L. Courtney. Among the few works, or parts of works, which are directed systematically to the criticism of Mill's *Political Economy* may be mentioned: Marshall's *Principles of Econ.* 2nd ed. passages relating to Mill, in particular the note at the end of bk. vi. ch. ii.; also article in *Fortnightly Review*, "On Mr. Mill's Theory of Value," 1876. —E. Cannan's *History of the Theories of Production and Distribution*.—J. Bonar, *Philosophy and Political Economy*, chapter on J. S. Mill.—Nicholson, *Principles of Political Economy*.—F. A. Lange, *Mills Ansichten über die soziale Frage*, etc., Duisburg, 1865.—Prof. J. Laughlin has published an abridged and annotated edition of Mill's *Political Economy*.] F. Y. E.

MILLAR, JOHN (1735-1801), historian, was called to the Scotch bar in 1760, and in the following year accepted the appointment of professor of law in the university of Glasgow, which post he held till his death. His lectures, which were extempore, attracted many students. In politics, Millar was an advanced whig, although opposed to universal suffrage. He strongly sympathised with the American colonists, and regarded the success of Pitt in 1784 as a fatal blow to the English constitution; even the excesses of the French revolution did not cause him to agree with Burke. Millar wrote *An historical view of the English Government, etc.*, London, 1787, 4to, 3rd ed., 1803, 8vo, 4 vols., which was designed as a counterblast to Hume. Only two volumes of the work were published in Millar's lifetime, and the last consists of essays which were intended to be worked up into the narrative. Those on the advances of manufacture and commerce, and the effect of that advance upon the morals of the people, are still of interest. Following Adam SMITH (*q.v.*), Millar recognises that "mercantile people are the best judges of their own interests." Millar's other work, *On the Origin of the distinction of Ranks*, London, 1771, 4to, 4th ed., Edinburgh, 1806, 8vo, containing a study of primitive society, is remarkable for its anticipation of the views of more recent writers. The prescience of his views on gynæcocracy, or that stage of social development wherein, through kinship counting from the mother, the position of woman is most important, is borne witness to by J. F. Maclennan, in his *Studies in Ancient History*, London, 1876, 8vo, p. 420. Millar is still under the sway of 18th century notions, such as that of the "simplicity" of savage races, and he wrote before the dawn, as it were, of the new science of anthropology. That, under these circumstances, he should have accomplished what he did, is much to his credit. It should be added that he was the valued friend of Adam Smith and David Hume.

[Memoir by John Craig prefixed to 1806 ed. of *Origin*, etc. as above. *Dictionary of National Biography*, vol. xxxvii.] H. E. E.

MILLES, THOMAS (between about 1550 and 1630), Customer[1] of Sandwich, was the author, among other works, of the following:

The Customers Replie, or Second Apologie. That is to say, An Aunswer to a confused Treatise of Publicke Commerce, printed and dispersed at Midlebourghe and London, in favour of the private Society of Merchants-Adventurers. By a more serious Discourse of Exchange in Merchandise, and Merchandising Exchange. Written for understanding Readers onely, in favour of all loyall Merchants, and for the advancing of Traffick in England, London, 1604, 4to. A note by the author shows to what decision he had arrived: "That Merchandising Exchange is that Laborinth of Errors & private Practise, whereby (though Kings weare Crownes & seem absolutely to raigne) particuler Bankers, private Societies of Merchants, & covetous persons (whose End is Private gayne) are able to suspend their Counsailes & controle their Pollicies . . . thus making Kings to be Subiects, and Vassalles to be Kings" . . . —therefore it is in the interest of Kings themselves to "relieve & maintaine . . . free-borne Traffick . . . and English Traffick."—*The Customers Apologie, the body whereof is to be read more at large in the Thesaurario Bodleyano Oxonii, and heere only abridged, paraphrased, and fitted into the written Table or Epitome of all his other Workes, touching traffycke and customers*, n.d. or place of publication, with manuscript notes.—*An Abstract, almost verbatim (with some necessarie Additions) of the Customer's Apologie, written eighteen yeares ago, to shew their distresses in the Out-Ports, as well through want of Maintenance and Meanes to beare out their Service; as Countenance and Credit in regard of others.*—A third abridgment, n.d., no title-page.—*The Customers Alphabet and Primer, conteining Their Creede or Beliefe in the true Doctrine of Christian Religion, Their Ten Commandementes*, etc., etc., 1608.—*An Out-Port-Customers Accompt, of all his Receipts*, . . . n.d.

[*Dict. Nat. Biog.*, art. "Milles, Thomas."] E. D.

MILLONES Y CIENTOS, duties levied in Castile on the consumption of meat, oil, wine, vinegar, ice, sugar, dried grapes, and tallow candles; first granted temporarily by the *Cortes*, they came to be continued every six years, and lasted to this century. Their operation was very vexatious and so irregular that, according to a memorial presented in 1646 by Alcazar de Arriaza, a pound of meat, which was sold at that time for 22 *maravedis* in Aranjuez, cost 46 in Ocaña, a few miles off.

[Canga Argüelles, *Diccionario de Hacienda* (London, 1826).—Colmeiro, *Historia de la Economía Política en España*, vol. ii. pp. 542 and 550.] E. Ca.

MILNE, JOSHUA (1776-1851), was appointed actuary to the Sun Life Assurance Society in 1810.

He published, in 1815, *A Treatise on the valuation of Annuities and Assurances on Lives and Survivorships*, London, 1815, 8vo. The Carlisle Table contained in this work, which was founded on the published observations and private correspondence of Dr. HEYSHAM of Carlisle, started a new era in life assurance. Though its results were slightly more favourable, the Carlisle Table does not differ greatly from the English Tables, which are based on the observation of thirty years, and on materials drawn from the whole of England. *The Life of Dr. Heysham*, by Dr. Lonsdale, London, 1870, contains Milne's correspondence on the subject. Milne wrote the articles in the *Encyclopædia Britannica*, 4th ed., on "Annuities," "Bills of Mortality," and "Law of Mortality"; the last of which was reprinted as Appendix G. 3 of *Report*

[1] The receiver of Customs duties. Dowell, *Hist. of Taxation and Taxes in Eng.*, 2nd. ed., vol. i. p. 171.

from the Select Committee of the House of Commons on the Laws respecting Friendly Societies, 1827. He also gave evidence before this committee. He is quoted by Malthus in the latter's art. on Population, *Encyc. Brit.* (1824) see Bonar's *Malthus*, 1885, p. 72.

[*Dictionary of National Biography*, vol. xxxviii. p. 8.] H. E. E.

MILNER, JAMES (d. 1721), merchant of London, contributed articles on trade between England and Portugal to the *British Merchant*, during the controversy on the 8th and 9th clauses of the Treaty of Utrecht (1713), (see KING, CHARLES). He also published *Three Letters to the South Sea Company and the Bank*, etc. London, 1720, 8vo.

[For further notice of Milner's life see *Dictionary of National Biography.*] W. A. S. H.

MILREIS (PORTUGUESE). The money of account in Portugal is the reis. Gold is the standard of value, the milreis, or 1000 reis, being the smallest coin of that metal. The larger gold coins, pieces of 2000, 5000, and 10,000 reis, are proportionate to the milreis in weight, and identical in fineness. The milreis weighs 27·37 grains, is composed of gold of the millesimal fineness of 916⅔, and is equivalent in sterling to 4s. 5⅛d., and in gold francs, 900 fine, to 5·6 francs. F. E. A.

MINE, COST BOOK PRINCIPLE. See COST BOOK.

MINES. Down to the year 1688 all mines in England yielding gold or silver belonged to the crown. It was a common practice for the kings of the 14th and 15th centuries to grant charters to adventurers to enter upon private lands to search for mines. These included lead, tin, and copper mines, each of which contained silver or gold in small quantities, for the doctrine, as affirmed by the court of exchequer chamber in 1568, was that "be the quantity of it ever so small, yet the king shall have the whole of the base metal." The rights of the lords of the soil were so far respected that the mining charters contained clauses forbidding mining under houses or castles, sometimes also under arable lands and meadows, without their licence. A double royalty was imposed, one to be paid to the king, a second, somewhat less in amount, to the landlords. A lease of copper mines by Edward IV. reserves a royalty of one-eighth to the king and one-ninth to the lords of the soil; a lease of lead mines by the same king reserves one-sixteenth to the landlords and one-twelfth to the king. Pursuant to the general commercial and industrial policy of the middle ages, the inhabitants of mining districts in England were incorporated in district bodies invested with exceptional rights. The most notable instance of these corporations is that of the Stannaries or tin mines of Devon and Cornwall (STANNARIES). Analogous powers were given to the mining law court of the foresters of Dean, which passed rules for the working of the mines and provided for the settlement of disputes among those enfranchised of the forest. The lead miners of Derbyshire in the same way enjoyed the right of a great Court Barmoot. In these exceptional districts the crown retains those paramount rights which were once probably universal, and the customs have been defined by modern acts of parliament (14 & 15 Vict. c. 94. High Peak, 15 & 16 Vict. c. 163. Low Peak, 1 Vict. c. 43; 24 & 25 Vict. c. 40; 34 & 35 Vict. c. 85, Forest of Dean, etc.). Miners under royal charters were also commonly free from being impleaded in the king's courts saving for life, limb, or land. They enjoyed the rights of chartered towns, being quit of tolls and tallages.

In 1568 an attempt was made to confine the rights of the crown to mines worked for the precious metals, and to exclude them from those mines in which the precious metals were a secondary incident. But the ancient principle was reaffirmed, three justices dissenting. In 1688 a momentous revolution was effected by parliament. By 1 Will. & M., c. 30, it was enacted that "noe mine of copper, tin, iron, or lead shall hereafter be adjudged, reputed, or taken to be a Royall Mine although gold or silver may be extracted out of the same." By this clause an immense property was transferred from the nation to the landowners. By an act of 1693 (5 Will. & M., c. 6) a modification was introduced in favour of the crown. While the subject may under this act work his base metals at will, the crown has the right of pre-emption of the ore at such prices as would represent its fair value in the absence of royal metals. Those prices were fixed by the act, and having now become obsolete, the crown's rights are not, in fact, exercised. But the royal prerogative, in the case of a mine worked for gold, was affirmed by the court of appeal in 1891 in the case of the Att. Gen. *v.* Morgan. Alum mines were occasionally claimed by the crown, and in the reign of James I. all the judges held that the crown could grant licenses for working saltpetre for gunpowder in any lands of the subject, for the defence of the realm, though the owners of the land were also left at liberty to mine upon their own account.

Owing to the scarcity of the precious metals felt towards the close of the middle ages, constant efforts were made by the English kings themselves to discover them in this country. The science of mining being very imperfect, foreigners were frequently brought in from abroad, as appears from the mining patents granted by Edward IV. and Henry VIII. Wolsey took a particular interest in the development of mining industry. Under Edward VI. endeavours were made to discover and work mines in Ireland, but these proved a failure. Metallurgy was so

little understood that under Mary a commission was appointed to learn the art of refining from a German adventurer. In the time of Elizabeth mining engineers were still largely German. The rights of the crown naturally checked mining enterprise until the act of 1693, from which it received a great impetus.

Coal mining was practised in the north of England and the south of Scotland from very early times, and the leasehold system with royalties was common in the 14th century. A frequent practice with corporations was to limit the quantity of coal to be worked per diem in order, doubtless, to prevent exhaustion of the supply, it being a prevalent opinion that the coal mines could only be worked near the surface. In 1610 Sir George Selby informed parliament that twenty-one years would exhaust those of Newcastle. This stimulated invention for draining mines in order to work the lower levels, from which developed the whole art of modern coal mining.

Until the present century, except in the case of royal mines, there may be said to have existed no general statutory regulations for the working, management, and inspection of mines, nor for the security of those employed. By 5 & 6 Vict. it was forbidden to employ females underground after 1st March 1843. The employment of boys under ten was also forbidden. The inspection of coal mines by government was undertaken in 1850 by 13 & 14 Vict. c. 100, which empowered the appointment of inspectors. Analogous provisions were enacted for metalliferous mines in 1872 (35 & 36 Vict. c. 77). This act raised the age for the employment of boys to twelve, after the example of the Mines' Regulation Act of 1860 (23 & 24 Vict. c. 151). There is a natural parallelism in the legislation affecting the two classes of mines, that for coal mines being distinguished by the special precautions ordered by the legislature with the object of preventing explosions, etc. Common features are the prohibition of the payment of wages in public-houses; notice to inspectors in case of explosions, accidents, and loss of life; rules as to the opening and working of new shafts; and codes of offences in the nature of contravention of the rules for the safe working of the mines approved by the secretary of state. The principal acts now in force are, for the regulation of coal mines that of 1887 (50 & 51 Vict. c. 58), and for the regulation of metalliferous mines that of 1872 (35 & 36 Vict. c. 77).

[Plowden's Commentaries, *The Case of Mines.*—T. Houghton, *The Orders and Rules of the Court of St. Briavells*, London, 1687.—*The Compleat Miner*, London, 1688.—Sir John Pettus, *Fodinæ Regales*, London, 1670; also *A Collection of Scarce and Valuable Treatises upon Metals, Mines, and Minerals*, trans. from the Spanish of Albaro Alonzo Barba, director of the mines at Potosi, 2nd ed. (Hodges, London), 1740, with diagrams.—R. L. Galloway, *Hist. of Coal Mining in Great Britain*, London, 1882.—*Att. Gen.* v. *Morgan*, L.R.C.D. (C.A.), 1891, i. 432.—W. Bainbridge, *Law of Mines and Minerals*, 5th ed., London, 1878, ed. by A. Brown.—*Report of Mining Royalties Commission.*—C. Le Neve Foster, *Mines and Minerals. First Annual General Report upon the Mineral Industry of the United Kingdom of Great Britain and Ireland for the year 1894*, 1895.] I. S. L.

MINES AND MINERALS, EXHAUSTION OF. While this circumstance sometimes brings about the impoverishment of the district where it occurs, the following causes make it difficult to obtain precise information on the subject—(1) more careful search, better means of communication, and improved methods of working have tended to increase the supply from districts which were becoming exhausted: (2) the general growth of population masks the effects of a local decline, and the latter may be prevented, where mines are failing, by the development of other industries. This sometimes is exemplified in the mines. Dolcoath, by deepening the workings, was transformed from a copper mine to one producing tin. The great open working at Carclaze, though its tin is now almost valueless, is continued for china clay. (3) Mines and quarries in ancient times were frequently worked by slave or convict labour, an example followed more recently by Spain in America and by Russia in Asia. A settlement of this type adds little to the prosperity of the immediate neighbourhood, and the effects of its disappearance are comparatively unimportant. (4) In districts where labour is free, the settlements at first are hardly more than camps; log-huts or shanties being the nearest approach to permanent buildings. In case of a speedy failure, the horde disperses like birds of prey from a consumed carcase, and leaves hardly more trace of its presence. (5) If, however, the undertaking is prosperous, the camp is gradually changed into a city; and the instances of this are at present so young that, as yet, they are in the full tide of success. In these cases the effects of the exhaustion of the mineral wealth of a district are still in the future. The harvest is still being reaped; few fields have yet been absolutely cleared. Instances must mainly be sought in localities comparatively unimportant; but exhaustion is only a question of time, and such investigations as those of Jevons on *The Coal Question*[1] remind the economist of the necessary limitations of the nature of this part of our wealth.

Precious Metals.—Much might be said as to the effects produced on the more civilised part of the world by the arrest—from the decline of Rome till about the 9th century—of any serious efforts to obtain fresh supplies of gold

[1] "A little reflection will show that coal is almost the sole necessary basis of our material power . . . England's manufacturing and commercial greatness, at least, is at stake in this question, nor can we be sure that material decay may not involve us in moral and intellectual retrogression."—Jevons, *Coal Question*, Introd.

and silver,—commodities liable to considerable waste from wear and the purposes to which they are applied; but this is beside the question now considered. Moreover, if a want once seemed likely to occur, owing to the exhaustion of Spain and other *el dorados* of the old world, it has been more than remedied since the discovery of America by the constant opening up of new fields in that and other parts of the globe.

In remote parts of Egypt and the regions about the eastern Mediterranean, places may be found, now deserted, in which formerly the search for gold was actively prosecuted, but no instance is more striking than that of the *Ruined Cities of Mashonaland*, described by Mr. Bent. Here, at various localities between the Zambesi and the Limpopo, often almost buried by vegetation, ruins are found of fortified towns, the walls of which, built of granite blocks, are sometimes 12 to 15 feet thick. Their inhabitants evidently had settled among an unfriendly people to work the district for its gold—they disappeared perhaps as late as the 9th century, and a higher was replaced by a lower type of civilisation, if that term is applicable to the natives of Mashonaland. Again, for a time at least, Mexico supplied an object-lesson in the same kind. Here, during the civil wars from 1810 to 1824, many important silver mines were abandoned, the population dwindled, that of Potosi falling at this period from 130,000 to 9000, and the indirect loss even to agriculturalists was very great. Similar effects have been noted in Columbia, Chili, and Peru from like causes. The Laurium mines, till lately, afforded another example; worked in classic times they were afterwards abandoned, and ruins marked the sites of places once flourishing. Since 1870 they have been re-opened, and even the old slags are being smelted over again. America and Australia have afforded instances of the mushroom growth of settlements, followed by no less rapid desertion. In 1857 there was a rush to the Frazer river (Columbia), followed in 1863 by an exodus of from 15,000 to 20,000 people to Nevada.

Other Metals.—Copper mines were worked in the Sinaitic peninsula about Sarabit-el-Khadim by the ancient Egyptians, where ruins and tablets indicate the presence of a considerable colony; now the region is deserted. Many ruined buildings in Cornwall mark the sites of mines, especially of tin, exhausted or disused.

The following tabular statement, drawn up from the census reports of 1881 and 1891, will show how seriously the population of some of the parishes in the mining districts of Cornwall has been affected, the decline in one case amounting roughly to 25 per cent; the larger towns, as might be expected, having suffered least. In 1901 there was no great alteration owing to the growth of other industries.

Parish.	1881.	1891.
Breage	3017	2751
Callington	1925	1888
Helston	3432	3198
Kea	2470	2103
Liskeard	4053	3984
St. Agnes	4630	4249
St. Cleer	2865	2124
St. Ives	6445	6094
St. Just	6409	6119
Wendron	4584	4250

The same may be said of other spots in Derbyshire, Devonshire, Wales, etc., though the population as a whole has increased.

The Weald of Sussex was once the seat of important iron-works; the last furnace, at Ashburnham, was extinguished in 1828 (Woodward, *Geology of England and Wales*, pp. 357, 361). The woods often conceal abandoned mines and heaps of slag.

Coal, petroleum, etc.—In Britain the mines of coal, often with associated ironstone, in parts of Staffordshire and Shropshire are beginning to show signs of exhaustion, with the same result. But these industries are so modern, comparatively speaking, that probably almost a century must elapse before marked effects are produced. In various parts of the United States, particular localities have become thronged and prosperous by the discovery of mineral oil, and have been deserted owing to its unexpected exhaustion, but the causes already named have restricted the area affected and prevented any remarkable consequences.

Ornamental minerals and rocks.—The turquoise mines of Sinai, like those of copper, were once busy and are now deserted. In the days of the Pharaohs and under the dominion of Rome, the quarries of Egypt were in full activity. Those for granite and the neighbouring ruins near the first cataract have been often described. Yet more striking are those at Jebel Dokhan, from which the red porphyry, so largely exported to Italy, was obtained. These lie at a height of 3650 feet above high water mark, nearly 100 miles from the Nile and on the eastern side of the watershed between it and the Red Sea. The remains of several Roman stations are passed on the route from Kuneh. From the chief quarry a road "led down to an ancient town with workshops." Hence a path went to an old town in the valley, and beyond are the ruins of a Roman temple. In fact deserted quarries are not rare in the mountainous country between the Nile and the Red Sea (*Brit. Assoc. Rep.*, 1887, p. 802). From Algeria and Tunis marbles were exported in large quantities by the Romans; the quarries were deserted, the district was sparsely inhabited, till a few years since, when some of them were again opened (*Brit. Assoc. Rep.*, 1885, p. 1028). The white marble of Thasos was in great request in the age of Hadrian, and

was worked at much earlier dates. The remains of a quay constructed round the headland, the tombs and other ruins of a town and two villages at least, "all in former days thriving on the quarrying and export of marble," indicate the "former position of a commercial centre, dating for centuries before the Christian era, and leaving traces of having continued in prosperity down well into the period of the eastern empire" (*Brit. Assoc. Rep.*, 1887, p. 200). We cannot, owing to the circumstances already mentioned, point to any striking instance of a country ruined by the exhaustion of its mineral wealth, but notwithstanding this the lesson is plain. The mineral store of each district and of the whole earth is practically limited in quantity, be it gold, or any other metal, be it coal or any fuel. The formation of a fresh supply is a process so slow that, for all practical purposes, it may be excluded from consideration. The waste also of the precious minerals is considerable; the wear and tear of the more homely is large; the destruction of combustibles is complete. Hence the store, sooner or later, must be exhausted, now in this country, now in that. In agriculture, provided manures can be obtained, the land seems never to lose its productive power; the mine or quarry, once worked out, has played its part for good in the economy of the earth, and the ill which it has done "lives after it." Metallurgical processes are attended with drawbacks even at the time, but though, when the minerals are no longer obtained, noxious fumes are no more emitted to devastate the neighbourhood, the waste heaps of rubbish or slag still remain, whereon no useful herb can grow and only a forest can spring up after long years. In some districts also the general ruin of the surface, the choked beds of rivers, and large tracts of fertile meadows buried beneath barren gravels, are the heritage bequeathed by the miner. The decline and fall of the nation whose prosperity has depended solely on its mineral wealth, will be not less appalling than that of imperial Rome. T. G. B.

MINING ROYALTIES. See ROYALTIES.

MINGHETTI, MARCO (1818-1886). A statistician and political economist born at Bologna. In 1848, when Pope Pius IX. appeared to espouse Italian nationality, Minghetti became a member of the pontifical council of state, and minister in the first liberal secular ministry of Pius IX. But when the pope set himself against the war of independence, Minghetti resigned office and joined the camp of Charles Albert. He fought at Custozza and Goito, and later on was a colleague of Count Cavour at the Paris congress of 1857. He then became, under Cavour, general secretary of foreign affairs, secretary of the interior in 1859, minister of the interior in 1860, and ambassador. After having greatly assisted in the formation of united Italy, he became president of the council of the kingdom in 1863, and again from 1873 to 1876. An able financier, he applied himself primarily during his ministry to restore Italian finance, and when he left office the budget was balanced.

Minghetti was an eloquent and incisive speaker, a man of the broadest culture, a man of letters, and an historian. He is well known by economists for several works, but chiefly for his book on the relation between economics, ethics, and justice. In this work, ably and clearly written, moderate in opinion, and giving evidence of sound culture, Minghetti based economic science on ethics and law, anticipating, to a certain extent, the modifications which were afterwards applied to the English classical school—placing himself on an intermediate ground between this school and the new theories, principally developed in Germany. While too moderate a man to ally himself with the "socialists of the chair," Minghetti attaches more importance to the phenomena of the distribution of wealth than to those of production, and this basis of his eventually formed one of the canons of the new doctrines. This order of ideas inspired various social laws of which he became a promoter, for example, the law on children's labour, on emigration, on pensions, etc.

Originality and depth of research are perhaps wanting in the writings of Minghetti on economics, but on subjects more his own he was one of the most far-seeing and deep thinkers, and one of the purest and most elegant writers of modern Italy.

Dell' economia pubblica e delle sue attinenze colla morale e col diritto, Florence, 1852, 2nd ed. 1868.—*Opuscoli letterari ed economici*, Florence, 1872.—*Miei Ricordi*, Turin, 1889-90 (posthumous publication, unfinished.

[Vapereau, *Dictionnaire universel des contemporains*, Paris, 5th ed., 1880.—Cossa, *Introduction to the Study of Political Economy*, trans., London, 1893.—Graziani, *Le idee economiche degli scrittori emiliani e romaguoli*, etc., Modena, 1893, p. 179-185, and others.] U. R.

MINIMUM (Rate of Discount). The rate known as the "bank rate" is settled every Thursday at the weekly meeting of the bank directors, and published when the meeting is over. It was formerly the minimum rate current not only in the bank discount office, but in the market generally. This lasted as long as the resources of the Bank of England formed the greater part of the capital in the money market, or even later, whilst the bank remained the largest single influence therein. But now, although the deposits of the bank have increased, those in the hands of the other banks have grown in far greater proportion, and the competitive effect of this outside capital is increased by the fact that it is mostly in the hands of a small group of large and powerful banks, instead of being wielded by a large number of banks each individually small. The result of this change has been to bring the rate of discount in the open market, for long periods together, often much below the bank rate; the

bank directors being supposed, in fixing their rate, to have regard not only to the amount of capital they have to employ, but also to the state of the circulation and the condition of the foreign exchanges. On the other hand, it has been strenuously contended by the late Mr. Thomson Hankey, and some other prominent directors of the bank, that the bank's policy should be governed by the ordinary considerations relating to their banking business only.

As a fact the directors have never reduced the official rate below 2 per cent, notwithstanding that in recent years the open market has frequently stood for months together at, or about, 1 per cent. It is understood that the bank minimum now only regulates its relations with the outside market, and that its own customers obtain accommodation at the rates charged by other banks. The bank rate still governs, at a distance, rates charged or allowed in some cases upon advances or deposits. R. W. B.

MINIMUM OF SUBSISTENCE, THE. The doctrine that the labourer cannot permanently earn more than the minimum of subsistence, that is, enough to keep him and his wife and children alive, has often been ascribed to political economists as a body. It has been used to prove at one time the inutility of any attempt to raise wages, and at another time the injustice of the existing order of society. This doctrine, however, has not been universally taught by political economists, and is not borne out by facts. It is connected with the doctrine of the wage fund, and the mode in which it has grown up will best appear from a brief survey of the course of speculation on the subject of wages.

For this purpose we need not go back further than the French *Économistes* of the last century. TURGOT (*e.g.*) declared that the labourer could not in the long run gain more than a bare subsistence, probably basing this assertion on the experience of his own time and country. The bulk of the labouring population of France had been reduced by fiscal and social abuses to a bare subsistence—sometimes even to less, seeing that many died of hunger in bad seasons. In Great Britain at the same time the condition of the labouring class was incomparably better. We find accordingly that Adam Smith does not agree with Turgot on this point (cp. Rae, *Life of Adam Smith*, pp. 220-222). "There are certain circumstances," he writes, "which sometimes give the labourers an advantage, and enable them to raise their wages considerably above this rate," namely, "the lowest which is consistent with common humanity" (*Wealth of Nations*, bk. i. ch. viii.). He then proceeds to inquire what circumstances have this beneficial effect. He concludes that "the liberal reward of labour, as it is the necessary effect, so it is the natural symptom of increasing national wealth. The scanty maintenance of the labouring poor, on the other hand, is the natural symptom that things are at a stand, and their starving condition that they are going fast backwards" (*ib.*).

The next economists to be considered with reference to the minimum of subsistence are MALTHUS and RICARDO. "Malthus," Dr. Bonar says, "without knowing it, was certainly the father of the theory of a wages fund" (Bonar, *Malthus and his Work*, ed. 1885, p. 270). He was deeply impressed with the poverty resulting from an unlimited increase of population, and he seems to have thought that only prudential self-restraint could raise the labourer's income above the minimum that could keep him alive. Ricardo expressed himself on this subject in a way which seems at first sight to coincide with Turgot's assertion. "The natural price of labour is that price which is necessary to enable the labourers one with another to subsist and to perpetuate their race without either increase or diminution" (Ricardo, *Principles of Political Economy*, ch. v.). But he qualifies this proposition by others which have been too commonly disregarded. "It is not to be understood that the natural price of labour estimated even in food and necessaries is absolutely fixed and constant. It varies at different times in the same country and very materially differs in different countries. It essentially depends on the habits and customs of the people." He adds—"The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them." Ricardo thought that real wages might increase with the increase of capital, but he thought that after the period at which all fertile land had been taken up, real wages would tend to fall. Thenceforward rent would grow at the expense of wages and of profits. Some of his expressions would suggest also that the only way in which the labourers could permanently improve their condition was by restricting their number. Whoever may have originated the doctrine of the wages fund, J. S. MILL was the first to formulate it clearly and precisely. From his conception of the WAGES FUND it followed that the labourers' wages must sink to the minimum of subsistence unless the number of labourers were severely kept down. Mill therefore denounced large families with extraordinary violence. Although he afterwards admitted the incorrectness of his views respecting the wages fund, he never completely recast his theory of wages. LASSALLE and later socialist writers eagerly adopted the conceptions of a fixed wages fund and a minimum of subsistence for the labourer as helpful in proving that under the existing order of society the labourer

must always be miserable, and that therefore the existing order of society is inhuman. For similar reasons these conceptions have been employed by Mr. George and by others who wish to abolish private property in land. But, since Mill and Lassalle wrote, the whole subject of wages has been reconsidered in the light of experience, and the doctrine of the minimum of subsistence has been seriously shaken. It has been found that countries in which wages are high can compete successfully with countries in which wages are low, and that real wages may be raised without labour becoming really more costly. The explanation of those facts is twofold. In the first place the wages which just keep a man alive are not enough to keep him efficient. It is a true economy to pay the labourer such wages as will maintain him in full vigour of mind and body. In the second place ill-paid labour is wasteful and dear; it is labour uneconomical to employ. Every rise of wages stimulates the employer to improve his methods of organisation and his mechanical contrivances. Thus it is that within certain limits to be determined only by experience the rise of wages does not necessarily involve loss to the employer. If therefore the labourers are organised, they can apply pressure sufficient to keep wages much above the minimum of subsistence. Natural wages, if so objectionable a term is still to be used, should denote those wages which are really—not apparently—the most economical to pay.

Again the old theory of the wages fund must be modified. General Walker repudiates the wages-fund theory altogether. He holds that wages are paid out of the product of labour, and can be increased indefinitely so long as that product continues to increase (Walker, *Political Economy*, pt. v. ch. vi.). Another American economist, Mr. Gunton, goes further and says that wages are determined by the cost of production of labour, in other words, by the standard of living among the labourers. There is not space here to examine these recent theories. But the doctrine that the remuneration of the labourer tends to dwindle to the minimum on which he can support life may be considered obsolete.

[See article on F. LASSALLE (for Iron Law).—Turgot, *Sur la Formation et Distribution des Richesses*, § vi.—Adam Smith, *Wealth of Nations*, bk. i. ch. viii.—Malthus, *Essay on Population*—*Political Economy*.—Ricardo, *Principles of Political Economy and Taxation*, ch. v.—M'Culloch, *Principles of Political Economy*.—Senior, *Political Economy*.—Mill, *Principles of Political Economy*, bk. ii. chs. 11, 12, 13.—Walker, *The Wages Question*. Marshall, *Principles of Economics*, bk. vi. chs. 1 and 2, 2nd ed.—Nicholson, *Principles of Political Economy*, bk. ii. ch. 10.—Schoenhof, *The Economy of High Wages*.—Gunton, *Wealth and Progress*. F. C. M.

MINIMUM WAGE. See LIVING WAGE.

MINORAT is nowadays an institution peculiar to Germany and German Austria, according to which *Bauerngüter*, which may be defined as entailed peasant holdings, are inherited by the youngest male heir in the nearest degree of relationship; in former times it existed in French Brittany under the name of *Droit du Juveigneur*[1] (see BOROUGH ENGLISH). In contradistinction, entailed estates belonging to noble families descend, in Germany, by MAJORAT (*q.v.*), and even for *Bauerngüter*, the rule of *minorat* is far from being universally followed. Where it prevails it is considered that at the time of his father's death, the eldest children will probably be able to provide for themselves and be independent. But, under other aspects, *minorat* is subject to adverse criticism: there is often a long uncertainty before it is known who will be the heir of the holding, and the latter frequently is only placed in the way of being productive after the actual owner is already incapacitated by old age. Moreover, another unfavourable circumstance is that the heir is too often still a minor when the holding descends to him.

[Holtzendorff, *Rechtslexicon*, ii. 128; and Roscher, *Nationalökonomik des Ackerbaues*, § 92, pp. 328-333, ed. 1888.] E. Ca.

MINT (Latin *Moneta*, a name of Juno, in whose temple money was coined in Rome, hence mint, coined money, Anglo-Saxon *mynet*). As the right to issue coin belongs, in modern societies, exclusively to the sovereign power (Hale, Coke, Blackstone), it follows that a Mint cannot legally issue the coins of the country in which it is situated except under the directions of the sovereign or other central authority. In Anglo-Saxon times a large number of mints were established throughout this country under the control of MONEYERS,—officials responsible for the integrity of the coinage. Since the Norman conquest it appears to have been a common practice, even as recently as the 17th century, to establish a temporary Mint where the sovereign happened to reside, and it was not till after the great recoinage of silver at the end of that century (see under Sir Isaac NEWTON) that all coinage operations were concentrated, so far as England and Ireland are concerned, in the Tower of London. The Dublin Mint was closed in 1696. The Edinburgh Mint, first erected in 1574, was not finally abolished until 1815.

Early in the present century, in 1811, the Mint was removed from the inconvenient premises which it occupied in the Tower to the present site on Tower Hill, and in 1850 the complete control of all its operations passed into the hands of the government.

The primary duty of a Mint, namely the conversion of bullion into coin, naturally entails other duties connected with the precious metals.

[1] From *juvenior*, taken as comparative of *juvenis*.

Thus the hall-marking of plate, and the refining, melting, and casting of gold and silver into commercial bars, are undertaken by certain foreign Mints, but in this country the work of the Department may be grouped under the four following heads:

1. *The coinage of gold presented by private holders for that purpose.*

Under § 8 of the Coinage Act 1870 (33 Vict. c. 10), "any person" is entitled to bring gold bullion to the Mint and, subject to certain specified stipulations, "such bullion shall be assayed and coined, and delivered out to such person without any charge for such assay or coinage, or for waste in coinage" (see FREE COINAGE). Any alloying metal required is also supplied without charge, and a provision of the Coinage Act 1816 (56 Geo. III. c. 68), is re-enacted to the effect that out of every twenty troy pounds weight of standard gold bullion there shall be produced 934 sovereigns and one half-sovereign. This corresponds to the troy ounce being valued at £3 : 17 : 10½ (see GUINEA, INTROD. AND RATING OF). Since the Bank Charter Act 1844 (7 & 8 Vict. c. 32), all persons are, under § 4, "entitled to demand, from the Issue Department of the Bank of England, notes in exchange for gold bullion at the rate of £3 : 17 : 9 per ounce of standard gold," subject to the metal being melted and assayed by persons approved by the bank at the expense of the owner. It will thus be seen that there is a difference of only 1½d. per ounce in the two rates, and experience has shown that the delay necessary for coinage operations leads holders of bullion to take advantage of the Bank Charter Act, and obtain payment at once rather than incur this delay. Thus it happens that, as concerns the gold currency, the Mint in this country deals exclusively with the Bank of England; it should be added that coins which are no longer legal tender, in consequence of their having been reduced in weight by wear below their least current weight, are received for recoinage through the same channel.

2. *The coinage and issue of token silver and bronze pieces as they are required, from bullion purchased on account of the Government.*

The arrangements in force for the issue and maintenance of subsidiary coins are essentially different in character, primarily in consequence of the fact that, whereas these are merely tokens and, therefore, only legal tender to a limited extent, gold coins are intrinsically worth their face-value and of unlimited legal tender.

In connection with the silver currency, however, it is interesting to note that § 9 of the Coinage Act 1816 directed that from a date to be fixed by royal proclamation "any person or persons, native or foreigner," might bring silver coin, plate, or bullion to be converted into coin at the rate of sixty-six shillings per troy pound, sixty-two shillings being returned to the importer and four retained by the Mint to meet the cost of assaying, loss, and coinage. No such proclamation was ever issued, and this section remained a dead letter therefore until the Act was repealed in 1870. Under the provisions of the Act passed in that year, whenever token coins are required to be struck, the requisite silver and bronze bullion is purchased in the market with sums advanced for the purpose out of the Consolidated Fund, and, on issuing this coin at its full nominal value, the Master of the Mint pays the proceeds into the exchequer under two heads:—(*a*) Repayments of advances for the purchase of bullion; and (*b*) SEIGNORAGE (*q.v.*), or, as now defined in practice, the excess of the circulating value of the coin above the purchase price of the metal used in its manufacture.

Worn silver coin is received by the Mint at its nominal value, and all expenses connected with the supply of Imperial token coins to Colonies, and their renewal, are also borne by the Department.

3. *Execution of coinages required by British Colonies and Dependencies.*

Subject to the requirements of the Imperial currency being met, the Royal Mint undertakes the execution of any coinages required by Colonies at fixed charges which are calculated to cover the actual cost of the work performed. The requisite bullion having been delivered at the Mint by the colonial agent, is converted into coin and shipped to the colony at the expense of that colony, all profit in respect of seignorage of course falling into the colonial exchequer. If from any cause the Department is not in a position to undertake such a coinage, the work is usually performed, under government control, by a private firm in Birmingham.

4. *Manufacture of naval, military, and other medals, and miscellaneous duties.*

The manufacture of medals forms an important subsidiary branch of the work of most Mints. In this country they are struck on behalf of the several departments—the War Office, Admiralty, and India Office, as well as for the Royal and several other learned societies. No special reference is here necessary, however, to this branch of work, or to the miscellaneous other duties performed by the Mint, such as the verification of the standard of plate hall-marked at certain assay offices, independent examination of coin issued from Indian, Australian, and, occasionally, certain foreign Mints, etc.

Some allusion should be made to the branch Mints established at Sydney, Melbourne, and Perth by orders in council passed in 1853, 1869, and 1898. Immediately after the early discoveries of gold in Australia, the question of establishing local Mints for coining the precious metal, and thus facilitating its use in commerce, was raised in several of the colonies. New South Wales was the first to obtain the

necessary authority, and, although the question of establishing another branch in Victoria was frequently raised, it was not actually opened until 1872. When first issued the Sydney coins were not intended to circulate in the United Kingdom, but application was soon made by the colony for this concession to be granted, and in 1862 the question was considered by a select committee of the House of Commons. As a result of this committee's report, acts were passed in 1863 and 1866, under which Royal Proclamations were issued in the latter year declaring Sydney coins to be legal tender in the United Kingdom and in specified colonies. Similarly the coins to be struck at Melbourne were legalised in 1869. Since 1871 the coins of both Mints have been identical in design with those of the Royal Mint in London, distinguished only by the mint-marks S, M, and P respectively. The current expenses of the branch Mints are met out of permanent annual appropriations made by the local legislatures, £15,000 at Sydney, £20,000 at Melbourne, £20,000 at Perth, all revenue being paid into the local treasuries. Unlike the Royal Mint, they impose a coinage charge which amounted to 1 per cent, or nearly 9½d. per standard ounce, in 1855, but has for many years been reduced to 1½d. The published returns show that the present rates do not cover the expenses. No token coins are struck, the issue of silver and bronze being confined to the English Mint. The recent gold discoveries in Canada have lately (1904) suggested establishing a branch of the Royal Mint at Ottawa. The gold coin struck there should follow the sovereign form.

[Ruding's *Annals of the Coinage.*—*Encyclopædia Britannica*, 9th edition, article "Mint."—For early English mints see "The English Currency under Edward I.," by C. G. Crump and A. Hughes (*Economic Journal*, vol. v., 1895).—Chalmers's *Currency in the British Colonies.*—Annual Reports of the Deputy-Master of the Mint.—Annual Reports of the Director of the United States Mint.—*Report of Select Committee on the Royal Mint*, 1837 (R. 465).—*Report of Commission on the Royal Mint*, 1849 (c. 1026).—*Report of the Royal Commission on International Coinage*, 1868 (R. 4073).] E. R.

MINT, UNITED STATES. The mint of the United States was established, under the act of 2nd April 1792, in Philadelphia. In 1873 its administration was made a bureau of the treasury department under a director. In 1835 branch mints were established at Charlotte, N.C., at Dahlonega, Ga., and New Orleans; in 1852 at San Francisco; in 1862 at Denver; in 1863 at Carson, Nev. Coinage, however, has been suspended at Denver, Charlotte, and Carson. According to the act of establishment, the unit of account was the DOLLAR divided into tenths or DIMES, hundredths or CENTS, and thousands or MILS. FOREIGN gold and silver coins passed current at certain established rates, until by act of 21st February 1857 they ceased to be legal tender. By the act of 1792 a gold dollar (see DOLLAR, UNITED STATES) was to contain 24·75 grains of pure gold, and the silver dollar (see DOLLAR, UNITED STATES) 371·25 grains of pure silver, the relative value of the two metals being 15 to 1. There was free coinage of both metals, and no charge save that in case of immediate payment in coin, a deduction of one-half per cent from the weight of the pure gold or silver was made. The gold coins authorised were the EAGLE $10 (=£2:1:1), the half eagle, and the quarter eagle. The fineness was 916⅔ parts gold per 1000 (11/12th fine). The silver coins authorised were the dollar, 416 grains in weight, the half dollar, quarter dime, and half dime—all being proportional parts of the dollar in weight, and in fineness 892·43 parts in the 1000. There was no change in the weight or fineness until, by the act of 28th June 1834, the relative value was changed to 1:16·002 by reducing the amount of pure gold in the dollar to 23·20 grains, and increasing the fineness of the coins to 0·899225. The act of 1837 raised the fineness to 0·900, the pure gold in the dollar to 23·22 grains, and changed the ratio to 1:15·988.

In 1837 the weight of the silver dollar was fixed at 412½ grains. The fineness of silver coins was also fixed at ·900. The next important change was by the act of 21st February 1853, when free coinage of silver pieces of less than one dollar in value were closed, the fractional parts of the dollar made subsidiary, and the weights reduced, the half dollar weighing 192 grains. The coinage of the double eagle $20 (£4 : 2 : 2½), and the one dollar, gold, was authorised 3rd March 1849, and the three dollar, gold, 21st February 1853. The coinage of the two latter was discontinued in 1890. In 1902 the gold Louisiana Exposition Dollar was struck. The coinage of a three cent piece was also provided for by act of 3rd March 1851. By act of 12th February 1873 the coinage of the silver dollar, half dime, and three cent piece was discontinued, and the weight of the subsidiary coin slightly raised, that of the half dollar to 192·9 grains.

The act of 28th February 1878 (BLAND ACT) restored the coinage of the standard silver dollar, though not free, and provided for the purchase at the market price by the government of silver bullion at from $2,000,000 (say £400,000) to $4,000,000 (say £800,000) per month, and its coinage. This policy was again changed by the act of 14th July 1890, which authorised the monthly purchase of 4,500,000 ounces of silver, or so much thereof as might be offered at the market price, not exceeding $1·00 for 371¼ grains of pure silver, and the issue in payment of treasury notes redeemable on demand in coin. It was also provided that so much silver should

be coined as might be necessary to redeem the treasury notes issued in payment for the silver. In accordance with this a limited amount was coined until 1893, when the act of 1st November repealed the purchasing clause. The gold standard was adopted in 1900.

By the act of 12th February 1873, individuals had the right to deposit silver bullion for coinage into trade dollars (see DOLLAR, TRADE); this was discontinued 3rd March 1887. For a brief period a twenty cent silver piece was struck; in 1892, 5,000,000 silver half dollars, known as Columbian half dollars, were struck, and also 40,000 quarters; and in 1899, 50,000 Lafayette souvenir dollars.

By the act of 2nd April 1792 the coinage of a copper one cent and a half cent, of 264 and 132 grains respectively, was authorised. The weight of the cent was afterwards reduced to 208, and then to 168 grains. Copper coinage was discontinued in 1857, and in its place was minted a nickel one cent coin, 72 grains in weight, and consisting of 88 per cent copper and 12 per cent nickel. A further change in this coin was made, 22nd April 1864, by reducing the weight to 48 grains, and changing the composition to 95 per cent copper and 5 per cent tin and zinc. A two cent piece was also authorised, discontinued in 1873. Between 1865 and 1890 a three cent piece was authorised; and 16th March 1866 a five cent coin, popularly known as a nickel, 75 per cent copper and 25 per cent nickel, was authorised.

The total coinage of all the mints until 30th June 1904 has been as follows:—

Gold.		
Double eagles, 1850-1904	$1,850,281,960	£370,056,392
Eagles, 1793-1804, 1838-1904	378,877,070	75,775,414
Half eagles, 1793-1904	301,683,260	60,336,652
Three dollars, 1854-89	1,619,370	323,875
Quarter eagles, 1796-1808; 1821-1904	30,263,555	6,052,711
Dollars, 1849-89	19,749,595	3,949,919
Silver.		
Trade dollars, 1873-87	35,965,924	7,193,185
Dollars, 1793-1805; 1836-73; 1878-1904	578,353,564	115,670,713
Half dollars, 1793-1904	161,756,359	32,351,272
Quarter dollars, 1793-1904	77,170,693	15,434,138
Twenty cents, 1875-78	271,000	54,200
Dimes, 1793-1904	45,690,598	9,138,120
Half dimes, 1793-1805; 1829-73	4,880,219	976,044
Three cents, 1851-1873	1,282,087	256,417
Minor Coinage.		
Five cents, 1866-1904	23,583,145	4,716,629
Three cents, 1865-90	941,349	188,270
Two cents, 1864-73	912,020	182,404
Cents, 1793-1904	16,714,153	3,342,831
Half cents, 1793-1904	39,926	7,985
Total—Gold	$2,582,474,816	£516,494,963
Silver	905,370,444	181,074,089
Minor	42,190,593	8,438,119
Grand Total	$3,530,035,853	£706,007,171

As indicated by foregoing statements, there has been a large seignorage on silver coinage, and up to 1904 there had been paid into the treasury of the United States on this account $133,026,322 (£26,605,264).

From the standpoint of administrative finance, the bureau of the mint is an important office. In the fiscal year ending 30th June 1904 the expenditures were $1,729,812 (£345,962), of which $198,476 (£39,695) was for salaries and $1,069,555 (£213,911) for wages. The income was $6,910,246 (£1,382,049), of which $215,184 (£43,037) were from charges for parting and refining bullion, and the larger part of the remainder from seignorage. In 1873 the charge for making gold coins was reduced to one-fifth of one per cent, and in 1875 entirely abolished, save that the depositor pays for the copper used in alloying the gold.

The legal limit of tolerance in fineness of gold coins is 0·001, and of silver coins 0·003. Each year there is an annual trial of coins by an independent commission appointed by the president.

[See the *Annual Reports of the Director of the Mint*, especially the *Twenty-first*, for 1893, pp. 83-94. See also H. R. Linderman, *Money and Legal Tender*, New York, 1879.—W. A. Shaw, *The History of Currency*, pp. 246-266.]

D. R. D.

MINT PAR OF EXCHANGE. The equivalent, in terms of one coinage, of the quantity of pure metal contained in another standard coin, both being of the same metal, and taken at mintage weights. The sovereign contains 113·001597 grains or 7·322379 grammes of fine gold, and the following are its equivalents in the coins of other gold-standard countries. The value in pence of the unit of each country is also given:—

		£1=		
France, and Latin Union	fcs.	25·221	franc	= 9·515d.
Denmark and Scandinavian Union	kr.	18·159	krone	=13·216d.
Germany	mks.	20·429	mark	=11·754d.
Holland	fl.	12·107	florin	=19·823d.
Austria	kr.	24·017	krone	= 9·992d.
Portugal	mil.	4·504	milreis	=53·284d.
Brazil	mil.	8·912	milreis	=26·929d.
United States	$	4·867	dollar	=49·316d.
Argentina	$	5·044	peso	=47·578d.
Uruguay	$	4·707	peso	=50·988d.
Chili	$	13·346	peso	=17·995d.
Russia	rb.	9·40	rouble	=25·369d.
Japan	yen	9·765	yen	=24·577d.

The par given above for France serves also for the other countries of the Latin Union—Belgium, Switzerland, Italy, and Greece; francs being altered for Italy into *lire*, and for Greece into *drachmas*. It serves also for Spain with francs altered into *pesetas*, though quotations are usually made in pence per dollar, or piastre, of five pesetas. The par given for Denmark serves also for Sweden and Norway.

Mint pars are given above for Portugal, Brazil, Argentina, and Chili, although at present (1906) their actual exchanges are in terms of more or less inconvertible paper money.

R. W. B.

MINT PRICE OF BULLION. With free and open mints that which is frequently called the mint price is the equivalent in terms of coin. By the Coinage Act (33 Vict. c. 10, § 8), any person may bring gold bullion to the mint, and receive the same again, assayed and coined, without charge, provided the bullion be of such character as not to require refining. The sovereign weighs 123·27447 grains of standard gold, *i.e.* $\frac{11}{12}$ fine, and, therefore, for every ounce of gold bullion of equal fineness that is brought in, the importer will receive back in coin, $£\frac{480}{123\cdot27447} = 3\cdot89375$ or £3 : 17 : 10½. The importer will of course have to wait his turn, and also whilst his parcel of gold is being coined; and, in order to avoid this, one of the conditions imposed in the charter of the Bank of England is that it shall always purchase bar gold, by payment in its own notes, at the rate of £3 : 17 : 9 per oz. standard. The difference is about equal to twenty days' interest at 3 per cent.

Where a charge is made for coinage, it may perhaps be said that there is a mint price. The following are the coinage terms in some principal countries with open mints :—

GOLD.

Great Britain .	no charge.
United States .	no charge.
France . .	about ¼ per cent.
Germany .	about ½ per cent.
Holland . .	from $\frac{3}{10}$ to $\frac{4}{10}$ of 1 per cent.

SILVER.

British India .	$2\frac{1}{10}$ per cent.[1]
Mexico . .	$4\frac{3}{4}$ per cent.

Where the mint is closed against either metal and purchases are made for coinage on government account, the mint price is necessarily the same as the market price. R. W. B.

MINTAGE, FREE. The power of free mintage of gold was granted to any one who brought standard gold and silver to the English mint by the act of 1666 (18 Chas. II. c. 5), which, commencing with the statement "whereas it is obvious that the plenty of current coins of gold and silver of this kingdom is of great advantage to trade and commerce," in order to encourage this "plenty," enacted that "plate or bullion of gold or silver should be assayed, melted down, and coined with all convenient speed, without any defalcation, diminution, or charge for assaying, coinage, or waste in bullion." This act, as will be perceived, established free mintage for both gold and silver in this country. With respect to silver, the act of 1798-1799 (38 Geo. III. c. 59), prohibited further silver coinage, and the statute of 1816 (56 Geo. III. c. 68), which established the coinage of silver money on its present basis, practically restricted free coinage to gold bullion only. This act was repealed, but was re-enacted in substance by the coinage act of 1870. The gold bullion coined in England is practically all received through the Bank of England, which makes a charge of 1½d. per ounce for delivering gold coin without delay in exchange for the bullion. Similar enactments, with slightly different rates of charges, are in force in France, Germany, the United States, and the other principal countries of the world.

[1] Closed since June 1893.

[*Report of International Monetary Conference.* Paris, 1878, with Appendix by Mr. Dana Horton. —W. A. Shaw, *The History of the Currency, 1252 to 1894.*]

MIR is the modern survival of the ancient free Russian village community. In its conditions of land tenure, it resembles the eastern and western mark system. Both probably came from a common Aryan origin. As now constituted, each village has its *Mir* or popular assembly administered by an "elder." The *Mir* itself, however, performs the periodical assessments and distribution of the common land, which is cultivated on the "three-field system" by the whole community working together. After harvest, the fields are common pasture. Owing to the encroachments of neighbouring large proprietors, the communities seem to have lost their ancient rights of common woods and pastures. When required, these are now rented from the neighbouring landowner. Each household may, by repaying the sum advanced by the state for its acquisition, become the private owner of land; and this, says Mr. Kovalevsky, "unless communistic doctrines come to the rescue, threatens the *Mir* with extinction."

[M. Kovalevsky, *Mod. Customs and Ancient Laws of Russia*, 1889-1890, pp. 69-119.—See also Haxthausen, *De l'abolition . . . du partage égal et temporaire des terres dans les communes russes*, Paris, 1858, 8vo.—*Études sur . . . les institutions rurales de la Russie*, 3 vols., Hanover, 1847-1853, 8vo.—Laveleye (Émile de, Baron), *Les Communautés de famille et de village* (Extrait de la *Rev. d'Écon. Pol.*, pp. 19, Bar le Duc (1888), 8vo).—*Primitive Property*, Lond. (Camb. printed), 1878, 8vo.—Maine (Sir H.), *Village Communities in the East and West*, Lond., 1871, 8vo, 3rd ed., 1876, 8vo.—Mackenzie Wallace, *Russia.*—Maurer (G. Ludwig von), *Einleitung zur Geschichte der Mark—Hof-Dorf-und Stadt-Verfassung, und der öffentlichen Gewalt*, München, 1854, 8vo. That the *Mir* system works badly, see Duke of Argyll, *Unseen Foundations of Society*, 1893, pp. 572-573.] A. L.

MIRABEAU, VICTOR RIQUETTI, marquis de (1715-1789), sometimes described by his pseudonym as *L'Ami des Hommes*, or distinguished from his son, the Comte de MIRABEAU, by the names of Mirabeau *père*, Mirabeau *aîné*, the elder Mirabeau, or the marquis of Mirabeau.

He was born at Perthuis in Provence, where his ancestors, the Riquetis, had settled in the 13th century after being driven out of Italy. In his youth he served as an officer in the army, and was decorated for his bravery in the Bavarian campaign. In 1737 he succeeded to his father's title and estates, and quitted the army, soon afterwards embarking upon the studies of rural and political economy, in pursuit of which he exhibited unwearied energy for half a century. He came early in life under the influence of the views of CANTILLON, but subsequently became an enthusiastic adherent of QUESNAY and one of the leaders of the PHYSIOCRATS. Quesnay indeed was the quasi-sacred founder of the sect, and originator of its creed, but Mirabeau was the militant chief of the school; and, after Quesnay's death in 1774, he became its acknowledged head. The history of his domestic severities, his protracted quarrels and fifteen years of lawsuits with his wife, and his rigour towards his children, which drew down upon him the jibe that he was at once *l'ami des hommes et l'ennemi de sa femme et de ses enfants*, show us that, like Rousseau, he was sometimes unable to harmonise the sourness of his conduct with the sweetness of his counsels. But they also make more than ever remarkable the amazing activity with which he found time to carry out numerous hardy and unremunerative agricultural experiments, to act as the social centre of the ÉCONOMISTES (*q.v.*) at his Tuesday receptions, and to produce a crop of propagandist literature in books, in newspapers, in letters, and in lectures, almost unequalled in volume and in vigour; while his tenderness for his mother and his affection for his brother, the bailli de Mirabeau, with whom he exchanged upwards of four thousand lengthy letters equally devoted and didactic, prove—what is otherwise abundantly clear—that his family troubles would not have arisen without the gravest faults on the side of his wife and his sons.

Educated, as he says, in a mountain chateau by "a tutor at thirty crowns," and quitting college at the age of thirteen, the marquis of Mirabeau owed his erudition chiefly to his own application and assiduous study. In 1747 he wrote an (unpublished) *Testament politique* for the guidance of his son, as yet unborn; and inspired by ambition for the aggrandisement of his family, urged the future enemy of aristocratic privilege to defend his order against encroachments of the royal power! The reactionary tone of this document is little in keeping with his later views. He continued to ruminate upon the art of government: "12 principles laid down in 12 lines, and graven in the head of the prince or his minister would," he thought, in 1749, "if strictly carried out in detail, correct all the abuses of society and bring back the age of Solomon." A friend of VAUVENARGUES, an admirer of MONTESQUIEU, and presenting in himself, as DE TOCQUEVILLE has observed, the spectacle of a feudal character invaded by democratic ideas, he was already given to philosophise upon statesmanship, and wrote a *Système politique de la France*, which remains in manuscript. But it was in 1750 that he published anonymously his first treatise, the *Mémoire concernant l'utilité des États provinciaux*, 12mo, Rome;[1] a plea for a measure of decentralisation and local self-government, considered by Lavergne to be the most substantial of his voluminous economic and political works, and at first attributed by a judge so competent as D'ARGENSON to Montesquieu himself. Contrasting the systems of the *pays d'élection*, where the repartition of taxes was effected from above by the authority of the intendant, a royal officer, and the *pays d'état*, where the repartition rested upon the local and mutual decision of the taxpayers, he concluded strongly in favour of the latter as more equitable and more profitable to the treasury, and recommended the general establishment of local assemblies adopting its best features. His views contributed largely to the creation of such bodies in 1787; but they were swept away with the monarchy before they could take root. (For *pays d'élection* and *pays d'état* see INTERNAL CUSTOMS AND TOLLS.)

In some manner not yet accounted for, Mirabeau had obtained, and for many years retained, possession of the unpublished manuscript of Cantillon's *Essai sur la Nature du Commerce en général*, when the rightful owner recovered the *Essai* and caused it to be printed and published in 1755. The manuscript had made a deep impression on Mirabeau. At one time he seems to have intended to modify and publish it as his own. Subsequently he proceeded to write a running commentary upon the *Essai*, and it is the work thus commenced which appeared, subsequently to the publication of Cantillon's manuscript, under the title of *L'Ami des Hommes, ou Traité de la population*, in three parts, with the imprint à Avignon, 1756, 4to and 12mo. This remarkable treatise created the greatest sensation throughout the whole of Europe. It is said to have gone through forty editions, and was translated into several languages. Its anonymous author, soon discovered, became the idol of the day, and was generally referred to by the sobriquet which he had chosen for the title of his book. The meridional vivacity of his style, his wit, his naïve egotism, his piquant irony and frequent paradox gave him a great literary vogue, and led some of his readers to compare him to MONTAIGNE; while the importance of his subject and the ability of his views, in

[1] "Rome" was a false imprint. The book was really published in France.

turn original, daring, and profound, earned for him the more durable attention of those who cared rather for the matter than the style. The prodigal luxuriance of his ideas, unconnected by any firm and consistent grasp of principle, makes his book comparable to a pathless tract of tangled jungle, and renders it impossible to summarise it succinctly. But its leading assertions are the following: Population is the source of wealth, and the means of subsistence are the measure of population. Agriculture is the great source of subsistence. A large population is desirable; and to this end the encouragement of agriculture is the means. "Men multiply like rats in a barn if they have the means of subsistence." Luxury, idleness, and public debts are to be reprobated. The very rich are "like pikes in a pond." The influx from country to town should be counteracted and absenteeism should cease. Religious toleration, free trade—internal and external,—a more equal distribution of wealth, a diminution and more equitable partition of the burdens of taxation, are among the *desiderata* for the economic improvement of the country; and a ministry of agriculture should be created for its encouragement and support, to keep pace with the aid which science can render to agriculture, and to favour the development of canals, modes of communication, drainage, etc. The peasant is everywhere to be held in honour, and the king's ideal should be to be a *roi pasteur*. The hardihood of the author may be sufficiently indicated by two quotations. In his preface he personifies "la voix de l'humanité qui réclame ses droits"; and in his conclusion he apostrophises the king in favour of that class of his subjects which is "the most useful of all, those who see beneath them nothing but their nurse and yours—mother-earth; who stoop unceasingly beneath the weight of the most toilsome labours; who bless you every day and ask nothing from you but peace and protection. It is with their sweat and (you know it not!) their very blood that you gratify that heap of useless men who keep saying that the greatness of a prince consists in the value, and above all, the number, of favours he divides among his courtiers, nobility, and companions. I have seen a tax-gathering bailiff cut off the wrist of a poor woman who clung to her saucepan, the last utensil of her household, which she was defending from distraint. What would you have said, great Prince?" etc.—Evidently some of the qualities of the younger Mirabeau were inherited from his father.

After reading *L'Ami des Hommes*, QUESNAY, who agreed with many of the author's opinions, desired to make his acquaintance, and Mirabeau has left a graphic account of their interview, in which Quesnay persuaded him that wealth is the source of population, not population the source of wealth. Mirabeau now became the fervent admirer of Quesnay, and between them they founded the school of the physiocrats. As Madame de Pompadour's medical attendant, Quesnay was unable to quit his post at Versailles day or night. His position at the court also imposed upon him some delicacy and reserve in openly criticising the government. The tempestuous marquis supplied in himself more than enough of initiative, energy, courage, and resource. The deference which he always exhibited to Quesnay enabled the latter to hold him somewhat in check by frequent correspondence, reading his proofs, chastening his style, and amending his views. But the impetuosity of Mirabeau was not to be wholly curbed; and he remained to the last perhaps the most independent member of "the sect."

In 1758 appeared a continuation of *L'Ami des Hommes* (pt. 4, no imprint; 4to and 12mo), in which the hand of Quesnay is plainly visible. It consists of a *Dialogue entre le Surintendant d'O. et L. D. H.*, a reprint of the *Mémoire sur les États provinciaux*, with a reply to objections which had been published against it, and a series of, separately paged, *Questions intéressantes sur la Population, l'Agriculture, et le commerce proposées aux Académies et autres sociétés sçavantes des Provinces*, asking for local information upon agricultural conditions, and also suggesting some general considerations somewhat in the style of Berkeley's *Querist*. These questions, the reader is informed, are not by the author of the *Mémoire sur les États provinciaux*. In 1760 appeared the fifth and sixth parts, without publisher's name or place of publication,—the whole forming three quarto or six 12mo volumes. The fifth part contains the essay written for the prize of the Berne Agricultural Society in 1759 on the reasons why Switzerland should prefer to grow corn. This is followed by extracts from the first six books of an English work, translated from Hale's *Complete Body of Husbandry*. The sixth part (no separate title page) is made up of a *Réponse à l'Essai sur les Ponts et Chaussées, La Voierie, et les Corvées*, and by the *Tableau Oeconomique avec des explications*. Mirabeau had already denounced the CORVÉE in his *Mémoire*, and he now replies to a supporter of them. His "explanation" of Quesnay's *Tableau* involves some manipulation of the original in order to make it comprehensible to himself and others. But it is doubtful whether Mirabeau with his small capacity for consecutive reasoning ever fully understood the harder-headed Quesnay any more than he had rightly understood Cantillon.

The same year which terminated the *Ami des Hommes* saw the publication of a *Théorie de l'Impôt*, (1760, 4to and 12mo, no imprint), a work of considerable ability which seemed

likely to create an almost equal stir. No one could doubt who was the author. "Seigneur," he begins, in the tones already noticed of exhortation and of hardly-veiled menace, "Seigneur! you have twenty millions of subjects, more or less, all with a little money and almost all capable of rendering you such service as you require; and yet you can no longer obtain service without money nor money to pay for service. In plain language, your people hold back from you without knowing it, for they are still well-disposed to your person even though they be not to the agents of your authority." And he puts into the mouth of the king the soliloquy that his position as the head of his people is justified only so long as, and only because, he costs them less than he is worth to them. If, as the author asserts on his first page, "nous sommes en un siècle mol et craintif," he shows clearly enough that he is himself not lacking in temerity. He was, for his boldness, imprisoned (16th December 1760) in the chateau of Vincennes. The king was furious against him; but ultimately yielded to Madame de Pompadour and Mirabeau's friends, and allowed him to be liberated on Christmas eve, with orders to reside at his property at Bignon, and not in Paris. For two and a half years the physiocrats held silence in the press, and taught by word of mouth. In 1763 Mirabeau made a convert of DUPONT DE NEMOURS, who, writing in 1769 of the *Théorie de l'Impôt*, says, "This sublime work has to my knowledge been multiplied by eighteen editions." It is not, as might be supposed, a mere plea for the IMPÔT UNIQUE. It proposes a reorganisation of financial administrative machinery, the abolition of the Fermes (see FARMER-GENERAL), a reduction in the taxation upon salt, with the object of increasing the total yield, and a special tax upon tobacco farms. The DOMAINE, the post, and the MINT were to be further sources of revenue. Many just and valuable remarks on taxation are scattered throughout the volume, and entitle the author to rank as one of the earliest important writers on the subject. In 1763 appeared his *Philosophie rurale*, Amsterdam (Paris), 4to, "the best, or the least bad," says DAIRE, "of all his works." It is the most complete and compact account of his physiocratic views, for which the reader is referred to the article PHYSIOCRATS, and owed a good deal to Quesnay, by whom, Dupont states, the whole of the seventh chapter was written.

Mirabeau received the grand cross of Wasa from Gustavus III. of Sweden on the foundation of the order, and counted among his other notable admirers and correspondents, Leopold, grand-duke of Tuscany, afterwards Emperor of Austria, Stanislas-Augustus, king of Poland, and KARL FRIEDRICH, grand-duke of Baden. The dauphin boasted that he knew *L'Ami des Hommes* by heart; but, when it was proposed to place the *Éphémérides* under his protection, though Quesnay, Dupont, and TURGOT agreed to the plan with its prospect of shelter from too rigid censorship, and though the dauphin had himself approved of the terms of the proposed dedication, Mirabeau refused to be a party to the project, and threatened to withdraw if it were adopted. His threat, which prevailed, indicates his dominant influence in the party and his independence of his colleagues. As has already been indicated in the course of this article, Mirabeau was one of the first to perceive an important principle of POPULATION, and to express a belief in what has since been called the elasticity of the exchequer; but his chief economic importance lies in his powerful support of physiocracy.

The limits of this article admit of little more than an enumeration of his other principal works. According to M. de LOMÉNIE (*q.v.*) he left forty volumes, besides several unpublished writings. His popularity waned after the lawsuits which followed upon his quarrel with and separation from his wife in 1757, the odium which he incurred from the stern measures he adopted to repress his profligate and spendthrift son by imprisoning him at Vincennes and elsewhere, under *lettres de cachet*, and the success of the latter in unjustly inflaming the public mind against an *Ami des hommes*, whom he painted as a demon of harshness and inhumanity. It could hardly fail to lend colour to prejudice that the writer who declaimed so vigorously against absenteeism was hardly ever present in his own property, that, much as he disapproved of public debts, he incurred with fatal facility an increasing burden of private loans, that for an expert in rural philosophy his agricultural experience was singularly unfortunate, and that having denounced *lettres de cachet* in his writings he employed them against his own household in profusion. He died 13th July 1789, the day before the storming of the Bastille.

His later writings often appeared anonymously and in foreign countries, by the care of his friends. Such are *Les Devoirs*, Milan, 1770, 8vo, seen through the press by the Marquis de Longo, professor of political economy at Milan. (Men should receive economic instruction as a guide to conduct. And so elementary education should be *compulsory, and free* where the recipient cannot afford to pay). —*Entretien d'un jeune Prince avec son gouverneur par L. D. H.*, Publié par M. G. . . . (l'abbé Grivel), Paris, 1785, 4 vols. 8vo and 12mo.—*Hommes à célébrer pour avoir bien mérité de l'humanité par leurs écrits sur l'Économie politique. Ouvrage publié par P. Boscovitch, ami de l'auteur*, Bassano, 2 vols. 8vo.—Mirabeau was one of the principal writers in the ÉPHÉMÉRIDES du citoyen (1765 to 1768), and the *Journal de l'agriculture, du commerce, et des finances* (1764 to 1774).—Among his other works may be mentioned *Réponse du correspondant à son banquier*, 1759, 4to (a reply

to FORBONNAIS).—*Éléments de philosophie rurale*, La Haye, 1767, 12mo (an abridgment of the *Philosophie rurale*).—*Lettre sur le commerce des grains*, Amsterdam and Paris, 1768, 12mo.—*Les Économiques par L. D. H. dédiées au grand-duc de Toscane*, Amsterdam and Paris, 1769-72, 2 vols. 4to or 4 vols. 12mo.—*Lettres d'un ingénieur de province à un intendant des ponts et chaussées, pour servir de suite à l'Ami des Hommes*, Avignon, 1770, 12mo.—*Lettres Économiques*, Amsterdam, 1770, 12mo.—*La Science, ou les Droits et les Devoirs de l'homme, par L. D. H.*, Lausanne, 1774, 12mo.—*Lettre sur la législation par L. D. H.*, Berne, 1775, 3 vols. 12mo.—*Supplément à la théorie de l'impôt*, La Haye, 1776.—*Éducation civile d'un prince par L. D. H.*, Doulac, 1788, 8vo.—*Rêve d'un goutteux, ou le Principal*, (end of 1788) an 8vo pamphlet, his hopes of the Constituent Assembly about to meet.

[See *Mémoires . . . de Mirabeau écrits par Lui-même, par son Père, son Oncle, et son Fils Adoptif* (Lucas de Montigny), Paris, 1834-35, 8 vols. 8vo.—Mirabeau *fils*, *Lettres écrites du donjon de Vincennes . . . recueillies par P. Manuel*, 4me ed., Paris 1803, 8 vols. 12mo.—L. de Loménie, *Les Mirabeau*, Paris, 1879-91, 5 vols. 8vo (M. de Loménie has rehabilitated the private character of the elder Mirabeau by a careful examination of the facts which explain and in great measure excuse his severity towards his wife and children. He has convicted M. de Montigny of prejudice and misrepresentation, and has made clear the admiration which in his latest years the younger Mirabeau expressed for his father).—E. Daire, *Les Physiocrates*, Paris, 1846, 2 vols. 8vo.—L. de Lavergne, *Les économistes français du xviiie siècle*, Paris, 1870.—C. Knies, *Brieflicher Verkehr Karl Friedrichs von Baden mit Mirabeau und Du Pont*, Heidelberg, 1892, 2 vols. 8vo.—A. Stern, *Das Leben Mirabeaus*, Berlin, 1889, 2 vols. 8vo.—A. Oncken, *Der ältere Mirabeau und die oekonomische Gesellschaft in Bern*, Berne, 1886.—G. Schelle, *Du Pont de Nemours et l'École physiocratique*, Paris, 1888.—Strecheisen-Moulton, *J. J. Rousseau, ses Amis et ses ennemis*, Paris, 1865, 2 vols. 8vo.—Grimblot, *Souvenirs du Baron Gleichen*, 1868.—S. Bauer in Conrad's *Jahrbücher*, Bd. 1, H. 2, NF. 145.—Henry Higgs in *Economic Journal*, i. 262, iii. 354.—Unpublished manuscripts in the Archives Nationales, Paris.] H. H.

MIRABEAU, HONORÉ GABRIEL RIQUETTI, Comte de (1749-1791), born at Bignon near Nemours, and died in Paris.

A son of the Marquis of MIRABEAU (*q.v.*), the many wild incidents of his stormy life and the extraordinary force of his character caused him to occupy a very different position in general history from his father. The political career of the son is bounded by little more than two years (1789-1791), but during them he won an immense though an evanescent influence, and seemed for a moment as if he would have swayed the whole course of the revolution. "One can say that, had Mirabeau lived, the history of France and of the world had been different," Carlyle, *French Revolution* (chapter on "Mirabeau"). Here, however, we are concerned only with his economic reputation, which was far inferior to that of his father.

Though not a dogmatic economist, he employed his wonderful eloquence on subjects distinctly economic in character. Setting aside his dissolute youth and certain works regrettable for his reputation, and willingly omitting his acrid political writings, his pamphlets on *La Caisse d'escompte*, *la Banque Saint-Charles*, *la Compagnie des eaux*, and even his *Dénonciation de l'agiotage*, though they are polemical in character and directed against individuals and particular interests, and his speeches at the national assembly deserve attention, peculiarly the *Discours contre la banqueroute* (26th September 1789). The speeches and opinions of Mirabeau were published by Barthe in 1820, 3 vols. 8vo, and more recently by M. A. Vermorel, 5 vols. 12mo, in the *Bibliothèque Nationale*. A. C. F.

[See also LOMÉNIE, LOUIS DE.]

MIRO, VICENZO DE (18th century), was regent of the supreme council of Italy. Charles VI. emperor of Germany and archduke of Austria, appointed him president of the commission of 1718, summoned to organise a new census for the state of Milan. This census was celebrated in the history of taxation. The object of the system proposed was to remedy the inequalities of the ESTIMO (*q.v.*) fixed in 1548, and to establish a fair proportion between the payments of the contributors.

The commission presided over by Miro fixed the basis of the taxation, proposed the regulations required, and almost completed the whole work. Miro remained in office until 1731. The labours of the commission were interrupted by the war in 1733. The work was resumed in 1749 by a second commission, under the presidency of Pompeo NERI (*q.v.*). This was dissolved in 1758. A government commission rearranged the CATASTO (*q.v.*) in 1760.

[Carlo Lupi, *Storia dei principii delle massime e delle regole seguite nella formazione del catasto prediale introdotto nello stato di Milano l' anno 1760*. Milan, 1825.] U. R.

MISSELDEN, EDWARD (early 17th century), was deputy-governor of the merchant adventurers company at Delft between 1623 and 1633, and negotiated a private treaty with the Dutch and the East India Company, who employed him from 1624 to 1628 in their negotiations about the Amboyna outrages. He had various missions on behalf of the merchant adventurers. The appointment of the standing commission on trade in 1622 give rise to his—

Free Trade, or the Means to make Trade flourish; wherein the causes of the decay of trade in this kingdom are discussed, and the remedies also to remove the same are represented (Lond., 1622, 8vo, reprinted in 1651). The author points out (I.) the causes of the want of money here, which are (*a*) the value of English coins. These are current at a higher rate in Holland, whither the money is attracted. (*b*) The excessive consumption of foreign commodities. (*c*) The want of an East India stock here. (II.) The causes of the foreign want of money, which are (*a*) the recent wars; (*b*)

the trades maintained out of Christendom with ready money. The causes of the decay of trade are found by Misselden to be the scarcity of money and the want of the East India stock, also usury and heavy lawsuits. The fish trade is decayed by the encroachments of strangers on our coasts. The disturbances in the cloth trade, the ill-making and false-sealing of cloths, are also blamed. The export of wool and wool-fells is a grievance; and the author censures the merchants adventurers for their heavy impositions on English cloths. Ch. iii. deals with monopoly; and ch. iv. with the want of government in trade. The remedies proposed by Misselden are to make foreign coins current at equal value with our own, and so keep the money in the realm; to reform excessive consumption of foreign commodities by allowing only certain imports, say of the tobacco grown in Virginia or the Bermudas only. Merchant ships ought, he says, to go in fleets together for safety. The remedy for usury he finds to be the plentiful circulation of money and bills of exchange, and he advocates the total uprooting of monopolies. MALYNES (*q.v.*) attacked Misselden as overlooking "the predominant part of trade"—viz. the mistery of exchange. The latter replied in *The Circle of Commerce: Or the Balance of Trade, in defence of Free Trade, opposed to Malynes Little Fish and his Great Whale, and poized against them in the scale; wherein also exchanges in general are considered*, J. Dawson for N. Bourne, Lond., 1623, 4to. A. L.

[*Dict. of Nat. Biogr.*, xxxviii. pp. 51-2.]

MISTERY (or MYSTERYE; MYSTERY is a form dating from the 17th century), was a common designation in the later middle ages for a body of persons engaged in a particular branch of manufacture or trade, not in their capacity as individuals but as an organised group. It has no etymological connection with μυστήριον; and its association with that which is "mysterious" belongs to an age when its original meaning was forgotten. It is derived from the Latin *ministerium*, through the mediæval form *misteria*; and it was used precisely in the same way as the French forms *mistere, mestrer, mestier*, and *métier*. Its introduction into England was probably due to the use of French in official documents; and the native English term, which was used side by side and interchangeably with it, was *Craft*. W J. A.

MOFFAT, ROBERT SCOTT (19th century): The author of *The Economy of Consumption: An Omitted Chapter in Political Economy* (1878), in which Mill's theory of capital, his doctrine that there cannot be a general over-production of commodities, and other approved tenets and authors, are subjected to a hostile criticism. The practical outcome of the work is to recommend as "the true policy of the labourer" what is called a time-policy —that is, the limitation of the hours of the work, rather than of the rate of the wages. A portion of the work relating to this policy is reprinted as a separate book, entitled, *The Principle of a Time-Policy, being an Exposition of a Method of Settling Disputes between Employers and Labourers in regard to Time and Wages by a simple process of Mercantile Barter, without recourse to Strikes or Locks-Out* (1878). In the preface some reviews of the preceding work, one of them by Cliffe Leslie, all of them exceedingly unfavourable, are quoted at some length and rebutted. The author further enforces his principle in a letter to Lord Justice Bramwell on the *Regulation of Production*. He also wrote *Henry George the Orthodox*.

F. Y. E.

MOHEAU. This statistical writer of the 18th century scarcely received at the time the due acknowledgment of his deserts. Even his book *Recherches et Considerations sur la Population de la France*, was attributed by Lalande, in the *Journal des Savants*, to Montyon, who (see Meitzen, *History of Statistics*) assisted in the work. The first portion of the *Recherches* contains statistical tables, the second is devoted to the analysis of various causes likely to influence population.

The dedication "*à un roi*" is dated 1774, and the permission to print it, 1777 (*Dict. de l'économie Politique*, art. "Moheau.")

Moheau's work was published in Paris, Montard, 1778; 2 books of 280 and 160 pp. in 1 vol. 8vo.

[M'Culloch, *Literature of Pol. Econ.*, p. 264, speaks highly of it, moreover recommending his book as a model for similar work.] A. L.

MOHL, ROBERT VON (1799-1875) was successively professor of political science in the universities of Tübingen and of Heidelberg, an official in Wurtemberg, the minister of justice of Germany under the government of the Frankfort parliament of 1848, and the representative of Baden at Frankfort and Munich (1861-1871). At his death he was a member of the German Reichstag representing an electoral district of Baden.

His literary activity was considerable, his subjects being public and administrative law. His two principal works are the *Polizeiwissenschaft* (3rd ed. 1832-34, 1844-45, and 1866) and the *Geschichte und Litteratur der Staatswissenschaften* (1855-58). Mohl does not take the word *Polizei* in its present restricted sense of repressive justice, but in the wider sense of internal and administrative state-policy, as it was often understood by old German and French writers. According to his own definition, the *Polizeiwissenschaft* is "the systematically ordered science, which explains the principles on which the state ought to interpose to protect its citizens against overpowerful external hindrances," but his book only deals with the principles of the science in the *Rechtstaat*, or legal state, by which he means the state "where the collective life of the nation is so ordered that each individual member is helped and assisted towards the utmost possible free and many-sided display and utilisation of his individual energies." In the *Rechtstaat*, the scope of the state is thus mainly negative, although many not purely negative interferences may be sanctioned on motives of expediency and in new cases. For instance, Mohl would not be adverse, in cases of over-population, to compul-

sory emigration enjoined according to a lottery arranged much on the same basis as the military conscription in force on the continent. For all this, on the whole and in principle, the views of Mohl are those of a liberal statesman.

Mohl's *Geschichte und Litteratur der Staatswissenschaften*, is not written on the ordinary plan of a continuous history of development, but under the form of bibliographical monographs. It is a real monument of both historical and critical learning. It only deals with modern states after the end of the middle ages.

[Cohn, *Hist. of Pol. Econ.*] E. CA.

MOHUR. The Indian government mohur is a token gold coin valued formerly at the sum of 15 standard silver rupees. It weighs 180 grains (the same weight as the silver rupee), and is composed of gold of the millesimal fineness of 916·6̇. Its intrinsic value in sterling is £1 : 9 : 2½ (11½ fine), whereas the gold value of 15 rupees, owing to the low price of silver, has been fixed since 1893 at £1 (1 rupee = 1s. 4d.). The gold coins of India are, however, in practice bought and sold as bullion.

Besides the mohur there are gold pieces of the nominal value of 30, 10, and 5 rupees; these coins being proportionate in weight to the mohur, and of the same fineness. Prior to 1835 mohurs of slightly different values were issued in the three presidencies. The Madras mohur was of the same weight and fineness as the present coin; that struck in Bombay weighed 179 grains of gold 920 fine; while that issued at Calcutta was, from 1818 onwards, of the weight of 204·7 grains, 916·6̇ fine, and from 1793 to 1818 had been of the weight of 190·894 grains, 995·7 fine.

[R. Chalmers, *A History of Currency in the British Colonies*, 1893.] F. E. A.

MOHUR, HISTORY OF. A gold coin of northern India (Persian *muhr* "a seal"). Like the silver RUPEE, the gold mohur probably represents the old Indian weight of 100 *ratis* (seeds of *Abrus Precatorius*), or about 175 grains, and dates back perhaps to Vedic times. Its weight has fluctuated with the endeavour to maintain a ratio between silver and gold. Thus, in the 14th century the weight of the mohur was raised to about 200 grains, but gradually reverted to the ancient type. In 1766 the East India Company struck for Bengal a mohur, which for the first time was declared to be a legal tender of payment, as the equivalent of 14 sicca rupees; its gross weight was 179·67 grains, 833·33 fine, containing 149·72 grains of fine gold. In 1769 the Bengal coin was increased in gross weight to 190·773 grains of *sequin* fineness, containing 190·1 grains of fine gold, which was to be legal tender for 16 sicca rupees. In 1818, when the fineness was reduced to eleven-twelfths in accordance with the Company's principle of 1806 (see *infra*), the gross weight of the Bengal 16 rupee mohur was raised to 204·7 grains, making the fine weight 187·6 grains. In Bombay the mohur was not legal tender, but was approximately the equivalent of 15 Bombay rupees. From 1774 its gross weight was 17 grains, the millesimal fineness being 953 in 1774, and 920 from 1800 to 1833, with the result that the fine content of the "old" mohur was 170 grains as against 164·7 grains for the newer coin dating from 1800. Lastly, in 181 the Company struck a mohur for Madras, whic was to be a legal tender to government alone a 15 rupees. The following principles, whic were embodied in the Madras coin of 1818, wer laid down by the Company in 1806: "Althoug we are fully satisfied of the propriety of th silver rupee being the principal measure o value and the money of account, yet we are b no means desirous of checking the circulatio of gold, but of establishing a gold coin on principle fitted for general use. This coin, i our opinion, should be called a gold rupee, an be made of the same standard as the silve rupee, viz. 180 troy grains gross weight, an 165 troy grains fine gold." In 1835 by Ac XVII. the Company, in striking one uniform coinage for the whole of its dominions, and i establishing the Madras mohur as the type fo the new Company's mohur, enacted that "n gold coin shall henceforward be a legal tende of payment in any of the territories of th East India Company." The same principle were observed as regards the governmen mohur by Act XIII. of 1862, when the Company' rule came to an end, and again by section 1 of the India Coinage Act, 1870. The weigh and fineness of the coin have not been change since 1818.

[Bengal, *Regulations of the East India Company* Nos. xxxv. of 1793, xlv. of 1803, xiv. of 1818;—India Office records.—Sir James Steuart's *Principle of money applied to the present state of the coin o Bengal*, 1772.—Yule, *Hobson-Jobson, Gloss. o Indian Terms used in English*, 1886, pp. 438-39. R. C.

MOIDORE (PORTUGUESE). The Moeda d Ouro (or gold money) was a Portuguese coi issued from about the year 1640 to the yea 1732. It was of the millesimal fineness o 916·6̇ and weighed 83 grains, being, therefore, o the sterling value of 13s. 5½d. A double Moed de Ouro was also issued, and it is to this coin which had a world-wide circulation, that th name "moidore" is usually applied. F. E. A.

The coin known by this name, also calle the Lisbonnine, was reckoned equal to 1 crusados or 4000 reis; in 1688 Peter II. raise its rating to 4800 reis. Its uniform goodness fineness, and weight, soon made it a favourit coin both in Europe and in the British colonies Early in the 18th century, for instance, it wa the chief coin current in Ireland, and ha established itself in the West Indies, mor particularly at Barbados.

In Ireland it had appeared before the close of the 17th century, coming in, as Sir Isaac Newton tells us, in course of trade; rated at 28s. it was over-valued, and drove out silver and other gold, so that at the beginning of the 18th century, according to a contemporary writer, they were "reduced to moydores, the most inconvenient coin of all others in our present circumstances." Before the rating was reduced the coin had also spread over into, and become common in, the West of England.

In Barbados, whither it came about 1705, it passed for 35s. till 1715, and afterwards at 37s. 6d. And, although Mr. Chalmers calls it comparatively unimportant in the West Indies as compared with Spanish gold, in Barbados for many years the moidore was the usual coin named in local advertisements, and was clearly the most prominent coin in the island.

In spite of not being struck after 1732, it long remained in circulation, and only gradually gave way to its successor the JOHANNES (*q.v.*). The popular rating of the coin in English money was 27s., based on Sir Isaac Newton's rating in 1717, when he distinguishes between doppia moeda "new coined" 26s. 10½d., doppia moeda "as they come to England," 26s. $9\frac{19}{20}$d.

[Kelly's *Cambist*, 1831.—Eckfeldt and Dubois, *Manual of Gold and Silver Coins*, Philadelphia, 1851.—Chalmers, *Colonial Currency*, p. 396.]

C. A. H.

MOLESWORTH, SIR WILLIAM (1810-1855), eighth baronet, was educated in Germany; he afterwards went to Cambridge, whence he was expelled for challenging his tutor. He completed his studies at the university of Edinburgh. Molesworth was M.P. for East Cornwall from 1832 to 1837, following generally the lead of Grote, to whom he had been introduced by C. Buller. In 1835 he founded the *London Review*, which, after a few numbers, first by itself, and then of joint life with the *Westminster Review*, was finally, in 1837, absorbed in the latter. Molesworth's most noteworthy contributions are stated to have been "On the Orange Conspiracy," and "On the policy of the Radical Party in Parliament," (*London and Westminster Review*, April 1836 and January 1837). From 1837 to 1841 he represented Leeds in parliament. In the former year he obtained a committee of the House to inquire into the system of TRANSPORTATION (*q.v.*), and wrote the report, which strongly recommended its discontinuance. The four years 1841-45, during which he had no seat in the House, were mainly devoted to editing the works of HOBBES (*q.v.*). He returned to parliament in 1845 as member for Southwark, which seat he held till his death. From this time he chiefly applied himself to questions connected with the colonies. He strongly advocated the granting to them of complete self-government, and supported the views on colonisation of E. Gibbon WAKEFIELD (*q.v.*). There appears to have been considerable satisfaction in the colonies, when, after being first commissioner of works in Lord Aberdeen's government in 1853, Molesworth was made by Lord Palmerston, in 1855, secretary of state for the colonies. His period of office was too short for him to fulfil such expectations, but it may be noted that an act of his, in appointing a Canadian to the governorship of the Windward Islands, pointed the way to a method of consolidating the empire which is, at length, being followed. Molesworth was not a man of much originality of mind, nor a great orator or debater. He only spoke after laborious preparation, and his speeches, many of which were published, were of the nature of essays. He deserves notice as the first of the radicals to attain cabinet rank, though the peculiar kind of philosophic radicalism to which he adhered found little favour, on some grounds, with other members of the party.

[Molesworth's only literary work except articles in reviews, none of which were republished, and speeches, was an edition, in 17 volumes, of the *Works Latin and English of T. Hobbes*, London, 1839-46, 8vo.—See *Notices of the late Sir W. Molesworth* (privately printed), London, 1857, 8vo.—The *Dictionary of National Biography*, vol. xxxviii. notice by Mr. Leslie Stephen, which refers to *Philosophic Radicals of 1837* (privately printed) by Mrs. Grote, London, 1866.]

H. E. E.

MOLINA, LUDOVICUS (1535-1600), a distinguished Jesuit theologian of the 16th century, was a Spaniard by birth, and taught at Coimbra and Evora in Portugal. He was the author, among other works, of a treatise *De Justitia et Jure* (1593-1600), which dealt at considerable length with usury and the relation between business practices and moral theology (see INTEREST AND USURY). It was reprinted more than once, after his death, and exercised considerable influence on the subsequent development of economic thought.

[W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre* (i., 1874, ii., 1883), treats him as a signal example of that method of argumentation which, in his opinion, finally took away all practical force from the earlier canonist doctrine, see especially, i. 385, ii. 118, 249; cp. Ashley, *Econ. Hist.*, i. pt. ii. 452.]

W. J. A.

MOLINÆUS, CAROLUS, the Latinised name of Dumoulin, Charles (1500-1566), a distinguished jurist of Paris, was the author of *Extricatio Labyrinthi de eo quod interest*, and *Tractatus contractuum et usurarum redituumque pecunia constitutorum* (both in 1546), and of some other pamphlets on the problem of usury. In these, especially in the *Tractatus*, he criticised the canonist doctrine with a freedom which aroused a storm of condemnation. He was

forced to leave France, and his book was condemned to be burnt and put on the *Index*. In 1553 he accepted a professorship at Tübingen, and soon afterwards became a member of the council of the Duke of Würtemberg.

The opposition he encountered is not to be attributed to his practical conclusions, which scarcely went beyond some contemporary canonists of high authority, as NAVARRUS DE AZPILCUETA. Like them Molinæus approved of a regulation of interest by authority, and condemned uncharitable dealings. What seems to have distinguished him was his attack on the theory of usury itself,—his denial that all payment for the use of money was forbidden by holy writ, and bad in itself. The point at issue might seem to be a purely verbal and technical one: whether gain could be contracted for in consideration of a "loan" (MUTUUM) *eo nomine*. According to the current definition of the canonists, *mutuum* involved so complete a transference of property, that payment for the *use* became inconceivable. But what was really involved was the whole conception of usury, which the Roman Catholic Church was not disposed to abandon, and has not abandoned to the present.

[Endemann, *Studien*, i. p. 62.—Böhm-Bawerk, *Capital and Interest* (Eng. trans.), p. 29.—Ashley, *Econ. Hist.*, pt. ii. p. 454.] W. J. A.

MOLLIEN, FRANÇOIS NICOLAS, Comte, (1758-1850) born at Rouen and died at Paris, was one of the ablest administrators of finance during the first empire. He began at the age of sixteen in the office of the FARMER-GENERAL, which he left in 1791 for cotton-spinning in the environs of Evreux (Eure). In 1799 the first consul summoned him back to office, and entrusted him with the administration of the sinking fund, then just instituted. Mollien discharged the duties of his office with the most absolute honesty and with great ability, order, and punctuality. The emperor, who highly appreciated these qualities, appointed him, 27th January 1806, minister of the treasury in the place of Barbé-Marbois, who had been unable to defend himself against the insidious manœuvres of Ouvrard. Mollien held this post during the empire and the *cent jours*. From 1801 to 1815 the treasury was separated from the department of finance, strictly so called, and constituted a separate department. Under the restoration and the government of July, Mollien accepted no public office, though he was twice offered the administration of finance in the early part of the reign of Louis XVIII., but in 1819 he was made a peer and in this quality sat in the Luxemburg until 1848.

In many pamphlets on subjects of the day (1818), in parliamentary reports and some scattered notes, Mollien produced work of great value. He began to write, after 1817, his *Mémoirs d'un ministre du trésor public*, 1780-1815, 4 vols. 8vo, 1845. In 1837 a first, but very imperfect, edition was published. This remarkable work has never been on sale, and copies of it are very rare. The absorbing personality of Napoleon I. did not allow Mollien's talents their full value; but his memoirs exhibit the solidity of his intellect, the sincerity of his statements, and the breadth of judgment which he applied to the incidents passing under his eyes, and to the events on which it is to be regretted that he had not a greater influence. Mollien was a man of strong character, and notwithstanding his devotion to Napoleon, who in his eyes represented France from 1800 to 1815, he maintained the right of expressing his opinions freely and his independence. At the council of state before 1806, and as minister of the treasury, he had often to oppose the ideas of Napoleon, who, however, was never displeased with him. He even sought his conversation and invited his criticism. Napoleon was not displeased with the boldness of Mollien, who after his conversations with the head of the state reproduced the whole of them in his memoirs. This gives that book its great importance. It is known that Mollien's father, a leading merchant, put the *Wealth of Nations* into the hands of his son as soon as the translation of Germain Garnier was published. The reading of this early fixed Mollien's views on the great truths of economics, as the perusal of his memoirs proves.

[See W. Bagehot's *Econ. Studies* (ed. 1880, p. 2), and his reference to Napoleon's phrase *Ce bon Mollien qui me donne des francs pendant que les autres ne me donnent que des idées.*—Also Cl. Jannet in *Le Capital, la spéculation et la Finance au XIXe siècle* (1892).] A. C. F.

MOLMEN were a class of manorial tenants defined by Vinogradoff (*Villainage in England*) as "rent-paying tenants who may be bound to some extra work, but who are very definitely distinguished from the 'Custumarii,' the great mass of tenants who render labour services." He regards them as standing below the freeholders, but as having risen from real serfdom by getting their tenure fixed and their services commuted, drawing this distinction between *mal* (a Danish word = rent) and GAFOL, that the former was a commuted, the latter an original money payment. If this view is correct—and the matter can hardly be regarded as settled—the chief interest of molmen and of their holdings, "molland," is the illustration they afford at an early period of the process by which the villeins in general afterwards became free. The word is of fairly frequent occurrence, especially at the time of Edward I.

[*English Hist. Review*, articles by Elton and Vinogradoff, July 1886, Round, January 1887, Stevenson, April 1887. For law of dower and female inheritance among molmen and for some differences between "mollond" and "werklond," see Archdeacon Hale, *Domesday of St. Paul's.*] E. G. P.

MOLSTER, JOHANNES ADRIAAN (1827-1889).

A Dutch lawyer and writer of essays on public subjects in reviews, was the author of a *Geschiedenis der Staathuishoudkunde* (Amsterdam, 1857), a history of political economy, interesting for the information given in it on Dutch economic literature. E. Ca.

MONCADA, Sancho de (beginning of the 17th century) lectured on theology in the university of Toledo, and published, in 1619, eight *Discursos* on various economic subjects, which were the uncompromising expression of the prohibitive tendencies then prevalent in Spain, and, consequently, obtained a wide celebrity among his countrymen. They were republished at Madrid in 1746 under the title *Restauracion Política de España*. Moncada does not admit for a moment that the wars abroad, the system of laws, the excessive number of idle persons, the debasement of the currency, etc., could fairly be looked upon as responsible for the depressed state of Spain: "the misfortune of Spain flows from the trade with foreigners, who carry away our raw material and our silver," p. 9, ed. 1746. His only remedy is the prohibition of exports of raw materials and precious metals, and of the imports of manufactured articles, enforced by the penalty of death pronounced against smuggling, and the delivering to the Inquisition of all persons accused of exporting money, "as this money is going to assist the enemies of the church," p. 40 of the 1st Discourse, *Riqueza Firme de España*. Still Moncada is aware that the influx of American gold and silver, had brought about the general rise of prices, which had put Spanish industry at a disadvantage in its competition with foreign countries, where the rise of prices was proceeding more slowly, *Disc.* on *España con Moneda*, p. 54.

Moncada concludes by demanding the erection of a special university for political science in Madrid, and the institution of lectures on the same subject in the provincial universities. These lectures are to be delivered in the vernacular language, not in Latin, pp. 147-159.

[Colmeiro, *Hist. de la Ec. Pol. en España*, ii., pp. 333-334.] E. Ca.

MONDAYLAND. See Lundinarium.

MONEDA FORERA, a poll tax levied first every seven and then every five years, by the kings of Castile, and paid as an acknowledgment of their royal prerogative. In time of financial distress the *Cortes* often granted at once three, five, or more *monedas*. E. Ca.

MONEDA, Pedidos, or Servicios (*Peita* or *Pecha* in Aragon), are the names given to the extraordinary subsidies voted by the *Cortes* of Castile. They were apportioned, but in a very irregular way, amongst the inhabitants according to their presumed means; it was considered by some towns a valuable privilege to be exempted from them by their *fueros* or charters. It was officially admitted that "they yielded little and left the fields untilled"; still many of them became permanent, under the name of *servicios ordinarios*. Noblemen and the clergy were exempted from the *servicios ordinarios*.

[Canga Arguelles, *Diccionario de la Hacienda* (London, 1826).] E. Ca.

MONEDAGE, a general tax levied in Aragon on all movable and real property. Knights were the only persons exempted from *monedage*. E. Ca.

MONETARY CONFERENCES (International). Four times in recent history the leading powers of the western world have met together by diplomatic arrangement to confer on monetary problems. These four great conferences, known as International Monetary Conferences, *par excellence*, were held at Paris in 1867, 1878, 1881, and the fourth in 1892 at Brussels. International conferences on monetary questions are, however, not restricted to these. The German states before the foundation of the empire, Germany and Austria, the Scandinavian kingdoms, the papal states, and the countries of the Latin Union, have held many monetary conferences of an international character, but only the four great conferences, in each of which over twelve countries were represented, are included in the scope of this article.

France and the countries of the Latin union enjoyed the privilege of a certain reciprocity in monetary policy, and the benefits of a common monetary unit many years before the formation of the Latin union in December 1865. The men who were instrumental in bringing about the union entertained bright dreams of the possibility of an international union of much greater dimensions, and of the establishment of an international money based on a common unit of value and standard of weight and fineness. The success attending French efforts in outlining the policy of the Latin union led her government to undertake the greater task of relieving the commerce of the world of the difficulties and inconveniences of international exchange. Hence France sent out invitations to all the powers to join her in a conference to this end to be held in Paris, June 17th, 1867. Previously France had, through diplomatic correspondence, submitted copies of the Latin union treaty to the powers, and called special attention to the clause whereby other states might be admitted, and asked at the same time for a statement and discussion of the objection that any state might have to becoming a party to this compact. The idea at the basis of the conference called was in reality the extension of the treaty of 1865, though the invitations stated that "the commissioners will assemble without any programme arranged in anticipation—(and)—the conference proposed has not otherwise any immediate object than to call

out an interchange of views and discussion of principles; in a word to seek for the bases of ulterior negotiations."

Representatives of eighteen of the principal countries of Europe, and the United States of America, assembled under the presidency of the French minister of foreign affairs, and subsequently under that of the vice-president of the conference, the distinguished writer on money, M. de PARIEU, who at that time was vice-president of the French Council of State. Eight sessions in all were held, and the whole discussion centred in the question of uniformity of coinage. Few signs were visible of the "battle of the standards," "the future of silver," "bimetallism," etc., and similar questions which have been the all-absorbing topics of subsequent conferences. Following the order of topics arranged by an international committee, able and dignified discussion was given to all difficulties which might arise from any attempt to unify the coinage of different nations. The U.S. expressed itself willing to coin a gold dollar and its multiples, equal in weight and fineness to 25 frs., and urged France to issue a coin of this value, and England to reduce the sovereign to the value of 25 frs., and change its fineness from $\frac{11}{12}$ to $\frac{9}{10}$ fine. The cost and difficulty of re-coinage was thoroughly discussed, and the commissioners soon gave up any idea that may have been entertained of applying uniformity to any other than gold coins of which there seemed to be a relative scarcity, but which the majority of the countries seemed determined to introduce as soon as possible.

The first decision reached by the conference was that the cost to the several nations of adapting their coinage systems to some known and existing system would be less than in the case of the adoption of an entirely new system, and that under existing circumstances the Latin union treaty of 1865 offered the best basis for a general agreement. Secondly, gold was declared to be the only standard suited to international money; Prussia, the most important silver-standard country represented at the conference, voted also for gold, it being agreed that some time might be necessary in which a transitional silver or double standard would obtain in silver-standard countries. The Netherlands was the only country to vote against the gold standard. It is interesting to note that Mr. Ruggles, the representative of the United States, declared emphatically that the United States had the gold standard, though the double standard existed legislatively but had been virtually abolished in practice. A scarcity of gold was, however, feared, and a resolution was adopted to the effect that "in countries that have had the silver standard up to this time, as well as in those of the double standard, that the relation between the value of gold and silver should not be established at a rate too low to permit the serious introduction of gold." It is significant that Prussia voted "no" on this resolution, and the United States refused to vote.

Additional dignity and importance was attached to the conference by the Emperor of France deputing Prince Jerome Napoleon to preside over the sessions after the fourth session, and the fact that the Prince emphasised in strong language the chief aim of the conference and the hope that practical results in the shape of international diplomatic treaties on the subject would be accomplished. So positive a statement rather frightened the English delegates, and Sir Rivers Wilson reminded the president of the purely deliberative character of the proceedings according to the terms of the invitation, and further declared that England would occupy a very independent position with respect to changing her system of monetary units, weights, and standard to conform to any continental system.

The question of desirable fineness was readily settled at $\frac{9}{10}$ standard, and a unanimous vote declared that "there should be types with a common denominator for weights in gold coins of identical fineness." The five-franc piece was adopted as the common denominator, although a larger unit (*e.g.* ten francs), met with some favour in the discussion, and England and Sweden voted against the five-franc piece. It was further agreed that gold coins, with the common denominator of five francs, should have legal circulation in the states mutually bound by the monetary treaties. The twenty-five franc piece was added to the list of coins, though the fifteen franc piece, intended to harmonise with existing coinage in Holland and in South Germany, was rejected by a close vote.

With this the labours of the conference practically ended. The delegates supposed that they had found the basis of a fixed and fundamental international system of money in adopting the gold standard, coins of equal weight and fineness, and divided according to the decimal system with the five-franc piece as a unit. Such understanding applied only to gold coins: each state was to remain free to coin silver for change in any way it pleased.

France agreed to assume responsibility for re-convening the conference if further negotiation was necessary after replies had been received from the various governments upon receipt of the proceedings of the present one; an answer was requested on or before 15th February 1868. England favoured a much longer period of delay, and several other countries preferred some extension of the time to permit the question involved being discussed in their respective legislatures. The conference adjourned with buoyant hopes of success on 6th July 1867, but the results of its labours never met with a sufficiently successful response on the part of the powers to warrant a re-convening of the conference.

Certainly no more praiseworthy, prudent, and intelligent effort to bring about uniform coinage has ever been made, but it merely demonstrated that any such uniformity among nations, differing widely in habits and customs, cannot be secured at one blow, but must come, if ever, as the result of a very gradual evolutionary process.

The second international monetary conference was called by the United States of America in pursuance of an act of congress dated 28th February 1878, which directed the President to invite the governments of Europe to join in a "conference to adopt a common ratio between gold and silver for the purpose of establishing internationally the use of bimetallic money, and securing fixity of relative value between those two metals." Faith in international bimetallism as a remedy for monetary evils had gained ground since 1867. The silver production of the U.S. had attained immense proportions, and had secured as an industry great political influence in congress. The U.S. silver commission had made an elaborate report in 1876. Germany was well established on a gold basis, and German silver had disturbed the market and threatened greater depreciation. Some form of international bimetallism seemed feasible, and the question of ratio, it was thought, was the great obstacle which a conference might settle. The conference met in Paris, 16th August 1878. Twelve countries were represented. Germany alone of the great powers declined to participate.

The United States submitted two propositions: —(1) "It is the opinion of this assembly that it is not to be desired that silver should be excluded from free coinage in Europe and the United States of America. On the contrary, the assembly believe that it is desirable that the unrestricted coinage of silver, and its use as money of unlimited legal tender, should be retained where they exist, and, as far as practicable, restored where they have ceased to exist." (2) "The use of both gold and silver as unlimited legal tender money may be safely adopted: first, by equalising them at a relation to be fixed by international agreement; and secondly, by granting to each metal at the relation fixed equal terms of coinage, making no discrimination between them."

These propositions were discussed at great length, and much documentary evidence was presented, from several countries, bearing on their coinage and their attitude towards silver. The collective answers of the European powers, with the exception of Italy, to the propositions of the United States were presented at the seventh and last session, 29th August, in the following form:— "The delegates of the European states represented in the conference, having maturely considered the proposals of the representatives of the United States, recognise (1) that it is necessary to maintain in the world the monetary functions of silver as well as those of gold, but that the selection for use of one or the other of the two metals, or of both simultaneously, should be governed by the special position of each state or group of states. (2) That the question of the restriction of the coinage of silver should equally be left to the discretion of each state or group of states, according to the particular circumstances in which they may find themselves placed; and the more so, in that the disturbance produced during the recent years in the silver market has variously affected the monetary situation of the several countries. (3) That the differences of opinion which have appeared, and the fact that even some of the states which have the double standard find it impossible to enter into a mutual engagement with regard to the free coinage of silver, exclude the discussion of the adoption of a common ratio between the two metals." The delegates of the United States, in replying to these answers, stated that they had come to the conference expressly to enter into a mutual engagement for the free coinage of silver, and that the failure of attaining any practical results did not rest with them. The Italian delegates maintained that the conference "in systematically avoiding to pronounce itself upon the possibility or impossibility of a fixed relation, to be established by way of international treaty, between coins of gold and silver, leaves its task unfinished." They further claimed that the French ratio could be maintained by France, England, and the United States.

The third international monetary conference was convened by joint action of the French and American governments, "to examine and adopt, for the purpose of submitting the same to the governments represented, a plan and a system for the establishment of the use of gold and silver as bi-metallic money according to a settled relative value between those metals." The conference met at Paris in July 1881, and held thirteen sessions.

Nineteen countries were represented. At the close the following declaration was made in the name of the French and American governments:—"(1) That the depreciation and great fluctuations in the value of silver relatively to gold are injurious to commerce and to the general prosperity, and the establishment of a fixed ratio of value between them would produce the most important benefits to the commerce of the world. (2) That a bi-metallic convention entered into by an important group of states for the free coinage of both silver and gold at a fixed ratio and with full legal-tender faculty, would cause and maintain a stability in the relative value of the two metals suitable to the interests and requirements of commerce. (3) That a convention which should include England, France, Germany, and the United States, with the concurrence of other states, which this combination would assure, would be adequate to produce and maintain throughout the commercial world the relation between the two metals that such convention should adopt. (4) That any ratio now, or lately, in use by any commercial nation, if so adopted, could be maintained, but that the adoption of the ratio $15\frac{1}{2}$ to 1 would accomplish the object with less disturbance to existing monetary systems than any other ratio."

This declaration met with outspoken opposition especially from Mr. Forsell of Sweden, who said that it was better to acknowledge at once that bimetallism had collapsed, and that the resolutions of the European delegates at the conference of 1878 should be re-affirmed. The conference adjourned to 12th April 1882, to give time for further instructions from the several governments and scope to diplomatic negotiations, but was never reconvened.

At the international exhibition of 1889 at Paris, an attempt was made to organise a monetary conference. A number of sessions were held and many eminent persons took part. The report of the discussions can be found in the general reports of the exhibition. This conference, however, is rarely mentioned as one of the international conferences, because no official importance was attached to its proceedings, and its delegates were not appointed directly by their respective governments for this purpose.

The fourth international conference was called by the United States "for the purpose of conferring as to what measure, if any, can be taken to increase the use of silver as money in the currency systems of nations." It met at Brussels, 22nd November 1892, and held ten sessions, adjourning 20th December to meet 30th May 1893. Twenty countries were represented. As the United States called the conference, it was expected that the American government would have some definite plan to present for securing the end in view—an increase in the use of silver. The instructions to the American delegates were extremely vague, simply saying that they should do all in their power to "bring about a stable relation between gold and silver . . . (and) to secure, if possible, an agreement among the chief commercial countries of the world looking to international bimetallism . . . (and) failing to secure international bimetallism . . . to secure some action upon the part of European countries looking to a large use of silver as currency, in order to put an end to the further depreciation of that metal." After some delay at the beginning of the conference, the representatives of other countries refusing to express any opinions until the United States presented a plan, the following general declaration was made on the part of the United States delegation:

1. That the re-establishment and maintenance of a fixed parity between gold and silver, and the continued use of both as coined money of full debt-paying power, would be productive of important benefits to the world.

2. That these ends can be accomplished by removing the legal restrictions which now exist on the coinage of silver into full legal tender-money, and restoring by international agreement the parity of value between the metals which existed prior to 1873 at such ratio as may be decided upon by this conference.

3. That the essential provisions of such an international agreement should be

1. Unrestricted coinage of both gold and silver into money of full debt-paying power.
2. Fixing the ratio in coinage between the two metals.
3. Establishing a uniform charge (if any) to the public for the manufacture of gold and silver coins.

The discussion of this programme, which was so general and contained nothing but a re-statement of the old bimetallic position, soon proved futile and destined to come to nought. The American delegates said that the complications arising from their ignorance of the public law of the different European countries made it impossible for them to outline a more detailed scheme except after much discussion on the part of the conference. They called attention to a plan which had been proposed at the conference of 1881 by M. Moritz Levy to withdraw gold coins and notes of less value than 20 francs, and that of Adolph Soetbeer which was published in the *Hamburgische Börsenhalle* for 23rd August 1892, and in the *Neue Freie Presse*, Vienna, 20th September 1892, shortly prior to Dr. Soetbeer's death. Dr. Soetbeer proposed:

1. The acknowledgment of a fixed weight of pure gold as a universal basis for currency.

2. Recoining all gold and issuing no gold coins of less than 5·8065 grammes of pure gold (= 20 francs or $3,96) at mint charges of 2 per thousand (= $\frac{2}{10}$ of 1 per cent) and agreement to withdraw from circulation all smaller gold coins within a period of ten years.

3. Issue of gold certificates for gold deposits in amounts, or multiples, of 500 grammes of pure gold, upon actual deposits of coin.

4. Retirement of all paper money representing less than the value of 5·8065 grammes pure gold and to issue no more.

5. Retirement within fifteen years of all silver coins current with a value of more than 10 per cent of the fixed minimum gold coin, and coining major silver coins to be receivable for all public dues by the country issuing them, to any amount, at the ratio of 20 to 1; to be legal tender to thrice the amount of lowest gold coin; coinage only on government account.

6. Subsidiary silver coins to be issued as each country may determine.

7. Silver certificates to be issued only against actual deposits of major silver coins, in denominations of half the smallest gold coin or any multiple.

8. Mutual reports of laws and operations to be exchanged annually.

9. Withdrawal from compact only upon one year's notice.

These two propositions, together with that of Baron Alfred de Rothschild, for the establishment of a union of the governments represented, into a syndicate which should guarantee the purchase of £5,000,000 sterling worth of silver annually for five years, provided the price did not go up beyond 43 pence per ounce standard, and also provided the United States government continued its purchases of 54,000,000 of ounces yearly,

received the chief share of attention at the conference. Suggestions, looking to the withdrawal from circulation of small notes and small gold coins in order to force more silver into use and the issue of silver certificates on bars, and schemes requiring privileged banks of issue to hold silver as well as gold reserves, had been made at the conference of 1881 but had attracted little attention. The discussion of such measures, looking to the increased use of silver, but maintaining strictly the gold standard, was the characteristic feature of the Brussels conference. The plans already mentioned, as well as others made by M. Tietgen, Sir Wm. Houldsworth, M. Allard, M. de Foville, M. Forsell, M. M. Levi, and M. Sainctelette, were referred to a special committee of twelve, which made two reports, in one of which the plan of M. Moritz Levy was favourably recommended. The president of the conference declared that he found it impossible to keep the ensuing discussion to the subject before the conference, namely, the report of the committee; it would expand in all cases to a discussion of the general principles of bimetallism. It was therefore agreed that the simple proposition of the United States, respecting bimetallism, be taken up. Long discourses followed; that of Senator Jones of the United States, which covers 100 folio pages of the *Procès-verbaux*, going into the greatest detail. A few sessions of aimless general discussion sufficed to show that no agreement could be reached between the advocates of the single and double standard. The usual statements that the other countries must wait for England to take the initiative in a bimetallic union were made, and the usual device, adjournment for further advice from the several governments, was followed. The conference adjourned, to meet 30th May 1893, but was never re-convened. The debates of this last conference were less original and of less value than those of any of the preceding ones. The questions discussed had become firmly rooted in the politics of the various countries, and the discussion was consequently less free and untrammelled. The specific propositions for temporary, if not permanent, relief of generally admitted congested monetary symptoms, which to some extent distinguished the Brussels conference from its predecessors, can hardly be said to have received the discussion and adequate consideration they deserved, so intense was the feeling on the general bimetallic controversy.

Since the adjournment of the Brussels conference the parliaments of England and Germany were both compelled by strong political pressure to pass resolutions (House of Commons, Res. 26th February 1895, German Reichstag, Res. 16th February 1895) favouring another conference, and the congress of the United States, just previous to its recent adjournment, passed a resolution (3rd March 1895) providing for the appointment of delegates should a new conference be called. Later (July 1895), all interested parties were looking to the chancellor of the German empire to take the initiative in calling another conference, but he did not relish the responsibility, being disinclined to take action until forced to do so by the agrarian-bimetallic party in Germany. On 17th March 1896, the House of Commons agreed to a resolution urging on "the Government the advisability of doing all in their power to secure by international agreement a stable monetary par of exchange between gold and silver." No immediate action however appears likely to follow.

[The official proceedings of the various conferences have been published in the French language under the general title *Conférence Monétaire Internationale*, Procès-verbaux. The dates of these publications are as follows:

(1) *Pub. of the Ministère des affaires étrangères*, Paris, Impr. imp., 1867.—(2) Ditto, Paris, Impr. nat., 1878.—(3) Ditto, 2 vols. *a.* Sessions 1 to 8, avril-mai, 1881. Paris, Impr. nat., 1881, p. 341. *b.* Sessions 9 to 13, juin-juillet, 1881, p. 226, Paris, 1881.—(4) *Conférence Monétaire Internationale*, 1892, Procès-verbaux. Bruxelles, 1892, p. 424.

These official reports have been translated into the various European languages by the various governments that participated. For English translations, see the following:

"Report of the Master of the Mint and Mr. Rivers Wilson on the Inter. Mon. Conf. held in Paris, June 1867." London, March 1868.—"Diplomatic Correspondence" (U. S. Cong. Pub.), 2nd Sess. 40th Cong., vol. i. 1867-68, pp. 295-380. (Contains the diplom. cor. of the American government, the report of the U.S. commissioners, and the full text of conference of 1867.)—International Monetary Conference, 1878. Washington, Govt. Printing Office, 1879. Sen. Exec. Doc., No. 58, 45th Cong., 3rd Sess., p. 910. (A huge volume containing English translation of proceedings and several hundred pages of historical material, collected by S. Dana Horton, bearing on monetary treaties and the monetary question in general.) Proceedings of the International Monetary Conference, 1881 (April, May, June, and July). Washington, 1877, p. 558. H. R. Misc. Doc. 396, pt. 3, 49th Cong. 1 Sess. Proceedings of the Brussels Monetary Conference. Washington, 1893, Govt. Printing Office.

For summaries of the proceedings and brief discussion of the work of the several conferences, see *Coinage Laws of the United States*, 1792-1894, 4th ed., Washington, 1894, p. 847. Also *Monetary Systems of the World*, by M. L. Muhleman, pp. 170-176, New York, 1895. (Not always free from slight errors in statement of facts).]

S. M'C. L.

MONEY. The term "money" is applied to any commodity, whatever its substance or its form, which, whether by law or by convention, becomes the common medium of exchange in any community. The difficulties of BARTER or TRUCK, that is of direct exchange, are so great that subdivision of labour and diversification of industry can be carried but a very little way under such a system. Tribes in no very advanced stage feel the need of a common medium of exchange; hence, the history of money is almost co-extensive with the history of mankind beyond the purely savage state. Oxen were used as money among the Greeks of the Homeric period. Sheep served the Italians

at a later period, as the common medium of exchange. After the abandonment of Britain by the Romans, we find the inhabitants, in the scarcity of coin, returning to the use of "living money," especially in Scotland and Wales. "It is very possible," says Sir Henry Maine, "that kine were first exclusively valued for their flesh and milk; but it is clear that, in very early times, a distinct and special importance belonged to them as the instrument or medium of exchange." Cattle and sheep may be a good money or an inconvenient money, according to the circumstances of the community. In a pastoral state they present many advantages. They carry themselves, and thus avoid one of the objections to the employment of grain. The opportunities for grazing which everywhere exist, and the familiarity of all persons with guarding and tending animals, reduce the trouble and risk of using them. On the other hand, cattle and sheep have two serious drawbacks as money. The first is, that each animal represents too large an expenditure of labour to answer in small purchases. Even calves and lambs scarcely meet the requirements of "change." The second drawback is, want of uniformity in quality. Even in a picked herd or flock there is great room for choice. If goods are sold for cattle or sheep, the buyers will pay in the smallest and lankiest specimens to be found. This was the experience of the Massachusetts colony so long as cattle were received in payment of taxes. If such disadvantages attend the use of "living money" even in a pastoral state, the cost of keeping them and the risk and trouble which attend their nurture and custody in any highly civilised state are so great as absolutely to preclude their use. Of the cereals, wheat, corn, and rye have extensively fulfilled this office. These and other grains have two important qualifications for such use: (1) the being in universal request for consumption as food; and (2) in allowing almost indefinite subdivision. But they are subject to two serious drawbacks: (1) in the great weight of a quantity which represents a day's labour; and (2) through their liability to deterioration from rust, insects, excessive moisture, undue heating, or the mere passage of time.

The literature of travel is full of stories regarding the rice money of the Coromandel shore, the cacao money of the aboriginal Mexicans, the oil money of the Ionian islands, the rock-salt money of Abyssinia, the wampum money of the early New Englanders, the tobacco money of Maryland and Virginia in the same period, the tea money of the Russian fairs, the date money of the African oases, the beaver and sealskin money of many northern countries, and a host of other commodities adopted, in one place or another, for meeting the requirements of a common medium of exchange. One great class of substances have a peculiar importance in the history of money, from the earliest times and amid a wide circle of nations. The metals, especially seven of them, have been found to possess in a high degree the material properties required. Iron, lead, tin, and copper, one or another, early became the money of most of the countries whose history is known. The money of Lacedæmon was of iron; and this metal, at least until recent times, served the inhabitants of Senegambia; Sweden, when impoverished by the wars of Charles XII., went back to the use of Copper Money (*q.v.*). Lead was extensively employed in exchange by the early Romans and the early English; and is still given and taken in Burmah in small payments. Tin was used by the Mexicans as money, even after silver and gold were known. It was long so employed in Sweden; and more recently served in that capacity among the Chinese, along the shores of the Malay peninsula, and in Prince of Wales' Island. Of the four metals named, however, copper has the greatest importance in the history of money. From its higher cost of production it superseded iron when that metal came, in the development of mining industry, to possess a value for its bulk unsuited to the uses of exchange; while yet silver was too precious for the ordinary transactions of daily life. During the silver famine of the middle ages, copper came back to be the principal money of the people of Europe. The employment of copper in a diminishing degree has continued in Europe and America nearly down to our own day; but this metal, or recently the closely allied bronze, has now sunk in all civilised states to the rank of "token-money," or change. Over no small part of the world, however, it is still an important element in the monetary circulation. We have now to speak of a fifth metal. Between 1828 and 1845 the emperor of Russia sought to bring platinum into use as a money metal; but the effort failed, owing to the extreme difficulty of rendering that metal from ingots into coin, and from coin into ingots, as the exigencies of exchange might require.

Of all the metals, two have enjoyed a pre-eminence in the history of money which has given them the name of the Precious Metals. Not that they are the most costly. Several are more valuable even than gold; but this is true only of metals found in extremely limited quantity, like iridium or venadium, far below the requirements of a general medium of exchange. Of the two precious metals, silver was first used as money. We read of it in early Hebrew history. It was long coined by the Greeks and Romans, while gold remained merely treasure, devoted to regal and sacerdotal

uses. The extreme beauty of silver, with its numerous applications to the economy of life, make it an object of admiration and desire among people of all degrees of social advancement. Easily fusible, highly ductile, nearly imperishable, silver would have filled our utmost conception of a money-metal did not the earth yield one transcendent product, in comparison with which even silver fades from desire. "The compendious value of gold," to use Mr. Jacob's expression, allowing a vast amount of purchasing power to be concentrated for conveyance or concealment in little bulk; its durability, its fusibility, ductility, and malleability, properties of the highest importance for the purposes of coinage and circulation, and its numerous uses in the industrial and decorative arts,—all these combine to make it chief of money-metals.

The foregoing are among the articles which have served the world in one stage or another of social advancement, as the common medium of exchange. It is of the essence of money that all persons who have anything to sell shall take it as a matter of course. The extensive use of an article in exchange does not necessarily make it money. Those transactions, however numerous and important, may be nothing but acts of barter. So long as men take an article in exchange, having any great degree of uncertainty as to their finding a person who will take it from them; so long as men accept it with the feeling that it is something which they are buying, and which they will have to sell over again, something for which they must needs hunt up a purchaser, that article is not money. Anything to be money must have acceptability so nearly universal that practically every person who has any product or service to dispose of will freely take it, in preference to seeking, at the time, the specific products or services which he may require from others, since he is fully assured that with this thing, money, he can, at times and in form and in amount to suit his immediate necessities, obtain what he shall desire. Each person, thus, whatever his place in the industrial order, accepts money without reference either to his own need to consume any of the particular article so used, or to the character or the credit of the person who offers it. When he has anything to sell, he takes money from any man, because he knows that any other man will take it from him whenever he wishes in his turn to buy. If an article reaches this degree of acceptability, it becomes money, no matter what it is made of or why people want it. The carved pebbles formerly used by the Ethiopians, the wampum which circulated in the 17th century between the New England colonists and the natives, the glass beads used along the Arabian Gulf, the shells and red feathers employed throughout the isles of the Indian Ocean, were all money, though capable of serving no purpose but that of ornament and decoration.

We have thus far spoken of the principal, the characteristic function of money, namely, that of the common medium of exchange. This is the distinguishing office of money. Whatever does this is money. But incidentally, money performs another important service to exchange, namely, by furnishing a price-list, or price-current, of all articles in the market. Since these are, by turns, exchanged for money, each is expressed in terms of money; and, in consequence, all can at once and readily be compared among themselves as to value. The value of any article in terms of money is called its PRICE. The foregoing office of money has been termed by economists generally that of a measure of value; but that term is not descriptive, and has proved highly misleading. A better statement would be that money in this connection fulfils the office of the common denominator in exchange, or denominator of values (see DENOMINATOR, COMMON). The numerators consist of the prices of the several articles in the market; and, inasmuch as the denominator is common to all, these can readily be compared among themselves. Some economists have made the mistake of speaking of this as an independent, and even as the principal office of money. Thus, Mr. Mill says that "the first and most obvious" of the inconveniences of doing without money would be "the want of a common measure of values": and Prof. Francis Bowen says, "We can do without money as a medium of exchange, and can even barter commodities for other commodities without the use of any medium. But we cannot do without money as a common standard or measure of value." Even Prof. Jevons writes as if one article might serve as a medium of exchange, while another might serve as a measure of value, in the same community. But it ought to be perfectly evident on a moment's reflection that it is only by, and through, an article being used as the common medium of exchange, that we obtain the prices which make up the price-list or price-current. Consequently, if we did without money as the medium of exchange, we should perforce have to do without it as the denominator of values. Having thus seen the two ways in which money, even in societies but a little advanced industrially and commercially, facilitates exchange, allowing the division of labour to be carried out to its economic maximum, time and place considered, we are prepared to make a better statement than that yet offered regarding the primitive function of money; and we say that money serves as the common medium of exchange: (*a*) dispensing with "the double coincidence of wants and of possessions," to use the phrase of

Prof. Jevons, which is involved in direct exchange; (*b*) furnishing a price-current of all commodities in the market.

Regarding the philosophy of money in its uses thus far described, there is practically no difference of opinion among economists of standing. The value of money is admitted by all to be governed by the operation of the ordinary law of demand and supply. There being—in any community, at any time, according to the state of the arts and according to the extent to which the division of labour has been carried,—an economic need or demand for a certain amount of money-work to be done, in carrying commodities from producers to consumers, the quantity of the money-thing which is available to do that work will determine its value. If shells constitute the money of a community living by the sea, then, if there be much exchanging to be done, that is, if there be a large demand for shells to effect exchanges, and if shells be scarce, each shell will have a high value. Prices will be correspondingly low, that is, a large amount of commodities will sell for but few shells. If the supply of shells be suddenly increased, as by a great storm bringing them up on to the shore, the value of shells will fall; that is, prices will rise. The relation of the value of primitive money to cost of production is, with a single exception to be hereafter noted, the same as in the case of any commodity not used as money. If the cost of production of that which serves as money is diminished, as by improvements in an art or by the discovery of new resources in nature, the supply will be increased, and its value will fall in consequence, that is, prices will rise. If the cost of production of that which serves as money is increased, as by the exhaustion of natural resources, its supply will fall off; its value, demand remaining constant, will be enhanced, that is, prices will fall. The exception above referred to is that noted by Mr. Mill, namely, that, while a prospective increase or decrease of supply, in the case of any commodity not used as money, generally results in its price falling or rising without awaiting the marketing of the new supply, the value of money only changes—demand being all along assumed constant—with the actual changes of supply, inasmuch as prices are the result of real exchanges of commodities for money.

Having thus stated the law of primitive money, let us now proceed to observe the action of money in societies industrially and commercially advanced, and into which credit enters. In such societies, goods are not always exchanged for money at the time; an equivalent is not always or perhaps habitually given on the spot. Future payment is often stipulated for; and a new money-function appears, that of the standard of deferred payments. We are thus able to give a full and final definition of money, namely, that it is that which serves (1) as the common medium of exchange, (*a*) dispensing with the double coincidence of wants and of possessions involved in barter; (*b*) furnishing a price-current of all the commodities in the market. (2) As the standard of deferred payments. To put it in another form, money is that which passes freely from hand to hand, in full payment for goods, in final discharge of indebtedness, being accepted equally without reference to the character or credit of the person tendering it, and without the intention on the part of the person receiving it himself, to consume or enjoy, or otherwise use it than by passing it on, sooner or later, in exchange.

The introduction of credit into the commercial and industrial society, devolving upon money the additional function of a standard of deferred payments, has hindered the unanimous concurrence of economists as to what money exactly is, and as to what money exactly does. The use of credit instruments, the introduction of bills of exchange, drafts, and cheques, and the accumulation of deposits in banks, introduce an element into the philosophy of money which it is difficult to resolve to the satisfaction of all thinkers and writers. Some insist on regarding every form and instrument of credit as a part of the monetary circulation; some on treating bills of exchange and bank deposits, at any rate, in this way; others, still, regard bank deposits, at the least, as money, since cheques are freely drawn on these for the discharge of indebtedness. Lord Overstone (see Jones Loyd) may be regarded as the leader of the school of writers who classify bank deposits as money. Prof. Sidgwick holds the same view, and would alter the definition given above by substituting the words "from owner to owner," in place of the words "from hand to hand." A great deal is to be said on either side of this question, and there is no present reason to suppose that a general agreement on the subject can be reached. The writer contents himself with presenting his own reasons for holding that credit instruments generally, viz. bank accounts, bills of exchange, and cheques drawn on deposits in bank, should be excluded from the category of money.

These reasons are as follows:—Let us revert for a moment to the primitive condition of industry and trade, before credit has been introduced. Money serves here as the general medium of exchange; yet barter may in many instances be resorted to. These acts of direct exchange reduce, to that extent, the field for the operation of money. They diminish, by just so much, the money work to be done, and by consequence, the demand for money. But no one looks on them as a part of the money supply; no one regards acts of barter as in any sense constituting a use of money. In an

advanced industrial and commercial state, credit limits the field for the operation of money, as barter did in a primitive state. The mutual cancellation of indebtedness, which the introduction of credit effects through the use of book accounts, bank deposits, etc., withdraws a certain, it may be a vast, body of exchange transactions from the field in which money operates; but within that field, thus reduced, money does its work in precisely the same way, and as completely under the ordinary law of supply and demand (see DEMAND; SUPPLY AND DEMAND) as, in the primitive state, money did its work within the field of exchanges which had been diminished by barter. After all that credit can do in the mutual cancellation of indebtedness, there still remains, in the community most highly advanced, even where banking has been carried to its utmost limits, a vast volume of transactions which must be effected by the use of money. The sufficient proof that these must be effected by the use of money is found in the fact that they are so effected, for money would not be used, since its use involves expense, unless this were economically necessary. Money being thus necessarily employed over a vast field of exchange transactions, after all the efficiency of credit is exhausted, the value of money within that field is determined precisely as it was determined before credit was introduced. There being a certain quantity of the money-work to be done, the quantity of the money-thing available to do that work fixes its value. If there be more of it, its value will fall and prices will rise. If there be less of it, its value will rise and prices will fall. The exchange transactions which, in the result, are cancelled by the use of credit, simply diminish by so much the field in which money would otherwise operate. In this respect they correspond exactly to acts of barter in primitive communities. It is true that if the quantity of money be diminished and its value in consequence rises, there will be an economic effort to expand the range of the mutual cancellation of indebtedness, since, as was said, the use of money always involves a certain expense; while, if the quantity of money be increased, there will be a tendency to relax efforts to secure the widest possible cancellation of indebtedness, and in consequence, a larger body of exchange transactions will involve the use of money. But it remains true that, however the field in which money operates may be broadened or narrowed by such a cause, it is that field which determines the amount of money-work to be done, that is, the demand for money; while the supply of money will be in nowise affected except as its higher or lower value at the time may stimulate or retard its production.

But it may be asked, if bills of exchange and bank deposits are not to be treated as money, shall bank notes be so regarded? We may answer, "Yes." Bank notes do the money-work and are therefore the money-thing. When issued by institutions of undoubted solvency, they pass freely from hand to hand, in full payment for goods, in final discharge of indebtedness, leaving no trace of their course, such as cheques and bills of exchange do through successive endorsements. They are accepted without reference to the character or the credit of the person who offers them, except solely as the bad character of that person might require more scrutiny to ascertain that the notes were genuine. His mind satisfied on that point, whoever has sold goods receives the notes of solvent banks precisely as he would receive gold or silver coin, even though the man offering them were a well-known rogue. Bank notes are, therefore, in every sense, money. Bills of exchange and bank deposits are merely instruments for the mutual cancellation of indebtedness, and are not money.

We have thus passed through the entire extent of the functions of money, dwelling long enough upon each to be able to see what money is and what money does. In order to anticipate objections and to resolve doubtful cases, it is, however, desirable to speak more at length of each of these functions by turns. And, first, of the medium of exchange, that is, of money as dispensing with the double coincidence of wants and of possessions, implied in barter. It will be observed that every use of money involves a double transaction. Instead of commodities being exchanged directly for each other, each in its turn is sold for money; and the commodity desired is purchased with that money. There are, thus, two transactions in place of one; but, as the acceptance of money is universal and a matter of course, those two transactions involve less, probably far less, possibly almost indefinitely less, effort than would direct-exchange, where it is essential to find some one who not only wants what you have, but has what you want. In order to secure and maintain the universal acceptability of money, it is, in primitive societies, necessary that the article adopted for this use shall be some material thing, having intrinsic properties which make it an object of general desire for its own sake. When, however, we advance to contemplate highly civilised societies, we find them sometimes using as money an article whose value depends entirely on convention or law. Bank notes are not things useful in themselves; while the difference between a bank note for five, and a bank note for ten pounds exists only in the substitution of one arbitrary symbol for another. Mutual confidence or legal authority entering, it ceases to be essential, however desirable it may continue to be, that the article used as money shall be something having useful properties. The

savage builds his canoe of materials every part of which will float of itself; the civilised man constructs his ship out of materials every part of which by itself would sink to the bottom. The difference between savage money and civilised money is not less remarkable. It is universal confidence or universal respect for law which enables modern societies to substitute for that "material equivalent or recompense,"—to use the phrase of M. CHEVALIER —which is the characteristic of all primitive moneys, a money of mere convention, like bank notes or government paper. Yet for the same reason the possibility of a serious catastrophe always attaches to such money. If confidence fails, if the *fiat* of government is carried beyond the limits of obedience, the acceptability of the money may gradually or abruptly cease (see FIAT MONEY); and an industrial and commercial system which has been built up on the basis of such a monetary circulation may be shattered or brought to ruin. A view of these evil possibilities attending all money into which credit enters, or to which mutual confidence is essential, has caused many excellent writers, especially in America, to deny the name money to anything which is not a "material equivalent or recompense," and especially to government issues. These writers make the mistake of saying that government paper is not money, when they really mean to say that it is bad money. Now, wholly in addition to the distinction between money and not-money, we have the distinction between good money and bad money. Anything is money which does the money-work, even though it does this with less of convenience and with more of danger than would some other thing. During the paper-money period of the United States, namely, from 1863 to 1879, "greenbacks" unquestionably performed all the offices of money. They circulated with the utmost freedom; they were cheerfully and even eagerly received; men worked for them or gave goods for them, without challenge or question; they furnished a "price current" as clear and intelligible as ever did gold in such use; they were, with the single exception of the distant and isolated communities on the Pacific coast, the standard of deferred payments universally employed. Therefore, greenbacks were money. At the same time, being in excess, they inflated prices, excited to speculation, kept industry and trade in a state of agitation, and caused a continual transfer of wealth from the productive to the speculative classes. They were, therefore, bad money.

Money of mere convention has liability to two evils. The first is, that not being a "material equivalent or recompense," it is subject to be issued in excess. Especially is this true of paper put out directly by the government. Not the wants of trade, but the exigencies of the treasury, are apt to determine the amount of issues; and whenever such issues take place in excess of the wants of trade, they almost inevitably go from bad to worse. Prices become inflated, speculation sets in, and there is often both a popular and a fiscal demand for still larger issues, to sustain the inflated prices (see ASSIGNAT; BULLION COMMITTEE, REPORT OF; INCONVERTIBLE CURRENCY). Yet there are historical instances of such money being issued and maintained without excess, or, at any rate, marked excess, through the exceptional prudence and moral courage of legislators or fiscal authorities. On the other hand, as in France after the war of 1870, the natural or material forms of money cannot be increased arbitrarily. Being products of labour, they can only be increased by the application of corresponding amounts of labour to their production. They have in this a safeguard against excess which is lacking in all moneys of mere convention. The second evil liability of money of convention arises from the fact that the force of such convention has its territorial limits, whether those of a small community or those of a large state. Owing its acceptance to convention within those limits, any local excess cannot be reduced by exportation. Such money has no natural drainage. Wherever it is poured out, it makes a swamp. On the other hand, the material forms of money are subject to exportation to communities which have no respect for local convention other than their own, but which have personal or social wants that may be satisfied by the intrinsic properties of these articles. The exportability of money reaches its highest point in the case of gold and silver. The demand for these metals being universal, any local excess anywhere is at once drained off; and each community retains only so much as is required to keep its own prices on a level, cost of transportation being taken into account, with prices in the countries with which it trades. The beneficial influence of this on commerce, and in the second degree upon production, cannot be over-estimated. It is, indeed, almost essential to the maintenance of the vast system of modern production. During the paper-money period of the United States already referred to, prices, owing to the non-exportability of the GREENBACK, were out of all relation to the general prices of commerce. The exporter sold his goods for gold, and then sold the gold for whatever it would bring at the time, in the local money. Trade, and in consequence, production, became highly speculative, with the most mischievous results to the industry of the country, not to speak of grave social and political evils.

But, even in cases where, through exceptional prudence and courage on the part of the government, paper is not issued in excess, very

considerable evils may yet be produced by the use of such money. During the suspension of specie payments by the Bank of France, from 1871 to 1877, the premium on gold was, by the remarkable sagacity of the directors, kept at a very low figure, almost vanishing at every favourable turn of trade. Yet even this was not without momentous consequences to the commerce of that country. In his valuable work, *Lombard Street*, published at about the close of that period, Mr. Bagehot remarked:—"The note of the Bank of France has not, indeed, been depreciated enough to disorder ordinary transactions. But any depreciation, however small, even the liability to depreciation without its reality, is enough to disorder exchange transactions. They are calculated to such an extent of fineness, that the change of a decimal may be fatal, and may turn a profit into a loss. Accordingly, London has become the sole great settling house of exchange transactions in Europe, instead of being, as formerly, one of two."

Let us now consider the second function of money, that of the common denominator of values. There is no other point on which writers on money are so generally in error as here. The cause of that error is largely found in a vicious terminology. Having begun by calling money, in this relation, the measure of value, they seem to have felt themselves bound to show that money does measure values. Thus, Prof. Francis Bowen writes: "A measure must be homogeneous with the thing measured. As that which measures length or capacity must itself possess length or capacity, so that which measures value must have value in itself, or intrinsic value." . . . Prof. Thorold Rogers says: "We need some common measure of value as we need measures of length and capacity." And Mr. Mill, as referred to above, mentions among the first and most obvious wants of exchange that of "a common measure for values of different sorts." From this notion, that money measures values, has come the dictum, common to most economists, that a money of mere convention, not having INTRINSIC VALUE (*q.v.*), not being "a material recompense or equivalent," cannot perform this function, whatever it may do as the universal medium of exchange. It would appear that all this confusion has arisen from the use of a misleading term. If we read further in the works of these writers, we find that the function they are really treating of is merely that of a common denominator in exchange. Now, it is not essentially the office of a denominator in exchange to measure values; but only to express them, as measured. If we contemplate money of pure convention—for example, mere pieces of paper curiously engraved—and if we assume for such money a general acceptability, such as money of this kind has frequently possessed, and possesses to-day in many countries, a moment's reflection will show that, by being actually exchanged against these pieces of paper, all commodities in the market become measured as to their value, without regard to the cost of production of the money itself. If all producers desire these pieces of paper, and desire them very much, no matter for what reason, then all commodities which have a high cost of production, and are in corresponding demand, will exchange for many pieces of the paper, or otherwise the supply of such commodities would rapidly fall off; while commodities having a low cost of production will exchange for few pieces of paper, since, otherwise, the supply of such commodities would rapidly increase, which would at once bring down their price. In this way, that is, by the efforts of all producers to bring to market those commodities which will command the greatest number of these pieces of paper for a given expenditure of time and labour, all the commodities in the market will be differentiated as to value, exactly as if the money consisted of gold or silver. With a money of gold or silver the effort of each producer to bring to market the commodities which, for a given expenditure of time and labour, will command the greatest number of coins of a certain denomination, differentiates all commodities in the market as to value, without reference to the cost of production of the coins themselves. The action in the case of money of mere convention is identical; and the results are just as exact. By the mere fact of being exchanged for any kind of money, each commodity takes its place on the price-current, high up or low down, according to the demand for it, and according to the ease or difficulty with which it can be brought to market—that is, according to demand and supply. It is this conception of the function of money as a common denominator of values, which underlies the discussion of IDEAL MONEY by Sir James STEUART and Messrs. F. Percival ELIOT and Gloucester WILSON. These writers were far nearer the truth than their critics. Probably the history of philosophy furnishes no instance of an equally mischievous result from the use of a false terminology, with that which has followed the phrase, "measure of value," in its application to money.

Let us now speak of the remaining function of money, that of a standard of deferred payments. The emergence of this function, consequent on the development of the credit-system, lays on that which shall be used as money a requirement altogether additional to those made upon it in a state of society where all commodities are paid for at the time of delivery. In the earlier state, it would not matter much, if at all, should the article used fluctuate widely and rapidly as to its own cost of production or its own conditions of supply. But when credit is

given—that is, when payments are deferred,—it becomes at once of vast, if not supreme, importance that money shall remain reasonably stable in value, from time to time. It is here that money of mere convention displays its greatest weakness, since its quantity can be arbitrarily increased to any extent. Yet in this respect those forms of money which have "intrinsic value," which constitute "a material equivalent or recompense," fall far short of what is to be desired. Even gold and silver, which, owing to their practical indestructibility, remain highly stable in value from year to year, yet fluctuate enormously from age to age. The story of the spasmodic and often intermittent production of the precious metals has been told in other parts of this work (see GOLD AS STANDARD). So tremendous have been the consequent fluctuations in value that it has frequently been proposed to substitute CORN RENTS, in contracts for considerable terms of years; and, in a vast number of instances, rents, annuities, etc., have actually been stipulated for in bushels of wheat. The cereals, while they fluctuate far more than gold or silver from year to year, have been more stable, at least until a very recent date, through long periods of time. Even these, however, fall so far short of supplying all the conditions of a good standard of deferred payments, that it has been by many writers proposed to create a TABULAR STANDARD, or multiple tender, the nature and office of which will be found described under the title INDEX NUMBERS.

Another point which requires consideration in the philosophy of money is the effect of corruption or debasement of the coin—assuming, now, metal money to be in use—upon the value of money. There are two cases: (1) where corruption or debasement is universal, all coins being alike diminished as to weight, or impaired as to fineness; (2) where the coin has been irregularly corrupted or debased. In the latter situation, it is usual for writers on money to say that the principle known as GRESHAM'S LAW will at once begin to operate. This law, or theorem, which derives its name from Sir Thomas GRESHAM, the founder of the Royal Exchange of London, is, as commonly stated, that bad money invariably drives out good money. Thus expressed, the theorem is incorrect. Bad money will only drive out good money when the sum of the two is in excess of the wants of trade; that is, in excess of the amount which is necessary to keep prices in the community on a level, cost of transportation being taken into account, with prices in the communities with which it trades. So long as bad money and good money together only make up the amount which is needed, neither will drive the other out. RICARDO correctly states the principle in his reply to C. BOSANQUET: "It is a mistaken theory to suppose that guineas of 5 dwt. 8 gr. cannot circulate with guineas of 5 dwt., or less. As they might be in such limited quantity, that both one and the other might actually pass in currency for a value equal to 5 dwt. 10 gr., there would be no temptation to withdraw either from circulation. There would be a real profit in retaining them." It is only when the total amount of money comes to be in excess of the wants of trade, that exportation or melting of the coin begins. In such a situation, Gresham's law operates with almost absolute certainty. The exporter, or the manufacturer of gold or silver plate, selects for his purposes the coins of fullest weight or of the highest purity, thus withdrawing them from the circulation, whose average quality is in consequence reduced. This, however, goes on only so fast and so far as the total amount of money is in excess. Should the introduction of abraded or debased coin continue, all the better coins would, in time, be exported or sent to the melting pot.

In the second case of corruption or debasement of the coin, viz. where such corruption or debasement affects the whole body of coins, the effect upon the value of money constitutes one of the most difficult questions in the philosophy of this subject. The writer believes that the truth in this matter is wholly on the side of Ricardo. No matter to what extent the corruption or debasement has proceeded, coins will still pass for their full denominative value, provided only the amount issued be not excessive. Ricardo failed, probably from inadvertence, to affix a single proviso which is essential to the correctness of this statement, viz. that popular knowledge of the corruption of the coin should not create a popular indisposition to use the coin. If this were to take place, it would cause an extension of the field of barter or of the operations of credit. Such an extension of the field of barter on the one hand, and of the operations of credit on the other, would of itself constitute a reduction in the demand for coin, which would necessarily reduce its value, that is, raise prices. Ricardo is unquestionably right in saying that there are numerous historical instances of a coinage largely abraded or debased, circulating without a corresponding reduction, if not indeed without any reduction at all, from its proper denominative value. The purchasing power of money being determined wholly by the relations of demand and supply, government can, by limiting the supply, in a very large degree control the value of money. Ricardo even goes so far as to regard paper money as money upon which the SEIGNIORAGE (*q.v.*) is 100 per cent. But, while it is thus in the power of government, by controlling the supply, largely to influence the value of paper money, the economist who has a reason-

able reference to the nature of political forces can never give his approval to paper money not instantly and unconditionally convertible into coin of full value. As Alexander HAMILTON says, "paper emissions are of a nature so liable to abuse, and it may even be affirmed so certain to be abused, that the wisdom of government will be shown in never trusting itself with the use of so seductive and dangerous an expedient."

It has been said that money, while it has value, has not price, the latter term being reserved to express the value of other things in terms of money. This is true, so long as one article only is used as money. Let us, however, take the case of a community in which both gold and silver are used in this relation. Since gold and silver have separate sources of supply, and have also, in some measure, independent causes of demand, as *e.g.* for use in the arts, then we shall have a gold-price of silver, and a silver-price of gold. This is the situation which BI-METALLISM (*q.v.*) contemplates; and it is the effort of that system to extinguish all preference for either of these metals, at a ratio agreed upon, and fixed by law,—*e.g.* 15½ of silver to one of gold, as under the French law of 1803,—so that the gold-price of silver and the silver-price of gold shall remain constant.

[The literature of money is almost measureless. A complete bibliography would form a considerable volume. The first important writer on money was ARISTOTLE; and there is no stronger proof of the greatness of this early philosopher than that his conception of the money function still influences scientific thought. As European society emerged from the monetary confusion and disorders consequent on the silver famine of the middle ages, Nicole ORESME, moved by the abuses of the French coin, published in 1360 his treatise on money, a work which, after being long lost to the world, was, about 1862, discovered by the eminent German economist, ROSCHER, of Leipzig, and has since been put out by M. WOLOWSKI, in the original Latin text, with an introduction and a French translation. No work expresses more strikingly the pernicious effects of that *morbus numericus*, which wrought such misery among the people and caused such weakness in the governments of Europe, and which had afflicted France with special virulence. Oresme's treatment of the principles of coinage and seigniorage is characterised by great precision. At the beginning of the 16th century, the astronomer COPERNICUS addressed to the king of Poland his treatise *Monetæ Cudendæ Ratio*, which deals with the then universal evil of the corruption and debasement of coin. But it was Italy which made the largest of the earlier contributions to the philosophy of the subject. Mr. Stephen COLWELL remarks that this country was long noted for the worst money and the best writers on money. The coin of Italy was sunk into an abyss of discredit while BECCARIA and VERRI were expounding the true laws of monetary circulation, and the works of SCARUFFI and NERI were manuals for the mints of the continent. Among the early English writers on money, say from 1682 to 1717, the most distinguished names are those of Sir Wm. PETTY, Dudley NORTH, John LOCKE, William LOWNDES, John LAW, and Sir Isaac NEWTON. In 1730 SWIFT published his *Drapier's Letters*, concerning Wood's brass halfpence, more notable as an example of satire and invective than as a contribution to the theory of money. Shortly before the publication of Adam SMITH'S *Wealth of Nations*, Sir James STEUART'S *Enquiry into the Principles of Political Economy* dealt at length with the problem of money; and the same writer, acting for the East India Company, in 1772 wrote his treatise on the coin of Bengal. HARRIS'S essay upon money and coins (1757), belonging to this period, contains matter of historical interest. Adam SMITH'S great work (1776) did not add much to the philosophy of money. His compatriot and contemporary, David HUME, on the other hand, though in brief compass, made a contribution of no little value. The suspension of specie payments by the bank in 1797, and the long controversy which followed the bullion report of 1810, gave rise to an immense volume of literature, much of it of permanent value. The tracts and other publications of Lord KING, Sir Francis BARING, R. TORRENS, BOSANQUET, Boyd, MUSHET, Hill, VANSITTART, Fonblanque, General Craufurd, Lord LAUDERDALE, William BLAKE, Arthur YOUNG, William HUSKISSON, Francis HORNER, David RICARDO, and Henry THORNTON, are deserving the attention of every student of monetary science. The giants of this controversy were the last four. Ricardo's tracts on money perhaps occupy the highest single place in the literature of the subject. Lord LIVERPOOL'S treatise on the *Coins of the Realm* (1805) derives its chief interest from its relation to the demonetisation of silver by the English government, in 1816. Thomas and Matthias ATTWOOD were the champions of FIAT MONEY. Following the resumption of specie payments, in 1819, there came within a few years Sir Walter Scott's letters on the currency of Scotland (Malachi Malagrowther); Sir James GRAHAM'S *Coin and Currency;* Sir Henry PARNELL'S *Observations on Paper Money, Banking, and Overtrading;* SENIOR'S *Cost of Obtaining Money;* JACOB'S *Inquiry into the Production and Consumption of the Precious Metals;* and, greatest of all, Thomas TOOKE'S *Inquiry into the Currency Principle*, 1844. Tooke assumed and strongly fortified the positions regarding the operation and influence of paper money, which he afterwards assaulted with such distinguished ability in his *History of Prices.* Belonging to the next period, that, namely, between 1832 and the time of the Australia and California gold discoveries, are Poulett SCROPE'S *Examination*, etc., FULLARTON'S valuable work on *The Regulation of Currencies*, and James WILSON'S *Capital, Currency, and Banking.* Most of the economic interest of this period centred in the action of parliament regarding the Bank of England; and the report on the bank charter, in 1833, from the secret committee; and the first and second reports of the select committee upon banks of issue, 1840 and 1841, are among the most valuable blue books issued since the bullion report of 1810. Peel's act of 1844, regulating the privilege of issue, gave rise to an enormous literature. Chief among the disputants were Thomas Tooke, Lord Overstone (Samuel Jones LOYD), Colonel TORRENS, George Warde NORMAN, James W. GILBART. The chapters regarding money in Mr. Mill's great work on political economy are among the most important contributions of this time to the theory of that subject. The Californian and Australian discoveries, about 1850, produced several works of marked value, particularly William NEWMARCH'S *New Supplies of Gold*, and J. E. CAIRNES'S *Essays on the Gold Question.* Maclaren's *History of the Currency* may be mentioned. The demonetisation of silver by Germany, following the American Civil War, produced a controversial literature rarely equalled. The same period has also witnessed the publication of some important constructive works, pre-eminently Mr. BAGEHOT'S *Lombard St.*, Prof. JEVONS'S *Money and the Mechanism of Exchange*, and Mr. Goschen's *Foreign Exchanges.* Mr. Ernest SEYD published several pamphlets in favour of bi-metallism early in the course of the controversy; Mr. H. Hucks Gibbs (now Lord Aldenham), Prof. H. S. Foxwell, and Prof. J. Shield Nicholson have led in the recent discussion on the same side: while Sir Robert Giffen and Lord Farrer have upheld monometallism. The report of the commons committee of 1876, on the depreciation of silver, is of great importance.

In the United States, money or "currency" (Mr. M'Leod calls this word "a mischievous Yankeeism") has always been a favourite theme. Pelatiah WEBSTER'S *Nature and Operation of Money* (1792) is interesting and valuable. Prof. W. G. Sumner's *History of American Currency* presents much information. Accounts of the paper money issues of the several colonies have been written by FELT, PHILLIPS, Brownson, and others; and of the revolutionary paper money by J. W. Shuckers. The works of Alexander HAMILTON, Albert GALLATIN, and Daniel WEBSTER, contain much that is of value in the theory of money. Messrs. Condy Raguet and Wm. M.

Gouge were among the passionate opponents of bank money. Prof. George Tucker's *Money and Banks* is a work of merit. Stephen Colwell's *Ways and Means of Payment* contains much useful information. The theory of bank money is treated with great fulness in Prof. Amasa Walker's *Science of Wealth*. The "inflation period," 1862 to 1879, brought on extended discussions of inconvertible paper money, in which the leading participants were Henry C. Carey and H. C. Baird on the Fiat Money side; and David A. Wells and W. G. Sumner on the Hard Money side. Mr. John J. Knox's work, *United States Notes*, furnishes the most accurate account existing of the national issue of paper money. H. R. Linderman's *Money and Legal Tender* is a useful manual. Francis A. Walker's large treatise on money was published in 1878; and his smaller work, *Money, Trade, and Industry*, in 1879. Mr. S. Dana Horton is easily the most learned of the writers in favour of bi-metallism (see his *Silver Pound* and *Silver in Europe*); Prof. J. Laurence Laughlin's *Bi-metallism in the United States* is strongly monometallist in its bearings.

In France, the treatise of M. Chevalier, *La Monnaie*, the third volume of his "Cours d'Économie Politique," has held a pre-eminent place. During the first flood of the new gold, Chevalier wrote a work on the *Probable Fall in the Value of Gold*, which was translated into English by Richard Cobden. The proceedings of the *Enquête Monétaire* of 1870 are of great interest. Courcelle-Seneuil's *Opérations de Banque* is a leading work. Léon Faucher's small treatise on the *Production of the Precious Metals* is a work of merit. Louis Wolowski's writings on money in general, and particularly those in favour of bi-metallism, hold a high rank. The most energetic advocate of bi-metallism is M. Cernuschi, whose special antagonist for many years was M. Feer-Herzog of Switzerland. M. Esquirol de Parieu and M. Levasseur take the monometallist side. F. Lenormant's essay upon the money of ancient nations is of permanent value. The reports of the conference of the Latin union (France, Switzerland, Italy, and Belgium), and those of the international Monetary Conferences of 1867, 1878, 1881, and 1892, are of great value. Other writers on money who should be mentioned in any bibliography, however short, are Émile de Laveleye of Belgium, Prof. Léon Walras of Lausanne, Vrolik and Mees of Holland, and N. P. van den Berg of Batavia, now Governor of the Bank of Holland. William Roscher's treatise on money (translated into French by Wolowski), and Knies' *Das Geld* are perhaps the most important German works on this subject. Philip Geyer's *Theorie und Praxis des Zettelbankwesens* may also be mentioned. Bamberger's *Reichsgeld* and other writings are among the ablest extant upon the mono-metallic side. A. Soetbeer's investigations into the production of the precious metals are of high value. Prof. Miklashewsky, *Study of the chief positions of the classical theory in regard to the question of money* (Moscow), 1895. Leroy-Beaulieu, *Écon. Pol.*, 1896, vol. iii.] F. A. W.

MONEY AND PRICES. See Prices.

MONEY (Quantity Theory). See the Quantity Theory of Money.

MONEY OF ACCOUNT. The "money of account," or the terms in which values are recorded, is, in modern monetary systems, generally the same as the standard of value of the country in which the accounts are kept; the metallic and note currency being reckoned in the same measure, while values less than that of the standard are expressed decimally. Thus, in the states of the "Latin Monetary Union" (France, Belgium, Italy, Switzerland, and Greece) accounts are kept in francs, in Germany in marks, in Scandinavia in crowns, and so forth. The money of account in Great Britain presents a slight variation from that of the majority of modern states from the fact that, although large sums are recorded in pounds, values smaller than that of the standard are expressed in shillings, pence, and farthings, instead of in decimal parts of a pound.

Though, from the point of view of simplifying and facilitating commercial transactions, it is desirable that the money of account should be identical with the standard of value, this is by no means a condition essential to the practical working of a monetary system. Neither is it necessary that the terms in which values are accounted should be represented by an actual coin in the circulation of the country. In England, for instance, when the shilling was the money of account, there were many years during which the only coins in use were silver pence, while at the same time the standard of value was a pound troy of silver of the millesimal fineness of 925.

Similar, and more recent examples of complex systems of currency and account are to be met with. Several such instances occurring in the early history of the British colonies are recorded by Mr. Chalmers in his *History of Currency in the British Colonies*, 1893, an interesting case being that of the Leeward Islands. In the 17th and 18th centuries the standard of value in this colony was a commodity known as "Muscovado sugar"; this article being also the principal medium of exchange. Accounts were, however, kept in sterling terms, and we learn that, by an Act passed in the year 1700, ratings of commodities in sterling, for purposes of account, were fixed as follows:

12s. 6d.	current money	for every	100	lbs.	of Muscovado
2s.	,,	,,	1	,,	Indico
9d.	,,	,,	1	,,	Cotton wool ginn'd.
1½d.	,,	,,	1	,,	Tobacco or ginger.

In Newfoundland, until so recently as 1887, when an Act consolidating and amending the currency legislation of the colony was passed, a money of account known as "Halifax currency" was in use. The ratings of coin in circulation under this system of account were fixed by an Act of the Assembly of the island passed in 1845, and were as follows:

	£	s.	d.	
Doubloon	3	16	9⅗	currency
Sovereign	1	4	0	,,
Crown		6	0	,,
Dollar		5	0	,,
Shilling		1	2⅖	,,

[See also Ideal Money.] F. E. A.

MONEY MARKET. A term applied to an organisation which has always existed in a more or less developed form in countries where wealth has had time to accumulate. Only its modern characteristics can be dealt with here, and the examination thereof must be confined to London, the largest and most highly organised example of the species.

The London money market consists of—(*a*) the Bank of England; (*b*) the joint-stock banks; and (*c*) one or two powerful private banks, the discount houses and bill brokers; (*d*) the

large mercantile houses who have money to lend from time to time; and (*e*) the Stock Exchange. As a rule the term "the market" is employed to denote classes (*b*) and (*c*) alone, the Bank being regarded as outside "the market," meaning the market for bills, while (*d*) and (*e*) are similarly excluded because their operations are of an intermittent character, and in the case of (*e*) are, as a rule, "all one way," the Stock Exchange being more of a customer for dealers in money than a dealer in money itself. There are, however, certain wealthy stock exchange firms who are really dealers in money, and not infrequently lend their surplus balances in Lombard Street. The great merchant houses are often very large lenders, through their possessing temporary control of considerable sums of money derived from loans, subscriptions to loans, remittances from foreign governments, and in other ways; and, on the other hand, they often take money out of the market by discounting bills or selling stock. They are, therefore, like the Stock Exchange, too closely allied to "the market" in the narrow sense of the term to be omitted from the list of elements making up the real market.

(*a*) The Bank of England.—Thirty years or more ago the Bank was an integral part of the London money market, possessing a power which it has not now. Formerly it had considerable influence on the discount rate, being a considerable holder of bills, but for many years past it has ceased to compete for bills with the great joint-stock banks, two of which have so large a share of this class of business that they practically control the discount rate on any day on which they are both buyers, or both "hold off" from the market. The Bank rate of discount has ceased to be any indication of the real discount rate in London, except very occasionally. This is not a satisfactory state of things, as the loss of control over the discount rate has involved the loss of power to influence the foreign exchanges, a power which is needed by the Bank in order to enable it to protect its reserve, which is the sole cash reserve of all the banks in the United Kingdom. The Bank has never explicitly admitted its responsibility for the reserve, but it does admit it implicitly. On the other hand, the banks ostensibly deny that they have any responsibility in the matter, but there is good reason for believing that they recognise it in practice, and will help the Bank to maintain a proper reserve should the course of events again place it in danger.

(*b*) The great joint-stock banks possess enormous power in the money market, owing to the magnitude of their deposits. The National Provincial Bank of England and the London and County Bank together hold over £97,000,000 of deposits, and the Union of London and Smiths and Lloyd's, both largely country banks with important offices in London hold about £91,000,000 more. The National Provincial and the London and County are the largest buyers and holders of bills in the market, and, as already observed, the rate of discount for the day usually depends on their operations. The banks meet from time to time to arrange what rate shall be allowed on deposits.

(*c*) The discount houses and bill brokers are also large buyers of bills, but they are not such "firm" holders of them as the banks. The smaller brokers, indeed, hold very few bills, though their turnover is often large, since they act as intermediaries between the great banks and the holders, as creators of bills. Strictly speaking they are not competitors for bills, but they provide the machinery by means of which the banks compete for them. The larger brokers and the discount houses are competitors of the banks, and hold considerable amounts of bills, which, however, they are quite ready to "turn out" at a profit, while banks, in nearly all cases, hold the bills until maturity. The bill brokers and discount houses work largely with money borrowed at call and short notice (seven or fourteen days). They publish the rates they are prepared to allow from time to time, which are usually in harmony with the terms offered to depositors by the banks, but they change their scale more frequently than the banks. Their meetings are of a more or less informal character, and changes are rarely made by any individual house alone, even when strong views as to the expediency of the proposed movement are taken by it. The brokers have a large area to borrow from. They obtain most of what they use from banks, but are also in close touch with the stock exchange money brokers, lending to them and taking money from them on consols and other high-class securities; and they have the Bank of England to rely upon in the last resort, though recourse to that institution is surrounded with restrictions, regarding the policy of which much difference of opinion exists.

The working of the Money Market.—Under normal conditions the London money market works very smoothly. Bills to a very large amount fall due every day and are paid; the "money" is reinvested in other bills, or if these cannot be secured on satisfactory terms, the "money" is lent in the short loan market on bills or stock, for periods which may vary from one day to a fortnight; or the "money" may be employed on the stock exchange either as a monthly loan on consols or until the "next account," which usually means about a fortnight. One great bank almost invariably reinvests money obtained from the payment of bills falling due daily in other bills, but most banks allow themselves a certain latitude in this respect, and the bill brokers have many more bills in their cases at some times than at

others, though they always try to keep up a certain average. In normal times all money in the hands of the market is lent up to the last penny, at some rate, by about 4 P.M. if possible. If nothing else can be done with it, it is lent "for the night," often at a rate which seems hardly worth accepting. Sometimes, for instance in 1894-96, money is very abundant for a long time. The high prices which rule during such periods for all the best investments, including bills, and the low prices of commodities and slackness of trade, have the effect of making money redundant in the market, except for brief intervals. There is then no disposition to invest capital for long periods, or to "lock it up" in industrial occupations. All who possess or have the control of loanable capital prefer, at such times, to keep it in a form as easily convertible into cash as possible, in order that when an opportunity occurs for profitable investment, advantage may at once be taken of it. When a revival of trade has begun, and the prices of commodities have risen, a change takes place in the attitude of the controllers of wealth. They find that more money is wanted to do a given amount of business than before, and that there is more business to do. The surplus money disappears from the market, and lenders have less difficulty in "placing" such surplus balances as they have on hand. When once this process has begun, it usually leads to a state of things the exact opposite of that we have been discussing; not only is all available money eagerly borrowed, but credit is stretched to the utmost. A great deal is invariably lent to the wrong people and on wrong securities, and finally a collapse of a more or less serious character occurs in credit. At such times the only quarter whence loans can be obtained is the Bank of England, as all other institutions have employed their resources to the utmost. On two occasions prior to 1866 the pressure on the bank was so great that the chancellor of the exchequer had to allow the bank to suspend the act of 1844, which restricts the note issue (see PEEL, Sir R.). The way in which the lock-up of capital in unsaleable securities, or securities on which loans cannot be obtained, comes into existence, may be very different at different times (see articles on CRISES).

The "money," or more properly the "loanable capital" with which the money market deals, is of a peculiar kind. It may be defined as wealth in its least specialised form, a form it can only assume in a very rich country, where all the specialised forms of wealth, but more particularly those which are easily exchangeable for other kinds of wealth, such as gold and high class securities, are very plentiful. All countries which have developed the modern form of civilisation possess a certain amount of "money-market money," but in all but a few it is of small amount. The supply of it in this country is enormous, but not unlimited, as events have more than once shown. Credit is based on this almost impalpable form of wealth, and when it has been exhausted by an excessive granting of credit, the fabric of credit breaks up. In the London money market, the organisation by which, to use a physiological analogy, non-specialised wealth is "secreted" and accumulated, is more effective than in any other at present known. This is owing to the fact that savings are almost universally deposited in banks, and that we possess a "one reserve system," as Bagehot called it, whereby the Bank of England has become the sole depository of the reserves of the banks of the United Kingdom. The system is not without disadvantages, but it is highly economical, and it appears likely to continue.

[J. S. Mill, *Political Economy*, bk. iii., *passim*, but especially chs. ii. and xii.—Bagehot, *Lombard Street*.—Goschen, *Foreign Exchanges*.—H. Sidgwick, *Principles of Political Economy*, bk. ii. chs. iv. v.—Palgrave, *Bank Rate and the Money Market*.—George Clare, *A Money Market Primer and Key to the Exchanges*.] W. H.

MONEY BILL (in Parliament). A "money bill" is a bill which seeks either to impose taxation or to allocate public moneys to some particular purpose. By constitutional usage such bills must originate in the House of Commons on the initiation of the government of the day. The resolution overthrowing the introduction of the bill must be passed in committee of the whole House (standing order 58). The House of Lords may reject, but cannot amend a money bill.

Where a bill is not a money bill, but incidentally involves the grant of public money, the grant must be passed by a committee of the whole house, and adopted on report before the clause which deals with the grant can be considered in committee on the bill.

The object of these provisions is, first to preserve the control of the elective branch of the legislature over all matters of supply, and secondly, to safeguard the public purse from unexpected attacks on it by private members.

[Anson, *Law and Custom of the Constitution*, vol. i. pp. 252-257.] M. D. C.

MONEYS TO BE PROVIDED BY PARLIAMENT. This is a technical phrase used in drafting acts of parliament. When the expenditure of public money is authorised, and it is intended that the expenditure shall not be charged on the permanent consolidated fund, but shall be voted annually in committee of supply, the act provides that the expenditure in question shall be defrayed "out of moneys to be provided by parliament." M. D. C.

MONEYERS may be called the manufacturers of coin, every mint having one or more

in charge of it, with, except perhaps in the earliest periods, subordinate workers under them. After Norman times they were no longer the sole officers of the London mint, but were assisted on the one hand and checked on the other by a growing staff of officials with separate duties. From the first, the responsibility of their office was recognised by the laws regarding them, and especially by the heavy penalties, such as the loss of a hand, which were enacted not only against false moneyers who counterfeited the coin, but against the authorised moneyers if guilty of any offence in the exercise of their office. The practice, found as early as the Anglo-Saxon period, of stamping on the coin, usually on the reverse, the name of the moneyer from whose mint it was issued, was probably intended as a check on irregularities, the more necessary on account of the large number of mints existing in the country.

In early days, when almost all public work was done locally, the mints were most numerous, as is known chiefly from the fact that from the reign of Athelstan (925-940) the name of the town of issue was commonly added to that of the moneyer. He ordered indeed that there should be a moneyer in every burgh, but it is not likely that this law was more than an extension of an already prevalent custom. In London, Canterbury, and Winchester there were at this time eight, seven, and six moneyers respectively. At one time or another there have been more than sixty royal mints in England, three in Wales, and one in Scotland, besides seven episcopal and two monastic mints in England; and this is exclusive of a considerable number of places for which the possession of mints and moneyers has been claimed on doubtful grounds. After Henry III. died 1272, the number of mints greatly declined, and the moneyers' names no longer appeared on the coins; and after Edward VI. died 1553, the mint in the Tower was almost the only one ever used in England except by Charles I. and during the recoinage under William III.

Moneyers seem to have held a position in regard to the king between that of a tenant-in-chief and a Jew, with special liabilities and special protection. They were obliged, if the king visited their town, to coin as much silver as he pleased; they paid relief direct to the king, and he was their heir if they died intestate; they paid an annual rent to the king and a sum of money on every renewal of the coinage for the new dies sent them from the London mint; the moneyers of London were excepted from the privilege granted by Henry II. to the other citizens of not pleading outside the city except in suits with foreigners. On the other hand they received some compensation for their disabilities; they sometimes enjoyed the right of *sac* and *soc* (see SOCAGE), they were sometimes exempted from TALLAGE, and they sometimes lived in a rent-free house. No doubt their business was profitable and was worth the certain payments and the possible penalties.

To preserve the uniformity of the coinage all moneyers had to use the dies supplied from London; even the two archbishops, who in early Anglo-Saxon days had put their own names and effigies on their coins, were obliged after Athelstan to use the royal dies, and later to pay an annual rent to the master of the mint; but they took the profits and at one time were allowed to distinguish their coins by some special mark. After Henry VIII. archiepiscopal coining ceased.

In the 17th century the moneyers of London were paid according to the bullion coined, not by a fixed salary, and their duties are described as follows in the *Report of a Select Committee* of 8th April 1697; "The moneyers draw, cut out, size, blanch, edge, and coin those bars (prepared by the workers) into monies, sissel and broakage back to the masters, by weight; these live in the country, attend the mint whenever called, take apprentices, and form themselves into a government, by electing one of them to be their Provost."

[Athelstan's Laws in Wilkins's *Leges Anglo-Saxonicæ*, 59.—Ellis, *Introd. to Domesday*, i. 174-177.—Ruding, *Annals of the Coinage*, pref. and ii. 135, etc. and appendix, p. 465.—Madox, *Hist. of Exchequer*, especially for tallage paid by moneyers.—Cunningham, *English Industry and Commerce*, vol. i.] E. G. P.

MONOMETALLISM. This term is applied to designate a monetary system in which the standard of value consists of one metal, whether of silver as once in Japan, and formerly in Germany, or of gold. Such a system, based upon gold, is found in England to-day. The silver and bronze coins circulating are token currencies, do not contain as much metal as their face-value represents, are regulated in their issue, and limited in their character of legal tender to small amounts—in the case of bronze to 1s., and in that of silver to £2. Gold alone, in the form of coin or of paper convertible into gold on demand, is legal tender without restriction in the payment of debt; and gold alone in the form of bullion is receivable to any amount at the mint, or by the Bank of England as the agent of the mint, and exchangeable for legal tender of the realm. Although, therefore the current media of exchange may consist of bronze and silver for small payments, and of notes and various credit-instruments, such as cheques and bills of exchange, for large payments, and gold may be actually employed in domestic transactions only for payments of intermediate amounts, yet the standard of value is gold alone; for the notes are convertible into gold on demand, and the various credit-instruments are promises to pay, which, according to the regulations of

legal tender, can in the last resort be made only in gold, or in paper convertible into gold on demand. The superstructure of CREDIT (*q.v.*) rests on the foundation of "cash" in the Bank of England; and "cash" consists of gold or paper convertible into gold.

This monometallic system was introduced into England on the resumption of cash payments after the period of the Bank Restriction. The system prevailing before had been one in which silver had formed the unit of account, but gold had been rated to it. Since the abolition of seigniorage charges in 1666, with the exception of a brief interval during the recoinage under William the Third, when the importation of gold guineas was prohibited for a few months to allow of the successful accomplishment of the necessary operations, and, at a later time, of the suspension of the free coinage of silver in 1798, the mint was freely open to the unrestricted coinage of both silver and gold, and both metals were indifferently regarded as unlimited legal tender in the payment of debt. In 1774 the tender of silver by tale was indeed restricted to £25, but it was apparently allowed to be tendered by weight without restriction. Between the recoinage under Elizabeth and that under William the Third, the silver remained unaltered in intrinsic value, but the gold was changed some four times. At the time of the later recoinage the current gold coin was the guinea, which nominally passed at twenty shillings. Owing to a deteriorated condition, due partly to wear and tear, partly to deliberate clipping and sweating, and partly to constant exportation of the heavier and better coins, the silver—of which the unit of account was the pound, but the coins actually current were for lower denominations—fell in value so rapidly that the guinea rose to thirty shillings. The question then presented itself, whether the silver should be reinstated in its former position, or the change in its value recognised and stereotyped in the new coinage. It was determined to restore the Elizabethan standard, and by successive stages the rating of the guinea was reduced. But, both before and after the recoinage, the silver was under-rated and the gold over-rated, in comparison with the rating which prevailed in other countries, and the increasing production of gold in the 18th century gave an added force to the natural consequences of this act. In accordance with the operation of GRESHAM'S LAW (*q.v.*) the over-rated metal found its way to the mint in increasing quantities, and the under-rated metal left the country; and, when a new recoinage was effected in 1774, the gold had taken the preponderant place in the currency, and its deteriorated condition demanded the chief notice, while the restriction mentioned above of the legal tender of silver by tale to sums of less than £25 seems to have been due to the existence of a large quantity of light silver which had taken the place of the heavier coins sent abroad. The recoinage was followed in 1798 by the suspension of the free coinage of silver; and, at the resumption of cash payments, gold was formally adopted as the standard, a heavy seigniorage was charged on the coinage of silver, its reception at the mint was definitely stated to be no longer free, and its character of legal tender was limited to sums no greater than £2. These changes were carried into effect by the younger Lord LIVERPOOL, but were in general agreement with the principles advocated by his father in the well-known *Treatise on the Coins of the Realm*. In some respects, indeed, they appear to have gone beyond the alterations recommended in that treatise, especially with regard to the seigniorage on silver. The elder Lord LIVERPOOL does not seem to have contemplated a charge exceeding the cost of coinage, which is technically known as BRASSAGE (*q.v.*), but it is probable that the heavier charge was prompted by a desire to meet the inevitable expense attendant on the resumption of cash payments.

The history, which has been given in brief, of the original adoption of the monometallic gold standard in England, has acquired considerable importance in later discussions on the merits of the system. It is urged by critics of monometallism that its introduction was accidental, that it conflicted, not only with previous practice, but also in reality, though not in appearance, with the theory of the older monetary authorities, and that it was made without a full appreciation of its possible results. On the other hand, the supporters of the system maintain that the Legislature merely endorsed by its sanction the informal and spontaneous choice of the people, that great inconvenience had arisen from the previous system, that the chief monetary reformers had repeatedly urged the adoption of the principles on which monometallism was founded, and that it was deliberately introduced to secure advantages which subsequent experience has shown to be inherent in it. These different views appear sharply antagonistic; but the difference turns to a considerable extent on the particular interpretation placed on certain words and actions, which admit of different meanings. There seems, for instance, little doubt that before the resumption of cash payments the currency had become preponderantly gold, and that a change in that direction had been evident throughout the 18th century. It is contended that this change was due, not to the deliberate preference of the people, but to an accident occasioned by over-rating of the gold and under-rating of the silver; and it

is urged that, at the time of the suspension of the free coinage of the latter metal, the conditions of production were altering in such a way that, had there been no such suspension, the currency would have become preponderantly silver. In a similar way different interpretations have been put on language used by PETTY and LOCKE, by NEWTON and by Adam SMITH (*q.v.*). They speak of one metal as the only possible "standard"; "one metal," says Locke, "alone can be the money of account and contract"; but the reformers of William the Third in thus speaking seem to have had especially before them the desirability of maintaining the Elizabethan standard for the silver pound, and they were fully aware that the gold was rated to it. They recognised a system under which both metals were freely received at the mint, and were indifferently legal tender in the payment of debt. They expressly urged the desirability of making the English rating accord with that prevailing abroad; and it was because their advice was followed imperfectly that the currency became preponderantly gold. Nor can there be doubt that the depletion of the silver was a real inconvenience; and that it was met successfully by the provisions for token coinage made at the introduction of the gold standard.

For the purpose of a convenient *internal* currency, regarded from the point of view of the media of exchange, such a monometallic system as that introduced into England at the beginning of the century possesses certain advantages. But the standard so formed is exposed, without any such compensatory action as is found in BIMETALLISM (*q.v.*), to the fluctuations in value of a single metal, whether these fluctuations be due to changes in production, or to alterations in the monetary policy of other countries, such as have characterised the last thirty years. It secures, it is true, a sufficient supply of convenient coins in the shape of tokens for small payments, and effectually prevents their exportation to other countries. Under the older forms of bimetallism, in which it was common for both the standard metals to be turned into coin, disadvantage attached to the use of the cheaper metal, silver, for large payments, as the coins required to settle a transaction of considerable amount were, either individually, or in the total mass, of great bulk, and the definite substitution under the monometallic system of the more valuable metal, gold, obviated this inconvenience. The comparative lightness of the English sovereign and the heaviness and cumbrous size of the French five-franc piece furnish examples of this difference. But now in a country like England coins are chiefly used in domestic trade, either as small change, or as a reserve against the issue of paper and as a basis for the superstructure of credit; and the more recent proposals for bimetallism contemplate the continuance of silver and bronze as token currencies for small denominations, of gold for purposes of change in larger dealings, and of paper money and credit instruments for negotiating still greater payments. In bimetallism, as thus conceived, the two metals would replace the one, in the main, if not exclusively, as a reserve against the issue of paper, and as a basis for the superstructure of credit. They would be freely receivable at the bank in exchange for legal tender, and they would indifferently form the basis of it. So far as the *domestic* trade of the country was concerned, it might, it is contended, be carried on as it is at present under our monometallic system.

With regard to *international* transactions, which would thus be chiefly affected by the adoption of bimetallism or monometallism, opposing arguments have been advanced by the supporters of either system. The use of a single standard is considered to attract business, at any rate of a financial nature, to the country where it is established, because every one knows precisely the mode in which he will be called upon to discharge his obligations to others, or will find that others meet their obligations to him. In London, for instance, it is contended, you are now always paid in gold, and pay in gold. Under a bimetallic system you might be paid in gold or silver, at the option of the debtor; and you yourself might pay in either metal as you preferred. This possibility, it is maintained, would not merely give rise to the inconvenience of being compelled on occasions to deal in international transactions with a bulkier instead of a lighter metal, but it would generate an uncertainty which would tend to drive away the business now attracted to London by the plain and recognised interpretation given there to monetary bargains.

On the other hand, monometallism, unless universally based on the same metal, fails to provide a par of international exchange. At present advanced nations appear, unless the tendencies of national policy are reversed by international action, to be likely to adopt and retain finally a gold standard. The example of England was followed by Germany at the conclusion of the Franco-German War, and Holland and the Scandinavian States imitated the action of Germany. The United States returned to specie payments on a gold basis after the civil war; in 1873, the Latin Union suspended the free coinage of silver, and adopted what has been distinguished as a limping or halting bimetallism, while Austro-Hungary, Japan, and Mexico have since established gold monometallism. For China a silver monometallic basis has been proposed to be kept by some method, not yet explained, on a level with gold. It should be added,

that some writers think that, were it feasible, silver alone would form a better standard for the world than gold. Experience has shown that it is more stable in value; and high authority (*e.g.* that of Ricardo), can be cited in its favour.

To these arguments monometallists answer that the difficulties of exchange between gold and silver-using countries have been exaggerated. There are, in short, they contend, no circumstances which would warrant the serious step of changing a monetary system, recommended not merely by its intrinsic merits—its simplicity and its convenience, and its freedom from international entanglement—but also by familiarity due to long establishment. A change in such a system would occasion a panic, or at least create confusion; and on negative and on positive grounds alike it is maintained that monometallism is the better system. Such contentions are not of course admitted by bimetallists (see BIMETALLISM); but they are confidently advanced.

[For the literature of the subject see the references under BIMETALLISM. For the history of the introduction of gold monometallism into England, Mr. R. H. Inglis Palgrave's Memorandum contained in the *Third Report of the Depression of Trade Commission* should be consulted, and also Mr. Dana Horton's writings, especially his *Silver Pound*, Mr. W. A. Shaw's *History of Currency*, and Lord Aldenham's *Colloquy on Currency*. Lord Liverpool's *Treatise on the Coins of the Realm* shows what considerations had weight with the authors of the change; and the reports of the debates in parliament at the time of the resumption of cash payments should be consulted. The evidence before the *Gold and Silver Commission*, together with the final report of the Commission, supplies an authoritative account of the arguments advanced by supporters and opponents of monometallism; and the evidence given before the *Commission on Agriculture* by Sir Robert Giffen and Lord Farrer, and by Professor Foxwell and Mr. Everett, should be referred to for a more recent statement of the case. The *Report of the Brussels International Monetary Conference* should also be consulted. Sir Robert Giffen's *Case against Bimetallism* on the one side, and Professor Nicholson's *Money and Monetary Problems* and Wilkie's *International Bimetallism* on the other contain discussions of various important aspects of the question. Professor Taussig's *Silver Situation in the United States;* M. de Boissevain's *The Monetary Question;* Mr. E. Helm's *Joint Standard*, and Professor Foxwell's articles and pamphlets should also be studied, and the publications of the Gold Standard Defence Association and of the Bimetallic League, which are authoritative, although avowedly controversial. Jevons's *Investigations in Currency and Finance*, and also his *Money and the Mechanism of Exchange;* General Walker's *Money* and also his *Money, Trade, and Industry*, and Professor Sidgwick's *Principles of Political Economy*, may be consulted for a more general and theoretical treatment of the question.] L. L. P.

MONOPOLIES. The issue of letters patent, granting the recipients the exclusive right of dealing in particular commodities or pursuing a particular trade, began long before the time of the Tudors, but it was only under them that monopolies began to be a serious abuse, and it was not till near the end of Elizabeth's reign that they became a real grievance. The subject came under discussion in parliament in 1601, when Mr. Laurence Hide on 20th November brought in a bill entitled "An Act for the explanation of the Common Law in certain cases of Letters Patent." The list of monopolies read on this occasion included such things as salt, currants, iron, playing cards, carriage of leather, ashes, bottles, vinegar, coals, etc. The salt monopoly is said to have raised the price from 16d. to 14s. or 15s. a bushel. Discussion on this occasion was stopped by a message from the queen, who promised to revoke all objectionable patents and grant no more. James I. on his accession issued a proclamation suspending all existing monopolies till the council should decide that they were not prejudicial to his subjects, but before the end of his reign they were being granted as freely as they had been by his predecessor. Matters were brought to a crisis by the action of the Purveyors (see PURVEYANCE), of whom Giles Mompesson (afterwards Sir Giles) was the most notorious. He originated a scheme by which the licensing of inns and ale-houses, then as now, under the justices, should be subject to the approval of two commissioners, himself and another, appointed by letters patent. The enormous bribes and fees exacted by these commissioners enraged the people, already excited about the general question of monoplies; the matter was taken up in parliament in the spring of 1621, Mompesson fled to the continent, and on the 31st March the monopoly bill passed the Commons, the three most obnoxious patents, those for inns, gold wire, and concealed lands, having meanwhile been cancelled by proclamation. In 1624 the monopoly bill passed the Lords. By it all monopolies, except the protection of inventions for twenty-one years, were declared illegal, the decision in any case being put into the hands of the judges. The exemption from its action of corporations, an exemption made on behalf of the great trading companies, the Levant Company and the like, was destined to give trouble in the next reign. In 1631 a company was formed and obtained a patent for making soap of English materials. In the following year it was invested with power to condemn all bad soap, thus obtaining a practical monopoly. A great quarrel ensued between the company and private manufacturers, which lasted several years and was of great political importance. In 1634 similar companies obtained monopolies for salt, shipping of coal, malt, and starch, and others were formed in

succeeding years till 1639, when most of the patents were revoked by proclamation. Then followed the civil war which put an end to the question of monopolies as it did to so many other vexed questions of royal prerogative.

[See *The Great Case of Monopolies*, and Lord Coke's remarks on it.—Hallam, *Constitutional History of England*.—Prothero, *Statutes and Constitutional Documents*, Cambridge, 1894.—Hume, *History of England*.—Gardiner, *History of England*, London, 1888.] A. E. S.

MONOPOLIES IN THE UNITED STATES. In the United States, aside from copyright and trade marks, there are no legal monopolies of consequence excepting the patent right. The patent right secures to the owner and his assigns the monopoly of the manufacture and sale of the patented article for seventeen years.

In certain isolated cases the state itself has owned and managed, either directly or by lease, certain industries, as, for example, the salt industry in the state of New York until the year 1894; but such cases are so rare that they are not worthy of detailed consideration.

The so-called "natural monopolies," meaning thereby the railroads, telegraphs, telephones, waterworks, gas and electric lighting plants, etc., in the United States, are ordinarily in private hands, under the more or less careful supervision of the state authorities. At the beginning of the era of railroad building there was no thought on the part of the citizens of a necessity for restricting railroads in their privileges; and in earlier years what laws were passed were either directly for the encouragement of the railroads, by means of grants of lands or guarantees of loans, or else they were general laws permitting any responsible corporation to undertake the building of a railroad in whatever locality it thought desirable, the power of EMINENT DOMAIN for compulsory purchase of private lands being granted freely. Within a few years later, however, especially after the smaller roads first built began to combine into longer through routes, the necessity of some restriction made itself felt. At first in New Hampshire, and soon afterwards in certain other states, temporary commissions were appointed to investigate the causes of accidents, and to recommend or, if necessary, prescribe certain regulations to prevent similar misfortunes in the future. In the years from 1850 to 1870, however, the roads had become so powerful and had made their influence so strongly felt through their discriminations in rates between different localities, and especially, as it was thought by the farming classes, through their exorbitant freight rates, that much hostile feeling was aroused. In the states of Illinois, Wisconsin, and Iowa especially, laws were passed prescribing strictly the rates of traffic, as well as restricting the freedom of administration in many other ways. These somewhat arbitrary laws were found to be so stringent that it was necessary to repeal some of them within two years. But the feeling against the railroads still existed, and careful control of them was attempted in other ways. In the eastern states, following the lead of Massachusetts, railroad commissions were appointed, with powers of investigating in detail the business of the roads, with the duty of advising the railroad managers, and with instructions to report annually to the legislature the conditions found, but with no power to enforce their decisions; it being hoped that the pressure of public opinion would be sufficient to secure just action on the part of the roads. In several other states, following the lead of Illinois, commissions were appointed with power not merely to advise the roads but to prescribe specific rates for freight and passenger traffic, to insist that sufficient facilities for handling traffic be provided, to make classifications of freight and passenger traffic, to regulate connections between trains, etc., and, through the courts, to enforce their decisions.

This method of control by the legislatures has spread from state to state until at present twenty-two states have railroad commissions for the control of the traffic that is carried on within the state.

Inasmuch, however, as a large part of the traffic is interstate, and inasmuch as under the United States constitution interstate commerce is under the control of the United States, it was found necessary to establish in 1887 the interstate commerce commission, a board consisting of five members appointed by the President, whose duty it should be to have the oversight of interstate commerce as the state commissions have of commerce within the separate states (see INTERSTATE COMMERCE LAW, U.S.A.). The powers of the commission are in the main those given to the commission of the state of Illinois. Under certain general rules laid down by the statute, the commission is empowered to prescribe reasonable rates, to take cognisance in a judicial way of complaints made of violation of the law, and to make rulings regarding them, the power of enforcement, however, being in the hands of the United States courts.

While, as yet, neither the state commissions nor the interstate commerce commission have been able to prevent all abuses, the law being frequently evaded, especially as regards discrimination in rates between different shippers, it is nevertheless true that these abuses, under the careful oversight of the commissions, are becoming rapidly less. The commissions are greatly extending their power, they are acting harmoniously one with the other, and there can be little question that they will be able in the future gradually to assume a more strict control of the railroads than has been the case heretofore.

In the United States the telegraphs are in the hands of private corporations. Earlier there were many competing companies, most of which, however, were gradually absorbed by the more powerful ones, until at present (1895) only two of consequence remain: the Western Union Telegraph Company, which controls from 85 to 90 per cent of the lines throughout the country, and the Postal Telegraph Company which controls the remainder.

Within the municipalities it is customary for the waterworks to be owned and managed by the municipality, though there are of course very many exceptions. Until within a very few years the gasworks were all owned by private corporations, but recently several cities —some twelve or fifteen—have obtained control of their gas and electric lighting plants. The only large city, however, which owns its own gasworks is Philadelphia. The tendency at present is clearly toward public ownership and management of the lighting facilities in the cities. The telephones in the United States are owned entirely by private corporations, most of them by the Bell Telephone Company, though, since the expiration of some of its patents within the last year, several rival companies have been started.

Of chief significance, however, in the United States are those monopolies which may be called capitalistic monopolies, the industries that become monopolies simply through the advantages that come from the use of large capital. The first great monopoly of this class was the Standard Oil Company, which, through a process of rapid growth through ten or fifteen years, with the advantages of lower freight rates on the railroads than its rivals could secure, finally, in 1882, was organised into the Standard Oil Trust, a combination that was able to control 85 per cent of the total output of refined petroleum in the country. For many years the business of the trust was confined entirely to the refining industry, the petroleum fields and raw petroleum being in the hands of other companies; but of late years one of the largest and most important of the petroleum fields has fallen into the hands of the Standard Company. The other most important capitalistic monopolies are the American Sugar Refining Company (Sugar Trust), the Distilling and Cattle Feeding Company (Whisky Trust); with several other large ones, especially the combinations controlling cotton-seed oil, linseed oil, white lead, dressed meat, cordage, and tobacco. In very many other industries, however, the leading manufacturers and dealers have formed combinations so that over large stretches of territory they have been able to hold almost a complete monopoly, some of the latest books on the subject giving, of the names simply of monopolies, lists that fill eight pages closely printed, and contain the names of some hundreds of distinct monopolistic establishments.

The word trust, as applied to monopolies in the United States, describes simply a form of business organisation. It is really a partnership of corporations. The plan was first devised by the Standard Oil Company, and was afterwards adopted by many others. It consisted, briefly, of an organisation made by a surrender on the part of the stockholders of the different corporations entering into the trust, of their separate shares of stock, to a board of trustees, the trustees holding from the individual stockholders an irrevocable power of attorney. In return the trustees issued trust certificates which represented an equitable share in the combined properties. The business of all the corporations was then managed in unison by the trustees, and the profits of all, being pooled, were distributed among the certificate holders in proportion to their holdings. In this way the interests of the different corporations were made common, the management was made harmonious, and no member, corporation or individual, had it within his power to withdraw from the organisation, as had been done earlier by members of some of the tentative pools that had been organised to prevent competition. Owing to hostile legislation against trusts, many of them have been put back into the corporation form by issuing to each trust-certificate holder a corresponding amount of capital stock in the new corporation, giving him an undivided interest in all establishments represented.

The causes of these industrial monopolies are clearly to be found in the modern form of industrial organisation, in which immense amounts of capital are required. Competition between such great establishments becomes so fierce that often ruin threatens all the rival establishments unless some form of agreement between them is reached. In many instances they have been aided by the railroads, which gave them preferential freight rates, sometimes the tariff laws have helped them.

The results of these monopolies are in part beneficial to society, in part dangerous. (1) A great saving to society is effected by working the best plants in the combination to their full capacity, and stopping the others entirely. (2) All the production in any one line is put under the management of the leading experts in the country. (3) A great organisation with branches in different parts of the country, by supplying its customers from the nearest establishments, is able to save much in transportation, especially in the case of bulky articles. (4) A very large establishment is able to save much in the way of side products that in a small establishment must be wasted. (5) A very great establishment can often afford to keep in its employ inventors and experts whose sole business it is to devise new and improved

methods of production. (6) Through these savings it is possible for the monopolies, while still making a good profit, to lower prices to consumers. A careful study of their influence on prices within the last few years in the United States, however, shows that, while their prices might have been lowered, the monopolies preferred rather to increase their profits, so that the prices have been somewhat higher than formerly under the system of free competition. It has been impossible, however, for the prices to be kept much above the level of competitive prices, on account of the new rivals that were thus called into the field. In the case of the sugar monopoly, for example, the higher prices demanded soon after the organisation of the Sugar Trust, within two years called several powerful rivals into the field, which forced prices down to competitive rates again for some two years, when, these rivals combining with the original trust, it thus obtained control of more than 90 per cent of the refining plants in the country, and again put the prices above competitive rates. Under monopoly, prices are doubtless somewhat steadier than under a system of free competition, but when changes are made in price, they are likely to be made with less warning and to be greater in extent than under a competitive system.

One of the greatest evils in connection with the trusts has been the speculation in their stocks by the managers. Nearly all of the most important of these capitalistic monopolies have been thus dishonestly managed. Again, there is a tendency, on account of the certain market and sure profits, for the managers of monopolies to become less enterprising, inventive, careful in business methods, than those with competitors, though as yet this tendency has not been strongly manifested in the United States. The fact that a much smaller proportion of the men engaged in business in the country are placed upon their own individual responsibility under the monopoly system, will beyond question have a powerful effect upon social conditions and business habits. Beyond doubt too the fact that these large enterprises were likely to be attacked by legislators, and that they also have desired important legislation, at times, in their own interest, has led often to corruption of legislatures and courts.

The danger to the public from these organisations has been so keenly felt that congress and no fewer than eighteen states have passed laws declaring them illegal, and prescribing heavy penalties for their promotion. Several court decisions also declare them illegal under the common law. Nevertheless, under some form they still continue. They are so clearly a product of present industrial conditions and methods that they can hardly be suppressed. Beyond question, the wisest way to deal with them is to control them by inspection and publicity, and possibly by some control over unreasonable prices, as there is in Canada. A commission like a railroad commission could probably control them sufficiently. Their possibilities for good are too many to make it desirable to destroy them.

[*Report of the Committee on Manufactures of the House of Representatives*, 50th Congress, No. 4165. —*New York Senate Report on Trusts*, 1888.— *Report of Canadian Legislature on Trusts and Combinations*, 1888.—W. W. Cook, *Trusts; The Corporation Problem; Stock and Stockholders;* and *Corporation Law*, ch. xxix.—Beach, *On Private Corporations*, ch. xli. The last two authorities give bibliographies.—Stimson, *American Statute Law*, vol. ii.—*The Economic Journal*, March 1892. —*Political Science Quarterly*, March, September, December 1888; June 1889; September 1894.— *Atlantic Monthly*, March 1881.—S. C. T. Dodd, *Combinations, their Uses and Abuses.*—H. D. Lloyd, *Wealth against Commonwealth.*—Ernst von Halle, *Trusts, or Industrial Combinations in the United States.*] J. W. J.

MONOPOLY means literally sale by one man; but the term is extended to denote either sale, or purchase (*e.g.* of labour), by either one man or a group acting as one man (*e.g.* a trade-union). The definition thus enlarged is usually, or should properly, be limited by the condition that the monopolist deals, not with another monopolist, but with parties who compete against each other. Thus Ricardo (*Political Economy*, ch. vii.): "Commodities are only at a monopoly price . . . when the competition is wholly on one side . . . amongst the buyers." And this limitation is reasonable; for value in "isolated exchange" (Böhm-Bawerk) is not determined by the same laws as in "one-sided competition" (*id.*). Such is the definition here adopted; to the exclusion of a wider sense sanctioned by authority, according to which monopoly exists wherever the number of sellers is not reduced to one, but restricted to a class. It is in this sense that Adam Smith speaks of "the monopoly of the colonial trade," and Cairnes and Professor Bastable, of a country having the monopoly of an article, although the traders in the privileged country are not supposed to be in combination. So Mill treats of the "natural monopoly in favour of skilled labourers" (*Pol. Econ.*, bk. ii. ch. xiv. § 2, § 3, par. 1, ch. xv. § 3, last par.); and, in another connection, considers the case of the "sharers in the monopoly" being "numerous" (bk. v. ch. x. § 4). Senior, observing that competition is not free where the concurrence of "an appropriated natural agent" is required, describes the proprietor of such agent as a monopolist. According to him, all landlords are monopolists (*Political Economy*, p. 105); Schäffle designates as *Monopol Verhältnisse*, those advantages which he has treated of as "ausschliessende Verhältnisse." But according

to the view here taken, *Monopoly* does not include RENT and quasi rent.

Monopoly in the sense here adopted plays a greater part in modern economics than has been assigned to it in the classical treatises. Witness the spread of trade unionism, the growth of combination in the new form of trusts, the prevalence of joint-stock companies, particularly railway companies. Mr. Baker estimates that the yearly earnings of all "transportation lines" in the United States, are about one-tenth of the total value of all the year's products. The sphere of monopoly is also being enlarged by the growth of municipal and governmental industries.

The determination of value under monopoly is not so simple as might be supposed from some expressions of classical writers. Thus Adam Smith says: "The price of a monopoly is upon any occasion the highest which can be got" (*Wealth of Nations*, bk. i. ch. vii.); and Ricardo "when a commodity is at a monopoly price, it is at the very highest price at which the consumers are willing to purchase it" (*Political Economy*, ch. vii.). These propositions are true theoretically, upon the hypothesis that the monopolist makes a separate bargain with each buyer. But in practice he must often find a uniform price for all, or at least a whole class of purchasers. The simplest case is where one price is made for the whole market, and the article monopolised is supplied without cost, *e.g.* the water of a "mineral spring" (Cournot). The price is determined by the condition that price × the amount demanded at that price—the product of an ordinate and co-ordinate of the DEMAND CURVES—should be a maximum. The case is less simple, the representation less elegant, when cost of production is incurred by the monopolist, and when he fixes different prices for the same articles sold to different classes (*e.g.* theatre tickets to soldiers and to citizens), or for different articles which have in part JOINT PRODUCTS; such as the carriage of different classes of goods on a railway, the permanent expenses of which are paid out of the rates indiscriminately. The only general principle is to charge on each article "what the traffic will bear."

So far, we have supposed only one monopolist. But when there are two monopolists controlling respectively two factors of production, *e.g.* gas and water power, for which there is a joint demand, the determination of value is more difficult (Marshall, *Principles*, bk. v. ch. x.), the oppression of the consumer is likely to be greater (Cournot, *Principes*, ch. ix.).

There are several circumstances which prevent monopoly prices from rising to the full height determined by the preceding theory. The monopolist, for the sake of his own future custom, will not exact the uttermost farthing. Thus American railway companies nurse infant cities, and have even "discriminated" in favour of individuals who are likely to be good customers. Again, the monopolist will refrain from provoking competition by excessive prices. He may be influenced, too, by a regard for public opinion, and even a concern for the interests of the consumer. The last feeling may especially be expected where the monopoly is held by government. In this case, the surplus which the monopolist seeks to maximise will not be simply his own net revenue, but some mean between that surplus and CONSUMERS' RENT, which Prof. Marshall calls *Compromise Benefit* (*Principles*, v. ch. xiii.).

In general, prices under monopoly are higher than they would have been under competition, *other things being equal*. But other things are not equal, for the expenses of production are apt to be less under monopoly, owing (1) to the advantages of production on a large scale; (2) the avoidance of waste incident to competition. Four or five tobacconists in America spend annually in advertising against each other some 3,000,000 dollars (say £600,000), of which two-thirds at least could be saved by combination (Jenks). The balance of forces tending to raise and to lower prices, seems to be against the consumer in the case of some trusts which Prof. Jenks has examined. Even if the price of whisky, or refined sugar, has fallen, it has not fallen as much as might have been expected in view of the fall in the price of the raw material. Nor is the consumer much benefited by the alleged greater steadiness of monopoly prices. The variations in the price of whisky became, after the formation of the trust, less frequent, but more violent.

The injury to consumers is fairly well evidenced. The injustice to producers is even more clearly evident. Mr. Baker estimates that out of 18,000,000 American workers, some 5,500,000 derive benefit from monopolies; that is, about one-third are benefited at the expense of two-thirds. The greater part of the extra gains are concentrated in the hands of a much smaller minority. The high rate of profits enjoyed by trusts may be another evidence of inequitable gains, which it is difficult to obtain owing to the practice of watering stock.

One remedy for these evils is fortunately of comparatively easy application, where the monopoly is a corporation, namely publicity.

[For the definition of monopoly, consult Sidgwick, *Political Economy*, bk. ii. ch. x.; Senior, *Political Economy*, p. 103; and the *Nouveau Dictionnaire de l'Économie Politique*, with the references there given. As to the prevalence of monopoly at present, Foxwell "Monopoles" in the *Revue d'Économie Politique* for 1889; *Parliamentary Papers*, Foreign Office miscellaneous series, No. 174, 1890, c. 5826, 32, Report on Trusts; C. W. Baker, *Monopolies and the People*. On the value of monopolised articles, Cournot, *Principes Mathematiques;* Marshall, *Principles*, bk. v. ch. xiii.; Auspitz and Lieben, *Theorie der Preise*, 72-75, and

other mathematical economists; Hadley, on *Railway Transportation*, and other works relating to railway rates. On the good and evil of modern monopolies, Foxwell and Baker as before; also J. W. Jenks in *Economic Journal*, March 1892; *Political Science Quarterly*, September 1894; Andrews, in *Quarterly Journal of Economics*, January 1889. The most forcible denunciation of monopoly is to be found in classical chapters of the *Wealth of Nations*, bk. iv. ch. vii. pt. iii., and ch. viii.; also bk. v. ch. i. Cp. Mill, *Political Economy*, bk. v. ch. x. § 4.] (See EXCHANGE, VALUE IN; PATENT AND PATENT LAW.) F. Y. E.

MONROE DOCTRINE, the name given to a celebrated declaration of policy made by President Monroe on behalf of the United States. It arose out of two separate complications. The first was the design of the Holy Alliance[1] to give assistance to Spain in her attempts to reduce her revolted South American colonies to submission; and the second was the series of differences between the United States, Great Britain, and Russia with regard to territorial dominion and boundary lines in the north-western parts of North America. Great Britain was strongly opposed to the Holy Alliance, and CANNING, who was then secretary of state for foreign affairs, informed the American government of its intentions, and proposed a joint declaration, setting forth that the two countries were determined to prevent the intervention of any foreign power in the struggle between Spain and her colonies. This project fell through; but it was known that the two English-speaking peoples were prepared to act in concert. Their determination to assist each other in keeping the Holy Alliance out of South and Central America was not affected by their differences with regard to the other matter dealt with by the doctrine under review. Under these circumstances, on 2nd December 1823, President Monroe, in his annual message to congress, declared, *first*, that "the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonisation by any European powers"; and *secondly*, that "we [the United States] should consider any attempt on their [the European powers'] part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintained it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them, or controlling in any other manner their destiny, by any European power, in any other light than as the manifestation of an unfriendly disposition towards the United States."

These declarations have become a sort of sacred text, and they have shared the fate of other sacred texts in being overloaded with a mass of comments. And, as is usually the case, the commentators may be divided into two classes, those who seek to extend and those who seek to restrict the meaning of the original. The first part of the Monroe doctrine has been taken to forbid the acquisition of any further dominion on the North American continent by European powers (message of President Polk, 2nd December 1845); while the second part was held to justify even a strongly-worded protest against the confederation of the Canadian provinces (resolution of the House of Representatives, 27th March 1867). On the other hand, Mr. R. H. Dana, in his edition of Wheaton's *International Law*, sums up an elaborate examination of the whole subject by the statements that the declaration against colonisation referred only to the acquisition of sovereign title by new and original occupation, and the declaration against European interposition in the affairs of American states was meant to do no more than forbid the extension to the American continent of the system whereby the great powers exercise control over European affairs.

We need not discuss the statement that the American continent is closed against future colonisation. Whatever may have been the case in 1823, it is certain that in 1896 there is no part of the New World which does not belong to a civilised state. Territory in it may, therefore, be acquired by cession or conquest, but not by occupation in that technical sense which signifies the taking and keeping possession of what was at the time of seizure the property of no recognised subject of INTERNATIONAL LAW. The existence of boundary questions does not militate against this view. They presuppose that the districts in dispute are under the rule of some civilised power, the only difficulty being to apportion them among rival claimants.

The really important part of the Monroe doctrine is the assertion of the principle that the state-system of Europe must not be extended to America. Washington, in his farewell address, bequeathed to his countrymen the policy of keeping clear of European entanglements. They accepted the legacy, and soon showed a strong disposition to add to it the corollary that Europe must refrain from meddling in Transatlantic affairs. The circumstances already mentioned brought this clause of their political creed to the front, and it has remained ever since a cardinal principle of the external policy of the United States. Statesmen have differed as to how far it should be carried, but none

[1] Formed by Alexander I., emperor of Russia, in 1815; in conjunction with Francis I., emperor of Austria; and Frederick William III., king of Prussia.

have been found to deny it. Successive administrations have acted upon it with more or less of vigour, and the American people support it with practical unanimity. Like most other doctrines the Monroe doctrine has grown with the process of assertion and definition. It has been subject both to healthy development and to unhealthy growth. If we want to know what it is held to cover at any particular time, we must refer to the words and deeds of the American statesmen of that time rather than to the intentions and designs of President Monroe or Mr. John Quincy Adams, his secretary of state. There can be no doubt that in its name the United States would object to the acquisition of fresh territory on the American continent by any European states, whatever were the means employed for obtaining it; and quite recently President Cleveland has argued that it justifies his intervention in the boundary dispute between Great Britain and Venezuela. The United States do, in fact, occupy a position of pre-eminence in the New World very similar to the position of the six great powers in Europe, though they have kept themselves free from pledges to other American states to assist them against European attacks; and they define and defend their hegemony by reference to the Monroe doctrine. That doctrine is not international law; but it is a cardinal principle of American policy, which other powers must take into account if they wish to keep on good terms with the great Transatlantic republic. Indications have not been wanting that the doctrine may develop an economic side, which would in practice tend towards a commercial union of American states.

[Wharton, *International Law Digest*, §§ 57-68. —Dana, note on the "Monroe Doctrine," in his ed. of Wheaton's *International Law*. — Lawrence, *Principles of International Law*, §136.—*American History Leaflets*, No. 4. President Monroe's message of 1823, containing the statement of the Monroe doctrine, is given in full, in No. 56 of the *Old South Leaflets*, recently published by the directors of the Old South Studies in History, Old South Meeting House, Boston, Mass.]. T. J. L.

MONTAIGNE, MICHEL DE (1533-1592). Although, in his rambling way, the author of the *Essays* touched on innumerable topics, he rather cautiously avoided social and political questions.

"We owe submission and obedience to all kings, for this is due to their office, but we only owe our esteem and affection to their virtues" (bk. i. ch. 3). Having satisfied his conscience with this restriction, Montaigne, who lived in the midst of the havoc of religious and civil wars, invariably repeats that he is "disgusted with novelty, whatever may be its features" (bk. i. ch. 22).

He had come to the conclusion that "the profit of one man is the loss of another" (bk. i. ch. 21), and expressly mentions the merchant as an illustration. On sumptuary laws, he is more enlightened; he considers them as going against their object, as good examples derived from kings and great people would be much more effective (bk. i. ch. 43). Some hints on the desirableness of instituting municipal offices of information, and on the usefulness of keeping detailed and accurate family journals and account books (bk. i. ch. 34), are probably the only remaining utterances of Montaigne which ought to be noticed here.

E. Ca.

MONTANARI, GEMINIANO (1633-1687). Born at Modena, Italy. An able mathematician and astronomer, he was mathematical professor for fourteen years at the university of Bologna, and afterwards professor of astronomy and meteorology at the university of Padua, in which city he died. To students of economics he is known by his two works on coins, written about 1680, and published seventy years later by Argelati in his collection of works on coins, and afterwards reproduced in the collection of CUSTODI. These works possess much merit notwithstanding the evident traces of the influence of BODIN—an influence greatly felt by all thinkers at that period.

Fluent and animated in style, Montanari freely criticises the mistaken views held in his day on the coinage question, and the injurious effect of alterations in coins, and the raising their nominal value; and points out the rules which should be observed in coining money at the mints. His investigations on money necessarily lead him to an examination of the question of value. He combats the idea of an invariable relation of the value between gold and silver asserted by Bodin and SCARUFFI. He reduces the laws of value to the element of scarcity —understanding scarcity not as absolute, but relative to the extent of the demand.

In his researches, says Graziani, Montanari succeeds in explaining all the general phenomena of value, though without thoroughly understanding the intricate and difficult subject—the value of money.

Breve trattato del valore delle monete in tutti gli stati, 1680.—*La zecca in consulta di stato, trattato mercantile*, etc. 1687. Republished by Custodi in his collection of Italian classical economists, under the title of *Delle monete, trattato mercantile*.

[Cossa, *Introduction to the Study of Political Economy*, London, 1893.—Bianchini, *Della scienza del ben vivere sociale*, Palermo, 1845, p. 170.—Graziani, *Le idee economiche degli economisti emiliani e romagnoli*, Modena, 1893, pp. 45-48.] U. R.

MONTAZGO, called *carnerage* in Aragon, a toll levied by Spanish kings on migrating flocks of cattle at certain passes in the mountains. It was suppressed in 1758.

[Canga Argüelles, *Diccionario de Hacienda* (London, 1826). See also MESTA.] E. Ca.

MONTCHRÉTIEN, ANTOYNE DE (*c.* 1576-1621), a Huguenot, a second-rate poet, and a hard-ware manufacturer, dedicated in 1615 to the king (Louis XIII.), and the queen-mother, his *Traicté de l'Œconomie Politique*. This seems

to be the first work ever issued under that title; and the use of the phrase is undoubtedly significant. But there is absolutely no ground for the assertion, maintained by some enthusiastic French writers, and notably by his latest editor, M. Funck-Brentano, that Montchrétien was the creator of political economy, or even that he was in any way a considerable economist. There is hardly a single argument or proposal in the book that is not borrowed from earlier writers; the passages which have been most praised for the trade policy they advocate are taken almost verbatim from BODIN. The book is really nothing but a thick mercantilist pamphlet; its style is grandiloquent and long-winded, and full of repetitions; and it is only valuable for the miscellaneous information it gives as to contemporary conditions of industry and trade in France.

The *Traicté* has been edited with a long introduction by M. Funck-Brentano (Paris, 1889); and its unoriginal character demonstrated in the *Eng. Hist. Rev.*, vi. (1891), 779. W. J. A.

MONTESQUIEU, CHARLES DE SECONDAT BARON DE LA BRÈDE ET DE MONTESQUIEU (1689-1755), born and died at La Brède near Bordeaux. One of the ablest thinkers of the 18th century, he may be considered rather a student of political science than of political economy alone, a science which in his time scarcely existed, at least not as a distinct branch of study. Following on some works in which he asserted more than he could prove, Montesquieu wrote in 1721 his *Lettres Persanes*, which for a time were all the fashion, and seven years later (1728) opened to him the doors of the French academy. This book, keen and witty criticism as it was of the men of his time, would not, however, have secured to the author that widening renown which his name has attained.

The works which have immortalised the name of Montesquieu are the two following: the first, critical and historical, is entitled *Considérations sur les causes de la grandeur des Romains et de leur décadence*, 1734; the link it possesses with economic science is through politics, as in the passage, "It is not fortune (in our time we should say chance) which rules the world. . . . There are general causes — moral or physical — which operate in each kingdom, which raise, preserve, or ruin it; every accidental occurrence is subordinate to these causes; and if the chance of a battle, that is to say a particular cause, ruins a state, this takes place because there was a general cause which led to the destruction of the state by a single battle. In short the principal force induces all particular accidents," ch. xviii. Again, the universality of immaterial laws is asserted thus: "As men at all times have had the same passions, though the occasions which produce great changes are different, the causes are always the same" (ch. i.).

The second book, *De l'Esprit des Lois*, 1748, on a much larger scale than the first, was written throughout in the same exact and concise style peculiar to the author, and had been under preparation for some time (1728-1748), the latter year being the time of its appearance. The reputation of this masterpiece has increased with time; but it was warmly welcomed even on its first appearance.

Madame du Deffand said with a sneer, that it was "de l'esprit sur les lois." Voltaire appreciated it more highly when he wrote "the human race had lost its title-deeds; M. de Montesquieu has found them and returned them." The fact is, that though the work may have grown antiquated both in form and through the advance made in moral and political science during a century and a half, it attains in many passages a marvellous elevation, which excites first astonishment and then admiration. The remarks on the influence of climate on national character and economic condition, bks. xiv.-xvi., are among Montesquieu's most characteristic points. Some passages on economic questions may be selected, in which the author is indisputably in advance of his age. Thus in bk. xx. ch. ii. "The natural result of commerce is peace. Two nations trading with each other make themselves reciprocally dependent. If it is to the interest of one to buy, it is to the interest of the other to sell, and all unions are founded on mutual necessities." Bk. xx. ch. ix., "it is commerce which sets the right value on commodities, and which establishes true relations between them." In the countries in which loans of money at interest are not regarded favourably by the law, "the lender takes on himself the risk of breaking the law," and "the rate of interest increases in proportion to the risk of the loan not being paid." "Continence is naturally linked with the expansion of the race," bk. xxiii. ch. ii., written a century before Malthus, he appears to anticipate some of that writer's conclusions. Montesquieu was in favour of direct taxation of individuals, not a taxation in proportion to their wealth, but a taxation in proportion to the surplus remaining after the satisfaction of their ordinary wants. In short, he proposed to divide the citizens, as at Athens, into classes, according to the condition of the individuals. No doubt there were economic subjects on which he too readily adopted the mistakes of his time. He supported the sale of offices; he inclined to the mercantile system; he had no clear idea of the economic position of money, though he said, and rightly, "that the use of money by a nation was one indication of civilisation," bk. xviii. ch. xv. He preached also the equalisation of individual property, sympathising too much with the spirit of Lycurgus in this. It was the influence of this spirit which caused him to regard a long-continued period of national security as leading to corruption and decadence. He would willingly have consented to give up the use of money to attain the ideal of government realised by the Jesuits in Paraguay. Though he could not free himself from some of the economic errors of his time, Montesquieu showed often, and on points of the highest importance, the superiority of his judgment. In these cases he was much in advance of his contemporaries. It should not be forgotten that his book *L'esprit des lois* appeared ten years before the *Tableau Économique* of Quesnay, and twenty-

eight years before the reforms of Turgot and the publication of the *Wealth of Nations*. This great thinker dominated his own age and often anticipated the economic ideas of the future.

[See references to Montesquieu in A. Smith, *W. of N.*, bk. i. ch. x., as to effect of law on rates of interest; bk. v. ch. i., as to education and morals among the Greeks. — Hume, *Essays*, No. XI., on "Populousness of Ancient Nations," and in note T.] A. C. f.

MONTHLY ASSESSMENTS were a tax first levied by the long parliament during the civil war, continued throughout the commonwealth, and occasionally used under Charles II. and William III. They were an improvement upon the old SUBSIDIES, being more evenly assessed rather than more productive. A sum, based upon the highest produce of a subsidy, was fixed, and proportionately assessed upon both real and personal property by local commissioners for each county; it was levied upon occupiers, to be by them deducted from their rent. Church lands and goods were included, and it was the establishment of this as permanent which occasioned the cession by the clergy in convocation of their taxing powers in return for the right of voting at parliamentary elections. The tax varied from £35,000 to £120,000 a month, and was generally levied for three or more months in succession, a proportionate sum being also sometimes obtained from Scotland and Ireland. After 1690-91, the year of the highest sum ever raised by this tax, monthly assessments gave way to a new form of property-tax.

[Dowell's *Hist. of Taxation*, vols. ii. iii.—For details of assessment in 1660 see Sinclair, *Public Revenue*, i. 304, note.] E. G. P.

MONTHS, FOURTHS OF. In any analysis of the returns of the Clearing House, reference is frequently made to the "Fourths of the Month." The origin of this is found in the fact that a custom exists in many branches of trade to date the bills drawn on their debtors on the first day of the month. These bills become, according to the English mercantile law, by the operation of the DAYS OF GRACE (*q.v.*), payable on the fourth of the month in which they fall due. Hence a larger number of purely commercial transactions, as a rule, pass through the Clearing House on the fourth of the month than on any other day, and the amount of the returns is regarded as a proof of activity or slackness in trade. This observation refers, as stated, to the "purely commercial transactions"; those on stock exchange account days, and consol settling days, largely exceed the "fourths of the months," but it is only the latter which are under notice here.

The table which follows shows the amounts paid on the "fourths of the month," since the commencement of the publication of the clearing house returns in 1868, to the present time. The totals of the annual clearings are likewise added, and columns of proportional figures. By these the progress of the transactions of the "fourths of the month," relatively to the total transactions can be easily traced. It will be observed by comparing column three with columns four and six, that the amount of business done on the "fourths of the month" has not kept its own relatively to the total transactions. This corresponds to the known fact that fewer bills of exchange are now drawn in proportion to business done than used formerly to be the case. At the same time the "fourths of the month" are still important, and the amount of business done on those days is carefully watched and noted by those engaged in business.

London Clearing House Returns, 1868-1905. Amounts on the 4ths of the Month and the total.

1 Year.	2 Clearings on Fourths of the Month.	3 Proportion of amount in each year to 1868. 1868 = 100.	4 Proportion of Fourths of the Month to total.	5 Total Clearing for the Years.	6 Proportion of amount in each year to 1868. 1868 = 100.
	£		%	£	
1868	155,068,000	100	4·5	3,425,185,000	100
1869	169,729,000	110	4·7	3,626,396,000	106
1870	176,137,000	114	4·5	3,914,220,000	114
1871	211,095,000	136	4·4	4,826,084,000	141
1872	256,899,000	166	4·3	5,916,452,000	172
1873	272,156,000	175	4·5	6,070,948,000	177
1874	265,427,000	171	4·5	5,936,772,000	173
1875	245,810,000	159	4·4	5,685,793,000	166
1876	225,986,000	146	4·5	4,963,480,000	145
1877	232,630,000	150	4·6	5,042,383,000	147
1878	217,753,000	141	4·4	4,992,398,000	146
1879	213,348,000	138	4·3	4,885,937,000	143
1880	236,809,000	153	4·1	5,794,238,000	169
1881	253,133,000	163	3·9	6,357,059,000	185
1882	238,150,000	153	3·8	6,221,206,000	181
1883	239,080,000	154	4·0	5,929,404,000	173
1884	242,659,000	157	4·2	5,798,555,000	169
1885	221,873,000	143	4·0	5,511,071,000	161
1886	215,519,000	139	3·7	5,901,925,000	172
1887	256,469,000	165	4·2	6,077,097,000	177
1888	272,091,000	175	3·9	6,942,172,000	203
1889	290,711,000	187	3·8	7,618,766,000	223
1890	289,107,000	186	3·7	7,801,048,000	228
1891	264,501,000	170	3·8	6,847,506,000	200
1892	260,422,000	168	4·0	6,481,562,000	190
1893	268,084,000	173	4·1	6,478,013,000	189
1894	261,547,000	168	4·1	6,337,222,000	185
1895	283,610,000	182	3·7	7,592,886,000	222
1896	290,681,000	187	3·8	7,574,853,000	221
1897	302,123,000	195	4·0	7,491,281,000	219
1898	331,267,000	214	4·0	8,097,211,000	237
1899	359,088,000	231	3·9	9,150,299,000	268
1900	372,463,000	240	4·1	8,960,170,000	262
1901	392,279,000	253	4·1	9,561,169,000	279
1902	385,160,000	248	3·8	10,028,742,000	293
1903	382,285,000	246	3·7	10,119,825,000	296
1904	445,281,000	287	4·2	10,564,197,000	307

MONTS DE PIÉTÉ. Early in their history several small Italian states exacted from their citizens forced loans, on which interest was paid;

the sums of money thus raised formed what was called a *mons*, or heap. The name of *montes pietatis* is derived from this; the second word distinguishes these from the earlier founded *montes coacti*, and is given to the charitable funds for granting loans on the security of pawned articles, which were established in Italy towards the middle of the 15th century (Orvieto, 1463, Perugia, with papal authority, 1467, Viterbo, 1472, etc.). The Franciscans were their warmest advocates, and various spiritual and temporal privileges were granted to the contributors to this pious purpose; but as they proved inadequate to attract the necessary funds, several *montes* began to accept deposits at a moderate rate of interest. This, and the levying a small percentage to cover working expenses, gave rise to a fierce controversy between the Franciscans on the one side and the Dominicans on the other, the latter maintaining that the system was based on usury (see CANON LAW). However, in 1515, the Lateran council and the pope, Leo X., sanctioned the right to levy a moderate interest, provided the object were not to realise a private gain. Thenceforward the Italian *monti di pietà*, mostly under ecclesiastical management, enjoyed the steady protection of the popes, though some of them, especially the *mons* in Rome, assumed much of the character of a bank, and became owners of considerable property.

In Spain, notwithstanding the national religious devotion, and the rapid success of these institutions in the Spanish Netherlands, the first *monte de piedad* was not founded till the beginning of the 18th century under Philip V., the first king of the Bourbon dynasty. They now exist under government supervision in the most important towns. The *montes de piedad* are to be distinguished from the numerous *montes pios*, which like the *montes granatici* in Italy, supplied corn, wine, and agricultural produce generally, to the population during periods of scarcity or at seed-time.

North of the Alps, the *monts de piété* found at their first introduction a congenial soil in the Netherlands, where the pawning business had until then been monopolised by Italian money dealers, whose authorised rate of interest varied from 20 to 55 per cent, and who, in the popular Flemish language, have left their name (*Lombaard*) to the *monts de piété*, although a designation literally translated from the French (*Berg van Barmhertigheid*) has taken its place in modern times. They were first introduced in 1618 by Wenceslas Cœberger under archduke Albert, and soon were in operation in all the principal towns. Placed under the control of a general superintendent, they rather combined the characteristics of banking and of charitable establishments, lending at from 15 to 18 per cent. In modern Belgium the managing officers are appointed by the communal authorities, and the funds supplied primarily by the *Bureaux de Bienfaisance* (poor boards), secondarily by the municipality itself.

In Germany, the civic authorities had, from the commencement of the 14th century, established banks on their own account in some of the imperial towns, Frankfurt 1402, Nuremberg 1598; these banks cleared the way for the adoption of *Pfandhäuser* on the Italian model. The first of these was founded in 1591 at Augsburg and still exists. This example was soon followed in Nuremberg, Ulm, and later in Hamburg (1650). A great number of these establishments, often of a municipal, sometimes of a private character, were started during the 18th century. Owing to the federal constitution of the German empire and the legislative powers of the individual states, state, municipal, and private *Leih* and *Pfandhäuser* co-exist at the present day; the Berlin *Leihhaus*, for instance, is a royal institution. The ruling principle may be stated thus: private *Pfandhäuser* must be licensed, and are submitted to control by the local authorities, but the licence cannot be withheld on other grounds than personal unworthiness, or the absence of the need for such an establishment. The authorities of each state may require its foundation, wherever the want is felt. Generally speaking, the same system of licensing prevails in Austria.

In France, notwithstanding some ineffectual attempts under Louis XIII. and Louis XIV. it was long before the *Monts de Piété* were naturalised. After 1577 one was installed in Avignon, which city was papal territory until the French Revolution. In 1777 a royal patent was granted to the managers of the hospitals to set up a house for loans on movable pledges in Paris; they lent at 10 per cent *per annum*, and from 1777 to 1789 the yearly totals of their loans amounted on an average to about 8,000,000 sterling. The National Assembly decreed the liberty of the profession, and during the troubled period of the first republic the most frightful abuses ensued. In 1797 the Directory appointed five *administrateurs* of respectability to re-open the *Mont de Piété*, which had been closed in 1795, and to start it anew with their own capital, amounting to £20,000. The rate of 3 per cent per month at which they advanced money was gratefully hailed by crowds of needy borrowers. Through the confidence they inspired, the *administrateurs* were able to raise money on lenient terms, and gradually to bring down the rate of interest on their own loans to 12 per cent per annum. In 1804 Napoleon paid off their shares, and the Paris *Mont de Piété* became a public institution enjoying a monopoly for this kind of transactions. Until 1840 twenty-four *commissionnaires* acted as intermediate agents between the population of distant quarters and the *Mont de Piété* itself, but they were then suppressed, and branch establishments

organised in their place. Similar institutions are now to be found in all the chief towns of France; under a law of 1851, they must be authorised by the municipal council and managed by a paid director assisted by a board, whose unpaid members are appointed by the prefect and presided over by the *Maire*. The surplus of receipts over expenses, after a proper deduction for forming the necessary capital, must be paid over to hospitals or other charitable institutions, according to the decision of the prefect. The *Monts de Piété* are entitled to accept donations and legacies.

The contracting a loan is authenticated by a document called *reconnaissance;* the value of the article pledged is ascertained under the joint responsibility of official *commissaires priseurs;* and as *reconnaissances* are transferable, this way of proceeding has given rise to a rather unpleasant traffic based on the lowness of the estimates (see the *Économiste Français*, August 1890, p. 133). At the end of the stipulated term, generally one year, the articles must be redeemed or the engagement renewed; if these formalities are not gone through, they are sold by public auction, the borrowers having three years to claim the eventual surplus resulting from the sale. Any borrower may require the sale of the articles he has deposited at the end of three months. The Paris *Mont de Piété*, whose operations exceed those of the forty-one provincial *Monts de Piété* (say about £1,400,000 against £1,000,000 a year), grants advances, since the beginning of 1894, on securities such as shares, debentures, national stock, etc. It accepts deposits at from 2 to 3 per cent, and charges 7 per cent (commission included) on its loans.

Many objections have been made to *Monts de Piété*. It has been said that they put on the same footing the spendthrift, the prostitute, and the deserving head of a family, and that they deprive the borrower of the use of the pawned articles, whilst the owner of a mortgaged property can earn the monies required for payment of interest and repayment of principal. Still it cannot be doubted that there is a great deal of truth in Turgot's opinion (in his *Mémoire sur les Prêts d'Argent*), that "the poor man is happy to find the assistance he wants without being exposed to any other risk than the loss of his pledge." (See CANON LAW; PAWNBROKING.)

[Endemann, *Studien in der Romanisch kanonistischen Wirthschafts- und Rechts-Lehre*, pp. 460-471, Berlin, 1874, 1883.—Iglesias, *Beneficencia en España*, pp. 399-403.—De Decker, *Les Monts de Piété en Belgique*, Brussels, 1844.—Blaize, *Les Monts de Piété*, Paris, 1856.—Neumann, *Gesch. des Wuchers in Deutschland*. For the Franciscan activity on behalf of *Montes Pietatis* see Father de Besse, *Bernardin de Feltre et son œuvre* (vol. ii.), 1902, and Father Holzapfel, *Die Anfänge der Montes Pietatis* (1462-1515), Munich, 1903. Also Jannet, *Le crédit populaire et les banques en Italie du 15e au 18e siecle*, 1885.—E. Duval, *Manuel de Législation des Monts de Piété*, Coulommiers, 1886; and *Le Mont de Piété de Paris*, Imprimerie Nationale, 1881.—Van Laer, *Les Monts de Piété en France*, Lille, 1895.] E. Ca.

MONTYON, ANTOINE ROBERT AUGET, Baron de (1733-1820), was born and died in Paris. Montyon was known chiefly by the establishment of his "prix de vertu," and also by the Montyon *prix de Statistique* founded in his honour, and won, among others, by LE PLAY.

He left two works, still often read, though they contain much rubbish mixed only with a little that is good. These are: *Quelle influence ont les diverses espèces d'impôts sur la moralité, l'activité, et l'industrie des peuples*, 8vo, 1808, reprinted in 1848 in Guillaumin's collection (*Mélanges d'économie politique*, t. ii.), and *Particularités et observations sur les ministres des finances de France les plus célèbres de 1690 à 1791*, 1812, 8vo. In the first of these works, Montyon writes rather as a philanthropist than an economist or a financier. He desired that taxation should inculcate morality, should favour marriage, be heavy on those who remained single, and hinder luxury. In the second, he extolled Necker, and declares that Turgot had done nothing important for the prosperity of France. He showed his firmness of character when he chose rather to forfeit his position as commissioner than to acquiesce in the violation of the irremovability of the magistrates committed in 1771, by the chancellor N. de Maupeou, the protégé of Mme. Du Barry. A. C. f.

MONYPENNY, DAVID, author of a work on the *Poor Laws* "a work of considerable authority," M'Culloch (*Lit. of Pol. Econ.*, p. 298).

He wrote: *The claims of the Established Church of Scotland on the country . . . in the present Crisis.* . . . 2nd ed., Edinburgh, (1838 ?), 8vo.—*Proposed Alterations of the Scottish Poor Laws . . . considered and commented on.* Edinburgh, 1840, 8vo.—*Remarks on the Poor Laws and on the Method of Providing for the Poor in Scotland*, 1st ed., 1834, 8vo, 2nd ed., with additions, 1836, 8vo. A. L.

MOORE, ADAM (fl. 1650) was author of *Bread for the Poor and Advancement of the English Nation promised by enclosure of the Wastes and Common Grounds of England*, London, 1653, 8vo. Moore lays stress on the effect of adjacent commons in engendering idleness, with its consequence, penury. Commons being divided into "uplandish" and "marish," their respective merits as breeding and feeding places for horses, cattle, and sheep, and as providing fuel, are dealt with. The conclusion is that one-fourth part of the commons, when improved, will be worth as much as the former whole. Assuming that there are two million acres of such wastes in England and Wales, the enclosure of one-fourth of these will maintain an additional 750,000 of population. Moore proposes a "grand committee" for each county to settle private claims. The poor cottagers are to be protected by the portions allotted to them being held in free SOCAGE for ever, under a small yearly rent. The value of

their holdings would be thus raised from about 3d. to £40 or £50 (see ENCLOSURES).

[The merits of the tract have been perhaps overrated by M'Culloch, *Literature of Political Economy*, but its value as historical evidence is undeniable.] H. E. E.

MORA. A party to an obligation who fails to perform what is due from him when he has received notice from the other party demanding performance, *interpellatio*, is, according to the terminology of Roman law, *in mora—mora debitoris*. From the time of its occurrence he is bound to put the party who makes the claim in an equally favourable position, as if performance had been made without any default. So he must pay interest from that date, though he may not previously have been liable to do so; and he becomes liable for all loss or damage attributable to accident, as well as to negligence, where he holds the property of another as bailee. So too, if the thing to be delivered falls in value after *mora* has set in, he must pay the highest value the thing has reached since that occurrence, unless he can prove that the party to whom he should have made delivery of the thing would not have disposed of it.

In some cases actual notice of the claim is not necessary to constitute *mora*, as when a future time of payment is fixed by the contract, according to the maxim, *Dies interpellat pro homine*. A party who is entitled to performance may be in *mora—mora creditoris*—on his side. This happens if he refuses to accept performance, when performance is duly tendered to him. The effect of this is, not to discharge the obligation, but to make him liable for all loss to the other party, which is a consequence of his not having accepted performance.

E. A. W.

MORAL RESTRAINT. See MALTHUS.

MORALITY, SYSTEMS OF, IN RELATION TO POLITICAL ECONOMY. The relation of morals to economics is often misunderstood. Political economy is, properly speaking, a science rather than an art. It aims in the first instance at the explanation of a certain class of facts, the facts, namely, of the production and distribution of wealth. The special knowledge of economic facts possessed by the economist may enable him to give valuable advice on economic questions, but this, strictly speaking, is not his business. His business is to explain, not to exhort. It is therefore beside the mark to speak of economists, as such, preaching a low morality or rejecting morality altogether. There is, however, a real relation between economics and moral science. For the facts with which political economy is concerned are in great measure facts of human conduct, and all human conduct is included in the field of moral inquiry. Hence a twofold connection between morals and economics. For in the first place the economist cannot explain the action of human beings with reference to wealth, unless he has a theory of human nature, and a theory of human nature must include a theory of morals. The theory of morals of an economist need not be original or peculiar; it may not even be very clearly conceived; but a theory of morals he must have. The economist's theory of human nature and of morals will affect his account of the motives which unfit men for exertion, of the uses of competition, of the effects of the institution of private property, the influence of slavery or of personal freedom, of the economic bearing of different forms of religious belief or political constitution, of the result of different occupations on the economic capacity of man, of the economic results of the growth of population, the subdivision of land, the increase of luxury and countless other phenomena which come within the purview of his science. Thus the Greek theory that complete leisure is necessary to the perfect life, led Aristotle to hold that there must exist a class of producers themselves incapable of that life, but making it possible for those who were more gifted. Aristotle concluded therefore that the institution of slavery which he found in existence was a necessary condition of the highest civilisation. The mediæval doctrine that it was sinful to take interest for money, tended to prevent any exhaustive inquiry into the nature and uses of capital. The modern doctrine that comfort is an aid to virtue, and an abundance of means a help towards a good life, has led speculative minds to devote much more attention to the processes of production and distribution, and to take a much more complacent view of lives spent chiefly in the acquisition of wealth. How differently different minds will interpret the same economic facts may be seen by comparing Adam Smith with Ruskin. To Adam Smith happiness, that is the greatest amount of pleasure and the least amount of pain, was the only rational end of action; he approved of personal freedom and competition as means to this end. To him, therefore, modern society appears to be in a constant state of improvement. Ruskin does not allow that happiness in this sense is the end of action. He maintains that subordination and co-operation are the true means of obtaining the highest good. He therefore regards as indications of decay much that Adam Smith regards as indications of improvement. In no science, least of all in the sciences which deal with man in society, can there be such a thing as pure passive observation. The scientific intellect always brings as much as it finds, and unconsciously imposes its forms of thought on the object which it studies. What we are and whither we are going nobody can fully tell; and each

man's version of human character and destiny is tinged with the colour of his own mind.

The charge of a low morality so often brought against the classical economists rests partly, no doubt, on the misconception of supposing that they approved of everything which they recorded, but it also rests partly on the fact that they accepted the current moral theories of their time. These theories were various forms of what is known as HEDONISM (Gk. ἡδονη, pleasure). Locke and his successors were supposed to have shown that the soul is a mere sentient subject. If this be so, good must mean pleasure, and evil pain. The rational end of action must be the greatest amount of pleasure with the least amount of pain. This moral doctrine took two principal forms, one egoistic, the other philanthropic. According to the egoistic or Epicurean version the individual can seek only his own happiness; according to the philanthropic or utilitarian version he can seek and should seek the happiness of all. The link between the two theories is supplied through the social instinct, by gratifying which man secures at once his own happiness and that of his fellows. The utilitarian doctrine, first outlined by Hume, and afterwards elaborated by Bentham, seems to have been the theory of morals accepted by Adam Smith, by Malthus, and by most of their immediate disciples, French and English. But the philosophic and practical shortcomings, even of this enlarged hedonism, were severely exposed in the philosophical reaction of the 19th century. With all its kindliness and common sense the favourite moral theory of the older economists appeared defective both in depth and in elevation. They were accused of explaining social phenomena by the help of a low conception of human nature. The charge was grossly exaggerated, but it was not altogether destitute of foundation. Later economists frequently seem to have no definite theory of human nature, good or bad.

In the second place the economist has to take account of the various theories of morals which have found acceptance in different ages and countries. It is true that the mass of mankind never formulate a theory of conduct. Men act upon instinct, but the instinct implies a doctrine, and this doctrine is made explicit by the accredited teachers of the day, philosophers, priests, or men of letters. Did space allow, it would be easy to show how different has been the influence upon the production and distribution of wealth exercised by the classical, the mediæval, and the modern ideals of conduct. But the subject would require many volumes for its elucidation. The position taken by economists with reference to morality and systems of morals is to be understood rather by the general tenor of their writings than by reference to particular passages. It is the utilitarian spirit, not the utilitarian dogmas, which so many of the older economists adopted.

[The reader may consult, Locke, *Essay on the Human Understanding*.— Hume, *Treatise on Human Nature*.—Bonar, *Philosophy and Political Economy*.—Ashley, *Economic History of England*, bk. ii.—Adam Smith, *Wealth of Nations*—Sidgwick, *Principles of Political Economy*, bk. iii, chs. vi. and vii.—Marshall, *Principles of Economics*, vol. i. (3rd ed.) bk. i. ch. v.—Keynes, *Scope and Method of Political Economy*, ch. ii.—Ruskin, *Unto this Last*.—Wagner, *Nationalökonomie*.—Mackenzie, *Social Philosophy*.] F. C. M.

MORATORY LAW. A moratory law is a law passed in times of emergency, postponing for a specified time the due date of bills of exchange and other obligations. The delay or period of grace accorded by the law is sometimes, though not perhaps correctly, spoken of as a "moratorium." During the Franco-German war of 1870-71 moratory laws were several times passed by the French government. Their international effect was discussed at length and their validity upheld in the case of *Rouquette v. Overmann* (1875) L.R., 10 Q.B. 525. It is of the essence of a moratory law that it should be enacted to meet some special, political or commercial emergency. For example the Bank Holidays Act 1871, which makes all bills maturing on a bank holiday payable on the succeeding day, could not properly be described as a moratory law, because it is a permanent enactment. (See also MORA.) M. D. C.

MORCELLEMENT. This French term, literally "parcelling," is specially used to express the division of land among small peasant proprietors. Those French writers who believe that this division has been pushed to a dangerous extent, also frequently employ the expressions *émiettement* (reducing into crumbs) or "pulverisation" (in German *Zwergwirthschaft*).

It is applied both to cultivation and to ownership of land. In the former sense, much naturally depends on the kind of cultivation peculiar to the region, as corn or the vine, and to the opportunities for the sale of produce —as garden cultivation near large towns. Leaving for the moment this aspect of the question, and dealing exclusively with the *morcellement* of ownership, we notice first that it is a mistake to suppose that the existing division of land in France is entirely due, as is often stated, to the operations of the *Code Civil* (articles 815-842), enacting that the children of a deceased landowner are entitled to claim shares of his property equal in value and in kind. As known by all readers of Arthur Young, the number of peasant proprietors in France was large before the French Revolution, the principle of the present laws of succession being then in force for the property of commoners. In a paper read in 1889 before the

International Institute of Statistics, and published in the *Bulletin du Comité des Travaux Historiques et Scientifiques* of the ministry of public instruction for 1890, pp. 98-116, a French statistician, M. Gimel, computed the number of taxed landowners, before the French revolution, consequently excluding the privileged *noblesse*, at four millions. The fact is that the abolition of entails, the confiscation and sale by auction of the *nationalised* estates, and the extension of the equal division of successions, combined to give a powerful impulse to an already existing tendency.

To ascertain the present number of landowners in France, the number of *cotes* or individual "extracts" from the communal rolls of direct taxation on real property has first to be taken; then as the same man often owns land in different *communes*, it is calculated that the number of *cotes* is about twice that of the number of actual proprietors. M. de Foville, the best authority on this subject, estimates the number of owners of real property in France at the following dates as follows:

Before the Revolution. . .	4 millions.
About 1825 . . .	6½ ,,
About 1850 . . .	7 ,,
In 1875	8 ,,
In 1890	from 7½ to 8 millions.

According to the decennial *Enquête* of 1882, out of the total number, 4,835,000 are rural landowners, of whom 3½ millions personally cultivate their own land.

In the agricultural *Enquête* of 1884, a classification based on the extent of land individually owned was included and carefully carried out; it shows the following proportional percentages for very small, small, medium-sized, and large properties.

Land.	Number of *cotes*.	Occupied Area.
	per cent	per cent.
Under 2 hectares (5 acres) . .	74·09	10·53
From 2 to 6 hectares (5 to 15 acres)	15·47	15·26
From 6 to 50 hectares (15 to 125 acres)	9·58	38·94
From 50 to 200 hectares (125 to 500 acres)	0·74	19·04
Above 200 hectares (500 acres) .	0·12	16·23

The number of 10,426,328 *cotes* or "extracts" covering an area of 5,211,456 hectares or 13 millions of acres, is given for the very small properties under 5 acres. This shows that in France small and even diminutive peasant proprietorship certainly exists to a considerable extent. Still it is intermingled with a far larger proportion, in area, of medium-sized and large ownership, and it cannot consequently be maintained that as a rule the land is in a state of "pulverisation." In fact, the majority of these Lilliputian holdings are cottages with gardens annexed; and it will not be foreign to the present subject to state that a recent official inquiry on house property, 1887-1890, has shown that out of a total of 8,914,500 houses and dwellings, 4,969,200 were wholly and 491,100 partially occupied by their owners. There are 36,000 *communes* in all, and it is impossible to find a single house or cottage let to a stranger in more than 2000 of these.

The French legal system of inheritance has found opponents both among the friends and the enemies of small peasant-proprietorship. Among the former must be reckoned LE PLAY and his disciples, who contend that this system defeats itself when the hereditament is too small to be conveniently divided, as, in that case, the property is offered for sale and bought up by investors with capital or rich neighbours, who add their purchases to their own estates. As a remedy, they propose the introduction of the American HOMESTEAD AND EXEMPTION LAWS (*q.v.*). The mere abrogation of the article of the *Code* which enjoins compulsory division in shares of the same *kind*, would probably be more favourably accepted by public opinion. Another objection, which is directed against the *petite propriété* itself, maintains that it leads to neo-Malthusianism amongst French peasants; the *petite propriété*, however, exists on a large scale at the present time in Belgium and in many parts of Germany; both these are countries where the population is increasing rapidly; consequently rural neo-Malthusianism in France cannot be exclusively or even mainly ascribed to the division of land. Besides, in France itself the departments, where population is stationary or decreasing, are not invariably those where the average size of ownership in land is the smallest.

In former time, QUESNAY alleged against the *petite propriété* that it is comparatively less productive than the larger estates owned or farmed by men familiar with the art of scientific cultivation, and in possession of considerable capital. In France this objection is no longer heard much of, as most people believe that the greater energy of the small freeholder amply compensates any inferiority in this respect. This greater energy finds full scope for its exertions in several branches of culture, as vine-growing and market-gardening, to which the soil and climate of France are peculiarly congenial, and which accordingly have spread and prospered there. Moreover, this objection also applies rather to extreme division of cultivation than to extreme division of ownership, and loses much of its weight in practice, because small landowners often farm land belonging to other people and make up thus a fair-sized occupation. However, it cannot be denied that the division of cultivation arising from an excessive separation of property has in many instances and for a long time caused waste, but, where this was or is the

case, the remedy is readily available by mutual exchanges, and by what has been called *commassation* or *remembrements*. From 1860-1890, M. Gorce, a surveyor in Nancy, has thus been empowered by syndicated groups of landowners to redistribute their lands and fields, and has carried out this operation in twenty-five communes of the department of Meurthe and Moselle with such success that the average increment of value of the land thus redistributed has been valued at 500 francs per hectare, or £8 per acre. On the other side of the Rhine, and also in Germany and in Austria, a legal sanction has been granted to *commassation*, and the decision of a majority made binding for the whole local body of landowners; it is stated that two millions of separate and widely dispersed hectares, five millions of acres, have thus been consolidated into groups of connected areas.

Last and by no means least important, it is generally felt on the continent that the existence of a numerous class of very small but independent peasant proprietors is one of the safest bulwarks against the disintegrating influences at work in large closely-peopled centres.

[The standard work on the subject is M. de Foville's *Morcellement*, Paris, 1885. The same author wrote the article "Morcellement" in the *Nouveau Dictionnaire d'Économie Politique*, 1892. All French writers on agriculture from Olivier de Serres downwards, and the physiocrats and economists of the last century, have more or less examined the question. Roscher in his *Nat. Oekonomik des Ackerbaues* (12th ed. 1888, bk. ii. chs. 4 and 11), concludes in favour of a state of equilibrium based on a judicious mixture of large, middling, and small holdings. For the special literature see Morel de Vindé, *Considérations sur le Morcellement*, 1826.—Faucher, *État et tendances de la petite propriété en France*, 1836.—H. Passy, *Essai sur la division des héritages*, 1838.—Piogey, *Du Morcellement du Sol en France*, 1857.—Legoyt, *Du Morcellement de la propriété en France et en Europe*, 1865.—Bretagne, *Étude sur le cadastre et les abornements généraux*, Nancy, 1870.—Gimel, *Division de la propriété dans le département du Nord*, Lille, 1877.—*La Division de la propriété*, 1883.—*Mémoire sur la Division de la propriété avant et après* 1789, 1889.—Lavergne, *Économie rurale de la France*. See also Wolters, *Studien über Agrarzustände in Frankreich bis* 1790, Leipzig, 1905.] E. Ca.

MORE, Sir Thomas (*c.* 1478-1535), was born in Milk Street, Cheapside, in 1478 (Seebohm's *Oxford Reformers*, Appendix C.), or about 1480 (C. More's *Life of Sir Thomas More*, which was published in 1627 according to Lewis and Singer, in 1631 according to Hunter). After being educated under Nicholas Holt, and living as page in Archbishop Morton's household, and learning Greek as well as Latin in Oxford—probably at Christ Church (C. More), Thomas joined Lincoln's Inn 1496; was called to the bar, made reader at Furnival's Inn, and undersheriff of the City of London (1502-1519). In 1505 he married Jane Colte, by whom he had a daughter Margaret, afterwards wife of William Roper his biographer, and two other daughters and one son. As burgess of parliament he defeated Henry VII.'s demand for an aid on the marriage of his daughter (1504), which offence cost his father imprisonment and £100 fine, and drove the offender from the highway of his profession into the quiet bye-paths of historical and literary compositions (*e.g. Historia Richardi III.*; *Epigrammata*, etc.). Under Henry VIII. he returned to the law, and as counsel for the pope beat the king in a case of forfeiture which came before the Star Chamber; which service the defeated litigant rewarded with knighthood, a mastership of requests, and a privy councillorship (Roper's *Life of More*, written about 1557, pub. 1626). About 1521 he was made under treasurer, and in 1523 speaker. As speaker, he defeated Cardinal Wolsey's tyrannous attempt to compel the Commons to discuss in his presence the grant of a subsidy (Roper, confirmed by Hall's *Chronicle*, p. 656; Brewer's *Hist. of Henry VIII.*, 469, misleading); yet the king at this time was a constant though not over-welcome visitor at Chelsea, and Sir Thomas was made chancellor of the Duchy of Lancaster (1526-32). In 1529 he was ambassador to Cambray in order to conclude a league between Francis I., Charles V., and Henry VIII. Henry used at this time to urge Sir Thomas to declare against the papal dispensation which legalised his marriage with his sister-in-law Queen Katherine, and Sir Thomas replied by pointing out authorities opposed to the king's contention (*e.g.* St. Augustine), and by pleading inability to offer an opinion of his own in the matter. On 25th October, Wolsey having fallen, Sir Thomas was made lord chancellor. It was as lord chancellor that Sir Thomas had to inform both houses of parliament of replies from the universities of Oxford, Cambridge, Bologna, etc., declaring the king's marriage void (Gairdner's *Letters and Papers of the Reign of Henry VIII.*, vol. v. No. 171); and he discharged this irksome task without adding views of his own but resigned soon afterwards (16th May 1532), and retired on £100 a year. The clergy subscribed £5000 to reward him for his theological polemics (*e.g. Responsio ad Lutherum*, 1523), but he would not accept a penny from them. Then his persecution began, first for bribery as lord chancellor, then for complicity with Elizabeth Barton, attainted of high treason by 25 Henry VIII. c. 12. Both charges broke down, the first ludicrously, the second ominously, More remarking "quod differtur non aufertur." For the king's "Act of Matrimony and Succession" was even then being passed (25 Henry VIII. c. 22), and section ix. of the act (confirmed by 26 Henry VIII. c. 2) made it misprision of treason not to swear

"to defend all the contents of the act and of every part of it," and the act, besides regulating the succession, which More offered to swear to (*English Works*, ed. Rastell, 1557, p. 1428), declared Henry VIII.'s marriage with Katherine null. Sir Thomas would not swear what he did not believe, and went to the Tower (April 1534), and was deprived of his estates in November (26 Henry VIII. c. 23), (*Archæologia*, xxvii. ; p. 369, *Froude*, ii. 242 misleading). The same parliament of November 1534 enacted that the king should be and have the title of Supreme Head of the Church (cap. i.), and that it was high treason to contrive to deprive him of any of his titles (cap. xiii.). Rich's perjured testimony (which Froude alone believes) brought More within the scope of these two last mentioned enactments. He was tried for high treason on this last charge (1st July) and executed (7th July). Stapleton's *Tres Thomæ* (1589), and perhaps Hall's *Chronicle*, represent More as an ultramontane protagonist, whereas he was an advocate of præmunire (Roper, ed. Singer, 1822, p. 66); Mr. Froude (*Hist. of England*, ii. 395), citing a story of Roper's p. 73) as mistold by C. More (whom he miscalls Sir Thomas's grandson), suggests that More had spoken seditiously against Anne Boleyn, a suggestion never made at the time. Roper, followed by Rev. T. E. Bridgett in his *Life and Writings of More* (1891), says that More refused "an oath of supremacy" which never existed: Lord Campbell (*Lives of the Chancellors*, i. 564), ignoring 25 Henry VIII. c. 22, declares that More's commitment to the Tower was illegal. All these statements and suggestions are erroneous; Sir James Mackintosh's *Life of More* (1831), as supplemented by the actual Indictment and Lady More's Petition (printed in 1838 in *Archæologia*, xxvii. 370) contain the only true and full account.

The character of Sir T. More, as drawn by his trusty biographer Roper (whom Stapleton and C. More only echo and add to) is a classic picture of a perfect gentleman. His even and Socratic temper was never ruffled. The stories about More's cruelties to Protestants, which arose fifty years after his death, and have been lately revived by Froude and the *Dictionary of National Biography* (1894), may be dismissed as fabulous (Bridgett, ch. xiv.). Erasmus was his friend since 1497 (Ep. 14), (Froude, *Erasmus*, pp. 43, 111, etc.), and his description of the Chelsea home, which all the children and eleven grandchildren shared, illustrates the domestic virtue of Sir Thomas as vividly as Roper's picture of the lord chancellor kneeling before his father the judge in the judge's court, and asking a blessing before going to his day's task. So strong and so gentle, so bright and so unworldly, so good a son, and father, and citizen, this saintly lawyer, this incorruptible courtier, this humorous ascetic, this Roman Catholic who died for freedom of conscience at the hands of those who vaunted themselves its champions, strikes our imagination by his singularity as much as he touches our hearts by his simplicity.

More's only famous book is his *Utopia* published in Latin (1516), and translated into German (1524), Italian (1548), French (1550), and lastly by Robynson into English (1551). It begins by arguing, as Lord Campbell says, like Romilly or Mackintosh against indiscriminate severity in the punishment *e.g.* of theft when economical conditions caused theft. Those economical conditions were twofold—(1) the quantity of men "having no craft" as More styles them, and including priests, servingmen (our unproductive workers), gentlemen and noblemen, valiant and sturdy beggars, and most women (our unproductive consumers). (2) Men were being driven into theft by the turning of ploughland into sheep-runs and the consequent clearances. He thought this second tendency could be checked by penal statutes, and that penal statutes were stronger than the economic motive which in those days was called avarice; in this he erred in company with Latimer, Hales, and every writer of the time except W. Stafford (see Cunningham's *Growth of English Industry and Commerce*, 252, 268); the first evil he thought would be palliated by a law prescribing a maximum of wealth, but only cured by doing as in Utopia. Book 2 describes the island of Utopia (*οὐ τόπος* or *εὐ τόπος*, bad Greek for "Nowhere" or "Good Place") which is communistic. In Utopia all produce, except the very learned, who have a licence not to produce; and each producer alternates farm industry with some civic industry like building. As none are idle none are overworked, the normal working day being six hours, not nine hours, as a misprint copied from Robynson's 2nd edition of 1556 (where it is corrected in MS.) into Dr. Arber's, and the Camelot, Kelmscott, and other reprints indicates. Criminals work like *servi pœnæ* on the degraded but necessary tasks of killing animals for food, hunting, and scavengering. These are the only slaves in Utopia. Each has his task to do, and plenty of leisure and pleasure; and the criminal code, which does not apply to beliefs—as "it is no man's power to believe what he list"—is short and plain, so that criminals are fewer than in European commonwealths, which are "nothing but a certain conspiracy of rich men procuring their own commodities under the name and title of the commonwealth." The same rulers punish crime and prescribe tasks; but the latter is their main duty,—the former is easily and soon done. As Prof. Cliffe Leslie remarks, the economics of production always presuppose certain assumptions as to the consumer, a truth which was seen more clearly in the 16th century than by A. Smith and his successors. In More the productive machinery is simplified by assuming perfect and unchanging simplicity of taste in the consumer. Luxuries do not exist; and only implements of iron, which is held in high esteem, and earthenware are in common use. The (elected) king sets an example of sobriety to his subjects, and unlike the pretentious rulers of Bacon's *New Atlantis*—a book founded on *Utopia*—lives like a common citizen. Children are allowed to wear what we miscall "precious stones," but grown-up people spurn these baubles. Gold and silver, which are imported in exchange for the export of surplus products, and which for centuries afterwards were commonly deemed synonyms for wealth, are used in Utopia to fetter criminals or are formed into domestic utensils which shall be nameless, or in case of war are paid to foreign mercenaries. This is the only use for money by dwellers in Utopia; for, somewhat like Fichte in *The Closed Commercial State*, he makes the members of the nations barter with one another, and the nation carry on foreign trade by means of money, thus inverting the usual modern view. Exchange scarcely occasions any difficulty in such a simple state. Each district sends up to the capital statistics of supplies, which are then distributed by the state so as to make each district equal; and the district feeds, clothes, and houses its members. The capital stores up a reserve of supplies sufficient to tide over two years in case of emergency, or exports the residue in return for I.O.U.'s which are only realised when some purpose to which gold and silver are put in Utopia has to be fulfilled. The means of existence are always enough and more than enough for the population, whose numbers are kept down. It was the tendency in those times to think that numbers meant strength (Ingram's *History of Pol. Ec.*, p. 37). But in Utopia no town has more than 6000 families, and no family has more than sixteen members over thirteen years of age, for the families live patriarchally like More. Similarly with the farms. An excess over the prescribed limits means emigration, and emigration may mean war, for this sort of war is lawful. The other details of Utopia scarcely belong to political economy—the glass windows, the garden to each house (a suggestion expanded in Lytton's *Coming Race*, Bebel's *Position of Women*, and Morris's *News from Nowhere* into the identification of town and country), the priests, who are "of exceeding holiness and therefore few," always married, and sometimes female; the artificially-hatched chickens which

run after the men who hatched them; the absence of leagues and lawyers; the common dining-rooms in each street; the houses changed by lot every ten years and so on, somewhat as RUNDALE tenure. But the central conceptions are economic. He anticipates Sir Wm. PETTY in perceiving that wealth is the offspring of labour, and is still more modern in identifying it with necessaries, and he sees that necessaries imply a composite conception, *i.e.*, of what people ought to and do as a fact accept as such. Again the organisation of those who produce wealth with a view to its production with the least possible effort to the producer, and to the avoidance of waste, stamps the work as economical in its plan. His task is of course made easier by the ideal outline to the book; and by the assumption that communism will work. But it must be borne in mind that the ideal outline is filled in with practical details; he for instance alone amongst modern Utopians grapples with the crucial question of punishment; and secondly, unlike his model PLATO and his follower CAMPANELLA his communism is not pursued into family relationships, and those who complain that communism supplies no adequate incentive to work will find this objection raised by More at the end of book i., and the absence of an answer to it adverted to at the end of book ii. So far from being dogmatic, the conclusion of the matter is a note of interrogation. He ends and we end all but convinced. The book belongs more to literature than to science, and uses the actual only to decorate the ideal world. Like his life, the first part of his book grows out of the problems, and hardly rises above the ideas, of his age; the second part vividly reflects his character and takes us back to Plato, but also forward into the 19th century. It belongs to every age.

[J. Bonar, *Philosophy and Political Economy* (1893), pp. 62-67, 69, 290.—*Die Geschichte des Sozialismus*, edited by Bernstein and Kautsky, b. 1, th. 2, absch. 4 (vol. i. pp. 448 *et seq.*).—Diodato Lioy, *The Philosophy of Right*, translated by W. Hastie (1891), vol. i. pp. 262 *et seq.*—*The Dialogues of Plato*, translated by B. Jowett, 3rd ed. (1892), vol. iii. pp. ccxvii.-ccxxxi.—H. Morley's reprint of *Utopia*, Bacon's *New Atlantis*, and Campanella's *City of the Sun*, etc., entitled *Ideal Commonwealths* (1885).—*Voyage en Icarie*, by CABET (*q.v.*) (1840), which is an expansion of More's *Utopia*, but modifies several details, *e.g.* expulsion and not slavery is the penalty of idleness. The Nauvoo community formed in Illinois (1849) on the model of Cabet's book, was shifted to the banks of the Nodaway, Iowa (1860), and split into two parts (1879); the only prosperous part (Icaria-Speranza in California), consisted of fifty-two persons, but gradually reintroduced private property in 1883-84, and expired soon after. The other part was dying in 1883. Still, this is the most successful non-religious experiment in communism.—Dr. Albert Shaw, *Icaria* (1884), pp. 123, 147.—Dr. H. Lux, *Etienne Cabet und der Ikarische Communismus* (1894), p. 266.—For More's views on money cp. A. Smith, *Wealth of Nations*, iv. i., para. 4.] J. D. R.

MOREAU, CÉSAR (1791-1829):

French vice-consul in London, the founder of the *Société française de Statistique Universelle*, published numerous statistical works on French and English navigation in modern times enumerated in the (old) *Dictionnaire d'Économie Politique* and in Guérard, *France Littéraire*, 1834, vol. vi. p. 294. E. Ca.

MOREAU DE BEAUMONT, J. L. (1715-1785).

Successively councillor in the Paris parliament, master of requests and *Intendant des Finances*, was author of *Mémoires concernant les Impositions et Droits en Europe*, 4 vols. 4to, 1768-69, 2e éd., avec des Suppléments, 5 vols. 4to, 1787. The second and third volumes deal with France; in the preface of vol. i. the author expresses the opinion that in France uniformity of taxation "could alone put an end to the evils which were experienced, but that it is easier to see and feel the ills than to apply the remedy." Moreau's *Mémoires* (published anonymously) are mainly descriptive and considered to be authoritative on the subject as far as France is concerned.

[The reference to this work in A. Smith's letter to Mr. Sinclair, printed in Bonar's *Catalogue of the Library of A. Smith* (Macmillan, 1894), shows the writer's appreciation of it. A. Smith describes himself as having "frequent occasion to consult the book himself, both in the course of his private studies and in the business of his present employment (as Commissioner of Customs), and is therefore not very willing to let it go out of Edinburgh." He obtained it "by the particular favour of Mr. Turgot, the late Controller-General of the Finances. I have heard but of three other copies in Great Britain. . . . If any accident should happen to my book, the loss is perfectly irreparable." There are several quotations from Moreau de Beaumont in the *Wealth of Nations* referring principally to taxation in other nations of Europe. The use Adam Smith made of the book is a good illustration of his method of study and investigation, and the pains he took to master every detail of his subject. See also Stourm, *Dict. Hist. des Finances*, 1895, p. 25, who complains of the undue importance given to secondary matter.

Cunningham, *Econ. Jour.*, No. 1, vol. i., maintains that A. Smith's canons of taxation were largely derived from Moreau de Beaumont.] E. Ca.

MOREAU DE JONNÈS, ALEXANDRE (1778-1870), born at Rennes, died at Paris. A distinguished statistician, left many works important in their time, but now out of date. He volunteered as a soldier when fourteen years of age, was a prisoner in England from 1809 to 1815, and after the conclusion of peace devoted himself to statistics.

Thiers, minister of commerce, in 1834 appointed Moreau head of his statistical department, which through the periodical reports issued by him soon became one of the most important branches of the office. He continued this duty till 1852. Under his direction twelve huge quarto volumes were published in 1837 at the beginning of the second inquiry, which work, or at least the plan of it, may be considered as his. Besides this official collection, and not including his labours on physical science, the following works of his may be mentioned:—

Le commerce au XIXe siècle, 2 vols. 8vo, 1827.—*Statistique de l'Espagne*, 8vo, 1834.—*Statistique de la Grande Bretagne et de l'Irlande*, 2 vols. 8vo, 1838.—*Recherches statistiques sur l'esclavage colonial et sur les moyens de le supprimer*, 8vo, 1841.—*Éléments du Statistique*, 8vo, 1st ed. 1847, 2nd ed. 1876.—*Statistique de l'agriculture de la France*, 8vo, 1848.—*Statistique des peuples de l'antiquité*, 4 vols. 8vo, 1871.—*La France avant ses premiers habitans*, 16mo, 1876.—*Statistique de l'industrie de la France*, 16mo, 1876. A. C. f.

MOREL VINDÉ, CHARLES GILBERT, Vicomte de (1759-1842), a peer of France and member of the academy of science and royal society of agriculture, was a frequent writer on economic and agricultural subjects.

Considérations sur le morcellement de la pro-

priété territoriale en France, 8vo, 1826.—*Sur la théorie de la population*, 2nd ed. 8vo, 1829.

[A complete list of his works will be found under his name in Quérard, *La France Littéraire au 18me et au 19me siècle*, Paris, 1834.] E. Ca.

MORELLET, Abbé André (1727-1819), born at Lyons and died at Paris. Though an economist, he was not a physiocrat, inclining rather to the opinions of Gournay than to those of Quesnay, though always respectful to the latter.

He was by conviction a persistent partisan of freedom in economic matters, though he wrote no dogmatic work, but was constantly engaged in polemics attacking monopolies and privileges with arguments derived from practice. Hardships marked his youth. His father, a stationer in a small way, treated him with severity. There were thirteen brothers and sisters in the family. He early left his home and joined the Jesuits, from whom he received his first education. Persevering work and a bright intellect gained him admittance to the Société de Sorbonne, a private society endowed for the gratuitous reception of the deserving, no preference being shown to people of fortune or rank. He there became acquainted with many who afterwards became famous, the most illustrious of whom was Turgot. Like Adam Smith he had charge of the education of a young man of a wealthy family, to whose care he devoted ten years, five being at the Collège de Plessis. He raised both the standing and the numbers of that institution through his knowledge of the men of mark at that time, including a few foreigners, principally Italians.

Morellet discovered in a library at Rome a book on the legal practice of the church, written by an inquisitor of the 14th century. He made extracts from it, the outcome of which was the *Manuel des inquisiteurs*, which, in his time (1762), made a great stir. Voltaire was delighted with the book, and thenceforward held Abbé Morellet in high esteem, and amused himself by calling him Abbé *Mords-les*, because of his sarcastic and incisive style.

Morellet's first economic work was *Réflexions sur les avantages de la libre fabrication et de l'usage des toiles peintes en France*, 12mo, 1758. The object was to secure freedom for the industry referred to in the interior of the country. Morellet did not go so far as to ask for free import of foreign goods. Probably he stopped lest he should alienate the *Compagnie des Indes*, with whom he was not yet prepared to quarrel. In the narrow limits of his *Mémoire* he gained a complete success. He introduced into France the most important work of Beccaria by a translation still in common use. Its appearance two years after the publication of the work itself (*Dei Delitti e delle Pene*) assisted in abolishing torture in France, partially in 1780, and completely nine years after.

Morellet's great triumph was the suspension of the privileges of the *Compagnie des Indes*, on 13th August 1769, in consequence of his *Mémoire sur la situation actuelle de la Compagnie des Indes*, Juin 1769. Necker, at that time only a clerk in a Swiss bank, took up the defence of the company in the form of a reply to Morellet.

The conflict with privileged commercial companies recommenced on the renewal of the monopoly of the Indian trade, to the advantage, if indeed it can be said to the advantage, of a new company in 1785. The impetuous Abbé wrote again in 1787, and re-edited the *Mémoires relatifs à la discussion du privilège de la Compagnie des Indes*, besides publishing a reply to Abbé d'Espagnac, the well-known stock-jobber of the 18th century.

The same year in which he was drawn into the controversy with the Indian company he published the *Prospectus d'un nouveau dictionnaire du commerce*, 8vo, a dictionary upon which he worked twenty years and then gave up. Peuchet profited by his work in his *Dictionnaire universel de géographie commerçante*, 5 vols. 4to, 1799-1800 (years vii.-viii.).

The translation by Diderot into French of the *Dialoghi sul commercio dei grani* of Abbé Galiani (*q.v.*), appeared in 1770. Morellet quickly took up his pen in the cause of freedom in the export trade. Unfortunately, error was more attractive than the plain truth, and with the public the Neapolitan Abbé had more success than his French fellow-economist. Morellet again took up arms for the same cause, this time against a writer whose celebrity was yet only dawning, though he had already crossed swords with him. Necker, in *La législation et le commerce des grains*, 8vo, 1775, argued against free trade. In an analysis of this work published in 8vo, 1775, Morellet showed all its weak points from the economic side. Again this time the victory was against Morellet.

The Revolution now commenced. It may well be believed that the Abbé did not lay down his pen, but with the exception of a refutation of a book on, or rather against, property, 1792, by the Girondin Brissot, who, anticipating Proudhon by half a century, held the opinion that property was robbery (*la propriété c'est le vol*), the works of Morellet at this date were political and literary. He died at the commencement of the restoration, aged ninety-two, not of old age, but by an accident. He was still in full possession of his mental faculties. Morellet's translation into French of the *Wealth of Nations*, though apparently carefully made, was never printed, see John Rae, *Life of Adam Smith*, 1895, p. 359. He mentions in his *Mémoires* that he met Adam Smith in Paris, and discussed free trade, banking, etc. with him, and that A. Smith spoke French very badly.

[Lavergne, *Les Économistes du xviiie siècle.*] A. C. f.

MORELLY. Nothing certain is known of Morelly's life, except that he was born at Vitry-le-François, and was a teacher there. His works would have been as little known as he was, had it not been for the socialists who have extolled the communistic opinions they contain.

The first: *Le Prince, les délices du cœur, ou Traité des qualités d'un grand roi et système d'un*

sage gouvernement, 1751, 2 vols. 12mo, is entirely political, and describes in its different parts the duties of an absolute monarch.

The second: *Naufrage des îles flottantes ou la Basiliade de Pilpaï; poème héroïque traduit de l'indien*, 1753, 12mo, is a story in which the author declaims on the return to the state of nature in opposition to the state of civilisation. In his next work the author speaks modestly of this poem "as new in its subject as in the construction in which truth is reclothed in all the graces of epic poetry."

The third and last is: *Le Code de la nature ou le véritable esprit de ses lois, de tout temps négligé, méconnu*, 1758 and 1760, 12mo. This book, wrongly attributed to Diderot, is written in a dogmatic form. Property is abolished except in the case of things for personal use. The state supplies work and living to all, the first according to talents, strength, and age, the second according to needs. Inconsistently, like many communists, he is in favour of family life and marriage. Fourier has borrowed a great deal from Morelly. A. C. F.

MORGAN, AUGUSTUS DE (1806-1871), born at Madura, Madras, was the son of Colonel De Morgan and descended on his mother's side from James Dodson the mathematician. In 1823 he entered Trinity College, Cambridge, and came out as fourth wrangler in 1827. He was the first occupant of the chair of mathematics at University College, London, and held it for more than thirty years.

In 1838 De Morgan published his *Mathematical Treatise on the Theory of Probabilities*, and, subsequently, an *Essay* on the same subject, with especial reference to their *Application to Life Contingencies and Insurance Offices*. In 1847 appeared his *Formal Logic*, while from 1841 till shortly before his death he was closely occupied with the question of a *Decimal Coinage*.[1]

He proposed to make the change a very gradual one, by introducing *the royal*, a tenth of a sovereign, our florin, with its half and quarter, our shilling and sixpence. He then proposed to get the decimal part of this *royal* in the *groat*, a coin worth about 2½d., the tenth part of which would be approximately a *farthing*. A. L.

MORGAN, WILLIAM (1750-1833), nephew of Dr. PRICE (*q.v.*), whose works he edited with a memoir, occupied, as actuary to the Equitable Insurance Society (1775-1830), a leading place among the pioneers of life insurance. The aim of Morgan's financial pamphlets was to show that the war expenditure had added so enormously to the national debt that "if the same unexampled dissipation of the public treasure be continued much longer, it must inevitably terminate in bankruptcy and ruin."

His works include:—*The doctrine of annuities and assurances on lives and survivorships stated and explained*, London, 1779, 8vo.—*A Review of Dr. Price's writings on the subject of the finances of this Kingdom*, London, 1792, 8vo.—*Supplement* to above, London, 1795, 8vo.—*Facts respecting the expense of the War*, 4th ed. London, 1796, 8vo.—*An appeal to the people of Great Britain on the present alarming state of the Public Finances*, 3rd ed. London, 1797, 8vo.—*A comparative view of the Public Finances from the beginning to the close of the late Administration*, 3rd ed. London, 1801, 8vo.—*Supplement* to above, London, 1803, 8vo.—*A view of the rise and progress of the Equitable Society*, London, 1828, 8vo.

[For Morgan's actuarial work consult Walford's *Insurance Cyclopædia*, vol. ii. pp. 596-622, and vol. iii. pp. 5-7, for biographical details, *Dictionary of National Biography*, vol. xxxix. p. 40, and authorities there given.] H. E. E.

MORHOF, DANIEL GEORG (1639-1691). In his *Polyhistor* (published 1688) Morhof deplores that economics, which are nearly connected with political science, have been left to the care of *illiterati* and have not undergone a thorough scientific investigation, although they are the foundation of the well-being of the whole state. The means by which domestic wealth is increased and preserved ought to be closely examined, for "the preservation of economic wealth through a clever management is the basis of the entire science of economics and chrematistics." He recommends his readers to consult the books written by travellers, and is a great admirer of the internal administration of France.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 328-329.] E. Ca.

MORPURGO, EMILIO (1836-1889), born in Padua, an able economic writer. He took part in politics, was a deputy, general secretary of public instruction, and devoted to practical problems in Italian economics, finance, and instruction. He also occupied himself with science and instruction, and filled, with much distinction, for many years, the chair of statistics in Padua. Amongst his practical works, his *Report on the Condition of the Peasants and Agriculture in the Venetian Provinces*, made on the occasion of the agrarian inquiry, takes a

[1] De Morgan bestowed a vast amount of unrewarded time and trouble on the propaganda of views in favour of a reform of the English system of money to a decimal system of currency and notation. He laboured incessantly with this view by giving evidence before parliamentary committees, in lectures to various scientific bodies, and in the Decimal Association (vide article DECIMAL SYSTEM). The particular method he advocated was the "pound and mil" scheme, retaining our pound sterling and subdividing it into 1000 instead of, as at present, 960 farthings. De Morgan may be fairly said to have been, taken all round, one of the best appreciated and esteemed men of his position in the past generation. In tuition and in literary matters, his versatile aid and almost boundless store of information were liberally given. Painstaking and minute research was his strong point. He had lost the sight of one eye in infancy. The strain upon the remaining eye, involved by his constant industry in accumulating stores of knowledge, must have been severe. The writer once had occasion, in a letter to him, to mention one of the Bernoulli family of mathematicians of the last century, and spelt the name wrongly, that is with two i's, Bernouilli. "Oh," replied De Morgan, "you have deeply offended me. Pray always keep in mind the personal interest I take in one-eyed philosophers." F. H.

high place. This work is a model of its kind for method, for accuracy, and the ideas embodied.

Morpurgo studied the practical problems of finance and the organisation of technical instruction in Italy. His scientific activity was chiefly applied to statistics, on which subject he has left deep traces by his remarkable studies of demographic, financial, and moral statistics, and also in his historical and theoretical researches. His most important work in this branch of study is a volume on statistics and moral sciences, in which he collects and states the principal results of modern statistical research. We note among Morpurgo's writings: *La statistica e le scienze morali*, Florence, 1872.—*L'istruzione tecnica in Italia*, Rome, 1874.—*La finanza*, Rome, 1876.—*Le condizioni dei contadini e le condizioni della proprietà e dell' economia agraria nel Veneto*, in the "Atti dell' Inchiesta Agraria," vol. iv., fasc° 1 and 2, Rome, 1882-83. U. R.

MORRIS, CORBYN (d. 1779), writer on fiscal subjects, held various posts in the public service in Scotland and in England, and was an upholder of the mercantile theory. He attracted attention by a pamphlet entitled *A Letter from a Bystander to a Member of Parliament*, in which he examines the economic basis of the crown. This letter provoked a sharp controversy in print: replies and counter-replies embody "much curious discussion and information with respect to taxation and the expenditure of the public revenue for a lengthened period" (M'Culloch, *Lit. Pol. Econ.*, p. 328). Morris also urged the impolicy of England's insuring the ships of a nation (*i.e.* France) with which she was at war: his papers on this subject carefully examine the arguments on the other side, and hypothetical problems are worked out in detail. In his *Essay* on Insurance, the author candidly states that in working out the subject he started not from ascertained facts but from reflections of his own, and that these last did not accord with the views of "a very ingenious and worthy merchant" to whom he had communicated them. The reader is to expect "no information concerning what are the present customs . . . but . . . an endeavour to establish the just maxims . . . upon a fair open footing of reason and equity." He adds that in working out insurance problems he soon found, as was not unnatural in a Cambridge man, that "without the aid of some higher calculations," *i.e.* of mathematics, "all must be left unsettled and loose, and bounded by general guesses." Hence his problems are stated and worked quite on mathematical lines. In 1751 he published some vital statistics concerning London, and a little later urged the establishment of a national registry-general of the population, and of the annual proportion of births to deaths. His statistical work on London was reprinted and brought nearly up to date in 1759. The scarcity of silver coin in England at that time also attracted Morris's attention, and by working out the respective values of existing gold and silver coin as bullion, he arrived at the conclusion that silver was scarce in England because the existing proportion of pure gold to pure silver was as $1 : 15\frac{2}{3}\frac{8}{5}\frac{5}{4}\frac{9}{5}$, whereas in the other chief trading countries of Europe it was as $1 : 14\frac{1}{2}$; and that there was consequently a temptation to export silver abroad, the gross profit upon 100 lbs. troy weight of gold being some $40\frac{1}{2}$ per cent. The remedy, in Morris's eyes, was to alter the English ratio of gold to silver to the continental figures. His plan for account-keeping on landed estates grew out of his own need of something better than his steward's rather haphazard method of checking rents, etc.

The following works seem all to have been published in London:

A Letter from a Bystander to a Member of Parliament, wherein is examined what Necessity there is for the Maintenance of a large regular Land-force in this Island, etc., London, 1741-42, 8vo.—*An Essay towards illustrating the Science of Insurance, wherein it is attempted to fix, by precise Calculation, several important Maxims upon this Subject*, etc., 1747, 8vo, pp. xv. 61.—*An Essay towards deciding the Important Question whether it be a National Advantage to Britain to Insure the Ships of her Enemies; addressed to the Rt. Hon. Henry Pelham*, 1747, 8vo, pp. 50; the impolicy and illegality of the practice are clearly shown; 2nd edit. 1758, pp. x. 34.—*Observations of the Past Growth . . . of the City of London*, 1751, fol.—Ditto reprinted, and with statistics to the end of 1757, 1759, 4to.—*A Letter balancing the Causes of the present Scarcity of our Silver Coin, and the Means of immediate Remedy, and future Prevention of this Evil*, 1757, 8vo, pp. 20.—*A Plan for Arranging and Balancing the Accounts of Landed Estates*, 1759, fol. pp. 39.

[M'Culloch, *Lit. Pol. Econ.*, pp. 243, 272, 327.—*Dict. Nat. Biog.*, art. "Morris, Corbyn."] E. D.

MORSTADT, EDUARD (1792-1850), professor at the university of Heidelberg, lectured on economics, finance, and law, and founded, in 1834, a monthly paper, *Der Nationalökonom*, of which he remained the editor until the end of the following year.

Morstadt published a German translation of Say's *Cours d'Économie Politique*, with an introduction in which he defines political economy: "a science whose real object must not be to dictate oracles to her high priests when sitting under their nocturnal lamp, but is to become the confidant of princes, the teacher of nations, and the interpreter of universal history." A supporter of free trade and an opponent of restrictive legislation of labour, he was very fond of delivering himself of curious economic definitions (see under his name, Prof. Conrad's *Handw. der Staatswiss.*, iv. p. 1230), and of editing other writers' works with critical notes; on the occasion of such an edition

of Klüber's *Public Law of the German Confederation*, he was most unmercifully handled by Robert von Mohl, his colleague and former contributor. His own contributions to the *Nationalökonom.* are all very short; his analysis of the three possible courses of action which a government is able to follow with regard to population, is given in the already mentioned article of Professor Conrad's *Handwörterbuch.* E. Ca.

MORTGAGE (= *dead pledge* — as distinguished from *vif gage* = living pledge, *i.e.* a pledge taken into the creditor's possession and producing income which gradually pays off the debt) is the name of a security given by a debtor on property remaining in his possession—the hypotheca of Roman Law—and thus differing from a security on property handed over to the creditor, which is described by the name of "pawn" or "pledge," the *pignus* of Roman law. In the case of a "legal mortgage" the legal ownership is expressed to be conveyed to the creditor, on condition that on repayment of the debt before a certain date, it is to be reconveyed to the debtor, but, owing to the influence of the equitable doctrines introduced by the Court of Chancery, the debtor's right to redeem —generally called the Equity of Redemption —continues, although the date for repayment has elapsed and cannot be taken away except by an order of the court (called a Foreclosure order) which is not made absolute for some time.

In the event of the mortgagor not complying with the conditions of the mortgage there are other remedies open to the mortgagor besides foreclosure. He may, unless the mortgage deed contains any stipulations to the contrary, sell the property, or have a receiver of the rents and profits appointed, or he may enter into possession, and he may also enforce the debtor's personal liability to pay the mortgage debt.

Mortgages of land and houses occur most frequently, but mortgages of debts, reversionary interests, life policies, and other "choses in action" are also very common. Mortgages of chattels being deemed bills of sale (see Bill of Sale), are void if they are intended to secure a debt of less than £30, and must in other cases conform to the statutory rules as regards form and registration.

An "equitable" mortgage is a transaction which in certain events entitles the mortgagee to the execution of a legal mortgage, and practically entitles him to all the remedies open to a legal mortgagee. There is, however, this difference, that a "legal" mortgagee having no notice of a prior charge at the time of lending the money, has the first right on the security, whilst the priorities between "equitable" incumbrances depend entirely on the order in which the respective advances were made. The most common instance of an equitable mortgage is a mortgage by "deposit of title deeds" which is deemed to be an agreement on the part of the mortgagor to execute a legal mortgage whenever called upon to do so.

A "submortgage" is the mortgage of a mortgage debt and of the securities relating to the same; a "contributory" mortgage is a mortgage by several mortgagees, each being entitled to an aliquot share of the mortgage deed.

[As to Mortgages by Companies, see Debenture. Coote, on *Mortgages.* — Ashburner, on *Mortgages.*] E. S.

MORTGAGE BANKS. Banks and other public institutions whose only business it is to lend money on mortgage, are much more common on the continent than in England—Germany being the country in which they have attained the greatest importance. They may be divided into three classes: (1) Mutual associations of landowners (*Landschaften, Kreditvereine,* etc.); (2) Mortgage institutions administered by government, or provincial or other local authorities (*Landes Kreditkassen, Provinzialbanken,* etc.); (3) Ordinary joint-stock banks.

The first landowners' association was established in Silesia by Frederick the Great, soon after the end of the seven years' war (1756-1763), which caused much distress in that province. The large landowners of the province were compelled to join it, and they were all jointly and severally liable for the mortgage bonds (*Pfandbrief*) issued by the association. Every member was entitled to raise loans on mortgage up to a certain amount, the borrower receiving mortgage bonds instead of money. It was, however, easy to dispose of their bonds, as owing to the excellent security which they gave to the holders they soon became a favourite investment.

No profit was to be made on the transactions of the association, the interest on the mortgages being only slightly higher than the interest on the bonds, so as to allow for expenses of management. The supreme control of the association was exercised by a government commissioner—generally by the governor of the province.

The success of the Silesian association soon led to the formation of other similar ones in other Prussian provinces, and, in course of time, associations of peasant proprietors were founded in some places on analogous principles. There are now nineteen such associations in Prussia, among which the one for the province of Schleswig Holstein, founded in 1882, is the youngest, and there are four in other parts of Germany. Outside of Germany they exist in Austria-Hungary, and, in a modified form, in the rural parts of the canton of Zurich (*Garantiegenossenschaften*).

(2) The above-mentioned associations are mainly adapted for loans to large landowners, whose joint credit is sufficient to enable them to issue their bonds at a relatively low rate of interest; the peasant proprietors' associations do not have the same advantages, and are only available in limited areas. For this reason the intervention of government and local authorities was generally felt as a necessity, more especially in those parts of Germany where it is customary for one son to

take over the father's property, and to pay a money compensation to his brothers and sisters for their share in the estate. The first impulse to the institution of state establishments for the purpose of granting loans to landowners was given by the legislation for the compulsory enfranchisement of land subject to manorial rights, which in most parts of Germany, though initiated at the beginning of the present century, did not become effective till about 1850. In order to facilitate the payment of compensation to the lords of manors, loans were granted by the state governments or provincial governments on the security of the enfranchised land, and this led to the establishment of a regular system of government mortgage banks. Such banks exist in many parts of Prussia and other parts of Germany, and the total amount advanced by them in 1889 amounted to about 418,000,000 marks (21,000,000 sterling). Most of the loans granted by these institutions are repayable by yearly instalments. A curious combination of government and private agency exists in Mannheim, where the *Rheinische Hypothekenbank*—an ordinary joint-stock bank,—has a separate department for loans on agricultural property, which by virtue of a convention with the government of the grand-duchy of Baden must be carried on without profit, and is under government supervision. Government banks also exist in Austria and Russia.

In the United Kingdom advances by public authorities on land occur in various manners. The advances under the Irish Land Purchase Acts and the Irish Land Act 1903 (see LAND LEGISLATION, IRISH) are for purposes similar to those for which the German state loan institutions were originally established; the public works' loan commissioners are entitled to advance money on the security of land for the purpose of constructing dwellings for the working classes (Housing of Working Classes Act, 1890, § 67), and the provisions of the Small Holdings Act, 1892, under which county councils are empowered on the sale of any small holdings to allow part of the purchase money to be paid by instalments, and in the meantime to be charged on the land, also require to be mentioned in this connection.

Special facilities have been given in continental countries as well as in the United Kingdom for loans in respect of the improvement and drainage of land. In Germany, special banks (*Landesculturrentenbanken*) were instituted either as government establishments, as in Saxony, Bavaria, and Hesse, or under the provincial authorities. Loans granted for these purposes are in most cases specially secured and are repayable by fixed instalments.

In England and Scotland advances may be made out of public funds with the sanction of the board of agriculture, and are secured by terminable rent-charges by means of which the capital is paid off in twenty-two years. Such rent-charges may be created notwithstanding any settlements or entails (see the Public Money Drainage Act, 1846, and the amending acts). Similar powers are given to the commissioners of public works in Ireland by the Landed Property Improvement (Ireland) Acts.

(3) The authorities and institutions mentioned under the two first heads make their advances for public purposes and not with any view of profit, but there are numerous establishments, partly competing with them, and partly supplementing them, which are in a position to make advances on terms not less advantageous than they, and yet are able to pay dividends to their shareholders. The first mortgage bank was established in Stockholm in 1668, but its example does not seem to have been followed at the time; 1835 a *Caisse hypothécaire* was formed in Brussels, but the first institution formed on the modern system (viz. that of a share company issuing debentures for an amount corresponding to the amount of the mortgages held by it) was the *Crédit foncier de France*, founded in 1852 under government supervision. In Germany a number of banks on the same system were formed after 1860: the Bavarian Mortgage Bank was founded in 1834, but did not begin to issue debentures till much later. The capital of these banks at the beginning of 1891 amounted to 332 million marks (£16½ million), and the debentures issued by them to over 3000 million (£150 million). Their 3½ per cent debentures are generally quoted over par. There are also such mortgage banks in Austria-Hungary, Switzerland, and Italy. In the latter country a new privileged institution was founded in 1890 (*Istituto italiano di credito fondiario*). The Argentine mortgage banks, and more especially the provincial ones, are but too well known in this country.

In the United Kingdom it had been expected that the Mortgage Debenture Act of 1865, and the Mortgage Debenture (Amendment) Act of 1870 (28 & 29 Vict. c. 78; 33 & 34 Vict. c. 20) might assist landowners, and on the other hand provide sound investments for capitalists; but the result was very disappointing. The acts provide that the securities upon which debentures issued under their authority may be founded are to belong to certain special descriptions, and are to be deposited and registered in the office of land registry, and to be accompanied by a statutory declaration of a surveyor as to the value of the mortgaged properties, and contain other safeguards in favour of the debenture holders, but the precautions imposed have not proved very effective, and the only important company which availed itself of the provisions of the acts in question was recently compelled to go into liquidation.

The question as to the economical advantages and disadvantages of the various forms of mortgage banks cannot well be discussed in general terms, as the answer depends on the local circumstances, of which there is an infinite variety. The great danger of special facilities for mortgaging land arises in times of inflation, when they multiply the opportunities for reckless gambling; on the other hand it is an advantage that there should be special financial institutions for the purpose of making advances on real property, as it is clearly not within the province of ordinary banks to lock up any substantial part of their funds in such advances.

Where there are numerous small holders, the intervention of the public authorities is almost a

necessity, as it would not pay establishments carrying on business on strictly commercial principles to lend small sums except on very onerous terms.

[As to continental mortgage banks, see Buchenberger, *Agrarwesen und Agrarpolitik*, ii. 97-190. —Hecht, *Die Staatlichen und provinziellen Bodenkreditinstitute in Deutschland*; and the same author's articles, "Landschaften," and "Hypothekenaktienbanken," in *Handwörterbuch der Staatswissenschaften*.] E. S.

MORTGAGE BOND. Bonds issued by a railway or other corporation are sometimes secured by the mortgage of some particular assets or assigned property. American railroad companies have floated a great number of mortgage bonds on the London market, besides some income bonds. The latter are practically preference capital; they are not secured by mortgage, and the interest for each year is payable out of the income of that year only. A. E.

MORTGAGE DEBENTURE. A debenture secured by a mortgage of property. The use of the word does not, however, in itself give any rights to the holder, and may therefore in many cases be misleading (see DEBENTURE). E. S.

MORTGAGEE. A creditor secured by a MORTGAGE (*q.v.*) of property. E. S.

MORTGAGES, REGISTRATION OF. The compulsory registration of mortgages in a public register is much more universal than the registration of land or deeds affecting land generally (as to which see LAND REGISTRATION). Thus in many places mortgages of land are not effective unless registered, although there is no similar requirement as regards transfers of property (*e.g.* the Argentine Republic). The reason for this is that the publicity of mortgages is desirable to avoid disputes as to title, and to prevent people obtaining credit by the apparent ownership of property not really available for their general creditors. As in England mortgages may be effected of movable property as well as of land, a safeguard was required for the former, and this explains the reason of the statutes requiring the registration of a BILL OF SALE (*q.v.*), which, however, exclude the bills of sale of limited companies. A mortgage granted by a company is void against the liquidator and any creditor of the company, unless registered in the prescribed manner (Companies Act 1900, § 14). A mortgage of land registered under the Land Transfer Acts 1875 and 1897 is ineffectual unless protected by the registration of a charge, or of a caution or restriction, or by the deposit of the land certificate.

[Morris, *A Summary of the Law of Land and Mortgage Registration*, 1895.—Reports on the systems of registration of title in Germany and Austro-Hungary, 1896 (c. 8139); and 1897 (c. 8319).—Jennings and Kindersley, *Land Registration under the Land Transfer Acts 1875 and 1897* (1904).] E. S.

MORTGAGOR. A debtor who charges property by way of MORTGAGE (*q.v.*). E. S.

MORTIMER, THOMAS (1730-1810), a voluminous author and compiler, the merits of whose work cannot quite be taken at his own valuation, was appointed in 1762 English vice-consul to the Austrian Netherlands, with the promise, according to his own statement of the reversion of the consulate. The story of his wrongs is told at length in the *Remarks on the case of T. Mortimer*, 2nd ed., London, 1770, 8vo. In 1765 he translated Necker's work *On the Administration of the finances of France*, 3 vols., 8vo. Mortimer's most important work, the *Elements of Commerce, Politics, and Finance*, 4to, in three treatises on these important subjects, designed as a supplement to the education of British youth after they quit the public universities or private academies, appeared in 1772. On the BALANCE OF TRADE (*q.v.*), Mortimer claims to have originated the theory that it depends on the amount of the total commerce carried on to all quarters of the world. The portion on finance, while strenuously combating "idle notions of refunding the capital" of the national debt, contains some acute criticism of Dr. Price's views on a SINKING FUND (*q.v.*). In an advertisement, prefixed to a reprint of the book in 1780, Mortimer roundly accused Adam Smith of having plagiarised from him, and claims that the *Elements* had helped to put a stop to fictitious insurances at Lloyds, and had suggested to Lord North the taxing of certain luxuries, and to Lord Beauchamp his bill for the prevention of arrests for debt for sums under £10. The *Elements* exhausted Mortimer's attempts at original work; for the rest of his life he was busy with work for the booksellers. In his old age he complained to Isaac Disraeli of the hardships of his position.

Among Mortimer's other works were: *Every man his own Broker, or a Guide to Exchange Alley*, London, 1761, 12mo, 13th ed., 1801.—*The Universal Director*, London, 1763, 8vo.—*Dictionary of Trade and Commerce*, 2 vols., London, 1766, 4to.—*Student's Pocket Dictionary*, London, 1777, 12mo.—*General Commercial Dictionary*, London, 1810, 8vo.—*A Grammar illustrating the Principles of Trade and Commerce*, London, 1810, 12mo.—*Nefarious practice of Stock-jobbing unveiled*, London, 1810, 8vo.

[*European Magazine*, vol. xxxv.—*Dictionary of National Biography*, vol. xxxix.—M'Culloch's *Literature of Political Economy*, pp. 52, 53.] H. E. E.

MORTMAIN. Under the feudal system the lord who had a corporation for tenant was under considerable disadvantages. His tenant could not die, could not marry, be a minor, or commit a felony: thus a great part of the lord's profits were taken away. In addition to this, the great religious corporations, such as the templars, held royal charters granting them further immunities. The matter was made worse by a

practice which grew up during the 12th century: a tenant would alienate his land to a monastery and be received back as a tenant of the monastery, thus depriving his original feudal lord of his rights. This last process was declared illegal by the great charter of 1217. A clause of the abortive provisions of Westminster, A.D. 1259, which was re-enacted in the statute De Viris Religiosis, generally known as the Statute of Mortmain, in 1279, made all alienations to the church illegal, whether made in FRANKALMOIGN or otherwise, without the lord's consent. According to later statutes an inquisition, *ad quod damnum*, had to be held, and it was only after this inquisition had shown that neither the king nor any one else would suffer loss thereby, that an alienation to the church was allowed. Apparently it was not till near the end of the 14th century that it was discovered that any corporation was as bad a tenant as the church; for it was not till the statute of 15 Richard II., A.D. 1391, that alienation to any corporate body was subjected to the same laws as alienation to the church.

[*Statutes of the Realm.*—Pollock and Maitland, *History of English Law*, Cambridge, 1895.]

A. E. S.

MORTON'S FORK.[1] This was a dilemma devised by Bishop Morton, chancellor under Henry VII., afterwards cardinal and archbishop of Canterbury, to swell the contributions to a Benevolence (see BENEVOLENCES), levied for a proposed war with France (1491). A clause was inserted in the instructions to the commissioners: "That if they met with any that were sparing, they should tell them that they must needs have, because they laid up; and if they were spenders, they must needs have, because it was seen in their port and manner of living."

[Bacon, *History of the Reign of King Henry VII.* (ed. Lumby), p. 93.] R. L.

MOS (custom). "Jus quod moribus constitutum est" is customary law, which is opposed to "lex" statute law (see Smith's *Dict. of Antiquities*, art. Jus). E. A. W.

MÖSER, JUSTUS (1720-1794) was born at Osnabrück, where his father held a high legal office. He studied at Jena and Göttingen from 1740 to 1742, and, afterwards practising as an advocate in his native place, won the esteem and confidence of his fellow-citizens, which he retained in several important public positions which he filled.

ROSCHER, who declares *him*, and not Hugo or Schlosser, to have been the father of the historical school of law—a judgment which is, however, not generally accepted,—pronounces him also the greatest German political economist of the 18th century, and this on the ground of his possession of the following qualities:—(1) his open sense, equally for the higher social facts and for the homely every-day life of communities; (2) his thorough acquaintance with, and warm feeling towards, the people, in both senses of that word—the lower classes, and the nation at large; and (3) his mastery of HISTORICAL METHOD. He has not put forward any *system* of political economy, but his very numerous writings abound in original economic ideas, scattered through them, as Goethe says, like gold nuggets and gold grains. He shows himself to us as a sound-hearted, healthy-minded man, somewhat wayward and paradoxical in his mental habits, and "old world" in his views. He is opposed to the "liberal-rationalistic" school of Adam SMITH, dislikes the highly developed division of labour, objects to generalising and centralising tendencies, and looks with admiration and affection on many institutions of the feudal period. It was well that justice should be done to the merits of that age, but, in showing that the principles and practice of the past suited the contemporary social environment, he is sometimes led, like most lovers of antiquity, to represent them as adapted to the present, when they are really and necessarily obsolete and incapable of revival.

How strongly Möser impressed Goethe, and what an influence he had upon his youth, may be seen in bk. xiii. of the *Wahrheit und Dichtung*. His principal work, which takes rank as a German classic, is his *Patriotische Fantasieen*, 3 pts., 1774-1778, a series of short essays, which in many respects remind the reader of Franklin.

[Wegele in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 500.—Cohn, *Hist. of Pol. Econ.* (see arts. on CAMERALISTIC SCIENCE; GERMAN SCHOOL).] J. K. I.

MOSER, FRIEDRICH KARL VON (1723-1798), after having studied law at Jena, and been some time engaged in tuition, successively entered into the civil service of several German princes, but roused a vindictive animosity against himself by his bold denunciations of the official exactions committed in the small German states. His outspokenness led to his being sentenced in 1780, by the faculty of law in Frankfurt-on-the-Oder, to six years' imprisonment in a fortress, and a fine of 20,000 florins. He however, succeeded in evading actual imprisonment.

He was a frequent and fragmentary writer on diplomacy and public law, but is best known by his book *Der Herr und der Diener, geschildert mit patriotischer Freiheit* (The Master and the Servant depicted with patriotic Freedom), 1759, in which he declares that "times are near when the choice will not be between good and bad, but between bad and worse," and professes to be ashamed to be a German, when he thinks "what kind of men most of the heirs presumptive will be."

[1] Morton's connection with this dilemma has been controverted. Bacon, *History of King Henry VII.*, speaks of it as "a tradition."

Although he manfully struggles against the narrow and selfish *Particularismus* of the German princes, he is not a follower of the French philosophers, but finds in St. Paul's remarks in the *Epistle to the Romans* on the powers that be, a right exposition of the duties of the subject; he praises Mirabeau the elder, but denies that there only exists one model of a good government. His own leanings are in favour of the state of things anterior to the Thirty Years' War.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 529-532.—Bluntschli, *Gesch. des allg. Staatsrechts*, pp. 404-413.] E. Ca.

MOSER, Johann Jacob (1701-1785), had as chequered an existence as his son Friedrich von Moser (*q.v.*). A man of great classical attainments, he was successively a lawyer, a university professor at Tubingen and Frankfurt-on-the-Oder, a member of the government of Wurtemberg and other German states, and founded an academy for political science in Hanau. His unguarded language in defence of the rights of the *Landstände* of Wurtemberg against their domineering duke got him into trouble, and he was imprisoned for six years (1758-1764).

He wrote about 400 volumes and pamphlets, and is considered as the founder of the science of German public law. He published a *Bibliothek von oekonomischen und Cameral Polizei-schriften* (Ulm, 1758), and some dissertations on economic questions; in his autobiography, he states that for a long time, cameralistics and the science of interior state policy had been his favourite studies. Roscher expressly mentions his *Grundsätze einer vernünftigen Regierungskunst nach der jetzigen Denkungsart . . . verständiger Regenten* (Principles of a rational art of Government according to the opinions and practice of intelligent Rulers), 1753, in which Moser designs to demonstrate that trade, the interior state policy, etc., form "a connected and systematic whole." As announced by its title, this book is an exposition of what was done in well ruled states of these times (England and France being often put up as examples), but abstains from doctrinal investigations of what ought to be. Although Moser had some quarrels with Friedrich Wilhelm I. of Prussia, he derives a good number of the "principles" he recommends from this king's policy.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, pp. 441-443.—R. von Mohl, *Literatur der Staatswissenschaften*, ii. pp. 401-412.—Bluntschli, *Allgem. Staatsrecht*, 2nd ed. p. 402.] E. Ca.

MOSSE or MOSES, Miles (fl. 1580-1614), divine, was the author of *The Arraignment and Conviction of Usury*, London, 1595, which may be taken as a representative statement of the more liberal church view of usury (see Interest and Usury) at the close of the 16th century. Mosse distinguishes between the sin of usury and usury itself.

[Ashley's *Economic History*, vol. i. pt. 2, p. 469, London, 1893, 8vo.—*Dictionary of National Biography*, vol. xxxix. p. 184.] H. E. E.

MOST FAVOURED NATION CLAUSE. This is inserted in many commercial treaties. It binds each of the contracting powers to give to the other in certain matters the same treatment which it gives or may hereafter give to the nation which receives from it the most favourable terms in respect of those matters. The nature of such stipulations will be understood from the following example, taken from a convention on trade-marks concluded between Great Britain and the United States in 1878.—"The citizens of each of the contracting parties shall have, in the dominions and possessions of the other, the same rights as belong to native subjects or citizens, or as are now granted or may hereafter be granted to the subjects and citizens of the most favoured nation, in everything relating to trade-marks and trade-labels" The concession here is strictly limited as to its subject matter; but in many cases the most favoured nation clause is made general in its terms, and covers all matters of trade and navigation. When such large expressions are used it sometimes happens that a state finds itself called upon to grant to a distant or unfriendly power, or even to a keen commercial rival, privileges it has given for valuable consideration to a friend and neighbour. Nations who have adopted protectionist theories of international trade are likely to find themselves in this predicament more often than those who are content to let commerce take its course without attempting to control it in their own interests by constant higgling with other powers. The inconvenience of having to give to one set of foreigners concessions for which a valuable equivalent has been extorted from another set has been avoided by means of the doctrine that the most favoured nation clause applies only to concessions which are gratuitous, and does not entitle the party which claims under it to privileges which some other state has gained by giving corresponding privileges in return, unless the claimant also is content to offer a fair consideration for them. It can hardly be said that this is a rule of international law; but it has been adopted in such a large number of cases that a state which acts upon it cannot be accused of bad faith.

English commercial treaties containing a most favoured nation clause will be found in Hertslet's *Treaties*. The view of the meaning of the clause enunciated above is explained and defended in Wharton's *International Law Digest* (§ 134). T. J. L.

MOTIVES, Measurable. A term suggested by Professor Marshall as offering one way of marking off the sphere of economics from that of other social investigations. Motives are measurable so far as they can be relied on to produce constant effects which can be quantitatively estimated. Again measurable motives can be balanced one against another, as when we estimate the amount of sacrifice a person is willing to undergo in order to procure a given

utility. Here the sacrifice and utility have both to be expressed in objective form before they can be economically measured. This is possible only when objects of desire or aversion can be freely transferred by contract between individual and individual. It is because economics deals primarily with such objects that the science has assumed a greater precision and exactness than any other social science. This characteristic has made it possible to examine economic phenomena by abstract, deductive, and, even to some extent, mathematical methods. W. E. J.

MOVABLES. Things which from their nature are capable of being moved from one place to another. The classification of things into movables and immovables is the only classification that corresponds with an essential difference in the subject matter. A leading distinction between movable and immovable property is that as to the latter, according to English law, the rules of inheritance follow the *lex situs*, while as to the former they follow the *lex domicilii*. The *lex situs* decides whether an article is a movable or not.

[Sir Henry Maine in *Ancient Law*, London, 1880, traces the gradual development of the distinction in Roman law.] J. E. C. M.

MÜLLER, Adam Heinrich (1779-1829), was born at Berlin. In his nineteenth year he went to the university of Göttingen, where he at first occupied himself with theology, and then became a student of jurisprudence, in which he was a pupil of Hugo. He afterwards sought to complete his education by the private study of the natural sciences, which he had previously neglected. He early formed a close intimacy with Friedrich Gentz, his elder by fifteen years; and this connection exercised an important influence both on his material circumstances and his mental development in after life. The two men differed widely in character and in their fundamental principles, but agreed, at least in their later period, in their practical political aims, and the friendship between them was brought to an end only by Müller's death. The relations of the latter with the Junker party, and his co-operation with them in their opposition to Hardenberg's reforms, made any public employment in Prussia impossible for him. In 1805 he was in Vienna, where he became a convert to Roman Catholicism, and, through Gentz, was brought into relations with Metternich, to whom he was useful in the preparation of state papers. He spent the years 1806-1809 in Dresden, being occupied in the political education of Prince Bernhard of Saxe-Weimar. In 1813 he entered the Austrian service, and in 1815 accompanied the allies to Paris; he was ennobled by the emperor in 1820. In 1827 he settled a second time in Vienna, and was employed in the state chancellery. He was one of the principal literary instruments of the reaction, and took part, as Gentz's assistant, in framing the Carlsbad resolutions.

He was a man of remarkable powers and of great versatility, a born orator, and distinguished as a writer, not only on politics and economics, but on literature and æsthetics. As Gentz said of him: "He impresses us with a sense of his superiority even when we believe him to be on a wrong path." His principal work is his *Elemente der Staatskunst* (1809), which contains the substance of a course of lectures which he delivered at Dresden before a number of statesmen and diplomatists. He was, along with Gentz and Haller, a member of the school of politicians and economists in Germany, which has been called the romantic, as harmonising in spirit with the literary school of Tieck, Schlegel, and Novalis, and looking back with admiration and regret to the church and state of mediæval times. In political economy he represents a reaction against the doctrines of Adam Smith, whom, whilst he highly commends him in certain respects, he censures as presenting a one-sidedly material and individualistic conception of society, and as being too exclusively English in his views. Müller's leading idea is that of the organic unity and continuity of the state and of social institutions in general—a principle for which he may have been in part indebted to Burke, whose *Reflections* were translated by Gentz. The economy of a society, he holds, is something more than the sum of the private economies of its members; the individual must always be regarded in relation and subordination to the community. The capital of a country is not material only; its language and culture, its character and experience, its laws and constitution, are true portions of the national wealth. The state is not merely a mechanism for the maintenance of order and the administration of justice; it represents all the physical and spiritual possessions and requirements of the nation, and ought to bind together the whole inner and outer life of the people into a harmonious and energetic unity. Not merely should it study present production and immediate gain, but keep before it the increase of productive power and the development of civilisation in the future, and preserve for coming generations their entire inheritance, intellectual, moral, and economic. Müller considers Smith's theory of the division of labour defective in not sufficiently emphasising the dependence of such division on capital—on the labours and acquisitions of the past—and sets beside it, by way of correction and completion, a theory of the national combination of labour as no less important, though little more than indicated by Smith. The practical system of Smith might suit England sufficiently well, because the spiritual and material life of the people rested on a firm basis of traditional sentiments and old institutions reaching back to

the middle ages, which continued to keep alive national self-consciousness and knit together the several social classes in a healthy union. But the ends thus spontaneously attained must, in continental countries, be affected by governmental action steadily maintaining the national idea and systematically developing the productive powers and general energies of the nation. In the economic sphere, he defends a policy of restrictions on importation as one means towards this development.

Müller's strength lies in breadth and comprehensiveness; his defect in want of definiteness of conception and expression. Notwithstanding his eminent ability, he does not seem to have exercised much influence on the thought of his own time or of the succeeding period. His project of a Roman Catholic revival, and his retrograde attitude in politics, doubtless created a prejudice against his general philosophical views; but it ought always to be remembered that his doctrines, though favouring the reaction, were not dictated by self-interest; throughout his career he advocated principles essentially identical, and, in supporting Metternich's policy, he believed himself to be serving the highest interests of Germany and of Europe. Some of his higher tendencies, freed from much of their alloy, are reproduced in the writings of the historical school of German economists (comp. GERMAN SCHOOL).

Among the publications of Müller less important than the *Elemente der Staatskunst*, the following may be enumerated: *Die Theorie der Staatshaushaltung und ihre Fortschritte in Deutschland und England seit Adam Smith*, 1812.—*Versuch einer neuen Theorie des Geldes*, 1816.—*Vermischte Schriften über Staat Philosophie und Kunst*, (2 vols., 2nd ed., Vienna, 1817)—and *Von der Nothwendigkeit einer theologischen Grundlage der gesammten Staatswissenschaften und der Staatswirthschaft insbesondere*, 1819.

[Mischler in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N.O.*, p. 763.—Kautz, *Die Gesch. Entwickelung der Nat.-O.*, p. 659.—Cossa, *Introd. allo Studio dell' E.P.*, p. 320.—Cohn, *Nat. Oek.*, i. p. 12.]

J. K. I.

MULTIPLICATION OF SERVICES is a term employed by Jevons (*Scientific Primer*) to denote that one of the advantages attending *Division of Labour* which arises when "nearly the same time and labour are required to perform the same operation on a larger or on a smaller scale"—in the words of WHATELY, who seems first to have pointed out this advantage (*Lectures on Political Economy*, vi.). Thus, "if a messenger is going to carry a letter to the post-office, he can as readily carry a score" (Jevons, *loc. cit.*). This advantage is connected with production on a large scale, under which head it is treated by Mill (*Pol. Econ.*, bk. i. ch. 9).

"Multiplication of copies" (Jevons, *loc. cit.*) is a particular but important case. When once type has been set up, additional copies can be printed without much additional expense. A similar advantage is afforded by the use of "interchangeable parts" (Marshall) in machinery.

F. Y. E.

MUN, THOMAS (1571-1641), the best-known writer on the mercantile system, was son of John Mun, mercer, of London. As a member of the committee of the East India Company, and of the standing commission on trade (appointed in 1622, reappointed in 1625) "he was in his time famous amongst merchants and well known to most men of business, for his general experience in affairs, and notable insight into trade" (*England's Treasure by Foreign Trade*, John Mun's epistle dedicatory to Thomas, Earl of Southampton). In 1621 he published, in defence of the East India Company, *A Discourse of Trade from England into the East Indies*, reprinted in the same year, in Purchas's *Pilgrims* (1625), and in *Early English Tracts on Commerce*, London, 8vo, 1856. He is, however, best known by his posthumous work, *England's Treasure by Foreign Trade, or The Balance of our Foreign Trade is the Rule of our Treasure*, London, 8vo, 1664, republished in 1669, 1698, 1700 (in Lewis Roberts' *Mappe of Commerce*), 1713, 1755, 1856 (*Early Tracts on Commerce*), and 1895 (*Economic Classics*, edited by W. J. Ashley). There are two well-known allusions to this work in Adam Smith's *Wealth of Nations*, bk. iv. ch. i., in the first of which Smith quotes the concluding paragraph of the fourth chapter: "If we only behold the actions of the husbandman in the seed-time," etc.; and in the second, states that "the title of Mun's book . . . became a fundamental maxim in the political economy, not of England only, but of all other commercial countries."

The importance of Mun's work in the development of economic theory in England has been pointed out (ENGLISH EARLY ECON. HIST., vol. i. pp. 722 *seq.*, 730). The date of its composition and its publication are of considerable interest. It was published twenty-three years after Mun's death, by his son John, who states in the epistle dedicatory that it was left to him "in the nature of a legacy" by his father. But it appears to consist of several short papers, some of which were written about 1622, and all before 1628. Whether the final form and arrangement of the treatise is due to Mun himself or his son John, there is nothing to show. Ch. i., on "the qualities which are required in a perfect merchant of foreign trade," probably formed part of the "former discourse," to which he alludes in his address to his son, in which he proposed to teach him "how to love and serve his country, by instructing him in the duties and proceedings of sundry vocations." The opening sentence, the

marked difference of style between this chapter and the rest of the treatise, and other circumstances, point to this conclusion. In ch. ii., on "the means to enrich the kingdom," etc., and ch. iii. on "the particular ways and means to increase the exportation of our commodities," etc., he follows the order indicated in the address to his son. The following chapters are taken up with (1) the discussion of the advantages of the exportation of bullion; (2) replies to various arguments employed by MALYNES and MISSELDEN, in their controversy of 1622-23, and to the advocates of the debasement of the currency; (3) the fuller discussion of points briefly touched upon in ch. iii.; and (4) the method of calculating the balance of trade. Chs. iv. to vii. correspond almost verbatim to the *Petition and Remonstrance of the Governor and Company of Merchants of London trading to the East Indies*, which was drafted by Mun, and presented to the House of Commons in October 1628. This portion of *England's Treasure* may have been the rough draft of the *petition*. The differences between the two at any rate point to the fact that the latter was based upon the former. Chs. viii. to xv. are entirely taken up with the discussion of various arguments urged by Misselden and Malynes, and the advocates of the debasement of the currency. He objects to Misselden's contention that the want of money was due to the undervaluation of silver (*Free Trade, or The Means to make Trade flourish*, 1622), no less than Malynes's theory of the foreign exchanges (*The Maintenance of Free Trade*, 1622; *Lex Mercatoria*, 1622, etc.). He devotes the whole of ch. xiv. to a discussion of the "admirable facts" attributed to the bankers by Malynes, whom he accuses of "disguising his own knowledge with sophistry to further some private ends by hurting the public good," *i.e.* by re-establishing the office of royal exchanger. In his first pamphlet, Misselden had been anything but friendly to Mun's views on the East India Company; but his second pamphlet, *The Circle of Commerce*, etc., 1623, gives unmistakable evidence of Mun's influence. Ch. xv. of *England's Treasure* appears to be mainly a reply to Malynes's *Canker of England's Commonwealth*. Chs. xvi.-xviii., "on Revenue, etc.," must have been written not later than the early years of the reign of Charles I.; while ch. xix., in which Mun discusses the fishing trade, and quotes from the Dutch proclamation of 19th July 1624, was put into shape not very long subsequent to that date. The last two chapters deal with "the order and means whereby we may draw up the balance of our foreign trade," and "the conclusion upon all that hath been said concerning the exportation or importation of treasure." There appears to be no allusion throughout the treatise to any event later than 1624. No part of the work can have been written later than 1628, when the Petition and Remonstrance was presented to parliament, and most of it belongs probably to the years 1622-1625. The inquiry after the restoration into the desirability of legalising the exportation of bullion, followed by the act of 1663 (15 Car. II. c. 7), probably suggested the publication of Mun's work.

[A full account of Mun's life is given in the *Dictionary of National Biography*. For other points in his work see ENGLISH EARLY ECONOMIC HISTORY and ENGLISH SCHOOL OF POLITICAL ECONOMY, vol. i. pp. 719-737 (EXCHANGER ROYAL), and the authorities quoted there. See MERCANTILE SYSTEM.] W. A. S. H.

MUNICIPALITY.

Roman, p. 829; Mediæval, p. 830; Modern, p. 831; Municipal Government in Belgium, p. 831; in France, p. 832; in Italy, p. 834; in Prussia, p. 834; in United States of America, p. 837.

THE term municipality is ambiguous. Sometimes it signifies a town which is treated as a distinct unit for purposes of administration and sometimes the administrative authority in such a town. In another article (see ADMINISTRATION), it has been shown that in a large community it is impossible to concentrate the whole business of executive government at one spot, and that the centres of administration must be multiplied. It has also been shown that most governments have not merely spread their official administrators over the whole territory, but have enlisted private citizens in such portions of administrative work as immediately affect a particular neighbourhood. A certain degree of decentralisation and of local self-government is necessary to the proper administration of a great civilised state. Towns and cities have naturally obtained the largest share of these privileges, and for a long time throughout the greater part of Europe local self-government meant municipal self-government.

Roman Municipalities.—The earliest available instance of municipal self-government on a grand scale is afforded by the Roman power. Whilst the Romans established a universal empire, they never quite abandoned the antique idea that the city is the normal political community. Under the Roman emperors the Mediterranean world was divided into thousands of urban communities. Each city possessed a more or less extensive territory, and within this territory certain powers of self-government were exercised by those who possessed the franchise of that city. As the whole empire, or at least all its civilised portions, were thus divided into urban districts, no antithesis arose between urban and rural authorities. It was as though every English county were administered by those who possessed burgess rights in the county town, but it must

be added that residence was not in antiquity a necessary condition of obtaining such rights. The Roman municipal system was unquestionably a boon to the countries in which it was established; it served to keep alive the local patriotism, the interest in public business, and the spirit of public munificence so apt to dwindle among the subjects of a despotic monarchy. Magnificent remains scattered over most of the countries of the Mediterranean still show how nobly the municipal authorities of the Roman towns provided for the health, the convenience, the education, and the amusement of the burgesses. It is true that municipal extravagance and mismanagement were also common. Those defects afforded an excuse for the interference of the central government, and by degrees the Roman municipalities became practically powerless. Finally the barbarian conquests wrought such havoc in the Roman municipal system that it is doubtful how far any connection can be traced between it and the municipal system of the middle ages which next claims attention.

Mediæval Municipalities.—When the era of barbarian inroads finally closed in the tenth century, and the revival of civilisation brought prosperity again to towns, a new period of municipal development began. In this period municipal life is strongly contrasted with rural life. Feudalism laid its closest grasp on the rural districts, where a hierarchy of petty princes reigned one above another, and the lowest class of the population were in an almost servile condition. Important towns generally succeeded in placing themselves under the immediate protection of the sovereign or of a feudal magnate of the highest class, and all the inhabitants of such towns were personally free. Thus in the towns there was a scope for ambition and a security for hoarded wealth unknown in the country districts. In this period also municipal self-government frequently grew into something like political independence. None of the municipal towns of the Roman empire could have hoped to resist the will of the Roman emperor. But the municipalities of the middle ages had only to deal with feudal monarchs, whose real power was often as little as their titles were pompous. In the mediæval system of warfare, the means of attack were so much inferior to the means of defence that it was extremely difficult to reduce a large walled city, defended by a numerous and enthusiastic people. The burgess militia, however inferior to regular troops, were often more than a match for the arrogant and undisciplined knighthood. The most superficial readers of mediæval history know how the burghers of Milan stood a siege by the Emperor Frederick Barbarossa, and how the burghers of Ghent more than once faced the chivalry of France in the open field. Thus the great municipal towns of Italy became practically sovereign states, and the great municipal towns of Germany and Flanders became hardly less than sovereign. Lastly, the municipal organisation of mediæval towns was to a large extent industrial. There is no room here to discuss the history of the merchant and craft gilds or their relation to the government of the towns in which they arose. Nor is it safe to lay down any general law of development with reference to the constitutions of mediæval municipalities. In a majority of cases, perhaps, the result was the absorption of power by an urban aristocracy of commerce and industry, as opposed to the feudal aristocracy of land-owners in the country districts. Under these circumstances it was natural that mediæval burghers should be prone to fierce internal dissensions, and to an exclusive local patriotism, not merely hating the feudal lords and contemning the peasantry, but intensely jealous of the power and prosperity of any town but their own, a fatal weakness which was fully exemplified in the history of Flanders, and of Italy. At the same time the services rendered to civilisation by the mediæval municipalities were incalculable. At a time when the bulk of the country population in central and western Europe were little better than beasts of burthen, the municipal towns were sanctuaries of industry, art, and learning. Their wealth was such as under the conditions of the time might seem incredible, were it not yet attested by the splendour of their churches, of their municipal buildings, and even of their private mansions. But the condition of their freedom and power was the continuance of semi-barbarism without the walls. When feudal anarchy had been suppressed in the country districts, monarchs no longer needed the support of privileged towns. When the invention of gunpowder had transformed the art of war, town walls were no longer impregnable, and the burgher militia became useless against professional soldiers. The exclusive jealous spirit which set town against town, and class against class, made impossible all resistance to a centralised despotism. From the close of the 15th century onwards, the central government everywhere gained rapidly upon municipal independence.

In England the history of municipal development was somewhat different. Self-government by the free inhabitants prevailed there in rural as well as in urban neighbourhoods, and the representatives of the towns took part in the county courts. Again the towns were relatively far less important in England than in Italy, Germany, or even France, for mediæval England was an agricultural and pastoral, rather than an industrial or commercial country. Thirdly England attained national unity and a powerful government at a comparatively early time. Lastly, the old free institutions were never overthrown

in England as elsewhere. Owing to all these causes municipal towns in England never occupied so distinct or so conspicuous a place, whilst they escaped such a complete enslavement as befell municipal towns on the continent of Europe.

Modern Municipalities.—The third period of municipal development, which may be termed the modern period, may be dated from the French revolution. That revolution, and the revolutions which followed it, have converted the despotic monarchies of central and western Europe into governments more or less popular. The same desire for self-government which prompted this change led to a demand for reformed municipal constitutions. In England reform came more naturally as the feeling of local independence and the interest in local affairs had never quite died out. In the United States vigorous municipal institutions existed even prior to the separation from the mother country. This new municipal life differs from the municipal life of the middle ages in several weighty respects. The long-continued pressure of the central government, and the changes wrought by modern civilisation, have lessened the contrast between town and country. Municipal self-government has been very generally extended with some modifications to the rural districts of this and of other countries. Again, the modern municipal town cannot aspire to political independence. Military power is now centred in the hands of the national government to an extent never paralleled save under the Roman emperors. Lastly, the exclusive spirit which formerly parted town from town, and the ruling class of each town from the rest of the citizens, has practically disappeared. Modern municipal self-government is democratic, and the only dangers which threaten its future are those incidental to democracy, such as the withdrawal of sensitive and high-minded men from public life, the too ready reception accorded to demagogues, and the popular fallacy that too much money cannot be raised in rates or spent in wages. Several cities of the United States have afforded the most alarming examples of robbery and corruption. It is not reassuring to learn that a common remedy for these evils is to appoint some eminent citizen as a dictator, for this is an acknowledgment that municipal institutions have no power of self-purification. In Germany it is a not infrequent practice for the municipality to entrust the administration to a professional expert. In France, and especially in Paris, municipal profusion is conspicuous. Similar tendencies have developed in England. What functions should be entrusted to a municipal body is a large and complex question which cannot be solved without wide experience. Watching, lighting, sanitary control, and the execution of public improvements, are clearly within its province. Much may be said in favour of entrusting to it the provision of such articles of general use and necessity as are already subjects of a virtual monopoly, *e.g.* the supply of gas and water. But there is nothing to justify the belief that the municipality should be sole landlord or sole capitalist in the town. There is no reason to suppose that a town council is fit to manufacture cotton goods or ship plates. The supply of men fit for municipal office is small; the time which they can give to public affairs is limited; and under the conditions of modern life much alteration in either respect is not likely to be made. The tendency to ask of municipal bodies more than they can possibly perform is the most serious danger which threatens municipal self-government in modern Europe.

[Smith, *Dictionary of Greek and Roman Antiquities.*— Hegel, *Geschichte der Italienischen Städteverfassung.*—Villari, *History of Florence.*—Perrens, *Histoire de Florence.*—Sismondi, *Républiques Italiennes.*—Luchaire, *Les Communes Françaises.*—Zeller, *Histoire d'Allemagne.*—Gross, *The Gild Merchant.*—Alice S. Green, *Town Life in the Fifteenth Century.*—Cunningham, *Growth of English Industry and Commerce.*—Ashley, *Economic History of England*, and the general histories of England, France, Spain, and Germany.]

F. C. M.

MUNICIPAL GOVERNMENT IN ENGLAND. See CORPORATION, MUNICIPAL, METROPOLIS; MUNICIPALITY.

MUNICIPAL GOVERNMENT IN BELGIUM. The words *municipalité, municipal* are not used by the Belgian constitution or laws on the subject; the words *commune, communal* have alone a legal standing.

Under the Dutch rule of the beginning of this century, a distinction was maintained between the administration of the towns and what was called the "flat country" (*le plat pays*); the communal law of the 30th March 1836 submitted the whole of the territory to a uniform communal legislation.

According to the constitution, the communal councils must be directly elected by the electoral body; their power extends over all subjects of communal interests, the central government having only the right to declare void any resolution in contradiction with the general interest, and their sessions and accounts must be kept open to publicity. These general principles laid down in the constitution of 1831, have been further developed by the already-mentioned law of 1836 which is still in force, except, as we shall presently see, for the mode of election of the councillors.

The number of councillors varies from seven to thirty-one according to the figure of the population; no restriction is laid on their meetings; they meet whenever it is expedient for the transaction of communal business, the *bourgmestre* (mayor) occupying by right the

chair. Their right to impose local taxes to supply the financial wants of the *commune* is far more extended than in France and in Italy, and in fact, almost unlimited.

The *bourgmestre*, who is at once the agent of the king and the head of the *commune*, is nominated by the king, who possesses the right of selecting him even outside the communal council, a royal prerogative which remains practically dormant. With the *échevins* (aldermen, from the Flemish *schepen*, in mediæval Latin *scabini*) formerly nominated by the king, now elected by the council, the *bourgmestre* forms the *collège échevinal*, or executive committee entrusted with the daily local administration, but in matters of *état civil* (public registration of births, marriages, and deaths) and of police, the *bourgmestre* has a distinct and individual authority of his own and is personally responsible for public order.

The king cannot dissolve a communal council, though he may cancel any resolution, illegal or opposed to the general good. The *députation permanente* of the provincial council is also entrusted with some powers of control on certain specified subjects, but, on the whole, Belgium is one of the countries on the continent where local autonomy and independence is most extended, and most solidly founded on an almost uninterrupted transmission of traditions and customs tracing their origin to the flourishing period of Ghent, Bruges, Ypres, etc., during the last centuries of the middle ages.

A quite recent law (May 1895) has considerably enlarged the communal electoral body. Every Belgian citizen aged thirty and having three years' residence is now entitled to one vote. He may acquire from one to three extra votes, if he is married, in possession of certain degrees or diplomas, directly taxed for a certain *minimum* amount, or in receipt of a certain income.

[For the middle ages see Professor Van der Kindere, *Le Siècle des Artevelde*, Brussels, 1879, Alphonse Wauters, *Les Libertés Communales, Essai sur leur Origine et leurs premiers développements*, Brussels, 1878, and Pirenne, *Histoire de la Constitution de Dinant* and *Histoire de Belgique*, 2 vols. (published 1900 and 1903). Several collections (*Recueils des Ordonnances, des anciennes coutumes de la Belgique, coutumes de Flandre, du Brabant*, etc.) have since 1850 been published by official authority.

For the more purely legal aspect see Charles Faider, *Études sur les Constitutions Nationales* (1842), and *Coup d'Œil historique sur les institutions provinciales et communales en Belgique* (1834). —For present times De Brouckère et Tielemans, *Répertoire du Droit Administratif de Belgique* (8 vols., 1834-56 unfinished).—De Fooz, *Le Droit Administratif Belge* (1866).—Leemans, *Des Impositions Communales en Belgique* (1866).—Giron, *Essai sur le Droit Communal en Belgique* (1862). —Bivort, *Commentaires sur la Loi Communale de Belgique*, 9th ed. (1882); and Giron, *Le Droit Administratif de la Belgique*, 3rd ed. (1885).]

E. Ca.

MUNICIPAL GOVERNMENT IN FRANCE. The *commune* is the ultimate territorial and administrative unit of France; this name is now equally applied to the towns and the rural parishes (*paroisses*) which used to be kept distinct before the French Revolution. At the time of the latter, the *Assemblée Constituante* recognised the legal existence of about 44,000 *communes* for continental France; the present number slightly exceeds 36,000, about one-half of which have a population inferior to 500 inhabitants. It is generally considered that a further reduction of this number by means of the consolidation of neighbouring diminutive rural *communes* would be desirable.

Excepting Paris and, to some extent, Lyons, all French *communes* are regulated by the law of the 5th of April 1884 on municipal organisation, which has repealed or modified the former legislation of 1837 and 1855; according to the preliminary report presented to the chamber of deputies, it was intended to be "a reform most favourable to the extension of communal freedom." The following summary will show that space still remains for further extension, and that, with the exception of their everyday business, French municipal authorities are only allowed to move under the *tutela* of the central government and its official delegates, the *préfet* and the *sous-préfet*.

"The municipal body of each *commune* is composed of the municipal council, the *maire* and one or several *adjoints* (or deputies of the *maire*)." Such is the text of article 1 of the law. The minimum number of municipal councillors is 10 for *communes* under 500 inhabitants, and progressively rises with the population to a maximum of 54. The *maire* and *adjoints* are elected from their own body by the municipal councillors, themselves directly elected by all male inhabitants above twenty-one, settled in the *commune* or resident there six months and not in actual receipt of relief from the *Bureau de Bienfaisance*. Non-resident voters are admitted on their demand, if their names are on the list of taxpayers, but nobody is allowed to vote in more than one *commune*. All male inhabitants, paupers of course excluded, or taxpayers above twenty-five years of age are qualified to be elected, but the number of non-resident councillors must not exceed one-fourth of the total number of councillors. Several classes of state or municipal officials, such as the public schoolmaster and priests, cannot be elected.

Municipal councils are elected for four years; they may, in case of urgency, be suspended for one month by the *préfet* of the department, but the President of the Republic is alone empowered to dissolve them and his decree must

state the motives of the dissolution. He then appoints a provisional delegation of 3 to 7 members entrusted with the management of urgent affairs; a new election must take place within two months.

The *maire* and municipal councillors can draw no salary, but the reimbursement of actual expenses is permissive, and the *maires* of large towns sometimes are awarded what are called *frais de représentation*—expenses for receptions and entertainments, etc.

Municipal councils have four annual ordinary sessions, three of a fortnight and one for the debates on the budget which may last six weeks. The *préfet* and *sous-préfet* may summon them for an extraordinary convocation, so also may the *maire* who is further obliged to summon the council whenever required to do so by a majority, specifying the object of its request. In this case he must inform the *préfet*, and only the specified questions can be discussed.

The *maire* is legally the chairman, except when his own administrative accounts are examined. As a rule, the meetings of the council are open to the public, and an extract from the journals must be stuck up at the door of the town hall within the week. Every inhabitant or taxpayer is entitled to claim the perusal of the journals, municipal budget, and accounts, etc.

The specific functions of the council as enumerated by article 61 of the law are—

(*a*) to regulate by its resolutions the business of the *commune*.

(*b*) to give its advice when required by law or by the superior authorities.

(*c*) to protest if necessary against the *quota* of apportioned taxes assessed on the *commune*.

(*d*) to express wishes (*vœux*) on all subjects of local interest.

(*e*) to draw up the list from which the prefectoral authority nominates the assessors for the apportionment of certain taxes. An extract of all resolutions is to be sent within a week to the *sous-préfet* by the *maire;* if these exceed the range of the legal attributions of the council they are legally void and are declared so by the *préfet*. Political wishes fall under this description; still the delegates of all the municipal councils make up the bulk of the electoral body for the French Senate. Every taxpayer and any person having an interest at stake, is also entitled to sue for a declaration of nullity of a resolution within a fortnight. The council of state is the supreme jurisdiction for all suits of this kind.

French *communes* are legally capable to own property, both movable and real, constituting either their public domains, *e.g.* schools, hospitals, streets, libraries, churchyards, etc. or their private domains, *e.g.* houses, arable land, fields, woods, consolidated state funds. Houses and land may be sold, rented, and farmed, but the terms of these transactions must be approved by the superior authorities, even for leases, when they exceed eighteen years. The same approval is necessary for all resolutions on rights of commons, on acceptance of legacies and donations, if hampered with charges or conditions, or giving rise to opposition from the family of the testator or donor; for the communal budget, the vote of supplementary supplies; the raising of extraordinary taxes or contracting of loans, if their principal exceeds a certain proportion. The foundation or suppression of fairs must also be sanctioned by the *préfet*. Even resolutions, which do not require his sanction, only become executory one month after they have been notified to him.

The council is not allowed to publish proclamations or to enter into correspondence with other municipal councils, unless in a few specified cases and always under the prefectoral supervision. No *commune* can appear in court without being authorised by the *préfecture*.

The budget of each *commune* is proposed by the *maire*, voted by the municipal council, and sanctioned by the *préfet*; whenever the communal income exceeds 3,000,000 of francs (£120,000), the final approbation of the President of the Republic is requisite. Certain items of expenditure are compulsory; let us mention as such the registration of births, marriages, and deaths; the repairs of communal buildings and public churches—for the latter in case of insufficiency of the means at the disposal of the *conseil de fabrique* (vestry)—the communal share in the expenses concerning public instruction; the keeping in order of cemeteries and communal roads; the salaries of specified communal functionaries, etc. The *commune* must also provide for the expenses of its police, notwithstanding the fact that in towns of more than 40,000 inhabitants, the personal regulation of the force belongs to the President of the Republic. Thus, although the *maire* is nominally the head of the municipal police, his immediate subordinates, the *commissaires* of police, are in fact the agents of the prefectoral administration. It must not be forgotten that the *maire* himself is at the same time the elected representative of the *commune* and the local agent of the central government; until the end of the second empire, he was appointed by government, which has kept the right to dismiss him.

In one respect the communal councils are subject to the permanent control of local taxpayers. Article 123 of the law empowers any one of these to initiate at his own risk, and with the agreement of the *conseil de préfecture*, "the lawsuits which he considers to belong to the *commune*, and which the council having been invited to discuss has refused or neglected to prosecute." The resulting judicial decision binds the *commune*.

From this slight sketch it will appear that,

compared with other countries, the French municipal authorities are confined within rather narrow official trammels. French political parties clamour for decentralisation only as long as they remain in opposition.

[See *les Controverses sur la Décentralisation administrative* in the *Revue Politique et Parlementaire* (April and May 1895), by Léon Aucoc, the highest authority on the subject.

French urban municipalities and *communes* have a double origin; in southern France they were generally survivals or revivals of Roman Municipia; in the north they arose during the 12th century from the revolts of the *bourgeoisie* against their feudal lords. For this movement see Augustin Thierry, *Lettres sur l'Histoire de France* and *Essai sur la Formation et les Progrès du Tiers État.*—Luchaire, *Les Communes française à l'Epoque des Capétiens directs* (1890).—Guizot, *Cours de l'Histoire de la Civilisation en France*, and numerous monographs such as Flammermont, *Les Institutions Municipales de Senlis* (1881).—Prou, *Coutumes de Lorris aux XIIe et XIIIe Siècles* (1884).—Giry, *Établissements de Rouen* (1883).—Bonvalot, *Le Tiers État d'après la Charte de Beaumont* (1884), etc. The French kings favoured the *communes* in their struggles against their *Seigneurs* (see Giry, *Documents pour les relations de la Royauté avec les Villes au XIIe et au XIIIe Siècles*, 1885). Two centuries later the towns had to submit to the royal power. For the period extending hence to modern times, see de la Poix de Fréminville, *Traité Général du Gouvernement des communautés des villes, bourgs, villages et paroisses* (1760).—Boileau, *Recueil de Règlements concernant la Municipalité* (1785).—Raynouard, *Histoire du Droit Municipal en France* (1829), and Béchard, *Histoire du Droit Municipal au Moyen Age et dans les Temps Modernes* (1875).

For the present times, see Pascaud, *De l'Organisation Municipale et Communale en Europe, aux États Unis et en France* (1877).—H. de Ferron, *Institutions municipales et provinciales comparées* (1884), and the great work (in 8 vols.) of A. Batbie, *Traité théorique et pratique du Droit Public et Administratif* (1885).—Yves Guyot, "Municipality of Paris," *Contemporary Review*, 1883.]

E. Ca.

MUNICIPAL GOVERNMENT IN ITALY. The law of the 20th March 1865 is still in all essential points the great charter of Italian municipal organisation. On four of these points it is modelled on the Belgian legislation: thus the *sindaco* (or mayor) is nominated by the king who can also remove him; the qualification of a voter is based on the annual payment of one or another direct tax with a *minimum* varying from 5 to 25 lire (say 4s. to £1) according to the population; moreover, owners of university degrees, civil and military officials, professors, bearers of an Italian order, etc. are electors by right, and unlettered citizens cannot vote; in financial matters and questions of communal property, the control over the resolutions of the communal council rather belongs to the *deputazione provinciale* (permanent delegation of the provincial council) than to the prefect; and, fourthly, the *giunta municipale* comprising the *sindaco* and from two to ten *assessori*—the latter elected by the members of the *consiglio comunale* among their own members—have corporate existence recognised by law, like the Belgian *collège échevinal.* In other points the example of France was followed. Thus communal councils have two ordinary annual sittings, not exceeding thirty days each, unless a prolongation be granted by the provincial deputation; for extraordinary sessions they must be summoned by the prefect, acting either *ex officio*, or on the petition of the *giunta*, or of one-third of the councillors, and in these extraordinary sessions resolutions can only be taken on questions specified beforehand. In the interval between the sittings, the *giunta* represents the communal council, to which it is accountable. In all deliberations concerning the budget, the prefect has always the right to be heard. He, as well as the communal councils themselves, may appeal to the king against any decision taken by the provincial deputation in its controlling capacity.

[Several papers on Italian Municipal Administration have appeared in the *Bulletin de la Société de Législation Comparée*, 1877, pp. 97-126; 1881, pp. 266-307 and 325-344; 1882, pp. 413-430.]

E. Ca.

MUNICIPAL GOVERNMENT IN PRUSSIA. The year 1808 marks the beginning of a new era in the history of the Prussian administrative system, and especially in the form of municipal government. The social and political condition of the country immediately after the Thirty Years' War demanded radical changes, if it was to maintain its individuality amongst the civilised nations. The cities, after having attained, during the second half of the middle ages, a large measure of local independence and general prosperity, gradually lapsed into a condition of state tutelage. The 17th and 18th centuries found them stripped of every vestige of municipal authority and self-government. They had become *close corporations*, whose officials were appointed through, and dependent upon, state patronage. The complete disruption of the country through the crushing defeats inflicted by Napoleon in 1806 and 1807 made this organic weakness so apparent to the leading statesmen of the time that positive steps towards reform were immediately taken. The group of laws known as the *Stein-Hardenbergsche Gesetzgebung* forms the first and most important chapter in the series of administrative reforms of which the legislation of 1872 and 1876 marks the closing step.

To Stein is due the Municipal Corporations Act of November 19th, 1808, which is still the basis of municipal government in Prussia. In the acts of 1831, 1850, and 1853, which latter is at present in force, modifications in a con

servative spirit were introduced tending towards a somewhat stricter control of municipal action by the central government.[1]

The general characteristics of municipal government in Prussia find such distinct expression in the organisation of the administration of Berlin that the description of the latter gives an adequate idea of the general system.

The general city administration of Berlin is in the hands of an Executive Board or *Magistrat*; a Municipal Council; and a series of *Deputations* or committees, the nature of which we shall have occasion to examine.

The *Executive Board* (*Magistrat*).[2]—This board occupies a twofold position. It is entrusted with the execution of purely city affairs, and is also the representative of the state for the exercise of the more general or state functions. In the former of these capacities it is responsible to the municipal council, in the latter to the central government.[3] It is composed of a chief-mayor, vice-mayor, and thirty-two aldermen. Of these thirty-four offices, seventeen are professional in character, and therefore paid; the remaining seventeen unsalaried or honorary, to which every citizen is eligible. Acceptance of the unsalaried offices is obligatory. All members of the executive board are elected by the city council, the salaried members for a period of twelve, the unsalaried for six years. All are re-eligible, and the salaried offices are practically life positions.

The mayor is the presiding officer of this board, and has the legal right to veto its decisions.[4] Where the board and the mayor are in actual conflict the ultimate decision is placed in the hands of the supreme administrative court (*Oberverwaltungsgericht*). It is necessary to examine briefly the method of settling these disputes, as this illustrates one of the leading features of the Prussian administration. The question of the jurisdiction of the administrative courts and the semi-judicial bodies, which has acquired such importance since the reforms of 1872, 1876, and 1883, is exceedingly complicated. They are intended to settle such administrative disputes as may arise between the citizen and the public administration and between the various organs of the local or general administration. In cases where such differences have arisen between the executive board and the municipal council, the general rule is an appeal to the district committee[1] as administrative court of the first instance, and to the supreme administrative court for final decision. Berlin offers an exception to this general rule, for in cases of such differences the supreme administrative court acts as first and final resort.

The vice-mayor acts as substitute to the mayor in the details of his administrative duties. The remaining fifteen salaried members of the executive board are as follows:—two corporation counsel, two school councillors, two city architects, a city treasurer, and eight additional members. It is characteristic of the Prussian system that the incumbents for these salaried offices are chosen from all parts of the kingdom. The office of mayor in the larger towns is a purely professional one. Men who have gained a reputation as efficient administrators in the smaller cities are called to fill the important offices in more important centres. The choice of the city council for both salaried and non-salaried members of the executive board requires the approval of the provincial government. This apparently far-reaching restriction on local self-government is, as a general rule, a mere matter of form. It is to this executive board that the great bulk of the general city administration falls. In addition to its executive functions it may be regarded as constituting a part, at least, of the legislative branch of the city government, inasmuch as all decisions of the municipal council require the approval of the executive board. That this combination of executive and legislative powers makes the executive board by far the most important of the organs of the city administration is evident. In cases where the city council and the executive board come into conflict the supreme administrative court decides, upon the appeal of either body.

The detailed control and general administrative supervision of the various municipal departments is exercised by the committees, or *deputations* already mentioned. We have here one of the peculiar characteristics of the

[1] It is important to note that the Prussian system makes very clear distinction between urban and rural communities, and that the laws applying to each are entirely different. In this respect it differs entirely from the French system of local government, where no such distinction is made, the same form of local government applying there to both urban and rural communities.

[2] The salaries of the most important offices in the city government are as follows:

In the executive board the minimum compensation of paid members is 7000 marks. These salaries are increased from year to year in proportion to the term of service.

The highest salary of a regular member of the executive board is at present 11,600 marks.

The mayor receives 30,000 marks.

The vice-mayor 18,000 marks.

The salaries of chiefs of departments range from 3000 to 6000 marks. A few, such as the superintendent of the city insane asylum, receive as much as 9000 marks.

Members of the town council receive no compensation.

[3] It is to be noted that the government of Berlin is representative of the municipal system in the seven eastern provinces of Prussia. In the western provinces a system more closely resembling the system of the French *communes* is to be found.

[4] Very few instances of the exercise of the right have occurred, so that it is almost looked upon as non-existent. It has nevertheless given the mayor a very strong influence, moral if not legal, in determining the policy of the board.

[1] This committee is composed of the district president, two members appointed by the king, and four citizens elected by the provincial committee. Although Berlin has such a committee, it does not exercise the same extensive functions as in other parts of the kingdom; its constitution is also somewhat different.

Berlin administrative system. It is an attempt to bring about a personal union between the executive and legislative branches of the city government and the general body of citizens. These committees are made up of city councilmen and private citizens, elected by the city council, to whom the executive board adds a number of its members. One of the latter acts as presiding officer. The exact proportion of representation from the various bodies is determined by municipal ordinance. There are at present the following *deputations*:—on taxation and military affairs, poor-law administration, streets and public buildings, street cleaning, schools, city property, parks, pensions, fuel, stationery, public health, statistics, street lighting, water-works, savings-banks, gymnastics, and industrial schools. The heads of the various municipal departments are, for the most part, experts entrusted with the executive policy of their particular department, and are responsible to these deputations for their financial and administrative methods.

The Municipal Council.—The leading feature of the Prussian Municipal Corporations Act is the absence of any minute and detailed grant of power, either to the city as a whole or to the municipal council in particular. On the one hand, its competency is limited by the general sphere of municipal action, and, on the other by the powers expressly and exclusively vested in the executive board. Not only is it charged—in connection, as a rule, with the executive board—with the financial and general administrative legislation, but it also exercises a strong control over the purely executive acts of the city administration. This is done through a series of standing committees entrusted with the examination of the accounts, contracts, and other acts of the various departments. It is, however, important to note that the executive branch is not compelled to carry out the will of the city council, unless this meets with its approval. In order that this conflict may be avoided as far as possible, the executive board has the right, and, upon the demand of the city council, may be required, to send representatives to the meetings of the council. The city council is elected by the tax-payers through what is known as the *three-class* system, adopted in 1849 for state elections, and soon after incorporated in the Municipal Corporations Act. The tax-payers are, for purposes of electing members of the municipal council, grouped into three classes, according to the amount of direct taxes paid by each. The first class comprises those among the most heavily-taxed inhabitants whose total contribution is one-third of the aggregate. They elect one-third of the city councillors. The next group, paying an equal amount, *i.e.* another third of the total sum, elect the same number. The remaining qualified voters elect the final third of the total number of city councillors. It is evident that, according to this system, the wealth of the community really determines the character of the municipal council. Thus in 1887, with 3849 voters of the first class, 17,730 of the second, and 192,274 of the third, a comparatively small percentage of the population of Berlin exercised the controlling voice in the election of its council.

To the general rule of local self-government in the various municipal departments, there is one important exception, which is, however, not peculiar to Berlin, but characteristic of all the large Prussian cities. In all the smaller communities, the mayor is entrusted with the police administration. In cities the population of which exceeds 10,000, the minister of the interior has the power to place an official appointed by and responsible to him at the head of the police service. He is known as the president of police (*polizei-präsident*). He has charge of the department of public safety in the narrower sense of the term. The other branches of the police service, *i.e.* such as are not immediately concerned with the preservation of peace and order, like the health, trade, and building police, remain a part of the city administration proper.

The cost of the police service is paid out of the state treasury, but the city is required to contribute 2½ marks per capita of population. This represents hardly one-third the entire cost.[1]

To sum up the general characteristics of the Prussian system, we find in the first place a strong tendency towards decentralisation, in order directly to interest a large body of citizens in the work of public administration. In the various deputations, poor-law commissioners, ward provosts, and the like, nearly 10,000 of Berlin's citizens are devoting some of their best energies to the city's welfare.

The city council, while possessing important legislative functions, exercises an important control over the acts of the executive board. The position of the latter both as executive branch of the city government and upper chamber of the legislative branch, gives it the preponderating influence in determining the general policy of the city administration. The unique position occupied by the *deputations* is another of the distinguishing features of the Prussian municipal system. And finally, the fact that at the head of the several municipal departments, and determining their executive policy, we find a series of experts who are devoting their undivided attention to the gradual development of their particular departments, is of the utmost importance in explaining the admirable methods pursued on the more technical sides of municipal action.

[1] Although Berlin pays 2½ marks per capita, the smaller cities pay a much smaller sum. The per capita contribution is graded according to population.

Through this happy combination of individual responsibility and popular control, the administration of Berlin has reached a degree of efficiency to which perhaps no other of the great cities of the world can offer a parallel.

[Gneist, R. von, The Government of Berlin, *Contemporary Review*, 1884. — Leidig, *Preussisches Stadt.* — Pollard, James, *Berlin: A Study in Municipal Government*, London, 1893, Blackwood and Sons. — Rowe, L. S., *Die Gemeindefinanzen von Berlin und Paris*, Jena, 1893, Gustav Fischer. —Schoen, Paul, *Die Organization der städtischen Verwaltung in Preussen.* — Hirth's *Annalen des Deutschen Reichs*, 1891, Nos. 9, 10, and 11.— Steffenhagen, *Städtische Verwaltung und Verfassung in Preussen*, Berlin, 1887.—Shaw, Albert, *Municipal Government in Continental Europe*, New York, 1895.] L. S. R.

MUNICIPAL GOVERNMENT IN UNITED STATES OF AMERICA (PENNSYLVANIA, PHILADELPHIA). In considering the question of municipal government in the United States, it is necessary to bear in mind the distinction between the American and the continental ideas of the municipality. In the former the municipality is the creature of the legislature, with clearly and minutely defined powers, which form the absolute limits to its action. No general sphere of municipal action, within the limits of which it may exercise its own discretion without the menace of interference on the part of the state legislature, is recognised. On the European continent we find a much broader view prevailing. The law distinctly recognises a field of municipal action, with which the central government can in no wise, or at least only in extreme cases, interfere. The continual interference of the state legislature in municipal affairs has been one of the characteristic features of municipal development in the United States. The large cities have been the greatest sufferers in this respect, and their history and present condition cannot be understood without a distinct recognition of this fact.

The municipal system of the state of Pennsylvania recognises two kinds of municipal corporations;—boroughs and cities. The former is, in general, an incorporated township or portion of a township or townships, with less than 10,000 inhabitants. The cities are for purposes of government divided into three distinct classes.[1] The effect of this division upon the question of state interference in municipal affairs we shall have occasion to examine when treating of the municipal provisions in the state constitution. The three classes above mentioned are as follows:

1. Those containing a population of 600,000 or over.
2. Those with less than 600,000 but exceeding 100,000.
3. Those with less than 100,000.

[1] Act, 8th May 1889, Pa. Laws, p. 133, 1. Act held to be constitutional, see Wheeler *v.* Phila. 77, Pa. 347.

While the differences in the form of government of these various classes of cities are important, the existing organisation of the city of Philadelphia is sufficiently typical to give a general idea of municipal organisation in Pennsylvania. The main differences relate to the number, power, and duties of officers.

In order to understand Philadelphia's present form of government, which only dates from 1887, it is necessary to contrast it with its predecessor. The period of "close corporate" existence, which form had been modelled by Penn in his charter of 1701, after English models, came to an end in 1789, when a modern municipal corporation was created. The history of the city's administration from this period down to its reorganisation in 1887, shows that it was impossible to obtain efficient government with a decentralised system, so long as the attitude of the citizens towards their municipalities remained what it was. The mayor, who was originally a member of councils, soon ceased to be so. The mode of his election also underwent radical changes. At first he was elected by the aldermen; this plan was followed by a system of election by councils; and it was not until 1839 that election by the people was introduced. Nor did the extent of his power remain the same. The period immediately succeeding the introduction of popular election of the mayor marks the greatest change in this respect. Up to that time the mayor had full power of appointment. He was now stripped of this. This was but the beginning of a movement which ended in the degradation of the office of mayor to little more than head of the police system. It received no definite check until the new charter of 1885 came into effect in 1887. The extensive power of appointment, as well as other less important functions, were gradually absorbed by city councils, which during the period under consideration had also undergone a change of organisation. In 1796 the legislative branch of the city government became bicameral; being divided into common and select councils. "They inherited the powers of which the mayor had been shorn, which gave to the local legislature a twofold character; combining within itself both executive and legislative functions." Its methods were that of government by standing committees. A long chapter of the very worst abuses followed, due to the entire lack of an adequate fixing of responsibility in municipal affairs. In 1854 the consolidation of the surrounding suburban districts with the old "city" took place. No changes in the methods of government were effected however, so that Philadelphia continued to suffer from an inefficient, extravagant, and corrupt administration, of which the history of the Gas Trust, so well described by Mr. Bryce in his *American Commonwealth*, is

but one instance. The agitation for a change in the form of government extends over a series of years, and after one defeat in the state legislature, the act for the "Government of Cities of the First Class" known as the Bullitt Bill, was passed in 1885, and came into effect on the first of April 1887.

The fundamental principles upon which this act is based are those which have found expression in almost all the attempts at the reform of city government in the United States within recent years. It is an attempt to definitely fix responsibility by greatly increasing the power of the mayor; giving to him all the powers of an executive, and taking from the councils as far as possible their executive functions.

The legal position of the American municipality in the state makes it necessary, in order to comprehend the city organisation in all its bearings, to examine the state constitutions, which generally contain provisions which may be regarded as complementary to the municipal corporation acts.

In this sense the Pennsylvania state constitution of 1873 served to pave the way for the radical reforms introduced by the act of 1885. It was hoped that a provision effectually prohibiting special and local legislation would be inserted. As a matter of fact we find such a clause in the state constitution,[1] but owing to the very liberal interpretation of the court as to the power of the legislature to divide the cities into classes, the object intended has not been attained, at any rate as regards Philadelphia. Philadelphia is the only city of the first class in the commonwealth, so that general legislation for cities of the first class is in reality special legislation as regards Philadelphia. A further provision of the state constitution which is of importance in the municipal system deals with the question of city indebtedness prohibiting a county, city, borough, or township from maintaining a debt in excess of seven per centum of the assessed valuation of the taxable property therein contained. But even this provision has shown itself of but little importance. It is only necessary for the city to increase the valuation of its taxable property, which in some cases has been done to the extent of 1000 per cent, in order to make the "seven per cent" extremely elastic. Furthermore the county, the city, the general school district, and the ward school district, have each the same power, so that in one city the actual indebtedness might be 28 per cent and still remain in absolute conformity with the legal provisions. The conditions are somewhat different in Philadelphia, where the city and county are co-extensive. Another important clause of the state constitutions is aimed to abolish one of the very worst forms of encroachment upon local self-government, viz., the practice of the state legislature to establish special state commissions entrusted with the execution of municipal improvements and the disbursement of the city revenue. Section 20 of Article iii. provides that "The General Assembly shall not delegate to any special commission, private corporation, or association, any power to make, supervise, or interfere with any municipal improvement money, property, or effects, whether held in trust or otherwise, or to levy taxes, or perform any municipal function whatever." Six further provisions are intended to protect the cities against state legislation on the one hand and local short-sightedness on the other. They may be classified as follows:

1st. Forbidding the state legislature to authorise any local body—be it county, city, borough, township, or other incorporated district—to become a stockholder in any corporation or association, or to lend its credit to such bodies.[1]

2nd. That no such local body shall be authorised to increase its indebtedness by an amount exceeding by two per cent the statutory seven per cent of the assessed property valuation without the consent of the electors at a public election.[2]

3rd. The state government is absolutely forbidden to assume the indebtedness of any local bodies unless such debt be incurred in the suppression of domestic insurrection or to repel invasion.[3]

4th. Upon contracting a debt every local body is required to provide for the annual collection of a tax, in order to meet the payment of interest and the liquidation of the principal within thirty years.[4]

5th. No municipal commission may incur any liability except "in pursuance of an appropriation made therefor by the municipal government."[5]

6th. Every city is required to create a sinking fund which "shall be inviolably pledged for the payment of its funded debt."[6]

With these restrictions and limitations in mind—which at the same time illustrate the American method of dealing with municipalities,—we are prepared to examine the actual provisions of the act of 1st June 1885, which created for the city of Philadelphia in many respects, a new form of government, or at least introduced into it new principles. As we have already seen, the greatest change introduced

[1] Act iii. § 7. "The General Assembly shall not pass any local or special laws, authorising the creation, extension, or impairing of liens; regulating the affairs of counties, cities, townships, wards, boroughs, or school districts; authorising the laying out, opening, altering, or maintaining of roads," etc.

[1] Constitution of Pennsylvania, Art. ix. § 7.
[2] *Ibid.*, Art. ix. § 8.
[3] *Ibid.*, Art. ix. § 9.
[4] *Ibid.*, Art. ix. § 10.
[5] *Ibid.*, Art. xv. § 2.
[6] *Ibid.*, Art. xv. § 3.

into the form of city government was in the position of the mayor.[1] It is difficult to understand how the city fared so well under the old *régime*. The city departments were in no way co-ordinated. No unity of purpose and action was possible: continued rivalry and jealousy hampered any general movement for more economical and efficient government; and responsibility was so divided as to make it practically impossible to definitely fix it upon any one person or even one set of persons. This the new city charter has attempted to remedy through greatly increasing the power of the mayor. He is now the real executive of the city government, so that responsibility for the administration is centred in him. This principle was not, however, carried as far as the original framers of the bill had intended. Instead of placing in his hands the appointment of the heads of all the executive departments, as the theory of full responsibility would require, he was only given the appointment, with and by the consent of select councils, of the three most important of these—viz. the director of the department of public safety, the director of the department of public works, and the president and directors of the board of charities and corrections. Through the provision for a department of public safety the mayor has been relieved of what was formerly his main function—*i.e.* the police administration. Through his power of appointment and dismissal, he still retains the general control of this department. He is furthermore required to see that the ordinances of the city and the laws of the state are executed and enforced, to communicate to councils annually a statement of the finances and general condition of the affairs of the city, to recommend to councils all such measures as he shall deem expedient, to call special meetings of councils when required by public necessity, and "to perform such duties as may be prescribed by law or ordinance; and he shall be responsible for the good order and efficient government of the city." In order to make the latter provision effective he is given additional far-reaching powers. He convenes the heads of departments for consultation and advice, and calls upon them for reports; he is *ex officio* a member of all municipal boards, and has the power to dismiss any officer appointed by him. He may disapprove of any item of appropriation bills, whereas formerly he was limited to accepting or rejecting the budget *in toto* as voted by the councils. Whenever he thinks proper he may appoint three persons to examine the accounts of any city department, trust officer, or employee. The mayor is elected by the people for a term of four years, and is not re-eligible for the next succeeding term. He must be twenty-five years of age, and have been a citizen and an inhabitant of the state five years and an inhabitant of the city for the same period previous to his election. Besides the three executive departments already mentioned—of two of which the mayor appoints the heads, and, in the case of the department of charities and corrections, the president and directors,—the charter provides for six further departments, making a total of nine,—viz. the department of receiver of taxes, the department of city treasurer, the department of city controller, the department of law, the department of education, and the sinking fund commission. Of these, it is readily seen that the departments of public safety and public works, of which the mayor appoints the directors, are the most important. Under the former the entire police administration is placed, including the health police, which is under the supervision of a board of health composed of five members appointed by the mayor, with the consent of select council, for a term of three years. Of this board the director of public safety is *ex officio* the president. The building police is in the hands of a board of building inspectors composed of three members appointed by the director of the department of public safety. The department of public works—whose director is also appointed by the mayor, with the consent of select council, for a term of four years—includes the management of the water- and gas-works owned by the city and the distribution of the same; the grading, paving, repairing of the public highways; the construction and repair of public buildings, with the exception of those used for educational or police purposes, bridges, parks, etc.; surveys, engineering, sewerage, drainage; and "all matters in any way relating to or affecting the highways, footways, wharves, and docks of the city." One of the exceptions to the general control of this department, and at the same time characteristic of American methods of municipal government, is the existence of the public building commission, which was created by act of the state legislature in 1870 for the erection of public buildings in Philadelphia. This commission is retained and assured independent existence by the new charter.

The third department, wherein the mayor

[1] The salaries of the more important officials in the city government are as follows:

The Mayor receives	$12,000
Director of Department of Public Safety	10,000
Director of Department of Public Works	10,000
City Comptroller	8,000
City Solicitor	10,000
Receiver of Taxes	10,000
City Treasurer	10,000
Three City Commissioners, each	5,000
Recorder of Deeds	10,000
Registrar of Wills, fees and	5,000
Sheriff	15,000

The last six offices are distinctively county and not municipal offices, but as the city and county of Philadelphia are co-extensive in area, all salaries mentioned above are paid out of a common fund.

exercises wide powers of appointment, is that of charities and corrections, which is under the charge of a president and four directors. It has the management of charities, almshouses, hospitals, houses of correction, and like institutions. The power given to the mayor over the six remaining departments is neither so direct nor efficient, inasmuch as he exercises no power of appointment in their general constitution.

The department of receiver of taxes is in charge of a receiver of taxes who is elected by the people every three years. All officers in any way connected with the receipt and collection of city taxes, licences or fees, are under his direction and control.[1] The department of city treasurer is under the direction of a city treasurer who is also elected for a term of three years. He receives the moneys of all the other departments, and pays all warrants duly issued and countersigned. An important provision of the present charter, intended to correct many former abuses, is that "all the moneys . . . of the city received by any officer or agent thereof, shall be deposited daily in the city treasury."[2]

The most important of the financial departments is that of city controller, at whose head is placed an official elected for three years, and known as the "city controller." His functions are numerous, complicated, and upon their proper discharge depends, to a very great extent, the honest and efficient financial administration of the city. He is charged with the inspection, revision, and auditing of the accounts of the several departments and trusts. No warrant may be paid by the city treasurer unless countersigned by him. He has the financial control of the appropriations made by councils, and is personally responsible for any disbursements in excess of such appropriations. He has furthermore very important duties with regard to contracts. The department of law, which has charge of all the legal business of the city as well as the preparation of all contracts, has at its head a "city solicitor," elected for a term of three years. The sinking fund commission, created in 1857, and composed of the mayor, city controller, and a citizen elected by councils, has the management of the sinking fund for the payment of the city debt. The "department of education," which is under the management of a board of 37 members appointed by the court of common pleas, has general control of the educational system of the city.

We have now before us the executive branch of the city government, viz. the mayor and the various executive departments, the three most important of which are directly dependent upon his choice for their executive heads. In this way the old departmental conflicts have been avoided, as the heads of these departments stand to the mayor somewhat in the same relation as the cabinet to the president of the United States. The position of mayor of Philadelphia has thus been raised to one of high honour and dignity, and it is hoped in this way to attract the very best of its citizens to the office.

Another very characteristic feature of the present city organisation is the position occupied by the legislative branch of the city administration, which comprises a common and a select council. The upper branch or select council is composed of 37 members, one being elected in each ward for a term of three years. The lower branch, or common councils, have 123 members elected in the several wards; the basis of representation being one member for every 2000 taxable voters of the ward. Councilmen must be residents of the wards from which they are elected. Each branch elects its own president, and these in turn appoint the 20 standing committees of councils. The committees consist of 12 members each, 6 from the lower and 6 from the upper chamber. The presidents are members of the standing committees.

Previous to the adoption of the present charter, the inferior position occupied by the mayor found its complement in the almost unlimited power of councils. To correct the abuses growing out of the exercise of executive functions by the legislative branch was one of the main objects the new charter had in view. It aims at restricting councils to legislative, to the exclusion of executive functions. All ordinances directing or interfering with the exercise of the executive functions of the mayor, departments, boards, or heads or officers thereof, are prohibited. Councils are furthermore deprived of all power of appointment, though the appointment of all officers drawing salaries from the city treasury requires the consent of select councils. Still this principle of relieving councils of executive functions has hardly been consistently carried out, for as regards certain city functions, especially the public highways, public sewers, and the like, councils still exercise distinctively executive functions.

Inasmuch as the city of Philadelphia is coterminous with the county, the duties of certain county officers form a portion of the sum total of the administrative work of the city. These are the county judges, pro-

[1] Two departments which seem naturally to fall within this one department have been expressly excluded by the present charter, viz. the board of revision of taxes, and the board of city trusts. The former is composed of three members appointed by the court of common pleas; the latter of fifteen members, viz. the mayor, president of the two branches of councils, and twelve citizens appointed by the supreme court, the district court, and the court of common pleas.

[2] Act, 1st June 1885, Art. vi.

thonotary, registrar of wills, recorder of deeds, clerk of quarter sessions, district attorney, coroner, and city commissioner. It has also been decided by the courts that the city treasurer and controller are to be regarded as county as well as city officers. These officers are all elected by the people at the fall election, whereas the election for municipal offices takes place in the early part of the year. To this rule the prothonotary forms an exception, as he is appointed by the board of judges.

In conclusion it may be said that the changes introduced by the charter of 1885, while hardly realising to the full extent the sound theories of government which the framers had in mind, still mark a great step in advance in the American municipal system. More recently Brooklyn has realised still more fully the principle of executive responsibility centred in the mayor and the restriction of the city councils to purely legislative functions. It is curious to note that while the principle of concentration of power is making itself so distinctly felt in American cities, some of the most efficient continental municipalities have been clearly tending towards a division of executive authority amongst a great number of bodies—committees and the like. It remains to be seen whether the American system which aims to give to the mayor a position of such great importance and authority, will be able to withstand the strain which the rapidly increasing sphere of municipal activity will necessarily place upon it.

[Allinson and Penrose, "Philadelphia, 1682-1887," *Johns Hopkins University Studies*, extra vol. ii.—Dillon, John F., *Law of Municipal Corporations*, 4th ed., 1890; Little, Brown, and Co., Boston.—Goodnow, F. J., *Comparative Administrative Law*, 2 vols., Putnams, N.Y., 1894. —Gould, E. R. L., *Local Government in Pennsylvania*, 1st series, *Johns Hopkins University Studies*, No. III.—Howard, *Local Constitutional History of the United States*, *Johns Hopkins University Studies*.] L. S. R.

MUÑOZ, ANTONIO, is the *nom-de-plume* under which D. Enrique RAMOS (second half of 18th century) published his *Discurso sobre la Economía Política* (Madrid, 1769). His predilection for agriculture displays some leanings towards physiocracy; according to D. Manuel Colmeiro (*Bibl. de Economistas Españoles*) his opinions on cultivation, population, taxation, and trade show discrimination and a sound knowledge of theory.

It was once thought that MUÑOZ was a pseudonym of CAMPOMANES (*q.v.*), but this opinion has been abandoned. E. Ca.

MÜNSTER, SEBASTIAN (1489-1552), was originally a Franciscan monk, then a teacher at the universities of Heidelberg and Basle.

He wrote in 1540 a German, and in 1550 a Latin, edition of his *Cosmographia Universalis*, which remained a standard book until the 17th century was already far advanced. Roscher (*Gesch. der Nat. Oek.*, p. 96), describes it as a collective work remarkable for its encyclopædic aims, the accuracy of its information on foreign countries, and the real insight it displays into the economic condition of the latter. E. Ca.

MURATORI, LUDOVICO ANTONIO (1672-1750), born at Vignola (Modena), a great man in Italian history and literature. His life, first in Milan, then in Modena, was given to study. He was a priest, and the author of many writings, among which the most noteworthy are: *Antiquitates italicæ medii ævi*, Milan, 1738-1743; *Rerum italicarum Scriptores*, Milan, 1723-1738 (xxvii. vols.); and *Annali d' Italia*, Milan, 1744-1749. Recently the importance of Muratori in economics has been recognised. Many of his writings touch upon economics, in the numerous investigations they contain on the economic conditions of mediæval civilisation, the condition of industry, trade, agriculture, and colonisation.

From the point of view of theory, Muratori's ideas on economics are neither original nor profound. He does not understand the nature and character of the laws of value, and, above all, he falls into the grosser errors of mercantilism regarding money and commerce. He confuses the nature and economic use of money, and advises a prince, in order to make his country prosperous, to do all in his power to get as much money as possible into the country and let as little as possible go out. As regards commerce, he combats the prohibition of import of foreign goods, high import duties, and privileges granted to producers in a country to promote its industries. He also advises restrictive measures in the interior. Though failing to understand thoroughly the deeper phenomena of economics, Muratori's mind, better suited to the analysis of historical facts than to economic deductions, succeeds most in researches relating to economic and financial policy, grasping firmly the relations between civil and political institutions and social conditions. Thus Muratori points out the baneful effect of very large holdings, of entails, and of committing properties to trustees. He studied taxation, and went deeply into the question of charity. In his writings on charity he ascribed much importance to benevolent works carried on by the prince of a country to provide for the happiness of his subjects, and studied, from a practical point of view, the organisation of charitable institutions to enable them to attain the object desired. For economists, Muratori's most important works are: *Della carità cristiana* Modena, 1723.—*Rudimenti di filosofia morale*, Modena (undated, probably about 1735).—*Trattato della pubblica felicità*, Modena, 1749.

[On Muratori as a literary man and historian there is an entire library. On Muratori as an economist, see E. Masè Dari, *L. A. Muratori, come economista*, Bologna, 1893.—A. Graziani, *Le idee economiche degli scrittori Emiliani e Romagnoli*, Modena, 1893.] U. R.

MURDRUM. This term was applied in Norman times to any secret murder, when the

criminal could not be discovered. William I. found it necessary to prevent the assassination of his Norman followers by special penalties. It was accordingly enacted that if the body of a murdered man were found and the murderer was unknown, either it must be proved that the dead man was an Englishman, or else a heavy fine was imposed upon the hundred in which the body was discovered. This is sometimes called the law of Englishry. In course of time the term *murdrum* was extended from the offence to the fine levied on the district. By the time of Henry II. the distinction between Norman and Englishman had become so obscured by intermarriage that the law could no longer be enforced in the old sense. The only class that remained distinctly English was that of the villeins, and therefore the *murdrum* was not exacted unless it could be proved that the dead man was a villein. As the motive which had led to the law had now disappeared, the penalty soon became obsolete.

[*Dialogus de Scaccario*, i. c. x.] R. L.

MURRAY, Robert (b. 1635), writer on trade, banking, and national revenue. His *Proposal for the Advancement of Trade* started from the position that as the circulation of money was stagnant and depressed trade, the circulation should be increased by using credit instead of money: storehouses on a kind of public pawnbroking basis were to be provided, in which traders were to deposit their "dead stock" at 6 per cent. per annum, and credit notes were to be issued on these goods at $\frac{2}{3}$ or $\frac{3}{4}$ of their then market value. Murray assumes that there will always be a steady market value for "dead stock" when convenient to the proprietor to sell. This assumption vitiates most of his economic suggestions. The *Proposal for the Better Securing our Wooll against Exportation* is based on a protectionist policy, and is a plea to revive and enforce the laws of the staples. All the unemployed are to be set to work, on a credit basis, in growing and working up wool, the object being to find a market by underselling and beating the foreign merchants out of the field. The *Proposal for a National Bank* was inspired by the basis, on public security and under public control, of the Bank of Amsterdam. Murray wished to see a similar bank established in the city of London, "so constituted that no little private sinister ends can possibly be advanced to the public detriment,"—he had failed to grasp the importance of the Bank of England established in the previous year (1694). Murray's bank was to be established on securities in land "or any other valuable securities or depositums"; it was to supply a public need, to remit money at safe and reasonable rates by means of cheques, and to discount bank, foreign, and inland bills. The *Reasons . . for Translating the Duty of Excise from Mault-Drinks to Mault*—a change which Murray considered would affect no one but the "consumptioner,"—is only worthy of notice owing to the plea for Free Trade towards the end. The government is asked to "take off all customs for import and export, except of such goods where the duty laid is intended to amount to a prohibition; this may make England become a free port, the great and good effects of which are too many and too obvious to stand in need to be repeated. This alone . . . will effectually secure our African and East India trade from any whatsoever competitors." In the *Proposal for . . . Advancing to the Crown any Fixed Sum*, etc. he suggests that the state shall issue bills of credit upon Tallies of Pro, struck upon a fund to be formed by settling some branch of the royal revenue to be charged by act of parliament with an annual payment for a limited term, *e.g.* £400,000 for eleven years, or £200,000 for twenty-two years, the bills to range in value from £5 to £100, and to be accepted as legal tender in trade, etc.

The following works were, so far as stated, all published in London:—

A Proposal for the Advancement of Trade upon such Principles as must Necessarily Enforce it, 1676, fol. pp. 7.—*Composition Credit, or a Bank of Credit made Current by Common Consent in London, more Useful than money*, 1682.—*Account of the Constitution and Security of a General Bank of Credit*, 1683.—*A Proposal for a National Bank, consisting of Land, or any other valuable Securities or Depositums; with a Grand Cash for Returns of Money, etc. . . . the whole to be under the Care, Inspection, Trust, and Controul of the Publick Authority, and Legal Magistracy*, 1695, sm. 4to, pp. 4 and 8.—*A Proposal for the Better Securing our Wooll against Exportation, by Working up, and Manufacturing the same. With the Method and Manner of Setting and Keeping the Poor in Constant and Full Employment. . . . Under the Government of such of the Principal Nobility and Gentry . . . who are willing to undertake so Good and Pious a Work*, n.d. (? 1695), sm. 4to, pp. 4.—*A Proposal for the more Easie Advancing to the Crown any Fixed Sum of Mony, to carry on the War against France; And Payment of the Debts Contracted thereby*, n.d. but probably 1696.—*Reasons Humbly Offer'd to the Honble. House of Commons, for Translating the Duty of Excise from Mault-Drinks to Mault; whereby may be Advanced to the Crown above Twenty Millions, for Carrying on the War against France*, n.d. sm. 4to, pp. 4 (another edition with slightly different wording).—*An Advertisement for the more easy and speedy collecting of Debts*, n.d.

[M'Culloch, *Lit. Pol. Econ.*, p. 159.—*Dictionary of National Biography*, art. "Murray, Robert."]

(See also Chamberlen, Hugh; Law, John; Lewis, M.) E. D.

MURRAY, William. See Mansfield, First Earl of.

MUSCOVY CO. See Russia Co.

MUSHET, ROBERT (1782-1828), entered the royal mint about 1804. He became a recognised authority on the currency question, (see BULLION COMMITTEE, REPORT OF), and gave evidence before the committees of the Houses of Lords and Commons which sat in 1819, on the resumption of cash payments.

His works comprise *An enquiry into the effect produced on the national currency and rates of exchange by the Bank Restriction Bill*, 3rd ed. corrected and enlarged, London, 1811, 8vo, in this a seignorage of 10 per cent on the silver coin is recommended, and an arrangement for the management of the silver currency.—*Tables exhibiting the gain and loss to the fund-holders arising from the fluctuations in the value of the Currency from 1800 to 1821*, 2nd ed. corrected, London, 1821, 8vo, the best history of the variations between the value of the gold coin and the paper in circulation at this period.—*An attempt to explain the effect of the issues of Bank of England upon its own interests, public credit, and county banks*, London, 1826, 8vo.

[*Dictionary of National Biography*, vol. xxxix. p. 430.—See also Ricardo, *Letters to M'Culloch*, ed. by Hollander, American Econ. Association, vol. x. pp. 111-113, 1895. Ricardo criticised the *Tables* and Mushet incorporated his suggestions in 2nd ed. 1821.—*Reports from, and evidence taken before, the Committees of the Houses of Lords and Commons on the expediency of the Bank of England resuming Cash Payments*, 1819.] H. E. E.

MUTUAL INSURANCE. See INSURANCE, MUTUAL.

MUTUUM is one of the *real* contracts of Roman law. It is a contract of loan which is created by the lender delivering to the borrower a thing of an exchangeable kind, "*res fungibilis*" (see FUNGIBLES), such as money, so as to make the borrower owner of it, on the express or implied understanding that an equal quantity of the same kind of thing is to be returned. The lender cannot claim interest on the loan unless he makes a special contract distinct from the *mutuum*, entitling him to do so. It is distinguished from COMMODATUM, where the actual thing lent is the thing to be returned (see also LOAN, CANONIST DEFINITION OF). E. A. W.

END OF VOL. II

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VOL. III

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WITH APPENDIX

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TO THE DEAR MEMORY OF

Sir Francis Palgrave, K.H., and Elizabeth, Lady Palgrave

HIS PARENTS, TEACHERS, FRIENDS

THIS WORK IS DEDICATED BY

R. H. INGLIS PALGRAVE

PREFACE

THE aim of this work is the assistance of the English-speaking student of Economic Science to the better understanding of the questions in which he is interested. These questions, while dealing with matters of ordinary life, are often more abstruse and intricate than appears to a superficial observer, and they require careful thought and study to unravel.

The performance of this task, difficult and laborious enough in itself, has not been rendered more easy by the fact that the work has to cover an absolutely new field in English literature. There exists at the present time no completed work in our language which exactly fills the same place, or which could in any way serve as a guide. The laborious commencement made by MacLeod extends only as far as the letter C. The *Standard Library Cyclopædia of Political, Constitutional, Statistical, and Forensic Knowledge*, 1860, does not cover the same ground; nor does the *American Cyclopædia of Political Science, Political Economy, and United States History*, 1888, undertake what has been attempted here. In the French and German languages there are very valuable works on the subject, among which may be cited the *Dictionnaire de l'Économie Politique*, edited by Coquelin and Guillaumin, 1853; the *Nouveau Dictionnaire d'Économie Politique*, edited by Léon Say and Joseph Chailley, 1891; the *Dictionnaire des Finances*, edited under the direction of Léon Say by Louis Foyot and A. Lanjolley, 1889; and the *Handwörterbuch der Staatswissenschaften*, edited by Conrad, Elster, Lexis, and Loening, the first part of the first edition of which was published in 1890, the second edition having been commenced in 1898. These works have been studied and their arrangement considered. But the dictionaries which cover the corresponding ground in other languages, though written by very competent and erudite men, could not serve exactly as models for a book intended for the English student, whose requirements had particularly to be provided for. Yet, although specially written for the English-speaking races, it is believed that this book may claim that international or cosmopolitan character which should mark any work on economic science; for, among the contributors, besides the many very able English, are numbered some of the most distinguished American and foreign Economists.

I now thankfully bring my work to a conclusion, greatly indebted to the consideration of my publishers, Messrs. Macmillan and Co., who have kindly waited till a book, promised, with a sincere expectation of fulfilment, in three years, has

been completed in the twelfth year, and who have also, greatly to the advantage of the reader, allowed an extension of space from two volumes to three, thus permitting a greater fulness of treatment than could otherwise have been possible. The time spent in the actual construction of the work represents, however, but a comparatively small part of that period during which it has been the subject of my thoughts, a period which covers a very large part of my life. And yet after these years of labour I am most deeply conscious not only of omissions but also of imperfections inevitable in a work of this description.

I may now turn, and with more pleasure, to an explanation of the plan which has been followed. It was obvious that the limits of space did not permit an absolutely exhaustive treatment of most, if of any of the subjects contained in the Dictionary. Each heading, however, has been dealt with as fully as possible. Every effort has been made to give the most complete information attainable by means of cross-references to the other articles contained in the work which take up different portions of the subject and will thus assist the reader. Clearness has not been sacrificed to the exigencies of space. Where, indeed, clearness could not be attained without employing some considerable space or even some repetition, this has been allowed, and, equally wherever possible, care has been taken to supply an adequate bibliography of each subject.

It is thus hoped that the Dictionary will assist the student to carry out any special investigation, by giving him some preliminary information, and by referring him to the best authorities. In selecting these authorities, while due attention has been given to the more important writers, reference has also been made to many whose works, valuable in themselves, are less generally studied, and who may perhaps have only contributed a monograph on the particular subject under notice. The works of men comparatively unknown, remote from us through the countries where they lived or the period when they wrote, are often of considerable service in elucidating particular cases or illustrating special points in history. The same principle has been applied to the biographies. Considerable attention has been given to the less known writers, for the same reason. It is easy for the student to find out all that he requires about the works of the more celebrated men, while he frequently finds it difficult to obtain information about the more obscure, a knowledge of whose investigations, however, may be necessary to him. Better that fifty should consider an explanation superfluous than that one should find a difficulty unsolved.

It may be claimed for the Dictionary that it contains many examples of original research into the literary history of unknown English worthies whose writings have not hitherto been adequately discussed. The biographical articles have been confined to notices of writers no longer living with the single exception of Prof. Léon Walras, who so closely carried on the work of his father Prof. Antoine Walras that it was not possible to mention the latter without also describing the works of his son. The works of authors now living are quoted in connection with the subjects which they elucidate.

The turn which the study of economics has taken in recent years has necessitated corresponding developments in this work. The historical side of the study

has been constantly remembered as well as the more recent effort to gain greater exactness through the employment of mathematical methods.

In connection with the first branch of the subject, articles will be found both on the Historical Method and on the Historical School of Economists. The early history of economic movements has been explained with reference both to theory and to practice, as in the articles on the Canon Law and Gilds, and the Mercantile System—all of which may be claimed as still having survivals in modern thought. Some space also has been devoted to short histories, as of the trading companies formerly so powerful in this country, and of the Hanseatic League, whose influence on the continent of Europe extended so widely.

In connection with the employment of mathematical methods the use of Diagrams is also explained, as well as the Graphic Method. These articles show the use which may be made of Diagrams both in abstract theoretic exposition and in the explanation of concrete economic phenomena. A practical application of these methods for the use either of students or business men will be found in the article on Polegraphy, the name given to a graphic method recently devised to enable those concerned to obtain a clear view for practical purposes of complex combinations of operations either on the stock or produce exchanges. This article contains, it is believed, the first explanation of this method available for the English reader.

Whatever method we use we must ever bear in mind the necessity of constant, careful, and exact observation of facts. We must "classify our facts before we generalise, and seek for narrower generalisations and inductions before we aim at the highest."

As the limits of space compelled concentration, and this work is intended mainly for the service of students among the English-speaking peoples, the developments of economic thought in other countries, however interesting, have necessarily not received the same fulness of treatment as those which have taken place within our own shores. Yet these subjects have not been neglected.

The Dictionary contains, it is believed, the first attempt which has ever been made in a work of this description to give, under separate heads, an account of the labours of the principal writers and the characteristics of the different schools of economic thought throughout the civilised world.

The work of the economic Schools of England, in which last we may include the growing and powerful body of thinkers in America; the labours of the Schools of Austria, of France, Germany, Holland, Italy, Russia, and Spain, have thus formed the subjects of separate articles. These may be commended to the special attention of the reader. They will help him to understand the various modifications of doctrine and opinion which the study has undergone. And if, in all cases, opinions are not agreed, much may be ascribed to the different requirements of national life in different countries.

The student who examines these articles will find that he is able to carry his investigations further by means of the separate notices of the principal writers named, and of the special subjects to which reference is made.

Thus the reader of the article on the French School will have his attention called to the writings of the many able Frenchmen who have written on Economics,

to the work, for example, of the Physiocrats, and their organs, the *Éphémérides* and the *Nouvelles Éphémérides*—the only known complete set of which was liberally placed at the disposal of Dr. Bauer, who wrote the article on that subject. The many important writers referred to in the article on the German School show, especially in recent years, the influence of the great German thinkers, Kant, Fichte, and Hegel, who, though they can scarcely be claimed as economists, yet influenced and modified economic thought far beyond the boundaries of their own country. The student of Economics will do well to examine these articles carefully, as well as those on the Italian, Russian, and Spanish Schools.

These articles contain much information on points in the economic development of the countries concerned, which may be new to the readers of the Dictionary. In our own country, to give merely two examples, the spirit of enterprise which has marked British character and peopled British colonies has been largely influenced by the English Law of Wills, which has fostered the energetic side of life through the necessity for hard work. A reference to the articles on this subject will show how completely the English law differs in principle from the law of other European countries, and how far more free in this respect the power of bequest in this country is. Again as to agricultural matters it is well to be reminded that in our older English land-holding system the leases for a long term, formerly possessed by English yeomen, helped to develop a class whose existence strengthened an interest of the highest economic importance to the country.

The plan of the work has been set out all through as broadly as possible. Due consideration has been given to theory and method. That so often misinterpreted expression, the Laws of Political Economy, is explained—that these are not rules to be obeyed but scientific uniformities. There are also articles on the Method of Political Economy and on Political Economy itself, with explanatory articles on the main headings into which Economic Method is divided.

The practical side of Economics also has not been neglected. Articles are given on Business subjects, on Banks, Clearing Houses, Commercial Crises, Docks, Railways, Insurance, Bills of Exchange, and the Precious Metals, with a summary of recent events in Silver Legislation in the United States.

The use of statistics is also explained, with articles on the kindred subjects of Index Numbers and the Tabular Standard.

Financial subjects are dealt with, including Taxation, which, according to the manner in which it is levied, exercises so vast an influence on the welfare of a country. Articles will be found on the National Debt, on the Budget, on Finance generally, on Export and Import Duties, on the Income Tax both in England and abroad, on Graduated Taxation, on Death Duties, on Taxation as a whole, on the Internal Customs formerly in use in France, and on Octroi Duties.

But levying taxation, though one of the most important, is not by any means the only manner in which the powers exercised by legislation influence the welfare of a country. Government regulation of Industry, the Factory Acts, the laws affecting Labour generally, may be mentioned as subjects dealt with in this connection.

Perhaps in the legislation on the poor law the influence of economic thought is more perceptible than in any other branch of our administration. A reference to the economic writers of all ages and of all countries who have dealt with questions of charitable relief, and whose biographies will be found in these volumes, will show how universal the difficulty of assisting the poor without pauperising them has always been. The charitably-disposed have often had to deplore the injury which well-meant efforts have inflicted on those for whom help was intended.

The study of these volumes themselves will supply many and complete examples of what has briefly been recapitulated here. I venture to bring to an end this explanation of the object and scope of my work with a passage from one of my father's oldest friends, Mr. Henry Hallam, which I well remember reading with much interest in years past, little as I imagined then how closely it would describe my own feelings at this time.

"An author who waits till all requisite materials are accumulated to his hands, is but watching the stream that will run on for ever; and though I am fully sensible that I could have much improved what is now offered to the public by keeping it back for a longer time, I should but then have had to lament the impossibility of exhausting my subject. ΕΠΟΙΕΙ, the modest phrase of the Grecian sculptors, well expresses the imperfection that attaches to every work of literary industry or of philosophical investigation. But I have other warnings to bind up my sheaves while I may,—my own advancing years, and the gathering in the heavens."

In conclusion I have to express my sincere thanks to those who have assisted me by contributing to these volumes, and who have taken pains and trouble of which only the Editor can be aware. Specially my thanks are due to Dr. James Bonar, Prof. A. Caldecott, Prof. F. Y. Edgeworth, Mr. Henry Higgs, Dr. Ernest Schuster, and Mr. H. R. Tedder, who have helped in many ways as well as in preparing the work for the press, and to Miss Ethel Faraday for the labour and great attention she has bestowed on the Index.

My earnest hope as Editor is that this work may promote and facilitate the study of sound economic doctrine, the knowledge of which is essential to the lasting prosperity of our country.

R. H. INGLIS PALGRAVE.

BELTON, NEAR GREAT YARMOUTH.
Midsummer, 1899.

La Filosofia è scritta in questo grandissimo libro, che continuamente ci sta aperto innanzi agli occhi (io dico l'Universo), ma non si può intendere, se prima non s'impara a intender la lingua, e conoscer i caratteri, nè quali è scritto.—GALILEO, *Il Saggiatore. Opere*, vol. vi. (ed. 1811), p. 229.

As in going of a way we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth; so every degree of proceeding in a science giveth a light to that which followeth. — BACON, *On the Advancement of Learning*, vol. iii. p. 392 (Ellis and Spedding ed., 1857).

In short we are very greatly in want of a Johnson's Dictionary of Political Economy, and possibly it may be in reserve for some young man, now of twenty years of age, to supply the deficiency by the time he shall be five and thirty.—*Lectures on the Nature and Use of Money*, by JOHN GRAY (Edinburgh), 1848, p. 96.

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DICTIONARY OF POLITICAL ECONOMY

NAPOLEON—NATION

NAPOLEON (Coin). The twenty-franc piece of France, issued during the reign of Napoleon I., bears that ruler's name. It is a gold coin of the millesimal fineness of 900, weighing 99·56 grains; its value in sterling is 15s. 10½d. (see Franc). F. E. A.

NASSE, Erwin (1829-1890), a distinguished economist, was born at Bonn, and studied there and at Göttingen. He was appointed professor at Basel in 1856, and within the same year at Rostock; in 1860 he became professor at Bonn. He took an active part in political affairs, and sat as a member of the Prussian house of representatives from 1869 to 1879. His most important publications were: *Bemerkungen über das preussische Steuersystem*, 1861;—*Die preussische Bank*, 1866;—*Ueber die mittelalterliche Feldgemeinschaft und die Einhegungen des 16. Jahrhunderts in England*, 1869 (translated into English by Col. H. A. Ouvry, and published by the Cobden Club in 1871, 2nd ed., 1872); *Geld und Münzwesen* in Schönberg's *Handbuch* (2nd ed., 1886); and *Das Sinken der Warenpreise während der letzten fünfzehn Jahre*, 1888. From 1874 till his death Professor Nasse was president of the *Verein für Sozialpolitik*, of which he had been one of the founders. He was associated with Ad. Wagner in the new edition of Rau's *Lehrbuch*, but his collaboration seems to have been, for the most part, merely nominal. He supplied to the *Verein für Sozialpolitik*, in vol. iii., "Die Personalbesteuerung," and in vol. xxvii., "Agrarische Zustände in Frankreich und England." He wrote largely on currency, banking, state-credit, prices, and taxation, contributing many articles on these subjects to economic and other journals. His memoir on the well-known work of "W. Stafford" is of special interest (Zeitschr. d. Staatsw., vol. xix.) (see W. S.). His writings are marked by cautious exactness and moderation. In his general views he was one of those somewhat loosely described as Socialists of the Chair (*q.v.*). He warmly eulogises the *Verein für Sozialpolitik*, which was created by that group of economists, as having been the product of the moral conscience of almost all Germany, and as having profoundly modified in a right direction the tendencies of public opinion. He insists on the insufficiency of a free field to individual interests, and the necessity of the application of moral ideas to the national economy through the action of the state (Lippert in *Handwörterbuch der Staatswissenschaften*). J. K. I.

In addition to his eminence as a general economist, Nasse is of particular importance in the history of economic thought for three reasons. His special studies in money, credit, and banking institutions, etc., have won for him a very high place as a monetary critic. In two other respects he must be regarded as a forerunner of movements which have now become very important. He was one of the early and professorial socialists, and did much to modify the mechanical and harsh direction which economic theory had assumed. In addition his studies in the Three Field System in England, though its conditions have been subject to much correction, drew attention to a valuable side of economic study. His remarks in this connection display considerable acumen, and though his methods and erudition have been severely criticised, he deserves great credit for seeing at an early stage the necessity of treating many problems from a historical rather than an abstract standpoint. E. C. K. G.

NATION. This word is used in a loose sense to signify any considerable aggregate of human beings, living together in one country, or under one rule. They are generally assumed, with more or less accuracy, to be of one race; but if other bonds are sufficiently powerful to have the same uniting effect as those of blood, the community so held together is regarded as a nation, though its people may spring from various stocks. Thus, we call the Swiss a nation, as well as the French, the Germans, and the Italians. Yet in Switzerland there are French cantons, German cantons, and Italian cantons, in which, not only do the bulk of the people belong to the stock indicated by the name, but they speak the French Ger-

man, or Italian language, as the case may be. The inhabitants of Switzerland are of different races, and use different tongues; but the political ties between them are so strong that they are constantly referred to as a nation. On the other hand, we often find that in common discourse governmental bonds are neglected where the term we are considering is used. No one calls the people of the Austrian empire a nation, though they all owe political allegiance to the occupant of the throne of the Hapsburgs. The usual phraseology describes Austria as a state made up of a number of nations or parts of nations—Germans, Magyars, Slavs, Poles, etc. Between the two ideas, that of blood-unity and that of administrative unity, ordinary speech hovers. The same person who has just mentioned Germans as one of the nations of the Austrian empire, will go on to maintain that the realisation of German unity under the Hohenzollerns in 1871 gave the German nation a leading position in Europe. In the first case he will be thinking of race only; and in the second, of race plus political allegiance. In fact, there is no generally received definition of a nation. Common descent, common language, common history, common religion, common interests, common ideas, hopes, and aspirations,—all these enter more or less vaguely into the current conception, but any one of them may be wanting, or two or three of them may be absent together, and yet the community which lacks them may be called a nation. Its people must, however, possess what Renan rightly regards as essential to nationhood, a common heritage of memories and feelings, and a present desire to continue their common life. A curious reversal of ordinary practice is furnished, at least as far as formal and official terminology goes, by the United States of America. Its people cherish in a remarkable degree the characteristics enumerated above, but their written constitution nowhere applies the term *nation* to them; and a few years ago, a proposal to introduce into the liturgy the versicle "O Lord, bless our nation," was defeated in the convention of the American Protestant Episcopal Church (see Bryce, *American Commonwealth*, ch. ii.). But it must be added, that in common speech and writing the Americans constantly call themselves a nation. If it be necessary to assign a technical meaning to a term so loosely used in ordinary discourse, we may perhaps conveniently define a *nation* as a community whose members are bound together by ties of blood, speech, feeling, and interest, such as do not subsist between them and the rest of the world, and who are also under a common government. This leaves us the term *nationality*, for aggregates of human beings who feel the ties referred to, but do not form one political whole (see NATIONALITY), and enables us to distinguish a *state* from a *nation* or a *nationality*, by laying stress upon the mere fact of political authority without reference to the conditions under which it is exercised (see INTERNATIONAL TRADE).

[Bagehot, *Physics and Politics*, chs. iii. iv.—Maine, *Early Law and Custom*, ch. vii. and *Early History of Institutions*, chs. iii. iv. xii. xiii.—Austin, *Province of Jurisprudence Determined*, Lect. vi.—Bluntschli, *Allgemeine Staatslehre* (Stuttgart, 1875), bk. ii. chs. i.-v.—Renan, *Qu'est ce qu'une Nation?* (1882).] T. J. L.

NATIONAL BANKS (U.S.). See BANKS.

NATIONAL DEBT.

1. Introduction, p. 2; 2. National Debt of United Kingdom, p. 3; 3. The Funding System, p. 4.

1. *Introduction.*

The economic evolution of the system of borrowing by the state proceeds along the same lines as the development of commercial credit in the community. The system of accumulating treasure against unforeseen emergencies was adopted by the ancient world, and is not unknown at the present time. Forced loans were the favourite expedient of mediæval monarchs. Anticipation, or pretended anticipation of taxes was the next step. As industry and independence increased, the despotic methods of the middle ages became intolerable. The growth of private credit suggested the use of public credit; the growth of public debt naturally followed. Holland, as the logical result of its advanced commercial development, was the first nation to contract public debt systematically. England and France followed more slowly. States whose commercial history, if not their existence, is more modern, have found a facility of incurring national debt ready made, so to speak, for their adoption. Consequently this method of acquiring ready money without trouble has been grossly abused, especially by the South and Central American Republics, which obtained large loans without the possibility of paying them, and for purposes utterly wasteful and corrupt.

The general questions of the gradual rise of public borrowing, its effects on industry and thrift, the policy of borrowing in national emergencies rather than increasing taxation, are explained in the article on DEBTS, PUBLIC; a very good statement of them will also be found in M'Culloch's *Taxation and the Funding System* (1st ed., 1845).

(*a*) It is sometimes suggested that a national debt should be permanent. But it is essential to pay it off as soon as possible. The old theories as to the benefit of having a large debt for purposes of investors are not yet exploded in commercial circles, but no economist could be found to support them. On this head see the essay, referred to below, in which Sir R. Giffen showed the propriety of making a serious effort to reduce the national debt of Great

Britain. With increasing population and wealth in any given country, the burthen of a debt previously incurred becomes proportionately less, and its repayment would therefore become easier. It is, however, matter of history that but few countries which have once incurred a debt have made the necessary effort to repay it. The reduction of the debt of the United States is the most striking instance of the recognition of this public duty: but in this case rapid development made the task specially easy. The high credit of many of the British colonies is partly due to the fact that from an early period in the currency of a loan provision is being made for its ultimate repayment. This point will be treated of under SINKING FUND.

(*b*) What is to be considered a heavy debt? The usual test is to compare the debt per head of population in various countries. This is done exhaustively in the article on DEBT, PUBLIC, STATEMENT OF. But it would probably be safer always to compare the proportion of the debt and debt-charge to the annual revenue. Even this fails, for a wealthy people can raise a given annual revenue with much less effort than a poor people. The real burthen of debt is a subject for close local inquiry.

The term "national debt," has been confined in practice to denoting debt owing from a state as an international unit to its own subjects or to foreigners. But debts incurred by municipalities and other local bodies are equally burthens on the industry of the nation; and there are few civilised nations which have not contracted some such. In the case of Great Britain such debts amount to about £260,000,000, or 31 per cent of the national debt proper; in the Australian colonies to at least £11,500,000, or 5¾ per cent of the public debt.

2. *National Debt of United Kingdom.*

Probably the last of the forced loans under the privy seal was obtained by James I. in 1604. After the Restoration the favourite method of raising loans was by the issue of tallies in anticipation of revenue. When William III. became king the only recognised debt was £84,888 : 6 : 9, borrowed on tallies in anticipation of duties on French linens. The increase of debt during his reign, which is amply capable of justification, led to "tallies of fictitious loans," and the issue of annuities for lives and terms of years, as well as to the creation of the permanent form of funded debt which gradually superseded all other methods. The low state of public credit at this time is illustrated by an unsuccessful attempt in 1692 to borrow one million on annuities for ninety-nine years at 10 per cent for eight years, and 7 per cent for the remainder of the term. William's government, however, took the first steps to establish public credit: the "banker's debt," raised and repudiated by Charles II. (see EXCHEQUER, CLOSING OF), was finally made part of the national liabilities in 1699: the Bank of England debt, which had its origin in this period, brought ulterior benefits with it.

The following figures account for the greater part of our national debt.

Incurred during William III.'s reign (1688-1702) .	£15,730,439
Anne's reign, war of Spanish succession, etc. (1702-13) .	37,750,667
American War (1775-86) .	121,267,993
French War (1793-1815) .	603,842,171

During the whole period the obligation of repayment was more or less borne in mind; but the net result of the operations in this direction was not very effective (see SINKING FUND).

The national debt of the United Kingdom, as it has stood during the last century, is composed of funded and unfunded debt.

(*a*) The funded debt comprises the debts on account of Bank of England and Bank of Ireland stock, and the South Sea and old East India companies, each of which has an interesting history. It reached its highest point in 1817, when it stood at £796,200,191 (the unfunded debt making up the total national debt of £848,282,477): since that time it has fairly steadily decreased except during the Crimean war. It stood in 1894 at £634,707,994, including the TERMINABLE ANNUITIES. Several schemes of recent years have been directed towards the reduction of capital or interest: the chief of these are the conversion of certain portions of the debt into terminable annuities and Viscount Goschen's conversion schemes of 1888-89, which chiefly affected the annual charge of debt. The national debt commissioners, first constituted under an act of 1786 (26 Geo. III. c. 31), the members *ex officio* being the Speaker of the Commons, the Chancellor of the Exchequer, the Master of the Rolls, the Paymaster-General, the Governor and Deputy-Governor of the Bank of England, have under them a permanent department, which is charged with the management of annuities and the purchase and cancellation of portions of the debt.

(*b*) The unfunded debt consists of issues of loans for short periods now usually made in order to supply the wants of the state in anticipation of the incoming of the ordinary revenue. It is often referred to as "FLOATING DEBT." It is created in three forms (1) EXCHEQUER BONDS, which have currency for a fixed term of years, not now usually exceeding three, but were first issued in 1853 with a currency of forty years. (2) EXCHEQUER BILLS which run for a few weeks or months as a minimum, and are thereafter liable to be called in at any time. (3) TREASURY BILLS, which are not very dissimilar

from the preceding class. The essential difference between Treasury bills, Exchequer bills and bonds, and funded government securities, is that on the former the State contracts to pay the principal as well as interest, and on the latter the interest only. The amount of unfunded debt in 1894 was £21,446,300 against a funded debt (excluding annuities) of £587,631,096; the average of the three years 1890-92 was over £34,000,000, or more than double the average of the seven previous years. But in the first quarter of 1892-93, £13,000,000 of the floating debt was funded.

The annual *Statistical Abstract* gives an interesting table showing the movement of the debt during the previous fifteen years. In 1880 the aggregate net liabilities of the United Kingdom were £739,501,605, in 1890 they were £684,954,150, and 1894, £664,163,141. The South African War and trouble with China increased this amount to £770,778,000 by 1903, reduced in 1907 to about £743,306,000.

3. *The Funding System.*

Any sketch of the history of Great Britain's debt would hardly be complete without some more particular reference to this term. The term "to fund" properly meant nothing more than to undertake a liability for the debt which in point of time should be indefinite, and therefore practically permanent; and to record it as such in the accounts of the state. This term apparently came into use in this country in the latter part of the 17th century, so that the popular title of "the funds" may be considered contemporaneous with our national debt itself. But in practice it became common in the early part of this century to associate the term with undertaking the liability for a greater nominal amount of debt than the amount actually lent to the state; and it was this form of inducing persons to lend money to the state which is specially indicated in the term "funding system." This expedient, resort to which was the natural result of the difficulty of raising loans, appears to have been first adopted in the year 1758: it afterwards became popular. The excess of capital liability incurred by the plan amounted to 75 per cent of the loans raised in 1781 when, in return for £12,000,000 in cash, the State issued stock to the amount of £18,000,000 at 3 per cent and £3,000,000 at 4 per cent, or £21,000,000 in all; this seems to have been the greatest of such excesses. This was the method which gave its particular meaning to the words "funding system"; but it was a mere accident of the system, and not of its essence. The method concentrated a great deal of criticism on itself, and was usually charged with gross extravagance (see M'Culloch's *Taxation and the Funding System*, pt. iii.): but to support the charge, it would be necessary to examine all the circumstances which bore on each issue of a loan. The commercial principle on which it is based is seen daily at work in the stock exchange prices, which are usually below or above par. Further it is constantly adopted in inviting tenders for colonial or foreign loans where subscriptions are called for at a minimum of say £96 or £98 for every £100 stock: and of the colonial loans at any rate it may safely be stated that all future as well as present contingencies are considered before such minimum prices are fixed; considerations of the rate of interest are of course a potent factor.

The amount of cash received for an obligation has an important bearing on the morality of writing down the nominal capital of the loan in the case of a poor state. For a full statement of the debts and charge of debt of the British Empire and foreign countries, see article on DEBTS, PUBLIC.

[Adam Smith's *Wealth of Nations*, bk. v.—Hamilton's *National Debt*.—M'Culloch's *Taxation and the Funding System*, 1845, pt. iii. Excellent statements of the growth of the debt are found in *Fenn on the Funds*, and full information on many points in a *House of Commons Return* of 1869, 366, i., app. No. 13.—*Parl. Returns of the National Debt*, especially 443 of 1858, 366, i. of 1866, 312 of 1894.—Bastable, *Public Finance*.—Adam's *Public Debts*.—Giffen's *Essays in Finance*, 1st Series, Essay xi.] C. A. H.

NATIONAL DEBT, REDEMPTION OF. See REDEMPTION OF NATIONAL DEBT.

NATIONAL ECONOMY (and the German terms *Staatswirthschaft* and *Volkswirthschaft*, more or less equivalent to it) is used by many economists to designate that stage of development in which the economic life of an entire nation, or state, forms a united whole. It is distinguished from the preceding stages of a *territorial* or *provincial* economy (or, where a country did not go through that experience, of a *town* economy), and from the stage which may possibly follow in the future, of an *international* economy. Different writers lay stress on different characteristics; some, like Schmoller, upon the national regulation of industry and trade; others, like Bücher, upon the widening distance between producer and consumer, and the larger "circulation of wares." But these various features have been historically interdependent. The widening of the area of economic dealings between individuals has facilitated the substitution of national for local control; and the reverse is equally true.

"National economy" (*Nationalökonomie*) is also one of the several German designations of the science of political economy.

[G. Schmoller, *Studien über die wirthschaftliche Politik Friedrichs des Grossen*, in his *Jahrbuch*, N. F. viii. (1884), pp. 17 ff.; trans. under the title *The Mercantile System and its Historical Significance* (1896).—K. Bücher, *Entstehung der Volkswirthschaft* (1893), pp. 15 ff.—Ashley, *Econ. Hist.*, pt. i. 206, pt. ii. 7, 9, 42, 43.] W. J. A.

NATIONALISATION OF LAND. See LAND, NATIONALISATION OF.

NATIONALIST (U.S.A.). The term applied to a social reform movement crystallising in the United States about 1888, favouring collectivism and management of industries by the government. It had its centre in Massachusetts, and was in a considerable measure the result of the publication of *Looking Backward* (1888) by Edward Bellamy. Societies were formed in various parts of the United States, some of which still exist.

A magazine was established entitled *The Nationalist*, of which three volumes were published; 1890, pp. 274; 1891, pp. 346; 1892, pp. 576. This movement is educational rather than political, resembling the attitude of the Fabian Society in England. Its views have also been represented in a weekly publication in Boston entitled *The New Nation*, edited by Mr. Edward Bellamy, which has now suspended publication. D. R. D.

NATIONALITY. "A portion of mankind may be said to constitute a nationality if they are united among themselves by common sympathies, which do not exist between them and any others—which make them co-operate with each other more willingly than with other people, desire to be under the same government, and desire that it should be government by themselves or a portion of themselves exclusively." With these words John Stuart MILL opens the chapter on nationality in his work on *Representative Government*. He goes on to analyse the influences which unite peoples among themselves and make them wish to form one body politic. Race, religion, language, local contiguity, and "identity of political antecedents" are all-important, though it is quite possible that one or more of them may be absent when the feeling of nationhood exists, or present when it does not exist (see NATION). When a nationality has been placed under one rule, and that the rule of some of its own members, it may conveniently be called a nation. The doctrine of nationality asserts that liberty, progress, and order are best secured when states and nationalities coincide. It maintains that all the individuals who compose a nationality should live under the same government, or in other words that nationalities ought to be nations. In one sense it is a revival of the old theory of political union through blood-relationship; but it includes the more modern notion of territorial sovereignty, since its advocates hold that the districts inhabited by men of the same race should, as far as possible, be placed under the same rule. It came into being as a protest against the doctrine of a balance of power, which divided provinces among states without regard to the wishes or political affinities of their inhabitants. It has modified immensely the state-system of modern Europe. Mazzini made it the gospel of the champions of Italian freedom. It helped to unite the German peoples into one powerful empire. The pan-Slavonic and pan-Hellenic movements owe their vitality to its inspiration, and each is a force which statesmen know they have to reckon with in the future. In its crudest form it assumes what is not true, and asks for what is not possible. Community of language does not prove community of blood. Race is not the only bond which brings men together in political union, still less is it so sacred that all arrangements made in derogation of its claims are internationally null and void. Outlying parts of a nationality are sometimes separated from the bulk of their fellows by realms inhabited by men of different blood. In some territories races are so mixed that it is difficult to say what nationality prevails. But as stated and guarded by J. S. Mill, the doctrine does but express the commonly accepted view that a people sufficiently distinct from other peoples to form a distinct nation should be ruled according to its own wishes.

[J. S. Mill, *Representative Government* (1878), ch. xvi.—Maine, *Early History of Institutions* (1874), Lect. iii.—Woodrow Wilson, *The State* (1889, Boston, U.S.A.).—Mazzini, *Life and Writings* (London, 1864).—Bluntschli, *Allgemeine Staatslehre* (Stuttgart, 1875), bk. ii. chs. iii. iv.]

T. J. L.

NATURAL AGENTS. See AGENTS of PRODUCTION.

NATURALIZATION. Down to 1844 (7 & 8 Vict. c. 66), the only way of passing from the condition of alien to that of natural-born subject was by act of parliament which, if private, naturalized certain people; if public, naturalized classes of people. In 1844 naturalization by certificate of the home secretary was introduced and has superseded the older method. The act of 1844 is replaced by that of 1870, 33 & 34 Vict. c. 14, under which any alien who has lived five years in the United Kingdom, or has served the crown for that period and wishes to continue doing so, may apply to the home office; he must prove the facts on which he relies by "statutory declaration," and must pay £5 : 5s. in fees, and must swear to be faithful to the British Sovereign. The Home Secretary may, at his discretion, refuse the certificate. From 1609 to 1825 an oath declaring the king supreme head of the church, and the taking of the sacrament according to the ritual of the established church was as a rule exacted, but in the American colonies and Ireland, Protestant dissenters need not observe the latter form; the first condition was abrogated by the acts of 1844 and 1870, and the second by the act of 1825. Colonies are authorized by acts of 1847 and 1870 to make their own naturalization laws.

(1) A peculiar interest attaches itself to the objects with which acts naturalizing classes of people were passed. A. Smith, after mentioning 5 Geo. I. c. 27, and 23 Geo. II. c. 13, under which the exportation of "living instruments of trade" —in other words the emigration of artificers—was forbidden, writes: "I do not observe at least in our statute book any encouragement given to the importation of the instruments of trade" (bk. iv. ch. viii. ed. 1890, pp. 502, 516). We can here supply A. Smith's omission. The English act of 1663 (15 Car. II. c. 15), after reciting that "vast quantities of linen, cloth, and other manufactures of hemp and flax, and of tapistry hangings are daily imported into this kingdom from foreign parts to the great detriment and impoverishment thereof, the monies and quick stock of this kingdom being thereby daily greatly exhausted and diminished," naturalized Protestant manufacturers of these articles if they would reside in England three years. Even the Irish plantation acts expressed the same economic object when they offered citizenship to any one who would condemn papal doctrine and acknowledge the royal supremacy; thus the Irish act of 1662 (14 & 15 Car. II. c. 13), begins: "Whereas much coin and ready money is carried out and transported for buying and purchasing of foreign manufactures, to the great exhausting and diminishing the treasure of this kingdom." Similarly the acts of 1732 (5 Geo. II. c. 28), etc., which naturalized foreign Protestants who served in the Greenland fisheries, etc., were passed in order that England might import commodities such as blubber without exporting money. The Fishery and Irish Acts were animated far more by political than by economic motives, but the MERCANTILE SYSTEM and the theory of the BALANCE OF TRADE are one root of those acts, and the taproot of the act of 1663. These acts were repealed by the Statute Law Revision Act 1863 and by the act of 1870, but had died a natural death at least half a century before. Other naturalizing acts were passed from time to time to carry out the pre-Malthusian idea that numbers meant wealth as well as strength (7 Anne, cap. 5, xiii.; George II. cap. 7 (preambles), and see *Reflections upon Naturalization, etc., by a Country Gentleman*, 1753. (2) Secondly as to the effects of naturalization, Francis Bacon wrote: "There be but two conditions native and alien—nam tertium penitus ignoratur." The first hint of an intermediate class is in the act of 1663, which taxed aliens naturalized under that act still as aliens, when they traded with foreign parts. The first political barrier between naturalized alien and natural born was raised by an Irish act of 1703, amending that of 1662, which deprived aliens naturalized under the principal act of the vote and of power to be magistrates, officers of a city, or members of parliament. In England, under the Act of Settlement and other acts, naturalized aliens (*a*) could not after 1714 be members of parliament nor of the privy council; (*b*) nor fill any office of trust; (*c*) nor receive grants of crown lands. The first disability (*a*) continued until 1870; (*b*) and (*c*) until 1844. A naturalized alien may still find himself at disadvantage if he visits his old country or a colony.

[Pollock and Maitland, *History of English Law* (1595), bk. ii. ch. ii. § 6 (mediæval).—G. Hansard, *Treatise on the Laws relating to Aliens* (1844) (modern English).—Henry Wheaton, *Elements of International Law*, ed. A. C. Boyd, 3rd edition (1889), § 82a (see ALIENS; DENIZEN).] J. D. R.

NATURALIZATION IN THE UNITED STATES. The constitution of the United States (art. 1, § 8) gives congress power to "establish an uniform Rule of Naturalization." The law of 26th March 1790 permitted naturalization after two years' residence, upon application to any common-law court of record and the taking of an oath of allegiance. In 1795 the law was revised so as to provide for a preliminary declaration of intention to become a citizen, to be made three years before admission to citizenship, and requiring a total residence of five years. Owing to the hostile feeling against the French, which became so violent toward the close of Washington's administration and during that of John Adams, an exceedingly stringent law was passed in 1798, providing that the declaration of intention to become a citizen must be made five years before admission to citizenship, and that the applicant must prove a residence of fourteen years in the United States, five in some one special state, before admission. This law was an outcome of the same feeling that led to the passage of the alien and sedition laws, which from their unwise severity were the chief influence in bringing about the downfall of the Federal party. Less than four years later, in 1802, the law was amended providing that the declaration of intention must be made three years before admission, and that the total period of residence should be five years. The law required, in addition to the usual oath of allegiance, also an abjuration of allegiance to any foreign ruler.

Though there have been since that time some slight changes, the law remains substantially the same, with the exception that the declaration need be made only two years before final admission as a citizen. Several provisions have been made regarding special classes of citizens. For example, during the time of the civil war it was provided, in 1862, that any honourably discharged alien soldier might be admitted to citizenship without previous declaration, upon proving one year's residence. Children of persons naturalized become citizens if under twenty-one years old at the time of parents' naturalization. Any alien under twenty-one who has resided in the United States three years before arriving at that age, may be admitted after five years' total residence without previous declaration of intention.

The right of naturalization in the United States carries with it all the rights of native citizens, with the exceptions that the President and Vice-president of the United States must be native born; and that the naturalized

citizen cannot serve as a United States senator until he has been a citizen of the United States nine years, or as a member of the House of Representatives until he has been a citizen seven years. The power to vote for the President and members of Congress in the United States depends upon the right given by the individual states to vote for members of the lower house of their legislatures, and no fewer than sixteen states grant this right to vote before the alien becomes naturalized. In one case, Indiana, if the alien has declared his intention of becoming a citizen and has resided one year in the United States and only six months within the state, he may vote. Minnesota requires only one year's residence and declaration of intention. In all these sixteen states an alien must have declared his intention of becoming a citizen; the period of residence varies from six months to four years. Twenty-eight states require that a man become a full citizen before he is permitted to vote. There can be no doubt, however, that even in some of the states where naturalization is insisted upon as a pre-requisite to voting, many frauds have been committed by political leaders for the sake of securing the too early naturalization of aliens in order that their votes may be obtained.

Many questions arose some years ago between the United States and several of the European states regarding the protection that should be extended by the United States to naturalized citizens abroad, especially in the state from which the naturalized citizen had emigrated. Several of the European countries, particularly Germany and Austria, insisted upon holding for military duty those persons who, before serving their regular period in the army, had emigrated to the United States. The United States, on the other hand, if the emigrants had become naturalized citizens, insisted upon protecting them against the government of their native country. In 1868 congress passed an act providing that "all naturalized citizens while in foreign states shall be entitled to and shall receive from this government the same protection in person and property as is accorded to native-born citizens in like situation and circumstances," a practical repudiation of foreign claims. Within the next three years treaties were negotiated with the leading countries concerned—England, Austria, Baden, Bavaria, Belgium, and others, which removed all such causes of controversy. States that before had not recognised the right of expatriation, under these treaties recognised it, with the proviso in ordinary circumstances that, if the person concerned had left unperformed, at the time of his emigration, any obligation then due to his native state, he might be held to the performance of that obligation, but of no other; or if he had committed any crime against that country he should be held for punishment. In one instance, the evasion of military duty was specifically mentioned. In certain cases, notably in that of Martin Koszta, the United States has extended a certain amount of protection in foreign lands to aliens who, not yet fully naturalized, had when resident there formally declared their intention of becoming citizens of the United States; but obviously this protection could not be carried far against the person's native state.

The necessity imposed upon the United States of protecting its naturalized citizens has been greatly increased by the great immigration into that country; and its readiness in granting such protection has doubtless had much influence in liberalising the views of other countries regarding the right of expatriation. J. W. J.

NAVARRETE, PEDRO FERNANDEZ (end of 16th and early 17th century), was chaplain to the royal family of Spain, and an officer (*consultor*) of the Inquisition. The miserable state of Spain had led the supreme council of Castile to submit to King Philip III. a Great Report (*Gran Consulta*) on the remedies to be applied; this report was delivered on February 1619, and gave rise to fifty *Discursos* or glosses from Navarrete, printed in 1626 at the royal press, and several times reprinted since under the title of *Conservacion de Monarquias*. They are included in Rivadeneyra's *Bibliot. de Aut. Españoles* (vol. xxv., Madrid, 1853).

Though a long-winded writer and rather too fond of learned quotations, Navarrete shows himself in many respects free from contemporary national and religious prejudice. Speaking of the expelled Moors, he says, "I am certain that if before driving them to desperation, it had been sought to admit them to some honourable offices without any note of infamy, it is possible that they might have been willing to be received in the Holy Church through the gate of honour" (*Discurso* VII.). In the same discourse, he wonders whether all the Irish refugees were bred to be noblemen as they show such reluctance to labour. He ascribes the depopulation of Spain to the numerous continental wars, and the passion for adventures excited by the discovery of America (*Disc.* VIII.) as well as by the ingrained indolence of crowds of vagrants "who are seen playing at cards the whole day in the streets of Madrid, awaiting by day the hour to be fed at the gates of convents, and by night to commit burglaries" (*Disc.* IX.). For a remedy he recommends the development of manufactures as in France, Italy, and the Netherlands, "which are rich countries, *though they reap neither gold nor silver*," and, "because human labour adds additional value to the primary value of natural produce" (*Disc.* XVI.). It would be useful to admit foreign artisans, provided they were not allowed to carry away all

their acquired wealth (*Disc.* XVII.). There are too many *mayorazgos* (entailed estates) (*Disc.* XI.), too many noblemen (*Disc.* XXI.), too many holidays; in some bishoprics, they cover one-third of the year, without including bull-fights and public rejoicings (*Disc.* XIII.). He sees no possibility of levying new taxes (*Disc.* XIX.), and considers that as regards sumptuary regulations "example (of the magnates) is better than imperative laws" (*Disc.* XXVIII.). In his fiftieth and last discourse, he concludes with a truth not much appreciated in the Spain of his days, namely that "the councillors of kings ought not to be like cooks, who only think of dishes to please the palate, but like physicians, who prescribe bitter and stringent pills and potions." E. Ca.

NAVARRUS DE AZPILCUETA, MARTINUS (d. 1586), one of the most distinguished Roman Catholic theologians and canonists of the 16th century, was a Spaniard by birth, and, after a long career as professor at Tolosa, Salamanca, and Coimbra, resided in Rome for six-and-twenty years until his death. To the economist he is of interest on account of his extremely liberal teaching in the matter of usury (see CANON LAW; INTEREST AND USURY). He not only justified the triple contract (see ECK, JOHANN, who also explained the principle on which, through the *Contractus Trinus*, the payment of a certain percentage for the use of money was held to be lawful), but was the first considerable theologian on the Roman Catholic side, as MELANCHTHON (*q.v.*) was the first on the Protestant side, to maintain that MORA or delay needed not to be proved to justify the payment of compensation for "interest."

[For an account of him and of his *Manuale Confessariorum*, see W. Endemann, *Studien in der romanisch - kanonistischen Wirthschafts - und Rechtslehre* (1874), i. 47, *et frequenter*, and, in English, Ashley, *Econ. Hist.*, i. pt. ii. 453.]

W. J. A.

NAVEAU, JEAN BAPTISTE (1716-1762), was a French official.

He wrote the *Financier Citoyen*, Paris, 2 vols. 1757. Although criticised by Voltaire in *l'Homme aux Quarante Ecus*, Naveau's book is still useful to consult on account of its copious information (Stourm, *Dict. Hist. des Finances*, 1895, p. 97).

E. Ca.

NAVIGATION ACTS. See NAVIGATION LAWS.

NAVIGATION CLAUSE. This is the clause found in many commercial treaties, whereby the privileges granted to the merchandise of the contracting powers are limited to goods carried by the ships of the powers or other privileged ships, or by certain fixed routes. This must be distinguished from the grant of reciprocal treatment to the ships of each power in the ports of the other. C. A. H.

NAVIGATION LAWS

I. History, p. 8; Chief provisions, p. 9. II. Policy, p. 10: (*a*) Naval Aspect, p. 10; (*b*) Commercial Aspect, p. 11.

Navigation Laws was the short title of a series of enactments designed to restrict the carrying trade of Great Britain to ships and sailors of native birth.

I. HISTORY

So far as we can ascertain, the idea of so restricting trade did not occur to the ancients, and Macpherson is correct in stating that the first instance of a navigation act was that of James, king of Aragon and count of Barcelona in 1227. This act prohibited all foreign vessels from loading goods at Barcelona for Alexandria and other parts unless no vessels belonging to Barcelona were ready and competent to perform the voyage. The object was to crush the trade of the Catalans to the Levant.

The first navigation act of the English parliament was 5 Ric. II. c. 3 (1381). In order to make better provision for an efficient navy, it enacted that no subject of the king should ship any merchandise outward or homeward, except in "ships of the king's allegiance," under penalty of forfeiture of the vessel and cargo. Within a year it was found necessary to modify this stringent enactment by the proviso, evidently borrowed from the Spanish act above mentioned, that it should be lawful to ship in foreign vessels if English could not be found.

A Scottish act followed this; it is not on record, but it was temporarily suspended for a year by an act of 1428, which allows Scottish merchants for that one year to ship in foreign vessels where Scottish are not available. At this period Scotland usually followed England closely in such a policy.

The policy which dictated these acts was a product of an age which assumed that everything could be effected by a king's decree, and viewed any progress on the part of another nation as a danger to England (cp. COMMERCE; EXPORTS, DUTIES ON). But occasional references show that the act was not entirely successful, and the attempts made from time to time to strengthen it point in the same direction. In 1485, a law was enacted for one year, that no one should buy or sell French wines unless imported in vessels belonging to England, Ireland, or Wales, and navigated principally by natives of England, Wales, Ireland, or Calais (this last is an interesting "footnote to history"). And in 1489, avowedly on account of the decadence of the English marine, a new act was passed to prohibit the charter of foreign vessels, except where there was no room for freight on English vessels. This last act seems to have fallen into disuse and was re-enacted in 1541.

A notable reversal of the policy took place in the first year of Elizabeth's reign (1558).

Since the making of the statutes," the preamble ran, "other sovereign princes, finding themselves aggrieved by the said acts, as thinking that the same were made to the hurt and prejudice of their country and navy, have made like penal laws . . . by reason whereof there hath not only grown great displeasure between the foreign princes and the kings of this realm, but also the merchants have been sore aggrieved and endamaged"; the growth of illicit traffic was also cited, and the law abolished prohibitions and made the ports of England open to foreign shipping on payment of a higher duty on goods so imported. Various breaches in this policy, even during Elizabeth's reign, were made from time to time to suit certain ideas, such as discouraging the export of corn, or to please special interests such as the TURKEY COMPANY (*q.v.*).

In 1646, the old idea re-asserted itself; the Long Parliament enacted that no duty should be levied on goods intended for the plantations, provided they were shipped in English bottoms. In this act, Macpherson finds the foundation of the navigation acts, which he hails as the "commercial palladium of Great Britain" (vol. ii. p. 431). Five years later, parliament determined that no merchandise, either of Asia, Africa, or America, including our own plantations, should be imported into England in any but English-built ships, belonging to English subjects, navigated by English commanders with three-fourths of the crew English. This is the first Navigation Act usually so styled. It was aimed against the Dutch, who were then on a free-trade basis, not only doing the carrying trade of Europe, but attracting English sailors into their service.

Chief Provisions of Acts.

As, however, this law was an enactment of the Commonwealth, it is the act of 1660 (11 Car. II. c. 18) which is usually called the Navigation Act, the *Charta Maritima* of Great Britain according to Sir Josiah Child. Its chief provisions were:

(1) The prohibition of importation or exportation into or from the plantations, except in national ships with English commanders and with at least three-fourths of the crew Englishmen.

(2) The prohibition of foreigners from becoming merchants or factors in the plantations.

(3) The prohibition of the importation of goods, the growth or produce of the plantations into England "but in such ships as doe truly belong to English people" and navigated as above.

(4) Restriction of the coasting trade to English owners only.

(5) The chief products of the English colonies to be shipped only to England, Ireland, or other plantations.

There were other restrictions and conditions which do not need mention here. The Scottish parliament followed suit in 1661, but wisely, amongst other exemptions, made the act inapplicable to the case of corn in time of dearth. In 1663 (14 Car. II. c. 11) an important extension of the act became law, excluding from the privileges of English ships all foreign-built ships, even if owned in England and manned as required by the act of 1660. This act also encouraged armament in Mediterranean vessels, chiefly because of the Barbary pirates.

For nearly two centuries the principle of these acts dominated the policy of England towards its shipping interests; it was interwoven in all acts whose chief object was the general restriction of trade to English channels, as in that of 1663, which required all commodities shipped from the plantations to pass through England to their destination. In 1675 it was found necessary to issue a proclamation to enforce the acts; in 1696, an attempt to re-enact them was made. All this shows that there was a good deal of evasion. On the other hand a sense of the weakness of the policy was shown in the partial relaxation of the acts in 1665 and 1693, in order to help English merchants to recover some share in the Greenland whale fishery. But public opinion was, on the whole, strongly in favour of the acts; hardly a voice except Richardson's (in 1750) was raised against their policy during the whole of the 18th century. The first organised attack upon them came from the colonies, and particularly the West Indian colonies, after the severance of the United States.

When the American colonies declared their independence, it seems to have been foreseen that their large trade with Great Britain, which had been fostered by artificial restrictions, would at once be lost if it were put on the footing of other foreign trade; accordingly American ships were, for the purposes of the direct trade, put on the footing of British ships. This amounted to a suspension of the navigation acts as regards this trade; and though at the time it attracted little attention, it was afterwards severely criticised as such. The order in council of 2nd July 1783, which conceded this favour, confined trade with the West Indian colonies to British ships, endeavouring to force it out of its natural channel, viz. with the republic of the United States to Canada and Nova Scotia. The West Indian colonies were not long in appealing against a restriction which, amongst other evils, made their supplies dearer and more precarious. On the 19th Nov. 1783, the legislature of Jamaica protested, and Barbados

and Antigua followed suit. The matter was referred to the Trade and Plantations' Committee in 1784, and again in 1791. They gathered information and evidence, and issued rather indeterminate reports, the gist of which was, in fact, that more harm was being done to America than to Great Britain. The matter dragged on from year to year, partly postponed by the frequent state of war, during which the navigation acts were continually suspended, as in 1803 and 1806. Very strenuous attacks were made by the shipowners upon these suspending acts, but no serious inroad was made on the principle of the navigation acts till Mr. Huskisson took the question up in 1821. He argued it very clearly and successfully. By an act of 1822 (3 Geo. IV. c. 44), the colonies were for the first time allowed to export their produce to any port, provided it were carried by British ships, and even in ships of the port for which it was destined, if that port was in one of the United States. By the same act a still more important step in advance was made; the old prohibition against the shipping of goods from the ports of certain European countries—notably the Netherlands and Germany—was at last abolished. In 1825 Mr. Huskisson carried a further reform, closely connected with his policy of reciprocal trade arrangements with other European countries; it was made legal to import the produce of any country in a ship of that country as well as in a British ship; the privilege which had been granted first to the United States, and then to Portugal, was made general, though with some sort of stipulation for reciprocal treatment.

The act of 1825 (6 Geo. IV. c. 109) practically brought the navigation act to that final form in which it was the subject of so much debate after the free-trade movement was established. The act was consolidated and re-enacted in 1833, and again in 1845 (8 & 9 Vict. c. 88). The latter was the last navigation act: it restricted the importation of certain enumerated articles to British ships or ships of the country in which these articles were produced; it prohibited the importation of the produce of Asia, Africa, and America, from any European port in any ship; it confined the trade between all parts of the British empire to British ships; and it required that a British ship should be navigated by a British master and a crew three-fourths of whom were British. The act should be read with those relating to the registration of ships and of seamen.

But every year the restraint became more irksome. The colonies and foreign countries were alike protesting, and volumes of bluebooks were filled with memorials. In 1847 the House of Commons appointed a select committee to consider the subject: five times they simply reported the evidence which they had taken; the conflict of testimony was so great that they seemed unable to proceed to a report. In 1848 the House of Lords did exactly the same. But in 1849 the movement in favour of repeal could no longer be withstood: by the act 12 & 13 Vict. c. 9, the old navigation acts and their policy were swept off the statute book as from the 1st of January 1850.

II. Policy.

The beneficial results claimed for the navigation acts by their defenders were two, viz.:

a. That they secured England's naval supremacy by forcing her people to become sailors.

b. That they laid the foundation of England's commercial greatness.

Even Adam Smith, pointing out that they probably had their origin in national animosities, wrote of them—"They are as wise as if they had been dictated by the most deliberate wisdom."

(*a*) *Naval Aspect.*

In making that statement Adam Smith was evidently thinking chiefly of the naval aspect of the question. The opinion that these acts had been the origin of England's naval strength, prevailed to modern times, and was much in evidence before the parliamentary committees of 1848 and 1849. Even at the present day, many would be found to support it. But the better opinion would seem to be that which contests this view. Mr. Labouchere, speaking in the House of Commons in 1848, referred to the above-cited statement of Adam Smith's, as "one of the few errors which Adam Smith ever made." We might expect such authorities as Macgregor and Porter in evidence before H. of C. committee, to be against the contention—but many would pay greater attention to Captain Sir John Stirling's view that the navy had derived no benefits from the acts. It is difficult to produce actual evidence for or against the view in question. A few general considerations certainly shake confidence in it. To go no further back, in Elizabeth's reign, when there was little restraint on shipping, the navy of England proved itself vigorous and efficient, both in the Channel and off the Spanish main. The Dutch, despite the acts, were powerful at sea long after 1650. Soon after the enactment of the Navigation Act, the navy was at the lowest ebb in its history, and Coke, writing in 1671, thinks the act had actually weakened it. And allowing that there is another side to the argument, we may nevertheless cite the facts (1) that in 1740, and again in 1803, one of the most vital provisions of the act, as to the proportion of British seamen, was suspended during war time; and (2) that foreign seamen

were for years employed surreptitiously in the coasting trade of Great Britain in spite of the law to the contrary.

Since the repeal of the acts, there has been no apparent decrease in England's naval strength. Further, the best school for the navy is in the mercantile marine, and that which cramps the development of the latter must injuriously affect the navy. So that Adam Smith himself, when, passing from the passage already quoted, he states that the navigation acts were bad for commerce, appears to furnish a refutation of his own previous statement.

(*b*) *Commercial Aspect.*

This second passage from Adam Smith is as follows: "The navigation act is not favourable to foreign commerce, or to the growth of that opulence which can arise from it." If we could accept as representative the opinion of an ardent supporter of the act, the advocates of the act had no care that it should be favourable to commerce. "Trade," he writes, "was considered principally as the means for promoting the employment of ships, and was encouraged chiefly as it conduced to the one great national object, the naval strength of the country" (*v. Collection of Papers*, 1807, noted at end of article). Not that the loud complaints of the shipping interest, towards the end of last century and onwards, show so much anxiety for the naval strength of the country as for their own private advancement. They would not, in fact, have agreed with Adam Smith. They alleged that the suspension of the acts was followed by decrease in shipping, and that they were at once handicapped in their competition with foreign shipowners. Some attempt was made to prove this by figures, but we have found it impossible to handle those figures as a simple indication of the separate effect of the navigation laws or their suspension. We can here only give some general statements.

Macpherson triumphantly quotes the Dutch remonstrance against the acts at Breda (1667) as an evidence of their value in wresting the trade from the Dutch; but we find nothing to show upon what lines the remonstrance proceeded, and it is at least as likely that it was directed against the general unfriendliness of the policy and the stringent powers of search given to British officers. It was to the gradual decline of the carrying trade of the Dutch that most of the advocates of the acts have pointed as evidence of their success; but they fail to consider the other reasons which led to the transfer of the sovereignty of the ocean. Thorold Rogers (*Econ. Inter. of History*), free trader as he was, states that the navigation acts of Cromwell transferred the supremacy of the seas from Holland to England.

On the other hand, Macpherson admits that there were very soon loud complaints of the acts from British subjects. Roger Coke (*q.v.*) (1671) states that within two years the act had lost England the Baltic and Greenland trade; and two or three times it was specially waived with a view to the recovery of that trade. Sir Josiah Child, the great advocate of the acts, gives much evidence of their impotence and interference with trade. Richardson (1750) found great fault with the working of the acts. A glaring instance of their unfairness is that quoted by the assembly of Jamaica, that in 1783, when there was great distress in the island, there were about 5000 barrels of flour in the harbour which could not be landed because of the provisions of the navigation act. Labouchere cites as a gross instance of their bad effect, a despatch from the government of Trinidad to Earl Grey. "When coolie labour was first proposed to be introduced, American vessels could have been procured to bring them at £9 per head whereas the present charge is nearly £18." More general instances may be found in the evidence before the select committees of 1847 and 1848. And the short allusion to them in the first report of the Commissioners of Customs is a severe condemnation.

That their relaxation did not injure British shipping may be shown from Mr. Huskisson's figures comparing British and Foreign ships entering English ports.

	British tonnage.	Foreign tonnage.
Average of 1814-1823	1,607,948	539,062
,, ,, 1824-1826	1,963,678	804,366
Actual number in 1826	1,950,630	694,116

The increase of British tonnage was greater in proportion than that of foreign tonnage. The year 1826 was one of depression.

That the abolition of the acts did not injure British shipping, is shown by the following returns.

	British ships trading to and from English ports.		Foreign ships trading to and from English ports.	
	No.	Tonnage.	No.	Tonnage.
1845	.....	8,546,090	.....	3,531,215
1850	44,698	9,442,544	32,045	5,062,520
1855	45,852	10,919,732	37,695	7,569,738
1860	52,643	13,914,923	50,503	10,774,369
1865	63,170	19,358,955	48,897	9,538,137
1870	70,587	25,072,180	49,116	11,568,002

The proportion of British tonnage in 1845 was 71 per cent; in 1865 it was about 67 per cent; in 1870 barely 70 per cent. Coming to 1880 there were 41,348,984 tons of British

against 17,387,079 foreign, or rather over 70 per cent, and at the present day the proportion remains much the same. As against these figures the only argument to be used is that the numerical increase of British tonnage would have been greater had the acts been maintained. This is contrary to the balance of evidence.

[Macpherson, *Annals of Commerce*, vols. i. ii. *passim*, see index, *sub voce.*—*A collection of Papers on Navigation and Trade* (including reports of Committee of Trade and Plantations) printed by order of the Society of Shipowners, 1807.— Huskisson's *Speeches*, 1825-1827.— John Lewis Ricardo's *Anatomy of the Navigation Laws*, 1847.—Cp. *Ricardo's Anatomy dissected.* By a Barrister (1848). — *Reports of Committee of House of Commons on the Navigation Laws*, 1847. — *Reports of Committee of House of Lords*, 1848.—Mr. Labouchere's *Speech in the House of Commons*, 1848.—Debates of 1849, *e.g.* Harrowby and Brougham, 7th May, for the Acts; also Earl Grey.—Pamphlets of W. S. Lindsay and T. Ogilvy. — Allen's *Navigation Laws of Great Britain*, 1849.— M'Culloch's note to Adam Smith's *Wealth of Nations*, 1863 (cp. M'Culloch's *Commercial Dictionary*).] C. A. H.

NAVILLE, FRANÇOIS MARC LOUIS (1784-1846), was born at Geneva and died at Vernier near that city. He was a Protestant pastor of French extraction; persecution having driven his family from their native land. Like many pastors he occupied himself with education.

In 1829 the French Academy offered a prize on the subject of Charity—two competitors were bracketed equal for it—DUCHATEL and Naville.

Naville's paper, revised and enlarged, was printed under the title *De la charité légale, de ses effets, de ses causes et spécialement des maisons de travail et de la proscription de la mendicité* in 1836, 2 vols. 8vo. The success of this work is due to its methodical arrangement and the clearness of its conclusions. It argues against charity dispensed by the state, in favour of private bounty. The sincerity of the author is shown in his declaration that when commencing to write he was quite of the opposite opinion, and regarded charity as one of the normal and necessary functions of the state. In working on his subject he felt the instability of the basis of his opinions, and argued against state interference. Within the limits of the subject the work is a masterpiece. A. C. F.

NEALE, EDWARD VANSITTART (1810-1892), Vansittart Neale's active connection with co-operation did not begin till he was forty years of age, though he was ripe for the work by a previous searching study of systems of socialism.

About 1850 he heard of and joined the well-known band of Christian Socialists (see CHRISTIAN SOCIALISM), and became a member of the "Society for Promoting Working Men's Associations" of which the Rev. F. D. MAURICE was then president.

His work for the co-operative cause during forty years was rather of a practical than of a literary character. Yet his literary work was considerable, and included a *Manual for Co-operators* and many magazine articles on social economics, the last, *Thoughts on Social Problems and their Solution*, appearing in the *Economic Review*, October 1892, after his death. He was also a constant contributor to the *Co-operative News*, and numerous pamphlets issued by the Co-operative Union were written by him. His practical work may be classified as follows:

1. *Promotion of Co-operative Societies.* He started the first co-operative stores in London, and the "Central Co-operative Agency," which anticipated, if it did not actually bring about, the present Co-operative Wholesale Society. He took an active part in the formation and management of many societies, distributive and productive, and helped them largely with funds. Amongst other attempts he, with his own capital, tried a large experiment in co-operative production at the Atlas Engineering Works. Though he thus lost a considerable fortune, the sacrifices made by Neale in the cause did perhaps more than anything to keep out class jealousy and distrust from the co-operative movement.

2. *Legal Work*, and especially the promotion of legislation to protect industrial societies. It was chiefly through the efforts of Neale and J. M. Ludlow that the first Industrial and Provident Societies Act was passed in 1852, which gave a legal status to co-operative societies —regarded hopefully by some as the "Magna Charta" of the labouring classes. He shared in the drafting of many amending acts, and was solely responsible for the great consolidating act of 1876. He also gave valuable assistance in framing rules for co-operative societies, notably those of the Co-operative Wholesale Society and the Co-operative Union, and he prepared the model rules under which most societies are now governed.

3. *Work in connection with the Co-operative Union.* With the rapid growth of the Co-operative Wholesale Society's business, it was felt that something other than a successful business concern was required as the "official and recognised representative organ of co-operation in England."

Congresses presided over by Vansittart Neale were accordingly held in London in 1868. They were the forerunners of the co-operative congresses, which are now of annual occurrence, and led to the formation of the Co-operative Union. In all this Neale took a very prominent part, and in 1874 he became secretary of the Union, living in lodgings in Manchester and devoting himself absolutely to the work. He retained this post until within a few months of his death, notwithstanding his advanced age, and his succession to a landed estate, which

would have drawn away most men from such arduous work.

In this position he was at the centre of the co-operative movement in England; he also attended congresses and corresponded with co-operators abroad. He helped to found, in 1884, the Labour Association for advancement of co-operative production and labour partnerships —which still exists.

It is perhaps needless to add that in the great question that threatens a division among co-operators, Neale held that the workpeople employed by co-operative distributive societies, wholesale or retail, were entitled to a share in the profits, and a voice in the direction, instead of being treated like the employés in any ordinary factory or workshop.

E. V. Neale wrote several religious works; among those on co-operative questions are:—*Association and Education: What they may do for the People.*—*Land, Labour, and Machinery.*—*The Economic Aspect of Co-operation.*—*The Three C.'s Co-operative Triologue.*—*May I do what I will with mine own?* 1851.—*The Economics of Co-operation.*

[Henry Pitman, Life, Co-operative Union, Manchester, 1894.—Notice by J. M. Ludlow, *Economic Journal*, vol. ii. 1892; and notices by Judge Hughes, *Economic Review*, 1893 (see also CHRISTIAN SOCIALISM; CO-OPERATION).]

H. HO.

NEBENIUS, KARL FRIEDRICH (1784-1857), was born near Landau in the Rhenish Palatinate. After studying law at Tübingen, he made himself acquainted with the Napoleonic methods of administration as a volunteer assistant to the prefect at Besançon, but would not accept a place in the French service. He became in 1807 private secretary in the Baden ministry of finance, in 1823 first councillor, and in 1838 president of the ministry of the interior. He supported a liberal policy, but the absolutist party under Blittersdorf gained the ascendancy, and he resigned office in 1839. He declined an offer from Frederick William IV. of a high position in the Prussian service. On the fall of Blittersdorf he became again in 1845 minister president. He retired in July 1849; suffered for some years from failing sight, and died at Karlsruhe.

Nebenius was the leader of reform in Baden for nearly forty years, constructing the new constitution of the state in 1818, creating its railways, remodelling its taxation and domain-management, introducing the metrical system of weights and measures, organising the system of popular instruction, and regenerating the higher teaching, especially in the university of Heidelberg, of which he was curator. But his name is chiefly associated with his energetic and successful efforts for the establishment of the ZOLLVEREIN—an event which Roscher pronounced to have been the most important in German history between Waterloo and Königgratz. List had done much, as a popular writer and indefatigable agitator, to recommend to the national mind the idea of such an institution; but Nebenius studied its conditions, conciliated its opponents, and devised a tariff for the general adoption of its component states, so that he has been justly called its intellectual founder. The perseverance, foresight, and tact with which he worked out the problem, merit hearty approbation.

As a scientific economist he was of the school of Adam Smith, and was an advocate of free trade as the general rule in practice; but he rejected the doctrine of the absolute non-intervention of the state in the industrial world. His principal theoretical work was *Der öffentliche Kredit*, 1820, 2nd ed., 1829, "perhaps," says Roscher, "the best monograph in the whole economic literature of Germany, and certainly the most important treatise on the subject of public debts which has been written in any language." His most noteworthy writings bearing on the question of the Zollverein were his *Denkschrift über das Deutsche Zollwesen*, written and privately circulated in 1819, but not published till 1833, and *Der Deutsche Zollverein, sein System und seine Zukunft*, 1835.

[Von Weech in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N.O.*, p. 953.] J. K. I.

NECESSARII HEREDES. Members of the household of a deceased person, upon whom his inheritance fell, succeeded to him as universal successors or heirs without any consent of their own, and whether they wished to succeed or not. Hence they are called in Roman law necessary heirs—*necessarii heredes*, being opposed to heirs, who are not members of the household of the deceased, as these do not acquire his inheritance without an act of acceptance on their part, *hereditatis aditio*.

There are two classes of *necessarii heredes*: 1. *sui et necessarii*, descendants of the deceased under his paternal power, who become by his death independent persons, *sui juris*; 2. *necessarii heredes*, *i.e.* slaves of the deceased made heirs by him in his will. E. A. W.

NECKER, JACQUES (1732-1804), was born and died at Geneva. His character was an unusual mixture of qualities rarely united in one individual. A very able and honest banker, he established a house of the highest standing at Paris—Thélusson, Necker & Co.,—and rapidly accumulated a large fortune; satisfied with the wealth he had acquired, he retired from business at the age of forty to devote himself to politics and literature. He believed himself possessed of sufficient capacity to lead the political world, and that at a moment when it was in the utmost disorder. Dexterous in the use of expedients, and but slightly burdened with theory, he flattered himself that he would eclipse Turgot, whose inferior he was, especially in grasp of principle. His first work, the *Éloge de Colbert*, received a prize from the French Academy in 1773, he then wrote *De la législation et du commerce des grains*, 8vo, 1775, which, dogmatic in style and opposed to the views of

Turgot, had considerable success, and even contributed to the fall of that minister (19th May 1776). On Turgot's successor, de Clugny, dying, 30th October 1776, Taboureau des Reaux was appointed to succeed him, and compelled to accept Necker as his coadjutor. This led to his resignation 1st July 1777, when his duties were handed over to Necker under the title of *Directeur-général des finances*. Though acting as *Contrôleur-général*, he was not granted that title, as this would have admitted him to the council of state, and he was a protestant. In this, his first essay in finance, Necker showed marked ability, diminishing the expenses, simplifying the machinery of the administration, and, through his connection with the great Bank, obtaining exceptionally favourable terms for the treasury. The tide of public opinion began now to set in the direction of the convocation of the *États Généraux*. In 1781 Necker's famous *Compte Rendu au Roi* appeared, addressed rather to the public than to the head of the state. His popularity increased; the success of his report, the first of its class, though incomplete, was great. The condition of the finances of the country was improved, but an unexpected result occurred. Cabals were roused against him, perhaps fomented by Necker's extraordinary vanity and his folly in mixing praises of his wife, whose *salon* was celebrated, with his official reports. The court became hostile, and in 1781 he was compelled to resign. But the weaknesses of the best-known of his successors, Calonne, caused the public to think with regret of the fallen minister, and the publication of *De l'administration des finances de la France*, 3 vols. 8vo, 1784, contributed to strengthen his popularity. This work, like those which Necker had written previously, is marked by an absence of general principle; it was declamatory and exaggerated in style, but valuable to those who would study how the finances of France were managed in the last days of the old régime.

Necker was detested by the court as a protestant and a bourgeois, nevertheless Louis XVI. found himself compelled to recall him to power, 20th August 1788, this time also with the title of *Directeur-général des finances*. The financial position was serious. The payment of the interest of the public debt was suspended, the treasury empty; Necker's return to power inspired confidence, and, as if by magic, money reappeared. He had, however, to employ his private resources to sustain the public credit. Though the court was still hostile, the multitude applauded him. When he spoke of retirement the court was compelled to ask him to remain in office, but by one of those sudden turns of fortune so frequent at this period, the king intimated to him his dismissal, 11th July 1789, and ordered him to leave France secretly. Necker obeyed and returned to Geneva. The effect of his departure on public opinion was terrific. In the midst of these disturbances the Bastille was taken, and on 29th July, Necker was recalled by the court with the title of *Premier ministre des finances*, and was admitted to the council. His return was an unparalleled triumph. In every town that he passed through between Switzerland and Paris the horses were taken out of his carriage and he was drawn by the admiring people. This mad enthusiasm could not last. Some slight errors in judgment alienated public opinion, and on 8th September 1790 he was again compelled to leave office and France, this time for ever. The populace was indifferent, if not hostile. In a small town in Champagne, he, who had never deigned to accept the salary attached to his high office, was arrested as a malefactor. How little he had deserved this may be understood from the fact that he had left behind him at the treasury, to assist the public credit, £96,000, his own property, which was only returned to his daughter the well-known Madame de Staël-Holstein in the early years of the Restoration. An order had to be obtained from the national assembly to enable Necker to regain his liberty and to return to Switzerland.

Of Necker's later works we need only mention: *Sur l'administration de M. Necker par lui-même*, 8vo, 1791.—His work on *La législation et le commerce* is inserted in the economic collection of Guillaumin.

[Adam Smith called Necker "a mere man of detail,"—Sir J. Mackintosh is the authority for this. Rae, *Life of Adam Smith*, 1895, p. 206.]

A. C. f.

NEGATIVE QUANTITIES occur in economics, as in other sciences, when a variable, passing through zero, becomes less than nothing, so that the addition thereof causes not augmentation but diminution. Most economic quantities are susceptible of this *change of sign*. Thus wealth, affected with the *minus* sign, becomes debt. The utility attending the consumption of wealth being taken as positive, the disutility of labour incurred by the production of wealth must be regarded as negative. Consumption is negative production. Jevons proposes to employ DISCOMMODITY to signify any substance or action which is the opposite of *commodity*, that is to say, *anything which we desire to get rid of*, like ashes or sewage (*Theory*, 2nd ed. p. 63). Such an article may be said to have negative value. Among articles which have a negative value AGENTS OF PRODUCTION may occur. The loss attending the use of old-fashioned machinery and plant may be considered as a negative "quasi-rent" (Marshall). It is conceivable that, capital becoming superabundant, borrowers would pay a "negative interest," that is, receive a payment for safeguarding and keeping up the capital borrowed (Prof. Foxwell, The Social

Aspect of Banking, *Journal of the Institute of Bankers*, vol. vii. p. 71, 1886). The practical limit to this class of payment would be soon attained. The payment which a waiter makes in order to be allowed to serve in a fashionable restaurant where there is a prospect of gratuities might be described as negative wages.

The geometrical representation of a negative quantity, by reversing the direction of a line, is common in mathematical economics. Thus Jevons (*Theory*, 2nd ed. p. 187) represents the disutility of labour by ordinates measured downwards, the utility of consumption being represented by ordinates measured upwards. Of course the pleasure which may attend initial stages of labour is to be measured in an opposite direction from fatigue. A beautiful example of this construction is given by GOSSEN.

[The philosophy of the subject is stated ably and authoritatively by Cournot in his *Revue Sommaire*, in a passage directed against Mr. H. D. Macleod's peculiar use of negative quantities in economics.]

F. Y. E.

NEGOTIABLE INSTRUMENT. The standard definition of a negotiable instrument is that given by Lord Blackburn, who says, "It may be laid down as a safe rule that where an instrument is by the custom of trade transferable, like cash, by delivery, and is also capable of being sued upon by the person holding it *pro tempore*, then it is entitled to the name of a 'negotiable instrument,' and the property in it passes to a *bona fide* transferee for value though the transfer may not have taken place in market overt." As regards the custom of trade, it is to be noted that the question must be determined by the usage of the English money market, and not by the usage of the country where the instrument was issued, if it be a foreign instrument. The definition itself appears to require two qualifications. First, an instrument, not otherwise negotiable, may be made negotiable by statute; and, secondly, foreign government bonds to bearer may undoubtedly be negotiable, yet the holder cannot sue the foreign government upon them in the courts of this country. The main classes of negotiable instruments are, bills, promissory notes, cheques, bank-notes, exchequer bills, foreign bearer bonds, bearer debentures, and scrip. Postal orders are not negotiable.

[See COMMERCIAL INSTRUMENT; NOT NEGOTIABLE; Chalmers on *Bills of Exchange*.] M. D. C.

NERI, POMPEO (1707-1777). Born in Florence, a Tuscan economist and statesman. He was a minister of Leopold I. of Tuscany. He also held office in Milan under Maria Theresa and reformed the municipal government there. He presided at the commission of the taxation of the state of Milan, and at the conferences appointed to draw up a coinage convention between the Austrian states in Italy and the states of the king of Sardinia on the Italian side of the Alps. Neri's name is especially associated with the great Leopoldine reforms in which he played an important part; he was entrusted with the compilation of the civil laws for Tuscany; he then undertook economic reforms, suggesting to his sovereign the adoption of free trade in grain, which he was the first in Italy to support, and introduced gradually by the laws of 1763-64 and the edict of 1767—the corner-stone of the edifice of economic freedom in Tuscany. He abolished the duty on foreign corn, taxes and bounties on bread, and overcame the obstacles which hindered the free circulation of cereals in the interior.

Neri's work is of importance from a scientific point of view. In his *Discorso sulla materia frumentaria* he shows that absolute freedom for the corn trade is the only system suitable to Tuscany, and is the fundamental basis of its economic laws, whether agriculture or the general requirements of food production be considered. This treatise formed the basis of those Tuscan reforms on which an illustrious group of economists collaborated. Another important work of Neri's is on the value of money, in which, though he may not state much that is new, he expounds with brevity and clearness the principles regulating the choice of the material for the coins, and defines the regulations according to which money should be minted. He also wrote in 1750 a voluminous report on the basis of the Milanese taxation, a great work of proportionate assessment initiated by Charles VI. in 1718, and carried on by Neri. This report was continued by G. R. Carli in 1776. *Osservazioni sul prezzo legale delle monete*, Milan, 1751.—*Discorso sopra la materia frumentaria*, 1767.—*Relazione dello stato in cui si trova l'opera del censimento universale del ducato di Milano*, 1750.—See, concerning Pompeo Neri, J. Montgomery Stuart, "The History of Free Trade in Tuscany," in the *Cobden Club Essays*.—V. Cusumano, *La teoria del commercio dei grani in Italia*, Bologna, 1877 (Archivio Giuridico).—A. Morena, *Le riforme e le dottrine economiche in Toscana*, Florence, 1886-87 (in the Rassegna Nazionale).

U. R.

NEUMANN SPALLART, FRANZ XAVIER (1837-88). Ritter von Neumann Spallart was an Austrian economist and statistician of high ability whose comparatively early death at about fifty years of age was regretted by friends and colleagues not only in Austria but in all the leading countries of Europe. He was educated at the university of Vienna, where he studied law and economics, and took his degree as doctor of laws in 1862. After travelling for a time in Europe, he returned to Vienna. In 1864 he became professor of political economy at the Vienna commercial academy, and subsequently was appointed to other important educational positions. In 1871 he became an honorary member of the Imperial-Royal Statistical Central Commission, to which body he gave valuable services up to the time of his death. In 1876 he represented the

commission at the International Statistical Congress at Buda-Pesth, at Paris in 1878, in Paris again in 1885, and in London with Professor von Inama Sternegg in the same year, when the jubilee of the Royal Statistical Society took place. This meeting in London was remarkable for the foundation of the International Statistical Institute, the regulations of which Neumann Spallart drafted chiefly in concert with Dr. L. Bodio, though others had a share in that important work. The institute, at its first meeting in Rome in 1887, elected Neumann Spallart as its second vice-president; and though far from well at the time, he did much useful work on that occasion. In the winter of 1887-88, the chest complaint from which he had always suffered more or less grew rapidly worse and he died in April 1888.

Neumann Spallart was the author of a great many volumes and pamphlets, many of them having special relation to Austria-Hungary, as might be expected. A list of his works will be found in the *Journal of the Statistical Society* for June 1888. His most widely-known contribution to statistics is his admirable *Uebersichten der Weltwirthschaft* published at Stuttgart in various years from 1870 to 1883-84. W. H.

NEUTRAL MARKETS. It is one of the main objects of neutral states to keep their markets open for trade in time of war. On the other hand belligerent powers, in their anxiety to deal effective blows at their adversaries, are apt to strike at them through neutral commerce. Since the transactions of neutral markets take place on neutral territory, they cannot be directly interfered with by the states at war. But indirectly they can be injured by interference on the high seas with vessels which carry goods to and from their ports. Practice has varied from time to time, and sometimes an exceptional usage has been adopted for a while by powerful belligerents (see INTERNATIONAL LAW). Thus the right of confiscating not only enemy goods found on board a neutral ship, but the ship as well, was claimed and exercised by France and Spain at the beginning of the last century. A hundred years later England and France enforced their violent and illegal measures of mutual retaliation at the expense of neutral trade, and to the ruin of neutral markets (see CONTINENTAL SYSTEM; LICENSES (Continental War)). But commercial interests are now far too powerful to be harried with impunity. By the Declaration of Paris of 1856 both enemy goods laden on neutral ships and neutral goods laden on enemy ships are allowed to pass freely to and from neutral ports (see DECLARATION OF PARIS). Leaving out blockade which is *sui generis*, the only exceptions to the rule of freedom are found in the cases of enemy ships, enemy goods on enemy ships, and contraband of war carried in neutral ships. The two former would disappear if private property at sea were exempted from warlike capture. The latter will probably remain as long as wars continue; for no power is likely to deprive itself of the right to seize munitions of war on the way to an enemy. During the American civil war of 1861-1865, each side bought enormous quantities of arms and ammunition in England; and the neutral British port of Nassau in the Bahamas became the centre of a considerable trade in goods intended to run the blockade of the ports of the Southern Confederacy. In the war of 1904-5 between Russia and Japan the former power purchased all sorts of weapons and warlike stores in Germany, from where they were conveyed to her across her land frontiers. The law of contraband is powerless to deal with a trade of this kind which does not cross the seas and cannot be intercepted by the other belligerent.

[The references given at the end of the articles cited in the text will apply to the present subject. For the sudden rise of Nassau, and the trade in contraband of war between England and America, see the British and American *Cases* presented to the arbitrators at Geneva in 1872, and M. Bernard's *Historical Account of the Neutrality of Great Britain during the American Civil War*.] T. J. L.

NEUTRAL PROPERTY may be described as the property of neutral states, subjects of neutral states, or enemy subjects domiciled in neutral states. But if a neutral subject is domiciled in an enemy's country, his property connected with the enemy domicile is regarded as enemy property for purposes of belligerent capture, as also is property at sea owned by neutrals, not incorporated in enemy commerce or subject to enemy control. Moreover, if an enemy subject is domiciled in a neutral state, only his property connected with the neutral domicile ranks as neutral property. Neutral property in neutral territory is inviolable; but if the land forces of one belligerent occupy a district belonging to the other, they may subject neutral property found therein to all the severities of warfare. At sea neutral vessels, if public, are free from belligerent search, but, if private, must submit to it. They may be subjected to capture and condemnation for an attempt to run a lawful blockade or perform an unneutral service. The usual penalty for carrying contraband of war is confiscation of the cargo only; but in aggravated cases the vessel also is condemned. Neutral goods are not liable to confiscation unless they are laden on board an armed enemy vessel, or connected with a breach of blockade, or contraband in their character. On an ordinary merchantman engaged in ordinary traffic they are safe, even under the enemy's flag (see DECLARATION OF PARIS and the sections on *War* and *Neutrality* in INTERNATIONAL LAW).

See Hall, *International Law*, pt. iv. T. J. L.

NEUTRALITY. See INTERNATIONAL LAW.

NEVES, JOSE ACCURSIO DAS (1766-1834), a Portuguese economist.

He wrote *Variedades sobre objectos relativos ás artes, commercio y manufacturas* (Lisbon, 1814 ff. 2 vols.). He was a protectionist in his opinions, and possessed a very thorough knowledge of the economic history of Portugal.

[Cossa, *Introduction to Pol. Econ.*, English trans., London, 1893.]

NEW CUSTOMS. The title given to the additional duties on certain goods imported by Edward I. in 1302, in distinction to the duties termed "Ancient Customs — antiqua custuma" (see CUSTOM, CUSTOMS DUTIES).

[Dowell, *History of Taxation*, 2nd ed., vol. ii. p. 79 ff.]

NEW IMPOST. The name under which the EXCISE (*q.v.*) was known when that system of taxation was first introduced in 1643. At first "the prime necessaries of life, flesh and salt," were included, and the tax was, and long continued to be, very unpopular.

[Dowell, *History of Taxation*, 2nd ed., vol. ii. p. 9 ff.]

NEW SUBSIDY. The original import duties in England (see IMPORT DUTIES) were called the "subsidy" of tonnage and poundage. The subsidy of poundage was from 1373 onwards for a long time fixed at a shilling in the pound or 5 per cent *ad valorem;* so that in the language of the customs, subsidy came to mean a general import duty of 5 per cent *ad valorem.* The "new subsidy" was the duty at that rate imposed by 9 & 10 Will. III. c. 23 (1697) and appropriated to the civil list. It was long kept separate in the accounts of the exchequer.

[Hall's *History of the Customs Duties.*]

C. A. H.

NEWBURY, JACK OF, a hero of 17th century chap-books, around whose name gathered a multitude of absurd and mythical stories, was in fact a certain John Winchcombe, a wealthy clothier, who carried on business at Newbury early in the 16th century. "Winchcombe's kersies" were well known in the reign of Edward VI.; and his descendants afterwards made their way into the ranks of the county gentry. It is probable that, anticipating the later factory system, he made an attempt to gather a large number of workpeople under the same roof; but all such experiments must have been put an end to by the act of 1553 limiting the number of looms any clothier might possess.

[Ashley, *Econ. Hist.*, vol. i. pt. ii. pp. 229, 236.]

W. J. A.

NEWENHAM, THOMAS (1762-1831), was member of Irish parliament of 1798, and strenuously opposed the union. After its enactment, he settled in England and endeavoured by his writings to spread a better knowledge of Irish affairs amongst English readers. His works include *A Statistical and Historical Inquiry into the Progress and Magnitude of Population of Ireland*, London, 1805, 8vo, wherein, while holding that the population of Ireland tended to double itself in every forty-six years, and that its then population was nearly 5,400,000, he maintained that Ireland was capable of supporting in comfort a far greater population than this.—*A View of the Natural, Political, and Commercial Circumstances of Ireland*, London, 1809, 4to: this work is divided into four parts, the first dealing with the natural advantages which qualify Ireland for the acquisition of commercial wealth, and the latter three in a somewhat confused manner with the causes which frustrated these. These books were reviewed by MALTHUS (*q.v.*), *Edinburgh Review*, July 1808 and April 1809, vols. xii.-xiv. His last publication, *A Series of Suggestions Relative to Ireland*, Gloucester, 1825, 8vo, contained the substance of the evidence he would have given before a House of Commons committee on Ireland had his health allowed him. In this he advocated the establishment in Ireland of banking companies, and strongly opposed the introduction of a poor law (see NICHOLLS, Sir G.), and any system of state-aided emigration.

[*Dictionary of National Biography*, vol. xl.]

H. E. E.

NEWMARCH, WILLIAM (1820-1882). This eminent economist and statistician was a native of Thirsk, Yorkshire. He had but few of the advantages that a middle-class education now affords, and was mainly indebted for his general training to habits of self-culture, and to his association at an early period of life with men engaged in active business pursuits. His earliest bringing-up was as clerk to a distributor of stamps in his native county, then he moved into the service of the Yorkshire Fire and Life Office at York, and afterwards into the banking-house of Messrs. Leathem, Tew, and Co. of Wakefield. Marrying young, and anxious for a wider scope for the exercise of a talent for economical subjects, Newmarch removed to London. There he obtained constant employment on the staff of the *Morning Chronicle* newspaper, and became at the same time second officer of the Agra Bank established in London in 1840. His knowledge of the principles of banking and of general business gained him the influential support of leading men in the city, particularly of William TOOKE, whose close disciple he became in all that relates to economic science and banking. Newmarch in 1851 resigned his position at the Agra Bank to become secretary of the Globe Insurance Company. Tooke was desirous of continuing his book on the *History of Prices and of the state of the Circulation from 1792*, and upon Newmarch's offering to co-operate with him in writing two additional volumes, the offer was gladly accepted, in the same spirit as Mr.

Danson's offer of assistance had previously been welcomed in the case of the fourth volume, published in 1848. The fifth and sixth volumes in their turn demanded some years of careful study. A vast body of statistics had to be methodised on novel and original principles of treatment. At length, in 1857, the public obtained the advantage of these researches, and they were accepted with approval, both at home and abroad. In Germany, especially, the two volumes were thought worthy of translation and of use in several universities. In 1857, Newmarch gave evidence before the select committee of the House of Commons on the Bank Acts. Like Tooke, he was opposed to the fixing of legislative limits to the issues of the Bank of England, or to the setting aside of a fixed amount of bullion as a guarantee for the circulation. In place of this he advanced the plea that legal convertibility would adequately secure against over-issue. He also advocated a discontinuance of the separation of the issue and banking departments of the Bank of England.

Newmarch had long been associated with the Royal Statistical Society of London as one of its honorary secretaries, he took the utmost interest in its meetings, and in 1869-1871 became its president in succession to Mr. Gladstone. He was also for many years secretary of the Political Economy Club, and was elected a fellow of the Royal Society and a corresponding member of the academy of moral sciences of the Institute of France. In 1862 he quitted the service of the Globe Insurance Company and became the chief officer in the banking-house of Glyn, Mills, and Co., where he remained until shortly before his death in 1882.

Newmarch for more than thirty years contributed some of his best work to the public press, as mentioned previously, to the *Morning Chronicle*, where, in 1853, a series of his papors appeared on the new supplies of gold. Reprinted in London, in 1853, in a volume of 122 pages 8vo, with five additional chapters, they attracted a great deal of public attention, as containing by far the most valuable review attainable on the Californian and Australian gold discoveries, with facts and statements relative to their actual amount, and their present and probable effects.

In 1855 he published an essay *On the Loans raised by Mr. Pitt during the first French War, 1793-1801, with some Statements in Defence of the Methods of Funding employed.* The case was supported by elaborate calculations respecting each loan, supplied by Mr. Frederick Hendriks, and the main contention of the essay was that W. Pitt, in his plans of borrowing, did the best that could possibly have been done for England under the circumstances of the times. The arguments were controverted in a published series of lectures to the university of Oxford by Professor Rickards, but were warmly defended by Earl Stanhope in his biography of Pitt.

In 1861 Newmarch was president of the economic section of the British Association at the meeting in Manchester, and in his address he submitted that full as the thirty years then past had been of scientific achievements, those of economic science and statistical inquiry had a place in the first rank, and had arrived at an intermediate point, at which, after long debate, many of the earlier controversies are finally settled, and from which the way can be seen to a higher level, the least doubtful result of our experience being the discovery that the most solid progress is made by guiding ourselves in the main by close observation of facts, and by employing speculative and hypothetical reasoning under the most cautious conditions, and always with distrust and reserve.

Amongst the most important of Newmarch's contributions to the periodical press, journals weekly and daily, and reviews and magazines, which, although anonymous, did no little in furnishing the public with sound views on banking, free trade, and currency, and on business principles generally, may be mentioned his annual "Commercial History of the Year" in the *Economist;* this was commenced in 1863 and continued down to 1882. Besides this annual contribution of facts and figures on which a superstructure of able reasoning was raised, Newmarch had long been a valued contributor to the *Economist* during the editorships of Mr. Wilson, Mr. Bagehot, and Mr. Inglis Palgrave, and the suggestion came appropriately from the pages of that journal (during the editorship of Mr. Palgrave), that if his surviving friends desired to promote some public memorial of him, no better form of it could be devised than the foundation of a professorship under his name of economic science and statistics. In the result, a subscription was made by them with this object, and the sum of about £1500 contributed for the endowment of the Newmarch lectures at University College, London. F. H.

NEWTON, Sir Isaac (1642-1727). For particulars in regard to Newton's scientific, theological, and other work, reference must be made to the various biographical notices indicated below; it is here only proposed to deal briefly with his work in connection with the Mint and currency questions.

Newton's long association with the Mint arose primarily from the fact that his old college friend, Charles Montague, was Chancellor of the Exchequer in 1695, when the state of the currency was causing very grave anxiety through the prevalent practice of clipping and the impossibility of preventing

the good coins issued by the Mint from being immediately withdrawn from circulation and either melted or exported. The confusion which existed at that time is eloquently described in chap. xxi. of Macaulay's *History*, and some account is also there given of the steps taken to remedy the evil. Montague and Somers, the Lord Keeper, were associated with Newton and Locke in this great work, Newton being appointed Warden of the Mint by royal warrant dated the 13th April 1696, in succession to Benjamin Overton who had been made a Commissioner of Customs. On the death of the Master and Worker, Thomas Neale, Newton was promoted to that office by warrant dated the 3rd February 1700, the appointment dating from Christmas day, 1699. He retained this post until his death in 1727. The warrants confirming his appointment at the beginning of the reign of Anne and of George I. bear the dates 11th June 1702 and 1st January 1714 respectively.

It is hardly necessary to state that in Newton's day the Mint was located in the Tower of London, where it occupied the entire space between the outer rampart and the inner ward or ballium. As Master he was provided with an official residence situated immediately to the left on entering the Byward Tower, but to what extent he occupied it is not positively known. An interesting plan of the Mint buildings, prepared in 1700, is still preserved in the Royal Mint on Tower Hill.

In view of the fact that the last thirty-two years of his life were thus spent in superintending the currency of the country, it is remarkable that so little information of an important character has been published in regard to this portion of the great philosopher's work. Beyond the text of the several warrants referred to above, and occasional references to his attendance at board meetings, reports, etc., the Mint records are silent as to his doings, and even the voluminous life by Brewster, extending to upwards of a thousand octavo pages, dismisses the subject with a few pages, in chap. xix., and these deal with petty administrative difficulties rather than with larger questions such as that which led to his appointment in the first instance. On such questions Newton's opinion seems always to have been acted upon, and his classical Reports of 1702 and 1717 on the relative values of gold and silver and the rating of the GUINEA (*q.v.*), prepared at the instance of the Lord High Treasurer, have frequently been reprinted. The records of the Treasury, however, are rich in evidences of his wide knowledge of matters directly or indirectly relating to currency, and between the 2nd May 1696, the date of "Dr. Newton's oath as Warden of ye Mint," and the 10th November 1725, when he reported on "Portugal coins," the allusions to him in the *Calendar of Treasury Papers* are very numerous, numbering ninety-eight in all. It is impossible within the limits of a short article to discuss the many important matters dealt with in these papers, but a few may be mentioned in order to show at once their importance and their variety. Cases of clipping and counterfeiting are very numerous: he was called on to deal with many memorials, including one in 1697-98 from the well-known engraver Roettier, who supplanted Simon in the reign of Charles II., and, in 1722, to act as Comptroller of Wood's copper coinage for Ireland, rendered so famous by the abuse of Dean Swift, as well as of a similar coinage for the West Indies. Such questions as the watermarking of paper, melting of silver bullion with "pit-coal," and the artificial raising of the price of tin, were submitted to him for report, and it is interesting to note that in most cases the reports which have been preserved, many of considerable length, are entirely in the handwriting of Newton.

It will be convenient to enumerate here for reference his principal reports on currency questions, with their dates.—28th Sept. 1701. Memorial to the Treasury as to the influence of recent changes in the French currency on the relative values of gold and silver coins in England. —7th July 1702. Report to the Lord High Treasurer on the value of foreign gold and silver coins, and on the supply of silver coins in this kingdom. — 21st Aug. 1711. Report on a Spanish two Ryall piece.—7th Oct. 1712. On the rating of French money for the use of Her Majesty's forces at Dunkirk, and on the exchange with France and Holland.—21st Sept. 1717. On the state of the gold and silver coins of the kingdom, and on the relative value of gold and silver. — 12th April 1720. Report "On the value of Imperial dollars both intrinsically and by way of exchange with Sweden."—10th Nov. 1725. Report on five Portuguese gold coins varying in value from 4s. 4d. to £3 : 11 : 6½.

In regard to the views held by Newton on the general principles of currency, the claim sometimes advanced that he should rank as a bimetallist must not be overlooked. Jevons showed at some length, in an unfinished paper mentioned below, that this view is erroneous. He there states explicitly that Newton's "scheme is not bimetallism," and he adds, quoting from Cantillon, that in reducing the rating of the guinea to twenty-one shillings, "Newton" did not intend to determine between gold and silver moneys a strict proportion as to price, "that is a proportion corresponding with their market price." The currency troubles of Newton's day, complicated though they were, arose mainly from variations in the values of gold coins when measured in silver. the standard of the country, and it would be difficult to imagine more convincing evidence of his far-seeing judgment than the simple fact of our sovereign of to-day being the direct outcome of Newton's valuation of the guinea in 1717.

[Sir D. Brewster, *Memoirs of the Life, Writings*

and Discoveries of Sir I. Newton, 1855; *Synoptical View of Newton's Life* in Edleston's edition of correspondence between Newton and Cotes, 1850.—Article on "Sir Isaac Newton" by R. T. Glazebrook in vol. xl. of *The Dictionary of National Biography*, 1894.—Dana Horton, *Sir I. Newton and England's Prohibitive Tariff upon Silver Money* (1881).—W. S. Jevons, "Sir Isaac Newton and Bimetallism," *Investigations in Currency and Finance*, 1884, pp. 330, 353.]

E. R.

NICÉRON, JEAN PIERRE (1685-1738), was a French Barnabite monk.

He compiled 44 vols. of *Mémoires pour servir à l'histoire des hommes illustres de la République des Lettres avec un catalogue raisonné de leurs ouvrages*, 1722-1745, full of copious and valuable bibliographical information extending to writers who have no claim to the title of illustrious. These *Mémoires* were translated into German a few years after Nicéron's death.

[Guérard, *La France littéraire au 18me siècle;* and Didot's *Nouvelle Biographie Générale*, 1858.]

E. Ca.

NICHOLLS, CHEVALIER JOHN, pseudonym of Plumart de Dangeul (see DANGEUL, MARQUIS DE).

Born in the beginning of the 18th century, master of audits in France, published under this fictitious name his *Remarques sur les Avantages et les Désavantages de la France et de la Grande Bretagne par rapport au Commerce*, Amsterdam (Paris), 1754, supposed to be a translation from the English. He also published a real translation of Ulloa: *Le rétablissement des manufactures et du Commerce d'Espagne*, Amsterdam, 1755.

E. Ca.

NICHOLLS, SIR GEORGE (1782-1865), public servant, entered the maritime employ of the East India Company, at the age of fifteen. After retiring from that service (1815), he settled in 1819 at Southwell, Notts. His attention had been first drawn to the subject of the poor law by reading the Report of the House of Commons committee of 1817. In 1821 he became overseer of the poor for the parish of Southwell, and forthwith set on foot most valuable reforms in administration. The importance of this work is not to be gauged by the extent of the area over which it operated, but by the fact that the Southwell workhouse, together with that of Bingham, was the model on which the whole workhouse system of the new POOR LAW was based. Nicholls was for the most part absent from Southwell after 1823, and left it altogether in 1827, but his work survived, and he relates, with pardonable pride, how, on the occasion of a subsequent visit, he was cordially greeted by a group of labourers, who told him that he had been their best friend, because he had made them help themselves. It was therefore peculiarly fitting that, on the passing of the Poor Law Amendment Act, Nicholls should have been—in August 1834—selected as one of the three new commissioners. He was, at the time, the manager of the Birmingham branch of the British Bank of England, and, so great was their sense of his value, that he was offered an additional £500 per annum if he would remain in the bank's service. Although the broad lines of poor-law policy were settled by the act of 1834, the change to be effected was so great that it was necessary to leave much, with regard to the time and mode of enforcing that policy, to the discretion of the commissioners. The formation of unions, the provision of workhouses, and the issuing of orders for the guidance and government of boards of guardians, were matters requiring the exercise of the utmost tact as well as ability. In 1836 Nicholls visited Ireland, with the view of reporting on the expediency of introducing an Irish poor law. The act, as finally passed in 1838, followed mainly the lines of his report. From 1838 to 1842 Nicholls remained in Ireland, to supervise the introduction of the new law. Important as had been the work of the poor-law commissioners, it was generally recognised that their strength would be increased by coming more closely into touch with parliament. The powers of the board were therefore, in 1847—10 & 11 Vict. c. 109—transferred to commissioners forming part of the government of the day, the services of Nicholls being retained as secretary to the new board. In 1851 he retired, and was made a K.C.B. The loss to the country of his services was given ample expression to in the House of Lords, where Lord Fortescue, who had seen much of him in Ireland, eulogised his great abilities, "persevering industry" and "great self-devotion to the public service," and Lord Brougham, who had conducted the Poor Law Amendment Act through the House of Lords, expressly affirmed that he "was the great and principal agent in devising the new law, and in carrying it afterwards into execution." The first years of his leisure Nicholls devoted to writing the history of the law, in the administration of which he had borne a leading part. When he died he was an old man, and had become, as so often happens, to some extent forgotten. At the present time, however, we are better able to value his services. If, between the advent of democracy in England and its final triumph in our villages, there has been a breathing space of sixty years, wherein the steady and continuous, though incomplete, depauperisation of the labouring classes has gone on, under the operations of a law often ahead of the public opinion of the day, it is to Nicholls more perhaps than to any one man that the result is due.

Nicholls' writings include: *Eight Letters on the Management of our Poor and the General Administration of the Poor Laws*, by an overseer, 1822 (reprinted from the *Nottingham Journal*).

—*The Farmer*, London, 1844, and *On the condition of the Agricultural Labourer*, London, 1847, 12mo.—*Reports* dated respectively 15th November 1836, 3rd November 1837, and 5th May 1838, in connection with the proposed Irish poor law, the substance of which is given in Nicholls' *History of the Irish Poor Law.*—*A History of the English Poor Law*, 2 vols., London, 1854, 8vo.—*A History of the Irish Poor Law*, London, 1856, 8vo.—*A History of the Scotch Poor Law*, London, 1856, 8vo.

[*Times*, 25th March 1865. — *Gentleman's Magazine*, 1865, 3rd series, vol. 19, autobiographical information in histories of English and Irish poor laws as above.—*Dictionary of National Biography*, vol. xl., which refers to a MS. memoir coming down to 1864. On Southwell Workhouse, Appendix A of Poor-Law Commission Report, 1834; Mr. J. W. Cowell's Report, pp. 613*a*-618*a*.] H. E. E.

NICOLAI (18th-19th century) undertook historical research on laws respecting food supply and finance in the papal states. In one of his most important reports, Nicolai discusses the organisation of the land tax, arranged by Pius VII., for all parts of the kingdom, bringing together the threads of economic and financial tradition in the papal states. Nicolai studies the different methods of taxation, reform in which was felt necessary by the government, and gives the preference to the land tax in agricultural districts, together with some indirect taxes on consumption to equalise the incidence as far as possible. He agrees substantially with the classical doctrine prevalent at the time, which regarded the land tax, established on the system of the CATASTO (*q.v.*), as the pivot of fiscal organisation. Nicolai's other treatises contain remarks on the supply of food.

Memorie, leggi ed osservazioni sulle campagne e sull' annona di Roma, Rome, 1803.

[See Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1880.—Cusumano, *La teoria del commercio dei grani in Italia*, Bologna, 1877.] U. R.

NIFO, AGOSTINO (1473-1538), was born in Sessa (southern Italy) of a noble family. From 1492 to 1498 he taught philosophy at the university of Padua, then at Salerno and Naples. Many honours were bestowed on him by Leo X., and he was highly esteemed as a philosopher.

In his moral and political pamphlets he discusses economic subjects, and is a faithful follower of ARISTOTLE. Like other writers of his day, Nifo forms a moral rather than an economic conception of wealth. Riches, in his view, are not to be desired for themselves, but only as means to higher ends; thus wealth, taken as the foundation of prosperity in a state, can only be considered the means or instrument of its prosperity.

In the distinction of the different kinds of riches, and in the difference between riches and money, Nifo always follows ARISTOTLE, whilst on other points he adopts the ideas of St. Thomas AQUINAS. He makes a strong distinction between the aims of economic and administrative science and the importance to be assigned to the action of the state in increasing public wealth.

De vera vivendi libertate, Naples, 1530.—*De divitiis*, Naples, 1531.

[See Fornari, *Delle teorie economiche nelle provincie napoletane*, Milan, 1882.] U. R.

NIHILISM (RUSSIAN) is a term connoting various forms of social dissatisfaction, political and economic, mainly among the better-educated classes of Russia. As the name implies, its aim is the annihilation of existing social institutions, and in this respect it forms part of the negative movement of the present day, against all forms of traditional authority, and, so far, it coincides with ANARCHISM. In Russia, however, it is not capital and the *bourgeoisie* that are the object of attack, but government as such. Nihilism arises out of local causes—political, economic, and racial,—and is the outcome of two opposite tendencies of the Slave mind—absolute idealism and cynical realism,—which in combination produce impatient destructiveness and revolutionary passion. The former is represented by Herzen, the latter by BAKOUNIN. Philosophically, the early promoters of nihilism belonged to the Hegelian school (see HEGEL), in which they saw, like K. MARX and his followers, the basis for their own theories of social revolution. Nihilism also owes some of its ideas to the pessimistic scepticism imported with modern French literature, which easily assimilates with the indigenous tendency towards melancholy mysticism. These two act as dissolvents. The passionate cultivation of Physical Science by the fast-growing "literary proletariate" has much encouraged this tendency. The disciples of the materialists, Büchner and Moleschott, are ardent advocates of a complete demolition of the present social system. Politically, nihilism is a reaction against repression by despotic government and an oppressive and corrupt system of BUREAUCRACY, it is liberalism and constitutionalism in some of its aspects, but reforms initiated by "imperial nihilists," such as the liberation of the serfs, have encouraged the movement. To some extent, too, it is encouraged by pan-Slavism as a popular agitation in favour of a "federal united republic of all Slavonic tribes." Even the ancient institution of the MIR, as a relic of agrarian communism, serves as such as a type of democratic self-government, and suggests the extension of its method as the "rural commune" to the whole edifice of society. And, lastly, some of the boldest agents of nihilism are to be found among the Jewish youth, whose zeal has been enlisted in the cause as means of avenging the wrongs

done to their race by the official class. Having stated the causes of the movement, we may now proceed to follow its course. Nihilism proper begins in 1858, following immediately upon the military collapse of the empire, though the secret machinations of radicalism go back to 1846-49. The nihilistic creed, suggested in principle by PROUDHON, was not formulated till 1867, though a sanguinary manifestation of "the central revolutionary committee" appeared in 1862. The growth of socialism in Germany and France from 1863 to 1871 promoted Russian nihilism so much that in the years 1873-76 it displayed great activity, especially in publishing and disseminating periodicals, pamphlets, and appeals in various forms. Then, too, began the rage on the part of the aristocratic youth to "go among the people," living and working among them in disguise, thus to become "simplified" with a view to indoctrinate the operative population with nihilistic ideas. The result was that in 1873, some 156 of them came into collision with the police, whilst 3800 were more or less complicated in the "monster-process (trial) of 193" in 1874-75. Having suffered a slight relapse in 1876-77, in consequence of the Russia-Turkish war, nihilism revived in 1878, when Vera Sassoulitzsch attempted to assassinate General Trepoff, and thence began the duel between the nihilists and the authorities which led to the death of the Czar, Alexander II. (1855-1881), who was "condemned" by the "executive committee" in August 1879. In that year it is computed there were at least 20,000 suspects, the journal *Will of the People* being the organ of the secret conspiracy. Under the reign of the late Czar, Alexander III. (1881-1894), which has been termed the "social empire," and since, nihilism has not appeared much on the surface, but the political trial of five nihilists in 1890, as well as the methods adopted to protect the life of the czar against secret attack, show that the terror was by no means over.

The actual demands of nihilism, as far as they are put into distinct form, are, on the part of the moderate section, amnesty of political offenders, the abolition of the secret police, inviolability of the home, freedom of the press, of speech and meeting, religious equality, the autonomy of towns, communes, and provinces, and the control of public functionaries by county councils, the appointment of imperial commissions of inquiry into the economic condition of the people, and that of a ministry for the encouragement of industry, agriculture, and co-operative associations, with a view to develop the resources of the country. The demands of the new advanced section are, the abolition of monarchy, state-religions, and landed proprietorship; and a free soil for the sustenance of the whole population; and the discontinuance of a standing army and governmental administration; meanwhile the sentence of death is pronounced on all public functionaries hostile to these designs. A proclamation of the executive committee drawn up shortly after the attack on the emperor, Alexander III., sums up the demands of the terrorists as follows:—A representative democratic form of government; permanent parliaments, with full powers to regulate matters of state; extension of local government in the provinces; autonomy of rural communes; the land to be put into the possession of the people; means to be found for placing the factories into the hands of the ARTÉL, or artisan gild; transformation of the army into a militia; liberty of the press and industrial combination.

From this it will be seen that, in its economic bearings, nihilism resembles in many respects the more violent forms of socialism; though one of its most distinguished representatives, Prince Krapotkin, deprecates the collectivist programme, since he objects to authoritative communism, but demands a "free communism" which should secure "economic freedom." Thus the essence of nihilism is "absolute liberty," as Herzen said in 1849, "freedom from all received opinions and traditional hindrances and difficulties, the historical block which prevents the advance of intelligence and stops the way of western progress." The block is the impediment of historical continuity, but the application of this destructive principle of extreme nihilism, which is identical with the extremest form of individualism, would render the historical development of society impossible, it would put an end to society itself.

[K. Oldenberg, *Der russische Nihilismus*, etc., 1888, which gives a succinct and reliable account of the movement and biographical sketches of its principal promoters and agents.—J. Bourdeau, *Le Socialisme allemand et le Nihilisme Russe*, 1892.—Johannes Scherr, *Die Nihilisten*, 1885.—Funck Brentano, *Les sophistes allemands et les Nihilistes Russes*.—Thun, A., *Geschichte d. revolutionären Bewegung in Russland*, 1883.—Kupczanko, *Der russische Nihilismus*, 1884.—J. B. Arnaudo, *Il Nihilismo con lettere di Turgeneff e Herzen*, 1879.—*Le Nihilisme et les Nihilistes* (translated from the Italian).—F. Engels, *Soziales aus Russland*, Leipzig, 1875.—A. Herzen, *Du Développement des Idées révolutionnaires en Russie*, 1853; also *Le Peuple Russe et le socialisme*, 1851.—Ivan Golowin, *Meine Beziehungen zu Herzen und Bakunin*, 1880.—N. Karlowitsch, *Die Entwickelung des Nihilismus*, 3rd ed., 1880.—Stepniak, *The Russian storm-cloud*, and *Underground Russia*, also an article by the same in *Subjects of the Day*, No. 2; also see I. Tourgenieff's novels, *Fathers and Sons*, — *Smoke*, — *Virgin Soil*.—N. G. Tchernychevsky (who is called the Russian Lassalle), *Was thun?* (*Que faire?*)—Tourgenieff giving an observer's view of the movement and its causes, and Tchernychevsky being a principal actor himself. In periodic literature, see articles by Krapotkin, in the *Nineteenth Century*,

March and August 1887,—in the *Fortnightly Review*, March 1882,—an article on Russian nihilism by the Rev. M. Kaufmann in the *Contemporary Review* of December 1880,—and also the *Jahrbuch für Socialwissenschaft und Socialpolitik* edited by Ludwig Richter, 1879-1881.]

M. K.

NITZSCH, Karl Wilhelm (1818-1880), became in 1848 extraordinary professor of history at Kiel, in 1858 ordinary professor there, in 1862 professor at Königsberg, and in 1872 at Berlin. He was the author of several works on Roman and mediæval history, chiefly in their constitutional and economic aspects; and by these, as well as by his personal influence as a teacher, he gave a powerful stimulus to the study of economic history in Germany.

His most noteworthy works are those which give the results of his own minute investigations into German town life in the 11th, 12th, and 13th centuries. These are *Ministerialität und Bürgerthum im 11. u. 12. Jahrh.* (1859), published as the first volume of *Vorarbeiten zur Geschichte der Staufischen Periode* which was never completed; and then after a long interval the two articles *Ueber die niederdeutschen Genossenschaften des xii. u. xiii. Jahrh.*, and *Die niederdeutsche Kaufgilde*, printed in the *Monatsb. d. Berl. Akad. d. W.* for 1879 and 1880 respectively. A number of other papers of lesser importance are collected in *Deutsche Studien* (1873). In the *Geschichte des deutschen Volkes, bis zum Augsburger Religionsfrieden*, put together by his pupil G. Matthäe after Nitzsch's death, from his lecture notes and other papers (1882-83; 2nd ed. 1891-92), will be found a sketch, drawn in bold and masterly outline, of the whole development of German society and institutions. He was one of the earliest, if not the earliest, of the professional historians to make the economic element the dominating one in the story of national life. Some account and a criticism of his German history and of his views on mediæval social development are given in the *Econ. Journal*, iii. 686-690.

W. J. A.

NOBLE, a gold coin first issued in 1344, half and quarter nobles being issued at the same time. The following table shows the variations of the coin in different years:

Year.	Value.	Weight.	No. coined from Tower pound.	Fineness.
	s. d.	grains.		
1344	6 8	$138\frac{6}{15}$	$39\frac{1}{2}$	carats 23 grains $\frac{1}{2}$; alloy $\frac{1}{2}$ gr.
1346	...	$128\frac{4}{7}$	42	...
1351	...	120	45	...
1414 1422	...	108	50	...
1460	8 4	...	...	...
1465	10 0	120	45	...
1527	6 8	$71\frac{1}{9}$	...	...

An issue was ordered in 1470-71, but no specimens of it are known, and it was probably not executed. The coins of 1465 were also known as "royals" or "ryals," those of 1527 as "George nobles"; in the latter year there seems to have been also an issue of nobles worth 11s. 3d. These coins gave way finally to sovereigns and half sovereigns.

Note.—The Tower pound, which was abolished by Henry VIII., was $\frac{3}{4}$ oz. lighter than the lb. troy.

[Ruding, *Annals of the Coinage of Great Britain*, 1840.—Kenyon, *Gold Coins*. Where there is a difference in the dates the table follows Ruding.]

E. G. P.

NOBLE OF RAYMOND LULLY. There was a tradition as late as Camden's time that the first English nobles, coined in 1344, were produced by alchemy in the Tower of London by Raymond Lully, the famous mediæval "philosopher"; the inscription borne by the coins,—*Jesus autem transiens per medium eorum ibat*—in reality a charm, was supposed to be mystical. But Lully died many years before this coinage, probably in 1315, and hence could not have assisted in it. In his lifetime he was supposed to have practised the art of transmuting baser metals into gold.

[Camden's *Remains*, art. "Money."—Tyrwhitt's *Chaucer*, vol. iv. p. 183.—Ruding's *Annals of the Coinage of Great Britain*, 1840, p. 220.]

E. G. P.

NOMINAL VALUE. See Value.

NORMAL VALUE. See Value.

NORMAN, G. Warde (1793-1882), a clear-headed writer on social, political, and economic questions of his day. In 1833 (reprinted in 1838) he published *Remarks on some Prevalent Errors with respect to Currency and Banking: and suggestions to the Legislature as to the Renewal of the Bank Charter*. The subject was treated under four distinct heads, as follows:

1. The principles on which a paper circulation should be regulated.

2. Examination of suggested remedies for the evils of the present system.

3. Remarks on the late and previous periods of commercial suffering connected with derangement of the currency in this and other countries.

4. The writer's view of the best course to be pursued in the actual state of affairs.

In 1841, *Letter to Sir C. Wood, Bart., on Money and the means of economizing the use of it*. This was published after the sitting of the Committee of the House of Commons, of which Sir C. Wood was Chairman, to enquire into the working of the Bank Charter Act, and at which Norman was examined at length.

In 1849 *An Examination of some Prevailing Opinions as to the Pressure of Taxation in this and other Countries* (4th ed. 1864), in which he established the following propositions:

1. That the financial burdens of England did not seriously press on her resources, and that,

when compared with her augmented wealth, their pressure had been greatly diminished since 1815.

2. That the pressure of these burdens, when compared with the means of bearing them, were heavier in other great European states than in England.

3. That on the whole a spirit of frugality is more apparent and influential in the English Government than in those with which it is usually brought into favourable comparison.

In 1860, *Remarks on the Incidence of Import Duties*. This was written fifteen years earlier, and was a reply to publications by Col. Torrens, called *The Budget* and a *Letter to Sir R. Peel*.

In 1869 *Papers on Various Subjects* (London, 1869, 8vo). This consists of reprints of papers published at various times and on various subjects, many being articles in newspapers—many very interesting, treating, amongst other things, of protection, the laws of partnership, the poor laws, the national defences, the new reform bill, the export of silver to India, the money market, the housing of labourers, the land question, and democratic government.

On almost all these questions he took a peculiarly advanced, and almost modern, standpoint. He pointed out the fallacies of protection and the mercantile system. A. L.

NORMANTE Y CARCAVIELLA, Doctor Lorenzo (second half of 18th century), was probably the first public teacher of political economy in Spain. The uncompromising tone of his lectures and the enthusiastic success of the public discussions which the Royal Aragonese Society organised under his inspiration in Saragossa, were near bringing him into trouble with the Inquisition. His *Discurso sobre la utilidad de los conocimientos económico-políticos y la necesidad de su estudio metódico* (Saragossa, 1784) is the inaugural address, which he delivered at the beginning of his course of lectures. The *Proposiciones de Economía civil y Comercio* and the *Espiritu del Sr. Melon* (1785 and 1786) were written to serve as subjects of debate in the above-mentioned disputations.

[Colmeiro, *Bibl. de Economistas Españoles.*]

E. Ca.

NORTH, Sir Dudley (1641-1690), entered, at an early age, the mercantile profession, and showed such aptitude that, when twenty-one, he became the leading merchant at Constantinople of the Turkey company. He returned to England in 1680, having made a large fortune. In 1683 he was appointed one of the commissioners for the customs, but was afterwards transferred to the treasury. In both these offices he carried out important reforms. At the accession of James II. he returned to the customs. He was the author of a bill imposing new duties on sugar and tobacco. Unlike most of the leading tories, he did not leave London after the landing of William of Orange. The remaining years of his life were occupied in private speculations and in the care of the affairs of his brother the Lord Keeper Guildford's children. We are told that he was much scandalised at the English Poor Law (*q.v.*), but unfortunately his views have not come down to us.

His importance, in the field of economics, rests on his *Discourses on Trade*, London, 1691, 4to, one of the earliest and most luminous statements of Free Trade (*q.v.*) principles. Trade is an exchange of superfluities. Wealth consists not in the precious metals, but in the power to satisfy wants. The error of the Mercantile System (*q.v.*) is thus clearly seen, but North avoids the opposite error. Gold and silver have *some* value in themselves, though their main importance depends on their convenience as a medium of exchange. Money is a commodity of which there may be a glut as well as a scarcity. The common cry of want of money involves a fallacy. The real mischief is the failure to get a profit. This may be the result either of a glut of goods, or of the sudden closing of accustomed markets, or of diminished consumption. It is these causes which require remedying, and the best remedies are activity and prudence. Laws against exporting the precious metals must react against the nation enacting them. "A nation in the world, as to trade, is in all respects like a city in a kingdom, or a family in a city." The main spurs to trade are the appetites of man; hence measures, *e.g.* sumptuary laws, which tend to restrain those appetites, clog industry. The rate of interest depends upon the proportion of lenders to borrowers (see D. Hume). "It is not low interest which makes trade, but trade increasing the stock of the nation makes interest low. To attempt to lower the rate by law is to go contrary to nature." As for the theological arguments, "by them 3 per cent is no more lawful than 4 or 12." North clearly demonstrates the folly of tampering with the coinage. He advocates a moderate seignorage, the wisdom of which advice was proved by the result of the free coinage of silver in 1696-98. The final conclusion of the whole matter is "that laws to hamper trade, whether foreign or domestic, relating to money or other merchandise, are not the means to make a people rich and abounding in money and stock. But if peace be procured, easy justice maintained, navigation not clogged, the industrious encouraged by indulging them in the participation of honours and employments in the government, the stock of the nation will increase, and consequently gold and silver abound, interest be easy, and money cannot be wanting."

[Roscher's *Political Economy*, 13th ed. trans. by J. Lalor, New York, 1878, 8vo, 2 vols., contains numerous references to North. See also Cossa's *Political Economy*, trans. by L. Dyer,

1893, 8vo, and M'Culloch's *Literature of Political Economy* and Introduction to *Tracts*, 1856. For biographical details see *Life of Sir Dudley North* by Roger North, 1744, 4to, and *Dictionary of National Biography*, vol. xli.] H. E. E.

NORTH, THE HON. ROGER (1650-1733), was the sixth son of the fourth Lord North. He read for the bar.

His connection with economic science lies in his authorship of *A Discourse of the Poor, showing the pernicious tendency of the laws now in force for their maintenance and settlement* (London, 1753, 8vo). In this work, after setting forth the existing laws and their inefficiency, North deprecated the use of punishments, which he thought did not influence offenders so effectively as laws of encouragement. He further maintained that the laws for the poor did not help but rather hurt them, and charges these laws with the following consequences: depopulation, enhancing of labour, fall of lands, decay of trade, and increase of the poor.

North proposed the repeal of the whole Elizabethan code.

His other publications are:

Examen: or an Enquiry into the credit and veracity of a pretended complete History, viz. Dr. White Kennet's History of England, showing the perverse and wicked design of it, together with some memoirs occasionally inserted, all tending to vindicate the honour of King Charles II., London, 1740, 4to.—*Life of the Right Hon. Francis North, Baron Guilford, Lord Keeper of the Great Seal under Charles II. and James II.; wherein are inserted the characters of Sir Matthew Hale, Sir George Jeffries, Sidney Godolphin, and other most eminent lawyers and statesmen of that time*, London, 1742, 4to, 2nd ed. 1808, 2 vols., 8vo. —*The Life of the Hon. Sir Dudley North, and of Dr. John North, Master of Trinity College, Cambridge, etc.*, London, 1744, 4to.

[For further notice of R. North, see his *Autobiography*, edited by Aug. Jessop, 3 vols., 1890, Bohn's Standard Library, 1846, 8vo.] A. L.

NORTHCOTE, SIR STAFFORD. See IDDESLEIGH, EARL OF.

NOT NEGOTIABLE. The method of crossing cheques with the words "not negotiable" was introduced by the Crossed Cheques Act 1876. That act is now repealed, and its provisions are replaced by §§ 76-82 of the Bills of Exchange Act 1882. The term "not negotiable" is a somewhat unhappy one, because it is often taken to signify that a cheque so crossed is not transferable. As a fact, however, the cheque is transferable, by indorsement on delivery like any other cheque. The effect of the crossing is that the person who takes the cheque does not acquire, and cannot give, a better title to the cheque than that which the person from whom he took it had (see § 81).

In order to render a bill, note, or cheque incapable of transfer, the drawer or indorser must add words to the instrument or indorsement clearly prohibiting transfer. For instance, a cheque may be drawn or indorsed in the form "pay John Smith only," and then John Smith cannot indorse it away (Bills of Exchange Act, § 8). M. D. C.

NOTABLES, ASSEMBLÉES DES. The *Assemblées des Notables* must be distinguished from the ÉTATS GÉNÉRAUX of the old French monarchy; the latter were more or less a national representative body, whilst the former were the result of an *arbitrary* selection and summons by the monarchs, when they desired to consult on important questions, but intended to keep free from the remonstrances and interference of the States General themselves. Higher officials of the state, lay and ecclesiastical, often made up the majority of the *Assemblée;* its decisions were purely consultative. The first *Assemblée des Notables* was called together by Charles V. in 1369; others were assembled by Louis XI. in 1470, by Francis I. in 1526 (to declare void the treaty of Madrid), by Henry IV. at Rouen in 1596, by Richelieu in 1626. They were convoked for the last time in 1787 and 1788 under Louis XVI. and led to the election of the States General of 1789, which was the first act of the French Revolution.

[See, besides works on the *États Généraux*, Beaurepaire, *Louis XIII. et l'Assemblée des Notables de Rouen en 1617* (Rouen, 1883).—*Collection des Mémoires présentés à l'Assemblée des Notables* (Versailles, 2 vols. 1787) and *Procès Verbal de l'Assemblée des Notables* (Paris, 1788).] E. Ca.

NOTABLES COMMERÇANTS. The first tribunal of commerce in France was instituted by an edict of Charles IX. (November 1563), inspired by the Chancellor de L'Hospital ordering the provost and *Échevins* (aldermen) to summon an assembly of notable *bourgeois* for the election of merchants to the position of consular judges. In 1565 this organisation was extended to the whole of the kingdom, and the articles 618 and 619 of the code of commerce of 1807 maintained it, declaring "that the members of the tribunals of commerce will be elected by an assembly composed of notable merchants, and principally of the heads of the oldest and most recommendable firms," with the proviso that "the list of notables . . . will be drawn up by the prefect (of the *département*) and approved by the minister of the interior." After 1840 it became usual for the prefect to take the advice of the tribunal and chamber of commerce and of the *maire;* in 1883 the electoral body was greatly extended, and now comprises all persons in trade being French citizens, paying their trade-license tax, *droit de patente*, and domiciled for at least five years within the jurisdiction of the tribunal. Since then, however, only a small minority of voters (say 1800 out of 42,000 in Paris) take part in the election.

In Belgium the system of *notables commerçants* has also been abandoned; a law of July 1881 declares that "all persons in trade being communal electors, and paying to the state on account of their *patente* [license] a sum of twenty francs, are entitled to vote for the formation of the tribunals of commerce." E. Ca.

NOTE CIRCULATION. The power of issuing notes, that is, of possessing a note circulation, was, in the early days of banking in this country, a privilege greatly valued, and highly profitable to the bank which possessed it. Deposit banking in its strict sense scarcely existed during the infancy of our credit institutions. In the first place, there was but little cash to deposit, and in the next, there were not many persons whose credit was so good that their neighbours would trust them with large sums of money. But to hold the note of a banker in good repute was much easier. The note formed a portion of the circulating medium. Any one to whom the holder owed money was very willing to be paid in that form, and hence, during the early part of the 19th century, the issues of the banks of this country, stimulated partly by high prices, partly by the restriction of specie payments, became very large indeed. Thus in the year 1814, the estimated note circulation of the country was nearly fifty millions, divided as follows:

Bank of England . .	£26,901,000
Country Banks . .	£22,709,000
	£49,610,000

(see Marshall's *Digest*, pp. 55-63). At the present time, April 1907, the figures are about as follows:

Bank of England . . .	£28,800,000
Banks in England, Scotland, and Ireland . . .	14,000,000
	£42,800,000

This diminution alone is evidence of the alteration in the banking habits of the country, but when we add to it the vast increase in the use of cheques, the clearing-house system, virtually built up within the last seventy years, and all the modern methods for economy of circulation, the difference is far greater, and the part played by the note circulation is now far smaller even than appears at first sight.

Yet it would be a great mistake to imagine that the note circulation is a thing absolutely useless to banks, or that its concentration in the hands of one issuer would be desirable. To a great credit institution like the Bank of England, possessing few branches and only coming in a very modified way into connection with the business wants of the country, the note circulation is a very different thing from what it is to the ordinary trading bank which serves the every-day business wants of the community. The subject is too technical and too closely allied with ordinary business wants to be discussed at further length here.

[For further details see articles on Banking and Bank Note, in vol. i.—Bagehot, *Lombard Street.*—F. A. Walker, *Money.—Money, Trade, and Industry.—Report, Banks of Issue, 1840, House of Commons.—Report and Evidence, Bank of England Charter, 1832, House of Commons.—First and Second Reports, Banks of Issue, Evidence and Appendix, 1841, House of Commons.—Report and Evidence, Commercial Distress, 1847-48, House of Commons.—First and Second Reports and Evidence, Commercial Distress, 1848, House of Commons.—Appendix and Supplemental Appendix, Commercial Distress, 1848, House of Commons.—Report on Banks of Issue, 1875, House of Commons.—Report on Bank Acts, 1857, House of Commons*, 2 vols.*—Report and Evidence, Bank Acts, 1858.—Correspondence, Chancellor of the Exchequer and Bank of England, 1861, House of Commons.*—R. H. Inglis Palgrave, *Notes on Banking and Bank of England Analysis*, London, 1873.]

NOTES, BOUGHT AND SOLD. This is the name popularly given to notes sent by stockbrokers to their principals, advising them of the sale or purchase of any stock exchange securities. A person who effects such a sale or purchase of the value of £1 or upwards, who omits to send a note of this description to his customer provided with the government stamp (1d. in the case of the value being under £100, and 6d. in all other cases), is liable to be fined to the extent of £20 (Stamp Act 1891, §§ 52 and 53). The contract notes in question generally contain a clause stating that the contract is made subject to the rules and regulations of the London stock exchange, but this provision has in some cases been disregarded by the courts. Thus it was held by the court of appeal that the rule of the stock exchange, which excludes the operation of Leeman's act, is unreasonable and not binding on a principal to whom it is unknown.

[Perry *v.* Barnett, 15 Q.B.D., 388.] E. S.

NOTICE. Notice sometimes means knowledge of a fact, however obtained, and sometimes knowledge conveyed in a formal manner. In sales of property, knowledge on the part of a purchaser of any defect of title causes him to take the property subject to such defect. But he who purchases *bona fide* for value without notice of any defect will as a rule be protected by the courts on the ground that if a person were liable to be deprived of his property because of secret defects in title, no one would be safe in effecting any purchase.

As an example of express notice, reference may be made to the notice of dishonour that has to be given in the case of a Bill of Exchange in order to make certain parties to the bill liable.

Notice to quit is required whenever a person holds a tenancy from year to year, as such a tenancy

does not by itself involve any fixed time of duration.

Express notices are often necessary during an action in order to give one party the benefit of various legal provisions as against the other party. J. E. C. M.

NOTING OF BILLS. By "noting" is meant the minute made by a notary public on a dishonoured bill or note on the day of its dishonour. The noting consists of the notary's initials, the date, the noting charges, and a mark referring to the notary's register. A label is also attached to the instrument on which is written the answer given to the clerk who makes the notarial presentment.

No direct legal effect is attached to the noting of an inland bill, except that the expenses of noting it can be recovered. It would be convenient perhaps if noting were made *primâ facie* evidence of due presentment. In the case of foreign bills, when protest is necessary, the noting is the incipient protest, that is to say, if the bill has been duly noted on the day of its dishonour, the formal protest may at any time be extended, antedated to the day of noting.

[Bills of Exchange Act 1882, §§ 51, 57, 93. —Chalmers on *Bills of Exchange*, 4th ed. p. 160.] M. D. C.

NOVATIO is the dissolution of an obligation by the formation of a new obligation, as when an informal contract is put an end to by the parties entering into a formal contract. But for the new obligation to put an end to the previous one there must be the intention that it shall do so (*animus novandi*). The object of a novation may either be to change the nature of the relation between the same parties or to substitute a new party in the place of an old one (see also NOVATION). E. A. W.

NOVATION. The substitution of one contract for another. 1. Where a new debtor or creditor is substituted in the place of the former one. For example, if A owes B £100, A may, with the consent of B, substitute C in his (A's) place. 2. Where the parties to a contract remain, but a new form of contract is substituted for the old one. 3. A judgment of a court of competent jurisdiction in favour of a plaintiff discharges the right of action arising from breach of contract. This result is sometimes called MERGER.

[See Hunter's *Roman Law*, London, 1885, and Sohm's *Institutes of Roman Law*, Oxford, 1892, for the Roman law doctrine; and Anson on *Contract*, Oxford, 1892, and Pollock on *Contract*, London, 1894, for the application of the doctrine in English law.] J. E. C. M.

NOY, WILLIAM (1577-1634), a very learned lawyer, was educated at Exeter College, Oxford. He entered parliament in 1604, and at first supported the popular party. In 1627 he was one of the counsel who defended Sir T. Darnell's comrade, Earl, for having refused to subscribe to the forced loan of that year; and in the following year he opposed the granting of TONNAGE AND POUNDAGE (*q.v.*) without conditions. In 1631, however, he became Attorney-General. Finding, by what Lord Campbell calls "musty records in the Tower," that in time of war the king had in the past pressed ships into his service, had further demanded from seaports the equipment of ships, and, on occasions, had ordered adjoining counties to contribute, he, "with his own hand, drew and prepared the writ for ship money," addressed to the sheriffs to provide ships of war, and to assess landholders and others, not having a ship or part of a ship and not serving in one; to levy such assessments by distress or other due means, and to commit to prison the rebellious.

Noy did not live to see the consequences of his measure, as he died in the year in which it was first enforced. He was also the author of the odious project of a soap monopoly. His character is sketched for us by Clarendon in a few vivid sentences. "The court made no impression upon his manners, upon his mind it did . . . of an affected morosity . . . Thinking that he could not give a clearer testimony that his knowledge of the law was greater than all other men's than by making that law which all other men believed not to be so."

Noy was the author of *A Treatise of the Principle Grounds and Maxims of the Laws of England*, London, 1641, 4to, which has passed through many editions. The latest, Albany, U.S., 1870, 8vo, contains a biographical notice. *The Compleat Lawyer*, 1661, 8vo.—*The Perfect Conveyancer*, etc., 1655, 4to.—*Reports of Cases taken in the Time of Queen Elizabeth, King James, and King Charles I.*, London, 1656, 4to; and *A Treatise of the Rights of the Crown*, first published apparently in 1715, 12mo. Noy also left behind him MS. collections he had made from records in the Tower of London, one on matters relating to the maintenance of the royal navy, the other on the privileges and jurisdiction of the ecclesiastical courts.

[*Dictionary of National Biography*, vol. xli. p. 266.—Clarendon's *History of the Rebellion*, vol. i. p. 129, new ed. Oxford, 1826, 8vo.—Campbell's *Lives of the Lord Chancellors*, vol. ii. ch. 62, London, 1845-48, 8vo. Many authorities will be found set out in footnotes of the biographical notice mentioned above. For the arguments upon the legality of ship-money, see Cobbett's *State Trials*, iii. 826-1254.] H. E. E.

NUDUM PACTUM. An agreement unenforceable at law. An agreement that wants that element the presence of which will make the law enforce it, is said to be *nudum*. *Ex nudo pacto non oritur actio*. In Roman law agreements were enforced when made (1) by formal words; (2) by delivery of a *res* in four cases; (3) by written entry in an account book: but in four cases, viz. sale, hire, mandate, and partnership, the later Roman law required an agreement only. In English law an agreement is not enforceable unless it is either (1) a con-

tract of record, (2) made under seal or (3) supported by a consideration.

[Sohm's *Institutes of Roman Law*, Oxford, 1892. —Anson *on Contracts*, Oxford, 1892.] J. E. C. M.

NUMERICAL DETERMINATION OF THE LAWS OF UTILITY is the title given by Jevons (*Theory of Political Economy*, 2nd ed. p. 158) to an operation which he, like GOSSEN, regards as possible—the ascertainment of the form of DEMAND CURVES by statistics of prices and consumption. It may be objected to this phrase, that laws of utility cannot be deduced from laws of price, except on the assumption that price is the measure of utility —the Marginal Utility of money being constant (see FINAL DEGREE OF UTILITY). But, even upon this assumption, there are great difficulties in the way of the statistical operation. First, the utility derived from a set of articles is in general not the simple sum, but some unknown function, of the utilities derived from each. Thus the amount consumed of any one article will vary with the prices of others—especially of those which are substitutes for the one under consideration, as tea is for coffee, or complementary to it, as bats are to balls. Accordingly, to observe the changes in the demand for an article corresponding to the changes in its price is apt to be nugatory unless it can be assumed that the prices of all other articles are constant. Again, utility is not only a complicated function of the amounts consumed, but a variable one, changing its form with every vicissitude of taste and fashion. Professor Marshall has pointed out these and other difficulties (*Principles*, bk. iii. ch. iii.), and attempted to evade them (*ib.*, last section). F. Y. E.

NUYTZ, GAETANO (18th-19th century), was a native of Lombardy, and wrote a book on money of some interest. Nuytz follows the ideas common in his day distinguishing between intrinsic and current value of money. He condemns alterations in money and considers laws against the export of specie useless. He remarks on the conveniency of an abundant coinage up to a certain limit of saturation in the market, and he also recognises the use of paper money in limited quantity. He is not without mercantilist tendencies (see MERCANTILE SYSTEM), which he displays in his investigation into the causes that may increase or diminish money, and also in his proposals for increasing it. There are, in his work, several striking digressions on the theory of value and on luxury and financial matters.

On the whole, however, he has little scientific merit, particularly when compared with other and earlier writers, as well as with those of his own day whose economic ideas were already inspired by new modes of thought.

Forza della moneta nella società, Milano, Anno VI. repubblicano. U. R.

OASTLER, RICHARD (1789-1861), known during his lifetime as the "Factory King" on account of his services to workers in factories, was born at Leeds. His father, originally a linen merchant from Thirsk, afterwards became steward of the Fixby (Huddersfield) estates of T. Thornhill, who had property in land both in Yorkshire and Norfolk. Richard Oastler was the youngest of eight children, and inherited from his father both a reputation for generous sympathies and an active interest in public affairs. On his father's death in 1820 he succeeded him as steward, and in this capacity resided at Fixby Hall, near Huddersfield, where he remained during the most important part of his career. Oastler described himself as "a Tory and a Churchman," and it is therefore not surprising to find that during the agitation for the Reform Bill he strenuously opposed the popular party; even some years later he was averse to mingling personally among mill-hands because, he said, "they were usually Radicals and Dissenters." But his work soon changed this attitude. He first came before the public in Yorkshire as a supporter of William Wilberforce in the agitation for the abolition of negro slavery (see ABOLITIONIST); but though living in the heart of manufacturing Yorkshire, he was totally ignorant of the unhappy conditions of the factory hands in the mills near him. In 1830, however, while on a visit to his friend John Wood, a mill-owner, of Horton Hall, Bradford, Yorkshire, the latter remarked to him, "I wonder you have never turned your attention to the factory system, for I assure you there are cruelties daily practised in our mills on little children which, if you knew, I am sure you would strive to prevent." With characteristic energy, Oastler at once wrote a powerful letter on "Yorkshire Slavery" to the *Leeds Mercury*, then, as now, a highly influential West Riding paper. The letter, dated 29th September 1830, provoked a lengthy correspondence. More than this, it was the beginning of an agitation that lasted many years, for the reform of the conditions of factory labour, especially in the case of children and young persons, and for a reduction of hours of work, which finally resulted in the Ten Hours Bill, and other well-known FACTORY ACTS (*q.v.*). In this agitation Oastler took a leading part both in speaking and writing. Meanwhile, however, he had the misfortune to be imprisoned for debt at the instance of his employer, Mr. Thornhill. He had been dismissed from his stewardship in May 1838 owing to his using his influence in the Halifax and Huddersfield

districts against the new poor law, and though he had repaid all but a small portion of a debt which he owed Mr. Thornhill, he was, two years after his dismissal, thrown into the Fleet Prison (9th December 1840) for this remainder. Here he edited a journal called the *Fleet Papers*, devoted to the discussion of factory and poor-law questions. He remained in prison till his friends, including John Walter of the *Times*, W. B. Ferrand, M.P., John Fielden, M.P., and other well-known factory reformers, got up an "Oastler Liberation Fund" amounting to £3000 to pay his debt (£500 only) and other expenses. He was liberated in 1844, and made a triumphant public entry into Huddersfield, 20th February. He continued his labours as a reformer till the passing of the Ten Hours Act of 1847, but afterwards retired to a small cottage, "South Hill," at Guildford in Surrey, where he lived in poverty and seclusion till his death at Harrogate (22nd August 1861).

Oastler's claim to notice lies in his activity as a reformer of the worst evils of factory life, in spite of bitter opposition. In his opinions he was a protectionist, and opposed the new poor law. A statue was erected to his memory (1869), at Bradford, Yorks, the scene of many of his labours, but he is now almost entirely forgotten by the working classes to whom he gave his life.

[No proper biography of Oastler exists, but one or two sketches of his life have been issued: cp. *Sketch of the Life and Opinions of Richard Oastler* (Hobson: Leeds, 1838, many years before his death); Taylor's *Biographia Leodiensis*, pp. 499-503; *The History of the Factory Movement* by "Alfred" (the pseudonym of Samuel Kydd), London, 1857, gives as good an account of him as any other book, with many extracts from his speeches; and there is a fair biography in the *Dictionary of National Biography* (Smith Elder, 1895); cp. also Gibbins' *English Social Reformers*, (Methuen, London, 1892). Oastler issued numerous controversial letters and pamphlets, now forgotten, and besides *The Fleet Papers* (1841-44), edited a weekly paper devoted to the factory workers' cause, called *The Home* (May 1851 to June 1855).] H. de B. G.

OBJECTIVE EXCHANGE VALUE. See VALUE.

OBLIGATIO is a legal relation by which a determinate person has a legal claim against another determinate person to some act or forbearance on his part reducible to a pecuniary value. Such a relation may arise either from contract, quasi-contract, delict, or quasi-delict. E. A. W.

OBLIGATION. By the older writers on English law, the term "obligation" is used in a restricted sense. It denotes simply a bond under seal, with a money penalty. But now it is used in the wider sense of the Roman lawyers, who employed the term as correlative to *jus in personam*. An obligation is the legal tie (*juris vinculum*), whereby one person is bound to another, to do or abstain from doing some particular act or thing. There is probably a tendency to confine the term to obligations arising from contract, while the obligations arising from wrongs are more usually described as liabilities (see Holland's *Jurisprudence*, ed. iv. p. 199). M. D. C.

OBRECHT, GEORGE (1547-1612), the son of a *syndic*, mayor, of the city of Strasburg, studied law in Tubingen and in France, where he narrowly escaped death during the massacres of protestants at the time of the Saint Bartholomew. He was a celebrated professor of law in his native town, where the *gymnasium* founded by Johann Sturm, in 1538, developed (1621) into a university, and became, after the decay of the Saxon universities, a flourishing centre of academical learning very much under the influence of learned Frenchmen, especially of BODIN (*q.v.*).

Obrecht's economic writings were, after his death, privately printed in 1617 by his son. They were only published in 1644 under the title of *Funff underschiedliche Secreta Politica* They bear strong evidence of the influence of Bodin; thus Obrecht maintains that the property and not the persons of the subjects ought to be assessed, and that necessaries ought never to be taxed. At the same time, Obrecht remained free from any leanings to the mercantile school. He insisted on an honest monetary policy, as well as on the usefulness of population statistics, but under this last respect with fiscal, rather than scientific aims.

In imitation of Bodin, who himself had been influenced by the existence in Italy of institutions founded to endow young girls at the time of their majority, Obrecht suggests the foundation of an *Aerarium Liberorum* extended to children of both sexes, in which parents would be obliged to effect a deposit at the time of the birth; the deposit was to bear a yearly interest of 6 per cent, which being capitalised, the whole was to be repaid to the children at the age of twenty-one for the sons, and seventeen for the daughters. But here also, fiscal prepossessions were lurking under the appearance of a provident system, for in case of death in the interval, the larger part of the collected money was to accrue to the public treasury.

Obrecht has been considered as a striking personification of his time, but not in advance of it (Roscher, *Geschichte der Nat. Oekonomik in Deutschland*, pp. 150-158). For his standing as a jurist, see Stintzing, *Geschichte der deutschen Rechtswissenschaft*, vol. i. pp. 672-676, who also mentions that in 1617 an unauthorised and spurious edition of the *Secreta Politica* appeared in Rostock (1617) under the title of *Oeconomia Institutionum Obrechtiana*. E. Ca.

OBSERVATION AND EXPERIMENT. Every science is founded on experience. The scientific inquirer either may take experience as it comes to him, casually, or he may make experience for himself. In the former case he

learns by observation, in the latter he learns by experiment. Observation is our ordinary, and in some branches of science our only, resource, but experiment, where it is possible, affords a more direct access to knowledge. For if the student conducts his experiment in a scientific spirit, he knows all the conditions which can affect the result, whereas, when he merely observes, he can be far less certain that his observation has been exhaustive. The phenomena of nature are so complex and so interdependent that they usually admit of a variety of explanations, and even protracted and careful observation may not afford the crucial instances which would enable the inquirer to reject all the explanations which are unsound. At the same time observation and experiment are not to be regarded as distinct methods. Experiment is but a means of extending the field of observation.

In economic research both observation and experiment are attended with peculiar difficulties. The aid of experiment is rarely available. The close relation between economic phenomena and other elements of human welfare usually forbids the production of economic phenomena at will. Even when an economic experiment is tried, it is usually tried under circumstances which deprive it of most of its scientific value. An employer may introduce an eight hours' day in his works, or a board of guardians may suppress outdoor relief, and the results of either of those experiments may afford valuable information. The change may be made so rapidly as to produce its effect before the conditions, which may be comparatively simple, can be appreciably altered. Yet even in cases such as these we can by no means exclude the action of the plurality of causes. The workman whose day of labour is experimentally shortened may have a peculiarly strong motive to efficiency which might disappear if the reduction of hours had received the sanction of law or custom. The suppression of outdoor relief in one union may give idle and thriftless persons a motive for flitting into other unions. When we pass to innovations of wider scope, we find ourselves still more remote from the conditions of scientific experiment. The effects of an important law or a far-reaching invention are inextricably mingled with the effects of many other causes. That the effects of steam-power or of a policy of free trade have been immense, nobody will deny. But how much of our present economic state is due to the one or the other no one will attempt to describe with absolute accuracy. Many other potent causes have co-operated in producing our modern economic order, and the effects are inextricably blended and interfused. We may say, therefore, that experiments sufficiently accurate to satisfy the standard set by physical inquirers are practically impossible in political economy.

Observation, therefore, is almost the sole means of obtaining the knowledge of facts required by the economist. But observation, as a source of scientific knowledge, labours under two distinct disadvantages, the plurality of causes and the intermixture of effects. The same phenomenon may have been produced in different instances by different combinations of causes. And again the effects of many causes may be intermixed in the one phenomenon. Both of these disadvantages may be experienced in attempting the same economic observation. They may be partially overcome by enlarging the field of observation as widely as possible. But even then the observation which is most fruitful for economics "is in the main not observation of complex economic facts, but of elementary economic forces and the conditions under which they operate. It is by the agency of those forces that complex economic facts are built up" (Keynes, *Scope and Method of Political Economy*, p. 166). Thus little can be done by mere collection of instances towards ascertaining the respective effects of such forces, for example, as free trade and protection. Nor can the "personal error" of the observer be eliminated as in cases where more exact methods of "justifying" observation are possible.

Whether observation is complete or not, it cannot be carried out satisfactorily without the aid of theory, and the theory may require much modification after its first inception. When a theory clashes with a fact it must be modified or abandoned, but a new theory must inevitably take its place. Students of economic history who come into collision with theories derived from the experience of one age, and too hastily applied to explain the facts of another, are apt to forget that theorising is both inevitable and beneficial. Whether they are aware of it or not they are themselves theorists. For economic history involves, over and above the accumulation of facts, some criterion of the importance of those facts, and some scheme for their arrangement which must be supplied by the mind of the historian.

Yet the economist enjoys an advantage in observation which may be turned to good account. A student of human acti n, and himself a human being, "he starts with a knowledge of ultimate causes" (Cairnes, *Logical Method of Political Economy*, p. 75). The student of physical science does not possess this advantage. The man in the street knows why mankind desire riches. But the most profound inquirers took thousands of years to discover the nature of the forces which keep the earth in its orbit. The economist must indeed remember that human nature, whilst almost unchangeable in its primary attributes, is infinitely variable in its secondary manifestations. Inference from his own nature to the nature of other men is dangerous no doubt, but it is very helpful.

The economist may therefore proceed deductively so long as he is careful to test his results by recorded experience. Observation of external facts is rather the corrective than the basis of his studies. On account of this peculiarity of economics, a substitute for experience may, as Cairnes remarks, be found in the construction of hypothetical cases. In political economy hypothesis "is never used as a help towards the discovery of ultimate causes and laws; just as in physical investigation it is never used as a substitute for experiment" (*Logical Method*, p. 84). It is only right to add that we should never forget the abstract character of the results obtained in this manner.

[Mill, *System of Logic*, bk. vi.—*On the Logic of the Moral Sciences* and *Essays on some Unsettled Questions of Political Economy*.—Venn, *Empirical Logic*.—Cairnes, *Logical Method of Political Economy*.—Bagehot, *Economic Studies*.—Keynes, *Scope and Method of Political Economy*.—Sidgwick, *Principles of Political Economy*.—Marshall, *Principles of Economics*.—Cunningham, The Relativity of Economic Doctrine (*Economic Journal*, vol. ii.).—Cliffe Leslie, *Essays in Political and Moral Philosophy*.—Jevons, *The Principles of Science*, 1st ed., 1874.] F. C. M.

OCCUPATIO is the acquisition of ownership by taking possession of a thing belonging to no one, such as a wild animal, a derelict, or thing abandoned by its owner; property of a public enemy, etc. E. A. W.

OCCUPATION. In Roman law the (OCCUPATIO) taking possession of a thing that belonged to nobody with the intention of becoming owner of it gave the occupier the right of ownership. In this way ownership could be acquired over wild animals or derelict property. The doctrine has descended to modern law, and in England has been applied to the capture of wild animals, the appropriation of free natural elements, the collection of substances from the sea or shore, and the severance of articles from trees or from the soil. Probably it would also be applied to the finding of a thing which has been absolutely abandoned by, or has become irrecoverably lost to, its former owner. See Pollock and Wright's *Possession in the Common Law*, Oxford, 1888. In Roman law, however, there was no property in game.

The doctrine was applied to a limited extent in the case of real property. If A were granted an estate for the life of B and A died before B, the first person to occupy the land could retain it until B's death. This was abolished by 29 Car. II. c. 3, § 12; 14 Geo. II. c. 20, § 9; and the 7 Will. IV. and 1 Vict. c. 26, §§ 3, 6. The doctrine has also been applied to support the appropriation of new countries by European states. Discovery followed by occupation was considered to give a good title.

[For an account of the Roman law doctrine, see Hunter's *Roman Law*, London, 1892; and for its application in international law, see Maine's *Ancient Law*, London, 1886, and Phillimore's *Int. Law*, London, 1879-1889.] J. E. C. M.

OCHR-EL-GUERCH. The smallest denomination of the Egyptian currency, as reorganised by the Khedivial decree of the 14th November 1885, is the Ochr-el-Guerch, ten of which are equal to a piastre; while 100 piastres make an Egyptian pound, the standard of value.

Five coins bear the name Ochr-el-Guerch, as follows:

Nickel	5	Ochr-el-Guerch		Bronze	½	Ochr-el-Guerch	
,,	2	,,	,,	,,	¼	,,	,,
,,	1	,,	,,				

F. E. A.

OCTROI. France and (under the name of *dazii interni di consumo*) Italy are now the only countries where *octrois* or taxation of urban consumption play a prominent part in local finance. They began to spread in France during the 14th century, and as they required a royal concession or *octroi*, the kings always stipulated that their treasury should take a share of the proceeds—one half from 1663. Suppressed with all other indirect taxes in 1791, they were re-established for Paris in 1799 under the designation of *octroi municipal et de bienfaisance*, and the provincial municipalities were empowered to do the same by a general law of the following year (*loi de frimaire, An VIII.*); they have been several times the object of general legislation, especially in 1814, 1816, 1871, and 1884. In a general way, *octroi* duties are only allowed on (1) drinks; (2) eatables (wheat, flour, bread, and colonial produce, already liable to customs, excepted); (3) fuel; (4) fodder; (5) building materials, with legally fixed maximum rates graduated and rising with the number of the population. They may not assume the character of a local protectionist tariff, nor of a toll on transit and transports. To prevent contraband, smaller *communes* surrounding a large town may, with the preliminary sanction of government, be made subject to its *octroi*, but all monies levied on their territory must be paid over to them. A new *octroi* can only be established by a statute, and every increase of *octroi* duties must be ratified by the superior authorities. As the state levies taxes on drinks at the entrance of towns, the *octroi* duties on such may not, without its agreement, exceed those exacted by the state. Until 1855, one-tenth of the proceeds was made over to the latter. This forced contribution was then suppressed; since 1881, one-fifth is to be applied to primary education.

Owing to the latitude left within these limits to the 1500 great and small French communes possessing *octrois* in 1894, and representing together one-third of the population of France, owing to the complexity of local financial wants, of ways of perception (about one-half of the *octrois* being farmed or managed by the

state), and also of local consumption (varying, for instance, between wine, cider, and beer), average numbers convey a very inadequate notion of the sums paid per head of urban population, of the proportional cost of collection, etc. Taking the twenty chief towns of France, the cost of collection fluctuates between 5 per cent (Paris) and 14·65 per cent (Bordeaux), the general average being 8·09 per cent. In this respect a considerable improvement has been realised within the last sixty years; formerly the same average oscillated between 20 and 25 per cent. In Paris each inhabitant pays 58 francs (say £2 : 6 : 8) a year, of which 19 francs (15s. 10d.) is on wine, and 13 francs (10s. 10d.) on eatables, whilst for the rest of France the total average is only 13 francs (10s. 10d.); the gross proceeds amount to about £12,000,000 sterling, whereof one half for Paris alone. The staple articles are taxed as follows in Paris:

Wine (per hectoliter=22 gallons) . .	10·62 francs	(8s. 10d.),	yielding in 1890	47 millions of francs	(£1,880,000)
Pure alcohol (contained in spirits, liquors, etc.)	79·80 ,,	(£3 : 6 : 6)	,, ,,	13 ,, ,,	(£520,000)
Butcher's meat (per 100 ks. = 222 lbs.) .	9·73 ,,	(8s. 1d.)	,, ,,	10 ,, ,,	(£400,000)
Butter ,, ,, .	14·40 ,,	(12s.)	,, ,,	2·8 ,, ,,	(£112,000)
Cheese ,, ,, .	11·40 ,,	(9s. 6d.)	,, ,,	1 ,, ,,	(£40,000)
Coals ,, ,, .	0·72 ,,	(7d.)	,, ,,	10 ,, ,,	(£400,000)
Oats ,, ,, .	1·50 ,,	(1s. 3d.)	,, ,,	2·6 ,, ,,	(£104,000)

The *octroi* also collects on wine and alcohol, at their entrance in Paris, a supplementary tax of 8·25 (6s. 10d.) and 186·25 (£7 : 8s.) francs per hectoliter on account of the national revenue, thus burdening the ordinary beverage of the Parisian workman with a total tax equal to the cost of inferior wines when leaving their native vineyards. Objections have often been raised to the principle of an *octroi* duty, and its abolition demanded; but it would be a very arduous reform to carry out under the actual conditions of French finance, general and local. It would no doubt be feasible in smaller places, but in Paris, where it provides more than one half of the ordinary municipal receipts—145 millions of francs (£5,800,000) out of 267 (£10,680,000), —it seems well-nigh impossible to discover an appropriate substitute, and, invoking the plea of necessity, most French financial economists, though admitting that *octrois* are an evil, would endorse Prof. Wagner's dictum, that "its maintenance constitutes the financially least objectionable and relatively even the best system" (*Finanzwissenschaft*, iii. p. 915). Still, even those who do not see their way to a radical suppression, demand a mitigation of the dues on the so-called hygienic drinks (wine, beer, and cider), which, to influence retail prices, would, on account of the duties levied for the state, require an agreement between the state and the municipality. This plan is advocated by M. Paul Leroy Beaulieu (*Économiste Français*, 23rd and 30th April 1892, and 10th February 1894). M. Léon Say is willing to go further than this; he proposed, at a meeting of the *Société d'Économie Politique*, a general redistribution of general and local, direct and indirect taxation (*Journal des Économistes*, December 1891, pp. 449-461).

The most usual objection to *octrois* is that they press heavily on the means of urban consumers, especially of the working classes. This objection is undoubtedly valid in Paris as to the dues on drinks, but even including the latter, M. Paul Leroy Beaulieu comes to the conclusion that a working man only pays in Paris 22 or 23 francs (18s. 4d. or 19s. 2d.) for his yearly share; he, besides, enjoys exemption from the tax of 11 per cent on house rent, since he generally pays for himself and family 300 francs (£12), and all house rents under 500 francs (£20) are exonerated (*Traité des Finances*, i. pp. 735-737). It is not at all certain that this same workman would be appreciably benefited by the suppression of the moderate dues (say 5 per cent) on butcher's meat, butter, and the like articles, the difference between retail and average prices of these articles, when sold by the farmers and rural breeders, being enormous and out of all proportion to the dues. The same difference exists between the price of corn and the price of bread, both of which are free, and their dearness must be ascribed to bad trade organisation. It should also be noticed that, in Belgium, the abolition of *octrois* thirty years since produced no marked influence on the price of victuals, at least in large towns like Brussels, Antwerp, and Ghent. The suppression of low *octroi* duties, and a slight reduction of high duties, such as those on wine, would probably be far more beneficial to tradesmen and dealers than to the lower and middle class consumer; the latter would be much more pinched by an increase of the tax on house rents, an increase often pointed out as the financially most promising substitute. The plan followed in Belgium in 1860—the raising customs and excise duties, and paying over the surplus thus obtained as well as a percentage of the postal revenue to the *communes*,—would bring about the relief of the urban at the partial expense of the far more numerous rural population, which, in the present political state of France, would resent this method of reform. All these considerations render it probable that the total abolition of *octrois* is not to be expected in France unless in a very remote future. Still the municipality of Lyons has this year (1895) voted the principle of the abolition of its *octroi*.

Outside France and Italy taxes on urban consumption exist in a few continental towns,

for instance, in Bavaria, and in the chief towns of Austria, but here the "open country" (*das flache Land*) is also subject to them, although in a lesser degree than the "enclosed towns" (*geschlossene Städte*). For an instance of *Octroi* in Glasgow in the days of Adam Smith, see *Life of Adam Smith*, by John Rae, p. 67.

Besides the already mentioned works and the leading French treatises on finance, see, among recent works, Guignard, *De la Suppression des Octrois.*—Carré, *Suppression des Octrois de la Ville de Paris.*—Saint Julien and Bienaimé, *Histoire des Droits d'Octroi à Paris.*—Lesourd, *Législation des Octrois.*—Yves Guyot, *La Suppression des Octrois* (Report to the Chamber of Deputies, 1889).—Tramuset, *La Réforme de l'Octroi et de l'Impôt des Boissons.*—Cohn, *Finanzwissenschaft*, pp. 647 *et seq.*—Reitzenstein, *Conrad's Jahrbücher*, vols. xlii. and xliii.—Menger, *Zusammenstellungen zur Reform der Verzehrungssteuer* (Vienna, 1887).—Bastable, *Public Finance*, pp. 481-488. The abolition of the Belgian *octrois* led to the publication of an extensive official report, entitled *Abolition des Octrois Communaux en Belgique—Documents et Discussions Parlementaires.* E. Ca.

ODDY, J. Jepson (died 1814), merchant; was a member of the Russia and Turkey or Levant Companies.

He wrote *European Commerce*, etc., London, 1805, 4to, and *A Sketch for the improvement . . . as exemplified by the inland navigation of Europe in general and of England in particular, including details relating to the intended Stamford Junction navigation to unite the Eastern with the Midland and Western counties of England*, London, 1810, 8vo. Oddy unsuccessfully stood for parliament for Stamford.

[*Gentleman's Magazine*, 1814, pt. ii.—M'Culloch's *Literature of Political Economy*, p. 55.] H. E. E.

ODEL TENURE. See Udal Tenure.

OFFICIAL RECEIVER. Under the Bankruptcy Act 1883, certain persons have been appointed by the board of trade "official receivers" of debtors' estates. When a "receiving order" is made for the protection of the debtor's estate, an official receiver thereby becomes receiver of the debtor's property pending the appointment of a trustee.

Under the Companies Winding-up Act 1890, the official receivers have to discharge duties in the winding up of companies similar to those they perform in bankruptcy.

[Robson's *Bankruptcy*, 1894.—Lindley on *Companies*, 1891.] J. E. C. M.

OFFICIAL VALUES. This term was for many years a survival from the earliest attempts to record the value of British imports and exports. The office of inspector-general of imports and exports was constituted in 1697, and about the same time an official tariff was prepared for his guidance in computing the values of goods passing through the customs. This tariff was based on the existing prices of commodities, and, doubtless, for some years very fairly represented actual market values. But as prices changed, the official rate of computation was continually diverging more widely from those actual values. When, towards the close of last century, statisticians came to deal with the figures of trade, it soon became notorious that they did not correspond to facts. Constantly in the closing years of the century the inspector of imports and exports would place separately on record his computation of real values. The first official step towards reform was made in 1798, when the new "convoy duty" (an export duty) was levied on declared value. From that time it was customary to record the exports both according to the official tariff and according to their "real value," as will be seen by the statistical tables from 1800 to 1854. In the latter year, computation according to real value in all customs statistics was inaugurated.

For some time it was argued that though the official values did not represent value, they were a guide to quantities: but the suggestion did not bear examination. The official value remains a statistical curiosity (see also Imports and Exports).

[First *Report* of Customs Commissioners, app. v. 1857.—*Sessional Papers*, vol. iii.—Porter's *Progress of the Nation*, 1847, § 3, ch. ix.—M'Culloch, *Account of British Empire*, pt. iii. ch. v., note.] C. A. H.

OGILVIE, William (1736-1819), after having completed his studies in Glasgow (1760-61) and Edinburgh (1761-62), became travelling tutor to Alexander, 4th Duke of Gordon, with whom he seems to have visited France and Italy; he was from 1762 to 1817 professor of philosophy and humanity at King's College, Aberdeen.

His anonymous tract, *An Essay on the Right of Property in Land with respect to its foundation in the Law of Nature. Its present establishment by the Municipal Laws of Europe, and the regulations by which it might be rendered more beneficial to the lower ranks of Mankind*, London, printed for J. Walter, Charing Cross, 1782, is alluded to in Godwin's *Enquiry concerning Political Justice*, 3rd ed. 1798, bk. viii. ch. iii. p. 459, and ch. ix. p. 515. "All riches," says Godwin, "and especially hereditary riches, are to be considered as the salary of a sinecure office, where the labourer and the manufacturer perform the duties, and the principal spends the income in luxury and idleness." In a footnote he adds: "This idea is to be found in an essay on the right of property in land, published about twelve years ago by an ingenious inhabitant of North Britain, pt. i. § iii. par. 38, 39. The reasonings of this author have sometimes considerable merit, though he has, by no means, gone to the source of the evil." Ogilvie, besides having inspired the father of English communism, may claim the honour to have been among the first advocates of agrarian reform, aiming at "an increase of the number of farmers, by favouring the movement of

day labourers and manufacturers, to the more animating and manly occupation of cultivating a small farm for their own account" (introd.). His theory, indeed, is more far-reaching. Starting from LOCKE's theory of property, he reasons that although "all right of property is founded either in occupancy or labour" (§ 1), "in every country where agriculture has made considerable progress, these two rights are blended together, and that which has its origin in labour is suffered to eclipse the other, founded in occupancy" (§ 8). The natural right to an equal share of the soil being thus in conflict, as in America, with the right to the additional produce of a fertile soil by labour, the problem of agrarian legislation consists in its solution. The present state of land-tenure not only allows the land-holder to monopolise the *original* and *accessory* or *improved*, but also the *contingent* or *improvable* value of the soil (§ 14). This is "a most oppressive privilege, by the operation of which the happiness of mankind has been for ages more invaded and restrained than by all tyranny of the kings, the imposture of priests, and the chicane of lawyers taken together, though these are supposed to be the greatest evils that afflict the societies of human kind" (§ 28); "a monopoly which tends not less to the starving of their fellow-citizens, than a monopoly of bakers without any control or inspection of the magistrate would do. It will not produce its effects very suddenly, indeed, it is only a lingering piecemeal famine, under which the individual languishes, and the race becomes dwarfish, debilitated, and deformed" (§ 33). "What other cause than this pernicious monopoly can be assigned why population has been so long at a stand in Europe, and does not advance with nearly the same rapidity as in America" (§ 34, cp. also § 36). This passage seems to have been adopted by Godwin, and the fact is known to have served as a battle-ground to MALTHUS. Ogilvie certainly first accentuated the well-known sentence of A. SMITH, with whom he sympathises in matters of free trade, concerning the unearned increment (see INCREMENT, THE UNEARNED). "Whoever enjoys any revenue, not proportioned to such industry or exertion of his own, or of his ancestors, is a freebooter, who has found means to cheat or to rob the public, and more especially the indigent of that district in which he lives. But the hereditary revenue of a great landholder is wholly independent of his industry, and secure from every danger that does not threaten the whole state" (§ 39). By the abolition of this monopoly, the poor laws would be rendered superfluous; the tendency of reform in land must consist in uniting "the essential equality of a rude state with the orders, refinements, and accommodations of cultivated ages" (§ 43). Laws limiting the extent of land acquired by individuals could be introduced in new settlements; but the author sets his highest hopes, similar to the PHYSIOCRATS, in absolute monarchs; his ideal is a military and social royalty, as the prototype of which he proposes Frederick the Great (§ 49, 61, 74). For such events he proposes a scheme, "a progressive agrarian law," as he calls it, the principal points of which are the following:—That every citizen aged twenty-one years or upwards may, if not already in possession of land, be entitled to claim from the public a certain portion, not exceeding forty acres, to be assigned him in perpetuity for cultivation and residence; that the claimant shall have right to choose the situation of his allotment on any farm, freehold, or uncultivated common within his own parish; this allotment shall be set apart, and its landmarks fixed by the magistrate, with the aid of an assize, etc.; the ground thus set apart shall be submitted to the cognisance of an assize, or of arbitrators, who shall determine what reserved perpetual rent the claimant must pay to the landlord, etc.; he is obliged to reside upon his farm, has right to transmit it to his heirs, but if he sells to another, who shall not reside upon it, one-tenth part of the price, or the reserved rent, shall belong to the public (§ 51). But if this reform would be made "wholly consonant to natural justice," it should be accentuated by the following provisions: "that lands acquired in this manner shall not be transmitted by will, but according to the established rules of succession to landed property, the original lord of the manor being *ultimus haeres;* no allotment shall be united to another by succession; it shall not be lawful to break down any such allotment in order to divide it among children, until in any county the uncultivated lands are wholly exhausted; persons acquiring such allotments shall be obliged to perform double service in the militia of their country; in every competition that may arise, orphans and those that have served in the army or navy shall be preferred to all others; finally, the acquisitors "shall pay to the lord of the manor certain aids and services of a feudal nature, so regulated as to produce that degree of connection and dependence which may be expedient for preserving order and subordination in the country without danger of giving rise to oppression and abuse" (§ 71).

In order to hasten the development of small farms, Ogilvie advocated a tax imposed on large farms and short leases, a tax on barren lands, and finally a tax on all augmentation of rents, which he seems to consider as an *impôt unique*, but within a sense approaching more to that of Mr. Henry George than of the physiocrats. Ogilvie also proposes the appointment of a special board, in order "to purchase such estates exposed to sale, and to divide them into small farms of a single plough only, to be given off in perpetual property for a full reserved rent" (§ 63). He suggests similar reforms to be introduced in India and Ireland (§ 74). Ogilvie's ideas, although insisting on the injustice of the landholder's monopoly, are rather similar to the aims of modern social politics with its "allotment," "homestead laws," with intended regulation of agrarian succession in Austria and Germany, than on the lines of land nationalisation. Like a modern Christian socialist, he appeals to an "alliance between the church and the plough" (§ 59). This explains as well the grounds of difference between him and Godwin, as the slender recognition of the merits of his little work among his English contemporaries.

The *Essay on the Right of Property in Land*

has been reprinted in 1838, 12mo, and recently edited with biographical notes by Mr. D. C. Macdonald, under the title, *Birthright in Land*, London, 1891. The editor has utterly failed to grasp Ogilvie's importance for economic history, but gives valuable references concerning Ogilvie and his contemporaries amidst much declamatory matter. He quotes: Pryse Lockhart Gordon, *Personal Memoirs*, London, 1830.—Donald Sage, *Memorabilia Domestica*, Wick, 1889.—Fr. Douglas, *A general description of the East Coast of Scotland*, Paisley, 1782.—Jas. Hall, *Travels in Scotland*, 1807.—M'Culloch, *Literature of Political Economy*.—Sir James Mackintosh, *Memoirs*, 1835.

[See M'Culloch's *Literature of Political Economy*, p. 310, for Sir James Mackintosh's unfavourable opinion of Ogilvie.] S. B.

OLIPHANT, CHARLES (19th century), writer to the signet, drew up the *Report on Friendly and Benefit Societies, exhibiting the law of sickness as deduced from Returns by Friendly Societies in different parts of Scotland, to which are subjoined tables showing the rates of contribution necessary for the different allowances, according to the ages of the members at entry, etc.*, issued by a committee of the Highland Society, Edinburgh, 1824, 8vo. The report is noteworthy as being the first serious attempt to work out a scale of contributions from trustworthy statistics. The inquiry was confined to the age and sickness of members, and was not extended to deaths. The tables of the average duration of sickness among persons of various ages were founded on the experience of 73 different benefit societies, belonging to 16 out of the 33 Scotch counties, both Lowland and Highland, and representing 104,218 years of life. The conclusions are to some extent vitiated by the fact that these societies contained many members who had joined from philanthropic motives, and had never made any claim to the benefits. In 1825 Oliphant gave evidence before the Select Committee of the House of Commons, which sat in that year and in 1827, the outcome of whose labours was the Act of 1829, 10 George IV. c. 56 (see FRIENDLY SOCIETIES).

[Baernreither, *English Associations of Working Men*, London, 1889, 8vo, p. 235, mentions the report.] H. E. E.

OLIVARES, DAMIAN DE (beginning of the 17th century). His *Memorial sobre las fábricas de Toledo*, presented to the *junta* or board convoked in 1620 by Philip III., in order to ascertain the causes of the decay of Spanish manufactures, gives statistical information on the quantities produced, wages paid, etc., in the silk and woollen manufactures of Toledo and the country around. An analysis of this *Memorial* was inserted by MARTINEZ DE LA MATA (*q.v.*) in his own *Memoriales* (pp. 22, 24, 34), themselves reprinted in CAMPOMANES' *Apendice á la Educacion Popular* (Madrid, 1775). "The opinion," writes Olivares, "that trade with foreigners ought to go on, must certainly be inspired by the devil, who is anxious to destroy a kingdom which God had preserved so Catholic and so Christian."

[Colmeiro, *Hist. Ec. de España*, p. 335.] E. Ca.

OLUFSEN, OLUF CHRISTIAN (1764 to early 19th century), was appointed in 1815 professor of political economy in the university of Copenhagen.

Olufsen was editor of the Danish *Economic Annals* (1797-1820). He published, in Danish, a *Treatise of Practical State Economy*, 1815, and an *Oversigt af National Industrien i Danemark*, 1819. The latter was translated into German, and published (1820) in Altona. E. Ca.

ONE POUND NOTE. An issue of the pound notes has taken place at various dates and under various circumstances in England and Wales. They still exist and form a large part of the circulation of the issuing banks of Scotland and Ireland, nearly £5,000,000 out of £6,900,000 in the former case, and £2,500,000 out of £6,600,000 in the latter, being below £5, which is practically understood to be £1 notes, in March 1907. In England they never appear to have formed proportionately so large a part of the circulation. The Bank of England was allowed to issue them for the first time by the act of 1797, in which year also the country banks were permitted to do the same. This power, as far as the country banks were concerned, was withdrawn by the act of 1822, and the Bank of England withdrew its notes about the same period. Since that date to the present time no serious proposal has been made, till that of Lord Goschen in 1892, to employ one pound notes in England. Lord Goschen's plan was connected with the desire to increase the gold reserve at the Bank of England. As the arrangement would have increased the fluctuations in the reserve, it does not appear that any great stability could have been looked for. Lord Goschen proposed his plan without apparently having much confidence in it, and the feeling of the business community on its withdrawal was, on the whole, one of satisfaction. The lowest denomination issued by the Bank of France is for 50 francs (£2); the Bank of Germany 20 marks (£1); the Bank of Holland 10 florins (16s. 8d.). These small issues are, we believe, by the desire of their governments. After 1872 the Bank of France issued notes for 20 francs and 25 francs (16s. and 20s.), but withdrew them as rapidly as possible from the fact that they were forged with much facility. In the speech on the bank charter in the House of Commons, 6th May 1844, Sir R. Peel expressed a very strong opinion against the issue of notes for a lower sum than £5, in order to preserve an adequate amount of specie in circulation throughout the country.

[Tooke and Newmarch, *History of Prices*, vols.

i.-vi.—Malachi Malagrowther (Sir Walter Scott) *on the Proposed Change of Currency, etc.*, 1826.—R. H. Inglis Palgrave, *The Bank Acts of 1844-45 and the Bank Rate*, Institute of Bankers, 2nd March 1892.]

ONELY, Rev. Richard (1723-1787), rector of Speldhurst, Kent, author of *An Account of the Care taken in most Civilised Nations for the Relief of the Poor*, London, 1758, 2nd ed., 1772, 8vo. The civilised nations dealt with are the Jewish theocracy, the early Christian church, the Egyptian, Greek, and Roman states. The pamphlet closes with a brief and bald epitome of the English poor laws. H. E. E.

ONEROUS PROPERTY, such as property consisting of land burdened with the payment of rent or other onerous covenants, shares on which there is a liability, unprofitable contract rights, etc., may be disclaimed by a trustee in bankruptcy within three months after his appointment, or within two months of his becoming aware of it. The disclaimer determines the interest of the bankrupt in the property, but does not affect the rights or liabilities of third parties (*see* Mortgagee). Leases may not be disclaimed without the consent of the court, and, as regards any onerous property, the power to disclaim is lost if the trustee, within a certain period of receiving a requisition from an interested party, fails to declare his intention. The damages arising through the operation of a disclaimer (*e.g.* the rent which a lessor loses by the disclaimer of a lease) are proveable as a debt in the bankruptcy.

[Bankruptcy Act, 1883, § 55.] E. S.

ONEROUS UTILITY. See Gratuitous Utility.

OPEN FIELD SYSTEM. See Manor and Three Field System.

OPEN POLICY (Marine Insurance). By a valued policy a valuation is put on the subject matter insured. On the other hand, an open policy does not fix the value of the subject matter insured, but, subject to the limit of the sum insured, leaves the amount payable by the insurer to be ascertained after loss. For the purpose of ascertaining the amount, certain more or less arbitrary rules have been worked out by the judges, who have hesitated between two conflicting principles of indemnity, but in the main have adhered to the principle that the assured ought to be put in the same position as he was in when the adventure commenced, and not in the position which he would have been in had it been carried to a successful termination.

[See Arnould's *Marine Insurance*, ed. 6, p. 67 *et seq.*] M. D. C.

OPERARIUS. A manorial tenant who actually worked for his lord on the land at various kinds of agricultural labour, and had not commuted his services for a money payment (see Manuoperationes). In the *Testa de Nevill*, p. 186, the annual services of a *villanus* are valued at 8½d., but those of a *nativus operarius* at 8s. 4½d. R. H.

OPIUM, as a State Monopoly. Opium, the inspissated juice of the poppy, is produced on a large scale in India, China, and Persia. The opium in common use in Europe for medicinal purposes is as a rule of the so-called Smyrna or Turkey variety, and is obtained mostly from Asia Minor and Persia. That which is produced in India and China is less rich in morphia than the former variety, and is used by many Asiatic races, including the Chinese and the populations of India, as a narcotic and stimulant. It is both eaten and smoked; the latter form of consumption being chiefly, though by no means exclusively, prevalent in China.

Opium is of interest to economists chiefly because, throughout that part of India which is British territory, it is the subject of an extensive state monopoly. This is of considerable antiquity, dating back to a period anterior to the establishment of British rule in India. Under the Mogul empire the trade in opium was an imperial monopoly, and farmed at a quit-rent. Up to the period of the British acquisition of Bengal and Behar, the Dutch were the chief purchasers. Instructions to make opium a part of the investment were first issued by the British East India Company in 1683. During the anarchy which prevailed throughout the decay and fall of the Mogul empire in the middle of the 18th century, the imperial monopoly fell into abeyance; trade was disorganised; cultivation fell off; and the opium produced was so generally adulterated that it yielded very poor prices. Even after the restoration of comparative peace in 1765, disorder continued. At length, in 1773, Warren Hastings, then governor-general of Bengal, assumed on behalf of the East India Company a monopoly of all opium produced in Bengal, Behar, and Orissa, subject to certain concessions secured to the Danes, the Dutch, and the French, which have now either lapsed or been commuted for a money payment.

The rights thus acquired were at first farmed; but in 1797 the direct or "agency" system was introduced, and is still in force. Under this system, as now administered, the cultivation of the poppy plant is generally prohibited throughout British Indian territory. It is permitted, however, in eleven districts of Bengal and twenty-nine districts of the North-Western Provinces under license; the cultivators, who receive periodical advances from government, are bound under penalties to deliver the whole of their crop to the agent at a rate previously fixed. This rate has fluctuated slightly. From 1881-82 to 1893-94 it was Rs.5 per *seer* (1 lb. 14 oz. nearly) of 70° consistence, *i.e.* 70 parts in 100 being pure opium, the remainder being water It is now Rs.6 per *seer*.

The opium delivered to the agents is manufactured at the two state factories, situated at Patna, and at Ghazipur near Benares, into "provision" opium, adapted for export to China, and "excise" opium, for consumption in India. The average cost of a chest (=140¼ lbs.) of provision opium has varied during the last ten years from Rs.412 to Rs.449. The same opium, when sold at the government auction for export to China, has realised average prices ranging from Rs.1037 to Rs.1251 per chest. The excess of the sale price over the cost price may be regarded as the duty which the existence of the state monopoly enables the government to impose. This at present exceeds Rs.800 per chest, *i.e.* is not far short of twice the cost price of the drug.

In most of the native states of India poppy cultivation is prohibited. But in an important group, the majority of which are situated in Central India and Rajputana, a large amount of opium—the so-called Malwa opium—is produced. In these states the British government has no concern with the cultivation, manufacture, or sale; but the native rulers levy a variety of imposts, among which is usually included a special rate of land-tax on land suitable for poppy. This opium is not permitted to enter or pass through British territory, for local consumption or export to China, save under passes granted by a British agent, and on payment of a heavy transit or import duty. The rate of duty has varied from time to time, and is now Rs.650 per chest (=140¼ lbs.) of 90° consistence. This is equivalent to Rs.527 on opium of the consistence of Bengal opium. The British government is enabled to levy this duty by reason of the fact that the opium cannot reach the sea for export to China without passing through British territory.

The propriety of maintaining the Bengal monopoly has been frequently considered by Indian and other authorities. Regarded from an administrative standpoint, the monopoly system is, it is now generally conceded, superior to any that could be substituted for it. In 1864 it was condemned, on purely economic grounds, by Sir Charles Trevelyan, then Indian finance minister, who held that its abolition would be "attended with the same good effects as the throwing open the India and China trade, and the abolition of the Bengal salt monopoly," *i.e.* by a large expansion of the trade. Such a result would not, at the present day, be ordinarily regarded as favouring the abolition of the opium monopoly. Other authorities, including Sir W. Muir, have attacked the monopoly on the ground that it casts upon government "the odium . . . of not only encouraging the growth of the poppy, but of itself being the direct trafficker in the drug and its monopolist." On the other hand, Sir J. P. Grant, a former lieutenant-governor of Bengal, has maintained that "the distinction, *as a question of ethics*, between raising a revenue from opium by an excise on consumption and a duty on exportation, and raising the same revenue by monopolising the manufacture, is fanciful and false." As a measure of finance, the abolition of the monopoly and its replacement by an export duty is easily shown to be disastrous. The state profit on a chest of Bengal opium is over Rs.800, whereas the export duty on a similar chest of Malwa opium is only Rs.527. It follows that if the quantity of opium produced remained the same, there must be an enormous loss of revenue; while if the revenue remained the same, the quantity of opium produced must be very largely increased.

The policy of China in regard to the local production and import of opium has varied from time to time, cultivation and import being alternately prohibited and permitted. It is known that the poppy was extensively cultivated in China, and opium imported from abroad many years before the English became concerned in the trade. It is frequently alleged that the Chinese wars of 1840-42 and 1856-58 were waged in order to compel that country to receive Indian opium. Two of the best authorities, however, Mr. H. N. Lay and Sir Thomas Wade, strenuously deny that this charge has any basis of truth. They affirm that opium was a mere incident of the first war, and had no concern whatever with the second; and that the object of both wars was to compel the Chinese to have political and commercial relations with us. The opium trade became legal after the Treaty of Tientsin (1858). The tariff duty and *likin*, or inland transit duty, are levied together and regulated under the Chefoo Convention (1876).

The Indian opium trade in all its bearings has lately formed the subject of an exhaustive inquiry by a royal commission appointed in 1893. The report states that the evil arising from the use of opium is less than has been represented in England, and that the commissioners have no evidence of extensive moral or physical degradation arising therefrom; that no case has been made out for prohibition, nor could such a measure with justice be extended to the native states; that the Bengal monopoly is the best system for regulating the production of opium in British India; and that the present treaties which govern the admission of opium into China have been deliberately accepted by the Chinese government, and admitted by the latter to contain all that they desire. The finding is, in substance, that unless China should hereafter declare a wish to prohibit import, there are no grounds for interfering either with the export trade, or with the production and local consumption in India.[1]

[1] There still exists, however, in the minds of many persons in England, a strong desire to see the British government in India cease to appear as the manufacturer of an intoxicant; but no corresponding desire has been expressed by them to supply a less objectionable source of revenue to the Indian government, to make up the deficiency.

[Dr. G. Watt, *Dictionary of the Economic Products of India*, London, 1892, vol. vi. pt. i. art. "Opium."—*Report of a Commission appointed by the Government of India to inquire into the Working of the Opium Department in Bengal and the N. W. P.*, Calcutta, 1883.—Mr. H. N. Lay, *Note on the Opium Question: a Brief Account of our Relations with China*, London, 1892.—Hansard's *Parliamentary Debates*, vol. liii. pp. 670-950; vol. cxliv. pp. 1391-1846.—*Correspondence relating to China*, presented to parliament in 1840.—*Final Report of the Royal Commission on Opium*, 1893-95.] E. N. B.

OPTIMISM. The term optimism is difficult to define. Strictly it should signify the belief that everything which exists is the best possible. But as there is scarcely any pessimist who denies absolutely the existence of good, so there is scarcely any optimist who denies absolutely the existence of evil. Optimism therefore can describe only the belief that good greatly preponderates in the world, or that evil admits of being resolved ultimately into good. Such a belief may be the result either of temperament or of a process of logical inference. In so far as it is the result of a happy temperament, it cannot be communicated to those whose disposition is less cheerful. In so far as it is the result of logical inference it may take various forms. All who regard the universe as the work of reason, in other words, all theists, must be optimists in one sense or another. But among theists even within the bounds of the Christian church there may be wide differences in the nature of their optimism. Some may concentrate their minds on the corruption of man and others upon the benevolence of his Creator. St. Augustine or Calvin would hardly be termed optimists in the ordinary use of that word. Paley was an optimist in every sense. Now one of the characteristics of the period in which modern political economy took its rise, the period between the close of the Thirty Years' war and the outbreak of the French Revolution, was a general optimism. Religious wars and persecutions had impressed the most active minds with indifference or disgust for the theological views which came down from the middle ages, and which were permeated with distrust of human nature and aversion to the pursuits of the world. In contrast to these views the antique conception of nature kept alive by the Roman law again attracted philosophers and became the germ of new moral and political theories. Natural religion took the place of revelation, and natural goodness of asceticism. Natural instincts were again regarded as innocent and deserving of gratification. Much stress was laid on those amiable and social instincts which find their fulfilment in promoting the happiness of others. Providence, it was held, had so ordered the world that each man in seeking to satisfy his own desires contributed to the general welfare. Virtue was identified with the rational pursuit of happiness, and thus was made to appear easy and natural. From these first principles the inference in favour of freedom was irresistible. Restraint or compulsion was in itself an evil because it was painful, and in most cases restraint or compulsion was unnecessary, since human instincts harmonised by divine wisdom tended of themselves to bring about the good of mankind.

This form of optimism pervades the discussion of education, of legislation, and of economics by the most celebrated writers of the 18th century. It is very noticeable in the writings of the physiocrats and of Adam Smith. Adam Smith cannot indeed be charged with taking too exalted a view of human nature. He assumes that men are generally employed in promoting their own interests, and he objects to any regulation that can be dispensed with, because he thinks that it is likely to be inspired by selfishness. Adam Smith's optimism lies rather in overrating the ability of the individual to perceive his interest, and in assuming a providential harmony between the self-interest of various individuals if placed in a state of legal freedom and equality. It is only after a prolonged discipline that the ordinary civilised man has attained even to his present imperfect knowledge of what is good for him, and even now the pursuit of his own welfare by each individual constantly brings him into conflict with others.

Since Adam Smith wrote upon morals and economics, optimism has been discouraged by several causes. In the first place, the French Revolution showed that the glorification of natural impulses might end in crimes and disorders as great as had ever been produced by fanaticism. In the next place, the struggle of nation with nation, and of class with class, for the last hundred years, has compelled us to see that there is no pre-established harmony between the appetites of different human beings. In the third place, the rise in the standard of comfort has produced an all but universal discontent. Mankind are probably more comfortable than in any former age, yet the difference between that which they enjoy and that to which they think themselves entitled is more noticeable than ever. Lastly, the progress of science has disturbed the cheery, old-fashioned view of nature. Malthus showed that nature has not provided an abundant subsistence for an indefinite number of persons. Darwin showed the evolution of life to have been a process of almost infinite length involving wholesale waste and destruction. Those who have adopted a formal and philosophical pessimism are few, but those who maintain the easy optimism of the 18th century are fewer. There are many who propose to make mankind

happy by political or economical changes, but as a rule they propose to do this by subjecting the individual to the community. For with the old optimism the old belief in liberty has also declined in strength.

The change in the tone of economic literature may be realised by comparing Smith's *Wealth of Nations* with J. S. Mill's *Principles of Political Economy*. Leslie Stephen, *English Thought in the Eighteenth Century;* Bonar, *Philosophy and Political Economy;* Ritchie, *Natural Law*, may be consulted for information respecting the philosophical optimism of the last century. F. C. M.

OPTIONS. An "option" is the right to conclude a bargain on a future date, at a certain price. A "buying option," called also "the call," is the right to demand a certain number of shares, or amount of stock, or quantity of some specified produce, within a given time, at a fixed price; and a "selling option" is the right to sell, or "put" stock shares or produce under the same conditions. A "put and call" is a right of either buying or selling at a fixed price. Upon this plan speculations may on one side be made with a small capital, and with only a certain limited risk. But the net profits of the speculation are diminished by the price given for the option; and the probability of any profit resulting is really very small, because the price demanded is sure to be large enough to cover all the chances which the dealer can foresee.

Options are chiefly dealt in on the Stock Exchange, but are also frequently used in the United States in transactions in wheat and other produce (see PUT AND CALL). R. W. B.

ORA (Anglo-Saxon). The ora was a money of account introduced into England by the Danes, and does not appear at any time to have been a coin in use in this country.

In the reign of Edward the Elder (901-924), fines imposed upon the English population were reckoned in shillings, while sums due from the Danes were calculated in ora. The Danes used the term to designate both a weight and a cash value. The weight is alluded to in one version of the Laws of Ethelred as one-fifteenth of a pound, and the value is frequently referred to in DOMESDAY BOOK (*q.v.*) as that of twenty shillings. Subsequently, however, record exists of a lower rating of sixteen shillings being also used. The modern Scandinavian ÖRE is doubtless the lineal descendant of this ancient money of account.

[R. Ruding, *Annals of the Coinage of Great Britain*, 1840.] F. E. A.

ORDER (bill or note payable to). At common law a bill or note could not be negotiated by indorsement unless it contained words expressly authorising transfer. But § 8 of the Bills of Exchange Act 1882 has adopted the Scotch rule, and now provides that a bill is payable to order which is expressed to be so payable, or which is expressed to be payable to a particular person, and does not contain words prohibiting transfer, or indicating an intention that it should not be transferable. The result is that if a bill or note is made payable to A. B. it is in legal effect payable to A. B. or his order. The same rule applies to indorsements. M. D. C.

ORDER AND DISPOSITION. The ownership of personal property, as a rule, can be transferred by delivery of possession. Possession of property is therefore evidence of ownership. Where a purchaser or a mortgagee of chattels permits them to remain in the possession of the vendor or mortgagor, the latter appears to the world at large as owner, and is therefore able to obtain credit as such. In order to protect creditors, successive bankruptcy acts have made all goods that are in the "possession, order, and disposition" of a bankrupt, in his trade or business, by permission of the owner, and of which the bankrupt is the reputed owner, liable for payment of his debts, even though such goods belong to some one else.

[Robson on *Bankruptcy*, 1894.] J. E. C. M.

ORDERS IN COUNCIL (retaliatory against France). The battle of Trafalgar (21st October 1805) annihilated the French fleet, put an end to all schemes for an invasion of England, and secured English supremacy at sea for the remainder of the war. Soon afterwards the battle of Austerlitz (2nd December 1805) broke up the great coalition which Pitt had formed, and gave to France an ascendency in Europe such as no power had obtained for centuries. From this time the two great belligerents, England and France, unable to strike each other directly, were forced to resort to the destruction of each other's commerce, and began a struggle limited only by their respective powers of endurance. The peculiar difficulty of this warfare against commerce, which now became the main object of both states, lay in the injury which it must necessarily inflict upon neutral powers, whose interests in time of war are always opposed to those of belligerents. Both in 1780 and in 1800 the Baltic states had shown their hostility to any infringement of their trading rights by forming an ARMED NEUTRALITY (*q.v.*). And there was now another neutral power to be reckoned with. The United States had become independent in 1783; since the outbreak of the war they had developed a considerable mercantile marine, and their geographical position gave them peculiar advantages for carrying on trade between the West Indies and Europe. The attitude of the United States becomes a factor of first-rate importance in the relations between England and France after 1805.

England took the first step when the Grenville ministry, which had been formed on Pitt's death, issued an order in council on 16th May 1806. This decreed a general blockade

of the whole coast from the Elbe to Brest, and a rigorous blockade from Ostend to the Seine. No neutral vessels could enter a port on the latter coast, and outside the narrower limits they were only admitted provided they "had not been laden at any port belonging to his Majesty's enemies." This order, which was not for the time an excessive straining of the maritime ascendency of England, gave Napoleon a pretext for issuing the famous Berlin decree (21st November 1806), which laid the foundation of what is known as the CONTINENTAL SYSTEM (*q.v.*). By this he declared the British Islands to be in a state of blockade, prohibited all trade with them, and decreed that all goods exported from them were lawful prize. This decree, which France would have found it extremely difficult to enforce, provoked the whig ministers to draw up the first of the great orders in council, which was issued on 7th January 1807. This document, which was condemned by the opposition as a very inadequate measure of retaliation, ordered "that no vessel shall be permitted to trade from one port to another, both which ports shall belong to or be in the possession of France or her allies, or shall be so far under their control as that British vessels may not freely trade thereat." This prohibition of the coasting trade went beyond any previous claim of England, which had hitherto aimed mainly at preventing the carriage of goods from French colonies to the mother country. It was bitterly resented by the Americans, who had discovered a lucrative business along the Mediterranean coasts from which they were suddenly excluded under penalty of capture and confiscation.

In March 1807 the Grenville ministry was driven from office and their places were filled by tories, who were more resolutely anti-French and less scrupulous in the choice of expedients. Soon afterwards Napoleon ended the northern war by the treaty of Tilsit (8th July 1807), by the secret articles of which France and Russia pledged themselves to effect the complete exclusion of England from trade with Europe. Napoleon now returned to Paris, and devoted all his energies to the carrying out of his continental system, which he had been compelled to neglect during the campaigns of Eylau and Friedland. Denmark, Portugal, Prussia, Austria, and Turkey were all coerced or induced to prohibit the entrance not only of English vessels but of all English products. French ships were instructed to seize the vessels of any power if they carried any goods of British origin, and French courts were instructed to declare the cargoes of such vessels to be lawful prize.

These vigorous measures gave the tories a pretext for that energetic retaliation which they had demanded when in opposition. On 11th November 1807 they issued another order in council which asserted that the "order of 7th January has not answered the desired purpose, either of compelling the enemy to recall his orders or of inducing neutral nations to interfere with effect to obtain their revocation, but, on the contrary, the same have recently been enforced with extreme rigour." The main provision of the order is that "all the ports and places of France and her allies, or of any country at war with his Majesty, and all other ports or places from which, although not at war with his Majesty, the British flag is excluded, and all ports or places in the colonies belonging to his Majesty's enemies, shall from henceforth be subject to the same restrictions in point of trade and navigation as if the same were actually blockaded by his Majesty's naval forces in the most strict and rigorous manner." Further "all trade in articles which are of the produce or manufacture of the said countries or colonies shall be deemed and condemned to be unlawful, and every vessel trading from or to the said countries or colonies, together with all goods or merchandise on board, and all articles of the produce or manufacture of the said countries or colonies, shall be captured and condemned as prize to the captors." This is obviously the direct and complete reply to the Berlin decree, and though the scope of the English prohibition is the more vast and comprehensive in proportion to the magnitude and number of her enemies, yet this difference was by no means out of proportion to the differing naval power of the two countries. The French men-of-war were closely confined to their harbours, so that the blockade of the British islands was purely verbal. England, on the other hand, though of course unable to enforce a blockade on the scale of the order, had such an overwhelming naval force at sea as to make the prohibited trade extremely difficult and dangerous.

To the sweeping prohibitions of its main clause, the order of 11th November made two important exceptions in favour of *bona fide* neutrals: (1) they might trade to or from the colonies of hostile powers provided their port of departure or destination was in their own country or in a British colony: (2) they might clear out from some British port, or from Gibraltar or Malta, or from the port of an allied state, to any hostile port, or back from such port to a British or allied port, so long as the hostile port were not actually blockaded by the fleet. In these exceptions, and especially in the second, lies the subtlety of the English policy of retaliation. Napoleon had prohibited the exportation of goods from the British Islands; the English government replied that France and her allies should not receive any goods whatever except from the British islands, and no goods were to leave France unless in the first place they went to Britain. Thus

not only was France to be weakened and humiliated, but all her imports and exports were to pay toll to the enemy, who would use the wealth thus obtained in strengthening her own forces and in subsidising the continental enemies of France. Napoleon was not slow to reply to a measure which was as insulting as it was damaging to his subjects and allies. On 17th December 1807 the Milan decree declared that every ship which suffered the search of an English vessel, or submitted to a voyage to England, or paid any tax to the English government, was by that act denationalised and deprived of the guarantee of her flag. Any ship, whatever its nationality or its cargo, was declared to be lawful prize if it was on its way to or from Britain, British colonies, or places occupied by British troops.

By these measures the two belligerents stood committed to a struggle for life or death, and also to a policy which imposed greater loss and restrictions upon neutral powers than the latter had undergone in any previous war. For Europe this was a small matter, as Napoleon would not allow any neutrals within reach of his military forces. The United States were the chief sufferers ; and they hastened to retaliate by closing their market to both the belligerent powers, and by depriving both of the benefit of American goods and carriers. An act of embargo (22nd December 1807) forbade American vessels to leave their ports except for another port in their own country. When this was repealed on 1st March 1809, it was succeeded by a non-intercourse act which prohibited all trade with Great Britain, France, and their respective colonies.

The policy and the morality both of the French decrees and of the English orders were hotly debated at the time, and have been a subject of much subsequent discussion. As regards morals, the measures were essentially military in character, and can be justified only on the grounds of advantage or necessity. From the point of view of policy, there can be little doubt that Napoleon's conduct was ill-considered and reckless, and the result justified England in imposing temporary hardship on herself, and in incurring the hostility of neutral states, in order to secure an ultimate victory. France, absolutely unable to defend her own shipping, was really dependent for important supplies upon neutral carriers, and ought to have done all in her power to aid and encourage them. Moreover the hardships imposed upon Europe by the exclusion of necessaries, or by the enormous increase of their price, raised a spirit of resistance to French domination, as an intolerable burden, which even Napoleon could not quell. The necessity of forcing reluctant subjects and allies to carry out measures which he deemed necessary for the destruction of his inveterate opponent compelled him to undertake those enterprises in the Peninsula and in Russia which first sapped and then overthrew his power.

One of the most curious features of the great struggle, which began in 1807 and practically ended in 1812, was that neither state could afford strictly to enforce its own decrees. England was determined to force its manufactures upon Europe in spite of Napoleon, and was aided in doing this by the reluctance of the northern states to obey the orders received from Paris. To facilitate the vast smuggling trade which went on on the coasts of the Baltic and North Sea, England resorted to a system of licenses by which merchants were allowed to carry on trade prohibited by the orders without running the risk of capture by English cruisers. From 2006 in 1807 these licenses increased to over 15,000 in 1809 and over 18,000 in 1810. Napoleon, on his side, found it impossible to dispense with the supplies which his decrees prohibited, and large sums were made by the French government by selling licenses. During the war with Austria in 1809 the evasion of the continental system was so general that its results were mainly seen in the height of prices and the heavy charges for marine insurance. England was so much the gainer by this relaxation that she endeavoured to conciliate the United States by a third order in council (26th April 1809), which narrowed the general blockade ordered in November 1807 to the coasts of Holland, France, and the Italian kingdom of Napoleon.

After his victory at Wagram (6th July 1809), and the conclusion of peace with Austria, Napoleon returned to France determined to draw tighter than ever the restrictions which the recent war had allowed to slacken. If he was powerless at sea, he was absolute on land, and instead of sending his veteran troops to Spain, where they might have ended the war, he employed them as a gigantic coast-guard along the northern and western coasts of Europe. As Holland had proved recalcitrant under his brother Louis, the latter was deposed and his kingdom annexed to the French empire. Other annexations, including the duchy of Oldenburg, followed, until the cordon of troops was complete from France to Russia. When all preparations were made, Napoleon issued a decree of Fontainebleau (19th October 1810), by which all English merchandise in the countries dominated by France was to be taken and burnt. This edict was ruthlessly carried out by the French soldiery.

Now for the first time England felt the full strain of the continental system. Licenses became useless when the exported goods were liable to prompt seizure and destruction ; and their number fell from 18,000 in 1810 to 7500 in 1811. It was calculated that "60,000 tons of coffee lay in the London warehouses, unsaleable at sixpence the pound, while the price or

the continent was from four to five shillings, and in some places even seven shillings." The closure of the American market and a series of bad seasons made matters worse, and the general depression resulted in the bankruptcy of many firms. The orders in council, which had been popular at first, were now objects of general detestation. The opposition denounced them in parliament, the great towns petitioned for their repeal, and the United States threatened war. The government could hardly hold out for long against the general clamour. Fortunately the strain was relaxed at the moment when it seemed to have reached the stage of cracking. The sufferings of France had been even greater than those of England, and she had far less capacity of endurance. The resources of credit taxation and conscription were alike exhausted by the demands which the emperor had made upon them. At this moment the chief French ally found it necessary to make a change of front. Russia was peculiarly dependent upon the English market for its produce, and Alexander I. refused to bring material ruin on his subjects as well as to endure the personal slights put upon him by Napoleon. In December 1810 he struck the first blow at the agreement of Tilsit by allowing neutrals to import to Russia a number of articles of British manufacture. In 1811 Russia abandoned the French system altogether, and entered into negotiations with England and Sweden. Napoleon had no alternative but to acknowledge defeat or to compel submission to his will. He chose the latter alternative, and in 1812 he started on that eastern campaign which led directly to his downfall. In the same year Wellington began the brilliant series of aggressive campaigns which ended in the expulsion of the French from the Peninsula. The warfare against commerce had ended in the defeat of France, and the orders in council had done their work. On 23rd June 1812 the orders of 1807 and 1809 were formally repealed. Unfortunately the repeal came too late to avoid a rupture with the United States, which had declared war against England on 18th June.

[See articles on CONTINENTAL SYSTEM; LICENSES (Continental War), and authorities there referred to. For fullest and best account of the warfare against commerce see Mahan, *The influence of Sea Power upon the French Revolution and Empire* (1892), vol. ii. chs. 17 and 18. It is noteworthy that Captain Mahan, though an American, approves on the whole of the policy of the orders in council.] R. L.

ÖRE. By the provisions of the Scandinavian monetary convention of 1872 the standard of value in Sweden, Norway, and Denmark, the CROWN (*q.v.*), value 1s. 1·215d., is divided into 100 öre.

Token silver coins of fifty, forty, twenty-five, and ten öre are in circulation. F. E. A.

ORESME, NICHOLAS (c. 1320-1382), the author of a treatise on the currency, was one of the most distinguished of the French scholars of the 14th century. In 1356 he became grand master of the College of Navarre at Paris; in 1361 he was elected dean of the church of Rouen; and in 1377 he was appointed Bishop of Lisieux. Without deserving a place in the line of great schoolmen, he was a man of interests as wide as the science of the time, and wrote upon many subjects with facility and force. In 1363 he preached before pope Urban V. at Avignon a vigorous sermon, on the evils in the church, which was in great repute towards the end of the middle ages, and was several times reprinted during the reformation. In 1370 he translated the *Ethics* of Aristotle from Latin into French at the request of Charles V., and was appointed in recompense one of the royal chaplains; and in 1371, at the same prompting, he translated the *Politics* and *Economics*. One at least of his theological works enjoyed a high reputation in the schools of Paris; and his numerous writings on mathematics deserve recognition in the history of that science. The date of the composition of his *Tractatus de Origine, Natura, Jure, et Mutationibus Monetarum* is unknown, but it was probably toward the middle or end of the reign of John II. (1350-1364); the translation into French, which was made by Oresme himself, appears from internal evidence to have been made after 1356.

[The data for the life of Oresme have been carefully gathered by F. Meunier, *Essai sur la vie et les ouvrages de Nicole Oresme* (Paris, 1857), where will be found a list both of his undoubted and dubious works with some illustrative excerpts. Meunier shows that there is no evidence for the assertion, in itself difficult to reconcile with chronology, that Oresme was the preceptor of Charles V. of France. For his mathematical writings, see M. Curtze, *Die math. Schriften des Nicolaus Oresmius* (Berlin, 1870).

His *Tractatus de Origine, etc., Monetarum* occupies some thirty octavo pages. It is composed of twenty-six brief chapters and a prologue. In the prologue he states that some are of opinion that the prince has a right to change the currency at pleasure, and make profit thereby. His intention, accordingly, is to set down what seems to him most necessary to be said *according to the philosophy of Aristotle;* and his hope is to bring about a common agreement. He begins by explaining the invention of money (ch. i.); the use for that purpose of the precious metals (ch. ii.); the use of more than one metal and of alloy for the smaller values (ch. iii.); and the necessity for a stamp (ch. iv.). Since money is instituted for the good of the community, it ought to be coined by "a public person"; and as the prince is "a person more public" than any other individual, he alone ought to undertake the work (ch. v.). This, however, does not make the prince "the lord or proprietor of the currency" (ch. vi.).

The expense of coinage is best met by a proper seigniorage (ch. vii.). The discussion of the main theme then opens with the general proposition that laws or customs affecting the community, including therein the currency, are never to be changed without evident necessity; and this is especially the case with money, on account of the common practice of fixed rents, etc. (ch. viii.). An alteration of the stamp may be sometimes desirable (ch. ix.), and also of the ratio of exchange between the metals, when any notable change takes place in their relative value as commodities ("Verumtamen ista proportio debet sequi naturalem habitudinem auri ad argentum in pretiositate": ch. x.). A change in the denomination of coins is only justified on such exceedingly rare occasions as not to be worth considering (ch. xi.). A change in the weight without a change of denomination is absolutely wrong and fraudulent (ch. xii.); and the same is true of a debasement of the material (c. xiii.); in both these ways the prince unduly draws to himself the substance of his people. The gain to the prince from the alteration of the currency is unjust (ch. xv.), unnatural (ch. xvi.), worse than usury (ch. xvii.), and such evils are of their very nature intolerable (ch. xviii.). Debasement of the currency involves much dishonourable embarrassment to the prince (ch. xix.); impoverishes the subjects, leads to the withdrawal of the precious metals from the country, and disturbs trade (ch. xx.); it benefits chiefly those who follow base occupations, such as money-dealers; and in divers ways it demoralises the people (ch. xxi.). It might seem that as the currency belongs to the community, the community has a right to raise money by an alteration of the currency, especially as such a method satisfied "quasi omnes bonas conditiones requisitas in aliqua tallia" (which are much the same as Adam Smith's canons of taxation). But unless the need of money is very great and the sum raised is to be expended in a far country, so many evils will follow therefrom that to do so will be an abuse of power (ch. xxii.). The prince cannot plead necessity or the grant of the community; the necessity of the community itself should decide, and the community cannot transfer its rights (ch. xxiii. xxiv.). A tyrant cannot long endure (ch. xxv.); and to make gain from a debasement of the currency is prejudicial to the royal power itself (ch. xxvi.).

The reputation of Oresme among modern economists is chiefly due to the enthusiastic praise of W. Roscher in his paper "Un grand économiste français du xiv. siècle" in *Comptes Rendus de l'Acad. des Sc. morales et politiques* (1862). This led L. WOLOWSKI to bring out an edition of the treatise in both its Latin and French forms, with an introduction, in 1864. Ten years later ROSCHER described Oresme as "the greatest economist among the scholastic writers, for two reasons: first, the truth of his views, and secondly, his freedom from pseudo-theological system and pseudo-philosophical argumentation" (*Gesch. der N. O.*, p. 25). Professor Cunningham has more recently spoken of Oresme as the earliest economic writer to explicitly adopt national wealth and national power as the very basis of his argument (*Growth of English Industry and Commerce*, i. (1890), 322), and has reprinted the *Tractatus* as an appendix to his history.

On the other hand, as early as 1863 W. Endemann (*Die nationalökonomischen Grundsätze der canonistischen Lehre*, 1863, in HILDEBRAND'S *Jahrbücher*, i., and separate; n. 331) declared that Roscher's "discovery" only showed how ignorant economists were of the older juristic literature; that the tractate was neither a "source" for later times, nor anything wonderful for its own; and that the ideas were not at all original, but taken from Azo and Accursius and the glossators. In his *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, ii. pp. 164-189, (1883), Endemann returns to the charge, and asserts that Oresme's ideas were essentially the same as those of Aquinas and many who followed him, and that there is no reason whatever to regard him as an economic writer of the first rank.

It were unwise to attempt a final judgment until the literature of the 14th century has been more carefully examined. It seems, however, clear that Oresme's general ideas were common to the theologians, canonists, or legists of his time; it is probable also that the special feature of his argument, the insistence upon the right of the *community* to control the currency, was common to him with other representatives of the constitutionalist party in France. The currency had been again and again debased during the century; the states-general had repeatedly protested against such measures, and demanded that the currency should be restored to purity, *e.g.* in the *Grande Ordonnance* of 1357. These considerations need not, however, prevent our recognising the vigour and (on the whole) the clearness of Oresme's tractate, and the courage which was probably required for so unmistakable a declaration. It is not impossible that the treatise was itself composed during the constitutional agitation of the years 1355-1357: Oresme was then residing at Paris, where the states-general assembled; and we know that on the general subject of taxation he agreed with the constitutional party. If this be so, Oresme's place is not in the history of the theory of currency, but in the history of the theory of constitutional government.] W. J. A.

ORGANISATION OF INDUSTRY. See INDUSTRY, ORGANISATION OF.

ORTES, GIAMMARIA (1713-1790), a Venetian monk, left his cloister on the entreaties of his mother after his father's death, but remained in holy orders and was ever a strenuous defender of the clergy. It is with this purpose that he wrote his *Errori popolari intorno all' Economia nazionale*, his *Lettere sulla Religione* and his treatise *Dei Fide-commessi a famiglie e a chiese*, with the scope of upholding the existence of clerical property in mortmain.

In his *Economia Nazionale* (vols. xxi. xxii. and xxiii. of Custodi's *Scrittori classici italiani di Economia Politica*, Milan, 1802-1816) Ortes endeavours to demonstrate that as "the wealth of a nation is determined by the (previous) wants of its members, the riches of one of them

cannot increase unless at the expense of another one; the bulk of existing riches is in each nation measured by its wants, and cannot by any means whatever exceed this measure" (*Discorso Preliminare*). From this rather startling proposition, Ortes, who certainly was an original thinker, deduces the condemnation of the principles on which mercantilism was based. "Money is only a sign of wealth, and must never be considered as being wealth itself. The error of those who mistake money for wealth, proceeds from a confusion between the equivalent of a thing and the thing itself, or between two equivalents which they consider as identical things, although they are not" (ch. ix.).

In his *Riflessioni sulla Popolazione* (Venice, 1790, and vol. xxiv. of Custodi) Ortes controverts the prevailing opinion that an increase of population must necessarily increase the wealth of a nation, and maintains that "in any nation whatever the population is compelled to keep within fixed limits, which are invariably determined by the necessity of providing for its subsistence" (*Prefazione*). In his very first chapter he asserts that, if natural instincts were allowed full play, population would increase in a *geometrical* progression (doubling every 30 years), and calculates that a group of 7 persons composed of three old people, two young men and two young women of 20, would be the ancestors at the end of

150	years of	224	living persons
300	,,	7,168	,,
450	,,	229,376	,,
900	,,	7,516,192,768	,,

Sheer violence keeps down the numbers of animals within the necessary limits, but among men, "generation is limited by reason" (ch. iii.), especially by voluntary celibacy, which affords Ortes an occasion of extolling the provident discipline of the Roman Catholic church. Ortes is a harbinger of MALTHUS; first by his law of the geometrical increase of population, and secondly by the influence which he ascribes to human reason as a prudential check against over-population.

Ortes was a fervent mathematical student, and expresses himself in algebraical formulæ in his *Calcolo sopra il Valore delle Opinioni umane* (vol. xxiv. Custodi). In the same work he illustrates his meaning by curves, which, if not actually traced, are at least minutely described.

[See also Lampertico's monograph of *Giammaria Ortes e la Scienza Economica al suo tempo*, 1865. A very complete analysis of his writings in Professor Errera's *Storia dell' Econ. Pol. nella Repubblica Veneta* (Venice, 1877, pp. 92-156), and especially for his decided views in favour of free trade, Gobbi, *La Concorrenza Estera e gli antichi Economisti Italiani* (Milan, 1884), pp. 197-202.] E. Ca.

Ortes is undoubtedly the most eminent of the Venetian economists of the last century; his genius—original and sometimes paradoxical, is often opposed to the general tendency of the ideas of his time, and though his researches are occasionally faulty in their method, he has left a deep impress on the history of economic theory. He regards economic laws as immutable, like those of nature; he maintains this in opposition to the opinion usually accepted in his time, which regarded economics only in relation to special interests. Perhaps it is this idea which leads him to distrust the action of the state, considering it not adapted to promote the wealth of a country.

While Ortes applied a mathematical method to economics, his arguments are based throughout on abstract theory, disregarding the study both of facts and of history as not appertaining to economic science. This detracts from the value of his labours. Still his works are of weight in the history of economic theory. He did not adopt the doctrines of the PHYSIOCRATS, and he also recognises the importance of division of labour, and the important place taken by production in economic theory. Contrary to the prevailing ideas of his day, Ortes upholds universal free exchange.

[See also ITALIAN SCHOOL, and Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892, pp. 188-189, 305-306, and others.] U. R.

ORTHODOX ECONOMISTS. A title sometimes applied to those writers known as the CLASSICAL ECONOMISTS (*q.v.*). This description appears preferable. Orthodox is a term suggestive of controversy, and of the existence of an ascertained norm — a frame of mind uncongenial with that calm spirit in which economic questions should be approached.

ORTIZ, JOSÉ ALONSO (second half of the 18th century), published in 1794 a Spanish translation (with notes) of Adam Smith's *Essay on the Wealth of Nations*, under the title of *Investigacion de la Naturaleza y Causas de la Riqueza de las Naciones* (Valladolid, 4 vols.). Two years later he printed an essay on paper money and public credit (*Ensayo económico sobre el sistema de la moneda papel y sobre el crédito público*, Madrid, 1796), in which, according to Colmeiro's *Bibl. de Economistas Españoles*, he follows closely the theories of Smith. E. Ca.

ORTIZ, LUIS (second half of the 16th century), accountant (*contador*) of Castile, published in 1558 a *Memorial al Rey para que no salgan dineros de estos reinos de España* (Memorial to the King to prevent the export of Money from the Kingdom). Although Ortiz is imbued with the notions of his times on the usefulness of the craft organisations and sumptuary laws, the extraction of precious metals, etc., he is praised by Don Manuel Colmeiro (*Bibl. de los Econ. Españ.*) for his temperate views, rather favourable to protection than to absolute prohibition, and for his practical insight into the causes of the Spanish decay during this period. E. Ca.

OSCAR I. (1799-1859), king of Sweden, a son of Bernadotte, endeavoured to bring the system of criminal law of his country into accordance with modern ideas.

With this object he wrote, on the punishment of criminals, a book published in German under the title of *Ueber Strafe und Strafanstalten.*

[*Dictionnaire de l'Économie Politique*, Paris, 1864.]

OUNCE (Coin). The money of account of Morocco is the ounce.

The following is a list of the coins in circulation in that country:

Denomination.	Weight. Grains.	Fineness.	Value at 5s. 6d. per ounce.
Silver—Ten ounces	285·80	900	5s. 0d.
Five ounces	192·90	835	2s. 4d.
Two-and-half ounces	96·45	835	1s. 2d.
Ounce	38·58	835	5½d.
Half-ounce	19·29	835	2¾d.

F. E. A.

OUT-DOOR RELIEF. See Poor Law.

OUTLAW. If a person formally charged with an offence by an indictment is not in custody and cannot be found, he may be outlawed, *i.e.* put out of the protection of the law. The practical results are that he becomes incapable of taking the benefit of the law, and his property is forfeited to the crown. In England outlawry was abolished in civil cases by 42 & 43 Vict. c. 59, and has fallen into disuse in criminal cases, but in Scotland the absence of the prisoner on the day on which he is summoned to appear and stand his trial is always followed by sentence of outlawry.

[Stephen's *Commentaries*, bk. vi. c. xv. As regards outlawry in Scotland, see Bell's *Digest of the Law of Scotland*, Edinburgh, 1890.] J. E. C. M.

OUVRARD, G. J. (1770-1846), a Napoleon in the field of finance, started his fortune in 1789 by anticipating the demand for paper that would follow the enactment of the freedom of the press. He further amassed great wealth by contracts for provisioning the French armies, and on one occasion we find him making a treaty with the king of Spain as though a sovereign power. He quarrelled successively with the government of Napoleon and that of the Restoration, and was imprisoned at least four times. Neither Napoleon, however, nor the Restoration government could dispense with his help. He wrote in prison three volumes of memoirs, *Mémoires de G. J. Ouvrard sur sa vie et ses diverses opérations financières*, Paris, 1827, 8vo. He was a severe critic of Napoleon's system of leaving to the invaded country the finding food for his armies, and offered an elaborate plan of his own before the Russian campaign. In addition to these memoirs, he was the author of various financial pamphlets. He severely criticised Napoleon's neglect of credit, and was a fervent believer in the expediency of national debts, when safeguarded by sinking funds.

[See his memoirs as above, and *Dictionnaire de l'économie politique*, Paris, 1858.] H. E. E.

OVER-PRODUCTION has been supposed to exist both with respect to consumable commodities and capital. But "the theory of general over-production is an absurdity" (J. S. Mill), in the obvious sense which would justify the recommendation to increase unproductive consumption or to diminish saving.

There are, however, some phenomena which partially resemble the description which is given of over-production. For instance, in a commercial crisis, when there is a deficiency of ready money, there seems to be a plethora of goods; as J. S. Mill has pointed out (Essay 2, *Some Unsettled Questions*). A similar appearance, as he observed, may be produced by a derangement of currency; and it may be added by an appreciation of money consequent upon a great increase in production. Those who suffer from having to meet fixed charges with shrinking incomes are apt to complain of over-production. In general, improvement in production, when accompanied with "sudden changes in the channels of trade" (Ricardo), causes loss to some classes of producers. Workmen may be displaced by machinery (Ricardo, *Pol. Econ.*, ch. xxxi., Mill, *Pol. Econ.*, I. ch. vi. § 2); the native workman by the foreigner (Sidgwick, *Pol. Econ.*, III. ch. v. § 4). These phenomena, if they occurred on a large scale, might present the appearance of general over-production.

The impossibility of a "general glut" has been demonstrated by almost all the authoritative writers of this century; with particular clearness by J. Mill, J. B. Say, and J. S. Mill. On the other side are the weighty names of Malthus, Chalmers, and Sismondi; followed by a crowd of inferior writers. Some edification is no doubt to be derived from examining these writings, and in Mill's phrase (Essays, *loc. cit.*), "seeing that no scattered particles of important truth are buried and lost in the ruins of exploded error."

[J. Mill, *Elements*, ch. iv. § iii. (1868); see also *Commerce defended* (1808).—J. B. Say, *Traité* (des débouchés, i. ch. xv.).—*Revue encyclopédique*, July 1824 (reply to Sismondi), correspondence with Malthus.—J. S. Mill, *Essays on Unsettled Questions*, Essay 2; and *Pol. Econ.*, bk. iii. ch. xiv.—Ricardo, *Pol. Econ.*, ch. xxi. See also *Letters to Malthus*, edited by J. Bonar ("how their consuming without reproducing can be beneficial to a country, in any possible state of it, I confess I cannot discover").

J. R. M'Culloch, *Pol. Econ.*, pt. i. ch. 7.—Malthus, *Pol. Econ.*, 1st ed. ch. vii., 2nd ed. bk.

ii., *Definitions*, p. 56.—See also Bonar's *Malthus and his work*, bk. ii., end of ch. ii. and ch. iii.—Chalmers on *Political Economy in connection with the Moral State*, ch. v. *et passim.*—Sismondi, *Nouveaux principes d'économie politique*, 2nd ed. 1827, bk. iv. ch. iv., bk. vii. ch. vii.; and, at the end, *Éclaircissements*, in which the first article (republished from the *Annales de Législation*, 1820) is a reply to an article in the *Edinburgh Review* by M'Culloch (1819, vol. 32, p. 470); the second article (republished from the *Revue Encyclopédique* for May 1824) gives a report of an oral discussion between Sismondi and Ricardo; the third is a rejoinder to J. B. Say's article in the *Revue Encyclopédique* for June 1824. *Études sur l'économie politique*, 1827, Essay 1, "Balance des consommations avec les productions."—Uriel H. Crocker, *Excessive saving a cause of commercial distress; being a series of assaults upon accepted principles of Political Economy*, 1884.—*The Cause of Hard Times*, 1895.—J. A. Hobson, *Contemp. Rev.*, March and May 1895.—Robert Scott Moffat, *The economy of Consumption: an omitted chapter in Political Economy.*—A. F. Mummery and J. A. Hobson, *The Physiology of Industry: being an exposure of certain Fallacies in existing Theories of Economics*, 1889.]

F. Y. E.

OVERSEERS (OF THE POOR). A parochial office created in 1601 by the poor law of Elizabeth (43 Eliz. c. 2). Under that act the parish was made the area for poor relief, and the overseers of the poor were to act along with the church-wardens in the administration. They were to be from two to four in number, and to be appointed by the justices of the peace. Later acts gave power to appoint a single overseer in small places. Where there were no church-wardens the overseers acted by themselves. They were to be good and substantial householders. Women were eligible. If there was no inhabitant fit for the office, an inhabitant of a neighbouring parish might be appointed with his consent and at a salary. Vestries had power to elect a paid assistant overseer. So long as the administration of poor relief was parochial, the office of overseer was highly important. Since the passing of the new poor law of 1834 the overseers have little to do beyond levying the poor rate and making out the lists of persons liable to serve on juries or entitled to the parliamentary or municipal franchise. For the changes affecting overseers in rural parishes made by the Local Government Act 1894, see PARISH.

[See *Report* of Poor-Law Commission, 1834.—Eden, *History of the Poor Law.*—Wright and Hobhouse, *Local Government and Taxation.*]

F. C. M.

OVERSTONE, LORD. See LOYD, S. J.

OVERT-MARKET. See MARKET OVERT.

OWEN, ROBERT (1771-1858), was born at Newton, Montgomeryshire. His father was saddler, ironmonger, and post-master. Between 1781 and 1790 he was assistant to an old-fashioned Stamford ex-pedlar and linen-draper, M'Guffog; then to Messrs. Flint and Palmer of Ludgate Hill, shopkeepers of the new school, who often worked their employees from 8 A.M. to 2 A.M. Next we find him in Manchester earning £40 a year, at Satterfield's; then setting up for himself without capital, without knowledge of machinery, with an equally inexperienced and indigent partner, in the business of making spinning mules. In 1790 he became manager to Drinkwater, one of the earliest cotton-mill owners at Manchester, with £300 a year, a prospect of partnership, and 500 men under him. In this capacity, he was the first person to spin North American cotton on rollers (1791). In 1794 or 1795 he threw up Drinkwater's employment, and started the Chorlton cotton twist factory. While on a commercial visit to Glasgow in connection with this business, he met Miss Dale, daughter of Dr. Dale, proprietor of New Lanark. She told him that New Lanark was for sale; he went to her father, and bought it at £60,000 for himself and his partners (1797). In the same year he married Miss Dale. It was not until 1st January 1800 that he "entered on the government" (that was his phrase) of New Lanark. The description of New Lanark during Mr. Dale's régime (1784-1800) is derived from Robert Owen's autobiography (1857), his *New View of Society* (bk. i. ii., 1813), and Dr. Macnab, who, in 1819, examined and confirmed Robert Owen's statements in his report to the Duke of Kent. This description was subjected to the most searching criticism at the time by streams of visitors, including the future Emperor Nicholas, Lord Stowell, and others; and was never doubted until Mr. Packard, in 1866, published in his life of Owen an anonymous letter saying that, in 1796, the children were never overworked, that there was no crime and no punishment.

Robert Owen's and Macnab's accounts are as follows:—In 1784, Dale set up one spinning-mill near the Falls of the Clyde. In 1786 work began. He could not get any one to come and work; so he imported 500 workhouse or charity children, whom he fed, clothed, and educated. He took them at six or seven years of age, and worked them from 6 A.M. to 7 P.M.; so that education (say for half-an-hour), began after 7 P.M. Many children, after seven or eight years of apprenticeship, ran away. Further, he got some grown-up people together and built a village of one-roomed cottages with dunghills in front of each (see *Rob. Owen, by a Former Teacher*, 1839). These grown-up people turned out to be thieves, drunkards, and criminals of every sort, as respectable people would not take to manufacture. In 1797 there were four mills at work, and about 700 children and 1000 adults employed; and Mr. Dale, who presided over a bank at Glasgow, over forty

chapels, and over cotton-manufactures all over Scotland, used to spend a few hours every three months, but no more, in New Lanark.

The plan upon which Owen worked was twofold:

First, as to the children. He took no more children from workhouses, and allowed no child under ten to work. He established a normal working-day for children, and adults, of ten-and-a-half hours exclusive, twelve hours inclusive of meals (Macnab, 111). His method of education was borrowed from Bell, whose pamphlet on education was published in 1797, and Lancaster, whose schools were started in 1798, each of whom he had assisted with £500 and £1000 respectively. But he borrowed their method with improvements. Both Lancaster and Bell tried, like Owen, to make instruction mutual and recreative. Owen went further, and abolished rewards and punishments, and his teachers taught their pupils by precept and example "to make one another happy." All taught from objects and observation. Owen, however, although he kept at his own expense a clergyman on the establishment, and allowed Bible reading and Sunday schools, excluded theological instruction from the compulsory curriculum. Drill was instituted for boys, domestic economy for girls, singing and dancing for boys and girls. Further, he extended instruction to infants of two years, then at their mothers' request to infants of one year of age—this project (1809) was only completed in 1816; and these, the first infant schools in the united kingdom, were the models of the first English infant schools set up by Lord Brougham and others in 1819 (Hansard, third series, vol. xxvii. p. 1309; *New Moral World*, vol. i. p. 11). Owen believed they were the first in Europe. But Oberlin started schools for infants of two or three years old at Ban de la Roche, apparently at the end of last century (*Memoirs of Oberlin*, p. 87). Owen continued education up till twelve years of age. The expense of education was 3s. per annum per child, paid by the parents, and £700 per annum paid by the employer (R. D. Owen's *Education at New Lanark*, 1824).

Secondly, Owen declared that healthy surroundings were as necessary to the character of adults as to the character of children. He wrote: "In pity to suffering humanity either keep the poor in the state of the most abject ignorance, or at once determine to form them into rational beings, into useful and effective members of the state." Institutions must be adapted to perfect the manufacturing community as a whole, not merely the immature portion of it. First, in order to extirpate theft, he put before each worker "a silent monitor"—a small patch of coloured wood symbolising the black, shady, or white character of the worker; *e.g.* if black, it meant that the worker had committed theft which Owen by some system of his own had discovered. A register of character was kept. Then, night watchmen paraded the streets to take down the names of drunkards; three bad cases of drunkenness incurring dismissal (*R. D. Owen*). Drink-shops were gradually abolished, and in 1819 had long been extinct. Again, an elected committee, nicknamed by the housewives "bug-hunters," inspected domestic cleanliness once a week. Then illicit intercourse was fined; fines being paid to "the support fund," and not more than twenty-eight illegitimate children were born there in nine years (Macnab's *Report*, p. 110). The support fund for sick and old, and those injured by accident, was subscribed to by all the workmen, who had to set apart $\frac{1}{60}$th of their wages — although their wages were considered by the Leeds committee of 1819 low, 9s. 11d. a week for men, 6s. a week for women. Voluntary thrift was also encouraged in two ways: special residences were set apart for those who laid by money; and a savings bank started, which in August 1819 had £3193 deposits, the population being 2481 in number. There was also a common store. Owen bought wholesale and resold at moderate profits to his workpeople, thereby underselling the former shopmen by 20 or 25 per cent, and substituting good for bad goods. This method killed the dram-shops and every other shop in the place. Further, in 1812 (see *Statement*) he projected a common kitchen "in order to save his men some £4000 a year" wasted on separate fires, cooking, etc. The kitchen dropped out of sight, and was not quite ready on 26th March 1819 (see Dr. Griscom's *Travels*, ii. 384). The effect of these arrangements was that none of the workmen were convicted of crime between 1803 (Hansard, 41, 1203) or 1804 (Macnab) and 1819. Nor according to the *Former Teacher* did Owen dismiss wrong-doers or opponents. R. D. Owen's statement as to drunkards being dismissed indicates an exception to this rule.

But these arrangements could not be carried out except in a building which should focus and be set apart for the common needs of every-day life. The projection of this "New Institute for the Formation of Character" in 1809 had frightened his old partners away, and created such hostility in his new partners that in 1813 Owen went to London to find new partners, published the first two essays of his *New View of Society* (all four essays were at first sent to every government, religious minister, etc., in 1814, and were only issued to the general public in 1816), became acquainted with the leading men of the day, and finally returned to buy in New Lanark, at a cost of £114,000, for himself, BENTHAM, Walker, J. Foster, W. Allen, J. Fox, and Michael Gibbs. The name of the institute embodied what Hazlitt called Owen's "fixed idea"—the idea which first struck him when

on his Highland tour in 1802—that "circumstances" form character. Buying cheap and selling dear, are "circumstances" which deteriorate character; they must be counteracted by some "circumstance" which brings peace, unity, and intelligence. Ties between master and man were loosened by factory labour; some new bond must be forged. The factory system was necessary, because "it is the interest of society to ensure the creation of riches with the maximum of comfort to the producer" (*Address to Powers at Aachen*, 1818), and because it was too late to go back; but it had evils, and one evil was that labour was "depreciated" by excessive competition between labourer and labourer, and, as he afterwards wrote, machinery and labourers; this evil must be met by tackling the question "how the excess of riches may be generally distributed throughout society advantageously for it" (*ib.*); and by pushing forward institutions able to raise and reunite those whom the new productive mechanism had sundered and coarsened. Hence the institute with its lectures, dances, libraries, and other instruments of rational recreation. It was the complement of the factory, and answered the character-wants which factories created. Owen advocated an ideal—a word which by the way he does not use—but an ideal in which profit is an ingredient. Griscom found the partners drawing 12½ per cent profit in 1819. Owen preached philanthropy, but not that of the Duc de La Rochefoucauld, whom he saw in France making cotton 4 per cent dearer than his own; philanthropy and a minimum of 5 per cent was to him the Law and the Prophets. This was the double bait which hooked Bentham and the Quakers, Walker, Allen, and Foster. Owen's ideal was imposed on the employees from without, and did not grow from within. But it won its way with them by persuasion, not coercion. The *Teacher's* stories of Owen's forgiveness and tolerance are conclusive on this point. Again, in 1806, when cotton imports were stopped, he paid his unemployed employees full wages, and wished to go under if they went under. As it was he only lost £7000. Again, he always foresaw that a patriarchal system of industrial government must lead to industrial self-government, and that his measures introduced "a more just equality of our race," and therefore, he said, the Duke of Kent stuck to him till the last, and men like Lord Lauderdale fell away from him. In spite of this, he never took any step to substitute the delegates for the patron at New Lanark. But then, he would have answered, "New Lanark is but a half-way house, a compromise, a second best." He had other schemes brewing. The following are two notices of the condition of New Lanark after 1828, when the opposition of his Quaker partners to his religious views forced him to retire from the firm; (1) from the *Glasgow Free Press* cited in the *Crisis*, iii. 29, which alleged that the "ornamental parts" of education had been dropped, but that dancing and singing were still taught (1833). (2) From R. Owen's "Address to Infant School Societies" in 1830, which praised the school for its elder children, but alleged that the rational infant school was no more. New Lanark seemed to be forgotten, except as a school for children.

R. Owen's further schemes may be considered under two heads:

(1) First came the tentative state socialism defined by the *New View*. Abolish state lotteries; allow licenses to sell drink to fall in without being renewed; set up national education under a department which will soon be of primary importance in the state, because that state is best governed whose members are best educated. Collect labour statistics, including the price of labour and the number of the unemployed, and keep some useful work on hand (*e.g.* on roads and canals), as a reserve for the unemployed; who if employed on these works should receive less than the market rate of wages. He was the earliest advocate, in January 1815, of the original Factory Bill, introduced by the first Sir R. Peel later on in that year. His pamphlet on the bill (1815) claims the entire credit of it. Both pamphlet and bill advocate the New Lanark day of ten-and-a-half hours exclusive, twelve hours inclusive, work, and the prohibition of children-workers under ten. The bill, not the pamphlet, limits the normal working day to young persons under eighteen, the pamphlet adding that this would practically involve all the workers in its scope; the pamphlet, not the bill, prescribes an educational test as the condition precedent of child-work, also half-time for children between ten and twelve years of age, in order that they might continue their education at their employers' expense. Owen travelled all over England to collect evidence against the white slavery, as he called it, and attended nearly every meeting of the committee which sat, as he says, for two years to inquire whether it was unhealthy for children of six and upwards to work fourteen or fifteen hours a day in stifling rooms. The subsequent limitation of the act (1819) to textile industries attests the opposition which the bill evoked, and the crucial character of Owen's evidence. The bill was brandmarked "New Lanark," and the Lanark workmen described it as a measure to extend their privileges to their fellow-workers (see their address to Owen, 7th May 1818); but whether Owen drew the bill and gave it to Sir R. Peel, as he asserts, may be doubted.

(2) But secondly, the views in the *New View* were described as a first dose, which should prepare for a second and stronger dose. This last was contained in his report to Archbishop Sutton's Committee on Distress, which sat in the London Tavern during 1816, and was referred by them to Sturges Bourne's poor-law committee, and published 1817. It recommends "villages of union and mutual co-operation," mainly agricultural but partly manufacturing, and containing (say) 1200 people. The odd plan of a parallelogram within which the villagers were to live

recalls BELLERS' "Colledge of Industry," which PLACE unearthed for him (1817 ?); and still more that characteristic outcome (in 1807) of the "l'esprit rectangulaire," as REYBAUD calls it, of the then unknown FOURIER, the phalanges. The villages were to carry on collective industry and to provide out of its profits, or better still its produce for the wants of the workers and of the infirm. They were to become first self-governing, then self-sufficient, and the ultimate goal was communism. [*Autobiog.*, ii. 303. *Explanation of Causes of Distress* (1823), § III.] Common life was to lead to common profits, and he should have added, but did not add, common losses. Now, for the first time, he advocates the integration of industry, an advocacy which ripened in his Lanarkshire Report (1820), and Dublin Reports (1823), into opposition to division of labour. The *New View* appealed to "laws of nature"; now he poses as the sole experienced "economist"; in the 1820 Report he announces that he has discovered "a new science—the science of the influence of circumstances, which is the most important of all the sciences." He was in France in 1818. Macnab speaks of his views as "social" in every page of pt. 1 of his report (1819); but M. Reybaud's assertion that the word "socialist" was not invented to denote these views until after Owen formed "the association of all classes of all nations" (1835), has not been refuted. The socialism embodied in these reports (1817, 1820, 1823), involved three distinct proposals.

(*a*) His first proposal was that 100 "philanthropists" should each invest £1000 at 5 per cent in starting a scheme. The Duke of Kent's committee, which included RICARDO, TORRENS, and others, recommended this scheme, but only £8000 having been subscribed on 1st December 1819, it was abandoned. Again, as the result of his Lanarkshire Report, operations began at Motherwell, with a capital of £50,000 advanced by the British and Foreign Philanthropic Society, but fell through from want of funds. Here the projectors expected, Peabody-fashion, to redeem the capital as well as pay interest, and then devote their profits to starting new institutions of the same character. Vandeleur's Ralahine (1831) was the outcome of Owen's Irish visit, and broke down through the bankruptcy of Vandeleur, who was patron-landlord, long before the community of tenants bought their freedom (see CO-OPERATIVE FARMING). A more important scheme was set on foot by Abram Combe and Hamilton of Dalzell, who were disciples of Owen, at Orbiston. The founders subscribed £25,000 and opened their barrack-like establishment of some 300 members in September 1826. The members soon resolved on trying communism after the founders were paid off; but long before this, Combe died (August 1827), and the business in a few months went bankrupt and the barrack was razed. But Owen had neither scot nor lot in this scheme. He was launching his scheme at New Harmony, Pennsylvania. Owen's attention had, in 1817, been called to a communistic settlement of Shakers in the New World. In 1812 John Melish printed his travels, which contained an account of a sect of "Rappites" who settled in 1805 at Harmony. Each village of 800 or so converged to a central square, and radiated into cottages where each family lived separately, had separate gardens, poultry and hogs, but in other respects lived a common life, worked mainly on agriculture, and enjoyed the profits of their work in common. In 1824 Owen went to America, bought Harmony from the Rappites for £28,000, and advertised for settlers, 900 of whom came. On 27th April 1825 he laid down as principles for the new community that (1) each should hold his goods as part of the common stock, but might withdraw at any time; if so, his goods or their value were restored to him; (2) all should work, but as a temporary provision, Owen should value the work done by each. He left for England in June, returning on the 12th of January. On the 5th of February the New Harmonists enacted (1) that all property should be held upon trust for the community; (2) a member withdrawing was only entitled to such compensation as a general assembly awarded him for his services; (3) other than this, services, etc., were not valued. On the 8th March Owen, who had not taken part in creating the new constitution, was once more despotic manager. The February constitution had meanwhile driven out malcontents into the neighbourhood, where they formed sub-colonies. In most cases, Owen granted long leases to the sub-colonists, or advanced money at 4 per cent interest for the necessary buildings and purchases; and the land so let or sold was subject to restrictive conditions against touching profits till the debt was paid off; and after that, against the division by members of profits amongst themselves, and also against spirituous liquors. And there were colonies modelled on New Harmony,—thus Miss Frances Wright advanced money to found a colony in which black and white men were equal, and permanent marriage was abolished. The latter, but not the former principle was extended to New Harmony on 4th July 1826; a date signalised by the *N. H. Gazette* as the 51st of American and 1st of Mental Independence. In another case, a Mr. Maclure advanced money to buy land and to found schools after the manner of Pestalozzi. In all these cases some one was landlord or mortgagee, subject to options to redeem or purchase; but no redemption or purchase took place. In spring 1827 Owen declared the New Harmony experiment closed. Next Maclure's, and then (1st February 1828) Miss Wright's scheme was abandoned. A few weeks later Owen resumed the last leases of the sub-colonies on the ground that their stores competed against one another, and that their external trade was run by monopolists. After these dates, the colonists and sub-colonists left, or had to support themselves. Owen, by an expenditure of £40,000, or ⅘ths of his fortune, had helped to keep his colonists going for one or two years mainly on charity—a satirical commentary on his favourite dictum that the rich deceive themselves when they think that they support the poor, since the poor support the rich. Experiments are not communistic, because workers receive subsistence in lieu of wages; communism implies the division of produce; here, so far from there being a net produce to divide, there was a

large net loss which fell almost entirely on one man.

(*b*) Nearly ruined in America, Owen returned to England to find a second branch of his scheme of 1817, 1820, and 1823, blossoming and fruitful. He had urged artisans and others with £100 (the third class in his reports), to mass their capital and elect a committee of members to superintend its application to work. Interest was payable on capital. He believed that this scheme would soon pay hugely, and that those who took part in it "began their journey near their journey's end." Co-operative capitalistic industries scarcely existed in England before 1817. Owen now returned (August 1829) to find co-operative stores in full swing, with an admirable organ of their own in Dr. King's *Co-operator* (1st May 1828 to 1st August 1830). In setting to work to develop and federate them, he employed two characteristic methods: (i.) he tried to merge them in a wider movement, and for this purpose formed a centre of culture with lectures, a paper (*The Crisis*), annual co-operative congresses, social festivals, etc.; the Mechanics' Institute, Bromley's Bazaar (Gray's Inn Road), Burton Street Chapel, and 14 Charlotte Street, were the successive "Meccas" of the new movement. The burden of the lectures was usually economical, *e.g.* "do without the middlemen." "If work is organised, an eight hours' day will be possible" (this idea first appeared in a letter by Owen, dated 9th August 1817). "The land belongs to the people." "That country is happiest which has most producers and fewest distributors." "A graduated property-tax is the best form of taxation." "International congresses should be promoted," etc. Feargus O'Connor lectured for them once, and in May 1833 the Magna Charta of social regeneration was issued partly under Owen's auspices. In 1834 a "Grand National Consolidated Trades Union," or union of all the working classes, was started. On May day 1835 the association of all classes and all nations was formed, with paid lecturers, etc. A man attended its lectures for three months, and was examined in Owen's philosophy before being elected member. It was a forestalling of university extension tacked on to co-operative and trade unionist movements. Owen's energy as a lecturer was fabulous; and in 1836, according to the *New Moral World*, ii. 214 (its new organ), there were 100,000 members. The new phasis was wrecked partly by Owen being called to superintend a new abortive Owenite community at East Tytherley, Hants (1839 to 1844), whose members alternately elected and deposed Owen as despotic manager, and had, as usual, to be kept going by other people's capital, partly by the socialists, as they called themselves, transferring their attention from economy to marriage and religion. Owen's ideas on these subjects are clearly indicated in the report by the Home Colonisation Society of his public discussion with Brindley at Bristol (cp. *Observations on the Manufacturing Systems*, 3rd ed. app. p. 42). In 1840, the bishop of Exeter and Duke of Wellington advocated, in the House of Lords, prosecutions for blasphemy; the East Tytherley community drained their funds; and the rank and file threw mud at them, which stuck (see *e.g.*, *Socialism as it is*, by Giles, 1838; *The Human Eccaleobion or New Moral Warren*, 1842). Finally the movement worked itself out, while political chartism, free trade, and trades unionism in its modern sense came to the fore. (ii.) A second colouring was given to the co-operative movement by Owen's currency craze. The 1820 report first puts into the forefront (1) Falla of Gateshead's rediscovery of the value of spade industry in cultivating wheat as the agricultural counterpart of Arkwright's discovery; and (2) the abolition of coined money as the counterpart in distributive economics of machinery in productive economics. As to this last nostrum, it was perhaps due to a misunderstanding of Ricardo's dictum, that labour is the measure of "real value" (as to which see MILL'S *Pol. Econ.* iii. xv.; M'Culloch's *Pol. Econ.* ii. i.), and to a belief in the superiority of paper to coin, which he shared with ATTWOOD and PEEL, whom he had aided in opposing the resumption of cash payments by the Bank of England in 1819. In 1830 (address to merchants) he reads these ideas into non-co-operative movements. "The wholesale and retail trade of the kingdom will soon be absorbed by a few great houses, which principle will continue to obtain until the whole business shall be taken up by *banking* bazaars." Between 16th June and 3rd September 1832 he converted his central offices into an "Equitable Bank of Exchange," which was afterwards called "The National Co-operative Trades Union and Equitable Labour Exchange," and was meant to substitute labour, which he called "intrinsic value," for money as the measure of value (see LABOUR EXCHANGE). The average hour's work "contained in commodities" was to be the unit of measurement (cp. *Autobiogr.* ii. 302; see Karl MARX). Say, a pair of boots contained "twenty hours'" work, and a pair of trousers "forty hours'" work; the cobbler would come to the bank, deposit his boots, and receive a note for twenty hours, and return next week with a second pair and receive a second note; and then if he wished, receive a pair of trousers for his two notes. For this purpose, it was essential to equalise every one's hour's work. Pending the difficulty of getting workmen to submit to this levelling, he adopted a provisional scheme which had two features: (i.) if the boot-maker who brought boots said, "I paid five shillings for materials"; the valuer wrote him down ten hours; money value of materials was the gauge of hour-credit; (ii.) bad work was counted as "containing" fewer hours than it actually took; there was a despotic valuer at headquarters. Further complications arose when (iii.) provision merchants and farmers fought shy of the system; and (iv.) 9000 hours' value was purloined from the store—a loss which Owen made good, though not legally liable.[1] After this last event (27th July 1833), Owen was superseded at headquarters; and the

[1] R. Owen's Rotunda in Gray's Inn Road: "I did not witness the introduction of the millennium, and I believe that soon after this time the Rotunda, with its happy auguries, came to an end. The excellent and truly philanthropic founder [R. Owen] spent three or four fortunes on his efforts to raise his fellow men, and his failures were in consequence of his implicit trust in human nature, and his conviction that any one may

central organisation broke up in 1834. This scheme first inflated then ruined the co-operative societies to whom it was, in the first instance, addressed. They were the principal victims. On 1st August 1829 there were 70 (King's *Co-operator*), on 1st February 1830 there were 172 (*London Co-op. Mag.*), on 30th June 1832 there were over 400 (*Crisis*, i. 59), on 27th October 1832 there were over 700 co-operative societies (*Crisis*, i. 135), between which Owen forged these paper links; three or four years later, the number had dwindled to fifteen or so. The organisation of co-operators by means of a central exchange might have been of great help; as it was, Owen's splendid follies acted as an advertisement which stimulated co-operation to an abnormal and evanescent excess.

(*c*) The third branch of the scheme (of 1817, 1820, and 1823) was that poor-law authorities should set these communities going. He based this plan on the "just and legal right" of the poor to relief which does not degrade, and to employment (cp. TURGOT'S *Droit au Travail*); and added provisions for gradually converting paupers into co-operators, and making (*c*) lead to (*b*). The government obviously seized hold of Owen's speech against the disuniting effects of churches (21st August 1817), to reject the motion made to give this scheme a trial (see speeches of Wilberforce and VANSITTART, in House of Commons, 14th December 1819). The Leeds committee rejected Owen's pauper scheme as based on *a priori* grounds, New Lanark being a manufacturing village, not an agricultural paradise of a parallelogram (1819). The Lanarkshire committee in 1820 approved of the scheme as the basis for starting a county Bridewell, then shelved it. It was not so overseas. Leigh Hunt's *Examiner* (25th April 1819), *The New Moral World*, 3rd July 1841; Mary Hennell's *Social Systems*, etc. (1844), and J. Wolber's *R. Owen* (1878), attribute the institution in 1818 of farm colonies for the unemployed in North Holland, at Frederiksoord, etc., by benevolent societies quite as much to Owen's as to General Van den Bosch's initiative; and the subsequent incorporation of "beggar colonies" of paupers in this scheme (1820-1859) was clearly due to this portion of Owen's reports (see INDUSTRIAL COLONIES).

But the reorganisation of industry was the only thing he cared about. Political reform was a matter of indifference; although power he knew would ultimately shift to the productive workers (see, *e.g.*, *Crisis*, iii. 114). He first addressed a manifesto to the working classes as such in April 1819, and urged a plea for vested interests. The short passage in the first three editions, and the Scotch and American editions of the *New View*, opposing reformers as premature, was afterwards struck out. In the *Crisis*, iii. 114, 3, he indicates the supreme importance of strikes and trades unions as compared with mere political movements. He scarcely alludes to revolution in his earlier works; but deprecates that of 1830, as expressing only individualism and competition (*Crisis*, i. p. 49, etc.), and with absurd ignorance accuses Mazzini of fostering revolutionary tendencies of the same competitive and individualistic character (*Robert Owen's Journal*, 22nd November 1851). Cold rather than hostile to any political movement, he thought industrial experiments the only social factor of paramount importance, and was as confident of success for his scheme, which he said had never been tried, in his addresses to the first two Social Science Congresses (1857 and 1858), and until he was led out of the latter, leaning on Lord Brougham, home to die, as he was at the very first outset of his career of reconstruction. "Owen," said Bentham, "begins in vapour and ends in smoke." His style is vapoury, from the time when he preached the Millennium (1st January 1816) at New Lanark, until the date of his journal entitled *A Journal Explanatory of the Means to Well Place* (*and Well Feed, Well Clothe, Well Lodge*), *Well Employ and Well Educate* (*Well Govern and Cordially Unite*) *the Populations of the World* (1850 to 1852), or until the date of his *Millennial Gazette* (1856-57). But we prefer Lord Brougham's description of his good humour and childlike simplicity (see Hansard, 14th December 1819); or Torrens's allusion to his "moral grandeur" (cited in Macnab's *New Views Examined*); or Leigh Hunt's "Yet I could at any time quit these writers, or any other, for men who in their own persons, and in a spirit at once the boldest and most loving, dared to face the most trying and awful questions of the time—the Lamennais and Robt. Owen, the Parkers, the Fosters, and Newmans."

attain perfection in any line if properly educated" (*Mrs. de Morgan's Autobiography*, p. 160).

[For illustrations of the notes in use and further details, see Art. on LABOUR EXCHANGE.]

[Robert Owen, *Autobiography* (1857-58) (ends 1823, and contains nearly all his writings down to 1832 in appendices, needs corroboration in his vivid dialogues and his dates).—A. J. Booth, *Robert Owen, the Founder of Socialism in England* (1869), critical and biographical.—W. L. Sargant, *Robert Owen and his Social Philosophy* (1860), biographical and hostile.—Jones Loyd, *The Life, Times, and Labours of Robert Owen* (1889-90), biographical and friendly.—F. A. Packard, *Life of Robert Owen* (1st ed. anon. 1866; 2nd ed. 1868), unimportant.—Robert Dale Owen (R. Owen's son), *Threading my Way: Twenty-Seven Years of Autobiography* (1873).

Criticisms of Owen are contained in *The Edinburgh Review* (1819).—Malthus, *Essay*, bk. iii. (6th ed. 1826), disapproving.—A. F. Paget, *Introduction à l'Etude de la Science Sociale* (2nd ed. 1841).—M. R. L. Reybaud, *Études sur les Réformateurs contemporains ou Socialistes modernes* (3rd ed. 1842-3).—G. J. Holyoake, *History of Co-operation in England* (1875-9).—B. Potter, *The Co-operative Movement in Great Britain* (1891), pp. 12-31; as to anticipations of Rochdale Pioneers, see pp. 61, 67.—S. and B. Webb, *History of Trade Unionism* (1894), pp. 119, 143, 151.—R. W. Cooke Taylor, *The Modern Factory System* (1891), p. 209. and G. Wallas, *Life of Place* (1898).

As to the American experiments see *The New Harmony Gazette*, ed. by R. D. Owen, Frances Wright, from 1st Oct. 1825 to 3rd Oct. 1827.—*The Co-operative Magazine* (Jan. 1826-Jan. 1830). Both are Owenite papers and therefore communistic.—J. H. Noyes, *The History of American Socialism* (1870), compiled from valuable original materials collected by A. J. Macdonald, but not thorough.

As to the "Equitable Exchange" experiments see the Owenite paper *The Crisis*, ed. by R. Owen and R. D. Owen (19th May 1832 to 27th April 1833). It appealed mainly to co-operators. Then it was named *The Crisis and National Co-operative Trades Union and Equitable Exchange Gazette* (27th April 1833 to 16th August 1834), in order to appeal equally to non-co-operative trade unionists.

As to the subsequent propaganda see the Owenits paper *The New Moral World* (1st Nov. 1834 to 13th Nov. 1841). Its full title up to 22nd Oct. 1836 is *The New Moral World conducted by R. Owen and his Disciples*, or

merely *By Disciples of R. Owen:* after which R. Owen's name is omitted. Its full title after 13th July 1838 is *The New Moral World or Gazette of the Universal Community Society of Rational Religionists enrolled under the* (Friendly Societies') *Acts.* The U. C. S. of R. R. were the paying members of the association of all classes; they could not have been enrolled under these acts, if their payments had been made for co-operative purposes.]

[See CO-OPERATION; FACTORY ACTS; SOCIALISM.]

J. D. R.

OWLERS were smugglers of wool or sheep to the continent when the exportation from England was prohibited, between the Restoration and the beginning of the 18th century, in the interest, as was supposed, of the home manufacture of cloth. The chief export station for rough wool was Romney Marsh, but much went also from Sussex, Essex, and Hampshire, and combed wool was smuggled in considerable quantities from Canterbury. French boats well armed received the wool at night, and their captains generally succeeded in eluding the armed sloops which guarded the Channel, and the severe penalties which were enacted against them, and of course enacted in vain as long as the owlers could make a net profit of 3d. on every pound of wool they exported. It is uncertain whether the term "owling" is a corruption of "wooling," or is derived from the smugglers' practice of carrying on their trade by night.

[John Smith, LL.B., *Chronicon Rusticum Commerciale, or Memoirs of Wool*, 1747, ii. 30, 206, 324, 536, 546, 561, with reference to Rapin, *Continuation*, p. 371.—*England's Interest Asserted*, 1669, and *England's Interest by Trade Asserted*, 1671, both by W. Carter.—*Abstract of Proceedings of W. Carter*, 1694.—*Excidium Angliae* and *Anglia Restaurata*, both by the Cheshire Weaver, 1727.—Bischoff's *Woollen and Worsted Manufactures.*—Dowell's *Hist. of Taxation*, iv. 433.—Rogers's *First Nine Years of the Bank of England*, p. 32.—Stephen's *Criminal Law*, iii. 228.]

E. G. P.

PACIOLI or PACIOLO, FRA LUCA (15th century), sometimes called Luca da Borgo, from his native village in Tuscany, was a Franciscan monk and distinguished mathematician.

He published at Venice in 1484 his *Summa de Arithmetica, Geometria, Proportioni e Proportionalita*, republished at Toscolano 1523. This contains much information on the commercial practice of his time, especially on partnership, sales, interest, drafts, and bills. His own leanings are towards a liberal interpretation of the doctrines of the CANON LAW (*q.v.*) on these subjects; he also explains clearly the method of book-keeping by double entry, particularly developed in Venice, thence called *alla Veneziana.*

A new edition of the part of this treatise relating to book-keeping was published by Vincenzo Gitti (*Fra Luca di Pacioli: Trattato di computi e scritture*) Turin, 1878; according to Goldschmidt, *Handbuch des Handelsrechts*, Stuttgart, 1891 (p. 246, note 36), it is very defective. See also Libri, *Histoire des sciences mathématiques en Italie*, iii. p. 133.—Jäger, *Lucas Pacioli und Simon Stevin* and *Der Traktat des Lucas Pacioli*, Stuttgart, 1878, who has in the latter followed the defective text of Vincenzo Gitti.

E. Ca.

PACKMAN. A term applied to pedlars who carry their goods in a pack (see PEDLAR).

J. E. C. M.

PACOTILLE: *Fr.* (maritime trade). Seamen's ventures, or goods captains and crews were formerly allowed by custom to take with them in small quantities, on trading voyages, to sell on their own account. They were free of freight, and the practice was tolerated to interest seamen in the expedition. In the early days of maritime discovery, before the creation of factories or depots of merchandise in distant countries and colonies, the word *pacotille* was also employed to describe cargoes of various commodities taken on voyages of circumnavigation to barter with or sell to the natives. By extension cheap common goods carried by pedlars are called *pacotille*, and the word is now used in disparagement to describe any merchandise as being of inferior quality.

T. L.

PAGANO, FRANCESCO MARIO (1748-1799). Born in Brienza (Basilicata); a distinguished jurist and a martyr for Italian liberty. At twenty he began to publish his legal works. He commenced by teaching criminal law at the university of Naples. Persecuted for the ideas expressed in his writings, and exiled, he went to Rome and taught public law at the university there. He was recalled to Naples in 1799 to take part in the provisional Neapolitan government—he arranged the plan for the constitution of the republic, and presided at the legislative council. When the Neapolitan revolution was quelled he was condemned to death and executed. Pagano's memorandum on the trade in fish is of importance to economists; he follows the ideas of the physiocrats, and demands domestic freedom of trade.

In this treatise, written to convince the people of the advantage of continuing the abolition of the excise on fish, which some wished to re-enforce, Pagano observes that the price of goods is naturally determined by their quantity, and the demand for them, and that nature—through freedom of trade, not law—must fix the price. Price, established by law, may be wrong, and may damage both buyers and sellers. He would also remove the monopoly of sale granted only to a few, and would allow the fishermen themselves to sell—this right to be accorded to others as well as to fishermen; all crafts to thrive in freedom. Thus Pagano desired the abolition of all the corporations of arts and crafts, and of all obstacles and restrictions on the home trade.

Ragionamento sulla libertà del commercio del pesce in Napoli, Napoli, 1789.—*Saggi politici dei principii, progressi e decadenza della società*, Napoli, 1789.

[Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. ii. Milano, Hoepli, 1888.—Alberti, *Le corporazioni d' arti e mestieri e la libertà del commercio interno negli antichi economisti italiani*, Milan, Hoepli, 1888.] U. R.

PAGE, FREDERIC (1769-1834), a Berkshire country gentleman, author of *Principles of English Poor Laws Illustrated and Defended*, Bath, 1822, 2nd ed., London, 1829, 8vo, and of *Observations on the State of the Indigent Poor in Ireland*, London, 1830, 8vo. In the first, he insists that, *through the intervention of the State*, the indigent have a right to relief from the possessors of property. He advocates the extension of select vestries under the Sturges Bourne Act 1819 (see POOR LAW), and a strict discrimination in granting relief, according to character. The pamphlet is chiefly interesting as describing the working of the old poor-law system, under the most favourable circumstances. The later pamphlet is written to advocate a poor law for Ireland. H. E. E.

PAGET, AMÉDÉE (died about 1850), was a disciple of C. FOURIER (*q.v.*), and wrote :—

Introduction à l'étude de la science sociale (Paris, 1838 and 1841), which is considered one of the best statements of his master's doctrines.

É. Ca.

PAGNINI, GIOVANNI FRANCESCO (1715-1789), born at Volterra in Tuscany, held office in the financial department of the Tuscan government. He was a member of the "Società dei Georgofili" of Florence, a skilful agriculturist, and an able writer.

Well acquainted with the writers of the school of natural right and some English philosophers, he translated (published at Florence, 1751, two vols.) Locke's works : *Two Treatises of Civil Government* (1690) ; *Some considerations on the lowering of Interest*, etc. (1691) ; *Further considerations concerning raising the value of Money* (1698). He then reprinted parts of the *Manuali pratici*, which the two bankers Francesco Balducci and Giovanni da Uzzano had written in the 14th and 15th centuries *for the use of merchants*.

In his essay "On the right price of Commodities, etc.," he demonstrated that the Romans, who sought wealth only through war, adopted some provisions which were quite contrary to that principle which, as he says, "is able to procure its citizens or subjects the power of using advantageously the produce of its territory, as well as to protect and forward manufactures and facilitate the export of both manufactures and natural products ; and as far as possible to prevent the introduction and consumption of foreign goods." And as the system of conquest was no longer possible, and by themselves the states could no longer provide for agriculture and war, Pagnini praised and suggested such measures of government as were not designed to procure the state abundance of foreign commodities and goods, but to save it also "the expense which the consumption of the same would imply, and to enable it also to acquire the gold and silver of other nations." In his remarks on the question of value, Pagnini did not follow the doctrines of LOCKE, whom he had translated, but those of PUFENDORF. He admitted the existence of an actual market value only, not that of a natural or normal value ; and he maintained, though he gave it a special meaning of his, the theory of supply and demand as VERRI, ORTES, GIOIA, GALIANI, and others had done. He also maintained that the ideas of the Romans about the origin and functions of money were altogether opposed to the theories of modern economists, a thesis which was completely refuted by NERI and CARLI (see PAULUS JULIUS). In his work *Della Decima* (see DÉCIMES), Pagnini gives a history of that tax and the trade of the ancient Florentines, with a digression on the value of gold and silver, and on the rate of prices of commodities in the 14th and 15th centuries compared with those of the 18th century. This work is still of use in the study of prices—*Saggio sopra il giusto prezzo delle cose, la giusta valuta della moneta e sopra il commercio dei Romani*, inserted in Custodi's *Raccolta*,—*Scrittori classici d' economia politica*, modern part, t. ii., Milano, 1813.—*Della Decima*, Lisbona e Lucca, 1765, and Firenze, 1756-66. A. B.

PAGODA, HISTORY OF. A gold coin of southern India, known also by the native names of *varâha* or *hûn*, the former word indicating the "Boar" *avatâr* of Vishnu, figured on south Indian coins from the 5th century onwards, whilst *hûn* (=gold) is their later Mahommedan name. From the 16th century onwards this was the Portuguese "pardao de ouro," perhaps meaning "a quarter" of a gold rupee. The name pagoda is sometimes derived from Persian words meaning idol-temple, but more commonly from the Sk. *bhagavat*=holy, for the reason given in Fra Paolino's *Viaggio* of 1796 that the coin bore "the effigy of the goddess Bhagavadi, a name corrupted into pagoda by Europeans" (cp. Linschoten's *Travels* of 1596):—"They are Indian and Heathenish money with the picture of a Diuell upon them and therefore are called Pagodas." The effigy in question was that of Krishna, or Swâmi, whence the "swamy-pagoda" of Madras, containing about 46 grains of fine gold. Still better known was its successor, the "star-pagoda" of Madras, which was the standard coin of south India till 1818. This coin, bearing the eponymous device of a star, contained by law 42·048 grains fine, and was therefore worth about 7s. 6d. There were also Pondicherry and Porto Novo pagodas worth about 1s. less. All these three varieties were familiar at the beginning of the present century throughout the Indian currency area, which then included not only Ceylon and Mauritius, but also the Cape and St. Helena. Even in New South Wales, in 1800, the pagoda was constituted a legal tender. By proclamation of 7th January 1818 in Madras the coinage of the gold pagoda

was stopped, in view of the establishment of the silver rupee as the standard coin of the presidency. With the pagoda gold disappeared from normal circulation in India.

[*Acts and Regulations of the East India Company.* — Chalmers, *History of Currency in the British Colonies*, London, 1893.—Zay, *Histoire monétaire des Colonies Françaises*, Paris, 1892.—Thurston, *History of the Coinage of the East India Company*, Madras, 1890.—Sir H. Yule, *Hobson Jobson.*] R. C.

PAINE, THOMAS (1737-1809), born at Thetford (Norfolk), died in New York; held an appointment in the excise, on his dismissal from which in 1774 he went to Philadelphia; there, through introductions from Franklin, he made friends and obtained employment in journalism. He took an active part in the American War of Independence, and in 1777 was made secretary to the committee of foreign affairs. His *Crises* (1776-83) were acknowledged by Washington and others as having powerfully assisted the cause of separation. Leaving America in 1787, he visited Paris and London, where he published his *Rights of Man* (1791 and 1792), a reply to Burke's *Reflexions on the French Revolution*. He was thereupon elected to the convention, and subsequently to the committee for framing a new constitution. His association with the Girondins aroused the enmity of Marat and Robespierre, and he spent the greater part of 1794 in prison, where he completed his *Age of Reason*. He returned to America in 1802.

Paine's merits and defects are those of a partisan. In his economic, as in his political and religious writings, his aim is not the complete investigation of a subject with a view to the discovery of truth, but the application of foregone conclusions to particular cases; he displays, however, moral though not intellectual sincerity, along with much originality and acuteness of observation. His style is clear and vigorous, and he is a master of telling and suggestive phrases, like his definition of government as "a mode rendered necessary by the inability of moral virtue to govern the world" (*Works*, vol. i. p. 71), and his anticipation of the spirit of the Monroe doctrine—"Nothing but continental authority can regulate continental matters" (*Works*, vol. i. p. 107). The *Crises* (1776-83), the *Forester's Letters* (1776), and the *Letter to Raynal* (1782), which deal with the subject of colonial and imperial relations, are still of interest as an exposition of the disadvantages arising from too close a connexion between the mother country and a fully developed colony. But Paine was obviously mistaken in regarding political independence as the only means of freeing colonial trade from vexatious restrictions, and in denying that the colonies had derived any benefit from British protection during the wars of the 18th century. How little he realised the force of the imperial idea was shown by his attempt to prove that Canada and Halifax were possessions useless to England, and inevitably destined to amalgamation with the States (*Works*, vol. ii. pp. 123-5). The value of another group of works, treating of administration and its relation to economics, and including *Common Sense* (1776), *Prospects on the Rubicon* (1787), *The Rights of Man* (1791), *Address to the Addressers* (1792), and the *Dissertation on the First Principles of Government* (1795), is diminished by the prevalent fallacy that "every civil right grows out of a natural right" (*Works*, vol. ii. p. 307). Paine, however, is in harmony with modern thought in his refusal to identify society with government (*Works*, vol. i. p. 69), in his support of the principle, first perceived by the PHYSIOCRATS, that the prosperity of a commercial nation is regulated by the prosperity of its rivals (*Works*, vol. ii. p. 457), and in his condemnation of illicit trade (*Works*, vol. i. p. 379). He was the author of several ingenious schemes of taxation, including one for the abolition of the poor-rate (*Rights of Man*, pt. ii., 1792). In the *Dissertation on Government, the Affairs of the Bank, and Paper Money* (1786), according to Mr. Conway, he overwhelms "the whole brood of heresies—State privilege, legal tender, repudiation, retrospective laws" (*Life*, vol. i. p. 217). But, like some other advocates of "honest money," Paine is not free from the heresy of regarding abundant currency as a disadvantage (*Works*, vol. i. p. 226). Among his other works may be mentioned the *Letters* (1779), in which he argues for the "natural right" of the United States to the Newfoundland fisheries; *Public Good* (1780), dealing with the question of state sovereignty; and *Agrarian Justice* (1797), opposing the system of landed property, and containing a proposal for state compensation in money to those debarred from the possession of land.

[The references in the text are to Paine's *Works*, ed. Conway, London and New York, 1894-6; and to Conway, *Life of Thomas Paine*, London and New York, 1892. See also *Dict. of Nat. Biog.*, London, 1895, vol. xliii., article "Paine, Thomas," by Leslie Stephen.] E. R. F.

PALE (IRELAND) denoted the district within which direct English law and control existed. First used in the 15th century, it applied to the greater part of the four counties of Dublin, Louth, Meath, and Kildare. The Statute of Drogheda (1494) provided that the pale should be surrounded by a double fence and ditch to prevent marauding incursions by the Irish. The chief points in this boundary were Dundalk, Kells, Naas, and Tallaght.

[Hardiman in *Tracts on Ireland*, vol. ii. (1841), issued by the Archæological Society.—Bagwell, *Ireland under the Tudors*, vol. i. p. 123.] C. F. B.

PALEY, WILLIAM (1743-1805). Paley was senior wrangler 1763, fellow of Christ's College, Cambridge, 1766, chaplain of Bishop Law at Carlisle, 1769. After holding various livings he became archdeacon of Carlisle (1782), the title by which he is best known.

He wrote at greatest length on natural theology and the evidences of Christianity (*Horæ Paulinæ* 1790, *Evidences of Christianity*, 1794, *Natural Theology*, 1802). The two writings that bear

most on economics are the *Principles of Moral and Political Philosophy* (1785) and the tract, *Reasons for Contentment addressed to the Labouring Part of the British Public* (1793). This tract was written at a time when there was war with France together with depression of trade and general suffering, when there was much public agitation in favour of reform, with much straining of the laws against sedition, when booksellers great and small were prosecuted for selling Paine's *Rights of Man*, "that being treason in duodecimo which is innocent in quarto" (Windham). Paley tells the grumbling mob that they should not make comparisons, but do their own duty and mind their own concerns (4, 5); let them consider that the same law which protects the rich in their property protects the poor man in his, and as the poor man is the weaker he needs the protection more (5, 6). Besides, the labouring man has as much of the real pleasures and blessings of life as the rich, without the care and the temptations (7-11, cp. 14, 15). Indeed in security and certainty of provision for his family the poor is superior (11, 12). Service for wages Paley takes to be "the best way of conducting business, because all nations have adopted it" (13), and it is as equitably regulated in England as anywhere (13). "I have no propensity to envy any one, least of all the rich and great; but if I were disposed to this weakness, the subject of my envy would be a healthy young man in full possession of his strength and faculties, going forth in a morning to work for his wife and children, or bringing them home his wages at night" (18). Finally changes of condition that break up our ordinary habits of living "never can be productive of happiness," "it is not only to venture out to sea in a storm but to venture for nothing" (22). This pamphlet was meant quite seriously, and attracted some attention.

Paley seems not to have studied either HUME or Adam SMITH. In his *Moral and Political Philosophy*, he borrows his utilitarian doctrine from Abraham Tucker's *Light of Nature Pursued* (1768-78). He is on the whole a defender of things as they are, though this sometimes leads him into hazardous arguments. He defends the institution of property by urging that it increases the produce of the earth, preserves it to maturity, prevents contests about it, and "improves the conveniency of living," by allowing division of employments and encouraging art and invention (*ib.* ch. ii.). "The poorest and the worst provided, in countries where property and the consequences of property prevail, are in a better situation with respect to food, raiment, houses, and what are called the necessaries of life, than any are in places where most things remain in common" (*ib.* ch. ii.). The foundation of the right of property is not, as LOCKE said, labour, but "the law of the land," and that is founded ultimately on "the will of God" (ch. iv.). The special chapters on contracts of sale, hazard, inconsumable property, lending, and labour, ch. vi.-xiv., have little or no economic value, though ch. viii., on general consequences, has some points neatly put in the style of BASTIAT'S *Popular Sophisms*.

In the chapters on charity (pt. ii. ch. i.-v.) there are instances of arguments reaching farther than the author intended; *e.g.* "it is a mistake to suppose that the rich man maintains his servants, tradesmen, tenants, and labourers; the truth is they maintain him." "All that he does is to distribute what others produce, which is the least part of the business." One chapter (v.) on pecuniary bounty can hardly be reconciled with the *Address to Labourers;* "the dread of want" is included among the evils of poverty, and the plea that "the poor do not suffer so much as we imagine" is rejected: "the question is not how unhappy any one is, but how much more happy we can make him."

The section (bk. iii. pt. iii.) devoted to marriage is more of a sermon than an economic discourse on population. We need of course to remember that the book is not professedly economic. The subject of "population and provision" is discussed by itself in a later section, bk. vi. ch. xi.). Paley thinks that on the whole "twice the number of inhabitants will produce double the quantity of happiness." "It may and ought to be assumed in all political deliberations that a larger portion of happiness is enjoyed amongst ten persons possessing the means of healthy subsistence than can be produced by five persons under every advantage of power, affluence, and luxury." "Consequently the decay of population is the greatest evil a state can suffer, and the improvement of it the object which ought in all countries to be aimed at in preference to every other political purpose whatever." He allows "the tendency of nature, in the human species,[1] towards a continual increase of its numbers." "The two principles upon which population seems primarily to depend, the fecundity of the species and the capacity of the soil, would perhaps in all countries enable it to proceed much further than it has yet advanced." "The condition most favourable to population is that of a laborious, frugal people ministering to the demands of an opulent luxurious nation, because this situation, whilst it leaves them every advantage of luxury, exempts them from the evils which naturally accompany its admission into any country." This is the passage criticised by MALTHUS (*Essay*, iv. xiii.); Malthus quotes a passage in Paley's *Natural Theology* (ch. xxvi.) where Paley seems to modify his views. He had (in the *Mor. and Pol. Phil.*) regarded luxury as bad for the luxurious, though good for those that supplied them; "the business of one half of mankind is to set the other half at work" (vi. xi.). In the *Natural Theology* he says that "mankind will in every country breed up to a certain point of distress," a point which will be high or low according to the country. He also accepts the statements of Malthus (the author of "a late treatise upon population") in regard to geometrical increase. Malthus draws the inference that Paley must now admit luxury to be a benefit to the luxurious themselves, and the wide diffusion of luxury to be a safeguard against overpopulation, in so far as luxury raises the "point of distress" higher and produces a check on

1 Cp. *Nat. Theol.* ch. xxvi., where the same "superfecundity" is allowed of all animal life.

population sooner. For Paley's philosophy and theology, see Leslie Stephen's *English Thought in the 18th Century*, vol. i. (1876), and Mackintosh's *Dissertation on Ethical Philosophy* (7th ed. of *Ency. Brit.*). J. B.

PALISSY, BERNARD DE (1500-1589), died a Protestant prisoner in the Bastile. Celebrated for his artistic pottery, his *figulines rustiques* as he called them, he enjoyed for a time the protection of the kings of France, after having exhausted his own slender means, and worked for sixteen years, to discover the composition of the enamels used in Italy.

Though a poor and illiterate man, he left several works remarkable for clear insight into natural and economic phenomena. In geology he was in many respects a harbinger of modern science. In his *Recepte véritable pour apprendre aux hommes à multiplier leurs trésors* (1563), he gives useful advice to agriculturists on the use of manures—their object is to return to the soil the elements which have been exhausted by the crops. "Philosophy," he affirms, should lead and direct agriculture. In his *Traité des Métaux et Alchimie*, (1580), a dialogue between "*Théorique*" and "*Practique*," he ridicules the futile researches of alchemists, who, he said, should be called "anti-philosophers"; according to the opinion of Practique: "A pestilence, a war, or a famine would be less injurious than six men who knew how to make gold in great quantity. If once their process were divulged, everybody would despise tillage, and land would remain a waste . . . Gold would become so depreciated that nobody would give bread or wine in exchange." This view, so strikingly in advance of the times, was, a century later, again expressed by LEIBNIZ in his *Oedipus Chymicus*. Palissy's works were republished in 1880, one vol. [Henry Morley, *Palissy the Potter*, London, 1852. E. Dupuy, *B. Palissy, l'homme, l'artiste, le savant, et l'écrivain*, Paris, 1902.] E. CA.

PALMER, J. HORSLEY (1780-1858), for fifty years one of the most eminent and esteemed of English merchants, became a director of the Bank of England in 1811, and governor for the three years 1830-1832.

Palmer gave an able explanation of the working of the system of the bank (see BANKING; BK. OF ENG.) before the committee of 1832 on the bank charter. He further stated his views in *The Causes and Consequences of the Pressure upon the Money Market, with a Statement of the Action of the Bank of England from 1st October 1833 to 27th December 1836*, London, 1837, 8vo, which called forth a reply from S. JONES LOYD (*q.v.*), *Reflections suggested, etc.*, 1837, republished in *Tracts*, 1858. Palmer defended his position in a *Reply to the Reflections, etc.*, 1837, 8vo. His views are further criticised in Tooke's *History of Prices*, vol. iii. pp. 91-114. Palmer also wrote *Reasons against the proposed Indian Joint-Stock Bank*, London, 1836, 8vo.

[*Times*, 11th February 1858.—*Annual Register*, 1858.] H. E. E.

PALMERI, NICOLO, born at Termini, Sicily (end of 18th century, died July 1837). His liberal principles prevented him from seeking public employment. He lived in obscurity, devoting his life to study.

He was an economist of the school of Adam SMITH. Besides many minor writings published in reviews and newspapers, he wrote an *Historical Résumé of Sicily*, and an essay in which he demonstrates the wretched state of Sicilian agriculture, recommending, with a courage unusual for the epoch and country in which he lived, the opening of the Sicilian ports to free trade with foreign countries as the only remedy for existing evils. Even in our times, when the Sicilian problem, far from being solved, or even appeased, has grown more acute and alarming, the remedies proposed by Palmeri are still worthy of consideration. His essay, which fell accidentally into the hands of Francesco Ferrara, induced the latter to apply himself to economics. (See *The Life and the Doctrine of Francesco Ferrara*, by A. Bertolini, Bari, 1895).

Saggio delle cause e delle angustie attuali dell' economia agraria della Sicilia, Palermo, 1826. A. B.

PALMIERI, GIUSEPPE (1721-1794). Born in Martignano, province of Lecce; of a noble Neapolitan family; was an economist, financier, and statesman. He began life as a soldier, and then became a disciple of GENOVESI; he again returned to military life, in which his career was brilliant, but at thirty-eight he finally abandoned it and devoted himself to study, agriculture, and public life. In 1738 he was charged with the reorganisation of the finance of the province of Lecce, and in 1791 was made director of the board of finance in the kingdom of Naples.

As a statesman, Palmieri tried to apply the principles of economic science to public administration; he rescued the latter from many abuses, promoted the abolition of turnpike tolls and feudal rights, and together with FILANGIERI assisted greatly in the formation of the Neapolitan customs tariff of 1788, which was a great step towards simplifying taxation and a rational organisation of the customs.

His views on commerce are of especial importance. He advocates moderate protection to commerce and agriculture; he admits the advantages of free trade applied universally—absolute freedom for commerce in the interior; but he suggests for Italy limits to the freedom of foreign trade as a defence against foreign competition, and to assist the promotion of national industries as other countries do.

He combats the doctrines of the PHYSIOCRATS, especially with respect to the importance of foreign trade, which he maintains to be a true source of wealth for the nation. He was the soul of the theoretic and practical reform of the study of economics and finance in the kingdom of Naples towards the end of the last century.

He discussed the general theory of taxation, as well as detailed questions of finance, and

originated and encouraged many interesting discussions on the errors and prejudices of existing systems and necessary financial reforms. He minutely analyses taxation, preferring, on the whole, indirect taxation. This opinion had many supporters in his day, but for variety of observation, critical acumen, largeness of ideas, and diversity of argument, Palmieri far surpasses all other writers of his time. His works gave a great impulse to the scientific life of his day, and proposed improvements into public administration by showing the baneful effects of the existing system on trade and economics.

The fundamental conception of the financial reforms suggested, and to a great extent carried out by him, consists in greatly simplifying the system of taxation combined with freedom to trade, agriculture, and traffic. Abolition of internal customs, reduction of frontier customs, particularly of those on export of goods, reorganisation of customs tariffs and reform of the crown estates, were the measures proposed by Palmieri for the improvement of the economic position and finances of the kingdom of Naples.

Palmieri wrote, *Riflessioni sulla pubblica felicità relativamente al regno di Napoli*, Napoli, 1787.—*Pensieri economici relativi al regno di Napoli*, Napoli, 1789.—*Osservazioni su varii articoli riguardanti la pubblica economia*, Napoli, 1790.—*Lettera sulla nuova tariffa doganale*, Napoli, 1790.—*Della richezza nazionale.*—Napoli, 1792.

[See on Palmieri, among others, Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd edition, Palermo, 1896.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. ii., Milan, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, 1884.] U. R.

PALMIERI, MATTEO (1405-1475). In his treatise *Della vita civile* (Florence, 1529) Palmieri deals with political economy and finance. He supports proportional and condemns progressive taxation proposed at that time in Florence, as he considers diversity of fortune is in the order of nature, and should not be altered by taxation. The basis of Palmieri's opinion is that taxation is an obligation to the state, imposed on all citizens in return for the assistance given by the state in the formation of private fortunes, and that it should be distributed among them in proportion to wealth, so that property may bear its part without changing the natural distribution of wealth. This is a very remarkable conception for those days, as it shows that even then the most important financial controversies turned on this point, and it offers a certain analogy to the modern doctrine of equality of sacrifice.

[Ricca-Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd ed., Palermo, 1896.—Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892.] U. R.

PANIC, COMMERCIAL. See CRISES.

PANNAGE. Originally this word seems to have meant simply the food, acorns, beech mast, etc., which pigs could find for themselves in a wood. Generally, however, in mediæval records, it means either the right of feeding pigs in a particular wood, or the annual rent paid for that right. Thus, the statement, that in a certain wood there is pannage for twenty pigs, means that twenty pigs could pick up a living there: A. B. has pannage for twenty pigs in such a wood, means, that A. B. has the right to turn out twenty pigs, to find a living there; while in the forest-officer's accounts the word pannage would mean the rent paid by A. B. for this right.

[Pipe Roll Society's publications, vol. iii.—Cowel's *Interpreter*, London.] A. E. S.

PAOLETTI, FERDINANDO (1717-1801), parish priest of S. Donnino at Villa Magno, near Florence, was an intelligent practical agriculturist and an excellent writer on that subject.

A follower of the PHYSIOCRATS, Paoletti published, 1769, *Pensieri sopra l' agricoltura*, part of which CUSTODI inserted in his *Raccolta* (see *Scrittori classici di economia politica*, modern part, t. xx.), and, 1772, *I veri mezzi di render felici le società*, in which, as every physiocrat in Italy as well as in France did in his time, he brought forward free-trade ideas on the corn-trade. His belief in the good effects of free-trade induced him to reproach BANDINI for his prejudice against public stores of produce (see GRENIERS D'ABONDANCE). Yet he supported, in his *Veri mezzi*, taxes on luxuries, the idea of aiding the exportation of commodities not of the first necessity such as oil, wine, etc.; and in his *Pensieri* protective duties to encourage agriculture. Cossa therefore (*Introduction*, p. 269) rightly places Paoletti among those who, though accepting the new theories of the physiocrats, could not altogether give up the old ones of the mercantilists.

Pensieri sopra l' agricoltura, Firenze, 1769, 2nd ed. 1789.—*Veri mezzi di render felici le società*, Firenze, 1772 (in *Raccolta del Custodi*). A. B.

PAOLINI, GIOVANO BATTISTA (end of 18th century). Born in Pistoja, an eclectic writer on economics, his idea is that laws cannot be fixed on absolute and universal principles, but must be subservient to conditions of time and place, so that under different circumstances any system may be advisable. In foreign commerce Paolini recommends "legitimate," not "absolute freedom"—that is, "a right to cultivate, work, transport, export, and introduce such goods as are useful to the whole country—this freedom to be limited and regulated by laws and duties wherever the good of the country demands it. Hence in the application of such freedom it is necessary to consider the existing circumstances of the country," hence also "certain economic laws might be good for ancient but bad for modern nations."

Paolini wrote, *Della legittima libertà del com-*

mercio, Florence, 1785. (See Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, 1884.) U. R.

PAOLINO, a Minorite of Venice, lived in the first half of the 14th century. In the solitude of the monastery he devoted himself to study the political and economical problems of society with brilliant talent, but also with the defects common to his age and condition, namely a complete submission to the doctrines of Thomas AQUINAS (*q.v.*), and a total want of practical knowledge of men and things.

His name and work would probably not have been known had not Prof. Mussafia, an Italian philologist teaching at Vienna, published, in 1868, with notes, the *Trattato di Fra Paolino*, in which he speaks of the family and of the state, laying down rules for their moral encouragement, as the many writers *De regimine, institutione, eruditione Principum* of that time had done, among whom the poet Petrarch (1304-74), *De republica optime administranda;* Egidio Colonna (1247-1316), *De regimine Principum* (anterior to Paolino) among the politicians; and Andrea d'Isernia (1220-1316), among the jurisconsults, are worthy of being mentioned.

Trattato de regimine rectoris (1313-1315), Vienna, 1868. A. B.

PAPER BLOCKADE. A phrase used to denote a blockade maintained by an insufficient force or by no force at all. INTERNATIONAL LAW requires that a belligerent power, which claims the right of capturing all vessels attempting to run in or out of an enemy's port, shall have rendered ingress and egress dangerous by sending a ship or ships of war to cruise off the port in question, in such a position and in such numbers that they are almost certain to intercept all who approach (see BLOCKADE). This is the only kind of blockade neutral states are bound to submit to. The fourth article of the DECLARATION OF PARIS laid down that "blockades to be binding must be effective, that is to say sufficient really to prevent access to the coast of the enemy." In drawing up this rule the statesmen of the Congress of Paris of 1856 did but formulate an accepted principle. The ARMED NEUTRALITY (*q.v.*) of 1780 had declared not only that there must be evident danger in entering the blockaded port from the proximity of the blockading squadron, but also that the vessels which composed it must be stationary. In 1800 the second armed neutrality added that ships were entitled to a warning by the commander of the force which closed the port, and might not be captured unless they made an attempt to enter after having been warned. The great agreement of 1856 was silent as to these fanciful restraints upon the undoubted right of a belligerent; but gave the sanction of express consent to the just and reasonable rule which forbids a power at war to interfere with neutral trade by merely forbidding commerce with its enemy's ports. This had been done often enough in mediæval times, and was not unknown as late as the 18th century. But the great events of the close of that epoch, and the growth of a reasoned system of maritime law from the decisions of the prize courts of the leading nations of Europe and America, settled definitely that a belligerent could not enjoy the rights against neutrals given by blockade without fulfilling the obligation of maintaining his blockade by a sufficient naval force. The civilised world has accepted this principle for more than a century. The violations of it, ordered by Napoleon's Berlin and Milan decrees, and the retaliatory British Orders in Council, were justified on both sides as reprisals for the illegal violence of the enemy (see CONTINENTAL SYSTEM; ORDERS IN COUNCIL). But no attempt was made to show that they were part and parcel of ordinary international law. The statement that Great Britain upheld paper blockades up to the time of the declaration of Paris is entirely destitute of foundation (Calvo, *Droit International*, iv. 177). The slightest knowledge of the decision of Lord Stowell, our great judge of the Courts of Admiralty during the long war with Napoleon, would be sufficient to dispel this illusion. Our own country is at one with others in insisting upon the wholesome rule that belligerent ports cannot be hermetically sealed against the commerce of the world by a mere paper decree. The great economic importance, to a country situated as Great Britain is, of freedom of access—where possible—to the ports of the world, needs no comment.

[Fauchille, *Du Blocus Maritime*, Paris, 1882.—Manning, *Law of Nations*, i., edited by Amos, bk. v. ch. vi., London, 1875.—Lawrence, *Principles of International Law*, pt. iv. ch. v., Boston and London, 1895.—Case of the *Betsey* in C. Robinson's *Admiralty Reports*, i. 93.] T. J. L.

PAPER MONEY. See MONEY.

PAPER, TAXES ON, fall under two heads, those on paper as a manufactured article, and those on newspapers and advertisements. (1) The tax on paper, varying according to quality, was imposed in 1712, increased in 1714; it included a duty of 1s. a square yard, in addition to the ordinary duty, on all printed, painted, or stained paper used for hangings or other purposes. The yield in 1793 was in Great Britain £83,079, and, the tax being raised in 1794 and doubled in 1801, while the manufacture was greatly improved, by 1802 the yield had risen to £268,000 for England alone, by 1815 to £476,019 for Great Britain. The complications attending the incidence and collection of the duties, apart from the social disadvantages produced by taxes on knowledge, led in 1836 to the consolidation and simplification of the tax, which was fixed at 1½d. a pound on all sorts of paper alike, except the

stained and other paper used for hangings, which was now freed altogether. An attempt to repeal the whole tax was defeated by the Lords in 1860, but carried in 1861, at which time the yield was about £1,350,000. Many reasons combined to turn the scale against the taxes; they were so complex that it was difficult for papermakers to understand their liabilities; other manufactures into which paper enters, though supposed to be free, were virtually taxed; all other manufactures being by this time freed, it was either invidious to keep taxes on one, or else unfair to protect it; and as most of the required supply of rags, the raw material of paper, could be had in England, reciprocal duties were not needed to protect the trade against the large export duty on rags levied in France. In spite of prophecies to the contrary, the manufacture has largely increased since the repeal.

(2) A tax was first imposed on newspapers at the same time as on paper in general, half sheets were to pay ½d., whole sheets 1d., and every advertisement 1s. Each great war saw these rates increased, and once in 1789 they were raised in time of peace. The highest point reached was 3½d. for half sheets and 4d. for whole sheets in 1797, with 3s. 6d. for every advertisement before the end of the French Revolution war. But the latter tax was reduced to 1s. 6d. in 1832, and altogether repealed in 1853; while the tax on newspapers was lowered in 1836 to 1d., provided the paper did not exceed certain limits of size, and was repealed in 1855. The newspapers of Great Britain paid, in 1749, £16,450; in 1815, £383,696; in 1831 over £552,000. After a temporary drop owing to the reduction of the duty the yield rose again, and at the time of the repeal reached £488,010, the immense impetus to publication having nearly compensated for the lowered rate. The advertisement revenue rose from £125,000 in 1815 to £181,000 in the year of the repeal of the tax.

[Dowell's *History of Taxation.* — Parnell's *Financial Reform.*—Report of Commissioners of Excise, 1835.—M'Culloch's *Dictionary of Commerce.*—Porter's *Progress of the Nation; Parliamentary Debates*, 1860, 1861.] E. G. P.

PAR. On the stock exchange, the nominal or face value of a security. With government or municipal stocks, and British railway stock, "par" is always taken at £100—with shares in companies, at the amount called up. For new issues, before the special settlement has taken place (see SETTLING DAY), it is customary to give quotations at so much "premium," or "discount" (*q.v.*), reckoned upon the amount called up to date. R. W. B.

PAR OF EXCHANGE. See MINT PAR.

PARADISI, AGOSTINO (1736-1783), occupied one of the earliest established chairs of political economy in Italy, and was in his day a well-known prose writer and poet. In 1772 Duke Francis III. appointed Paradisi to teach economics at the university of Modena, endowed by him with new statutes and branches of study. Paradisi held this chair until 1780, when the new duke, for economy's sake, reduced the pay of the professors. On this Paradisi resigned and retired to Reggio, his native place, where he died three years later, president of instruction. His unpublished *Lezioni di economia civile* were highly valued in his own day. During the last years of his teaching Paradisi put them aside to use as a textbook Condillac's *Le commerce et le gouvernement* (published in 1776), which he translated and annotated in a work that has also never been published. Copies of the manuscript of his lectures are in the libraries at Modena and Reggio-Emilia. The more important part of the work is the special treatment of the subjects of value and wages.

In Paradisi's writings the influence which the French philosophy of the 18th century exercised on his mind may be traced as well as the doctrines of the physiocrats.

Paradisi and MURATORI were precursors of the economic, financial, and administrative reforms originated and partly carried out in Modena under Duke Hercules III. (reigned 1780 to 1796).

[Cossa, *Saggio di economia politica*, Milan, 1878.—*Sulle prime cattedre di economia in Italia.*—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.] U. R.

PARAGIUM, holding in equal portions as well in rights and privileges as in actual property (Ellis). The full scope of the word is given by Kelham, who says it "signifies equality of name, blood, or dignity; but more especially of land, in the partition of all inheritance between co-heirs; or it is when the younger brothers hold their share of the fee of the elder brother, and he [holds] of the lord and does homage and service, they contributing their shares." On folio 96 *b* of Domesday we read, xxii. *masuræ quas tenebant*, xx. *homines in paragio;* and on folio 51 *b*, Wislac and Aluric, two tenants *in capite*, are recorded as holding *in paragio.*

[Ellis, *Introd. to Domesday*, i. 241.—Kelham, *Domesday Book illustrated*, p. 290.—Pollock and Maitland, *History of English Law*, ii. pp. 261, 274, 289, treat the subject exhaustively.] R. H.

PARCENERS. When two or more persons have become entitled to an estate by descent as co-heirs, they are called, in law, coparceners or parceners. This happens by the common law chiefly in the case of females; but as the heirs of a sister deceased become coparceners with the surviving sisters, males may stand in that position.

The custom of gavelkind also led to coparcenary among male heirs. It was the only form of joint ownership in which the

ancient common law granted the power of severing estates without mutual consent. The estate in coparcenary devolving on persons by the act of the law and not by agreement, it was held that no lack of consent should prevent a change into a more convenient form of ownership. This was formerly done by a writ of partition, now abolished by 3 & 4 Will. IV. c. 27, § 36. When the partition is voluntary it must be effected by deed, when otherwise the aid of the Court of Chancery is available. Sales may now be effected under 31 & 32 Vict. c. 40, and 39 & 40 Vict. c. 17, and so the difficulties which used to arise with regard to mansions and certain commonable rights can be avoided.

Cases of coparcenary as early as A.D. 1200 may be found in F. W. Maitland's *Select Civil Pleas* (Selden Society).

[Blackstone's *Commentaries*.—J. Williams, *Law of Real Property*.—Brett, *Commentaries on present laws of Engl.*, 1891.—Pollock and Maitland, *History of English Law*, ii. pp. 272-276, 304.] R. H.

PARDESSUS, JEAN MARIE (1772-1853), a lawyer, judge at the *Cour de Cassation* (supreme court), professor of commercial law, and at various times a member of the French representative assemblies. His *Collection des Lois Maritimes antérieures au XVIIIe Siècle* (Paris, 6 vols., 1828-39) gives the original text and French translations of all maritime laws from the remotest periods, with notes and a historical introduction. The first eleven chapters (Antiquity and Middle Ages) were reprinted separately in 1847 under the title of *Us et Coutumes de la Mer* (2 vols.).

Pardessus also published *Lettres de Change*, (1807) a treatise on bills of exchange; *Servitudes* (1829) on legal liabilities of property and *Cours de Droit Commercial* (1831). E. Ca.

PARE, WILLIAM (1805-1873), son of a Birmingham cabinetmaker and upholsterer, was one of the earliest and ablest of the disciples of Robert OWEN, having been converted to his doctrines by William THOMPSON, whose *Inquiry into the principles of the distribution of Wealth*, published in 1824, he re-edited in 1850. He was corresponding secretary of the first Birmingham co-operative society, and Mr. Holyoake says of him that "he was at his death the oldest and best informed co-operator in England." He was compelled to resign the office of registrar of births, deaths, and marriages in Birmingham, in consequence of Dr. Philpotts, then Bishop of Exeter, having brought before the House of Lords the fact that he sympathised with socialist views. He became an active apostle of Owen's system; he undertook several "missionary tours" for the purpose of preaching it, and was for some time governor of the Owenite community of Harmony Hall in Hampshire.

His writings are: *The Claims of Capital and Labour: with a sketch of practical measures for their conciliation*—a paper read before the Dublin Statistical Society, 1854. The immediate occasion of this paper was the strike and lock-out at Preston in 1853-54. The measures he suggests are (1) a reform of our money laws which would abolish the use of gold, or of anything in itself valuable, as a measure of value. This seems to point to the adoption of Owen's system of Labour notes (see LABOUR EXCHANGE); (2) universal and compulsory education and industrial training from a very early age. This does not necessarily imply, but was probably in his thought connected with, an associative, as opposed to the domestic, rearing of the young; (3) an alteration in the law of partnership, giving not only limited liability (see LIABILITY, LIMITED), but a limited authority and control; (4) the formation of INDUSTRIAL COLONIES (*q.v.*) at home by funds advanced on loan by the state, as a practical recognition of the right to labour.—*Equitable Commerce, or Cost the limit of Price*, read before the British Association, 1855, the object of which was to explain and defend the labour exchanges devised by Owen and carried on in establishments founded by him in London and Birmingham.—*A Plan for the suppression of the Predatory Classes*, a paper read before the Social Science Association, 1862. The plan was that all premises serving as harbours for the criminal classes, or in any way used in complicity with them or their practices, should bear the whole burden of the taxation necessary for the detection and punishment of crime, so that the owners would be forced either to obtain honest tenants or dispose of their property to those who would.—*Co-operative Agriculture: a solution of the Land Question*, 1870, in which is given an account, founded on personal observation, of a co-operative agricultural association established in 1830 by Mr. John Scott Vandeleur, a resident Irish landlord of position, on his estate of 618 acres at Ralahine in the county of Clare (see CO-OPERATIVE FARMING). This experiment, notwithstanding the ignorance and previous turbulent disposition of the labourers, seems to have been for some time eminently successful, both economically and in its moral influences, and to have failed only in consequence of the proprietor's financial ruin and flight to America, caused by his gambling propensities. The book is mainly a narrative of facts, written in a lively and readable style, and the story told in it certainly deserves attention from all who take a practical interest in improving the condition of the agricultural population. The Ralahine system did not conform to any standard type. It might be called a modification of the *métairie* system (see MÉTAYAGE), the tenants paying to the landlord not a fixed *proportion* of the produce, but a fixed amount. Pare was one of Owen's literary executors, and, at the time of his death, was preparing a life of him from the large collection of letters and other documents which he had in his hands.

[Holyoake's *Hist. of Co-operation*, vol. i. pp. 86, 89, 145, 282, 358, and his *Sixty Years of an Agitator's Life*, vol. i. p. 40.—E. T. Craig, *History of Ralahine* (London), 1882, pp. 158, 161. *Inter*

alia, Owen's Labour notes were tried there (p. 75, etc.), (see LABOUR EXCHANGE). Also an article partly founded on family information, in the *Dictionary of National Biography*.] J. E. I.

PARIEU, FELIX ESQUIROU DE (1815-1893), was born at Aurillac, and died in Paris. As an economist his name is particularly connected with two questions — the INCOME TAX and MONOMETALLISM, on both which he displayed great erudition supported by remarkable literary talent. After having practised with distinction as a lawyer at Riom, he was elected by the department of the Cantal in April 1848 to the national constituent assembly. He succeeded in attracting attention there by his intelligence in economic questions. He was directed to draw up in the name of a parliamentary commission, 1st September 1848, a report on a plan for a progressive tax on successions and donations, including any DONATIO MORTIS CAUSA; and in his report he substituted the principle of proportionality for that of progression. On the 30th of the same month he made another report on the income tax. The minister of finance had proposed a tax levied by assessment (*Impôt de répartition*) of 60,000,000 francs (say £2,400,000). M. de Parieu transformed this into a tax levied by a percentage of 3 per cent (*Impôt de quotité de 3 per cent*). This tax applied to all personal property, even to income derived from the funds; it was not, however, proposed as a single tax, as it was to take its place by the side of other taxes.

These two proposed bills came to nothing; but they had at least the useful result that they impelled De Parieu to publish first the *Histoire des impôts généraux sur la propriété et le revenu*, 8vo, 1856, and then the *Traité des impôts considérés sous le rapport historique, économique et politique en France et à l'étranger*. which last went through two editions, the 1st in 5 vols. 8vo (1862-64), the 2nd in 4 vols. 8vo (1866-67). These two works, now out of print, have taken their place as classic. The first won for the author admission to the Institut (*Académie des Sciences morales et politiques*) in 1856. The question of monometallism on gold succeeded in his thoughts to that of the income tax. In 1857 he, almost alone, proposed the 25-franc piece, and gold as the standard. The object that henceforth he aimed at was the subordination of silver to gold and the establishment in all countries of gold monies of the same weight and value. As a politician M. de Parieu was a member of the constituent and legislative assembly of 1848, minister of public education from October 1849 to June 1851; member of the council of state, 1852-55; vice-president of this council, 1855-70; minister president of the council of state in the cabinet of Olivier; a member of the national assembly; then, after the Franco-German war, a senator until 1884.

A short time before the fall of the second empire De Parieu published an argumentative work: *Principes de la Science Politique*, 8vo. Pure democracy, that is to say the republic, does not figure in this work as the ideal of the author who, it should be remembered, approved though he did not take part in the *coup d'état* of 2nd December 1851. A. C. f.

PÂRIS-DUVERNEY, JOSEPH (died 1770), born at Moras near Grenoble, died near Château Thierry, was the third in order of birth of the four brothers Pâris, and first in that of capacity. The eldest, Antoine Pâris, was guardian of the royal treasury, an office from which he retired in 1730 in favour of his youngest brother Jacques Pâris de Montmartel. The second of the brothers called himself Pâris de la Montagne, from the sign (*à la Montagne*) of the inn his father kept. The father, who himself possessed considerable ability, established each of his sons in a vocation requiring first-rate business capacity. During the last years of the reign of Louis XIV., the brothers Pâris, who always lived together on the most affectionate terms, undertook the commissariat service for the forces stationed in Flanders and on the Italian frontier. They themselves, no doubt, obtained great profits from this, while by their good administration, the promptitude of their decisions, and their intelligent forethought, they were enabled to render great services to the armies.

Under the regency, the committee of finance, presided over by the Duc de Noailles, accepted favourably (1716) the financial plans of Pâris-Duverney, which for some time counterbalanced the growing influence of LAW, by arranging in shares the lease of the farm of the taxes (see FARMER GENERAL) which they had secured by contract at an annual payment of 48½ millions. This enterprise, a rival to that of the Scotch financier, was called by the people *Anti-Système*.

Law, by his influence, succeeded in annulling the lease of the farm of the taxes, which he undertook at the rate of 52 millions. The brothers Pâris then fell into disgrace and were even exiled from their native country so long as the SYSTÈME lasted. When Law sank, the real minister of finance was Pâris-Duverney, the official controllers-general continuing only for the sake of appearances. It was Pâris-Duverney who broke with the *Système*, and established that enormous operation, the VISA, which examined into the private property of more than 500,000 persons who had more or less had a share in the transactions of the *Système*.

It must be admitted that the energy of the rival of Law sometimes went too far, betraying him even into arbitrary acts, but his reputation of honesty never suffered. Pâris-Duverney was reproached for having too systematically opposed the ideas of the author of the *Système*.

When Cardinal de Fleury attained power, the brothers Pâris again fell into disgrace; Pâris-Duverney was even imprisoned in the Bastille for two years (1727-28). Justice, however, was done him in the end, when it was found that there were no grounds whatever for the charge brought against him.

Pâris-Duverney left many works in manuscript which have never been printed. This is a real loss considering their subjects, and that they are the work of so eminent a financier.

The list of his works according to Luchet is: *Traité des monnaies de France depuis le commencement de la monarchie jusqu'au 1er Janvier 1724.—Traité des domaines du roi depuis leur origine jusqu'au 1er Janvier 1725.—Traité des gabelles de France depuis leur commencement jusqu'au 1er Janvier 1726.— Traité des rentes depuis François 1er jusqu'à l'année 1725.— Traité des colonies françaises et de leur commerce depuis leur fondation jusqu'à l'année 1723.—Traité des changes créés ou supprimés depuis 1689 jusqu'au 1er Décembre 1721.—Dépouillement des droits existants sur les marchandises contenus dans le tarif de 1664 jusqu'à l'an 1726, avec les variations arrivées sur chaque espèce.*

A remarkable book has been attributed to him, *Examen du livre intitulé: Réflexions politiques sur les finances et le commerce par Dutot*, 1740, 2 vols. 12mo, a review of the principle and effects of the *Système*. The warmth with which the writer defends the *Visa* is thought to show that he was the author of it.

The different operations of Law's scheme "are explained so fully, so clearly, and with so much order and distinctness, by Mr. Du-Verney, in his 'Examination of the Political Reflections upon Commerce and Finances of Mr. Du Tot,' that I shall not give any account of them" (Adam Smith, *Wealth of Nations*, bk. ii. ch. ii. p. 139, ed. M'C.). The *Examen* is also referred to in bk. ii. ch. iii. and in bk. v. ch. iii. p. 414.

[A very interesting life of Pâris-Duverney is contained in a little volume attributed to M. de Luchet, *Histoires des Messieurs Pâris*, 1776, 12mo. See also *Dict. de l'écon. politique.*] A. C. f.

PARISH. The importance of the parish for civil purposes dates from the Tudor period. Originally the smallest administrative unit was the township, upon which the ecclesiastical parish was usually modelled. With the rise of feudalism the TOWNSHIP was transformed into the MANOR. But in the 16th century the manorial system had decayed, whilst the ecclesiastical organisation of the parish was in full vigour. The churchwardens took care of the church fabric, and the vestry or assembly of householders met in the church under the presidency of the incumbent. Under Henry VIII. the churchwardens were charged with the relief of the poor. The poor law of Elizabeth, passed in 1601, directed that two justices of the peace dwelling in or near the parish should appoint overseers of the poor, who were to act with the churchwardens in this business. An act of Philip and Mary laid upon the parish the maintenance of highways, and created the office of parish surveyor. During three centuries the parish continued to be, under the county and the corporate town, the most important administrative subdivision. But it proved unsatisfactory, especially for the purposes of poor relief. Accordingly, the new poor law of 1834 created unions of parishes and transferred to them the relief of the poor. Subsequent legislation made similar changes with reference to public health and to highways. Thus the parish came to be little more than a constituent unit of the union, and a district for the collection of rates and the preparation of jury lists and parliamentary and municipal registers. An attempt to reform the larger parishes was made in 1831. Hobhouse's Act enabled parishes with 800 rated householders and upwards to choose a select vestry. Alike in the meetings of the common vestry and in the election of the select vestry the plural vote was admitted, and a large ratepayer might have as many as six votes. The incumbent was *ex officio* chairman in the select as well as in the common vestry, and the churchwardens still had equal powers with the overseers. Thus the ecclesiastical and the civil administration of the parish were still united. But the ecclesiastical and the poor-law parish did not always coincide, owing to the frequent subdivision of the ecclesiastical parish in recent times. There are in England about 15,000 poor-law parishes, varying greatly in extent and population. The majority have from 300 to 1000 inhabitants, but many have less than 50.

The Local Government Act 1894 (56 & 57 Vict. c. 73) has made a parochial revolution. Its principal objects were (1) to separate the civil from the ecclesiastical organisation of the parish; (2) to render the constitution of the parish absolutely democratic; (3) to enlarge considerably the powers of the parochial authority. The act applies to all parishes not included in the metropolis, in a corporate town, or in a local board district. The parish is defined as a place for which a separate poor-rate is or can be made, or for which a separate overseer is or can be appointed. The act provides that every rural poor-law parish, having a population of 300 or upwards, shall have a parish council. Parishes with less than 300 inhabitants may have councils if the inhabitants wish and the county council approves. Otherwise they may be grouped with neighbouring parishes. Every parish to which the act applies is to have a parish meeting. The parish meeting consists of all persons on the local government register or parliamentary register, who each have one vote and no more. It assembles at least once a year, and elects the parish council if there is one. Where there is no parish council, the parish meeting has all the powers of the former vestry. It has

power to adopt certain acts relating to baths and washhouses, recreation grounds, free libraries, etc.; to sanction the sale or exchange of parish property, and to incur any expense not involving a loan or a rate of more than 3d. in the pound. It must appoint a chairman, and may appoint a committee to transact routine business.

The parish council is to be elected annually at a parish meeting. Any person having a vote in the parish meeting, and any person who has resided twelve months in the parish, is eligible as a councillor. Each elector has one vote for each of the number of persons to be elected. The number of councillors is to be fixed by the county council, but must not be less than five or more than fifteen. The council must elect a chairman who will hold office for the year. It is a body corporate, and has power to hold lands without license in mortmain. The parish council is to take over all the powers formerly exercised by the vestry, except those relating to church business, and the powers of boards of guardians with respect to allotments and small holdings. It has power to acquire land for public buildings, recreation grounds, allotments, etc. If it fails to obtain land for any of these purposes, it may petition the county council, which may make an order compelling owners to sell the land required. If the county council refuse to make an order, the parish council may petition the Local Government Board. If any owner feels aggrieved by an order of the county council, he may present a memorial to the Local Government Board. In either case, the Local Government Board will institute a local inquiry, and make such an order as it thinks fit, which will be final. No additional allowance is to be made for compulsory purchase. The parish council has, subject to similar qualifications, a power of hiring land compulsorily for allotments. It has also extensive powers with respect to parochial charities other than ecclesiastical. It may not enter on expenditure which will involve a loan or a rate exceeding 6d. in the pound, without the sanction of the county council. The position of the former officers of the parish is changed by the act. The incumbent and the churchwardens are now deprived of all authority except in church business. The overseers, formerly appointed by the justices, are now to be appointed by the parish council. Some of their functions are transferred to the council itself.

[Gneist, *Constitutional History of England.*—Wright and Hobhouse, *Local Government and Taxation* (last ed. by Hobhouse and Fanshawe); the editions of the *Local Government Act* 1894, by Humphreys and Ryde. — Emery, *Complete Guide to Local Government Act.*—E. Jenks, *Eng. Local Govt.*, Methuen, 1896.] F. C. M.

PARITY OF VALUE. A term used for a variable par as between gold and silver exchanges. In the Indian exchanges, so long as the mints were open, the value of the rupee was $\frac{1}{144}$ of the price of an ounce of standard silver, *plus* about 3 per cent for charges, and the parity was found by multiplying the day's price by ·383. The mints being closed, the rupee becomes a protected monopoly, and its value is a matter of negotiation.

Calculations as to parity are also required in bullion transactions between London and various foreign markets. In London, quotations for gold and silver are always for standard fineness —*i.e.* 916·6, and 925 respectively. In Paris and Berlin both metals are quoted fine; in New York gold is quoted for 900, and silver for 999 fine. R. W. B.

PARK. See FORESTS, MEDIÆVAL.

PARK, JAMES ALAN (1763-1838), English judge, was called to the bar in 1784.

In 1816, Park was appointed a judge of the court of common pleas. He published (1787) his *Law of Marine Insurance*, a standard work, which passed through many editions, and was written under the direct encouragement of Lord Mansfield.

[*Biographical Dictionary of English Judges*, by E. Foss.] H. E. E.

PARKER, HENRY (1604-1651), barrister-at-law, was the author of twenty-four political pamphlets on the popular side (1640-47, 1650-51), of one on *Reformation in Courts and cases testamentary* (1650), and of one, *Of a Free Trade, a discourse seriously recommending to our nation the wonderful benefits of trade, especially of a rightly governed and ordered trade, setting forth also most clearly the relative nature, degrees, and qualifications of libertie which is ever to be enlarged or restrained according to that good which it relates to as that is more or less ample* (1648). The latter was written during his sojourn at Hamburg (1647-49) (*Gentleman's Magazine*, xxxv. 109) as secretary to the Merchant Adventurers there (*Cal. of State Papers, Dom. Ser.*, 1649-50, p. 34). It is a defence of the privileges of the Merchant Adventurers against the attacks of "free traders," like Brent, in his *Discourse consisting of motives for the enlargement of freedom of Trade* (1645), and VIOLET, in his *Advancement of Merchandise* (1651, pp. 10-12), and reads like a clever abridgment of J. WHEELER'S *Treatise on Commerce* (1601). He attacks INTERLOPERS (individual merchants) and "pedlars" (retail traders), and although, like Wheeler (*l.c.* p. 101 *et seq.*) he repudiates the charge that his company is a monopolist, he defends "stinting" (limiting exports); the practice of selling at Hamburg and Antwerp only, and only on certain days; apprenticeship, etc.; and advocates more "reglement of trade" on the usual ground that trade would become "overstocked," "confused," and "straggling," and would very soon die unless it was "well ordered."

Order, he thinks, will prove an economy, and pruning will promote trade; and trade magnifies a nation more than war does. Like war, trade is an outcome of men's "wolvish" instincts which when pressed into the service of the state are turned into virtues (pp. 18, 19). RALEGH'S

ideal of the state merchant, and envy and praise of Holland, are always present to his imagination; and he praises his company for its religion, law, charity, navy, and diplomacy rather than its wealth. He is more of a politician than an economist. Indeed his views on wealth are indistinct. In an age when MADDISON (*England's looking in and out*, 1640), Battie (*Merchant's Remonstrance*, 1648), and ROBINSON (*Proposals in order to the People's Freedom*, 1652) dinned into willing ears that trade only enriches if there are net exports which bring in money; and when POTTER modified this theory by his doctrine that money is a mere security for obtaining "things of real value" (*Key of Wealth*, 1650); and Maddison (*l.c.* p. 11), L. ROBERTS (*Treasure of Traffike*, 1641, p. 22), and Φιλόπατρις (*The Advocate*, 1651, p. 13) undermined the application of the theory by urging that "no lawes are prevalent against gain," Parker wrote: "Exports conduce perhaps more to profit, and things imported to securance; yet . . . both . . . conduce to both. Native commodities more immediately afford us treasure: and forrain commodities are more usually materials for shipping, etc., . . . yet sometimes we retayle the same to strangers for gain" ("profit" and "gain" mean money), a sentence to which neither MISSELDEN nor MALYNES could have objected. He clearly wishes to face both ways. J. D. R.

PARLIAMENT, ROLLS OF. This name has been given to the ancient records of the proceedings of parliament kept by the clerks of the chancery. They extend from the sixth year of Edward I. to the nineteenth year of Henry VII. 1278-1503 A.D. In later times their place has been supplied by the journals of the two Houses. The journals of the House of Lords began in the first year of Henry VIII. 1509 A.D., and the journals of the House of Commons in the first year of Edward VI. 1547 A.D. In 1832, the Rolls of Parliament were published in six volumes, folio, under the title *Rotuli Parliamentorum ut et Petitiones et Placita in Parliamento.* F. C. M.

PARNELL, HENRY BROOKE (1776-1842), afterwards first Baron Congleton, the son of Sir John Parnell, was educated at Eton and Cambridge, which he left without taking a degree, and entered the Irish parliament as member for Maryborough in 1797. In 1802 he represented Queen's County in the first parliament of the United Kingdom, and soon, either through natural leaning or some force of circumstances, began to associate himself with movements of an economic character. On 18th April 1809 he introduced a resolution for assimilating IRISH CURRENCY (*q.v.*) to that of the rest of the United Kingdom. On 19th Feb. 1810 he became a member of the BULLION COMMITTEE. He was chairman of the select committee of 1813 to inquire into the corn trade of the United Kingdom. In July 1819 he brought forward serious retrenchment resolutions; he had somewhat severe ideas of public economy, and when he became secretary at war, 4th April 1831, made such a point of reducing the army estimates, that his colleagues had to part with him, and he relinquished his office in 1832. Nevertheless he returned to office under Lord Melbourne on 14th May 1835, as paymaster-general. He committed suicide in 1842.

His best-known work is that on *Financial Reform*, London, 1830. His main contention is that the public expenditure was overgrown, and that, especially in the non-productive services, considerable reductions could be effected. Of his other economic works the principal were, *Observations on the State of the Currency in Ireland*, Dublin, 1804.—*Principles of Currency and Exchange, illustrated by observations on the State of Ireland*, Dublin, 1805.—*A Treatise on the Corn Laws and Agriculture*, London, 1809.—*Observations on the Irish Butter Acts*, London, 1825.—*Observations on Paper Money, Banking, and Overtrading*, London, 1827.—*A plain statement of the Power of the Bank of England and the use it has made of it* (published anonymously), 1832.—*A Treatise on Roads*, London, 1833.

[*Dictionary of National Biography.*] C. A. H.

PARQUET (Fr. an enclosure). On public bourses the railed-in space within which the privileged brokers or *agents de change* (see CHANGE, AGENTS DE) carry on their operations; the word is also employed to distinguish the official market from the outside market or COULISSE (*q.v.*). By extension the two words are applied to the business itself, for example, "the *parquet* was weak, the *coulisse* firm," many securities being dealt in on both. In legal phraseology the *parquet* is the office of the public prosecutor in the law courts, or the officers appointed by the minister of justice to set in motion the action of the law in criminal affairs or in civil proceedings when they are matters of public policy. T. L.

PARS OF EXCHANGE. See EXCHANGE, FOREIGN.

PARSIMONY. See THRIFT.

PARTICULAR AVERAGE. The losses provided against by marine insurances are "total loss" and "partial loss."

Partial loss is either a "*general average loss*" or a "*particular average loss.*" *Total loss* is either *actual* or *constructive.* When the subject matter is destroyed or irreparably damaged, or when the assured is irretrievably deprived thereof, there is an "*actual total loss*" (Marine Insurance Bill, § 57 [1]). A "*constructive total loss*" is, on the other hand, said to arise (*a*) in the case of a ship, when the insured ship is so damaged that the expense of repair would exceed the value of the ship when repaired; (*b*) in any other case, when the subject matter is so damaged, or affected by a peril insured against, that, having regard to cost, it is not reasonable to require the adventure to be prosecuted to its termination (Marine Insurance Bill, § 60).

General average arises whenever part of the cargo is sacrificed, or some expenditure is incurred

for the benefit of the ship and cargo generally, *e.g.* when goods are thrown overboard for the purpose of lightening the ship. The value of the lost goods or the amount of the expenditure is, in such a case, made up to the person concerned by contributions payable by the owners of the ship and cargo in proportion to the value of their respective interests, and they in their turn, if the insurance covers general average, are reimbursed by the underwriters. A "*particular average loss*," on the other hand, is a partial loss which falls on the owner of the goods affected by it exclusively (*e.g.* damage done to goods by sea-water is a particular average loss, unless the goods are so badly damaged that a case of "total loss" arises, in which event the goods are handed over to the underwriters, and the assured receives the full amount of the insurance).

In many cases it is doubtful whether a total loss may be claimed for, or whether there is only a claim for compensation under the head of particular average.

If the claim is made in respect of "constructive" total loss, notice of abandonment must be given within the usual time, and the underwriters have then to determine whether they will admit or contest the claim, and in the event of the parties not being able to agree, the question must be decided by arbitration or litigation.

A policy drawn up in the ordinary form contains the following clauses :—

"(*a*) Corn, fish, salt, fruit, flour, and seed are warranted *free from average*, unless general, or th ship be stranded.

(*b*) Sugar, tobacco, hemp, flax, hides, and skins are warranted *free from average under £5 per cent.* And also—

(*c*) All other goods, also the ship and freight, are warranted *free from average under £3 per cent.* unless the ship be stranded."

This means that, except in so far as the common-form policy is varied by special agreement, the underwriters do not insure the goods mentioned under (*a*) against particular average in ordinary cases, but that if the ship be stranded, particular average is insured against; that the goods mentioned under (*b*) are not insured against particular average unless it diminishes the value of the goods to an extent exceeding 5 per cent of the insured value; and that all goods not mentioned under (*a*) and (*b*) are insured against particular average diminishing their value to an extent exceeding 3 per cent, and against particular average of any sort arising in the event of the ship being stranded. In modern commercial usage an insurance which covers total loss, general and particular average is called an insurance "against all risks," and an insurance against total loss and general average only is called f. p. a. (free of particular average).

[Smith, *Mercantile Law*, ed. by Macdonell, 10th edition, 1890.—Gow, W., *Marine Insurance*, Macmillan, 1893; and see the Marine Insurance Bill, intended to codify the law of marine insurance.] E. S.

PARTICULAR ESTATE. A particular estate (Lat. *particula*, a small portion) signifies a limited interest in lands or tenements, an interest less than the fee simple estate, which is the largest interest that an English subject can have in land. An estate for life is an example of a particular estate.

[Williams, *Principles of the Law of Real Property*.—Digby, *History of the Law of Real Property*.] F. C. M.

PARTNERSHIP.

Partnership, History of, p. 65, Partnership, Canonist Theory, p. 68; Partnership, Form of, as Commandite p. 68; Partnership, Industrial, p. 69; Partnership, Law of, p. 69; Partnership, Mediæval, p. 71.

PARTNERSHIP, History of. Sir Henry Maine's statement, *Ancient Law*, p. 170, that the progress of society leads to the substitution of contractual relations for relations imposed by those natural and legal conditions affecting individuals which are known under the name of *status*, is borne out by the history of the law of partnership. Some form of association for economic purposes seems to have existed in very remote times. Tablets inscribed with cuneiform characters have been discovered which show that associations established for mercantile purposes and trading, under a kind of trade-name, existed in Assyria more than twenty centuries before the present era, and the principle of uniting funds for common objects was well known in ancient Greece. Gaius refers to a law of Solon (see Justinian's *Digest*, 47, 22, 4), in which the objects are named for which autonomous societies existed. They include trade (εἰς ἐμπορίαν) as well as the less creditable occupation of piracy (ἐπὶ λείαν ὀιχόμενοι).

There is also a well-known passage in Aristotle (*Eth. Nic.* viii. 11), in which such associations (κοινωνίαι) for a common object are mentioned, the object being either the prosecution of gain or some convivial or domestic purpose such as the sharing of meals, the members in that case being called σύσσιτοι, and a certain class of societies known as ἔρανοι are referred to by some of the Attic orators (see Meier and Schömann's *Attischer Prozess*, edited by Lipsius, 1883-1887, pp. 637-643). Information about oriental and Greek partnerships is, however, too scanty to enable us to form an opinion as to their origin and history.

It is only when we proceed to examine the legal history of the Roman republic and empire that more reliable data are discovered, and from these it is clear that the Roman *Societas* in its original form was not the result of contract, but of natural ties. Roman family relations must always be looked on from two aspects. The "agnatic" family is an economic unit under the authority of a head, in whom the property is vested and under whose *potestas* all the members of the family are placed. Emancipated sons and married daughters brought under another man's *potestas* cease to belong to the agnatic family. On the other hand, the "cognatic" family comprises all the children, and their issue without reference to *potestas;* it is not a unit for economic purposes, but its

members are held together by various ties, one being the respect, *obsequium*, due to the common ancestor.

Thus it comes that even after the death of the father, brothers and sisters are held together; they remain members of the cognatic family which is called the *secta*, a word derived from the same root as *obsequium* and *exsequiae* —which latter expression denotes the funeral rites which the cognatic family had to attend to, on the ancestor's death—and is also etymologically connected with *societas*, and as the father's estate was generally bequeathed to them as tenants in common (though the right of the cognates to inherit was established at a later period only), they frequently found it convenient not to divide the property, but to administer it for their common advantage. When property was left to several persons as tenants in common, the individual shares were generally ascertained by lot; hence the Greek word for inheritance is κληρονομία = that which is ascertained by lot; the division by lot is also indicated in the Latin word *consortium*, but that word also shows that it was customary to keep the parts together. Thus brothers and sisters who, having in their father's lifetime been members of the same *secta* or *societas*, were also called *socii*, frequently kept the inherited property together, and used or traded with it for their common advantage.

Another instance of common ownership under the name of *societas* is also of importance in connection with our subject. In the same way as the emancipated children were bound together by the common tie of *obsequium*, the slave who had received his freedom owed this *obsequium* to his former master. One of the ways to enforce this duty was to impose the condition that, on its being neglected, the master should be entitled to a share in the freedman's goods, which in that event were held in common by the *patronus* and *libertus* in the same way as inherited property was held in common by the *fraternum consortium;* the name *societas*, which, as shown above, was derived from the family relation, was also applied to this relation, which was one of contractual partnership.

But the voluntary association of several persons to carry on business on joint account was not immediately evolved out of the types of association to which we have referred. A third class of *societas* began to be formed at the time of the second Punic War for the purpose of contracting for the supplies to be furnished to the Roman army (see Livius, xxiii. 48 (539)), and the societies who farmed the state revenues, *vectigalium publicorum socii*, were also organised on a similar plan. These societies, known by the collective name of *societates publicanorum*, had corporate rights, and differed therefore from partnerships in the ordinary sense, but they no doubt called attention to the possibility of joining funds for purposes of profit.—For fuller information on the early history of partnerships and trading societies in Rome, see Leist, *Geschichte der Römischen Societas*, from which work the information given above is mainly derived.

There were therefore two kinds of association known during the times of the Roman republic: the one resulting from natural ties, being either the *fraternum consortium* or the common ownership in the goods of a freedman who had neglected the *obsequium* due to his *patronus;* the other resulting from voluntary association for purposes of gain, but being more like a trading corporation than like a partnership. During the classical period of Rome, which began soon after the foundation of the empire, associations began to be formed of a private nature, and partaking of many legal characteristics of the ancient family societies, but entirely voluntary, and established for purposes of gain like the above-mentioned trading corporations. At this later stage all partnerships were the result of contract, and we see from an enumeration made by Ulpian (about 200 A.D.) that they referred either to the whole of the present and future property of the partners, *societates omnium bonorum*, or were entered upon for some particular transaction, *negotiationis alicujus*, or for farming taxes, or for the joint management of one particular object of property, *societates unius rei* (see Justinian's *Dig.* 17, 2, 5). Paulus, one of Ulpian's contemporaries, gives an instance of a professional partnership ("duo societatem coierunt ut grammaticam docerent et quod ex eo artificio quaestus fecissent, commune eorum esset," *Dig.* 17, 2, 71). The legal characteristics of private partnerships as distinguished from trading corporations are at that time clearly recognised (see the quotation from Pomponius, *Dig.* 17, 2, 59, and see also *Dig.* 3, 4, 1, pr.), and it is also pointed out by the jurists of that period that not all the partners need necessarily contribute capital, as a partner's work may entitle him to a share of the profits ("saepe enim opera alicujus pro pecunia valet" Gaius, iii. § 149, see also *Dig.* 17, 2, 5, § 1). Much attention was already given to the details of partnership arrangements, such as the division of profits and losses (*Inst.* 3, 25, § 1, § 2 i; Gaius, iii. §§ 149, 150; *Dig.* 17, 2, 29, § 2 i; *ibid.* 17, 2, 30), the degree of diligence required from partners (*Dig.* 17, 2, 72), and the events which cause a partnership to be dissolved (*Inst.* 3, 25, § 5, i; *Dig.* 17, 2, 65, §§ 3, 5; *ibid* 17, 2, 70). Even minute points, such as the question whether a partner who is wounded in trying to protect the partnership property is entitled to recover his medical expenses from the partnership (see *Dig.* 17, 2, 60, and 61), are discussed with great elaboration. It must, however, be pointed out that, notwithstanding many similarities, the partnership of the classical as well as of the earlier periods of Roman law

is essentially different from the partnership of our days. No broad distinction is drawn in Roman law between common ownership of property and the mere sharing of profits and losses; nor are permanent trading associations distinguished from occasional transactions on joint account. There is no partnership capital kept distinct from the capital of the partners, and no general rule exists according to which a partner has authority to incur liabilities binding his co-partners. Even when he is specially authorised to incur a liability on their behalf, it is doubtful to what extent they are liable (see Windscheid, *Pandekten*, 5th ed. ii. § 407, note 7). In many ways the rules still partake of the character belonging to the older associations between members of the same family, and the influence of the greater freedom of intercourse brought about by the extension of the empire and the increase of wealth is not yet sufficiently felt. The principal reason for this fact is to be found in the continued existence of slavery, which took away many of the motives which in our days induce traders to form partnerships.

A very convenient method of trading was furnished through the instrumentality of the *peculium*, being the property put into the hands of a non-emancipated son, or of a slave, for purposes of trade. The creditors of such son or slave were under the praetor's edict entitled to sue the head of the family in respect of the trade-debts, but the judgment could be enforced only in so far as the judgment debt did not exceed the value of the *peculium* (see the title *De Peculio*, *Digest* xvi.). This rule enabled a master to trade with limited liability through the agency of his slave. It was also possible for several masters to become co-owners of a slave, and carry on a trade in co-partnership through his agency. Each partner was then liable for the trade-debts to the extent of the whole *peculium*, but he was entitled to claim contribution from his co-partners to the extent of the sums which represented their shares (see *Digest* xv., 1, 27, 8). This method of trading with limited liability was not the only one known in Roman law (see Goldschmidt, *Universalgeschichte des Handelsrechts*, vol. i. p. 91), and the entrusting money to others for trade purposes, which frequently brought about a similar relation, was in the language of later latinity called *commendare* (from *cum-mandare*, mandare being derived from manui dare; as to the mediæval applications of the word, see Ducange, *Glossarium*). The form of partnership known as *commenda* in mediæval law was therefore known already by the same name in earlier times.

When the mercantile cities of Italy—among which Venice, Pisa, and Genoa began in the 9th century to be prosperous—established a large maritime trade, the *commenda* (viz. the relationship in which there is an active partner liable without limit, and a capitalist partner whose risk is limited to a fixed sum) became a favourite form of association. It was in the beginning merely of a temporary nature, and used by capitalists who wanted to join in some particular maritime enterprise with a limited risk, but in course of time it was also applied to internal trade, and more permanent relations between the capitalists and active traders became customary. Thus the large financial houses of the Bardi and Peruzzi in Florence, who lent 1,365,000 gold florins to Edward III., traded as to part only with their own money, whilst the bulk of their capital was furnished by commandite partners and depositors, *avcano in accommanda ed in deposito di piu cittadini e forestieri* (Villani, quoted by Troplong, *Traité de la Société*, vol. i. p. 66).

Thus the prototype of the modern *société en commandite* was in the early part of the middle ages the most important form of association, but the partnership of modern times, in which all partners are liable without limit for the partnership debts, traces its pedigree from more humble progenitors. Like the Roman *Societas*, it originated in the family community in which a small trade or handicraft was carried on by the persons eating their bread together (*cum-panes*=σύσσιτοι, from which word the expressions *Company* and *Compagnon* are derived). The trade of these family associations was carried on in a common workshop, or warehouse, known by some well-known sign which was used as a comprehensive designation of the persons using it as the centre of their operations. Hence arose the use of firm names, and the personification of the mercantile unit, represented by the sign of the house, as well as the custom to recognise every partner as agent for the partnership.

The names of the partners were entered in the books of the guilds representing the trade to which they belonged, which guild registers served as the foundation of the registers of firms in use in most continental countries. In these partnerships, for the first time, the partnership capital, which—in connection with the original character of the joint establishment, was looked on as a common fund not accessible for the partners' private purposes—was kept strictly separate from the separate capital of the partners. Originally only the partnership capital was liable for the partnership debts, and it was only gradually that the unlimited liability of the partners' separate capital became customary. (For further particulars of the development see Goldschmidt, *l.c.* pp. 271-290). The custom of trading under a firm, and with a partnership capital, was subsequently also adopted by voluntary associations not bound together by any family tie, and partnerships trading with unlimited liability began in the 16th century

to assume the same importance as the commandite partnerships, which in the early parts of the middle ages had monopolised all other branches of trade (see Goldschmidt, *op. cit.* pp. 289-290; on the whole development, see also Lastig, "Allgemeine Uebersicht," in Endemann's *Handbuch*, pp. 329-332, and the authorities there cited).

Thus it came about that, like in ancient Rome, the partnership formed by natural ties and founded on *Status*, preceded and established the characteristics for contractual partnerships.

The development of trade finally produced the third type of mercantile association, which we also noticed in the Roman development. Companies enjoying corporate rights, and trading with a capital divided into shares—which shares, unlike shares in ordinary partnerships or commandite partnerships, were transferable by contract and transmissible on death,—existed in Italy at a very early period under the name of *monte* (the expressions *massa* and *maona* are also used). They are associations of capitalists who advanced funds to governments, and in return received certain trade privileges. The oldest of these associations was established for temporary purposes only, but in 1346 the Genoese *maona* of Chios and Phokaea, also known as *Maona dei Giustinini*, received a more permanent organisation. In return for a loan required by the city of Genoa for an expedition undertaken by Simon Vignos and others, the exploitation of Chios and Phokaea was entrusted to this company under the suzerainty of the Genoese state; they also obtained important trade monopolies, and the company continued to have an independent existence until 1513, when it was purchased by the well-known *Monte delle compere e dei banchi di S. Giorgio* of Genoa, the first fully organised banking company, which was founded in 1407, and continued to exist until the extinction of the republic of Genoa (see Goldschmidt, *op. cit.* pp. 295-297).

In England the ground for the trading companies was prepared by the merchant adventurers (see ADVENTURERS, MERCHANTS; COMPANIES, STAPLE), and companies similar to the Italian companies, mentioned above, are to be found regularly from the middle of the 16th century, but the establishment of companies with permanent objects is of a somewhat later date. The EAST INDIA COMPANY (*q.v.*), founded in 1600, is one of the earliest English permanent companies. These companies were all incorporated by royal charter, and the possibility of acquiring corporate rights by virtue of a general act was established during the present reign only.

[As to the modern development of English company law, see Lindley on *Company Law*, pp. 2-7; 923-930. Besides the books referred to in the text the following deserve mention: Goldschmidt, *Alte und neue Formen der Handelsgesellschaften.* — Silberschmidt, *Die commenda.* — Schmidt, *Handelsgesellschaften des Mittelalters.* — Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre.* — Lastig, *Entwickelungswege und Quellen des Handelsrechts.* — Weber, *Zur Geschichte der Handelsgesellschaften im Mittelalter.* — Lattes, *Il diritto commerciale nella legislazione statutaria delle città Italiane.* — Pappenheim, "Altnordische Handelsgesellschaften" in *Zeitschrift für das Ges.-Handelsrecht*, vol. xxxvi. pp. 85-123. — Adler, *Zur Entwicklungslehre und Dogmatik des Gesellschaftsrechts* See also the articles by Lastig and Wendt in Endemann's *Handbuch*, vol. i. on pp. 310, §§ 343, 428.] E. S.

PARTNERSHIP, CANONIST THEORY. The phenomena of business partnership (SOCIETAS) presented themselves for judgment before the schoolmen and canonists of the middle ages, chiefly in their relation to the theory of usury (see INTEREST AND USURY). A partnership wherein each member shared in the management of the business raised no difficulties: the profit (*lucrum*) might in such a case be regarded as the reward of labour. Not only so, but a partnership in which some of the members contributed capital only, without labour, and yet expected profit, was regarded as equally allowable,—on one condition, viz. that the investor really "adventured," *i.e.* really shared in the "risk," both as regards the sum invested and the gain to be derived from it. The running of risk was held both to furnish an ethical justification for gain, and also to prove that the investor remained the *owner* of the sum invested, so that the contract was clearly distinguishable from one of LOAN (*q.v.*) or MUTUUM, in which the ownership of the money was held to pass over to the recipient. Any attempt by subsidiary contracts to assure the investor against the loss of his capital, or to guarantee a profit independent of the chances of trade, brought the arrangement within the scope of the prohibition of usury.

[The passage in AQUINAS, *Summa Theologica*, Secunda Secundæ, Qu. 78, Art. 2, was the starting point of subsequent discussion. A very elaborate treatment of *Sozietät* will be found in the first vol. of W. Endemann's *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre* (1874); on which, with some attempt to correct its bias, is based the account in Ashley, *Economic History*, vol. i. pt. ii. (Amer. ed. vol. ii.) pp. 419, 420. (See also PARTNERSHIP, MEDIÆVAL.)] W. J. A.

PARTNERSHIP, FORM OF, AS COMMANDITE. A partner is as a rule liable jointly with his co-partners for all debts of the firm; and after his death his estate is liable for such debts subject to the prior payment of his private debts.

It has been thought desirable to introduce forms of partnership in which a person might contribute capital and receive a share of the

profits without at the same time incurring unlimited liability towards creditors. The Partnership Act of 1890, embodying the provisions of "Bovill's Act" passed in 1865, recognises this principle, and states that the receipt of a share of the profit of a business or of a payment contingent on or varying with the profits, does not of itself make such person a partner. But whilst these provisions only relate to private arrangements, which may at any time be altered or cancelled between the parties, subject however to the restriction that, in the event of bankruptcy, a person entitled to a share of profits, but not being a partner, cannot prove in competition with other creditors, the form of partnership known as "Limited Partnership" and *société en commandite*, and used in most mercantile countries, including the United States, gives effect to the principle referred to in a much more consistent manner. In a commandite partnership, there are one or more partners managing the affairs of the firm, and liable to an unlimited extent, who are called "general partners," and one or more dormant partners, who are called "special partners" (*commanditaires*), who are only liable to a limited extent. The amount for which they are liable, and the time during which the liability continues, must be registered and published, and no arrangement between the partners varying the registered agreement can affect the creditors of the partnership.

Owing to the spread of limited *Companies*, commandite partnerships have in all countries come very much into disuse, and the fact that the provisions of the British Companies Act 1867, § 4, which allows limited companies to be formed in which the managers or directors are liable to an unlimited extent, have remained a dead letter, shows that in British countries there is no real demand for "commandite" partnerships.

[See *Revised Statutes of the State of New York*, pt. ii. ch. iv. title 1.—*French Code de Comm.*, §§ 23, 28, German *M.C.*, §§ 150-206, Italian *M.C.*, §§ 114-120; Spanish *M.C.*, §§ 145-150; Portug. *M.C.*, §§ 104, 113, 114, and other *Mercantile Codes*.] J. E. C. M.

PARTNERSHIP, INDUSTRIAL. See PROFIT SHARING.

PARTNERSHIP (LAW OF).[1] Partnership in the widest sense means every association for common purposes, and in a somewhat narrower but still comprehensive application, it means every association for purposes of gain. In the strictly legal sense the word is, however, of more limited import. In all countries partnerships are distinguished from incorporated *companies* (see COMPANIES; JOINT-STOCK COMPANIES; STANNARIES). Subject to that exception, a partnership in the United Kingdom, as well as in such parts of the British empire in which the P. A. has come into force, is defined to be in (§ 1) as "the relation which subsists between persons carrying on a business in common with a view of profit," the word "business" including, according to the definition given by § 45 of the same act, "every trade, occupation, or profession."

English law does not distinguish between mercantile and other partnerships, as some of the continental codes do, in which non-mercantile partnerships are governed by rules differing in many important respects from the rules governing mercantile partnerships. This is more especially the case with reference to the liability for the partnership debts, which in the case of mercantile partnerships extends to the whole debts for each partner, whilst in the case of non-mercantile partnerships the partners are liable in equal shares, no partner being liable beyond his share (see for instance F. C. C. §§ 1862 and 1863); but there are many other matters in respect of which non-mercantile partnerships, which in Germany include professional partnerships and partnerships between innkeepers, artizans, and small tradesmen generally, are, according to continental law, not governed by the rules applicable to mercantile partnerships (see G. M. C. §§ 85 and 10; F. C. C. act 20, art. 1, and the decisions thereon; and the I. C. d. C. art. 76, and art. 3-7).

In the United Kingdom one kind of mercantile partnership only is known, *i.e.* that in which all partners are liable for the partnership debts without limit. A person may—under the law originally laid down by the House of Lords in Cox *v.* Hickmann (8 H. L., C. 268), and subsequently declared by Bovill's Act, now re-enacted with certain slight alterations by P. A. 1890, § 2 (3)—have a share of profits without being a partner, but all partners are liable without limit. On the continent, on the other hand, there is a form of partnership called *société en Commandite* (see G. M. C. § 150; F. C. d. C. § 23; I. C. d. C. §§ 76, 117), in which one or several of the partners may limit their liability, whilst one at least of the other partners is liable without limit. The limited partners may divide their interest in the partnership capital into shares, in which case the partnership has some of the characteristics of a company, and is called *société en Commandite par actions* (see G. M. C. § 173; F. C. d. C. § 38; I. C. d. C. §§ 119 and 120) (see PARTNERSHIP, FORM OF, AS COMMANDITE). It was intended to introduce commandite partnerships with a share capital into the United Kingdom, and the provisions of C. A. 1867, § 4, are quite sufficient for the purpose; but it does not seem that any one has ever attempted to apply them. There is finally a form of partnership which exists in

[1] *The following abbreviations are used throughout this article:*—B. A. = Bankruptcy Act 1883; C. A. = Companies Act; F. C. C. = French *Code Civil;* F. C. d. C. = French *Code de Commerce*; G. M. C. = German *Mercantile Code;* I. C. d. C. = Italian *Codice di Commercio;* P. A. = Partnership Act 1890.

Germany, by virtue of a statute passed in 1892, in which all the partners are liable to a limited extent only (*Gesellschaft mit beschränkter Haftung*). This form of partnership is distinguishable from a limited "company" in various ways, but in the United Kingdom its place is taken up by "private companies," which are companies in the full sense, but have generally some provisions in their articles by which the more private character of the association is secured (*e.g.* clauses providing that shares cannot be sold without being offered to the shareholders).

According to English law a partnership established for banking having more than ten, and any other partnership having more than twenty members must, unless it belongs to certain privileged associations specially dealt with by statute, be incorporated as a company under the C. A. or by special act or by special charter (C. A. 1862, § 4). On the continent, on the other hand, there is no restriction as to the number of partners in private partnerships.

Persons who have entered into partnership are collectively called a FIRM (*q.v.*). In England the firm is only looked on as a collection of persons who have joint rights and joint liabilities, but in Scotland a firm is a legal person distinct from the partners of whom it is composed (P. A. 1890, § 4), and this is also the theory of French law. As it is now possible in England to bring and defend actions in the firm's name (R. S. C. 1891, Order xlviii. A. r. 1), the distinction has lost most of its importance.

One of the principal incidents of the partnership relation, which, in those continental countries in which mercantile partnerships are distinguished from others, attaches to mercantile partnerships only, is by the P. A. 1890, § 5, described as follows:—"Every partner is an agent of the firm and his other partners; and the acts of every partner who does any act for the carrying on in the usual way of business of the kind carried on by the firm of which he is a member, bind the firm and his partners, unless the partner so acting has in fact no authority to act for the firm in the particular matter, and the person with whom he is dealing either knows that he has no authority or does not know or believe him to be a partner." Where, however, one partner pledges the credit of the firm for a purpose apparently not connected with the firm's ordinary course of business, the firm is not bound, unless he is in fact specially authorised by the other partners (*ib.* § 7). On the continent, restrictions in a partner's implied authority are binding on third parties, although unknown to them, if entered on the register (see G. M. C. §§ 115, 86, 87; I. C. d. C. §§ 88, 90).

The question as to who is or who is not a partner in a firm is also of easier solution on the continent than in the United Kingdom, as a person registered as partner in a firm on the mercantile register is, as between himself and third parties, estopped from denying that he is a partner (G. M. C. § 25; I. C. d. C. §§ 103, 88; French St. 24th July 1867, §§ 55, 57, 61). In the countries governed by British law, registers of firms are not used, and it is therefore necessary to inquire into the exact facts in order to find out whether any given person may be treated as a partner or not, but persons "holding themselves out" as partners may be made liable as such, although they are not partners in fact (P. A. 1890, § 14).

The internal affairs of a partnership are generally arranged by contract between the partners. In the United Kingdom, a written contract is not required unless the duration of the partnership is to extend over a year, and in Germany a written contract is unnecessary in any event (G. M. C. § 85), but in France and Italy a written contract must be registered in all cases, and certain parts of it, including statements as to the names of the partners, the trade name, the authority of the partners to act for the firm, the duration of the partnership, and the amount of the partnership capital, must be published in certain newspapers (F. C. d. C. §§ 39, 41; St. of the 24th July 1867, § 57; I. C. d. C. §§ 87, 88, 90, 93).

The codes relating to the law of partnership contain regulations as to the rights in respect of the partnership property, the sharing of profits, the interests payable on advances of capital, the duty of partners not to carry on business in competition with the firm, the powers of majorities, the expulsion of partners, the duration of partnerships, and other matters (see P. A. 1890, §§ 19, 31; G. M. C. §§ 90-109; F. C. d. C. § 18; I. C. C. §§ 1707-1725; C. d. C. §§ 107-113) which have to be applied in the absence of contractual stipulations to the contrary.

The procedure to be adopted for the purpose of recovering partnership debts by execution against the property of individual partners, or the estates of deceased partners, is too complicated to be discussed in this place (as to the U. K. see P. A. § 9, and Kendall v. Hamilton, 4, Ap. c. 504; as to Germany, M. C. § 112; as to France, C. d. C. §§ 22, 64; C. C. §§ 1200, 1202; as to Italy, C. d. C. §§ 76, 206; C. C. §§ 1186, 1189). The rules in this matter are, in the view of English courts, mere matter of procedure, and must therefore be decided by the law of the place in which the action is brought, without reference to the law of the place in which the partnership business is carried on (*in re* Doetsch [1896] 2. ch. 830).

In case of bankruptcy the partnership creditors are, in the United Kingdom and Germany, entitled to the partnership property, and the

separate creditors of any partner are entitled to such partner's separate property. If any surplus remains in either case, such surplus is available for the partnership creditors, or the separate creditors, as the case may be (B. A. 1883, § 40 (3); G. M. C. § 122).

From an economic point of view the regulation of partnership law by rules adapted to the usages and requirements of mercantile life, is of great importance, as in consequence of such regulation the formation of partnerships and more especially their dealings with other traders and with each other, are considerably facilitated. The disadvantages of trading without partners are so obvious that they hardly require mention, but the comparison between partnerships and companies is more difficult. For those classes of business in which the personal capacities of the managers are of great importance, private partnerships may appear preferable, as they are more likely to retain permanent customers, but even in this respect much may be said on the other side, as the vicissitudes of health and the uncertainty of life make it impossible to rely with confidence on the continuance of the personal qualities which, in a given case, make it desirable to transact business with a particular firm, whilst on the other hand a company is more likely to be able to replace a capable manager by one equally capable, who, by having previously assisted his predecessor, will continue to work in the same manner.

In a private partnership there is, of course, a greater possibility for sons to continue in the footsteps of their father than in a company, and the continuance of firms by successive generations of the same family has many obvious advantages from a public point of view; but these advantages were much greater when the mercantile classes were socially distinct from the leisured classes. In our days a share in the family business is frequently looked on as property not involving any duties, enabling the owner to share the life of those who in former days would not have associated with persons deriving their income from "trade," and in such a case the advantages of the business traditions of the family must soon disappear.

The greater privacy of private partnerships may be more advantageous for the preservation of trade secrets, but with proper precautions the same result may be secured by a company.

The risks and disadvantages of trade being carried on by companies as distinguished from private partnerships have been frequently discussed. In a company there is nobody whose personal honour is affected by failure, and the persons who have a directing voice in the management do not necessarily suffer from the consequences of their carelessness or recklessness, and may be even benefited by the disasters of their company. The risk attendant on this circumstance may be lessened by legislation (see JOINT STOCK COMPANIES), and also by the education of public opinion which hitherto has been much too lenient in respect of the deficiencies of company directors, except in a few conspicuous cases, in which there were sensational features of a special kind.

But whether it be for good or for evil, it must be clear to any intelligent observer that private partnerships and unlimited liability are rapidly disappearing, and under these circumstances it is hardly worth while to propose any legislative reforms of partnership law; but an act providing for the compulsory registration of firms, and thus enabling creditors to ascertain who at a given moment are the partners in the firm with whom they are dealing, would be of great advantage, and could be introduced without much difficulty. The introduction of "commandite" partnerships at one time much discussed by reformers of partnership law, would probably be without any practical effect; if there was any real want for this form of partnership it could be easily supplied by taking advantage of the above-mentioned provisions of C. A. 1867, § 4. In the event of company law being made more stringent, it will probably be desirable to find a special form of association to facilitate trading with limited liability without the necessity of the restrictions which would then be imposed upon the formation and management of public companies (see as to this, paragraphs 65 and 66 of the *Report of the Departmental Committee of the Board of Trade on the Companies Acts* published in 1895), and for this purpose the introduction of private partnerships with limited liability similar to those established under the above-mentioned German statute of 1892 would be convenient.

[As to continental law, see the art. "Sociétés Commerciales," *Continental Mercantile Codes*.—Also Troplong, *De la Société*.—Deloison, *Traité des soc. commerciales franç. et étrangères*, 2 vols. 1882.—Houpin, *Traité général théorique et pratique des Sociétés Civiles et Commerciales*, 2 vols. 1895.—Hergenhahn, *Das Reichsgesetz betreffend die Ges. mit beschr. Haftung*, 1895.—See also the articles under the heading: "Die Handelsgesellschaften" i. to iii. in Endemann's *Handbuch*, vol. i. pp. 310-357. As to English and Scotch law, see Lindley, *Treatise on the Law of Partnership*, 6th ed. 1893.—Pollock, *Digest of the Law of Partnership*, 6th ed. 1895.] E. S.

PARTNERSHIP, MEDIÆVAL. The modern practice of partnership has a threefold root in mediæval usage. (1) The oldest form of partnership in the middle ages took its origin from Italy, and was known as *commenda*. This implied the handing-over, for a particular voyage or enterprise, of goods or money by one person who remained at home (*commendator, socius stans*) to another who undertook the management of the business (*commendatarius*,

tractator). The *commendatarius* was commonly rewarded with one-fourth of the gain. In the later centuries, the *commendatarius* usually contributed capital himself, and acted on behalf of a number of *socii stantes* or sleeping partners. It was in this way that most commercial undertakings were conducted which involved considerable capital; and the practice survived in the *société en commandite*, so general to-day on the continent of Europe (see COMMANDITE, SOCIÉTÉ EN).

(2) The joint household of brothers, relatives, or friends, "eating one bread" (*companis*), and engaged in the same industry, was apparently the direct parent of the ordinary private partnership of modern England and the *offene Gesellschaft* of modern Germany, and seems to have given them the characteristic of unlimited liability which distinguishes it from the *société en commandite*.

(3) The mechanism of the modern joint-stock company, however, may be traced back in large part to the GILD. The earliest joint-stock companies, like the English EAST INDIA COMPANY, had in every respect, *except* the joint-stock, the same organisation as the earlier companies of "adventurers" in foreign trade. These latter were modelled on the great town "crafts" or "companies," like those of the mercers or grocers; and these, in their turn, had but followed the example of the earlier merchant and craft gilds. In all these, though there was a small fund for certain common religious and social purposes, and various restraints were imposed on the economic action of members, each member traded on his own account and with his own stock. Even the East India Company began with a joint stock only for each voyage, and did not for some years create a permanent joint stock. The introduction of a joint stock was immediately due to the lessons of experience, but the forms adopted for the purpose were probably influenced by contemporary practice in the matter of government loans (see also PARTNERSHIP, LAW OF; and PARTNERSHIP, HISTORY OF).

[The most complete information on the subject will be found gathered together in the *Universalgeschichte*, forming vol. i. of L. Goldschmidt's *Handbuch des Handelsrechts* (new ed. 1891), where are also given abundant references to the literature. Among recent special monographs should be mentioned W. Silberschmidt, *Die Commenda in ihrer frühesten Entwickelung* (1884), M. Weber, *Zur Geschichte der Handelsgesellschaften im Mittelalter* (1889), and F. G. A. Schmidt, *Handelsgesellschaften in den deutschen Stadtrechtquellen* (1883). On these works is founded the account in Ashley, *Economic History*, vol. i. pt. ii. § 67. See also Parsons, *Principles of Partnership* (Boston, 1889), §§ 2, 3, 26; Troplong, *Du Contrat de société* (1843); Frignet, *Histoire de l'association commerciale jusqu'aux temps présents* (1868).] W. J. A.

PARUTA, PAOLO (1640-1698), a Venetian nobleman; a clear-headed political writer and historian of the Venetian republic. His work, *Della perfettione della vita politica*, discusses wealth, and, in opposition to socialistic views, defends private property.

Whilst other authors of his day considered wealth solely from a moral point of view, Paruta recognised also an economic side to it. He does not confuse the desire for wealth with the unrestrained longing to accumulate, nor is he biassed by preconceived ideas of ascetic morality which other writers of his day had inherited from the canonists (see CANON LAW). He considers man's desire to live and to improve his social position to be a right desire based on natural instinct. Therefore, that which other writers of his time condemned, Paruta considered only human and moral.

In the work we quote, Paruta defends private property, combats communism, and shows the impossibility of absolute equality, confuting the numerous writings, the outcome of the sad conditions of the times, which advocated reform based on communism. The law-giver, says Paruta, cannot equalise the wealth of citizens, because this would destroy liberality. It would not be reasonable that the most worthless citizen should be on the same level for wealth as the worthiest. This happens even now, he observes, but being due to chance and not to the law, is more easily tolerated. It would, in any case, be impossible to preserve equality if it were established, and it would necessarily bring about the community of goods and children, upheld by Plato, and lead to most serious troubles.

The real remedy, according to Paruta, is to distribute honours and taxation so that all may share in them according to their status, while educating all citizens to make a good use of their wealth, and abolishing gambling, usury, and all useless occupations. Further, while Paruta defends property, he objects to excessive concentration of possessions.

Della perfettione della vita politica di M. Paolo Paruta, nobile Vinetiano, Venetia, 1599.

[See Cossa, *Introduzione allo studio dell' economia politica*, Milan, Hoepli, 1892.—Supino, *La scienza economica in Italia dalla seconda metà del secolo XVI. alla prima del XVII.*, Loescher, 1888.] U. R.

PASCOLI, LEONE (18th century). Born in Perugia, an abbé and a considerable writer on economic subjects, too soon forgotten. In his book, written 1728, published anonymously 1733 at Perugia, untruly dated from Colonia, Pascoli anticipated the economic financial reforms attempted later by Pius VI. in the papal states.

Pascoli follows BOISGUILBERT, deriving from him the title of his principal work, and proposing protection for agriculture, but he does not absolutely repudiate mercantilism, his leanings towards which are shown in his

monetary policy which was designed to cause more coin to be brought into the country than left it. To secure this, trade was to be fettered, that the nation might preserve its economic independence and not waste its money on luxuries.

Pascoli's work has special regard to the condition of the pontifical states which he sought to improve. He proposes plans to raise agriculture and industry again to a flourishing condition, and he discusses the supply of food, trade, coinage, and finance. Free trade internally, free export of agricultural produce to foreign countries, simplification of the system of taxation, constituted the basis of the economic organisation suggested by him. To restore prosperity to agriculture, he proposed to re-establish the ancient privileges granted to cultivators, to release them from all taxes, and to prohibit the import of foreign cattle. He studied the best methods of rendering the Roman Campagna healthy, and maintained that the state should compel landowners to execute sanitary works. He advocated proportional taxation and special taxes to provide relief for the poor, similar to the English system, prohibition of the export of raw materials, and taxation of imported manufactures.

The title of Pascoli's book is, *Testamento politico di un accademico fiorentino, in cui con nuovi e ben fondati principii si fanno varii e diversi progetti per istabilire un ben regolato commercio nello stato della chiesa*, etc., Colonia, 1733.

[See, concerning Pascoli, Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd ed., Palermo, 1896.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, 1884.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.]

U. R.

PASHLEY, ROBERT (1805-1859), barrister-at-law, afterwards Queen's Counsel. In 1833-34 he visited Greece and Asia Minor, and on his return published his *Travels in Crete* (2 vols. 8vo, Cambridge, 1837), a work which was much valued for the statistical knowledge it contained.

Pashley is best known to economists as the author of *Pauperism and Poor Laws* (London, Longman and Co., 1852, 1 vol., 8vo), a work in nineteen chapters, which treats of the subject under the following heads:—The number and cost of paupers in England, and in the metropolis; the pauperism of the agricultural and manufacturing districts; ecclesiastical provision for the poor till the Reformation; pauper legislation before and during the reign of Elizabeth; the relief of the poor from the reign of Elizabeth till the restoration of Charles II.; the statute of Charles II. for the removal of the poor; pauperism from the reign of Charles II. till the end of the 17th century; pauperism and the poor laws of England during the 18th century; the same from 1800-1834; the pauper legislation of the year 1834; the pauperism and poor laws of England since the passing of the Poor Law Amendment Act in 1834; the effect of the law of settlement on the dwellings of labourers in agriculture; on the necessity of a total repeal of the law of settlement and removal of the poor; the remedy by abolishing removals and substituting relief in money; proposed remedy by union settlement and union rating; other proposed remedies; the author's proposal, which was "that the law of settlement be wholly repealed, that the various provisions for raising and administering relief to the poor be consolidated into one statute; that the yearly sums needed for such relief continue to be raised by parochial rates on real property; that two-thirds of this sum be raised by a pound rate equal throughout the whole country; and the remainder by a further pound rate, raising in every parish a sum equal to one-third of the actual expenditure of such parish (ch. xix. *Pauperism and Poor Laws*).

Pashley also published *Observations on the Government Bill for abolishing the Removal of the Poor* (2nd ed. revised, London, 1854, 8vo).

A. L.

PASLEY, LIEUT.-GENERAL Sir C. W., R.E. (1780-1861), wrote:—*Observations on the Expediency and Practicability of Simplifying and Improving the Measures and Weights and Money used in this Country without materially altering the Present Standard* (8vo, London, 1834).

As the result of his investigations Pasley was made a member of the commission of scientific men, appointed in 1838 to report on the steps to be taken for the restoration of the standards of weight and measure consequent on the destruction of the standard yard by fire at the House of Commons. Pasley assisted in drawing up the report issued in 1841, and in his capacity of commissioner proposed the adoption of the DECIMAL SYSTEM of coinage, preparatory to the introduction of a similar scale of weights and measures.

In his *Plan for simplifying . . . the weights, measures, and money of this country*, a paper read before the British Association at Cheltenham, 12th Aug. 1856, and published 1857, Pasley gave in detail tables of the proposed new measures of length, surface, solidity, capacity, and weight—and (ch. v.) of the new monetary system. He stated the difficulties urged as objections to the proposed decimal coinage; and showed their groundlessness (ch. vi.). In ch. vii. he detailed the advantages of the new system; and, in the last chapter, discussed the objections to the French metrical system: "that it has proved an entire failure as regards astronomy and navigation, and that, instead of proposing uniformity, it has caused greater confusion in the weights and measures of France than ever prevailed before" (ch. viii.).

He also wrote much on military subjects.

A. L.

PASSE-DEBOUT (Fr.). The permit delivered to the carrier of provisions or merchandise passing through a town in which octroi duties

are levied, in transit for a locality outside the limits of the place, or on their way to a market inside the town, and to be taken back if unsold. The amount of the dues is deposited at the gatehouse on entering, and is reimbursed on presentation of the *passe-debout* on leaving. If the amount of the octroi tax is large the escort of an officer from one extremity of the town to the other may be obtained on payment of a fee in lieu of the deposit of the duty. Goods remaining more than twenty-four hours must be lodged in a registered warehouse.

T. L.

PASSENGER DUTY. See TAXATION.

PASSY, HIPPOLYTE PHILIBERT (1793-1880) born at Garches-Villeneuve near Saint Cloud, died in Paris. He was born on the very day of the execution of Marie-Antoinette (16th October), his father being in prison as a "suspect," and his mother in hiding. He began life as a soldier—left his military school in 1811, and took part in the Russian campaign as a cavalry officer. He was wounded on several occasions, and on one even left for dead; but he took part in 1814 in the defence of Paris at Montmartre. Leaving the profession of arms, he sailed for the United States. During the voyage the *Wealth of Nations* fell, by chance, into his hands. To pass the time he read the volume, and thus became an economist. His fine intellect served him well in the many high offices he afterwards held. Meanwhile, after his return from America he occupied himself for some ten years in cultivating an estate which he had inherited near Gisons (Eure), and his mind became matured by experience while he enriched it by study. As editor of the *National* of Armand Carrel he was appreciated as he deserved by the able men of various descriptions whom the revolution of 1830 brought to the surface. The district of Louviers returned him to the chamber of deputies. He was minister of finance from the 10th to 18th November 1834 (ministry of Bassano), then minister of commerce from 22nd February to 7th September 1836 (ministry of Molé), minister of finance again from 12th May 1839 to 29th February 1840 (ministry of THIERS). In 1844 he was raised to the chamber of peers. After the revolution of February 1849 had overthrown the monarchy, he became a member of the constituent assembly and afterwards of the legislative assembly; finally, the president of the republic, Louis Napoleon, made him minister of finance on 20th December 1848. He retained this post till 30th October 1849, the date when the prince-president began distinctly to modify his policy. It was during this last occasion of his holding office that he unsuccessfully proposed to levy a tax on the rent of house property as a practical solution of the income-tax. The *coup d'état* definitely put an end to his political career, and from that time he gave himself up absolutely to economic science. He entered the institute (*Académie des Sciences morales et politiques*) in 1833 as correspondent, and in 1838 as member. He prepared in that capacity many reports, among which may be noticed a paper in 1878, *De l'histoire dans ses rapports avec les sciences sociales et politiques.* A member of the economic society from 1844, he became its second president in 1845, and, on the death of Ch. Dunoyer in 1862, the first president. He was one of the founders of the statistical society of Paris in 1860, was vice-president in the second year, president in 1868, and honorary president after 1873. In all these learned societies his opinion had great weight; this was due both to his force of character and to his twofold gifts as a thinker and a practical man.

Passy wrote, besides his political works: *De l'aristocratie considérée dans ses rapports avec les progrès de la civilisation*, 8vo, 1826.—*Des systèmes de culture et de leur influence sur l'économie sociale*, 8vo, 1st ed. 1846, 2nd ed. 1853.—*Des causes de l'inégalité des richesses*, 18mo, 1849.—*Des formes de gouvernement et des lois qui les régissent*, 8vo, 1st ed. 1870, 2nd ed. (The author supports a constitutional and parliamentary monarchy.)

A. C. f.

PATENT AND PATENT LAW.

Patent, p. 74; Historical Observations on Patent Law, p. 75; Specification of Invention, p. 75; Requirements as to Validity of Patent, p. 75; Ditto as to Person of Patentee, p. 75; Investigation by Patent Authorities prior to Grant of Patent, p. 76; Duration of Patents, p. 76; Regulations as to Fees, p. 76; Provisions for insuring working of Invention, p. 76; Provisions for insuring benefit of inventions useful for public purposes to Government Authorities, p. 77; Patent Journals and Patent Libraries, p. 77; International Arrangements, p. 77.

Patent is the name for a grant by the government of a country of a privilege enabling the patentee or his licensees to "make use and exercise and vend" the invention, and to restrain any unauthorised person from using or imitating it. A patent is always granted for a limited time and a limited area.

Some economists of authority, among whom PRINCE SMITH (*q.v.*) holds a prominent place, maintain the proposition that the grant of patents is detrimental to the public welfare, but there is now a general consensus of opinion in the opposite direction, it being recognised that it is not only just that inventors should, within certain limits, enjoy a personal benefit from their inventive skill and labour and outlay, but that it is also beneficial to the community that inventions should be encouraged and made.

Modern patent law has contrived numerous safeguards for the protection of the public, among which the limits of time, and the requirements as to publicity, are the most important. The effect of the law is to make the invention public property after the expiration of the patent, and an inventor who has reason to

believe that the secret of his invention can be kept, is in a better position if he does not apply for a patent.

It is worthy of notice that in most countries having a patent law there are certain provisions which are intended to insure that patented articles should be manufactured within the country in which the patent is granted. The granting of patents in this way acts as a protection to native industry.

Historical Observations.—It is generally said that patent law was first created by a passage in the statute of James I. abolishing MONOPOLIES (*q.v.*), which, by way of exception, reserved a right to the crown to issue "letters patent . . . for the term of fourteen years or under . . . of the sole working or making of any manner of new manufacture within this realm to the true and first inventor and inventors of such manufactures," and one of the best-known writers on the subject (Kohler in his *Deutsches Patentrecht*, on p. 26) is of opinion that the industrial pre-eminence of England is essentially due to this circumstance. It seems hardly safe to accept the dictum of a legal writer, however eminent, for a proposition of such startling character, and it must also be observed that the statute of monopolies did not create, but only restricted and regulated, the right of the crown to grant patents.

The exception in the statute of monopolies did not, moreover, entitle an inventor to the grant of a patent as of right, but left him dependent on the favour of the crown.

Its principal importance is due to the fact that, for the first time, it recognised a clear distinction between patents for inventions and other monopolies, whilst on the other hand the public interest, which would seriously suffer if patents were granted for an unlimited period, was safeguarded by the introduction of a time limit.

In modern law the right of every inventor, who complies with certain conditions, to enjoy a monopoly for a limited period is almost universally acknowledged, though in some countries (as, for instance, in Denmark, where the first Patent Act was passed in 1894 only) the recognition of this principle is of very recent date. The patent law of the United Kingdom is regulated by the act of 1883. Patent acts were also introduced in the following British colonies and possessions at various dates:—Barbados, British Guiana, British Honduras, Canada, Cape of Good Hope, Ceylon, Hongkong, India, Jamaica, Leeward Islands, Mauritius, Natal, Newfoundland, New South Wales, New Zealand, Queensland, South Australia, Straits Settlements, Tasmania, Trinidad, Victoria, Western Australia.

Specification of Invention.—The grant of a patent is always subject to the condition that the invention should be fully described by the applicant. This is made specially clear by the United States Statute, Rev. Stat., 1874, § 4888; and by the German Statute of 1891, § 20, which requires a description so explicit that experts may by its perusal be enabled to use the invention. The law of the United Kingdom allows a provisional specification to be filed in the first instance, which must, however, within nine months, be followed by a complete specification (Patent, etc., Act, 1883, §§ 5 (3); 8).

Requirements as to Validity of a Patent.—The limits within which inventions are patentable vary in different countries. Novelty, originality, and fitness for industrial purposes are required everywhere, and it is also the universal practice to exclude articles intended for unlawful and immoral purposes (see, for instance, Statute of Monopolies, § 6; French Statute of 1844, §§ 1 and 2; German Statute, § 1; Austrian Statute of 1897 (which will come into force in 1900), § 1, but in some systems of law other articles are excluded as well as those just mentioned. Thus the French Statute (§ 3) excludes all medicines, and the German Statute (§ 1 [2]) excludes articles of food, articles intended for medical purposes, and all substances produced by chemical process.

Most patent laws protect *inventions* only as distinguished from *discoveries* (as to the meaning of the distinction, see Lord Justice Lindley's judgment in Lane-Fox *v.* Kensington and Knightsbridge Electric Company [92], 3 Ch. 424, 428, 429), but the French law protects discoveries as well as inventions (toute nouvelle découverte ou invention), excluding, however, plans and combinations relating to credit and finance (French Statute, §§ 1 and 3).

Requirements as to Person of Patentee.—In most countries patents are granted to the "true inventor" only, and in some (*e.g.* in the United States Revised Statutes, 1874, § 4892) the applicant must declare on oath that he is the true inventor; whilst in others, such as Austria (see Austrian Statute, §§ 29 and 4), the first applicant is presumed to be the true inventor until the contrary is proved. The expression "true inventor" is not, however, always construed literally. Thus, in the United Kingdom it includes (1) a person who, having, in a place outside the United Kingdom, become acquainted with an invention, not being part of the common knowledge in the United Kingdom, brings it over to the United Kingdom, and then takes out a patent; (2) an inventor forestalled by a prior inventor, who did not publish his invention so as to make it part of the common knowledge (see the judgment of Jessel, M.R., in Plimpton *v.* Malcolmson, 3 Ch. D. 351, 556).

The German statute (§ 31), with the view of discouraging delay in the fructification of useful inventions, puts the *first applicant* into the place of the true inventor, subject, however, to the right of an injured person, within a specified period (see § 23), to object to the grant on the ground that the essential part of the specification was taken from the descriptions, drawing, models, or appliances of a person other than the applicant, without the consent of such person. If the objector is successful, he may be put into the same position as if he had applied for the patent in the first instance.

In most countries patents are granted without regard to the nationality of the patentee (see, for instance, Patent, etc., Act 1883, § 4 (1); French Statute, § 27), but in Germany (§ 12) and Austria (§ 7) a patent is not granted to a foreign applicant unless he appoints an agent, residing in the country in which the application is made, with full powers to represent the applicant in all

proceedings relating to the patent. In some systems of law it is also provided that the subjects of foreign states must submit to the same disabilities in respect of the grant of patents as those imposed on foreign subjects in their own country (see, for instance, German Statute, § 12; Austrian Statute, § 31).

Investigation by Patent Authorities prior to Grant of Patent.—This is one of the points in respect of which considerable diversity prevails. In France a patent is granted without any examination as to the patentable character of the invention in respect of which it is claimed, or of the correctness of the specification ("Les brevets dont la demande aura été régulièrement formée seront delivrés sans examen préalable *aux risques et périls des demandeurs et sans garantie, soit de la réalité de la nouveauté ou du mérite de l'invention, soit de la fidélité ou de l'exactitude de la description*," § 11).

In certain other countries, among which the United States, Germany, Austria, and Hungary (statute of 1895) are the most prominent, a most elaborate investigation takes place not only in respect of the correctness of the description and all formal requirements, but also as regards the merit and originality of the invention, and generally as to its patentable character (United States Revised Statutes, § 4893; German Statute, § 21; Austrian Statute, § 55).

A second method of testing the validity of a patent adopted by the German and Austrian laws, is the publication of the details of the application for the purpose of enabling objectors to oppose the grant, which they may do within two months from the date of the publication (German Statute, §§ 23 and 24; Austrian Statute, § 58).

British Patent Law takes a middle course between the absolute non-interference of the French system and the full inquiry of the American and German system. The official examination is confined to questions as to the correctness of the description and the completeness of the specification (Patent, etc., Act 1883, §§ 7 and 9), but as in Austrian and German law the details of the invention are published (*ib.* § 10), and objectors have a right to be heard within two months from the date of the advertisement. Such objections are, however, restricted in their scope, and may not extend to every ground affecting the validity of the patent (*ib.* § 11).

It is possible everywhere to have a patent revoked or declared void on the ground that the invention was not patentable, but in Germany this right is barred after the lapse of five years from the date on which the grant of a patent was publicly announced (Patent, etc., Act 1883, § 26; United States Revised Statutes, § 4918; German Statute, §§ 28 and 29; Austrian Statute, §§ 28 and 29; French Statute, § 30); it should, however, be borne in mind that, in countries in which a strict examination takes place before a patent is granted, the risk of invalidity is, of course, much smaller. The vendor of a patent does not as a general rule guarantee its validity unless he expressly covenants to do so.

Duration of Patents.—The maximum duration of patents is fifteen years in France, Germany, and Austria, seventeen years in the United States, and fourteen years (but subject to extension as mentioned below) in the United Kingdom (French Statute, § 4; German Statute, § 7; Austrian Statute, § 14; United States Revised Statutes, § 4884; Patent, etc., Act 1883, § 17), but in France and in the United States the duration of patents for inventions previously patented in any other country cannot exceed the term of the patent granted in such other country (French Statute, § 29; United States Revised Statutes, § 4887).

In Spain, original and new inventions not previously patented in any other country are entitled to patents for the term of twenty years; if an invention has been patented in other countries at a date not more than two years prior to the date of the Spanish application, the maximum duration of the patent is ten years; and if an invention is not new or not original, the term of the patent may not exceed five years (Spanish Statute of 1875, § 121).

The United Kingdom is the only country in which an extension of the term of a patent may be obtained on petition. The petition must be addressed to the judicial committee of the privy council, who, if they are of opinion that the patentee, having regard to the merits of the invention in relation to the public, has been inadequately remunerated by his patent, may recommend an extension of the term for a further period not exceeding seven, or in exceptional cases fourteen, years (Patent, etc., Act, § 25, and see "*In re* Samey and Solvay's Patent [1895]; Appeal Cases 78). A similar rule formerly existed in the United States, but is now no longer in force (United States Revised Statutes, § 4924).

Regulations as to Fees.—The continuation of the validity of a patent is generally made dependent on the payment of certain fees. In most countries these fees are payable by instalments or annually. In some countries the early instalments are lower than the subsequent ones, for the purpose of enabling the patentee, in the case of a non-successful invention, to abandon the patent without having paid a large sum in fees, and on the other hand enabling the crown to profit by the success of a successful invention (Patent, etc., Act 1883, second schedule). The principle of progressive fees is carried out most consistently by the German Statute (§ 8). Power is given in most countries to remit the fees in appropriate cases (Patent, etc., Act 1883, § 24 (2) German Statute, § 8).

Provisions for ensuring Working of Invention.—The granting of a patent may be a hindrance to industrial life, if the patentee, through want of energy or want of means, neglects to work his invention, whilst others, who would be willing and able to do so, are afraid of infringing his rights. A patentee may also take out a patent for the sole object of restraining competition with articles not manufactured in the country in which the patent is taken out, and thereby injure the trade of that country. Modern patent law tries to prevent such abuses in various ways. Thus in the United Kingdom the board of trade may compel the patentee to grant licenses on reasonable terms to any person showing that the patent is not worked in the United Kingdom, or cannot be used to the

best advantage, or that the requirements of the public cannot be supplied (Patent, etc., Act 1883, § 22); and in Germany and Austria the patent may, under similar circumstances, be cancelled altogether (German Statute, § 11; Austrian Statute, § 27). In Austria a compulsory license may also — subject to certain specified conditions — be obtained by an inventor who has so materially improved a previously patenteed invention, that, in consequence of such improvements, its industrial importance is materially increased. In such a case, however, the original patentee may in his turn obtain a compulsory license in respect of the improvement (Austrian Statute, § 21).

Provisions for ensuring benefit of Inventions useful for public purposes to government authorities. —The British statute (§ 27 [2]) provides that the authorities administering any public department may, on terms agreed upon between the parties, or in case of necessity to be fixed by the treasury, use any patented invention for the services of the crown, and similar rules exist in Germany and Austria (German Statute, § 1; Austrian Statute, § 21).

The German statute also provides (§ 23) that in the case of applications for patents on the part of the imperial authorities in connection with the purposes of the army or navy, a patent may be granted without the public announcement required in ordinary cases. In such a case the patent is not entered in the register (German Statute, § 23).

Patent Journals and Patent Libraries.—All patent offices publish periodical information on inventions, which, besides serving their immediate purpose, are also generally useful. The collections and libraries which in many places (*e.g.* in London) exist in connection with the patent office are open to the public.

International Arrangements.—An international congress for the purpose of securing the general protection of "industrial property" including patents was held at Vienna in 1873 and at Paris in 1878, and resulted in the formation in 1883 of a "Convention pour la protection de la propriété industrielle," to which the United Kingdom acceded on the 17th of March 1887 (by virtue of the powers conferred by Patent, etc., Act 1883, § 103). The United States and a number of other states, including France and Belgium, are members of the convention; but Germany and Austria have not joined, these countries having entered into a separate arrangement in 1891, and another arrangement having been made between Germany and Italy in 1892. The principal provisions of the convention of 1883 are: (1) that an applicant for a patent in any contracting state shall, if applying within six (or in certain specified cases within seven) months in any other contracting state, be treated as if his application in such other state has been contemporaneous with his application in the first-named contracting state; (2) that temporary protection shall be given to articles patenteed in any contracting state and exhibited at any officially recognised public exhibition in any other contracting state; (3) that an international office shall be established at Berne, and that a journal called *Propriété industrielle* shall be published at such office. The publication of the last-mentioned journal seems to be the most important result of the convention.

The British government has authority to enter into mutual arrangements relating to patents with any British colony (Patentee Act 1883, § 104).

The most complete collection of patent laws is the one published by Gareis, and continued by Werner, of which 7 vols. have hitherto appeared. Carpmael, *The Patent Laws of the World*, 2nd ed., 1889, is somewhat out of date now. Edmunds and Renton, *The Law and Practice of Letters Patent for Inventions*, 1890, gives a summary of foreign patent laws, but is also somewhat out of date in that respect. The latest statutes, besides the above-mentioned Austrian statute of 1897, are a Russian statute (published in St. Petersburg in German), a Danish statute of 1894 (published in German in Berlin), and a Hungarian statute of 1895. E. S.

PATENTE (Fr.) A trade tax or license imposed on all persons in France exercising a trade, profession, or industry, unless specially exempted. The *patente* is distinct from the *license*, which is limited to a small number of trades, generally those under the supervision of the department of indirect taxes, corresponding to the English excise. Trades subject to the *license* usually pay the *patente* also. The *patente* was first established in 1791, when the trade corporations were abolished, and was a substitute for the dues paid by those bodies. It was at first a simple tax on the rental of the place of business and residence, and applied only to certain trades, but in 1798 it was extended and converted into a double tax—one fixed, the other proportional. A law of 1844 which forms the basis of the present legislation included all trades, professions, and industries with the exception of public functionaries, professors, writers, artists, the wage-earning classes, and certain petty occupations carried on without hired assistance. The fixed duty (*droit fixe*) is assessed on the nature of the trade or industry, and the population of the locality, increasing with the number of the inhabitants. The proportional duty (*droit proportionnel*) is based on the rental, and in addition, in some cases, on the number of hands employed. Certain trades, the importance of which cannot be estimated by the population or the rental, are taxed on their means of production, such as the number of spindles, looms, ovens, machines, etc., or, as for shipowners, the tonnage of their vessels. The taxes are combined so as to equalise the incidence as far as possible between the different trades, as some of the most lucrative are carried on in small offices or workshops, while others, in which the profits are small, require extensive premises. For the application of the fixed duty all trades and professions are divided into eight classes. In the highest, the rate in Paris and towns with a population of over 100,000, is 400 francs (£16), descending gradually to 35

francs (£1 : 8 : 4) in localities with less than 2000 inhabitants. In the lowest class the limits are 12 francs (9s. 10d.) and 2 francs (1s. 8d.). The liberal professions subject to the tax, such as those of architect, solicitor, barrister, doctor, etc., pay only a proportional tax of one-fifteenth of the rental. Persons carrying on several branches of trade in the same building formerly paid only on that on which the tax was the highest; but a law passed in April 1893 with the view of protecting small shopkeepers from the competition of the great stores, created special taxes for those employing more than 200 hands including clerks, assistants, buyers, porters, etc., which are made to pay on each branch or speciality not exceeding sixteen in number; the tax on the number of hands employed was also made progressive, commencing at 25 francs per head for the first hundred, and increasing 10 francs (8s. 11d.) per head for each hundred beyond that number, so that with 2000 hands the last hundred pay 215 francs (£8 : 8 : 4) per head, and with 3000 315 francs (£12 : 8 : 4). This aggravation of the tax was intended to reach two or three well-known business centres in Paris.

Persons having several separate establishments of the same or different kinds pay the *patente* for each. The proportional tax on the rental is generally from 5 to 10 per cent, but in some cases it rises to 15 per cent, or descends to 2 per cent. If the proprietor does not reside on the premises his separate habitation is taxed also. The classification of trades and professions is revised every five years, to include the new ones which may have sprung up in the interval. The list is, however, very comprehensive, and contains about 1500 different occupations. The new are assimilated provisionally to the one they approach the nearest. The *patente* produces about £5,000,000 annually.

[Edouard Vignes, *Traité des Impôts en France.*—Maurice Block, *Dictionnaire de l'Administration.*—Duvergier, *Collection des Lois.*] T. L.

PATERSON, THOMAS (1828-82), wood carver, lecturer, and organiser of workmen's clubs, wrote—

A New Method of Mental Science with applications to Political Economy, published posthumously in 1886. His theory was that "in economical problems the physical and mental elements have to be differenced . . . if we apply to the physical and limited element reasonings only applicable to the mental elements or *vice versa* . . . we shall fail." Thus "labour" includes "force" and "plan": no limits can be set to the possible progress of plan. Possession is physical or mental: if the latter, it need not involve interference with other people's user, or the juristic idea of property. The modern employer was a labour-seller not a leader, and Paterson's ideal was "a co-operative society in which the fittest should lead, working as much for honour as for pay." J. D. R.

PATERSON, WILLIAM (1658-1719), merchant, was the founder of the BANK OF ENGLAND (*q.v.*) and author of the unfortunate Darien scheme (see DARIEN COMPANY). He was a vigorous opponent of inconvertible paper money, and appears to have suggested the SINKING FUND (*q.v.*) of 1717. His scheme for the redemption of the debt was pronounced by the *Economist* (October 23, 1858) "faultless." He was one of the earliest advocates of free trade, as opposed to the mercantile system. "There is not any one part of trade but might and would prosper better without than in a monopoly." "Trade is and will be capable of increasing trade, money of begetting money, and one improvement of making way for another, till the end of the world." His proposal for a council of trade is in several respects noteworthy. Among the powers to be given to this body were "to hear and determine all causes . . . relating to trade . . . by the law merchant and that of the sea": to purchase and build workhouses and granaries: to have power to add unto, or allow 10 per cent to, the joint stocks of all companies . . . for manufactures . . . and generally to give such other encouragements . . . as they shall think requisite for . . . promoting and enlarging trade and industry." Paterson further proposed that the punishment of death in cases of theft shall be changed to "the payment of fourfold," and that all "bribery, cheating . . . wilful bankruptcy or fraud" should be punished as theft. He strenuously opposed any tampering with the coinage. "Thus it happened: we tacitly determined, by our general practice, that a clipped coin was of equal value to an unclipped one . . . and so, being content to take halves for wholes, were put upon accordingly. If the disease be the inequality of our coin, the remedy must consist in its equality." He held enlightened views on the self-government of colonies, and proposed to found a public library for books on trade. He was ruined by the failure of the Darien company, but received, in 1715, a parliamentary grant of over £18,000. Paterson's memory and works were rescued from prejudice and obscurity by the indefatigable labours of Mr. S. Bannister.

The Writings of William Paterson with Biographical Notices, by S. Bannister, 3 vols., 2nd ed. London, 1859, 8vo, contain his authentic works. These include, *Central America in 1701* (publ. by Bannister 1857).—*Proposals of a Council of Trade*, 1701, 12mo.—*A proposal to plant a Colony in Darien*, 1701.—*Dialogues upon the Union at the Wednesday Club in Friday Street*, 1706 and 1717. The latter are also *Upon the redemption of the National Debt and Taxes.*—Bannister ascribes to Paterson *Letters to J. Locke on Remedy for Diseases incident to Coin*, 1696, but throws doubt on the *Conferences on the Public Debt by the Wednesday Club in Friday Street*, 1695, mentioned by M'Culloch in *Literature of Political Economy*. The account of the proceedings in

connection with the establishment of the Bank of England is in the 1717 pamphlet, pp. 63-73 of vol. ii. of *The Writings, etc.* See also *The English Historical Review*, vol. xi. p. 260, art. by W. A. Steel. H. E. E.

PATRIZI, FRANCESCO (1412-1494) born at Siena, became bishop of Gaeta, where he applied himself to study.

He was a contemporary of CARAFA, and may be included among the humanists (see HUMANISM); but he made no original contribution to political science. He repeated the theory of ARISTOTLE without enriching it. He recommends protection for merchants and tradesmen, the latter of whom, also according to him, contribute to the enriching of a country; no protection at all however, he argues, should be granted to the importers of articles of luxury. He considered that the state should provide the means of subsistence for the population, and proposed the institution of prefects to preserve the corn in the public granaries (see GRENIERS D'ABONDANCE). Living in the kingdom of Naples, he naturally occupied himself with the much-debated question of the Royal DOMAINE (*q.v.*), maintaining the advisability of its maintenance; considering, however, that, for the advantage of agriculture, such *bona fiscalia* should be administered through the system of perpetual tenants.

De regno et regis institutione, Parisiis, 1519, 1534, 1567, etc.—*De institutione reipublicae*, Parisiis, 1518, etc. A. B.

PATRONAGE is the name for the right to appoint the holder of a public office. Such a right may be vested in the crown, in which case it is exercised on the recommendation of the minister to whose department the vacant office is subordinated, or in the holder or holders of some other office or offices, or it may be attached to the ownership of land. The right to appoint to offices held by laymen, which at one time was looked upon as a source of pecuniary emolument, is now—as a rule—exercised in accordance with definite general rules, and subject to the vigilant control of public opinion, and the word "patronage" is now generally used with respect to clerical offices only, and more particularly in relation to the appointment of parochial incumbents. While many livings are under the patronage of the crown, or of public or quasi-public bodies, who are supposed to exercise their right with reference to the merits of the candidates, there are many others as to which the right to appoint the parochial incumbent is vested in a private patron, being either the lord of the manor, or in the case of the right of patronage having been severed from the manor—in which case it is called an "advowson"—the owner of the advowson, who may reserve the appointment for relatives or friends, or sell the next presentation during the life of the actual incumbent, and, on the living becoming vacant, appoint the purchaser's nominee, unless the vacancy arises through the selection of the last incumbent for a bishopric, in which case the patronage is, *pro hac vice*, vested in the crown.

The sale of the presentation during a vacancy is legally "simony," and therefore unlawful; and it is also "simony" for the proposed incumbent himself to purchase the next presentation; but the sale of the next presentation to a third party, who may be a near relative of the proposed incumbent, is not condemned either by law or public opinion. Ecclesiastical patronage may therefore be a source of pecuniary profit. E. S.

PATRONAGE (in the French sense). Besides its general sense, this word in French is specially applied to institutions organised and in many cases directed by the heads of manufactures and mills, or by beneficent associations, to promote the moral and material welfare either of their own workmen, or of the working classes in general, discharged prisoners, destitute young girls, etc. These institutions take various forms, such as *patronages* affording facilities for the investment of small savings, or providing at cost price sanitary dwellings or food and articles of large consumption (called, in this case *économats*); the purpose of others is, the opening of places for healthy and moral recreation, etc. LEPLAY (*q.v.*) and his school have been the most energetic and convinced promoters of these institutions: as a matter of fact, most of them have worked satisfactorily both for men and masters. The latter now tend to recede as much as possible into the background, and to give up the management to the men themselves. Yet the masters are charged, in socialistic circles, with steadily aiming at the exercise of tutelary or rather of oppressive power.

[The *Rapport de la Section d'Économie Sociale* of the Paris exhibition of 1889 (2nd vol. 1890) gives information on the then existing *patronages*. See also the article *Patronages* in the *Nouveau Dictionnaire d'Économie Politique*, the collection of the *Réforme Sociale*, Leplay's *Réforme Sociale en France* (vol. ii. pp. 406-435, ed. 1867), and Fougerousse, *Patrons et ouvriers à Paris* (1880).] E. Ca.

PATRONUS. (1) The head of a patrician family, to whom persons attached themselves as dependent members of the family (*clientes*, see CLIENT), was their *Patronus*. (2) A master who gave his slave liberty by a legal act of manumission became thereby *patronus* of such freedman (*libertus*), a family relation of duty and protection being thus constituted between them. (3) Patronus may also signify a defender of the cause of another in a court of justice. E. A. W.

PAULETTE. The practice of raising a revenue by the sale of offices was introduced into France in the 15th century and became a regular system in the 16th century. Few financial expedients have proved more ruinous.

In the first place the income derived was casual and not regular, and the occasional windfalls were practically loans on which the payments to office-holders constituted an excessive interest. Thus the sale of offices gave rise to a disguised national debt contracted on very disadvantageous terms to the state. And the financial loss was by no means the only evil. In order to make the offices valuable it was necessary to give the holders a secure tenure, and so the crown had to abandon the power of dismissal. Thus the office-holders became independent, and the judges in the parliament of Paris and other sovereign courts, who had in early times been the strongest supporters of the royal power, became in the 17th and 18th centuries the most resolute opponents of the monarchy. An inevitable result of the practice of purchase was that the buyers began to look upon their places as private property. This was partially recognised by an ordinance of 1567, which allowed an official to transfer his office to another, provided that (1) the original holder survived for forty days after the bargain, and (2) the recipient paid a third of the purchase money to the state. In 1605 Sully, the great minister of Henry IV., took the final step in this direction. The members of the sovereign courts were allowed to hold their seats as private and heritable property on condition of paying annually to the state a sixtieth part of their value. This charge was called the *droit annuel*, but is more usually known as the *paulette*, because the collection of the charge was in the first instance farmed out to a man called Paulet. This innovation of Sully's was a financial reform, because it substituted a regular yearly income for the casual in-comings which resulted from the practice of sale. But, from the point of view of the monarchy, the political results were by no means equally satisfactory. By the institution of the *paulette* the magistracy was made into a close hereditary class, and thus its independence was greater than ever. This result was to some extent foreseen, hence the system was not at first made permanent, but was fixed only for a period of years. Thus the crown reserved some control over officials, and could threaten, in case of opposition, to put an end to the *droit annuel*, which would at once deprive them of the property in their seats. But the official classes clung tenaciously to a system which gave them such obvious independence. When, in 1648, the government tried to coerce the judges, by allowing the *paulette* to expire without renewal, the vigorous opposition of the parliament of Paris was one of the chief causes of the Fronde. And their opposition was so far successful that, with some few interruptions, the *paulette*, and the hereditary tenure of offices of which it was the symbol, lasted till the old *régime* was overthrown by the Revolution (FARMER-GENERAL; FARMING OF TAXES).

[Clamagéran, *Histoire de l'Impôt en France*, t. ii. p. 378, *et seq.*] R. L.

PAULUS JULIUS, a Roman prætor of the 3rd century. In the *Corpus Juris*, under the title of the Purchase-Sale (Dig. XVIII, i. 1) is inserted a law of Paulus, which explains the origin of exchange and specifies the function of money.

The Prætor says: "Origo emendi vendendique a permutationibus cœpit: olim enim non ita erat numus: neque aliud *merx*, aliud *pretium* vocabatur: sed unusquisque secundum necessitatem temporum, ac rerum, utilibus inutilia permutabat, quando plerumque evenit, ut, quod alteri superest, alteri desit; sed quia non semper, nec facile concurrebat, ut cum tu haberes quod ego desiderarem, invicem haberem, quod tu accipere velles, electa materia est, cujus publica ac perpetua æstimatio difficultatibus permutationum, æqualitate quantitatis subveniret; æque materia forma publica percussa, usum dominiumque non tam ex substantia præbet, quam ex quantitate: nec ultra *merx* utrumque, sed alterum *pretium* vocatur."

The Italian economists of the last century discussed with much learning and heat the Roman ideas on money, its origin, and the functions of exchange —while PAGNINI maintained that the ideas of the Romans on money were altogether opposed to those of the economists of his century, Gian Rinaldo Carli and more fully Pompeo NERI showed that they were conformable to them. See also the monograph of Giulio Alessio on the conception of value in classical antiquity (*Archivio Giuridico italiano*, vol. xlii. Bologna, 1889); H. Cernuschi discussed it, showing that the conception of money as he explained it was entirely conformable to that of the Prætor Paulus Julius (*Anatomie de la Monnaie*, Paris, 1886, pp. 9-10).

See in the "*Corpus Juris Civilis romani*": Edit. cum notis integris Dionysii Gothofredi, Neapoli, 1828, Lib. xviii. Tit. I.—*De contrahenda emptione et de pactis inter emptorem et venditorem compositis et quae res venire non possunt. De origine emptionis, et venditionis, ejusque et permutationis differentia.—De nummis I. Quibus modis emptio contrahitur.*—I. Paulus, lib. 33, *ad Edictum.* A. B.

PAUPERIES is an expression used in Roman law for accidental injury caused to a person by an animal belonging to another, contrary to the nature of the animal. The party thus injured could claim from the owner of the animal damages for the injury, unless the owner preferred to surrender to him the animal which had done the mischief. This practice of surrender, which was applicable also in the case of injuries committed by children under paternal power and by slaves, had its origin in the primitive notion of vengeance against a person or thing that has been the cause of damage. But in course of time the master or owner of the guilty object was allowed to buy off such vengeance by payment of pecuniary damages (see Holmes, *Common Law*, Lecture I.). E. A. W.

PAUPERISM. The word "pauperism" is used in two senses. It is a state, that is a condition, and it is also the sum of paupers. In the first sense it is uniform, it follows a definition and consequently is always the same thing; in the second, it fluctuates from year to year, and from district to district. 1. In the first sense it is a legal term. The pauper in the eye of the law, and in the technical sense, is a destitute person, in receipt of relief administered under the poor law. He is a destitute person, and destitution implies an absence or want of the necessaries of life, food, clothing, shelter. Thus pauperism is clearly distinct from poverty. The poor man is one who, having the necessaries of life, falls short of some standard of comfort, whether that standard be determined by reference to some end, *e.g.* a sufficiency to lead a high type of life, or to the circumstances and average of the time. The rich man of one generation in one century may be the poor man of the next, but the necessaries of life are always the same, when interpreted in the sense of "enough to keep body and soul together." Now to these necessaries every member of the United Kingdom has a right at the hand of the state, a right which is secured to him by a series of acts, beginning with the celebrated 43 Eliz. c. 2. To meet this claim an elaborate machinery or organisation exists, composed of a central authority, now the local government board, and 637 local authorities, viz. boards of guardians with their several administrative officers. On these local authorities lies the obligation to provide for the destitute the means of subsistence, but the conditions under which they do so vary greatly, and will be discussed elsewhere (POOR LAW, ADMINISTRATION OF). The moment that a destitute person has been relieved he is a pauper, and as such suffers certain disabilities, *e.g.* the loss of the right to vote at elections, but no such disability attaches to the receipt of medical relief only. It is true that even government has not always been consistent in its use and interpretation of the terms destitution and pauperism. Thus in a circular of the local government board of the 25th of January 1875, we find it stated that the spirit of administration in workhouses has changed of late years in consequence of a change (i) in the circumstances of the time; (ii) in the character of the recipients of relief. This implies that workhouses are now expected to "move with the times," and to interpret the phrase "necessaries of life" in the light of the average standard of living at the present time. In other words, that destitution has ceased to be the test for the receipt of relief, and guardians no longer confine themselves to "measuring destitution" in the relief which they give. 2. In its other use, pauperism denotes the number of paupers in a country at a given time, a statement which clearly is subject to great variations. With the causes of these variations we need not here deal particularly, but merely remark that they include the state of trade and production generally, and the administration of the law itself among other factors. Pauperism and the amount of it may be reckoned on several bases, *e.g.* the number of persons receiving relief during a given period, or the number of cases, or the number for a given day. For the purposes of comparison it is clearly indifferent which is adopted, provided that the same basis be taken at the two periods, but for the purpose of particular inquiries the distinction is most important. Again the cost of pauperism must often be taken as an index to its amount, in the absence of more accurate statistics. Roughly, the pauperism of England has shown a tendency to increase and decline over certain long periods. From 1601 to a point which may be put at 1750, pauperism on the whole diminished. Thus the cost of maintaining the poor fell from £819,000 in 1698 to £619,000 in 1750, in spite of an increase in population. From 1750 to 1817 the growth of pauperism was rapid and great, the cost rising from £1,912,000 in 1785 to £4,077,891 in 1803, and to £7,810,801 in 1817. From this year onwards a decline takes place, slow at first but more rapid after the passing of the new poor law in 1834. Thus in 1849 the paupers in England and Wales were 6·3 per cent of the population; in 1860, 4·3. The American War raised the percentage to 5·3 in 1863, but by 1873 it had fallen again to 3·8, in 1883 to 3·0, in 1893 it stood at 2·5 and in 1896 at 2·6.

L. R. P.

PAWN, a pawn or PLEDGE (*q.v.*) is where possession of a personal chattel is delivered by one person to another as security for a debt. The general property remains in the pawnor; the pawnee takes the possession and the right to possess. The pawnee may sell the goods on non-payment of the debt after the time fixed for repayment has expired; if no such time has been fixed the pawnor must demand payment before selling. Where a sale takes place the pawnor is entitled to the net surplus after payment of the debt and all expenses. If the pawnor pays the debt he at once acquires the right to possess.

A distinction is drawn between a pawn and a MORTGAGE, of chattels. In the case of a pawn the pawnee acquires only a special or limited property in the goods; in a mortgage the whole property passes subject to a condition that on repayment of the debt the property will be reconveyed. A right of sale is incident to a mortgage of chattels.

A pawnee does not as a rule acquire any greater right to the chattel than that which the pawnor had; but to this principle there are some exceptions contained in the Factors Act

1889. Pawnbrokers are subject to special rules (see PAWNBROKING).

[Goodeve, *Personal Property*, London, 1892.—Turner, *Contract of Pawn*, London, 1883].

J. E. C. M.

PAWNBROKING. This expression denotes the professional lending of small sums on the security of a PLEDGE (*q.v.*). This kind of business, from its nature, is liable to great abuses, inasmuch as it may, if uncontrolled, be made a pretext for the habitual receiving of stolen goods; whilst honest borrowers may be subjected to cruel extortion. For this reason pawnbroking in most countries is either under public supervision or else entirely in the hands of public institutions (see MONTS DE PIÉTÉ).

In Great Britain the enactments relating to this matter were consolidated by the Pawnbrokers Act 1872 (35 & 36 Vict. c. 93), which requires any person who carries on "the business of taking goods and chattels in pawn," or who carries on any business which, though apparently intended for other transactions, is in effect a business for lending money on the security of goods and chattels—in so far as the loans are for less than £10—(1) to take out yearly licenses, which are not granted if the applicant fails to produce satisfactory evidence to character, or if his shop is frequented by thieves or persons of bad character; (2) to use certain prescribed books of account; (3) to exhibit his full name over the outer door of his shop, with the word "Pawnbroker"; (4) to exhibit, in a conspicuous place of his shop, certain regulations as to the conditions and terms on which loans are granted.

The act regulates these terms and conditions; but in the case of loans between £2 and £10, the statutory regulations do not apply if a special contract, the form of which is prescribed by the act, is made between the parties. As regards loans to which the regulations apply, a maximum profit is fixed as well as a minimum term for redemption; and the sale of unredeemed pledges is subjected to certain specified rules. In all cases a pawn-ticket must be handed to the borrower, and must contain particulars as to charges, time and condition of redemption, and other prescribed matters. A pawnbroker is not entitled to take articles in pawn from any person appearing to be under the age of twelve years, or to be intoxicated; he must not employ any person under the age of sixteen years as an assistant; and must not do business on any public holiday. There are, also, special provisions intended to make it more difficult for pawners to pledge goods entrusted to them or stolen by them, and to prevent pawnbrokers from taking such goods in pawn; and a pawnbroker who reasonably suspects any person of not being entitled to pawn an article offered as a pledge, may deliver such person and such article into the custody of a constable. A stipendiary magistrate, or any justices sitting as a court of summary jurisdiction, may order a pawnbroker at any time to produce his books and the papers relating to his business. Disobedience to any rule laid down in the Pawnbrokers Act subjects the person concerned to penalties, varying according to the nature of the offence. If a pawnbroker is convicted of fraud in his business, or of knowingly receiving stolen goods, the court before whom he is convicted may declare his license to be forfeited.

E. S.

PAYEE. The person to whom or to whose order the amount specified in a bill of exchange is payable. If a bill to order is not drawn to the drawer's own order some person must be named as payee.

[Chalmers on *Bills*, London, 1891].

J. E. C. M.

PAYMENT. The term payment primarily means a payment in money. A creditor is always entitled to have his debt paid in legal tender, and is not obliged to take a bill or cheque, or to allow a settlement in account. But "payment" is not a technical term, and it is held to include any settlement of a debt which is treated by the parties on a cash payment, though no money actually passes.

When a bill or note is taken in payment of a debt, the strong presumption is that it is taken as conditional payment only. In that case, if the bill or note is dishonoured, the creditor is remitted to his original rights, and can sue for the debt as well as on the instrument.

M. D. C.

PAYMENT FOR HONOUR. See HONOUR, PAYMENT FOR.

PEACE OF GOD. See TRUCE OF GOD.

PEACOCK, GEORGE (1791-1858), dean of Ely, was the author of an *Algebra*, the parts of which relating to the use of symbols may be consulted with advantage by the mathematical economist. Peacock's doctrine of the negative sign to represent debt has indeed been impugned by Mr. Macleod (*Theory . . . of Banking*, ch. iv. § 2, art. 18); but then Mr. Macleod's own doctrine has been impugned by COURNOT (*Revue Sommaire*). Those who agree with Cournot may employ in Peacock's defence one of the principles which he has enunciated: namely that the subtraction of a negative is positive. The refutation of an adverse criticism amounts to a rehabilitation.

JEVONS also (*Theory*, ch. viii.) has taken exception to the certainly inelegant representation of interest in Peacock's earlier treatise on algebra. The passage was withdrawn by the author from his second edition or version.

A more concrete contribution to political economy was made by Peacock in his review of the agriculture and land tenure of Madeira, which contains much interesting information and reflection; for instance with respect to the metayer system (see MÉTAYAGE).

There is also attributed to Peacock by the writer of his life in the *National Biography*, a pamphlet on the corn-laws (1846), in which it is argued that a free trade would not therefore be a regular trade, it being assumed that our domestic produce is sufficient for our

domestic consumption in two years out of three.

A Treatise on Algebra, 1830.—*A Treatise on Algebra*, 1842-45. — *Treatise on Climate and Meteorology of Madeira*, by J. A. Mason. (Part iv., a review of the agriculture and tenure of land, by Geo. Peacock), 1850.—*Upon the probable influence of a repeal of the Corn Laws upon the trade in Corn*, 1846. (Anonymous; contained in the library of the British Museum under the shelf marked 8245, d. 55).—*Answers to the Questions communicated by Lord Overstone to the Decimal Coinage Commissioners* (Decimal Association), 1857. F. Y. E.

PEARSON, Charles Henry (1830-1894), historian, politician, advocate of land-taxes, and minister for education (1886-1890) in Victoria; wrote *National Life and Character, A Forecast* (1893), in which he prophesied that white men would leave the tropics and be squeezed into the temperate zone, and the squeezing process would fuse different classes in a state socialism which would sap church, family, and individual character, the latter being also menaced by big public debts, armies, and towns. The individual would wither and the race grow more and more, and the old age of the Aryan races, which had already set in, would be passed under "a gray sky." B. Kidd's *Social Evolution* (1894) criticised (p. 323) but resembled this book; both books lay stress on the moral and intellectual sense. Pearson thought that the mind could only postpone and mitigate, Kidd that it could make and avert destiny. Sociologists have written far less important books with far greater scientific pretension on the same subjects.

[C. H. Pearson, *Reviews and Critical Essays*, edited with Memoir by H. A. Strong (1896).—*The National Dictionary of Biography* (1895) *s.v.* "C. H. Pearson" enumerates and appraises his other works.] J. D. R.

PEASANT PROPRIETORS. It has been shown in the article on Morcellement, containing statistics of present landownership, that in France, the country in which, with Belgium, peasant proprietorship exists on the most extensive scale, this institution had existed long previous to the French revolution, though that movement gave it a considerable impetus. It may incidentally be observed that during the most prosperous period of the middle ages, say before the beginning of the Hundred Years' War, tenants in villeinage, so long as they paid their dues to the lord of the manor, whether in money or in kind, enjoyed legally the same security against ejectment as the 19th-century peasant owner who discharges his taxes punctually.

Three principal arguments have been directed against peasant proprietorship: 1st, it does not yield the same returns as farming on an extensive scale; 2nd, it generates low, parsimonious, and avaricious habits of mind; and 3rd, it depresses the birth-rate and interferes with the normal development of population. To each of these complaints a reply has been made: 1st, the return of corn grown by small peasants may be, and probably is, really inferior, but this inferiority does not appear in vegetable and orchard cultivation, which are important in our present agricultural system, nor in the cultivation of vines and such crops as tobacco. If sheep-breeding unmistakably requires extended areas, experience shows that breeding ordinary horses and cattle, as well as poultry, can be managed successfully on small holdings. 2nd, the debased state of mind discovered among the French peasantry by some writers, like Lady Verney in *How the Peasant Owner Lives*, has been grossly exaggerated, and their so-called low style of living is still far superior to that of day-labourers in many countries with large hereditary estates. 3rd, granting that peasant proprietorship acts to a certain extent as a check on population, prudential considerations are quite as prevalent among well-to-do farmers and the inhabitants of towns, and the birth-rate remains high in countries (like Belgium) with a considerable proportion of peasant ownership in land; on the other hand, over-population or *Uebervölkerung*, involving the existence of a miserable urban or rural proletariat, is an unmitigated evil.

Another objection, formerly more solid, is that small peasant proprietors, as a body, are addicted to routine and averse to scientific improvements; and that, even if they were willing to adopt the latter, their means are often insufficient to cover the necessary expenses. However, the diffusion of instruction has decidedly removed this hostility to progress, and association now enables French peasants to use, for instance, steam threshing-machines, and to found, in the east of France, under the name of *fruitières*, co-operative manufactories of cheese, working on the most approved principles; in other places the same organisation is adopted for making butter. If in southern France, after the invasion of the phylloxera, large wine-growers were the first to adopt scientific antidotes to this disease, their example has later on been followed by their smaller neighbours. Small peasant proprietorship is the most powerful incentive to labour; it affords the best opportunity of employing the whole family under the direction of its head, and strengthens family-life. In small and middle-sized farms owned by men working themselves, the "eye of the master" can better observe what is wanting than in very large farms; further, the owner is not tempted, as the farmer may be, to sacrifice the permanent qualities of the soil to gaining immediate but temporary profits; he husbands the fertility of his land, and shudders at the prospect of exhausting it. On

small occupancies, where he only grows corn for the use of the family, he is more independent of market fluctuations. Again, a large body of peasant proprietors affords a steady bulwark against political, and still more against social, turbulence, and, in fact, the leaders of French COLLECTIVISM, finding that it is expedient not to frighten this class of voters, have several times ostentatiously protested that they intended to respect the right of private property for small fields tilled by their owners; this respect, however, does not prevent jealousy of wealthier neighbours, so that this safeguard is not to be relied on absolutely.

To conclude, if some of the preceding remarks are alike favourable to peasant proprietorship and to cultivation by small tenant-farmers, this is not the case with all of them. Small tenants, especially tenants at will or for a very short term of years, are necessarily deficient in the feeling of independence and self-reliance, as well as in the incentive of future hopes, which are the most happy characteristics of the former system. Large and middle-sized ownership in land, as well as cultivation by affluent landlords, or by farmers possessed of the necessary means, may of course also be maintained; what is contended is that each mode of cultivation has its proper sphere of action, and that none ought to be indiscriminately rejected.

In former times, except by Francis Bacon in the essay on the *True Greatness of Kingdoms*, peasant proprietorship was rather looked upon with distrust in England. Though in his *Tour through France*, Arthur YOUNG admits that the magic of property suffices to turn sands into gold and rocks into scenes of fertility, he is a strong upholder of the English system of extensive estates, either cultivated by a rich landlord or by farmers provided with a large capital: "Deduct from agriculture all the practices that have made it flourishing in this island, and you have precisely the management of small farms" (*Eastern Tour*, vol. ii. p. 161). Malthus, inclining to believe that "all the great results in political economy depend upon proportions," admitted that "the division of landed property to a certain extent is of the utmost importance," but apprehended that the "owners of the minute divisions of landed property [in France] . . . must perish in great numbers in every scarcity," if "the effects (of this division) should not be weakened by the operation of an extraordinary degree of prudence in marriage" (*Principles of Pol. Econ.*, pp. 432-434, ed. 1820). Adam Smith, on the other hand, had observed that "a small proprietor, who knows every part of his little territory . . . is generally of all improvers the most industrious, the most intelligent, and the most successful" (*Wealth of Nations*, bk. iii. ch. iv.). But, excepting writers of democratical tendencies such as GODWIN (*q.v.*), English economists of high standing have mostly followed in the footsteps of Arthur Young. Nevertheless, towards the middle of this century, a reaction, initiated by and based on such works as Kay's *Social Education and Condition of the People*, Laing's *Journal of a Residence in Norway*, Howitt's *Rural and Domestic Life of Germany*, Thornton's *Plea for Peasant Proprietors*, etc., set in and found a powerful expression in the chapters devoted by J. Stuart MILL to peasant proprietors in the second book of his *Principles of Political Economy*. Since those days similar views are to be met in the collection of essays printed by the Cobden Club under the title of *Systems of Land Tenure in Various Countries* (1870), and have found another exponent in Professor Thorold ROGERS (see for instance *England's Industrial and Commercial Supremacy*, 1892, pp. 314 and 350).

On the whole, German economists may also be said to be favourable to small agricultural landowners; a general survey of the literature on the subject will be found in Roscher's *Nationalökonomik des Ackerbaues* (p. 197, ed. 1888). He himself declares that a judicious mixture of large, middle-sized, and small estates constitutes the economically soundest system for a nation (*ib.* pp. 188-189); see also "Bauerngut" and "Bodenzersplitterung" in Conrad's *Hdwb. der Staatswissenschaften*.

In France, the physiocrats, and especially the founder of the school, QUESNAY (*q.v.*), have been the only systematic admirers of the English system, on the principle that the *grande culture* yields much more than the *petite culture* (see the latter's articles "Fermiers," "Grains," and "Maximes Générales du Gouvernement Économique" in Quesnay, *Œuvres*); however Quesnay steadily assumes that corn is to be the leading produce of the *royaume agricole*. TURGOT also contends that the method of cultivation by rich farmers is the most advantageous; still he adds the proviso "supposing that the country be already a rich country" (§ xxvii. of the *Réflexions sur la Formation des Richesses*). Carried away by his admiration for the variety of the crops produced by the soil of France, MIRABEAU the elder, on the opposite side, advocated the extreme division of land: "How different the fertility of a small domain, which sustains a hard-working family, and that of huge estates abandoned to passing farmers or to lazy and indolent agents! . . . The subdivision of land cannot be pushed too far in a *canton*; this difference between the *tuum* and the *meum* . . . is the principle of vivification of a state" (*Ami des Hommes*, p. 46, ed. Guillaumin). Without going to this extremity, it may be broadly stated that from the first quarter of the present century, the great majority of French writers on agronomy have, like ROSCHER, looked favourably on small culture and peasant proprietorship co-existing with a due proportion of large and middle-sized agricultural estates, from Sismondi, *Tableau de l'Agriculture en Toscane* and *Nouveaux Principes d'Économie Politique*; Gasparin, *Des Petites Propriétés* (1821); De Barante, *Des Communes et de l'aristocratie* (1821); Hippolyte Passy, *Des systèmes de culture en France* (1846 and 1853) (see the appendix on the repartition of territorial property), to Lavergne's *Économie rurale de la France*; Baudrillart's *Populations agricoles de la France* (1885); De Foville's *Morcellement*, and the latter's and MM. Bernard's and Zolla's articles in the *Nouveau Dictionnaire d'Économie Politique*

(1892). Both sides of the question are ably summed up by M. Paul Leroy Beaulieu in his *Traité théorique et pratique d'Economie Politique* (vol. ii. pp. 1-30).

In Italy the flow of ideas has generally been in favour of peasant proprietorship down from the days of Verri (*Meditazioni sull' Economia politica*, 1771), and of Filangieri (ch. iii. and iv. of the *Leggi politiche ed economiche*, 1780). In our own days, Professor Achille Loria considers the constitution of exclusively small proprietorship in land resulting from the gradual disappearance of rent, to be the further and natural result of contemporary social and economic evolution (*La rendita fondiaria e la sua elisione naturale*, 1880).

[For further bibliographical information on peasant proprietorship in France, see the bibliography of MORCELLEMENT.] E. Ca.

PEASANTS' REVOLT. This rising, one of the most striking episodes in English history, is remarkable alike for the variety of causes which produced it; the mysterious character of its organisation; the widespread area which it affected; the absence of any unity, whether of purpose or of action, displayed by its leaders; and the many cries, political, religious, social and economic, to which utterance was given.

The immediate causes, the pressure of heavy taxation culminating in the levy of two poll-taxes, and the unpopularity of the government, were indeed political; but the deeper reasons are closely connected with the economic changes produced by the BLACK DEATH (*q.v.*). The scarcity of labour consequent on that pestilence led to many attempts to enforce more strictly the old agricultural services due from tenants, and possibly even to revert to them in cases where they had been commuted for money payments; while parliament tried to meet the emergency by stringent statutes regulating labour and the rate of wages. These measures were resisted, and the discontent, fanned by the teaching of Wiclifites and of friars, led to open rebellion in June 1381 upon the imposition of a second poll-tax.

The rising affected Norfolk, Suffolk, Cambridge, Essex, Hertford, Middlesex, Hants, Sussex, Kent, Somerset, Huntingdon (*Rot. Parl.*, iii. 111 *et seq.*); Devonshire (Knighton), Lancashire, York, Lincoln, and Durham were prepared to join, although we only hear of tumults at Beverley and Scarborough (Stubbs, ii. 489). Of the details connected with an organisation which embraced so wide an area, and was capable of simultaneous action, we know little. It was probably due, partly to the associations created to set aside the statutes of labourers (see LABOUR STATUTES), partly to the Wiclifites and friars whose wandering habits rendered them useful disseminators of information, and partly also to the discharged soldiers who had some experience of risings against authority in France and Flanders (Stubbs, *Const. Hist.*, ii. 491).

In Kent, where VILLEINAGE was unknown (Stubbs, ii. 489), and in London the movement was against heavy taxation and the misgovernment commonly attributed to John of Gaunt, but in the eastern counties the chief grievance alleged was that of villeinage. The insurgents demanded the abolition of villeinage and of tolls, a general pardon, and the commutation of villein service for a rent of not more than 4d. an acre. The attack was directed against landlords, both lay and clerical, and included the destruction of muniment rooms and documents, which preserved record of the obnoxious services (see SERVICES, PREDIAL AND MILITARY). The violence of the rebels at Bury St. Edmunds and St. Albans is graphically described by Walsingham (*Hist. Anglicana*, i. ii.; *Gesta Abbatum*, iii.).

The course of the rising is a matter of political history, and in this place it may be sufficient to note that it was quelled within a fortnight, and that the king (Richard II.) speedily revoked the charters of manumission and pardon conceded under the influence of panic, a measure subsequently approved by parliament (*Rot. Parl.*, iii. 100). The result must from the standpoint of the economic historian be regarded as a failure. Though villein service gradually died out, this was due, not to the rising, but to the influence of other forces, some of which had begun to operate before this time, although the change may have been accelerated by the difficulty of enforcing unwilling service. The history of the decay of manorial organisation has not been fully worked out, but it seems clear that as more profitable and more economical methods of working the land as pasture were widely adopted in consequence of a greater demand for native wool, the necessity for exacting the old services was lessened (see MANOR). In some cases villeins abandoned their holdings (F. W. Maitland in *Eng. Hist. Rev.*, ix. 425), attracted probably by more profitable openings in the towns, and thus the difficulty of maintaining the *status quo* on the manors increased. Under these circumstances commutation became general, and the villein became the copyholder as we know him in the 15th and 16th centuries; although from Fitzherbert's description (*On Surveyinge*, c. xiii.) and from isolated cases (Cunningham, *Growth of Engl. Industry*, i. 402, 533) it would seem that bondmen (see SERVUS) were still to be found in the 16th century, and even later, whose position differed but little from that against which the villeins of 1381 had made their protest (M. Kovalesky in *Archæological Review*, i. 444).

[Stubbs, *Constitutional History of England*, ii. (1880).—Cunningham, W., *Growth of English Industry and Commerce*, i. (1896).—Ashley, W. J., *Introduction to English Economic History*, pt. ii. (1893).—Powell, E., *Rising in East Anglia in*

1381 (1896).—Rogers, J. E. T., *History of Agriculture and Prices in England*, i. (1866).—Maitland, F. W., "History of a Cambridgeshire Manor," in *English Historical Review*, ix. (1894).—Fitzherbert, Sir A., *On Surveyinge* (1539).—Walsingham, Th., *Historia Anglicana*, ed. H. T. Riley (1863); *Gesta Abbatum Monasterii Sancti Albans*, iii. ed. H. T. Riley, 1869.—Kovalesky, M., "Villeinage in England during the first half of the 17th century," in *Archæological Review*, i. (1888).] E. A. M.

PECCHIO, Giuseppe (1785-1835). Was born in Milan, a member of a noble family; he held important offices, and was exiled in 1820 for his political opinions. He lived a long time in England. His name is known to students of the history of economics for his sketch of the history of political economy in Italy; this work was much read and appreciated, as is shown by several editions, and a translation into French; the success of the work was, however, perhaps beyond its merits. The author endeavours to condense into one volume the most important subjects in the large collection of Italian writers on economic matters, published at the beginning of this century by Baron Custodi. This collection was left incomplete, and Pecchio also did not finish his work. To expound superficially in a series of biographical and bibliographical sketches the lives and principal theories of a certain number of authors does not by any means constitute a history of the science.

Pecchio was also the author of another historical work on the finance of the first Italian kingdom.

Saggio storico sull' amministrazione finanziera dell' ex Regno d'Italia dal 1802 al 1814, London, 1822 (published in other editions).—*Storia dell' economia pubblica in Italia*, Lugano, 1829 (published several times, finally in Turin, 1852; translated into French, Paris, 1830). U. R.

PECQUEUR, Constantin (1801-1859), born at Arleux (Nord), died in Paris.

Originally a follower of Saint Simon, then of Fourier, he did not definitely enrol himself in any school, preferring to follow his own bent, but by so doing he became entirely isolated. In his writings, while he aimed at, and even to some extent attained being practical, yet he tended more and more towards an ideal religious and mystic communism.

His first work, *Des intérêts du commerce, de l'industrie et de l'agriculture et de la civilisation en général sous l'influence des applications de la vapeur*, 2 vols. 8vo, 1st ed., 1838, 2nd ed. 1839, received a prize in 1838 from the Academy of Moral and Political Science. The originality and the not infrequent directness of insight of the work deserved this. In his second work, *Des améliorations matérielles dans leurs rapports avec la liberté*, 18mo, 1st ed. 1839; 2nd ed. 1847, Pecqueur evinces a more progressive and liberal spirit. This work, though antiquated, deserves to be read. Besides a pamphlet *Lettres à M. Dufaure sur les chemins de fer*, he wrote a large volume 8vo, published in 1842 under the title of *Théorie nouvelle d'économie sociale et politique ou étude sur l'organisation des sociétés*, in a more serious strain, and it is to be regretted that he did not act more in concert with the economists, his contemporaries, as Michel Chevalier did some years later, instead of waging war against the mistakes and prejudices of his time. After having written two works in which political economy only takes a second place, *De la paix de son principe et de sa réalisation*, 8vo, 1842, and *Des armées dans leurs rapports avec l'industrie, la morale et la liberté*, 8vo, 1842, he published, in 1844, *De la république de Dieu*, a small volume in 18mo, in which his Christian socialistic views are prominent. In 1849 he published a paper *Le salut du peuple*, which only reached a few numbers. His views, and the scientific value of his works, place him in an intermediate position between the socialists of his time and the economists of the liberal school. A. C. f.

PEDIDO. See Moneda, Pedidos or Servicios.

PEDLAR. Pedlars are persons who travel about from house to house offering goods for sale. They differ from hawkers in that the latter travel with horses. By the Pedlars Act 1871 (34 & 35 Vict. c. 96) a pedlar requires a certificate from the chief officer of police, but he is exempt from excise duty. A hawker pays £4 per annum for each horse employed. J. E. C. M.

PEEL, Sir Robert (1788-1850), statesman and financier, was the eldest son of the first baronet of the same name. He took a double first at Oxford in 1808, and the next year entered the House of Commons as member for Cashel. His prudence, tact, and general business-like qualities soon made themselves felt. In 1811 he became secretary for the colonies, and he held the office of secretary for Ireland from 1812 to 1818. Here he opposed the practice of selling public offices, and of dismissing civil servants for political action, and established the body of police afterwards consolidated into the Royal Irish Constabulary.

In 1818 Peel resigned office, but as a private member carried in the following year the first of his important economic and financial measures. Being appointed chairman of the committee on currency, which also inquired into the state of the Bank of England, he moved the resolutions which led to the resumption of cash payments (see Banking). During the restriction of cash payments (1797-1821), the notes of the Bank of England had been at one time depreciated in value no less than 20 per cent, and were valued only at 16s. in the £1 as compared with gold. Peel's bill for the resumption of cash

payments was passed in 1819. It was to have come into effect in 1821, but its provisions were previously adopted spontaneously by the Bank of England.

In 1822 Peel re-entered the ministry as home secretary, but withdrew with the Duke of Wellington in 1827, when Canning became head of the government. On the death of the latter, the Wellington-Peel administration was formed. In 1828 Peel had created the metropolitan police force, claiming that by this act for indirectly preventing the increase of crime he was paving the way for a considerable mitigation of the criminal law. In November 1830 the government went out of office, having been defeated on a motion to revise the civil list.

Towards the close of 1834, William IV. dismissed his Whig ministers, and Peel became first lord of the treasury and chancellor of the exchequer. In April 1835 he resigned, having during his short term of office established the ecclesiastical commission.

While in opposition he was so powerful that one of his opponents declared "the right honourable member for Tamworth governs England."

After the defeat of the government in 1841 Peel came in at the head of his memorable administration. Fiscal reform was one of his chief aims, and in 1842, assisted by Gladstone, he brought forward his great scheme of a revised tariff. The country warmly welcomed the relief afforded in the reduction or removal of many items of taxation. But one part of the scheme was not so popular. Peel found himself compelled to establish an INCOME TAX on all incomes of £150 a year and upwards. This tax was not new; it had been imposed by W. PITT, and Peel urged that it was once more demanded both on grounds of national honour and of administrative prudence. The relief of taxation in other ways, however, was quite unparalleled, for out of 1200 articles comprised in the new tariff, the duties were reduced on 750. Peel still maintained the sliding scale of duties on foreign corn, but modified it by changes in the method of fixing the averages of prices, and by lowering the protection afforded on the different degrees of the scale to home-grown wheat. The maximum protective duty, which had been 27s. per quarter when home-grown wheat was under 60s. per quarter, was reduced to 20s., and was only to take effect when wheat was under 50s. After protracted debates the ministerial proposals were carried, and the public funds at once rose from 89 to 93.

In the session of 1844 Peel brought forward his measure for the revision of the bank charter. It was practically a reorganisation of the Bank of England (see BANKING). An act had been passed in 1833 which maintained the Bank of England in its privileges until 1855, with the provision that, ten years after the date of the measure, parliament might revise the charter. The ten years had now elapsed, and Peel produced a revised scheme, which was carried. The charter was renewed till 1st August 1855, or longer, if the debt due to the bank, £11,015,100, with interest, etc., were not paid after due notice; the issue department was established; weekly returns were required to be published; the issue of notes was limited to £14,000,000 on securities. Thus Peel had the satisfaction of accomplishing the monetary reform which he began in 1819. Events have not, however, entirely fulfilled his anticipations. Three times since 1844—in 1847, 1857, and 1866—a relaxation of the Bank Act has been compulsorily agreed to (see BANKING), although only on one of these occasions, in 1857, was the strict limit of the law overpassed. More than once important alterations in the measure have been proposed, though none as yet have been made.

Ireland was the next subject which occupied his thoughts. In 1843 Peel appointed the well-known Devon commission to inquire into the state of the law and practice with respect to the occupation of land in Ireland. The report presented in 1845 revealed for the first time the cause of the distressed state of Ireland.

Peel supported Sir J. GRAHAM'S factory legislation (FACTORY ACTS). In February 1845 his budget continued the income-tax calculated to produce £5,200,000, while in the customs duties, abolitions and reductions were effected amounting to £3,338,000. The alteration of duties on four articles—sugar, raw cotton, coal for export, and glass—occasioned a diminution in the revenue of £2,740,000. The import duties on 430 articles were entirely abolished, resulting in a loss of £3,500,000 (see CUSTOMS DUTIES). But after all reductions, there was still a surplus of £71,000 at the end of the financial year 1845-46.

Meanwhile, the much-agitated question of the corn laws was rapidly requiring a settlement. The potato famine in Ireland during autumn 1845, followed by many deaths, rendered cheaper corn necessary. Peel, deeply impressed by the condition of Ireland, proposed in the session of 1846 the gradual repeal of the corn laws, complete free trade in corn to take final effect after three years (see FREE TRADE). The minister was again acrimoniously assailed by his friends, and on the day that the corn law bill was passed in the Lords the government were defeated in the Commons. For a time the power of the Conservatives was annihilated—perhaps the most striking example in English modern political history of the success of a great economic principle leading to

the defeat of the political party which had supported it.

Peel resigned office, but while in opposition he cordially supported the new Whig government in their measures for practically abolishing the navigation laws, for relieving the Jews from their political disabilities, and for the promotion of popular education. Peel was not a brilliant orator, but he had great weight as a wise and sagacious party leader, and his personal character stood high. His services to the state were great and enduring, and if he was at times an opportunist, it was always with an eye to the national interests, and never from any desire for personal aggrandisement.

[Only Peel's economic measures can be dealt with here; for his other public measures see *Memoirs* by Peel, edited by Lords Stanhope and Cardwell.—*Life* by Viscount Hardinge and A. W. Peel (Speaker), edited by C. S. Parker.—*Biographies* by Cooke Taylor, Sir Laurence Peel, Lord Dalling, G. Barnett Smith, F. C. Montague, Justin M'Carthy, J. R. Thursfield, etc., the *Annual Register*, 1850; articles in the *Nineteenth Century*, the *Edinburgh* and *Quarterly Reviews*.—*Dictionary of National Biography*, the *Westminster Review*, etc.] G. B. S.

PELLS. The office of clerk of the pells, so called from the pells or sheepskins on which the records of the office were written, was one of the most ancient in the exchequer. The clerk of the pells was originally the Treasurer's own private clerk, and it was his duty to keep separate records of all moneys entering and leaving the exchequer. These records were kept on two rolls, called respectively the *pellis introitus* or Pells receipt roll, and the *pellis exitus* or Pells issue roll. On the former was entered every sum paid into the exchequer, with the receiving teller's name, copied from the TALLY, or in later times the teller's bill, as it was thrown down into the tally court; while all payments out, with the authority for making them, were similarly entered on the issue roll. The duties of the office remained essentially the same till its abolition on the remodelling of the EXCHEQUER in the present century.

[S. R. Scargill-Bird, *Guide to the Public Records*, London.—First report of the Commissioners of Public Records, London, 1802.] A. E. S.

PENNI (Finland). The hundredth part of the MARKKA (*q.v.*). F. E. A.

PENNINGTON, JAMES (1777-1862):

An economist, was the author of a paper on deposits with bankers, published in T. Tooke's *Letter to Lord Grenville on the Currency*, 1829, also of a letter further elucidating his opinions, to be found in Appendix C. of vol. 2 of Tooke's *History of Prices*, pp. 369-378. His views, expressed in 1827, contain the germ of the Bank Charter Act of 1844, but he was opposed to the separation of the departments of the Bank of England (BANKING; BANK NOTE). Pennington further published a pamphlet, addressed to Mr. Finlay, on *Corn Laws*, 1840, and a work of authority on *The Currency of the British Colonies*, 1848, 8vo.

[*Annual Register*, 1862, p. 390.—*Economist*, 19th April 1862.] H. E. E.

PENNY (English). The Anglo-Saxon penny was a silver coin, 240 of which weighed a pound (5760 grains), twenty-four grains, the weight of a penny being then, as at present, known as a "penny-weight." The origin of the term penny is obscure, but in all probability it was derived from *pendo* (*to weigh*). The word was variously spelt in Saxon and Norman times, *i.e.* penig, pening, penning, peneg, pending, etc.; its modern representatives being but slightly different: *English*, penny; *German*, pfennig; *Danish*, penge; *Finnish*, penni.

The successive alterations in the legal weight of the silver penny, from the time of the conquest onwards, as given by Ruding, are shown in the following table. The last silver penny coined for general circulation was struck in the reign of Charles II., after which time these coins were issued only as a part of the special moneys distributed on Maundy Thursday (see MAUNDY MONEY).

SILVER PENNY.

Reign.	Weight.	Value.	
		In silver 925 fine, at 5s. 6d. per oz.	In silver francs 900 fine.
	grains.	penny.	franc.
William I., 1066 .	22½	3·09	·299
Edward I., 1300 .	22	3·02	·293
,, III., 1344	20½	2·78	·270
,, ,, 1346	20	2·75	·266
,, ,, 1351	18	2·47	·240
Henry IV., 1412 .	15	2·06	·200
Edward IV., 1464.	12	1·65	·159
Henry VIII., 1527	10½	1·44	·139
,, ,, 1543	10	1·37	·133
Edward VI., 1552.	8	1·10	·106
Elizabeth, 1601 .	7¾	1·06	·103

A gold penny was struck in the reign of Henry III. (1257), weighing 45 grains of fine gold. It was rated as the equivalent of twenty silver pence. Measured by the present gold standard (1 oz. = £3 : 17 : 10½) its value would be as much as 7s. 11½d.

The first copper penny, a piece weighing 1 oz. avoirdupois, was struck in the reign of George III. (1797) (see COPPER MONEY, ENGLAND).

[Ruding's *Annals of the Coinage*, 1840.] F. E. A.

PENSIONS.

Pensions, General Character, p. 88; Perpetual or Hereditary Pensions, p. 89; Civil Service Pensions, p. 89; Political Pensions, p. 90; Judicial Pensions, p. 90; Civil List Pensions, p. 90; PENSIONS, OLD AGE, p. 90.

A pension, according to Dr. Johnson's famous definition, was in England "generally understood to mean pay given to a state-hireling for

treason to his country." This would not have been true of the pension which Johnson himself subsequently received, nor of a considerable, though perhaps not the largest, portion of those granted in his time; it would not now be true of any. A modern pension is as much a payment for undoubted services as salary or wages, the difference being that pensions are paid in respect of *past*, salary or wages in respect of *present*, services. In England a certain number of persons in private employment, and the majority of persons in government employment, are remunerated partly by salary or wages, and partly by deferred pay in the shape of pensions. When, therefore, the conditions of service include a right to pension, the salary or wages must be assumed to be less than the full market rate, the difference representing the value of the pension.

The total cost of the pensions, and of gratuities in lieu of pensions, in the services of the crown in the United Kingdom, is known as the non-effective charge of those services. In the estimates presented to parliament for the financial year 1907-8, the proportion of non-effective charges was as follows, viz.:

	Total Charge.	Non-Effective Charge.
Army . . .	£27,272,000	£3,596,000
Navy . . .	31,419,500	2,510,800
Civil Services and Revenue Departments . .	50,732,785	2,071,501

Besides the amounts thus annually submitted to parliament, which is at liberty to vote or not to vote them without any breach of positive law, there are certain pensions, charged by statute on the consolidated fund, for judicial officers and certain others, whose independence is deemed to be better secured by this arrangement. The total amount issued for pensions out of the consolidated fund during the financial year 1906-7, was £177,468. A complete list of such pensions, with the names of the recipients, is set forth in the annual "finance accounts," published by authority.

Perpetual or Hereditary Pensions.—The British government formerly rewarded eminent public services by the grant of a pension, usually accompanied by a peerage, and payable not only during the life of the original grantee, but to his heirs for ever. Thus hereditary pensions were granted to the first Duke of Marlborough, to Lords Exmouth and Rodney, and to the brother of Lord Nelson (after the death of the latter at Trafalgar); payable in perpetuity to all heirs of the original grantees to whom those titles should descend. In the Stuart times royal favour was sometimes signalised in the same way. Thus hereditary pensions were enjoyed down to the present day by two peers, as the heirs of natural sons of Charles II. Some years ago the late Mr. Bradlaugh, M.P., inveighed against these perpetual payments, and a committee of the House of Commons was appointed to enquire into the subject. A treasury minute presented to the House on 20th July 1888 (House of Commons paper 292 of 1888) sets forth the recommendations of this committee, and the extent to which they had been adopted by the government. Steady progress has since been made with the process therein indicated of commuting hereditary pensions, by arrangement with those interested, of course at a fair market value; and the only pensions now (1907) remaining, which have a currency beyond the lifetime of the present recipients, are those to the heirs of the Duke of Schomberg (£720), to Lord Rodney (£2000), and to Earl Nelson (£5000)—in all £7720, chargeable on the consolidated fund.

Army and navy pensions, or, as they are officially termed, *retired pay*, are granted by the secretary of state for war and the lords commissioners of the admiralty respectively, according to conditions prescribed by royal warrant for the army, and by orders in council for the navy. These conditions may be varied by the sovereign from time to time by amending warrants or orders in council, but so long as they remain in force they cannot be departed from in any particular at the pleasure of the executive. The retired pay of the officers, non-commissioned officers, and men of the army and navy depends on the rank attained by the recipient and on the length of his service, with special additions for wounds received in action, or for physical breakdown caused by the nature of the service. There is, also, a strictly limited number of special pensions for distinguished service, known as "good service pensions." No infirmity or unfitness for duty is necessary, as in the case of the civil service, to enable retired pay to be granted in early middle life, as the *men* are discharged on the completion of their term of engagement, while *officers* are automatically placed on the retired list on reaching certain ages, which vary according to the rank of the officer.

Civil Service Pensions are granted by the treasury under conditions prescribed by act of parliament. The acts dealing with the subject are very numerous; the principal are the superannuation acts of 1834, 1859, and 1887, especially the act of 1859 (22 Vict. c. 26). Of this act, which governs the great majority of civil service pensions, the main principles are as follows, viz. (*a*) pension only to be granted on the attainment of sixty years of age, or on the abolition of the office, or on an officer becoming permanently incapacitated, by infirmity of mind or body, for duty; (*b*) after less than ten years' service no pension to be granted, but a gratuity of a month's pay for each year of service; (*c*) for ten years service or upwards the rate of pension to be not exceeding one-sixtieth of the retiring salary or wages for each year of service, subject to a maximum of two-thirds of such retiring salary or wages; (*d*) the full rate of pension not to be granted unless upon a certificate from the authorities of an officers' department to the effect that he has served "with diligence and fidelity, to their satisfaction"; (*e*) any officer to whom a pension is granted under the age of sixty to be liable to serve again if required.

When a civil servant—an expression which includes, for pension purposes, such widely different classes as *e.g.* consuls, clerks, postmen, and workmen in dockyards—is injured, without his own default, on duty, and from some accident arising from the nature of his duty, the treasury is empowered by the Superannuation Act of 1887 to make a special addition on that account to his pension, or to award him a gratuity, by way of compensation, in cases in which no pension can be granted. If he dies from the injury, a pension can be awarded to his widow, or to his mother, if he leaves no widow, and if his mother was wholly dependent upon him.

All persons serving in public civil departments are not entitled, without distinction, to pensions. A considerable number are engaged at the full market rate of wages, without any pension rights. By the Superannuation Act of 1887 already referred to, the treasury is empowered, subject to certain conditions, to award gratuities to such persons, on the termination of their employment, at the rate of a week's pay, or one pound, whichever is greater, for each year's service.

Certain classes of pensions deserve special notice: (1) *Political Pensions*—These may be granted to persons having held certain high political offices, such as that of first lord of the treasury, chancellor of the exchequer, secretary of state, president of the board of trade, or any other of what are generally known as ministerial offices. The pensions are of three classes. A first-class pension is £2000 a year, a second-class £1200 a year, and a third-class pension £800 a year. The class of pension awarded depends on the office held, and on the length of service therein. No award can be made unless upon a declaration that the recipient's other resources are not sufficient to maintain his station in life. Only one political pension can be granted in any one year, and the total number in force at any time must not exceed four of each class. The awards are made by the treasury, under the political pensions act of 1869, and are charged upon the consolidated fund. (2) *Judicial Pensions* — Any judge, on completing fifteen years' service, or on becoming permanently incapacitated for duty, whatever the duration of his service, may be granted a pension equal to two-thirds of his salary, chargeable on the consolidated fund. (3) *Civil List Pensions*—These pensions are granted by the sovereign upon the recommendation of the minister, generally the first lord of the treasury, and paid out of a special sub-head of Her Majesty's civil list. The limit of pensions to be granted in any one year is £1200 per annum. Under the act 1 & 2 Vict. c. 2, § 6, the pensions are to be granted to "such persons only as have just claims on the royal beneficence, or who by their personal services to the crown, by the performance of duties to the public, or by their useful discoveries in science and attainments in literature and the arts, have merited the gracious consideration of their sovereign and the gratitude of their country." (4) *Old Age Pensions*—A movement has grown into prominence of recent years in favour of a system of pensions in old age for the whole community, or at all events for the less affluent majority thereof. No scheme has as yet been authoritatively propounded, though the question was referred to a committee of experts. The difficulties of the problem are gigantic. (See PENSIONS, OLD AGE.) J. P. C.

PENSIONS, OLD AGE.

England, p. 90; Mr. C. Booth, p. 90; Modifications of Mr. Booth's plan, p. 90; Contributory Schemes, Canon Blackley, Mr. Jos. Chamberlain, p. 91; Germany, p. 91; Denmark, p. 91; France, p. 91.

England.—The case for some scheme of old age pensions can hardly be put more forcibly than in the words of the report of 1895. "It appears from existing statistics that nearly 20 per cent of the total population above the age of sixty-five receive relief in one day, and nearly 30 per cent in the course of one year. If, however, a deduction be made from the total population of those belonging to classes which are not likely at any time of their lives to be in want of relief, it is evident that the percentage of those actually relieved to the population below the well-to-do must be greatly increased." In order to meet this large amount of aged pauperism a number of schemes for state-aided or state-provided pensions for old age have been laid before the public.

Mr. C. Booth's Scheme.—The most complete and comprehensive of these is that suggested by Mr. Charles Booth. His proposal is, that, subject to certain limitations, every person, male or female, on attaining the age of sixty-five, shall be given for the remainder of life a sum of 5s. weekly, out of public funds. He contends that this amount will not be sufficiently large to discourage thrift, while the fact that it is offered to all alike on the single condition of having attained the age of sixty-five, will avoid the necessity of invidious and difficult distinctions between rich and poor, or deserving and undeserving. Moreover, unlike the contributory schemes, it will at once reach the class which is most in need of help. The first and most important objection to this scheme is its enormous cost. Mr. Booth himself admits that the annual expense in England and Wales would be nearly £18,000,000. If Scotland and Ireland were added they would reach £24,500,000, while the direct saving as regards poor-law expenditure upon the aged is not estimated at more than £2,000,000. These figures alone seem to place the scheme beyond the range of practical politics, even if it were free from the economic objections which have been raised against it. Moreover, the absurdity of paying 5s. a week to the wealthy is obvious, yet it seems impossible to draw a line which would not lead to that further separation of classes and masses which it is the main object of such a scheme to avoid. There are also minor objections, such as the difficulty of obtaining satisfactory proof of age, and the complicated and probably costly system of administration which so large an undertaking would involve.

Modifications of Mr. Booth's Plan have been suggested by Mr. Hardy and Mr. Leslie Probyn, who propose that the pension-right should be recognised only for the proved impecunious aged, or, Mr. Probyn's amendment, by supplementing the income of any acquired property up to some reasonable limit. The pension is estimated at 10s. a week, and the pensioner must be over sixty-five and must give up all work. The chief objections to this are that so large a pension, from which savings would be deducted, would materially lessen the stimulus to thrift, and that in all probability very few aged persons would work if they could obtain 10s. a week on the sole condition of not working. The first should be a fatal objection to any scheme, and the second seems to show that the expenses would be little less and the advantages scarcely greater than those of Mr Booth's plan. Other proposals have been made by Rev. Frome

Wilkinson and Mr. Bartley, M.P., but both involve an enormous amount of discrimination and investigation as well as very heavy expenses.

Contributory Schemes.—Canon Blackley had earlier (see 1887 *Inquiry*), advocated a scheme of compulsory insurance, by which all young persons from eighteen to twenty-one should be required to contribute to a state-collected or state-secured fund, a sufficient amount to entitle the contributor to a pension at some fixed age. In considering this, it is evident that a compulsory scheme must be universal, and that it is practically impossible to obtain contributions from those who are unemployed, or only in casual employment. It is also probable that such a scheme would be exceedingly unpopular with the working classes, even if the amount required were within their scope.

The most important of the contributory schemes is that associated with Mr. Jos. Chamberlain's name. This contemplates three classes of pensions. The first, a pension of 5s. a week, payable at sixty-five, is obtained by the payment of a lump sum of £2 : 10s. before twenty-five, and subsequent annual payments of 10s. for forty years. The state credits each contributor at 25 with a bonus of £10, both sums accumulate at compound interest and provide the annuity of £18 per annum at the age of sixty-five. Payments of the second class, which are twice as large, provide not only for the pension of 5s. but also for certain other benefits, of which the most important are payments to widows and children in case of death. The third case provides "that any person after depositing 30s. if male, 25s. if female, into the post office, and insuring in any society for £6 : 10s. or £3 : 18s. respectively, shall have his or her pension doubled at sixty-five by the state," and aims at securing the co-operation of the Friendly Societies. The main objections to Mr. Chamberlain's scheme are, (1) that it would not affect the classes which are most in need of help, and would merely act as a new form of insurance for those who are already able to provide for old age. (2) The scheme would have no direct effect for forty years, and if any measure at all is required it is one which can come into speedy operation. (3) The expenses of administration would be exceedingly heavy. (4) With regard to the third case, the friendly societies regard any scheme of state subvention with extreme suspicion, as likely to involve state interference, and their influence is too important to be disregarded.

It appears then that no scheme hitherto laid before the public is free from very grave objections. The question remains whether any scheme of state pensions is really necessary, or whether, on the other hand, it is not possible to hope that existing institutions will furnish the true solution of the problem. In the first place, the statistics of old age pauperism are somewhat misleading, for (1) a considerable number of applications may have been made by one person, (2) much aged pauperism is due to chronic infirmity which needs special care, and cannot be treated outside the workhouse, (3) more than two-thirds of the whole number of aged paupers are receiving out-door relief, and no doubt many of these ought to be maintained by private endeavour. The annual reports published by the local government board show a marked and steady decrease in the numbers of paupers, due both to improved economic conditions and to stricter administration of the poor law. Much, probably, is to be hoped from careful administration, together with the co-operation of the poor-law authorities with charitable institutions, as at Whitechapel, St. George's-in-the-East, or Brixworth; and evidence shows that charity, both private and endowed, is directly stimulated by strict administration. The amount available from endowed charities alone is estimated at nearly £100,000 per annum, and that from voluntary charity is also extremely large, while the value of voluntary work in charity organisation can scarcely be overestimated.

While well-directed charity and careful administration may be expected to do much for the poorest classes, those which are slightly better off profit much and might profit more by friendly societies. Evidence shows that there is practically no class which cannot afford to belong to a society, and if members begin to insure at an early age the payment required is exceedingly small. Should an effective demand for pensions arise, the great friendly societies, the management of which is steadily and greatly improving, are admirably adapted to meet it. Most trades unions provide superannuation for their members, the number and scope of thrift agencies, such as building societies or co-operative societies, is steadily increasing, while the post office provides facilities for the purchase of annuities or for small savings. A committee of experts—Lord Rothschild (chairman), Sir F. Mowatt, Sir C. Boyle, Sir Spencer Walpole, Mr. Finlaison, Mr. Brabrook, Mr. George King, Mr. A. W. Watson, and Mr. A. Chapman—considered the whole question, and their report (1898), on the whole, was unfavourable.

Germany.—The German scheme, which came into operation under the law of May 1889, makes insurance compulsory, broadly speaking, upon all wage-earners, while certain other classes have the option of insurance (for particulars see INSURANCE, STATE (Germany)). The scheme is worked by means of insurance cards through the post office, and great care has been taken to avoid over-centralisation, the main burden of administration falling on local institutions. Time alone can show how the experiment will work, but the *prima facie* difficulties seem to be the extreme complication of the procedure and the comparative inadequacy of the results. The pension is very small; contributions cannot be exacted from the casual or irregular worker; and no provision is made for widows and married women.

In *Denmark*, under the law of 1891, pensions are awarded only to persons who can prove that during the previous ten years they have been neither in receipt of poor-relief nor convicted of mendicancy. They must be over sixty and in genuine need of help. The amount of the pension is not fixed, and the scheme is administered by the communal councils, the expenses being divided between these bodies and the government. The system seems to be little more than an extension of out-relief, with the usual disqualifications attaching to poor-law relief, but, as with the German scheme, time alone can show whether the experiment will prove successful; and the results of both will be watched with great interest.

In *France* various proposals and suggestions have been made, and M. Méline has recently (October 1897) promised legislation on the subject, but his scheme has not advanced beyond the stage of political programmes, and no details have yet been given.

[Graham Brooks, *Compulsory Insurance in Germany and other European countries.*—France (Office du Travail): *Étude sur les derniers résultats des assurances sociales en Allemagne et en Autriche.*—Germany: De Zacher, *Invaliditats- und Alterversicherung.*—Dr. T. Bödeker, *Die Arbeiterversicherung in den europäischen Staaten.*—T. Menzel, *Die Arbeiterversicherung.*—Belgium (Office du Travail): *L'Assurance contre l'invalidité et la vieillesse en Allemagne.—Report of Royal Commission on the Aged Poor*, 3 vols. (c. 7684), 1895.—*Report of Select Committee on National Provident Insurance*, 1887 (H. C. 257).—Charles Booth, *Pauperism and the Endowment of Old Age.*—C. S. Loch, *Old-age Pensions and Pauperism.*—J. A. Spender, *State and Pensions in Old Age.*—G. Drage, *Problem of Aged Poor.*—*Publications of Charity Organisation Society.*] L. I.

PENSIONS IN THE UNITED STATES.

The pension system of the United States had its origin in the revolutionary war in the half-pay provisions made for officers. Early in the war, under the advice of General Washington, provision was made that all commissioned officers who should serve throughout the war, take an oath of allegiance to the United States, and reside in the country, should receive half-pay for seven years after the close of the war, provided that they held no office of profit under the states. In 1780 the act was extended to the widows and orphans of those who died during the war; and in that same year the period of half-pay for life was changed to full pay for five years, the sums being paid in interest-bearing certificates that soon depreciated in value.

Besides this provision of the general government for officers, some of the states, notably

Pennsylvania, had made similar laws. In 1785 congress suggested that the states provide pensions for invalids; and three years later the United States agreed to give credit to the states "for such sums as may become due to invalids." In 1808 the central government finally assumed the pension obligations of the separate states.

The principle adopted was that all persons disabled in the service—whether regulars, volunteers, or militia men, soldiers or sailors, under the United States or the separate states—should be pensioned. Safeguards against fraud were made, and on the whole well maintained. In 1818 a demoralising measure was passed, giving pensions to all soldiers of the revolution "who, by reason of reduced circumstances, shall stand in need of assistance from their country for support," provided that they had served in the army at least nine months. Wholesale frauds followed. 27,948 persons applied for relief; over 18,000 claims were allowed. Men who had never served, men who deeded away their property in trust, or gave it to their children, were put on the list. Finally the expense and the abuse became so great that, in 1820, Congress passed a new law with stricter requirements for examination, which caused one-third of the new pensioners to be stricken from the rolls. Later laws produced more abuses, to which President Jackson in his message of 2nd December 1834 refers; but the chief evil came from the above-mentioned act of 1818, which had a very great pauperising effect, in addition to the unexpected burdens laid upon the treasury.

After the civil war, pension legislation repeats the history of the earlier times; but the number of pensioners is so much greater that the sums of money involved are enormous, and the danger of political corruption great. At first the general principle followed was that all, regardless of rank, "wounded or disabled while in actual service," should be cared for at the public expense. This principle was extended, naturally, to cover also those dependent on the soldier. The amount granted for total disability ranged from $8 to $30 per month, according to the official rank of the pensioner. Some acts were passed granting definite sums for specific injuries, and these were from time to time increased, *e.g.*:—

	Per month.
1864. For loss of both feet. . .	$20
1866. Loss of both feet or both hands, or sight of both eyes, or such disability from other causes as required the personal attendance of another person .	25
1872. This increased to . . .	31·25
1874. „ „ . . .	50
1878. „ „ . . .	72
1879. Those becoming totally blind from war causes . . .	72
1889. Those losing both hands .	100

Similar changes were made in other respects, as well as specific provisions for artificial limbs, trusses, etc.

January 25, 1879, the so-called "Arrears of Pensions" Bill became a law. This provided that pensions granted before or after the passage of the act should commence from the date of death or discharge from the army of the person on whose account the pension was granted. In many cases this added a round sum of hundreds or even of thousands of dollars to pensions lately granted. The prize was so great that within the next eighteen months more than 170,000 new claims were filed, and the expenditure for pensions leaped from some $33,000,000 annually to more than $60,000,000 within five years, with a steady increase to nearly $90,000,000 in 1889.

In 1890—largely probably as a result of political pressure and the fear of offending the old soldiers and their friends if the bill were not passed—the Dependent Pension Law went into effect. This provided that "all persons who had served . . . ninety days or more . . . and who were suffering from a mental or physical disability of a permanent character, not the result of their own vicious habits, which incapacitates them from earning a support by manual labour," were to be pensioned at from $8 to $12 a month, in proportion to the degree of their disability. The first commissioner of pensions after the passage of this act, by a very liberal ruling, included under it specific disabilities, and the "capacity of a claimant . . . to perform manual labour was no longer even considered in adjudicating his claim." The expenditures increased very rapidly. In 1892-93 the amount paid for pensions exclusive of office expenses was $156,740,467.14. For 1895 the total estimates, including surgeons' and agents' expenses, were $162,631,570.

A new commissioner of pensions in 1893, believing that many pensions had been illegally granted under the act of 27th June 1890, appointed a board of revision to examine the cases allowed under that act, and many fraudulent cases have been found and the pensions withdrawn. For the year ending 30th June 1896 the commissioner estimates the needed expenditure for pensions at $148,000,000.

Liberal as the United States have been in thus granting pensions, the demoralisation wrought by so many liberal acts and by the appeals of pension agents has led to a vigorous demand, which it is hardly likely will be granted, for a law granting a pension to every person who had been sixty days or more in military or naval service.

Besides the general laws, special laws by the thousands have been passed granting pensions to those not receiving them under the general acts, or increasing the sums allowed them. In

one day, 3rd March 1891, ninety-six such bills became laws.

Of late years ex-presidents' widows have been given pensions—first Mrs. Lincoln, then Mrs. Garfield, Mrs. Polk, Mrs. Tyler; and retired judges of the U.S. supreme court receive them. There has also been discussion of pensions for the life-saving service, railway mail clerks, etc. But the country has on the whole limited its pensions to those who have served in the army and navy. J. W. J.

PERAVY, De. See St. Péravy.

PERCEVAL, Spencer (1762-1812), English statesman and financier, was the second son of the second Earl of Egmont. He entered parliament for Northampton in 1796, and became a strong supporter of W. Pitt.

When Pitt succeeded Addington, Perceval, who had been solicitor-general to the latter, again accepted office as attorney-general. He declined to prosecute the members of the early trade-unions at the instance of the employers, on the ground that he was unwilling to commit the government to a uniform support of the employers on trade questions. He cordially supported Wilberforce's endeavours to remedy the abuses of the Guinea slave trade. Perceval devoted much attention to financial questions, and took a conspicuous part in the debates on the financial irregularities which led to Lord Melville's impeachment. On the death of Pitt (1806) he resigned; but he still took an active part in parliament.

In the Duke of Portland's ministry, formed 31st March 1807, Perceval became chancellor of the exchequer. After a dissolution the ministry returned greatly strengthened. He was successful with his first budget, and his scheme for the conversion of 3 per cent stock into terminable annuities was generally approved.

On the death of the Duke of Portland in 1809, Perceval became prime minister, retaining his old post of chancellor of the exchequer. The ministry was weak, and the times critical. Military and fiscal troubles followed on each other in quick succession. England was required to pay for the Spanish army in the Peninsular war, when she could scarcely pay for her own, and gold payments were demanded when gold was extremely scarce. Perceval struggled bravely against his difficulties, which were aggravated by a powerful opposition.

The budget demands in 1811 revealed the serious condition of the national finances. The chancellor's proposals included a grant of £2,100,000 for Portugal, and the ministry acceded to the recommendation of the select committee on commercial credit that £6,000,000 should be advanced to the manufacturers suffering from the over-speculation of previous years. When Horner proposed resolutions in favour of the resumption of cash payments, Perceval successfully resisted them. A bill was passed in July making bank-notes legal tender, avowedly because gold was so appreciated that for currency purposes it was unprocurable, while bank notes were worth only 80 per cent of their face value.

Though Perceval now appeared to be in a strong position, difficulties soon arose. His opposition to popular reforms greatly weakened his ministry, and his policy on the Orders in Council dealt it an almost fatal blow. The unwisdom of these orders had long been apparent, and it was contended that instead of injuring France they were rapidly destroying English commerce.

In the midst of his struggle against almost overwhelming odds, Perceval was assassinated by a deranged bankrupt named Bellingham, as he was entering the House of Commons on 11th May 1812. He was a man of stainless personal character, but narrow in his views and mediocre in his abilities. Nevertheless, he had a dogged persistency that carried him through crises which would have daunted abler men. As a financier he wanted originality, but framed his policy according to the dictates of expediency and opportunism.

[Alison, *Europe.*—Spencer Walpole, *Life of Perceval.—Dictionary of National Biography*, vol. xliv.—Jesse's *Memoirs of George III.*—Massey's *History of England.*—The Duke of Buckingham's *Memoirs of the Regency.*] G. B. S.

PERDIGUIER, Agricol (1805-1875), originally a working man, was elected a representative to the French national assembly of 1848.

He wrote three books on French *Compagnonnages*, or local groups called *Devoirs*, of itinerant artizans confederated by crafts into general associations covering the whole of the country—many groups had in secret survived their abolition by law in 1791. The principal is the *Livre du compagnonnage* (1837), in which he gives their history, disentangled from several rather mythical stories as to their origin, describes the local institutions with their ceremonies and pass-words, and entreats them to stand firmly together—warning them against some abuses which had sprung up in the course of time. He also wrote *Une scission dans le Compagnonnage* (1846), and *La question vitale du Compagnonnage* (1861). Perdiguier was intelligent and clear-headed, deservedly esteemed by his fellow working-men. E. Ca.

PEREIRA, Gregorio Pietro (18th century). Was a priest of Portuguese extraction. He wrote a treatise on money and commerce, read at the academy of Ravenna, 1757.

He follows the theories of Melon and shows the influence of Pufendorf and Locke. He accepts Locke's idea of money and his theorem that the amount of metal in a coin alone constitutes the measure of its value. He shows the disadvantages produced by monetary alterations, and examines the means possessed by

states for increasing gold and silver and concludes that these are conquest and commerce.

He advocates the maintenance of a favourable BALANCE OF TRADE (*q.v.*), and places this in the predominance of exports over imports, the development of the navy, agricultural industry and manufacture, and the increase of national products.

Dissertazione sopra la giusta valuta della moneta e la necessità del commercio per arricchire gli stati. Faenza, 1757.

[Graziani, *Le idee economiche degli scrittori emiliani e romagnoli, etc.* Modena, 1893.] U. R.

PEREIRE, ÉMILE (1800-1875), was in his youth one of the most devoted of the St. Simonians (see ENFANTIN; ST. SIMON), and a contributor to their journal, the *Globe*. He also wrote in the *National* and the *Revue Encyclopédique*. After the dispersion of the St. Simonian school, he, like most of its members, showed himself a very enterprising and active business man. With the co-operation of his brother, Isaac PEREIRE (*q.v.*), also earlier in life a St. Simonian, he constructed the first line of railway in France, between Paris and Saint Germain, and later contracted for the main lines of the *Compagnie des Chemins de Fer du Nord*. In 1852 the two brothers jointly founded the *Société Générale du Crédit Mobilier*, which gave a wonderful impulse to great financial and industrial enterprises both in France and elsewhere.

Émile Pereire published in separate form:—*Examen du Budget de 1832. Réformes financières . . . moyen de supprimer les impôts du sel, des boissons, du tabac et la loterie* (1831).—*De l'assiette de l'impôt; examen critique de travail de la Commission de la Chambre des Députés sur le budget des recettes* (1832).—*Considérations sur les Finances de la France et des États Unis* (1832). These belong to his St. Simonian days, and are republished from the *Revue Encyclopédique*.

[G. Weill, *L'École St. Simonienne*, 1896.]

E. Ca.

PEREIRE, ISAAC (1806-1880); for biographical details see note on his brother EMILE PEREIRE.

Isaac Pereire published *Le Rôle de la Banque de France et l'Organisation du Crédit en France* (1864).—*Budget de 1877; questions financières réforme de l'impôt* (1877).—*La question des chemins de fer* (1879).—*La Question Religieuse* (1879).—*La Politique Financière* (1879).

E. Ca.

PERI, GIOVANNI DOMENICO, a rich and learned merchant of the first half of the 17th century, desired, as he says in his preface, "to communicate to the world some collections about the establishment and maintenance of his business," which were originally intended for his sons Girolamo and Tomaso, successors to their father's business.

These collections he printed in his *Negoziante*, a work which, however, has much wider aims than the author would lead us to believe. It is a technical handbook for merchants, to teach them trading and book-keeping, treating at much length of the method of mercantile accounts called the system of double entry. It contains also interesting historical notices on the exchanges between the principal Italian and foreign cities, explained in twenty statements in the second part. Following the impulse given to comparatively liberal opinions in public economy and commerce, as by SCACCIA, STRACCA, and other followers of commercialist doctrines, Peri demonstrates the importance of merchants, and pleads for them and commerce. He treats also of mercantile contracts, giving all the necessary explanations for entering into them conformably with the ideas of the jurisconsults of his epoch. The work is divided into four parts, and is still interesting, especially for the history of the mercantile customs of those times.

Il negoziante, Genoa, 1638, and Venice, 1672, parts i. and ii.; 1673, parts iii. and iv., presso Gio. Giacomo Herz. A. B.

PERICULUM SORTIS. This term is used by mediæval writers on usury to describe the danger on the score of risk to which a man might expose himself by lending money. Although usury and interest, in the modern sense of the term, were forbidden, exceptions to and evasions of the strict letter of the law became increasingly common; among others we find payment widely taken on the ground of *periculum sortis* in cases where an individual incurred a distinct risk of losing his loan altogether; or, where he was inconvenienced by the failure of a borrower to return it at the stipulated time.

[Ashley, W. J., *Introduction to English Economic History*, i. (1892).—Cunningham, W., *Christian Opinion on Usury* (1884).—Cunningham, W., *Growth of English History and Commerce* (1890).]

E. A. M.

PÉRIER, CASIMIR (1777-1832). Originally an engineer officer, he left the army in 1802 to found a bank. Under the government of the Bourbons, he was in the Lower House, and a steady opponent of the reactionary measures passed during their reigns; after the revolution of 1830 he became minister of the interior, and held this post at the time of his death.

His *Réflexions sur le projet d'emprunt* (1817), and his *Opinion sur le projet de loi relatif au remboursement et à la réduction des rentes* (1824), were directed against foreign loans and the conversion of state loans. In 1838, a collection of his speeches was published under the title of *Opinions et Discours de M. Casimir Périer* (4 vols.) with a prefatory notice by M. de Rémusat.

E. Ca.

PERIODICITY OF CRISES. See CRISES.

PERIOT (or PERIT). A fractional part of the troy grain formerly used in calculating the value of the precious metals, but not actually existent as a weight. Taking the standard troy pound as a unit, the subdivisions were as follows:—

1	Troy pound	=	12 ounces
1	,, ounce	=	20 pennyweights
1	,, pennyweight	=	24 grains
1	,, grain	=	20 mites
1	,, mite	=	24 droites
1	,, droite	=	20 periots
1	,, periot	=	24 blanks

The periot, therefore, was equal to $\frac{1}{9600}$th grain, and the smallest subdivision, the blank, to $\frac{1}{230400}$th grain. As no weight less than about $\frac{1}{2000}$th grain is appreciable on a good assay balance of the present day, it is evident that no such weights as the above could actually exist, and there can be little doubt that they were used in calculating the value of bullion in bulk in the same manner as we now use decimals. Thus the schedule to the Coinage Act 1870 gives the weight of a sovereign as 123·27447 grains, but if the weight be calculated from the data given in the note to the schedule (934 sovereigns and one half-sovereign in a pound troy of standard gold), it is seen that this is only an approximation, the exact weight being indeterminate (see GUINEA), and, where minute accuracy is aimed at, the number of decimal figures used will depend on the multiple of the sovereign under consideration.

It is not possible to state precisely when these weights were first introduced, or when their use was discontinued, but they are referred to in an old manuscript volume in the Royal Mint library, entitled *Mint and Moneta*, which bears no date, but appears to have been written during the latter half of the 16th century, as "only used by the goldsmiths for the making of an assay of gold and silver." They are also used in an act of Queen Elizabeth (43 Eliz. 1601) in defining the weights of silver coins, and for a similar purpose in regard to both gold and silver coins in an act of the Long Parliament (see Scobell's continuation of Pulton's *Acts and Ordinances*, 1640-57, under date 1649 c. 43, *Moneys and Coins of England*). References will be found to them also in various modern text-books (Chaffer's *Hall-Marks on Plate;* Kelly's *Universal Cambist;* Ruding's *Annals of the Coinage;* Chaney's *Our Weights and Measures.* It is interesting to note that three of the names used for these subdivisions of a grain are those of ancient coins; also that they are alternately one twentieth and one twenty-fourth, as in the case of the ounce, pennyweight, and grain at the present day. E. R.

PERMIT, a license or writing granted by the officers of the excise certifying that the duties on certain goods have been paid, and authorising or permitting their removal from one place to another. Previous to 1848 all spirits sent out by spirit dealers were accompanied by permits, but by the 11 & 12 Vict. c. 121, an excise certificate was substituted for the permit. This provision was extended to the removal of spirits by rectifiers and compounders by the 23 & 24 Vict. c. 114.

The use of permits is at present restricted chiefly to the removal of duty-free malt and of spirits from distillers' spirit stores or from duty-free warehouses.

Permits and certificates are regarded as a valuable means of identifying articles on transit, and of distinguishing those upon which the duties have been paid from those upon which duties have not been paid. They also afford a means for checking the receipt of illicit spirits, and of preventing a fraud on the revenue laws.

J. E. C. M.

PERPETUITIES, RULE AGAINST. The rule against perpetuities is intended to prevent the tying up of land or other property for an indefinite period. The love of power, and the wish to perpetuate the opulence and consideration of their families, has often induced owners of property, especially of landed property, to settle beforehand its devolution for as long a time as possible. But the English courts of justice have always endeavoured to limit this action in the public interest and to maintain freedom of trade in property. When the landowners procured the statute *De Donis Conditionalibus*, 13 Edw. I. c. 1, which made entailed land inalienable, the courts evaded the statute by means of the collusive actions known as fines and recoveries. When the Statute of Uses, 27 Hen. VIII. c. 10, contrary to the intention of those who enacted it, made possible new contrivances for guiding the devolution of landed estate, the courts again took alarm, and by degrees worked out what is now known as the rule against perpetuities. Under this rule, any disposition of landed estate, or other property, which is to be valid, must take effect within the period of a life, or lives, in being at the time when it was made, and twenty-one years afterwards, with an additional allowance for the period of gestation where the party entitled is a posthumous son. The practical importance of this rule, as ensuring the restoration of land sooner or later to free commerce, is vastly diminished by the fact that every tenant for life has now a statutory power of selling the settled land (see SETTLEMENT, LAND; ENTAIL, LAW OF).

In connection with the rule against perpetuities may be noticed the rule limiting the period during which the income of property, real or personal, may be accumulated for the benefit of the person or persons who will ultimately take that property. The rule is contained in the act 39 & 40 Geo. III. 98, popularly known as the Thellusson Act. A certain Mr. Thellusson had ordered in his will that the income of his estate should be accumulated during the lives of all his children and grandchildren alive at the time of his death for the benefit of some future descendants. Such a disposition did not contravene the rule against perpetuities, but it was felt to be unreasonable and contrary to public policy. It thus led to the passing of the act

above mentioned, which forbids the accumulation of the income of property for any period longer than the life of the grantor, and twenty-one years afterwards, with an allowance for the period of gestation where the person who is to take is still unborn at the death of the testator. Any direction to accumulate income, which contravenes the act, is void for the time in excess of the period prescribed by the act. The income during such time is to be paid to the person who would have been entitled to receive it had there been no direction to accumulate. A further check on the accumulation of income for the purpose of purchasing land is imposed by the Accumulation Act 1892 (55 & 56 Vict. c. 58). (See THELLUSSON.)

[Williams, *Principles of the Law of Real Property*, and *Principles of the Law of Personal Property*, and Lewis on *Perpetuities*.] F. C. M.

PERSONAL PROPERTY. Personal property is, roughly speaking, movable property; as real property is, roughly speaking, property in land. It consisted originally of movables or chattels in the strict sense, but its scope was afterwards extended. Certain interests in land which were of little consequence at the time when the definition of real estate became fixed, are described as *chattels real*, and treated as personalty. These include all leasehold interests and estates at will. Again, the right to enforce payment of a debt or to recover damages in an action at law are included in personalty under the name of *choses in action*. Personal annuities, money invested in the funds, the shares of most companies, patents and copyrights, are described as incorporeal personal property. Indeed many objects now included in personal property have hardly anything in common save that on the death of the person entitled to them, they pass to the executor or administrator, whilst realty before 1898 passed to the heir or devisee.

[Williams *on Personal Property*.] F. C. M.

PERSONAL SERVICES are those which are expended in guarding, conveying, or otherwise preserving (*a*) the objects of production; (*b*) the persons of the producers. These services may be, as SISMONDI observes (*Nouv. Princ. de l'Écon. Pol.*, p. 147), "of the most elevated as of the most menial kind . . . as for instance those of a physician . . . or those of a *valet de chambre*."

Economists differ as to whether the possession of such services may be rightly esteemed wealth, and as to whether those who render them should be styled productive or unproductive labourers. Adam Smith observes that "the labour of a menial servant . . . adds to the value of nothing" (*Wealth of Nations*, edited by M'Culloch, p. 149). J. S. Mill, following his lead, writes of "domestic servants and all other unproductive labourers" (*Principles of Pol. Econ.*, ch. iii.), and sharply criticises M'Culloch and J. B. Say for classing them as "productive." Again, in his *Some Unsettled Questions of Political Economy* (Essay iii.), Mill distinctly repudiates the idea of domestic servants being productive labourers, yet, inconsistently, admits (cp. also Sismondi, *Nouv. Princ.*, p. 147) that most of such persons "occasionally, and some habitually, render services which must be considered as of a productive nature" (p. 85 *ib.*).

The French economists of the present century opposed both Smith and Mill. Thus J. B. SAY, referring to the consumption of wealth, observes that the most rapid consumption is that made *des services personnels* (*L'Écon. Pol.*, ii. p. 231; also quoted by Sandelin, *Répertoire Gén. d'Écon. Pol.*, art. "Consommation"). Sismondi thought them productive, yet he makes the confusing remark that "they only differ from productive labour in the fact that their results cannot be stored up" (*ib.* p. 147).

F. BASTIAT argued against both Smith's and Mill's reasoning. In his chapter on value, he examines the nature of a "service," laying stress on Say's doctrine—as old as Bacon—that there is really no such thing as creative or so-called "productive" human labour. Man can only combine or displace the forces and materials which already exist. It follows from this that all labour being equally "unproductive," the importance of any service is only a question of degree. Bastiat considers the services of soldiers, guards, etc., as "undoubtedly" "productive," "seeing that the sole object of the arrangement is to increase the proportion which the aggregate satisfactions of the community bear to the general efforts" (p. 146 *ib.*). He proceeds to argue that personal services have "value" quite independently of their transiency, and referring to those services which "vanish and leave no trace behind," he remarks: "The very same thing holds of personal services. The consumer makes the value disappear, for it has been created only for that purpose. It is of little consequence, as regards the principle of value, whether the service is undertaken to satisfy a want to-day, to-morrow, or a year hence."

Modern English economists have not all agreed with Bastiat. Prof. Alfred Marshall is, however, very decided on the question. Defining wealth as consisting of the desirable things a man possesses, he confines the term to a man's "external goods," but he extends this to include "personal services of all kinds" (*Principles of Pol. Econ.*, p. 106). Prof. J. E. CAIRNES (*Some Leading Principles of Pol. Econ.*, p. 25) brackets commodities and services interchangeably as wealth; but Prof. H. Sidgwick (*Principles of Pol. Econ.*, bk. i. ch. iii. p. 78), going back to Smith's definition of wealth, places both sides of the question with almost equal force before his readers. "A man's money," he observes, "is not entirely . . . spent in consumable things . . . it is partly spent in what we may call 'consumable services,' *i.e.* utilities furnished

by the labour of others, 'which are not fixed and embodied in matter,' such as the services of domestics, physicians, actors, carriers. Ought we then to extend the conception of 'wealth' to include such services." . . . "If, as I think, the term wealth is by usage restricted to stores or sources of utility comparatively permanent, some other term must be found to include . . . what I have called directly 'consumable services,' . . . and I propose . . . to employ the terms 'commodities' and 'produce of labour' in this extended way." Prof. Sidgwick then goes on to raise the question which Bastiat discussed, and assumes that personal services "are not wealth, on account of their transiency" (*ib.* p. 79). Prof. Marshall (*Principles of Economics*, 1st ed. p. 110) observes that the inclusion of these does not often affect our discussions except in cases where there is a distinction between what is "wealth to the individual," and 'wealth to the society."

It is, however, obvious that the personal services of what Sismondi happily calls *cette population gardienne* (*ib.* p. 141) are absolutely and directly indispensable to the production, the transfer, the circulation, and what is equally important, the protection and preservation, of wealth, and must therefore be classed as indirectly productive labour. A. L.

PESCATORE, MATTEO (1813-1879), was born at San Giorgio Canavese (Piedmont). He first taught civil law and then the philosophy of law at the university of Turin. He was a deputy in the sub-alpine parliament, and when the kingdom of Italy was constituted he became one of its senators. Deeply versed in judicial and social science, his work has left traces on education, legislation, science, finance, and the philosophy of law. In the teaching of law Pescatore introduced a rational, in place of an exegetical method. The law on the enfranchisement of long leases is due to his labours and work in parliament.

He left two important works, one on legal philosophy, *Logica del diritto*, the other on finance, *Logica delle imposte*. Turin, 1867. The latter is a comprehensive treatise on taxes, and displays thorough practical sense combined with incisive and original ideas as well as profound learning.

[A. Bertolotti, "Matteo Pescatore," in the *Rivista Europea*, Florence, 1879.] U. R.

PESETA—a diminutive of PESO, which was frequently used to denote the Spanish dollar—first appears amongst Spanish coinage terms during the 17th century. It was then, however, rarely used. It was a division of the dollar, and was applied to two different moneys of account, distinguished as

PESETA MEXICANA, which = 5 reals vellon,

PESETA PROVINCIAL, which = 4 reals vellon.

The coin representing this latter denomination, usually called the PISTAREEN, was from 1700 onwards a familiar term in commerce, particularly in the West Indies; five of them went to the dollar, and they were, in 1717, valued by Sir Isaac Newton as 10$\frac{2}{3}$d. of English currency.

When, in 1876, Spain actually adopted the method and standard of the Latin union, she took the peseta provincial, which was roughly equal to the franc in value, as the unit of the new currency, and divided it into 100 centimos, to correspond with the French centime. The silver 5-peseta piece, like the 5-franc piece of France, became the largest silver coin, and the gold 25-peseta piece was the representative of the existence of a gold standard. But, owing to the absence from Spain of a sufficient stock of gold to keep the 5-peseta piece at its proper value, the peseta has been steadily falling in gold price for some years past, and at the present time (1907), instead of 25·22, about 35 are required in exchange for a sovereign.

[Kelly's *Cambist*, p. 319.—Chalmers's *History of Colonial Currency*, p. 395.—Browne's *Merchant's Handbook*, p. 58.] C. A. H.

PESO. See DOLLAR, MEXICAN, etc.

PESSIMISM. Like the term OPTIMISM, the term pessimism is used in a variety of senses. Properly it denotes the doctrine that, in the world as a whole, evil necessarily predominates over good. But it is often used loosely to describe the mood of those who are more alive to the evil than to the good of existence. Quite apart from any philosophic theory, differences of temperament and of circumstances will cause men to differ very widely in their estimate of life. Individual feeling admits of infinite gradations which defy classification. Pessimism and optimism in this popular use are terms of merely relative import. Pessimism as a principle has manifested itself in religious forms, notably in Buddhism, and in philosophical forms, the most modern of which are associated with the names of Schopenhauer and Hartmann. A critical examination of pessimist theories would altogether transcend the limits of this article. They have their origin in the undeniable and awful contrast between human aspiration and human attainment. No form of philosophic pessimism has at present exerted much influence on political economy. The CLASSICAL ECONOMISTS (*q.v.*) lived in an age of optimism and were in full sympathy with their age. They had a hearty faith in the unfettered energies of mankind. It is true that the theories of certain eminent economists, as MALTHUS and RICARDO, have been used to demonstrate that under existing conditions the state of the mass of mankind must steadily grow worse. The inference commonly drawn, however, was not that mankind were doomed by fate to suffer, but that the actual economic

system must be modified. Those who do not expect well-being to result from individual effort are confident that it can be produced by the action of the community.

The rising generation of economists may probably be less optimistic in tone. The very diffusion and intensity of the desire for comfort tend to produce a formidable discontent which may at first discharge itself upon obnoxious institutions or classes, but must finally break against the unalterable facts of nature. Certain characteristics of modern civilisation, notably the resulting prolongation of the lives of the weak, both in mind and body, and the heavy burthens imposed on the capable members of society, seem likely to retard progress as hitherto understood. The limits to the physical resources of our globe are becoming more apparent. Nearly the whole of its surface has been explored; the area which civilised man can occupy has been pretty well ascertained; the great forests are disappearing, the virgin soils are losing their spontaneous fertility, and mines are worked upon a scale which in many cases threatens exhaustion in no distant future (MINES AND MINERALS, EXHAUSTION OF). The assumption that mankind are destined to a practically infinite economic development is thus shaken. The economists of a past age were chiefly concerned with the advantages which would follow the destruction of artificial barriers; but the stringency of natural limitations which cannot be removed will probably attract more attention from the economists of the approaching time.

[J. Sully, *Pessimism, A History and a Criticism.*—W. Wallace, article on "Pessimism" in the *Encyclopædia Britannica*, and the authorities therein cited.] F. C. M.

PESTEL, FRIEDRICH WILHELM VON (1724-1805), was born at Rintelen (Lippe-Schaumburg), studied at Göttingen, became doctor *utriusque juris* (1747), and professor of law, first at Göttingen and afterwards (1763) at Leyden. He was dismissed from his office in 1795, when the revolution broke out; and then went to Germany, but returned in 1803 and remained at Leyden until his death. In 1792 he was ennobled by the Emperor.

His works mostly deal with law; the following, however, contain parts which are important in connection with economic study; *Gedanken von der Rechtmässigkeit der Reichsständischen Landposten und der Unerweislichkeit eines diese ausschliessenden fürstlichen Taxischen Reichspostmonopols* (Thoughts on the lawfulness of the posts managed by the different governments of the empire and the absence of evidence for the monopoly of the posts enjoyed by the Prince of Taxis), Rintelen, 1759.—*Fundamenta jurisprudentiae naturalis delineata in usum auditorum, L.B.* 1773, 1774, Ultraj, 1776, translated into French (1775) and into Dutch (1783).—*Commentarii de Republica Batav., L.B.*, 1782 and 1798. The last work especially contains some remarks on trade and currency that deserve mention; they bear, however, for the greater part, the impress of the opinions of his time; the general ideas are mostly imbued with a moral and philosophical character. A. F. V. L.

PETER'S PENCE, called also Rome Scot. An annual payment made to the pope of Rome till the reign of Henry VIII. Its origin is almost lost in antiquity, but tradition says that it was instituted by Offa, king of Mercia, who, after a visit to Rome, ordered that every person having land or cattle of the annual value of 30d. should contribute a penny annually towards the support of the English college at Rome, the whole to be collected each year during the time between the feast of St. Peter and St. Paul and the first of August. Before the beginning of the 13th century Peter's Pence had been commuted for a fixed annual payment, about £200. Even this soon came to be looked upon as a papal exaction, rather than a free gift, and the threat of withholding it was a valuable weapon against papal aggression: when therefore in 1305 A.D. Clement V. tried to go back to the old system of a penny from each household, the attempt was stoutly resisted, and it was never again repeated. The term is still used as describing voluntary payments made to the Pope. The payment of Peter's Pence as a national gift was abolished in 1533 by 25 Henry VIII., c. 21.

[Stubbs, *Constitutional History.* — Froude, *History of England.*] A. E. S.

PETIT SERJEANTY. See SERJEANTY.

PETITTI DI RORETO, CARLO ILARIONE (1790-1850). Born in Turin of a noble family, he held important offices under the Piedmontese government, and occupied himself much with the duties of administration and economic study, discussing and proposing important liberal reforms in the state, and exercising a useful influence.

His principal work, on the best manner of dealing with beggars, will bear comparison with DE GERANDO's classic. In this book Petitti discussed the precautions taken to prevent begging in different states, and the question of legal intervention. Another work on Italian railways, in which he studied the organisation of railways thoroughly, giving many useful statistics, was of great importance in Italy, as the first example of this kind of investigation at a time when great industrial questions were still not familiar in that country.

Petitti wrote also on prison discipline (Turin, 1840), on children's labour (1841), customs unions (1844), reform in taxation (1844), and on many other subjects.

After his death another of his works was published, on the subject of the lottery. In this are collected facts from different countries, their laws on the subject, and the history of the different systems; he attacks government lotteries with much force. *Sul buon governo della mendi-*

città, Turin, 1837.—*Delle strade ferrate e del migliore ordinamento di esse*, Capolago, 1845.—*Del giuoco del lotto*, Turin, 1853.

[P. S. Mancini, *Notizia della vita e degli studj di C. I. Petitti di Roreto*, publicata come proemio all' opera postuma di questo sul giuoco del lotto.] U. R.

PETTY BAG, *Parva Baga*, was a division of the chancery records which was concerned with writs and returns in cases more nearly affecting the interests of the crown than those of the subject. These records date from the Tudor period, and include writs and returns of *Certiorari*, *Ad quod Dampnum*, *Depopulations* and *Scire Facias*, etc. These might be classed as the political records of the chancery, that is, in so far as they refer to questions of state or public policy. The division, however, is very loosely made, and is not consistently observed.

For economic purposes these records are interesting as containing valuable and instructive returns of "Depopulations" under Elizabeth and James I. A. L.

PETTY, Sir William (1623-1687), political economist and statistician, born at Romsey in Hampshire, was educated to be a doctor, and graduated, 1649, in physic at the University of Oxford, subsequently at the College of Physicians in London. His active life may be divided into two periods. During the first, after a short tenure of the professorship of surgery at Oxford, he held several public appointments in Ireland, in connection with the survey of that kingdom and the subsequent distribution of the confiscated lands amongst the successful soldiery, after the conquest of the island by the Commonwealth. Petty enjoyed the confidence of the Cromwell family in a singular degree, and remained devoted to their memory to the last. In the second part of his career, after the overthrow of the Protectorate by the Republicans, and of the Republic by the Restoration, he devoted himself to the study of vital statistics and questions of trade and commerce, to which he gave the name of "political arithmetick" (see Arithmetic, Political). He enjoyed the good-will and protection of the king personally, though he was the object of dislike of the extreme court party, as he had been of that of the extreme republicans.

"By political arithmetick," says Davenant, "we mean the art of reasoning by figures upon things relating to government. . . . The art itself is undoubtedly very ancient; but the application of it to the particular objects of trade and revenue is what Sir William Petty first began. . . . He first gave it that name, and brought it into rules and methods" (Davenant, *Political Arithmetick*, Works, 1, 128, 129). In this sense Sir William Petty has, and not without reason, been called the founder of political economy.

Putting aside the works relating to the history of the Down survey, which are of exclusively historical interest, the first publication with which the name of Petty is connected is *The Observations upon the Bills of Mortality* of the city of London, published in 1662; a small book of about 100 pages, but bearing on the title-page the name, not of Petty, but of Graunt (*q.v.*). Whether Petty or Graunt was the real author has been the subject of much controversy. It is to be noticed that in a list of his writings—though not of his published works—found at Wycombe in his own handwriting, some "observations on the bills of mortality" are mentioned under the date of 1660, *i.e.* two years before the appearance of Graunt's pamphlet (*Life of Petty*, p. 318). It is not, however, stated that these observations were then published. On the other hand, in one of the two series of detached essays on "political arithmetic," published at various times between 1671 and 1687, Petty speaks distinctly of the earlier work as "Grant's book"; and in another he refers to his own essay the "Observations upon the Dublin bills" as the "'snuffers' to make the candle of the new light to the world given by the earlier book burn clearer."

Taking this list of facts into connection with the publication by Petty, in 1674, two years after Graunt's death, of a new and enlarged edition of the book, with the numerous parallelisms between the *Observations* and the *Treatise on Taxes*, published by Petty in 1662, with the general belief at the time, as evidenced by Evelyn and Burnet, that Petty was the author, and with the intimacy over a long period of Petty with Graunt, it can hardly be doubted that Petty had, to say the least, a large share in the work, and that the case is one of joint authorship[1] (*Life of Petty*, p. 180).

Of Sir William Petty's economic works, five have achieved a permanent reputation—the *Treatise on Taxes and Contributions*, published 1662; the *Discourse on Political Arithmetick*, written in 1671, but not published till 1691, after his death; and a tract entitled *Quantulumcunque concerning Money*, dealing with questions of currency, written in 1682; a tract entitled *Verbum Sapienti*, written in the last year of the first Dutch war, in 1665; and the *Political Survey or Anatomy of Ireland*, published anonymously in 1672. To these may be added the two series of detached *Essays on Political Arithmetick*, already alluded to, written at various times between 1671 and 1687. It has been well observed that all these treatises—none of which is of any considerable length—"are less akin to elaborate treatises than to essays throwing out hints and thoughts" (*Edinburgh Review*, No. 373, July 1895). The author shows a marked tendency to keep in view the practical aspect of

[1] See on this subject *Graunt or Petty*, by Professor C. H. Hull, Boston, 1896; and a *Dissertation on Sir William Petty*, by Mr. W. L. Bevan, Canterbury, 1893; *Life of Sir William Petty*, ch. vii.

questions, and to found his reasoning on observation and on facts gained through his own experience, rather than on those methods of deductive reasoning which were pursued by the economists of a later school. In this respect Petty's methods are far more suggestive of Adam Smith than of Ricardo; and they bring him into touch with the economists of the present day, such as Thorold Rogers and Marshall. "An opinion of what is possible to be done" is the heading of one of his papers, and the tendency to prefer the practical to the abstract is one of the strongest characteristics of his mind. It originated, no doubt, in his own early experience of the difficulties of the art of government in Ireland, and in his protracted and only partially successful struggles for reformed methods of administration, which brought him into collision with nearly all the different parties successively which governed the country under the Commonwealth and during the reign of Charles II., and no doubt impressed on his mind the necessity of compromise. If, however, his method was to collect facts and statistics, and to try to found general propositions upon them, he was perfectly aware of the deficient character of the statistics he had to use. Proposals for improving the public and official sources of information in this respect, in other words, for establishing a proper statistical department as part of the machinery of government, constantly recur in his pages, and the evils arising from the absence of a proper machinery for readily obtaining this class of information are powerfully enforced. It would not, however, be correct to say that no instances of the deductive method of reasoning are to be found in Petty's works. Thus in the *Treatise on Taxes and Contributions*, a speculation on "a par of land and labour" or universal standard of value, is to be found, which belongs to this order of ideas. Such instances are, however, the exception.

Petty's speculations are most original in the sphere of trade and commerce. The age was still one of prohibition and restriction, though the absolute prohibitions of the mediæval governments, which regarded trade with a foreign country as a matter of at least very doubtful benefit, were making place for the "mercantile" system, which admitted trade to be desirable, but only in so far as it could be shown to increase the amount of the precious metals in the country, as they were considered to be the only true sources of wealth. Petty saw clearly that the whole system of attempting, with this object, to force trade into artificial channels was a mistake. The sources of wealth, he clearly pointed out, were not gold and silver, but "land and labour," and money he saw was simply a measure of value, owing to certain intrinsic excellences of the precious metals as a standard. "If a man," he pointed out, "can bring to London an ounce of silver out of the earth in Peru in the same time that he can produce a bushel of corn, then one is the natural price of the other. Now if by reason of new and more easy mines a man can get two ounces of silver as formerly he did one, then corn will be as cheap at ten shillings the bushel as it was before at five shillings *ceteris paribus*" (*Treatise on Taxes*, ch. v. p. 38).

These views brought him very near to a correct theory of trade. "Why," he asked, "should we persuade water to rise of itself above its natural spring? . . . We must consider in general that, as wise physicians tamper not exceedingly with their patients, rather complying with the motions of nature than contradicting it with vehement administratives of their own, so in politics and economics the same must be used. . . . Why should we forbid the use of any foreign commodity which our own hands and country cannot produce, when we can employ our spare hands and lands upon such exportable commodities as will purchase the same and more?" (*Treatise on Taxes*, ch. vi. p. 48; *Political Anatomy*, ch. xi. p. 356). Successful trade, and the wealth which trade produces, he saw was a matter of exchange; and that by increasing the amount of both the imports and the exports of the country, the wealth of the country could be increased, and not by trying artificially either to foster the one or the other, or to increase the import of the precious metals (*Treatise on Taxes*, ch. vi.).

He was not, however, always entirely consistent in his views (*Life of Petty*, p. 199). He seems to have believed that there might after all be some inherent superiority in the precious metals over other sources of wealth; and his silence on the Navigation acts is remarkable, especially considering how violently he had opposed them as a member of the parliament of Ireland in their application to the trade of that country (*Political Arithmetick*, ch. i. p. 224; *Life of Petty*, pp. 141-205).

This silence may perhaps be put down to fear of the established powers of the state, whom he was probably afraid of offending by a too open expression of his views. A passage in Davenant's works supports this explanation (*Works*, i. p. 129), which also probably accounts for so many of his writings being anonymous, as it undoubtedly does for the last portion of the *Political Arithmetick* having been kept back till after his death, when it was published by his son, Lord Shelburne (*Life of Petty*, p. 205).

Petty saw clearly that import duties should not be levied on raw materials, as the price was thereby raised to the consumer in a degree altogether beyond the revenue brought in to the state. He also desired to levy the inland revenue as much as possible on articles of which the home producer had a practical monopoly, as on them taxation could most easily be imposed without raising prices excessively (*Treatise on Taxes*, ch. vi. pp. 44-49). Nevertheless he admits "that all things ready and ripe for consumption may be made somewhat dearer than the same things made at home, only trade is not to be destroyed, or seriously hampered" (*ib.* p. 42).

In the *Quantulumcunque concerning Money* he states correctly the reasons which make the precious metals fit to be standards of value. There is an expression of opinion in the *Political Anatomy of Ireland*, ch. x., in favour of a single standard, presumably silver, considering the circumstances of the time. His works also contain a clear statement of the evils arising from confusion of coins and debasing the coinage; and from the laws

against usury. In this connection he correctly states the character of "interest" — which he calls "use money"—and "exchange," which he calls "local interest." The former, he says, is "a reward for forbearing the use of your own money for a term of time agreed upon, whatsoever need yourself may have of it meanwhile." The latter is "a reward given for having your money at such a place where you most need the use of it" (*Quantulumcunque*, Queries 28 and 29). In connection with these questions he advocates a decimal coinage (*Quantulumcunque*, Query 31), the convenience of which he points out. He understood that the quantity of money in a country which is necessary ought to depend on the number of transactions. "Money," he said in the *Verbum Sapienti*, in a happy comparison, "is but the fat of the body politick, whereof too much doth as often hinder its agility as too little makes it sick." It is in this connection that, in the *Quantulumcunque concerning Money*, he hits at the master fallacy of the mercantile system by boldly stating that superfluous coin, like any other superfluous commodity, can with advantage be exported (Queries 23-27). In order to keep the supply of money on a level with the requirements of the country from time to time he advocates the establishment of a sound banking system on the example of the banking system of Holland (*Life of Petty*, 228).

In the treatise on taxes a discussion occurs in the early part of the work on the origin of "rent," which he considers mysterious, but though he comes near to stating correctly the origin of rent, it cannot be claimed for him that he anticipated Ricardo, for he regarded rent simply as the profit of the capital invested in the land, though he saw that some lands more favourably situated than others, such as that near towns, would command a higher profit, though he does not state clearly why (*Treatise on Taxes*, ch. v.).

He was strongly impressed with the desirability of increasing the population. An increase of the people he considered was the surest sign of advancing prosperity; but he recognised — and here we see the influence of his knowledge of Ireland—that for an increase to be beneficial, it must be accompanied with a corresponding increase in the efficiency of labour. In connection with his study of the question, he made a remarkable forecast of the growth of the city of London westward (*Treatise on Taxes*, iv. 28). He had fully realised the importance of the division of labour in augmenting production. Cloth, he says, must be made cheaper when one cards, another spins, another weaves, another draws, another dresses, another presses and packs, than when all the operations above mentioned are clumsily performed by the same hand (*Political Arithmetick*, i. 224). He understood that price was founded on supply and demand, and he illustrates this by some observations on the causes of the value of diamonds at different times and in different places (Sloane MS. 2903, British Museum, *Life of Petty*, p. 223).

His economic views largely strengthened his political convictions on certain subjects. He was one of the earliest advocates of a genuine religious liberty, but he drives home the argument in favour of it by pointing out that maiming, burning, and persecuting people on account of opinion injures the state and diminishes the revenue; and that, as a rule, the *heterodox* are the most thinking, and therefore one of the most productive classes of the community; a proposition which he illustrates by the example of the Dutch (*Political Arithmetic*, ch. i. p. 227; *Life of Petty*, p. 224).

The influence of HOBBES, with whom Petty was brought into contact as a young man when studying in Paris, may be traced in the strong view taken by him of the necessity of a well-organised government, and of increasing the powers of the state; and in his hatred of the notion of any shape of *imperium in imperio*, whether lay or ecclesiastical, which would stand in the way of the legitimate development of the state (*Life of Petty*, pp. 16, 186-188). On the other hand, in his application of the test of utility to most questions, and his clear perception of the vices of the existing electoral system, he is in touch with Locke and the Whigs of the following century.

Petty, owing to several interesting experiments in ship-building connected with the "double-bottom" so often mentioned by Pepys and Evelyn, obtained the good-will of the Duke of York, and unfortunately reciprocated his confidence. Probably owing to his dislike of the extreme Protestants and Exclusion party, whom he regarded as the successors of the republicans who, in 1658, had upset the protectorate on the death of Cromwell, he was induced to trust to the assurances of the duke, when he had become king as James II., that he wished, as Charles II. had wished, to grant a general religious toleration, and would maintain the Irish settlement, in which Petty was largely interested. When, therefore, the Roman Catholic movement in Ireland—which, to say the least, was connived at by the king—showed unmistakable signs of entirely sweeping away the Protestant landowners, the disaster came as a moral as well as a material blow. He died of a gangrene in the foot on the 16th of December 1687, and was buried in the Abbey Church at Romsey.

Petty was an able mathematician, and applied his knowledge to practical ship-building. He was one of the original members of the Royal Society, and towards the end of the reign of Charles II. was appointed a Commissioner of the navy and Judge of the court of Admiralty in Ireland. He sat in the parliament of Charles II. as member for West Looe, and afterwards in the restored parliament of Ireland as member for Inistiogue.

A careful study on Petty by the German economist ROSCHER appeared in 1857 in the *Transactions of the Royal Scientific Society of Saxony* (Leipzig); and a dissertation on his works was recently presented to the Faculty of Political Science of the University of Munich by Mr. W. L. Bevan (Canterbury, 1893). The question of the authorship of the *Observations on the Dublin Bills of Mortality* is fully discussed in *Graunt or Petty*, Boston, 1896, by Professor C. H. Hull, who is preparing a complete edition of Petty's works for the Cambridge University Press. A full biography has been published by Lord Fitzmaurice (John Murray, 1895),

with extracts from Petty's correspondence. The references to the works in the notice are from a volume published at Dublin, in 1769, by Boulter Grierson, under the title of *Tracts chiefly relating to Ireland.* E. F.

PFEIFFER, J. F. VON (1718-1787), a German cameralist of the 18th century, born in Berlin, was the son of a Swiss inhabitant of that town, took part as a young officer in the first campaign of Frederick the Great, and afterwards entered the king's service as an official. Falsely accused of fraud, and pronounced innocent, he left the Prussian state service, and was for many years employed by other princes of the empire. After several more important economic journeys, he returned to Hanau, that he might devote himself to literary work.

Between 1770 and 1778 his principal work appeared, *Lehrbegriff sämmtlicher ökonomischer und Cameralwissenschaften*, 4 vols. In quick succession there followed—*Grundriss der wahren und falschen Staatskunst*, 2 vols., 1778.—*Natürliche aus dem Endzweck der Gesellschaft entstehende allgemeine Polizeiwissenschaft*, 2 vols. 1779.—*Antiphysiocrat*, 1780.—*Grundriss der Finanzwissenschaft*, 1781.—*Berichtigungen berühmter Staats- und ökonomischen Schriften dieses Jahrhunderts*, 6 vols., 1781-84. In 1782, though a Protestant, he received an appointment in the Roman Catholic university of Mainz. Four years after his death there (1787) J. N. MOSER published from materials he had left the *Grundsätze und Regeln der Staatswirthschaft*, 1791.

Inama Sternegg describes Pfeiffer as "one of the most important and perhaps the most characteristic representative of CAMERALISTIC SCIENCE" (*q.v.*). His peculiar position in the history of economics is due to his fierce opposition to the physiocratic system (see GERMAN SCHOOL OF POLITICAL ECONOMY; PHYSIOCRATS). This feeling permeates all his writings, appearing chiefly in his *Polizeiwissenschaft*, the *Antiphysiokrat*, and in the *Finanzwissenschaft*. In this the dogmas of the mercantilists are contrasted with those of the physiocrats.

Pfeiffer, whose knowledge of the physiocratic system was exclusively derived from the writings of SCHLETTWEIN, reproached the physiocrats with two errors: (1) that their system advocated an extreme cosmopolitanism, and (2) that it recommended one universal method for all conditions and climates, regardless of the peculiar features and the gradual historical development of the countries concerned. Social economy must be regulated not according to the natural condition but according to the aims of the state. The absolute freedom of nature might suit the savage state—in city-life it is a phantom. Nations ought in economic matters to be as carefully provided with a ruler as a ship is with an experienced helmsman. Trade needs, not uncontrolled, but rational freedom. Finance and administration should be associated to "the great advantage of the state." Pfeiffer compares the statesman with the agriculturist who ploughs the field, manures, and sows, while the financier concerns himself with the harvest, and supplies the necessary resources. Far from having an exclusive fiscal aim, the taxation which supplies the income of the state should be almost a secondary object to the financier. "Manufactures and trade determine themselves what course they will follow." Therefore only moderate duties should be imposed on the raw materials for home manufactures, and as far as possible they should be untaxed. The "pole star" of state policy, the object which the statesman should ever keep in view, is the rendering of home-production independent of foreign countries. The dogma of the physiocrats, that money in itself is not the true wealth of a country, is correct. Money is not actual, but only "potential wealth." ARISTOTLE (*q.v.*) rightly made merry at those who mistook thus the possession of wealth for riches. The fate of Spain and Portugal in modern times clearly shows that a country may have too much of the precious metals. This hinders the true sources of wealth, for, by a superfluity of gold tokens, wages are raised relatively to other countries, influencing thus home production unfavourably. The balance of trade could be arranged without the precious metals, for instance, by paper representatives of value. On this subject Pfeiffer had said in his *Lehrbegriff*, "money, or coined gold, silver, and copper, is not really wealth, but only an accepted token of wealth and an arbitrarily selected means for arranging an easy mode of buying and selling necessaries," *Population and Fertile Soil alone are true and Permanent Possessions* (vol. ii. pt. ii. 111). The "art of making gold" is of use so far only as it promotes the "great art of providing bread for the people" (*Grundriss*, preface).

In the last of his important works :—*Berichtigungen berühmter Staats- und ökonomischer Schriften*, Pfeiffer comments in detail on the works of the following writers :—SECKENDORFF; JUSTI; BIELFELD; SONNENFELS; SCHLETTWEIN; GENOVESI; VERRI; Victor de MIRABEAU; LETROSNE; NECKER; James STEUART, and Adam SMITH. He approved generally Smith's criticism of the physiocrats, yet considered that he failed to appreciate the taxation system of that school.

[G. A. Will, *Versuch über die Physiokraten, deren Geschichte, Litteratur, Inhalt und Werth*, 1782.—Inama Sternegg, Article "J. F. von Pfeiffer" in the *Allgemeine deutschen Biographie*.—Wilhelm Roscher, *Geschichte der National-ökonomik in Deutschland*, 1874.] A. O.

PFENNIG (German). A small copper coin of the nominal value of one hundredth part of a German MARK (*q.v.*). F. E. A.

PHILIPS, ERASMUS (d. 1743), was author of *The State of the Nation in respect to her Commerce, Debts, and Money*, London, 1725, 8vo, 2nd ed., 1726, a work highly praised by M'Culloch, *Literature of Political Economy*, p. 351, as anticipating A. Smith and Ricardo. "A trading nation," Philips writes, "should be an open warehouse, where the merchant may either buy what he pleases or sell what he can." In an *Appeal to Common Sense*, however, 2nd part, London, 1721, 8vo, he had declared himself in favour of bounties on certain exports, and of severe restrictions on the importation

of foreign wrought silks, etc. The *State of the Nation, etc.*, was republished in 1751, in a volume of *Miscellaneous Works* which included a series of essays called the *Country Gentleman* which imitated the *Spectator, longo intervallo*.

H. E. E.

PHILLIPS, WILLARD (1784-1873), a lawyer by profession, born in Massachusetts, was a frequent contributor to the *North American Review* in its early days, and author of *Manual of Political Economy*, 1828, and *Propositions concerning Protection and Free Trade*, 1850. The manual is an exposition of English and academic theory then current. Further experience, however, changed the author's convictions and the latter work, a systematic defence of protection in the form of seventy propositions, is of value as illustrating the intellectual exposition of protectionism at that time in the United States.

D. R. D.

PHYSIOCRATIE. See PHYSIOCRATS.

PHYSIOCRATS, THE. The physiocrats were known in their own time as the ÉCONOMISTES (*q.v.*). It was one of them, DU PONT DE NEMOURS, who, in 1799 (*Introduction au Dictionnaire de géographie commerçante*), at a date when the school had hardly any original members surviving, first employed the word "physiocrats," the name by which they are still known. It was taken from the title of a collection of the works of Quesnay, published by Du Pont himself in 1767: *Physiocratie ou Constitution naturelle du Gouvernement le plus avantageux au genre humain*, with this motto—

> Ex naturâ jus ordo et leges,
> Ex homine arbitrium regimen et coercitio.

It is clear that *La Physiocratie* was, in the opinion of its authors, a system of government based, not on the despotism of man, on regulation and constraint, but on nature (φύσις), whence justice, order, and true law proceed.

Du Pont de Nemours confined the title *physiocrat* to Quesnay and his recognised disciples. It has also sometimes been applied to GOURNAY and his followers. Both the one and the other, in fact, contributed to the establishment of physiocratic doctrine, which, far from emanating fully formed from the mind of Quesnay alone, was not brought out completely in any single work, either of the master or of his pupils, but was given to the public little by little, in fragments, in pamphlets, in books, and above all, in magazine articles — continually undergoing successive modifications. To judge it fairly it is necessary to take it at the time when it had received all the improvements of which it was capable, that is to say about 1772, rather than at the time of its introduction into the world.

Gournay had been appointed *Intendant* of commerce in 1751; Quesnay became at the same time physician to the king, and opened his *entresol* to the philosophers. This date fixes nearly the origin of the formation of the doctrine. Its first elements were published by Quesnay in the *Encyclopédie*. They were then developed by all the members of the school, especially between 1763 and 1772, principally in the *Journal de l'agriculture, du commerce, et des finances*, and in the *Éphémérides du citoyen* (see ÉPHÉMÉRIDES).

The death of Quesnay and the reaction which followed the ministry of TURGOT, mark, on the other hand, the downfall of the school. Its members were scattered and no longer acted together. But during nearly a quarter of a century the physiocrats played a considerable part in France. Many distinguished men accepted their system without belonging to their school, or to their sect as it was called. During the whole of the reign of Louis XVI. the chief object of the changes in the ministry was the realisation or the delaying of the reforms which they had claimed, and, in 1789, the *Assemblée Constituante* showed itself thoroughly imbued by their doctrines, particularly as to questions of taxation.

After 1768, however, it became the fashion to sneer at them. They had opposed many private interests through combating many prejudices, monopolies, and privileges, and through advancing on several questions propositions absolutely contrary to prevailing ideas. Writers like VOLTAIRE, in *l'Homme aux quarante écus*, and GALIANI in *Dialogues sur le commerce des blés*, had ridiculed them. Their emphatic language, the praises which they mutually distributed, the defective portions of their system, were remembered rather than the discoveries which they had made, the great importance of which it was not the fashion to admit. It was recognised that most of them were worthy men, anxious for the public welfare, but their system was not taken seriously. This expression of disdain reappears in A. SMITH and J. B. SAY. "It would not, surely, be worth while," said the former, "to examine at great length the errors of a system which never has done, and probably never will do, any harm in any part of the world" (*Wealth of Nations*, bk. iv. ch. ix.). "By their rigid spirit, by their dogmatic and abstract language, by their tone of inspiration," said the second, "they give the impression that all those who have investigated economic questions are only dreamers" (*Traité d'économie politique*, Discours préliminaire).

Yet later on, in the same chapter of the *Wealth of Nations* in which the quotation given above occurs, Adam Smith speaks with warmth of the doctrines of the physiocrats. "This system, however, with all its imperfections, is perhaps the nearest approximation to the truth that has yet been published upon the subject of political economy." At the present time full justice is done to the physio-

crats, and they are generally regarded as the real founders of SOCIAL SCIENCE (*q.v.*).

The physiocrats were in fact the first who employed scientific method in directing the movement, which took place in the middle of the 18th century, of research into social phenomena—a movement comparable to that which, a little later on, led to the development of chemistry as a science.

The encyclopædists discussed the functions of government both from the political and the religious point of view. But most of them accepted witty or declamatory phrases as arguments, and abstractions as realities.

Thus ROUSSEAU, whose system also had a widespread but disastrous influence, based the origin of society on agreement among men and the social contract, and could find the source of law only in the caprice of the legislator, and railed against individual property, and inequality among men.

The method of the physiocrats was entirely different. MONTESQUIEU had asserted, in 1749, without carrying his discovery to its farthest limit, that everything in the world was governed by law—that man was governed by his laws, just as matter was governed by its laws. Gournay was drawn on by his own observations to recognise that commerce has its laws "the same over the whole of the universe," and demonstrated the advantages of freedom of labour. Quesnay went far farther, and sought to determine the laws of the principal social phenomena.

The MERCANTILE SYSTEM, the theory of which D. HUME had commenced to attack in England, was still unanimously accepted in France. There industry was in bonds, fettered by corporations of trades (*see* CORPORATIONS OF ARTS AND TRADES; GILDS; JURANDE), hindered by regulations which fixed minutely the method of manufacture; the provinces were separated from each other by INTERNAL CUSTOMS AND TOLLS (*q.v.*); commerce was hampered at the frontier by duties on imports and exports, and by prohibitions; trade in corn was subject to strict supervision; the exportation of cereals was forbidden; the peasant was overwhelmed by unequal and arbitrary taxation.

The lawfulness of lending money at interest was not recognised. Property was only regarded as a gift of the monarch; in law, and often in fact, the monarch was absolute master both of person and property. He interfered with everything, and under the pretext of protection created and supported a mass of privileges.

The physiocrats had to combat simultaneously the ideas then generally in vogue and official routine. The physical world is subject, said they, to laws which secure the equilibrium of the universe; humanity also has its laws, which ought to insure social order, and social order is only a part of universal order. If men knew these laws accurately and conformed to them, their mutual relations would regulate themselves according to justice, "that universal and sovereign rule, recognised by the light of reason, which determines incontestably what belongs to one's self and what belongs to others" (Quesnay).

The knowledge of these laws, they said further, should form a science entirely new and absolutely distinct from existing legislation, which, as shown by the contradictory and absurd laws successively enacted among nations, is only the eclectic work of the legislator.

This being so, the physiocrats demonstrated that societies are not formed by chance; that they spring from the nature of man; that far from destroying our liberty, they have allowed us to make use of it, since we cannot live and secure the continuance of our race without the help of our fellow-creatures. Our liberty and our power of action are, without question, relative; they find limits within ourselves, and limits outside ourselves. (see RELATIVITY). To suppose that we all have a right to everything, as HOBBES imagined, is as fallacious as to admit that "the swallows have a right to all the gnats that hover in the air" (Quesnay). Our rights spring from our necessities, but are limited by the rights of others. The desire for association draws us together; personal interest impels us on—these are the two forces which, apparently antagonistic, induce harmonious action; they produce order from which societies cannot deviate "without being less societies, without rendering their condition less stable" (Du Pont).

The theory of natural laws was thus set in opposition to the idea upheld by Rousseau, of the all-powerful legislator according to Lycurgus and Plutarch. This is the most interesting part of the work of the physiocrats. The language they employed had not, however, the necessary precision. Quesnay said that natural laws should procure a man whatever he needed without defining clearly what this meant. He and his disciples, identifying the effect of purely physical law with that of natural social law, maintained that every action contrary to these laws, being destructive of order, would draw down inevitable suffering on the culprit. They did not perceive that in social phenomena, actions produce repercussion which recoils on others than their authors. Besides, instead of being content with speaking of natural laws, they employed the inadequate expression of natural right, claiming that every man who comes into this world has a natural right, varying according to circumstances and ability, the right of the individual to do what is to his advantage—whence it would have been easy to deduce the right to live and the right to work, a phrase so much abused by the socialists.

Finally, they laid down the principle that every right involves a correlative and reciprocal duty, "No rights without duties, and no duties without rights" (LE MERCIER DE LA RIVIÈRE). Thus they confused the merely relative relations which constitute law with moral obligations.

But these faults only slightly impair the high value of their researches. The assertion of the existence of social order is in reality the recognition of the law of SOLIDARITY—the term is not met with in the works of the physiocrats, but the statement that man, whose needs seem special and individual, can satisfy none of them without the help of his fellow-creatures, is constantly to be found, as also that the labour of each,—that the modifications and movements (see J. S. MILL) of matter—are of advantage to all, that individual utility creates general utility by the co-operation

of all, and that the latter in its turn secures the maintenance of the former. The physiocrats were optimists, they had absolute confidence in continuity of progress. The formula "LAISSEZ FAIRE, LAISSEZ PASSER, adopted by Gournay," is one manifestation of optimism. The avowal of Quesnay and his disciples that the natural laws lead to the advantage of man is another. It was in studying the question of population that they displayed their optimism most clearly. The Marquis de MIRABEAU had said that means of subsistence are the limit of population,—that if the increase of a race depended on its fecundity, there would be no limit to its multiplication,—that the strength of a state is bounded by its population. Quesnay had made his disciple perceive that the movements of population do not necessarily follow those of the means of subsistence, and that a country is not rich if the inhabitants are not comfortable, that is to say, if the population increases more rapidly than the means of subsistence.

After him, Du Pont remarked that in the North American colonies, the population doubled itself every twenty-five years, because the amount of consumable products increases there every day, and he added, "the further one advances in the study of the order of things, there the more one is compelled to admire the reciprocal relations which unite the different portions of this immense community. Nothing stands alone there; everything holds together. Every cause is an effect, every effect is a cause. From wealth springs culture; culture increases wealth; this growth of wealth increases population; the increase of population keeps up the value of wealth itself" (1771). Again the physiocrats said that man daily makes new inventions which allow the poorest peasant in Europe to be better clothed, better lodged, and better fed than the savage; they thus refuted the supposed benefits of the "state of nature" described by J. J. Rousseau and other rhetoricians.

Thus it is through the power of individual interest, and of competition arising from it, that the physiocrats explained the continuity of progress. Gournay, in his correspondence, had often described the moral effect of competition. The disciples of Quesnay said in their turn: "Individual interest is the primary bond of society, which will be the more solid in proportion as private interest is secure. The struggle between private interests is only dangerous if accompanied by violence, whether the law permits or facilitates it, or finds its repression impossible. Governments have no right to destroy order by making war; their only duty, at home, is to repress encroachments on persons and property. Authority is not established to impose laws, they all emanate from the hand of Him who created rights and duties; positive laws ought only to be declaratory of the essential laws of social order. If the ordinances of sovereigns were opposed to the laws of nature, they would be unreasonable, and binding on no one. Authority should only employ the force of the community to compel madmen and depraved men to make their conduct conform to the principles of justice."

The duties of government being thus reduced to the protection of person and property, the maxim according to which general interest ought to outweigh individual interest should be rejected as being profitable only to monopolists and to privileged persons who wish to pass off "their special individual interests" as the general interest. The physiocrats therefore demanded the abolition of every privilege connected with classes, individuals, societies, provinces, and towns, with industry and with trade. These privileges were numerous in France—"They are of every class, of every form, and of every colour," said LETROSNE—and he drew up a long list of them.

If, the physiocrats further explained, man has a right to do whatever is to his advantage, he has the right to employ himself to his own best interest, on the sole condition that he does no injury to the person and property of others. As a free being, master of his own actions, he should be master of his own work, and of the fruits of his work; he should thus be absolute owner of the soil on which he works and with which his labour is incorporated. The three pivots of society are, property—liberty—security. From this justification of property, borrowed from LOCKE, the physiocrats deduced the right of every one to sell or buy where he pleased, and trade with whom he pleased, the objects he disposed of or needed.

Quesnay may be regarded as the first defender of free trade, the necessity of which he recognised, not only on account of considerations of right, but also for economic considerations; remarking that the greater the competition the more every one strives to economise the cost of his labour for the advantage of all. "To obtain the greatest possible increase of enjoyment with the least expense, or, better still, the least painful labour with the greatest enjoyment," is, said he, "the perfection of economic conduct."

This conclusion might have led the physiocrats very far on in economic discovery, had they not, adopting the opinion of CANTILLON, that land is the sole source of wealth, completely deceived themselves both as to the nature of wealth and the laws of its distribution. Their views on this subject may be summarised thus:—Agriculture holds a dominant place in human industry, because food is more necessary to life than anything else. Besides, agricultural labour is the only labour which increases the wealth of a country. When the expenses of cultivation, of the renewal of the working capital, the profit of the cultivator, and the seed for the following year, are deducted from the raw produce of the ground, the owner still clears an income or *produit net*. Nothing similar exists in any other industry, particularly not in those connected with articles of luxury; the purchasers of manufactured goods repay the sellers the cost of production and the profit of the traders. These goods yield nothing further, their value is approximately equal to the value of the raw materials used by the workmen and traders either for carrying on the business or for their own support—this does not yield a *produit net*. Manufactures then do not increase wealth; they exist only through the wealth of those who pay for them; that is to say, through the existence of a *produit net* arising from agriculture. Hence the inhabitants of a country may be divided into

three classes :—proprietors, who hold the *produit net;* cultivators who assist its formation; other citizens, like officials, traders, and manufacturers, who do not produce self-renewing wealth, and therefore form a "sterile class." On the ground that the proprietors of the soil hold through the *produit net* all the available revenue of the nation, Quesnay concluded that the state should claim from them, and them only, the sums necessary for the support of the government and the maintenance of public order. Every other form of taxation was, in his opinion, faulty. When a tax is charged on the consumer, his disciples repeated, the conditions of exchange are altered, and restraint is put on the liberty of every one, taxpayers are caused to include in the selling price of their products which are subject to taxation not merely the tax but the amount of their losses, of the restrictions, of the inconveniences which they have undergone. Finally as these products are bought almost entirely by the cultivators or by the landowners, the *produit net* is diminished by the sums added to the tax. Taxation diverts a number of workers from productive labour; this, again, diminishes production, and, in consequence, the *produit net.* The conclusion is that there was only one rational tax; the tax on land direct, single. "Indirect taxation, poor peasants; poor peasants, poor kingdom; poor kingdom, poor monarch," said Quesnay.

By naming the last class of the three "sterile," the physiocrats aroused the indignation of the manufacturers and traders. However, they did not intend by any means to maintain, as they have often been made to say, that manufacturers were useless. They held that this class did not help to make up the gross income which a nation needs to provide for its ever-growing necessities. In the *Tableau Économique,* Quesnay explained this. According to him the cultivators deduct yearly from the gross product of cultivation a first charge—what is necessary for their own support and that of their labourers, and for the reproduction of the crops. The landlords receive the *produit net;* they buy from the cultivators the provisions they need, giving them back thus part of the *produit net* which enables them to buy articles from the "sterile class"; the landlords on their part employ another portion of the *produit net* in purchases of the same kind. By the aid of the portions of the revenue which are thus made over to it, the "sterile class" is enabled to support itself and to work up raw material; they manufacture from this useful goods, by giving new forms to natural productions, but they do not create new wealth. "I give a length of cloth to a tailor; he will never be able to increase it so as to make out of it a coat for himself as well as for me" (Marquis de Mirabeau).

It is here that the great error of the physiocrats lies. By regarding the products drawn directly from the soil as the only wealth, they set themselves in opposition to their own justification of property. They admitted, however, that man can only avail himself of the fertility of the soil by employing labour and capital; that the "advances sunk in the land," whether for clearing the ground, for buildings, improvements as well as the "original advances" of seeds, implements, and food for man and beast—are necessary in order to make the land profitable; that, further, "annual advances" must be carried over from one harvest to another to perpetuate the pay of the workers, and to keep up the "advances made on the land." But, according to the hypothesis of the *produit net,* it was illogical to base property on labour alone, whether present or accumulated, and Turgot was more consistent when he said that the soil returned something as a pure gift beyond what was due to the labour of man. In the same way, by maintaining that the tax on the land is the only rational tax, they urged on the absorption of all property in the land by the government, because they recognised that the government becomes, through the land-tax, co-proprietor in the property of its subjects. Hence Henry George, the modern opponent of private property in land, dedicated one of his books, *Protection or Free Trade?* "to the memory of those illustrious Frenchmen of a century ago—Quesnay, Turgot, Mirabeau, Condorcet, Du Pont, and their friends, who, in the night of despotism, foresaw the glories of the coming day."

The doctrine of the *produit net* has had, however, some useful results. It attracted capital to agriculture, and helped to improve it in France. It enabled the physiocrats to disprove the system of the BALANCE OF TRADE. If Quesnay was deceived as to the nature of wealth, he saw clearly that it does not consist of money. He held up the example of Spain, exhausted, in spite of the treasures of Peru; of England, wealthy through the development of her commerce and her agriculture. Following his teaching, it is impossible, his disciples said, to create something out of nothing; in an exchange no wealth is formed, but value is given against an equal value; each party profits by the exchange, and without this the exchange would not have been made. To suppose that the balance of trade is the measure of the wealth of a country is absurd, for this balance is often met by goods and not by money, and a nation that has bought more of the precious metals than it needs will be obliged to resell, in order to buy more useful articles.

Finally, the theory of the *produit net* has called attention to the manner in which those taxes were assessed, which, like the DÎME ROYAL, were imposed merely on gross income, without taking cost of production into account, and facilitated the substitution of taxes relating to things for personal taxes. The success that the doctrine obtained was greatly due to this. In France the IMPÔT UNIQUE on land, that is to say, the direct tax on land, was accepted even by those who denied the doctrine of the *produit net.* Abroad, KARL FRIEDRICH, the Margrave of Baden, and Leopold, the Grand Duke of Tuscany, made experiments in it, with more or less successful results.

The analysis of some other economic questions was almost completed by the physiocrats. They carried some way the theory of VALUE, which Morellet clearly distinguished from UTILITY. They laid the foundation of freedom of labour, and, in a host of writings dealing with free trade in corn, examined the greater part of the phenomena of exchange. They insisted, even super-

fluously, on the dangers of prohibitions, and of protection through CUSTOMS DUTIES.

To sum up, their theories contained the germ of the whole liberal doctrine in its entirety, as they insisted before everything on the rights of the individual, in his personal liberty, in the disposal of his labour and his property. However, by a curious contradiction, while maintaining resolutely that authority ought to use force only to compel insane or depraved citizens to conform to the law, they proposed to give this authority absolute power—sole, despotic, and hereditary.

The "system of counter-balancing forces in the state," the representative system whether under a monarchy or a parliamentary republic, appeared to them to give the citizens no guarantee of liberty, because of the facilities which this system offers to the ambitious and to monopolists to further their own interests, and to legislate for their own advantage. An absolute prince, on the contrary, must always, according to the physiocrats, have a personal interest in conformity with the private interests of his subjects, if, through the single tax on land, he was induced to assist the development of the *produit net*. As a counterpoise to his power, it would be sufficient to institute an independent judiciary authority charged both with the administration of justice and with the duty of ascertaining that the commands of the sovereign were in agreement with natural laws, besides this to establish a system of public instruction sufficiently wide to enable each citizen to understand the laws of social order. The more or less veracious descriptions of China made at the time by travellers helped to confirm the physiocrats in this part of their system, defined by LE MERCIER DE LA RIVIÈRE as *despotisme légal*. Turgot always refused to accept this expression, but almost all the other physiocrats adopted it. The acceptance of this phrase, together with the doctrine of the "sterile" class, separated them from many men of sound judgment who were inclined to follow them. In the expression *despotisme légal*, no one undertook to understand what method was to be pursued to prevent government from being the means of exploiting the many in favour of private interests; they only employed a clumsy expression.

In the doctrine of the physiocrats, error constantly stood close to the verge of truth; this explains why the labours of Smith and of the ENGLISH SCHOOL caused it so soon to pass out of memory.

The author of the *Wealth of Nations* had, however, greatly profited by the labours of his predecessors; if his method was very superior to theirs, and if he was more judicious in his conclusions, it should be remembered that he applied the principle of division of labour too strictly to social phenomena, separating completely the study of wealth from the study of other social phenomena; the attempt of the physiocrats to generalise is the first essay made in the development of social science. When it is looked at carelessly, all that appears is the single tax, the "sterile" class, *produit net*, and "legal despotism," but on examining it more carefully it is seen to include a vast conception. It was worthy of being taken up again and amended; this was done by several economists of the FRENCH SCHOOL, particularly by BASTIAT.

At the present time the name of physiocrats is applied both to the disciples of Quesnay and to those of Gournay. Among the former should be named MIRABEAU, LETROSNE, LE MERCIER DE LA RIVIÈRE, BAUDEAU, ABEILLE, DU PONT DE NEMOURS, ROUBAUD, ST. PÉRAVY, De Vauvilliers, KARL FRIEDRICH the margrave of Baden. Among the latter, HERBERT, MORELLET, Clicquot-Blervâche, Bigot de Ste. Croix, l'abbé Coyer, TURGOT. But Turgot adopted many of Quesnay's views, particularly that of the *produit net*, whilst the three others devoted themselves exclusively to claiming freedom for labour, and for internal commerce as Gournay had desired (see INTERNAL CUSTOMS AND TOLLS). Finally the members of the physiocratic school did not always agree among themselves, and modified their individual opinions; thus, for instance, Du Pont, in his riper years, rejected the doctrine of legal despotism which La Rivière, Mirabeau, and Baudeau always advocated strongly. Several economists should be added to the above list, as Count GARNIER, GANILH, and DUTENS in France, SCHMALZ in Germany, who, in the 19th century, long after the physiocratic school had disappeared, defended their economic principles.

[No complete bibliography relating to the physiocrats has ever been made. But we possess portions of it, as:—

Du Pont de Nemours, a short notice of the different modern writings which collectively have assisted to form the science of political economy in France, 1769; published in the *Éphémérides:* and Oncken, *Œuvres de Quesnay*.—Morellet, catalogue in the *Prospectus d'un Nouveau Dictionnaire du commerce*, 1769.— Schelle, "Bibliographie du Du Pont de Nemours," in *Du Pont de Nemours et l'École physiocratique*, 1888.— Oncken, "Bibliographie de Quesnay," in *Œuvres de Quesnay*, Frankfurt and Paris, 1888. The following should also be consulted:—Blanqui, "Bibliographie raisonnée," in the *Histoire de l'Économie politique*, 1837.—Stourm, *Bibliographie historique des finances au XVIIIe siècle*, 1895.

Other bibliographies are to be found in M'CULLOCH, *Literature of Political Economy*.— *Dictionnaire de l'Économie Politique*, Coquelin and Guillaumin, 1864.— *Nouveau Dictionnaire de l'Économie Politique*, Say et Chailley, 1892; and in the present work under the headings—BAUDEAU; DU PONT DE NEMOURS; ÉPHÉMÉRIDES; FRENCH SCHOOL; GOURNAY; LAISSEZ FAIRE, LAISSEZ PASSER; LETROSNE; MERCIER DE LA RIVIÈRE; MIRABEAU; MORELLET; QUESNAY; TURGOT. The most important writings of the physiocrats have been collected by E. DAIRE in the large *Collection des principaux Économistes*, published by Guillaumin, 2 vols., containing the works of Quesnay, Du Pont, La Rivière, Baudeau, and Letrosne, with introduction, biographical notices, and commentary. In the *Petite bibliothèque économique* there is also Robineau, "Turgot, Administration et Œuvres Economiques" (the text of the *Réflexions sur les Richesses* has been revised by Schelle).— Grimaux et Schelle, "Lavoisier" (the introduction by Schelle contains a short history of economic tenets in the 18th century).— Yves Guyot, *Quesnay et la Physiocratie*. The works of Quesnay were collected by Du Pont de Nemours in the *Physiocratie* and by Oncken; the works of Turgot by Du Pont de Nemours and by Daire. *Le journal de l'agriculture, du commerce, et des finances* and *Les Éphémérides du Citoyen* contain many interesting articles.—CONDORCET, *La Bibliothèque de l'homme public*, 1790-91, 24 vols., contains extracts from writings of the physiocrats. With regard to their teaching in general, the principal works to consult are Quesnay's writings, also those of Marquis de Mirabeau:—*L'ami des hommes; Les Éléments de philosophie rurale; les Économiques; Théorie de l'impôt*.—Du Pont de Nemours, *De l'Origine et des Progrès d'une science nouvelle; Table raisonnée des principes de l'économie politique; Instructions de la paroisse de Ghevaunes*.—Le Mercier

de la Rivière, *Ordre naturel et essentiel des Sociétés politiques; l'Intérêt général de l'Etat.*—Baudeau, *Exposition de la Loi naturelle; Première introduction à la philosophie économique; Explication du tableau économique.*—Letrosne, *Utilité des Discussions économiques; l'administration générale et la réforme de l'impôt; De l'ordre social; De l'intérêt social.*—St. Péravy, *Mémoire sur les effets de l'impôt indirect sur le revenu des propriétaires de biens fonds.*—Abeille and Montaudouin, *Corps d'observations de la Société d'agriculture de Bretagne.*—Turgot, *Éloge de Gournay* and *Réflexions sur la formation et la distribution des richesses.*—Herbert, *Essai sur la police générale des grains.*—Morellet, *Prospectus d'un nouveau Dictionnaire du Commerce.*—The Margrave of Baden, *Abrégé des principes.*—Comte Garnier, *Abrégé élémentaire des principes de l'économie politique*, 1796.—Schmalz, *Staatswirthschaftslehre in Briefen an einen deutschen Erbprinzen*, 1818, and *Économie politique*, French edition, 1826.—Dutens, *Philosophie de l'économie politique*, 1835. Dutens defended Quesnay's economic teaching in a series of pamphlets: —*Défense de la philosophie de l'économie politique*, 1837.—*Appendice à la défense de la philosophie de l'économie politique*, 1839.—*Des prétendues erreurs dans lesquelles, au jugement des modernes économistes, seraient tombés les anciens économistes relativement au principe de la richesse nationale*, 1846. These were the latest physiocratic writings. The physiocrats had many adversaries. The following are the most interesting of their works:—Voltaire, *l'Homme aux quarante écus*, 1768, directed against La Rivière; *Diatribe à l'auteur des Éphémérides*, 1775, favourable.—Forbonnais, *Principes et observations économiques*, 1767. In the second part of this work, Quesnay's articles "Fermiers" and "Grains" are discussed.—Graslin, *Essai analytique sur la richesse et sur l'impôt*, 1767; and *Correspondance sur un des principes fondamentaux de la doctrine des économistes*, 1779, with Baudeau, on the productivity of manufactures.—Mably, *Doutes proposés aux philosophes économistes*, 1768.—Galiani, *Dialogues sur le commerce des blés*, 1770.—Necker, *Éloge de Colbert*, 1773, and *De la législation et du commerce des grains*, 1775.—Béardé de l'Abbaye, *Recherches sur les moyens de supprimer les impôts, précédées de l'examen de la nouvelle science*, 1770.—Tifaut de la Noue, *Réflexions philosophiques sur l'impôt*, 1775.—Linguet, *Théorie des Lois civiles*, 1767; *La pierre philosophale, discours économique par le lettré Koung Kia*, 1768; *Réponse aux docteurs modernes, avec la réfutation du système des philosophes économistes*, 1771; *Du Pain et du Blé*, 1774; *Théorie du libelle, ou l'art de calomnier avec fruit*, a reply to the *Théorie du paradoxe* (by Morellet), 1775; Linguet also edited the *Journal de politique et de littérature*, 1775-1778; and in conjunction with Mallet du Pan, *Annales politiques civiles et littéraires*, 1777-1791.—Isnard, *Traité des richesses*, 1781.—Pesselier, *Doutes proposés à l'auteur de la théorie de l'impôt*, 1761.—Blonde, *Lettre d'un profane à l'abbé Baudeau*, 1775.—*La Gazette du Commerce* contains articles by Forbonnais and the Abbé Yvon in opposition to the doctrine of the physiocrats. Finally, almost all treatises on political economy, from the *Wealth of Nations* onwards, include a notice of the tenets of the physiocrats. The writings of the opponents of the physiocrats have in their turn provoked many replies to their attacks, which are for the most part published in the *Éphémérides du citoyen*. The physiocrats derived some of their principles from Boisguillebert, *Le Détail de la France sous le règne présent augmenté de plusieurs mémoires et traités sur la même matière*, 1697, and from Cantillon, *Essai sur la nature du commerce en général*, 1755. The doctrine that the earth is the only source of wealth is also found in Asgill, *Several assertions proved in order to create another species of money than gold*, 1696, and there are many opinions quite in accordance with physiocratic teaching in Bandini, *Discorso economico;* but this work, written in 1737, was only published in 1775, and has been reproduced in Custodi, *Scrittori classici italiani di economica politica*, parte moderna, vol. i., with a favourable notice of Bandini by Giuseppe Gorani. With regard to the history of the physiocrats, all French histories contain an account of the influence they exercised on their country. The following may be specially noticed:—Tocqueville, *L'ancien régime et la Révolution*, ch. iii.—Taine, *Les origines de la France contemporaine*, vol. i.—Stourm, *Les finances de l'ancien régime et de la révolution*, 1885.—Monteil, *Histoire financière de la France*, with supplement by Ch. Louandre, 1872.—Biollay, *Le pacte de famine*, 1885.—Lacretelle, *Histoire du XVIIIe siècle.*—Droz, *Histoire du règne de Louis XVI.*—Sénac de Meilhan, *Le Gouvernement, les mœurs et les conditions en France avant la Révolution.*—La Harpe, *Philosophie du XVIIIe siècle.* It would be impossible to quote all the "reminiscences" and correspondence of the 18th century relating to the physiocrats. The following only can be mentioned:—*Mémoires* of Madame du Hausset, relating to Quesnay; of Louis Montigny, relating to Mirabeau; of the Baronne d'Oberkich, relating to La Rivière; of the Comte Beugnot, relating to Du Pont; of Bachaumont; of the Abbé Terray (Coquereau, *Mémoires apocryphes*); of Soulavie, on the reign of Louis XVI.; of Marmontel; of Dutens; of Garat (on Suard); of Talleyrand; of Morellet; of Condorcet (La Rochefoucauld-Liancourt, *Mémoires apocryphes*).—Baron de Gleichen, *Souvenirs.*—The *Correspondances* of Grimm and Diderot; of Métra and of La Harpe.—Pidausat de Moirobert, *L'Observateur Anglais*, containing a chapter devoted to the economists; as in the *Gazette littéraire de l'Europe.*—Galiani, *Lettres.*—*Correspondance de Condorcet et de Turgot*, 1882. A number of works deal specially with the physiocrats, as:—*Du Pont de Nemours*, some of the notes to his edition of the *Œuvres de Turgot*; *Introduction au dictionnaire de géographie commerçante.*—L. de Lavergne, *Économistes français du XVIIIe siècle.*—De Loménie, *Les Mirabeau.*—Schelle, *Du Pont de Nemours et l'école physiocratique*, 1888.—*Vincent de Gournay*, "d'après sa correspondance," 1897.—The articles "Les Physiocrates," "Quesnay," "Gournay," "Turgot," "La Rivière," "Forbonnais," etc., in the *Nouveau dictionnaire d'économie politique.*—Oncken, Introduction to the *Œuvres de Quesnay.*—"Appendice à l'histoire de la Physiocratie," in the *Handwörterbuch der Staatswissenschaften*, 1893.—"Étude sur Louis XVI. et la Physiocratie," in the *Zeitschrift für Litteratur und Geschichte der Staatswissenschaften.*—*Die Maxime laisses faire, laissez passer.*—*Der ältere Mirabeau und die ökonomische Gesellschaft in Bern*, 1886.—Joubleau, "Notice sur la Rivière," in the *Annales des sciences morales*, 1858.—Batbie, *L'homme aux quarante écus et les physiocrates*, 1865.—Reuss, *Charles Butré, physiocrate tourangeau*, 1887.—De Vroil, *Étude sur Clicquot Blervâche*, 1870.—Knies, *Karl Friedrich's von Baden Briefticher Verkehr mit Mirabeau und Du Pont*, Heidelberg, 1892.—Emminghaus, "Karl Friedrich's von Baden physiocratische Verbindungen, Bestrebungen und Versuche," in the *Jahrbücher für Nationalökonomie*, vol. xix. p. 72.—Erdmanndöffer, *Politischer Briefwechsel Karl Friedrich's von Baden*, 1888.—Bauer, "Zur Enstehung der Physiocratie," in the *Jahrbücher für Nationalökonomie*, Jena.—Blanqui, *Histoire de l'économie politique en Europe.*—Espinas, *Histoire des Doctrines économiques*, 1891.—Henry Higgs, *The Physiocrats*, London, 1897.] G. S.

PIASTRE, the 100th part of the Turkish pound (gold medjidie), and a similar fraction of the Egyptian pound. Turkish silver coins of 20 piastres (known as silver medjidies) as well as pieces of 10, 5, 2, 1, and $\frac{1}{2}$ piastres form part of the currency of the Ottoman empire. These coins are all of the fineness of 830. Similar pieces, with the addition of a quarter piastre, are in circulation in Egypt, but as the sterling value of the Egyptian pound is 20s. 3·7d., as against 18s. 0$\frac{1}{2}$d., the value of the Turkish medjidie, the Egyptian piastres are of a somewhat higher nominal value than those of Turkey. Their millesimal fineness is 833·3.

In 1879 the British government introduced into Cyprus coins known as bronze piastres and half-piastres. This piastre passes current at 1$\frac{1}{2}$ Turkish silver piastres, and is rated in sterling at the 180th part of a pound, or 1$\frac{1}{5}$d. (see Pound, Egyptian; Medjidie). F. E. A.

PIE (British Indian), the 192nd part of a rupee. A copper coin weighing 33$\frac{1}{3}$ grains. F. E. A.

PIEPOWDER COURT, the lowest known to the English law. It was a court of record

incident to every fair and market, and in it were decided cases of commercial injury arising in the fair or market actually being held, not those which happened in the preceding one. The suit was thus limited to the duration of the fair. This practically obsolete court had by stat. 17 Edw. IV., and 1 Ric. III., cognisance of all matters of contract arising within the precinct of the fair or market, and its object was speedy justice according to the *lex mercatoria* between people who, having come from distant places, might not be amenable to any one of the other inferior courts. The steward of the owner of the market tolls was the judge, and an appeal by writ of error was allowed to the courts at Westminster. In the middle ages, when the administration of justice was a direct source of revenue, these courts were an important part of the profit of the owner. At Norwich in 1306 the prior summoned, attached, distrained, and amerced offenders in his fair-court. When the fair was done, he was bound to send his prisoners to the city gaol; but if any were ultimately condemned to lose life or limb, his officers carried out the sentence (Blomefield, *Norfolk*, iii. 72, ed. 1806). The London pie-powder court was held at Cloth Fair during the time of Bartholomew fair, and Allen's *History of London*, 1827, gives the proclamation of regulations then in use. This court ceased about 1854, but the Tolsey court in Bristol and a piepowder court at Broughton-in-Furness were apparently held in 1885 (1st Rept. *Market Rights Commission*, vol. ii. p. 55, 1888).

The name is derived from *pié-poudreux*, the old French expression meaning a pedlar, but the Latin form *curia pedis pulverizati*, points to the older but false etymology.

The records of a fair-court in 1275 may be found at p. 138 of Maitland's *Select Pleas in Manorial Courts*, and an interesting 15th-cent. case is printed in Harrod's *Colchester Records*, p. 5. The original records of a piepowder court, 1732 to 1813, are among the MSS. of the corporation of Eye. R. H.

PIETRO DA ANCARANO (end of 16th century).

An Italian jurist and theologian, entertained liberal views on the lawfulness of *Monti* (municipal loans) and of the transfer of their interest-bearing bonds (*luoghi di Monte*). E. Ca.

PIGEONNEAU, H. (1834-1892), professor in the *Faculté des Lettres* and the *École des Sciences Politiques* of Paris.

Besides a publication of the reports and proceedings of the Board of Agriculture, annexed to the ministry of finance (*Procès verbaux et rapports de l'administration de l'agriculture au Contrôle Général des Finances*) during the reign of Louis XVI. (Paris, 1882) and several handbooks of geography, Pigeonneau wrote *Histoire du Commerce de la France* (Paris, 2 vols., 1885 and 1888), which won a prize from the French academy and is the only French work on the subject aiming at completeness. Owing to the untimely death of the author, it does not extend farther than the administration of Cardinal Richelieu. It conveys a very clear and adequate idea of the reactions of the political on the economic life of the nation and *vice versa*; the history of French trade being throughout considered as one of the aspects of the history of French civilisation. E. Ca.

PIGNUS. Pignus is the equivalent of the English pledge. The contract of pledge was one of the four real contracts of Roman law, and required no formality beyond the delivery of the object. Originally the creditor acquired by this contract merely a right to detain the article pledged until the debt had been satisfied. Subsequently he acquired the right of sale in case of default, and the right of foreclosure if sale proved impossible. He was bound to take strict care of the object pledged, not to make use of it for his own purposes, and either to restore to the owner any fruits or profits which it might yield, or else to deduct their value from the amount of the debt. If the sale yielded a surplus after paying principal and interest, this belonged to the debtor.

[*Institutes of Justinian*, ed. Moyle, bk. iii. pt. 14.] F. C. M.

PILLAR DOLLAR. See Dollar.

PILLET-WILL, Count (1781-1860). A Parisian banker, he filled a prominent part on the administrative boards of many important French financial and industrial establishments; he was also one of the founders and managers of the *Caisse d'Épargne*—the savings bank.

He wrote: *Rapport sur les jurandes et maîtrises* (1821); *Examen analytique de l'usine de Decazeville* (1832); *De la dépense et du produit des canaux et des chemins de fer* (1837), and several pamphlets on questions of finance. E. Ca.

PINKERTON, John (1758-1826), though strictly speaking scarcely an economist, was a miscellaneous writer whose productions are useful to the economist.

He published, among other books, *An Essay on Medals*, or *An Introduction to the Knowledge of Ancient and Modern Coins and Medals, especially those of Greece, Rome, and Britain* (London, 1784, 2 vols. 8vo; 3rd ed., London, 1808, 2 vols., 8vo). The work is referred to by M'Culloch (*Lit. of Pol. Econ.*, p. 165) as "one of the most useful publications on the subject." A. L.

PINTO, Isaac (1715-1787), born at Amsterdam, died at the Hague. He was descended from a Portuguese family and lived for some time at Bordeaux. He then settled in Holland, where he soon made a large fortune and an equally great reputation. The Stathouder William IV. (1747-51) had a very high opinion of his advice, both on administration and finance. He was as tolerant as he was high-minded, and his benevolence won him popularity.

A Jew himself, he defended his co-religionists against Voltaire. As an economist he wrote two works not without merit, though somewhat paradoxical.

These are *Essai sur le luxe considéré relativement à la population et à l'économie*, 12mo, 1762, in which the author deprecates luxury, understanding by this expression expenditure beyond income, a sense in which it is not employed at the present day, and *Traité de la circulation et du crédit*, 12mo, 1773, and 8vo, 1781, which describes stock exchange transactions. This treatise advocates public debts, which Pinto considers a cause of prosperity to a country. A. C. F.

PIPE. See MEASURES AND WEIGHTS.

PIPE ROLLS. The great or annual rolls of the exchequer (*Rotuli Magni*, *Rotuli Annales*) in which the royal revenue in every shire was accounted for; also known later as Pipe Rolls (*Rotuli Pipæ*), being probably so called from the likeness of a pipe (*ductus acquæ*) through which the royal treasury was filled (Pipe Roll Soc. Publications, iii. 42).

These rolls, the most ancient of our national records, are preserved in an almost unbroken series from the beginning of the reign of Henry II. to the second year of William IV., though a partial transcript only of the first-year-roll of the former reign is preserved in the Red Book of the exchequer. A still earlier roll for the thirtieth year of Henry I. exists, and is of great historical importance (Ed. Hunter, cp. Madox, *Hist. of Exch. Dissert. Epist.*). Alexander de Swereford, who resided at the exchequer in the first years of the 13th century, mentions several other year-rolls of this reign (Red Book, folios 47 and 186). There are also pipe rolls of the Duchy of Normandy (*Rotuli Normanniæ*) during the last years of the 12th century (Ed. Stapleton) and a large series of chancellor's rolls (*Rotuli Cancellarii*), being the antigraphs of the pipe rolls, exist from the ninth year of Henry II. to the third year of William IV., but the pipe rolls and chancellor's rolls of the earliest period seem sometimes to have been interchanged in the official lists.

Besides these, a third roll (*Rotulus Tertius*) was kept for a short time in the reign of Henry II. by the famous Magister Thomas Brunus, as a check upon the rolls of the treasurer and chancellor.

In the middle of the 12th century the exchequer was the most ancient and important branch of the *curia*, the only permanent and well-organised department of the state, the seat of the chancery and the receptacle of all judicial records and state papers. The pipe rolls, therefore, though the most important of the exchequer records, were by no means the only ones which then existed. With them were preserved in the iron-bound chest of the treasury of the receipt the great exactory roll (*Rotulus Exactorius*), setting forth all the fixed farms of the counties, hundreds, and royal manors; the Danegeld roll (*Rotulus Danegeldi*) the rolls of honours, or escheated baronies, tallage rolls of Jews and towns, together with an earlier series of exchequer records which are now represented from the 13th century only—the memoranda, receipt, and issue rolls and ministers' accounts. All of these were subsidiary to the making of the pipe roll of the 12th century, but before the middle of the 14th century the latter had become in turn of secondary importance to the bulky series of schedules (*compoti*) and foreign accounts (*Rotuli Peregrini*), in proportion as the royal revenue came to be drawn from customs and subsidies on merchandise rather than from the profits of the crown lands, from feudal imposts, and from judicial amercements. Moreover the chancery as a distinct department from the beginning of the 13th century relieved the pressure upon the exchequer rolls by the system of estreats which were recorded in the *Originalia* rolls.

The pipe rolls belong to the class of "headed" rolls, that is to say rolls composed of a number of membranes sewn together at one end, instead of end to end, or consecutively, like the rolls of chancery. Possibly each county was at first kept separate in the form of a "parvus rotulus" or "rotulet" as it would now be called. Elaborate directions for the choice of parchment and order of entry are contained in the *Dialogus de Scaccario* (i. 5, 8); but the feature of the pipe roll as a record lies in the fact that it was made up in open court and is a record of the actual proceedings that took place upon the conclusion of the account of every sheriff of England. Nevertheless erasures, interlineations, and other discrepancies occur from a very early period, and in the year 1236 the pipe roll of 7 Henry II. was convicted of error by a jury before the king's barons of the exchequer, and it was jocularly proposed that it should be cast into the Fleet Prison (Red Book, fol. 232).

The great roll, then, was compiled from various rolls which served at the exchequer as daybooks and ledgers, but more especially it was at first intended to comprise three several classes of payments due to the crown—(1) the king's farm, (2) the king's geld, (3) the king's debts, chiefly in respect of judicial proceedings. The above were entered in their proper sequence, the farm of the county being disposed of at the close of the account by a ceremony, the object of which was to display the amount of the farm due which was never stated in the summons to the sheriff. It is a curious fact that the amounts of the farms of the counties are not set out in any surviving record, a circumstance which is due to the loss of the exactory rolls in which they were separately entered.

Attempts have been made to ascertain the

farm by the addition of the sums paid out to those paid in, but without much success, and it will be found that the secret of the system of account lies in the deduction of the blanching money, whether blank or by tale, from every item of the disbursements. When the results thus obtained are compared with a unique fragment of an exactory roll of the reign of Henry III. they are found to agree precisely (*Red Book of Exchequer*, p. 779).

This discovery possesses considerable economic importance since it enables us to ascertain the value of the crown revenues derived from land in the 12th and 13th centuries. From the entries of payments made by the sheriffs on behalf of the crown for victuals and other necessaries, it is also possible to collect an extensive list of products of the soil and of articles of merchandise with their prices (Hall, *Court Life under the Plantagenets*, p. 221), whilst their historical and antiquarian value has been clearly shown by Mr. Eyton (*Court and Household of Henry II.*). There is an additional interest attaching to these stately records from the consideration of the influence which they must have exercised over the system of the commercial accounts in general. It seems almost certain that the king's exchequer served as a model for the transaction of business in the merchant's counting house, apparently with beneficial results, down to the end of the 15th century at least, and the influence of the old forms can be traced to a much later date. But long before this date the system of the pipe rolls had become a mere formality, though the pipe office declared accounts were an effective method of account down to the end of the reign of George III. (see EXCHEQUER; FARM OF THE COUNTIES; FARMING TAXES; FERM).

[Cunningham, *History of Industry and Commerce*, 3rd ed., ii. 2.—Hall, *Antiquities of the Exchequer*.] H. HA.

PISTAREEN, HISTORY OF. A Spanish silver coin worth about a FRANC, sometimes spelled pestereen, pistorin, or piastereen, the latter suggesting that the name is "camp" Spanish for "little piastre." Originally struck early in the 18th century, as debased provincial coins for circulation only in Spain as 2 reals of new plate, *i.e.* new standard of silver (in connection with the rating of the Spanish DOLLAR, or piece-of-eight, at 10 instead of 8 reals), this convenient token rapidly passed to America and the West Indies, where it played a great part in the local currency of the New World during the 18th and part of the 19th century. As a result of certain imperial monetary legislation in 1704, our West Indian colonies were passing, about the date of the appearance of the pistareen, from a silver to a gold currency. Being of base silver, the pistareen, unlike the standard Spanish dollar, was enabled to hold its ground in concurrent circulation with gold, and thus served, like a SHILLING or a franc, for internal and subsidiary circulation under cover of a gold standard. In 1825 in the West Indies, in 1827 in the United States, and in 1830 in Canada, steps were taken to get rid of a coin which was no longer needed, and which tended to be passed as a quarter instead of a fifth of a dollar. Consequently the pistareen, after over a century's use, was driven back to the peninsula. Its modern representative is the Spanish PESETA, equal in weight and fineness to the franc of the LATIN UNION.

[Heiss, *Monedas Hispano-Cristianas*, Madrid, 1865.—Chalmers, *History of Currency in the British Colonies*, London, 1893.] R. C.

PISTOLE. From 1537 to 1772 the gold coins of Spain were the escudo and its multiples; the double escudo or pistole; the double pistole; and the quadruple pistole or onza de oro, also known as the doubloon. The pistole weighed 104·4 grains of gold of the millesimal fineness of 916·6̇. Its intrinsic value, therefore, in sterling would be 16s. $11\frac{1}{4}$d. (1 oz. = £3 : 17 : $10\frac{1}{2}$). Pistoles formed part of the metallic currency of British colonies, in the West Indies, and of Bahamas, Canada, and New Brunswick (see DOUBLOON, HISTORY OF THE). F. E. A.

PITT, WILLIAM (1759-1806), the great statesman, was the earliest English minister to give practical effect to the theories of ADAM SMITH (*q.v.*). During the first years of his administration he laboured at reducing to order the chaos of the customs duties, and established the CONSOLIDATED FUND, though hampered during the greater part of his career by the war on the continent. In finance, he succeeded, during 1784-85—fortunately years of peace—in funding the unfunded debt, and, in the following year set on foot his scheme for reducing the national debt by means of a SINKING FUND (*q.v.*), a scheme which, afterwards, involved the borrowing of money at a high rate of interest to pay off debts contracted at a low rate. A higher title to fame rests on the negotiation of the commercial treaty with France of September 1786 (see below, and COMMERCIAL TREATIES). Pitt had been unsuccessful in his endeavours in 1785 to secure complete reciprocity between England and Ireland, having been thwarted by the jealousies of the English merchants. The merchants, however, were for the most part in favour of the French treaty. Its preamble declares the object desired was to procure the most solid advantages on both sides to the natural productions and industry, and to put an end to the contraband trade. The treaty was to remain in force twelve years. It admitted French wines into England on the same terms as those of Portugal; substituted for existing duties an "ad valorem" 12 per cent duty on cotton and woollen manufactures, and an "ad valorem"

10 per cent duty on hardwares, cutlery, iron, steel, etc., and provided that all goods, not specified, were to come under the condition of the most favoured nation clause. In case of war, subjects of either power were to have the privilege of remaining and trading, so long as they behaved peaceably. Full liberty to travel without license or passport was given to the subjects of either kingdom, as well as perfect liberty in the matter of religion. Unhappily the outbreak of war put back for many years the consummation of Pitt's ideal.

In marked contrast with this enlightened policy was Pitt's action on POOR LAW questions. It is true that he had learnt from A. Smith the necessity of a radical amendment in the law of settlement (see POOR LAW), and that the time for which he legislated was one of distress seldom paralleled in English history. Nevertheless, the results of the measure of 1796 (36 Geo. III. c. 23), which repealed so much of 9 Geo. I. c. 7 as prohibited relief being given to persons who should refuse relief in the Poor Houses set up in accordance with the provisions of that Act, and further empowered overseers, with the approbation of the parishioners, or of any justice and justices, at their discretion, to order relief to any industrious poor person, were disastrous in the extreme. "Henceforth," says Sir G. Nicholl, "outdoor relief, in some form or other, became the rule, and a source of great and universal abuse." Pitt's views on the poor law were embodied in a bill which did not advance beyond the drafting, the provisions of which included the granting of allowances in aid of wages, of advances to persons to enable them to obtain land, keep a cow, or acquire a competence in trade, and of relief to small property holders. Its proposals were mercilessly exposed by BENTHAM in *Observations on the Poor Law introduced by Mr. Pitt*, London, 1798, 8vo, privately printed (see also MALTHUS).

[Consult for Pitt's taxation measures, vol. ii. ch. viii. Dowell's *History of Taxation in England*, 4 vols. 1884.—Lecky's *History of England in 18th Century*, 1887, vol. v. pp. 294-305. For Sinking Fund: Hamilton, *On the National Debt*, 1818, 8vo.—*Speeches* of W. Pitt, 1808, 8vo, vol. i. pp. 217-237.—Lecky as above, pp. 318-330. For French Treaty: Lecky as above, pp. 307-318.—*Speeches*, vol. i. pp. 237-254.—Text in Macpherson's *History of Commerce*, vol. iv. p. 112.—*Annual Register*, vol. xxviii. pp. 266-282. For poor-law policy: Nicholl's *History of English Poor Law*, 1854, vol. ii. pp. 122-129.—*Speeches*, vol. ii. pp. 129-137.—Text of bill in Eden's *State of the Poor*, 1797, 4to, app. No. xi., No. xxi.] H. E. E.

"Pitt's object in arranging the treaty was not so much commercial as political. He thought, and rightly thought, a friendly feeling between the two great countries of England and France worth every effort which he could make. He had to meet the fierce invectives of Fox, and the stern opposition of Burke, and had to use every argument in his power to carry his measure. The commercial policy of the two nations has changed much since that period; for then the commercial policy of France was, in these respects, more liberal than that of England. Pitt's words, that he desired to lay 'a foundation for an amicable intercourse between the two countries,' reveal the motive, the very honourable motive, which was the keystone of his policy in proposing this treaty."

It received high praise from Mr. Gladstone. When introducing his own treaty with France in 1860, he described Pitt as "that greatest of all our peace ministers," and spoke of the treaty as "One of the very best and very wisest measures ever adopted by parliament, and which contributed at least as much as any passage of his brilliant career to the fame of the great statesman who introduced it."

The high duties then in force had encouraged CONTRABAND transactions so much that a large part of the trade between England and France was then in the hands of the smuggler.

"Of this fact, too, Pitt made great use in his speeches in the House of Commons on the subject of the French treaty. 'Although we had laid,' he said, 'in most instances, prohibiting duties, and in some absolute prohibitions on articles of French produce and manufacture, yet it was perfectly notorious that many of those very articles were in constant use and consumption in this kingdom.' As an instance, he mentioned the articles of French cambrics, which, though lying under a prohibition, were yet constantly worn by most persons; and, he believed, without a single exception, by every gentleman in the House. This remark shows how completely the practice of smuggling was recognised at that time, if W. Pitt had no doubt that all those who were listening to him, even in the House of Commons, habitually wore cambric which had been smuggled into the country." [See *Banker's Magazine*, March 1877.]

PLACE, FRANCIS (1771-1854), wrote *Illustrations and proofs of the principle of Population: including an examination of the proposed remedies of Mr. Malthus, and a reply to the objections of Mr. Godwin and others.* London, 1822, 8vo.

In the ten chapters of the book the author treats of the question of population as between Malthus and Godwin; of the respective populations of Sweden, and of the United States; ch. iv. discusses Mr. David Booth's "Dissertation on the Ratios of Increase in Population and in the Means of Subsistence." The author next treats of the population of ancient states; of the means of preventing the numbers of mankind from increasing faster than food is provided, with (vi. § 3) his own ideas on the subject. Place lays great stress on the misery, poverty, and crime which so frequently result from large families; and insists that it should be clearly pointed out to the poor that the market can be overstocked with labour; that this caused the low rate of wages; that misery and poverty follow indiscretion; and that by voluntary restriction of families, the supply of labour might be brought rather under the demand.

The rest of the work treats of the population of England (ch. vii., five secs.), and the decrease of mortality here; of the accumulation of capital as it conduces to the well-being of the people; and concludes by a defence of political economy as against Mr. Godwin's attacks on the science.

Other publications of Francis Place are:—*The Improvement of the Working People.*—*Drunken-*

ness.—Education, etc., London, 1834, 12mo.—*A Letter to a Minister of State, respecting Taxes on Knowledge* (by F. P.), 1831, 8vo ; 3rd ed., London, 1835, 8vo.—*The Mystery of the Sinking Fund explained*, by F. P., 1821, 8vo.—*Observations on Mr. Huskisson's Speech on the Laws relating to Combinations of Workmen*, F. P., 1825.

[G. Wallas, *Life of F. Place*, 1771-1854, 8vo, 1898.] A. L.

PLANTATION. The old term by which the British colonies in Virginia, New England, and the West Indies were originally known ; it was official as well as popular, and so universal in the earliest records of colonisation that it would be difficult to decide by whom it was first used.

The commission upon trade appointed by James I. in 1622, and renewed by Charles I. in 1625, seems to have been the germ of the Committee and Commissioners of Trade and Plantations (sometimes "Foreign Plantations") which are referred to not infrequently from 1630 onwards, *e.g.* in 1636 in connection with Virginia, and again in 1637 in a proclamation restraining emigration. Cromwell appointed a standing commission on trade, and Charles II. in 1660 appointed two councils, one for trade, the other for "Foreign Plantations." To the latter was assigned the duty of investigating and recording the trade and general condition of the colonies, of controlling emigration to them, and supervising their social progress. The functions of the two councils overlapped, and they were united in 1672 ; but the existence of the new council was precarious and sometimes suspended, till, in 1696, William III. definitely constituted the germs of the present BOARD OF TRADE (*q.v.*). Under this the plantations were administered till 1768, when a secretary of state for the colonies was first appointed. His office was popularly known as the "Plantation Office" ; and when in 1781 it was abolished, that name was attached to the department of the home office which for the next twenty years administered colonial affairs.

With the close of the 18th century the term had fallen into disuse, and was gradually supplanted by the term "colonies." In the term "plantation duty" it lingered on till the year 1846.

[*Calendars of State Papers, Colonial, passim.*—Macpherson's *Annals of Commerce*, vol. iii.—*Official History of Public Departments.* (See also under COLONIES.)] C. A. H.

PLANTATION OFFICE. See PLANTATION.

PLANTATION DUTIES. This term denotes the taxes formerly levied by the British government upon its colonies or "foreign plantations" (see PLANTATION). These must not be confounded with the 4½ per cent duty levied by various West Indian legislatures on their exports (see EXPORTS, DUTIES ON). They were payable into the imperial Exchequer and were first levied in 1672 (act 25 Charles II. c. 7), on the export of certain produce of the plantations in default of a sufficient bond by the exporter to bring the produce to England or Wales, and were thus avowedly for the purpose of preventing the export of colonial produce to any foreign country. They might be levied in kind if the exporter had no ready money. The produce of the duties was small, and the first appropriation of it by parliament was made in 1699. The average annual amount which they produced during Queen Anne's reign was estimated at £1000. A variation of this idea of taxing the plantations for restrictive purposes was tried in 1733, with some idea (it is hard to say what) of favouring the sugar colonies in the West Indies : by 6 Geo. II. c. 13, duties were levied on all foreign tropical produce imported into the plantations of North America. They did not bring into the exchequer any great sum. The principle so admitted was extended in 1763 by act 4 Geo. III. c. 15, which avowed the justice of raising a revenue in the king's dominions in America for defraying the expenses of their defence and protection. These duties were levied on the importation of sugar, indigo, silks, linens, etc., into the American colonies or plantations, and for the twenty-three years up to 1787 averaged £6000 a year. In 1765, by Grenville's Stamp Act, the British government made their notorious effort to extend the principle of taxing the colonies for imperial purposes by assuming to levy internal taxation. On the failure of this scheme they fell back on the increase of the plantation [customs] duties, and in 1767 appointed a special board to administer them. In 1767 a further extension was attempted : new duties on glass, paper, painters' colours, and tea imported into the plantations were imposed, and the right to apply them for the civil government as well as for defence was asserted. These were called "port duties," and it was the duty on tea which led, in 1775, to the revolt and subsequent loss of the New England colonies. These port duties were repealed in 1778, but the other plantation duties survived, being expressly appropriated by the Consolidated Fund Act of 1787, and further recognised by various acts up to 1846, when they were abolished by the acts 9 & 10 Vict. c. 94.

[House of Commons Return, 366-I., of 1869.] C. A. H.

PLATO, the great Athenian philosopher (427-347 B.C.), does not, like his pupil ARISTOTLE (*q.v.*), reach the conception of a special "science of wealth," but in his treatment of political and ethical questions he takes account of economic conditions, and his political speculations deal to some extent, though not primarily, with economic problems. In his *Republic* (II. 369 B) he says of the state that "it comes into existence because the individual is not self-sufficing but has many

needs." The most urgent of these are food, shelter, and clothing: and so Plato goes on to picture a state or society of the simplest kind as consisting of a husbandman, a builder, a weaver, a shoemaker, and perhaps a few other craftsmen supplying their own and each other's wants. This need not be understood as if Plato thought that states actually arose in every case through different kinds of economic producers coming together and making a "social contract." The conception of the origin of society in a contract was known to him (see *Rep.* II. 359 A); it had doubtless been propounded by some of the Sophists or popular philosophers of the time. But he himself in the *Laws* (III. 676 *seq.*) puts forward very clearly the same theory of the growth of political society out of the patriarchal family, which Aristotle adopts in his *Politics* (I. 2), though, in the difficulty generally felt by the ancients of conceiving a beginning of civilisation, the patriarchal families out of which our societies are said to have been developed are supposed to be the survivors of some earlier city-states destroyed by a deluge. What Plato says in *Rep.* II. may fairly be interpreted as a recognition of the economic basis of all political society. He sees the significance of the division of labour, arguing that it is expedient that each worker should produce that commodity which he can produce best in excess of his own requirements, and exchange this commodity for the products of others, rather than that every one should distribute his time among various pursuits so as to supply all his own needs (369 E, 370 A). It is to be noted, however, that this division of labour is not based by Plato solely on the economic advantage in respect of the quality and quantity of production, but also on the supposed natural differences of individuals. "All things are produced in greater abundance and better in quality and more easily, when one man does one thing which is natural to him and does it at the right time and leaves other things alone" (370 C, cp. *Laws*, VIII. 846 E). Besides the producers of commodities directly used for the support of life, there must be producers of the instruments those workers require. And for the exchange of commodities with other states there must be merchants (*ἔμποροι*, 371 A), and for exchange within the state—Plato thinks only of a small city-state—we must have retail dealers (*κάπηλοι*, 371 D), who ought to be persons physically unfit for other kinds of labour. From the skilled producers, whom he thinks of as independent workers, Plato distinguishes as a separate class the unskilled labourers for hire.

The consideration of foreign commerce leads Plato to remark that "what they produce at home must be not only enough for themselves, but such both in quantity and quality as to accommodate those from whom their wants are supplied" (371 A). In this we may see an implicit recognition that imports and exports must balance one another. But Plato has no "mercantile theory" to lead him astray, nor to suggest the full significance of the problems of foreign trade. In the *Laws* (IV. 705 A, B) Plato expresses the opinion, like Aristotle after him (*Pol.* VII. c. 5 and 6), that a state should as far as possible be self-sufficing and not dependent on foreign imports; but he prohibits duties on imports and exports (*Laws*, VIII. 847 B). The mention of exchange in *Rep.* II. suggests the purpose of money (*νόμισμα*): "From the practice of buying and selling will arise money as a token, or conventional sign, for the sake of exchange" (*ξύμβολον τῆς ἀλλαγῆς ἕνεκα*, 371 B).

When Socrates in Plato's dialogue has described the simple sort of life which will be led in this "political society on its lowest terms" (*ἡ ἀναγκαιοτάτη πόλις*, *Rep.* 369 D), the description is scoffed at by Glaucon, one of the speakers in the dialogue, as that of a "city of pigs" (372 D). In this passage there is almost certainly an allusion to the cynic ideal of the "return to nature" and the simplification of life—a Hellenic anticipation of Rousseauism. To meet the demand of Glaucon for a more elaborate ideal, Socrates proceeds to consider a state on a larger scale. But in the discussions to which this leads, on war, education, art, religion, etc., there is nothing of specially economic interest, except the rigid division into classes which is held to be the logical consequence of the principle of division of labour, "one man, one trade." In a well-regulated state, rulers, warriors, husbandmen, artizans should each form separate classes or castes, though individuals may occasionally have to be transferred from one caste to another, when they show higher or lower capacities than those of the caste in which they are born (*Rep.* III. 412-415). Slavery would not be necessary in Plato's ideal state, where the needs of life are met by the labour of subject classes of citizens; but he seems to take for granted that there will be slaves even in his ideal state, though he objects to the enslavement of Greek by Greek (V. 469 B). The community of goods, which, along with the abolition of the private family and the admission of women to the same occupations as men, Plato holds to be necessary in the most perfect state (*Rep.* III. 416 D-417 B; IV. 423 E, 424 A; V. 449-466), is not proposed as a solution of economic difficulties. In fact Plato, as Aristotle rightly complains in *Pol.* II. 5, § 18, never discusses whether communism is to be applied to the labouring classes or not. Plato advocates communism on ethical and not on economic grounds. The philosopher-rulers of the ideal state should have no private in-

terests of property or of family to divert them from their public duties. They are to live like soldiers in barracks with common meals, etc., such as there were at Sparta. Thus if we seek for later parallels to Plato's ideal state, we should find them, not so much in any of the modern communistic or socialistic ideals—though Plato's *Republic* is directly or indirectly the parent of most of them—as in the communism of monastic orders or in the rule of the Jesuit missionaries in Paraguay (see Kaufmann, *Socialism and Communism in their Practical Application*, S.P.C.K., 1883), which, if we substitute priests for philosophers, forms the most remarkable realisation of Plato's ideal state that the world has ever seen. The state in which wealth, instead of philosophic virtue, provides the ruling principle is oligarchy—one of the corrupt forms of government. In his account of oligarchy, in *Rep.* VIII., Plato seems to be thinking mainly of commercial states such as Corinth. In such states there comes to be one city of the rich and one of the poor, and the evils of debt prepare the way for revolution and for "the tyrant" who begins by posing as "the people's friend."

In the *Laws*, which Plato wrote later than the *Republic*, and probably in his old age, he still speaks of communism of property as essential to the best state; but he is now content to work out the plan of a "second-best state" in which, giving up community of goods as too high an ideal for average human nature, he proposes equality of property in land (V. 739, 740). Citizenship is to be limited to those owning land and engaged in agriculture. The number of citizens, *i.e.* of heads of households—for the private family is retained in the second-best state—and owners of allotments, is fixed at 5040, a number convenient for subdivision (737 E, 738 A). None of the citizens is to be an artizan or to engage in trade, whether as merchant or retail dealer (VIII. 846 D; XI. 919 D). The lots of land are to be equal in value at the foundation of the state, inferior quality being compensated by larger size (V. 745 C), and the original equality is to be maintained as far as possible through regulation of the population under the advice and direction of the elder citizens. If need be, an excess of population is to be relieved by colonisation (740 D, E); a deficiency, but only in case of absolute necessity, is to be met by the admission of new citizens (741 A). Gold and silver coin are not to be owned by private persons, who are to employ a coinage current only within the state, though for the needs of intercourse with foreign countries the state must use a currency that will be accepted elsewhere (742 A). With respect to property other than land, absolute equality is regarded as unattainable. The citizens are to be divided into four classes according to their possessions, the lowest class consisting of those who have only the original lot of land; but no one is to be allowed to acquire more than four times this amount of property. Anything beyond this limit of wealth is to go to the state and "the gods of the state" (744 B-745 A). A proposal that every citizen's allotment of land should be in two sections, one nearer the city and one farther away, is adopted from quite other than economic reasons; it is a method of equalising the value of the property (745 C). This proposal is objected to by Aristotle in *Pol.* II. 6, § 15, as inconvenient; but, like very many other things in Plato's *Laws*, it is adopted by Aristotle himself in his ideal state for the same reason of equality, and in order that there may be unanimity among the citizens in case of war and threatened invasion (*Pol.* VII. 10, § 11). Though Plato prohibits the taking of interest on loans (*Laws*, XI. 921 D), and even refuses to enforce by law the repayment of borrowed capital (V. 742 C), he allows interest to be charged on overdue accounts (921 D).

Economic matters are hardly referred to in any other of Plato's dialogues. In the *Sophist* (219 A-C) a distinction is drawn between those arts which are productive or creative (*τεχναὶ ποιητικαί*) and those which are acquisitive (*κτητικαί*); but the subdivisions of the latter class are fanciful rather than scientific. The dichotomies of this dialogue are an ironical method of describing the nature of the sophist, and not a serious attempt at a classification of the arts. The classification of the different forms of property in the *Statesman* (*Politicus*, 287-289) are somewhat less artificial and, along with the passage in *Rep.* II. 369 B-371 E already referred to, may be regarded as preparing the way for the treatment of economics in Aristotle's *Pol.* I. 8-11.

The subject of wealth is throughout treated by Plato from the ethical point of view. He distinguishes in the scale of good things three grades: (1) the goods of the soul, *i.e.* wisdom, self-control, and the other virtues; (2) health, the good of the body; (3) wealth. The lower only exists for the sake of the higher good, and pursuit of it is always to be limited and determined by consideration for the higher. (*Laws*, V. 743 E; IX. 870 B; cp. Arist. *Eth. Nic.* I. 8, § 2).

The *Eryxias*, a short dialogue which has come down to us among the works of Plato, but which even the ancient critics agreed in considering spurious, deals with the subject of wealth in the spirit of this ethical estimate of the respective values of good things. The popular opinion that wealth consists in a quantity of money is refuted by the argument that there exist intrinsically worthless currencies, such as the leather coins or tokens used at Carthage, the worthless pieces of iron used in Lacedæmon, and the engraved stones used in Æthiopia.

The possession of quantities of such things will not make a man wealthy elsewhere (*Eryx.* 399 E-400 B). Wealth is shown to be what is *useful* to any one; what is useless to any one—*e.g.* a house to the nomad Scythian—is not wealth. More particularly wealth is found to be that class of useful things which supplies the wants of the body (400 B-401 E). The writer comes very near to putting in the additional qualification that they must be exchangeable; for he argues that those have wealth who possess arts by teaching which—"in exchange for which" (*ἀντὶ τούτων*)—they can supply their wants (402 D). But from this economic point of view he passes on to the ethical conclusion that, since he who has the fewest desires is best off, the wisest may be the richest and the rich man the worst off (405 C-406; cp. 394 A). This dialogue has been ascribed by modern scholars, but on mere conjecture, to various members of the Socratic circle, such as Simon the cobbler or Æschines Socraticus, or to a pupil of Plato or of Antisthenes. It contains nothing really inconsistent with Plato's genuine works, but it probably represents the Cynic point of view, afterwards adopted by the Stoics. We may compare the Stoic paradox elaborated by Cicero (*Paradoxa* 6)—"That the wise alone is wealthy" (*Non cupidum esse pecuniae est*). The writer, if later than Aristotle, which there seems no necessity to suppose, is in any case not influenced by *Pol.* I. 8-11. The *Eryxias*, being the oldest book we know of which isolates the subject of wealth for examination, may be called the earliest treatise on political economy; but it is so only in the sense in which Mr. Ruskin's later writings are economic treatises.

[J. Bonar, *Philosophy and Political Economy* (1893). Bk. i. ch. i. contains a full discussion of Plato.—Jowett's Translation of Plato, *third* edition, 1892, contains a translation of the *Eryxias*. On that dialogue cp. W. L. Newman's *note* on Aristotle's *Politics*, I. 9, 1257 *b*, 11, and C. Ritter, *Untersuchungen über Plato* (Stuttgart, 1888), pp. 84-86. On the influence of Plato's *Rep.*, see arts. CABET; CAMPANELLA; HARRINGTON; MORE; UTOPIAS.] D. G. R.

PLAY, LE, see LE PLAY.

PLAYFAIR, WILLIAM (1759-1823), attempted in his youth with little success to combine the positions of inventor and tradesman. He went to Paris, and in 1789 became agent to an American Land Company, the operations of which were disastrous to those sent out. On returning to London he opened a "Security" Bank, which, however, soon collapsed. After Waterloo he returned to Paris as editor of *Galignani's Messenger*, but had to leave France to avoid imprisonment on a judgment in an action for libel. His publications were very numerous; many were directed against the French, and he advocated the issue of forged assignats. In the *Gentleman's Mag.* (1823, pt. i. 564) is an imperfect list of forty-one pamphlets and books, among which, besides those mentioned below, are—

A General View of the Actual Force and Resources of France, 1793.—*Better Prospects to the Merchants and Manufacturers of Great Britain*, 1793.—*Letter to Sir Wm. Pulteney on the establishment of another Public Bank in London*, 1797.—*Statistical Tables, from the German of Boetticher*, 1800.—*Statistical Account of the U.S. from the French*, 1807.

[*The Dictionary of National Biography*, vol. 45.] H. E. E.

He published anonymously in 1785 *The Increase of Manufactures* . . . a proposal to establish a fund for lending sums of money at an interest suited to the circumstances of each case. In 1786 appeared *The Commercial and Political Atlas* (brought up to date in two successive editions 1787 and 1801), remarkable for the application of the graphical method to the statistics of finance. The method is thus introduced:—"Suppose the money that we pay in any one year for the expense of the navy were in guineas, and that these guineas were laid down upon a large table in a straight line and touching each other, and those paid next year were laid down in another straight line, and the same continued for a number of years, these lines would be of different lengths as there were fewer or more guineas; and they would make a shape, the dimensions of which would agree exactly with the amount of the sum" (*Atlas*, 1st edition; the illustration is varied in subsequent versions). By this method "as much information may be obtained in five minutes as would require whole days to imprint on the memory . . . by a table of figures." Thus ordinates at points on a horizontal line represent the amount of exports and of imports at each epoch; the difference between them—forming a stream of varying width—represents the balance of trade. That Playfair should give prominence to this conception is remarkable, as his observations on our trade with France evidence a just sense of the mutual interests of the parties to international trade.

The *Real Statement of the Finances and Resources of Great Britain*, 1796, contains some good remarks on the depreciation of money. "If money should decrease in value faster than the debts increase, then the burdens of the people, though nominally augmenting, may be actually diminishing." The rudimentary idea of an index number may be noticed in the *Appendix*, p. 29.

In the *Inquiry into the . . . Causes of the Decline and Fall of . . . Nations*, which appeared in 1805, Playfair pretends to apply his method to ancient history. In the preface he acknowledges obligation to his brother Professor John Playfair for the idea of the new method. In the same year (1805) Playfair published an edition of *Wealth of Nations*, which contains some acute criticisms; for instance, on Adam Smith's doctrine that "the more a man pays for the tax the less he can afford to pay for the rent" [of a house] (*Wealth of Nations*, bk. v. ch. ii.); and on Sir Matthew

DECKER's observation approved by Adam Smith that "certain taxes are in the price of certain goods, sometimes repeated and accumulated four or five times" (*ib.*). These are supplementary chapters on occurrences in finance subsequent to Adam Smith's time, and on the French "Economists." Playfair evinces some acumen as an economist as well as some originality as a statistician.

The Increase of Manufactures, Commerce, and Finance, with the Extension of Civil Liberty proposed in Regulations for the Interest of Money, 1785 (anonymous).—*The Commercial and Political Atlas representing by Means of Stained Copper-Plate Charts, the Exports, Imports, and General Trade of England; the National Debt, and other Public Accounts; with Observations and Remarks.* by William Playfair, author of *Regulations for the Interest of Money*, . . . 1786 (2nd ed. 1787, 3rd ed. 1801).—*The Statistical Breviary, shewing, on a Principle entirely New, the Resources of every State and Kingdom in Europe; illustrated with Stained Copper-Plate Charts, representing the Physical Powers of each Distinct Nation with ease and perspicuity*, by William Playfair, to which is added a similar exhibition of the ruling powers of Hindostan, 1786 (and later editions).—*For the Use of the Enemies of England; a Real Statement of the Finances and Resources of Great Britain; illustrated by Two Copper-Plate Charts*, by William Playfair, inventor of Lineal Arithmetic, 1796.—*Lineal Arithmetic; applied to show the Progress of the Commerce and Revenue of England during the Present Century; which is represented by 33 Copper-Plate Charts. Being an Useful Companion for the Cabinet and Counting-House*, by William Playfair, inventor of this method of stating accounts.—*An Inquiry into the Permanent Causes of the Decline and Fall of Powerful and Wealthy Nations, illustrated by four Engraved Charts*, by William Playfair, author of *Notes and Continuation of an Inquiry into the Nature and Causes of the Wealth of Nations, by Adam Smith, LL.D., and Inventor of Lineal Arithmetic, Designed to show how the Prosperity of the British Empire may be prolonged*, 1805.—*An Inquiry into the Nature and Causes of the Wealth of Nations*, by Adam Smith, LL.D.; the eleventh edition, with notes, supplementary chapters, and a life of Dr. Smith, by William Playfair, 1805.—*A Letter on our Agricultural Distresses, their Causes and Remedies, accompanied with Tables and Copper-Plate Charts, Shewing and Comparing the Prices of Wheat Bread and Labour from 1565 to 1821.* Addressed to the Lords and Commons, by William Playfair. F. Y. E.

PLEASURE AND PAIN are the only motives taken account of in political economy in so far as "it makes entire abstraction of every other passion or motive but the desire for wealth; except those which may be regarded as perpetually antagonising principles to the desire of wealth, namely, aversion to labour and desire of the present enjoyment of costly indulgences" (Mill, *Unsettled Questions*, p. 138). This abstraction, legitimate within limits, is liable to be strained too far in several directions.

(1) Because economic action is ascribed to UTILITY, it is not to be taken for granted that, as utilitarians have postulated, all action is motived by pleasure. For perhaps "all that mathematical economics need to assume is that a material quantity of goods will be in a certain proportion to a greater or less strength of motive; whether the motive be taken as 'pleasure' or not is not essential" (Bonar, *Philosophy and Political Economy*, p. 224; cp. Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 2 note; Marshall, *Principles of Economics*, 3rd ed., pp. 77, 78, note; and *Economic Journal*, vol. iii. p. 388). However, when equilibrium is regarded as the position of greatest advantage to all concerned (cp. Marshall, *Principles of Economics*, 3rd ed., 526-527, and note xiv.), the mechanical analogue being not so much the equality of forces (conceived by Jevons in his analogy of the lever, *Theory*, ch. iv.) as the maximum of energy (indicated by Irvine Fisher in his *Mathematical Investigation*), there is taken for granted the possibility of summing up pleasures which some opponents of utilitarianism have refused to grant.

(2) For the most abstract part of economics, the theory of exchange, it need not be postulated that each party acts from self-interest, but only that he is not actuated by regard for the interest of the other parties, those with whom he competes or bargains. The efforts and sacrifices which are required to supply markets—including the labour market and the loan market—are often incurred for the sake of one's family rather than oneself. The action of the family affections "has always been fully reckoned with by economists, especially in relation to the distribution of the family income between its various members, the expenses of preparing children for their future career, and the accumulation of wealth to be enjoyed after the death of him by whom it has been earned" (*Principles of Economics*, bk. i. ch. v. § 7, 3rd ed.).

(3) The limits within which self-interested action must be postulated may be even narrower than those indicated in the last paragraph. What is postulated is that action should be regular and therefore calculable, rather than that it should be self-interested (*Principles of Economics*, bk. i. ch. v.). "The range of economic measurement may gradually extend to much philanthropic action." F. Y. E.

PLEDGE. A pledge or pawn may be defined as a bailment or delivery of personal property as security for a debt or other engagement. A pledge must be distinguished from a MORTGAGE. By a mortgage the legal property in the thing mortgaged passes to the mortgagee. But a pledge only gives a special property to the pledgee, the general property remaining in the pledgor. Hence the rights of the pledgee commence only with possession,

and a pledge consequently is not within the bills of sale acts. If the pledgor does not fulfil his engagement and redeem the pledge, the pledgee may sell it, but of course, he holds any surplus in trust for the pledgor.

A person who makes a business of receiving pledges is called a pawnbroker, and for the protection of the poor and ignorant, pledges under £10 are subject to special regulations.

[See arts. PAWN; PAWNBROKING:—the Pawnbrokers Act, 1872 (35 & 36 Vict. c. 93), and as to pledges generally, see *Story on Bailments*, tit. Pledge.] M. D. C.

PLOUGHGATE. An ancient Scots measurement of land = 8 oxgangs = 96 Scots acres (122 acres English) = about 590,400 square yards imperial. This measurement is, however, not consistently employed in the same sense in old charters (see PLOUGH-TEAM).

[Cosmo Innes's *Scotch Legal Antiquities*, p. 241.] A. D.

PLOUGH-TEAM. In Anglo-Saxon times and perhaps throughout the mediæval centuries the usual plough-team in England consisted of eight oxen, but many instances of smaller teams, even to one ox, occur in Domesday and other records, and horses were not seldom mixed with the oxen. In some parts of England the latter had not been superseded by horses at the end of the 18th century (see ARTHUR YOUNG'S *Tours*). It is probable that 120 acres were usually reckoned to one full plough, and a ploughland was the unit of land measurement. The size of the unit might and did vary, according to local custom, to the character of the soil, or to the division of the manor into two or three fields. (see THREE-FIELD SYSTEM). The word "carucate," and its subdivision "bovate" or "oxgang," express land measures in terms of the plough-team. Dependent upon its use as a measure was the use of the plough-team as the basis upon which taxation was assessed, and much of the interpretation of Domesday depends upon the right understanding of the ploughland (see PLOUGH-GATE).

[*Domesday Studies.—Domesday of St. Paul's, Introd.* p. xv.—Nasse, *Feldgemeinschaft*, p. 32, 1869.—Seebohm, *English Village Community*.] E. G. P.

PLUMART, MARQUIS DE. See DANGEUL.

PLUTOLOGY (Gr. πλοῦτος, wealth). This term was used by Courcelle Seneuil to describe that part of his treatise on political economy which dealt with what is described by some more modern writers as "pure theory"; that scientific study of the results of the action of economic motives on men and societies to which the terms "economics" and "economic science" have been applied in the effort to escape the confusions which arose from embracing under the general title "political economy," both these more abstract investigations and the application of the knowledge thus gained, with that derived from other sources, to problems of practical statemanship. To this second part of the subject the eminent French economist applied the term *Ergonomy*. The Australian W. E. HEARN adopted the title for his work, *Plutology, or the Theory of the Efforts to satisfy Human Wants*.

[Cp. *Traité Théorique et Pratique d'Économie Politique*, par J. G. Courcelle Seneuil, Tome i. Partie Théorique ou Ploutologie, Paris, 1858. *Plutology*, by W. E. Hearn, London, 1864, and also the article on HEARN in vol. ii.]. A. W. F.

PLYMOUTH ADVENTURERS, THE, received a charter from James I. in 1606, to plant all the territory on the American coast, between 34° and 45°, and the islands within 100 miles. Letters-patent were issued to Sir George Somers, Richard Hakluyt, Edward Maria Wingfield, and others who should be joined with them. Two companies were ordered to be formed, one, the first or southern colony, the other, the second or northern colony. As the council of the southern colony was composed chiefly of residents in London, it became known as the London Company, and its jurisdiction extended from Cape Fear to the eastern end of Long Island, from 34° to 41°. The northern colony was called the Plymouth Company, because its council was appointed from Plymouth and the vicinity; its limits overlapped those of the other, extending from 38° to 45°, or from about the latitude of Delaware Bay to Halifax, Nova Scotia.

As regards administration, each colony was to be governed by a resident council of thirteen, to be appointed by the king; the laws enacted by them were subject to revision either by the king or the council in England. The people were granted no part whatever in the government. Trial by jury was allowed only in cases of capital crimes, defined as "tumults, rebellion, conspiracy, meetings, and sedition, together with murder, manslaughter, incest and rape, and adultery." Lesser crimes were to be tried before the president and council, and punished according to their will. Real estate was to be held as under the laws of England (see LAND SYSTEM IN THE AMERICAN COLONIES); for the first five years all personal property and the fruits of the labours of the colonists were to be held as a common stock, and each member of the community was to be supported from the general store. The established religion was to be that of the Church of England. The people were enjoined by virtue of such penalties as the president and council might inflict, to "kindly treat the savage and heathen people in those parts, and use all proper means to draw them to the true service and knowledge of God," as well as to lead them "to good and sociable traffic." This was the first constitution of government established within the limits of the present United States.

In April 1607 the London Company founded the first permanent English colony at Jamestown, on the James River, near Chesapeake Bay. English settlers were then only learning the art of colonisation, and most of those who went to Virginia during the first few years of its existence starved to death. Others, however, took their place, and the success of the Virginia plantations was ultimately assured. Tobacco cultivation was a prominent feature. All the early colonists were men, but the company encouraged the immigration of marriageable girls, and the settlers soon found themselves bound to the soil by ties of family responsibility. Labour continued to be scarce until 1619, when the problem was partially solved by the introduction of negro slaves. But as a commercial venture, the company was still a complete failure, and in 1619 the London Company inaugurated a new era by granting a modified form of self-government to the colonists. The Company still did not prosper, however. Among the chief causes were the rapid succession of governors, stimulating the rapacity of their dependants; the multiplicity of offices, by which industry was loaded and revenue absorbed; and the inability to conduct successfully a complex and arduous undertaking by a numerous body of men.

Meanwhile the northern company, which had never been satisfied with its rights under the charter that connected them with the South Virginia Company, urged its claims to a new patent so strongly that one was granted by the king, James I., in 1620. This defined the company's territory as extending from the 40th to the 48th degree of latitude. The Virginia Company loudly remonstrated against the new patent, but in vain; Sir Ferdinando Gorges, the governor of Plymouth, Massachusetts, eloquently argued the rights of the Plymouth Company before the English parliament. He urged the value of the fishing trade, which, even while they were disputing on boundaries, might, he said, be monopolised by French or Hollanders, and those who heard him were so satisfied by his representations that, in spite of all opposing influences, the king could not be induced to revoke the patent.

The Pilgrim Fathers settled in 1620 at Plymouth; ten years later, the colony of Massachusetts was founded by the English Puritans, to provide an asylum for themselves and their friends in the event of the struggle in England going against them. The council for the New England Company, as the successor to the Plymouth Company was called, gave them a grant of land, confirmed by the king, who conceded them in addition very extensive powers of government. Before the close of the 17th century all the territory within the original limits granted to the Plymouth Adventurers had been colonised, and the settlers were given large powers of self-government.

But the original charters had been abrogated many years before this. In 1624 the Virginia charter was annulled, and the colony became a royal province. With respect to the Plymouth Company, between 1630 and 1635 serious complaints were made in England that discontented spirits full of disaffection to the king, and hostile to the Established Church, were settling on the lands granted by the company. The governor, Gorges, was attacked by the Puritans because of his large territorial claims, while in England he was assailed, as the upholder and author of the reputed licence of laws and opinions among the colonies of New England. Gorges felt this deeply after his long and arduous work in forwarding the plantation of English colonies in New England, and he "therefore was moved to desire the rest of the lords, that were the principal actors in this business, that we should resign our grand patent to the king, and pass particular patents to ourselves, of such parts of the country about the sea-coast as might be sufficient to our own uses, and such of our private friends as had affections to works of that nature." This policy was adopted in 1635, and the lands of the Company, lying between the 48th and 36th degrees of latitude, were parcelled out among its members. With this act, the history of the Plymouth Adventurers, as a separate organising and colonising body, came to a close. The Company had failed because it was unable to grapple with the religious, economic, and land problems which beset it. The king, being desirous of securing a better regulation government of the plantations appointed in 1635 a commission, with Archbishop Laud at its head, to make new laws and a new constitution for New England.

[Bryant and Gay's *Popular History of the United States*, vol. i.—Prof. Edward Channing in *Chambers's Encyclopædia* (art. United States).—Justin Winsor's *Narrative and Critical History of America.—Colonial Charters* and other documents issued by the United States Government.]

G. B. S.

POCOCKE, Richard (1704-1765), successively bishop of Ossory and of Meath, was one of the greatest travellers of his time. He entered Corpus Christi College, Cambridge, in 1722, and in 1733 received his LL.D. From 1733-1736 he travelled on the continent with Dean Milles, and from 1737-1742 visited the East.

In 1743-1745 he published *A description of the East and some other Countries* (2 vols. fol. London). He made other tours in Scotland, Ireland, and England, afterwards edited from his MSS. by D. W. Kemp. These publications have an interest for the economic student from the insight they afford into the social conditions of that time.

The following is a list of them:—*Tours in*

Scotland, 1747 and 1750 and 1760 . . . from the original MS. and drawings in the British Museum, edited by D. W. Kemp, with biographical sketch of the author, Edinburgh, 1887, 8vo.—*Pococke's Tour in Ireland in 1752*, edited with introduction and notes by G. T. Stokes, Dublin, 1801, 8vo.—*The Travels through England of Dr. Pococke*, 2 vols., Camden Society, N.S. xlii., xliv., 1888-1889.—*The tour of Dr. Pococke . . . through Sutherland and Caithness in 1760*, with introduction and notes by D. W. Kemp. A. L.

POINDING OF THE GROUND (Scots Law). Where a creditor has a security properly charged against the lands of his debtor and duly registered, or where he is the superior (overlord) and has a claim for feu-duties in arrears, he can, if he be not himself in possession of the lands or entitled to take possession, raise an action of poinding (empounding, pronounced pinding) of the ground, judgment in his favour in which will entitle him to the rents and to execution against all goods found on the lands, provided that these goods are the property of the owner of the land, or else that they are the property of the tenants up to the extent of the rent for the current term and of arrears of rent, if any, due by them at the time and no further. The superior poinding for feu-duties in arrears and for "casualties" is preferred to other creditors, and creditors are preferred *inter se* according to the dates of registration of their respective rights. A creditor, poinding before the trustee in bankruptcy is confirmed, gets priority over the trustee in respect of the whole movable property in the ground, to the amount of one and a half year's interest. A. D.

POLEGRAPHY. (Greek, πωλεῖν, to sell). In the year 1870 M. H. Lefèvre, in a small treatise entitled *Traité des Valeurs mobilières*, explained in outline a graphic method of his own invention for the representation of combinations of operations on the stock or produce exchanges. This method was greatly extended and developed in the work *Le Commerce*, published by the same author some fifteen years later (the date of publication is not shown on the volume itself). Its author claims for it that it greatly simplifies the task of obtaining a clear view for practical purposes of complex combinations of exchange operations, rendering their principles much more evident than laborious illustration by numerical examples, and enabling an instructor to achieve more certain and rapid success with indifferent pupils than could be attained by ordinary methods with those of more than average intelligence, resting his claim on actual experience.

It is proposed to give here such brief outlines as may elucidate the principles of the method, and the range of its applicability, referring to M. Lefèvre's own expositions for more detailed explanations and elaborate treatment of the many leading varieties of combination and their appropriate diagrammatic presentation.

The real utility of this method is undoubtedly connected with its application to combinations of ordinary purchases and sales for future delivery with purchases and sales of OPTIONS; PUT or CALL as the case may be. The application to definitive purchases and sales for future delivery is of the simplest, but does not appear to present sufficient advantage to justify the introduction of a new method. When the option or privilege is combined with the definitive purchase or sale, a complex state of affairs results, the outcome of which can be advantageously studied with the assistance of the diagrammatic method.

The purpose of the diagram is to determine or to represent the amount of the *difference* to be paid or received as the result of a series of bargains, and it is sufficient if the gain or loss per unit dealt in be shown per £10,000 of stock, or per 50,000 bushels of wheat for example, transactions involving multiples or sub-multiples of the unit selected being readily adapted to the same diagram, as will be seen shortly.

The only apparatus necessary for the construction of the diagram is a piece of squared paper, a pen or pencil, and a ruler. Along a selected line on the paper is marked the series of possible prices of the stock or commodity dealt in, as shown in the annexed diagram (Fig. 1) where the range of price 102-104¼ of a stock is capable of representation, each movement upwards of ⅛ in the price being represented by a movement to the right by the width of one square. If we were concerned with cotton, the width of each square might represent a variation of $\frac{1}{64}$th of a penny per pound.

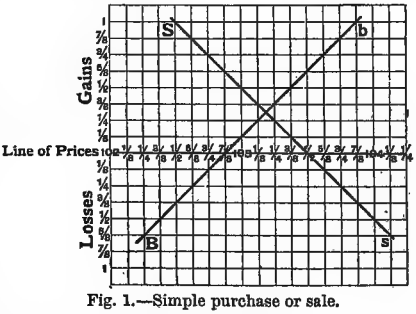


Fig. 1.—Simple purchase or sale.

The gain or loss per unit dealt in is similarly represented by distances measured upwards or downwards from this central reference *line of prices*.

The line *Bb* on the diagram represents the position of a buyer of £100 of the stock concerned at 102⅞ for the next account. If the price rise to 103⅛, and he sell at that price, he will net a gain of ¼ per unit, which is represented by the fact that the line *Bb* cuts the

vertical through the point on the line of price corresponding to $103\frac{1}{8}$ at a distance $\frac{1}{4}$ on the *gains* side of that line (omitting brokerages for the present). Generally the point at which the line *Bb* cuts any particular vertical indicates the gain or loss resulting from a sale, at the price corresponding to the position of this vertical, of the stock for which the buyer contracted to pay $102\frac{7}{8}$. A glance at the diagram shows the answer to the question,—"Shall I gain or lose, and how much will the amount of such gain or loss be, if I sell at the current quotation (whatever that may be) the stock bought at $102\frac{7}{8}$?"

If we wish to include brokerages it is clear that we must add in the case of a purchase, or deduct in the case of a sale, the amount of the brokerage from the current price before constructing the diagram, or we may calculate these separately.

The line *Ss* similarly records the position resulting from a sale at $103\frac{1}{2}$ for future delivery. The *difference* to be paid or received when, for the fulfilment of the bargain, a purchase is made at some other price, being indicated by the intersection of *Ss* with the vertical through the price of the said subsequent purchase.

All this is very simple, and shows no very apparent advantage over an arithmetic record. We proceed, therefore, to deal with a combination of two purchases, and of a purchase and sale where the amounts of the two transactions are not identical. When a purchase and sale of identical amounts are combined, the resultant indicates a definite gain or loss unaffected however the market may subsequently vary. This is not the case when the sale and purchase are concerned with unequal amounts, and when two purchases or two sales are combined.

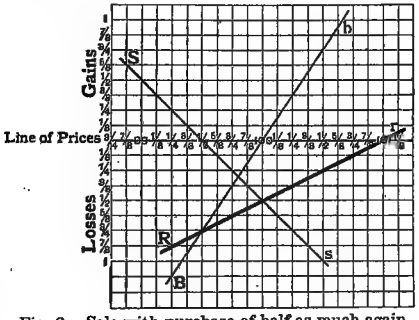


Fig. 2.—Sale with purchase of half as much again.

In Fig. 2 the line *Ss* represents, as before, a sale of one unit at, on this occasion, $99\frac{1}{2}$. *Bb* represents a purchase of half as much again at *par*. By inclining the line *Bb* so that it rises *three* squares for each *two* squares crossed in passing to the right, we represent the effect of the increase of quantity in the proportion of *two* to *three*, *i.e.* we get the case of *half as much again*. The *resultant* of the two lines *Ss* and *Bb* is *Rr*, which represents a purchase of *one-half*. To draw *Rr* we need only determine two points on it, since it is a straight line, remembering that it is to represent the *sum* of the gains or losses involved in the two transactions before named. One point on *Rr* will therefore be where *Bb* cuts the vertical through $99\frac{1}{2}$, a price which registers neither gain nor loss in respect of the transaction represented by *Ss*. Similarly a second point on *Rr* is where *Ss* cuts the vertical through 100, a price where *Bb* represents neither gain nor loss, though *Ss* shows a loss of $\frac{1}{2}$ at this price. The two transactions together are equivalent to a purchase of *one-half at 101*,—*i.e.* the operator will lose on the combination so long as the price remains below 101, the amount of the loss being only half as great as if a purchase of a unit of commodity or stock at 101 had been the actual bargain made. Fig. 3 shows the

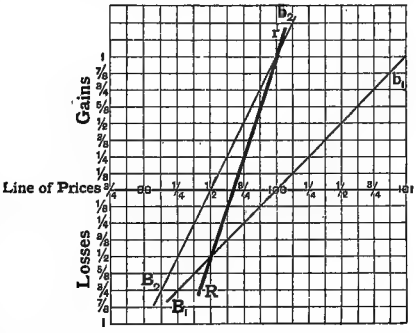


Fig. 3.—Two purchases of different amounts combined.

resultant *Rr* of the combination of the purchases B_1b_1 of a unit at *par* and B_2b_2 of two units at $99\frac{1}{2}$, which is laid down by the same rules as before. It will be found that however many purchases or sales be combined, the *resultant* is always a straight line so long as the purchase or sale is *definitive*.

The case of an option introduces a form other than the unbroken straight line for the resultant; and the combination of different option bargains among themselves, and with definitive sales or purchases, affords examples of broken lines of all degrees of complexity.

The diagrams for simple call and put options are shown in Figs. 4 and 5, the line *Ss* showing the position of the seller, *Bb* that of the buyer in each case. Fig. 4 is the case of a *call* option for which the price of $\frac{1}{2}$ per unit of the stock is paid, brokerage being neglected in this preliminary explanation of the diagram. To include brokerage, the lines representing the transactions must be lowered (*i.e.* moved bodily towards the *losses* side of the line of price) by the amount of the brokerage. In Fig. 4 then, *Bb* indicates the position of a buyer, *Ss* of a seller

of the right to demand delivery at $86\frac{3}{4}$, the price paid for that right being $\frac{1}{2}$ per cent (or per mille or other unit taken by way of

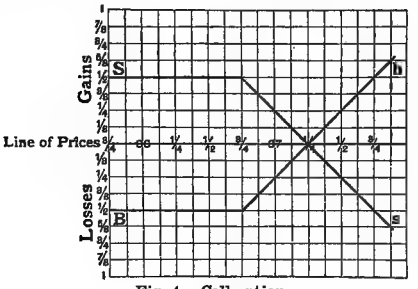


Fig. 4.—Call option.

illustration). If the price do not rise above $86\frac{3}{4}$, the buyer simply forgoes his right and loses his premium, this being the limit of his loss. If the price rise above this figure, the loss of the buyer or gain of the seller decreases, and at prices above $87\frac{1}{4}$ the option yields profit to the buyer, who can realise this profit by requiring delivery at $86\frac{3}{4}$, and selling again at the price of the day. The seller of the option, if he do not hold the stock, must purchase at the price of the day in order to fulfil his contract, and his gain turns into loss when the price rises above $87\frac{1}{4}$, more than the whole of the price received being then required to cover the difference between his buying price and the $86\frac{3}{4}$ at which he has contracted to sell. The fact that part of the lines *Ss* and *Bb* is horizontal, indicates that over the range of prices corresponding to these parts of the line the loss or gain is a fixed one, independent of the particular price.

In Fig. 5 the case of the *put* option is

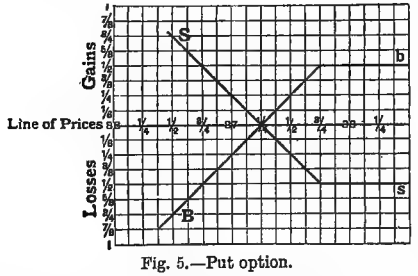


Fig. 5.—Put option.

similarly presented, *Ss* showing the seller's position with limited possibility of loss, *Bb* the buyer's position with limited possibility of gain.

The double option, or straddle, the combination of put and call, is represented in Fig. 6, which shows the position of the payer of the double price for the option. The case represented is that of the payment of a price for the option of $\frac{1}{2}$ per unit (per cent, per mille, etc., as the case may be, the diagram assumes £100 of stock as the unit) for the right to either demand delivery or require acceptance of stock at the price $93\frac{1}{2}$. At prices below $93\frac{1}{2}$ the line *Ss* sloping downwards indicates that the operator

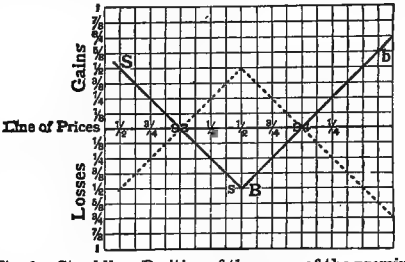


Fig. 6.—Straddle. Position of the payer of the premium shown by *SsBb*.

is a seller. At prices above $93\frac{1}{2}$ he is a buyer, as indicated by the part *Bb* of the line sloping upwards. In fact, if the price be below $93\frac{1}{2}$, the payer of the price for the option will buy in the market at the market price and sell, in accordance with his contract, at $93\frac{1}{2}$. It is clear that if the price remain between 93 and 94, the payer of the price for the option cannot recover his price for the option by his operations. At any price outside these limits he stands to gain on the whole, his gain more than covering the price paid for the option. Here again brokerages are omitted; if they are to be included, the whole line *SsBb* must be vertically lowered to the extent of the brokerages involved.

The position of the receiver of the price paid for the option would be represented by the broken unlettered line on the diagram.

Fig. 7 represents the resultant of the com-

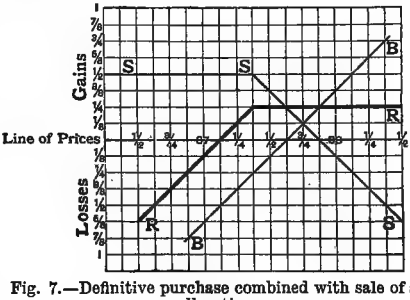


Fig. 7.—Definitive purchase combined with sale of a call option.

bination of the definitive purchase of a quantity of stock, and the sale of a call for the same quantity. The price received for the call is taken at $\frac{1}{2}$, the price at which the option may be exercised being $67\frac{3}{8}$. With this is combined a definitive purchase at $67\frac{5}{8}$, and the resultant RRR shows that the combination is equivalent to a purchase of a put at a price for the option of $\frac{1}{4}$.

The combinations of various options with one another, and with definitive purchases and

sales of stock, may be worked out in the manner adopted for this case and for those shown in Figs. 2 and 3. To the combination of any two we may add a third, then a fourth, and so on to any number. One example of the *resultant* of several transactions in which brokerage is afterwards taken into account, may serve to show both the possibilities of the method, and the strange forms which resultants may assume. This example is one given by M. Lefèvre, and refers to a number of transactions in French 3 per cent rente. The different items are as follows:

Date.	Nature of transaction.	Amount of rente concerned.	Price.	Premium.
1st	Purchase. .	3,000	86·70	
2nd	Sale of call .	12,000	87·25	25 cm.
3rd	Purchase of call	9,000	86·55	25 „
4th	Sale of call .	3,000	86·45	50 „
5th	Purchase of call	3,000	86·35	25 „
6th	Sale of call .	6,000	86·25	25 „

The individual transactions are represented by dotted lines, the unit representing 3000 francs of rente. To avoid confusion, the horizontal parts of the lines representing the options are not traced, a large dot indicating where they begin. In this case all extend to the left of the dot. It appeared also to be desirable not to continue all these dotted lines beyond the central price line, though of course they do really extend indefinitely beyond that line. The gross resultant is shown by the thin broken (or bent) line in the diagram, indicating an apparent gain to the operator so long as the price remains between 85·70 and 87·12½. This indication is greatly modified by the introduction of the brokerage of 40 francs per 3000 of rente, giving 0·48 per unit on the whole series. The depression of the resultant by the corresponding amount brings it into the position shown by the thick line on the diagram, showing an altogether different situation.

The net resultant on the diagram (Fig. 8) may be read off thus. At prices below 86·25 the operator is a buyer of 3000, between 86·25 and

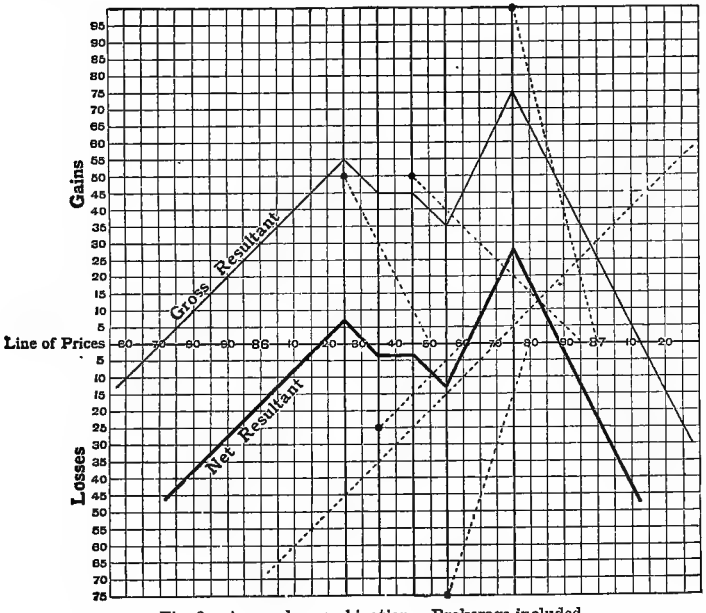


Fig. 8.—A complex combination. Brokerage included.

86·35 he is a seller of 3000, between 86·35 and 86·45 he is neither buyer nor seller, but is a loser of 3 centimes per unit, between 86·45 and 86·55 he is a seller of 3000, between 86·55 and 86·75 he is a buyer of 6000, and over 86·75 he is a seller of 6000. The positions of gain or loss realisable on making the sales or purchases necessary to cover the position thus stated are shown by the height above or depth below the central line at which the thick resultant on the diagram cuts the corresponding price vertical.

In view of the fact that simple straight lines are the only possible form of *resultant* when options form no part of the transactions, it might almost be said that this method can only be applied with real gain when options are a common form of transaction. As it appears that the option is becoming of greater importance than formerly, this fact may serve as an

excuse for explaining at this length a device which claims to render the arithmetic of such bargains more simple and intelligible.

It is scarcely needful to say that the method is applicable to dealings in wheat, cotton, iron, etc., as well as to dealings in stocks and shares.

[The only writer who appears to have treated this subject in detail is the inventor of the method, M. Lefèvre, formerly private secretary to the late Baron James de Rothschild. To his work *Le Commerce* alone, therefore, we must refer for fuller treatment, the earlier work mentioned above being both less complete in its treatment and no longer obtainable.] A. W. F.

POLICE before this century meant the internal regulations by a government; or in a secondary sense, the instruments by which or the purpose for which such regulations were enforced. Thus in HUME (*Ph. Works* (1875), iii. 298, 299), and A. SMITH (*W. of N.*, ed. M'Culloch, pp. 314, 328), it means "regulation," "the administrative," or "order." But a school of practical thinkers, mainly German, beginning with v. Osse (*Testament* (1556), ch. xx. *Von einer guten Policey*), and ending with v. MOHL (*Polizei-Wissenschaft* (1832) (1865)), and of theoretical politicians, first French, then German—under whose influence *Ordonnances pour la police* (5th May 1399; 21st Apr. 1667, etc.), *Reichs-Polizei-Ordnungen* (1442, 1530, 1577, etc.), and "Landes-Polizei-Ordnungen" (*e.g.* those of Frederick the Great) were issued—narrowed the meaning of the word on five sides. (1) in THOMASIUS' time (see *Testament*, ed. Thomasius (1717), n. 105), judicial procedure had long since been relegated to a sphere of its own. Thus the famous ordonnance of 1667 appointed a lieutenant-general of police for Paris, because the functions of police and justice hitherto combined were "often incompatible"; and Frederick the Great adopted a similar policy in order to secure judicial independence. Judicial procedure included legal capacity, the law of evidence, etc. (2) "Police" was confined to matters in which the public had an independent interest. Thus De la Mare's Preface (*Traité de la Police* (1705) and v. Bielfeld's *Institutions Politiques* (1760) write of "la police" as synonymous with "l'ordre public" or "le bon ordre de la société en général"; and Blackstone (1765) as "the due regulation and domestic order of the kingdom." And this distinction between public and private law was identified with a distinction between mutable and immutable law: "police laws vary according to place and time: laws of justice must be uniform, constant, and immutable" (Von Berg, *Handbuch des teutschen Polizei-Rechts* (1799), i. 132; Hooker, *Laws of Ecclesiastical Polity* (1594), I. x. 7, 10). (3) Hooker defined "polity"—which is the same word as police—thus: "it containeth government" (constitutional law), "and also whatever besides belongeth to the ordering of" the state "in public" (III. ii. 2); (he wrote "church" because of the adjective in the title of his book). Now these continental writers were absolutists, therefore they did not touch the larger constitutional problems which vexed English writers from LOCKE (1694) to Seeley (1896). And they treated constitutional details as administrative, so that when first principles were put into the melting-pot in 1788 men had forgotten that police once meant the law of the constitution. And further—until MONTESQUIEU (1748) French writers, until SODEN (1812) German writers, and until 1850 Prussian statesmen, blended legislative and executive duties. Locke's protest against amphibious extemporary decrees and the Code Pénal, art. 127, were aimed at this school. Now that these functions are separated by a gulf, writers on police justify their habit of looking on the legislature as ancillary to the administration by writing "dictionaries of the administration" like M. Block (1854-92), or on "administrative law" like Gneist, (1857-84), v. Stein (1865-88), Meyer (1883-93), Loening (1884), and Huc de Grais (1881-97), or administrative codes as in Portugal (1878). (4) Dithmar, first professor of "economic police and cameralistic (financial) sciences" at Frankfurt on the Oder (1727), first separated these three sciences, but only partially. They were still regarded as concentric circles of which v. SECKENDORF's patriot king was centre, and v. JUSTI (1761) still repeated but refined v. SCHRÖDER's epigram "police sows but finance reaps," and protective duties were still praised as the meeting-point of the three. But revenue and wealth were after all distinguished, and economy, when contrasted with police, left some scope for freedom.

Adherents of the police-school—in these first four phases—have passed upon slavery, the inquisition, censorship of the press, and Napoleonic espionage, the blessings of the scientific. Again moral, sumptuary, and usury laws, and the mediæval pricers and viewers and regulators of trade, have under its ægis survived their native gilds and towns. It has never known its limits. The Prussian code (1794) states one limit thus: the state only *supplements* self-help (ii. 17, 2). The French laws, under which the public prosecutor gets his newspapers gratis, or the mayor registers foreigners who have a business (1893), or the commissary of police attends and, in case of disorder, dissolves public meetings (1881), or some employees still need certificates of employment (1890), sound arbitrary to English ears, but represent the high-water mark of free thought and industry to the continental mind. Modern Germany, which has had a more continuous history than France, has supplemented the traditions of the police-school with the opposite principles of individualism and liberty. English economists in pursuing a reverse method—witness A. Smith and J. S. MILL's fifth books—arrive at

a similar result. But the two schools have not yet quite met.

But it is to the police-school that we owe registrations of births, deaths, and marriages (OBRECHT, 1608), the census, the creation of peasant proprietors out of the wrecks of feudalism, Sabbatarianism, compulsory education (Prussian Code (1794), ii. 12, 43), and the idea of the duty of the state to counteract the mental superiority of employers by Employers' Liability Acts and other social legislation (Hoffman, 1841). Trade licenses also came to us through this channel, but are now mostly limited to dangerous trades (poisons, drugs, arms, etc.)—a limitation which suggests the fifth phase of the police-school.

(5) A further shrinkage of the term occurs in modern codes. (*a*) Thus the Prussian code of 1794 (ii. 17, § 10), looking at the function from the point of view of the functionary, directs the police "to take the necessary means to maintain public peace, safety, and order, and to ward off dangers to the public or any member thereof"; and the *Code des délits* (1795) takes a similar view. This definition is too wide, for, if pressed, it would include justice and education which have diminished crime, and Irish land laws which were meant to clip the wings of a "criminal conspiracy"; but it is only meant to include non-judicial measures exclusively meant to prevent dangers to life, health, morals, property, or the social organism. (*b*) The *Code Pénal*, bk. iv., identifies "contraventions de police" with offences entailing penalties of five days' imprisonment or fifteen days' fine *plus* damages, if any; Anhalt-Dess (1855), Baden (1863), Bavaria, Würtemberg, and Hesse (1871), have published codes enumerating offences against police, but the best definition of police offences is that, unlike crimes, they have nothing to do with the wish or intention of the accused. This is the vital point on which the Italian (1890), following the German (1872) penal code, lays stress; those who attempt or help crimes are guilty, and those who do not intend crimes are guiltless; those who attempt or help offences are guiltless, those who do not intend offences are guilty. From (*a*) and (*b*) we get our two modern conceptions of police, as (*a*) out-of-court criminal procedure; (*b*) as an administrative and judicial sphere of action which prevents or punishes accidents caused by human carelessness or misfortune or pure misfortune. Both conceptions are unscientific, but meet in the policeman. And of policemen there are two main varieties (W. Roscher, "Geschichte der National Oekonomik in Deutschland," in the Munich *Akademie der Wissenschaften*, vol. xiv.—Conrad Loening, etc., *Handwörterbuch zur Staatswissenschaften*, s.v. "Polizei."—A. Smith, *Lectures on Justice, Police, Revenue, and Arms*, ed. E. Cannan, 1896).

The Policeman in England.—England started with the fifth meaning of police over 600 years ago. The idea did not emerge from metaphysical mist, so that discussions about the first four meanings are irrelevant here. And in England offences and minor crimes are confused under the name misdemeanour, so that the policeman naturally takes charge of all crimes; and popular imagination, which in defiance of history conceives of the magistrate as essentially a judge of crime, associates the man fined for cleaning his bicycle in the street with wife-beaters and the like, especially when the fine is enforced by a constable armed with a distress warrant. And in England we built from the ground upward, not as in France and Lagodo, from the roof downward.

(1) In the 13th century every citizen had to arm himself, and was liable for crimes in his neighbourhood; highways had to be kept clear of bushes, etc., and town-gates closed at night (13 Edw. I. st. 2). (2) Town-bailiffs, assisted at night by hired watchmen, high constables in hundreds, and petty constables in townships, being "wardens of the peace," inspected and reported on these arrangements, and had powers of arrest which exceeded those of a citizen. The idea of the local warden of the peace takes us back to the village community. (3) In 1327 the crown appointed special "wardens of the peace" in each county, who in 1362 became criminal judges under the title "Justices of the Peace," besides being "wardens of the peace." Gradually town-bailiffs and constables of the hundred died out, and petty constables became subject to the J.P., executing and serving his warrants and summonses, whether issued by him *qua* warden or *qua* judge. The main duties of the J.P. were and are as warden. Thus to-day the J.P.s may, if some one swears, and they think there is danger, name special constables in any place in their jurisdiction (1 & 2 Will. IV. c. 41) or parish constables for a year (5 & 6 Vict. c. 109; 35 & 36 Vict. c. 92), and their nominees, unless specially exempted, must serve. They are heads of the potential, conscript constabulary. Further, they certify lunatics, "commit for trial" in serious cases, and like the inspector-constable in small misdemeanours, imprison or admit defendant to bail pending trial. In form "committal" is a trial, in substance a mere certificate that the accuser has a fair case. Again, until 1888 they were the rural local governing body, and by means of bye-laws, orders, and licenses, looked after highways, the slaughter of diseased animals, precautions against fire, etc.; they also imposed rates. Both in town and country they still hear rating assessment appeals, enforce payment of rates and orders for the removal of nuisances, etc., or, in most cases, payment therefor, these being all reckoned judicial duties; and their licenses to publicans and billiard-room keepers are a last trace of "la police des mœurs." Again they were once heads of what was called on the continent economic police. From 1562 until this century they could fix wages, enquire into apprenticeships, and act as labour-masters in an age when England was looked on as a vast workhouse; and under laws of 1709 and 1758 priced bread and inspected bakers' weights and measures (5 Eliz. c. 4; 8 Anne c. 18; 31 Geo. II. c. 29, repealed 1867)—they still may inspect weights and measures—and punished offenders. In these matters constables are or were always their assistants, for J.P. and constable are growths from

the same root, and once differed only in degree. (4) A professional police force grew up in towns, but their employers were no longer the J.P.s as such. (*a*) Under the Municipal Corporations Act, 1835, the elected mayor is J.P. for the town along with the ex-mayor and other nominees of the crown; but the mayor and elected town council cope with accidents arising from drains, buildings, fires, noxious trades, etc., by bye-laws, orders, and licenses, and a committee thereof, called the watch committee, usually control traffic by the same weapons, and always appoint a professional police force similar to that which was established in London. (*b*) London, outside the city, borrowed its first arrangements from Dublin. In Dublin, in 1723, unpaid constables elected by the parish looked after paid "supervisors of the watch" and "watchmen." In 1765 paid "inspectors" were wedged in between supervisors and watchmen. In 1777 one alderman, called by the Frenchified title "president or guardian of the police," looked after this machinery. In 1786 paid "commissioners of police," who were also J.P.s for all Dublin, hired paid constables, watchmen, and other "ministerial officers of the peace"; at the same time paid divisional magistrates were appointed. In 1795 "superintendent magistrates" replaced the commissioners. This scheme passed to London in 1792, except that the divisional magistrates acted as superintendent magistrate in each division. H. FIELDING (*q.v.*) had called attention to the need of strengthening the hands of the justices half a century before. In 1829 all the paid "watchmen and other ministerial officers of the peace" were made into constables,—superintendent, inspector, sergeant, and plain constables,—and the divisional forces were combined into one "metropolitan police force," and were governed at first by two paid non-judicial magistrates, but since 1856 by a paid commissioner and two paid assistant commissioners of police, who are non-judicial magistrates; these non-judicial magistrates may not attend quarter or general sessions, nor may they try, nor have they committed prisoners. They are appointed by the crown, and are under the home office. This system returned to Dublin in 1836, where it still exists. (*c*) A modification of these systems was introduced into counties in 1839 permissively, and in 1856 compulsorily. Until 1888 J.P.s in quarter-sessions appointed, with the approval of the home office, a paid chief constable, and determined the numbers of his force; and he, subject to the J.P.s, engaged its personnel. Now a committee of J.P.s and of the elected county council has succeeded quarter-sessions. (*d*) A similar system has been instituted in Scotch boroughs (1833) and counties (1857). (5) J.P.s and watch committees, and in the metropolis the commissioners, report annually to the home office, which sends round inspectors; only half of the pay of the police force, except in the city of London, comes from local sources, and of that half such part as comes from agricultural land is, since 1896, exempted to the extent of one-half by imperial contributions. No power is exercised by any central authority over local police authorities, nor is there any "general" police like the French gendarmes except in Ireland, outside Dublin, and most of the colonies. True, under the Police Act, 1890, § 25, different police forces may help one another if their heads agree to do so; and warrants, if "backed," bind the police in the district of the J.P. who backs them, and the lord chancellor and judges of the queen's bench division are wardens of the peace and issue warrants for all England and Wales. The police forces, though not centralised, are uniform and allied and act together.

To sum up: the duties of citizen, constable, and J.P. have for six centuries shaded off into one another, and only gradually settled down into distinct organic shapes; the last stage in the process was when watchmen *plus* amateur constables were converted into paid watchmen-constables during last century. The central link was always and is still fragile.

The powers and duties of the professional police force are all derived from their being constables, *i.e.* wardens of the peace, but are enlarged by statute law. They now include (1) *inspection* in public places. Domiciliary visits are made with the aid of a J.P.'s search warrant in case of stolen goods, sheltered criminals, etc., or by the police constable *qua* inspector under some statute. Thus he inspects public-houses, billiard-rooms, and threshing machines, and—side by side with medical officers, inspectors of nuisances, weights and measures, and markets—inspects and samples food and drugs exposed for sale; and may be ordered by the local government board to do sanitary work which sanitary inspectors leave undone. In the case of explosives there are central and local inspectors, the former appointed by the home office and the latter, a "superior officer of police." Obstruction to inspectors or constables doing their duty is a misdemeanour. (2) In *examining* the police constable is at a disadvantage, as he is instructed to caution before arresting his victim. Purely inquisitory legal proceedings are rare; of those that do exist, public inquests by coroners, or by a J.P. in pursuance of the extraordinary Explosives Act 1883, are—private examinations by factory inspectors, public enquiries by board of trade or home office into accidents are not, assisted by police constables. (3) As for *arrest*, the citizen can only arrest suspected felons if a felony has been committed, and red-handed misdemeanants if dangerous, and must arrest only if a constable requests him (*Law Reports*, i. C. C. R. 20). In addition to this, pawnbrokers, railway-guards, workhouse-masters, landowners and their keepers have certain powers in certain cases. In all these cases and some others the constable has a duty and there is no "if." An equal duty to inform against or arrest lunatics at large is cast on overseers, relieving officers, and constables by the Lunacy Act, 1890. In 1895 the constable arrested eight out of nine bad, *i.e.* indictable criminals, on his own responsibility. The inspector constable also admits trivial misdemeanants to bail before summary hearing. (4) "As to *accusation*—unless there is a special inspector charged with the duty, the head of the local police usually prosecutes offences in public places which come under his notice. As

accuser and witness he has in theory no advantage. Local heads of police also report crimes and offences to the treasury solicitor who is directed by the attorney-general to prosecute capital cases, governmental cases, our "police politique" cases reported to him by judges, etc.—amounting in all to about 1 per cent of the bad, *i.e.* indictable crimes in 1895. There is nothing in England like the Scotch procurator-fiscal or Irish attorney-general, who cover the whole or nearly the whole field of crime. (5) Provision against or in case of accidents is made by county and town councils, by their fire brigades and by so many other public local bodies, that the lost and found property office at Scotland Yard, the stretcher and necessary addresses in each station, the help to the man suddenly taken ill or strayed child, are slender reminiscences of a time when police was the sole weapon with which society fought accidents. (6) *Orders*, etc.—"Chief officers of police" license pedlars, hawkers, and sweeps; and in the London metropolis the chief commissioner licenses cab and omnibus drivers; and orders certain traffic or all through traffic out of certain streets at certain times. Otherwise bye-laws, orders, and licenses, with one or two exceptions reserved to the J.P., have drifted away to elective bodies. (7) In *civil process* police constables execute the distress warrant by which the J.P. enforces payment of rates, fines, and compensation. Indeed the constable and J.P. are for practical purposes co-extensive; consequently recent statutes which give to the J.P. certain landlord and tenant disputes where the tenant's rent is under £20 per annum, and the settlement of wage disputes of London bargemen, have made the police constable intrude into an arena for which he is unfit. (8) *Arms and discipline.*—Unlike the foreign gendarmes and Royal Irish Constabulary (outside Dublin) the English police force is non-military, does not live in barracks, and is usually unarmed except with a hidden truncheon. A month's notice of resignation is required under a penalty of £5 *plus* arrears; neglect of duty is punishable by a £10 fine or a month's hard labour. In Ireland a £5 fine is inflicted for the latter, a £10 fine or three months' hard labour for the former offence. Both in Ireland and England J.P.s—*i.e.* the masters—impose the penalty on the men, but after judicial process.

[For history and theory see P. Colquhoun, *Treatise on the Police of the Metropolis*, 1796.—J. Toulmin Smith, *The Parish*, 1857.—R. Gneist, *History of the English Constitution*, translated by P. A. Ashworth, 1891.—F. W. Maitland, *Justice and Police*, 1885.—Shaw, *Municipal Government in Great Britain*, 1895. For present law and facts see Haycraft, *Powers of the Police*, 1897.—C. M. Atkinson, *Magistrates' Annual Practice 1897.—Parliamentary Reports, Annual Judicial Statistics.*]

The Policeman in France.—The French separate administrative from judicial police, the former preventing, the latter investigating and bringing before the courts, crimes and offences. (1) The administrative police, if general, is exercised by some minister—usually the minister of the interior or home office, who instructs and orders his inferiors with or without the help of the council of state; but licensing of plays is assigned to the minister of education; inspection of weights, measures, and insanitary food to the minister of commerce; highways and public vehicles to the minister of public works, etc. Each minister acts as agent of the president of the republic. Outside Paris, the president nominates prefects of departments, who, with or without the help of the selected conseil-général of the department—issue to the public bye-laws, *arrêtés réglementaires*, or orders and licenses, *arrêtés individuels*, as to slaughter of diseased animals, precautions against fire, etc., subject to the veto of the minister concerned. "Commissaries of Police," nominated by the prefect in towns of less than 6000 inhabitants, otherwise by the president, have jurisdiction over the town or commune to which, or to part of which, they are attached. There must be one for a town of 5000 to 10,000; and one more for each additional 10,000 inhabitants. They act under the prefect in "general" and under the mayor in "municipal" police; and can command the services of the watchmen and keepers, but can only "request" officers of gendarmerie to help them. Mayors are unpaid, and elected by and from the elected town or communal council. In general police they are agents of the prefect, but are heads of "municipal" police, streets, public health, repairs, etc. They issue to the public bye-laws and orders subject to the prefect's veto; but in local finance, public works, and property, are subject to "the controul" but never to "the authority" of the town or communal council. They appoint "keepers," *gardes champêtres et forestiers*, who patrol and look after parks, forests, harvests, etc., and are under "surveillance" of the gendarmerie; and if urban, they appoint watchmen, *agents de police*, whose organisation is settled in large capital towns by the president, and being borrowed from England, always follows the English patterns of 1829-1835—thus their officers are superintendents (chefs), inspectors, and brigadiers, and they patrol the streets unarmed, and besides keeping the peace, relieve in cases of things lost or found, accidents, ignorance of the way, etc. Fire brigades are organised by communes and towns, under orders from the prefect, the superior officers being nominated by the president, and the members being soldiers under military law but subject as to their duties to the home office. The gendarmerie is the old feudal, then monarchic force; now it is, like the fire brigade, a military force told off to public duties anywhere, under the civil ministries; unlike the Prussian gendarmerie, it is also under the war office; it patrols town and country, but looks especially after the country, and acts under its officers, whose prefect or commissary "requests" the officers to act.

In the above sketch sub-prefects of arrondissements, and their elected councils, often thrust in between mayor and prefect, deputy mayors and different kinds of commissaries, are omitted. Again, the president usually acts on the advice of the home office. Again, the elected councils, originally financial and consultative, have only since 1884 advanced to the stage of "controuling" (they can never dictate to) the official in certain

cases. Again, before 1884, the mayor was a nominee of the president in important towns, and could not nominate his keepers and watchmen. Further, Paris is differently constituted. In Paris, two co-ordinate functionaries, the prefect of police and of the Seine, perform the duties usually associated with general and municipal police respectively; the gendarmes are called the garde republicaine; there are 75 commissaries attached to 80 quarters; there are 80 police stations in each quarter, under an *officier de paix*, who can command three brigades of watchmen (called "wardens of the peace," *gardiens de la paix*); and there are other commissaries and brigades told off to special duties; the superintendent of the watchmen is appointed by the prefect of police, and the *officiers de paix* by the home office (*Règlement général*, 30, 4, 1887). Lastly, inspectors of factories, whose functions since 1893 are enlarged, and of weights and measures, surveyors of bridges, and the like, who are directly under the central administration, are classed as "special police subordinates."

To sum up: administrative police occupies the entire ground of local government, *less* finance and education. It is a bureaucratic hierarchy in which executive virtue descends drop by drop from the president down to the humblest gamekeeper; and the inferior showers back incessant reports on his immediate superiors. But there are two qualifications. The mayor is now in reality as well as in name an independent centre, whence the powers of municipal police radiate. Representative councils have begun to encroach upon personal power, and in spite of their centralisation there are always two rows of police subordinates—civil and military—and the urban and rural civil police subordinates differ in origin and essentials.

(2) The judicial police include the procureur-général, procureurs de la République, juges d'instruction and juges de paix, in addition to the administrative police. Their duties are as follows: —(*a*) *Force*—Every policeman must take a criminal caught red-handed, etc.—the etc. is important—before the public prosecutor; but so must every one if requested (*Co. Pén.* 475, 12°). In other cases a police officer, *i.e.* procureur, juge, préfet, who never acts except sometimes in Paris, commissary, mayor, or officer of gendarmes, issues, and serves, and enforces by a common policeman, or usher of the court, summonses and warrants. It is a minor crime to obstruct a policeman or any one when doing their duty (*ib.* 222-24); (*b*) *Investigation*—On receipt of a written information by any one, whether aggrieved or not, the policeman questions the suspect, and examines witnesses in private. But only the police officer can invade houses; (*c*) *Proof*—Watchmen may investigate but cannot "prove." Again, sub-officers of gendarmes, keepers, "special policemen," and revenue officers, may prove certain offences and minor crimes. Again, officers other than the "procureurs," or "juges d'instruction" prove "offences," and, where the criminal is caught red-handed, etc., crimes; otherwise the procureurs, or juges d'instruction act or appoint deputies to act for them. His "proof" is signed by the officer, though he need not write it, and has at least the effects of a rule *nisi*. It is a summary of evidence as well as evidence. In this stage (*c*) the policeman has passed from administrator—through two chrysalis stages (*a*) and (*b*)—into a full-fledged member of the judicial police; (*d*) *Trial*, as a rule takes place before the juge de paix, or mayor, sitting as "juge de police," in the case of offences, proof and trial often take place at the same sitting, before the juge d'instruction in the case of minor crimes, before the assize courts in the case of major crimes. Although the "juge" thus suffers a further metamorphosis from public prosecutor into judge, these two functions must be represented by different persons in any one cause. (*e*) Some questions, *e.g.* financial assessments and some offences, *e.g.* public nuisances which require an order for removal, or for payment for removal, never come before any court, but the administration makes and vindicates the law. (*f*) *Civil process* is as a rule kept distinct, but keepers are made bailiffs of fruit, etc.

The police subordinates are quick-change artists—inspectors and detectives, servants of home office and the court, accusers, judges, soldiers—anything and everything by turns on a small scale. [F. Brayer, *Dictionnaire Général de la police administrative et judiciaire.*—M. Block, *Dictionnaire Général de l'Administration Française.*—G. Meyer, *Lehrbuch des Verwaltungs-Rechts*, 1893.—A. Shaw, *Municipal Government in Continental Europe*, 1895.—H. de Grais, *Handbuch der Verfassung und Verwaltung*, 1897.]

J. D. R.

POLITICAL ARITHMETIC. See ARITHMETIC, POLITICAL.

POLITICAL ECONOMY.

Political Economy and Science—I. Scope, p. 128. II. Method, p. 133. III. Ethics, p. 137. IV. Political Economy, Applications of Logical Conceptions to, p. 139. V. Political Economy and Psychology, p. 140. VI. Political Economy, Recent Developments of, p. 143. VII. Political Economy, Postulates of, p. 148. VIII. Political Economy, Authorities on, p. 149.

It is not intended in this article to give a summary of the descriptions and theories that are now commonly found in treatises on political economy; since such a summary, considering the extent and variety of the questions which the subject is generally held to include, and the fulness of treatment which has now become customary, could hardly be more than a dry and uninstructive table of contents. What is proposed here is rather a brief discussion of the scope and method of the study, sufficient to indicate clearly the points at which controversies arise; and, without deciding dogmatically any questions of importance on which competent thinkers are still disagreed, to contribute, if possible, to the exclusion of disputes arising from mere misunderstanding, narrowness of view, or confusion of thought.

I. SCOPE. The first thing is to define the subject of inquiry. This task is rendered a little difficult by the important changes that have taken place in the meaning of the

term "political economy," as used by leading writers, since it was first employed to denote the subject of a systematic treatise. Originally political economy was—as its name suggests—conceived to be the common portion of two arts, "economy in general" and the art of government. "Economy in general" was the art of regulating the employment of a family, or other group of human beings, so as to provide for all the wants of its members with prudence and frugality. "Political economy," accordingly, was conceived as the same art in its application to the group of human beings forming a political society or state. It was thus concerned with what was regarded as the chief *domestic* business of a statesman, whose aim should be, like a good father of a family, to provide everything necessary for supplying the wants of the society and its members, and to regulate the employment of the latter with a view to this end; due regard being had to the spirit, manners, habits, and customs of his people, and, in a free country, to their constitutional rights and liberties. This is (*e.g.*) the account of the subject given by Sir James STEUART in his treatise (*An Inquiry into the Principles of Political Economy*), published in 1767, nine years before the *Wealth of Nations*. Before the close, indeed, of the 18th century, a very different view of a statesman's duties, in relation to industry and trade, had begun to be widely taken, under the influence first of the PHYSIOCRATS (*q.v.*), and afterwards of Adam SMITH. Still, notwithstanding this fundamental change of opinion as to the maxims of economic policy, the current conception of political economy as a branch of the art of government is definitely retained by Adam Smith. "Political economy," he says, "proposes two distinct objects; first to provide a plentiful revenue or subsistence for the people, or more properly, to enable them to provide a revenue or subsistence for themselves; and secondly, to supply the state or common weal with a revenue sufficient for the public service. It proposes to enrich both the people and the sovereign." This definition, however, of the scope of the study is not given till the commencement of the fourth book of the *Wealth of Nations:* the first two books are occupied in expounding the "causes of the improvement" which the power of civilisation brings about "in the productive powers" of a nation's labour—independently of the fostering care of government; the "order according to which this produce is naturally distributed among the different ranks and conditions of men in the society"; and, in particular, the effects of the accumulation of capital, and of the different forms which capital "naturally" assumes. It is on the basis of this analysis of the "natural" process of production, distribution, and exchange of wealth that Adam Smith proceeds to frame, in the fourth book, his elaborate indictment of all endeavours of government, whether by special encouragements or special restrictions, to allot to a particular species of industry a greater or lesser share of the capital of the society than would naturally go to it. "All systems of either preference or restraint being thus completely taken away," the old conception of the art of political economy finds its main content withdrawn from it: the sovereign and the statesman are "completely discharged from the duty of superintending the industry of private people and of directing it towards the employments most suitable to the interests of the society." This being so, it is easy to understand how, under the influence of Adam Smith's epoch-making book, a new meaning was given to the old term "political economy": the study so called came to be viewed not as an investigation of the manner in which a statesman ought to regulate industry and trade, but of the manner in which industry and trade would regulate themselves if the statesman would only abstain from ill-advised meddling. Political economy, in short, came to be conceived—if we may apply a distinction that was not used with precision till later—as a part of the science of human society, rather than a part of the art of government; the guidance which the science had to give to government being, apart from questions of taxation, mainly summed up in the simple phrase "Hands off!" The sovereign was, indeed, left with the very important duties of guarding the community against invasion from without and maintaining an exact administration of justice within it; but, indispensable as these functions clearly were to the well-being of industry and commerce, it was not held to be within the purview of political economy to lay down principles for their discharge.

This changed view of the scope of the study soon found clear and distinct expression in the writings of the disciples of Adam Smith. In the influential systematic treatise of J. B. SAY (1803) political economy is defined simply as "the science which treats of wealth"; and Government is merely viewed as a great consumer, whose needs have to be supplied by taxes and loans. Similarly, the very title of RICARDO'S epoch-making work, *Principles of Political Economy and Taxation*, seems to imply that the only legitimate function of government which he discusses—taxation—is hardly regarded by him as strictly belonging to "political economy." It is true that, so late as 1821, James MILL began his *Elements of Political Economy* with the old comparison:—"Political economy," he says, "is to the state what domestic economy is to the family": . . . and just as "the art of him who manages a family consists in regulating the supply or consumption of those things which cannot be

produced but with cost," so "the same is the case with political economy." But, at the same time, the declared aim of his treatise is only "to ascertain the laws,"—meaning laws of nature, not laws of man,—which regulate the production, distribution, exchange, and consumption of commodities that cannot be obtained without human labour: that is, James Mill introduces the subject as an art, and then proceeds to announce that it will be treated as a science. With more clearness of view, N. W. SENIOR, in 1837, saw the necessity of dividing the "science of political economy" into two great branches: (1) the theoretical, which "explains the nature, production, and distribution of wealth"; and (2) the practical, of which the office is to "ascertain what institutions are most favourable to wealth." And some years later, in a compendious treatise on political economy, as a "pure science" (written originally for the *Encyclopedia Metropolitana*), SENIOR, with a consciousness that he was narrowing the traditional meaning of the term, proposed to confine the name of political economy to the theoretical branch of the subject; leaving the practical branch to be absorbed in the general art of government. As this view of the scope of the study became, on the whole, the prevalent view among English economists, it may be convenient to examine briefly the arguments by which Senior justifies the innovation. He begins by fully recognising the importance of the questions which the practical branch of political economy, as previously conceived, attempts to answer. Inquiries, he says, as to the means by which the industry of man may be rendered more productive by the action of government, the distribution of wealth most desirable in a given state of society, the means by which any given country may facilitate such a distribution—such inquiries are undoubtedly of great interest. But they "no more form part of the science of political economy than navigation forms part of the science of astronomy. The principles supplied by political economy are indeed necessary elements in their solution, but they are not the only or even the most important elements. . . . They involve, as their general premises, the consideration of the whole theory of morals of government, and of civil and criminal legislation; and for their particular premises, a knowledge of all the facts which affect the community which the economist proposes to influence." The statesman, he explains, who has practically to solve these questions, must consider all the causes which may promote or impede the general welfare of the society for which he proposes to legislate; the political economist, whose systematic attention has been concentrated on wealth, "has considered only one, though the most important, of those causes": accordingly his scientific conclusions, however true, "do not authorise him in adding a single syllable of advice." His business as a political economist "is neither to recommend nor to dissuade, but to state general principles which it is fatal to neglect, but neither advisable nor perhaps practicable to use as the sole or even the principal guides in the conduct of affairs." Substantially the same view was expressly adopted by J. S. MILL, though the plan of his popular and influential *Principles of Political Economy* is not framed in accordance with it. With characteristic eclecticism, while he includes in his treatise a discussion of the questions of the old art of political economy —even with some startling enlargements—he does not introduce these discussions as belonging to political economy strictly: but as mingling political economy with social philosophy. The same view was also effectively expounded, some years later, by J. E. CAIRNES in his *Lectures on the Character and Logical Method of Political Economy*, with still more pronounced antagonism to the older view than even Senior had shown. "Political economy," says Cairnes, "stands neutral between competing social schemes, as the science of mechanics stands neutral between competing plans of railway construction, as chemistry stands neutral between competing plans of sanitary improvement": it has, accordingly, "nothing to do with *laissez faire*." And since Cairnes, the majority of English writers who have regarded political economy as a scientific study have taken substantially the same view of its scope.

There is no doubt much force in the arguments of these writers, so far as they tend to the conclusion that the art of political economy, according to Adam Smith's use of the term, cannot be completely separated from the general art of government. It is certainly true that in deciding practical questions of public finance—or of governmental action, in matters of industry and trade, on other than financial grounds—it is often necessary to take into account other considerations besides the effects of the proposed measures on the production and distribution of wealth; and that sometimes these other considerations are more important than those with which political economy is concerned. But to refuse therefore to recognise an art of political economy at all, even as a partially distinct branch of a larger whole, was a more drastic measure than these arguments justified; and it was certainly exposed to the drawbacks involved in any attempt to change the long-established meaning of a familiar term. To tell the readers of Adam Smith—for the *Wealth of Nations* has never ceased to be widely read—that "political economy has nothing to do with *laisser faire*," was too daring a paradox; and it certainly has not been very

successful in dispelling the popular confusion between theory and practice which it was intended to clear away. The "laws of political economy" are still liable to be "disobeyed" in the ordinary discourse even of well-educated persons; indeed in 1888, an eminent judge (Lord Bramwell), presiding over the economic section of the British Association at Bath, enunciated with confident brevity the old-fashioned view of the subject. "What will be the best way to add to the wealth of a society must be a subject of study by that society, which will lay down rules—that is make laws—for the purpose; and this is political economy. Adam Smith was not the first political economist, though well called the father of those rules which now prevail. But rules for the purpose existed before him, the great objection to them being that most of them were wrong. There was a law that the dead should be buried in woollen . . . laws were made for fixing wages . . . laws against regrating and forestalling . . . usury laws . . . you cannot deny that these were economical laws because you think them wrong." There can be no doubt that the interest of Adam Smith's book for ordinary readers is largely due to the decisiveness with which he offers to statesmen the kind of practical counsels which, according to Senior and Cairnes, he ought carefully to have abstained from giving; perhaps therefore, in view of long-established usage, it will be found more easy to avoid any confusion between "laws of nature" and "laws of human legislation" in relation to the production and distribution of wealth, if we grant the study of both a place within the pale of political economy, while carefully distinguishing the science or theoretical branch of the subject from the art or practical branch.

And this conclusion will receive further support if we see reason to regard the science of political economy as only a partially distinct branch of the general science of society, just as the art is only a partially distinct branch of the general art of government. This, no doubt, was not the view taken by Senior, Cairnes, and their followers. According to the former, while the sciences which supply the rational basis for the art of government have premises drawn from an infinite variety of phenomena, the premises of the science of political economy consist of a very few general propositions; from which, as he holds, the political economist can draw conclusions universally true in respect of the production of wealth, and as regards its distribution, can at any rate "lay down the natural state of things as a general rule," without turning his attention to any elements of social life beyond the process of producing and exchanging wealth. The scientific value of such deductive reasonings will be considered later; what we have now to observe—a point apparently overlooked by Senior and Cairnes—is that the practical arguments in favour of the "system of natural liberty," urged by Adam Smith and his successors, may similarly be presented as deductions from a few premises, representing familiar facts of human experience and not requiring any wide study of social phenomena. Thus it may be argued, first, that from the universality of the desire for wealth, the superior opportunities that each individual has—as compared with any other person—of learning what conduces best to the satisfaction of his wants, and the keener concern he has for such satisfaction, any sane adult may be expected to discover and aim at his own economic interests better than government will do this for him. Then, this being granted, it may be argued secondly that consumers in general—*i.e.* the members of the community generally in the character of consumers—seeking each his own interest intelligently, will cause an effectual demand for different kinds of products and services, in proportion to their utility to society; while producers generally, seeking each his own interest intelligently, will be led to supply this demand in the most economic way, each one training himself or being trained by his parents for the most useful, and therefore best rewarded, services for which he is adapted. Then, keeping within the same narrow lines of analysis and deduction, we may show how in certain cases, such as that of industrial monopoly, the general argument for the coincidence of private interest with the interest of the community fails. All these arguments may be worked out in considerable detail, without touching on any social facts beyond those considered in the science delineated by Senior—the nature of wealth, the general causes of changes in the value of purchasable commodities, the universal desire to obtain such commodities at the least possible sacrifice, and the rational activities to which this desire may be assumed to prompt intelligent persons under various conditions.

It will be replied that this kind of general reasoning cannot by itself enable us to solve any of the practical problems of economic legislation; because such problems, as Cairnes says, often "present other aspects than the purely economical—political, moral, educational, artistic aspects;—and these may involve consequences so weighty as to turn the scale against purely economic solutions." In saying, however, that there are "few" practical problems which do not present extra-economical aspects, Cairnes seems to go too far; since there are certainly some important departments of economic legislation, *e.g.* banking and currency, in which a statesman would usually come to

his conclusions on purely economic grounds. Still no doubt his statement is largely true; even in matters of taxation and public finance, other than strictly economic aims have often to be taken into account,—for instance the actual plan of taxation in England is partly determined by the general conviction that alcoholic drinking is dangerous to health and morals. But, granting that *effects* not strictly economic have to be taken into account in some of the concrete problems belonging to the practical branch of political economy, it is no less true that in some of the concrete problems of economic science *causes* not strictly economic cannot be overlooked. Suppose, for instance—to take the leading question of the *Wealth of Nations*,—we compare the productiveness of the labours of one country at the present time with that of another, or with the productiveness of its own labour at an earlier period—there is no one of the extra-economical elements of social life mentioned by Cairnes which may not come into consideration; political systems, moral opinions and habits, educational methods, artistic faculties and tastes, each in turn may become important. And no general rule can be laid down as to the extent to which these other elements are to be taken into account; since their relations to industry and trade vary indefinitely in closeness and importance in different economic inquiries.

The difficulty of completely separating the science of political economy from the general science of society may be illustrated by examining more closely the definition of the social relations and activities with which political economy is primarily concerned. From Adam Smith downwards they have been commonly conceived as activities and relations connected with wealth; and by writers of this century have usually been classed under the four heads—Production, Distribution, Exchange, and Consumption; or under three of the four, one or other of the last two being often omitted as a separate head. This division of subjects is perhaps a little confusing, as it is partly understood to represent a division of processes; the machinery of exchange—bills, currency, banking—being commonly treated under the third head. But when wealth is said to be "produced" by human labour, it is not matter that is brought into existence but some adaptation of external matter to human needs and desires; and this adaptation is carried on through the whole process of conveyance and exchange, until the "product" passes into the consumers' possession and political economy hands it over to domestic economy. So again Distribution—the division of the produce into the shares distinguished as wages, rent, interest, profit—is mainly performed through Exchange, so far as it is an actual and not merely ideal division. But when we look closer at the facts denoted by these two latter terms, we see that what is distributed through exchange in modern communities is not merely the aggregate of material commodities which we commonly call the "produce" of labour; but also the services of professional persons—physicians, lawyers, ministers of religion, educators, actors, etc.—whose labour is not spent in adapting external matter to human needs and desires, but in ministering to those needs and desires in some other way. Now, if the political economist were to extend his inquiries to the causes which render the supply of medical, legal, educational, ecclesiastical, and dramatic services more ample or better in quality in one age and country than in another, his science could hardly be prevented from becoming almost coextensive with the general science of society; especially if he also included governmental services, which in modern communities are mostly paid, and may legitimately be regarded as obtained by the public in exchange for part of the proceeds of the taxes. This extension of the subject is avoided, in treating the topic of Production, by confining attention primarily to the application of human labour to external matter; and only, under this head, taking note of educational or medical services, or the activities connected with the administration of justice, so far as they have an important bearing on the efficiency of industry in the narrower sense. But from the point of view of Distribution and Exchange a somewhat wider survey is properly taken; as the economic aspect of other social activities—at any rate so far as their remuneration is determined by competition and free contract—cannot be excluded from consideration without obvious incompleteness. For instance, in investigating the causes that determine the amount of employers' profits, the competition of the professions with business for men of ability is an element that cannot be ignored.

To sum up: Political economy, as commonly studied, has included a theoretical and a practical branch, which it is important to distinguish clearly, since there is a popular disposition to confound their respective premises and conclusions. For brevity, it seems convenient to refer to them as the science and the art of political economy; the latter being historically the subject to which the term was mainly applied in its earlier use, whereas among English political economists of the present century there has been a tendency to restrict it to the former. The science of political economy deals with a certain class of social activities and relations, the study of which can with advantage be partially separated from the study of the rest; but the separation is only partial, most other social activities having, as competitively remunerated, an economic aspect, as well as

more or less influence on the activities with which political economy is more specially concerned. The degree of separation between the science of political economy and the general science of society it is well to leave somewhat indefinite, partly because it differs importantly in different inquiries, partly because the general science of society is at present in a rudimentary condition and struggling towards a fuller development,—each step in which is not unlikely to alter somewhat its actual relations to the special sciences which are, ideally speaking, its branches.

Similarly the art of political economy, which deals with a special department of governmental interference, designed to improve either the social production of wealth or its distribution, may be partially, but only partially, separated from the general art of legislation or government. Here, again, the degree of separation varies considerably according to the nature of the problems considered; but on the whole the connection of the art with the more comprehensive art of which it is a part is closer than the corresponding connection in the case of the science. This is partly due to the fact that the general art of government, though its development is not very advanced, has hitherto received considerably more attention than the general science of society. H. S.

II. METHOD. In the discussion of the scope of political economy we have had to anticipate in some measure the discussion of its method, since the two questions cannot be altogether separated. We now pass to concentrate attention on the latter question, on which express differences of opinion have been more strongly accentuated. Whether the method of political economy is "inductive" or "deductive," and if inductive, how far it is "historical," and whether so far as it is deductive it is "hypothetical" or "positive," and to what extent its more exact reasonings ought to assume a mathematical form —these questions have, in times not long past, given rise to prolonged and sometimes bitter controversy. The polemical treatment of them, however, in England at least, seems lately to have given way to a general prevalence of a more balanced and conciliatory view; and in fact the long sustainment of the controversy seems to have been partly due to misunderstandings and confusions, and partly to inadvertence in applying to the whole of the subject general statements that are only true of *some* of the reasonings included in it.

The most fundamental misunderstanding appears to have arisen from a confusion between the method of the science and the method of the art, as above distinguished. Two distinct propositions, one being important as a premise in the deductive reasonings of the science, the other in the *rationale* of the leading rules of the art, have been more or less blended together—under some such name as individualism or economic egoism—or at any rate regarded as logically inseparable, and forming part of one doctrine. Whereas in reality, though there is a certain affinity between them, there is no sort of logical connection; and though each of them is only true with important limitations and qualifications, the required limitations are quite different in the two cases. The *first* is the proposition, stated with varying amounts of qualification, that the "ECONOMIC MAN,"—*i.e.* the human being that political economy assumes to be normal—always prefers a greater apparent gain to a less, and prefers to attain any desired result with the least possible apparent loss or labour. The *second* is the proposition that the best possible result will be attained, so far at least as the production and distribution of wealth are concerned, if the individual is left free to regulate his own activities for the supply of his own wants, within the limits necessary to secure a like freedom to all other individuals. It is obvious that the second proposition does not follow from the first, since the economic individual may be deceived by appearances, or his interests may clash with the interests of the community. It is obvious too that they belong to entirely different departments of inquiry—the first gives information as to what happens, without pronouncing whether it is good or bad; the second judges that what happens or would happen under certain conditions is the best thing that could happen. Accordingly the first is important in explaining scientifically the facts of economic experience, but has nothing to do with economic ideals or rules of governmental action in economic matters; while the second leads immediately to a fundamental maxim of policy.

Let us for the present confine our attention to the science. Here the primary issue of importance is not whether the method of economic science is purely inductive or purely deductive; since the prevision characteristic of science necessarily involves some deduction, while the artificially simplified type of human action and social relations, with which deductive reasoning starts, is necessarily formed from observation and induction. The question is rather whether useful results are to be obtained by simple deduction from propositions—like the first of the two above given—generalised without laborious or systematic induction from familiar facts of ordinary experience. This is what the deductive economists contend; and perhaps we may say that the contention would never have been disputed if it had been limited to a certain class of questions, and not apparently put forward as a compendious account of the whole method of economic science. As so put forward, it is contradicted by the continual practice, and sometimes by the express

admissions, of the most deductive economists. It will always be found that the conclusions deductively obtained from premises of the kind above indicated are either (1) of a very general kind, chiefly valuable in a preliminary survey of economic activities; or (2) so far as they are more particular are merely abstract and hypothetical, requiring further knowledge only obtainable by induction before they can be effectively applied to the explanation of concrete facts.

To show this, it may be convenient to quote the "very few general propositions" which Senior, who is perhaps the clearest example in England of the extreme deductive view, regards as "*the* premises" of the political economist. They are these:

1. That every man desires to obtain additional wealth with as little sacrifice as possible.
2. That the population of the world is limited only by moral or physical evil, or by fear of a deficiency of those articles of wealth which the habits of the individuals of each class of its inhabitants lead them to require.
3. That the powers of labour, and of the other instruments which produce wealth, may be indefinitely increased by using their products as a means of further production.
4. That, agricultural skill remaining the same, additional labour employed on the land within a given district produces in general a less proportionate return; or, in other words, that though, with every increase of the labour bestowed, the aggregate return is increased, the increase in the return is not proportional to the increase of the labour.

Of these propositions, the second at any rate can hardly be maintained to be one "scarcely requiring proof or even formal statement"; since Senior himself in justifying it has to refer to the systematic observations by which it has been "ascertained that for considerable periods, and in extensive districts under temperate climates, the human race has doubled within twenty-five years." And only if the limits of increase are left quite vague can the third and fourth propositions be said to represent "familiar facts" included "within the previous knowledge of almost every man." Also the list is by no means exhaustive; it would not be possible to establish the most elementary minimum of conclusions that could be called a body of economic doctrine from these four propositions without several other assumptions:—*e.g.*, as to the law of property, contract and inheritance, as to the gradual satiation of the desire for any particular commodity as its supply increases, and as to the knowledge possessed by buyers and sellers in any exchange of the offers of other buyers and sellers of similar commodities. Still, speaking broadly, and omitting minor corrections, it may be granted that from a group of assumptions similar in kind to Senior's, and representing like them facts of common experience, a general or typical account of the process of production and the determination of the shares of different classes of producers in a modern industrial community may be deductively worked out. Again it may be admitted that with the same general premises a number of hypothetical problems may be solved as to the economic application of capital, or the determination of prices, wages, interest, rent, on the assumption of a definite set of particular conditions, varying from case to case. And finally it cannot reasonably be denied that both kinds of deduction, those that are general and typical and those that are particular, precise, and hypothetical, are useful as a means of training the intellect for dealing with the complex detail of the questions presented by concrete economic facts. But when we turn to any of these concrete problems—when we try to explain, *e.g.* the changes in prices, general and particular, during the last twenty years, or the fall in the rate of interest, or the differences in the wages in the same employment in different parts of England, or the differences of wages or profits in different employments—it is at once evident that such deductions are not sufficient, and that further data are needed, only obtainable by systematic observation and induction. Indeed the least reflection on any of Senior's four propositions will at once show the need of such further data. Let us take the first, "That every man desires to obtain additional wealth with as little sacrifice as possible." We can infer from this that, *other things being equal*, our "economic man" will prefer a greater gain to a less, in any sale of his services or of material commodities owned by him. But till we know what he regards as "sacrifices" and how he quantitatively compares different kinds of sacrifice with each other and with the prospect of additional wealth, we cannot get much further; and Senior himself dwells on the "diversity" that "exists in the amount and the kind of the sacrifice which different individuals will encounter in the pursuit of wealth." . . . "These differences," he goes on to say, "form some of the principal distinctions in individual and national character." But if so, we require to learn from observation and induction how different nations, or different classes of men in the same nation, estimate different kinds of sacrifice, before we can explain (*e.g.*) how wages and profits vary in different employments—"with the care and hardship, the cleanliness and dirtiness, the honourableness and dishonourableness of the employment," as Adam Smith expresses it. And a little reflection will show that in this consideration of "sacrifice" we must include all the varied motives, higher and lower, that are actually found to conflict

with the desire of pecuniary gain—patriotism, *esprit de corps*, the unconscious influence of habit, conscious regard for custom or class prejudice, the love of independence, the love of country life, the taste for town amusements, regard for health, philanthropy, and many more. Even the "aversion to labour" which some economists have paralleled to the "desire of wealth," cannot be treated as a uniform force, operative equally in all human beings at all times; nor, indeed, as Senior himself admits, can the desire of wealth itself be so treated. Our estimates of the force of all these motives, if they are to have any scientific value, must be formed on the basis of the most careful observation and systematic induction. The same is true of the conditions of knowledge—which Senior, as we saw, does not expressly notice. For instance, granting that in a perfectly organised market, in which the rates of all exchanges may be easily ascertained, the price of similar commodities will be approximately the same at the same time, allowing for cost of conveyance; it remains true that we can only learn by observation and induction, how far the conditions of mutual knowledge, in the case of the buyers and sellers of any particular commodity, actually approximates to those of a perfectly organised market.

And on many other points of fundamental importance,—such as the standard of comfort of different classes and its degree of stability, the conditions under which increased remuneration tends to increase the efficiency of labour, the extent to which population is limited by prudence or by insanitary conditions, the influence of scarcity, whether of materials or skilled labour, on the cost of production, the degree in which monopoly, whether due to combination or otherwise, limits the effects of open competition —on all these points deductions from familiar facts of ordinary knowledge can obviously give but very imperfect guidance towards the solution of real problems.

Almost everywhere, in short, in dealing with particular concrete questions of political economy, systematic induction is needed for the exactest possible determination of data, as well as for the verification of conclusions.

In declaring that the method of political economy, regarded as a concrete science, is necessarily to a great extent inductive, we also declare that it is necessarily historical, in a wide sense of the term; the facts of which it seeks to ascertain the empirical laws, in order to penetrate their causal connexions, are facts that belong to the history of human societies. The question can only be how far the history studied is recent or remote. Here, *prima facie*, we should distinguish provinces rather than methods of inquiry. There can be no doubt that the whole history of human society presents economic phenomena, the investigation of which, with a view to the ascertainment of their causes and effects, is a legitimate subject of scientific curiosity; the economic historian, so far as he is scientific, is obviously studying a branch of economic science. The only points on which controversy can arise are (1) how far the knowledge of recent economic history, or the methods useful in obtaining such knowledge, are necessary or useful for the study of remote economic history; and (2) conversely, how far the study of remote economic history tends to throw light on the problems of the present and the recent past.

On the former question an attractive *modus vivendi* between the extreme historical school and the deductive economists is proposed in BAGEHOT'S (posthumously published) *Economic Studies* (1880). According to this brilliant and penetrating writer "English political economy—the abstract science outlined by Adam Smith and constructed by Ricardo"—is "only applicable to a limited and peculiar world"; it may be defined as "the science of business," such as business is in societies of "grown-up competitive" production and trade; a "theory of commerce, as commerce tends to be more and more when capital increases and commerce grows." It certainly seems clear that elaborate deductive reasonings, based on the easy transferability of labour and capital from place to place and from employment to employment, are primarily applicable only to such advanced societies as Bagehot has in view; and are only useful—if at all—as a preliminary intellectual exercise to the economic historian who is concerned with less advanced communities. But this hardly justifies us in adopting the sharp distinction proposed by Bagehot between an "economic" and a "pre-economic" era; or at any rate a thoroughly "pre-economic" society may with almost equal justice be called "prehistoric." Any society that has a "history," in the ordinary sense, has arrived at the stage of development at which the analysis that economic science offers of the fundamental notions of utility, value, wealth, capital, money, of the varyingly remunerative employment of man's labour on his physical environment, and of the general laws determining competitive exchanges, must be at any rate partially applicable to it.

However, it belongs rather to the historian than the economist, according to the ordinarily recognised division of intellectual labour, to decide how far this general analysis, or any abstract reasoning based on it, is useful for his inquiries. But it may be worth while to point out to the more aggressive "historicists" that the more the historian establishes the independence of his own study,—by bringing into clear view the great differences between the economic conditions with which we are familiar and those of earlier ages—the more, *prima facie*, he tends

to establish the corresponding independence of the economic science which, pursued with a view to practice, is primarily concerned to understand the present. The more effectively, *e.g.*, he proves that modern economic analysis, and deductions based on the assumption of free competition and mobility of labour, are inapplicable to the study of mediæval history, the more improbable he makes it that the study of mediæval history has any important light to throw on the economic problems of modern communities in the most advanced stage of development.

Taking now the point of view of the economist whose primary task is to understand the phenomena of his own age, we may perhaps reduce the area of controversy by pointing out that the question, how far knowledge of the past is important for a scientific grasp of the present, will naturally receive a different answer in relation to different inquiries. In the first place, it may be noted that some economic propositions—usually of a general and elementary kind—while true in all stages of economic development, still find their most impressive verifications in stages antecedent to our own. For instance, the effect on price of a deficiency in the supply of a necessary of life, which modern cosmopolitan commerce tends to confine within narrow limits, is most strikingly manifested by the dearths of the middle ages. So again, the great epidemics of the same period, especially the so-called Black Death, similarly illustrate the power of a deficiency in the supply of labour to raise its value; and the latter example is all the more interesting because of the barriers of law and custom through which competition had to force its way. Even in dealing with modern questions of a more special kind, the most impressive evidence may often be obtained by a retrospect considerably extended, though not usually so far as in the cases just mentioned. Thus it may be hoped that no modern state may again give such an object lesson in the dangers of an inconvertible paper currency as both France and North America provided in the last quarter of the 18th century; and it may be hoped also that the English student will always have to turn to the first quarter of the 19th for a full exhibition, in his own history, of the evils of an unguarded legal right to poor-relief.

The instances above given are all useful to the student of the economics of advanced communities. But human societies are actually coexisting in different stages of economic development; and concrete economic science, even if pursued with practical ends, cannot exclude from its view the economic phenomena of the less advanced; and for these, instructive analogies are still more likely to be obtained from the past history of societies now in the latest stage. Thus competent judges hold that it might have prevented serious mistakes in our government of India, if the governing statesmen had had before their minds the historical development of land-tenure, as we now conceive it to have taken place in European countries.

So far we have considered the relation of the science of political economy to economic history regarded as a special branch of the whole historical study of human society,—a branch which, in the division of intellectual labour that the progress of knowledge renders increasingly necessary, has, in the last generation, attained a degree of practical independence resembling that of (*e.g.*) ecclesiastical history. But some of those who, throughout this century, have from time to time announced the proximate triumph of history over the old-fashioned political economy, have rather had in view the general study of human society as a whole, treated historically, as the study of a process of development. It is held that a scientific knowledge of the fundamental laws of this development will enable us to predict in outline the future history of society; and that such a general forecast must be more reliable, even as regards future economic conditions, than any predictions founded on a study of economic phenomena alone. There is much to be said for this contention, on the supposition that adequate scientific knowledge of social development has been attained. But in the present condition of the general science of society, the controversy between sociologists and economists is rather like certain disputes between European nations for the possession of African territory; since it does not seem to relate to any region effectively occupied and cultivated by either science, but to a far-reaching "hinterland" which it is hoped to occupy and cultivate hereafter.

In considering the relation of political economy to history we view it as a concrete science, concerned with the explanation of actual economic facts; when we turn to the question how far its method is properly mathematical, our attention is chiefly directed to the abstract deductive reasonings employed in such explanations. This question was brought into special prominence[1] for English students of the science by the emphatic affirmation of JEVONS, in his highly original and important *Theory of Political Economy* (1871), that "economics, if it is to be a science at all, must be a mathematical science." In a certain sense the affirmation is incontrovertible, since a main aim of economic

[1] The earliest systematic application by an Englishman of mathematic symbols to political economy would seem to be WHEWELL'S mathematical exposition of some doctrines of political economy in the *Cambridge Philosophical Transactions*, vol. iii. pp. 191-230.

science is to determine the relations of varying quantities—*e.g.* to ascertain how the increase of the quantity of capital in a country affects the rent of land and the wages of labour, how changes in the quantity of a commodity demanded at a given price affect its actual price, etc. The only disputable point is how far it is necessary or expedient to represent these quantitative relations by mathematical symbols or diagrams. The answer must obviously vary to a great extent with the complexity of the reasoning to be represented. Some quantitative deductions are so simple that it would be pedantic to express them otherwise than in ordinary English; some are so elaborate that it would be a *tour de force* to follow them without the aid of the technical language of mathematicians. Between the two comes an intermediate class of reasonings for which the use of mathematical symbols or diagrams is certainly not indispensable, and, while most convenient for persons who have had a mathematical training, is troublesome to those who have not been so trained. Those economists who, while giving an important place to the deductive method, decline to adopt a formally mathematical treatment of economic problems, would seem to be of opinion that the deductions really useful, in the present state of our empirical knowledge, fall within this intermediate class in respect of elaborateness and complexity.

What has been said of the method of economic science will, to a great extent, apply equally to the art of political economy; since the reasonings of art are substantially the same as the reasonings of science, so far as the selection of means for the attainment of the ends of art are concerned; they only differ in arrangement and form. The case is different when we attempt to determine the ends at which political economy, regarded as an art, does or ought to aim. On this point, however, there has not been much express discussion, among English economists at least, owing to their full—and even too sweeping—recognition of the subordination of the art of political economy to the wider art of government of which it is a branch. We may trace, however, in the history of economic ideas, a gradual important change in the general conception of the ends which government ought to have in view, in legislation or other interference primarily designed to produce effects on the wealth of the community. The oldest view of political economy conceived it mainly as a part of the art of public finance; its object was to make the people as rich as possible, in order that the funds required by government might be attained as amply and as easily as possible. And these two objects—the provision of revenue or subsistence for the people, and the provision of revenue for government—are retained, as we have seen, in Adam Smith's definition of the study; only by this time the first object has come to be conceived as independent of, and prior to, the second. In Adam Smith's view, of course, the first object would, in the main, be best attained by the "obvious and simple system of natural liberty"; and we have noticed how the triumph of this view turned the minds of economists from the point of view of art to that of science, and led them to regard the investigation of the natural process of social production and distribution as their main business. Still, in defining the object of political economy, the improvement of this process is stated as a practical end; only, for half a century after Adam Smith, it is usually the improvement of production rather than distribution that is so regarded. This is strikingly manifested, *e.g.* by J. R. M'Culloch in his statement of the practical aims of political economy. "Its object," he says, "is to point out the means by which the industry of man may be rendered most productive of wealth, to ascertain the circumstances most favourable to its accumulation, *the proportions in which it is divided*, and the mode in which it may be most advantageously consumed." Here one would almost say that the natural structure of the sentence is deliberately broken, in order to exclude the idea of seeking the improvement of distribution. But even before M'Culloch wrote this the attention of thoughtful men had been strongly drawn to the shortcomings of the "system of natural liberty," regarded from the point of view of distribution. In Senior's *Introductory Lecture to the University of Oxford* in 1826, we note an important change of tone. He even goes the length of saying that "diffusion of wealth," such that "all the necessaries and some of the conveniences of life may be secured" to the labouring class, "*alone entitles a people to be called rich.*" Then in J. S. Mill's treatise, written about twenty years later, the interest in the improvement of distribution had become so strong as to give the predominant tone to the book; and the most radical proposals of economic change, with a view to the more satisfactory diffusion of wealth, were discussed with sympathy and partial agreement. Finally, in the latter half of the century—largely through the influence of Mill's remarkably persuasive work—the original predominance of production over distribution, in the current view of the art of political economy, has been almost inverted, and the aim of improving distribution has become continually more prominent in the minds of most of those who study political economy with a practical object. H. S.

III. Political Economy and Ethics. The growing importance of distribution as a practical problem has led to an increasing mutual interpenetration of economic and ethical ideas, which, in the development of economic doctrine during the last century and a half,

has taken various forms. It is an ethical postulate that the distribution of wealth, in a well-ordered state, should aim at realising political justice; hence arises a need of showing that the ideal of distribution which political economy —regarded as a branch of the art of government—puts forward, is in harmony with justice. This task was not expressly undertaken by Adam Smith or his leading English successors. But it had been undertaken by the most philosophical writer among the PHYSIOCRATS (*q.v.*) namely, by LE MERCIER DE LA RIVIERE, in his *Ordre naturel et essentiel des sociétés politiques.* Political justice, he argues, lies in the recognition, application, and enforcement, by sovereign and magistrates, of the simple natural laws which the Creator has established for the ordering of human society: that is—so far as the distribution of wealth is concerned—in securing to every man personal liberty, and the unfettered control and use, including alienation, of the material things which his labour adapts to his needs. And, from the age of the physiocrats to the present day, the impartial maintenance and enforcement of this "obvious and simple system of natural liberty"[1] has been defended by a long line of individualistic thinkers, as constituting the essence of distributive justice. In the popular conception of this ideal, the notions of "liberty" and "property" are usually kept distinct: but the system attains completer unity if in accordance with the contention of philosophical individualists, the rights of property are regarded as a simple application of the principle of liberty, and all the natural rights of men summed up in the single right to equal freedom.

As an interpretation, however, of the popular conception of ideal justice, the bare notion of Freedom was palpably inadequate: it was necessary to show further that the distribution of wealth resulting from complete industrial liberty was in accordance with Desert, and tended to give each individual engaged in industry and trade the just or "fair" remuneration for his services. It is here that the progress of economic knowledge has most clearly influenced common morality; and the influence has extended beyond the sphere of governmental action, to private morality in matters of distribution and exchange. For "fair" wages and prices in the prevalent morality of preceding ages were vaguely understood to be wages and prices corresponding to the "intrinsic worth" of the respective services and commodities: but political economy, showing the ordinary estimate of "intrinsic worth" to be chiefly determined by shifting custom, exhibited the need of some other interpretation of fairness, recognising the normal operation of supply and demand on rates of exchange. So far as it has attempted to supply this need, the teaching of political economists has generally pointed to the conclusion that a "free" exchange without fraud or coercion is also a "fair" exchange. It is, however, doubtful how far this interpretation has ever satisfied the common moral consciousness, when cases are considered in which one party to the exchange is found profiting by the ignorance or distress of the other. At any rate it has been widely maintained that a strictly competitive exchange does not tend to be really "fair"—some say "cannot be really free"—when one of the parties is under pressure of urgent need; and further, that the inequality of opportunity which private property involves cannot be fully justified on the principle of maintaining equal freedom, and leads in fact to grave social injustice. To this view of justice or equity, the socialistic contention—that labour can only receive its due reward if land and other instruments of production are taken into public ownership, and education of all kinds gratuitously provided by government—has powerfully appealed; and many who are not socialists, nor ignorant of economic science, have been led by it to give some welcome to the notion that the ideally "fair" price of a productive service is a price at least rendering possible the maintenance of the producers and their families in a condition of health and industrial efficiency.

In the controversy between INDIVIDUALISM and SOCIALISM, which has been increasingly active during the last thirty years, the duty of preventing, so far as possible, undeserved poverty, has naturally become prominent. This leads us to notice the influence of political economy on the popular conception of Benevolence as a duty. Such influence has naturally varied considerably with variations in the general belief as to the beneficent effects of free competition. But we may say generally that the wider view of consequences which political economy has opened up, has tended, among educated persons, to check the old unqualified approval of so-called "charity," and has even led to a tolerably wide-spread condemnation of indiscriminate almsgiving and other kinds of philanthropic encouragement of improvidence. On the other hand it has also exposed the fallacy of the old comfortable view that the luxurious consumption of the rich is indispensable in order to provide the poor with work and wages; and, on the whole, it has rather operated in the direction of making the philanthropic redistribution of wealth more circumspect and methodical, than of counteracting the movement to extend its scope, which the growth of sympathy and intelligence in modern civilised societies tends to cause.

So far we have briefly considered the relation of ethics to political economy regarded as an art or a practical study. It should be noted, in conclusion, that economic science, in

[1] Adam Smith, *W. of N.*, bk. iv. ch. ix.

investigating the causal connections of economic phenomena, is concerned in quite a different manner with morality. It has to consider how far, and in what ways, man in civilised societies is actually influenced by ethical considerations in the application of his labour to his material environment, and in dealing with the complicated system of exchanges by which the produce of that labour is distributed. In the deductive reasonings which play an important part in economic method — a part differently defined and estimated by different schools—it is to a great extent convenient to abstract the disturbing influence of ethical motives, so far as they restrain or modify the impulses that prompt a man to make the best bargain he can for himself in any transfer of commodities. This influence may generally be neglected in a certain class of concrete problems also —as in investigating the value of money, or the foreign exchanges. But in other cases —*e.g.* in the determination of wages—motives of this kind constitute an important factor; and in the development of political economy during the present century we may trace, in the works of our leading writers, a growing recognition of their importance. H. S.

IV. Political Economy, Applications of Logical Conceptions to. Most of the ideas and principles employed in economic investigation have been borrowed from other sciences in which their use is justified by the special characteristics of those sciences. But many of these very general conceptions have to be specially modified when applied to the explanation of industrial phenomena. We may specially consider a group of ideas represented by the terms law, normal, tendency, average, force, cause. We find even in Adam Smith some traces of a certain confusion, more or less prevalent in the 18th century, based on the conception of nature and natural law. The confusion appeared chiefly in the method of investigating the study of human affairs. This was dominated by the presupposition that an elimination of the forms superimposed by man upon nature's handiwork would reveal a sort of residue or essence that could serve as a model for imitation and reconstruction. In this way the respective standpoints of science and of art, of positive and practical investigation, were blended in a theory which identified the hidden purposes of nature with the truest aims of man. That which was natural was taken as equivalent to that which was free from artificial interference; and this latter to that which ought to be. The Laws of Political Economy (*q.v.*) thus tended to be alternately presented as something against which it was futile for society to contend, and again as something which it was imperative for society to promote. Political theory suggested a natural rate of wages, a natural rate of profits, as well as a natural right of property and a natural right to labour. The confusion was, however, gradually dissipated as the provinces of science and of art came to be separated. With this distinction also the double meaning of *law*, which stands either for a *uniformity* or for a *precept*, was explicitly recognised. The term law is now almost universally applied in economics in the former sense. Thus an economic law is a specific regularity traceable in actual experience of industrial phenomena; and the confusion between scientific law and ethical law no longer prevails. In this connection the term normal has replaced the older word natural, and is used as an adjective correlative of law. We now read of normal price or of the normal rate of wages, and understand by the expression *normal* something which presents a certain empirical uniformity or regularity. Emphasis is thus laid on the principle that the usual and the desirable do not necessarily coincide; and that to leave nature to herself, so far as this may be conceived as possible in human affairs, does not necessarily conduce to the greatest social well-being. But in this modern use of the term law and its correlative normal, there still remains the possibility of misunderstanding and misapplication. The term normal, as prevailingly used in deductive economics, does not after all express what is actually found to happen in every case (see Deductive Method). Of course the word is relative to some particular condition of society to which it explicitly or tacitly refers. But this is not all. It would only be verified in actual experience on a certain supposition, which is never exactly realised. Briefly, the normal is a more or less fictitious average. For example, the normal price is a price round which the actual prices fluctuate, and towards which, under the influences of competition, the actual price would more nearly approach as the period is lengthened, *provided that the general economic conditions remained stable during the period.* Not only can we not identify the normal price with any actual individual price, but we cannot properly identify it with the actual *average* of individual prices, except in so far as the hypothesis of stability of conditions is empirically realised. Estimates of normal results are, therefore, chiefly valuable for purposes of deductive exposition, and require various modifications before being applied to inductive explanation or prediction. A further consideration of the utmost importance introduces additional complexity, viz. that the periods for which the term normal applies differ considerably for different questions. For example, the normal price of a consumption good (see Consumers' Goods) refers to a period during which the number and efficiency of the working population, and the influences tending to keep up the investment of capital are relatively fixed; while the oscillations of price due

to changes of fashion, to variations of weather, to incidents of discovery, etc., are supposed to compensate for one another. But in determining the rates of wages and of interest themselves, with which the normal prices of commodities are connected, owing to the various ratios in which labour and capital may contribute to the production, a different set of questions is raised. In this case, we cannot lengthen our period in order to eliminate compensatory oscillations. For the general conditions of social development lead us to infer *progressive changes* in the conditions determining the value of productive agents. In these questions definite historical investigation, aided by estimates of various political and moral forces, takes the place of deductive calculations. The deductive method often rests upon mechanical and mathematical analogies; the inductive method, which here takes its place, rests rather upon biological and evolutionary analogies (see INDUCTIVE METHOD). The term *normal* ceases to apply, so far as it indicates an average, *estimated over a period of time*. But here it should be pointed out that the term *normal* may also be used to indicate a different kind of average, viz. an average estimated over a range of simultaneous phenomena. Whenever the result of a number of differently quantified phenomena can be calculated by *addition*, then it is useful to know their average value, from which their *aggregate* resultant is immediately found. For example, the total loss to consumers that would accrue from a tax on commodities could be roughly known, if we could estimate the average loss and the number of consumers. This example illustrates the important uses that may be made of the *average*. In these problems the theoretically deduced *normal* ought to coincide with the empirically inferred *average*.

A further implication of the term *normal* will be brought out by consideration of the allied term *tendency*. This term is based on mechanical analogies. It implies a force whose effect is modified by combination with the effects of other forces. The "law of the force," therefore, represents a "tendency" which can only be discovered by constructive analysis. Most of the laws of deductive economics are expressions of such tendencies. They can be applied to the interpretation of particular facts, only on the express proviso *that other things are equal*. For example, the law of DIMINISHING RETURNS points to an increase in cost of production of agricultural produce accompanying increase of population; but this tendency may be actually frustrated by improvements in the arts of production, etc. Similarly, the LAW OF SUBSTITUTION elaborated by Prof. Marshall (*Principles of Economics*, bk. v. ch. iii.) indicates a tendency towards the most economical mode of producing commodities, which is only realised on the assumption of sufficient foresight on the part of the leaders of industry.

Finally, we may refer to the particular form in which the general idea of *cause* has to be applied in economic deductions. The view of causation which has been popularly prevalent in economic expositions, may be called the chain-view. It is supposed that a causal series may be established thus: A determines B, B determines C, C determines D, and so on. Thus controversy has arisen whether it is the COST OF PRODUCTION or the taste of the consumers that determines price (see articles on PRICE); and again, whether it is the prevailing standard of comfort or the productive efficiency of any class of labourers which determines their rate of remuneration. In such cases, supposing that a controversy turns on whether A or B is the cause of C, it is further assumed that if it is A rather than B that determines C, then it must be C that determines B. For example, if we decide that the cost of production determines price, then we go on to infer that price determines demand, and so on. Now Professor Marshall has pointed out that the various elements of an economic condition of equilibrium do not, in this way, follow one another in a single causal chain; but that they all mutually determine one another by simultaneous interaction. Thus, neither the amount demanded nor the amount supplied are in general fixed independently of the other, but the price and amount at which the commodity is sold are jointly determined by the joint conditions of supply and demand. This conception of the nature of causal interaction controls the entire exposition of the problems of DISTRIBUTION and EXCHANGE in its modern form.

[Marshall, *Principles of Economics*, bk. i. ch. vi.]

W. E. J.

V. POLITICAL ECONOMY AND PSYCHOLOGY. If political economy is the science of wealth, then it deals with efforts made by man to supply wants and satisfy desires. "Want," "effort," "desire," "satisfaction," are each and all psychic phenomena.

It would therefore appear that psychology must be to political economy—like the deity of Boethius—"path, motive, guide, original, and end."

Yet it is obvious that the political economist as such is not engaged in the establishment of the ultimate principles of psychology. He has not, for example, to investigate the nature of a concept, or determine the relation of the Will to the Reason. So far it is clearly true (cp. Keynes, *Scope and Method of Political Economy*, pp. 87, 88) that although the laws of the political economist "rest ultimately upon a psychological basis," he accepts psychological principles as his data rather than establishes them as his conclusions; unless indeed he should be compelled to make excursions into

the psychological field proper, because he does not find his premises sufficiently elaborated to his hand.

But this does not justify the reduction of the psychological factor of political economy to a level with the physical factor. Cairnes indeed (*Logical Method of Political Economy*, 2nd ed. pp. 37 and 38, quoted and apparently endorsed by Keynes, p. 85) instances the law of rent, and maintains that, in establishing this law, the economist no more undertakes to analyse the motives of self-interest which dictate the conduct of the landlord and the tenant than he undertakes to analyse the physical qualities of the soil which determine the law of decreasing returns. Now this is very true. The economist starts with both psychological and physical data, which he need not analyse, provided he has satisfied himself that they are true. But the difference is this, that whereas his *data* are partly physical and partly psychical, his *quæsita* are, in the last resort, wholly psychical. For if the law of rent is anything, it is a formulating of the principles which we may expect to regulate the *conduct* of men, secured in certain possessions and privileges, actuated by certain motives, and in the presence of certain physical facts and laws. The laws of political economy then, being ultimately laws of human conduct, are psychical and not physical; and therefore psychology enters into political economy on something more than equal terms with physical science and technology.

It therefore seems clear that, although the economist, as such, is not concerned with the ultimate analysis of his psychological data, his quæsita or conclusions are themselves of the order of psychic phenomena. But within the limits thus laid down there is still ample room for diversity of opinion. It may be contended that the economist has to receive, and test, his psychological and physical data alike, to deal with them by the universal methods of dialectic (*i.e.* inductive and deductive logic, or mathematics, if applicable), and then hand over his psychological results to the sociologist. Or it may be argued that political economy is largely, or even prevailingly, *applied psychology*, so that the economist must from first to last realise that he is dealing with psychological phenomena, and must be guided throughout by psychological considerations. In that case the relation of psychology to economics will be as close as that of mathematics to mechanics, though not in all respects analogous to it.

It is easy to see that the controversy as to the inclusion or exclusion of CONSUMPTION as a separate and acknowledged division of political economy, has a decisive bearing upon this question. The whole theoretic study of consumption can be little else than the application of the great psychological law of diminishing returns of satisfaction or relief to successive increments of commodity or service supplied to the same subject. To admit "consumption" then as a branch of political economy is to admit that applied psychology has its conspicuous place in the science. So that if we are justified in saying that the express study of "consumption" has now been definitively admitted as within the scope of political economy, we are thereby admitting psychological method, as well as psychological data and conclusions, as a part of the science; and the importance of dealing thus expressly with consumption and the psychological phenomena on which this branch of this study rests may be well shown by typical popular fallacies. For instance, there was no more common application of political economy a few decades back than the dictum that "what people want they will pay for," and that therefore all subsidising is a waste of effort, and is "against political economy." Here the datum is that if *one and the same man* wants A as much as he wants B, he will be willing to give as much for it, sooner than go without it. From this datum certain conclusions as to market values and the commercially wise direction of efforts and resources are reduced, and these in their turn are reinterpreted into the statement that if *one* of two men is unwilling to give as much for A as *the other* is willing to give for B, then the first man does not want A as much as the second wants B, and it would be a wasteful and mistaken philanthropy to supply No. 1 with A rather than No. 2 with B. Of course no economist would formulate such an absurdity, but if the economists exclude consumption from express and psychological treatment, they leave room for and almost invite such "applications."

So much then for "consumption." But EXCHANGE is so closely connected with consumption, and the laws of value are now seen to be so intimately dependent upon the psychological law of diminishing returns of satisfaction, that it must be impossible henceforth to exclude applied psychology from the problems of value and of exchange.

An excellent illustration is furnished by the problems of the currency. Of all branches of economic enquiry those that are concerned with MONEY and with FOREIGN EXCHANGES seem most nearly to approach the objectivity of natural phenomena; and what is known as the QUANTITY THEORY has been cited as a proof case of an economic law which is not psychological. But the truth is that no single step can be safely made in monetary science, unless the investigator keeps himself in conscious touch with his psychological basis during his whole investigation. We cannot, without special examination, even say that, in virtue

of the universal law of supply and demand, the more sovereigns there are the lower will be their exchange value. For in this universal law of supply and demand there is a psychological link. Why does an increased supply lower exchange value? Because an increased supply of any commodity satisfies the corresponding want more completely, and reduces the unsatisfied remaining want to a lower degree of importunity. Now in the case of money it is admitted that within wide limits the money function is exactly as well performed by x and by nx pieces, so that there is no unperformed money function and money want becoming less and less importunate for satisfaction as the number of sovereigns, but not the command of commodities in general, increases. Thus, if the law of demand and supply is regarded as objective and absolute, and the psy hological link forgotten, its applications to monetary problems will have no demonstrative cogency.

We now turn to PRODUCTION and DISTRIBUTION, and here we note at once that the study of "production" must include the theory of labour, in which everything turns upon the law of the increasing irksomeness of successive increments of effort, and the decreasing psychological value of successive increments of commodity, or other result of effort; and the same law invades the study of distribution at every point, allying itself with the better-known physical law of diminishing returns to successive increments of any one factor of production, the others remaining constant.

In all the four main divisions of political economy, then, we see that the direction taken by economic study in recent years tends to a more express and generous recognition of the close connection between psychology and political economy, and the necessity of constantly keeping in touch with our psychological basis even when pursuing those branches of economic inquiry which appear to be remotest from it.

But, especially in connection with "production" and "distribution," another aspect of the question forces itself on our attention. We have hitherto enquired whether the psychological data of economics can be accepted absolutely as results and dealt with by general dialectic methods, or whether they can only be considered as principles, to be applied with constant reference to the psychological conditions of the special problem under investigation. We have now to ask further, are these psychological data, whether facts or principles, to include all the psychological considerations that actually bear upon the production, distribution, etc. of wealth, or are we artificially to simplify our psychology and deal only with the motives supposed to actuate the hypothetical "economic man"? In the latter case political economy will be a hypothetical science. In the former it will aim at positivity.

And here again it will hardly be doubted that the tendency of recent work has been in the direction of enlarging the psychological area from which the data of political economy should be drawn. This tendency is manifested in two characteristic movements in recent economic investigation, which have in their turn reacted upon it. Firstly, the field of economic study, like so many others, has been invaded by the passion for the concrete method of enquiry, whether applied to contemporary or remote conditions. Now the man who studies the history of a great strike or trade-movement in Europe or America, of the land tenure or village industries of India, of middle-class or artizan budgets in England or France, of the growth and organisation of industry in the Hanseatic cities or the republics of Italy, of the fiscal systems of commercially related peoples, and so forth, finds himself studying the conditions of the production and distribution of wealth, but in a region in which the simplified psychology of Ricardo and Senior is wholly inadequate. So conspicuously is this the case that some economists are ready to admit that no general theory or science of economics is possible, but only a natural history of wealth, production, etc., while others are seeking to reconstruct the general theory of economics on broader and more universally applicable principles. And it is here that the second movement characteristic of recent times allies itself with the historical method. It is the much-discussed mathematical method, which from this point of view is the necessary complement of the historical or concrete method. For no sooner has the mathematical student given to the acknowledged psychological data of economics the form, at once rigorous and generalised, that his method demands, than he perceives that his formulæ really embrace the general theory of the distribution of resources with a view to maximising a desired result, independently of the nature alike of the resources and the result in question. This brings the economic conduct of man under the same laws as his conduct in general, and promises to give us the wider basis of which we are in search.

Our conclusions throw a curious light on the much-debated but little-understood contention of Auguste Comte, *Phil. Pos.*, vol. iv. pp. 193 *et seq.*, that there is no specific science of wealth, with its special laws and principles, and that the attempt to deal with the wealth-getting impulses of man in isolation must be essentially barren; but that special applications of general principles of philosophy to the industrial and commercial life may be prolific and illuminating in a high degree.

P. H. W.

VI. Political Economy, Recent Developments of.

(1) Economics as concerned with Currency, p. 143; (2) Economics as based on the Element of Labour, p. 145; (3) The Gradual Appearance of the Ethical Element, p. 145; (4) Application of (*a*) *A priori*; (*b*) Historical, and the Gradual Rise of the principle of Freedom with new Aspects of State Control, p. 146.

We propose in this place to present briefly a general outline of the leading doctrines of the science as progressively evolved, with the names of the authorities specially associated with each development, so as to indicate, as it were, the skeleton of the history of the science, leaving the student to fill in subsequently for himself the details and elaborations of particular problems. Much generalisation which was considered as true at the time when it was made, and even was true within the limited aspects or conditions of the subject as then presented, has since ceased to be applicable in the wider view or more highly organised system of production and distribution of to-day. And, on the other hand, much which must be still held to be true as ultimate principles, or as the permanent conditions or tendency, is temporarily in abeyance, or is even not applicable as an expression of immediately existing practical conditions or phenomena. Certain views or formulæ which formed part of the growth of knowledge have been superseded or may be regarded as eliminated or definitely on the shelf, and in their place more comprehensive conceptions arise which invite study as the frontier lines of the science and the basis of further progress. To some extent these changes may be attributable to the fact that with the progress of time the science has assumed sometimes more and more of an ethical character; or sometimes more and more the character of an applied science, the object aimed at being, not so much the mere systematising of knowledge, as the amelioration of the social condition generally. Even in regard to the object some change of view is apparent, the avowed purpose of investigation being less consciously an increased production of wealth, and more consciously "the greatest happiness of the greatest number"[1] even though the attainment of this end should involve some sacrifice of material wealth. A more philosophical statement of the case would, however, be, that the present ethical tendency of the science was inherent in it from the first, and its recent more pronounced development a process of natural and inevitable evolution. This widening of view is illustrated by the very definitions of the science. Thus, whereas Adam Smith introduced his great work, *The Wealth of Nations*, as an inquiry into the annual labour of nations as a "fund" of national wealth, and J. B. Say took the production of wealth, and Ricardo the theory of value as the subject of inquiry, Roscher, the founder of the modern historical school of political economists, begins his survey of the science with the declaration, "Ausgangspunkt wie Zielpunkt unserer Wissenschaft ist der Mensch"—the starting-point and goal of our science is man.

[1] Though earlier English writers had been aware of this expression, its currency in these islands is due to the advocacy of Bentham (*q.v.*).

(1) *Economics as concerned with Currency.*—If we go back to the economic investigations of the ancients we see a remarkable conformity in their views with the views which are again coming to the front to-day. Aristotle (*q.v.*), accepting the institution of slavery as he found it, was really more concerned with the happiness of the family life and of the State than with the production of wealth, and on this basis engaged in the investigation of exchanges or commerce, the origin of value, and the real nature of money. The institution of slavery lingered on into our own times and was then abolished rather from ethical than economic considerations, though in this, as in other cases, the ethical view proved to be the true economic view in the end. Aristotle's inquiries led him to the perception that money was the creation of law, a merely conventional arrangement for promoting distribution, and it was probably this view of money as an instrument of distribution, as well as his ethical view that wealth was subordinate to man rather than that man existed for the accumulation of wealth, which made him an authority against usury. But Aristotle appears to have clearly perceived that the utility of gold and silver as materials was a condition of their suitability for their conventional use as an equitable instrument of distribution. In other words he seems to have perceived the importance of natural stability of value in relation to their conventional function. Philosophically expressed the former may be spoken of as the fiduciary system, and it rests, as has been well pointed out, on the doctrine of chances. The latter may be spoken of as the hard or labour money system, and it rests on the principle that money, like the things it measures, must itself be the product of labour, and on the belief that the unrestricted mobility of capital and labour, constantly searching for the highest reward, is practically competent to maintain an unvarying relation or balance between all the products of labour, including money itself. The philosophical interest in the controversy lies in the fact that it is a question of the maximum production and equitable distribution of the wealth produced by labour, consistently with the free operation of scientific principles and individualism, a problem which certainly seems to imply for its solution freedom of money and stability of value in exchange. The two extremes in the history of the science being a definition of money and a world-wide monetary controversy, it is not

surprising to find that during a very large part of the intervening period economic investigation and discovery were mainly related to, or sprang out of, currency problems. The exchange of products was a condition of organised society, and currency was a necessary instrument of economic exchange. With the decline of the Roman Empire, itself largely a consequence of the fall of prices due to the failure under the slavery system—an uneconomic system of production—of a continuous and adequate supply of the precious metals as the instruments of exchange, the then existing stock almost disappeared. This fact, which is the keynote to the history of economic science up to the time of the PHYSIOCRATS, may be best studied in the writings of Mommsen, who has written a special treatise on the subject, of which a French translation (by the Duc de Blacis), *Histoire de la Monnaie Romaine*, is perhaps best known. It was the scarcity of the precious metals as the accepted instrument of exchange during the middle ages that led to the debasements of the coinages, the alterations of coinage ratios in different countries, the laws against usury, and the establishment of the so-called MERCANTILE SYSTEM. The ethical aspect of economics meanwhile continued a force (as evidenced by the writings of AQUINAS, *q.v.*) and strengthened or checked these developments in various ways. The treatises of Nicholas ORESME and COPERNICUS on the subject of money and coinage (reprinted in Paris under the editorship of WOLOWSKI in 1864) may be consulted as contemporary authorities on the difficulties of the period, and as examples of the progress of economic thought stimulated by the phenomena. Under such circumstances the mercantile system or the BALANCE OF TRADE theory was not without justification, indeed the same theory is practically recognised even by free traders in regard to the finances of India to-day. Amongst English treatises of the 17th and the early part of the 18th centuries on the subject, MUN'S *England's Treasure by Foreign Trade*, 1664, and KING'S *British Merchant or Commerce Preserved*, may be usefully consulted. Economic doctrines tend to crystallise into meanings which their authors would not recognise, thus COBDEN'S free trade doctrine has lately been generally represented as a doctrine of low prices, though Cobden expressly repudiated this interpretation; and the desire for an adequate reserve of the metals which constituted the most easily exchangeable form of wealth, crystallised into an assumption that money alone was wealth. The impoverishment of France which resulted from the wars of Louis XIV., and the problems which were thus presented, led to the revolt of the physiocrats, led by QUESNAY and TURGOT, against this doctrine, and to what may be spoken of as the rediscovery of the fact that real wealth consists of all exchangeable products, and that value is an expression of exchangeability of any kind. The necessary deduction was the doctrine of FREE TRADE. But really the same general conclusion had been arrived at from the consideration of the nature and functions of money alone. In John LOCKE'S *Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money*, written in 1691 in opposition to LOWNDES' anti-usury and coinage proposals, we have not only a recognition of the special or conventional attributes of money as distinct from other commodities, and a clear perception of the QUANTITY THEORY OF MONEY, but a general annunciation of the principle of free trade or free exchange, and the doctrine of LAISSEZ FAIRE. With Locke, however, as with Somers, Montague (see HALIFAX, Earl of), and NEWTON, the consideration of general economics was subsidiary to that of money; or to speak perhaps more accurately, general economics were summed up in the question of the reform of the currency which necessarily involved all considerations of prices and exchange. An American writer, Mr. Dana HORTON, who spent some time in England investigating the records of this country, has given in his *Silver Pound*, a valuable and scholarly exposition of the problem presented to Locke, Somers, Montague, and Newton, and their practical conclusions. It is a fact that the reconsideration of the real nature of money, and the recommendation of conditions necessary for the free international movement of money, preceded and were closely allied with the development of the free trade doctrine. The most conspicuous expounders of the relation between monetary conditions and free trade in the present century have been Emile de LAVELEYE and Sir Louis MALLET, (see particularly the latter's posthumous volume *Free Exchange*). In the middle ages the monetary side of economics was forced on attention from the administrative point of view, as a question of government revenue and the provision of war funds. With the greater abundance of the precious metals, which followed the discovery of America, came a revival of industrial and commercial energy; an increase of production, exchange, and, consequently, wealth under the stimulus of rising prices; and a growth of self-assertiveness and power amongst the producing and trading classes. This caused what may be spoken of as a parallel development of the commodity side of economics. While the economic progress, which resulted from the great increase of the money supply from the mines of Potosi, developed a clearer perception of the disadvantages of monetary stringency, it also led to a recognition of money as a means to an end, rather than as an end in itself. The advent and influence of John LAW, with his

paper money and banking schemes, was made possible in this way. From the philosophical point of view what Law aimed at was the monetisation of landed property, and he sought to give such property the condition of easy transportableness, or circulation, recognised by Aristotle in gold and silver, by means of paper representatives. Law's disastrous experiments undoubtedly gave an impetus to banking as a means of promoting exchanges without the aid of the precious metals, or perhaps, to speak more accurately, as a means of supplementing the monetary use of gold and silver by means of notes or other credit instruments ultimately redeemable in gold or silver, and therefore, held for the time being as equivalent to gold or silver (see ASSIGNAT; REVOLUTION, FRENCH, ECONOMIC ASPECTS OF). Law himself, it should be noted, was a believer in the mercantile system, but his career powerfully contributed to the evolution of the physiocratic doctrine. As authorities on this stage, in the development of the science, Law's own writings, and Courtois's *Histoire des Banques en France*, may be recommended.

(2) *Economics as based on the Element of Labour.*—Adam Smith's treatment of labour and its employment, as constituting the real wealth-fund of nations, was a natural sequence of the revolt from the crystallised dogma of the mercantilists, and to proceed to regard labour as in itself the real standard of value, was a not unnatural step. There is some reason to doubt whether Smith's views on this point have been quite adequately expounded or even understood; assuming a theoretical perfect mobility of labour, and the non-existence of monopolies, and estimating different qualities or kinds of labour as different quantities of labour, there is a point of view from which Smith's dictum might be philosophically justified. Certainly the cost of production theory seems closely allied to Smith's views on this point. It was of course apparent to Smith that land is a factor in the production of wealth, inasmuch as he defines real wealth as "the annual produce of the land and labour of the society." The definition, it may be remarked, is scarcely comprehensive enough at the present day, as it is clear that the wealth of a nation may consist largely of the accumulations of past years, or of revenue derived from investments in other countries, as well as of its own new annual production. We are chiefly indebted to Smith for laying down the ground-work of the modern science, and explaining the general conditions which govern production, including the division of labour, and for the exposure of the fallacies of the mercantile system, and thus more clearly bringing into view the principles of economic exchange or distribution.

(3) *The Gradual Appearance of the Ethical Element.*—After Smith's mapping out of the science, its ethical aspect could not fail to assert itself. The conditions of the creation of national wealth were defined; meanwhile poverty and pauperism continued to exist, and that fact brought the question of distribution permanently to the front. In the year following (1777) the publication of the *Wealth of Nations*, Dr. James Anderson, in a tract entitled *An Inquiry into the Nature of the Corn Laws*, stated the theory of rent generally known as Ricardo's (see ANDERSON), rent being described as in effect a premium for the cultivation of the richer soils, which reduced the profits of the cultivators to an equality with those of the cultivators of the poorer soils. Ricardo's definition was that rent arises out of the original and indestructible powers of the soil, begins when land of different qualities are cultivated, and increases with the increase in the inequality of the land successively brought under cultivation. MALTHUS and the anonymous author (Sir Edward WEST) of an essay, *On the Application of Capital to Land*, preceded Ricardo, in 1815, in the re-discovery of Anderson's doctrine, and in the mind of the former it necessarily led to the discovery of the law of diminishing returns, and of the doctrine that population tends to increase faster than subsistence. These laws and the counteracting forces operating against them have been discussed by many economists, amongst others, M'CULLOCH, Dr. T. CHALMERS, CAREY, J. S. MILL, Sidgwick, and Marshall (see DIMINISHING RETURNS). CAIRNES has conclusively established the former doctrine as a logical principle by challenging opponents to experiment, and by pointing out that the experiment is actually performed by every practical farmer when he brings inferior soil into cultivation, rather than force unprofitably soils of better quality. Francis A. WALKER'S examination, in *The Wages Question*, of the capacity of labour for gradual degradation, and the circumstances which interfere with the mobility of labour, fully demonstrates the "power" and the "tendency" of population to increase faster than subsistence. Counteracting forces, such as improvements in the methods of production, or increased efficiency, may control such tendencies; and it is the work of economists to elucidate and promote the application of such forces. Meanwhile the recognition of the tendencies or laws really reduced the question of the distribution of wealth to a question of wages. Ricardo held that with the constant necessity of resorting to inferior soils, prices and wages tended to rise and profits to fall. Here again we see the influence of the cost of production theory. We must remember that, as M'Culloch has pointed out (Introduction to *The Works of David Ricardo*, edited by M'Culloch), Ricardo arrived at the establish-

ment of general principles, and paid little attention to their practical application. As regards nominal wages, the doctrine is in a sense true; but the law of rent, as stated by Anderson, nevertheless implies the reduction of the real wages of agricultural labourers to the mere value of the produce obtainable with the maximum of effort from the poorest land, or the land that pays no rent. If the real wages of agricultural labourers have risen, it has not been in consequence of increasing scarcity of production in relation to demand or increased cost of production, but in consequence of the increased efficiency of labour as a result of the progress of the natural sciences and invention, and their application to the land.

(4) *Application of*—(*a*) *A priori.*—The attention given to the discovery of general or "natural" laws or tendencies, led to the establishment of what is now recognised as the *a priori* school of economists, while the lamentable conclusions to which some of these laws seemed to lead resulted in a revolt against submission to them. The "DOCTRINAIRE" school, influenced by its physiocratic origin, and, therefore, predisposed to attribute all wealth to the operation of uncontrolled natural laws and natural instincts, a view expressed in the very name of the physiocrats, adopted the principle of *laissez-faire*, *laissez-passer*, a phrase first used as the expression of an economic doctrine by GOURNAY, one of the earliest physiocrats and a friend of Turgot's. The fact that some of the practical applications of this doctrine, free trade, for instance, were manifestly benevolent; and the long struggle against private monopoly resulting from State control in the form of the CORN LAWS, developed the extreme and uncompromising tenet, characteristic of what has been called the MANCHESTER SCHOOL—that State interference with industry and trade could in no case be beneficial, and that, if left alone, all economic evils would cure themselves. The opponents of this doctrine held to the principle of State control or national policy, which, though to some extent a revival of the principle of the mercantile system, was not absolutely identical with it. Its application from the landowning and capitalist point of view takes the form of so-called protection to native industry in the form of import duties; while from the proletariat point of view it has developed into the doctrines of COLLECTIVISM or SOCIALISM, including the State ownership of the land and of all the instruments of production and distribution. Between these opposing schools, both eminently doctrinaire in their way, has arisen a third school known as the HISTORICAL SCHOOL, which to some extent combines the teachings of both the other schools. This school, on the one hand, believes in natural law, and, on the other, in the employment or control of natural law, in accordance with the teachings of experience, but without any needless waste of natural energy. It is a little remarkable that, whereas in the earlier part of the century, Manchester, under the influences of the anti-corn-law movement, was the centre of the *laissez-faire* doctrine; and London, under the influence of the landowners, was the stronghold of the principle of State control; London to-day is the centre of *laissez-faire* principles, while Manchester is the centre where the teachings of the historical school have been most appreciated and applied. This result is largely a consequence of the economic advantage which has accrued to Lancashire, in the form of increased efficiency of production, as a result of the factory and mining acts (see FACTORY ACTS) and the legalisation of TRADES UNIONS.

In resisting attack the extreme *laissez-faire* school found it necessary to propound new doctrines, or to emphasise old doctrines which no longer accurately expressed the actual facts of the time. In other words, the *laissez-faire* school having served a useful purpose, tended, like previous schools, to crystallise and to become more and more dogmatic. Chief amongst the newly evolved doctrines was that of the wages fund, perhaps most intelligently expounded by Nassau William SENIOR. This doctrine, like many others which have now been practically abandoned, arose out of conditions under which it was apparently true, and in so far as it expressed a relation between wages and the productive efficiency of labour was not without value. Its fallacies under present conditions have been fully exposed in Walker's *Wages Question*, in which it is demonstrated that wages are now, at least partly, paid out of the product of present industry, and that new production rather than pre-existing capital, or that portion of capital applied to production, furnishes the true measure of wages. Another doctrine which has failed to stand in its entirety the test of modern research and developments is that of the dependence of exchangeable value on cost of production. To some extent this doctrine was based on Smith's conception of labour as a standard of value, and Ricardo's belief that prices and wages must rise with the diminution of production from poor land which required for its cultivation the same as, or even a larger quantity of labour than, rich land required. Modern mechanical developments, the approximation to annihilation of distance by the establishment of telegraphic, steamship, and railway communication, the consequent indefinite extension of cultivation to virgin lands, the instantaneousness of competition from all sources of supply, the rise of the "futures" system of anticipating production, and the vast improvements in productive power have all

tended to make the older doctrinaire authorities less authoritative as exponents of actual conditions. Thus, in recent times, production has, beyond all question, tended to increase faster than population, or, at any rate, the power of production has done so. The laws of diminishing returns and cost of production of the dearest margin have not operated to raise either prices or wages; it is indeed notorious that both have been fixed rather by the cheapest than the dearest portion of the supplies, even when the dearest portion has been required for consumption. The effect of the reduced monetary cost of Argentine wheat in lowering the price of wheat throughout the world in spite of statistical considerations is an illustration. With the recently developed solidarity of the world's markets, prices in many instances, and consequently profits and wages, now depend rather on variations in the monetary standards and relative indebtedness of different countries than on differences in the total actual economic cost of production. Variations in the relative values of the standards, in themselves largely a consequence of differences in the permanent indebtedness of borrowing, as distinct from lending, countries have made many of the old formulæ obsolete in a practical sense, though possibly true in an ultimate philosophical sense. Two doctrines which at present maintain a practical influence are the QUANTITY THEORY OF MONEY in relation to prices, and the doctrine of PROTECTION. The former doctrine was fully stated by J. S. MILL, and is maintained by Professor Foxwell and Professor Nicholson amongst more recent teachers of the science. J. S. Mill also reaffirmed the protectionist doctrine as provisionally applicable to new countries whose industry is practically limited to agriculture, as a means of beneficially introducing greater variety of production. The theory of protection philosophically considered has been most elaborately worked out in connection with the development of the United States. Its chief exponents have been Alexander HAMILTON, Friedrich LIST, Henry C. CAREY, and Simon N. Patten. An excellent account of American experience and thought on the matter has been compiled by Professor Ugo Rabbeno of the university of Modena, and an English translation has been published with the title *American Commercial Policy*. The doctrines of the collectivist or socialist branch of the State control school have been enunciated chiefly by Karl MARX in *Das Kapital;* see also Emile de LAVELEYE'S *Le Socialisme Contemporain*, and Paul Leroy-Beaulieu's *Le Collectivisme*.

(*b*) *Historical; and the gradual rise of the principle of Freedom with new Aspects of State Control.*—The founder of the historical school, which at the present time is practically in the ascendant, was Wilhelm Roscher, who inaugurated the new departure by a treatise on the historical method of economic inquiry in 1843. Probably the most exhaustive summary of the kind, remarkable for its completeness as a treasury of economic facts and deductions and perfection of arrangement, are the five volumes of ROSCHER'S *System der Volkswirthschaft*, the production of which extended over about fifty years of the author's life. The first volume was published in 1854, and the fifth in 1894. Roscher's great work was designed as "a manual and text-book for business men and students," and the volumes deal successively with (1) The General Principles of Economics; (2) Agriculture and its Allied Industries; (3) Trade, Monetary Systems, the Exchanges, and Manufacturing Industry; (4) Finance; and (5), published posthumously, Poor-Relief and Poor-Law Policy. Roscher's method is analogous to that of the unbiassed experimentalist in physical science; in short Roscher was in economic science what Michael Faraday was in physical science. From his point of view the science is not limited to the production of wealth, but embraces the whole social, family, and religious life of man; speech, art, science, laws, history, and even physiology are all factors to be taken into account in the elucidation of economic problems. Most of the mistakes which were made by the older economists were due to the exaggerated importance attached to the desire to buy in the cheapest market and sell in the dearest—to the neglect of equally powerful influences in the nature of man and hindrances to the free play of this principle in the relative weakness of the workman—which procured for political economy the title of the science of selfishness. Amongst the most successful followers of Roscher's method may be mentioned Emile de Laveleye, Cliffe LESLIE, Wolowski, Cunningham, and Francis A. WALKER. The latter's restatement of the wages problem has probably done more to advance economics as a practical study for application in the amelioration of society, and for its vindication as a science than any specific investigation of a particular problem in economics since the time of Adam Smith. Another great result of the application of the HISTORICAL METHOD is the investigation of the limits within which the State may act to promote economic production and to control and counteract what may be spoken of as the occasionally uneconomic tendencies of unrestricted competition. Practical results of these investigations have been sanitary legislation, the various factory and mining acts for the special protection of women and children and for the general protection of the life and limbs of workers; the free education acts and municipal and state enterprises such as the gas and water undertakings of Manchester and the state railways of India; W. Stanley JEVONS'S *The State in Relation to Labour*, Lord Farrer's *The*

State in Relation to Trade, and Sir Frederick Pollock's *Land Laws*, may be usefully consulted with regard to the question of the economic justification and limitation of State interference. The relation between investigations in economics and the physical and biological sciences, established by the formation of the economic science and statistics section of the British Association, has also done much for the modern progress of political economy, and the long series of presidential addresses to that section form an invaluable record of economic thought and discovery in recent years. Apart from the practical effect of discoveries in chemistry and physics on agriculture and manufactures, the application of anthropometrical inquiries, and statistical investigation generally, to the study of economics, has long since dispelled the supposed antagonism between economics and the exact sciences. One result of this development of exact investigation has been the recognition of the personal and moral qualities of the labourer, his social surroundings, aspirations, and physical well-being, as economic forces tending to the increase of wealth, through the increase of efficiency. The contrast is apparent when we remember that Senior wrote, "it is not with happiness but with wealth that I am concerned as a political economist; and I am not only justified in omitting, but, perhaps, am bound to omit, all considerations which have no influence on wealth." To-day the happiness of the labourer is regarded as a most important influence in increasing the production of wealth. American statistical investigations in recent years have finally demonstrated the productive superiority of free over slave labour; Emile de Laveleye in his agricultural researches (*L'Economie Rurale de la Belgique*, *L'Economie Rurale en Suisse et en Lombardie*, and *L'Economie Rurale en Néerlande*) has shown, that the personal motive for the avoidance of waste under systems of peasant proprietorship and assured small holdings may more than compensate for the economic advantages of the application of the principle of the division of labour on large holdings. Amongst American economists Schoenhof (*The Economy of High Wages*) has done striking work in this direction. Perhaps the most impressive evidence of the change effected in economic thought by the historical school of economists, and by the recognition of the "interconnection of the sciences" developed by the British Association, is the fact that it is now possible to regard such proposals as that of a legislative eight-hours day and a fixed minimum wage from a strictly scientific, as well as from an ethical standpoint; or, in other words, to consider them as proposals tending to the increase of the national wealth and as true economic limitations in this sense to the doctrine of *laissez faire*. The relation between economics and the exact sciences is, however, not limited to the last half-century. Aristotle was a naturalist as well as an economist; Copernicus and Isaac Newton both wrote on the currency and treated it as a question of fact and observation rather than of doctrine. Of recent writers JEVONS' study of chemistry colours his *Principles of Science*, essentially a treatise on logic and scientific method; his study of geology influences his work on the *Coal Question*, which now influences the finance of this country through turning the attention of statesmen to the necessity of the redemption of the National Debt. And in the present day Suess of Vienna, the author of the great work *Das Antlitz der Erde*, has shown in his *Die Zukunft des Silbers* that the currency question is largely and in some respects essentially a geological question. There was something prophetic in the application of the name "physiocrats" to the first school of modern economists. F. J. F.

VII. POLITICAL ECONOMY, POSTULATES OF. Under this title Walter Bagehot proposed to pass in review the principal assumptions of economic science, as it had been developed in England (his title is *The Postulates of English Political Economy*), and to examine the conditions and the extent of the validity of each. The two essays bearing the title stated deal with *The Transferability of Labour*, and *The Transferability of Capital* respectively. The discussion of the former leads to the conclusion that there are at least four conditions which must be satisfied before it is safe to assume for any nation that labour can pass easily from employment to employment within it. These are stated to be:—(i) The existence of such employments for it to move between; (ii) the existence of an effectual government capable of maintaining peace and order . . . and not requiring itself to be supported by fixity of station in society; (iii) the nation must be capable of maintaining its independent existence against other nations without a military system dependent on localised and immovable persons; (iv) there must be no competing system of involuntary labour limiting the number of employments, or moving between them more perfectly than contemporary free labour (vide *Economic Studies*, p. 40). In discussing the second of the postulates, *the transferability of capital*, the conditions laid down for its applicability are that there should exist: (i) Capital at the disposal of persons who may wish to transfer it; (ii) transferable labour; (iii) such a development of the division of labour as to create what we call "trade," that is to say, a set of persons working for the wants of others, and providing for their own wants by the return-commodities received from the others; (iv) a medium in which profits can be calculated, that is, a *money*, and moreover, a good money; (v) the means of shifting

"money" from trade to trade, such as, the loan fund, the speculative fund, and the choice of employment by young capitalists or some of them.

The fact that some of the most fundamental of these conditions are by no means universally existent warns us that the conclusions of a process of reasoning in which they are implicitly assumed to be true are not to be applied without much care, if at all, to states of society where these conditions do not prevail. Much of the criticism which has been levelled at the position taken up by Bagehot in this matter appears to have as its object the insistence on the lack of universality of the principles enunciated and the consequent inapplicability, without very careful modifications, of these principles to certain problems of modern life, points which Bagehot himself explicitly recognised; one might go further and state that the two papers in which Bagehot dealt with these postulates were devoted to presenting the very view which such critics declare to have been entirely overlooked.

It is greatly to be regretted that the enumeration of economic postulates and their discussion by such a clear thinker and charming writer proceeded no further than the two essays already named. More exhaustive enumerations have been prepared by several writers, generally under the heading—premisses of political economy. Such premisses may be classed either as axioms or postulates, and the enumerations of leading writers include with more or less of precision the axioms: (i) That the earth is of limited extent and fertility, and that the return to capital and labour applied to it follows the law of decreasing returns; (ii) that population constantly tends to multiply faster than the means of subsistence can be increased. Beyond these axioms we have clearly enunciated the postulates (i): That the leading motive of human economic action is that which prompts to seek the greatest gain in return for the least possible expenditure of effort, sacrifice, and risk; (ii) that freedom of competition exists; (iii) that a sufficient knowledge of the market and intellectual power of judging of the efficacy of means to an end exists to enable such freedom to be exercised.

As Dr. Keynes remarks (*Scope and Method*, etc. ch. vii.), "it is clear that such enumerations as these cannot lay claim to completeness." This able writer goes on to point out that postulates are needed in reference to social customs and legal institutions relating to property; in regard to the variation of utility with amount of commodity; and that what is implied in freedom of competition needs more precise explanation.

It may be remarked that it is by no means necessary to retain the same postulates in every part of economic reasoning. This is illustrated by the fact that discussions of the economic effects of monopoly are quite usual, and some modification of the postulate of freedom of competition is obviously demanded for the purposes of such a discussion. The theory of international values is an instance where this same postulate is modified very considerably. To quote once more from Dr. Keynes: "On the whole it seems best to regard any preliminary enumeration and examination of economic postulates, not as definitive or exhaustive, but simply as illustrative of the general character of economic theory." The selection given above comprises those which have been generally considered as more fundamental than others, and which recur most frequently, and which are entitled to special mention on that ground. For special problems the importance of the postulates named may become quite subordinate to that of others neither named nor even referred to here.

[Bagehot, *Economic Studies*, edited by R. H. Hutton, London, 1880. Essays i. and ii., also Essay iii. on *The Preliminaries of Political Economy*. — Senior, *Political Economy*. — Cairnes, *Logical Method, etc.*, Lect. II. and III.—Sidgwick, *Political Economy*.—Keynes, *Scope and Method*, ch. vii.— Cossa, *Introduction to the Study of Political Economy*, ch. vi., and for some criticism of the views generally expressed in the above writers, especially see Cliffe Leslie, *Essays*, No. 15.]

A. W. F.

VIII. POLITICAL ECONOMY, AUTHORITIES ON. The reader is referred for information on the literature of political economy to the separate articles on the various branches of economic science, which will be found throughout the Dictionary. In these, the principal authors whose works may be specially read with advantage in order to elucidate the subject discussed, are mentioned—either in the body of the article itself or in the bibliography at its close. When there is a separate notice of any of these authors in the Dictionary, the name is printed in small capitals. These notices include the principal economic writers in the British Empire, the United States, France, Germany, Holland, Belgium, Italy, Spain, Switzerland, the Scandinavian nations, and Russia, who were not living at the time the notice was written. Many minor writers have also been mentioned in cases when their works are difficult of access to the student, or when what they wrote is important as showing the economic position of their time.

In the historical notices of the different schools of economic thought—the American, Austrian, Dutch, English (including that on English early economic history), French, German, Italian, Russian, and Spanish schools—the principal authorities on economics of the school described are mentioned, and their relation to their contemporaries explained, together

with those circumstances of the period when they lived which may have exercised an influence on their writings.

POLL TAXES. See TAXATION.

POLLARDS AND CROCKARDS were clipped, base, or counterfeit coins of silvered metal, minted chiefly abroad, which under this more or less generic name obtained such an extensive circulation in this country during the greater part of the 13th and the first part of the 14th century, that the most stringent enactments of the three Edwards scarcely availed to cope with the evil.

The word "pollard" is probably derived from the substantive "poll" the head, whence the verb "to poll," meaning to crop or clip the head of anything (cp. "pollard elm").

Crockard may be akin to the Celtic word "crock," a broken piece of pottery, and may have been applied to the broken portions of the penny which circulated as half-pence and farthings in the 13th century.

Writs and ordinances concerning this false money were from time to time issued during the first part of Edward I.'s reign (stat. 3 Ed. I. c. 15; 7 Ed. I. Pat.; 11 Ed. I., m. 4, Oct. 28; (cp. also Ruding, *Annals of the Coinage*, ed. 1840, vol. i. p. 190); and an ordinance of the 12th year (Temp. incert. Ed. I. or II. Stats. of the Realm),—or, according to Ruffhead's Edition 20, ed. 1. stat. 4, 6, a proclamation describes the various kinds of false money then current. It is as follows:—"First they make there abroad a money of silver with a mitre; twenty shillings of which money weighs only sixteen shillings and four-pence of the money of England. Also they make two other sorts of money with lions, whereon there are bends in the one money and not in the other, but which are as light as the money with the mitre.

"Also they make as well on this side the sea as on the other a sort of false money, which is merely of copper, and is whitened, and when new it resembles the money of England. There is also another sort of money which is made in Germany under the name of Edward king of England, which weighs as little as, or less than, the money with the mitre, and that cannot be distinguished, unless it be by weight. The other deceit which they make in the money is that there are some of them who bring plates of pewter or of lead in the form of a penny, then they put them between two leaves of silver, and afterwards insert them into coin or into copper, where another penny well forged hath been struck." Still, in this description the coins are not severally defined by name, nor can we precisely determine whether any of them in particular, or all of them generally, came under the denomination of pollards and crockards. Ruding, after referring to these various counterfeit coins and quoting Hemingford, p. 170, says "they were all white money, resembling silver, and were artificially compounded of silver, copper, and sulphur, so that in four or five of them there was not the weight of one penny of silver."

Although several ordinances against "false money" were passed in succession to that quoted above, notably those of the twentieth year (1292), the first actual mention of these coins by name occurs in the *Stat. de Falsa Monetâ* of 1299 (Ruding, i. p. 199) in which reference is made to the "divers bad monies known by the name of pollards and crokards (*sic*, *Old French*, 'Crozkard') and by other names, which are brought and left in the said kingdom . . . by divers persons coming from abroad" (Stats. of the Realm, vol. i. pp. 131-134). They were, it appears, introduced by merchants and passengers, concealed in bales of cloth or merchandise, or taken to uncustomed ports so as to escape the officers of the exchange.

In the same year (27-28 Ed. I.) by the king's command the pollard was allowed to circulate at the value of an *obolus*, that is of half a sterling. This estimate of their value is further confirmed by a petition of the twenty-eighth year, where the bailiff of Fiscamp (*sic* Fécamp?) is allowed to pay £100 in sterling in lieu of £200 in pollards, which the sheriff had refused to receive (*Rot. Parl.*, i. 144 *b*). Again, we get a description of the double pollard, five hundred pounds of which weighed, after refining, ccccxxxii lib., *x.* s., and vii. ob. (£432, 10s. 7d.). Ruding, vol. i. p. 201, note 3.

At the time of their prohibition the king and others had obtained large amounts of pollards in exchange for sterlings, at the rate of five or six for a sterling, "men not caring for them" on account of their reputed baseness. But this calling in of them at such a low value proved a very profitable concern when it was discovered that two of them were equal to a sterling. Ruding (i. p. 207) refers to an alteration in the value of pollards and crockards which took place in the year 1310, and of the entire prohibition of them which followed "as productive of great inconvenience to the counties at a distance from the metropolis." He quotes instances of petitions for sheriffs who had received such money before its value was reduced, but who had not paid it into the exchequer when its currency was absolutely forbidden" (Madox, *Hist. of Exchequer*, i. 294; and *Rot. Parl.*, i. 273). In the chronicle of the year 1299, Matthew of Westminster writes:—"corrupta insula Angliæ de falsa Moneta, quæ dicitur Crokard et Pollard, in Natali Sancti Stephani protomartyris findebatur, id est, pro obolo habebatur. Hinc quidem Lathomi filius, considerans opera patris sui, dum fabricaret Ecclesiam metrice et eleganter dicebat:

"Laude decoreris, nostris Sterlinge gereris,
Crokar es, æsque peris, fugias as rite teneris."

[See *Polychronicon*, Fabian, etc., also Walsingham's *Hist. Angl.*, p. 77, quoted by Ruding, note 6 to vol. i. p. 201.] A. L.

POLLEXFEN, JOHN, merchant, M.P. for Plymton, member of the committee of trade and plantations (1675), and of the board of trade (1696-1705), wrote two anonymous economic treatises.

A discourse of trade, coyn, and paper credit, and of ways and means to gain and retain riches (1697), reprinted with his initials (1700); and *England and East India inconsistent in their manufactures* (1697) (Anderson, *Or. of Com.* ii.

633). The former is a complete exposition of his views on trade and money. He believes in the force of the economic motive which "drawes as the loadstone the needle" (p. 2); and this sentence on the vanity of prohibitions, "The removing of the cause, or the making of such a trade unprofitable, can only afford a remedy" (p. 9), recalls CHILD'S *New discourse of Trade* (ed. 1694) (p. 168). Like Sir D. NORTH and LOCKE he knows that money is a commodity, and measures its commercial value by its weight and fineness (p. 11); and he attributes the export of gold to a variance between value of bullion and rates of exchange which was due to local gluts of coin or bills, and would soon right itself (pp. 20, 21). LOWNDES and BARBON'S scheme for "raising of the coin" is stigmatised as a measure for relieving debtors who have money (p. 24), and as likely to lead to further measures of the same kind and therefore to hoarding (p. 34). He approves of paper money as an aid to, but not as a substitute for, coin, and points out that if inconvertible into coin it will be valueless or else coin will be hoarded (pp. 71, 72); coin must "lye dead" in order to "support it and make it useful" (p. 66). This criticism on the land and store banks of CRADOCKE, R. MURRAY, and POTTER, and (more recently) of ASGILL, BARBON, BRISCOE, and CHAMBERLEN, represents the best results of 17th-century economy. The author (Davenant?) of the reply to his second treatise (itself an answer to Davenant's *Essay on the East India Trade*, 1696), accused him of identifying national treasure with coin instead of with commodity; but he only wrote that the national "stock should be in money" (*England and East India*, etc., p. 46), money being "the most useful and best deserving to be called the treasure of a nation"; jewels, lead, etc., being less useful because difficult to exchange; silks, wood, etc., being useless until exchanged owing to their perishable nature (*ibid.* p. 7; *Discourse*, p. 157). Even this modified Midas-view, that coin is the best store of wealth, is kept in the background in the *Discourse*. There the main attack on the East India Co. is based on theories of wealth distinct from money. As with Locke high rents, and as with Child (*l.c.* pp. 88, 179) and FORTREY many men, and as with Child (*l.c.* p. 166), HOBBES, and PETTY many "tools" or "materials," mean much riches (pp. 9, 43, 54, 127, etc.); whereas the Indian trade undid what the naturalisation laws did, and brought in toys and silks, few of which (*pace* DAVENANT'S statistics) were re-exported. He shares BELLERS'S pessimism, and writes that we are "as a tree that hath many branches but little root," as "those that depend to have their riches and necessaries from the sweat and labour of others are more in proportion than those that labour to provide these things" (p. 44). Like Sir W. TEMPLE, who merely adapts HOBBES, he treats bodily and mental labour (pp. 43, 46) and parsimony (pp. 80, 158) as the source and secret of "movable riches"; but echoes BACON'S echo of MORE'S lament that the brain labourers are mostly drones (pp. 44, 46), and that luxury is ousting parsimony. Since VIOLET (1651) there had been a busy controversy on unproductive consumption (Cunningham, *Growth of English Industry*, ii. 239) but no one else put the impoverishing effect of foreign luxuries into the forefront of the Indian controversy, nor did any other writer make his first and main appeal to public opinion; "no reformation can be proposed that can do us any good but what must begin with ourselves, laws being dead letters unless the genius of our people, course of living and management, can be so changed as to co-operate therewith" (p. 153). But the writer of the *Discourse* was, like Davenant, only a great eclectic (he compares his views to Child's, ROSCHER compares them to NORTH'S, etc.) so that you cannot argue with certainty from his theory to his practice. *England and East India*, etc. was written in support of the Foreign Lace Act (9 Will. III. c. 9, amending 13 & 14 Car. II. c. 13), nor does he understand, like Davenant, the specialisation of industries, and he wants to prohibit the export of wool and import of manufactured goods in order to keep Englishmen employed. Indeed his suggestion to prohibit the export of over £50,000 in specie to India is reactionary bullionism. He scarcely applies his notion of foreign to domestic trade. He balances trade with each country out of the custom-house books after the fashion riddled through and through by Barbon and Child (*l.c.* p. 154). But he wants any one to be free to trade at anything, sympathises with Sir H. Pollexfen's defence of interlopers, wishes to turn joint-stock into regulated companies, and opposes to Child's revival of CULPEPER'S theory of interest arguments forged from the armoury of MADDISON (1640), MANLEY (1668), PETTY (1682), North and Locke (1691).

[Roscher, *Zur Geschichte der englischer Volkswirthschaftslehre*, pp. 111, 135-146.] J. D. R.

PONT DE NEMOURS, DU. See DU PONT DE NEMOURS.

PONTAGE. Money paid in lieu of personal service for the building and maintaining of bridges (see FYRD). In later times the word was also used for the tolls paid by persons passing over a bridge, which were devoted to its maintenance (Cowel's *Interpreter*).

A. E. S.

PONTANO, GIOVANNI (1426-1503). Born at Cerreto, Umbria (Italy), of noble parentage. Banished from his country, he took refuge with Alphonso I. of Aragon, king of Naples. Here he devoted himself to study; was loaded with honours and riches, served the house of Aragon as a minister and ambassador, and suggested reforms which ameliorated the economic condition of the Neapolitan provinces.

Pontano wrote in Latin several works: *De Magnanimitate.—De fortuna.—De prudentia.—De liberalitate.* A disciple of Aristotle, Pontano wrote on wealth, on labour, and the causes which render it more or less productive, on necessity as a stimulus to work. But, in substance, his researches present no originality, following closely the opinions expressed by Aristotle in the first book of his *Politics*.

Pontano discusses the duties of a prince, maintains that he should aim at promoting the public welfare, encourage trade and industry, and strive

to develop the intelligence of his subjects. On the question, debated by writers of his day, whether the state should carry on industries, he is among those who oppose such interference; but he does this only on moral grounds and reasons of expediency, and not by economic argument.

His precepts on taxation are sound, he gives good advice on economic morality, he opposes immoral taxes, as for example the tax on prostitution (*Opera omnia*, Naples, 1505-1508, 2 vols.).

[Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. i. Milan, Hoepli, 1882.]

U. R.

POOL. A division either of traffic or of its proceeds among several competitors, so as to remove the temptation to undersell one another. The word is used in America to designate what in England are known as joint-purse arrangements, but is of somewhat wider application. Pools may be divided into four classes. (1) *Divisions of the field*, where each competitor agrees to take the traffic of a certain district and withdraw from competition elsewhere. (2) *Divisions of traffic*, where the different competitors agree upon a percentage of the business to be handled by each concern. (3) *Gross money pools*, where they agree upon a percentage of the gross receipts. (4) *Net money pools*, where they agree upon a percentage of the profits. The last is much the closest form of combination, and generally involves a system of joint accounting.

The advocates of pools urge that they prevent reckless competition and consequent instability of rates. Their opponents claim that the effect of pools in keeping rates high more than offsets any gain to the community from keeping them steady. The traditional common-law view favours the opponents of pools (Charlton *v.* Newcastle and Carlisle Railway Co., 5 Jur. N.S. 1096). Pooling agreements are usually held to be contracts in restraint of trade, and therefore against public policy; so that in the majority of instances the courts will refuse to make such agreements a ground of action (Harlford and N.H.R.R. Co. *v.* New York and N.H.R.R. Co., 3 Rob. (N.Y.), 411; Stewart *v.* Erie and Western Trans'n Co., 17 Minn., 372, etc. etc.) Whether pools are really against public policy or not depends on the relative importance of stability and equality of rates on the one hand, as compared with that of absolute lowness of rates on the other. In industries of a quasi-public character, it may be more desirable that different individuals should be charged the same rates than that a lower average charge should be reached by making reductions for some and not for others. Under these circumstances pools may be a public advantage rather than otherwise. This is especially the case in railroad transportation. The working of the clause against pools in the INTERSTATE COMMERCE LAW (*q.v.*) has been distinctly bad. Not content with making these contracts void, as they perhaps were at common law, the framers of this statute made railroad pools a misdemeanour; causing much fluctuation in rates, and money losses to investors, without corresponding gains to consumers or producers as a class.

The attitude of the courts in England (Hare *v.* London etc. Railway Co.; 2 Johns and H., 480) toward such contracts is distinctly more favourable than in the United States, and on the continent more so than in England. The government railroads of Prussia, Austria, and other states have gone so far as to enter into permanent pooling arrangements with competing water routes; the authorities holding that by this means only can freedom from wasteful competition and unjust preference be effectively secured.

A. T. H.

POOR. Any treatment of the subject of the poor is rendered difficult by the loose way in which the term is applied. We distinguish the official and, to some extent, historical use of the term as applied to the class who are the objects of relief at the hands of the state in this country. We speak commonly of the poor law, relief of the poor, the poor-rate, guardians of the poor, etc. But since 1843, at any rate, a more exact usage has been gradually adopted, and the fact has been brought out that the objects of assistance under the poor law are only one section or class of the poor as a whole, viz. the destitute, or those who are in want of the necessaries of life. Outside and beyond there lies a large mass of men who are rightly described as poor, but who, being possessed of the necessaries of life, are in want of a larger or smaller amount of its comforts. Thus we may say that the term, officially employed, includes the destitute, but is not confined to them. When we read that the "poor are always with us," we mean that as the standard of living varies, whether in different countries or at different times, so the conception of poverty will vary, but the fact remains that many of the members of every community will fall below the average standard of comfort in living. In short, poverty is a relative, and destitution an absolute state.

This distinction between the poor and the destitute has led to a difference of treatment at the hands of statesmen. Whilst destitution is recognised, perhaps more and more generally, as a proper field for state-action and state-relief, poverty has, as a rule, been left to other organisations, or to individuals for assistance. There are not wanting instances, notably in the last century, when a confusion of ideas on this subject bred infinite practical mischief. Thus when the Berkshire magistrates put forth the celebrated "Speenhamland Act of Parliament" in the year 1795 they were misled by a vague use of language. In their opinion it was the business of the state to guarantee every

labourer the standard of living which they deemed sufficient, hence, when wages were insufficient to maintain such a standard, the deficiency was to be made good out of the rates (see ALLOWANCE SYSTEM). But experience has condemned such attempts, and the attitude of the state towards poverty has been one of two kinds.

I. The state has commonly adopted a policy of *laissez-faire*. It has left the care of the poor and the improvement of their condition to individual or organised action outside itself. Thus in mediæval times the poor were a charge on the revenues of the church. How far a specific portion of the tithe was devoted to their relief is a matter of dispute, but no doubt a moral responsibility lay on the clergy to provide for "God's poor." History shows us that the clergy and, still more, the monastic bodies were often mistaken in the methods they adopted. They did but relieve, as an old writer says, the poor that they had made.

II. Giving up the doctrine of *laissez-faire*, the state has found a new activity as regards the poor. Granting the existence of poverty, and leaving it as a *fait accompli* to be assisted by others, the state has directed its efforts to making easier the escape from it. It would take us too far to enumerate all the various agencies at work to achieve this end. Education is clearly one, temperance legislation is another, inspection, etc. of the dwellings of the poor is a third, and if we look yet further afield we shall see that laws against TRUCK, to secure free trade, and a good currency all help to secure this object. But shortly, the state may be said to have abandoned the attempt to deal with actual poverty, but to show an ever-increasing activity in preventing its appearance and in modifying its effects (PUBLIC ASSISTANCE; POVERTY). L. R. P.

POOR LAW, ADMINISTRATION OF. The existence of a poor law implies a redistribution of wealth by the state in proportion to men's needs. Under such a law the destitute have a claim to relief, *i.e.* to the necessaries of life, and these clearly can only be provided at the cost of those who possess wealth in excess of their actual needs, and from whom it is taken by the state in the form of taxes. Now any such interference with the arrangements of society is sure, human nature being what it is, to produce certain results, some general, some peculiar to this form of interference. Thus we may expect a poor law to weaken the motive to exertion and to thrift. If the burden of providing for himself at any period of life is taken off the shoulders of a man, he is less likely to make such provision than when conscious of the necessity to do so, if he wishes to avoid starvation. So, too, he is more likely to be reckless in his manner of living. If it is indifferent to a man whether he supports himself in old age, or is supported by the state, he is strongly tempted to squander in dissipation what should have gone to maintain him when his working days are over. Again, if he knows that provision by the state will be easily given, he is thoughtless in the matter of marriage, and population increases rapidly. Once more, though this is open to discussion, the relations between parents and children, their mutual responsibility, is weakened by a system which provides support independently of the assistance due from the one to the other. Thus some writers connect the warmth and closeness of family relations in Ireland with the long period during which no poor law obtained in that country. Lastly, the relations between employer and employed, roughly summed up as the labour market, are likely to be disturbed if the state supports its members independently of their earnings. If a man's income falls into two parts, one of which is the reward of labour, and the other is given independently of labour, the latter will soon eat up the former. So, too, the provision of pensions in old age is likely to prevent wages from rising to a point at which they permit of such a provision being made out of them. The extent to which these evils follow on a poor law will depend almost entirely on the way in which it is administered, for we need not, in this connection, discuss the general arguments by which a poor law is justified or defended.

If we consider the history of the English poor law from the date of its first definite beginning in 1601 down to the present day, some very clear conclusions may be reached. The spirit and the methods of administration have varied greatly during the three centuries which it has lasted. In some periods it has been administered strictly—in other periods the administration has been lax, and the variations are to be explained partly by reasons incidental to the state of society at a given date, and partly by the want of a scientific spirit in tracing the connection between effects and their cause. First of all, to define our terms. A poor law may be said to be administered strictly when the right to relief is circumscribed and restricted, when the conditions under which it is given are uninviting, or even deterrent, when the state of the recipient is less attractive than that of the independent labourer, and when political or other disabilities are attached to its receipt. On the other hand, when relief is obtained easily, and is open to all, when it is given under conditions which make it an object of desire rather than a thing to be avoided, and when no distinction is drawn between the pauper and his neighbours, then the administration is said to be lax. Now, roughly, these two principles are seen in the distinction be-

tween "indoor" and "outdoor" relief. Indoor relief is accompanied by enforced residence in a workhouse, with the accessories of a restricted diet, separation of sexes, a loss of liberty, a system of discipline, a prescribed uniform, and a more or less common life. All these features are peculiarly obnoxious to a domestic people, such as the English; though, doubtless, they affect different individuals differently. No such drawbacks attach to outdoor relief. The outdoor pauper receives his relief, whether in money or in kind, at his own home, he is surrounded by his family, he is his own master, he can eke out his dole by small earnings, he can take an interest in his surroundings, he leads a life of comparatively careless leisure. And by a natural train of thought, public opinion has placed a stigma on the receipt of indoor relief which is not connected with outdoor. Not for themselves only, but for their relations, do men shun the workhouse, and all that residence within its walls implies. To condemn a parent to the workhouse is held to be discreditable in children, to secure outdoor relief for him is regarded as a triumph of filial diplomacy. In considering the lessons to be learnt from the history of the English poor law, we shall regard a strict administration as identical with the use of the workhouse as a test of destitution, and as the normal form of relief, and a lax administration as going with the substitution of relief in the pauper's own home for relief in the workhouse.

In the earliest period of poor-law administration the workhouse was by comparison but little employed, but a substitute for it was found in the exaction of work from the able-bodied recipients of relief, for the "aged and infirm" relief was provided either in their own homes or in a poorhouse, built by the parish for the purpose, intended for the aged and infirm only, and consequently more on the lines of an almshouse than of the modern workhouse. But the intentions of the framers of the act of 1601 with regard to the able-bodied were defeated by the action of those who administered it. So long as its administration was confined to the duly elected and responsible overseers in each parish, the mischiefs of the system were kept within narrow bounds. It was the action of the magistrates, who overrode the decisions of the overseers, in virtue of an act of the year 1691 (3 W. & M. c. ii. § 11), that gradually developed these mischiefs. Relief was granted on "false and frivolous pretences," the labour test was applied in a half-hearted fashion or not at all, and by the middle of the 17th century we find proposals for making the test more real, by providing places in which the task of work should be performed. By the end of the century local bodies were busy obtaining private acts for the purpose of building "work-houses," or "houses of industry," following in this the example set by the city of Bristol. In 1723, by the act 9 Geo. I. c. 7, was authorised the building of such houses, and the use of them as a test, by individual parishes, or by parishes in combination. The results of this growing strictness are to be seen not merely in a decrease of pauperism, but in the increased prosperity of the working class as a whole.

But the system, as was inevitable, raised a reaction against itself. Feelings of humanity (so called) were shocked by its strictness, men forgot the evils which it had remedied, or at any rate the fact that it was the system which had lessened them, and little by little the administration grew laxer and laxer. Workhouses fell into disuse, the overseers were called upon to find employment (ALLOWANCE SYSTEM), the aged and infirm were relieved at home, the maintenance of children was assisted by grants, and gradually the idea was impressed on the mind of the poor that it was well to look to the parish first for the necessaries and comforts of life, and to their own exertions only when this source of supply failed. The melancholy tale of the results of this experiment are written at large in the histories of the period, in monographs, and in the report of commissioners appointed to inquire into the system of poor-relief in the year 1832. Shortly, it may be said that this second period, from 1750 to 1834, showed in the clearest light the effects of a lax system of administration. It had cut at the roots of independence and self-help; it had fostered suspicion, heartlessness, and vice, had paralysed industry, and lowered the moral no less than the material standard of living all through the country.

The return to strictness after 1834 remedied, though slowly, the state of things which laxity had produced. Able-bodied pauperism, by comparison, disappeared; old-age pauperism was greatly diminished, the encouragements given to population were lessened, and the returns of illegitimacy began to fall off. The principle of the act of 1834 was to make the position of the pauper undesirable, and with that object relief was to be confined, as far as possible, to the four walls of a workhouse; only sickness and old age were allowed as reasons for giving relief at the pauper's own home. It would no doubt be an exaggeration to say that the improvement in the condition of our working class in the last half-century is mainly due to the reform of the poor law alone. But if we have succeeded in showing that certain results might be expected from certain methods of administration, and that in practice such results are shown to have followed, it is not going too far to say that a strict administration is a negative condition of the well-being of the poor, and that a

relaxation is likely, if not certain, to favour the growth of misery and the decay of character.

So far we have been endeavouring to show that the administration of a poor law should be strict, if the evils contingent on its existence are to be avoided, or repressed, and that a strict administration is in the best interests of the poor themselves, and therefore dictated by humanity no less than by reason. We go on to ask how such strictness may be attained. Now it is a cardinal truth that in a democratic state, laws will only be enforced so far as they are supported by, and in harmony with, public opinion. The act of 1834 erred, perhaps through the needs of the time, in building up a system which derived its strength largely from its centralisation. The area within which the local bodies can act at their own discretion is very small. Hence the poor law has never recommended itself to the popular mind; it has been resented as being imposed from without, and its administration has been improved mechanically, without reference to the popular support on which it must ultimately rest. The effect of a recent act (*Local Government Act* 1894) has been to throw the control of the administration into the hands of the great body of the population, and the results of the change are anxiously awaited, for it has coincided with a tendency on the part of public opinion to favour a more lax system. But as knowledge grows and experience widens their lessons cannot fail of effect, and we may look hopefully forward to a new period of poor-law history, when strictness will be the rule, it may be after some experience of the evils of laxity, and when it will be guaranteed, not by the edicts of a central authority, but by the heartfelt support of the great body of public opinion acting through its representatives, no less than through its officers.

It remains only to notice some points on which administration may be amended.

(1) It is quite possible that, owing to the rise in the standard of living all over the country, the condition of the inmates of workhouses might be improved without its ceasing to act as a deterrent, and it may safely be left to the ratepayers to determine how far they are willing to contribute to increase the comfort of such inmates.

(2) The restriction of outdoor relief is proceeding gradually, and its ill effects are fast disappearing, partly in consequence of the scale on which it is given, a scale which stands in a totally different relation to the standard of living from that in which it stood to the standard at the time at which it was adopted. The extinction of this mischievous system can only be the result of greater knowledge and sounder reasoning, and will probably only be achieved after a great increase in the powers of guardians.

(3) The treatment of the sick has been greatly improved of late years, and, in London especially, the workhouse infirmary is coming more and more to be regarded as a public hospital. The question may be asked whether this principle should not be carried further; and the disabilities of pauperism removed in cases where the sickness of the patient is such as to necessitate his treatment in an institution. If this were done all outdoor medical relief might be discontinued, and the poor encouraged to make provision for themselves against slight and ordinary ailments by means of provident dispensaries and the like. But such a scheme would perhaps involve the treatment of the hospital question as a whole.

(4) The education of pauper children is still a field for experiment and observation. The systems adopted vary greatly. In some unions the children are brought up and taught in the workhouse itself, in others they live in the workhouse and attend the common schools of the place, in others they are placed in large boarding-schools distinct from the workhouse geographically, but an integral part of it; elsewhere they are boarded out, or placed in small groups in cottage homes under the care of foster parents, these homes being in some cases formed into an artificial village, in others scattered through ordinary villages. It can only be said that no one system has yet made good its claim to be considered exclusively the best.

(5) The treatment of vagrants has already been considered (MENDICITY).

[For the system of administration at various dates the works of Aschrott, Fowle, and Nicholls, so often quoted, are full of information, and further authorities will be found in the references contained in those works; see also LEGISLATION, ELIZABETHAN.] L. R. P.

POOR-LAW HISTORY. It is not possible to name a date at which the legislature determined to have a poor law. The origins of the poor law are derived from FEUDALISM. Settlement and the claim to relief are developments of the SERF'S obligation to work on the land of the MANOR, and his corresponding right to derive a maintenance therefrom. When this condition of *status* had given place to hiring and a system of contract, the right of the lord of the manor to bring back his serf to the place where his labour was due, ceased to be valuable. The presence of the serf, where his labour was no longer required, became a burden. The duty of maintaining him, when destitute, was transferred from the manor to the PARISH. The assumption that the poor were *adscripti glebæ* runs throughout. The right to *bring back* having fallen into desuetude, the right to *drive out* the unsettled poor naturally arose. The authorities of the parish church were enjoined to make collections for the poor. The church-

wardens, the curate, and then the bishop were to exhort, and if the people proved contumacious the justices were to order an assessment. This brought on the general assessment of 43 Elizabeth, c. 2 (1601). Was this act a necessity? The alternative pursued in Scotland is instructive. The legislature of Elizabeth followed similar legislation enacted for Scotland, but as was remarked by a parliamentary committee reporting in 1817: "the intelligent persons to whom the administration of it has been entrusted . . . appear to have had so much foresight and judgment as to its effects, that they have very generally and successfully endeavoured to avoid having recourse to its provisions for a compulsory assessment." Till 1845 there was in Scotland no universal assessment for poor rates. The authority of the English precedent then decided the policy of the northern country.

The stronger government of England did not permit "intelligent persons" to evade the law. Henceforward, down to 1834, a perpetual struggle went on between the relief authorities and the relief claimants, as the following brief references will show.

The 13 & 14 Charles II. c. 12 (1662), bears the title "An Act for the better Relief of the Poor," but it is usually known as "The Settlement Act." It recited that poor people migrated in search of better "stock," *i.e.* employment, and it is apparently assumed that they would not do so if, in their own parishes, benefit under 43 Elizabeth was not withheld. The act was promoted in the interest of the metropolitan parishes, then causing alarm by the growth of their population. At this date the policy of the legislature was to enforce concurrently rigidity of settlement and facility of relief. Henceforward the problem was to curb the abuses to which these regulations gave rise.

Thus 3 & 4 William and Mary, c. 11 (1691), recites that overseers are criminally profuse, accordingly the vestry and the justices are given certain controlling powers. The act had an effect contrary to that expected. The 9 George I. c. 7 (1722), recites that far from controlling, magistrates increased the prevalent mismanagement. Accordingly this act authorised the building of workhouses, and the withholding of relief from those who refused to enter them. This provision, where workhouses were used as a test of destitution, checked the advance of pauperism. The 22 George III. c. 33—GILBERT'S ACT (1782), obliged guardians, in parishes which adopted its provisions, to find for all unemployed poor persons work suitable to their strength and near their own homes. The 36 George III. c. 23 (1796), found that the workhouse test, as permitted by 9 George I. c. 7, was "injurious to the comfort and domestic situation and happiness of such poor persons," and justices were authorised to order relief to "industrious poor persons" at their own homes. By this legislation every obstacle to pauperism was removed. The rout was further accelerated by the proclamation of allowance scales by the county magistrates.

One act of reparation, 35 George III. c. 101, "An Act to prevent the Removal of Poor Persons until they shall become actually Chargeable," was passed in 1795. It was rendered necessary by the unrepealed provisions of acts for the better relief and settlement of the poor. Adam SMITH has commented on the cruelty of these ill-considered laws of settlement, but Sir F. EDEN, without palliating their criminal unwisdom, thinks that they could be easily evaded. The complete adscription of the labourer to his settlement was not brought about by the power of removal resting with the parish into which he migrated, but by the inducements to remain in his settlement held out by the profuse administration of relief, and by the refusal of employers to hire any but those who were partly supported by the rates. The law which made the unsettled labourer liable to removal was practically inoperative, but the laws for the better relief of the poor had the unexpected result of reducing the labourer to the immobile and dependent condition of a feudal serf.

The task of the Commissioners of Inquiry appointed in 1832 was to expose and suggest a remedy for these evils. Their celebrated Report was drafted by Mr. Nassau SENIOR, aided by Mr. (afterwards Sir) Edwin CHADWICK. It proved the incompetence of all the authorities then administering the law, and recommended a new central control, which should be independent of political party, a principle already recognised by the government in the appointment of the enquiry commission. It proved also that property was being destroyed by the relentless advance of pauperism, that employers were defrauding the public by throwing their wages-bill on the parish, that labourers were being deprived of every motive for doing honest work, that the domestic life of the poor was being ruined by the parish endowment of bastardy and the neglect of all family affection, that the attraction of the so-called benefits of this spurious philanthropic legislation was confining the labourer to his parish, bereft alike of energy and hope. When we consider how entirely the economic progress of the working class has depended on the facility with which labour has been able to distribute itself and find its profit in new and ever-changing conditions of industry, it will be obvious how injurious this perverse legislative endowment of immobility has been. The mobility of labour and its transferability to different industries, more especially through its power to direct the labour of the young, are the elements which prevent labour sharing the fall of prices, the

inevitable result of free trade and increased manufacturing skill.

The new Central Authority, it was recommended, should have power to issue orders regulating the local administration. The principles which these orders were to inculcate were summed up as follows:—The condition of the pauper must be less eligible than that of the independent labourer. All relief given to the pauper at his own home must be deemed inconsistent with that rule. The poor law is for the relief of destitution, not of poverty. A precise and practical definition of destitution was added. A man is destitute when he is willing to relinquish the maintenance derived from his own resources for one provided for him in a well-regulated workhouse. In short, the workhouse test is the sole method of fulfilling these conditions. Experiments on these lines had been tried at Southwell and Bingham and had succeeded in effecting the emancipation of the pauper. The workhouse, though a measure of confinement for a few individuals, was an instrument of emancipation for a whole class.

An act based on these recommendations was passed in 1834. The prohibition of outdoor relief to the able-bodied, issued by the new central authority, had an almost miraculous effect. Pauperism, it had been generally assumed, was caused by the growth of a surplus population. When confronted with the workhouse, that drastic instrument of social surgery, the alleged surplus disappeared. The farmer and manufacturer, no longer able to draw their wages fund from the rates, and relieved of the burden of wasteful parish expenditure, paid their labourers an adequate reward. The majority of the labouring population found work in their own parishes or the next parish, others migrated to the manufacturing districts. For this last movement the commissioners organised facilities. By these measures the independence of the able-bodied labourer was secured, and the healthful circulation of labour restored. Violent opposition was offered to further reform. The three commissioners yielded to the storm and confined the application of their principles to the pressing case of the able-bodied, during the period that they actually were able-bodied. They thus gave a narrow interpretation to the responsibilities of the able-bodied. Owing to the unpopularity of the commission, it was deemed advisable in 1847 to alter the constitution of the central authority. The Poor-Law Board was accordingly created, and the central authority, which had hitherto been indirectly represented by the home secretary in parliament, became a department of state, and its president a member of the government. A period of exhaustion seems to have followed the strenuous efforts of the commissioners. About 1869 there was a revival of interest. In that year Lord (then Mr.) Goschen issued a circular from the Poor-Law Board calling attention to the necessity of a stricter administration of the law, and pointing out the utility of co-operation between the poor law and charitable agencies as a means of promoting that end. Mr. Fawcett's *Pauperism*, a courageous attack on popular prejudice, was published in 1871.

The conferences for the discussion of poor-law administration were established between 1868-1870. Admirable reports on the abuses of outdoor relief, in the country by Mr. E. H. Wodehouse, 1871, in the town by Mr. (afterwards Sir) Henry Longley, 1873, were issued by the Local Government Board which, in 1871, took over the duties of the Poor-Law Board. The London Charity Organisation Society was founded in 1868, and its members have very actively taken up the question of the better administration of the poor law.

The arguments of these reformers may be briefly summarised:

They desire to carry the principles of 1834 to their logical conclusion. The maxim, that the condition of the pauper must be less eligible than that of the independent, cannot be confined to the able-bodied at one period of his life. The responsibility of the able-bodied does not exclude sickness, old age, and the wants of those dependent on him. Successful experiments of a strict indoor relief policy continued at Bradfield, Stepney, Whitechapel, and other places for over a quarter of a century are quoted in the same way as were Southwell, Bingham, and Uley in 1834. Pauperism of all forms is slowly but surely being eradicated by the policy there pursued. Economic progress is built up by the successful discharge of responsibilities, and the future of the working class depends on their retention of the right to meet them. The text set by Lord Goschen in 1869, that charitable funds must be used to meet the hard cases which might otherwise be turned to make bad law, is strongly urged. The substitution of outdoor relief from a voluntary as against a legal source is an advance, for a voluntary fund does not exercise the same baneful fascination over the imagination of the poor, as the apparently inexhaustible funds put at their disposal by the poor law. The old poor law impeded the labourer's progress in exchanging status for contract; the maladministration of the new law atrophies his capacity for complete economic independence. Since 1867, a year marked by the passing of the Metropolitan Poor Act, great improvements, involving much additional expense, have been made in poor-law schools, infirmaries, and workhouses. This policy has in many cases been carried out in connection with a stricter administration of outdoor relief.

These views make progress, but they do not appeal to the majority which is guided by sentiment and long-established custom. As

Burke once remarked: "Reason is fatigued; experience has given judgment; but obstinacy is not yet conquered." Guardians have it in their power to eradicate or to multiply pauperism to an indefinite extent. Whether the legislature, especially in a democracy, will ever see fit to limit a discretion too often abused is a question which only the future can determine.

[Poor-law literature is so large that a short bibliographical note must necessarily be inadequate. The following are leading authorities, arranged to some extent chronologically. R. Burn, *The History of the Poor Laws*, London, 1764, gives a learned account of the continuity of our English poor-law system. Sir Frederic M. Eden, *The State of the Poor, or a History of the Labouring Classes in England from the Conquest to the Present Time*, 3 vols., London, 1797, has collected, in the most painstaking and judicial spirit, an invaluable encyclopædia of facts and opinions. During the troubled period, 1796-1834, innumerable pamphlets and more ambitious treatises appeared. The general characteristics of the time may be sufficiently gathered from Sir G. Nicholls' *History* and from the *Report of the Poor-Law Commissioners*, 1834 (see below). It may be enough to mention that Bentham's works, particularly *Tracts on the Poor Law*, printed in vol. viii. of his collected works, should be consulted for the origin of some of the ideas afterwards incorporated in the Poor Law Amendment Act 1834. The connection can be traced through the influence and writings of his disciple, Mr. (afterwards Sir Edwin) Chadwick; see *The Health of Nations: a Review of the Works of Edwin Chadwick*, by Benjamin Ward Richardson, 2 vols., London, 1887, and pamphlets by Sir E. Chadwick too numerous to set out in detail. The publication most fruitful in result belonging to this period is probably *Eight Letters on the Management of our Poor, etc.*, by an Overseer, Newark, 1822, reprinted from the *Nottingham Journal*. This was the work of Mr. (afterwards Sir George) Nicholls, and contains an account of the dispauperisation effected at Southwell and Bingham by methods which the legislation of 1834 sought to make universal. The classical document on the whole subject is the *Report of the Royal Commission*. This was appointed in 1832, and its report was published in 1834. A preliminary volume entitled *Extracts from Information received by His Majesty's Commissioners, etc.*, was issued in 1833. The report and appendices of evidence run to over 8000 pages folio. The report has been reprinted as a parliamentary paper. The standard work on the subject is *A History of the English Poor Law*, by Sir George Nicholls, K.C.B., late Poor Law Commissioner and Secretary to the Poor Law Board, London, 1854 (new edition published 1898). He passes somewhat lightly over the opposition to the new poor law which fell within the period of his own official career. This omission can be supplemented by reference to the file of the *Times* from 1834-1850, or by consulting such books as *The Book of the Bastiles, or a History of the Working of the New Poor Law*, by G. R. W. Baxter, London, 1841; or the more reasonable *Letters of S. G. O.* (the Rev. Lord Sydney Godolphin Osborne), two vols., London, 1891. *Pauperism: its Causes and Remedies*, by Henry Fawcett, London, 1871, contains a valuable interpretation of history; Dr. P. F. Aschrott's *Das Englische Armenwesen, etc.*, Leipzig, 1886 (translated under the title, *The English Poor-Law System*, London, 1888), is a most valuable and well arranged manual; *The Better Administration of the Poor Law*, by W. Chance, Hon. Sec. of the Central Poor-Law Conference, etc., London, 1895, contains the best exposition of different methods of poor-law administration; *Children under the Poor Law*, by the same author, London, 1897, gives a very full account of a special branch of work.

The opposition to what in the text has been called the "party of reform" has not often sought the publicity of print. Mention may be made, however, of (1) a paper, "On the Advantages of Out-door Relief," read at the Central Poor-Law Conference, 1891, by Mr. Mitcheson of Rugby. For a criticism on his statistics see a paper by Mr. Chance, *Charity Organisation Review*, May 1892. (2) "Plain Words on Out-door Relief," London 1894—an anonymous pamphlet and correspondence in the April and June numbers of the *Charity Organisation Review*, 1894; also *Report of the Whitechapel Guardians* for year ending Lady Day, 1894. (3) Also for an argument in favour of an almost indefinite extension of relief facilities, paper read by Mr. George Lansbury, of Poplar, at Central Poor-Law Conference, 1897, on the "Principles of the English Poor Law"; and *Fabian Tract*, No. 17, on "Reform of the Poor Law." For fluctuations of popular and official opinion see Reports of the Poor-Law Conferences (for list of subjects discussed, see index to *Report of Central Conference*, 1896), and Annual Reports of the Poor-Law Commission, the Poor-Law Board, and now of the Local Government Board. T. M.]

POOR LAW, Scotch. In its origin and early history the poor law of Scotland closely resembles the corresponding legislation in England and many of its enactments are obviously modelled on the latter. The primary object of both was the suppression of Vagrancy rather than the relief of destitution. In a society organised on feudal principles, involuntary Pauperism was of necessity comparatively rare, while the "sornare" or sturdy beggar was the crying evil of the time. Even from the first, however, it was impossible to ignore the existence of a certain amount of helpless pauperism, and the suppression of vagabondage was seen to involve the organisation of beggary. Thus the acts of 1424 with which Scotch legislation on the subject may be said to begin, permitted begging only to those below fourteen and above seventy, with a further exception for the impotent, who were to wear a badge.[1] Then in 1535 begging was forbidden outside the parish of birth, the headmen of which were also instructed to make "takings" or collections for the support of its poor. The foundation of parochial responsibility was thus laid; the structure in its essential features was completed by the comprehensive statute 1579, c. 74, to this day the basis of the Scotch poor law, as the act of 1601 is that of the English. Between 1579 and 1698 a long series of enactments were passed to facilitate the enforcement of the law, but they left its fundamental principles unaltered. The same may be said of the only important enactment of the last two hundred years—the Amendment Act of 1845, which however has greatly modified the practical administration of the law.

We will now consider briefly the leading features of the Scotch poor law, with special reference to the points in which it differs from the English. In the first place the distinction between the masterful beggar and the impotent poor was decisively emphasised by the act of 1579, which prescribed for the former the ferocious punishments characteristic of the time. In 1617 they were after the English fashion committed to the care of the justices of the peace, and the parish constables to be appointed by them. In 1663 a species of enforced slavery was authorised, and by the act of 1672 and the proclamations of the privy council in 1692 and 1698, correction houses were prescribed, but without result. Owing to

[1] The most highly privileged mendicant in Scotland was the "Blue-Gown" or King's Bedesman. The class became extinct about 1863, but the type was immortalised by Sir Walter Scott in Edie Ochiltree of the *Antiquary*.

the relatively backward and unsettled state of the country, vagabondage long continued a much more serious evil in Scotland than in England, but the treatment meted out to the vagrant has been broadly similar in the two countries. In Scotland vagrancy is now dealt with by the police under 25 & 26 Vict. c. 98, 1862 (see VAGRANCY). In their treatment of the able-bodied poor, however, as apart from vagrancy, the English and Scotch poor laws are radically dissimilar. The provision in the act of 1601 granting relief to the able-bodied in exchange for work has no counterpart in the Scotch law. In England the principle thus admitted gradually received a more generous interpretation, till early in this century it was made to sanction a wholesale system of out-door relief to the able-bodied, with results disastrous to the nation and more especially to the independence and morality of the labourers themselves. But in Scotland the class of persons entitled to claim relief as a right, remains, as under the act of 1579, those who, being wholly or partially disabled by age or infirmity, "of necessitie mon live bee alms." When the impotence is permanent its subjects are placed on the regular parish roll; when merely temporary, relief is given during disablement. But these classes, denominated respectively the regular and the occasional poor, have alone a right to demand relief, and able-bodied persons out of employment cannot even at the discretion of the authorities be legally ranked as occasional poor. The expediency of adhering to this principle under the conditions of modern industry with its recurring periods of depression will naturally depend largely on the adequacy of voluntary effort to meet the demand made upon it on such occasions. The experience of England, where the claim of the able-bodied is admitted, has, at all events, done much to strengthen the case in favour of the Scotch system.

The establishment of a settlement or right to relief in a parish depends on birth or residence for a term of years. By the act of 1845, five years' continuous residence without recourse to common begging is required for the acquisition of a settlement, and at least one year's continuous residence in any subsequent period of five years for its retention. Wives follow the settlement of their husbands, and children of their parents. Relief, however, cannot now be refused to the impotent who have no settlement in the parish, but the relieving parish is given recourse against the parish of settlement. The law of settlement in Scotland, though the source of considerable litigation and expense, has always been free from the peculiar hardships so closely associated with the working of the English law. A power of removal of persons likely to become chargeable, such as existed in England from 1662-1795, has never been known in Scotland. There no one is liable to be removed who does not actually solicit alms, and as a consequence the checks and counterchecks which complicate the operation of the law in England are entirely absent.

By the act of 1579 the authorities entrusted with the administration of the law were the magistrates in burghs and the justices in landward parishes, who were instructed to appoint overseers and collectors. But the constituted authorities seem to have been lacking in zeal, and before the close of the century the enforcement of the law had been committed to the kirk-session with the assistance of the presbytery. During the civil war the powers and duties of these ecclesiastical bodies in respect of the poor naturally fell into abeyance, to be restored, however, in 1672, with the substitution of the heritors for the presbytery as co-adjutors of the kirk-session, an arrangement which subsisted till 1845. The kirk-sessions and heritors were, it is true, subject to the supervision of the magistracy, but, unlike the justices in England, the Scotch magistrate had no power to interfere with the ordering of relief; and to this is partly to be attributed the fact that the operation of the poor law in Scotland was never marked by the undue laxity and careless extravagance which, prior to 1834, characterised its administration in England. In this connection also it is to be noted that the general assessment sanctioned by the act of 1579 was not absolutely compulsory, as in England under the 43rd Elizabeth, but only compulsory at the option of the local authorities. Each parish was responsible for the support of its own poor. But down to middle of the 18th century the method of assessment was rarely adopted, the poor being supported out of the contributions at the parish kirk. But with the break-up of feudalism and the clan system, and the advent of the modern industrial *régime*, came a rapid increase in the claimants for relief; while the equally rapid growth of dissent from the Established Church seriously curtailed the amount of the available funds. Under the kirk-sessions and heritors, however, the stern teaching of the Calvinistic church dominated the administration of the law. A legal assessment was avoided where possible, on the ground that it tended to sap the foundations of self-reliance and thus to encourage pauperism. This was the position of Dr. CHALMERS. Still the commission of inquiry appointed in 1843 found that the relief given was in general, but more especially in the Highlands, quite insufficient, that the amount was determined not by the necessities of the pauper but by the amount of the voluntary contributions, and that steadily, if slowly and with misgiving, the authorities, especially in the larger towns, were being driven to the adoption of the legal assessment. Under the act of 1845, in all parishes where it was resolved to raise the necessary funds by assessment, the administration of the law passed to a body, called the parochial board, elected by the ratepayers, the burgh magistrates, and the kirk-session. A central authority called the Board of Supervision was created to secure greater uniformity in the administration of the law, and to protect the interests of the pauper against the too extreme parsimony of the local boards. The latter were directed to appoint as clerk, relieving officer, and sole executive of the board, inspectors of the poor, dismissible only by the Board of Supervision. The pauper was at the same time granted a right, said to have been much abused, of appeal to the sheriff against a refusal of relief. Under the Local Government Scotland Act 1894, the board of supervision was superseded by the Local Govern-

ment Board for Scotland, while the powers and duties of the parochial boards were taken over (May 1895) by the newly created parish councils. With the advent of the new *régime* in 1845 the transition to the system of legal assessment was greatly accelerated. In 1845, 230 parishes raised the funds by assessment, 650 by voluntary contributions; and within ten years the numbers had become 700 and 183 respectively. In 1896 out of 877 parishes or combinations all save 24 had adopted assessment. With regard to the distribution of the burden the principle of the Scotch poor law has always been that each should contribute according to his ability—his "means and substance." There are various modes of approximating to this, but the only one now legal is that by which one half of the assessment is imposed on the owners and the other half on the occupiers of real property, rateably according to the net annual value of their heritages. Of the 853 assessed parishes only 162 at present (1896) avail themselves of the power of classification of occupants granted by § 36 of the act of 1845.

In dealing with the aged and impotent poor, the prevailing method in Scotland has always been that of out-door relief. Under the sway of the kirk-sessions and heritors this took various shapes, such as money, victuals, or a license to beg, according to the state of the voluntary funds. Only in a few of the larger towns were there poorhouses for the reception of the aged and helpless. By the act of 1845, however, facilities were given for the erection of poorhouses on the English model; and in 1896 there were 66 such poorhouses representing parishes with an aggregate population of 3,933,841, leaving only parishes with a population 91,806 still unprovided for. The result of their application as a test of destitution is seen in the steady decrease in pauperism. For some years after 1845 there was a marked increase in the number of the registered poor and their dependants, but this was largely the result of the changed conditions of relief and not of a real increase in pauperism. Taking the fifty years 1847-96, while the population has increased from 2,781,000 to 4,170,000, the number of paupers and their dependants has decreased from 106,000 to 98,000. For the first twenty years of that period the ratio per cent of paupers to population remained about 3·8, and for the last twenty years the average was 2·5, and in 1896 it stood at 2·3. When, moreover, allowance is made for the rapid increase of the lunatic poor, the falling-off in the numbers of the ordinary poor is seen to be still more pronounced. Taking the ordinary poor, we find that in 1877 there were 8046 "indoor" to 85,334 "outdoor" paupers. In 1896 the former had increased to 9569 while the latter had fallen to 76,494. Pauper children are as far as possible boarded out in the rural districts, and this feature of the Scotch system is generally admitted to be one of its best.

[Nicholls, *History of the Scotch Poor Law*, London, 1856.—R. P. Lamond, *The Scottish Poor Laws*, 2nd ed., Glasgow, 1892.—*Annual Reports* of the Board of Supervision, 1846-95, and of the Local Government Board for Scotland, 1896 onwards.] A. B. C.

POOR RATES. See RATE, INCIDENCE OF.

POOR RELIEF AMONG THE JEWS OF ENGLAND.

I. General, p. 160; II. Historical, p. 160; III. Institutions, p. 161.

I. *General.*—The relief of the Jewish poor in England is, and always has been, almost entirely carried on by the Jewish community. This state of things is not due to the fact that any legal disability prevents, or ever prevented, English Jews from availing themselves of relief under the poor law, but is explained mainly by three causes: (*a*) the unwillingness of poor Jews to take refuge in any workhouses except those few in which special arrangements are made to enable them to observe the complicated dietary regulations prescribed by their religion; (*b*) the natural charitableness of Jews towards the poorer members of their faith; (*c*) the desire of the Jewish community to protect itself against misconception by preventing poor Jews from becoming chargeable to the poor rate. Sir Julian Goldsmid, a leading member of the Jewish community, said in the House of Commons on the 11th of February 1893, "By means of the Jewish Board of Guardians we Jews in this country have endeavoured as far as possible to relieve our Christian fellow-countrymen from payments on our behalf" (Hansard's *Parliamentary Debates* for 1893, viii. 1199).

II. *Historical.*—Though Jews have lived in England since the Restoration, and have always regarded it as their duty to relieve the poorer members of their community, the history of their more important charitable institutions scarcely goes back beyond the beginning of the 19th century. This is due to the numerous divisions which existed within the community throughout the 18th and more than a half of the 19th century, and which have not yet entirely disappeared. The first Jewish settlers in England in the 17th century were men who, though coming mostly from Holland, were of Spanish or Portuguese descent. They founded a synagogue in Bevis Marks, London, and several charitable institutions, which, though doubtless sufficient at first for the wants of their poor, were on a small scale. Among the institutions were a charity school for children of the congregation (1664), an orphan school for boys (1703), and for girls (1730), societies for giving dowries to portionless girls (1724), and for apprenticing boys (1749), a hospital for the sick and aged (1747), and a society for distributing food to the poor (1778). But the Spanish and Portuguese Jews were, in the latter half of the 18th century, outnumbered by the German and Polish Jews, who, continually recruited by immigrants from Germany, Poland, Russia, and Holland, founded three

synagogues in London in the 18th century—the Duke's Place Synagogue in 1722, the Hamburg or Hambro, Synagogue in 1736, and the New Synagogue in 1760. Each of these synagogues was a separate organisation. Each devoted considerable funds to the relief of its own impoverished members, though even this work was somewhat irregularly performed owing to the fact that the synagogue revenue was to a great extent made up of the voluntary offerings of members, and was therefore somewhat fluctuating. But, besides the members of the synagogues, there was always a large class of poor persons, mostly foreigners, who, though regarded as belonging to the German and Polish portion of the community, had never been in a position to contribute towards the funds of a synagogue, and had therefore never acquired the privileges of membership. There was no permanent arrangement among the three synagogues for the relief of this class of the unattached poor until the foundation of the Jewish Board of Guardians (described further on) in 1859. Sometimes, indeed, it was agreed between the three "German" synagogues as a temporary expedient that, out of every four unattached Jews seeking relief, two should be dealt with by the Great Synagogue, the largest of the three, one by the New, and one by the Hambro. But even this arrangement was not adhered to for long, and a competent authority describes how, at another period, "the strange poor, to complete the given shilling, had to call first at the Great Synagogue for the first moiety of sixpence, and to the other two city synagogues for the two remaining moieties of threepence severally."

Another good authority, writing in 1801, says that "the synagogue administration, with respect to the poor's aid, is . . . very inadequate as to funds, and ill-directed as to manner." The synagogue funds, however, were largely supplemented by private charity.

The first effort to introduce unity and system into Jewish poor relief was made in 1801, when a proposal was brought before the government of the day by Abraham Goldsmid, the leader of the German and Polish congregation, for the constitution, by parliamentary authority, of a board which should consist of representatives appointed by the various synagogues, and should have power to assess the synagogues and individual Jews for contributions, and to devote the money raised by this means and by voluntary donations to the establishment of a school, a hospital, a workhouse, and an asylum for the aged. The scheme met with opposition and was dropped. But the same impulse that gave rise to it led to the foundation of the "Jews' Hospital for the Reception of Aged Poor, and Educating to useful Industry Youth of both Sexes," opened at Mile End in 1807. The establishment of the Jews' Free School in 1817, of the Jews' Orphan Asylum in 1831, of the Jews' Infant School in 1840, and of additional homes for old men and widows in 1840 and 1843, did much to relieve the condition of the Jewish poor. But the synagogues remained apart; and, as has been said above, there was no organisation to deal with the "unattached poor" until 1859. Numerous as are the charitable institutions of the English Jews at the present day, the history of poor relief among the English Jews during the last thirty-eight years is practically the history of the Jewish Board of Guardians.

III. *Institutions.*—The chief charitable institutions in London at the present time are as follows:—(*a*) *The Jewish Board of Guardians*, established in 1859 by the three German synagogues to provide one general authority for the distribution of charitable relief, partly in addition to, and partly in supersession of, the relief dispensed by the synagogue authorities themselves and by private donors. The Board was at first intended to deal chiefly with "unattached" Jews, *i.e.* those who were not specially attached to, and relieved by, any synagogue; but this limitation of its work was removed within a few months of its foundation. The board now consists of fifty-five members, viz. thirty-two elected by the subscribers, twenty-one elected by the members of the London synagogues, and the two overseers of the poor appointed by the Council of the United Synagogue. It carries on its work through the relief committees, which distribute money, nourishments, and medical and surgical help; the loan department; the emigration department; the industrial department, which apprentices poor Jewish boys and girls to employers who undertake to allow them to observe the Jewish Sabbath and festivals; the clothing department; the fixed allowance committee; the sanitary department, which endeavours to secure the removal of sanitary defects in the habitations of persons assisted by the board; and the workrooms, which provide instruction and employment in sewing to destitute Jewish women and girls. The departments are mainly administered by members of the board, with the assistance of a staff of paid officers, of a visiting committee consisting of about fifty honorary visitors, and of about a hundred and twenty "visiting guardians of apprentices."

The income of the board for 1906, exclusive of sums received for investment (legacies, etc.), was about £62,000, made up as follows:—subscriptions, donations, and subventions (from individuals and synagogues), £34,000; income from investments, trust funds, etc., £7000; repayment of loans by borrowers, £18,500; repayment of premia by apprentices, £2500. The expenditure was about £65,000, viz. gifts of

money or kind, temporary allowances, medical relief, etc., £20,000; permanent allowances, £9000; emigration, £7000; loans, £21,000; apprenticeship, £3000; work-rooms, £300; sanitary department, £600; expenses of management, £4000. (*b*) The Jews' Hospital and Orphan Asylum, formed by the amalgamation in 1876 of the Jews' Hospital, founded in 1807, and the Jews' Orphan Asylum founded in 1831. The institution maintains, educates, and apprentices about 340 orphan children, and grants pensions to eight aged persons. Its expenditure in 1906 was £12,050. (*c*) Home for Aged Jews, formed by the amalgamation of three institutions founded in 1840, 1843, and 1871. Expenditure in 1905, £1800. (*d*) Board of Guardians for the relief of the poor of the Spanish and Portuguese Jews' congregation, founded 1837. Expenditure in 1905, £1800. (*e*) Home and Hospital for Jewish Incurables, founded 1889. Expenditure 1905, £3700. (*f*) Soup kitchen for the Jewish poor, founded 1858. Income in 1896, £2000. (*g*) The Russo-Jewish committee, founded in 1881, which administers a fund raised in that year and increased in 1905 for the relief of Jewish sufferers from persecution and popular violence in Russia.

There are, besides, numerous smaller institutions, and the amount annually expended by specifically Jewish charitable institutions in London is probably about £130,000. There are, in addition, Jewish boards of guardians in Manchester and Liverpool, each spending about £1500 a year, and one in Birmingham spending about £1000.

[Annual reports of the institutions referred to, especially the first report of the Jewish Board of Guardians, 1859.—J. Picciotto, *Sketches of Anglo-Jewish History*, 1875.—J. Van Oven, *Letters on the Present State of the Jewish Poor in the Metropolis*, 1802.—L. Alexander, *Answer to Mr. Van Oven's Letters*, 1802. A Jew (H. Faudel), *Suggestions to the Jews for Improvement in reference to their Charities, etc.*, 1844.—I. Harris, *The Jewish Year-Book*, published annually; *Jewish Chronicle* for 26th March, 7th May, and 18th June 1897.—J. Jacobs and L. Wolf, *Bibliotheca Anglo-Judaica; a Bibliographical Guide to Anglo-Jewish History*, 1888.—*Laws of Hebrews relating to the Poor and the Stranger*. Trans. from the Hebrew of Maimonides, London, 1838.]

B. L. A.

POPULATION: ECONOMIC THEORY. (For recent movements, see POPULATION, THE SLACKENING INCREASE OF, in the Appendix.) By the population of a country is meant the *numbers* of its inhabitants, and, whatever account is taken of differences of quality, it is of quality in close relation to numbers. Like all other statistics, the numerical data of population require an interpreter, an observer able not only to count, but to collate and reason. He must, for example, distinguish between a change in the method of investigation and a change in the facts investigated—as where there is a growing accuracy of registration or enumeration, and the real increase in numbers is less great than the recorded.

Taken by itself, a single census, giving the numbers of human beings found alive in the British Isles on a particular day, say 5th April 1891, tells us nothing of one important feature of population—its perpetual change. It would give us the statical view, which might be also the qualitative or demographical, of the distribution of ages and sexes, and of ranks and occupations. But a second census enabling us to compare the numbers at two periods, and thereby estimate the movement between them, gives more than twice the illumination of one. To be used fruitfully the statistics of population must be comparative.

Further, the data must be used with the cautiousness appropriate to their imperfections. It is given to few countries, as to few individuals, to count exactly; the questions of a census must be few, direct, and simple, or the intentional, as well as the unintentional, errors will be multiplied. The greater the numbers of a people, the more true will averages be, and the more truly may general conclusions be drawn (see STATISTICS). But, on the other hand, verification becomes more difficult; and the statistician must consider how far he may justly assume that the inaccuracies are a constant quantity, or cancel each other on the whole, or be inappreciably few in view of the largeness of the area.

Taking a nation like our own, which has at its command the chief, if not the whole, of the scientific apparatus necessary for sound statistics of population, we find among the institutions established largely if not wholly for the ascertaining of facts in relation to this subject the following:—

(1) The decennial census (see CENSUS), giving the numbers of the people as enumerated on a particular day.

(2) The annual returns of the registrars-general for England, Scotland, and Ireland, giving the numbers of births, marriages, and deaths.[1]

(3) The returns (to the board of trade) on emigration and immigration.

The figures yielded by all three may be used to check each other; and the usefulness of the check will be evident when it is observed that the numbers of the people, as estimated by 2, for the year of the census, are never found to coincide exactly with the enumerated numbers of the census itself. The divergence is, however, so small in comparison with the great numbers enumerated (in 1891, 288,000 out of

[1] For England we have (*a*) annual reports; (*b*) decennial supplements thereunto; (*c*) quarterly returns; (*d*) weekly returns; (*e*) annual summaries.

29,000,000—hardly 1 per cent), that we evidently possess accurate enough knowledge on this subject to draw general conclusions as to general tendencies. The use made of these figures by statesmen, whether for electoral or financial purposes, may here be neglected. The special difficulties of the actual enumeration are considered elsewhere (see CENSUS). The numbers of the nations of the world are now known with a fair approximation to accuracy. The strictly economic aspects of the subject are an ample theme by themselves.

Political economy is occupied, in the first instance, with the results that would flow, in human societies, from the pursuit of material wealth. But the bare abstraction, desire of wealth, has been so unfruitful, that all economists have been quick to add to it a group of rival elementary desires, such as desire for leisure and desire for marriage. The desire for marriage is introduced "for the sake of practical utility" (J. S. MILL, *Unsettled Questions*, p. 140). The effect is to deprive political economy of a great part of its abstractness, yet the inclusion is inevitable; if we exclude the desire of marriage, and all reference to increase or decrease of numbers, we go far to treat society as inanimate, not to say non-human. Thus at the rise of political economy, both in England and in France, the study included the subject of population, and therewith of statistics. Political arithmetic, one of the precursors of economics in England, was mainly an endeavour after statistics of population; and the spread of life insurance and annuities, at the end of the 17th century, helped to swell the numbers of those who were studying the facts. The writers of the mercantile school (see MERCANTILE SYSTEM) had considered economic policy rather than economic principles. But the PHYSIOCRATS and the Scottish philosophers were forming economic principles, however tentatively. The absence of a census served to make the discussions more indecisive, but possibly also to make the sifting of principles more complete. From very want of facts men were driven to principles in order to reach the facts deductively. The academical debate between the champions of the ancients and the champions of the moderns led to D. HUME's *Essay on the Populousness of Ancient Nations*, 1752. Hume at once dismisses the notion that the world was in its prime in antiquity and is now old in modern times. Men are much the same now as then, and we cannot tell when the prime of the world gives place to its old age. Against the special diseases of our own age we have to set the special troubles of ancient society. "The equality of property among the ancients, liberty, and the small divisions of their states, were indeed favourable to the propagation of mankind. But their wars were more bloody and destructive, their governments more factious and unsettled, commerce and manufactures more feeble and languishing, and the general police more loose and irregular. These latter disadvantages seem to form a sufficient counterbalance to the former advantages, and rather favour the opposite opinion to that which commonly prevails with regard to this subject" (*Essays*, vol. i. pp. 468-469, 4to ed. 1768). There can be no doubt what was Hume's own view,[1] though when challenged by Dr. Robert WALLACE, he took refuge in scepticism. His arguments involve a close scrutiny of the classical authorities; but there shines through the whole the *a priori* principle that the ancient world could not have been more populous than the modern, and therefore it was not. It could not have been, mainly because "wherever there are most happiness and virtue and the wisest institutions there will also be most people" (*ib.* 427). Were all difficulties removed, almost every one would marry; "and the human species would more than double every generation." How fast do men multiply in a new colony, and how quickly are the gaps filled up after a plague! "Where there is room for more people they will always arise" (*ib.*).

The prevailing tone amongst political writers had been that population could not be made to grow fast enough. BOTERO, in 1589, *Delle cause della grandezza delle città*, had no doubt pointed out that the *virtus generativa* of men was the same as it always was, but the *virtus nutritiva* became more and more hampered. But Botero was soon forgotten, and the same views were only in the 18th century rising again into the consciousness of his countrymen (especially GENOVESI and ORTES, the former not altogether clear). FRANKLIN, writing in 1751, *Observations concerning the Increase of Mankind*, remarked that there is no bound to the increase of living things, whether plants or animals, provided they have room and food and no rivals. The growth of the American colonies was exciting general attention in Europe. These colonies had arisen from economic as well as political causes; and they were destined to be as instructive economically as politically.

Besides all this, a debate was waged through a great part of the 18th century that came far nearer home than the antiquarian controversy of Hume and Wallace; it was debated whether the numbers of the English people were decreasing, and, if so, whether the large towns were the cause of the decrease. Richard PRICE, the promulgator of the *Northampton Table of Mortality*, maintained the affirmative in both cases

[1] See Gibbon, *Decline and Fall*, ch. ix. (pub. 1776, in the year of Hume's death). As to the superior populousness of the north in ancient times, says Gibbon, "a more serious inquiry into the causes of population seems to have convinced modern philosophers of the falsehood and indeed the impossibility of the supposition. To the names of Mariana and of Machiavel we can oppose the equal names of Robertson and Hume"

against J. HOWLETT, W. WALES, and Arthur YOUNG. The discussions on the effects of enclosures, and of large and small farms, were largely affected by the views of the various disputants on the major question of DEPOPULATION. The *Essay* of MALTHUS (1798) soon silenced the followers of Price, though it was unconnected both in origin and in aim with their controversy.

It has more than once happened in the history of economic study, that—to the eye of the later historian—the times seem fully ripe for the enunciation of a particular doctrine, when yet it is either not proclaimed or else when proclaimed excites no attention. The dependence of population on subsistence, and the tendency of population to overtake, if not to exceed, subsistence, had been stated by QUESNAY when he wrote: *La propagation n'a de bornes que celles de la subsistance, et elle tend toujours à passer au delà; partout il y a des hommes dans l'indigence.* (Quoted by Oncken in art. Quesnay, *Handw. d. Staatswissensch.* p. 329, without a reference.)[1] Quesnay converted the Marquis MIRABEAU to this view (Higgs, *Physiocrats*, 1897, p. 23). The doctrine of TURGOT as to the tendency of wages to a minimum implied a similar view of the tendency of population to a maximum. The said tendency of population had been observed by Dr. Robert WALLACE (*q.v.*) to have vital importance for projects of social reform. Adam SMITH, finally, had remarked that "the demand for men necessarily regulates the production of men; quickens it when it goes on too slowly, and stops it when it advances too far" (*W. of N.*, I. viii.). "Every species of animals naturally multiplies in proportion to the means of their subsistence, and no species can ever multiply beyond it" (*ib.*). He had noted also the rapid increase of the American colonies and the causes of it. The population, he says (1776), doubles there in twenty or twenty-five years, not because of immigration, but by "the great multiplication of the species" (*W. of N.*, I. viii.). But when Malthus, till then completely unknown, published his *Essay on Population* in 1798, he made as great an impression as if nobody till then had written on population. The two great schools of political economy, the French and the English, adopted his doctrine with little or no modification.

The chief arguments of the *Essay* have been fully presented elsewhere (see art. MALTHUS). They owed their impressiveness (1) to the attention then excited by GODWIN'S *Political Justice* to which the *Essay* was a reply; (2) to the directness of their bearing on current English economic policy, especially in the matter of poor laws; (3) among economists, to the skill with which the theory of population was incorporated with the general doctrines of the economic system, and brought into connection with all the leading questions in economics, then as now under discussion.

Assuming that food is necessary and the desire for marriage ineradicable, Malthus contends that not only is the increase of population limited by the increase of food, but wherever there is increase of food there will be a corresponding increase of population. Yet the increase of the food compared with the increase of population is slow, laborious, and difficult. "Population when unchecked increases in a geometrical ratio; subsistence increases only in an arithmetical." (See ARITHMETRICAL RATIO; GEOMETRICAL RATIO.) Malthus in short begins abstractly: suppose all impediments to population removed, and all impediments to production of food left standing, then the one will increase geometrically, the other arithmetically.

Up to this point all seems simple, and all had been said before, even as to the ratios by Voltaire; but Malthus showed in detail the modes by which the tendency of population to increase was repressed, so that the actual numbers were brought within the limits of the actual food. Plants and animals reproduce themselves, and the new offspring, finding no food, dies. In the case of men, this only happens with the most savage, most nearly akin to the brutes. With the others the repression is effected in various indirect ways, under various disguises. The checks are "vice and misery," and "the fear of them." They are preventive as well as positive, preventing births as well as causing deaths. Malthus in 1803 pleaded guilty to exaggeration; and admitted that among the preventive checks was moral restraint, which was certainly neither vice nor in the ordinary sense misery, though by his own definition it might be the fear of it. If the 1st edition of the *Essay* gave a picture of the struggle for room and food in its gloomiest aspects, the 2nd brought out more fully how among civilised peoples it is a struggle for the attainment or more often for the retention of a standard of living, in which, in proportion to the degree of civilisation, the necessaries of life go far beyond the bare physical requisites of mere living. Yet the average man will marry and will need to struggle to preserve the accustomed necessaries. The pressure of the principle of population will make itself felt as a stimulus to his labour and inventiveness. Felt it will always be. The pressure of population on the means of providing necessaries will continue as long as the race continues.[1]

Of the conclusions fairly deducible from the arguments of the *Essay*, the following are the most important to the economist and the statesman.

1. The principle of population is a chief,

[1] See also notice below (p. 169), of works of l'Abbé Manu.

[1] Mr. Lyttleton (see below) is probably right in contending that there is no tendency in the case of human beings to increase *beyond* the food, unless there have been artificial encouragements. But there might still be a tendency to increase *up to* the food.

perhaps the chief cause of poverty, and its effects cannot be removed though they may be aggravated by human institutions. It is also the chief cause of low wages.

2. The only sound encouragement of population is the encouragement of industry, especially agriculture.

3. Very fertile lands are comparatively scarce, and an increasing population compels the cultivation of the less fertile. Hence arises the phenomenon of rent.

4. The pressure of population is a stimulus to industry. Population, unchecked by prudence or necessity, increases geometrically; production of necessaries, unaided by invention, increases arithmetically.

5. Relief of the poor by poor rates (see POOR LAW) or CHARITY (*q.v.*) does not by itself add to the food, and therefore only raises the price of the existing supply. Emigration relieves the pressure for the time, but, if there is no greater prudence than before, the gaps are soon filled, and the old pressure reappears.

6. The difficulty is not remote but present, for a population is adequate[1] or excessive in relation to the actual not the possible food. Nothing but greater prudence of the several citizens will remove it. The burden of responsibility lies on the individual, not on the state.

7. An increase of population is both safe and desirable if caused by a low death-rate; it is much less so if caused by a high birth-rate. There is in the former case an economy; in the latter, if without the former, there is a waste of lives. (See *Essay* (later ed.), bk. ii. viii., *On the Checks to Population in England.*)

8. A high standard of living is as desirable for the whole people as for the middle and upper classes, and it is best preserved by late marriages.

These are only a few deductions that might be made from the *Essay;* and, as they are not all equally evident, they were often attacked in detail by critics unable or disinclined to controvert the first principles. Much too was built upon the *Essay* that has needed reconstruction or demolition; the theory of rent has submitted to the one, and the theory of a wages fund has not escaped the other. We are now more careful than Malthus to point out that a change in distribution of wealth may convert an excessive population into a well-fed population, provided that production is adapted to the change. But the first principles of the *Essay* suffered hardly at all from the earliest critics, and have been little amended by the latest.[2]

1 'Giusta populazione,' Genovesi, *Lezioni di economia civile*, pt. 1. ch. v. p. 122 (in the *Scrittori Classici di Economia politica*, vol. vii. 1803).

2 The mathematical formula for the growth of population was restated by Quetelet, *Physique Sociale* (1835). Another restatement has been recently put forward by Professor Karl Pearson, *Stat. Journal*, June 1896. Compare the formula in Malthus, *Essay*, ii. ix. footnote.

Something was felt to depend on a question of fact. America was taken by Malthus as the best example of a near approach to the conditions under which the highest theoretically possible increase would be realised; it was important to be sure therefore that the doubling of the American population in twenty-five years had been due to natural increase, and not simply to immigration from the Old World. Francis PLACE (*Illustrations and Proofs of the Principle of Population*, 1822) was able to show this with great effect from Dr. Adam Seybert's *Statistical Annals, 1789-1818*, of the United States (publ. 1818), and from the English records of ships and passengers cleared for the United States, under the Act 43 Geo. III. c. 56. The years when governments were restless from wars and rumours of wars were precisely those when emigration and immigration would be closely watched, and the records would be most likely to be full and accurate; and the records pointed to an emigration of 10,000 per annum at the utmost (Place, pp. 68, 69), while the population of the States increased from 4 millions in 1790 to $7\frac{1}{4}$ in 1810 (*ib.* 46). The census of 1820, not published at the time PLACE wrote, made the population for that year $9\frac{1}{2}$ millions. In other words the increase had been at the rate of about 225,000 per annum, of which emigration accounts for less than $\frac{1}{20}$ part (cp. *Edin. Rev.*, Jan. 1820, p. 70; and July 1821, p. 365 *seq.*). The free population, as distinguished from the slave, increased at a much faster rate than this (see Macaulay's article on Sadler, *Edin. Rev.*, July 1830, pp. 318, 319).

The illustration of Malthus was thus substantially justified. Since then the United States have become more and more like Europe in the filling up of room, if not in the supplying of food, and we can no longer point to the States as a much nearer approach to geometrical increase than can be found elsewhere.

An interesting attempt to modify the Malthusian doctrine by American experience was made by A. H. EVERETT (*New Ideas on Population*, 1823). Everett considers that an increase of population is not likely to take place without bringing with it an increased efficiency in the production of food, the new men being new workers, and in civilised countries becoming in each generation more and not less skilful owing to their numbers and the resulting division of labour. A careful statement of the Malthusian doctrine will show it to be quite consistent with this "new idea." Malthus himself needed to explain to SENIOR that to say population had a tendency to increase did not mean that it actually did increase,—that on the other hand the actual progress of humanity in invention and industry was not due to any "tendency" in the same sense of the word, such progress being not spontaneous, but the result of vigilance and effort (see *Two*

Lectures on Population by W. N. Senior, Prof. of Pol. Ec., Oxford, with a Correspondence between the Author and the Rev. T. R. Malthus, London, 1829). In short, if man relaxes his watch over his appetites, his numbers will increase to the level of the food; but to increase the food he must use his reason. Appetite unwatched by reason will bring men to poverty; this is perhaps the most succinct statement of the Malthusian "law" of population.

Malthus himself speaks oftener of a "tendency" and a "principle" than of a "law." Sadler on the contrary wrote a book entitled The *Law of Population* (1830), in which he tried to prove that the prolificness of human beings, otherwise similarly circumstanced, varies inversely as their numbers (vol. ii. p. 352), meaning that where the population is dense the births are few, and where it is thin they are many. On the best interpretation, this could only mean that population increased fastest where there was most room for it. Obviously the food is as important as the room, but if we add food then Sadler's principle is that of Malthus. Doubleday, *Law of Population* (1846), suggested that the increase is inversely proportional to the food. This is only true in the sense that excess and luxury will in some cases injure reproduction. In any other sense the contention is a paradox, and is so treated by Darwin and other leading biologists.[1] Darwin traces his own theory directly to Malthus: "It is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms, for in this case there can be no artificial increase of food, and no prudential restraint from marriage. Although some species may be now increasing, more or less rapidly, in numbers, all cannot do so, for the world would not hold them. There is no exception to the rule that every organic being naturally increases at so high a rate that, if not destroyed, the earth would soon be covered by the progeny of a single pair. Even slow-breeding man has doubled in 25 years, and at this rate in less than 1000 years there would literally not be standing room for his progeny" (*Origin of Species*, 1859, ch. iii., cp. Wallace, *Darwinism*, 1889, p. 10).

On this power of increase, and on the fact that the offspring always differs though slightly from the parents, is built the theory of natural selection. In the struggle for existence among organisms that cannot all survive, those will survive which have the peculiarities that give them advantage over others. In Mr. Spencer's phrase the fittest will survive. Without discussion of the additions to Darwinism proposed by recent biologists, it may be said that the theory of natural selection in its broad sense is now an accepted doctrine, and it is applied to human beings in a state of individual savagery as well as, with reservations, to nations of men in relation to each other even when civilised. The individual citizens of nations, however, are to a large extent withdrawn from the crude form of natural selection. Modern states endeavour so far as possible to prevent the trampling out of the weak, but not perhaps so much by State law as by philanthropic agencies; and they do not even forbid the physically weak and sickly to propagate.[1] Hence, though the doctrine of population is in abstract theory only a particular case of a general biological law, the form which that law assumes in the case of man is still recognized as in many ways exceptional.

The protest of W. R. Greg (*Rocks Ahead*, 1874, and *Enigmas of Life*, 1872) and others against the degeneration of type which might seem to result from interference with the struggle for existence, is made more intelligible if we adopt the theory of Mr. Herbert Spencer on "individuation" and reproduction. This theory is that "individuation," including the concentrative intellectual force of a man, can only grow at the expense of the reproductive force.

H. C. Carey (*Principles of Social Science*, 1858-60) had taught that "the power to maintain life and that of procreation antagonise each other, that antagonism tending perpetually towards the establishment of an equilibrium," animals with large brains being less prolific than animals with small. Proudhon, *Contrad. Econ.*, had found consolation in a similar equilibrium. But Spencer states the view most carefully: "The forces preservative of race are two, ability in each member of the race to preserve itself and ability to produce other members, power to maintain individual life and power to generate the species. These must vary inversely. When from lowness of organisation the ability to contend with external dangers is small, there must be great fertility to compensate for the consequent mortality; otherwise the race must die out. When, on the contrary, high endowments give much capacity of self-preservation, a correspondingly low degree of fertility is requisite. Given the dangers to be met with as a constant quantity, then, as the ability of any species to meet them must be a constant quantity too, and as this is made up of the two factors, power to maintain individual life and power to multiply, these cannot do other than vary inversely; one must increase as the other decreases,"—*Biology*, vol. ii. pt. vi., "Laws of Multiplication," p. 401, ed. 1867. What is gained for reproduction is lost to nutrition.[2]

[1] See above (Doubleday), and compare Dr. C. Loudon's *Solution du Problème de la Population et de la Subsistance* (Paris, 1842), pp. 301-313. His "solution" is "l'allaitement de trois ans."

[1] The pax Britannica in India has been purchased at the expense of over-population.

[2] Carpenter, in his *Comparative Physiology* (3rd ed. 1851), is quoted by Spencer as writing to the same effect. Spencer's view was stated by himself in the *Westminster Review*, April 1852.

The growth of the one set of powers is at the expense of the other, most manifestly so in the higher organisms, such as man, where the special organs of individuation, as opposed to genesis, draw to themselves a great amount of the total force in the animal (*ib.* 408, 409).

It must be added that "the inverse variation of individuation and genesis is but approximate. Recognising the truth that every increment of evolution, which is appropriate to the circumstances of an organism, brings an advantage somewhat in excess of its cost, we see the general law, as more strictly stated, to be that genesis decreases not quite so fast as individuation increases" (*ib.* 477). "Every type that is best adapted to its conditions, which on the average means every higher type, has a rate of multiplication that insures a tendency to predominate" (478). The pressure of population in man's case is undoubted, and it is "perennial" (498). It causes "a never-ceasing requirement for skill, intelligence, and self-control; involves therefore a constant exercise of these and gradual growth of them" (499). Excess of fertility is the cause of man's evolution;[1] and the "evolution itself necessitates a decline in his fertility" (501). The getting of food will become harder and harder, and the increased labour will cause a greater and greater diminution of reproductive power (503).

There would thus be an eventual harmony; as with the spear of Achilles, the cause of the mischief would be also the cure of it (cp. Dante, *Inferno*, xxxi. 4).

But it may be doubted whether Mr. Spencer's admissions do not weaken his main argument. In the first place he allows that the struggle for existence meets with interference in the case of men, and has not its perfect work —*Biology*, ii. 487; cp. *Study of Sociology*, ch. xiv. pp. 340 *seq.*, 14th ed. 1888. If domestic animals, such as dogs, are spoiled by their protected state for many purposes of scientific inference, much more so are men in society, and much more so will they become. The dependence of sociology on biology asserted alike by COMTE and Mr. Spencer, is evidently not close enough to enable us to use biological generalisations as necessarily true of human societies, at least in their civilised form. The institutions of modern civilised societies are adapted to preserving the weak and even encouraging their multiplication (see *Study of Sociol.*, *loc. cit.* p. 344).

In the second place Mr. Spencer admits that it is much more easy to support his view in the case of women than in the case of men (*Biol.*, *loc. cit.*, *Study of Sociol.*, p. 379). Now as civilisation preserves the weak of both sexes, the result would still be that the biologically unfit would survive. No one is better aware than Mr. Spencer that intellectual growth is not necessarily moral; and he would probably allow now, whatever he might have done in 1852, that, after all, a conscious "moral restraint" must intervene if a stable equilibrium is to be produced between population and the means of living.

In the third place it is stated too absolutely that in the long run, owing to the slackened multiplication due to intellectual strain, there will be an adequate instead of an excessive population, and the strain itself will be relaxed. It might obviously be retorted, as it is by Prof. John, *die jüngste Entwickelung der Bevölkerungstheorie*, 1887, that the multiplication would on Spencer's own principles at once begin afresh, unless, we may add, there had been such a development of morality as to make men keep up from principle the conduct at first enforced by the discipline of necessity.

In any case it seems difficult to avoid the conclusion that there is still scope for the preventive check of Malthus, though not necessarily in the form he preferred; and the severe labour of which Mr. Spencer speaks is not far removed from that class of checks which was called too bluntly by Malthus "misery." Without adopting Spencer's view as an adequate solution of the whole difficulty, we may allow that it concerns a *vera causa*. The higher education of women and their more active part in the intellectual battles of life will, *cæteris paribus*, lead to lessened multiplication; and this in two ways at least: (1) By lessening the dependence of women it will, on the whole, lessen the number of marriages; and (2) for physiological reasons it will lessen the birth rate. Spencer explains the low birth-rate of France mainly by the hard work thrown on French women;[1] but if it be hard *physical* work this would rather involve a high death-rate of infants than a low birth-rate; it is from hard mental work that the latter would more probably come. The stationary state of the French population is admittedly due mainly to deliberate prevention. *A priori* this prevention might be expected to result in a degeneration of type; but there are no conclusive proofs of such an effect at present. When English politicians are providing against the possible opponents of the British nation on the seas or in the battle-field, France is still in the first rank of them.[2]

Incidentally it is a strong confirmation of the Malthusian doctrine that the French settlers in Canada (according to M. de Molinari's article in the *Journal des Economistes*, December 1886, translated in *Statist. Journal*, March 1887) have

[1] Mr. Spencer frankly acknowledges that, though he came near to Darwin's idea, he did not actually reach it (*ib.* 500 n.).

[1] Compare his *Sociology*, vol. iii. (1897), p. 361.

[2] M. de Molinari (see *infra*) believes there is physical degeneracy, proves it by the rejections for the army, and ascribes it largely to the forced service itself!

increased from 60,000 to 2,000,000 in a century and a quarter, while the population of France, but for immigration, is stationary. M. de Molinari (*loc. cit.*) contends that the economic advantages of the present attitude of the mother country considerably outweigh the drawbacks. The low death-rate is to be set against the low birth-rate; the adult population is proportionally a much greater part of the whole than elsewhere, and it is the adult members of a nation that must defend it.[1] On the other hand,—and this argument is supported by C. de Varigny, *Revue des Deux Mondes*, 1st December 1890, *La théorie du nombre en matière de population*,—the sinews of war are in a sense not men but money; great numbers without wealth are less strong than smaller numbers well-furnished.[2] Now France is wealthy; "she exports more capital than she imports" (Molinari, *loc. cit.*); and her immigrants provide her with servants ready made, in place of servants to be reared by herself at great cost.

It will be asked if there is not a danger in the adoption of a policy of restriction, whether (*a*) by a class within one nation, or (*b*) by one nation within a large group, in face of competitors who increase as before. This objection recalls the old arguments against the adoption of free trade by a single nation in the face of protectionist rivals. The answer at least is similar; the new policy is adopted because it is a source of strength. The effect of the example of the middle classes has in recent years become appreciable even in this country. The birth-rate has become lower among the working classes (see Reports of Registrar for 1895, London, Lancashire, Durham), and there are reasons for thinking that improved expectation of life, and lessened birth-rate, have exerted a mutual influence. Among nations the position of France in the matter of population is only the most striking instance among many; the phenomenon of lessened rate of increase is becoming general among European nations, and is showing itself in the United States of America. The utilitarian argument (see Prof. Sidgwick, *Politics*, pp. 148 *et seq.*, that the total amount of happiness is greatest where there are most units to be happy) may be answered by the remark, that the intensive happiness may be greatest where the units are not the most numerous; 100 very happy may be better than 1000 only slightly so. The contention that it is dangerous for one nation to begin till all nations are ready, proceeds from that class of reformers who would take no decisive action without a universal consensus. Experience seems to show that reforms usually spread from the parts to the whole, and may begin at once and anywhere.

The bearing of the growth of population on the relation of working men to their employers will be discussed elsewhere (Wages Fund). Trades Unions have in practice shown belief in the principle, that the supply of labour must be kept low in order that its value may be kept high. There may remain a doubt whether the immediate economic disadvantage of large numbers, as likely to underbid each other, is not counterbalanced for the nation by the military advantage of them. But the military advantage depends largely on the financial resources; and, if the military struggle were over and the large numbers had vanquished, the problem that troubled Godwin and Malthus in 1798 would present itself again. Even in the best of all possible societies there is no room for unlimited increase. This has been clearly seen by many of the leading advocates of socialism; and the Malthusian theory of population is only fatal to socialism on the assumption, which is not justified, that all socialists are blind to it.

[*Bibliography* (in addition to the works cited in the text). The subject is discussed more or less fully in almost all English text-books of political economy, most fully in those of J. S. Mill[1] (for the classical doctrine), Professor Marshall (for modern facts in 3rd ed. of *Principles*), and Professor Nicholson (for careful re-statement). In French there is still nothing to surpass *Du Principe de Population* of Joseph Garnier, 4th ed. 1857. The article "Population" by Garnier and Legoyt in the *Dictionnaire de l'Économie Politique* of 1853 is masterly, and its bibliography is excellent. It may be supplemented for German writings by the *Handwörterbuch der Staatswissenschaften*, art. "Bevölkerungslehre und Bevölkerungspolitik," by Dr. Elster; and for Italian by the *Bibliografia* of Cossa and Bertolini (*Giornale degli Economisti*, 1891-94).

A Reply to the Essay on Population in a series of Letters, Anon. [W. Hazlitt] 1807. The first three letters had appeared in Cobbett's *Polit. Register*. Hazlitt thinks "the extent of population is only limited by the extent of the earth;" "the difficulty is not in making more land maintain more men, but in making the same spot of ground maintain a greater number than it did before" (36, 37). In short, he concedes it only in the case of intensive cultivation and diminishing returns.—James Grahame, *An Inquiry into the Principle of Population, including an exposition of the causes and the advantages of a tendency to exuberance of numbers in society, a defence of Poor Laws*, etc. (Edinburgh, 1816). Answered by Malthus in Appendix to his *Essay*, ed. 1817.—George Ensor, *An Inquiry concerning the Population of Nations, containing a refutation of Mr. Malthus's Essay on Population*, Part I., London, Effingham Wilson, 1818. Ch. vi. brings out the difficulty of estimating population without a census, by hearth money, etc. (cp. pt. 3, ch. vi.). The book is rather a plea for political reforms than

[1] ἄνδρες γὰρ πόλις (Thucyd.) can receive this new interpretation.

[2] Cp. Quesnay, *Maximes*, apud Daire, *Physiocrates*, i. 101-103.

[1] Mill's famous paradox that it is doubtful if machinery has lightened human labour, is expressly founded on the Malthusian theory (see *Pol. Econ.*, bk. iv. ch. vi., on the stationary state).

an economical argument.—*An Enquiry into the Principles of Population, exhibiting a system of regulations for the Poor, designed immediately to lessen and finally to remove the evils which have hitherto pressed upon the Labouring Classes of Society*, Anon., London, 1832. The labourers have put themselves at disadvantage by increasing too fast. But chemistry can make food out of sawdust and dry bones (p. 60), and the real desideratum is a better adjustment of labour. The higher classes must be educated to do more for production, and the labourers should learn to "shape work for themselves, and depend less on the capitalist" (ch. viii.).—Robert Dale Owen, *Moral Physiology, a brief and plain Treatise on the Population Question*, 8th ed., 1832. Perhaps the most temperate of the books written to recommend the Neo-Malthusian view of the subject.—Rev. W. F. Lloyd, Professor of Political Economy, Oxford, *Two Lectures on the Checks to Populations*, Oxford, 1833. Some very acute economic observations.—Travers Twiss, Professor of Political Economy, Oxford, *On certain Tests of a Thriving Population*, London, 1845. A thoughtful and useful statement of general principles both economical and statistical.—Among the best recent books on the subject of population are: Kautsky, *Der Einfluss der Volksvermehrung auf den Fortschritt der Gesellschaft*, 1880.—Lexis, *Bevölkerungs-statistik*, 1875 (for mathematicians). (Compare *Die Theorie der Massenerscheinungen in der menschlichen Gesellschaft*, by the same author, 1877).—Heinrich Soetbeer, *Die Sozialisten und die Malthus'sche Bevölkerungstheorie*, 1886.—Dr. A. Südekum, *Ueber das Malthus'sche Gesetz und das Bevölkerungs-problem der kommunistischen Gesellschaft*, Kiel, 1894.—Vitt. Lebrecht, *Il Malthusismo e i problemi sociali, Saggi critici*, 1893.—Nadaillac, *Affaiblissement de la natalité en France, ses causes et ses conséquences*, 2nd ed., 1886.—G. B. Longstaff, *Studies in Statistics*, 1891.—Professor van der Smissen, *La Population*, 1893 (unnecessarily long).—Professor Levasseur, *La Population Française*, 3 vols., 1889-92.—Dr. J. B. Haycraft, *Darwinism and Race Progress*, 1895.

Among pamphlets and articles may be mentioned—

Dr. W. Ogle, "The Marriage-Rates and Marriage-Ages, with special reference to the Growth of Population," *Statist. Journal*, June 1890 (recommends retardation of marriage;—women should marry five years later than they do now). R. H. Hooker, "Is the Birth-Rate still falling?" *Manchester Stat. Journ.*, January 1898.—F. S. Crum, "The Birth-Rate in Massachusetts" (*Quarterly Journal of Economics*, April 1897).—Castelot, "Théories de la Population en Allemagne (from 16th century), *Journal des Économistes*, 15th May 1895.—Dr. W. Cunningham, British Association, Southport, "On the Statement of the Malthusian Principle," 1882.—A. T. Lyttleton, "The Question of Population," *Economic Review*, April 1891 (one of the best recent English surveys of the whole discussion).—Professor V. John, *Die jüngste Entwickelung der Bevölkerungstheorie*, Internationaler Congress für Hygiene und Demographie, Vienna, 1887.—G. Lagneau, *L'Immigration en France*, 1884.—Father Fortin, "Les derniers renseignements officiels sur les mouvements de la Population en France," *Études Religieuses, Philosophiques, Historiques, et Littéraires*, for March, April, June, August, October 1895.—Father Clarke, "New Malthusianism" (*North American Review*, September 1896).—*Encyclopædia Britannica* (9th ed.), art. "Reproduction," by Professor P. Geddes (in connection with Mr. H. Spencer's theory).—J. M. Robertson, "A hundred years of Malthusianism," *University Magaz.*, October and November 1897.

Mention should be made of the *Recueil des Mémoires Académiques de M. l'Abbé Mann*, Bruxelles, 1778-83, 4to, especially the mémoire; *Sur les moyens d'augmenter la Population et de perfectionner la Culture dans les Pays Bas Autrichiens*, 5 Avril 1775, p. 71: "Le degré de la population suit la mesure de la subsistance; ainsi plus on fait rapporter à la terre plus on la peuple." But MANN does not push the principle far.] J. B.

See ALISON, A.; BELL, WM.; BIRTH-RATE; BOTERO; CAREY, H. C.; CENSUS; CHALMERS, T.; CHARITABLE FOUNDATIONS, etc.; CHASTELLUX; CHECKS ON POPULATION; CHICKERING; CHILD; COBBETT; COLBERT; COLONISATION (SYSTEMS OF); COMFORT; COMMUNISM; COPLESTON; CULTURE; DARWINISM; DEATH-RATE; DEPOPULATION; DOUBLEDAY; DUPONT DE NEMOURS; DURATION OF LIFE; DUTCH SCHOOL; EDEN; EMIGRATION; ENCLOSURES; EVERETT, A. H.; FAMINE; FOUNDLING HOSPITALS; FRANKLIN; GEOMETRICAL RATIO; GODWIN; GRAPHIC METHOD; GRAUNT; GRAY, SIMON; HALE, M.; HALLEY; HARMONIES; HOWLETT; IDEAL; IMMIGRATION; INSURANCE; ITALIAN SCHOOL (vol. ii. esp. p. 464 n.); JARROLD; LIVING WAGE; LOWE, J.; LUXURY (p. 654); MARLO; MARRIAGE-RATE; MILL; MILNE. MINIMUM OF SUBSISTENCE; MIRABEAU (p. 776); ORTES; PRICE, R.; QUETELET; SCROPE; SÜSSMILCH; WALLACE, R. See POPULATION in App.

POPULIST MOVEMENT IN THE UNITED STATES. The populist or people's party in the United States dates as a separate organisation from the year 1889, when delegates from the FARMERS' ORGANISATIONS in the U.S. and the Knights of Labour met at St. Louis and passed resolutions supporting, among other proposals, the free coinage of silver and the government ownership of railways. The next year (1890) another convention was held at Ocala, Florida. The "platform" adopted was very similar to that of 1889, the principal change being that "government control" of railways was substituted for ownership. A meeting at Cincinnati followed in 1891, when other political "planks" were introduced, as, abolition of national banks—election of president, vice-president, and senators by direct vote.

The convention at St. Louis in February 1892 modified this "platform"—abolition of national banks, direct election of president, vice-president, and senators were omitted; instead of government control, government ownership of railways was re-instated.

The next convention was at Omaha, July 1892. "Free coinage of silver, a minor clause on abolition of national banks, a sub-treasury scheme, or some similar system, a graduated income-tax, plenty of paper money, government ownership of railroads, election of senators by direct vote of the people, non-ownership of land by foreigners, revenue of state and nation limited to expenses, eight hours' work, postal banks, pensions, and prohibition of the present contract law and immigration system, these were the measures advocated."

The St. Louis platform of 1896 was on very similar lines to the Omaha platform of 1892. The address introducing it is full of overstatement. The nation is described as being "brought to the verge of moral, political, and material ruin." Corruption dominates, the people are demoralised, mortgages cover their homes, labour is impoverished, the land concentrated in the hands of the capitalists. Of the "platform" itself the more important "planks" refer to "currency, re-establishment of silver, government ownership of railroads, and the limited ownership of lands."

The expansion of the currency is desired, by the free coinage of silver and the increase of the currency to at least 50 dollars (£10) per head. But more important than this is the proposal for "cheap money, unlimited in amount and issued on land and other securities." Those who support these projects confound "money" with "capital"—they hope that "an ample and cheap currency will mean capital easily secured." Depreciation, however, is sure to follow as the "money" has no substantial basis.

"Prices go down, confidence is destroyed, and a financial crisis crowns the inflation. Such has been the experience of the past, such will be that of the future." These are the words of Mr. Frank L. M'Vey, from whose very clear description of the "Populist Movement" in *Economic Studies, American Economic Association*, August 1896, this statement is derived. Mr. M'Vey does full justice to the honesty of intention of the "rank and file" of the movement, but he cannot extend this feeling to all concerned. He regards the party as in a transient state and likely to be absorbed by the new silver party. Its success in the past since 1891 has been almost phenomenal, "but that success does not, under existing circumstances point to any probable future success."

PORPHYRY (A.D. 233-A.D. 303 ?), a Neo-Platonist philosopher and Aristotelian logician, concerns economists in respect of the principle of bilateral division which has been associated with his name. A diagram illustrating a series of such sub-divisions has been designated a "tree of Porphyry." This logical device is no doubt conducive to perspicuity of arrangement. Jevons regarded the bifurcate classification as the "foundation of all strict scientific method" (*Principles of Science*, vol. ii. p. 381), and classes the authority of Bentham as supporting this (*ib.*). In this opinion Jevons probably went fully far. In economics, as in other sciences, a plural rather than a dual division is sometimes best adapted to bring out essential properties. F. Y. E.

PORTAZGO, PONTAZGO, AND BARCAGE, tolls paid by travellers in Castile as a right of passage on the king's land. They were generally levied on the ways leading to fairs and markets. In Aragon they were called *Peage*. E. Ca.

PORTER, GEORGE R. (1792-1855), economist, married the sister of RICARDO. A paper on life assurance, which appeared in Knight's *Companion to the Almanac* for 1831, led to his receiving an appointment, the following year, in the Board of Trade. On the organisation of the statistical department of that office, Porter was placed at its head, becoming, besides, in 1840, senior member of the railway department. In the following year he was promoted to be one of the secretaries. Porter was one of the founders of the Statistical Society, to the journal of which he was a frequent contributor. In 1836 he published the two first sections, on population and production, of *The Progress of the Nation in its Social and Commercial Relations, from the Beginning of the Nineteenth Century to the Present Day*, London, 12mo. Sections three and four, dealing with interchange, and public revenue and expenditure, followed in 1838, and the final portion, treating of consumption, accumulation, moral progress, and the extent and condition of our colonies, in 1843. New editions, bringing the figures down to date, were issued in 1846 and 1851, 8vo. *The Progress of the Nation*, has been termed "an invaluable record of the first half of the nineteenth century. It is remarkable for the accuracy and variety of its information, and for the skill with which the results of statistical inquiry" are dealt with. It is written in an optimist spirit, characteristic of the time of its appearance. Free trade and popular education are, throughout, regarded as the sure heralds of an industrial paradise (see LAISSEZ-FAIRE). In 1846 Porter published a translation of Bastiat's *Popular Fallacies regarding General Interests* (see BASTIAT, F.), London, 16mo. He also wrote *The Effects of Restrictions on the Importation of Corn, etc.*, 1839, 8vo.

[*The English Cyclopædia*, vol. iv.—*The Dictionary of National Biography*, vol. xlvi.]

H. E. E.

PORTREEVE, an official found in London, Canterbury, Bath, and Bodmin, and probably existing in many other towns in Anglo-Saxon times, where the extent of trade made the collection of royal dues more than usually important. The office of a portreeve resembled that of a sheriff, particularly in London, where until after the Norman conquest there were

usually two at once. It is uncertain whether he was elected or nominated by the king.

[Kemble, *Saxons in England*, 1876, vol. ii. p. 173.—Stubbs, *Constitutional History*.] E. G. P.

POSITIVE LAW is nearly always used, in distinction from natural law, to indicate the enactments or decrees of a recognised authority. It is law laid down by man in the concrete, and may be either in agreement with the supposed law of nature or at discord with it. Lorimer, Ahrens, and generally speaking the jurists of the school of Krause, insist that the proper use of the term is in the sense of concrete embodiments of the natural law, in which case only the enactments in harmony with the law of nature could receive the name,—not "law as it is," except in so far as that is "law as it ought to be," but these writers wish to give an entirely new and unfamiliar meaning to a well-known term.

[Distinction in Grotius, *De Jur. B. et P. Proleg.*, 40. 17.—Wheaton, *Internat. L.*, 3rd Engl. ed., ed. A. C. Boyd, London (Stevens), 1889, pp. 4 *seq.*—Holland (Prof. T. E.), *Elements of Jurisprudence*, 8th ed. Clar. Press, 1896, ch. iv.: *Positive Law*, pp. 37 *seq.*, cp. iii. 33, etc.—Lorimer, James, *Institutes of Law*, 2nd ed. 1880, pp. 8 *seq.*—Green, T. H., *Works*, vol. ii. pp. 399, 400.—Austin, John, *Jurisprudence*, ed. 1832, lect. v. pp. 130, 131.—Bluntschli, *Staatsrecht*, ch. vii. note, quotes Melanchthon, *Philosophia Moralis*, for the narrower use of the words.] J. B.

POSITIVE THEORY OF CAPITAL. This is the title of the second of Prof. Böhm Bawerk's volumes on capital, the first having been negative and critical ("History and Criticism of the Theories of Interest on Capital," 1884). It appeared in 1889. Capital is defined as "products which are the means for the making of other products," and interest is explained by the difference between the value of goods now present, and the value of goods still future, present goods having *cæteris paribus* the higher value.

[For a sketch of the theory, see the Harvard *Quarterly Journal of Economics*, April 1889, and, for exposition and illustration, see Prof. W. Smart's preface to his translation of the Positive Theory, (Macmillan, 1891).] J. B.

POSITIVISM. It would not be possible, within the space here available, nor indeed would it be appropriate in this place, to attempt a complete account of a vast and many-sided system of thought, comprising a synthetic view of the several fundamental sciences, a theory of history, and a moral and religious doctrine. It is in the works of Auguste COMTE (*q.v.*) that positivism must be studied by those who wish to understand it as a whole. We shall only endeavour to exhibit in outline his estimate of political economy, and his view as to the systematic regulation of industrial society and the nature of the reform which its existing condition requires.

A letter to Gustave d'Eichthal in 1825 shows that Comte had early occupied himself with economic questions, and warmly sympathised with the efforts of English statesmen to remove restrictions on trade. In his *Philosophie Positive*, when treating the subject of sociological method, he entered on a criticism of the economists of the time. He censured them on grounds the most important of which have since been reduced to the following heads —(1) the isolation, in their investigations, of the material aspect of society from its intellectual, moral, and political aspects, neglecting the consideration of the consensus, and mutual action of the several social elements; (2) the metaphysical, or viciously abstract, way in which their doctrines were presented; (3) their immense exaggeration of the office of deduction in their researches; and (4) their want of relativity — the too absolute and unhistoric character of their conclusions, which often assumed that economic phenomena were identical in all stages of social development. Comte would be the first to admit that in some, at least, of these respects a marked tendency to reform, due in part to his own influence, has manifested itself since he wrote.

But whilst pointing out these vices, especially of method, into which writers on the subject had fallen; he fully acknowledged the "eminent services," to use his own expression, which political economy had rendered. Its beneficial work was twofold. In the first place, it acted powerfully in discrediting the old social and political system by proving, even to the satisfaction of existing governments themselves, their radical inaptitude for directing the industrial movement. This influence he recognised as having been exercised in a special degree by the "immortal work" of Adam SMITH, which he singled out for special commendation. These negative tendencies were, however, he thought, carried much beyond the needs of their essentially temporary destination; and the exaggerations of the less large-minded members of the school went so far as to consecrate a public state of non-government and a personal spirit of individualism. Sometimes a more rigid DOCTRINAIRE (*q.v.*) even denied the necessity of any regular moral instruction, and proposed the suppression of all state aid to art and science—and the more recent assaults on the fundamental institution of property had set out from principles maintained by recognised leaders in economic theory.

Besides its negative action, which within just limits was provisionally indispensable, political economy had done valuable service by fixing the attention of speculative minds, as well as of statesmen, on the social importance of the industrial character which distinguishes modern from ancient civilisation (see CITY—ANCIENT, MEDIÆVAL, MODERN), and thus giving prominence to the idea of social progress. But as long as the attempt should be made to treat the material existence of societies apart from the

other elements of their life, he held that no genuinely scientific theory of the subject could be constructed, and that only indirect and partial lights could result from such an effort. Economic studies must be absorbed into the larger science of SOCIOLOGY (*q.v.*), or at least must be conducted under its permanent presidence and control.

Proceeding now to the practical question of industrial regulation, we have to recognise at the outset that we cannot by ever so unanimous a vote alter the nature of things or of men, or change the general direction of human development. The true character of the world we live in is expressed by the phrase "modifiable fatality"; the main course of events, social as well as physical, is beyond our control, and the possible range of minor modifications is strictly limited by natural law. The first requirement in social action is to have at our command a scientific exposition of the constitution and evolution of society, and this positivists affirm to have been given by Comte,—the theory of development, the most essential as well as the most difficult branch of sociology, having been once for all established by his law of the three states and his hierarchical arrangement of the sciences, followed by his laws of the historical progress of moral sentiment and practical activity. The order of things instituted by man must be simply a consolidation and improvement of the natural order spontaneously arising from the action of these and other social laws. This principle condemns all the socialistic schemes which have been propounded for placing industrial life on essentially different bases from those which have been gradually elaborated in the course of history; so that, whilst they would be subversive and anarchical if realised, they are, in fact, incapable of more than a brief existence under an impulse of revolutionary violence. But, further, they are delusive when considered with a view to the interests of working men. No partial and merely material schemes can solve the social problem. The questions most important for the working classes are, in their nature, moral rather than political. Accordingly, positivism substitutes for the stormy discussion of rights the peaceful determination of duties, and for disputes respecting the possession of power, a study of the rules which should regulate its employment. What positivists believe to be wanted is not a violent change in existing social arrangements, but a regeneration of opinions and habits due to a general adoption of the religion of humanity, which embodies the real laws of society and teaches the true nature of the several social relations. The effect of this would be the foundation of a new spiritual order, renouncing all wealth and temporal power, proclaiming in general principle, and declaring in individual cases, the duties of each class, on the basis not of chimerical opinions but of a demonstrable social doctrine. From the nature of modern society one primary office of such an order would be to stand between the capitalist and the workman, enforcing by moral means the just claims of each. The calm but energetic action of such a body would satisfy the poor, whilst reassuring the rich, and, without disturbing the essential institutions which exist as the result, whether of natural law or of historical causes, would inform them with a new spirit, and gradually and peacefully modify them as might be necessary. The working classes are, and, except in very special contingencies will always be, unfit to take part in the direct government of society, or to decide finally on political measures; and, such an office, if it were assigned to them, would tend to corrupt them without furthering their real welfare. In the system now indicated, their public function, as distinct from their professional occupations, would be to support the new spiritual order by the force of opinion in the difficult work of controlling the exercise of material power, whether in the form of wealth or of numbers, by the continuous application of a rational moral doctrine already accepted by the community. This solution, it will be seen, amounts to the reconstruction, on better bases and in a more favourable situation, of the division of the temporal and spiritual powers, empirically pursued and partially realised in the middle ages (see AQUINAS; CANON LAW). The spiritual authority so established, resting only on intellectual and moral influences, subject to full discussion, and depending on the laity for its maintenance, could not be oppressive. It would not merely improve the relative conduct of classes within each state, but would systematically apply moral considerations, where they are now so much needed, to the mutual relations of different political communities. The more these great questions are studied, the clearer it becomes that the only solution which is neither illusory nor degrading is the moral one, which would insist, through a suitable organ, on the subordination, not of wealth only, but of all individual powers and endowments to the continuous service of humanity. The necessity of such a function is universally recognised, but many continue to ignore the obvious truth that every social function requires an appropriate organ. What has been said sufficiently indicates that positivism does not sympathise with the collectivists (see COLLECTIVISM), or any other party aiming at the elimination of the ENTREPRENEUR (*q.v.*), an impracticable, as well as a mischievous, programme. The rise and progress of a type of society essentially devoted to industry secures to the chiefs of that form of activity an ultimate political ascendency, which they would, indeed, have already attained if they had set themselves, following the example of the best among them, to govern the working classes, instead of exploiting or deserting them. They are to be regarded, as are also their workmen, as public functionaries; their special office being that of preserving, increasing, administering, and transmitting the social capital. Their employment of this capital, though requiring to be morally regulated as we have described, should not, except in extreme cases, be the subject of legal control. Without the guarantee of a just security, they cannot perform their functions aright. Positivism favours, instead of opposing, the concentration of wealth in the hands of the active rich—as increasing the power available for social ends, whilst more visibly fixing responsibility for its

proper use—subject, however, to the condition that the extent of the industrial administration of each capitalist ought not to exceed his capacity of personal supervision.

Of the further prescriptions of positivism affecting the industrial world, which may be studied in the *Politique Positive* of Auguste Comte, the only one which we can mention here is that of the withdrawal of women from non-domestic labour, so that they may be altogether devoted to their proper social duties—the economy of the household, the care of the health and comfort of its inmates, and the early education of the young, especially the cultivation of their affections and the formation of their habits.

[See Comte, Aug.; Comte, Aug., and English Political Economy. See also Littré's *Auguste Comte*, 1864. The later positivists do not all follow Comte in rejecting political economy, and Littré does not.] J. K. I.

POSSESSION; POSSESSIO, when used without any technical meaning by Roman legal writers, signifies the mere fact of physical control of a thing. *Possessio*, in a legal sense, is physical control of a thing either by oneself or by one's agent, to which the law attaches special legal consequences. Possession of this kind, which may be called legal possession, is simply matter of fact, not of right or title to possess (*possessio in facto non in jure consistit*). Hence a person may have legal possession of a thing, while some one else has the right to such possession, though the latter may vindicate his right in an action based on proof of title.

Thus a thief may have legal possession of the property of another, as against the world in general.

The special consequences which may attach in Roman law to possession are of two kinds.

(1) Possession is protected by means of interdicts (see Interdictum) against arbitrary disturbance on the part of any one, including the owner of the thing, except that the possessor cannot maintain such an interdict against a person from whom he has taken possession by violence or by fraud or by his leave and licence (vi. clam, precario).

(2) Possession for the time defined by law gives rise, under certain circumstances, to a title of ownership by usucapion (see Usucapio) or prescription (see Præscriptio). E. A. W.

POST. See Post Office, The.

POST OFFICE, The. English postal history begins about the middle of the 16th century. Events forced Henry VIII. and his successors to maintain an organised service for despatches. Increasing trade led the foreign merchants to institute a service to the continent, and their jealousies placed its control in the hands of the government. Thus in 1558 Thomas Randolph united the mastership of both posts. By the provision of horses at fixed points all travelling and correspondence were made easier. A monopoly increased the effectiveness of the service, and the control of correspondence thus secured became a valued instrument of government. Its utility and necessity were openly avowed until the restoration, and fully realised by Charles II. and James II.

In 1635 the posts within the kingdom were opened to private letters on the proposal of Thomas Witherings. The growth of correspondence probably made such a step necessary to maintain government control. A monopoly on existing postal routes was proclaimed and secured by cheap rates as much as by law. For a single-sheet letter only 2d. was charged for 80 miles or less, and 4d. up to 140 miles. Beyond this, 6d. was charged, and 8d. to Scotland. No profit was expected, but a reduction of expense by about £3000. In 1640 the parliament dismissed Witherings, and a struggle for control of the post office ensued. In 1644 Edmund Prideaux became postmaster. Until 1650 he worked at his own cost, taking the postage. He opened new posts, and in 1650 a rent of £5000 a year was wrung from him. Since then the post office has always been a source of revenue, and frequently administered in that character only. In 1653 Prideaux ceased to be postmaster, and the office was "farmed" for £10,000 a year. The profits were estimated at from £14,000 to £20,000 a year. This revenue was from the postage on letters only, though the monopoly of letting post-horses secured postmasters at low salaries, and so reduced the cost of working.

In 1657 the first post office act of parliament was passed. It reduced the rate beyond 80 miles to 3d. for England and to 4d. on letters to Scotland. It fixed the charge to the public for post-horses at 2½d. a mile for each horse, and "a guide groat for each stage." In 1660 a new act repeated most of the Commonwealth act, and forbade the carriage of mails in ships not built in England and navigated by English crews. Private posts of three years' standing were to be taken over and their organisers rewarded. From 1660 the post office was farmed for £21,500, and in 1667 this was increased to £43,000. In 1663 the revenue of the office was assigned to the Duke of York, and in 1677 he took the management into his own control instead of "farming" it. On his accession in 1685 the revenue was estimated at about £65,000. Thenceforward it became a part of the personal revenues of the sovereign, and subject to that minute exchequer control which has always marked its administration. From 1688 to 1691 the payments into the exchequer averaged £50,000 a year. In 1695 they were £63,000, and in 1700, £77,384. They represent the net revenue after deducting all charges, and are the only index of the volume and growth of correspondence.

Throughout its history the post office has at once encouraged, absorbed, and suppressed private enterprise. In the 17th century bad roads and slow communication made it difficult

for a central administration to extend its system. Hence locally managed branch posts were necessary, but when these were established a desire to increase revenue and government control, as well as to simplify the system, led to their absorption. The same motives led to the suppression of competing private posts. In 1649 a post, established by the corporation of London, was suppressed by Prideaux. In 1680 William Docwra took over a small business of collecting and delivering letters in London and Westminster. He opened many offices and employed a large staff in delivering letters and parcels up to 1 lb. in weight and £10 in value, with free insurance, at a charge of 1d. each. In 1682 proceedings were taken against him for infringing the royal monopoly. Docwra pleaded that as no local post existed in London he was not competing with the official posts; but the king's bench held that the monopoly extended to all places except those lying off the lines of posts. A nominal fine was imposed, and the system taken over by the post office. It was worked tolerably well, though probably not so well as by Docwra, and the case illustrates in its details the conflict of monopoly and private enterprise. The penny post, which as late as 1801 became the twopenny post, existed as a separate branch in London until the introduction of uniform penny postage. In 1709 an attempt was made by Charles Povey to set up a halfpenny post in London, but it was promptly suppressed, and no other serious attempt was made to challenge the postal monopoly until 1869, when the operations of the Circular Delivery Co. were pronounced illegal. In 1890 two messenger companies, who included in their work the special delivery of letters, were compelled to pay a royalty to the post office, and the monopoly remains in active force. It covers the collection and delivery of letters, except letters sent by a servant, friend, or person specially employed by the sender. Its defence is that by its aid a cheap uniform service is maintained in remote districts, such as would be impossible if private enterprise were allowed to occupy the more profitable centres; but even so protection within these areas needs to be carefully limited if it is not to check the elaboration of social enterprise.

Towards the close of the 17th century, and for the first twenty years of the 18th, the network of posts was extended by contracts given to many private persons. In 1720 Ralph Allen, the most distinguished of these contractors, then postmaster of Bath, made a general contract for the establishment of "cross-posts," *i.e.* posts crossing from one post-road to another. He received the postage on letters he carried, and paid all his expenses and £6000 a year to the government. His contract was renewed from time to time until his death in 1764, and he opened many new posts at his own cost, besides giving a daily post on many of the main lines. This he did in preference to increasing his payment to the exchequer, and his enlightened policy brought an ample reward. In 1761 his accounts showed a profit of £12,000 per annum. Allen's distinction in other ways is well known, but his work in the post office is worthy of all praise, and ranks him with Rowland Hill.

In 1784 John Palmer, also a citizen of Bath, organised the mail-coach system. Previously mails were carried by mounted post-boys, who were constantly being robbed. Insecurity had altogether destroyed the efficiency of the service for business purposes. The new coaches with armed guards were practically exempt from robberies, and the increase of correspondence was enormous. Palmer was promised 2½ per cent on the net revenue beyond £50,000, but the government soon tired of its bargain and forced on him a pension of £3000 a year. In 1813, after a prolonged discussion in parliament, a grant of £50,000 was made to him.

The 18th century was marked by the growth and abuse of the "franking" privilege enjoyed by members of both houses of parliament. In 1716 franked letters were estimated at 17,500 a year. In 1763 their postal value at current rates was £170,000 or nearly twice the net revenue. In 1764 a reduction of some £30,000 a year was made by an act requiring the whole address to be in the same writing as the "frank." Successive governments tried to reduce the burden, but it was not extinguished until 1837.

The growth of the revenue of the post office, and of the volume of correspondence, from 1724, is shown by the following table. From 1704 to 1713 the average net revenue was £67,000, and from 1714 to 1723 about £93,000. The increase was due chiefly to an increase of rates in 1711.

Years.	Gross Revenue.	Expenditure.	Percentage of Cost.	Net Revenue.
1724–1733	£177,492	£81,490	£46	£96,002
1734–1743	187,348	94,175	50	93,173
1744–1753	205,480	115,764	56	89,716
1754–1763	234,121	146,210	62	87,911
1764–1773	278,960	121,713	44	157,247
1774–1783	359,984	209,176	58	150,808
1784–1793	517,484	209,061	40	308,373
1794–1803	961,223	339,596	35	621,627
1804–1808	1,453,082	419,980	29	1,033,102

The variations in expenditure in the earlier decades were due to the loss of packet boats, and other war expenditure. The increase of revenue from 1764 was due to the diminution of "franks," the growth of trade, and the absorption of Allen's "bye-posts." The enormous growth of revenue from 1784 was owing to Palmer's mail-coaches, and the growth of trade. The increase in net revenue is remarkable. Successive increases of postage rates are considered to have produced little or no increase of revenue.

The early years of this century were marked by

stagnation. In 1839 the revenue was less than in 1814. High rates checked correspondence or diverted it to irregular channels. On the 10th January 1840, Rowland Hill's plan of uniform penny postage was introduced after much resistance. The number of letters increased in a year from 82 to 169 millions, but the net revenue fell from £1,600,000 to less than £600,000. This was partly due to an over-sanguine estimate, but more to the substitution of costly railway conveyance for carriage by mail-coaches, the expense of which was very small, and had been treated by Rowland Hill as an almost negligeable quantity. Besides the reduction of cost an improvement in the quality of the service had to be given.

Hill had relied on the substitution of pre-payment, made easy by the device of adhesive stamps, for payment on delivery, to save the cost of complicated treatment and accounting, but the public at first regarded pre-payment as an insult to correspondents and were slow to adopt it. In former days pre-payment would have been fatal to safety, and only a system of hand-to-hand accounting more elaborate than our present system of registration, with payment by the addressees, could secure delivery. The saving due to pre-payment illustrates well the commercial value of the honesty which makes the system possible.

Since 1840 the chief changes in the letter post have been in the increase of the limits of weight. In 1871, 1 oz. instead of ½ oz. was allowed for 1d. and in 1897 the limit has been raised to 4 oz. In 1870 halfpenny post cards were issued, at first at face value, but in 1871, in deference to an outcry of the stationers, a charge of ½d. for 12 was added for the material. In 1894 private cards were allowed to be used with adhesive stamps. In 1883 reply post cards were issued.[1]

The book-post was instituted in 1848 for the encouragement of education and literature. The rate of 6d. a pound was reduced in 1855 to 1d. for 4 oz., 2d. for 8 oz., and 2d. for each additional half pound. In that year 3 million book-packets were posted. In 1856 circulars were admitted to the book-post. In 1866 a rate of 1d. for every 4 oz. was introduced, and in 1870 a rate of ½d. for every 2 oz. The post has also been extended by widening the definition of articles transmissible, and has in 1897 been practically absorbed in the letter post, except for packets of less than 2 oz., by the assimilation of rates.

In 1862 a special rate was allowed for patterns sent abroad, and in 1863 for patterns sent by inland post. In 1870 the rate for patterns and samples was made the same as for books, but in 1871, on a reduction of the rates for heavy letters, the pattern post was abolished from the difficulty of distinguishing genuine patterns from other small packets. In 1887 it was re-established, but it has now also, by the assimilation of rates, been absorbed in the letter post.

[1] In 1890 railway companies were allowed to accept single letters for transmission by train for a fee of 2d. on each letter in addition to postage. This service may be used either as an alternative or as a supplement to the ordinary post. In 1891 the post office undertook the delivery of letters and parcels by express messengers, employed either for the whole course of transmission or on arrival by post at the terminal office.

The newspaper post had its origin in the 17th century, when "the clerks of the roads" were allowed to frank newspapers, and thus became the chief newsagents. Many newspapers were also sent under other franks, and practically none paid postage. In 1825 newspapers were allowed to pass free by act of parliament, but they were still charged with a stamp-duty, which was compulsory till 1855, and was accepted as an equivalent of postage until 1870, when the rate of ½d. for each registered newspaper was introduced.

The parcel post was established in 1883, and since 1885 has been extended to nearly all parts of the world except Russia and the United States, which have no internal parcel posts. The high charges of the railways for parcel mails has led to the extended use of road coaches for this service. The economic advantages of the parcel post—*e.g.* to the agricultural districts in the cheap and expeditious carriage of agricultural produce—are scarcely yet developed.

In 1841 the registration of letters was begun, with a charge of 1s. for each letter. No compensation for loss was given. In 1847 the average number of registered letters sent by the night-mails from London was only 320. In 1848 the fee was reduced to 6d. In 1858 letters for the colonies and abroad were first registered. In 1864 the fee was reduced to 4d., and in 1878 to 2d., with compensation for loss up to £2. In 1886 a system of insurance up to £10 was introduced. In 1891 the limit was increased to £25, and in 1892 to £50. In 1886 the insurance system was also extended to parcels.

In the present century the post office has assumed three new functions—the transmission of money, and telegrams, and the custody of savings. These are alike only in requiring a widespread system of branch offices. In 1792 the "clerks of the roads" at the general post office were allowed to issue money orders as a private venture. In 1798 the business was transferred to Barnes and Stow, two officials, from whose successors it was taken over by the post office in 1808. In 1839, 188,000 orders were issued at rates of 6d. for £2 and 1s. 6d. for £5. In 1841, when the rates were 3d. and 6d., one and a half million of orders were issued. In 1862 the maximum amount was raised to £10, with a commission of 1s. In 1871 a graduated scale of charges, rising by pennies, was introduced, and 12,000,000 orders were sold. In 1877-78 the number reached its maximum of 18,000,000. The increase was checked by an increase of rates in 1878, and in 1881 by the introduction of postal orders which have superseded to a great extent money orders for less than £1. Recently there has been a steady increase of orders for higher amounts. In 1855 money orders were first sent abroad to the Crimea, and the system was gradually extended to the colonies. In 1869 a money order convention was made with Switzerland, and since then others have been made with practically every civilised state. In 1889 money orders were issued as an experiment by telegraph between London and seventeen large towns, and the system has since been extended to all money-order offices. The post office "money" order is a restricted form of cheque which offers security as its chief advantage. The postal

order is a bank note with a time limit to currency. Its chief disadvantage is the risk of loss and the temptation to dishonesty of post-office servants. Their enormous utility, chiefly to retail trade, is shown by the sum £55,075,961, transmitted in 1896-97 by means of these two kinds of orders.

In 1870 all private telegraphic undertakings except certain cable companies were purchased by the government for £10,130,000, and a strict telegraphic monopoly established. It covers the transmission of electric signals with or without the use of wires, and even more. In 1869 the charges for telegrams of twenty words varied from 1s. to 6s., according to distance, with a local charge of 6d. in London and some other large towns, covering about 2 per cent of the total number of telegrams. The total number of offices open was about 2000, but many of these were competing offices clustered in busy centres. Many towns of from 3000 to 6000 inhabitants were from five to ten miles from an office. The use of the telegraph was a luxury confined to certain classes. The expense and difficulty of sending telegrams limited public use. These results represent the development of telegraphy by commercial enterprise in about twenty-five years. Upon the transfer to the state a uniform rate of 1s. for twenty words with free addresses was given. Within two years 2200 new offices were opened. In 1869 the total number of telegrams was less than 7,000,000. In 1870 it rose to 10,000,000, and in 1872 to about 15,000,000. In 1884-85 the number of telegraph offices was 6000, and the number of telegrams about 33,000,000. A new rate of 6d. for twelve words including addresses was introduced, and in 1886-87 the number rose to 50,000,000. The average payment for a telegram fell from 1s. 1d. to 8d. The revenue, which in 1884-85 was £1,755,118, increased by only £3000 in 1885-86, while the number of telegrams was increased by 6,000,000. The traffic in large towns was especially stimulated by the change. In London local telegrams increased from 1,800,000 in 1884-85 to 3,800,000 in 1886-87. The growth of the telegraph service has since proceeded rapidly in all parts of the kingdom, though the business is one that is especially sensitive to commercial depression. Since 1878 a keen competition has grown up between the telephone and the telegraph. In many cases their functions are different, but the telephone undoubtedly takes the place of the telegraph in local communications. At an early date a decision was obtained that the transmission of messages by means of telephones is an infringement of the telegraphic monopoly, and since then all telephone companies have paid a royalty of 10 per cent on their earnings to the post office. The protection of a more cumbersome system at the expense of a more convenient system, even though the former has been acquired by the state at great cost, appears to be open to serious economic objections, though the present arrangement may be defended on other grounds.

The amount paid by the state for the telegraphs has often been said to be excessive, but it must be remembered that it represented not merely the actual value of the plant and business acquired, but also all future possibilities. The telegraphs have not been financially successful in the hands of the state, but even this result is exaggerated in appearance by the inclusion of all capital expenditure with the annual expenditure. A. M. O.

[General History.—(England) Lewins, *Her Majesty's Mails*, 1864.—Joyce, *History of the Post Office*, 1893.—(France) Belloc, *Les Postes Françaises*, 1886.—(Germany) Von Stephan, *Geschichte der preussischen Post*, 1859.—(Ancient) Veredarius, *Das Buch von der Weltpost*, 1885; new edition, 1894.

Special Works.—(Early posts in England) *Appendix to Report of Secret Committee on the Post Office*, Parliamentary Paper 582 of 1844.—Wilson Hyde, *The Post in Grant and Farm*, 1894.—(Packet service) Norway, *History of the Packet Service*, 1895.—(Penny Postage) G. Birkbeck Hill, *Life of Sir Rowland Hill*, 1880.—(Recent history) Baines, *Forty Years at the Post Office*, 1895.

Many parliamentary papers on post office subjects have appeared, *vide* Index to Papers on the Post Office, Parliamentary Paper No. 10 of 1840, and general indexes published periodically. General statistics of English post offices since 1854 are given in the annual reports of the postmaster-general. The International Bureaux at Berne publish returns relating to posts and telegraphs in the countries of the international union.]

See Post Office in Appendix.

POSTLETHWAYT, James (d. 1761), perhaps a brother of Malachy Postlethwayt, wrote *The History of the Public Revenue from the Revolution in 1688 to . . . Christmas 1758*, London, 1759, 4to. He published *Collection of the Bills of Mortality from 1657 to 1758 inclusive, with A Comparative View of the Diseases and Ages, and a Table of the Probabilities of Life, for the last 30 Years*, London, 1759, 4to.

[*Dict. Nat. Biog.*—M'Culloch, *Lit. Pol. Ec.*]

POSTLETHWAYT, Malachy (1707-1767), wrote on the financial condition of the country from the standpoint of seeking its improvement. His largest book, based on the French work of J. Savary des Brulons, of which it is in a great part a translation, was *The Universal Dictionary of Trade and Commerce*, London, 1st ed. 1751, 2 large vols. fol. 4th ed. 1774, apparently little more than a reprint of the 3rd ed. of 1766. The book contains a good deal of information, often taken from the works of others, and, generally without acknowledgment, put together in an unsystematic manner (M'Culloch, *Lit. Pol. Ec.*). He also wrote: *The African Trade the Great Pillar and Support of the British Plantation Trade in America*, etc., 1745, 4to.—*The National and Private Advantage of the African Trade considered*, 1746, 4to.—*Considerations on the Revival of the Royal British Assiento . . . with an attempt to unite the African Trade to that of the South Sea Company*, etc., London, 1749.—*Great Britain's true System*, etc., 1757, "little more than a transcript from Cantillon's book, published two years before" (Cossa, *Introd. to P. E.*, trans. by L. Dyer, Macmillans, 1893).

Postlethwayt "compares the commercial and colonial policy of England with that of Holland, and tries to show how the British system might be improved, so as to outdo our rivals."—Cunningham, *Growth of British Industry and Commerce in Modern Times* [see also Ashley, *Introduction to English Economic History and Theory*, and *Dict. Nat. Biog.*].

POSTLIMINIUM, the *jus postliminii* is an expression used in Roman law for the right of a person on his return from capture in an

enemies' country to be put in the same legal position as he held before his capture, his recovery of his rights being based on the fiction that he had never left his own country and so had never lost his rights by becoming a slave of the enemy. E. A. W.

POTHIER, the abbé Remy (1727-1812).

Wrote: *Éclaircissements sur le prêt, l'usure et le trafic de l'argent* (Reims, 1809) in opposition to the strict views of CANON LAW (*q.v.*) on these subjects. E. Ca.

POTHIER, ROBERT JOSEPH (1699-1772), a councillor at the *Présidial*, a court of justice, and professor of law at the university of Orleans. He is said to have been so conscientious in the discharge of his judicial duties that, having once forgotten to mention, in a report, a document decisive on the case, he indemnified the losing party out of his own pocket. A member of the *Chambre des Domaines*, he so often inveighed against the fiscal exactions of the revenue officers that they were wont to call him the "intractable" man.

A studious and highly gifted jurist, he worked twelve years at the correction and co-ordination of the text of the Pandects—*Pandectæ Justinianæ* 1748 and 1782; translated into French in 1817, 26 volumes, and in 1818-20, 5 vols. 4to. Some years earlier he published the *Coutume d'Orléans* (1760, 1776, and 1780). Thoroughly acquainted with French law, he wrote a long series of learned monographs on *all* its various branches: *Traité des Obligations—du Contrat de Vente—des Fiefs—des Constitutions de Rentes, etc.*, which has been of invaluable assistance to the authors of the present *Code Civil*. Writing with great simplicity and extreme clearness, he was accustomed to examine every question under the double aspect of the *for intérieur* and the *for extérieur*,—natural equity and positive law. His works have often been republished in a collected form, from 1773 to the present time (Pothier, *Œuvres annotées et mises en corrélation avec le Code Civil et la législation actuelle, par Bugnet*, 2nd ed. 1861-62, 11 vols.). E. Ca.

POTTER, WILLIAM (17th century):

Published anonymously *The Key of Wealth; or a new way for improving of Trade, etc.* (London, 1650, fol.). This work, being in the nature of a lengthy and involved discourse, the author published a short abstract of the same under the title of *The Tradesman's Jewel; or a safe, easie, speedy, and effectual means for the incredible advancement of Trade and multiplication of Riches, etc., by making Bills become current instead of Money* (London, 1650, 4to). The author is here concerned to show how the advancement of trade depends upon the quick circulation of commodities which in their turn are proportionable to the revolution of money or that which passes for such. To facilitate a quicker mercantile exchange, Potter advocated the current use of bills drawn on fixed security of land, houses, or known capital, and the formation of a reliable company of tradesmen who should be responsible for these bills printed in their name. This security was to be further "backed" by annually-paid insurers, who, in case of the highly improbable failure of all the company, would make the bills good. Under these conditions the credit of these bills would, the author thought, be every whit as assured as that of the Chamber of London or the Bank of Amsterdam. In the same connection Potter also published *Humble proposals to the Honble. the Councell for Trade, . . . shewing what particulars . . . if enacted by Parliament, would conduce to advance trade, imploy the poore and prevent the cruelty of creditors . . . tending (likewise) speedily to promote the enterprise discovered in a late treatise entitled the Key of Wealth* (London, 1651, 4to). A. L.

POULETT SCROPE. See SCROPE.

POULLAIN, HENRY (end of 16th and beginning of the 17th century), appears to have been connected with the mint. The French monetary system for the coinage of gold and silver had preserved the old mediæval ratio of 12 to 1, which no longer corresponded to the actual ratio resulting from the larger quantities of silver relatively to gold imported from America during the 16th century; other countries had adopted different and higher ratios, whence a great deal of trouble and disturbance in France, a flowing out of French gold and silver, and an extensive circulation of inferior foreign coins, which attracted the attention of SULLY (see his *Économies Royales*, section iv. "Questions Monétaires," pp. 110-114 in Guillaumin's *Petite Bibliothèque Économique*).

On this occasion Poullain printed, under the title of *Traictés des Monnoyes pour un conseiller d'Estat* (Paris, 1621, reprinted by Leverrier in 1709) the memorials, which he at different dates had submitted to various statesmen; the first one only (*De la Science et Cognoissance que doibt avoir un conseiller d'Estat au faict des Monnoyes*) is inscribed to Sully. It is divided into twelve *Maxims*, and is directed principally against the mintage of excessive quantities of small copper coins, an expedient then followed in Spain, which evidently excited the fears of Poullain; enumerating the six possible means of *weakening* the currency, he emphatically declares this one to be more dangerous than the five others taken together (p. 27, ed. 1621).

As to the exports of specie resulting from the existence of different ratios in different countries, a circumstance on which Poullain insists, he only once alludes to the desirability of making an international arrangement, which certainly was beyond reach at the period when he wrote. His remedies are the prohibition of monetary exports, and regulations ordering that no foreign coins shall be allowed to enter the kingdom: by exception, the most usual ones may be accepted by French merchants residing near the frontier, but only by *weight* instead of by *tale*, thus recommending a curious revival of a practice said to have been prevalent during the middle ages, and with the further obligation to carry them to the nearest mint to be recoined. E. Ca.

POUND.

Pound, Egyptian, p. 178; Sterling, p. 178; Tower, Troy, Avoirdupois, p. 178; Turkish, see Medjidie, p. 179.

POUND, EGYPTIAN. The currency of Egypt was re-organised in 1885, the standard of value then adopted being the gold pound of 100 piastres. This pound is of the weight of 8·500 grammes, and is composed of gold of the millesimal fineness of 875. Its value in English standard gold (1 oz., 916·6 fine = £3 : 17 : 10½) is 20s. 3·7d.

In addition to the pound the law provides for the issue of gold coins of the value of 50, 20, 10, and 5 piastres, proportionate in weight to the standard coin, and of the same fineness.

The English sovereign, the French 20-franc piece, and the Turkish pound, circulate in Egypt, and are received at the following rates:

Sovereign	97·50 piastres.
20-franc piece	77·15 „
Turkish pound	87·75 „

F. E. A.

POUND STERLING. This title, which now stands for the gold sovereign, was originally used to designate a pound weight of silver (5760 grains), of which 11 oz. 2 dwt. consisted of fine metal and 18 dwt. of alloy, which is equivalent to a millesimal fineness of 925. The word "sterling" implied silver coin of this fineness, to which reference is made by Ruding as having been the "old standard of England" in the reign of Edward I., and which was probably introduced into this country by the Anglo-Saxons.

The "pound sterling" was therefore a pound weight of silver of the recognised standard, and one of the earliest instances of the use of the expression occurs in the fourth year of Henry II.'s reign (1158). This pound was coined into 240 pence (see PENNY).

Sterling fineness was maintained unaltered until the reign of Henry VIII., when a debasement of the coinage was begun, and continued until the reign of Mary. On the accession of Elizabeth the old standard was re-established. With the exception of this brief period of fifteen years, the sterling fineness of the silver coins of England was maintained without alteration from the earliest Saxon times until the year 1816, when the standard silver currency was abolished.

In 1816 the standard silver currency was discontinued, and a gold standard of value adopted. The silver token coins then introduced are, however, of the same fineness as that of the old currency, the continuity of the sterling fineness of the silver coins being thus maintained to the present day. The title "pound sterling" has, however, since the above-mentioned date, been applied to the gold sovereign, which in its turn is subdivided into 240 pence. Both the words "pound" and "sterling" now used to describe the sovereign, are thus legacies from a former system of currency. The title "pound" has no reference to any pound weight of gold, and the term "sterling" originally implied coins of a millesimal fineness of 925, whereas the fineness of the gold coin is 916·6̇. In the sense, however, that "sterling" represents coins of the standard fineness fixed by law, the term may be considered rightly applied to the gold coins of the realm.

The following table records the various finenesses adopted for the silver coinage during the period of debasement referred to (see ALLOY):—

Year.	Reign.	Fineness of the Pound. Silver.	Fineness of the Pound. Alloy.	Fineness expressed millesimally.
		oz. dwt.	oz. dwt.	
From the introduction of "sterling" by the Anglo-Saxons to the year 1542.		11 2	0 18	925·0
1543	Henry VIII.	10 0	2 0	833·3̇
1545	„	6 0	6 0	500·0
1546	„	4 0	8 0	333·3̇
1547	Edward VI.	4 0	8 0	333·3̇
1550	„	6 0	6 0	500·0
1551	„	3 0	9 0	250·0
1553	„	11 1	0 19	921·25
1553-58	Mary	11 1	0 19	921·25
1558 to 1816	Elizabeth to George III.	11 2	0 18	925·0

The origin of the word sterling is generally traced to EASTERLINGS; the name popularly used in Norman times to designate traders with England who hailed from German and Scandinavian ports, and in dealing with whom this standard of value was employed. F. E. A.

POUND. TOWER, TROY, AVOIRDUPOIS. The old mint pound, kept in the Tower, and known as the Tower pound, was equal to 5400 of our troy grains. It was the standard for gold and silver from Saxon times, and this weight of silver was the earliest form of the pound sterling. An Act of 51 Hen. III. (1266) declares that the English penny, "called a sterling, shall weigh thirty-two wheat corns in the midst of the ear; and twenty pence do make an ounce; and twelve ounces a pound." This gives us the origin of the divisions of our monetary system.

TROY weight was probably introduced from France early in the 14th century. By an Act of 18 Hen. VIII. (1527) the Tower pound was abolished, and the "pounde Troye, which exceedeth the pound Tower in weight iii. quarters of the oz." was declared the legal standard for gold and silver. Taking the Tower pound at 11¼ troy ounces, the troy pound would weigh 5760 grains, as at present.

The AVOIRDUPOIS pound, of 16 ounces, and equal to 7000 troy grains, is at least as old as the beginning of the 14th century, and superseded the old commercial pound, or merchant's pound, which contained 14 Tower ounces, or 6750 grains troy. There was also formerly in use a commercial pound equal to 16 Tower ounces, or about 7200 grains troy.

Our present standard weights are believed to be almost exact equivalents of those, legalised in 31 Edward I. (1303), renewed in 12 Hen. VII. (1497), and again in the reign of Elizabeth (1588), and kept in the Exchequer. They were again adjusted by 5 Geo. IV. c. 74 (1824),

which declared the standard troy pound to equal $\frac{5760}{252{\cdot}458}$ of the weight of a cubic inch of distilled water, temperature 62° Fahr., barometer being at 30 inches; and finally they were scientifically adjusted by the Standard Commission (1843-1854).

Troy and avoirdupois weights compare with metric weights as follows:

1 grain troy = ·06479895 grammes
1 lb. troy = 373·23937728 ,,
1 lb. avoir. = 453·5926521 ,,
1 gramme = 15·43234874 grains troy
1 kilogramme = 2·04621248 lb. avoir.

[H. W. Chisholm, *On the Science of Weighing and Measuring.*] R. W. B.

POUND, TURKISH. See MEDJIDIE.

POUNDAGE. See TONNAGE AND POUNDAGE.

POVERTY. Much of the confusion of thought incidental to economics arises from the fact that the terms employed have also a popular and loose sense. We speak of the poverty of an individual or of a nation, but we also speak of poverty of surroundings, of intellect, even things inanimate, as scenery, or a building, or a poem, are said to be poor. Underlying all these uses is the same idea, viz. a defect or shortcoming with reference to an end or to a standard, more or less arbitrarily set up. Applying this economically, we find that poverty implies the absence of some of the material conditions or "goods" of life, without which life is imperfect. Thus Aristotle, in a well-known passage in the *Ethics*, speaks of a certain χορηγία or equipment, without which goodness and happiness are impossible. So that, whatever be taken to be the end of life, poverty implies an insufficiency of the material equipment needed to attain to it. This marks it off at once from destitution, which implies the want of the conditions necessary to a merely physical life, or to put the distinction shortly, destitution is the lack of the necessaries of life, commonly so called, poverty an insufficient supply of its comforts (see POOR).

Although it is no doubt true that material well-being is not the only or the highest end in life, no one would seriously combat Aristotle's statement that a certain level of material comfort, the provision of a certain amount of necessaries and conveniences, is essential to any high type of life whatsoever. Hence a growing conviction that poverty is an evil which the government of a country should combat. Such a feeling is of comparatively recent date, as witness the writings of the early church fathers on the subject, and the popularity in the middle ages of vows of poverty, with their embodiment in the orders of monks and friars.

But granting that the lessening of poverty, or in other words, the general diffusion of a higher standard of material comfort, is a proper aim for government—nay, one of the reasons for corporate life, the question remains how it may best be attained. The history of nations is a long record of the failure of experiments with this object. Governments have attempted by arbitrary action to raise wages and to cheapen commodities; to redistribute and to equalise wealth. The secret of their failure has lain in the fact that, so far from calling out and strengthening the motives which lead men to seek independence and to improve their position, they have weakened and crushed them. Without going too far into detail, the results of the teachings of experience may be summed up under one or two heads: (1) the history of the poor law has shown conclusively the mistake of endeavouring to act immediately on the individual, and to better his position, as it were, in spite of himself; (2) in this country, at any rate, we have satisfied ourselves that in all exchange of commodities the fullest freedom should be permitted, subject only to the prevention and punishment of fraud. The extension and development of this principle, till it amounts to a general policy of *laissez-faire*, allowing of unlimited competition, and leaving it to each to prove his right to succeed in the struggle, is claimed by the extreme individualists as the only solution of the problem. But (3) the tendency of the time is for government to interfere more and more where services are exchanged; strengthening the position of the weaker party, and enabling him to compete on somewhat more equal terms. Under this head would come the various acts of parliament regulating the relations between employer and employed. (4) Hand in hand with these measures go all those which aim at improving the conditions under which the poor live, at increasing their opportunities to improve their position, and so nullifying in a measure inherited inequalities, and the restrictive power of poverty. Such, for example, would be the provision of education, and the opportunities of carrying it on, whether general, in the shape of free libraries, or technical, in schools and institutions for the purpose. Closely connected with these are the opportunities for thrift which are afforded by the post office savings banks and insurance policies. It is a question of degree how far this provision of the means of escape from poverty should be carried. In education, for instance, we have now, as the phrase runs, a ladder set up by which the passage from one stage in society to another is made easier, but we do not, as is the case elsewhere, provide, to any large extent, means of rational recreation (see PUBLIC ASSISTANCE). (5) The work of the state in England may be said to be limited to the provision of an exodus from poverty, of which

men may avail themselves according to their inclinations and powers. The extreme socialists would go much further in the direction of organisation and co-operation, until the means of production, being in the hands of the state, it can deal with poverty and gradually abolish it. But here, more than in most fields of practical economics, a wide experience of the effects of moderate action is needed to justify recourse to extreme measures.

The above is a rough sketch of the attitude of the state towards poverty and its cure; the principles which should guide the individual in his use of charity towards this end may be seen in the articles CHARITY and CHARITY ORGANISATION.

It is not to be expected that poverty will ever "cease out of the land"; there must always be different standards of living in the different classes of a community, and there will always be those who, from some cause or another, drop from the higher to the lower. The most that can be achieved is that the passage upwards should be facilitated, and that the blame, if blame it be, of poverty should rest on the individual rather than on his circumstances, and that the hopelessness of poverty should become less pressing. There are not wanting signs that this is already the case in England. Among them may be mentioned the steady progress of the working class in material well-being, the improvement in their housing, clothing, diet, and education; the increase in the number of moderate, as compared with large fortunes, shown by the income-tax returns, the great development of the practice of insurance all through the community. These are evidence of independence of character, of the readiness to make use of opportunities which, without that independence, would be offered in vain. L. R. P.

POWER OF ATTORNEY. See ATTORNEY, POWER OF.

POWNALL, THOMAS (1722-1805), governor of the colony of Massachusetts Bay, wrote *The Administration of the Colonies* (1 vol. 8vo, 2nd ed., London, 1765; 3rd ed. enlarged, 3 parts, London, 1766, 8vo; 4th ed., 2 parts, London, 1768-1774, 8vo; 5th ed., 2 vols. 1774, 8vo). In the eight chapters of the first vol., the author considers the necessity for forming a state office for administering the business of the colonies; a bill of rights and general act of commerce for the colonies; the manner of providing for the support of the king's government in the colonies, and the state of the courts of judicature there; their internal taxation; general principles of money both in coin and paper; the administration of their (American) Indian affairs; and lastly, a consideration of the commerce which arises from the colonies, and the revision proposed of the actual state of that of the British colonies.

Pownall also wrote *A Letter to Adam Smith, being an examination of several Points of Doctrine laid down in his Enquiry into the nature and cause of the Wealth of Nations* (London, 1776, 4to).

[Rae's *Life of Ad. Smith.*] A. L.

POYNINGS' ACT (Law) was a legislative measure which formed an epoch in the history of Ireland. In the time of Henry VII. English authority over Ireland had reached its lowest point; and it became necessary to make the subjection of the country, so far at least as the settlers of the PALE were concerned, something more than a mere name. The great Norman family of the Geraldines had acquired almost unlimited power in Ireland; and when they supported the cause of Perkin Warbeck and Lambert Simnel, Henry determined to retaliate on them and on Ireland. He accordingly sent Sir Edward Poynings as lord-deputy with a strong army, and full powers to effect a radical change. Poynings called a parliament at Drogheda (1494-95), and compelled it to pass the famous measure known as Poynings' Act. This act contained provisions to restrain the lawlessness of the Anglo-Irish within the pale and to confirm the royal sovereignty. All private hostilities without the deputy's licence were declared illegal, but to excite the Irish to war was made high treason. Murders were to be avenged by legal process, and not by pillaging and the exaction of fines. The citizens or freemen of towns were prohibited from receiving wages or becoming retainers of lords and gentlemen; and to check the power of the freemen, none who had not served apprenticeships were to be admitted as aldermen or freemen of corporations. The requisitions of coyne and livery were expressly forbidden, and the statutes of Kilkenny were renewed and confirmed. All the chief officers of state and the judges were to hold their patents during pleasure instead of for life as heretofore. But by far the most important provisions were those which enacted that all existing English laws should be in force in Ireland, and that no parliament should be held in Ireland without the sanction of king and council, who should also be able to disallow statutes passed by the Irish houses. These provisions practically annulled the legislative independence of the English colony in Ireland, and—as they remained in force for nearly three centuries—proved to be one powerful means for maintaining the subordination of the island.

[*Irish Statutes.*—Barnett Smith's *History of Parliament.*—Plowden's *History of Ireland from its Invasion under Henry II. to its union with Great Britain.*—Haverty's *History of Ireland, Ancient and Modern.*] G. B. S.

PRAEPOSITUS, or provost, rather a general than a particular name, given chiefly to the steward or bailiff of a manor, and to the reeve of a tithing or township, of a town or burgh.

If a municipal officer he had certain police duties, and represented the township in the higher local courts; if a manorial officer, he had to preside in the lord's court, collect his dues, and manage his estate. He was never a royal officer, being appointed by the lord of the manor or elected by the locality for which he acted. [*Domesday.* — Cunningham's *Industry and Commerce.*] E. G. P.

PRÆSCRIPTIO, was a clause sometimes inserted at the beginning of the formula of an action for the purpose either of enabling the plaintiff to qualify his claim (*præscriptio pro actore*) or of introducing an exception to an action on the part of the defendant (*præscriptio pro reo*). After the disappearance of the formulary procedure *præscriptio* became equivalent to *exceptio* and was particularly used to signify the exception or plea of the defendant that the action against him is barred on account of its not having been brought within the period fixed for its limitation. Under the law of Justinian *præscriptio longi temporis* was a means of acquiring a good title to land on account of possession for ten or twenty years, instead of being only a defence to the possessor against the action of the owner. Hence we find *præscriptio* divided by commentators on Roman law into *præscriptio acquisitiva*, by which a right is acquired, and *præscriptio extinctiva*, by which an action may be barred owing to lapse of time (see LIMITATION, STATUTES OF; PRESCRIPTIVE RIGHT.) E. A. W.

PRATT, J. TIDD (1797-1870) English jurisconsult. Published:—*The Savings Banks in England, Wales, Scotland, and Ireland, arranged according to counties, and the increase or decrease of . . . depositors since November 1831, with an Appendix containing all the Returns relating to Savings Banks . . . since November 1830.* (London, 1834 and 1842.) M'Culloch (*Lit. of Pol. Econ.*) refers to the work as "an interesting and perfectly authentic publication." A. L.

PRECARIÆ, or boon-work. Special work at plough-time, harvest, etc., done *ad precem* or *at bene* by the VILLEIN for the lord of the manor, and usually distinct from WEEKWORK. See SERVICES, PREDIAL AND MILITARY.

PRECARIUM, in Roman law, is a legal relation which arises when a person simply allows another, at his request, the use of a thing without entering into a contract of gratuitous loan (COMMODATUM) with him. The holder of a thing in this way has legal possession of it (see POSSESSIO), but the person who has allowed him to have it may determine the relation at his will; as, however, he does not hold under a contract he is not liable for ordinary negligence, but only for fraud or for such negligence as is equivalent to fraud. Precarium was sometimes only in form a gratuitous transaction, it being made use of to facilitate mortgages and for other business transactions. SAVIGNY suggested that precarium originated in the practice of patrons allowing their clients to cultivate pieces of the *ager publicus* which they were in possession of. The position of a TENANT AT WILL of English law is in some respects analogous to that of the precarious tenant of Roman law. E. A. W.

PRECIOUS METALS (DISCOVERIES OF, 1492 to 1897). In the economist's vocabulary the term precious metals is used in a different sense from that in which it is employed in chemistry, and the standard for determining the metals that belong to this class is a different one. In economic parlance "precious" has reference to value, and means that which is rare and highly esteemed, and, by adding another quality, which is quite just, we may accept the definition given in the *Century Dictionary* and say that economists have agreed to call precious metals those metals that are "valuable enough to be used as a standard of value and abundant enough for coinage." Hence in general the term includes only gold and silver.

Platinum has a theoretical claim for admission in this category because it is rare, has great value, and has been used in coinage.[1] In the year 1828 the emperor of Russia issued an edict (24th April, Russian calendar) providing for the coinage of ducats having a value of three silver roubles and a weight of 10,353 grams. which established a ratio with gold of about 1 : 3. Later, coins of larger denominations were also issued, but platinum coinage in Russia was discontinued in 1845 on account of excessive fluctuations in the value of the metal.

The discovery of America marks no arbitrary division[2] in the history of the precious metals, but, on the contrary, Columbus's undertaking owed no small part of its stimulus to the depletion of the world's stock of gold and silver, and the success of his enterprise opened up the world's largest depository of those metals. The chief importance of the date 1492 rather concerns the statistics of the production of gold and silver than the question of the relation of those metals to each other (see GOLD, SILVER).

For twenty centuries before the discovery of America there was considerable stability[3] in the ratio of gold to silver; with few exceptions the value of gold did not exceed twelve times that of silver, and during the middle ages it was for the most part under that ratio. The range of variation in all that time was not half so great as within the past twenty years.

[1] See Lexis, article "Edelmetalle" in *Handwörterbuch der Staatswissenschaften*, vol. iii. p. 1, Jena, 1892.

[2] Lindsay, *Preisbewegung der Edelmetalle seit 1850*, etc., p. 32 ff., Jena, 1893.

[3] Soetbeer, *Edelmetall-Produktion und Werthverhältniss zwischen Gold und Silber seit der Entdeckung Amerikas bis zur Gegenwart*, Ergänzungsheft No. 57 zu Petermann's *Mitteilungen*, Gotha, 1879, pp. 141 with three charts. Another of Dr. Soetbeer's contributions to this subject which he has treated more thoroughly than any one else as yet, is to be found in Hirth's *Annalen des deutschen Reiches*, Jahrg, 1875. The results of both these contributions are summed up in his *Materialien zur Erläuterung*

In discussing the ratio from 1492 up to the present time, we may conveniently distinguish three periods—first, from 1492 to 1687; second, from 1687 to 1873; third, from 1873 to 1897.

First Period 1492-1686.—This period agrees with the division made by Dr. Soetbeer, and the reason for stopping with the year 1686 is because the nature of the information, upon which our knowledge of the value of gold and silver is based, changes radically after this year. Previous to 1687 there is no record of regular, systematic, official market quotations whereby the values of gold and silver, and hence their ratio, may be followed in any one country for successive periods of time. An official circular was issued from Hamburg, the leading market of the time, commencing with 1660, which gave silver quotations, but gold was not quoted in this circular until 1687. In the first period, therefore, the sources of information consist of: (1) Mint rules and regulations which generally attempt to approximate the market ratio at the date at which they go into effect, though, of course, the real ratio may vary from the mint ratio at any subsequent time; (2) commercial account books, political essays, and reports of the time. The conclusions that may be drawn from these two sources are more satisfactory than might be at first supposed. Though they do not enable us to follow with accuracy the minute variations from year to year, we do get sufficient glimpses of isolated cases to be able to judge of the intervening movements.

The ratio of gold to silver at the time of the discovery of America was about 1 : 10·5, and had not varied much from that figure for twenty-five years previously, indeed, the variation had probably not exceeded one unit in the one hundred and fifty years immediately preceding this date, and for one hundred years after 1492 there was little change. Such as actually took place was gradual, it did not exceed one unit of divergence, and was of the nature of a rise in the value of gold. That so little change occurred is very remarkable, because great changes took place at the same time in the relative quantities of gold and silver produced; the average gold product in the twenty-four years 1521-1544 increased only 25 per cent over that for the twenty-eight year period 1493-1520 while the silver product almost doubled; comparing the sixteen years following (1545-60), when the Potosi mines gave their great yield, with the preceding period 1521-44, we find that the annual average silver product increased more than threefold, while that of gold increased very little, perhaps 15 per cent. Three hundred per cent increase in the silver product, 15 per cent in that of gold[1] and yet almost no perceptible change in the ratio! Soetbeer gives average ratio for years 1521-40 as 1 : 11·25, and for period 1541-60 as 1 : 11·30.

Whether the variation be great or small, the more difficult question to be determined is, which of the metals is responsible for the change, or whether both have varied? In the present case there seems to be some reason for supposing that gold rose slightly in value about 1550; though, if so, the rise was disregarded by the mint regulations of the time, and was perhaps limited to Germany, where so much money below standard circulated that it was necessary to tabulate the "ungarische Dukaten" and the *reichskonstitutionsmässige* thalers which remained unchanged, and give their value in other coins. These tables, quoted by Soetbeer, form a valuable source of information from which we can get at the ratios of gold to silver. Other sources which are used as a basis for determining the ratio in Germany at different periods are: *a* "Rechenbuch"[2] from the year 1527 with a preface dated 1489 giving several quotations indicating a ratio of 1 : 11·2; Adam Reiss's Erfurt Records[3] of 1518, which show ratios of 1 : 10·31 with same ratio quoted in successive editions dated 1529, 1533, 1578, and 1581; report of Copernicus to King Sigismund in 1526 entitled *Moneta cudendae ratio*, and reprinted in collection made by Wolowski, Paris, 1864; mint laws of 1524, Reichs Münzordnung, 10th November 1524, establishing ratio of 1 : 11·38, those of 1551 establishing the same ratio, those of 1559 changing ratio to 1 : 11·44, and those of 1566 changing the ratio again to 1 : 11·55. In 1623 the Government Council made the ratio in Germany 1 : 11·64 which was unfavourable to gold, and Soetbeer claims that the mint ratio of Lower Saxony in 1610 (1 : 12·20) was nearer the market ratio. A report to the Reichstag in 1665 claims that the market ratio was about 1 : 14·26 and another report in 1669 gives the ratio as 1 : 15·11.

As for variations in England, Soetbeer relies upon the quotations based on mint rules and quoted by Ruding.[4] These show little varia-

und Beurtheilung der wirthschaftlichen Edelmetall-verhältnisse und der Währungsfrage, Berlin, 1886. There are two English translations of the *Materialien*. One is entitled *Materials for the Illustration and Criticism of the Economic Relations of the Precious Metals, and of the Currency Question*, and was published as Appendix XVI. to the Gold and Silver Commission Report. See Blue Book, Appendix to Final Report of the Royal Commission, pp. 139-240, London, 1888. The other translation was made by Prof. Taussig of Harvard University, and published as Appendix II. to Mr. Edward Atkinson's Report to the United States Government on *Bimetallism in Europe*. See United States Consular Reports, No. 37, December 1887, pp. 435-663, Washington.

[1] See Soetbeer, *Materialien*, translated in *Report of Gold and Silver Commission*; also excellent article by Prof. E. Nasse entitled "Das Geld- und Münzwesen," in Schönberg's *Handbuch der politischen Oekonomie*, vol. i. pp. 315-378, Tübingen, 1890.

[2] *Behennde vnnd hübsche Rechnung auff allen Kauffmanschafften*, von Johannes Widman v. Eger, "Mayster in den freyenn Künsten zu Leibzig."

[3] Adam Riess's *Rechnung auf der Linihen, gemacht in massen man es pflegt tzu lern in alle rechenschulen gruntlich begriffen anno 1518, vleyssiglich uberlesen u. z. andern mall in trugk verfertigt*, Erffordt, 1525.

[4] W. Ruding, *Annals of the Coinage of Great Britain and its Dependencies*, 3rd ed. 3 vols., London, 1840.

tion from the ratio 1 : 11 for the period 1527 to 1601, but from 1605 on a rather rapid rise in the value of gold; thus 1605, ratio 1 : 12·10; 1610, ratio 1 : 13·3; 1619, ratio 1 : 13·3; 1663, ratio 1 : 14·5; during reign of William and Mary, 1 : 15·4; and 1717, ratio 1 : 15·2; Newton's report in 1717 recommended a ratio of 1 : 15·096.

Soetbeer quotes various figures taken from Holland and French records with similar results. In general, therefore, it may be said that during the 15th century and early part of the 16th, silver fell in value on account of increased production due to the Potosi mines. From about 1620 to the end of our first period (1687) there seems to have been a sudden and marked rise in value of gold combined with little change in condition of production of either metal, and therefore probably due to the growing use and demand for gold in international trade.

Second Period 1687-1873.—The second period presents less difficulty in ascertaining the market ratio, because we have Hamburg official periodical quotations for both gold and silver, and regular quotations on the London market. It is only necessary to make accurate calculations for the same degree of fineness. Dr. Soetbeer has selected from this material, as most satisfactorily representing the best market, the Hamburg quotations from 1687 to 1833 and those of London brokers from 1833 to the present time. Mr. Seyd [1] has also prepared a series of figures giving notations of the Bank of England for years 1733 to 1819. In the following table the average price of silver and the ratio to one unit of gold are given for the periods indicated [2]:—

Average for Period.	Price of silver in shillings per standard ounce.	Ratio to one unit of Gold.
1687-1690	62 1/16	14·98
1691-1700	63 1/16	14·96
1701-1710	61 3/4	15·27
1711-1720	62 1/4	15·15
1721-1730	62 1/8	15·09
1731-1740	62 9/16	15·07
1741-1750	63 1/8	14·93
1751-1760	64 3/4	14·56
1761-1770	63 1/16	14·81
1771-1780	64 3/8	14·64
1781-1790	63 7/8	14·76
1791-1800	61 1/8	15·42
1801-1810	60 7/16	15·61
1811-1820	60 1/16	15·51
1821-1830	59 1/16	15·80
1831-1840	59 7/8	15·75
1841-1850	59 9/16	15·83
1851-1860	61 3/8	15·36
1861-1870	60 5/16	15·48
1871-1875	59	15·98
1873	59 1/4	15·92
1874	58 5/16	16·17
1875	56 7/8	16·59
1876	52 3/4	17·88
1877	54 1/16	17·22
1878	52 9/16	17·94
1879	51 1/2	18·40
1880	52 1/4	18·05
1876-1880	52 3/4	17·90
1881	51 5/16	18·16
1882	51 3/16	18·19
1883	50 5/8	18·64
1884	50 3/8	18·57
1885	48 9/16	19·41
1881-1885	50 3/4	18·59
1886	45 3/8	20·78
1887	44 5/8	21·13
1888	42 7/8	21·99
1889	41 1/16	22·10
1890	47 3/4	19·76
1886-1890	44 7/16	21·15
1891	45 1/16	20·92
1892	39 3/4	23·72
1893	35 9/16	26·49
1894	28 7/8	32·56
1895	29 13/16	31·60
1891-1895	35 13/16	27·06
1896	30 13/16	30·59
1897	27 9/16	34·20
1898	26 15/16	35·03
1899	27 1/16	34·36
1900	28 5/16	33·33
1896-1900	28 3/16	33·50
1901	27 9/16	34·68
1902	24 1/16	39·15
1903	24 3/8	38·10
1904	26 13/32	35·70
1905	27 3/16	33·87
1901-1905	25 5/16	36·30

[1] E. Seyd, *Der Hauptirrthum in der Goldwährung. Nebst kritischen Bemerkungen über Dr. Soetbeer's Schriften. Mit einer graphischen Tafel.* Rudolstadt und Leipzig, 1880.

[2] These quotations are taken from the reports of the director of the United States mint upon the production of the precious metals. This is at present the best available source for statistics on this subject. The Mint Report quotations and ratios from 1687-1832 are taken from Dr. A. Soetbeer's *Edelmetall-Produktion und Werthverhältniss zwischen Gold und Silber*, Gotha, 1879; and have been compared by Dr. S. M. Lindsay with the original to ensure accuracy. From 1833-1878 the figures are from Pixley and Abell's tables, and from 1879-1905

Examining this table for the period 1687-1873, the first one hundred and thirteen years (1687-1800) show a variation not quite equal to one unit between the highest and lowest quotations; during the following seventy-two years (1801-73) the variation was still less, being scarcely more than a half-unit. This stability is no less remarkable than that during the 16th century, because equally great changes in the production of the precious metals took place. The average yearly production of gold from 1851-60 was nearly four times that for the years 1841-50. Therefore the causes that maintained stability in ratio must be sought for in the conditions affecting the demand for the metals rather than their supply.

Third Period 1873-97.—The period since 1873 has been an extraordinary one, and never has the question of the ratio of the precious metals called forth more discussion or greater anxiety on the part of economists, publicists, and legislators, nor indeed, has there ever been so great a need of knowing the real causes that determine that ratio. The London price of silver, as quoted for the year 1873, was 59¼d. per ounce; in the month of March 1894 the price on the same market touched 27d., which means a fall of about 54 per cent in its gold price. Since then the average monthly quotations have fluctuated between 27 and 31$\frac{9}{16}$d., the highest figure reached in the period (February and June 1896), and remains in February 1897 at about 29$\frac{11}{16}$d. The ratio at the present date (February 1897) is about 1 : 31·76; for seventy-two years before 1873 the ratio did not vary one-half unit from the celebrated 1 : 15½ ratio of the Latin Union; in the twenty years since 1873 it has departed from that ratio by more than 16 units. Silver measured in gold has fallen. The following questions naturally arise: Is silver solely responsible for the great variation in the relation between the two metals, or has gold also changed? (See GOLD AS STANDARD; PRICES; SILVER.) How can such changes be measured, and is it possible to assign to each its share in the divergence of ratio? (INDEX NUMBERS.) What are the remedies proposed for maintaining a more stable ratio, and is such desirable and necessary for healthy industrial life? (BI-METALLISM; LATIN UNION; MONEY.) There has been a very great change in the respective uses of the precious metals, at least for coinage purposes, with the third period. Formerly silver was regarded very widely in Europe as well as in Asia as the metal best suited for coinage purposes, and in the early fifties there was considerable apprehension of a flood of gold and of a danger of losing silver in those countries where both metals were coined at a fixed ratio. Now the opposite fear has led to the stoppage of silver coinage, except in insignificant quantities, in all countries except China and Salvador. The great extension of silver production since 1873 is one of the chief causes. India closed her mints in 1894, and Japan is now preparing for an exclusively gold standard coinage. So Asia has also joined in the struggle for gold. The outlook for a sufficient supply to meet this increased demand is brighter now than it was a few years ago (see GOLD; SILVER).[1] GOLD, INCREASE IN THE PRODUCTION OF; SILVER, PRODUCTION AND COINAGE OF, 1896-1905. For period 1897-1900 see Appendix.

[The literature which treats of this subject is so extensive that it is only possible to add to what we have already given in footnotes some general indications. The monetary bibliographies of Jevons; S. Dana Horton; and Soetbeer, *Litteraturnachweis über Geld- und Münzwesen*, Berlin, 1892, may be profitably consulted. Then Von Praun, *Gründliche Nachricht von dem Münzwesen*, Leipzig, 1739, 3rd ed. 1784.—*Report from the Secretary of the United States Treasury on the Relative Value of Gold and Silver*, 4th May 1830.—21 Cong. 1 Session, *House of Representatives Document* No. 117, Washington, 1830.—Reprinted in Report of Interim Monetary Conference of 1878, Washington, 1879; see p. 558 ff.—*Reports of Monetary Conferences of 1878, 1881, and 1892.—Reports of Gold and Silver Commission*, London, 1887-88.]

S. M'C. L.

PRE-EMPTION, RIGHT OF. The right of pre-emption is the right possessed by one party of purchasing property before or in preference to other parties. International law allows this right to a government with respect to goods belonging to the subject of another power, which are in course of transport across its territory. But modern international law restricts this right to cases in which the goods are on their way to an enemy, and are of such a nature that, without being contraband, they would be useful to him in the prosecution of hostilities.

English law once gave the purveyors of the crown a right of pre-emption in respect of all commodities wanted for the royal household. Such commodities might be taken whether the owners wished to sell or not, at a price fixed by appraisement. This right of pre-emption gave rise to such gross abuses that it was frequently the subject of complaint in parliament, and was finally abolished by the act for the abolition of military tenures passed at the restoration of Charles II. (12 Car. II. c. 24). Under the Lands Clauses Consolidation Act 1845 (8 & 9 Vict. c. 18), a person whose land has been

from daily cablegrams from London to the Bureau of the Mint. The averages for the five-year periods from 1876 to 1905 were made by averaging each column separately.

[1] See United States Special Consular Reports, *Money and Prices in Foreign Countries*, vol. xiii. pt. i. and ii., Washington, 1896-97, for an account of the mint rules, price, ratio, etc., in all foreign countries, based on replies received from consuls in August, September and October 1896.

taken by a joint-stock company under compulsory powers has a right of pre-emption if the company afterwards finds the land unnecessary for its undertaking, and so has to offer it for sale (see also PURVEYANCE). F. C. M.

PREFERENCE SHARES are shares in a company entitled to dividend in priority to the ordinary shares. The dividends on preference shares, like the dividends on ordinary shares, must be paid out of profits, and may not be paid out of capital; but it may be provided in the articles that the ordinary shareholders are not to receive any dividends until the arrears, if any, in the dividends of the preference shares have been cleared off. In such a case the preference shares are called "cumulative"; but if the dividend on the preference shares is payable out of the profits of each year only, they are called "non-cumulative."

As regards repayment of capital, the preference shares, in the winding up of the company, rank *pari passu* with the ordinary shares, unless the articles provide for any other arrangements. It also depends on the articles whether the voting rights of the preference shareholders differ from the rights of ordinary shareholders or not. It used to be thought that the power of a company to issue preference shares could be exercised to such extent only as the MEMORANDUM OF ASSOCIATION (*q.v.*) or the original articles authorised; but a recent decision of the Court of Appeal has established the rule that, notwithstanding the absence of authority in the memorandum, the articles of a company can at any time be altered so as to give the directors power to issue preference shares (Andrews *v.* Gas Meter Company, L.R. (1897) 1 ch. 361). In a company having a large and honest ordinary capital an investment in preference shares offers good security, and the public estimation of such a security is clearly shown by the prices at which the preference shares of English railway companies find purchasers. On the other hand, preference shares are often issued in cases in which the ordinary capital is small, or, though nominally large, was not issued against cash but against property worth a great deal less than the nominal purchase price. In such cases the issue of preference shares by which investors are made to think that they will be entitled to a fixed interest is often resorted to with the intention of obtaining money from the public where other means of doing so would be useless, and the chances of obtaining dividends is as small as if the shares were ordinary shares. The voting rights of preference shareholders are generally less extensive than those of ordinary shareholders, hence the latter exercise a more extended control over the management of their company than the former. E. S.

PREMIUM. Lat. *praemium—prae*, and *emo*, literally what one takes first or for one's self; hence, a reward.

In modern use the word has both of these meanings. In the first sense we have:—*premium*, in INSURANCE—the payment taken at once, and at intervals, to secure certain benefits either in the event of possible contingencies, or after the lapse of time. In life, fire, and marine insurance, the premiums are calculated upon plans which will be found fully described under those heads.

In the way of reward, *premium* is used to denote an amount offered by governments, or by individuals, to procure competitive designs for a building, or commemorative work of art, to stimulate invention, or to promote certain industries (see BOUNTIES). On the stock exchange, stocks and shares are said to be at a premium when their market price is higher than that at which they were originally issued (conversely, see DISCOUNT.) The market prices of new issues are generally quoted in this way, especially whilst they are being paid up by instalments, as it conveniently shows what part of the price is due to the appreciation of the stock.

In currency, when gold coins, for example, are of greater value than the notes in circulation of the same denomination, the gold is said to be at a premium. The expression, however, is apt to mislead, as it appears to indicate a scarcity of gold, when the only fact may be an over-abundance of paper (see also AGIO). R. W. B.

PRENTICE, ARCHIBALD (1792-1857):

Wrote a *History of the Anti-Corn-Law League* (2 vols., London, 1853, 8vo).—*A Tour in the United States* (London (Manchester printed), 1848, 8vo). Two of his addresses on "Temperance" were published in the *Ipswich Series of Temperance Tracts* (2 vols., 1850 (?) 8vo). In these he considered "Wages as affected by Temperance," and showed how the only remedy the artizan could have against the encroachments of capital was the accumulation of a counter instalment of capital whereby, in case of a strike or lock-out, the labourer could fall back upon his savings until the capitalists offered him the just price of his labour. But the intemperate member of the community would save nothing, and therefore was in an unfit condition to contend, and must yield without a contest.

In another lecture on "Productive Labour and Temperance," Prentice insisted that the whole labour of manufacturing and selling intoxicating liquors was labour worse than thrown away. He showed by illustrations that the money taken from four years of abstinence from intoxicating drinks could be productively employed in constructing six thousand more miles of railway; that spent in five weeks of drink would suffice to construct a ship canal from Manchester to Hull, and so on. He strongly advocated the spending of the millions of money used in drink on something that would do good and not harm. Spent in clothing, or furniture, or education, it would have a permanent and lasting effect upon the generations which followed. A. L.

PRE-ROMAN INDUSTRY IN BRITAIN.

The industrial condition of Britain before the historic period of the Roman occupation presents several points of interest to the student of industrial history, and the remains of the pre-Roman period are sufficient to enable us to gain some idea of the state of industrial development then prevailing. Traces of knowledge early developed are visible in the later history of agriculture, and it is even possible that additional light may be thrown on the origin of the manorial system from this source. At the time immediately before the Roman invasion, it is supposed (Rhys, *Celtic Britain*, pp. 213, 275) that three races inhabited Britain—the (1) aboriginal Iberians; (2) Celtic immigrants of an early invasion who amalgamated to some extent with the aborigines; and (3) Celts of a later migration in the east and south-east, known to Roman writers as Gauls. Of these races the first, the "Silures" of the Romans, lived in tribal communities (Dawkins, *Early Man in Britain*, ch. viii.) and possessed fixed habitations in the form not merely of caves, but of log-huts and wooden houses; they existed not only by the chase, but largely also on their own domestic animals. Specimens of their agricultural and other implements survive, and though made only of stone were sufficient for a variety of operations. The arts of spinning and weaving were also known to them (*Early Man*, p. 275), also those of flint-mining, pottery-making, and boat-building. Commercial intercourse existed, though only in the primitive form of barter (Solinus, *c.* 24), and that traffic of this kind was carried on over considerable distances seems evident from the fact that axes of jade are found in Britain, though jade is scarcely a product of Europe (*Early Man*, p. 281). In the forest clearings they grew flax and wheat (*ib.* p. 272) and kept pigs, sheep, goats, and oxen (the "Celtic shorthorn") (*ib.* p. 297). This early stage of civilisation survived in remote parts of Britain, almost unchanged, well into Roman times; but in most other parts metal implements, usually of bronze, were known, introduced possibly by the Celts of the earlier migration. The use of bronze rendered the agricultural operations before mentioned more easy, and improvement was made in house-building (*Early Man*, p. 352), harvesting, with bronze reaping hooks (*ib.* p. 360), and in spinning flax and wool (*ib.* p. 359), while the smith existed as a craftsman with a comparatively large array of tools (*ib.* p. 385). Mining was actively carried on in this epoch. The people had now left "the pastoral or migratory stage . . . had learned the simpler arts of society, and advanced towards the refinements of civilised life" (Elton, *Origins of English History*, p. 145), while "their pits and hut circles prove that they lived in regular villages" (*ib.*). The Celts or "Gauls" of the *later* migration were quite familiar with iron implements and weapons, and appear to have been unduly depreciated, as conquered races usually were by classical writers (cp. Dion Cassius, *Xiphiline*, lxxvi. 12; Claudian, *B. Getic.*, 417; Solinus, c. 4). "The British Gauls," says Elton, "appear to have been excellent farmers, skilled as well in the production of cereals as in stock-raising and the management of the dairy. Their farms were laid out in large fields without enclosures or fences, and they learned to make a permanent separation of the pasture and arable" (*Origins*, pp. 115-116). They understood marling (*ib.*), a practice implying both agricultural skill and a well-settled mode of existence. The varieties of cattle now included, in addition to the Celtic shorthorn, the kyloe or Argyll breed (*ib.* pp. 116, 117). There seems to be no trace of co-operative ploughing, as practised in the English village community in Saxon times (cp. Gomme, *Village Community*, pp. 281-284). Tin-mining was practised, and it continued into Roman times. Textile manufactures had progressed, and the use of dyes and patterns was common (Elton, *Origins*, pp. 110, 111). Neither the Roman nor Saxon invasions entirely obliterated these early races of Britain, and the influence of their industrial culture may be marked, especially in agriculture, in historic times.

[Boyd Dawkins, *Early Man in Britain.*—Elton, *Origins of English History.*—Rhys, *Celtic Britain.*—Taylor, *Origin of the Aryans.*—Gomme, *Village Community.*—Gibbins, *Industry in England* (ch. i., pre-Roman Britain)]. H. de B. G.

PRESCRIPTION.

Prescription, p. 186; Prescription (Fr.), p. 187; Prescription (Scots Law), p. 187.

PRESCRIPTION. A mode of acquiring title to incorporeal hereditaments by immemorial or long-continued use. The difference between prescription and CUSTOM is that by prescription a man can only acquire a title against a particular person, whilst by custom a title is acquired which avails against the whole world. The legal theory underlying prescription is that a man would not be left to the exclusive use of anything by the real owner for any great length of time in virtue of some previous grant; and accordingly, if a man has had such use continuously for a long time, without any one's permission and for himself alone, the law presumes that such a grant has been made by the only person that would have a right to stop him. Anciently a technical prescription was required for its establishment—proof of use and enjoyment from before the memory of man, but in the 18th century the period was fixed at twenty years, and has since as to certain rights been reduced to twelve years.

[See LIMITATION, STATUTES OF. Darby and Bosanquet, *S. of L.*, 1893—Gale, *On Easements.*—Nerril, *American and English Encyclopædia of*

Law, New York and London, 1892.—Markby, *Elements of Law*, Oxford, 1890.] A. E. S.

PRESCRIPTION (Fr.). In French law, the limit of time by which possession of property ceases to be contestable, claims are barred, and right of action lapses. The general rules of prescription are laid down in arts. 2219 to 2281 of the civil code. Certain claims are, however, not prescribable, as the capital of money in the public funds; but the interest on the sums is paid over to the state at the end of five years. Prescription may also be suspended by circumstances. The term of prescription for debts varies. Thus the claims of teachers for lessons, workmen for wages, hotel-keepers for board and lodging, are limited to six months; those of doctors for medicine and attendance, boarding-school masters, and servants hired by the year, to twelve months; of solicitors to two years from the date of the judgment or settlement of the cause, etc. The extreme time for prescription in any case is thirty years (PRESCRIPTION; PRESCRIPTION, SCOTS LAW; PRESCRIPTIVE RIGHT). T. L.

PRESCRIPTION (Scots Law). In Scotland, an action on a bill or note cannot be brought after six years, though the debt may still be proved otherwise, and in that case there is a "limitation." But after forty years there cannot be any action on the personal debt at all unless it has been kept alive by acknowledgments, payment of interest, etc., and the debt is then said to be "prescribed." The "positive prescription" is the method by which rights acquired become unchallengeable; *e.g.* continuous and peaceable possession of land or real rights in land on an *ex facie* good registered irredeemable title, without interruption, for twenty years; on redeemable titles, forty years; easements and rights of way, forty years. "Negative prescription" is the extinction of rights by lapse of time: *e.g.* the extinction of a personal debt by lapse of forty years, as above, which period may be lengthened through years of minority of parties not being counted; the right to object to a conveyance, on grounds not appearing on the deed itself, lapses in forty years; customary rights, such as vicarage tithes, lapse in forty years through a contrary usage of non-payment; the right to assert a claim to being heir lapses in twenty years after the last claim to heirship was admitted. There are also other cases in which the burden or mode of proof is generally changed; for example, an unwitnessed acknowledgment of debt in a debtor's own handwriting cannot be founded on more than twenty years after its date, but the debtor can be made to swear whether it was his writing and the signature his, and if he admit this, he must show that the debt has been discharged: tutors and curators (guardians) of a minor cannot be called to account more than ten years after their office has expired; sureties are, as a general rule, subject to many exceptions, not bound for more than seven years; bills and notes, except bank notes and post-bills, cannot themselves be founded on after six years, but the debt may be proved by some other means, including the oath of the debtor himself; arrears of rent of agricultural land lapse after five years from the tenant leaving the land; and current accounts in general can only be proved after three years by a written acknowledgment of the debtor, or by referring the truth of the matter to his oath. Many of these cases are truly examples of limitation rather than prescription; but both limitation and prescription are generally treated of under the same heading, "Prescription." A. D.

PRESCRIPTIVE RIGHT. A right acquired by lapse of time. The principle of permitting rights to be so acquired appears to be necessary in order to prevent litigation. "Possession of a certain standing," says Bentham (*Principles of the Civil Law*, pt. ii. ch. i.), "ought to be superior to all other titles" on the ground that one of the chief aims of legislation regarding property should be security.

[Sir Henry Maine, in *Ancient Law*, London, 1886, traces the growth of prescription in Roman law from which it has descended to modern legal systems.—Bentham, in the *Civil Code* (*supra*), discusses its justification.—Herbert, in the *History of Prescription in England*, London, 1891, traces the development of the doctrine in English law. For the present law in England, see Darby and Bosanquet on the *Statute of Limitations*, London, 1893 (see LIMITATION, STATUTES OF).] J. E. C. M.

PRESENT GOODS are valued higher than future goods for reasons considered under the head of DISTANCE IN TIME. . . . The depreciation of future goods is a factor in the conditions which determine the rate of interest, in the equation between present goods loaned and future goods discounted. If the depreciation of future goods become less *ceteris paribus*, the rate of interest will fall. But the depreciation is not a measure of the rate in general; it is so only on a particular hypothesis carefully defined by Prof. Marshall (*Principles of Economics*, 3rd ed. pp. 195-199, 306-307, note v. *et passim*.—Contrast Launhardt, *Mathematische Begründung der Volkswirthschaftslehre*, § 2, pp. 6, 7 (see DISTANCE IN TIME; FUTURE GOODS AND SERVICES; INTEREST, THEORY OF).

[John Rae in his *New Principles*, and Prof. Böhm-Bawerk in his *Positive Theory of Capital*, are, with Prof. Marshall, the authors who have treated the subject most profoundly]. F. Y. E.

PRESSURE, MONETARY. Monetary pressure is a term used to denote a condition of the money market (see MONEY MARKET), in which a large proportion of the persons forming the market are simultaneously desirous of borrowing money, and are ready to give abnormally high rates for the use of it. This state of

things may arise (1) owing to some temporary circumstance, such as the accumulation and "locking up" of a considerable amount of cash in the form of deposits made on application to a large loan; or the withdrawal from the market of money that has been out at "call" pending the completion of some operation for which it has been previously accumulated. (2) It arises periodically as one of the results of over-speculation, and in this case may last for some time. This form of monetary pressure is merely one of the phenomena of the normal cyclic movements of commerce (see CRISES, COMMERCIAL; CREDIT, INFLUENCE ON PRICES). Temporary pressure may and does arise, from time to time, during periods of "cheap money"; and the pressure tends to recur more frequently and with increasing intensity as the period of cheap money draws to its close, after which, for a time, the pressure becomes practically continuous, and, usually, ends by becoming acute. The rapidity with which the integration of a series of temporary states of pressure will produce acute pressure depends on various circumstances, the most important being the question whether the "locking-up" of money is permanent and therefore preparatory to its withdrawal to a foreign country, or is merely a stage in the transfer of money from one set of persons to another within the country. In the latter case the period of pressure is only momentary. If there were a large conversion of circulating into fixed capital within the country during a short period, severe pressure might arise, especially if the lock-up of capital were accompanied by speculation. No such conversion of capital has occurred in the United Kingdom on a sufficiently large scale since the railway mania of 1847-48, and it does not seem probable that a similar phenomenon will be seen again. Serious pressure is, therefore, only to be expected after the withdrawal of a good deal of capital for investment abroad. W. H.

PRESTATION (Fr.). A tax paid in kind or by a service. It now only exists in France for the purpose of providing for the construction and maintenance of communal bye-roads, etc., and as a relic of the *corvée* or forced labour that existed before the revolution of 1789. The tax was sanctioned by a law of 1824, which declared that where the ordinary resources of the commune are insufficient for the maintenance of the communal bye-roads, the municipal council may provide means by additional centimes to the four direct taxes, or by labour, not exceeding two days (since increased to three) annually, to be required from all the valid male population between the ages of eighteen and sixty, and the use of their carts, carriages, and horses. The tax may, however, be redeemed by a money payment per diem for each man, horse, or vehicle—the rate for which is fixed annually by the county council for each commune. Time, usually one month, is allowed for the inhabitant to declare that he intends to work out the tax, and in default of such notice the tax is payable in money. The municipal councils summon the *prestataires* as required, and the season chosen for work is always that when field labour is light. The charge is not unpopular, and 70 per cent of the inhabitants liable to the tax prefer to discharge it by their labour. The prestation is however only applied in the poorer rural communes where the receipts from the ordinary taxes are small and money payment would be more onerous. T. L.

PRICE, BONAMY (1807-1888). An economist, interesting for the independence of his views, and for the spirit with which he expounds them. The animating principle of his writings is, that for an economist practical instincts are more needed than speculative ability; it being understood that practical instincts do not mean the art of getting on, but the determination of conduct on a large scale in matters of commerce and taxation.

Of political economy, he says (*Practical Political Economy*, p. 2): "Its value lies in its being understood by the mass of men. . . . Its aim is to make common sense the supreme ruler of industry and trade." Common sense here includes desire for the public welfare. He attacks practical errors, or what he regards as such, with greater keenness than speculative errors. In his opinion, the banking world bestowed undue attention on the amount of gold in the country, and by comparison too little attention on the soundness of their loans. "Mercantile crises," he writes, "never have their origin in a deficiency of currency, of coin, and notes of legal tender" (*Principles of Currency*, p. 79). He expounds this thesis, in the work referred to, with great variety of illustration. He insists (*Practical Political Economy*, p. 239) on the real identity of interest between employers and their workmen, except within certain narrow limits; in his exposition of the causes which on either side assail this common interest, some will think him unduly tender to the employer; but his analysis is keen. His analysis of the free-trade question in the same volume (pp. 299-334) is acute. Speculative theory is not absent from his writings, but generally it arises through connection with some practical topic.

Bonamy Price's active life consisted of three parts. From about 1830 to 1850 he was a successful assistant master at Rugby; from 1850 to 1868 he was engaged in various ways, among these as a political writer in London; from 1868 to 1888 he was professor of political economy at Oxford. In the middle of these three periods he performed what seems to have been a signal service to the Scotch herring trade. From the year 1809 onwards the government had affixed, after due examination, a brand on the casks of herrings belonging to fishermen on the east coast of Scotland, before they were sent to the market, thus guaranteeing the soundness of their contents; and the guarantee had been found of special value in the foreign trade with Germany, etc. Objection

had been raised to this procedure; and Bonamy Price, Frederick St. John, and Captain Sullivan, R.N., were appointed by the treasury as a commission of inquiry into this and other matters. Mainly, as with great pride he used to relate in after years, through the influence of Bonamy Price, the commission gave their verdict for the brand which, he claimed, gave the small curer an equal chance with the large one; and, with slight modification, the practice has continued to the present day (see *Parliamentary Reports on Scotch Fisheries* for years 1856 and 1857).

At Oxford, Bonamy Price was held in very high esteem. Besides his professorial lectures there, he lectured in other places on political economy to large audiences, with great vivacity. His power of stimulating interest in the subject which he taught was great; and many public men and journalists were indebted to him, in their Oxford days, for their permanent appreciation of the value of political economy. His economic works, published during the last twenty years of his life, were *Principles of Currency* (1869); *Currency and Banking* (1876); *Practical Political Economy* (1878). J. R. M.

PRICE, DR. RICHARD (1723-1791), dissenting minister and writer, is, in the field of economics, chiefly remembered as the author of the SINKING FUND (*q.v.*) scheme, afterwards adopted by Pitt. The gentleness and retirement of his private character and life afforded a curious contrast to the political controversies in which he became involved. His sympathy with the American rebels first led him into the field of politics, and it was a sermon of his on the French revolution which was the immediate cause of Burke's *Reflections*. In 1769 he gained the friendship of Lord Shelburne, whose views on many questions he shared.

Dr. Price appears first to have seriously applied himself to the theory of PROBABILITY (*q.v.*) in 1761. A complete edition of his *Works*, with a memoir by his nephew, W. MORGAN (*q.v.*) was published in 1816 in 10 vols.—Vol. 1 contains memoirs.—Vol. 2, *A review of the principal questions in morals.*—Vol. 3, *Dissertations on religious subjects.*—Vol. 4, *Correspondence with Dr. Priestley.*—Vols. 5 and 6, *Observations on reversionary payments; on schemes for providing annuities for widows, and for pensions in old age; on the method of calculating the value of insurances of lives; and on the National Debt. Also, essays on different subjects in the doctrine of life annuities and political arithmetic; a collection of new tables, and a postscript on the population of the United Kingdom*, 1st ed. 1769, 6th ed. 1803, edited by W. Morgan.—Vols. 7 and 8, *Political tracts, observations on the nature of civil liberty and the justice and policy of the war with America*, 1st ed. 1776, 8vo; *Additional observations*, 1777; *An appeal to the public on the subject of the National Debt*, 2nd ed. 1772; *The state of the public debt and finances in 1783, Postscript*, 1784, *An essay on population of England*, 1780; *Observations on the importance of the American Revolution*, 1784; and *Facts addressed to the landholders*, etc. The clearest statement of his views with regard to a sinking fund is contained in *An Appeal*. After showing that the best kind of sinking fund is where the *interests* disengaged are themselves applied to the payment of the public debts, he affirms that "this kind of sinking fund, be its income at first ever so much exceeded by the new debts incurred annually, will soon become superior to them and cancel them." Thus "a state may, without difficulty, redeem all its debts by borrowing money for that purpose." Price had been anticipated in his theory by Sir N. GOULD (*q.v.*) in his *Essay on the Publick Debts of the Kingdom*, 1726, but the arguments were now put forward with incomparably greater force and persuasiveness. Price's views were controverted by Wimfrey and the anonymous author of *Considerations on the Annual Million Bill, and on the real and imaginary properties of a Sinking Fund* (both tracts are amongst *Scarce and Valuable Tracts . . . on the National Debt and the Sinking Fund*, edited by J. R. M'Culloch, London, 1857, 8vo), but little notice was taken of their arguments, and it was reserved to R. HAMILTON (*q.v.*) to prick the bubble of the theory.—Vols. 9 and 10, *Sermons*. See Preface to *Scarce . . . Tracts* as above for views as to sinking fund.

[Memoirs and works as above]. H. E. E.

PRICE AND PRICES.

Price, p. 189; Price (Rate of Wages in Cotton Trade), p. 189; Price of Gold and Silver, p. 189; Prices, History of, p. 190; Prices, History of (1850-96), p. 195; Prices and Money, p. 198; Prices, Real and Nominal, p. 199; Prices, Short Period and Long Period Supply, p. 200; Prices, Theory of, p. 200.

PRICE. The "price," is the money consideration which is given, under a contract, in exchange for the supply of commodities or services. Thus sale is defined to be the transfer of the property in a thing for a price. Therefore if goods are exchanged for goods, there is no price, and the contract is one of barter and not of sale.

By English law, when goods are supplied, or services rendered, which are intended to be paid for, but no price is fixed, a reasonable price must be paid. If the parties cannot agree on what is reasonable under the circumstances, the matter must be settled by litigation, and the tribunal (judge or jury as the case may be) then determines what is a reasonable price.

It is an inflexible rule of English law that the courts have no jurisdiction to inquire into the adequacy of a *bona fide* consideration. That is purely a question for the parties at the time when they enter into the contract. Gross inadequacy of price may be evidence of a fraud, but that is all. M. D. C.

PRICE, as meaning rate of wages in cotton trade. The word "price" is used in the cotton trade as meaning "rate of wages." The "lists" regulating wages are called "lists of prices."

[*Regulation of Wages in Cotton Industry*, British Association Report, London, 1887.] J. E. C. M.

PRICE OF GOLD AND SILVER. The price of each metal is always quoted on the London

market at per ounce standard, *i.e.* 916·6 and 925 respectively, but delivery is made in bars either fine or differing only by a few one-thousandth parts. See also MINT PRICE OF BULLION; PARITY OF VALUE. R. W. B.

PRICES, HISTORY OF. The materials for a satisfactory history of the course of prices in ancient times do not exist; even in mediæval times, though records are more abundant, they lack the regularity and continuity which characterise modern records; and, further, the available records do not supply the facts of price-variation for any wide range, even of important commodities, till comparatively recent times. In the scattered notices of prices with which we are obliged to be content over considerable periods of history there may be preserved for us, not in every case an average price of the article concerned, but the price under more or less exceptional circumstances, and it is therefore necessary to accept with due reserve the conclusions which may be drawn from the recorded facts. The most abundant records are those relating to corn prices.

At the end of the 5th century B.C. the medimnus of wheat at Athens cost 3 drachmas, while 5 drachmas was a common price in the time of Demosthenes. Other information on the price of wheat in Greece is obtained from a statement of Plutarch, according to which the medimnus cost one drachma in the time of Solon. In Plutarch's own time the same quantity cost four times as much. In Sicily, when Verres was prætor (ca. 70 B.C.), 12 to 18 sesterces the medimnus was the price of wheat, while the higher of these prices was esteemed low at Rome in the time of Nero. Barley, in Athens, was worth about two-thirds as much as wheat, but in Sicily and Northern Italy its price did not exceed the half of that of wheat. The price of an ox varied, during the period of greatest Greek prosperity (ca. 400 B.C.), from 50 to 100 drachmas, while one-fifth of these amounts will give the variation of the price of a sheep. The comparison of the rates paid for the hire of free labour with the prices quoted for corn, gives the result that in ancient Greece a bushel of wheat might be bought with the wages of two to four days' work, according as the work was more or less skilled. In Italy wages were lower as measured in corn, at any rate in the time of Cicero, who quotes a rate at which more than five days' labour would be needed to earn the price of a bushel of wheat.

The most important record of prices in ancient times is the edict of Diocletian *de pretiis rerum venalium* of the year 301 A.D., which fixes maximum prices for goods and for labour. The interpretation of these prices into their modern equivalents is not free from difficulty. It would, however, appear that the Roman pound of gold is to be reckoned as equivalent to 50,000 denarii (Lepaulle), or 10 denarii equivalent to 1 grain of gold or two pence sterling approximately. Using this equivalence, the following are a few sample prices from the edict. The price of wheat is not given, but it may, perhaps, be taken at about double that of millet.

Prices from Diocletian's Edict A.D. 301.

Rye, per bushel	27½d.	Pork, per lb.	3½d.
Millet, do.	23d.	Beef, do.	2½d.
Oats, do.	14d.	Butter, do.	5d.
Peas, do.	27½d.	Sea-fish. do.	5d. to 7d.
Salt, do.	5d.	Salt-fish, do.	2d.
Boots, per pair	22 to 44d.	Fowls, per pair	13d.
Tunics, according to quality of linen from 36s. to 180s.		Goose, each	22d.
		Oysters, per hundred	22d.

In regard to wages, the daily rates prescribed vary from 4d. for a shepherd and 5d. for other country labour, to 10d. for a smith, and considerably higher rates for painters, etc.; to all these payments must be added food. The tailor was to get 8d. to 10d. for making a cloak, the schoolmaster 10d. per month for each boy. It will be seen by comparison with the records of much later times that the level of prices indicated for the beginning of the 4th century was higher than that of succeeding centuries, and that prices did not rise above this level till quite modern times.

The material for price-history in the middle ages is enormously more abundant than for the times dealt with so far. The course of the prices of wheat and other grains and of the principal kinds of meat can be followed with tolerable continuity in several countries. The records are not, however, in general, sufficiently abundant and continuous to ensure that the averages deduced from them are truly representative prices, though it is probable that the larger fluctuations of price can be followed accurately enough. The severity of the fluctuations of prices with the seasons, which is abundantly proved by numerous records, causes solitary records of price to be assigned a weight far inferior to that which would be due to them had the seasonal fluctuations been known to be, as a rule, not extreme.

For the history of prices in England from the year 1259 onwards, the unequalled collection of records published by the late Professor Thorold ROGERS supplies invaluable material. Rogers found that the grouping of the prices which best brought out the principal movements was that shown in the table which follows. The first 140 years—to 1400—he considered together for many purposes, but the great plague in the middle of the 14th century produced a marked change, especially in the condition of the poorer classes. During the 140 years following 1400, all kinds of grain, peas excepted, were cheaper than in the second half of the 14th century. Meat became somewhat dearer, while wages maintain the advance of the preceding period and improve further. All this is in very striking contrast with the

fourth period, a period of greatly enhanced prices of commodities and but an inadequate rise of wages. The year 1540 is not the beginning of the rise, which for most commodities occurred between 1545 and 1550. The movement of prices at this time is of such importance that we venture to illustrate it in detail by directing attention to the table constructed by Rogers to show the ratios of increase in price of various important groups of articles.

Ratio (to unity) of rise of price shown by comparison of 1541-82 with 1401-1540.

I.	Live stock and poultry	2·62	
II.	Grain of all kinds	2·40	
III.	Farm produce and salt	2·53	
IV.	Labour, mechanical and agricultural	1·60	
V.	Fish	1·62	
VI.	Fuel	1·71	
VII.	Building materials and nails	1·71	
VIII.	Metals	1·88	
IX.	Linen	2·08	
X.	Clothing	2·12	
XI.	Paper and parchment	1·50	
XII.	Foreign produce, Western	2·03	
XIII.	Foreign produce, Indian	1·88	

The contrast between the rise of 50 per cent in wages after the Black Death, with but little rise in the prices of the prime necessaries of life, and the 60 per cent rise here noted at a time when the chief commodities needed by the labouring classes increased by about 150 per cent in their cost, is most striking, and the effect on the welfare of the population of extreme importance. The primary cause of the great increase of most prices must be sought in the debasement of the currency by Henry VIII., for the effects of the new supplies of precious metals afforded by America were not felt in England till after 1560. Prices had been rising before the debasement, slowly, but afterwards they rose at a startling rate, wages, as usual, rising most slowly.

Proceeding to examine the later periods, the rise of prices is seen to continue till the middle of the 17th century, after which it moderates greatly. In the sixty years following 1582, the price of various kinds of grain rose, on an average, 122 per cent on the prices of 1541-1582. Meat, poultry, and provisions rose 81 per cent; the cost of artificial warmth and light increased by 42 per cent; of the principal metals by 34 per cent; building materials 55 per cent; linen fabrics 31 per cent; woollen cloth 30 per cent; while the average rise of thirteen different classes of wages was about 33 per cent. During the following sixty years the prices of commodities advanced more slowly, while wages increased more rapidly. The further increase in grain prices was about 20 per cent only (on the prices of 1583-1642), in provisions about 40 per cent, about the same in artificial warmth and light, in metals about 18 per cent, in building materials 27½ per cent, in linen fabrics 9 per cent, in woollen 12½ per cent, but in wages 55 per cent. Even then, over the whole period of 120 years, the prices of food advanced fully half as fast again as wages, though most other articles advanced more slowly. The volumes which will contain Rogers' records for the 18th century are not yet published, so that it is not possible to carry on the record on the same basis after 1702, the end of the period treated in his fifth and sixth volumes. The table above brings together a selection from the averages he has prepared.

English Average Prices from Roger's "History of Agriculture and Prices."

	1261-1350	1351-1400	1401-1540	1541-1582	1583-1642	1643-1702
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wheat, per quarter	5 9½	6 1½	5 11¾	13 10½	36 1	41 11½
Barley ,,	4 1½	4 0¾	3 8¾	8 5¾	19 9¾	22 2½
Oats ,,	2 4¾	2 6⅞	2 2¼	5 5½	12 5	15 2½
Peas ,,	3 9½	3 8½	3 10	8 8	19 7	25 1½
Oxen, per head	12 0½	14 11¾	20 7	70 7¼	132 6½	143 10
Beef, per 14 lbs.	..	..	..	1 7	2 5½	3 5½
Sheep, per head	1 4	1 6¾	2 2¾	6 4	13 10	24 8
Hens, each	0 1½	0 2	0 2¼	0 4½	0 11½	1 3½
Eggs, per 120	0 4½	0 5	0 6¼	2 6¼	3 3	3 4
Candles, per 12 lbs.	1 10¾	1 11¼	1 3¾	2 7½	4 2¾	5 2¾
Salt, per quarter	3 5	6 4	4 9	10 10¾	14 6	22 4¾
Fish (cod), per 100	..	..	44 9	55 4	65 9¼	85 5¼
Herrings, per 1200	7 5	15 0	..	..	..	..
White herrings, per barrel	..	10 9	11 6	22 9	30 4	33 8
Firewood, per load	..	.	7 9½	11 10	13 10¼	18 4½
Faggots, per 100	2 6	3 2	7 11	13 11½	..	..
Iron, per cwt.	4 1	9 5½	15 7½	26 2¾	33 11¼	38 10
Canvas (coarse), per dozen ells	2 6¾	4 10½	4 4½	7 7¾	9 5	11 4
Woollen cloth (best), 24 yards	79 8	83 2	55 8½	152 10	..	..
Choristers' cloth, 12 yards	..	..	..	45 9½	59 2¾	66 8¾
	per day	per day	per day	per day	per week	per week
Wages of Carpenter	0 3⅛	0 4⅝	0 5⅝	0 10	6 2¾	10 2¾
Wages of Labourer	0 2⅝	0 3⅞	0 4	0 6½	4 10	6 4¾

Note.—The figures given for "Wages of Labourer" before 1400, are those of the thatcher, probably somewhat higher, therefore, than those of the ordinary agricultural labourer, whose wages are given for later dates.

It must be remembered, in connection with the foregoing table, that, especially in the earlier periods, the most representative records of wages are quoted by the piece. The time-rates selected are believed to represent fairly, so far as so limited a selection can do so, the general direction and amount of the leading

variations in the remuneration of ordinary labour, and of the labour of a skilled artisan.

To carry on the record somewhat further, we may turn to the work of Arthur Young, which is quoted in Tooke and Newmarch's *History of Prices*, vol. vi. As the figures for the earlier periods which Young gives do not coincide with Rogers' averages, we extract the following table for comparison :—

Agricultural Labour in England. Average Wages per Day.

Period.	Wages per Day.	Proportions of 20.	Period.	Wages per Day.	Proportions of 20.
	d.			d.	
1200-99	4	3½	1701-66	12	10
1300-99	5½	4½	1767-89	15	12½
1400-99	6½	5½	1790-1803	20	16½
1500-99	6½	5½	1804-10	24	20
1600-99	10½	8	1811	25½	..
1700-99	15	12½	1767-1800	17	14

From the records of prices and wages before him, Young prepared a table of the comparative variations in price of a number of articles, from which the following is an abstract :—

Prices and Wages in England, 1200-1810. Comparative Statement framed by Arthur Young in 1812.

Period.	Food.			Wages.	
	Wheat.	Barley and Oats.	Beef, Mutton, Veal, Pork, Bacon, Butter, and Cheese.	Agricultural Labour.	Carpenters and Masons.
1200-99	5½	4¾	..	3½	..
1300-99	6¼	5	..	4½	4½
1400-99	3	2¾	..	5½	5½
1500-99	6	4¾	..	5½	4½
1600-99	9½	8½	..	8	7
1700-99	9¼	11¼	10¼	12½	11½
1701-66	7¾	7¼	7½	10	..
1767-89	11	11	11½	12½	..
1790-1803	13	16¼	16½	16¾	..
1804-1810	20	20	20	20	20
1767-1800	12	11½	13¼	14	..

The way in which this table represents the facts will be clear by comparison with the preceding one, and the relation between food-prices and wages at different periods of our country's history is clearly shown by the method of comparison adopted.

For dates subsequent to 1720 the article on Wages and Prices of Commodities (*q.v.*) supplies sufficient data to enable the direction of the movements to be traced as effectively as the tables in the present article permit for the earlier periods. The comparison of the figures there given with the tables quoted from Rogers and the figures of Arthur Young will afford a conspectus of the leading price-movements in this country for seven centuries.

One important consideration must be further noticed, and that is that the money in terms of which prices are quoted underwent many changes during the centuries covered by the records. The relation between the most important of the prices in our tables and silver, as summarised by Tooke and Newmarch, may serve to sufficiently indicate the course which prices expressed in silver would take. The summary is based on the records of numerous authorities, and is given as applying to France as well as to England. It is as follows :—

(1) "That prior to about the year 1350, the average annual price of wheat per quarter was about *four ounces* of silver ; (2) that from 1350 to about 1520 the price was considerably lower ; and during the larger part of the interval was not more than *two ounces* of silver ; (3) that from 1520 to 1560 the irregularities of the coinage in England, and to a great extent in France, render it exceedingly difficult to trace the course with accuracy ; (4) that all the evidence coincides in showing that the first great rise of prices, both in England and France, was about the year 1570 ; (5) that from 1570 to 1640 the average annual price during a large part of the interval was equal to from *six to seven ounces* of silver, or equal to a rise of 200 per cent as compared with the prices prior to 1520 ; (6) that after the culminating point of 1640, prices somewhat declined during the sixty years to 1700 ; and declined somewhat more between 1700 and 1750 ; but the decline during these later fifty years was certainly occasioned, not by a rise in the value of silver, but by a fall, in consequence of abundance in the price of corn ; (7) that subsequent to 1750 prices of wheat considerably advanced, in consequence of unfavourable seasons, and the interruption of war."

As the purpose of the present article is not to attempt to be exhaustive, which is forbidden by limits of space, but to give a brief sketch of the general course of leading prices, it is not necessary to add the table of the silver contents of our coinage at different periods, since the above extract sufficiently describes the main movements of the price of wheat, thus giving, with the assistance of the tables of prices already quoted, the general features of the relation between silver and other principal commodities in the important periods of English price history.

For the prices of the last century, the statisticians who have constructed index numbers of general prices, have provided tables of great fulness, and also summaries of the movements of important groups of prices. The tables from which Jevons constructed his index numbers provide such records from 1782 ; and Mr. Sauerbeck supplies other tables for prices from 1818 onwards. The index numbers them-

selves provide the most useful summary of price movements for practical purposes. Briefly indicated they show that, from soon after the American war of independence till about 1810, there was a continuous and rapid rise of prices, amounting to over 80 per cent of the prices of 1786-89. From that point a fall, at first fluctuating, but, after the resumption of specie payments, rapid, set in. The general trend of prices since that time has been, first downward to about 1848-50, then upwards till 1873, since which time prices have again tended downwards with great persistence. These larger movements have been interrupted by the fluctuations connected with the commercial crises occurring at about decennial intervals during the century. The point reached in the downward movement of the first half of the century was some 25 per cent lower than that from which we began to trace the movement, just before the French revolution. The subsequent rise amounted to nearly 50 per cent from the low level then reached, and since 1873 a fall of nearly 45 per cent on the prices then ruling has been recorded, leaving present prices considerably below the level of 1850.

For the deviations in the movements of particular prices from this general course, reference must be made to the tables employed in constructing one or other of the leading index numbers. At the end of this article will be found a summary table of the principal movements in the best known index numbers.

For a general view of French prices, we shall refer to the admirable work of the Vicomte d'Avenel, who has collected a greater mass of information on this subject than any other writer. From his work the following table, arranged as nearly as possible so as to permit of convenient comparison with the English records given above, is derived.

Prices in France.

Period.	Wheat.	Agricultural Labour, Day Wages.	Carpenter, Day Wages.	Equivalent of Day's Wages of Agricultural Labourer.
	Francs per hectolitre.	Francs.	Francs.	In Kilogrammes of Beef.
1201-1250	3·96	0·65	..	1·78
1251-1350	6·89	0·67	0·92	2·19
1351-1375	9·00	0·90	1·17	3·33
1376-1525	4·97	0·64	0·97	3·04
1526-1575	9·50	0·72	1·07	2·60
1576-1650	17·75	0·76	1·17	1·83
1651-1700	14·75	0·80	1·10	1·83
1701-1750	12·90	0·69	0·98	1·70
1751-1790	13·91	0·76	1·02	1·44

The changes in the French currency obscure the real meaning of the price-movements, especially in certain critical periods. The author quoted supplies tables designed to enable a fair comparison to be made of the larger movements with those elsewhere. It is as follows :—

PRICES IN FRANCE.

Table of the Comparative Purchasing Power of Equal Weights of the Precious Metals at Different Periods.

Period.		Period.	
1200-25	about 4½	1551-75	about 3
1226-1800	,, 4	1576-1600	,, 2½
1301-50	,, 3½	1601-25	,, 3
1351-75	,, 3	1626-50	,, 2½
1376-1400	,, 4	1651-75	,, 2
1401-25	,, 4½	1676-1700	,, 2⅓
1426-50	,, 4½	1701-25	,, 2¼
1451-1500	,, 6	1726-50	,, 3
1501-25	,, 5	1751-75	,, 2⅓
1526-50	,, 4	1776-90	,, 2
		1890	,, 1

Hanauer's work on Alsace affords us an interesting record for further comparison from the 14th to the 17th centuries. The following is derived from these records :—

Prices in Alsace.

Period.	Wheat.	Pork.	Eggs.	Carpenter Wages by the Day.
	Francs per hectolitre.	Francs per kilo.	Francs per 100.	Francs.
1351-1400	5·17	0·31	..	1·68
1401-50	4·14	0·26	1·07	1·55
1451-1525	3·29	0·21	1·01	1·28
1526-75	6·58	0·23	1·57	1·22
1576-1625	10·78	0·41	2·42	1·30

Rye is generally quoted at about three-fourths the price of wheat.

For German prices in the middle ages we refer to Lamprecht. The values of corn, labour, etc., are expressed in grammes of silver (1 oz. troy = 31·17 grammes nearly).

In the 9th century, ordinary labour received, as daily wages, the value of 0·83 grammes of silver, while the day's food is estimated to cost 0·75 grammes. In the 13th century the malter (a measure varying in different localities) of wheat was worth 75·9 grammes of silver; in the 14th, it rises from 43 to 68 grammes, sinking to 30·3 grammes in the first half of the 15th century. We have also the following comparison between the price of a malter of rye and the daily wages of common labour :—

Prices in Germany.

Period.	Rye.	Wages.
	Grammes of silver.	Grammes of silver.
1250-1300	..	2·43
1301-50	50·37	2·60
1351-1400	61·06	..
1401-50	37·26	1·89
1451-75	26·14	1·73
1476-1500	17·74	

The rise of prices in the 16th century in Saxony is shown by the following statement

by Falke of the price of a Dresden bushel of different kinds of corn, in silver marks :—

Prices in Saxony.

Period.	Wheat.	Barley.	Oats.	Rye.
1455-85	3·07	2·32	1·27	2·33
1520-57	6·15	4·07	2·53	5·36
1558-99	12·25	5·72	3·57	9·72

A pound of beef rose from 10 silver-pfening at the beginning of the 16th century to 17½ in the middle, and 21 at the end. A journeyman carpenter or mason's weekly wages averaged 4·43 marks in the 15th century, but, in the face of higher prices of food, fell to 4 marks in the first half, and were only 4·20 marks in the second half of the 16th century.

To continue the record, we turn to Unger's figures for the price of wheat in Hanover. The measure employed is the himten (about ⅘ bushel), and the price is given in Mariengroschen (of which 36 go to the thaler). The average price for 1648-98 is 17·85 groschen, and for 1698-1748, 26·57 groschen.

Turning from this fragmentary record of German prices, we abbreviate from a record of the price of wheat in Udine. These Italian figures refer to the value in francs of a hectolitre of wheat.

Prices in Udine (Italy).

Period.		Period.	
1650-99	9·15	1800-19	24·51
1700-49	9·78	1820-49	15·03
1750-99	14·65	1850-69	19·72

In modern times the importance of the price of wheat, whether as an index of the course of general prices or as a measure of the purchasing power of wages, is far less than in the middle ages, or even than it was a couple of centuries since. To trace the course of prices in general, we need either to follow the changes in price of each of several important commodities, or, what is more convenient for the purpose of tracing the broader outlines of price-movements, to make use of an index number showing the proportionate average variation of prices from some fixed date as reference point.

The index number prepared by Jevons, combining the prices of forty commodities, will show price-variations from 1782 to 1865. Sauerbeck's arithmetic average for forty-five commodities (thirty-one before 1846) beginning in 1818, continues to the present day. After 1840 some other numbers enable useful comparisons to be made, both between index numbers prepared on different bases, and between the course of prices in different countries. The following tables give, first, Jevons's and Sauerbeck's numbers to 1839; and, secondly, various index numbers for later dates. The numbers are grouped into five-year periods, so as to show the general movement without entering into tedious detail. It is important to notice that, as Jevons used geometric means, his figures are not to be expected to compare precisely with Sauerbeck's.

Index numbers of gold prices before 1840.

Period.	Jevons's Index Number for 40 articles.	Period.	Jevons's, 40 articles.	Sauerbeck's, 31 articles.
1782-84	97	1810-14	125	..
1785-89	87	1815-19	111	132 (1818-19)
1790-94	93	1820-24	92	106
1795-99	120	1825-29	88	101
1800-1804	126	1830-34	79	91
1805-1809	138	1835-39	85	98

Index Numbers showing Relative Prices in Gold in Five-Year Intervals.

Period.	Jevons.	Sauerbeck.				Economist.	Soetbeer.		French[g] Exports.	United States[g].		India[h].
	Geometric mean 40 Articles 1782 R.D.	Total 45 Articles 1867-77 R.D.	Food 19 Articles.	Minerals 7 Articles.	Textiles 8 Articles.	23 Articles 1845-50 R.D.[c]	114 Articles 1847-50 R.D.	14 Articles of British Export included in preceding.	16 Articles 1861 R.D.	224 Articles Simple Average 1860 R.D.	Food 58 Articles.	5 Food Grains 1861-65 R.D.
1840-44	77	92	..	..	..	..	..	..	..	109	87	..
1845-49	71	85	90[b]	85[b]	71[b]	100	100[c]	100[c]	..	103	87	..
1850-54	70	85	83	90	81	100[d]	109[d]	99[d]	..	107	94	..
1855-59	80	98	96	104	87	103	121	101	..	108	107	..
1860-64	79	101	93	94	123	139	123	121	118	108	100	100
1865-69	78[a]	100	96	89	118	141	124	133	104	119	117	129
1870-74	..	104	101	105	104	127	132	126	98	122	127	112
1875-79	..	91	97	84	84	118	125	115	82	104	106	131
1880-84	..	83	88	76	74	108	123	105	75	105	113	107
1885-89	..	70	73	71	65	96	105	97	73	93	105	133
1890-94	..	69	72	72	59	98	109[f]	95[f]	81[f]	92[f]	104[f]	155
1895-96	..	62	63	63	53	89	..	..	..	..	..	..

The letters R.D. denote "reference date," and the date to which they are attached is the date at which the Index Number for each commodity composing the average is taken as 100; [a], 1865 only; [b], 1846-49 average; [c], the actual numbers of *The Economist* (originally arranged by W. Newmarch) are divided by 22 to facilitate comparison. The figures are for 1st January of each year; [d], 1851-54; [e], 1847-50; [f], 1890-91; [g], the figures for French exports and for the United States are derived from the U.S. Senate Report on Wholesale Prices and Wages, 1893; [h], from the Report of the Indian Currency Committee, p. 272; the five-year periods are 1861-65, etc.; the last figure being that for 1891, a single year. The prices of this column are, of course, rupee (*i.e.* silver) prices.

[For Ancient Times—Boeckh, *Staatshaushaltung der Athener.*—Mommsen, *Das Edikt Diokletians*, de pretiis rerum venalium (in *Corpus inscriptionum latinarum*). — Rodbertus, *Sachwert des Geldes im Altertum* (*Jahrbuch für Nationalökonomie, XIV., XV.*)

For Mediæval and Modern Times (1. English price-history)—Fleetwood, *Chronicon Pretiosum*, 1707.—Arthur Young, *Inquiry into the Progressive Value of Money in England* (1812), and *An Inquiry into the rise of Prices in Europe during the last Twenty-five Years, etc.* (1815). — Tooke and Newmarch, *History of Prices*, 1793-1856.—Thorold Rogers, *History of Agriculture and Prices in England* A.D. *1259-1793* (the six volumes published bring the account to 1702).—Jevons, "The Variation of Prices and the Value of the Currency since 1782," in *Journ. Stat. Soc.*, 1864 (reprinted in *Investigations in Currency and Finance*, with other valuable material for price-history).—Mulhall, *History of Prices.—Report of Gold and Silver Commission* (cp. especially the Appendix to Final Report, which contains, *inter alia*, a translation of Soetbeer's "Materialien"). (2. French price-history) — Dupré de St. Maur, *Essai sur les Monnoies, ou réflexions sur le rapport entre l'argent et les denrées*, Paris, 1746.—Leber, *Essai sur l'appréciation de la fortune privée au moyen âge, etc.*, 2nd ed. Paris, 1847.—Levasseur, *La question de l'or*, Paris, 1858.—Mantellier, *Mémoire sur la valeur des principales denrées . . . dans la ville d'Orléans au cours des 14-18 siècles*, Orleans, 1862.—d'Avenel, *Histoire économique de la propriété, des salaires, des denrées et de tous les prix en général depuis l'an 1200 jusqu'en l'an 1800*, Paris, 1894. (3. German price-history)—Lamprecht, *Deutsches Wirthschaftsleben im Mittelalter.*—Hanauer, *Études économiques sur l'Alsace ancienne et moderne.* — Beissel, *Geldwert und Arbeitslohn in Mittelalter.*—Falke, *Statistik der Preise im Königreich Sachsen* (*Jahrbuch für Nat. XIII. XIV.*).—Keller, *Zur Geschichte der Preisbewegung in Deutschland 1466-1525* (*Jahrbuch f. Nat. XXXIV.*).—Kius, *Die Preis und Lohnverhältnisse des 16. Jahrhunderts in Thüringen* (*Jahrbuch f. Nat. I.*).—Dittmann, *Die Getreidepreise in der Stadt Leipzig im XVII., XVIII. und XIX. Jahrh.* (*Mitteilungen des stat. Amts der Stadt Leipzig*, 1889).—Soetbeer, *Materialien zur Erläuterung und Beurteilung der Edelmetallverhältnisse.* (4. Austria)—Schebeck, *Kollektivausstellung von Beiträgen zur Geschichte der Preise in Wien von der Handels- und Gewerbekammer zur Prag*, 1873. (5. For Italian prices)—Cibrario, *Della economia politica del medio evo.* 2nd ed. Torino, 1842 (contains records of prices in the second half of the 13th and during the 14th centuries).—*Movimento dei prezzi di alcuni generi alimentari*, Rome, 1886.—*Movimento dei Prezzi della Derrate Alimentari*, 1585-1873. *Ministero di Agricultura*, Rome, vol. i. 1881.—Körösi, *Données pour servir à l'Histoire des Prix*, 1791-1870. (6. Other countries)—*Senate Report on Wholesale Prices and Wages*, 1893. (This report contains a collection of valuable information on prices in various European countries, as well as on American prices.) Sloet Van der Beele, *Diagramme représentant les Prix Moyens des Céréales au Marché d'Arnheim 1544 à 1869.* — Falbe-Hansen, *Hvilke Forandringer er der siden Amerikas Opdagelse foregaaet i Priserne paa Danmarks væsenligste Frembringelser og i Arbejdslønnen her i Landet?* Copenhagen, 1869.—Scharling, *Pengenes synkende Værdi belyst ved danske Aktstykker samt ledsaget af en kort Udsigt over den danske Mønthistorie*, Copenhagen, 1869.

Reference might be made to other works dealing with one part or other of price-history, but a selection of those which are most authoritative and contain the widest range of information has been made. For modern price-movements the publications of learned societies supply information. The articles of Mr. Sauerbeck in the *Journal of the Statistical Society*, 1893, and following years, may be particularly mentioned. The article "Preisgeschichte," in Conrad's *Handwörterbuch*, by Professor Lexis, should also be consulted. It has supplied much valuable information.] A. W. F.

Prices, History of (1850-1896). In discussing the history of prices the economist and the statistician refer almost exclusively to wholesale prices. Statistics of retail prices are usually accessible only for very limited geographical areas and for very short periods of time. There is a stronger reason, however, for the reliance on wholesale prices. Retail prices reflect too often the influences of custom and of the whims of particular localities, so that comparisons between articles having the same name are often fallacious and the results are not indicative of general economic changes.

In the period from 1850 to the present time transportation by land and by water has been so well developed that wholesale prices in the leading markets of Europe and America, for the chief staple commodities at least, may be considered as having followed the same general fluctuations. It matters not therefore whether we measure London prices or New York and Hamburg prices, the results are of about equal importance in indicating economic changes in all these markets.

The first series of prices to be considered are those prepared by the finance committee of the United States Senate.[1] They cover 85 articles for the years 1840-60, and 223 articles for the period 1860-91. These were distributed among the chief groups of commodities as follows:—

Group.	Number of articles. 1840-1860.	Number of articles. 1860-1891.
Food	30	53
Cloths and clothing	9	28
Fuel and lighting	1	10
Metals and implements	12	54
Lumber and building materials	15	35
Drugs and chemicals.	15	18
House-furnishing goods	2	15
Miscellaneous	1	10
Total	85	223

1 *Report on Wholesale Prices, Wages, and Transportation*, Washington, 1893, 4 vols.

The price quotations for these articles are in most cases actual prices for a specified date taken from the records of leading merchants and dealers in the several commodities, and for the leading markets of the United States for each particular commodity. The prices are usually those for a date in the month of January for each year unless some other month's quotations are more normal for the article in question. These actual prices were converted into relative prices, taking the single year 1860 as a base, and making the price of each commodity for that year equal to 100, and calculating those of previous and subsequent years as percentages of those for 1860—

Period.	All articles simply averaged.		Averaged according to importance in consumption.	
1840-44	108·8	Gold prices during war period.	91·0	Gold prices during war period.
1845-49	103·2		90·1	
1850-54	106·6		99·1	
1855-59	108·2		110·3	
1860-64	131·5	108·1	120·5	99·5
1865-69	178·8	118·7	182·4	120·5
1870-74	137·5	121·8	134·4	118·9
1875-79	110·9	103·8	112·9	105·7
1880-84	105·3		106·3	
1885-89	93·2		95·2	
1890-91	92·3		94·1	

In the second column of the above table the weighted average is given (see INDEX NUMBERS). This is calculated on the basis of the relative importance of the several commodities in the average of a large number of family budgets collected from all parts of the United States.

More widely known, but second in importance as to completeness and scientific value, are the price statistics published by the *Economist* on which are based the celebrated *Economist* index number. The prices given are based on one quotation for 1st January of each year, and in calculating the relative prices or index numbers the average of four quarterly quotations for the six years 1845-50 was taken as equal to 100 for each commodity. The tables of the *Economist* cover only 22 staple commodities. Averaged for quinquennial periods they are as follows :—

Period.	Average Index. 1845-50 = 100.
1851-54	106·5
1855-59	121·4
1860-64	141·4
1865-69	141·
1870-74	126·8
1875-79	117·6
1880-84	108·2
1885-89	96·2
1890-94	98·4
1895-97[1]	89·

[1] (Average for three years).

Mr. R. H. Inglis Palgrave, in a memorandum submitted to the royal commission on the depression of trade and industry, estimated the relative importance of the several commodities in the *Economist's* tables by weighting them according to the annual consumption of each article calculated from the statistics of production combined with the excess of imports or exports. The results are as follows :—

The average of the five years 1865-69 equals 100.

Period.	Average relative prices without regard to relative importance.	Average relative prices according to grouping of relative importance.
1870-74	96·	99·
1875-79	89·	94·6
1880-84	81·2	87·4
1885	70·	76·

The weighted figure here as in case of the weighted figure in the table given above for American prices follows the same general direction in noting fluctuations as does the corresponding figure in the unweighted column, but the weighted average stands generally several points higher than the unweighted one.

Another valuable collection of price data, also based on English market quotations, are those prepared by Mr. Sauerbeck and published yearly in the *Journal of the Royal Statistical Society*. In computing relative prices as shown in his index number, Mr. Sauerbeck has taken the average for the ten-year period 1867-77 for his base as equal to 100. He has not weighted his articles, but his results for forty-five commodities and for six sub-groups are as follows :—

Period.	Vegetable food.	Animal food.	Sugar, coffee, and tea.	Minerals.	Textiles.	Sundry materials.	Grand total.
1846-49	101·5	80·7	82·7	85·2	71·5	81·	*84·*
1850-54	89·4	74·6	83·6	90·4	81·2	90·6	*85·4*
1855-59	105·2	86·4	100·8	104·2	87·4	109·2	*98·4*
1860-64	93·	88·4	101·2	93·6	123·2	105·	*101·2*
1865-69	99·8	93·2	95·8	88·6	117·8	99·8	*100·*
1870-74	98·8	102·2	102·	113·2	103·6	102·3	*103·6*
1875-79	93·4	102·	95·6	84·4	82·	90·8	*91·*
1880-84	82·	101·2	77·6	75·8	73·8	85·	*83·*
1885-89	65·8	84·4	66·	71·	65·4	69·4	*70·2*
1890-94	63·8	82·4	70·	71·8	58·8	67·4	*63·6*
1895-96	53·5	75·2	60·5	62·5	53·	64·	*61·5*

Last but not least we must consider the Hamburg prices prepared by the Hamburg bureau of commercial statistics. They cover the prices of over 300 articles from which Dr. Adolph Soetbeer selected nearly 100, and making some additions from other data, constructed his famous index which is made the basis of so much discussion of price movements. The figures cannot be brought down farther

than the year 1888 on the same basis owing to changes of method in collecting these statistics after Hamburg entered the German customs union. Dr. Heinz, the director of the bureau, has attempted to construct a figure for subsequent years that would give an estimated basis of comparison, and his figures thus constructed down to the year 1891 are published in the U.S. Senate report. He has also constructed an independent figure on a different basis from that used by Dr. Soetbeer, and one which can be continued down to date. This is also given in an appendix to the U.S. Senate report, and is continued since 1891 in the annual publication of the Hamburg bureau.

Dr. Soetbeer's index for 114 articles and for his 8 sub-groups are given as follows; for five-year periods, which, however, do not correspond exactly with the same grouping of years which we have given in our other tables, but will serve as approximate comparisons for the periods in question:—

Average for 1847-50 = 100.

Period.	20 Products of agriculture.	22 Animal and fish products.	7 Southern products.	19 Tropical products.	14 Minerals and metals.	7 Textile materials.	11 Miscellaneous articles.	14 British manufactured articles.	114 Articles. Grand total.
1851-55	129·99	114·79	110·43	110·97	107·03	105·20	106·65	98·47	*112·22*
1856-60	131·84	132·31	134·72	122·61	113·59	107·12	108·21	102·41	*120·91*
1861-65	124·46	128·24	114·13	118·64	102·11	131·83	144·33	127·56	*123·59*
1866-70	137·74	136·35	121·54	118·32	95·47	129·17	105·90	130·55	*123·57*
1871-75	144·90	154·57	131·50	130·72	116·90	117·17	114·98	126·44	*133·29*
1876-80	138·12	146·76	138·91	126·38	94·35	102·33	96·79	111·70	*123·07*
1881-85	130·77	150·65	134·41	119·91	81·55	96·65	91·11	103·28	*117·68*
1886-90	101·07	130·64	126·10	117·32	76·13	84·86	81·69	95·88	*104·46*
1891	119·88	131·66	139·99	113·56	84·72	80·40	85·06	95·11	*109·19*

A more minute discussion of the above data for a study of the movement of prices in the period under consideration, and of the theoretical questions involved in the arrangement of these figures according to the various plans, is not possible within the limits of this article. Prof. R. P. Falkner, the statistician for the U.S. Senate committee, has in his analysis of the tables in that report gone to great trouble to ascertain and explain the way in which these several groups of statistics were collected, and the methods used in the construction of the various tables. Dr. S. M. Lindsay has in another place discussed at greater length the theoretical methods of grouping price statistics.[1]

A few observations may be made as to the general movement of prices. In 1850 prices were high compared with the periods immediately preceding. General prices rose steadily until the panic of 1857. This was supposed to be partly due to stimulation of industry through the gold discoveries and partly due to changes in the monetary standard, due also to the increased supply of gold. From 1857 to 1862 American prices fell steadily. This was during the period following the panic, and before the effects of the civil war on industry began to make themselves felt. European prices recovered sooner from the industrial crisis in 1857, and prices continued to rise. The war in America seems to have exerted almost as great an effect on European gold prices as it did on American gold prices. The period from the close of the American war to 1873 was a period of high prices in all markets, and then there came another industrial crisis and a long period of falling prices which has been interrupted but slightly, and for very short periods, down to the present date. This continuous fall in prices has been a subject of much discussion in connection with propositions for changing the monetary standard in various countries (see BIMETALLISM; GOLD AS STANDARD; SILVER AS STANDARD; INDEX NUMBERS). This fall is the characteristic feature of the period under discussion. It seems to be contrary to all past experience. In spite of better statistical facilities for measuring it, and a more uniform basis of comparison between various markets, owing to development in transportation facilities, than probably existed in any earlier period, there is far less agreement as to the causes of this persistent downward movement in general prices. The demonetisation of silver by Germany, and later the attempt of all the leading commercial nations to establish the gold standard on a firm basis, and a corresponding distrust of silver for monetary purposes, is one reason alleged for the movement in prices since 1873. Reduced cost of production, improved processes and increase of capital, and enormous increase in the use of machinery in all lines of industry, are also causes alleged to account for these changes. Greatly reduced cost of transporta-

[1] Dr. S. M. Lindsay, *Preisbewegung des Edelmetalle seit 1850*. Jena, 1893.

tion and superior organisation of industry under the management of the joint-stock company are still other causes enumerated.

The U.S. Senate report has reduced all the above tables for statistical measurement to a common basis of comparison for relative prices based on the year 1860, which is regarded by that committee as a normal year. Considerable material has also been collected in this report on the changes in wages.

[For the best and most comprehensive collection of material on the period 1850-91 consult "Retail Prices and Wages," *Report of Finance Committee, U.S. Senate*, Washington, 1892, 3 vols.; and more particularly, "Wholesale Prices, Wages and Transportation." Report by same committee with analysis of tables by Prof. Roland P. Falkner, Washington, 1893, 4 vols.—Tooke and Newmarch, *History of Prices*, vol. vi. The last two volumes of this history are very scarce, because the history was issued in single volumes and almost the whole edition of vols. v. and vi. was destroyed by fire before any very large number had been sold. There is an excellent German translation with a good introduction and many valuable notes and additions by the translator.—*Die Geschichte und Bestimmung der Preise während der Jahre 1793-1857.* Von T. Tooke und W. Newmarch, Deutsch, und mit Zusätzen versehen von C. W. Asher, Dresden, 1859, 2 bde. For two detailed studies of special groups of commodities, see Lindsay, *Preisbewegung der Edelmetalle seit 1850 verglichen mit der der andern Metalle unter besonderer Berücksichtigung der Produktions- und Konsumtionsverhältnisse*, Jena, 1893, and W. Schultze, *Die Produktions- und Preisentwickelung der Rohprodukte der Textilindustrie seit 1850*, Jena, 1896.—L. L. Price, *Money and its Relation to Prices*, is a compact work dealing chiefly with the recent period. D. A. Wells, *Recent Economic Changes*, and Schönhof, *History of Prices*, are two books which lay great stress on improvements in production and cheapening of processes as causes of recent price phenomena. Soetbeer's *Materialien* and the *Journal of the Royal Statistical Society* are invaluable.]

S. M'C. L.

PRICES AND MONEY. It is generally admitted that the amount of the monetary circulation exercises an important influence on the level of average prices, though some contend that the influence is less direct than is commonly stated. Sir Robert Giffen has even gone so far as to state that "it is the range of prices as part of a general economic condition which helps to determine the quantity of money in use, and not the quantity of money in use which determines the prices."

It will conduce to clearness if we tabulate the leading conditions whose interaction is concerned in the case before us. They are:

(i) The quantity of money in circulation.
(ii) The amount of exchange transactions to be performed, *i.e.* the quantity of commodities to be exchanged.
(iii) The proportion of credit to cash transactions.
(iv) The rapidity of circulation of money.
(v) The average level of prices.

If variation in any one of these be produced by some external influence, one or more of the others must be correspondingly modified. If, for example, an increase or decrease in (i) be produced under circumstances which do not modify (ii) (iii) or (iv), there will result an increase or decrease in (v) proportionate to the change in (i). In general some changes in these intermediate heads will accompany changes in (i), and we can then only say that a change in the amount of money in circulation tends to produce a change in the level of prices, a large change in the one tending to a large change in the other, a small to a small; while the change in (i) may be compensated entirely by changes in (ii) (iii) or (iv), and lead in actual fact to no change in average prices resulting from the change in the amount of the circulation. To state the matter otherwise, an increase in the bulk of business not accompanied by a corresponding increase in the monetary circulation will be followed by a fall in prices except in so far as it is offset by an increase in the rapidity of circulation of money or an increased proportion of exchanges effected by means of credit.

One leading difficulty in the above statement is the interpretation to be placed on the term "money." Does it include "standard" money only, or are bank-notes included? If the latter, are all included, or only such as are convertible at sight into the standard coin by virtue of legal enactments? Should token-money be also included? Should "bank money"—the amounts held by bankers, on which cheques may be drawn at any minute, by which cheques the vast majority of purchases and sales are carried through nowadays—also be included? The case seems to call for a use of the term "money," which shall reserve it to forms of money of universal acceptance. Legal-tender money would cover the ground did not local custom often override enactments conferring legal-tender power on specific forms of money. In England gold coins and Bank of England notes would be included, since the latter may be regarded in practice, spite of the fiduciary issue, to be *representative* money, forming no augmentation of the currency, being issued against the actual deposit of the material of the standard coin.

The influence of speculative credit in raising prices for a time above their normal level, and also in enabling a varying volume of exchanges to be effected without change in the volume of currency or the level of prices, when the variation is in the main of the nature of seasonal variation, has drawn attention to this cause of changing price and led to the minimising of the effect produced by the volume of the monetary circulation. As JEVONS wrote:

"Every one who promises to pay gold on a future day thereby increases the anticipated supply of gold, and there is no limit to the amount of gold which can thus be thrown upon the market. Every one who draws a bill or issues a note, unconsciously acts as a 'bear' upon the gold market." Elsewhere he directed attention to the fact that "prices and credit mutually inflate each other," but, after carefully detailing the course of prices during an inflation and subsequent collapse of credit, reached the conclusion that "prices temporarily may rise or fall independently of the quantity of gold in the country; ultimately they must be governed by this quantity. Credit gives a certain latitude without rendering prices ultimately independent of gold."

This conclusion is in fact the only sound conclusion. Prices express the relation between the amount of commodities on the one hand, and the amount of the media of exchange available for the purposes of their circulation on the other. These media of exchange are of various forms, but their amount, though subject to extensive variation, is ultimately dependent on the amount of the monetary circulation, in terms of which values are expressed, and as substitutes for which alone other media of exchange, such as cheques, promissory notes, etc., are accepted.

A frequent objection made to the statement of the dependence of the average level of prices on the quantity of money in circulation is that the variations of different prices are by no means of equal amount, and that some prices have not fallen at all during the last quarter of a century, when on the average wholesale prices have fallen 35 to 40 per cent. As well allege that the rise and fall of the tide on our coasts is not due to the tidal waves which are produced by the attractions of the moon and of the sun. Neighbouring places have tides of vastly different heights, but all would vanish were their original cause destroyed. We have spring-tides and neap-tides according to the relative position of the crests of the lunar and solar tidal waves, and clearly due to these influences, though in some places the variation is less, in others enormously more, than in the centre of the ocean. The formation of coast lines and the location of land masses modify infinitely the observable results of one common cause, while the wind may again interfere to reduce or increase the actual movement at a given place. So also with prices: they show indefinite variety of variation due to the common influence, changes in the amount of the monetary circulation, but that they do respond to that influence can be as well denied as that the tide at London Bridge is a result of the same fundamental tide-producing causes as those which affect the tides at Teneriffe. The intensity of the result is modified by many and influential causes, the fact that it flows from a definite assignable cause cannot be disproved, and is far too important to be ignored. A. W. F.

PRICES, REAL AND NOMINAL. Price is a particular case of value (see VALUE). Value is the ratio at which a given quantity of one commodity exchanges for another. The value of any one commodity may therefore be expressed in terms of any one of an indefinite number of commodities. In communities which are in a very low state of civilization, trade is carried on to a large extent by barter (see BARTER); but, where civilization has made some progress, values take the form of prices, that is, they are expressed in terms of some one commodity, usually a metal, on account of its durability, divisibility, and certain other qualities (see COINAGE). In other words, values are expressed in *money* and termed prices (see MONEY).

The nominal price of a commodity at a given time and place is the number of units of money at which a given quantity of it is exchanged at that time and place. This nominal price depends, so far as wholesale transactions are concerned, on several factors, but more particularly on the state of the money market (see MONEY MARKET), the supply, actual and prospective, of the commodity, and the demand, actual and prospective, for it. For all practical purposes, having regard to short periods of time, the nominal price is the real price. But there are certain classes of economic investigations which necessitate the consideration of price in another aspect, namely, the quantities of all other articles for which any given article can be exchanged. If the nominal price of A now is the same as it was ten years ago, while the nominal prices of B, C, and other articles have fallen, the real price of A has risen; for the same amount of A will procure for its possessor a larger amount than before of other articles or services. Now, as the final object of any exchange of a commodity for money is the procuring of other commodities or services, the degree in which it is capable of affording satisfaction of the desire for them is the *real* price of the commodity. The "real" price of an article or service, in short, is its value expressed in terms of other articles or services. It should be specially noted that "real" and "nominal" prices at any given time and place are identical. It is only when comparisons are made between prices ruling at two or more dates that the difference between them, if any, becomes perceptible. Retail prices are governed to a greater extent than wholesale prices by custom, and often are far removed from the real value of the articles they represent. They follow the changes in wholesale prices slowly,

and usually are unaffected by the minor movements in the latter. But over sufficiently long periods retail transactions will be found to show approximately the same variation between real and nominal prices as wholesale transactions.

[J. S. Mill, *Pol. Ec.*, bk. iii. ch. vii.—Sidgwick, *Pol. Ec.*, bk. ii. chs. ii. iii. iv. and v.] W. H.

PRICES, SHORT-PERIOD SUPPLY and LONG-PERIOD SUPPLY. The normal supply price of many commodities may be regarded from either of two points of view, in relation to the quantity of the supply forthcoming at that price. If regard be had to the degree of difficulty in increasing the supply with such changes in the organisation of production as can be arranged at short notice, the result will be likely to be quite other than if the reference is to such adjustments of means of production to quantity demanded as require a prolonged period for their completion. If the change in demand is not expected to be permanent, the existing means of supply will not be augmented, and it is almost universally true that an increase in the amount demanded raises the short-period normal supply price. But if it is anticipated that the demand will be permanently enlarged, the means of production will be adapted to the new conditions, and it may well happen that economies rendered possible by an enlarged scale of production may be sufficient to bring about the result that the long-period normal supply price is lowered.

If an enlarged demand is expected to be permanent, it may yet be impossible to rapidly increase the means of production, and then, during the interval when the demand can only be met from former means of supply, or with imperfect adaptation of existing means to the new conditions, the effect will be similar to that of the case where no permanent change of demand is anticipated. A reduction in demand will be dealt with similarly to an increase, and if the reduction is expected to be only temporary, or if the means of production can only slowly be reduced to correspond with the new state of things, there will be, for a time, circumstances in which the supply price is determined with but little reference to permanent conditions, that is, the short-period normal supply price and the long-period normal supply price will not coincide.

These two terms have reference therefore to equilibria of demand and supply when there are taken into consideration, respectively, the immediate and temporary situation, and the situation which is produced by the gradual adjustment of productive means to more permanent conditions of demand. It need hardly be added that there is no hard and fast division between "long" and "short" periods.

[Marshall, *Principles*, bk. v. chs. v. and xii., and a paper privately printed by Mr. H. Cunynghame, *Some remarks on Demand and Supply Curves and their Interpretation.*] A. W. F.

PRICES, THEORY OF. Any theoretical discussion of price is closely allied to that of value. Values find their concrete expression in prices. Price may therefore be defined as the value of one commodity in terms of another (see VALUE). The price of a pound of coffee is theoretically a half bushel of wheat in a market where a half bushel of wheat is exchanged for a pound of coffee. In more general usage, however, price has reference to the value of a commodity expressed in terms of some general standard commodity which is used as money. Professor Hadley says: "A price is a fact. A value is an estimate of what a price *ought* to be" (*Economics*, p. 91). Hardly less subtle than the analysis of value is that which is necessary to determine the factors that enter into and explain fluctuations in price. In every economic transaction in which price enters, there are four variables which exert an influence in determining what the price shall be; the value of the commodity to the buyer, the value of money to the buyer, the value of money to the seller, and the value of the commodity to the seller. These four sets of values are each determined a separate equation of the law of supply and demand, and all four equations of supply and demand vary somewhat whenever one varies, that is, they interact on each other (see MONEY).

Price may equal the cost of production in any particular market. For commodities which require no costly machinery to produce, where no large stock of the commodity exists, where the demand is uniform and strong, and where the supply can be readily increased or diminished, the price does tend to equal the cost of production determined by the cost of producing the marginal increment consumed, or that portion of the product produced under the most disadvantageous circumstances. This is known as normal price (F. A. Walker, *Political Economy*, p. 100). Such conditions rarely, if ever, exist, and the market price is in reality a variation from the normal price due to the action of the other variables, to which reference has already been made. Auspitz and Lieben, in their painstaking inquiry into the theory of prices, and in their efforts to give their results the form of mathematical precision, accept as a fundamental proposition that the price of a commodity equals the utility of the last or marginal increment purchased, as well as the cost of the marginal increment sold.

Marshall has added to the clearness of his discussion by introducing the terms demand-price and supply-price. He states thus the law of supply and demand in its bearing on demand-price: "An increase in the amount of a thing that a person has will, other things being equal (*i.e.* the purchasing power of money,

and the amount of money at his command, being equal) diminish his Marginal Demand-price for it" (Marshall, *Principles of Economics*, 2nd ed. vol. i. p. 152). Here again, three variables are eliminated for the purpose of discussion, and only one considered. Another quotation will show his use of these terms. It is found on page 195 of the *Principles*: "As the price required to attract purchasers to any given amount of a commodity was called the demand-price for that amount, so the price required to call forth the exertion necessary for producing any given amount of a commodity may be called the supply-price for that amount." The equilibrium between demand and supply price is one of the most interesting and intricate problems of modern economics, and the one to which Professor Marshall has contributed the best discussion in bk. v. of his *Principles*.

Prices may be considered either as wholesale prices or as retail prices. Wholesale prices are much more sensitive to competition, and are, generally speaking, much more capable of being readily reduced to economic law than are retail prices. The latter are more influenced by custom, and reflect with greater emphasis the variations in consumption.

Prices are furthermore to be considered, from a theoretical point of view, as monopoly prices, when special conditions such as scarcity, legal privileges, etc., affect the equilibrium of supply and demand of the commodities offered in a given market; as panic prices, when special conditions affect the monetary standard; as luxury prices, when the value of the monetary unit is small for a given consumer; as crisis prices, when special conditions affect the seller of commodities in a falling market.

Even in its narrowest limits, excluding the prices for services and for land as belonging to other departments of economic inquiry, the theory of price must cover a very broad field. It should endeavour to explain the phenomena of price primarily in their psychological significance as a question in the balancing of final utilities where several variables are concerned. In the second place it should endeavour to account for the concrete manifestations of these psychological phenomena in the economic facts of an average market. Here it is evident that no one theory or rather no one principle can be made to explain satisfactorily all the phenomena. We find, rather, several theories explaining various groups of phenomena and dealing with various kinds of prices as enumerated above. These must be considered as collectively constituting a theory of prices. Finally, there is a third problem depending partially on economic considerations and partially on social factors, namely, the question of the stability of prices. This is really a problem in distribution, but its significance cannot be ignored from the point of view of price theory.

[All the text books on political economy treat of the theory of prices. See especially, Marshall, *Prin. of Econ.*, vol. i.—J. S. Mill, *Prin. of Polit. Econ.*—Cairnes, *Pol. Econ.*—Hadley, *Economics*. The best special treatment of the subject is found in Jevons's *Theory of Pol. Econ.* and *Investigations in Currency and Finance*.—Zuckerkandl, *Theorie des Preises*.—Auspitz und Lieben, *Untersuchungen über die Theorie des Preises*.—Wieser, *Der natürliche Wert*, and "The Theory of Value," *Annals of Amer. Acad.*, vol. ii.—Smart, *Introd. to Theory of Value*.—Böhm-Bawerk, "Wert-Kosten u. Grenznutzen," in *Jahrb. d. Nat. ökon.*, iii. Folge, Bd. iii. also art. on "Ultimate Standard of Value," *Annals of Amer. Acad.* vol. v. On the problem of distribution in relation to stability of prices, see Patten, *Dynamic Economics*, Phila., 1892, and "The Stability of Prices," *Amer. Econ. Assn. Publications*, vol. iii. (See MONEY; VALUE; PRICES, HISTORY OF.)] S. M'C. L.

PRIME: *Fr.* (1) BOURSE; (2) COMMERCE. A contract on French markets for public securities analogous to the CALL in options on English stock exchanges. The *modus operandi* is, however, different, and the converse operation of the *put* is not practised (see PUT and CALL). The *prime* is the forfeit paid by the buyer to cancel a conditional purchase at the next or second account forward. The amount of the *prime* is included in the price, which is consequently higher than that which would be paid in the case of an unconditional purchase, and the margin between the latter price and the price "*à prime*" is wider in inverse proportion to the amount of the *prime* or forfeit. Where the amount of the *prime* is small, as it forms the limit to the profit of the seller, he demands a higher price than with a large *prime* as he is more exposed, in the case of a rise, to have to buy in at a loss to deliver the stock. The *primes* for French *rentes* are 25 or 50 centimes, or 1 franc. For shares five francs or multiples of that sum. *Primes* are distinguished in bourse quotations by the addition of the word *dont* (of which) or *d.* to the price. For example, French 3 per cents, at 102 francs *dont* 25 centimes, means that the buyer may take up the stock at 102 francs or pay the forfeit of 25 centimes.

The *réponse des primes* or declaration of options takes place at 1·30 in the bourse of the day preceding the account, that is to say, on the 15th and last day of the month. The quotations at that hour are posted, and the buyer may then calculate whether it is to his advantage to make the purchase firm or pay the *prime* to cancel it. In practice the broker usually decides this for him, instructions being only necessary when the profit or loss would come out about the same either way.

(2) PRIMES (commerce) are bounties in various forms to encourage or protect native industry or production, and enable it to compete with foreign countries. *Primes de construction*

for shipbuilding date as far back as the time of COLBERT; they are a payment by the State per ton on ships built in France as a compensation for the higher cost of the materials employed, caused by the protective duties on iron and timber. *Primes de navigation* are paid per ton per thousand miles run, the coasting trade excepted. *Primes de pêche* are paid first per head of the crews employed in the cod-fisheries, to favour the recruitment of the navy, and next on the fish taken to enable French fishers to under-sell their rivals in Italy, Spain, and other Roman Catholic countries where the consumption is large. *Primes* have increased in number since the revival of protection in late years, and are granted to home producers of articles not protected by customs duties, as on raw silk, flax, and other textiles; or on shale, to countervail a reduction in the duty on imported petroleum; by a drawback on cotton yarn employed in the manufacture of certain mixed stuffs for export, even when no duty has been previously received, as when the cotton yarn is of French manufacture, etc. It is doubtful whether these *primes* have really contributed to the prosperity of French industry, but producers have succeeded in persuading the government and parliament that they could not exist without them. T. L.

PRIMER SEISIN was the right of the kings of England after the Norman Conquest to exact, on the death of a tenant-in-chief, from the heir, if of full age, one year's profits of the land in addition to the ordinary relief. It originated in the king's right to enter upon the land on the tenant's death as security for the payment of relief and as a defence against intruders. The common practice of suing for livery of seisin within a year and a day after the decease of the previous tenant would fix the period covered by primer seisin at one year. Heirs who were minors, and therefore wards of the king, did not pay primer seisin on reaching their majority; and only half a year's profits were due from a successor whose possession of the estate was subject to a life interest,—in legal language, who had the reversion expectant upon an estate for life. This charge fell into desuetude with other feudal incidents, and was finally abolished in 1660 by 12 Car. II. c. 24. A law enacted in France in 1245 by St. Louis gave the king a year's possession of the land of a deceased tenant, but only in default of relief. The papal claim to first-fruits was modelled on the feudal primer seisin.

[Coke upon Littleton, 77A.—Blackstone's *Commentaries*.—Hallam, *Middle Ages*.—Gneist, *Eng. Const.*] E. G. P.

PRIMOGENITURE. The name of primogeniture is given to the law or custom in virtue of which an eldest son succeeds either to the sovereign power or to the landed estate of his father, either in default of or to the exclusion of any testamentary disposition. The rule of primogeniture has prevailed more widely with reference to political power than with reference to property. It is obviously for the general good that the authority of a king or chief should not be liable to division on his decease, but should pass in its entirety, if possible, to an adult man. In some countries the eldest son has been passed over in favour of the eldest male of the reigning house. But this practice rests on the same reason which has usually led a people to prefer the eldest son, namely, the inconvenience of a minor's rule. There is no equally forcible reason why the estate of a private person deceased should go entirely to his eldest son, leaving the other children unprovided. Primogeniture in this sense is the exception, not the rule. It was unknown to the legal systems of antiquity and of the east. It was also unknown to the German conquerors of the Roman empire. In England primogeniture as a rule of succession to private property was unknown before the Norman conquest. Primogeniture, in this sense, is a distinguishing mark of feudalism. Under the feudal system each man's status depended on his relation to the land. Each landowner in his degree discharged definite civil and military functions, and was so far a partaker in sovereign power. As the possession of land conferred this public character, it was natural that the estate should be treated like a little kingdom, should be considered indivisible, and should go to the eldest son. The opposite principle of equal subdivision would have broken up the civil and military hierarchy in one or two generations. The government of a province or the command of a regiment does not admit of partition between the sons of a late governor or a late colonel. Accordingly the rule of primogeniture is said to have been first established with respect to the *beneficia* or grants made by the Frankish sovereigns on condition of personal service. With the progress of feudal tenure it spread over most of central and western Europe. The history of the rule in Italy, Germany, France, and Spain is far too intricate to be even summarised here. As each of these countries was broken up into territories more or less independent, and as within each territory local custom was diversified and tenacious of life, the rules of succession differed indefinitely from place to place. Even in the same district the nobles often lived under one law, the burghers under another, and the peasants under a third, so that one class might accept and another class might reject the principle of primogeniture. The revival of the Roman law affected the principle differently in different states, but upon the whole tended to weaken it. Thus on the continent the idea of primogeniture never attained universal or unqualified acceptance. In England, a small country united betimes

under a strong central government, the rule of primogeniture, once introduced by the Normans, prevailed more rapidly and completely than elsewhere. It was well established by the end of the reign of Henry III., although the old custom of equal division between all the sons (GAVELKIND) held its ground in Kent and in a few other places. But as women were incapable of personally discharging the feudal service due for their lands, the rule of primogeniture was not applied to daughters succeeding in default of sons. They took and still take equally as co-parceners. As the power to make a will of lands was lost in the feudal period of English law, the father was unable to modify the rights of the eldest son. But when the testamentary power was restored, at first by the invention of uses (beneficial interests in land distinct from the legal estate and protected by the chancellor), and afterwards by the acts 32 Hen. VIII. c. 1 and 12 Car. II. c. 24, the rule of primogeniture became merely a rule of intestate succession. There exists no law compelling the father to leave his land to the eldest son. Large estates in the United Kingdom do commonly pass undivided to the eldest son, but this is not the result of any law. It is the result of a custom of making settlements with provisions to that effect. The custom has survived to our day because the political and social importance of a family has in a great measure depended on the landed possessions of its chief. In France and in the countries subject to the influence of France, the rule of primogeniture was abolished by the revolution. The CODE NAPOLEON makes subdivision compulsory. As a political expedient in a feudal society the rule of primogeniture had its uses. As a law, or even as a custom of succession to landed property in modern times, it has been severely criticised, as (1) contrary to the feelings of justice and affection which prompt a parent to provide equally for all his children; (2) corrupting to the eldest son who obtains the whole of the estate by the mere accident of birth, and cruel to his brothers and sisters who have been brought up in affluence and often spend the rest of their lives in penury; (3) injurious to the land, which is frequently starved by the tenant for life in order to provide portions for his younger offspring; (4) discouraging to industry and thrift, inasmuch as it keeps estates few and large, thus withdrawing land from commerce and hindering the application of capital to land. On the other side it has been urged (1) that in the long run the importance of a family is an advantage to every member of that family; (2) that the proprietors of large estates are often liberal and enterprising in improvement; (3) that younger sons are often bold adventurers, and that adventurers are essential to national greatness. A law of compulsory subdivision may have bad effects in diminishing the size of properties beyond the limit compatible with high cultivation or in checking too strongly the natural increase of population. Complete or at least liberal powers of testation with a rule of equal division in case of intestacy appear to be most conducive to the welfare of a modern community. There is little doubt that the English law of intestacy will be remodelled, and that the English custom of settling all the land on the eldest son will be modified as large estates lose by degrees the attractions which they formerly possessed.

[See BEQUEST, POWER OF; ENTAIL, Law of, and authorities cited; LAND, Law relating to; TAXATION; TAXATION on Property and Income. Maine, *Ancient Law.*—Pollock and Maitland, *History of English Law.*—Digby, *History of the Law of Real Property.*—Cecil, *A Short History of Primogeniture.*] F. C. M.

PRINCE-SMITH, JOHN (1809-1874), born in London, was the son of a governor of British Guiana. He went to Germany in 1830, and employed himself there for some years in teaching English, settling at Berlin in 1846. From 1861 to 1866 he sat for Stettin in the Prussian house of representatives, and from 1871 to 1873 for a division of Anhalt in the German Reichstag. He died at Berlin.

Prince-Smith was the founder, and for a long time the head, of the German free-trade party. He was a member of the Cobden Club, and established a free-trade society in Berlin. Originality could scarcely be expected in a preacher of doctrines already fully expounded by Adam Smith, Say, and Bastiat, and popularised by Cobden and others during the English anti-corn law agitation. Those doctrines he put forward in their most absolute form. Unlimited freedom of industry was, according to him, the one condition of the economic well-being of a community, and the individual desire of gain the necessary and sufficient stimulus of economic activity. The state, he thought, had nothing to do but stand by and prevent fraud or violence from disturbing the process of social competition. He pays no attention to moral considerations or to patriotic motives, and holds that private profit implies public gain. Even those who differ most widely from these views admit that he did much useful work in connection with legislation on banks, coins, weights and measures. His entire school, too, notwithstanding its one-sidedness and its positive errors, has rendered important service by opposing the extremes of German protectionism, and by its energetic warfare against monopolies, unnecessary restrictions, and mediæval survivals.

Prince-Smith's collected writings were published in 3 vols., 1871-1880, by O. Michaelis and K. Braun, with a biographical sketch by O. Wolff.

[Lippert in *Handw. der Staatswissenschaften.*—Roscher on the German free-trade school, *Gesch. der N.-O.*, pp. 1014-20.] J. K. L.

PRINCIPAL. This word is used in popular language, and also in legal documents, to distinguish the original amount of a debt from the interest payable thereon. Thus for instance, in a transfer of a mortgage, "the said principal sum of £— (being the amount of the original mortgage debt), together with interest due or to become due thereon," is assigned to the transferee. E. S.

PRINCIPAL AND AGENT. An agent is a person who is employed to do an act on behalf of another called the principal, so that as a rule the principal himself becomes bound. That one person can represent another is a doctrine that has developed but slowly. In Roman law it was a general principle that no one could enter into a contract by stipulation on behalf of another, and in the case of mandate the mandatarius or quasi-agent incurred a personal liability towards their parties (see MANDATUM). The modern principle is that contracts entered into by an agent are regarded as entered into by the principal, provided the contract is within the scope of the agent's authority.

No special form of words is required to appoint an agent, and agency may be inferred from the conduct of the parties. An agent is required to conduct the business entrusted to him with as much skill as is generally possessed by persons engaged in a similar business, to act with reasonable diligence, to display the utmost fidelity, to keep proper accounts, and to pay over all moneys received less any expenses and his own remuneration.

Directors, managers, clerks, and servants, having power to act for their principals or masters, are agents. Besides these, the chief classes of agents are (*a*) FACTORS (*q.v.*); (*b*) BROKERS (*q.v.*); (*c*) auctioneers; and (*d*) ship masters. Each class is subject to the usages of the trade relating to the class. An agent cannot as a rule delegate his powers, but by the custom of certain trades sub-agents may be employed. The relation of principal and agent is terminated by mutual consent, by revocation, by the agent renouncing, by the expiration of the time agreed upon by the completion of the business, by the death or lunacy of either principal or agent, and by the bankruptcy of the principal.

[Evans on *Principal and Agent*, London, 1888.—Campbell on *the Sale of Goods and Commercial Agency*, London, 1891.] J. E. C. M.

PRINSEP, CHARLES ROBERT (1789-1864), translated into English J. B. Say's *Traité d'Économie Politique*. He published *A Letter to the Earl of Liverpool on the present Distress of the Country, and the efficacy of raising the Standard of our Silver Currency*, 1816. M. Blanqui (*Dict. de l'Écon. Pol.*) remarks that "this curious letter is an indispensable part of the discussion on paper money which arose in England after the events of 1814, and on the occasion of the proposal to resume payments in specie."

Prinsep also published *An Essay on Money*, (London, 1818, 8vo), of which the same authority remarks: "This writing is much and justly esteemed in England for its lucidity and its excellent exposition of the subject." A. L.

PRIOR, THOMAS (1682-1751), co-founder and secretary of the Dublin Society for promoting husbandry and other useful arts in Ireland, 1731, wrote four economic treatises on Ireland.

In *A List of the Absentees of Ireland and the Yearly Value of their Estates and Incomes spent abroad*, 1729, 2nd ed., 1729, reprinted in *A Collection of Tracts and Treatises illustrative of Ireland*, 1860-61; (the 6th, miscalled 3rd, ed., 1769, is a new book not by Prior). Prior reckoned on the debit side of the balance of trade payments to absentee landlords, employees, and pensioners, etc. The idea was taken from Sir W. PETTY, *Pol. An. of Ireland*, 1672, pp. 72, 73, 84, and *Report*, 1676, who improved on a hint from T. MUN, *Eng. Treas.*, 1664, p. 215. But Petty's results —acclaimed by Sir W. TEMPLE, 1673, and J. HOUGHTON, November 9, 1682, R. Lawrence, 1694—were guesswork. Prior, like his editor in 1769, and A. YOUNG, *Tour in Ireland*, 1779, ii. 57, made exhaustive personal enquiries, and published his items. Their results, miscited by Lecky and others, made the total drain £621,499, 1729, £1,208,982, 1769; the drain for rent £383,700, 1729, £641,700, 1769, £732,200, 1779. The so-called estimates of Swift, *Works*, 1824, vii. 40; A. DOBBS, *Essay*, 1729, p. 51; J. HELY-HUTCHINSON, *Com. Restr.*, 1779, p. 121, Faulkner (Prior's printer), and Newenham, 1805, were based on these figures, which Boulter, *Letters*, 23rd October 1729, and Dr. JOHNSON, Boswell's *Life*, 1848, p. 277, alone pooh-poohed, and on which EDEN, CAIRNES, Sir G. C. LEWIS, and Lecky, see *Hist. of Irel.*, 1892, i. 212-214, relied. This first premise of Prior's syllogism was solid: not so his second premise, which was that net exports, including baseless estimates of profits and freights, only accounted for part of the drain: and his conclusion that the rest, £240,000, was carried out in specie, thereby causing high exchange-rates and a money famine, was clearly unsound (see ABSENTEE). The money famine was a chronic disease aggravated by debased coins and the overrating of the MOIDORE, as Prior himself described in his *Observations*, and the precise effects of absenteeism were not understood until this century, *West. Rev.*, x. 237; TOOKE'S *Hist. of Prices, passim*; but it was true that exchange rates had to be abnormally high before the ebb produced the flow of money, Ireland being, as A. Young said, "cut off from the reaction of free trade," and Ireland was compelled by law to resort to the worst markets in order to pay its debts in commodities. Of Prior's two remedies a tax on absentee pensioners, etc., existed 1715-1801, but was never extended to landlords as he wished, Lecky, ii. 119, *et seq.*, and his demand, echoed from Petty, for commercial equality with England, was granted in 1779, 1782, 1800.

In *Observations on Coin in general, with some Proposals for regulating the Value of Coin in*

Ireland, 1729, reprinted by the Political Economy Club with preface by M'Culloch (*q.v.*) in *A Select Collection of . . . Tracts on Money*, 1856—Prior summarised Locke's theory of money, but repeated Barbon's idle accusation that Locke regarded the value of silver as immutable, and proved its mutability by an illustration which Locke, *Considerations*, 1691, pp. 34, 47, had already used for the same purpose, and objected to Locke's silver monometallism that if one mutable metal could measure value, two could; and with two standards (he does not understand the modern theory of alternative standards) there would be more coin. Like many others, Boulter, *Letters*, 25th Ap., 2nd May 1730, he wished English proportions among coins to prevail; yet his proposals made a crown worth more than ten sixpences and less than five shillings. His and Dean Swift's ultimate remedy was an Irish mint (Lecky, i. 449).

Prior's *Essay to encourage and extend the Linen Manufactures in Ireland by Premiums and other means*, 1749, advocated prizes rather than bounties, and expressed the then usual belief in patrons and paupers as industrial agents: his *Proposal to prevent the Price of Corn rising too high or falling too low by means of Granaries* differs but slightly from those of Lord Molesworth, 1723, and Dobbs, *Essay*, pp. 66 *et seq.* [These and similar schemes are discussed in *Letters of Lord Chesterfield*, ed. Mahon, iii. 175; *A Dialogue between Dean Swift and T. Prior*, 1753, pp. 116 *et seq.*; Cunningham, *Growth of Eng. Ind.*, ii. 307; Berkeley, *Works*, 1871, iv. 11, 329.] J. D. R.

PRISAGE. Prise or Prize was the taking from a merchant, with or without his consent, for the king's use, of such quantity of such commodities as the custom of the time allowed. Prise, when applied to native products, was called Pre-emption or Purveyance, and was practised under gradually increasing restrictions till its abolition, at the restoration: when applied to imports or exports, it was called emption or caption. In the case of wine imported by denizens, the right of prise was commuted for the right to take one tun from every ship of between 10 and 20 tuns burden, and two tuns from every ship of over 20 tuns. This constitutional payment was called Recta Prisa, in contradistinction to *mala prisa*, the old unrestricted prise, and obtained a place in the national accounts under the name of prisage or prizage of wine. Aliens importing wine compounded for the *recta prisa* by a money payment called Butlerage, but were still subject occasionally to the *mala prisa*.

[Hall, *History of the Customs Revenue*, London, 1885.] A. E. S.

PRISE. See Purveyance.

PRISON LABOUR. The problem of prison labour is one of comparatively modern development. Its growth is due to the gradual appreciation by society of the correctness of the view that imprisonment should not merely punish or deter, but should also reform. The appearance in 1777 of the work of John Howard (*q.v.*), on the *State of Prisons in England and Wales*, gave an impetus to the study of the causes of crime which has led the public mind more surely to the conclusion that not only the criminal himself but his family history and the social conditions surrounding him, have to be considered. The labours of individuals such as Beccaria, Howard, and Jeremy Bentham have been taken up and carried on by schools of thought in England, by Herbert Spencer, Maudsley, and others; in Italy, by Lombroso, Ferri, and their followers; and in Germany, by Krafft-Ebing and others. There have thus been laid the foundations of something like a science of criminology, in which the resources of sociology, physiology, psychology, and the study of heredity have been brought to bear on investigations connected with crime and its causes. The natural outcome of this interest, both scientific and humanitarian, in the subject has been the prominence now given to the reformatory element in imprisonment. As soon as this element is properly recognised, the importance of prison labour becomes self-evident.

What are the reformatory agencies which can be brought to bear on prisoners? They practically resolve themselves into two, the ministrations of religion, and the provision of wholesome occupation, using both terms in their widest acceptance. The good effects of work are twofold: (1) in keeping the prisoner in habits of industry or in teaching them to him; and (2) in occupying mind and hands, and so enabling him to resist the depression which is the bane of prison life. The questions follow: What is the nature of the work which can be profitably undertaken by prisoners, and What are the special conditions affecting it? It will be convenient to treat upon these under four heads.

I. In Great Britain and Ireland the view is strongly held that prison labour should be in the hands of the state itself, and not of outside agencies. But in the United States, and in several continental countries, this view does not obtain, and three systems of employing prisoners are in vogue, (*a*) the system of direct state control, as in our own country; (*b*) the contract system, where a contractor employs prisoners at an agreed price per day, to work under his agents; (*c*) the lease system, under which a contractor leases prisoners for a fixed period, and, in most cases, undertakes to feed them and to maintain proper discipline amongst them while employed on the work specified in the lease. From the admirable report of the United States Commissioner of Labour issued in 1886 it appears that out of 64,349 prisoners, 33,290, or more than half, were employed on the contract (23,591) or lease (9699) systems. There is no space here for a full discussion of the intrinsic merits of

the three systems, but it will be enough perhaps to point out that the contract system opens the door to serious competition with free labour, and the lease system is exposed to abuses, many of them identical with those which put an end to transportation and closed the British colonies to convicts. It is certain that public opinion in England, the most thoroughly organised industrial country in the world, would tolerate neither.

II. Next to be considered are the peculiar conditions of prison life. In most countries there are two classes of prisons, for long-sentence and for short-sentence prisoners. In the former class of prisons—known as convict or public works prisons at home—the difficulties connected with prison labour are minimised. Convict prisons are situated either in the open country (*e.g.* Dartmoor), or in proximity to public works (*e.g.* Portland, Borstal, and Peterhead). After their first nine months of separate confinement—a period which seems likely to be shortened,—convicts can be placed at associated labour on public works such as breakwaters, harbours, ports, or new prison buildings, or on land-reclamation, farming, and quarrying. All convicts are so employed unless found either too delicate for hard work in the open or specially qualified for indoor occupation.

In short-sentence or local prisons the matter is more complicated. There prison labour may be of two kinds—unproductive (*e.g.* the crank or treadwheel) and productive; and the latter may be either cellular or associated, and either skilled or unskilled. Very little can be said in favour of unproductive labour, which is universally conceded to be brutalising in effect. Practically it is only retained in English prisons to carry out the provisions of the law requiring prisoners sentenced to hard labour to be kept for a month at hard labour of the first class, and as a means of punishment for offences committed within the prison. As such it is likely to be given up so soon as an efficient substitute can be devised. Whether productive labour should be cellular or associated has been a debateable point. In order to avoid contamination, prison reform has tended to keep prisoners so far as possible from intercourse with one another. Almost all modern prisons, at home and abroad, are therefore built on the cellular principle. But for purposes of labour, associated workshops have obvious advantages over cells. Work and the appliances for it—*e.g.* machinery, can be of a far more elaborate and therefore educational character, and the effect on the mind of work in company with others, even though general conversation be forbidden, is healthier. As to contamination there is the experience of associated labour in convict prisons to show that the danger can be obviated. The consideration of the whole question is tending in England to the general adoption of a salutary compromise whereby prisoners shall have their meals and sleep in separate cells, but shall work in associated workshops under strict supervision.

Further difficulties are the fact now universally conceded that prisoners are below the average in mental and physical capacity, and the shortness of the term which many of them have to serve. On 6th March 1894, out of 14,582 prisoners in English local prisons, 3383 were in for four weeks or less, and 7024, or nearly half, for three months or less. All these would not be unskilled workmen, but prisoners have a natural inclination to conceal their trade, and it is possible a man may serve the whole of his term without its being discovered what is the trade to which he could be set without preliminary instruction. Besides skilled labour there must thus be provided in prisons the means for rough unskilled labour, rising from oakum-picking or stone-breaking, and the like, to sack and mat-making.

III. There follows the danger of competition with free labour. This, statistically viewed, is less important than is sometimes imagined. The danger is largely a sentimental one, but is none the less deserving of consideration on that ground. The annual value of the labour in English local prisons, *including* the domestic services of the prison, is estimated at less than £120,000, which is clearly an infinitesimal proportion of the trade of the country. Certain industries are practised in English prisons; comparing the numbers of prisoners employed in them with the census number of persons engaged in the like occupations outside, and reckoning the amount of a prisoner's work to be but half that of a free workman, the proportion stands as one prisoner to 1886 free workmen, or, with all possible developments of prison labour in the future, as one prisoner to 1587 free workmen. In the United States the Commissioner of Labour estimates the competition in particular trades as much higher, but reckons a free labourer to be worth 1·27 prisoners, not two, as in the proportion which forms the basis of the calculation in the preceding sentence. Perhaps in individual trades at home, specially suited for prisons and not largely engaged in outside, *e.g.* mat-making, the amount of competition is appreciable. But the fact remains that the average annual value of an English convict's labour is not estimated at more than £27, nor of a local prisoner's at more than £8. The Austrian estimate is not higher than £3 per head for the three years 1889-91.

The attitude of trades unions to prison labour has been somewhat misunderstood. No doubt, as in the case of mat-making, particular trades have imagined that their interests were menaced, and have done their best to abate certain industries. But at the

Trades Union Congress at Belfast in 1894, a proposal to condemn industrial work and training in reformatory and industrial schools was rejected. Authoritative trades union opinion seems to be in favour of the industrial training of prisoners, and not to object to the sale of prison-made goods, for the relief of taxation, provided (*a*) that they are not sold below market prices, and (*b*) that every consideration is paid to the special circumstances of particular trades outside the prisons.

In order to minimise undue competition with free labour the principle has been generally adopted of directing the energies of prisoners so far as possible to the construction of public works and the supply of articles required by the prison service itself or other departments of government. Thus, long-sentence prisoners in England built Wormwood Scrubs Prison, Portland breakwater, and the Chatham forts, and short-sentence prisoners have helped to meet the demands of the Post Office for belts, pouches, mail-bags, and the like, of the Admiralty for coal-sacks, hammocks, baskets, mats, etc., of the War Office for bed and bolster-cases, rugs, oil-cans, etc. Here of course what the country loses in wages it gains in relief of taxation. The surplus of articles is sold, care being taken not to sell below market prices, nor to make any particular article in such quantities as to disturb the equilibrium of the market into which it enters.

It is, perhaps, right to mention here that complaints have been rife in England for some time that the importation of prison-made goods from Germany and other countries has seriously depressed the market for the same goods at home. The extent of the mischief, whether appreciable or not, was so much canvassed that in the first session of 1895 a departmental committee of the Board of Trade was appointed to investigate the subject. Its report was to the effect that no cause had been shown for the necessity to take steps to restrict the importation of prison-made goods, and that if cause were shown no steps could be taken which would not produce more harm than good. Nevertheless, there is reason to believe that negotiations have been entered into with foreign governments in order to check if possible a competition which, slight or severe, is objectionable in itself. Of exportation as a means of disposing of prison-made goods practically no use is made in this country.

IV. The fourth consideration is twofold; to what extent should prison labour be directed with a view of making the prisoners pay for their own maintenance, and to what extent should prisoners receive money payments for their work. It is clear that in a system whose main end is the reform of the prisoner, the desire to make pecuniary profit out of his labour will hold no place inconsistent with the primary object. Regard will not be had as to whether or no a saleable article will be produced, but the prisoner will be set to such labour as is most likely to fit him for earning an honest livelihood after discharge, or is most suited to his physical or mental condition. But as a matter of practice, the two run very much together, and most of the work to which it is desirable and possible to set prisoners results in the production of saleable articles. A compromise must be effected, and the natural desire to find the state a fair set off against the cost of the prisoners' maintenance must be held in check. Herein subsists one of the main arguments in favour of the direct control of prison labour by the state, for pecuniary profit is far less likely to become the main object under that system than under either the contract or lease systems. As to whether prisoners should receive pay for their work or not, general opinion is in favour of granting them gratuities proportioned to their industry. The objects are of course to encourage the prisoner to work and to secure to him a bonus against the day of discharge; and care should be taken that the amount of the gratuities is not larger than is necessary to fulfil those objects. Even in so developed a prison system as that of England this question has not received the attention it deserves. At present the maximum which a local prisoner can earn is 10s.—a sum adequate neither as a spur to work nor as a bonus. In most foreign countries larger gratuities can be earned, but there prisoners are allowed to spend a portion of their earnings in procuring creature comforts, better food, coffee, and even in some cases cigarettes, from the prison canteen. Such a disposal of prisoners' earnings is not tolerated in England, and probably on the whole rightly so.

In conclusion it may be useful to direct attention to the care which has recently been devoted in this country, under the auspices of government, to the consideration of the questions treated of in this article. An important departmental committee of the home offices published a report in 1895 (see reference below), in which the subject of prison labour is dealt with exhaustively. The spirit in which that committee approached the question is modern, but, after all, not more modern than Jeremy Bentham, who said: "Occupation, instead of being the prisoner's scourge, should be called, and be made as much as possible, a cordial to him. It is in itself sweet in comparison with enforced idleness; and the produce of it will give it a double interest. The mere exertion, the mere natural energy, is amusement, when lesser ones are not to be found. Taken in this point of view, industry 'is a blessing; why paint it as a curse?'"

[In addition to the works of the writers mentioned in the text, reference may be made to

Sir E. Ducane, *Punishment and Prevention of Crime*.—Dr. Mouat's paper on *Prison Ethics and Prison Labour*, read before the Royal Statistical Society, 17th March 1891, to the report of the United States Commissioner of Labour, issued in 1886, and to the following official papers—*Prison Committee's Report with Appendices* (c. 7702 and c. 7702 I.), 1895—*Report of Departmental Committee on Habitual Offenders in Scotland with Appendices* (c. 7753 and c. 7753 I.), 1895—*Report of Departmental Committee on Importation of Foreign Prison-Made Goods* (c. 7902), 1895; and *Foreign Office Commercial Series*, No. 8 (1894), reports on prison labour in certain foreign countries. — Foreign Prison-Made Goods Act, passed 1897.] J. G. I.

PRIVATE INTERNATIONAL LAW. See INTERNATIONAL LAW, PRIVATE.

PRIVATE PROPERTY. See PROPERTY.

PROBABILITY AND CALCULUS OF PROBABILITIES. Probability means a greater or less degree of credibility. The probability of an event is measured by the frequency with which it has occurred in past experience. Thus the probability of an ace turning up when a die is thrown is one-sixth, since it has been observed that in the long run one side of a die turns up about once in six times (Venn, *Logic of Chance*), and other regularly-shaped bodies present analogous proportions. From statements of frequency given by experience the calculus of probabilities deduces, often by a long chain of mathematical reasoning, statements of frequency—affording measurements of credibility—which could not easily be proved by experience. Thus, if it is given that when a coin is tossed heads turn up as often as tails, it is deducible that, when a hundred coins are tossed, it is hardly credible that as many as seventy of them should present heads. The odds against such an event are many thousands to one. It is more than an even chance that the number will be between forty-six and fifty-four inclusive. The calculus of probabilities may be similarly employed to give confidence in the uniformity of our results in many statistical problems which concern economics; in particular the determination of the average variation of prices, and the average variation of wages (Bowley, "Changes in Average Wages," *Journal of the Statistical Society*, 1895; see arts. ALEATORY; ERROR, LAW OF; INDEX NUMBERS; TABULAR STANDARD).

[Of the two elements distinguished by Laplace in his definition of *Probabilities* as "good sense reduced to calculation," the latter is more prominent in most of the treatises, the former is found in the greatest purity in Laplace's *Essai Philosophique sur les Probabilités*—bound up with his severely mathematical *Théorie Analytique des Probabilités*, and in Dr. Venn's *Logic of Chance* (3rd ed.). Prof. Karl Pearson, in his *Grammar of Science*, explains with authority the foundations of an edifice which he has elsewhere contributed to raise. The definition and evidence of probability are examined in an article on the "Philosophy of Chance" in *Mind*, 1894, by Prof. Edgeworth. Some applications of the calculus to affairs are suggested by him in his book entitled *Metretike*, 1887, and in an article "On Some Applications of the Calculus of Probabilities" in *Journal of the Statistical Society*, September and December 1897 (pt. i., Bimetallism; pt. iv., Elections).] F. Y. E.

PROBATE. When an executor of a will has any occasion to assert his right as executor he must show that he has proved the will, which he does by producing a copy of it, called the probate, sealed with the seal of the court of probate. The probate is legal evidence of the will. Scotch and Irish probates may be resealed in England, and then have the same effect as if granted in England.

[Williams, *Law of Executors and Administrators*, 19th ed., 1893.] J. E. C. M.

PROCÈS VERBAL (Fr.). An official report drawn up by a public officer or administrative agent to testify to acts or to infractions of the law witnessed by him or of which he has cognisance, and which may serve as a basis for ulterior proceedings. The officer or agent can only *verbalise* relative to acts within his competency; as, the rural policeman for trespass, poaching, etc.; the customs or excise officer for frauds on the revenue; the notary for inventories, the placing of seals, etc.; the bailiff for the service of writs or to declare the absence of parties, etc. The *procès verbal* must contain a brief statement of the facts with the date and signature, written on stamped paper, if on blank paper it must be registered for stamping, the duty being included in the costs. Minutes of the meetings or proceedings of associations, companies, legislative or other bodies, are called *procès verbaux*. T. L.

PROCLAMATIONS nowadays may be termed administrative or executive orders issued in accordance with law by the privy council in the name of the sovereign; but in earlier times, particularly under the Tudors and Stuarts, in the 16th and 17th centuries, they were used to supplement legislation and perhaps occasionally to supersede it. According to the spirit of the times, economic and financial matters were often the subject of royal proclamations: alterations of coinage under Henry VIII. and Edward VI.; exportation of money and other commodities, cultivation of wood, regulation of dress, under Elizabeth; increase of London and manufacture of starch under James I.; fixing of prices and interference with tradesmen and artisans under Charles I.—all these and many other subjects, besides ecclesiastical and political affairs, were dealt with by the royal power acting by advice of the council, independently of parliament and often without reference to common or statute law.

[Proclamations were like the earlier ordinances in council. Gneist (*Const. Hist.*) makes no dis-

tinction between the two.—Coke, *3rd Inst.*, 162. — Blackstone, *Commentaries*, 270.— Rymer.—Clarendon, *Hist. of the Great Rebellion.*—Hallam, *Const. Hist.*—Gardiner, *Hist. of England.*—Stat. 31 Hen. VIII.—Stat. 40 & 41 Vict. c. 41 (for publication of proclamations).—*A booke of Proclamations*, 1603-1612. The most complete list of proclamations is that in Earl Crawford's privately printed *Handlist*, 1509-1837, 2 vols. fol.] E. G. P.

PROCURATION BY SIGNATURE (Bills of Exchange). By § 25 of the Bills of Exchange Act 1882, a signature by procuration (*e.g.* p.p. Smith and Co., John Jones) operates as notice that the agent has but limited authority to sign, and the principal is only bound by such signature if the agent in so signing was acting within the actual limits of his authority. Where the agent indorses a bill in excess of, or without, authority, the indorsee acquires no title, but in the case of a demand draft drawn on a banker, the paying banker is protected by § 60 as he would be in the case of a forged indorsement. [Chalmers, *On Bills of Exchange*, ed. iv. p. 375.] M. D. C.

(Mercantile Usage Generally.) It is common practice among bankers and merchants in all parts of the world to appoint managers with full powers to incur obligations on behalf of their employers, and authorised to represent the latter in all business transactions. German mercantile law recognises this custom by giving a special name, "prokurist," to persons occupying such a position, but the signature with the letters p.p. (*per procuration*) in front of the firm name of the employers, is used in all civilised countries. In English law, and according to the law of some continental countries, the powers of a person occupying the above-described position are not in any way defined, and the employer may in any given case dispute his liability on the ground that the manager had been acting in excess of his powers. The German mercantile code provides (§ 42) that the "prokurist," who must be registered as such in the mercantile register, has power to transact on behalf of his principal any business of a mercantile character, not including transactions for the sale and mortgage of real property, and that (§ 43) a restriction of these general powers has no effect on third parties. To persons not familiar with mercantile usage these provisions seem very far-reaching, but any one accustomed to business transactions, in the city of London or elsewhere, will know from experience that signatures "per procuration" have constantly to be accepted without question or inquiry as to the powers of the persons so signing, and if it were generally known that the binding character of the signatures so given might at some future time be disputed by the principals, more eagerness would be shown for an alteration of legal rules which honest traders will not take advantage of, but which are liable to be abused by unscrupulous persons. E. S.

PRODIGUS. According to Roman law, if a person of full age spent his property in a reckless manner, the magistrate might, on application being made to him, interdict such spendthrift from administering his property, and assign the care of it to a curator, as in the case of a lunatic. As to modern instances of this practice, see Interdiction. E. A. W.

PRODUCE and the group of words derived from it, of which Product, Production, Productive, and Unproductive are the chief, cannot strictly be said to have been first used as technical economic terms by the Physiocrats (*q.v.*). Cantillon (*q.v.*), writing long before Quesnay (*q.v.*), speaks of "proportioning the production of merchandise and commodities to their consumption" (*Essai sur la nature du Commerce*, p. 38), and Adam Smith, lecturing before he had come under physiocratic influences, shows how "division of labour occasions a multiplication of the product, or, which is the same thing, how opulence arises from it" (*Lectures*, p. 163). But the discussions which have given the words their importance in economic terminology, have their starting-point in the *Tableau Économique* (see Quesnay; Physiocrats). In this the community's expenditure is divided into *dépenses productives*, devoted to agriculture and procuring raw materials; *dépenses stériles*, devoted to manufactures, commerce, payment of domestic service, etc., and *dépenses du revenu*, or rent, which might be divided between the two other classes of expenditure in various proportions. The productive expenses were so called because they alone were supposed to be annually reproduced with a *produit net*, *revenu*, or rent in addition, while the sterile, or, as Adam Smith translates it, unproductive expenses, had to be provided for out of the *reproduit total* to which they contributed nothing. Hence came the theory that agriculture and kindred extractive industries alone were productive, and that manufactures, commerce, domestic service, etc. were unproductive, being mere exchanges (see besides the *Tableau* itself; reprinted for the British Economic Association 1894, *Œuvres de Quesnay*, ed. Oncken, pp. 537, 538).

Adam Smith, for the reasons which he gives in *Wealth of Nations*, bk. ii. ch. iii. and bk. iv. ch. ix., saw the fallacy of this view so far as regards the labour of "artificers, manufacturers, and merchants," but not as regards menial service and other labour which does not "fix or realise itself in any particular subject or vendible commodity." Consequently in the *Wealth of Nations* the "annual produce of the land and labour of the society" which constitutes its real wealth (Introd. and Plan, *ad fin.*), formally at any rate, consists only of "particular subjects or vendible commodities," and does not include any of the comforts and enjoyments of the community which are created by labour directly and not through the medium of such objects. The produce is therefore not equivalent to the sum of the incomes of the

individuals constituting the society, since every individual's income, reckoned by any known method, includes satisfactions created by the labour described as unproductive.

This doctrine of Adam Smith never obtained much hold on the continent of Europe. His translator GARNIER rejected it (note XX.). His faithful disciple and populariser, J. B. SAY, got rid of it by the simple expedient of dividing produce into material products and immaterial products, according as it is created by Adam Smith's productive or by his unproductive labour (*Traité*, liv. i. ch. xiii.). In England MALTHUS, though rather half-heartedly, adopted Smith's view (*Political Economy*, p. 28). James MILL seems to have accepted it without question (*Commerce Defended*, p. 69). J. S. MILL enthusiastically supported it with all possible arguments in his youthful *Essay on the words productive and unproductive*, the substance of which was afterwards incorporated in his *Principles*, bk. i. ch. iii., and his popularisers have followed him (*e.g.* FAWCETT, *Manual*, bk. i. ch. iii., Symes, *Political Economy*, pp. 25, 26). But even here the weight of authority has always been overwhelmingly on the other side. The author of the article "Political Economy" in the 4th ed. of the *Encyclopædia Britannica*, though himself "rather disposed to adhere to the doctrine of Smith," admitted that "the most eminent writers" of the time disagreed with him. M'CULLOCH showed the fallacy of the doctrine in an effective passage of his *Principles*, pp. 406, 407. T. CHALMERS considered it not only unsound from a scientific point of view, but practically pernicious (*Political Economy*, ch. xi. *ad init.*). SENIOR criticised it with destructive effect, showing that whether we regard labour as performing a service or producing a commodity is a question decided by the most trivial considerations (*Political Economy*, 8vo ed., pp. 51-53). Prof. Marshall, though he thinks that it is probably better that the distinction between productive and unproductive "should dwindle gradually out of use rather than be suddenly discarded" (*Principles*, 3rd ed. bk. ii. ch. iii. § 2, note), makes no use of the modification of J. S. Mill's doctrine which he proposes, and substitutes "social income" or "national dividend" for the "annual produce" of the older writers. In the national income he includes the creation of "unproductive" as well as of "productive" labour (*ib.* ch. iv. § 13).

[Most of the passages referred to will be found collected together in Cannan, *Hist. of the Theories of Production and Distribution*, 1893, ch. i. § 7. LOCKE generally speaks of the "products of land" in a way which cannot be regarded as technical; but in one place (*Considerations*, 2nd ed. 1696, p. 121) he places the producer in antithesis to the consumer in a manner very suggestive of modern usage.] E. C.

PRODUCE CLEARING. There can be no doubt that the application of the bankers' clearing system to the settlement of transactions in produce is largely, if not entirely, a consequence of the abnormal fluctuations in exchange, and the great decline of prices characteristic of the period since 1873. It has been an attendant condition of the development of transactions in "futures" and "options" (see FUTURES and OPTIONS). This system of dealing is an extension of methods long characteristic of operations on the stock exchange. Speculation in produce, analogous to speculation in securities, is of course at least as ancient as the time of Joseph; its fundamental economic utility has always been the averaging of the supplies of good crop years with the supplies of lean crop years, a comparative steadiness of prices and the prevention of scarcity or famine being the consequences. Under the relatively stable monetary conditions preceding 1873, such speculation was rather due to the foresight and statistical studies of individuals, than characteristic of any trade as a whole. Speculative operations in commodities were financed by the great capitalists who conceived them, or by credit based on their wealth, and they were, so to speak, quite occasional operations. But in recent years the system of buying for distant requirements, instead of being merely a method of taking advantage of present abundance and consequent relative cheapness, with the hope of profit during a period of scarcity and relative dearness, has become mainly a system of "hedging," to use a term of the turf, against quite incalculable changes in prices no longer governed mainly, if at all, by the relation of supply and demand. The increasing separation of the capitalist from the ENTREPRENEUR, or employer of labour, itself a consequence of the increasing uncertainties of trade, has also made it more and more necessary for the latter to adopt the safeguards of the "book-maker" on the race-course. Trade has become subject to influences as remote from the essential conditions and factors of the particular branch of industry and commerce undertaken by the producer or distributor, as explosions, fire, or pestilence; and these new contingencies have not the comparative rarity which makes even such catastrophes as those mentioned more or less calculable factors. Even explosions or shipwrecks, occurring at long if uncertain intervals, may be provided against by a guarantee or insurance fund. But the daily or even hourly fluctuations of exchange defy forecast. The possible loss by explosion or shipwreck is a known quantity; but under the new conditions the possible range of an exchange fluctuation, and therefore the possible loss, are incalculable. Hence the owner of accumulated capital has become less and less

disposed to risk its loss in industry or trade, and more and more disposed to prefer the safer, if possibly less princely, income of the *rentier* and the mortgagee to that of the producer or merchant. The fall of prices, by increasing the purchasing power of fixed incomes, or the capital value of bonds, has encouraged this tendency. Thus the business of the producer, and to a large extent of the distributor, has tended to pass into the hands of men whose chances of success, from the exercise of their personal abilities as employers of labour, have exceeded their risk of loss from the disappearance of the mere margin of capital, as compared with the whole capital, invested by them in their undertakings. Such men have manifestly less staying power than the great capitalist employers of former days, and, therefore, they are the more constrained to minimise risks by *per contra* purchases or sales of "futures" or "options." The narrowness of profits in the great manufacturing industries, again, has in many instances encouraged the extension of such operations beyond the requirements of the particular business carried on, in the hope of snatching profits by re-sales, so that the manufacturer has become a speculative dealer in raw materials as well as a consumer of such materials, and seller of finished fabrics. The incessant fluctuations of the rates of exchange, and the consequent almost daily variation in the price relations of the various stages of the industry, have made "hedging" operations an almost daily necessity, the same individual both buying and selling "futures" on the same day in order to guard against any eventuality. For all these reasons the number of transactions, the overwhelming majority being merely book entries which ultimately cancel each other, has been enormously increased, the volume of figures being vastly beyond the sum representing the value of the produce actually transferred in the end. This huge multiplicity of transactions has necessitated the establishment of produce clearing-houses for minimising the accountancy labour and payments involved; otherwise the practicable limits of such operations would have been reached long before their present magnitude had been attained, and further expansion would have been checked.

In this country the development of the system seems to have been mainly restricted to Liverpool and London. There is no produce clearing-house in Glasgow, for instance. Glasgow, in regard to wheat and sugar, is mainly what is called "a consumer's market," and such speculative business as is done in those commodities is conducted through Liverpool or London. The "warrant" system in the Glasgow iron trade, though developed largely as a means of economy in handling and warehousing pig-iron, does, however, present points of resemblance to the produce clearing system. It affords the producer a means of financing; it enables the user of pig-iron, as a material, to cover his future requirements and to "hedge" against variations in prices; and it facilitates speculation, pure and simple, in the material. The brokers or their representatives meet every day to "adjust differences" with each other, though payments are not made through a clearing-house, but directly between the brokers. In the Liverpool corn trade the produce clearing system is more fully developed, and an important function of such organisations, that of fixing what may be regarded as market prices, comes into observation. Every contract is registered and numbered by the Corn Trade Association, and each day at specified times, 10.30 A.M., 3.15 P.M., and 4.15 P.M., prices are officially declared by call from a rostrum. The call at 3.15 is taken as the "striking price" for settlement. Settlements are effected through a clearing agency which notifies buyers and sellers each morning of the "difference" to be received or paid on each contract. In this case the system unquestionably seems to present a more purely speculative aspect than in some other cases, and in regard to wheat, more than any other commodity, it has been urged that the influence of the system is injurious to the producer as tending to depress prices irrespective of natural conditions. This view has been definitely adopted by the agrarian party on the Continent, and has already resulted in repressive legislation. It seems probable, however, that, as for every "bear" seller there must be a buyer, who is relatively a "bull," the "differences" will in the long run be earned by that one of the two who most accurately forecasts the actual conditions of demand and supply; and, therefore, that the permanent tendency is to fulfil the legitimate function of speculation, the equalisation of prices and supply in spite of crop variations. The fact that for a considerable period prices have tended downward, which fact forms the basis of the agrarian complaint against dealings in "futures," may be explained as due to some other decisive influence. In other words, "bear" operations have invariably been most successful, not because they have caused prices to fall, but because they have been in harmony with the operation of some dominant depressing cause. Though there is some speculation in sugar in Liverpool, the "ringing out" or "set-off" system appears to be very slightly developed there in regard to this commodity. Contracts are mainly with the local sugar refiners, and are directly settled on maturity; there is no clearing-house. It is in the cotton trade that the system has attained its greatest development, and where its justification by economic conditions is perhaps most apparent (see CLEARING SYSTEM; COTTON CLEARING). The position of the cotton manufacturer is indeed in many respects exceptional. The large amount of capital invested in a mill equipped to the high degree of efficiency which has become absolutely essential to the existence of the industry under the conditions of extreme competition and almost theoretically perfect organisation which have been developed, and the extreme delicacy of the machinery, make it impossible for the cotton-mill owner to stop production without ruinous loss. Irrespective of the loss of interest on borrowed capital now very largely employed in the cotton industry, the position of the mill-owner is analogous to that of the carrier by horse-traction. The latter must keep his animals fed whether there is any remunerative work for them to do or not, or they will die; and the former must keep his machinery running or it will rust and speedily become valueless. There would be as ruinous a loss of capital if the machinery were not "fed" with cotton, in the one case, as there would be if the draught horses were not fed with corn in the other. Partly owing to this condition, and partly to the great magnitude of the trade, the number and variety of the markets—each with its special seasonal variations—supplied throughout the world, and their great distances in many instances, there is no industry so liable to occasional and even prolonged divergence of the prices of the raw material and of the finished or partly finished productions from what may be described as a parallel course, as the cotton industry. On the one hand, there may be very wide variations in the huge crops of raw material required, owing to climatic conditions, and on the other, there may be equally wide variations in the demand for the enormous supply of yarns and cloths continuously produced, owing to variations in the economic conditions of the many countries and dependencies supplied. Then, again, owing to the necessity of keeping up steady supplies of well-known goods in particular great markets, or large seasonal supplies which require time for production and for carriage long distances, a system of mercantile contract-

ing for deliveries of goods for many months ahead has come into vogue. For all these reasons there is no industry or trade so much at the mercy of fluctuations in the monetary exchanges. Thus, it will be seen that the cotton spinner or manufacturer has, in the first place, to cover his future requirements of cotton merely to feed his machinery; in the second place, he has to cover his contracts for the future delivery of yarns or goods of particular kinds requiring different descriptions of cotton; and he has also to secure the particular kind of cotton needed for the occasional day-to-day orders he may obtain. Finally, he must as far as possible safeguard himself against quite abnormal variations in the selling prices of any stocks he may have accumulated brought about by entirely erratic variations in the monetary exchanges. The system of dealing in "futures" enables him, at least to some extent, to meet these necessities of his business. Not only can he take the favourable opportunity for securing an adequate supply of a staple description of material in advance, but by repeated purchases and sales of "futures" as the months pass by he may "hedge" against price variations, and at the same time vary the particular descriptions of cotton originally contracted for in accordance with variations in the details of the particular orders for yarns or goods he receives. Thus the organisation for dealings in "futures" not only enables the spinner or manufacturer to provide in advance for a still unknown variety of requirements, but saves innumerable transfers of cotton from warehouse to warehouse, or mill to mill; while the arrangements for clearing "differences" by setting one against the other saves innumerable payments. It may be mentioned that the "striking" prices are fixed by a committee every Monday at 11 A.M., the organisation thus acting as a kind of fly-wheel in regulating the movements of the market.

The influence of the abnormal conditions affecting prices which were unknown before 1873, and which have induced the enormous development of "futures" dealings in the cotton trade and the establishment of a special cotton "clearing" organisation, is clearly traceable in the establishment of the London produce clearing-house in 1888, and the expansion of its business. The fact that the primary object of the last-named institution is declared to be the guaranteeing the fulfilment of contracts for future delivery to both buyer and seller, in itself suggests that the organisation had its origin in a recognition of the necessity for some system of insurance against the new and extreme uncertainties introduced into business by the violent fluctuations of the exchanges. Contracts in this case are only accepted from brokers authorised by the produce clearing-house, and in consideration of the guarantee the brokers undertake to do their "forward" business exclusively through that institution. Deposit margins have to be maintained in the possession of the clearing-house, but settlements may be and frequently are arranged directly between the buyer and seller of the contract, and every contract is ultimately closed by the delivery of actual produce. Brokers who desire to join the organisation must be proposed and seconded by members and on admission pay an annual subscription, and official quotations are fixed every working day by elected committees, representing respectively the dealers in each commodity. The dealings now embrace coffee, sugar, wheat, maize, tea, and silk, the produce most affected by the fluctuations of the monetary exchanges. The addition of dealings in silver is especially significant. It cannot for a moment be supposed that the business of the silver-smith makes "future" dealings in the raw material of the industry a necessity in the sense in which dealings in cotton "futures" have become a necessity. Variations in the price of a precious metal do not affect the prices of the finished manufactures either as promptly or to anything like the same extent as variations in the prices of the raw materials of the great wholesale or "massen," to borrow an expressive German term, industries; nor is the silversmith called upon to provide for the continual employment of a large plant for long periods ahead. The circumstances of his industry permit him to adopt what is known as the "hand-to-mouth" policy in buying his materials—that is, to restrict his purchases more or less closely to his immediate requirements; and any speculation in which he may indulge is rather a question of securing an extra profit than a question of "hedging." The seasonal character of the production of food-stuffs such as coffee, sugar, and grain, puts the distributor of those products in a position in some respects analogous to that of the great mill-owner in regard to providing for future requirements. The farmer or planter must dispose of his crop as rapidly as possible after the harvest, partly because it must be collected in the great centres of distribution if it is to be distributed at all, for the individual consumer cannot be brought, except to a very limited extent, into direct relations with the individual producer, and partly to put himself in funds for the production of the next crop. On the other hand, the wholesale distributor must, broadly speaking, at the particular time when the crop comes into the market, secure supplies to meet a demand spread over the whole period between crop and crop. He also must endeavour to assure himself against ruinous fluctuations in prices which experience has taught him may occur from causes outside mere statistical considerations. Experience has shown further that there is a certain correspondence between the rise or fall of the gold price of silver and the rise or fall of the gold prices of produce. Hence a buyer of produce "futures" may "hedge" by selling silver "futures"; or the banks which guarantee exchange may also to some extent cover themselves by operations in silver. This is not the place to enter into a detailed analysis of such operations. The fact that, notwithstanding the closing of the Indian and Japan mints to the coinage of silver, dealings in silver "futures" continue, is a proof that silver bullion is still very largely used for the settlement of international balances and the adjustment of international exchanges—in short that, though without coinage, it continues to fulfil a true monetary function.

To sum up, produce clearing-houses are the visible and necessary machinery for the system of dealing in "futures" and "options" as applied to merchandise, the tendency of which is to give a certain average steadiness to prices for limited periods and to provide a means of mutual assurance against incalculable risks, such insurance being based on the "hedging" or compensation-balance principle. The system is imperfect and costly from the strictly economic point of view, and it unquestionably gives rise to very grave abuses. But it seems probable that, had it not been for its evolution from the necessities of the case, the abnormal variations of the monetary exchanges through the break-up of the international monetary system existing before the closing of the French mint against silver, would have made the continuance of international trade, and the existence of certain great industries which are dependent on such trade, practically impossible.

[CLEARING SYSTEM; CONDITIONING; FUTURES; GRADING; OPTIONS; PUT AND CALL; SETTLING DAY; Reports, or. gen. meetings of *London Produce Clearing-House.*]

F. J. F.

PRODUCERS' GOODS, called also Production Goods, Instrumental Goods or Intermediate Goods, are those which satisfy wants *indirectly* by contributing towards the production of other goods. The term is used in opposition to CONSUMERS' GOODS, or consumption goods, or goods of the first order, which satisfy wants *directly*. The distinction was first given by J. B. SAY (*Cours de l'Économie Politique*, pt. i. ch. xii.); it has been developed by Hermann, and still further by C. Menger (*Volkswirthschaftslehre*, ch. i. § 2), who distinguished goods of the 2nd, 3rd, and higher orders. But even the original distinction which Say made is not always easy to apply; and the line of division is drawn in different places by different writers. On the whole, it seems best to include in "production goods" any form of wealth which can only be utilised through a further expenditure of economic labour. Thus it includes (1) all raw and unfinished materials, even those otherwise *finished* goods which are in the hands of dealers and are only utilised through the labour of shop-attendants and conveyers; (2) implements and buildings used in any form of indus-

try. If personal goods—personal qualities—are not explicitly excluded, production goods would also include all those individual or social qualities, habits, and relations which conduce to industrial efficiency. The distinction between production and consumption goods has a very important bearing on questions regarding the scope of the term CAPITAL (*q.v.*), and on methods of estimating the wealth of a nation.

[Marshall, *Principles of Economics*, vol. i. 3rd ed., pp. 133, 134.—Sidgwick, *Principles of Political Economy*, bk. i. chs. iii. v. See also articles on GOODS, CLASSIFICATION OF.] W. E. J.

PRODUCERS' RENT. The controversies that have arisen in regard to the relation between COST OF PRODUCTION and the RENT OF LAND used in production have led to the view that the remuneration of *any* agent of production whatever often contains, temporarily or permanently, an element similar to the RENT of land. To this element the name "producer's rent" or "producer's surplus" has been given. Producer's rent is regarded as a surplus remuneration accruing to any agent of production which is in excess of the amount sufficient to call forth the supply of that agent. The conception of producer's rent plays an important part in the modern theory of DISTRIBUTION; but writers are by no means agreed as to its precise nature. It has been elaborately examined by Professor Marshall, who has pointed out certain analogies between the relation of producer's rent to supply-price on the one hand, and that of CONSUMERS' RENT to demand-price on the other hand. The same writer has further distinguished between rent and quasi-rent. The most important application of the doctrine of producer's rent arises in the theory of the incidence of TAXATION. If a tax, levied over a certain area of taxable commodities and for a certain period of time, lowers the remuneration of any of the agents of production, without raising the price of the commodities, then it may be said that, within that area and for that period, the remuneration of those agents is of the nature of producer's rent. Or conversely, if any remuneration can be shown, as limited above, to be a producer's rent, a tax, similarly limited, will fall upon the rent owner.

[All modern discussions of the Theory of Distribution include references to Producer's Rent.] W. E. J.

PRODUCTION.

Production, p. 213; Production and Consumption, p. 213; Production, Cost of, p. 216; Production, Instruments of, p. 216; Productive (the terms), p. 216; Productive and Unproductive Labour, p. 217; Productivity of Capital, p. 220.

PRODUCTION (or, in full, THE PRODUCTION OF WEALTH), as the title of one of the great departments into which economic treatises divide political economy, seems to have appeared first in the *Traité* of J. B. SAY (*q.v.*), which consists of three books on production, distribution, and consumption respectively. In using the title, J. B. Say was probably influenced by the heading of book i. of the *Wealth of Nations*, in which the productive powers of labour and the distribution of its produce are mentioned. James Mill, in 1821, adopted Say's division of the subject (with the addition of "Interchange") in his *Elements*, and in the same year Col. R. TORRENS wrote his *Essay on the Production of Wealth*. Since that time the use of the title has been almost universal.

Say's book on production begins by describing the process of production, then deals with circumstances favourable or unfavourable to production, such as the institution of property, commerce, state-interference, and colonisation, and finally treats of "a particular product which plays a great part in the formation and circulation of wealth—namely, money." Torrens's *Essay* on the subject is equally comprehensive, and the same may be said of part ii. in M'CULLOCH'S *Principles*, 1825. But James MILL, by his plan, not followed by M'Culloch, of giving a separate place to interchange or exchange, and putting it after distribution, deprived himself of the power of describing under production the means by which the production of wealth is actually carried on, and consequently, even in the second and later editions of his *Elements*, and still more in the first edition, the chapter on production is small and fragmentary. English writers subsequent to James Mill and M'Culloch have generally been inclined to follow James Mill's example by keeping a consideration of exchange out of their treatment of production, which has often reduced itself to a collection of observations about the three requisites or agents of production—labour, land, and capital.

[Cannan, *Hist. of Theories of Production and Distribution*, chs. ii.-v.] E. C.

PRODUCTION AND CONSUMPTION. Wealth, as the term is used in political economy, denotes all those useful goods that are so limited in quantity as to possess value. By the production of wealth is meant the creation of the useful qualities, *i.e.* the utilities of such goods. It is easy to distinguish two requisites of wealth production: (1) the materials provided by nature; (2) human exertion, indispensable in the production of all wealth except the crudest. It is possible to conceive a limited supply of useful commodities due entirely to the bounty of nature, and therefore produced without human exertion. They would constitute wealth. But for ordinary purposes some degree of human exertion may be considered requisite. The term "land" is used by economists instead of the more general term "materials," for the reason that under existing legal institutions it is only through land-ownership or rental that possession can be obtained of natural materials or access gained

to natural forces. The function of land in production is to furnish standing-room for the productive processes, and to furnish as materials for production all those objects for which science can discover any useful application, but which do not owe their present form, position, or qualities to human exertion. Land, as a requisite for production, thus includes building sites, natural soils, beds of minerals, atmosphere, water-courses, and all the other natural products that together constitute, or are in contact with, the crust of the earth.

New discoveries constantly point to new uses for objects which had been comparatively worthless, and increased population constantly makes new demands on the surface of the earth for mere habitation. As a consequence the absolute importance of this primary requisite of wealth production increases with the growth of population and social progress. But the relative importance of land as a productive agent tends to decrease. So long as we recognise only the two factors, land and human exertion, it is evident that the changes which bring about an increased quantity of wealth in a country which has once been fully occupied are due chiefly to the modifications in the forms of human exertion. In primitive stages of civilisation human welfare depends almost exclusively on the extent to which nature provides objects suitable for the supply of man's wants. But the expression "human exertion" is a complex term which must be resolved into simpler elements. Under the primitive conditions to which reference has just been made, it is virtually equivalent to muscular labour. This labour force, directed either instinctively or by the low degree of intelligence necessary, is expended directly upon objects desired for consumption. When fruit, fish, or game is abundant, it produces much wealth. When they are scarce, great labour is necessary to produce sufficient wealth for the bare support of life.

In the course of industrial progress two features of human exertion are gradually developed, which render such exertion, considered as a whole, a much more complex factor in the production of wealth and greatly to augment its importance. The first of these is the rise of CAPITAL. The second is the change in the forms of industry due to enterprise. "Capital" is a term used to designate the results of all industry except those final acts in the series of productive processes which transform an unfinished into a finished product. Under primitive conditions nearly all labour is engaged in the production of PRESENT GOODS, *i.e.* commodities fitted for immediate consumption. In later stages only a relatively small proportion of the available labour is so utilised. Much of it is engaged in the production of commodities which do not directly satisfy human wants, but will be useful in further production. In a certain sense they are unfinished or future goods. A plough, a reaper, a flour mill, an oven, are all so, in one sense, equivalent to many loaves of partly-made bread. These capital goods are useful only in view of the goods for the ultimate production of which they are themselves brought into existence. In the modern industrial world the relative quantities of these capital or FUTURE GOODS is much greater than in earlier stages of industry. They indicate that human exertion is now more efficiently expended. The productive series cover a longer period and imply the expenditure of much labour long in advance of the enjoyment of its results. This does not involve at any point an absolute diminution in the quantity of present goods. On the contrary, since the growth of capital is gradual, there is naturally both an ultimate and a contemporaneous increase of goods fit for immediate consumption. Human exertion and land, the primary productive agents, are now increasingly efficient because, through the use of capital, a given amount of labour will produce more wealth from the same materials. Capital thus comes to be considered a third requisite of production. While goods classed as capital are like other commodities, produced by human exertion upon natural materials, they differ from commodities fit to supply human wants directly, in that their sole function is to aid further production.

Earlier economists usually thought of capital as a fund saved by the exercise of personal abstinence from consumption, and used chiefly to support the labourers during the period in which they are engaged in any particular production. The more recent tendency is to view capital, not as a fund saved from consumption, but as a natural development of the productive process. Capital appears, not because consumers have denied themselves pleasures which they might have enjoyed, but because producers have begun to exert their energies in a more efficient manner. The capital goods are increasingly prominent in highly-developed industrial society only because its production is increasingly complex and indirect, each series increasingly extended and interwoven with other series. Capital is a result of saving; but the saving of which it is a result is not mere non-consumption, but rather a positive modification of the method of production which, by permitting longer periods, greater specialisation, and more serial methods, increase both capital and the product.

Long before industry has reached the highly-complex form with which we are familiar, enterprise or directive intelligence has become an element in the production of wealth which cannot rightly be ignored, or unceremoniously dismissed as a new DIVISION OF LABOUR. The

intelligence which directs the application of labour to land and capital, has now become a factor of prime importance. There is discernible in nearly all recent economic literature a tacit recognition of this fourth factor, though there is no general agreement in the use of a term for its designation (see ENTREPRENEUR). It is discussed sometimes under Industrial Organisation, sometimes under Management, and again, as a special variety of Labour. Directive intelligence and labour force, however necessary each is to the other in actual industry, are clearly distinguishable. They are united in various persons in quite different degrees. That they cannot be physically divorced is no more reason for not enumerating them separately, than the impossibility of exerting labour without materials is a reason for identifying those agencies. If a higher degree of intelligence directs industry at one time than at another, the result is an increase in total productive power, precisely as in the case of more abundant materials, more effective labour, or increased capital. Efficient wealth production in the present industrial *régime* depends indeed more on management than on any other single factor. Each of the other agencies remains essential, but intelligence in production becomes the variable factor which in recent times distinguishes the successful communities from those which, with equal opportunities, produce less wealth.

In actual industry we see these four agencies only in combination. The organisation of industry begins with its earliest forms, and becomes steadily more complex as society develops new wants and increases its productive power. The most prominent features of this more complex organisation are (1) an extension of the division of labour; (2) an increased localisation of industry or territorial division of labour; (3) an increased utilisation of different types of labourers for different kinds of production, or, as it may be called, a racial division of labour; (4) a tendency toward production on a larger scale; (5) the development of specialised machinery and individual skill.

A survey of production should lead to a clear conception of the sources of productive power. Modifying the enumeration of Mill (*Principles*, vol. i. bk. i. ch. vii.), to bring it more nearly into conformity with the preceding discussion, and reversing its order that the sources may appear in the order of their present importance, we may conclude that the productive power of society will be great when there exist (1) intelligent direction of the natural forces; (2) conditions favourable to a high degree of energy, enterprise, and trustworthiness; (3) serial methods of production, the outward indication of which is the presence of relatively large quantities of capital goods; (4) possession of abundant material resources.

Economic writers will naturally emphasise these various elements, not in accordance with the positive contribution made by each to the total production—which it is impossible to ascertain—but in accordance with their respective notions as to the degree in which any of them, at a given time, may be classed as limiting requisites. In the middle of the century the prevailing view was that capital was the limiting requisite. Mill's famous proposition that industry is limited by capital is the clearest expression of an idea, which is, however, also involved in the entire WAGES-FUND theory. The so-called SINGLE TAX movement is based on the idea that, under existing social arrangements, land is the limiting requisite. The theory of distribution, which makes of wages the "residual share," and of labourers the class that are in position to reap the benefit of industrial progress, implies that labour is the limiting requisite. Each of these assumptions may be true of a particular stage of industrial development, while it is probably true that at present production is limited by the slow increase of intelligent management rather than by a deficiency of land, labour, or capital. The laws governing the rate of increase of the productive agencies are of interest in the study both of production and of distribution.

The consumption of wealth properly forms, according to many recent economists, a distinct division of political economy, though in the standard texts consumption has usually been discussed only with reference to its effects on production. The economist is called upon to show that productive efficiency is increased by economical consumption, *e.g.* by the avoidance of waste, and in general by a judicious expenditure of income. It may also be pointed out that increased variety of consumption in society directly increases social wealth by calling on new resources in nature. The possibility of making the best use of land depends quite as much on the character of social wants as on the amount of scientific knowledge. Changes in human wants accompany changes in human activities, and are often their cause. The improvement of consumption is, as a rule, the initial step in social progress. Political economy finds its centre of interest in the home rather than in the factory, for the reason that the efficiency of society's production finds there its ultimate test. There is the most wealth only in that place where there is the greatest human weal. If wealth be not economically consumed, the labour expended in its production is in so far wasted. Production is the creation of utilities. Consumption is usually accompanied by their destruction, but in such a manner that the intended satisfaction is actually realised. In this last condition lies the distinction between consumption and waste.

[See CONSUMPTION AND CONSUMERS' GOODS. Jevons pointed out (*Theory of Political Economy*, p. 43) that the theory of economics must begin with a correct theory of consumption. Professor Marshall, in his *Principles of Economics*, has recognised the correctness of this view by placing the book on "Demand or Consumption" before that on "Production or Supply." Professor Patten in *The Theory of Consumption*, *The Theory of Dynamic Economics*, and elsewhere, has outlined the contents of a Theory of Consumption, which is practically independent of Production, Exchange, and Distribution, thus meeting the objection of Keynes (*Scope and Method of Political Economy*, 1st ed., note to ch. iii.), that the discussion of the various topics treated under Consumption may be distributed among the other divisions of political economy. The view urged by Keynes is that "a true theory of consumption is the keystone of political economy," but that "it may, nevertheless, be regarded as occupying the position of a fundamental datum or premiss of the science rather than as constituting in itself an economic law or laws on a par with the laws of production, distribution, and exchange." This statement and the article on CONSUMPTION reflect the usual treatment of the subject in standard English and American text-books.] E. T. D.

PRODUCTION, COST OF. See COST OF PRODUCTION.

PRODUCTION, INSTRUMENTS OF. A term applied to goods and agencies which have not of themselves any capacity for satisfying the desires of men, but which are requisite or advantageous to them in obtaining or making goods from which enjoyment can be derived. To the cotton manufacturer, his factory is on a different footing from his private residence; a waggon-horse serves a purpose, but not the same kind of purpose as a hunter. Of course, in many cases it is difficult to say to which class a given commodity belongs; indeed, the same commodity may be used for the one purpose at one time, and for the other at another, or for both at the same time, *e.g.* a ship conveying corn in the hold, and a pleasure-party in the cabins.

Nevertheless, the distinction is real, and great masses of agencies can be placed on each side of the line drawn by it. Accordingly, we have the classification of *Goods of the First Order*, for consumption; of the *Second Order*, for use as instruments; and we go on to a *Third Order*, for use as instruments in making instruments, and so on to farther refinements. (See GOODS, CLASSIFICATION OF.) It was Say who first gave attention to the distinction, and Hermann, Karl Menger, and the Austrian economists have proceeded to elaborate it.

The importance of the distinction comes out in the treatment of CAPITAL (*q.v.*) as consumption capital and auxiliary capital; in estimating the wealth of a country, when, as Prof. Sidgwick points out (*Principles*, bk. i. ch. iii.), "what is commonly prominent in the thought of men" is the consumption class of commodities; in comparing standards of value and estimating variations therein; in considering whether patents, goodwill, and some other immaterial properties should be reckoned as part of national wealth or not. But the introduction of a distinction within instruments of production, as to whether they are "purchased" or "unpurchased," *i.e.* given by nature, or acquired by effort and sacrifice, involves us in so much complication that no effective result is obtained by it. A. C.

PRODUCTIVE, THE TERMS.

Productive Capital, p. 216; Expenditure, p. 216; Consumption, p. 216; Services, p. 217; Utility, p. 217.

The sense in which the terms productive and unproductive have been used in economic discussions has undergone considerable changes from time to time. The views of mercantilists (see MERCANTILE SYSTEM; PHYSIOCRATS) in respect to this point were affected by the narrowness or breadth of their conception of wealth. Yet this statement alone will not suffice to account for the controversies which have raged around the proper use of these simple terms. What is really needed is to make the terms precise by explicitly indicating what it is in reference to which labour or other effort or sacrifice is considered productive. In the writings of Adam Smith and many more recent writers that labour is called productive which tends to increase accumulated wealth. Many of the misunderstandings which have occurred would have been avoided had writers expanded their thought into the phrase "productive of material wealth" or into "productive of permanent sources of enjoyment," or made it quite clear that such a conception was by them included in the single word "productive." Tradition has, in fact, associated with this term a special reference to stored-up wealth which prevents it from being employed, as common sense would seem to dictate, so as to apply to any effort which results in utility, so as, in fact, to include all effort except that which fails to attain its object, or in so far as it fails in that end if failure be only partial.

Productive capital is therefore capital devoted to producing the means of production and lasting sources of enjoyment, not capital which is itself a source of enjoyment.

Productive expenditure is such expenditure as is not devoted to ephemeral enjoyment, but, directly or indirectly, to obtaining increased means of acquiring utility.

Productive consumption will include only such consumption of productive workers as is necessary for maintaining their working capacity, but will include the necessary consumption of children or of adults during sickness, as these are devoted to the development or restoration of working capacity.

Productive services will include all such as are not in themselves an end, but are a means towards a more remote utility.

Productive utility.—If an object or service be capable of ministering to direct enjoyment, and also, either at the same time or alternatively, of assisting in producing either other means of production or some more or less permanent source of enjoyment—if, in fact, it can minister either mediately or immediately to enjoyment, the utility which it has in virtue of its capacity to minister to enjoyment mediately will be called productive utility.

The nature of the distinctions drawn between productive and unproductive services or goods will be best made clear by reference to the following quotations from J. S. Mill's essay on the subject. The artificial nature of some of these distinctions would be thrown into relief if their practical results were examined by applying them to particular cases.

"The following are always productive:—

"Labour and expenditure, of which the direct object or effect is the creation of some material object useful or agreeable to mankind.

"Labour and expenditure of which the direct effect and object are, to endow human or other animated beings with faculties or qualities useful or agreeable to mankind, and possessing exchangeable value.

"Labour and expenditure, which, without having for their direct object the creation of any useful material product or bodily or mental faculty or quality, yet tend indirectly to promote one or other of these ends, and are exerted or incurred solely for that purpose.

"The following are partly productive and partly unproductive, and cannot with propriety be ranged decidedly with either class:

"Labour or expenditure which does indeed create or promote the creation of some useful material product, or bodily or mental faculty or quality, but which is not incurred or exerted for that sole end; having also for another, and perhaps its principal end, enjoyment, or the promotion of enjoyment.

"The following are wholly unproductive:—

"Labour exerted, and expenditure incurred, directly and exclusively for the purpose of enjoyment, and not calling into existence anything, whether substance or quality, but such as begins and perishes in the enjoyment."

"Labour exerted and expenditure incurred uselessly, or in pure waste, and yielding neither direct enjoyment nor permanent sources of enjoyment."

[J. S. Mill's essay on "the words Productive and Unproductive," in his *Unsettled Questions of Political Economy*, gives one of the most useful discussions of the points involved.—Marshall, in ch. iii. of *Principles of Economics*, bk. ii., explains the senses in which the words are used, and, in a footnote, expresses the view that the distinctions should be allowed to dwindle gradually out of use rather than be suddenly discarded. Cp. also *Wealth of Nations*, bk. ii. ch. iii. and bk. iv. ch. ix.—Mill's *Principles of Political Economy*, bk. i. ch. iii., and Travers Twiss, *Progress of Political Economy*, § 6.] A. W. F.

PRODUCTIVE AND UNPRODUCTIVE LABOUR. Productive labour has been generally conceived as labour creative of wealth or profit, or, as M'CULLOCH expresses it, labour which occasions the production of a higher value than was expended on carrying it on, or even of the same value. Its scope is limited to the creation of utilities, since no labour can add to the quantity of matter in the world (J. B. SAY, *Traité d'Économie Politique*, bk. i. ch. i.): as the derivation of the word implies, production is the *drawing forth* or development of utilities from the existing sum of matter (see PRODUCTION). "Produire, en effet, c'est donner de nouvelles formes à la matière" (Condillac, *Le Commerce et le Gouvernement*, ch. ix.). Our conception of productive labour depends on our antecedent conceptions of WEALTH (*q.v.*) and VALUE (*q.v.*), that is, on our idea of what kinds of utilities constitute wealth (see UTILITY). Thus the MERCANTILE SYSTEM admitted as productive those methods of employing the factors of production which increased the stock of precious metals possessed by a nation, *e.g.* mining and export trade: a classification which stands or falls with the conception of national wealth as consisting in money (ROSCHER, *System der Volkswirthschaft*, bk. i. § 48). The PHYSIOCRATS based their division of productive and unproductive classes on the theory that the earth is the only source of wealth. According to them the labour of proprietors and cultivators of land is productive, as it increases the stock of raw material useful for human ends; that of manufacturers, artificers, and merchants is unproductive, as it is maintained out of the superfluities of the two productive classes. They held that the value of a manufacture depends on the quality of the raw material, any superiority in value of the finished over the raw product serving only to cover the cost of the worker's maintenance; while commerce simply moves existing wealth from one place to another. Adam SMITH (*W. of N.*, bk. iv. ch. ix.) pointed out that, even if the merchant and artisan only replaced the value of what they consumed, they could not accurately be called unproductive; but in fact their efforts increase the total revenue of a society, since in estimating it the amount of value they produce must be added to the total amount of value produced by the agricultural labourer for his own and their consumption. It has further been observed that many labourers undoubtedly add more value to their material than they consume: for instance, a sculptor and a stonemason produce widely different values in similar

blocks of marble; and some of the physiocrats admitted, on this account, the productivity of manufactures. But commerce also increases the value of material by transporting it not merely from one place to another, but from a place where it is in less to a place where it is in greater demand (see COMMERCE): as CONDILLAC shows, in an economic exchange both parties gain (*Le Commerce et le Gouvernement*, ch. vi.). The view of commerce as a "parasite industry," adopted by FOURIER (*Theory of Social Organisation*, New York, 1876, pp. 94-110) and socialists of his school, is based on a criticism of its abuses, not on a demonstration of its essential unproductivity.

Adam Smith observes further that, even supposing wealth to consist only in the raw produce of the earth, yet manufactures and commerce are often instrumental in importing more of this into a country than its own resources could produce. He thus expressly admits the principle of indirect production; but his own classification (*W. of N.*, bk. ii. ch. iii.) includes as productive the agricultural, manufacturing, and mercantile classes, because their labour tends to "fix or realise itself in some permanent subject or vendible commodity," and excludes the labour of officers of war and justice, clergy, lawyers, physicians, domestic servants, actors—in short, personal services. M'CULLOCH, on this passage, remarks that this division is inconsistent with Smith's admission elsewhere that wealth includes other than material and vendible products; but in any case it is the services of Smith's unproductive classes that enable his productive classes to produce. A soldier or a servant, by relieving the direct producer of work which he would otherwise have to do for himself, leaves him time to produce proportionally more; thus according to Smith's own theory of the DIVISION OF LABOUR (*q.v.*) these personal services should be considered at least indirectly productive. Smith's inconsistency is in neglecting to include here, as he does elsewhere, the principle of indirect production; his restriction of the scope of productive labour to a single kind of wealth is not necessarily inconsistent, but as J. B. SAY noticed (*Traité*, bk. i. ch. xiii.) it is arbitrary. To Say belongs the credit of demonstrating that since we can neither create nor annihilate matter, but only develop utilities in or apart from matter, there is no scientific objection to our applying the term "productive labour" to the creation of immaterial as well as of material products. Unfortunately neither Say nor M'Culloch sufficiently emphasises the truth that material and immaterial products alike can be considered wealth in virtue not of their utility—which Smith did not deny to immaterial products—but of their exchangeable value. They are apt to neglect the distinction so carefully maintained by the physiocrats, between *biens* and *richesses*. J. S. MILL therefore (*Principles of Pol. Econ.*, bk. i. ch. iii.), observing with justice that the production of utility does not satisfy the notion which mankind have usually formed of productive labour, whose end he conceives to be not utility but wealth, and that the word "unproductive" conveys no stigma unless production be regarded as the sole end of human existence, revives and expands Smith's definition. He remarks that the popular idea limits wealth to the possession of utilities fixed in material objects, not because they are material, but because they are capable of accumulation. Labour, therefore, which produces utilities fixed and embodied in material objects, he calls productive, and he shows that this definition includes commerce. Labour which produces utilities fixed and embodied in human beings, such as the labour of teachers and physicians, he regards as indirectly productive if an increase of material products is its ultimate result; but in Mill's *Essays on some Unsettled Questions of Pol. Econ.* he gives quite a different reason for regarding it as productive, namely that utilities embodied in human beings are permanent and may therefore be considered wealth. Labour not fixed nor embodied in anything, but consisting in a mere service rendered, he calls unproductive.

But first, it is hardly possible to draw a line between material and immaterial products. A statue or picture is a material product, but its value is mainly as immaterial as that residing in the performance of an actor. Secondly, almost every occupation, however frivolous, could be imagined to contribute to mental or bodily health and hence, indirectly, to the increased productivity of the productive labourer. Thirdly, Mill grants that unproductive labour is often productive for an individual or a nation, if not for the world at large. A mercenary soldier or a travelling actor labours productively from his own point of view if his gains repay his exertions; and if he returns home his gains increase the sum of his own nation's wealth. Fourthly, utilities embodied in material objects are not always wealth: a commodity unsaleable because produced in a quantity exceeding the demand for it is not wealth, therefore the labour spent on producing the excess was unproductive, as Mill in the *Essays* admits. Thus the definition in the *Principles* covers some cases where labour is not productive, but not all cases where it is. Mill urges the advisability of accommodating economic definitions to popular conceptions. A scientific definition should express not the popular conception but its philosophic basis; but apart from this, the conceptions of wealth and consequently of productive labour have varied so widely that popular usage cannot well be quoted in sanction of any one of them.

In the *Essays*, Mill prefers to define productive labour as the creation, directly or indirectly, of permanent sources of utility or enjoyment possessing exchangeable value. But the assumption that permanence is necessary to the idea of wealth violates the law of continuity. "Things are of all degrees of permanence, from the land which lasts for ever down to labour which perishes in the using" (Macleod, *Elements of Economics*, vol. i. p. 85). Mill does not indicate at what length of duration he draws the line. The one characteristic common to all kinds of productive labour is the exchangeability of their products; and immaterial products are as exchangeable as material ones. ROSCHER's classification of productive labour as "all labour which is in reasonable demand and adequately paid," is in harmony with the conception established by the ancients and accepted by the physiocrats and Adam Smith, that the principle of wealth resides in exchangeability. F. A. WALKER (*The Wages Question*, London, 1891, pt. i. ch. i.) proves only that all wealth is not exchanged, not that it is not all in principle exchangeable.

Whatever may be the defects of Mill's classification, he perceives that a scientific definition of productive labour does not necessarily enable us to determine whether any particular piece of work is productive or not. Still less can we distinguish between productive and unproductive classes: as SENIOR says, most men belong to both. Again, the distinction of direct and indirect productivity can be maintained only in relation to a given kind of labour: for instance, a judge, by securing the payment of a shoemaker, contributes indirectly to the fabrication of shoes, while the shoemaker, by supplying the judge with shoes, contributes indirectly to the maintenance of justice. Productive and unproductive labours differ not in kind but in degree. To the community all labours are unproductive which are maintained to the disadvantage of others which are more necessary, as when the military, clerical, or professional classes increase out of proportion to the agricultural and manufacturing classes. Not the profession as such, but the excess of the numbers engaged in it is unproductive; agricultural or manufacturing labour would be equally so, if more of it were employed than was necessary to attain the desired result. Since all productive involves antecedent consumption or destruction, it is necessary to the idea of productive labour that the value it creates should not be less than the value it destroys. Senior, indeed, prefers to distinguish between productive and unproductive consumers (*Pol. Econ.*, London, 1872, pp. 53-57), a distinction which has its advantages, since, as Mill observes, all members of the community are not labourers, but all are consumers. But in neither case is it possible to draw a hard and fast line between productive and unproductive.

Productive labour, then, is best defined as labour which creates or develops, directly or indirectly, material or immaterial products, exchangeable, and possessing a value not less than the value consumed in producing them. These products may be of every degree of necessity, from daily bread to Mill's "pine-apples and gold lace"; and of every degree of durability, from a newspaper to the κτῆμα ἐς ἀεί of Thucydides. HERMANN (*Staatswirthschaftliche Untersuchungen*, 2nd ed., 1870, p. 20) distinguishes further between various extents of productivity. To the producer a labour is productive if he makes a profit by it; to the consumer, if its value to him exceeds the value he expends in securing it; to the community, if it increases the sum of exchangeable goods. But some labours are profitable to individuals though not to the community, *e.g.* games of chance, as a rule, since by labour which deprives one person of as much as, or more than, it brings in to the other, the common stock of wealth is not increased. On the other hand, some labours may be unprofitable to the producer, and yet contribute to the general wealth more than he expended, *e.g.* scientific experiments. Roscher observes that private economy measures the productivity of labour by the exchange value of its product, general economy by its value in use, while national economy holds an intermediate position. But from whatever point of view the question be regarded, most recent economists agree in admitting the creation of immaterial products to the rank of productive labour. The higher the ground we take, the harder it is to estimate the productivity of any given labour: the most we can say is, with Roscher, that the greater, freer, and more intelligent a nation is, the more will the gain of the individual tend to become identical with the gain of the nation and of the world.

[See also EFFICIENCY OF LABOUR; EXCHANGE; LABOUR; PROFIT. The development of the theory of productivity is best described by Roscher, *System der Volkswirthschaft*, Stuttgart, 1880, vol. i. bk. i. §§ 48-55; he gives an exhaustive list of authorities. Good summaries are also given by Macleod, *Elements of Economics*, London, 1881, vol. i. bk. i. ch. v. §§ 8-11, ch. vi. §§ 1-10, and bk. ii. ch. i. § 48; and by Kleinwächter in Schönberg's *Handbuch der politischen Oekonomie*, Tübingen, 1882, vol. i. pt. v.—Read also Adam Smith, *Wealth of Nations*, ed. M'Culloch, Edinburgh, 1850, bk. ii. ch. iii. and bk. iv. ch. ix.—Condillac, *Le Commerce et le Gouvernement*, Amsterdam, 1776, chs. ix. x.—J. B. Say, *Traité d'économie politique*, Paris, 1817, vol. i. bk. i. chs. i. ii. iv. v. xiii.—M'Culloch, *Principles of Pol. Econ.*, London, 1830, pt. i. ch. i. and pt. iv. p. 523.—Mill, *Principles of Pol. Econ.*, London, 1880, bk. i. ch. iii.; and *Essays on some Unsettled Questions of Pol. Econ.*, London, 1844, Essay iii.] E. R. F.

PRODUCTIVITY OF CAPITAL. That the labour of men is rendered more efficient when that labour is assisted by capital, is accepted as a general truth by all. Something more than this is, however, implied when the statement is made that "capital is productive," and when the productivity of capital is assigned as a reason for and source of interest. It is implied in this, not merely that labour assisted by capital produces more commodities than labour which has less or no assistance, but that more value is produced; and not only that more value is produced, but that this addition of value to the product exceeds the value of capital consumed in the process. The expression of this by M. Paul Leroy-Beaulieu takes the form that the employment of capital saves time in the production which it assists—perhaps we should say labour-time—and that this saving in general exceeds the time, or labour-time, expended in the formation of the capital. This excess measures the productivity of the capital.

The school of writers represented and led by Dr. von Böhm-Bawerk, regarding value from an opposite point of view from that of the school of Adam Smith and Ricardo, find the idea of productivity of capital a stumbling-block. Value in their view rests on utility, and the value of capital and the value of labour depend on the value of the products they serve to turn out. From this point of view, capital cannot serve to produce surplus value, that is, to replace its own value, with a surplus, in its product, since the value of the products precisely determines the value of the productive instrument. The products are future, and the total present value of the future products of the instrument is the actual value which that instrument has. The present value is less than the future value will be, when the products are complete and become "relative to their users" present. This agio on present goods or discount on future goods, being dependent on mental estimates of future *versus* present, does not depend on the cost of production of the capital, and does not leave any room for surplus value to be produced by the capital as it is consumed in giving birth to products.

The other view of value readily finds a place for productivity of capital. The value of products being conceived as dependent on their cost of production, the effectiveness of effort directed towards their production by different methods is compared. If a process involving the preliminary formation of capital, to be subsequently used in producing the required commodity, be productive of a greater quantity, and a greater value, of the commodity than equal effort applied otherwise without the intermediate formation of capital would have produced, the extra quantity, or value, of product is attributed to the capitalistic process. On such a basis the idea already mentioned, of such writers as M. Leroy-Beaulieu, in regard to productivity of capital, rests.

The closer analysis of ideas on the part of representatives of both schools of thought, in fact, attributes the productivity, not to the capital, but to the different processes of production. The more direct process of production is less effective (at any rate in general, and up to a certain point) than the less direct process. The one school thinks of the use of a greater amount of capital, the other, striving to penetrate to the foundation of things, discusses the more prolonged production process, and asserts an increase of productivity with the prolongation of the process. This idea is, doubtless, in general correct, but not of necessity, for invention may, as has been suggested (*e.g.* by Prof. Taussig), take the direction of pointing out ways of abbreviating productive processes while rendering them more productive; that is to say, not merely showing how productive processes of the old duration may be made more productive, but giving a maximum productivity for a process of shorter duration than the former most productive process. This shorter process may require a larger proportionate value of capital in the intermediate stages than the displaced processes, in spite of its whole duration being shortened.

So long as the leading conception in thinking of value is its measure by "cost of production," there is no difficulty about the idea "productivity of capital." But there is something like a negation of any possible meaning to it when value is conceived of as something determined wholly by utility, and when the comparison of present with future utilities is effected without reference to the production-costs of the sources of the one and the other. There is no room for a surplus of value to be produced by the capital, unless in that idea we comprise the gradual accretion of value as future ripens into present utility. We may go further, and say that, admitting that values tend to be proportionate to costs of production, this is effected by so distributing effort, in relation to utility aimed at, that equal effort realises equal utility in every direction. The value arises out of the utility of the resulting commodity, though it may preserve proportionality to the productive effort. From this point of view, the existence of a state of things such as that contemplated by M. Leroy-Beaulieu might perhaps be viewed as an indication of a misdirection of effort, since the realisation of greater value from the same expenditure of labour-time in one process than in another shows a want of balance between different processes, an absence of that equilibrium between the various phases of industry contemplated in most inquiries, where statical conditions are supposed achieved, or the statical condition which would equilibrate existing forces is sought. In fact, in a state of equilibrium,

it would be necessary to suppose that the surviving more direct processes of production were of such nature as to be equally productive marginally with the indirect processes adopted, that the indirect methods actually in use were all equally productive of value, or at any rate so nearly so marginally that no transference of effort from one to another could lead to increased production of value.

The adoption of indirect processes, given the sum of present effort available, must mean a lessened production of immediately consumable goods; and the extension of such processes will therefore cease when, by restriction of present goods and increase of the means of production of future goods, the short supply of present and the large supply of future goods is accommodated to the relative demand for these at the existing agio on present goods, granting that this agio is determinable.

In either case, whether we take the view of value which readily gives meaning to the phrase we are considering, or that which renders such meaning inconceivable, one thing is certain, and that is that we have to find some reason for the greater amount of product, or of value, which is, in the long run, given by indirect as contrasted with direct processes. Whether at some assumed agio on the present in comparison with the future, such sums of products have or have not an equal present value, is another question. It is not contested that the sum of the values, when they ripen into present values, of the utilities afforded by indirect processes of production, exceeds in general the sums of value attainable with equal effort in a directer process. The qualification "in general" simply applies to the fact that a *most productive* degree of indirectness exists. Further extension of processes of production beyond this point would involve smaller productivity, whether in present value of future utilities or in the sum of the values to be realised in the future by such utilities, *i.e.* whether by the sum of the discounted future utilities or of the actual future utilities.

The increase of product in indirect processes may be said to be due to the fact that certain natural forces or phenomena can be made to minister to the wants of man, on condition that he prepares means through which to utilise those powers. The wind will serve to grind his corn or move his goods from one place to another, provided he prepares sails and gearing to transmit their motion to grindstones in the one case, and a boat, ship, or barge fitted with mast and sails in the other. The pressure of the atmosphere helps him to use his physical strength to raise water from a well more easily than by lowering a bucket into it, if he prepares a pump with its necessary appurtenances. He may obtain fire more easily by rubbing a match on a duly prepared surface than by rubbing two sticks together or striking flint and steel over tinder. The pressure of superheated steam can be made to move very heavy things and do a great variety of useful work if an engine properly designed to take advantage of that pressure be first constructed. To take one further example, the resistance offered to any propelling force used to move heavy goods is less if wheels be made and so arranged as to support the goods while they can turn freely, still more if they be made to run on a previously prepared track such as a well-made road or on rails such as tramways and railways utilise. These common examples are all cases where natural powers cannot assist man in obtaining utilities without the provision of what may be compared to a harness for those powers, or are cases where hindrances opposed by nature in the way of man's efforts to supply himself with utilities may be avoided by means of suitable provision of apparatus. The productivity of indirect productive processes will be found to be generally if not universally reducible to one or other of these heads. There are indefinite reserves of natural powers which can afford utilities to man, but only the barest minimum of utility is offered except on condition of intelligently directed effort on a man's part. As has been said, "The more man will do for himself, the more nature will do for him."

There remains the important question of the conditions governing the amount of the productivity of indirect as compared with direct processes of production. Here it may be said that the "law of diminishing utility" is constantly at work to limit the indefinite extension of the mere repetition of particular processes, aimed at producing a given commodity. The increase of quantity of commodity is met by a decrease of its marginal utility. On the other hand, new wants are being discovered, and new ways to satisfy old wants with reduced outlay. Scientific discoveries reveal ways of extracting utility from substances previously useless or even noxious, and old processes are replaced by new ones for obtaining many commodities. These things, together with the constant growth of wants, whether of individual or of community, and the extension of utilities formerly enjoyed by restricted sections of society, to new classes, afford opportunity for constant utilisation of increased quantities of effort in indirect processes of production, while the fuller satisfaction of wants, reducing the marginal utility of their further satisfaction, opposes the increase of value-productivity by extensions of individual processes beyond definite limits. There tends, therefore, to be a reduced yield of value through increase of supply of particular products on the one hand, an increase of value through discovery of new means of affording utility on the other hand. The latter includes the development of new wants and the discovery

of new methods of adapting natural powers to the supply of utilities to mankind.

[On this subject special prominence may be given to Dr. von Böhm-Bawerk's works translated by Professor W. Smart, under the titles, *Capital and Interest* and *The Positive Theory of Capital.* The former contains criticism of other writers, the latter the development of his own views. In addition, Leroy-Beaulieu's *Essai sur la Répartition des Richesses*, and some chapters of his *Traité théorique et pratique de l'Économie Politique* should be consulted, and the corresponding parts of the general treatises of numerous writers, particularly J. B. Say and Malthus. More or less on the subject is contained in almost every elaborate general treatise on political economy.]

A. W. F.

PRODUIT NET. The PHYSIOCRATS (*q.v.*), to whom we owe the distinction between gross and net national income, applied it in accordance with their cardinal doctrine that all wealth is derived from the land. Thus QUESNAY uses the term *produit net* as signifying the surplus of the raw produce of the earth left after defraying the cost of its production. He reasoned further that since natural agents are the sole source of wealth, and since only one class in the state—the class of agriculturists engaged in obtaining raw produce—pays rent for the use of natural agents, therefore the *produit net* is represented by this rent, which serves for the support of Quesnay's second or proprietary class, and the payment of his third or unproductive class of merchants, manufacturers, public officials, etc. On this theory it follows that the entire expenses of government are ultimately defrayed out of the rent received by the landlords; Quesnay was therefore consistent in proposing that all taxes should be repealed and replaced by an IMPÔT UNIQUE (*q.v.*) laid directly on the rent of the land (Quesnay, *Tableau Écon.*, London, 1894; *Physiocratie*, 102 *et seq.*).

Quesnay's reasoning suffers partly from the inadequacy of the physiocratic conception of WEALTH (*q.v.*, also PRODUCTIVE LABOUR), and partly from a misunderstanding of the origin and causes of RENT (*q.v.*). As M'Culloch shows (Introduction to Smith's *Wealth of Nations*, Edinburgh, 1850, p. xli.; note, p. 305; supplementary note on rent, p. 444), the payment of rent is not a necessary condition of agricultural labour, but arises only in an advanced state of society as "a consequence of the decreasing fertility of the soil, or of our being obliged to resort to inferior lands to obtain supplies of food for our increasing population." In any case, Quesnay was wrong in identifying rent with excess of price over cost of production (Malthus, *Principles of Pol. Econ.*, London, 1836, ch. iii. § 1).

[Smith (*Wealth of Nations*, bk. ii. chs. i. v.) and Lauderdale (*Inquiry into the Nature and Origin of Public Wealth*, Edinburgh, 1804, pp. 122 *et seq.*) attempt to avoid the consequences of Quesnay's theory by classifying kinds of labour according as they increase not the *revenu net* but the *revenu brut.* But this does not touch Quesnay's real error. See Roscher, *System der Volkswirthschaft*, Stuttgart, 1880, vol. i. § 147.—Sismondi, *Pol. Econ.*, London, 1847 (Eng. trans.), p. 224, "On the National Economy, or the Income of the Community."]

E. R. F.

Reference may also be made here to recent support given to the practical issue of the *produit net* doctrine, though on somewhat different grounds. The late Henry George, through the study of the Ricardian theory of rent, and experiences of California and the mushroom rapidity of growth of great American cities, was led to depreciate the contribution of individual owners to the value of land; he considered the land in the main as directly God-given, and increased in utility by the progress of the community in wealth and numbers. Hence he was further led to consider the absorption of its increased values by individuals fundamentally unjust, and a great cause of modern poverty. Recognising, however, certain advantages in private ownership, he did not propose to abolish it, but preferred to secure for the community the rents under the form of a "tax" on land. This tax he persuaded himself would suffice to bear the whole burden of the expenses of the state. From a certain vigour of style and a directness of attention to the contrast between poverty and affluence which modern civilisation has not removed, his writings gained a hearing in England, while in the United States of America he was hailed as the leader of a considerable party. In 1892 he was run as a candidate for the presidency, and in 1897 he was actually engaged in the contest for the first mayoralty of Greater New York when he died, Oct. 1897, within three or four days of the election.

[H. George, *Progress and Poverty*, 1879; *Social Problems.*]

A. C.

PROFICUUM. See FARM OF THE COUNTIES; INCREMENTUM; PIPE ROLLS.

PROFIT, originally a vague word signifying any kind of gain to obtain which some expense or risk must be incurred, has had various narrower significations attributed to it by the definitions of economists.

Adam SMITH, when classifying the national income under the three heads of wages of labour, profits of stock, and rent of land, says that wages are "confounded with profit" when the term "profits" is applied to the whole of the gains of a working farmer or of an independent artisan. A part of these gains, he explains, is wages due to the farmer as labourer or overseer, and to the independent artisan as journeyman. Though he does not lay down any rule on the subject, it may be gathered from his refutation of the proposition that profits "are only a different name for the wages of a particular

sort of labour," that he would decide how much of the gains of any particular capitalist is true profit by means of a comparison of the total with the amount earned by non-capitalists by performing similar labour (*W. of N.*, bk. i. ch. vi.). RICARDO, James MILL, and MALTHUS in his *Political Economy* did not subject the idea of profits to analysis. But Malthus in his *Definitions* (1827) divides "the gross profits of capital independent of monopoly" into (1) "net profits" or "interest," and (2) "the profits of industry, skill, and enterprise" (Definitions 34 and 35). M'CULLOCH, in the 2nd ed. of his *Principles*, makes the same division of "gross profits" into (1) net profits or interest, and (2) "wages or remuneration of the capitalist for his skill and trouble in superintending" the employment of his capital, and "compensation for such risks as it might not be possible to provide against by an insurance" (p. 506). J. S. MILL (*Unsettled Questions*, pp. 107-109, and *Principles*, bk. ii. ch. xv. § 1) treats profits as including the whole of the gains of the capitalist, whether due to the mere possession of capital, or to that and the performance of labour and the undergoing of risk. FAWCETT (*Manual*, bk. ii. ch. v.), JEVONS (*Primer*, p. 52), Marshall (*Principles*, vol. i. 1st ed. p. 142, 3rd ed. p. 156) adopt the same course. Some writers, however, *e.g.* ROGERS (*Manual*, ch. xi.), B. PRICE (*Practical Political Economy*, ch. v.), C. L. Shadwell (*System*, p. 158), follow Adam Smith's plan of regarding as profits proper only that portion of the capitalist's gain which he may be supposed able to obtain without personal labour and if fully insured against risk, while F. A. WALKER, on the other hand, desires to apply the term "profits" only to the other portion of the entrepreneur's gain, namely, that which is over after deducting interest on all the capital he employs, whether it belongs to himself or to another person (*Political Economy*, 1885, p. 247). In practical life the term "profits" is used in all three senses with almost equal frequency. It would be applied without hesitation (1) to the total gain of an individual capitalist employing none but his own capital, and personally performing all necessary labour of management (Mill's profits), (2) to the gains of a joint-stock company or private firm in the case of which all labour of management was paid for by fixed salaries (Adam Smith's true profit), and (3) to the net gain of an entrepreneur employing no capital of his own (Walker's profit).

The earlier 19th century economists, believing that profits in the larger sense were to be regarded as a residue left to employers after payment of rent and wages, assumed that both elements rose and fell together, and in consequence of the same causes. The assumption is unfounded, and it is necessary to consider the two elements separately. As regards the interest element, the kernel of the modern theory is as follows: An isolated individual will often find it advantageous to spend a certain portion of his time in increasing his stock of useful things by the addition of fresh instruments or other objects the enjoyment of which is not immediate but spread over a length of time. The time may be short, as in the case of a stock of grain to last till the next harvest; of moderate length, as in the case of a spade; or interminable, as in the case of the diversion of a stream into a new channel. In deciding what work of this kind he will undertake, the isolated individual will be guided by the relative "profitableness" of the different kinds of work open to him. The "profit" will be reckoned by the amount of future annual labour the work will save him, or, which comes to the same thing, the amount of additional annual income it will enable him to obtain without increasing his annual labour. He will not, for example, first divert stream B at the cost of ten days' labour if that will save him one day's labour per annum ever after, and he knows that to expend ten days' labour in diverting stream A would save him two days' labour per annum ever after. But if he is able to go on accumulating, and knows of no better investment, he may divert stream B after he has diverted stream A.—The rate of interest he obtains would then fall from twenty to ten per cent per annum.—The introduction of other individuals practising exchange of commodities and services does not alter the essential features of the process. The isolated individual, in adding to his stock, selects the most profitable investments known to him first, and so, on the whole, does a number of individuals holding private property and practising exchange. The only important difference lies in the fact that in the latter case the investment and the profit are both reckoned by their value in money, instead of directly by the amount of labour expended and the amount of labour periodically saved, or amount of utility periodically gained. Consequently, in the highly organised modern community as well as in the case of the isolated individual, accumulation tends to cause a fall in the rate of interest, and if there were no change in men's knowledge of profitable investments, the rate could only be maintained or increased in face of accumulation by an increase of population proportionate to or greater than the increase of accumulated useful things. But men's knowledge of profitable investments does not remain the same. Inventions are continually being made which either reveal new profitable investments unknown before, or reveal direct methods of production which enable men to dispense with the additions to the accumulated stock which would otherwise have been profitable. Invention thus sometimes tends to raise the rate of interest, and sometimes, but probably

far more seldom, tends to lower it. The discovery of a practical method of applying steam power to locomotion is the stock example of an invention which caused a considerable pause in the downward progress of the rate of interest by providing a new investment of enormous magnitude. There is no such striking instance of the other kind of invention, but the discovery of means of sending several telegraphic messages at once on the same wire is a case. To this theory, which bases the determination of the rate of interest entirely on the productivity of the marginal investment, it is sometimes objected (*e.g.* by H. J. Davenport, *Outlines of Economic Theory*, 1896, § 114) that the demands for loans for consumption by spendthrift individuals, belligerent governments, and others, obviously affect the rate of interest. This is true enough, but it must not be forgotten that if B borrows and spends as income all that A saves, there is no accumulation of capital. Borrowing for consumption or unproductive purposes tends to raise the rate of interest simply because the consumption tends to reduce the accumulation of capital, and therefore tends to make the rate of interest obtainable in the marginal productive investment higher than it would otherwise be (see INTEREST).

A high rate of interest, or, as it is more often elliptically expressed, "high interest," does not necessarily mean that the aggregate amount received as interest is high, nor that individual interest-receivers are paid a large amount per head. It only means that the ratio of interest to principal is high. The importance of this ratio is obvious; the annual return to be expected from further savings is indicated by it. But the ratio between profits in the narrower modern sense—*i.e.* the earnings of business management by the capitalist, or profits in the wide sense after deducting interest—and the capital of the profit-receiver is not of much importance, and little but vague generalities can be laid down respecting it. As between trade and trade at the same time it will depend on the amount and value of the labour performed by the profit-receiver compared with the amount of the capital required. The rate of profit, exclusive of interest, obtained by Adam Smith's "apothecary" (*Wealth of Nations*, bk. i. ch. x.) was high because the amount and the value of his labour were large in proportion to his small stock of drugs. Marshall's rolling-mill proprietor, on the other hand (*Principles of Economy*, 3rd ed., 1895, vol. i. p. 691), obtains a low rate of profit, exclusive of interest, because in proportion to his enormous capital his labour is of little account. The same rule holds good of the rate of profit, exclusive of interest, in the same trade at different times. A large and well-paid portion of apothecaries' labour having been taken over by medical men paid by fees, and the stock of drugs required having considerably increased, apothecaries' profit has ceased to be "a bye-word denoting something uncommonly extravagant." The value of the labour of the capitalist will vary in consequence of the same causes which bring about variations in wages (see WAGES). Its amount varies with changes in the organisation of industry. The general introduction of the joint-stock company system, for example, has reduced the average rate of profit, both by throwing open to all competent persons certain labour formerly confined to capitalists, and thereby reducing the value of that labour, and by diminishing the amount of the labour performed by capitalists by handing over a portion of it to wage-paid managers and others. (For Walker's theory of profits see RENT OF ABILITY.)

A third element is sometimes said (*e.g.* by J. S. Mill, *Principles*, II. xv. § 1) to be present in profits, viz. "compensation for risk." Here we must distinguish between the profits of a single particular investment and the average profits obtained from a particular class of investments. If every one calculated risks perfectly accurately, and if chance of loss were generally reckoned as exactly counterbalancing an equal chance of gain, competition would so regulate the supply of capital that the successful investments in the more risky classes would pay just enough, and no more than enough, to counterbalance the losses incurred in the unsuccessful investments. Each particular successful investment would bring in something which might be called "compensation for risk," but the average of profits obtained from the whole class would contain no such compensation. If, of course, it were generally recognised that a chance of loss outweighs an equal chance of gain, competition would so regulate the supply of capital that the riskier classes would return on the average somewhat higher profits than the less risky. There is, however, no evidence that this is the case. The probability is that the classes of investments which on the average return most to the investor are neither the very safest of all nor the very riskiest, but the intermediate classes which do not appeal either to timidity or to the gambling instinct.

[A very complete bibliography will be found in Böhm-Bawerk, *Capital and Interest, a Critical History of Economical Theory*, 1884, transl. by Smart, 1894, in the Index of the authors mentioned in the work at the end of the volume. See also the authorities quoted in the text above and under INTEREST. Marshall in *Principles*, vol. i. 3rd ed. bk. vii. chs. vi.-viii., deals with the remuneration of business management more completely than his predecessors. Wieser's *Natural Value*, transl. by Malloch 1893, shows how the main principles of the theory of interest are independent of any particular social organisation.] E. C.

PROFIT AND LOSS ACCOUNT. See art. on BALANCE SHEET, in which reference is made to the point under Heading vii.

PROFIT SHARING is a mode of industrial remuneration under which those employed receive, besides their salary or wages, a stipulated proportion of the net profits of the year, either in cash or deferred advantages. This definition excludes cases where an unfixed bonus is distributed, at the discretion of the employer, but this "chrysalis stage" has not seldom led to profit-sharing proper. The amount of remuneration received varies very greatly, but, in the majority of cases, is, roughly speaking, from 4 to 10 per cent of the wages of the year. Where the benefit is prospective, a definite share of the profits is either paid over to a provident fund against old age or sickness, or invested, on behalf of the workmen, in the shares of the employing company. Whatever, however, be the form it takes, the *raison d'être* of profit-sharing remains the same. The present time-wage system, it is contended, gives no incentive to the workman to work his best, while piece-work is often impossible, and, in any case, tends to an increase of quantity, at the expense of quality. By profit-sharing it is sought to enlist the interests of the workman on the side of the employer. A new source of profit is thus opened, which benefits labour, without diminishing the returns of capital. The sources of this profit spring from a reduction in the waste of material, an improvement in the work done, economy in supervision, avoidance of strikes, a greater stability in the staff, and, lastly, from the enlistment, on the employer's behalf, of the men's best faculties—suggestions as to improvements and new processes being thereby obtained. If these claims be good, and they are advanced by practical men, who have made trial of profit-sharing, they afford an obvious answer to the argument that the system is unfair because the workmen do not share losses as well as profits. A more formidable criticism is, that inasmuch as profits mainly depend on causes over which workmen have little control, it is illogical that they should enter into the calculation of wages. For this reason some economists would prefer what they term a PROGRESSIVE WAGE (*q.v.*), but in any case there is room for a variety of systems.

Profit-sharing was first adopted in England by Lord Wallscourt about 1832; the credit of its introduction into France, in 1842, is generally ascribed to a Frenchman, LECLAIRE (*q.v.*). In England the first notable trial of it was made by H. Briggs and Co. in 1865, at their Whitwood collieries. The experiment was a failure, and after nine years the system was abandoned. Its introduction had been widely blazoned abroad, and had met with the warm approval of J. S. MILL, W. T. THORNTON, and H. FAWCETT, hence its failure became equally conspicuous. It is to this, in great measure, that the little progress made in the ensuing years must be ascribed. There had, however, been special hindrances at work in the Briggs case. Before the introduction of profit-sharing, the relations between masters and men had been extremely strained, and a quarrel about the local trades union supervening before mutual confidence had been established, created distrust of the system, both among the men and the shareholders. Among English firms that still continue the system, there is one, Messrs. Fox of Wellington, Somerset, which adopted it in 1866, but it was not till 1889-91 that the progress of the movement became rapid. During these three years profit-sharing was adopted by no less than fifty firms. Of individual cases of profit-sharing firms, among the more notable are:—

1. South Metropolitan Gas Co., 3000 to 3900 employees.
2. Sir Joseph Whitworth and Co., engineering works, Manchester, 2000 employees.
3. Brush Electrical Engineering Co., 1010 employees.
4. Messrs. Cassell and Co., printers, 1150 employees.
5. Messrs. Clarke Nicholls and Coombe, confectionery manufacturers, London, 1200 employees.
6. Messrs. W. and H. Wills, Bristol, tobacco manufacturers, 1460 employees.

In 1894 Mr. Schloss reported on 152 experiments, of which 101 were still being carried on; only in 16 of the failures did he attribute the abandonment to dissatisfaction with the system. Upon the other hand, it is disappointing to find that no great extension of the system appears to have taken place in subsequent years, and that the important firm of Messrs. Watson and Viney, printers, have discontinued the system on the ground that "profits had not for some time allowed payment of bonus."

The profit-sharing scheme of the South Metropolitan Gas Co. calls for special notice. It is an extension to the employees of the principle of the sliding scale, whereby the dividends are regulated by the price of gas; any increase of the one involving a diminution of the other, and *vice versa*. The condition of acceptance of this bonus is willingness to enter into a contract of service for a limited period not exceeding twelve months. The bonus percentages during the years 1890-1896 were 5, 5, 3, 4, 6, 6, and 7½. In 1894 the percentage rate was increased on condition that one half of each man's total bonus shall be invested in the company's ordinary stock; the other half being payable in cash annually as before. It was already possible to leave the bonus on deposit with the company at 4 per cent. About 2500 profit-sharing stockholders held in 1897 stock to the market value of about £60,000, while there was a further sum of about £27,000 on deposit.

The South Metropolitan Gas Act 1896 provides for the appointment of one or more directors, not exceeding three, by the profit-sharing employees. Such directors must, however, have been at least seven years in the constant employment of the company, and must have held for not less than twelve months not less than £250 worth of stock. For present arrangements see article on CO-PARTNERSHIP in Appendix.

In all, it is estimated that there are at the present time nearly 100 firms practising profit-sharing, employing from 48,000 to 50,000 persons. Besides these are such of the co-operative productive societies as have introduced the system, *e.g.* the Scottish Wholesale Society, the Hebdon Bridge Fustian Society, and the Leicester Boot and Shoemaker Society. It must, however, in fairness be admitted that, in spite of general motions passed at co-operative congresses, the system does not seem greatly to commend itself to the rank and file of workmen co-operators (see "Co-operation and Profit-sharing," by B. Jones, *Economic Journal*, vol. ii. p. 616).

With respect to profit-sharing generally, there is one remark of a disappointing character. Whereas it was the expectation of its early advocates that a half-way house might thereby be provided towards real industrial partnership, the profit-sharing of to-day is, except in the case of the South Metropolitan Gas Co., hardly tending in this direction. Still, on whatever lines, the advance up to a certain point has been so great that it is natural to consider how far profit-sharing would admit of general extension, and thus serve to point the way to "industrial peace." On this question the warning is needed that nothing could be of more sinister omen to the future of profit-sharing than an indiscriminate application of it by all sorts and conditions of employers. Seeing that the supply of unskilled labour is generally in excess of the demand, the inevitable result would be that, in the absence of means such as trades unions to maintain a certain rate, wages would fall in proportion, so that what was gained with one hand would be lost with the other. Even at present, trades unionists are ready to suspect profit-sharing firms of wishing to bring down wages, and though generally this is altogether untrue, in one case a firm giving the high bonus of 26 per cent was found to be paying its workmen less than the recognised wage. Nothing could be more disastrous for profit-sharing than for such cases to multiply. Moreover, it must be remembered that there are industries such as cotton-spinning, etc., in which interest on capital fixed in machinery is the chief element in cost price, and in which piece-work is especially convenient, so that profit-sharing could give little new benefit to the employer. Still, within these limitations there is room for much development; which, however, two influences may tend to retard. On the side of the employee, there is danger from the "new unionism"; on that of the employer, from the tendency of the time, which Mr. Goschen has noticed, for the shares in industrial partnerships to become divided among a great number of small proprietors. The attitude of leaders of working men such as Mr. Burt and Mr. G. Howell has, it is true been and is friendly to the movement, but these men are strong "individualists," and the new school of trades union leaders, who believe much in the action of the state and little in that of private individuals, will hardly view with favour a system which cannot but tend, to some extent, to give workmen interests separate from those common to all fellow-workers in their trade. On the other hand, the small investor, who has perhaps bought his shares in the open market at a high premium, and who is getting a return of not more than 5 per cent on the money laid out, may view with jealousy a system which at any rate appears to be intercepting some of the profits. The conviction is forced upon one that only a strong chairman could have carried through the South Metropolitan Gas Co.'s scheme noticed above. However, there is little reason to fear but that there will be many worthy successors to the present profit-sharers, who have found by experience that "it is twice bless'd; it blesseth him that gives and him that takes."

[D. F. Schloss, *Report on Profit-sharing*, Board of Trade Labour Department (c. 7458), 1894, contains an exhaustive history of British profit-sharing, with tabular statements of particulars. For most purposes this has superseded the previous Board of Trade Report of 1891.—It has been brought down to date in subsequent numbers of the *Labour Gazette*, July 1895, 1896, 1897, and Aug. 1898.—N. P. Gilman, *Profit-sharing between Employer and Employed*, London, 1889, 8vo. This is the leading general book on the subject in English. The French translation of Böhmert's *Die Gewinnbetheiligung*, Leipzig, 1878, 8vo, by A. Trombert, with a preface by C. Robert, Paris, 1888, 8vo, brings down the elaborate German work to the later date.—Sedley Taylor, *Profit-sharing between Capital and Labour*, London, 1884, 8vo; a reprint of essays which did much to arouse public interest on the subject.—T. Bushill, *Profit-sharing and the Labour Question*, London, 1893, 8vo; in part a reprint of evidence given before the Labour Commission, states the case from the side of a practical employer.—D. F. Schloss, *Methods of Industrial Remuneration*, London, 1893, 8vo; contains a very subtle and acute treatment of profit-sharing.—Among earlier notices of profit-sharing by Thornton, Mill, etc., may be mentioned the first advocacy of it by Babbage in the chapter—"a new system of manufacturing"—in his work *On the Economy of Machinery and Manufacture*, London, 1833, 3rd ed., 8vo.—Consult the quarterly *Bulletin de la participation aux bénéfices*, Paris, published by the association of French

employers for the practical study of the question. —The *Quarterly Journal of Economics*, Boston, vol. i. p. 232, contains an able article by R. Aldrich directed against the principle of profit-sharing.—For methods of participation, consult *Profit-sharing Precedents*, London, 1891, 8vo, by H. G. Rawson; with regard to South Metropolitan Gas Co., see letter to *Times* of 2nd January 1897, from Mr. G. Livesey, and Reports of Annual Meetings]. H. E. E.

PROFITS A PRENDRE. See PROPERTY, p. 230.

PROGRESS, INFLUENCE OF, ON VALUE. One consequence of the economic advance of society is a disturbance in relative values. As these are proximately determined by the conditions of supply and demand, it is plain that changes may arise either on the side of demand or on that of supply. When population increases, and wants expand, demand becomes on the whole greater, though it is very unequally distributed, and, brought into relation with the conditions of supply, produces different effects. Raw produce being obtained under the law of DIMINISHING RETURNS (*q.v.*), tends to rise in cost as larger amounts are needed. Manufactured goods, coming under the law of INCREASING RETURNS (*q.v.*), rather tend to fall. Hence the first of the derivative laws of value, viz. that manufactured goods fall relatively to raw produce. Money being a product of mines, it follows that manufactures tend to fall in PRICE as well as in VALUE.

Within each of the two great groups just mentioned there are several subdivisions. Thus Adam SMITH distinguishes between "three different sorts of rude produce" (bk. i. ch. xi.); the first, consisting of those things whose supply it is hardly possible to increase, may rise in value to any point to which effectual demand will ascend. Scarcity makes the value of such articles depend altogether on the demand. In a second class, where the power of industry in increasing supply is more effective, the value rises with the cost of producing the most costly portion of the commodity, and more especially in the case of the chief articles of food, the movement of value is guided by that of population. Corn cannot exceed in value the purchasing power of the consumers. There is, therefore, an element of truth in the idea of Adam Smith and Cairnes, that corn oscillates about a fixed-value point (*Wealth of Nations*, bk. i. ch. xi.; cp. *Leading Principles*, pt. i. ch. v. § 3), though the variations in the standard of living produce considerable fluctuations in this level (cp. Marshall, *Principles*, bk. vi. ch. xii. § 5). Meat, again, rises from a very low point until it becomes much more valuable than grain.

A further set of influences on the products of extractive industry comes from the varying portability of the articles. The value of such a commodity as timber does not rise so rapidly with the progress of a new country, but it rises greatly all the world over in the course of centuries.

Accessory products—such as hides and wool—have their values affected by those of the commodities with which they are closely connected. As meat rises, these accessory products tend to fall, but demand may be so increased as to raise both classes.

Minerals stand somewhat apart. Though they are, strictly speaking, limited in supply, yet the discovery of fresh fields, and the great improvements in working, tend on the whole to counterbalance the influence of scarcity so that, as against extractive products generally, they have not risen. In like manner manufactures can be grouped into classes. Those in which the raw material forms a large part of the value would naturally tend to rise. Where machinery and invention have been most developed to meet extensive demand, the fall ought to be most conspicuous. But both circumstances are often conjoined—as in the case of the textiles consumed by the poorer classes—and in that case the latter element on the whole prevails. Owing to the higher value of special skill, the more finely-wrought products worked by hand tend to rise.

The underlying conditions of increasing and diminishing returns are affected by the opening up of fresh sources of supply through improvements in transport, and particularly by the expansion of foreign trade. In this latter case the results are that (1) imported products fall in value; (2) raw produce exported tends to rise; (3) manufactured exports tend, generally speaking, to fall.

So far as regards the temporary fluctuations of the market, two sets of influences operate, viz. (1) the widening of the circle of exchanges, which tends to produce greater steadiness; as exemplified in the infrequent occasions of famines in modern times, and (2) the greater complexity of modern trading, which makes values less stable. But there is no doubt that retail values are far steadier than formerly.

The values of services are also affected in similar ways. Thus the tendency in recent years has been for unskilled labour to rise relatively to the lower forms of skill which are easily and cheaply acquired. The higher forms of skilled work depending on exceptional natural ability are, however, affected by the absence of an adequate supply and by the greatly increased demand. Hence the value of such services is now higher than ever (see WAGES, NOMINAL, AND REAL).

[See Adam Smith, *Wealth of Nations*, bk. i. ch. xi.—J. S. Mill, *Principles*, bk. iv. ch. ii.—J. E. Cairnes, *Leading Principles*, pt. i. ch. v.—A. Marshall, *Principles of Economics* (3rd ed.), bk. vi. ch. xii. §§ 1-5.] C. F. B.

PROGRESSIVE TAXATION. See TAXATION; GRADUATED TAXATION.

PROGRESSIVE WAGE, a mode of industrial remuneration, under which those employed receive, besides their time or piece-wage, a further premium or bonus in return for any efficiency shown by them beyond a specified degree. This premium may either vary according to the ability of the workman, or be a fixed sum after the defined standard has been reached. It may be given for the quality or for the quantity of the work done, and the recipients of it may be either individual workmen or collective groups. The term was first employed by M. Paul Pierre Leroy-Beaulieu, *Essai sur la répartition des richesses et sur la tendance à une moindre inégalité des conditions*, Paris, 1881, 2nd ed. 1883, 3rd ed. 1888, 8vo, and is fully treated in ch. vi. and vii. of Schloss, *Methods of Industrial Remuneration*, London, 1892, 8vo. Mr. Schloss refers students of the subject to *Rapports et documents de la section d'économie sociale*, Lyons, 1889. H. E. E.

PROMISSORY NOTE. By § 83 of the Bills of Exchange Act 1882, a promissory note is defined as an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay on demand, or at a fixed or determinable future time, a sum certain in money, to, or to the order of, a specified person or to bearer. And by § 85 of that act, a promissory note may be made by two or more makers, and they may be liable thereon jointly, or jointly and severally, according to its tenor.

By § 89 the provisions of the act relating to bills apply, with the necessary modifications, to notes, the maker of a note corresponding with the acceptor of a bill, and the first indorser of a note corresponding with the drawer of an accepted bill payable to drawer's order. Protest of a dishonoured foreign note is, however, unnecessary.

A note made in the United Kingdom must bear an impressed *ad valorem* stamp. The Stamp Act of 1891 defines the term "promissory note" for its own purposes in somewhat wider language than the act above cited, so that instruments which would not be called in commerce promissory notes may require to be stamped as such, as for instance promises to pay out of a particular fund or on a contingency.

[See Chalmers on *Bills of Exchange*, ed. 4, and Byles on *Bills of Exchange*, ed. 15.] M. D. C.

See BANKING, BANK NOTE; BILL OF EXCHANGE.

The usual form of a promissory note made by a single individual is as follows:—

Due 4th July 1897.

London, 1st January 1897.

Six months (or any other time) after date I promise to pay (here insert name of the person to whom the debt is due) or order five hundred pounds value received.

Signed, A. B.

(The name of the maker of the note.)

PROMISSUM. A fine or levy offered in lieu of personal service and taken as part of a scutage or aid. *Scutagium Promissum* occurs in the *Red Book of the Exchequer* for the composition of non-effective tenants towards the levy for the scutage of Toulouse (1159). Hence promissum became a term for a *scutagium* or other feudal levy, which was said to be promised or compounded for in advance by the tenant. When the composition for scutages and military services became general, the word naturally became obsolete (see KNIGHT'S SERVICE). A. E. S.

PROMOTER. The word is generally used to denote one who is connected with floating joint-stock companies by procuring the assistance of brokers and underwriters to arrange for the issue of shares, and by forming the first board of directors. His connection with the company usually ceases with the commencement of its business career, but the tendency of recent decisions and legislation has been towards fixing the promoter with some greater degree of responsibility towards the shareholders. The inception of a public company frequently offers to the promoter the opportunity of securing large profits at the expense of the future shareholders, and this opportunity has been, in many instances, so unscrupulously used as to bring the office into great disrepute. But his functions, properly exercised, are both legitimate and useful, and have played an important part in the growth of joint-stock enterprise.

R. W. B.

PROMPT. The date of payment under a contract of sale. In certain trades, goods sold under a "fourteen days prompt," or two or three months prompt, may be taken up earlier upon payment, but are at the latest to be paid for at the time indicated. R. W. B.

PROPERTY.

Property, the Right of, p. 228; I. What is meant by the Right of Property, p. 228; II. Restrictions on the Right of Property, p. 229; (*a*) Right of Possession, p. 229; (*b*) Right of Enjoyment, p. 229; (*c*) Right of Alienation or Disposition, p. 230; III. Divisibility of the Right of Property, p. 230; (*a*) Servitudes or Easements, p. 230; (*b*) Pledge or Mortgage, p. 230; IV. Origin of the Right of Property, p. 230; V. Grounds on which the Right of Property has been Justified, p. 231; VI. Real and Personal Estate, p. 233.

PROPERTY, THE RIGHT OF.—I. *What is meant by the Right of Property.*—The right of property is described by Professor Holland in his *Jurisprudence* as an extension of the power of a person over portions of the physical world. In its primary sense the proprietary right has reference to some material object. Further, it is what jurists term a right *in rem*,—that is, a right available against all persons other than the one invested with the right, like the right to life or to reputation, as distinct from a right *in*

personam,—that is, a right available only against some particular individual or individuals, such as a right arising out of contract. Thus the right of property is on its negative side a right which one person has to prevent every other person from meddling with a given material object. A correlative duty not to meddle with that object is imposed on every person other than the proprietor. For this reason KANT has observed that a man alone in the world could not be proprietor of anything, for there would be nobody to exclude from dealing with material objects. On its positive side the right of property does not readily admit of exact definition. It may be described as the amplest right of dealing with a material object known to the law. It may thus be distinguished from the right of possession, the *prima facie* right not to be disturbed, which the law recognises in him who actually has, and means to exercise control over, a thing, although he may have no legal title to it. More definitely the right of ownership may be said to include a right of possession, a right of enjoyment, and a right of disposition or alienation. But the signification of the term proprietary right is often extended by lawyers, and still more by the public, to include a variety of rights to which no material object corresponds, or which are only available against specific parties, but which have an exchange value and admit of pecuniary estimation. A recent English statute makes it larceny to abstract electricity belonging to another man, thus acknowledging that force as distinct from matter may become an object of property in the fullest sense. We call such an "incorporeal hereditament" as an advowson, property, though it is merely the right to appoint to an office of a certain kind. We call a franchise, such as the right to hold a fair or market, property (see FAIRS AND MARKETS; MARKET AS PLACE OF SALE) We apply the same term to various monopoly rights, such as copyright, a patent right, or a right to use a particular trade mark (see COPYRIGHT; PATENT; TRADE-MARK), though these are merely powers of hindering others from doing certain things. The right to have a contract performed, as well as the right to recover damages for a breach of contract or for a civil injury sustained, are by English lawyers termed CHOSES IN ACTION, and ranked under the head of personal property. So likewise are shares in a joint-stock company, which are really nothing more than rights to receive certain sums of money and to exercise certain rights under certain conditions. In ordinary conversation we speak of the GOODWILL and the book debts of a business (see DEBT) as property. In these and in other instances that might be cited we include in the term property everything which has pecuniary value. It is property in this extended sense of which we are thinking when we discuss the advantages or disadvantages of the institution. It is property in this extended sense which forms the object of economic study. Property in this wider sense, however, rests on property in the narrower sense, the exclusive control of particular material objects by particular individuals. On the other hand, certain material objects such as air and running water have commonly been held incapable of appropriation. Wild creatures — beast, fowl, and fish — are not objects of property so long as they remain in their wild state. They admit of property only when they have been killed or tamed. Hence the enactment in so many countries of laws intended to protect the monopoly of sport (see GAME LAWS). Other classes of material objects have been regarded by particular legal systems as at least incapable of private ownership. Under the Roman law consecrated buildings and places of interment and the walls and gates of cities were so regarded. Roads, harbours, the beds of rivers, and the use of their banks, were also withdrawn from private ownership and termed public things. Similar restrictions of the range of private ownership may be found in modern systems, and it is frequently debated among ourselves whether public authorities should not have a monopoly of certain undertakings. It may be noted that there is nowhere any precise legal definition of a material object.

II. *Restrictions on the Right of Property.*— The exercise of the rights above said to be comprised in the proprietary right, is not, however, unlimited. Thus (*a*) as regards the right of possession, the proprietor, without giving up his property, may legally deprive himself of control over it to a greater or lesser extent, for a longer or shorter time, and then he remains bound by his own act. The owner of a house has no right to live in it when he has let it to a tenant. The owner of a watch has no right to take it out of the keeping of the pawnbroker to whom he has pledged it.

(*b*) As regards the right of enjoyment, the *jus utendi et abutendi*, the right of getting whatever profit or pleasure can be got out of the object of property, the proprietor is again restricted in various ways. In the first place the state may take, by way of taxation, an undefined proportion of property or of the income arising from property. The state reserves to itself the right of buying compulsorily any property which may be necessary for the public service, and it confers this right upon various corporations, such as railway companies. In the second place, restraints are imposed on the proprietor's use of his property in order to prevent his injuring his fellow-citizens. The principle of these restraints is expressed in the maxim, *Sic utere tuo ut alienum non laedas* (So use your own as not to injure what is another's), but its application is more

restricted than this statement would suggest. A man may do many things with his own property which interfere with the interests or enjoyment of other persons. Nevertheless there are limits to his freedom in this respect. Thus a proprietor may not accumulate upon his premises nuisances dangerous to life and health. He may not discharge unlimited quantities of smoke from his chimneys. He may not keep buildings which overhang a thoroughfare in a rickety and dangerous condition. He may not expose in his windows writings or pictures which outrage decency. He may not carry on dangerous or offensive trades, such as the manufacture of explosives or manures, save under the conditions prescribed by law. Similarly a man may not drive his horse and cart at a dangerous speed or discharge his gun in a public thoroughfare. In the third place, where the object of property is a sentient being, the owner's power of inflicting pain has been limited by the most civilised systems of law. Thus under the emperors the Roman law came by degrees to protect the slave from being killed or tortured by his master, and in several countries at the present day gross and wanton cruelty to animals is a punishable offence.

(*c*) The right of alienation or disposition has at different times been subject to different restrictions. The power of alienation in the owner's lifetime, is restricted generally in French Law, and as regards English Law, was curtailed with reference to an important species of property by the strict feudal law of entail. Lastly, certain acts of alienation have been rendered illegal as contrary to public policy (see ENTAIL, LAW OF).

When this country is neutral in a war it is an offence for a British citizen to supply either belligerent with ships, arms, or military stores of any kind. The law did not formerly enforce a conveyance of English land, and does not now enforce the transfer of an English ship—to an alien. Similar examples of restraints upon alienation might be multiplied.

Again, the testamentary power arose at a comparatively late period of history, and has often been narrowly limited. We are told that at Athens even the childless man could not dispose of his estate by will until the time of Solon's legislation, 594 B.C. The testamentary power is said to have been first recognised in Rome by the law of the Twelve Tables, 450 B.C. Even in the later Roman law children who had been disinherited without cause could recover part of the estate by the *querela de testamento inofficioso* (plaint of an undutiful will). Early English law similarly recognised the claims of the family. Later in the middle ages the testamentary power over land was restricted by the institution of entails. In modern times the feeling that the estate belongs to the family rather than to its head, and the revolutionary abhorrence of PRIMOGENITURE, produced the clauses in the *Code Napoléon* which limit the power of testamentary disposition to one-third of the estate if the testator has two children; to one-fourth if he has three, and so on in proportion, and similar provisions are found in all continental systems of law. Even where there are no children the *Code Napoléon* reserves a portion of the estate to surviving parents (see BEQUEST, POWER OF).

III. *Divisibility of the Right of Property.*—The right of property is to a certain extent divisible. An instance of this divisibility is seen in the extraordinary number of interests which English law has allowed to be created with reference to the same piece of land. Another instance, common to all civilised systems, is found in *jura in re aliena*, rights held by one person over the property of another independently of the owner's consent, and available not only against him but against all third parties. These rights fall under two principal heads—(*a*) what the Romans called SERVITUDE, and we call easements (see EASEMENT) or *profits à prendre*—rights to use or enjoy another man's land for a particular purpose, *e.g.* to walk or ride across it, to receive a stream of water across it, to dig turf or gravel, and so forth; (*b*) the right of pledge or mortgage, the right of a creditor to whom property has been pledged or mortgaged to keep it until he has been paid, and in case of default to sell it or to foreclose, and himself become the owner.

IV. *Origin of the Right of Property.*—Such being in outline the right of property, we have next to consider how this right came into existence. The original motive power of appropriation was undoubtedly the blind instinct to live and to enjoy. No question of moral right or of public expediency would have occurred to a primitive savage in want of food or shelter. The idea of moral or legal right to property came later by a gradual evolution. The early forms of property have, in our own time, attracted the attention of lawyers, historians, and economists. Much curious information has been collected, but none of the theories yet propounded can be taken as fully proved. It is a very general opinion that some form of joint ownership preceded the appearance of full individual property. That in early times the family rather than any of its members was regarded as the real proprietor seems to be established. The theory of the village community in the east and in the west, so attractively set forth by Maine, has been reduced to uncertainty by recent criticism. FUSTEL DE COULANGES, Seebohm, and Baden Powell have shown that the evidence in favour of what is known as the "mark system" in western Europe, and of the village community in India, is by no means conclusive (see VILLAGE COMMUNITIES). In the higher

stages of progress individual property appears, as well as in the most civilised states, ancient and modern, all but universal.

V. *Grounds on which the Right of Property has been Justified.* From early times the advisability of maintaining the right of individual property has been called in question. It is obvious to every reflecting person that, even under the best legal systems yet devised, property is often acquired and distributed in unsatisfactory ways. Whilst some attain wealth by mere luck or by sheer dishonesty, many with fair industry and ability cannot gain a modest competence. Some are corrupted by the superfluity of their possessions, and others are dwarfed and embittered by privation. Children inherit the condition of their parents—the riches which they have not earned and the penury which they have not deserved. And as wealth is the most potent instrument of acquiring more wealth, these abuses and inequalities do not disappear. At some periods of history they have grown more and more grievous through a long lapse of years. At other periods, like our own, they are in process of abatement, but so slowly that ardent and enthusiastic reformers lose patience. It is easy, therefore, to understand the philosophical criticisms of the principle of private property which begin with the Republic of Plato if not earlier. And since the desires of man are unbounded and the return to his labour is commonly meagre, it is equally easy to understand how the arguments of students have found at times a powerful response in the passions of the multitude, and how, whenever old moral traditions have been shaken, or the heavy pressure of authority has been diminished, there begins a more or less disguised war against property. Yet the instinct of property is so deeply rooted in human nature, and the benefits of the institution are on the whole so great, that it has never wanted philosophical defenders. The communism of Plato was combated by Aristotle in a brief passage of the *Politics*, which contains many of the best arguments since used on that side of the controversy. Aristotle points out that what is common property is no man's care; that private property is inexpressibly sweet to man; that the abolition of private property, far from destroying selfishness, merely deprives men of the power of doing unselfish things. The Romans, an eminently practical and acquisitive people, were too busy in getting and spending to trouble themselves seriously as to the speculative grounds on which the acquisition of wealth could be justified. The Christians of the first age passed rapidly to the other extreme of feeling. They regarded this world simply as the thoroughfare to the next, and asceticism here as the best way of meriting bliss hereafter. They also felt a sincere and profound compassion for the poor and helpless, whose claims had been but slenderly considered in the magnificent Roman empire. These feelings lost much of their intensity as the Christian church came to comprise a greater number of ordinary people, and finally became a state church to which all had to render outward submission. But the doctrines of the early Fathers were transmitted to the canonists (see CANON LAW; FATHERS, THE, THEIR ECONOMIC TEACHING AND INFLUENCE). They seem to have regarded community of goods as the ideal order of society, private property as a necessary evil of the actual world to be mitigated and atoned for by bountiful alms, trade as an occupation hardly compatible with the character of a devout Christian, and the receipt of interest for the use of money as altogether sinful. These principles could never be applied with logical severity. They could not even restrain the clergy from acquiring immense wealth. With the restoration of order in Europe the accumulation of riches began once more, and with the renaissance the spirit of enjoyment grew stronger. The ideas which pervaded the Canon Law became obsolete, and the theory of property was again considered without reference to theological prepossessions. In the philosophy of the 17th century the institution of property was justified upon grounds of a much more artificial character. HOBBES held that in the state of nature which preceded civil society, every man had an equal right to all things, *i.e.* to take what he could, but that this, like other natural rights, was surrendered at the making of the social compact, and that all subsequent rights of property owe their existence to the will of the civil power. The right of property would thus ultimately rest on the SOCIAL CONTRACT from which the civil power draws its authority. But the social contract is now admitted to be a mere philosophical figment for which there is no historical evidence. LOCKE argued that, since every man has a natural right to his own person, he has a natural right to the fruits of his labour, and on this argument he rests his defence of private property. But this justification would not extend to property which was not the result of the proprietor's labour. Even if we put aside the case of property obtained by gift or bequest, we shall find it impossible to say how much of the product in the complicated modern process of production is to be ascribed to the labour of any one of the persons employed. But worse still, to say that property in the work of our hands is sanctioned by the law of nature amounts only to telling us that it is just, not why it is just. J. J. ROUSSEAU in his *Social Contract* adopted a theory of property resembling that expounded by Locke. But in his later works he condemned the institution of private property altogether. Apparently he was led to this conclusion by his belief that all men are naturally good and reasonable, and if

left to themselves would easily and peaceably satisfy their simple wants. The savage state he believed to be one of virtue and happiness, and civilisation he regarded as the cause of evil and misery. Private property, at once the effect and the condition of civilisation, he therefore assailed as pernicious. Upon this theme he expressed himself with all his fervid eloquence, and he found a numerous public to sympathise with his declamations. A crowd of writers, inferior in genius but equally daring, helped to diffuse his doctrines. Their influence was distinctly felt in the French revolution. Rousseau is the inspirer of nearly all the anarchist and communist movements of the 19th century. Even the socialists, though they have dropped some of his first principles and have adopted some of the conclusions of modern science, have inherited no small portion of his spirit. Bentham justified private property on a more solid ground — on its expediency, or tendency to contribute to the greatest happiness of the greatest number. Property, he said, was a basis of expectation. The recognition of property enabled a man to project himself into the future and to work for remote ends, thus benefiting others as well as himself. The late Professor Green, in his *Principles of Political Obligation*, defends the institution of private property on the ground that it is necessary to the free development of the individual which is the common interest of society. This argument again rests on expediency—not in BENTHAM'S sense of happiness but in the sense of the development of character in the citizen, who is assumed to be working for the common good.

It is on expediency again that the question to what extent certain special classes of undertakings, such as railways, waterworks, gasworks, drainage works, etc., ought to be the property of public bodies, is advocated. The advantages of holding by the MUNICIPALITY, and possible liberality of treatment of the inhabitants, are compared with the more economical management when the works remain private property.

The best argument for the institution of private property is the impossibility of finding any other principle to take its place. Self-interest is not, and should not be, the only motive to labour, but it is a motive which no experienced person will be ready to dispense with as unnecessary. A series of experiments, now extending over two thousand years, has shown that even voluntary communism, including only those who feel a vocation, is an unnatural state which cramps and at length deadens human energies. A compulsory communism embracing all the idle, the incapable, and the selfish would be a still more disastrous failure. At the present day the ideal of COMMUNISM (*q.v.*) has made way for that of SOCIALISM (*q.v.*). The socialist proposes to vest all the means of production in the state, and to render them henceforth incapable of private acquisition. All members of the community would receive either wages or a pension from the state, and this would remain their private property, which they might either spend or save at pleasure. Competition having come to an end, the scale of wages and pensions would be fixed by the state. Private property would thus continue to exist, although in an attenuated form. The criticisms brought against communism do not apply with equal force to socialism, but it may still be doubted whether any socialist scheme affords that scope to the instincts of enjoyment and accumulation which it is desirable that they should have. Under such a system no man could better his condition or transmit any advantages to his children. He could never feel secure that his condition would not suddenly be made worse by a vote of the majority. The affection with which the proprietor regards his own house or his own field would be impossible to one who could never by any chance be anything but a lodger and a day-labourer. The property of the socialist citizen, like that of the poorest class in our actual society, would hardly extend beyond the necessary food and clothes and furniture. That the distribution of wealth made by an average legislature would be really fairer than that which is now brought about by circumstances is extremely doubtful. That anything short of a permanent reign of terror would make energetic and ambitious natures acquiesce in it seems most unlikely. Such natures are in a minority and might be extirpated, but then what would become of progress and civilisation? But there is little fear of the final prevalence even of SOCIALISM. Revolutions may despoil one class to enrich another, but the victorious party is made up of human beings with passions like those of the vanquished. The French peasant to-day is certainly not less greedy of gain, nor less attached to his patrimony, than the French *seigneur* of three hundred years ago. On the other hand, the distribution of wealth may be improved without the abolition, total or partial, of private property. The improvement of law, the spread of education, the growth of co-operation, the accumulation of capital, and the fall of interest tend to raise the average of well-being and security. If this process be not interrupted by rash social experiments or fierce social convulsions, it may lead to the most beneficent results.

[For a discussion of the nature of the right of property, see Holland, *Jurisprudence*, pt. ii. ch. xi., and the authorities therein referred to; for the investigation of the early forms of property, see Maine's works, especially *Ancient Law* and *Village Communities in the East and West*.—Laveleye, *Propriété Primitive* (translated into

English as *Primitive Property* by Marriott, London, 1878; into German, under title of *Das Ureigenthum*, by Prof. Bücher, Leipzig, 1879), with instances as to holdings supplied by himself (see article on É. DE LAVELEYE.)—Fustel de Coulanges, *Origin of Property in Land.*—Seebohm, *English Village Community.*—Baden-Powell, *Land Tenures and Land Revenue Systems of British India and the Indian Village Community*;—On the theoretical grounds of right of property see Hobbes, *Leviathan.*—Locke, *Civil Government.*—Proudhon, *Système des Contradictions Économiques ou Philosophie de la Misère*, etc.—Rousseau, *Œuvres.*—Bentham, *Theory of Legislation* by Dumont.—Green, *Principles of Political Obligation.*—Duke of Argyll, *Unseen Foundations of Society.*—Bonar, *Philosophy and Political Economy*, and the literature of political philosophy and of socialism generally.]

VI. *Real and Personal Estate.*—The distinction between real estate and personal estate is the most important division of things in English law. It corresponds roughly to the division between things immovable and things movable in Roman law. But the correspondence is not exact. Real estate consists of lands, tenements, and hereditaments, but it does not comprise all interests in land. Thus, an estate for a term of years is personalty whilst an estate for life is realty. This is due to the fact that estates for a term of years were hardly known at the time when the law of real property first took a definite shape. Moreover the progress of civilisation has produced new forms of property which can hardly be termed movable or immovable, and which have been included under the head of personal estate. Patents, trade marks, and copyrights are regarded as personalty. Shares in a partnership or a joint-stock company are personal estate, however much land the partnership or the company may hold. When a sale of land has been agreed upon the land is regarded by the law as personalty, whilst money which, by agreement, is to be laid out on land becomes realty. Thus there is no broad and clear distinction between real and personal estate. The origin of the distinction lies in a difference of procedure. Actions were formerly distinguished as real and personal. Real actions were those in which the very thing (*res*) in dispute could be recovered. Personal actions were those in which no more than pecuniary compensation could be obtained. But, practically, land was the only thing which could be recovered in kind, and so land became known as realty (see CHATTEL).

[See Williams, *Principles of the Law of Real and Personal Property.*—Digby, *History of the Law of Real Property.*—Markby, *Elements of Law*, §§ 128, 129.] F. C. M.

PROPERTY TAX. See TAXATION.

PROPIOS Y ARBITRIOS, the proceeds of local Spanish excises and rents derived from municipal pasture-lands and tenements, such as inns and stalls in the markets. They were applied to the expenses of police, public instruction, and repair of bridges. They generally left a considerable surplus, which in times of need became an object of taxation by the state.

[Canga Arguëlles, *Diccionario de Hacienda* (London, 1826).] E. Ca.

PROPORTIONAL TAXATION. See TAXATION.

PROPRIETOR. See PROPERTY.

PROSPECTUS, the name for a notice calling the attention of the public to the issue of any stock or shares, or debentures or other securities. It is generally accompanied by a form of application for the use of persons who are willing to subscribe, and gives particulars as to the amount issued, the security offered, and other matters which intending subscribers may wish to know. If it is intended to apply for a quotation on the London stock exchange, the rules of that institution require the prospectus to be publicly advertised, and in the case of an issue of the shares or debentures of a limited company, they also require the company's memorandum of association to accompany the prospectus.

The persons under whose authority a prospectus is published are under general rules of law liable for fraudulent or recklessly untrue statements contained in the same, and if the prospectus refers to the shares or debentures of any company registered under the Companies Acts, the requirements of the Companies Act 1867, § 38, and the Directors' Liability Act 1890 (as to which see DIRECTORS, LEGAL DUTY OF), must be complied with. The responsibilities imposed by the first named act falls on the "promoters, directors, and officers of the company knowingly issuing" the prospectus, but the provisions of the Directors' Liability Act 1890 (see PROMOTER), with reference to prospectuses, affect a much larger circle of persons, viz. "every person who is a director of the company at the time of the issue of the prospectus or notice, and every person who, having authorised such naming of him, is named in the prospectus or notice as a director of the company . . . and every promoter of the company and every person who has authorised the issue of the prospectus or notice."

Some of the continental statutes make the issue of a prospectus, containing certain specified particulars, compulsory in certain events. Thus the Italian "Codice di Commercio," in the case of the public issue of shares in a company (§§ 129 and 130), requires a prospectus giving particulars as to the objects of the company, its capital, its memorandum of association, the share of profits reserved to promoters to be submitted to each subscriber for shares, and signed by him unless he signs the draft articles of the company, and in a similar way German company law requires the form of application, in which (in the case of an issue of shares not entirely taken over by the promoters of the company), intending shareholders subscribe, to contain a number of prescribed particulars concerning the formation and the constitution of the company (German Mercantile Code, § 209 c.).

The German Börsengesetz of 1896 makes a prospectus compulsory in the case of any issue of securities intended to be introduced on any German stock exchange, excepting, however, the government stock of the German empire and the German states, and provides, that any such prospectus must contain information sufficiently explicit to enable the public to form an opinion as to the value of the security offered for subscription; the same statute also provides that the authors of any such prospectus are to be liable for wilful or reckless misstatements, or wilful or reckless omissions (Börsengesetz, §§ 38 and 43). The discussions of, and the evidence taken by the imperial commission, on whose recommendation the statute in question was passed, were published and contain valuable information on the subject. E. S.

PROTECTION, AND PROTECTIVE SYSTEM. Like the opposed expression FREE TRADE, the word "protection" has acquired a somewhat narrow historical meaning. It is used to denote the policy of encouraging native industries by the use of bounties, or by the imposition of higher duties on foreign productions. Though in its essence the same as the older MERCANTILE SYSTEM, whose place it has occupied, its form is altered to suit the changed conditions of modern times, and to meet the criticisms passed on mercantilism by the school of Adam SMITH. Protectionist writers lay less weight on the advantage of retaining the precious metals, and more on the benefits to production that are the outcome of their policy. Another new element is the higher value attached to future development in contrast with present gain. To build up great national industries even by the sacrifice of utility on the part of existing consumers, is regarded as the normal course in a well-managed state. The general tendency towards the extension of governmental activity furnishes an additional presumption in favour of the regulation of foreign trade in the interests of national industry. There are, in addition, special cases where the ordinary arguments for commercial liberty lose their force (see FREE TRADE), and these are embodied in the protectionist theory. Thus regarded, protection may be truly said to have existed for little more than a century. Its earliest effective appearance in a general statement is probably in the famous *Report on Manufactures* (1791) of the American statesman, Alexander HAMILTON. For Europe, the wars accompanying the progress of the French revolution mark the starting-point of the modern protective system which was exemplified in the measures adopted by Napoléon I.

In common with all systems of economic policy, protection springs from a set of conditions, sentiments, and beliefs. Just as the mercantile doctrine naturally followed from the historic conditions and theoretic views of the 16th century, as LAISSEZ-FAIRE was the product of the doctrines and economic facts of pre-revolutionary France, and the MANCHESTER SCHOOL arose from the circumstances and the economic theories of 19th-century England, so has the protective system been powerfully aided by continued warfare. The need for maintaining economic independence, the danger of an "invasion" of foreign goods, the "tribute" paid to foreign producers from whom goods are purchased — such are well-known protectionist pleas which show by their form that they have originated in a time of international conflict. But wider and deeper than this militant feeling is the sentiment of nationality. To exalt a particular country without reference to the interests of other nations is the avowed object of the system of protection. It claims, as in the title of LIST'S work, to be the *national* system in contrast to the cosmopolitanism of the PHYSIOCRATS and Adam SMITH. To the loyal citizen the promotion of native industry and economic interests seems a duty nearly as imperative as the defence of the national territory against invasion. Protection is thus one side or aspect of national sentiment, influenced indeed by a special bias.

The close affinity of the protective doctrine to the feeling of nationality is evidenced by the large intermixture of political considerations in the ablest arguments presented in its support. Some of the most plausible contentions of CAREY and LIST are those in which the economic element is absent, or subordinate to the political one. The advantages of diversified industry, of husbanding national resources, or of maintaining certain industries that would disappear under FREE TRADE are not believed to be mainly economic. They belong rather to those higher parts of national life that the mere economist is supposed to neglect. "Protectionists"—as J. S. MILL has forcibly said—"often reason extremely ill, but it is an injustice to them to suppose that their protectionist creed rests on nothing superior to an economic blunder; many of them have been led to it much more by consideration for the higher interests of humanity than by purely economic reasons" (*Principles*, bk. v. ch. x. § 1).

But though patriotism is undoubtedly a contributory to the formation of the protectionist belief, it is more than doubtful whether it can justly be described as "enlightened." Many of the stock arguments in favour of restrictions on foreign trade show such an entire misconception of ordinary economic facts, and so completely distort the true proportions of things, that their acceptance is of itself conclusive proof of the widespread ignorance on which the ordinary protectionism rests for support. The BALANCE OF TRADE is still, in spite of innumerable refutations, referred to as an infallible test, and the necessary connection between imports and exports is totally ignored. That

"protection makes high wages" is a well-accredited article of popular belief in the United States, just as British protectionists imagine that "protective duties would increase employment."

Another influence which makes for protection is even less commendable. "Not only the prejudices of the public, but, what is much more unconquerable, the private interests of many individuals" (*Wealth of Nations*, bk. iv. ch. ii. 3rd par. from end), oppose the abandonment of protection. The special interests of certain classes of producers which are, as Adam Smith points out, "always in some respects different from, and even opposite to, that of the public" (*Wealth of Nations*, bk. i. ch. xi. last par.), have a great effect on the formation and retention of high tariffs. It is beyond dispute that the developments of protection during the last twenty-five years have been accompanied by persistent demands for aid on the part of industries alleging the pressure of foreign competition, which have in a great many cases been conceded by legislators.

The foregoing are the chief contributory influences to the formation of the system of protection, but additional force has been given to the last-mentioned by the remarkable revolution in methods of production, agencies of transport, and the level of prices that has taken place. As new countries are opened up, and older ones develop special branches of industry, competition becomes far keener and thus the weaker producers are gradually driven out. Cheaper carriage by both land and sea brings fresh competitors into the field, and diminishes the "natural protection" that formerly existed and led Adam Smith to conclude that "the free importation of foreign corn could very little affect the interest of the farmers of Great Britain" (*Wealth of Nations*, bk. iv. ch. ii.) Now, article after article, previously confined to home production, enters the list of imports, as illustrated for Great Britain in respect to beef and milk.

Tending in the same direction is the fall of gold prices (see BI-METALLISM), which temporarily encourages exports from countries using other standards, and causes producers to receive an apparently diminished reward. As the cry for protection by the state is the product of suffering, it is almost certain to grow in volume at a time of industrial and commercial depression.

There is, besides, on the part of the governments of the world a growing need for revenue. Public expenditure advances by leaps and bounds, as armies and navies are increased and the attributions of the state increase in number and weight. The means for supplying these enlarged demands are, however, limited. Direct taxation is felt at once, and is often highly unpopular. So are most excise duties. It is therefore a relief to the harassed financier to find that a customs tariff with a strong protectionist element is regarded with approval by the people, while it brings in a considerable revenue. Fiscal considerations have helped in moulding French, German, American, and Colonial tariffs.

In seeking to estimate the real economic effects of the protective system it is well to begin by emphasising the general validity of the arguments for the opposite policy of FREE TRADE. It is unnecessary to repeat the statements given under that head, or to enumerate again the various exceptions made. As Prof. Nicholson well remarks, "these exceptions are simply part of the casuistry of economics; they are like the discussions by moral philosophers of the justification of occasional mendacity. Free trade like honesty still remains the best policy" (*Britannic Confederation*, p. 118).

The first result of the protective system is the increased cost of the articles that come under its operation. Duties on imported commodities, so far as they are really protective, narrow the market, and by partially excluding the most effective producers, raise the general cost of production. Protection to agriculture makes food dearer; if applied to manufactured articles it raises their value relatively to other things. Hence comes that injury to the consumer on which free traders have so often insisted.

Again, in a developed protective system, it is impossible to avoid placing burdens on producers. The line between "producers'" and "consumers'" wealth cannot be so marked off as to spare the former. The finished product of one industry is the "raw material" of another, while food, though "consumers' wealth," is an important element in the maintenance of a primary factor of production-labour. The more complex and highly organised the industrial system, the greater the tendency of protection to react injuriously on many forms of production. The assistance given to special industries is thus to a large extent counteracted by the increased cost of materials and of the means of subsistence.

These losses, which are serious in the case of protected industries that apparently gain by the system, become still graver when we pass on to forms of production not requiring artificial support. The great exporting industries obviously lose through protection, without any compensation; their development is checked, capital and labour are diverted to less profitable employments, and the whole national economy is lowered in efficiency. The great burden of restrictive duties falls on the staple industries of a country.

A further result of protection is its tendency to limit INTERNATIONAL TRADE. By checking

imports it checks exports, and reduces the benefits derived from exchange. More especially is this true in regard to competition in neutral markets. A country with a higher level of cost, and hindered in exchanging, is unable to meet another country with lower cost and less restrictive regulations.

The actual arrangement of a protective system is an additional cause of difficulty. A scientific system of protection—such as that contemplated by HAMILTON or LIST—would involve the most refined and difficult considerations. Not only the present situation, but the future prospects of the multifarious industries of the nation, have to be duly weighed in the balance, and assistance distributed in proportion to their ascertained merits. Existing tariffs in no way satisfy these rigorous conditions. Adopted in haste and under the pressure of particular interests, they fail to satisfy even intelligent protectionists, and justify Prof. Sidgwick's assertion "that protection, as actually applied under the play of political forces, is sure to foster many weak industries that have no chance of living without artificial support, and to hamper industries that might thrive independently by the artificial dearness of some of their materials and instruments; so that it turns out a dangerous and clumsy, as well as costly, instrument of industrial competition" (*Stat. Journal*, vol. xlviii. p. 602).

As minor results of protection the greater difficulties of fiscal administration and the loss incurred through the encouragment given to smuggling, may be noticed. But the closer connection between politics and industry is a greater evil. When immense monetary interests depend on the course of legislation, the risk of corruption in political life is increased, and producers are trained to watch and guide for their own interest the measures submitted to the legislature. If protectionists appeal to political more than to economic arguments, it by no means follows that even on political grounds their case is a strong one.

Regarded from the strictly national standpoint, the protective policy appears to be mistaken, not in its aim,—that of advancing national industrial life,—but in the methods by which it seeks to attain it. Viewed in relation to the interests of the world as a whole, its evil consequences are more readily apprehended. Granting that advantages are obtained by a nation in the growth of young industries, the transfer of labour and capital to its territory, or by the sacrifices imposed on foreign producers, it follows that its gains are made at the loss, and more than equivalent loss, of other countries. "International utilitarianism" would therefore suggest the abandonment of the system.

Protective Duties are the chief expedient by which protection has been carried out, but in certain cases where they cannot be used, the method of BOUNTIES has been substituted (see also BOUNTIES ON SUGAR). Though having the same general tendency, a bounty is less likely to be carried to the same extent, as its cost is more readily perceived and more keenly felt. NAVIGATION LAWS may also be noticed as an important protectionist expedient, though for the most part they operate either as duties or bounties.

Some protectionist writers object to confining the idea of protection to the case of foreign trade. They prefer to regard it as "the proper attitude of government towards the industrial development of a nation" (W. D. Lewis, art. "Protection," *Chambers's Encyclopædia*, vol. viii. p. 444). Employed in this wider sense, protection has points of connection with state socialism (see SOCIALISM, STATE), and also with paternal government (see also POLICE), but this use of the term is too wide and vague to be of any service. At present most civilised states have adopted protection. In fact Great Britain, with its dependency India, and the important self-governing colony of New South Wales, are the chief examples of pure free-trading communities. Belgium, Holland, Denmark, and, till recently, Switzerland have such low tariffs that relatively to other states they may be regarded as free trade in policy.

[The works given under FREE TRADE will also serve here. Amongst protectionist writings the most important are:—A. Hamilton, *Report on Manufactures*, *Collected Works* (ed. Lodge), vol. ii.; also in *State Papers and Speeches on the Tariff* (ed. Taussig).—F. List, *Das nationale System* (trans. S. Lloyd, 1885; New ed. 1904).—H. C. Carey, *Social Science*, 3 vols. 1858-9.—R. E. Thompson, *Protection to Home Industry*, 1886.—S. N. Patten, *The Economic Basis of Protection*, 1890.—See also U. Rabbeno, *Protezionismo Americano*, 1893 (translated 1895).—W. Roscher, *System*, vol. iii. pt. ii. ch. vi., sketches the history of the protective system.] C. F. B.

PROTEST (of Bills). A protest is a formal certificate drawn up by a notary public, to attest some fact, as for instance the dishonour of a bill of exchange. In continental countries all dishonoured bills must be protested. English law seems to have adopted the rule as a matter of comity. When a foreign bill is dishonoured in the United Kingdom it must be protested in order to preserve the holder's right of recourse against the drawer and endorsers, but protest is unnecessary as against the acceptor. A foreign note need not be protested. Protest is also required as a preliminary to acceptance or payment for honour of any dishonoured bill whether inland or foreign. Provision is now made by the Bills of Exchange Act 1882, § 94, that when the services of a notary are not available, a dishonoured bill may be protested by any householder in the presence of two witnesses.

[Byles on *Bills of Exchange*, 15th ed., and Chalmers on *Bills of Exchange*, 4th ed., tit. protest (see NOTING OF BILLS).] M. D. C.

PROUDHON, JOSEPH (1809-1865), born at Besançon, came of a very poor family—his father was a cooper, his mother a cook; he worked as a compositor in a printer's office till he was thirty years old. Thus he was a self-taught man, but the trade he followed supplied him with the opportunity of reading and of self-instruction.

He published early several papers which were much noticed, one especially, in 1839, on the advantage of the observance of Sunday, which is still frequently quoted. But it was particularly his famous pamphlet *Qu'est-ce que la Propriété?* published in 1840, which secured him fame and election as deputy to the Constituent Assembly during the revolution of 1848, at the same time involving him in a lawsuit.

He was one of the most prominent and most dreaded opponents of the *bourgeois* during this revolutionary period, the greater part of which, three years, he passed in prison. He did not, however, oppose the second empire, and after the accession of Napoléon III. he gave up politics and followed the quiet life of the middle class till the end of his days.

His complete works consist of thirty-seven volumes, without counting fourteen volumes of correspondence. He wrote his books like his newspaper articles, with great rapidity, discussing everything and anything, with an absence of method and a disdain for order which makes the reading of his works more difficult perhaps even for his fellow-countrymen than for foreigners. Hence he is but little read. He loved dialectic, and to play with ideas like a juggler who rattles and clashes the most incongruous things together. He loved clap-trap expressions, "Property is theft," and "God is evil," but in reality he admitted the lawfulness of property and the existence of God.

A self-styled disciple of Hegel—though it was by no means clear that he really understood that author,—he had raised contradiction to the level of a principle, continually setting forth thesis and antithesis but rarely synthesis.

A violent and often unfair controversialist, he largely unsettled accepted and established opinion, but notwithstanding his proud motto *destruam et ædificabo*, he constructed nothing, he left behind him neither definite programme nor school, properly so called.

Proudhon is generally classed among socialists on account of his attacks against landed property and interest. But as a matter of fact he criticised socialist doctrines with as much violence as orthodox doctrines. Neither was he a communist, since he called their doctrines—"the religion of misery," the "emulation of slothfulness,"—"a social bugbear." 'La communauté est encore le vol! Entre la propriété et la communauté, je construirai un monde!" (*Organisation du Crédit*, in fine). Nor was he a state socialist, since he said that the madness of appealing to the state was the "leprosy of the French mind." If a name must be given to his doctrine, it would be "anarchy." Moreover it was he who used this word for the first time (or rather, the two words *an archie*) as expressing, not disorder and chaos, but, on the contrary, the highest and most perfect form of social organisation. "Although a friend to order, I am, in every sense, anarchist" (*Qu'est-ce que la propriété?* 1st mémoire, ch. v.). Besides, he said, "The real form of government is anarchical" (*Les confessions d'un Révolutionnaire*, p. 122).

However, the small number of socialists who still consider themselves his disciples do not term themselves anarchists, but *mutualists*. They understand by this—and indeed it was their master's view—that society ought to be founded on *equality* and *reciprocity* of the services rendered, whilst the actual social system is only founded on the *subordination* of services. It is to this that social justice is reduced, which he opposes to the old watchword "Fraternity"—dear to the Utopian socialist. "It is not without reason that the popular imagination has provided justice with the balances. Justice, in fact, applied to economy is nothing but a perpetual balance, or, to express myself still more exactly, justice is nothing but the obligation imposed on all citizens and all states in their relations of mutual interest, to conform to the law of equilibrium. . . . The economist maintains that he has no ground whatever on which to intervene in the determination of this equilibrium, and that the beam must be allowed to oscillate after its own way. The idea of supporting it is absurd."

But how was this ideal of the reciprocity of services to be attained? Proudhon flattered himself that he had realised it by establishing a *Banque d'Échange*[1] (see LABOUR EXCHANGE; OWEN, ROBT.).

[1] The object of the *Banque d'Échange* was explained by Proudhon thus: (1) "to secure to every member of Society, without the interposition of money, all produce, commodities, merchandise, services or labour; (2) subsequently to procure the reorganisation of agricultural and industrial labour by changing the condition of the producer." Hence Proudhon's institution must not be confounded with OWEN's "Equitable Labour Exchange," although it also aimed at bringing producer and consumer into direct relation with each other, and at the suppression of intermediaries, of parasitical deductions and charges, and of money. But though Proudhon's *Banque d'Échange* was to receive all the produce and merchandise to it, it issued, not labour notes, but bank notes, on the security of the produce deposited, which was exchanged for equal value. But Proudhon, no more than Owen, foresaw that in consequence of the inconsidered multiplication of these products, the security would become valueless. (This system may be compared with the views on *Compatibilisme Social* set forth by MM. Solvay and Hector Denis in the *Annales de l'Institut des Sciences Sociales* of Brussels, 1896).

As a matter of fact he realised his idea by the establishment of the *Banque du peuple* in 1849, which naturally failed miserably.

In spite of his noisy attacks against property, his aim was not the suppression but the "universalisation" of property. "We desire," he said, "that every one should have property. We wish for property without usury, because usury is the stumbling-block to the growth and to the universalisation of property" (Journal *Le Peuple*, 2nd September 1849).

Thus it is not the abolition of property, but the abolition of interest, the *gratuitousness of credit* which is to him "the pivot of socialism." "Le problème économique n'est autre que le problème de la centralisation et de la gratuité du crédit d'après le principe de l'échange direct et mutuel" (*Banque d'Échange*). Hence Proudhon has been justly reproached with having strangely narrowed the social problem by reducing it to a mere reform in banking. On this question of the *gratuité du crédit* he was engaged in a long controversy with BASTIAT, published in Bastiat's works. Proudhon, admitting the lawfulness of interest in so far as the historical category, as the Germans say, strives to show that interest should become useless by the creation of his *Banque d'Échange*, which would procure for all, if not property, at least the free use of the implements of labour. And Bastiat scarcely cared to reply to him that his *banque* would do business with nothing but paper-money.

Of the enormous work of this indefatigable labourer, there remains only a stock of scattered ideas here and there, some deep, others incoherent, many contradictory, but in which nevertheless the economist and the socialist can find something valuable. It may be questioned what COLLECTIVISM, and in particular what Karl MARX, owed to Proudhon. Karl Marx detested Proudhon, and took him violently to task in the pamphlet *Misère de la Philosophie*, in reply to Proudhon's book *Les Contradictions Économiques* the second title of which was *Philosophie de la Misère*. He said of him "he is only an insignificant *bourgeois* oscillating continually between capital and labour, between political economy and communism." And in fact it does not seem that there was any connection between the extreme individualism of Proudhon and the collectivism of the German socialist. Proudhon supposes that in our economic organisation value is not proportional, as it ought to be, to labour, and that the social problem consists in making it such, while Karl Marx, on the contrary, maintains that value is necessarily proportional to labour, and that on this is founded capitalist exploitation, while the capitalist prevents equitable distribution.

The complete works of Proudhon have been published; édition Lacroix. The following are the principal:—*De la célébration du Dimanche, considérée sous les rapports de l'hygiène publique, de la morale des relations de famille et de cité*, 1839.—*Qu'est-ce que la propriété?* 1840. This is the famous "Mémoire" that made his reputation. It was followed by two other "mémoires" published 1841 and 1842, and one, *Théorie de la Propriété*, published after his death in 1866, but these are far less interesting.—*Système des contradictions économiques ou Philosophie de la Misère*, 1846, 2 vols. It was the title of this book that appeared to suggest to Bastiat his work *Harmonies Économiques*.—*La Justice dans la Révolution et dans l'Église*, 6 vols. 1858.

[The most recent critical works on the life and doctrine of Proudhon are: Sainte Beuve, *Proudhon, sa vie et sa correspondance*.—Karl Diehl, *Proudhon, seine Lehre und sein Leben*, 1888-1890.—Müllberger, *Studien über Proudhon*, 1891.—Desjardins, *Proudhon*, 2 vols. 1896.—Bourguin, article "Des rapports entre Proudhon et Karl Marx," in the *Revue d'Économie Politique*, March 1893, and also the violent and abusive, though sometimes true, criticism by Karl Marx in 1847 in French, and re-published in 1896, *La Misère de la Philosophie*, written in reply to Proudhon's *Philosophie de la Misère*]. C. G.

PROVABLE DEBT. On bankruptcy the whole of the debtor's estate vests in his trustee for the benefit of his creditors. A creditor is a person who has a debt or demand provable in the bankruptcy. The general rule is that "the privileges of creditors to come in under a bankruptcy, and of bankrupts to be discharged, are co-extensive and commensurate." This rule was laid down by Lord Hardwicke in 1736, and it is still the guiding principle of the Bankruptcy Act 1883. Section 37 of that act defines what debts are provable. It first provides that "demands in the nature of unliquidated damages, arising otherwise than by reason of a contract promise or breach of trust, shall not be provable." The object of this provision is to exclude claims for torts or wrongs, for instance libel or assault. But if judgment has been obtained in an action for a wrong, the claim for this wrong is merged in the judgment debt, which is provable like any other debt. The section then proceeds to exclude debts contracted after notice that the debtor has committed an available act of bankruptcy, and to provide that "except as aforesaid all debts and liabilities, present or future, certain or contingent," to which the debtor is subject at the date of the receiving order, shall be provable. A proof of debt must be verified by affidavit in the prescribed form. M. D. C.

PROVISORS, STATUTE OF. In the reign of Henry III. great indignation was excited by the claim advanced by the popes to issue *provisions* by which they appointed to English livings. The support of the king enabled the popes to make good their claim, and a large proportion of benefices were by this means conferred upon foreigners. This was a serious diminution of the patronage enjoyed both by

bishops and laymen. In the 14th century the papacy ventured to extend its provisions to the filling up of bishoprics as well as benefices. The anger roused by this foreign intervention was increased by the fact that at this time the popes were resident at Avignon and were thus under the influence of France, while England was at war with that country. For some time the English kings connived at the exercise of papal patronage, because it enabled them to defeat the chapter's right of election. But at last public opinion found expression in the Statute of Provisors, which was passed in 1351 and renewed in 1390. By this statute papal provisions were forbidden, and persons receiving them were liable to imprisonment. If the pope infringes on the rights of clerical patrons, the latter are to insist on exercising their power of appointment, and if they fail to do so, the presentation lapses to the king. In the case of a lay patron, if he fails to present within six months, his right lapses to the bishop, and if the bishop fails to appoint within a further month, the king is to make the presentation.

[Stubbs, *Constitutional History*, vol. iii. pp. 310-36.—Makower, *Constitutional History of the English Church;* the statute is printed in full in app. viii.] R. L.

PROXY. The term proxy is used in two senses. First it denotes a person who represents another for voting purposes, and secondly, it denotes the instrument by which the authority to represent is conferred. An instrument of proxy may be either general or special. A general proxy authorises the person who holds it to exercise his discretion throughout in the matter to which it relates, whereas a special proxy only authorises him to vote for or against some specific resolution or proposal. Under the Bankruptcy Act of 1869 the system of general proxies gave rise to gross abuses, which were investigated by a select committee of the House of Commons in 1880. The committee recommended that no proxy should be used unless it expressed in writing the particular purpose for which it was given. The Bankruptcy Acts of 1883 and 1890 do not go so far as this, but they put considerable restrictions on the use of general proxies in bankruptcy matters.

[See Bankruptcy Act 1883, sched. i., and Bankruptcy Act 1890, § 22.] M. D. C.

PRUD' HOMMES (Fr.). Councils for conciliation and arbitration in disputes between masters and workmen, instituted by a law of 1806. These bodies are authorised by a decree of the ministers of commerce and justices in industrial centres, on a demand by the municipal council approved by the chamber of commerce. They are permanent and elective, and must consist of at least six members. When the local industry comprises only a small number of trades, each branch elects two members, one a master the other a workman. When the number of branches of industry is large, they are grouped into classes for the election of members. The members serve for six years; one half retiring every three years, but they are re-eligible. The president and vice-president are elected annually. If the president is a master, the vice-president must be a workman, and *vice versa*. The masters act gratuitously. The workmen may receive attendance fees, paid from the municipal funds, as are also all the expenses of the councils. Each council has a special bureau of two members, and a general bureau of all the members. The special bureau is charged to endeavour to conciliate the parties; if not successful they are sent before the general bureau. The judgment given is final for all disputes in which the question at issue does not exceed a sum of 200 f. (say £8). Above that sum there is a right of appeal to the tribunal of commerce. The qualification of *prud' hommes* is the age of twenty-five and five years' exercise of the trade. Jurisdiction only extends to trades which elect members, and which are named in the decree instituting the council. The councils are competent to judge contestations between members of workmen's associations, between masters relative to trade marks, models, and designs, and in matters relating to apprenticeship. Should one of the parties not appear, judgment is given by default, and can only be set aside by appeal to the tribunal of commerce. The councils have power to condemn disorderly workmen and insubordinate apprentices to imprisonment not exceeding three days. A law of a more general character was passed in December 1892 to meet the case of disputes between masters and collective bodies of workmen, and strikes, which were not provided for by the law on Prud' hommes (see Conciliation, Boards of; Conseils de Prud'hommes). T. L.

PTOLEMY OF LUCCA (1236-1327), a Dominican scholar, in later life bishop of Torcelli, was very possibly the real author of the greater part of the treatise *De Regimine Principum*, commonly attributed to St. Thomas Aquinas.

The portions of the work especially interesting to the economist are l. ii. c. 3, on the state's food supply; cc. 5-7, on natural and artificial riches; c. 13, on the currency; c. 14, on weights and measures; c. 15, on the relief of the poor from the public treasury; and l. iv. cc. 4-6, on the Platonic communism. Concerning the currency, it is remarked that "the prince or king ought to be moderate in changing or diminishing the weight or the metal, since this turns to the detriment of the people, inasmuch as money is a measure of things; so that to change the coinage is just the same as to change a weight." [As to the place of this teaching in the history of the doctrine of currency, see W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, ii. (1883) 163, 187. Bibliographical

indications and the most recent discussion of the authorship of the treatise will be found in the dissertation of C. A. Bosone (*Der Aufsatz*) on the Essay *De Regimine Principum*, Bonn, 1894, which maintains that the whole of it is substantially the work of AQUINAS (*q.v.*). It undoubtedly represents his teaching if it does not come from his hand.] W. J. A.

PUBLIC ADMINISTRATION. See ADMINISTRATION.

PUBLIC ASSISTANCE. The phrase "public assistance," is a literal translation of the French *Assistance Publique*, which roughly corresponds to our POOR LAW (*q.v.*) But certain differences both of principle and detail may be noticed in the relief of the poor in the two countries. In France the right to relief is not recognised, nor is the distinction between POVERTY (*q.v.*) and destitution. As a logical consequence there is no poor-rate, in the sense in which in this country the overseers of the poor are compelled by law to raise as much for the relief of the poor as that relief demands. The relief given in France is therefore limited to the sums available for the purpose, which are raised in several ways, by private subscriptions, by bequest, by a tax on amusements, viz. the tickets of places of public entertainment, and endowments. Thus in France the organ of poor relief corresponds more to a charity organisation society administered by a local authority than to our poor-law system. In each commune theoretically, and practically in the great majority of communes, a *Bureau de Bienfaisance* is established, presided over by the mayor and a council elected locally. This body distributes the funds at its disposal, but is limited to those funds. Hence we find great inequalities between communes as to the sum available annually for the relief of the poor, and a tendency to spread the funds over as wide an area as possible, with the result that the relief given is often to our minds wholly inadequate. The relief of foundlings (*Enfants Trouvés*), deserted children, vagrants, and the sick, is organised in great detail, but a specific or historical treatment of the subject would take us too far. L. R. P.

PUBLIC LOANS. See DEBTS, PUBLIC.

PUBLIC POLICY. English courts have always refused to enforce contracts which they regard as contrary to public policy; but the test of what is or is not opposed to public policy has naturally varied as the conditions of society have changed. As our law is uncodified, and as the judges are technically bound by the decisions of their predecessors, we find them continually engaged in the task of putting new wine into old bottles. The modern tendency is to restrict the doctrine of public policy within narrow limits, and to confine its operation to agreements which are tainted with criminality or are *contra bonos mores*. As Justice Cave said in a recent case, this is "a branch of the law which certainly should not be extended, as judges are more to be trusted as interpreters of the law than as expounders of what is called public policy." Commerce is left to take care of itself, and contracts are enforced without regard to the opinion of lawyers as to what may be for the advantage of trade in general. The old rules as to contracts in restraint of trade have been watered down. Trades unions, which were regarded as illegal combinations in restraint of trade, have received legislative recognition, and apart from fraud full play is allowed to the competition either of individuals or of combinations to keep up prices.

[See the whole question discussed in a recent House of Lords case, *Mogul Steamship Co.* v. *M'Gregor* (1892) A. C. 25].

See PERPETUITIES; RESTRAINT OF TRADE; THELLUSSON, P.; TRADES UNIONS. M. D. C.

PUBLICANI. The name given to the capitalists who farmed the revenues of the Roman state. Down to the fall of the republic Rome hardly possessed the rudiments of a permanent civil service, and was therefore without proper machinery for collecting the varied revenues of her extensive possessions. This work was done by wealthy individuals who combined in companies or syndicates, and farmed mines, salt-works, fisheries, etc., belonging to the state, as well as certain indirect revenues such as the *portoria* or harbour dues. When transmarine provinces were acquired, the same method was employed to collect the land-tax imposed upon them. The system reached its greatest and most pernicious extension when C. Gracchus (B.C. 121), applied it to the revenues of "Asia," by far the richest of the Roman provinces. From that time till the establishment of the empire the *Publicani* filled a great space in the history of Rome, partly as the means whereby the provinces were impoverished and the capital flooded with ill-gotten wealth, and partly as a force in the internal politics of the ruling community, generally hostile to the senate, which made feeble attempts to check their oppression, and therefore inclining to an alliance with the popular party, but never really attached to any principle, and aiming solely at the accumulation of money. With the establishment of the empire and the reform of the administration, the scope for the activity of the *Publicani* was reduced. The provincial land-tax was collected by public officials, and, with regard to those branches of the revenue which continued to be farmed, a closer and more severe supervision was exercised by the government. The publicans so often referred to in the New Testament were not the Roman capitalists but their underlings, usually natives of the subject provinces, and therefore even more hateful to

their countrymen (as to the *Societates Publicanorum*, see PARTNERSHIP, considered historically).

[Smith's *Dictionary of Antiquities;* Mommsen and Marquhardt, *Handbuch der Römischen Alterthumswissenschaft*, and the authorities therein cited.] F. C. M.

PUFENDORF, SAMUEL (1632-1694), studied law in Leipzig and Jena, and lectured at Heidelberg from 1661 to 1670, when he left Germany for a professorship at the Swedish university of Lund. In 1686 he was appointed privy councillor and royal historiographer of Sweden; two years later he was called to Berlin by the Great Elector (Frederick William, 1620-1688), who bestowed on him similar titles and dignities.

His *De Statu imperii germanici liber unus*, Geneva (real imprint the Hague), 1667, republished in German in 1870 (in the *Historisch-Politische Bibliothek*), may have led to his leaving Germany, for, though issued under the fictitious name of Severinus de Mozambano, it was known that Pufendorf was the author of this critical but faithful picture of the state of helplessness of the German empire, and of the misgovernment prevalent in most German states since the Thirty Years' War.

The publication of his former work, the *Elementa jurisprudentiæ universalis* (1660), had already attracted public attention and led to his appointment at the university of Heidelberg; it is the first attempt to found the philosophy of law on a purely rational basis, and may be considered as the origin of his celebrated treatise *De Jure naturæ et gentium libri VIII.*, published at Lund, 1672 (another edition at Amsterdam, 1704, with the author's emendations, since often republished, and translated into most European languages).

In state questions, Pufendorf upholds the principles maintained by the founders of the Prussian monarchy, commencing with his protector Frederick William, the Great Elector. The individual will must be subject to the will of the collective or individual possessor of supreme power (*summum imperium*), who is the interpreter of the nation considered as a moral body, and is to decide what is lawful and what is not; in this respect, Pufendorf follows the teaching of HOBBES, limiting, however, the authority of the supreme power to what the citizens have acquired under its protection. Practically the state, thus possessed of the *dominium eminens* (see EMINENT DOMAIN), regulates the disposal of private fortunes, —sumptuary laws, successoral laws, etc.—and the levying of taxation; its duty is to foster the economic development of its subjects, especially in agriculture, manufactures, trade, and navigation. Pufendorf is not a thorough-going opponent of MONOPOLIES (*q.v.*), and would allow the privileges of corporations and crafts to continue. The only limitations to the fiscal prerogative of government are that it must never act as a dissolute or weak head of the family; first of all, export duties must never impede the prosperity of trade, for "a port which traders desert is a sterile port." Taxation should always be proportioned to the means of the taxpayer.

On the purely economic domain, Pufendorf is not carried away by the passion for the indefinite expansion of population, so general among German cameralists (see CAMERALISTIC SCIENCE) of the last two centuries. He considers that the question whether property should be individual or collective depends on the stage of progress reached by the nation, for history shows that collective property is the most natural and advantageous system for barbarians. Equal division among the children of the same father is not naturally necessary; account ought to be taken of the existence of the family taken as a whole; according to each case, the practice of MAJORAT or MINORAT (*q.v.*) may be recommended.

Pufendorf's theory of prices has been highly praised. It comprises the vulgar price, *pretium vulgare*, founded on the fitness of things to satisfy human wants, and the *pretium eminens* or price expressed in terms of money; Pufendorf thus announces the distinction between VALUE IN USE (*q.v.*) and value in exchange (see EXCHANGE, VALUE IN), and classifies economic goods as—things, *res*, services, *operæ*, and obligations, *actiones*. Scarcity is the most important factor of high prices, but value in exchange is often unconnected with value in use. As to expenses of production, those only which are usual, influence prices, which also experience the influence of a scarcity or abundance of the currency. He, however, rather exaggerates the action of law when he states that the use of precious metals as money, is not so much derived from their natural adequacy, as from a convention among men. The value of land, considered as naturally stable, shows if a general rise of prices is to be ascribed to a scarcity of money or to a scarcity of goods. His theory of usury follows a *via media* between the absolute rejection and the absolute liberty of interest; according to Pufendorf, it is a mistake to believe that the taking of interest is forbidden by the Bible. Moses actually sanctioned it by allowing Jews to take interest from foreigners.

[Roscher, *Geschichte der National Oekonomik in Deutschland*, pp. 304-319.—Treitschke, "Samuel Pufendorf" in *Preussische Jahrbücher*, vol. 35 (pp. 614-55), and vol. 36 (pp. 61-109), Berlin, 1875.—P. Meyer, *Samuel Pufendorf, ein Beitrag zur Geschichte seines Lebens*, Grimma, 1894 (see also INTERNATIONAL LAW).] E. CA.

PULLUS. See PIPE ROLLS.

PURCHASE AND SALE. See VENDOR AND PURCHASER.

PURCHASING POWER OF MONEY. See MONEY.

PURCHASING POWER OF WAGES. See WAGES, PURCHASING POWER OF.

PURLIEU. See FORESTS, MEDIÆVAL.

PURPRESTURE. See FORESTS, MEDIÆVAL.

PURVES, G. [*pseud.*] See GRAY, SIMON.

PURVEYANCE. One of the oldest prerogatives of the crown, not only in England but in most European countries, was the right to demand supplies and services at the lowest prices, which were usually fixed by the royal

officers. Payments were not made, as a rule, in money, but in TALLIES (*q.v.*), which entitled the recipients to deduct the specified sums from their future taxes. Not infrequently payment was evaded altogether. Little is known of the early history of these exactions, but in the 13th and 14th centuries they gave rise to such glaring abuses that the petitions and laws on the subject are extremely numerous. From *Magna Carta* (arts. 28-31) we learn that royal constables and bailiffs were in the habit of exacting purveyance, and this practice is forbidden. In the *Articuli super cartas* of 1300 it is provided that goods are only to be taken for the king and his household, and then only at a price agreed with the owner; undue exactions are to be punished with dismissal and imprisonment. But legislation seemed impotent to check the extortions of royal officials; under Edward II. the complaints are as loud as ever, and the ordinances of 1311 went so far as to forbid purveyance altogether. But the ordinances were formally repealed by the parliament of 1322, in which the law of 1300 was re-enacted. Still the abuses continue to be the subject of innumerable petitions under Edward III., in whose reign no less than ten statutes were passed on the subject. The most important of these is the statute of 1362, which provided that purveyance is to be limited henceforth to the personal wants of the king and queen, whereas it had frequently been exacted for other members of the royal family and their servants. At the same time the hated name of purveyors is changed for that of buyers. This law seems to have been far more efficacious than any of its predecessors, and the subject retires into the background until the 17th century. Under James I. we have a petition of the Commons in 1604, which shows that many of the old abuses were still rife. It is stated that the royal officials, when 200 carts are required, will order 800 or 900, in order that the owners may bribe them to withdraw the demand. Goods were valued by strangers called in by the purveyors, and owners were often unable to obtain more than a fraction of the value. Suitors who complained of illegal usage found it impossible to obtain justice against the agents of the crown. The result of these complaints was a proposal in the Lords that the king should surrender the right of purveyance for an annual grant of £50,000, but nothing came of it. In 1610 Cecil nearly succeeded in carrying through the "Great Contract," by which purveyance and the feudal rights of the crown were to be abolished in return for a fixed revenue, but subsequent disagreement between the crown and the Commons led to the abandonment of the scheme. Thus purveyance lasted till the great rebellion, and perished with the defeat of the king. In 1660 it was formally abolished (see PRISAGE).

[Stubbs, *Constitutional History*, vol. ii. pp. 535-538.—Hallam, *Constitutional History*.—Gardiner, *History of England*, vol. i. pp. 170-174.] R. L.

PUT AND CALL. Speculation in stock exchange securities, bullion, and produce, is, to a large extent, carried on by means of OPTIONS (see also CALL). Such options are either single options ("call" or "put") or double options ("put and call"). A speculator is said to "give for the call" if he agrees to pay a specified percentage, and in return obtains the privilege to decide at a specified point of time whether he will purchase a specified amount of stock, bullion, or produce at a specified price; he is said to "give for the put" if in the same manner he secures the option of selling such stock, bullion, or produce. Thus for instance a speculator who gives $\frac{1}{4}$ per cent for the call of £10,000 consols at 112 at the end of December, can at the end of December, at his own choice, either call for £10,000 consols to be delivered to him at 112$\frac{1}{4}$ or pay £25 without calling for the consols. A speculator is, on the other hand, said to give for the "put and call" if, at the specified time, he is to become entitled at his option either to buy or to sell at the specified price.

The amount of the percentage payable for the privilege of exercising an option depends on the length of time, the nature of the security or article, and the general situation and prospects. Options in securities or articles, in which there is much speculation, have a regular market value, and—on account of reasons which it would take too long to explain—the market value of a double option is always equal to the double amount of the market value of the corresponding single option. Thus in the above-quoted example the "put and call" of the £10,000 consols at 112 for end of December would cost $\frac{1}{2}$ per cent. The speculator who sells the option, who in stock exchange language is said to "take" for the "call," or the "put," or the "put and call," reckons on the steadiness of prices, whilst the purchaser of the option speculates on fluctuations. If he believes in a change in one direction only, he will give for "a single option," but if he anticipates fluctuations without being able to form an opinion as to their direction, he will "give for" a "put and call." There are many circumstances, imaginable, under which a change in the range of prices may be expected within a given time, but subject to great uncertainty as to the direction of the change. Thus, for instance, a political decision of great importance may be expected by a certain date, and it may be thought that if the decision is taken one way it will lead to a heavy fall of prices, whilst an important rise would ensue if it were taken the other way. Under such circumstances the possibility of being able at one's option either to call or put at the present price, at the time when it is anticipated that

the uncertainty will be over, may of course be worth a great deal more than the amount of the option money. Thus in the example given above, a speculator who is able at the time of the option, becoming exerciseable as before, to sell the consols at 114, will call them at 112, and, after paying $\frac{1}{2}$ per cent option money, and $\frac{1}{8}$ per cent brokerage, realise a net profit of $1\frac{3}{8}$ per cent, and he will obtain the same profit, if consols, instead of rising to 114, recede to 110.

In actual practice option transactions are generally more complex, being used to assist or serve as insurances for other operations, or being made the basis of a series of successive speculations; but this fact in no way affects the general principles of options, which may be stated as follows: the speculator who sells the option has an unlimited risk of loss, and cannot gain more than the option money, whilst the purchaser of the option cannot lose more than the option money and the brokerage, and has an unlimited chance of profit. This limitation of risk on one side creates the impression that option business is a safer and therefore sounder mode of speculation than other speculative business, but this view is based on an obvious fallacy. As already mentioned, the purchaser's comparative safety is counterbalanced by the seller's corresponding danger, but even from the purchaser's point of view the dealings in options are more in the nature of gambling transactions than ordinary speculative purchases or sales. Whilst in the case of an ordinary speculation the result may be favourable in the end, although at first there is an apparent loss; the result of the option is final at the same date as the time for declaring the purchaser's choice has come. If the option cannot be exercised the amount at stake is irretrievably lost. The fact that the loss is limited induces the purchaser to speculate in a much larger amount than he could afford to do if there was an unlimited risk, and therefore materially increases the total amount of speculative purchases and sales. Moreover, imprudence in option dealings is increased by the circumstance that, whilst speculators generally are compelled to pay the difference between the original price and the market price, or between the last market price and the present market price, as the case may be, at each successive account day, if such difference is against them, and must therefore have liquid means at their command, option dealers are not required to pay any differences until the time for declaring the option has arrived. These facts are sufficient to show that recklessness in stock exchange transactions is much increased by the system of options.

E. S.

See OPTIONS; POLEGRAPHY.

[For an interesting description of the stock exchange operations known as option dealing, see L. R. Higgins, *Put and Call*, Effingham Wilson, 1896.]

PYX, from *πυξίς*, a box, is properly the pyx-chest at the mint into which one coin from every 15 lbs. of newly coined gold, or 60 lbs. of silver, is put to await the *Trial of the Pyx* (see PYX, TRIAL OF). In addition to its ecclesiastical use, the word is also applied to the box in the chapel of the pyx, Westminster Abbey, in which the standard plates of gold and silver used at the trial are kept by the warden of the standards (see STANDARDS, WARDEN OF).

R. H.

PYX, TRIAL OF, the now annual testing of coins from the pyx-chest at the mint. These and pieces from the trial plates (see PYX) are assayed by cupellation by a jury of the Goldsmith's company. The permissible variation or "remedy" is now 2 parts in 1000 of gold, of silver 4; but the difference is usually much less. By weight the "remedies" are respectively 1·6 and 4·17 in 1000. The 27 *combustiones* in the pipe roll of 11 Hen. II. show a rough mode of trial adapted to an age in which mints were numerous, but the *blancum* [*argentum*] of Domesday denotes its equivalent much earlier. Both tested coin which had been in circulation. The *pixides assaii* appear in 1281; and in a British Museum MS. (Cott. Cleop. A. xvi., f. 50) is a detailed account of a trial in 1349, when gold nobles were tested by a jury against Florentine florins and found deficient *ultra debitum remedium*. Trial plates date from 1477.

[Brit. Mus. MS. Harl. 698.—Madox, *Hist. of Exchcq.* i. 291.—Report to Compt. Gen. of Exchequer on *Trial of the Pyx*, 1866.—Reports of Dep. Master of Mint.—Standards Act, 1866.—Scargill-Bird, *Guide to Public Records*, p. 217.]

R. H.

QUADRUPLE. An abbreviated expression for "quadruple pistole" was not uncommonly used, up to the earlier years of the present century, to denote the Spanish gold coin of 4 pistoles or 8 escudos, commonly, but less correctly, known as the DOUBLOON (*q.v.*).

C. A. H.

QUALIFICATION. The amount of stock or shares required to be held by the directors of a joint-stock company. In some companies no such qualification is required, but in respect of most companies it is usual to fix by the articles of association the amount of stock or shares necessary to be held by each director, and also to lay down certain conditions, the occurrence of which will cause a director's office to be vacated—generally these are bankruptcy or insolvency, or the holding of any other office of profit under the company.

In political affairs, qualifications of different kinds or degrees are required both for the holding of various offices and for the exercise of some of the duties of citizenship. These are the qualifications required for acting as

justices or as jurymen; and those for voting at elections of different kinds. Among these latter, before the qualification by rating becomes effective, there is a qualification by time, or length of residence, necessary. R. W. B.

QUALIFIED ACCEPTANCE. The acceptance of a bill of exchange is qualified when in terms it varies the effect of the bill as drawn. For instance, an acceptance is qualified when it is conditional, or when it is an acceptance to pay at a particular place and there only, or when it is the acceptance of some only of the drawees. The holder of a bill is not obliged to take a qualified acceptance, and if he takes it, he does so at his own risk, unless the previous parties assent thereto.

[Bills of Exchange Act, 1882, §§ 25 and 44.]

M. D. C.

QUANTITY THEORY OF MONEY. According to this theory, prices are determined by the relation between the demand for, and the supply of, money. The demand consists in the offering of goods for money; the more goods are offered, the greater the demand. The supply consists of the money-pieces, whatever their material or form, available for the purchase of goods. The goods to be exchanged through the instrumentality of money remaining the same, an increase in the supply of money will, according to this theory, raise prices; conversely, a decrease in the supply of money will lower prices.

It will be seen that the quantity-theory is merely an application to the special case of money, of the general principle that value is determined by demand and supply. Prices, being merely the value of goods in exchange for money, must be deemed to be governed by the general law of value, unless some reason for an exception in this case be shown, which has never been done. However much men have cavilled at the quantity-theory, no one has ever yet seriously undertaken to show what determines the value of money—that is, prices—if supply and demand do not.

The causes of the difficulty which many persons feel in accepting the quantity-theory of money are: first, the complexity and elusiveness of the elements involved; and, secondly, the fact that those who deal with this subject, either as writers or as readers, do not sufficiently attend to the proviso which should be attached to every statement of this doctrine, namely, "all other things being equal." The first of these causes of the difficulty experienced in fully appreciating the quantity-theory cannot be removed; the second may be, by greater emphasis laid upon the proviso, and by fuller illustration of its scope. The habits of a people in regard to carrying and using money, the facilities for transportation, the introduction or extension of banking agencies—all these are subject to change; and no statistics of "per capita circulation" can show whether the real money supply has been increased or diminished, unless such changes are taken into account. Moreover, the mere increase of the money-supply may itself become the cause of a further demand for money, which will enter to prevent prices from rising in proportion to such increase of supply. Thus, while it is estimated that the money-supply of Europe was increased 500 per cent during the first few generations after the discovery of America, prices are not generally thought to have increased more than about 200 per cent. The commerce of the world had been starved through the long silver famine of the middle ages; and the new supplies from Mexico and Peru were eagerly taken up by the depleted system. Speculation and enterprise arose in every land; new industries were brought into being, and traditional industries were rapidly increased; commerce extended its operations to new quarters of the globe. A similar effect, and possibly in a higher degree, was produced by the Californian and Australian gold discoveries. The increased commercial and industrial activity and enterprise, due to the flood of new gold, themselves became a part of the demand for money, and prevented prices from rising proportionally to the increase of supply.

It is not necessary to multiply illustrations of the importance of the proviso, "all other things equal." Nowhere is that proviso of greater importance than in respect to the theory we are considering. It does not, however, belong to the advocate of that theory to prove its validity, inasmuch as it constitutes merely a single case, under a principle which is in all other instances admitted to govern value. The burden of proof rests upon those who would dispute this theory.

[Prof. Francis A. Walker, *Money in its relations to Trade and Industry.—Political Economy.—Money.*—Nicholson, *Pol. Econ.*, vol. ii., 1897.—Zuckerkandl, *Theorie des Preises*, 1889.]

F. A. W.

QUARANTINE strictly means merely a period of forty days. It is practically restricted to the period—whether forty days or any other length—appointed by the law of most nations for the detention of a vessel arriving from a port where infectious disease is prevalent before persons on the vessel in question are admitted to intercourse with those on the land.

This species of detention seems first to have been adopted by the Venetians about 1484, probably on the alarm of some recurrence of the plague. It was little understood or used till 1719, when a vessel named the *Grand Saint Antoine* introduced into Marseilles a plague which carried off half the city. Up to 1800 there were very few regulations on the subject in England: in the earlier years of this century they became frequent, and a lazaretto was erected

at Chetney Hill, Kent. The earlier laws were directed mainly against vessels coming from the Levant, which was looked upon as the nursery of the plague. The act of 1825 (6 Geo. IV. c. 78) was the first consolidating act on the subject, and most of it is still in force; it is directed chiefly against plague and yellow fever. The privy council was till recently the controlling authority, but the local government board now is charged with the initiative in cases where quarantine is needful. Most of the British colonies have more or less stringent quarantine laws, and in many of them the law is enforced with absurd rigour and timidity. Most foreign countries also, especially those surrounding the Mediterranean, at times enforce quarantine very strictly, not only on arrivals by sea but also along the land frontier. The term "quarantines terrestres" was much in evidence at the International Sanitary Conference at Dresden in 1893.

Quarantine may be discussed: (1) in relation to international law; (2) in relation to the public health; (3) in regard to its effect on commerce and shipping. It is properly only in the last relation that it has any bearing on economics.

The evil effects of quarantine upon commerce arise: (1) from the delays imposed upon shipping; (2) from the risk that a cargo may be destroyed as infected. Both of these points may raise serious questions as to the liability of the owners of vessels. The great divergence of quarantine regulations in different ports is a fruitful source of commercial irritation. In a recent "Milroy" lecture before the college of physicians, Dr. Collingridge laid it down that in a commercial country like England quarantine had proved not only useless but actually impossible.

The application of the term "quarantine" to the regulation of the landing and sale of cattle coming from abroad requires passing notice. The administration of the rules for this purpose is under the customs authorities in the United Kingdom.

[Sir Sherston Baker's *Quarantine Laws.—Report of the General Board of Health on Quarantine*, 1849.—*Report of the International Conference on Quarantine*, 1850.—*Report of the West Indian Conference on Quarantine*, 1888.—M'Culloch's *Commercial Dictionary.—Proceedings of the International Sanitary Conference* at Dresden, 1893. There is a collection of laws of the United States, now rather out of date.] C. A. H.

QUARTER (measure); see MEASURES AND WEIGHTS.

QUARTILLO OR CUARTILLO. Mexican silver coin of the value of one quarter of a REAL de plata, or one thirty-second of a PESO. Weight ·8458 grammes, = 13·05 grains, fineness 902·7. This coin belonged to the currency system in force up to the year 1861, the smallest silver coin of the system then introduced being a five-centavo piece of nearly double the weight of the quartillo, 1·353 grammes, = 20·88 grains.

Quartillo is also the name of Spanish measure, of liquid and dry capacity. F. E. A.

QUASI-CONTRACT. A quasi-contract may be defined as a transaction or state of facts to which the law, independently of the volition of the parties, annexes an obligation similar to that which would arise from a contract. The term, though a familiar one in Roman law, has only been recently adopted into English law. Yet a quasi-contract is clearly distinct from an implied contract, the term which was formerly used to cover both classes of obligations. When a man goes into a shop and orders goods, and nothing is said about the price, there is an implied contract to pay for them, for this is the intention of both parties. But the obligation of a principal in the absence of any agreement to indemnify his agent for any thing done pursuant to his authority, is an instance of quasi-contract. The law annexes the obligation to the relationship between the parties.

[Anson, *On Contracts*, ed. vi. p. 357.] M. D. C.

QUASI-RENT. See RENT.

QUATTIE—a silver 1½d. piece—is one of the most familiar terms in the daily life of the Jamaica negro. The little silver 1½d., struck in 1834, was first introduced into Jamaica in 1835, where it rapidly found a congenial home. It became popularly known as the "quarter," corrupted into "quattie," of the prevalent sixpence or bit. The last consignment of these pieces was sent from the mint to Jamaica in 1862, and a large number still circulate. C. A. H.

QUAYAGE, money paid by the owners of ships for the use of a quay for unloading or mooring. A. E. S.

QUEEN ANNE'S BOUNTY. In the year 1704 Queen Anne made a birthday gift to the church of the first fruits and tenths of ecclesiastical benefices. These were respectively the first year's income of the newly-appointed incumbent and a tenth part of the annual profit. They had been paid into the royal exchequer since 1534, when, by 26 Hen. VIII. c. 3, they were "united and knit to the king's imperial crown for ever." Previously they had been a kind of papal perquisite. The pope's claim to them seems to have arisen in the 13th century. It was often resisted, but never with much success, owing to the papal leanings of large sections of the clergy, and the policy of the popes in conciliating the crown by occasional grants of a portion of the proceeds to the king. Little came of the action which parliament was sometimes induced to take. For instance, at the parliament of Carlisle in 1307 the laity petitioned for legislation against the reservation of first fruits; but Edward I. entered into negotiations with Clement V., and before any-

thing was settled the great king died. Other attempts had similar futile endings; and when Henry VIII. broke with Rome he found the payments flowing in full tide into the papal coffers. So good an opportunity of replenishing his own was not to be lost. Hence the statute cited above, and also a new *valor beneficiorum* which has remained in force to the present day for the purposes of this taxation, though the money value of benefices is much greater than it was in the valuation of 1535, the date of the basis of the calculation.

The charter by which Queen Anne made her gift was confirmed by act of parliament (2 & 3 Anne, c. 11). The revenues derived from first fruits and tenths were vested in trustees, called the governors of Queen Anne's Bounty. The archbishops, bishops, and deans, together with a number of highly placed laymen, are the governors, whose duty it is to apply the funds at their disposal to the augmentation of small benefices. They have power to accept property from benefactors and also to sell any lands they may have acquired, the purchase money being treated as part of their general funds. A new and important function was conferred on them by an act passed in 1776, commonly called the Gilbert Act. By it and subsequent legislation in extension of its provisions, the governors of Queen Anne's Bounty are empowered to lend money at 4 per cent interest to incumbents, on the security of a mortgage of their benefices, for the repair and improvement of the glebe buildings, the erection of houses of residence, and other purposes. The consent of the bishop and the patron must be given before such a loan can be granted, and there are elaborate arrangements for the proper performance of the work, insurance, repayment, etc. To meet cases of serious diminution in the value of a benefice, an act was passed in 1896, giving power to the governors, with the consent of the patron, to extend the time for the repayment of loans and decrease the annual payments in proportion. In fact a great body of law has sprung up in regulation of the proceedings of the bounty office, and a still greater body of rules has been created by the governors themselves, while by a curious mixture of abolition and retention the now meaningless values of Henry VIII.'s time are still continued. The governors are now a most important corporation possessed of interests of various kinds in vast masses of ecclesiastical property, and they hold a capital sum of 7 millions. Their original function of providing for the augmentation of small livings has not been neglected. In the year 1906 a sum of nearly £26,000 was expended in grants for increasing the income of 135 benefices.

[Cripps, *The Laws of the Church and Clergy*, bk. ii. ch. i. § 6 and ch. iv., London, 1886.—Phillimore, *Ecclesiastical Law*, pt. ix. ch. ii., London, 1895.—Stubbs, *Constitutional History*, ch. xiv., Oxford, 1875.—Stanhope, *Queen Anne*, ch. iv., London, 1870.—*Year Book of the Church of England*, London, 1897.] T. J. L.

QUEEN GOLD. In mediæval times, whenever a man fined to the king, he was required to make an additional oblation to the queen. This was called *Aurum Reginæ* or queen gold, and it was claimed for the queen by a special officer whose functions are minutely defined in several ancient records. It was, however, from the first a matter of doubt whether the amount of the queen gold bore a definite relation to the original fine, or varied according to circumstances. The author of the *Dialogus* asserts that, although it was generally a tenth of the original fine, the matter was under litigation at the time when he was writing. This point may now be definitely decided, as the *Red Book of the Exchequer* has preserved a passage, in which an exchequer baron, writing about the year 1230, assures us that the doubt which existed in the time of Henry II. had since been removed, and that queen gold should properly be reckoned at a tenth part of the original fine. The correctness of this statement is amply proved by a reference to the pipe rolls.

[*Dialogus de Scaccario*, ii. 26.—W. Prynne, *Aurum Reginæ*, London, 1668.—*Red Book of the Exchequer*, p. 760 (Rolls).] A. E. S.

QUESNAY, FRANÇOIS (1694-1774), born at Méré (Seine-et-Oise), where a commemorative monument was recently inaugurated, died at Versailles, was the head of the school styled by DU PONT de Nemours, in 1767, the PHYSIOCRATS. His father, a distinguished lawyer, but little favoured by fortune, brought him up in the country; and at the age of ten or eleven he could not even read.

His brilliant ability was strengthened by his powerful will, and he taught himself so successfully that at the age of twenty-four he became a master-surgeon. In 1737, La Peyronée, a celebrated surgeon of the day, appointed him the permanent secretary of the academy of surgery which he had just founded. In 1744 Quesnay graduated as a doctor of medicine, and became first an associate of the faculty of Paris, then physician in ordinary, and finally consulting physician to Louis XV. It is not, however, to these titles that the celebrity of his name is due. His fame as an economist equalled that attained some years later by Adam SMITH. These two great thinkers were far from being jealous of each other; it was only the death of Quesnay which prevented Adam Smith from dedicating to him his *Wealth of Nations*.

The system of the PHYSIOCRATS (*q.v.*) is dealt with separately, here it must suffice to say that Quesnay's ideas are based on the predominance of agriculture over all other industries. Agriculture alone of all industries

produces more than the total sums advanced—the surplus is the famous PRODUIT NET, at the expense of which all the other industries, called barren, but not useless, live. In consequence, it is this *produit net* which finally supports all the weight of taxation, which, whatever its form or whatever is desired, always reverts more or less directly on agriculture.

Hence taxation has been divided into two classes—*direct*, that is to say, taxes levied by name and without intermediary means on agriculture, and *indirect*, in which other industries advance the amount in the first place, and are reimbursed by agriculture. As a result Quesnay divided mankind into three classes, the productive class, the class of proprietors, and the unproductive class. Without following this classification further, it suffices to mention that Quesnay struck the first blow at the MERCANTILE SYSTEM; he supported absolute freedom in trade, industry, and labour, but in politics he held that power should be in the hands of one man alone. He looked to public opinion, in the controlling power of which Quesnay, as is well known, has great confidence, provided the people were enlightened—to moderate the aberrations of despotism; and declared that in the contrary case it was the representative system alone that could struggle against the consequences of public ignorance. His saying, "If the halberd leads the kingdom, it is opinion which leads the halberd," is well known. In seeking to disseminate his views he commenced by conversation, and then, at the age of sixty, he took up his pen and began, after mature and serious consideration, to give a summary of them in the *Encyclopédie*, in which he wrote, 1756 and 1757, the articles "Fermiers" and "Grains." He carried this out more completely by publishing, in 1758, his *Tableau Économique*, a most remarkable analysis of the economic condition of his country.[1]

The king took great pleasure in the conversation of his *Sage*, as he delighted to call Quesnay. He lodged him at Versailles, where his apartments were on the *entresol*, whence the celebrated *Réunions de l'entresol* received their name. His rooms were the meeting-place of many of the able men of that time—DIDEROT, d'Alembert, Duclos, HELVETIUS, MARMONTEL, Buffon, besides the members of the *secte des économistes*, the elder MIRABEAU, BAUDEAU, ROUBAUD, MERCIER DE LA RIVIÈRE, ABEILLE, TURGOT, Trudaine, De Fourqueux, MALESHERBES, LAVOISIER, de Jaucourt, CONDORCET, RAYNAL, DU PONT (de Nemours), LETROSNE, and others.

Adam SMITH, when staying in Paris (1765-66), had frequent discussions with them.

[1] An *édition de luxe* was printed at Versailles under the eye of Louis XV. himself, who, it is said, corrected the proofs. A fac-simile reprint, from the original MS. with a preface by Mr. H. Higgs, has been published by the British Economic Association (London, Macmillans, 1895).

Though the first edition of the *Tableau Économique* has so completely disappeared that the *Bibliothèque nationale* does not possess a single copy—the greater and, it seems, the most important part was reproduced by Du Pont de Nemours in 1758 in his *Physiocratie ou constitution naturelle du gouvernement le plus avantageux au genre humain* (2 vols. 8vo);—*Le droit naturel*, *l'Analyse du Tableau économique les maximes générales du gouvernement économique d'un royaume*, *les deux problèmes économiques*, and *Les dialogues sur le commerce et sur les travaux des artisans*. What is described here, and the two articles in the *Encyclopédie* quoted above, are reproduced in full in the publication of Guillaumin (*Physiocrates*, 1st volume).

The elder Mirabeau, in his work *L'ami des hommes* (1756-60), has in the sixth and last part, published 1760 (the date is of importance), included a thesis under the title of *Tableau œconomique avec ses explications*.

Quesnay was the first in France to raise political economy to the dignity of a moral science. To discuss with his disciples the means of improving the lot of the people was his one pleasure. Though in high favour at court, he was never a courtier, and only employed the favour which he stood in there for the advantage of others. His character and brilliant intellect were held in high esteem; and throughout literary and philosophic Europe, Quesnay and his ideas were a leading subject of discussion for some half century.

It must, however, be mentioned that he had some opponents, among others FORBONNAIS, who was not without ability.

The "éloge" of Quesnay was spoken in 1774 by Grandjean de Fouchy at Paris, and in 1775 by the Comte d'Arlon at Lyons. Eugène Daire wrote a very interesting notice on him (Edition Guillaumin), and his *Œuvres économiques et philosophiques*, preceded by an introduction and note by M. Aug. Oncken, appeared in 1888 at Frankfort. A. C. f.

QUETELET, LAMBERT ADOLPHE JACQUES (1796-1874), born at Ghent, died at Brussels, was the first promoter in France of the study of moral statistics, which declines to limit enquiry to material facts only, investigating also and classifying moral qualities. He may also be said to have originated, in 1871, the study of anthropometry and of the methods which at the present time are so largely employed in the identification of criminals.

His principal works are:—*Sur l'homme et le développement de ses facultés ou essai de statistique sociale*, 1835, 2 vols. 8vo.—*Lettres à S. A. R. le duc régnant de Saxe-Cobourg et Gotha sur la théorie des probabilités appliquées aux sciences morales et politiques*, 1846, 8vo.—*Du système social et des lois qui le régissent*, 1848. (See sects. ii. and iii. of the first chapter of *Du Système social et des lois qui le régissent*; and the third chapter "Des qualités morales et des qualités intellectuelles," and "De l'Humanité.")—*Physiologie Sociale, ou Essai sur le développement des facultés de l'homme*, 1869, 2 vols. 2nd ed.; *Anthropométrie*

ou mesure des différentes facultés de l'homme, 1871. A. C. f.

QUIA EMPTORES or the statute of Westminster, iii. (18 Edw. I., stat. i.), is the first statute since the conquest which (1) authorised an out-and-out sale of land, and (2) prohibited subinfeudation, or the qualified sale of land under which the purchaser held his land of the vendor. This statute established free trade in land. It did not, however, apply to tenants in villeinage, nor to tenants *in capite* (the landholders who held directly of the king). Before 1290 alienation of land was grudgingly permitted by the Anglo-Norman legislature. Under a law of Henry I. c. 70, a man who purchased land might, but a man who inherited land might not, aliene it, Glanville adding that even then the vendor might only aliene part of the land *quia non potest filium suum exheredare*. Alienation was not only regarded as a fraud on the heir, but also as a fraud on the lord. For instance, Henry III.'s Magna Charta (1217, c. 39, and 1225, c. 32), the most liberal law before *Quia Emptores*, allowed freeholders, other than tenants *in capite*, to aliene only a part of their land; they had to reserve a sufficient part to enable them to perform the rents and services incidental to their tenure. Coke interprets "a sufficient part" as "one half." Even these enabling statutes refer rather to subinfeudation than to out-and-out sales, because *Dedi et concessi*, the operative words of a feoffment, which was the only means of aliening land, meant at that date subinfeudation, not sale, unless sale was expressly mentioned (see Wright). Stubbs describes *Quia Emptores* as meant to do to the feudal lords what *De Religiosis* (1279) was meant to do to the church. Its intention was doubtless political, *i.e.* to limit the independent impositions and jurisdictions of the nobility, but its most important effect was economic, *i.e.* to make land saleable, and, according to Hallam, largely to increase the number of landowners.

As to *tenants in capite*, they could not at this date aliene without licence from the king—the penalty being forfeiture, as in the case of Thomas of Hoton (*Rot. Claus.* ii. 38), or fine. It is said by Butler, Elton, and others that *Quia Emptores* was "extended" to them by 17 Edw. II. st. i. c. vi. and 34 Edw. III. c. 15. But Edward II.'s statute only extended the provisions cited from 9 Henry III. c. 32 to tenants *in capite;* viewed as an enabling statute, it was according to Wright a dead letter; viewed as a disabling statute, it, along with 1 Edward III. st. ii. c. 12, which substituted a fine for forfeiture, only imposed what was practically a tax upon alienations by tenants *in capite*. Edward III.'s statute (1360) only confirms alienations during the reigns of Henry III. and his predecessors "saving the king's prerogative." There is no general prohibition against alienation by tenants *in capite* contained in any statute except these. And no statute expressly prohibits subinfeudation by tenants *in capite*. It is difficult, therefore, to see why the king might not have joined with his tenants in subinfeudating down to 1660, or why they might not have done so without his consent, thereby incurring, at most, a fine. In 1660 feudal incidents, including rent-services, fines on alienation, aids, etc., etc., were swept away except such as existed in connection with memorial and frank-almoign tenures valid at that date. So that since 1660 the question has no importance. Whatever is the answer to the question "When and how far was *Quia Emptores* extended to tenancies *in capite?*" all agree that, as a fact, (1) there has been no subinfeudation—no creation of feudal incidents, or of manors, or of frank-almoign tenures—by tenants *in capite* since either 1290 or 1324 or 1360, by other freehold tenants since 1290; (2) tenants *in capite* have enjoyed free sale (subject to fines) since 1324, and without fine since 1660—these privileges have been enjoyed by other freehold tenants since 1290. And both these results are due indirectly or directly to *Quia Emptores*.

[Wright's *Tenures*, 153 *et seq.*—*Coke upon Littleton*, 43a, 384a.—Coke's *Institutes*, vol. ii. pp. 500 *et seq.*—Blackstone's *Commentaries*, vol. ii. c. 19.—Glanville's *De Legibus Angliæ*, lib. vii. c. 1.—Hallam's *Middle Ages*, iii. 16.—Stubbs' *Constitutional History*, ii. c. 15.—Stubbs' *Select Charters*.—Butler's notes to *Coke upon Littleton*, 191a.—Elton on *Copyholds*, p. 10, note f.] J. D. R.

QUINARIUS. The quinarius or half DENARIUS (*q.v.*) first appeared in 269 B.C., and continued to be issued up to 206 B.C. The type of this first coinage was the head of Roma with the numeral V., denoting five *asses;* reverse, above the word Roma, the *dioscuri* galloping with lances in rest. Its weight was 36 grains, or 144 to the pound of silver. The second issue was about 104 B.C., when the *victoriatus* was withdrawn. It had the type of the *victoriatus*, but was marked with the letter Q. This issue of the quinarius lasted until about 84 B.C. A third began in 49 B.C., and from that time it continued to be coined, though in small quantities and in an interrupted way, under the empire. The senate in the reign of Philip (A.D. 244) ordered a coinage of large bronze quinarii. This form was known as the *Philippus æreus*.

[E. Babelon, *Monnaies de la République Romaine*, 1886.—*Encyclop. Brit.*, 9th ed., vol. xvii., art. "Numismatics."] R. H.

QUINCEY, THOMAS DE. See DE QUINCEY.

QUINTOS, the fifth part of the produce of the gold and silver mines in America, for which, in 1525, the Spanish kings gave up their former exclusive right of property in these. In 1723 and 1777 this contribution was reduced to $1\frac{1}{2}$ per cent for silver and 3 per cent for gold.

[Canga Argüelles, *Diccionario de Hacienda* (1826).] E. Ca.

QUIT RENT. A small fixed annual payment, formerly made by the tenants of a manor in commutation of all customary services

and payments in kind. Quit rent was sometimes written white-rent, whence some antiquaries have maintained that quit rents were paid in silver; white is, however, probably nothing but a phonetic variation of quit.

[Cowel, *Interpreter.*] A. E. S.

QUITTANCE. Low Latin *Quietancia.* When an officer accounting at the exchequer, or elsewhere, paid in the exact sum of money due from him to balance his account, the words *Et quietus est*, or *Et equatur*, used to be written at the foot. When this *quietus* was granted, whether the officer had actually paid or been excused payment, he was said to have a *quietancia* or quittance. A. E. S.

[Du Cange, *Glossarium.*]

QUORUM. The minimum number of the members of a committee or of any administrative body, whose presence is necessary to constitute a competent business meeting. The number constituting a quorum at the meetings of shareholders or directors in a company is generally fixed by the articles. This use of the word *quorum* has arisen out of the terms in which commissions for holding sessions of justices were formerly couched. Of the whole number of persons holding commission as justices of the peace, only certain individuals were held to be competent to preside at sessions. These were specifically named in the commission that was issued directing the sessions to be held, at which it was required that at least two justices should be present, of whom one must be of these persons; or, as it ran: "*quorum AB, vd CD, vd EF, unum esse volumus.*" These persons were usually termed "justices of the quorum." The quorum clause was omitted when the form of commission was revised under 40 & 41 Vict. c. 41 (1877). Since the beginning of 1878, the names of all the justices of the peace for the county have been inserted in a schedule attached to the commission.

R. W. B.

QUOTA. A proportion, a part or share. The part which every shareholder or member of a company or society is bound to contribute; also the proportion of dividend belonging to each member. R. W. B.

QUOTATION. On the stock exchange, or in commercial markets generally, the price of the day as quoted in the official list of any particular security or commodity. R. W. B.

QUOTITÉ DISPONIBLE (Fr.). The right to dispose of property by will or by gifts *inter vivos*, being restricted in France in the case of persons having or leaving heirs in a direct line, descending or ascending, the *quotité disponible* is the portion of which they have the free disposal. This portion is one half if the deceased leaves only one legitimate child, a third if there are two, a fourth if three or more; any number of grandchildren counting only for their respective parents. If he leaves no descendants, but ascendants in both lines, paternal and maternal, the disposable portion is one half; if in one line only, three-fourths. If he leaves neither descendants nor ascendants, the testamentary restriction ceases. Gifts *inter vivos* are counted as part of the *quotité disponible* and cannot prejudice direct heirs.

[Code Civil, arts. 913-919. See also Bequest, Power of; Will, Bequest by.] T. L.

QUOTITÉ AND RÉPARTITION (Fr.). The two great divisions in the system of taxation in France. *Impôts de quotité* are based on tariffs, the yield of which can only be estimated approximately, as is the case with the revenue from stamps, successions, dividends and interests, customs duties, etc. In *impôts de répartition* the state fixes the sum the tax is to produce, and an assessment is made of the portion to be provided by each of the administrative divisions of the territory; first by the central authority among each of the departments; the council-general of the department next divides the total sum between each arrondissement; the councils of arrondissement then subdivide their contingent among the communes; and finally local councils in the communes assess each property holder for his contributive share according to the land register book. Direct taxes are generally *impôts de répartition*, but the trade license or Patente (*q.v.*) is an exception, and the doors and windows tax is a mixed system; repartitive in the total but an *impôt de quotité* in the incidence, the portion to be paid by each landlord increasing not only with the number of doors and windows, but also with the population of the locality. A certain latitude is also permitted to the local authorities in the assessment of the *mobilier*, or tenants' occupation tax, provided that the total sum due by the commune is realized and not exceeded. The system of repartition has advantages for the prevention of fraud in countries with a rudimentary or defective administration, as the inhabitants exercise a control over each other, knowing that if some individuals do not pay their fair share of the tax, the burden will fall more heavily on themselves. On the other hand, this mode of taxation presents greater inequalities, as it does not follow the development or decline in the value of real property in the different departments or communes, and the balance can only be restored by a periodical general survey.

[Edouard Vignes, *Traité des Impôts en France.*—P. Leroy-Beaulieu, *Traité de la Science des Finances.*] T. L.

RACK RENT. A rent equal to the full annual value of a tenement. Sometimes a special meaning is given to the term in a statute, *e.g.* the Public Health Act 1875, defines for the purposes of the act a rack-rent as a "rent which is not less than two-thirds of the full net annual value of the property out of which the rent arises."

[Copinger and Munro, *On Rents*, London, 1886.]

J. E. C. M.

RADMANNI. The *rodknights* or *radchenistres* of Domesday. These were free proprietors with considerable holdings, and their service was to ride as escort to the lord or lady of the manor, a duty which could scarcely be performed by men who were not of free condition. Maitland's *Select Pleas in Manorial Courts*, p. 78, show a *rideman* employed to enforce army service. The Gloucestershire *liberi homines radchenistres* (Domesday, f. 163) had villeins on their land, while in Worcestershire Lefric the radman held a hide and a virgate. Some, however, seem to have been unable to leave the manor, that is, to sell their holdings, and others were bound to render small predial services. Bracton, i. 279, classifies their tenure as *petit serjeanty* (see SERJEANTY, PETIT).

R. H.

RAE, JOHN (1786-1873), probably a native of Scotland or the Orkneys, perhaps the father of Rae the arctic explorer, after pursuing in youth the vast design of "gathering together all that consciousness makes known to us of what is within and all that observation informs us of what lies without," into "a true *Natural History of Man*, by a sudden and unexpected change in his circumstances . . . exchanged the literary leisure of Europe for the solitude and labour of the Canadian backwoods" (preface to *New Principles*). Here he composed his *New Principles on the Subject of Political Economy*, which was published at Boston in 1834.

The main purpose of the book is set forth in the title: *Exposing the Fallacies of the System of Free Trade and of some other Doctrines maintained in the "Wealth of Nations."* Distinguishing between individual and national wealth, Rae says it is easy to understand how one individual comes to get hold of a large share of the national means, but not "how a general increase of these means or instruments should take place without some accompanying discovery of an improvement in their construction" (p. 19). The national capital would not be much increased by the indefinite multiplication of flails (p. 20). To attribute the growth of wealth to parsimony would be like attributing it to population. Both are necessary conditions, but we need take no thought for their growth, provided that invention progresses (bk. i. ch. i.). "Invention is the only power on earth that can be said to create." Adam Smith's dictum that "the industry of the society can augment only as its capital augments," is combated at length (ch. ii.). Rae instances the case of two brothers in the interior of Canada who, in order to get boots made on their own farms, "were at the pains and expense of sending one of the young men to some distance to master the trade of shoemaking." Why should not government similarly introduce inventions? The argument for protection of infant industries (as we should now say) is forcibly urged by Rae in the second chapter of his first book.

The second book, *Of the nature of Stock*, forms Rae's principal contribution to economics. He applies the term "instruments" to "all these changes which man makes in the form . . . of material objects for the purpose of supplying his future wants." A field is an instrument; so is the wheat growing in it; and bread, "until it is in process of consumption." *Exhaustion* is the "passage of things from the class of instruments into things which are not instruments" (p. 92). Instruments may be arranged in an order—A, B, C—determined by the period at which each issues, or would issue if not before exhausted, in a result equivalent to double the labour expended on it; order A doubling in one year, order B in two, and so on. The causes determining the amount of instruments formed by a society are enumerated as (1) the quantity and quality of the materials owned by it; (2) the strength of the *effective desire of accumulation* (a term adopted by Mill); (3) the rate of wages; (4) the progress of the inventive faculty.

The second and fourth causes are chiefly considered by Rae. He begins by showing that mere postponement—the arts of production being stationary—is apt to increase produce (ch. v. cp. Böhm-Bawerk on *Roundabout Methods*); then (ch. vi.) investigates the circumstances which determine the strength of the effective desire of accumulation, They are (1) the benevolent affections; (2) the intellectual powers; (3) security. His account of that preference for the present which cannot be ascribed to a "mere reasonable regard for their own interest"—Jevons' factor q as distinguished from p—deserves to be quoted in full: "The actual presence of the immediate object of desire in the mind, by exciting the attention, seems to rouse all the faculties, as it were, to fix their view on it, and leads them to a very lively conception of the enjoyments which it offers to their instant possessions. The prospects of future good which future years may hold out to us seem at such a moment dull and dubious, and are apt to be slighted for objects on which the daylight is falling strongly, and showing us in all their freshness just within our grasp. There is no man, perhaps, to whom a good to be enjoyed to-day would not seem of very different importance from one exactly similar to be enjoyed twelve years hence, even though the arrival of both were equally certain" (p. 120). The different degrees of strength of the effective desire of accumulation are illustrated by splendid examples taken from different ages and countries (ch. vii.). In China, for instance, "instruments are about the order D." But long extracts, such as those which Mill has made, would be required

to do justice to these concrete illustrations. In a later chapter (x.) Rae dilates on the progress of invention in language almost worthy of Bacon. The accumulative and inventive faculties are his main theme; incidentally he has enunciated some important economic principles. For instance, among the advantages of division of employments (p. 164), that no instruments lie idle; that among the conditions determining value distance in time as well as quantity of labour must in general be taken account of. One of his most remarkable theorems is that the consumption of articles of *luxury*—which is defined as "the expenditure occasioned by the passion of vanity"—decreases with the reduction of cost. "Were pearls or lace to be got for one-tenth of the labour that must now be given for them, they would go completely out of fashion" (ch. xi. pt. i.; cp. Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 2 note; H. Cunynghame, *Economic Journal*, vol. ii. p. 37). The most original suggestion in the third book—which treats "the operations of the legislator"—is that by a tax on luxuries revenue might be raised without sacrifice to the consumer (bk. iii. ch. ii.).

John Rae, *Statement of some new Principles on the Subject of Political Economy exposing the Fallacies of the System of Free Trade and of some other Doctrines maintained in the "Wealth of Nations,"* Boston, 1834. [J. S. Mill, *Principles of Political Economy*, bk. i. ch. xi.—*Quarterly Journal of Economics* (January 1897), "A Forerunner of Böhm-Bawerk," by C. W. Mixter.—*North American Review*, vol. xl. (high encomium tempered with, perhaps, just complaints of Rae's terminology).] F. Y. E.

RAIFFEISEN, Friedrich Wilhelm (1818-1888), founder of the German agrarian loan funds, was son of the burgomaster of Hamm on the Sieg. Educated at home, he at first entered on a military career, which, through an affection of the eyes, he was soon forced to abandon. He then turned to official life, and filled several municipal and other public positions with great industry and distinction. The difficulties of the smaller agriculturists in 1846-47, which he attributed to their bad credit and consequent liability to extortion from unprincipled usurers, led him to establish in Meyerbusch and Heddersdorf, of which he was burgomaster, the first agrarian mutual loan societies which existed in Germany; and to the extension of these institutions he devoted all his energies both as propagandist and as organiser. He founded in 1878 a periodical entitled *Landwirthschaftliches Genossenschaftsblatt* as organ of such associations, in explanation and defence of which he issued several independent publications, the most important being *Die Darlehensvereine* (7th ed., 1889). He was also active in the sanitation of the districts with which he was officially connected. His labours so seriously impaired his health that he was obliged in 1866 to retire from active employment, but continued to superintend and improve the institutions he had created, and also did good service in promoting the construction of the railway on the left bank of the Rhine. He is held in grateful memory by the inhabitants of the Rhenish provinces, to whose material and moral welfare he so largely contributed.

The institutions founded by Raiffeisen were specially designed for the wants of an agricultural population. Their peculiar features will be best understood by a comparison with the *Vorschussvereine* created about the same time by Schulze-Delitzsch, which are better adapted to urban communities. In these, loans are made for short periods, and the interest charged is as high as from 8 to 12 per cent. The members are shareholders and receive dividends. The managers are paid. The area over which transactions extend is unlimited. Nothing but the financial security of a loan is considered; no account is taken of the use which the borrower makes of it, or of his personal character. All these conditions are changed in the *Darlehenskassenvereine*. Raiffeisen intended them to serve moral as well as economic ends, by awakening sympathy and fortifying the social ties between inhabitants of the same rural district. Only members of an association can obtain a loan; it must be sought for a definite productive object, and the association is entitled to ascertain that it is *bona fide* used for that object. It is a cardinal principle of the system that the operations of each association should be restricted to a small area, which, in Raiffeisen's opinion, ought not to contain more than 1500 souls. It is thus ensured that the members should know each other's character and circumstances—a condition necessary for their financial safety, the mutual liability being unlimited. Not more than 4 or 5 per cent is charged to the borrowers. No dividends are paid; any profits realised, after expenses are defrayed, go, not to the members, but to a reserve fund to cover losses; and when they exceed a certain amount, they are applied to purposes of common utility. The loans are for one or two, sometimes for five or even ten years; when there is urgent danger of loss, the loan may be called-in within so short a time as four weeks. The managing committees work gratuitously; the only salaried officer is an accountant (*Rechner*), who receives a small stipend. The principles on which Raiffeisen founded these institutions were at first much disputed, but have been vindicated by their success. They have effectually delivered the German agriculturists, especially the small and middling proprietors of land, out of the hands of usurers. According to recent accounts, none of them has become bankrupt; liquidations have been rare, and have not caused material loss to the members. They have extended from Germany to other countries, and are now numerous in Austria, Switzerland, and Italy.

To enable the different German associations to render mutual support, a *Landwirthschaftliche Centraldarlehenskasse* was established in 1876, which has its seat at Neuwied.

[For the life of Raiffeisen, see Leisewitz in *Allg. Deutsche Biogr.*, and Schmidt in *Handb. der Staatsw.*; for his institutions, Marchet in the latter work, ii. pp. 906 *et seq.*, and Von der Goltz in Schönberg's *Handb. der P. E.*, pp. 123 *et seq.*]

[See also BANKING; LAND BANKS, GERMANY.]

J. K. I.

RAILWAYS.

Railways, p. 252; Light Railways, p. 258.

RAILWAYS. Though railroads in a rudimentary form date from the 16th century, while the history of steam-traction goes back to Cugnot in 1771, the entire existing railway system of the world has, with negligeable exceptions, been constructed, as far as England and the United States are concerned, within the last seventy years, and, as far as other countries are concerned, within the last sixty. In that time about 450,000 miles of line have been built, nearly one half of which is in North America, the United States alone counting for over 180,000 miles. Europe has about 155,000 miles. The five great powers headed by Germany with 27,000, and finishing with Austria which has 17,000, average about 21,000 miles apiece, which last figure is also the total for the United Kingdom. British India and Australasia have 30,000 between them, shared in tolerably equal parts. The balance is mainly either in South Africa or in South America. The cost of the world's railways reached, in 1895, the enormous total of £7,336,000,000, a figure of some interest when compared with the total capital of the commercial countries of the world, or with the amount of their national debts. As Professor Hadley observes ("The Railway in its Business Relations" in *The Railways of America*, London, 1890, 8vo), the railway "probably represents one-tenth of the total wealth of civilised nations, and one-quarter, if not one-third, of their invested capital. It is doubtful whether the aggregate plant used in all manufacturing industries can equal it in value. The capital engaged in banking is but a trifle beside it. The world's whole stock of money of every kind—gold, silver, and paper—would purchase only one-third of its railroads."

The total sum is, however, made up of individual costs so completely different that no conclusion or average of any practical utility can be extracted from them. To attempt to base any practical conclusions on such an average would be as absurd as to average together a mile of a Devonshire lane, another mile of the Simplon or the Corniche Road, and a third mile of Oxford street. In England itself, whose railway capital averages over £50,000 a mile, we have individual lines capitalised at from £2000 to £1,000,000 per mile. Nor can any one say how far nominal capital represents either actual expenditure or present value. For example, under the first head, the share capital of many American railways was originally issued for but a tithe of its face value. Against this, American railways every year spend out of revenue immense sums on what in any other country would be regarded as fair objects of new capital expenditure. Again, continental railway capital has already been in considerable measure paid off through sinking funds. Instances under the second head are, on the one hand, the great sums sunk in England in parliamentary contests, in lines to collieries and mines now worked out and abandoned, or, on the continent, devoted to paying interest at a high rate on capital, not only during construction, but during what is called in France *exploitation partielle*; and on the other, the immense appreciation in the value of the real property held by railway companies, both agricultural lands in newly-developed countries, and, still more, building sites in the heart of great towns, whether as old as London or as new as Chicago.

In England and the United States, which have between them half the mileage and half the capital of the world, practically the whole of the money has been found by private enterprise, in England controlled and directed throughout by public authority, in America left in the main unrestrained. In the remaining countries of the world railway capital has been provided, if not directly by the state, then in reliance on state assistance, usually in the form of a direct government guarantee. Belgium, the smaller German states, and our Australian colonies, may be taken as leading instances of government construction; France, and in a former generation India, as leading instances of government guarantee. Government aid may, however, also be given, and has been given in many other forms—loans on favourable terms as in Ireland, grants of land as to the Canadian Pacific, special exemptions from customs, taxes, and local rates, as in Austro-Hungary, subscription to shares, more especially deferred shares, as in many continental countries, or, finally, direct gifts of money, as has probably occurred in every country of the world with the exception of England in the limited sense of the name. Contrary to what might have been *a priori* expected, the railway capital found by unaided private enterprise bears interest at a lower rate than the capital raised on state security. Railway capital in England earns on the average about 4 per cent, and in the United States only 3 per cent. On the other hand, in India the guaranteed dividends, owing to the depreciation of silver, work out to about 8 per cent, while in France two of the six great companies

are guaranteed 7 per cent on their share capital, which, however, is not a large portion of the total, two other companies 10 per cent, one 11 per cent, and one 13 per cent. The guarantee system often produces unexpected results; for example, in France the state prohibits railway competition; on the other hand, it has spent and continues to spend very large sums in improving internal water communication. Private carriers along these improved waterways, which are entirely free from toll, have of late years carried off so much traffic from the railways, more especially from the *Ouest*, which runs along the canalised Seine, as to deplete very seriously the railway earnings, and so to add to the amount which the state has to make good under its guarantee (see on this point more especially Ulrich's *Staffeltarife und Wasserstrassen*, Berlin, 1894, 8vo, and Colson's *Transports et Tarifs*, Paris, 1890, 8vo). Italy has handed over its railways, which are also guaranteed, to two great companies—the Mediterranean and the Adriatic—operating the one along the western and the other along the eastern coast of the peninsula, but meeting each other at all the principal points, at Naples and at Rome, at Florence and at Milan. Consequently they are encouraged to compete with one another, but do so at the cost of the state. This Italian system is now over ten years old. Within the last few years it has been followed in Holland. Of purely state lines, the Prussian railways not only pay their way, but leave a handsome surplus, so do the state railways of the Cape and Natal. The Belgian and Hungarian railway budgets about balance. But the general rule is, with unimportant exceptions, that from St. Petersburg to Sydney, state railway earnings are insufficient to meet working expenses and capital charges, and a deficit more or less large has to be made good at the expense of the general taxation of the country.

Turning from capital and finance to management and methods of working, the United States comes first as the country where railways are most independent in fact, though not in theory. In many states of the American union laws, whose constitutionality is in many instances more than doubtful, but which the state authorities rarely attempt to enforce, while the railway companies almost always disobey or evade them, appear to lay very stringent fetters on railway freedom. Practically speaking, however, an American railway company constructs a line when it pleases, where it pleases, how it pleases, runs what trains it likes at such times and speeds as it thinks proper, and, subject to the obligation which in America is regarded as arising at common law to treat all its customers equally without individual favour or preference, charges such fares and rates as the higgling of the market may enable it to obtain. In England this freedom is very greatly circumscribed. Parliament decides whether, and under what conditions, a railway shall be built. The Board of Trade control over methods of construction and working has existed from the beginning, and since 1889 has become dominant. Rates and fares have always been subject to Parliamentary *maxima*, presenting throughout serious limitations in the case of passengers, though not often in the case of goods. Since the beginning of 1893 these limitations have become very stringent for goods also, while since August 1894 it has been practically enacted that, though goods rates may be reduced at the pleasure of the companies, they can never be varied in an upward direction. Still by the side of the continental companies, which as a rule cannot alter the timing of a single train, or vary a single rate of charge, or change in the smallest detail the construction and equipment of their lines, down even to the carpets and curtains in the general manager's office, without direct state authorisation, our English railways must be acknowledged to enjoy a large measure of freedom. When we pass from private railway undertakings to state railways the government naturally settles everything. But even here an important distinction must be drawn, and on the one hand in autocratic countries like Prussia we find voluntary railway councils, composed of merchants and manufacturers and the like, organised with the object of interpreting to the bureaucratic administration the wishes of the outside community, without, however, any power to make those wishes effective; on the other hand, in purely democratic countries like our Australian colonies we find semi-independent commissioners, imported as a rule from outside, and holding office for a fixed term of years, interposed to prevent the railway management being too sensitive to passing gusts of popular opinion, or too promptly responsive to direct political control.

The point where railways most definitely enter the field of economics is the matter of rates and tariffs. A word first as to the machinery by which railway tariffs shall be regulated. It may be assumed that even where railways are private undertakings, some measure of regulation by the state is practically, though not perhaps theoretically, unavoidable. This regulation may take very various forms. In France the control is purely administrative. The minister of public works, with the assistance of about 1000 trained subordinates scattered all over the country, and of a *Comité Consultatif* of fifty or sixty experts of high position, decides the propriety of every proposed new rate. In England we began by fixing parliamentary maxima, and leaving the companies free to vary their rates as they pleased within them, subject

only to judicial penalties if they treated one customer worse than another. The interpretation of the common law, however, as modified by the acts of 1845 and 1854, was too much a matter of policy and economics, and too little of pure law, for judges to take kindly to it. As the railway horizon widened, and competition of individuals on the same spot gave place to competition between different parts of the country, and this, in its turn, to competition between different countries and continents, the inadequacy of the machinery became obvious. The Traffic Act of 1873 set up a new tribunal, in the main a law court, but containing a preponderating lay element; the Act of 1888, while further strengthening the powers of this composite court, set up beside it, for certain purposes and with limited jurisdiction, a purely administrative tribunal in the shape of the Board of Trade. Judging from present indications, it may be said that, while the administrative tribunal is much more prompt and does its work in a much simpler and cheaper manner, it is only adapted for the decision of comparatively simple and small cases. It may be that the legislation of 1894 points to what will be our ultimate solution of this problem, an administrative tribunal of first instance with no compulsory powers, followed, if need be, by an appeal to a semi-legal tribunal wielding the full authority of an ordinary court of justice. In America, control over traffic within the limits of a single state belongs to the state government. Interstate traffic can be only regulated by the federal authorities. Interstate commerce was left uncontrolled till the year 1887, when a federal tribunal, which however lacked and still lacks the powers of a court of justice, was set up at Washington. Recent decisions of the supreme court (1897) have reduced its powers almost to a nullity (see INTERSTATE COMMERCE LAW, U.S.A.). State regulations of local rates has a long and most interesting history. Broadly the states have divided themselves into two groups. Both groups have established commissions, with members both lay and legal. But while the one, led by Illinois, has empowered the commissioners to fix rates and compel, if they could, their observance, the other, led by Massachusetts, has empowered their commissioners merely to express opinions as to what the rates ought to be. The result may be said to be this: commissions of the Illinois type begin by giving orders, which the railway companies often ignore or defy, which experience proves them to have rightly defied, and which, after a time, the commissioners themselves are satisfied to forget; commissions of the Massachusetts type express opinions, to which the railway companies find themselves constrained to conform. [See on the American state commissions, Frank H. Dixon, *State Railway Control*, in American Library of Economics and Politics, 1896; and F. C. Clark, *State Railway Commissions*, in publications of American Economic Association for 1891.]

More important than the question by whom tariffs are to be fixed and controlled is the question of the actual amounts of the tariffs themselves. According to the German economists (see Sax, *Verkehrsmittel*, Vienna, 1878, 8vo, with a second volume *Die Eisenbahnen*, 1879) private railway companies will always fix their tariffs so as to obtain the largest possible revenue. State railways tariffs, on the other hand, may be fixed (*a*) to earn an income to the state beyond the sum necessary to pay interest on capital — this Sax calls *Steuerprinzip*; (*b*) just to cover working expenses and interest — *Gebührenprinzip*; (*c*) to cover working expenses or part of them but not interest (sometimes called *Prämienprinzip*); or (*d*) there may be no tariffs at all and railways be open for public use gratis—this Sax calls *Prinzip eines allgemeinen Genussgutes*. Such is the theory. But in practice private railways are restrained from theoretically possible extortion partly by legal maximum tariffs, but much more by the fact that the highest rates seldom yield the highest revenue, and by the competition of other producing and consuming districts. The *Steuerprinzip* is the principle at which every state administration naturally aims. Only one important state railway administration, the Prussian, has attained it in practice, but the Cape Colony and Natal have reached the same result for the last two or three years, and it is also reached in another field of transport by the British post office. So far as state railway administrations have come down to the level of the *Gebühren*, or even *Prämienprinzip*, they have done so under compulsion either political or economic. None have yet reached, or indeed sought to reach, the stage of gratuitous use, nor indeed is this position likely to be attained in practice. It is true that in every country the state provides roads for gratuitous use. In many continental countries it provides internal waterways gratuitously as well, but it has never sought to provide gratuitously carts, omnibuses, and barges or the horses to draw them, and in the case of a railway its special technical qualities render inseparable the provision of the three elements of transport, road, rolling stock, and motive force.

Tariffs may be classified also in reference to their form. Dealing with passenger tariffs first as being much the most simple, they may be said to be always based on mileage. The possibility of adopting a different, the so-called "postal," principle, which ignores mileage altogether, has frequently been discussed by theorists, more especially in Germany (see Ulrich, *Personentarifreform und Zonentarife*,

Berlin, 1892, 8vo; Perl, *Les Reformes des Tarifs de Voyageurs*, Brussels, 1893, 8vo (originally published in Russian); and Professor James's article "Reform in Railway Passenger Fares" in the *Quarterly Journal of Economics* for January 1891). As the question is not likely ever to become one of practical politics it may be dismissed with this single observation. A uniform charge irrespective of distance is possible in postal business for two reasons, (*a*) because the cost of actual conveyance is but small relatively to the total cost of dealing with a letter, and (*b*) because the amount involved in each individual case is absolutely trifling. Almost the whole cost of passenger traffic is conveyance cost, and it is not trifling. Such charges cannot be averaged. For instance, the average English passenger pays about 8d., but this average is made up of first-class passengers from Euston to Wick, and third class passengers from Charing Cross to the Mansion House. If passengers will consent to pay 8d. from Charing Cross to the Mansion House, it may be possible to carry other passengers from London to Wick for the same money; but not otherwise. The zone tariff of Hungary, and the less famous zone tariff of Austria, have been frequently described as a concession to the postal principle. These are mere mileage tariffs with the unimportant alteration that charges are made and accounts kept in units which are multiples of a mile.[1] Mileage tariffs, however, need not be at the same rate per mile throughout. A system by which the rate per mile decreases in proportion as the number of miles increases, has long been in existence for goods, and of late years has been adopted for passenger traffic also. Such tariffs are known abroad as *à base décroissante* or *barême Belge* from their country of origin, in Germany as *Staffeltarife;* if we have an English translation, it is perhaps "differential rates," though "sliding-scale rates" would be more appropriate. Since December 1894 this principle has been adopted throughout the Russian empire. Finally, in every country, besides the normal fare there are some important derogations from it in workmen's tickets, season tickets, tourist tickets, circular tickets, excursion tickets, return tickets, and so on. These exceptions are sometimes so important in modifying the general average, that in France the actual fare paid per mile by passengers of each class is only about two-thirds of the regular tariff of that class. In England too there is reason to believe, though in the absence of statistics no precise figures are attainable, that the average fare is not more than ¾d. per mile, whereas the regular tariff rate for the lowest class is 1d. In America, with the most highly competitive system in the world, the standard and average passenger rates seem to correspond more nearly than in other countries.

Turning from passengers to goods, whereas passengers classify themselves, goods rates are based on elaborate classifications drawn up and enforced by the railway administrations. There are usually from four to ten categories—the English classification has eight—into which goods are divided according to the following considerations: value, proportion of weight to bulk, fragility, convenience of handling, volume available or offered for carriage. Goods in the highest class will be charged in England perhaps five times as much per ton per mile as those in the lowest; in America the ratio is more like one to ten. Theoretically, the German railways have no classification. Their so-called "reform" tariff professedly charges one and the same mileage rate for all goods conveyed in small lots; another and much lower rate for the same goods when conveyed in half-truck loads of five tons; and a third still lower rate for full ten ton consignments. Practically, however, the "small consignment" or unclassified rate only applies to about 5 per cent of the traffic, and the remaining 95 per cent is, by means of a system of special classes, much too elaborate to be described here, classified for practical purposes almost as much as the traffic of any other country. Now the effect of classification is this, that a ton of copper ingots is charged, say, 3d., a ton of lead pigs 2d., and a ton of pig-iron 1d. per mile, though the cost to the railway company, except for a trifling allowance under the head of insurance against theft, is in all three cases identical. In other words, the railway systems of the world, state as well as private, agree in charging traffic "what it will bear," in basing, that is, their rates not on what the service costs them but on what it is worth to their customer. The phrase "charging what the traffic will bear" has been described on high authority as a "vile phrase." Yet the principle involved in it when applied to a water rate levied according to rateable value, so that the poor man pays only actual cost of pumping, and the high charge on big houses bears the whole interest on capital, is usually regarded as wise and statesmanlike. The point cannot be further elaborated here. This much may, however, be said: if the maxim be considered from its reverse side as meaning "not charging what the traffic will not bear," it will be seen to involve a principle, not of extortion, but rather of protection to the weak, and careful consideration of the community as a whole. In fact the principle

[1] The famous Hungarian 14th zone, which equalises all fares beyond a distance of 225 kilometres (141 miles), is of very small practical importance, as there exists almost no traffic to which the rule can be applied. The motive, moreover, for the establishment of this zone was the purely un-ideal desire of the Hungarian state railway administration to abstract certain long distance traffic from neighbouring private railway companies.

might be amplified into that which is commonly accepted as a canon of just taxation—so to raise the necessary revenue, which in this case is working expenses *plus* interest on capital at the normal rate, that the individual contributor shall feel the pressure as little as may be, that the cost of collection shall be minimised, that luxuries shall be taxed rather than necessaries, and so on. The use of the word "taxation" for the levying of rates and charges by private undertakings should perhaps be justified. Theoretically of course the power is of too important, it might almost be said of too imperial a nature, to be left in the hands of private persons that they may use it for their own private gain. The strong analogy, therefore, between railway rates and taxation evidently forms ample theoretic justification for stringent state control. At the same time, half a century's experience enables us to say *a posteriori* that the railway taxation of private companies is not levied in a different or more oppressive manner than that of state administrations.

Another analogy with taxation cannot be left unnoticed. As the great services of a country, the army, the navy, the civil service, and so on, are provided not for any one section of the community but for the benefit of all, so the vast bulk of railway expenditure—the whole, namely, of the capital outlay and the larger part of the working expenses—is provided for the benefit of the traffic as a whole, and not for any particular portion of it (see Taussig, "Contribution to the Theory of Railway Rates," *Quarterly Journal of Economics*, July, 1891; and Acworth, "Theory of Railway Rates," *Economic Journal*, September 1897). Yet further, even if we could tell the actual cost of working, say, an individual train from London to Edinburgh, we are as far as ever from knowing what it costs to carry each passenger, for the train cost is practically the same whether ten of them are carried or two hundred. A demand for rates based on cost of service is then a demand for what cannot be given, and for what, if it could be given, should in the public interest be refused. It may be added that a demand for equal mileage rates, sometimes assumed to be a demand for cost of service rates, is in fact a demand for something quite different. For wide as are the divergencies between existing ton-mile rates, the divergencies of the actual cost of carriage per ton per mile under different conditions are immensely wider.

We can only here enumerate the special economic problems affecting railway management. One of the most important for us in England at this moment is the question of exceptionally low rates for import, export, and transit traffic. All countries have specially low export rates, and transit rates likewise if their geographical situation be such that they are thereby enabled to direct on to their lines any important international traffic. As for special import rates, when they have been abolished, as they have been recently, except in very special circumstances, both in France and Germany, they have been abolished as part of an avowedly protectionist policy. So far, moreover, are they from being a characteristic vice of private railway management that they scarcely exist in the United States, while the excess of ordinary domestic rates over import rates has perhaps nowhere been more marked than on the government railways of our own colony of Victoria. A problem almost purely economic is the question of the ratio which the rates for wholesale quantities, say train loads or truck loads, should bear to the rate for small consignments. Should there be any difference? If so, should it be roughly equal to or more or less than the difference of cost to the carrying railway? In other words, is it in the public interest to encourage economical methods, even at the risk of concentrating trade in but few hands? English and American courts, interpreting a practically identical law, have taken diametrically opposite views upon this point. Or again, how far is the apparent injustice—apparent only, for obviously in certain cases there is no injustice at all—of charging £1 for 200 miles and only 15s. if the railway is permitted to carry the goods 100 miles further along the same road, so offensive to the instinctive sense of justice of the ordinary plain citizen as to entitle the legislature to prohibit any such practice outright. The "long and short haul clause" of the American Interstate Commerce law has practically broken down. Is it best to forget it or to try and refurbish it for future use? Or again, take the question of "group" rates. How far is it justifiable for the sake of simplicity and uniformity to charge the same rate, say from the Barnsley group of collieries to Hull for shipment, though the percentage variation in distance be considerable? In other words, has a trader what he sometimes terms "a natural right to his advantages of geographical situation"? If so, how did he get this right, and is he entitled to maintain it even though the public interest should lie in the direction of new competition compelling him to reduce his prices? Or once more, in early days in England firms of carriers acted as intermediaries between the railways and individual traders. As far at least as retail traffic is concerned, the "express" companies in America and the *Spediteure* in Germany hold the same position still. Which system is most in the public interest? It may be assumed that the English system does the work cheaper and more promptly. Is this gain counterbalanced by the extra weight thrown into the scale of the already too powerful railway organisation? These are

only a few of the questions of great practical importance urgently in need of treatment by impartial persons in a scientific spirit.

A more important question is that of "pooling" and combination on the one hand, and of competition on the other. How far is competition, (*a*) in charges, (*b*) in facilities, in the public interest—a question on which much has been written *a priori*, but which now seems ripe for solution by the more fruitful method of induction from experience? In England, public authority, which has at times interfered—now to promote and now to forbid competition, —has in the main stood neutral. On the Continent, pools are a matter of course, equally whether the railways be in public or private hands. In America, congress interfered for the first time in 1887 by making every COMBINATION in the nature of a POOL illegal and penal. The house of representatives in 1894 passed a bill repealing this prohibition, but it failed to pass the Senate. Nor has it become law up to the time of writing (1898). Further, the Supreme Court, by its decision in what is known as the Trans-Missouri case, seems to have laid down that all railway combinations are illegal not only under the Act to regulate commerce, but also under the Anti-Trust law. In the interval, that has happened which railway economists foretold at the outset. The public has suffered worse than before from the sudden changes, the unequal rates, the secret discriminations which congress thought to prevent. In addition, some 45,000 miles of railway property have become bankrupt and passed into the hands of receivers, one instance at least in which problems of railway economics can hardly be thought to lack either importance or actuality.

For the scientific study of these and other similar problems no provision whatever is made in England; and it may perhaps be added that English railway management, which in the early days, when all was rule of thumb and no fixed rules had been laid down, was undoubtedly the first in the world, already shows signs of suffering from the lack of it. For the railway profession of other countries not only has access to such scientific teaching, but knows how to profit by it. In America at all the leading universities —at Harvard, at Yale, at Columbia, the work is in the hands of well-known economists like Taussig, Hadley, and Seligman. The Leland Stanford University in California, the creation of one of the founders of the Union Pacific Railway, possesses not merely railway courses but a railway library, practically exhaustive of its subject. In England not only have we no railway library, but our ordinary libraries lack even the recognised text books on the subject. Nor are continental countries behind America. There are regular railway courses at the Prussian universities of Berlin, Bonn, and Breslau, at Vienna, and many places more. One of the most brilliant books on railway economics, *Transports et Tarifs* (already cited), is based on a course delivered by its author, M. Colson, lately the permanent head of the railway department of the French ministry of public works, in the Paris *École des hautes Études Commerciales*. Nor are students of a lower grade neglected. In Buda-Pesth there is a railway school corresponding in rank to the upper classes of a *Realschule*. At Biel in Switzerland there is what might be called a middle class railway school; and similar schools exist throughout Russia, in Vienna, and even in our Australian colonies.

[The bibliography of the subject comprises unfortunately but few books in English, and even of these the valuable ones are not written by Englishmen. The following English works may, however, be cited as possessing at least an antiquarian interest: Fairbairn, *Political Economy of Railroads*, London, 1836, 8vo. — Lardner, *Railway Economy*, London, 1850, 8vo.—Morrison, *English Railway Legislation*, London, 1848, 8vo. For a general survey of the whole subject the following American books may be recommended: —Hadley, *Railroad Transportation*, New York, 1886, 8vo.—Adams, *Railroads, their Origin and Problems*, New York, 1888, 8vo.—Fink, *Reports and Testimony before Legislative Committees on the Subject of Railroad Transportation*, New York, various dates, 8vo (a volume of pamphlets collected by their author, but not published). For English railways in particular the reports of the royal commission of 1865-67, the joint parliamentary committee of 1872, the House of Commons committees of 1881-82, the board of trade commissioners of 1889-90, the parliamentary joint committees of 1891-92; the House of Commons committee of 1893, contain a mass of information. On the special railway rates controversy of the last ten years, the traders' side of the case will be found in Buckingham Pope, *Railway Rates and Radical Rule*, London, 1884, 8vo, and Waghorn and Stevens, *Railway and Canal Traffic Act*, 1888, Report, Manchester, 1890, folio; the railway answer in the works of Grierson, *Railway Rates, English and Foreign*, London, 1886, 8vo; and Acworth, *The Railways and the Traders*, London, 1891, 8vo. Much fuller than the English railway literature is the foreign literature about English railways. Of German works there may be cited those of Cohn, *Englische Eisenbahnpolitik*, Leipsic, vol. i. 1874, vol. ii. 1875, vol. iii. 1883, 8vo.—Reitzenstein, *Verwaltungseinrichtungen und Tarifwesen auf den Eisenbahnen Englands*, Berlin, 1876, 8vo.—Schwabe, *Das Englische Eisenbahnwesen*, Berlin, 1871, 8vo; and *Neue Folge*, Vienna, 1877, 8vo; and Kemmann, *Der Verkehr Londons*, Berlin, 1892, folio. Among French books those of Franqueville, *Du Régime des Travaux Publics en Angleterre*, Paris, 1875, 4 vols., 8vo; and Malézieux, *Les Chemins de Fer Anglais en 1873*, Paris, 1874, 4to. Quite recently a pupil of Professor Cohn, Dr. Moritz Kandt, has published the first part of a history of Australian railways from the economic standpoint, *Australische Eisenbahnpolitik*, Berlin, 1894, 8vo. Of works dealing with special subjects the following should be mentioned. On the whole question of state ownership the report of the Italian commission of 1881

(*Atti della Commissione d'Inchiesta sull' Esercizio delle Ferrovie Italiane*, 7 vols.) is the leading authority. Some portion of it has been translated into French, Paris, 1882, 1 vol. 8vo; while a summary is given in the *Revue des Deux Mondes* for 1st and 15th July 1884. There are three recent English books on the subject, none of them unfortunately of much scientific value—Waring, *State Purchase*, London, 1887; Hole, *National Railways*, London, 1895; and Edwards, *Railway Nationalization*, London, 1898. French railways have been exhaustively treated in the monumental volumes of Picard, *Les Chemins de Fer Français*, Paris, 1884, 6 vols. 8vo. In reference to goods tariffs the works of Ulrich, *Das Eisenbahntarifwesen*, Berlin, 1886, 8vo (published also in French under the title of *Traité Général des Chemins de Fer*), and Launhardt, *Théorie der Tarifbildung der Eisenbahnen*, Berlin, 1890, 8vo, may be cited as of importance. In reference to passenger traffic the works of Ulrich and Perl have already been mentioned. Considère's controversy with Colson on the economic value of light railways also deserves particular notice. And no list can omit mention of Picard's great *Traité des Chemins de Fer*, Paris, 1887, 4 vols. 8vo; or of Roll's exhaustive *Encyklopädie des gesammten Eisenbahnwesens* (7 vols., Vienna, 1890-95), to which may be added, besides the works of Cohn and Sax already cited, an earlier work of Sax, *Oekonomik der Eisenbahnen*, Vienna, 1871. Those who require a fuller bibliography will find the leading works mentioned at the head of the different chapters in Hadley's *Railroad Transportation;* a very long but somewhat inaccurate list of titles in Charpentier et Maury's *Traité Pratique des Chemins de Fer*, Paris, 1894, 3 vols. 8vo, in the main a legal work; while the best bibliography of all is prefixed to the work of Dr. Moritz Kandt on Australian railways which is cited above.]

LIGHT RAILWAYS.—A light railway can only be defined from the technical standpoint as a railway inferior, whether in speed, cost, carrying capacity, or equipment to an ordinary railway. Legally, since the passing of the Light Railways Act 1896, it can be defined as a railway sanctioned not by a special act of parliament but by an order of the Light Railway Commission, approved by the Board of Trade. Continental countries have long classified their railways according to importance and standard of construction and equipment. Prussia has *Hauptbahnen*, *Nebenbahnen*, and *Kleinbahnen*. Elsewhere in Germany the expressions *Secundär*, *Tertiär*, and *Vizinalbahnen* are also used. France distinguishes between *chemins de fer d'intérêt général* and *d'intérêt local*. Belgium calls the latter class *vicinaux*. In all these countries the light lines receive pecuniary assistance from the state, but the state refrains, as far as possible, from direct interference in their management. In Prussia, where the *Hauptbahnen* and *Nebenbahnen* are practically all worked by the state, the *Kleinbahnen* are worked by contractors, sometimes individuals, but more usually companies. In France, where the lines of general interest are controlled by the minister of public works, the lines of local interest are under the control of the prefect of the department in which they are situated. In Belgium the state railway administration has nothing to do with the vicinal lines, which are built and controlled by a national society in which practically the only shareholders are the state, and the provincial and communal authorities, while the actual working is in the hands of local contractors.

Apart from the fact already mentioned that the Light Railways Act of 1896 permits railways to be made and land to be acquired by compulsion for the purpose on the authority of a non-parliamentary tribunal, the chief interest in the Act, from the economic point of view, lies in the fact that it extends to Great Britain the policy which in Ireland has been in force at least since 1883, namely, that the central government and the local authorities should combine to render financial assistance to the construction of light railways. The Act provides that the treasury may assist either with gifts or loans, and that the local authorities of a county, borough, or district may not only lend money to, or subscribe for shares in a Light Railway Company, but may, if they prefer it, construct and work the line themselves. Up to the end of 1897 about ninety schemes involving the construction of over 800 miles of line had been submitted to the light railway commission. In no case has a local authority so far appeared as promoter. Four schemes have been actually passed, seven others have been forwarded by the Commission to the Board of Trade. So far as can be judged at present, light railways are likely to be made in most cases by private enterprise, largely that of the existing railway companies, unaided either by the treasury or the local authorities.

[Thompson, *Catalogue of Books and Articles relating to Light Railways*, London, 1895, 8vo, is a useful bibliography of the subject.] W. M. A.

RAILWAYS (FRENCH). The railway system in France is based on concessions for limited periods, after which the lines revert to the state, which has also a right of purchase on specified conditions. The state contributes to the cost of the lines by works, subventions, or by payment of interest on capital expended by the companies. During the first period of railway enterprise, 1823 to 1832, five perpetual concessions were granted for industrial lines in the centre of France, with animal-traction, for transport of coal and other merchandise. One of these, that from Saint-Etienne to Lyons, was the first to organise in 1832 a passenger service with locomotives. The line from Paris to Saint-Germain, commonly regarded as the pioneer railway in France, was only conceded in 1835 and opened in 1837. It was, however, the first railway having its terminus in the capital. In 1835 the government foresaw the future importance of railways from a national standpoint, and M. Thiers, then minister of commerce and public works, obtained from parliament a credit of 500,000 francs for studies on the conditions and mode of construction of railways in the future. The government had already received applications for concessions of lines from Paris to Rouen and Havre, and from Paris to Lyons and Marseilles. The inquiry was afterwards made to include lines to the Belgian frontier, Strasburg, Orleans, Bordeaux, and Nantes. No one of the projected companies was, however, able to execute the entire work of any of those lines, but a number of concessions were granted, and it was only twenty years later that those and other isolated lines, constructed in the interval, were grouped into the six present great companies, named the Northern—Eastern—Western—Paris, Lyons, and Mediterranean—Orleans—Southern, the terms of all the separate concessions being extended to a uniform period of ninety-nine years. No new perpetual concessions had been accorded since 1833. The general bases adopted for the construction of

railways were, that the ground should be provided by the state, aided by the departments interested; the permanent way, bridges, viaducts, and tunnels be executed by the state, the Companies contributing a fixed sum per mile; the rails, stations, and rolling stock to be at the charge of the companies; the passenger and goods rates to be fixed by the act of concession; the state to share the net profits above a certain dividend after provision was made for the redemption of capital during the period of the concession, at the end of which the lines were to become the property of the state, which would have to take over the rolling stock, plant, stores, etc. at a valuation. If the net profits were insufficient for the dividend and amortisation, the state engaged to advance the difference as a loan at 4 per cent, simple interest, to be repaid before the dividend could be increased, and if not reimbursed at the expiration of the concession, the amount to be deducted from the value of the rolling stock. The companies are bound to perform various services gratuitously for the state, including the transport of mails, troops, prisoners, excise and customs agents, to carry government stores at reduced rates, to permit telegraph wires to run along their lines and buildings, etc. The state also reserved a right of purchase after a period of fifteen years from the opening of the lines. The usual conditions are payment of the cost of the sections that have not been in working for fifteen years, for the rest the state would pay during the remaining years of the concession an annuity equal to the average net receipts of the last seven years, abstraction made of the two most unfavourable years of the period. The rolling stock taken over would have to be paid for within three months. The government have not yet exercised the right of purchase of the systems of any of the great companies, whose concessions only expire between the years 1950 and 1960. Their lines form a total of 20,499 miles of the 25,535 miles open (March 1897). There is, however, a network of 1744 miles of state lines formed by the purchase of a number of unproductive independent lines in 1885, some of which were then incorporated in the Northern, Western, and Orleans systems with which they competed, those companies transferring to the state other lines in exchange. The government had taken over those lines for political motives; their receipts did not cover their working expenses, and their suspension would have caused dissatisfaction among the populations they served. Those state lines cost the government £33,000,000, and the net revenue after more than twenty years of state management is only one-half per cent on the capital, which was borrowed at 4 per cent. The remaining 3292 miles of French railways consist of small independent companies or local lines conceded by the communes or departments. The arrangements between the state and the great companies have been frequently modified by conventions, the most important of which were those of the years 1859 and 1883. By the former the companies undertook to construct a number of secondary lines on the state guaranteeing a net revenue of 4·65 per cent for interest and redemption, but only as a loan to be reimbursed when the new lines realised profits. The latter was concluded when government found itself unable to carry out M. de Freycinet's great scheme put forward in 1878 to construct 6250 miles of railroad in ten years at a cost of £120,000,000. Some of the projected lines, generally in thinly-populated regions, were abandoned, the others were distributed among the great companies, which undertook to execute them progressively on certain conditions. The capital raised by the six companies down to the end of the year 1896 was £59,955,000 by shares, and £474,473,925 by debentures, together £534,428,925, the whole of which will be paid off by drawings by the expiration of the concessions. The value of the lines, exclusive of the part contributed by the state, was estimated in 1892 by Mr. A. Neymarck, a president of the Paris Statistical Society, at £640,000,000. French writers frequently find a consolation for the large amount of the national debt in the prevision that the value of the railways when the leases fall in will be probably sufficient to wipe out the debt completely.

[Alfred Picard, *Les Chemins de Fer Français*, 6 vols.—Duvergier, *Collection des lois et décrets de 1788 à 1897; Les Compagnies des Chemins de Fer*, papers by Mr. Alfred Neymarck read before the Paris Statistical Society (Paris, Guillaumin et Cie.)] T. L.

RAILWAYS, STATE. See RAILWAYS.

RALEGH, SIR WALTER, sometimes RALEIGH (1552-1618). Ralegh's economic writings were part of his work as an active politician. He wrote in jealousy for his native land in view of the political expansion of Spain and the commercial prosperity of the Netherlands. His tracts and his speeches in parliament, as reflecting if not outstripping his age, contribute to its economic history. If, in his *Discourse of War* and his *Discovery of Guiana*, he discusses, as other economists were doing, the capacity for indefinite multiplication in a growing population, and urged colonial enterprise, his chief object, *pace* private ambition, was to secure for England sources of "Indian gold," such as gave Spain the power to initiate and sustain her policy, and to hold which might "at least be a let or impeachment to the quiet course and plentiful trades of the Spanish nation" (*Guiana*). In his *Discourse of Seaports* he urged the construction and preservation of harbours, especially at Dover,

predicting that "the quick uttering of commodities which always followeth by increase of intercourse will cause all the coast and shire to be notably manured and peopled—not with poor, idle, but painful and rich persons." By a harbour at Dover we could both ourselves export Kentish corn and beer, and, by fixing a staple, serve the Channel shipping with commodities. But we were, it seems, too intent on reclaiming land on the Cinque Ports coast. The tract, *Observations touching Trade and Commerce with the Hollander, etc.*, included in Ralegh's works, is by some attributed to John Keymer, a Cambridge vintner. In it the wealth of the Dutch, despite their barren soil, is ascribed to (*a*) their leaving trade relatively free; (*b*) their pushing ability in "opening the gap of traffick"; (*c*) the storing of corn by merchant staplers, the minimum reserve at Amsterdam being 700,000 qrs.; (*d*) their great fishing fleet, we being content to buy of them fish caught off our own coasts. His statistics as to this fleet have been shown to be greatly exaggerated. His *History of the World*, the product of his imprisonment in the Tower (1603-16), reflects his character in greatness of design and imperfection of execution.

In his speeches he advocated liberty of the subject, as against such prescriptive legislation as the Statute of Tillage and the Bill for Sowing Hemp, leaving it to the peasant's discretion to grow corn or not. Nevertheless, when monopolies were attacked, he defended, as warden of the stannaries in Cornwall, his own patent, which prohibited the export of unmelted ore from the duchy, maintaining that by its protection the miner, instead of earning a maximum of "2s. a week, finding himself," now received a fixed wage of 4s. weekly. On one occasion of voting subsidies against Spain, he opposed a motion for taking a census as a basis of assessment on the ground that it would often reveal beggary "where is estimation of wealth," whereby the credit of such persons, "which is now their wealth, would be found nothing worth." On a subsequent similar occasion he held it injustice to assess as far down as "three pound men," when the estates of wealthy men were "not set down in the Queen's Book" at the hundredth part of their wealth. "Call you this *par jugum* when a poor man pays as much as a rich?"

[*Works*, London, 1751.—D'Ewes, *Four Last Parliaments of Queen Elizabeth.*—Edwards, *Life of Ralegh*, 1868.—M'Culloch, *Scarce and Valuable Tracts on Commerce.*] C. A. F.

RAMOS, Enrique. *See* Muñoz.

RAMSAY, Sir George, Bart. (19th century), wrote economic, ethical, and political discourses.

Among these the one of most economic importance is his *Essay on the Distribution of Wealth* (Edin., 1836, 8vo), an attempted supplement, the author tells us, to the works of Ricardo and Mill, whose labours in this field—of profits and the distribution of wealth—were, he thought, incomplete. The author opens the matter by inquiring into the causes which determine what portion of the whole produce of industry shall go to the labourer, that is, the causes determining the rate of wages, which he finds varies directly as the demand, and inversely as the supply. He quotes and advocates the Malthusian doctrine of the advisability of restraining population, refutes the Ricardian theory of the natural price of the commodity labour as that "which is necessary to enable labourers one with another to subsist and perpetuate their race without either increase or diminution." He denies that labour is a commodity, or that, as according to H. F. Storch, it has a "Prix nécessaire," below which it cannot fall. He argues that the labourer will take any pittance "provided he can get no more."

In ch. iii. Ramsay discusses gross profits, or the circumstances which regulate the share of the master-capitalist.

Ramsay is distinctly on the side of labour as opposed to capital, and points out that where profits arise from an improvement in the productive powers of labour and capital, the commonwealth at large benefits, but where individual profits are due to the fall of wages,—though the individual may obtain an advantage, the nation is injured in its most numerous class (p. 144 *et seq.*). In this chapter on gross profits, Ramsay points out very clearly how the rate of profit falls in consequence of diminished productiveness. He carefully avoids the fallacious doctrine of a general rise in value, and, while agreeing with Ricardo as to the question of profit being entirely one of proportion, he finds fault with him for not taking into calculation that part of produce necessary for replacing fixed capital. He next criticises Ricardo's peculiar use of the term "wages," by which he understands the labourer's proportion of the whole produce. He (p. 181) objects to Adam Smith's explanation of the comparative proportion of profits in Europe; and censures (p. 182) Storch's theory that the master or capitalist, after paying rent and wages —is dependent for his profit on the sale of his commodity.

Ch. vii. deals with rent, which Ramsay insists is in its origin the *effect* of a high price of agricultural produce, not the *cause*. Chs. viii. ix. x. and xi. treat of the division of landed property, with its economic, political, and moral consequences; and ch. xii. is devoted to the subject of the national revenue, which he defines as "that portion of the annual gross produce of any country which either is actually employed in satisfying *immediately* the physical wants of its inhabitants during the course of a year, or which may be so employed without at all impairing the sources of national wealth."

On p. 496 he quotes Malthus's prophecy that the U.S.A. will one day manufacture their own raw produce, and he applies this to our own industries, in which he observes, with a foresight which events have justified, other nations will compete with us. Ramsay's intelligence on the free-trade question was, however, not great, as at

the close of this very chapter we find him deprecating the abolition of the corn laws, insisting that the possible good derived from the cheapness of corn would scarcely be sufficient to "induce the legislature to create so great a present evil."

Other works by Ramsay are :—

A Disquisition on Government, Edin., 1837, 8vo.—*Political Discourses*, Edin., 1838, 8vo.—*An Enquiry into the Principles of Human Happiness and Human Duty*, Lond., 1843, 8vo.—*Instinct and Reason as the First Principles of Human Knowledge*, Lond., 1862, 8vo. A. L.

RAPER, MATTHEW, elected F.R.S. in 1754, his name disappears from their lists in 1778.

He made four contributions to the *Philosophical Transactions*, the last of which—*An enquiry into the value of Greek and Roman Money*, 1771, republished 1772, and by the Political Economy Club with preface by M'Culloch in *A Select Collection of Scarce and Valuable Tracts on Money*, 1856—was the most important English contribution to the subject between Greaves, 1647, and Hussey, 1836. The latter's *Essay*, pp. 8, 68, 221, praised it none too highly, but most of its results have been superseded by the discoveries of inscriptions, etc., referred to by Böckh, *Metrologische Untersuchungen*, 1838 ; Brandis, *Das Münz- Mass- und Gewichtswesen in Vorderasien*, 1866 ; Schillbach, *Beitrag zur griechischen Gewichtskunde*, 1877, and Mommsen's, Lenormant's, and Hultsch's well-known works. His error as to the libra was only ·633 per cent.

[Sir W. Smith, *Dictionary of Greek and Roman Antiquities*, 1891, sub tit. "Pondera."] J. D. R.

RAPIDITY OF CIRCULATION. This phrase is used in dealing with the theory of money to express the fact that in a community in which the use of money is habitual, in order to effect the number of exchanges of commodities required by the community, each piece of money passes from hand to hand many times, representing a fresh purchase on each occasion. Though it is not essential to contemplate this fact in relation to a given period of time, yet as our habit in considering commercial transactions is to look to their annual amount, the idea embodied in the phrase, "rapidity of circulation," becomes clearer if it be stated that the rapidity of circulation of a piece of money is the average number of times it changes hands in the course of the year. MILL's insistence that "time is not the thing to be considered," *Princ.*, bk. iii. ch. viii. § 3, only made the idea more difficult to grasp. LOCKE certainly saw the real office of "quickness of circulation," and the basis of the true theory (see LOCKE ON CURRENCY). The significance of that idea gradually became apparent through the investigation into the quantity of money required by a community. The old opinion was that the aggregate amount of the money in a country at any time was equal to the aggregate of all commodities then and there for sale. Sir William PETTY, in 1682, understood the subject better than many who followed him. BERKELEY, in 1735, tersely put the truth, that "a sixpence twice paid is as good as a shilling." BANDINI, in 1737 (*Discorso Economico*, pp. 41 *et seq.*), saw the same truth. It was not till much later that the effect of the circulation of money was thoroughly comprehended. SISMONDI in 1820, *Nouveaux Principes*, v. 11, and elsewhere, wrote that "the amount of medium in circulation in a state must be equal to the sum of the payments made in it in a given time, divided by the sum of the times the former has on an average changed owners." It became generally understood that a piece of money did its work several times over for different persons in respect of different purchases, and most writers by 1850 had definitely adopted the phrase under discussion. ROSCHER, for instance, in dealing with the amount of money needed in a community, makes it depend on (1) the number and extent of transactions ; (2) the rapidity of circulation ; and adds that one coin, circulating ten times a year, is equal to ten coins of the same denomination which go from hand to hand once a year. J. S. MILL discusses rapidity of circulation from the point of view of the purchasing power of money.

The practical question is whether any such estimate can be made of the work done by each piece of money, in any given community, as to indicate the quantity of money required by the community. Knowing what the phrase connotes, is it possible to formulate its effect for practical use? Such an inquiry is hopeless. The factors to be dealt with are so numerous, ill-defined, and illusive, that it is impossible to evolve a formula which the mind can conveniently carry. The different denominations of coins, the different habits of mind of the persons handling the coins, the different commodities to be exchanged—all affect the inquiry. Consequently the supply of the circulating medium to a community remains purely empirical ; and, so far as theory goes, we have never got much beyond Sir William Petty's suggestion, two centuries ago, that the money required in circulation in England was equal to half the amount of the ground rents (paid half-yearly) + $\frac{1}{4}$ the amount of the house rents (paid quarterly) + $\frac{1}{52}$ part of the wages (paid weekly) + $\frac{1}{4}$ the value of all exported commodities.

Such considerations as the effect of hoarding, the absorption of coin as ornament on the person, as happens with the coolie women of India, the greater rapidity of circulation in cities than in thinly-populated areas, are of no real assistance in determining the actual numbers of the purchases made by each coin, or even of each sovereign's worth of coin in circulation. So far as their extent is known they furnish an element in the adjustment of the amount

of coin to be issued annually in any given community.

The development of banking facilities and clearing-house arrangements has in modern times made the actual working of the circulation much clearer.

[Roscher's *Political Economy* (Lalor's translation), § cxxiii., vol. i. pp. 367-69, and note on p. 368. —Sismondi, *Nouveaux Principes*, bk. v. ch. ii.— J. S. Mill's *Principles*, bk. iii. ch. viii. § 3 ; ch. ix. § 3.—Sidgwick's *Principles*, p. 238.] C. A. H.

RAPP, GEORGE (1770-1847), founder of the sect known as *Economites*, was a native of Würtemberg, where he made his first effort to bring back society to the principles of early Christianity. Failing in this, he and his followers emigrated in 1803 to western Pennsylvania. A settlement called Harmony was established, and Rapp's followers were known as Harmonites. In 1815 the community removed to Indiana and founded New Harmony. Again failure attended these religious socialists, and the settlement was sold to Robert OWEN (*q.v.*) in 1824. An experimental community was formed on Owen's system, but this also failed in the course of three years. Meanwhile Rapp and his disciples returned to Pennsylvania, and built a new settlement, on the right bank of the Ohio, called Economy, where they employed themselves in farming. Rapp's leading doctrine was the speedy second coming of Christ ; to prepare for this his object was to amass as much wealth as possible. He enjoined the most rigid economy both on himself and his followers. They laboured strenuously, practised celibacy, and had all things in common. In course of time the community became extremely wealthy, possessing large farms, dairies, and vineyards, and it was reported to hold many millions of dollars' worth of railway and bank shares. When Rapp died in 1847 the community numbered several hundreds, but it gradually dwindled away until there were not a hundred survivors at the United States census of 1890.

[*Cyclopædia of American Biography.*—*Chambers's Encyclopædia.*—Nordhoff, C., *Communistic Societies of the U.S.*, 1875, pp. 63 *seq.*] G. B. S.

RATE. A rate is defined in Sweet's *Law Dictionary* as "a sum assessed or made payable by a body having local jurisdiction over the district in which the person on whom the rate is assessed dwells or has property." A rate may thus be said to differ from a tax in being a local or municipal, not a national or imperial, imposition. It is always levied directly, and usually on immovable property. What public expenses should be met out of rates rather than out of taxes will depend in the first instance on the apportionment of functions between central and local authorities. Thus in England the relief of the poor has been charged upon the rates. But the expenses of a branch of administration which has been left to local authorities—as primary education, may be defrayed in whole or in part from the national treasury. Such grants in aid of the rates have been growing in number and importance of late years. They are open to the objection that they tend to relax the economy of local authorities. The term "rate" is commonly but inaccurately applied to the charges made by gas and water companies for the commodities which they supply.

[Castle, *On Rating.*—Palgrave, *Local Taxation; —Town Holdings Committee*, 1886-88.—Goschen, *Reports and Speeches on Local Taxation.*]

F. C. M.

RATE ; RATES, INCIDENCE OF. Rate means proportion, being levied in proportion to the value of the property subject to the rate. Thus customs used to be regulated by a royal (1556) or statutory (1660, 1724) "book of rates," and modern statutes still sometimes refer to customs as "duties and rates." Nowadays, however, rates are almost invariably opposed to duties and taxes ; and the line of cleavage is rightly defined by Mr. Cannan as follows : when the taxing authority requires a lump sum payable by contributions in certain proportions, this is a rate ; when it requires sums from certain persons or on certain occasions, this is a direct or indirect tax. From 1334 and onwards FIFTEENTHS AND TENTHS were in this sense rates ; so are modern French "contributions foncières et mobilières." But there is this difference between England and France : in France local are added to central "contributions," or else consist of OCTROI ; in England all local imposts are rates—no central imposts are rates except the LAND TAX, which is raised by "a pound rate." Hence, popular language dubs all imposts by a non-sovereign body, rates, and all imposts by a sovereign, or like a colony, quasi-sovereign body, taxes, customs or excise. The earliest local rates were the "scot" (see SCOT AND LOT), "townley," or "constable's tax," payable by members of a township "juxta facultates," and often including the hundred and county rates. Side by side with this was the church parish rate virtually abolished in 1868. But a new system grew up of imposing separate rates for separate objects—such as sewers (1427), bridges (1530), and gaols (1531) — which culminated in the poor-rate of 1572, 1598 (Thorold Rogers, *Hist. of Agr. and Prices*, vi. 101), and 1601 ; and the poor-rate soon became the pattern after which every local impost was remodelled. The modern history of local rating begins therefore in 1601.

Modern rates, such as (1) the general, and (2) special county rates, in which the hundred gaol-fees, shirehalls, asylums, and, since 1888, county police rates are more or less completely merged ; (3) the borough, and (4) borough watch rates ; (5) general, and (6) special

district-rates of (*a*) town councils, urban improvement commissioners, or in London county vestries, and (*b*) rural district councils under the Public Health Acts, etc., of this reign; (7) general, and (8) special parish council rates; (9) sewers, lighting, police, and general rates in London county; such (10) highway, (11) lighting and watching, (12) baths, and (13) library, (14) burial board, and (15) education rates as are not swallowed up in the preceding rates, are all levied according to the annual value of property rateable to the poor rate, either in the same way as, or as part of, the poor rate. Not that there is uniformity. The county and borough, but not London county, rates may be based on independent valuations by their respective authorities — an absurd waste. Urban district rates are usually "made" by separate officers, other rates being "made" by the overseers. The main burden of special expenses is wisely cast on those who profit thereby; and there are anomalous exemptions from urban general district rates. Occupiers deduct from their rent three-fourths of private improvement rates (a special species of district special rate), and poor people often "compound," *i.e.* the owners and not the occupiers pay rates; and these cases are differently defined in different acts. Many towns have private acts. Again, the distinctions of rate and rate are artificial. Highway rates have been split up, and part has become county and part district rates. District rates belong in the country to the poor rate, but are usually separate in boroughs, and sometimes the poor rate swallows up the borough rate, which, again, swallows up sometimes the watch rate, and sometimes the general district rate. Finally, there survive (16) sewers rates (1531) (1861), (17) general sewers tax, (18) drainage rates, and (19) a few highway rates leviable by way-wardens which have nothing to do with poor-law machinery.

Under the act of 1601 poor rates were levied (1) by overseers, including churchwardens; (2) on every parochial inhabitant, and (3) occupier of (4) lands, houses, tithes, (saleable) underwoods, and (coal) mines; (5) according to the ability of the parish. We will take these points in order: (1) In 1894 in rural parishes churchwardens were deprived of this office, and the other overseers, formerly nominees of the magistrates, were made elective, and the local government board may extend similar provisions to towns. Up to 1834 the overseers, since then the guardians, decide how much must be raised for the coming year. The overseers prepare the valuation list, which, since 1862, is corrected and countersigned by a committee of guardians called "The Union Assessment Committee," and then becomes official. They then "make" the rate, *i.e.* state that "A. B. being assessed at so much, must pay so much in the £"; and two magistrates "allow" the rate—a mere form. Since 1744 the rate must be published; since 1836 a prescribed form is followed. An appeal lies to special petty and to quarter sessions. Non-payment entails a magisterial distress-warrant against chattels, or, if there are no chattels, three months' imprisonment. Paid collectors have during this century been appointed by the guardians; formerly the overseers were collectors. (2) and (3) The local unit is the parish, but the township is largely substituted in the north under an act of 1662. Unlike most sewers and drainage rates, and the private improvement rate, the poor rate—though classed by economists as a land tax (Sir R. Giffen, *Essays in Finance*, ser. i. p. 252)—is personal, and does not charge land. (2) In the south and west of England "local, visible, and profitable" personalty was assessed to the poor rate, a practice which the courts finally sanctioned (1795). Here, too, the worst abuses of poor relief began and culminated (1795). About this time the old staplers and clothiers migrated from the west of England to Yorkshire. These three facts were probably connected; the poor law commissioners ascribed the third to the first two; but Massie mentions the high price of coal and necessaries, Tucker (*Instructions for Travellers*, 1757, p. 25) and the Select Committee on Wool (1806) mention the bad organisation of industry in the west of England as the prime cause, and there were earlier migrations to Ireland and elsewhere. Since 1840 personalty may not be assessed; but the practice still varies as to machinery (Hansard, *Debates*, 1887; see Index *s.v.* "Rating of Machinery"). Poor-law rating according to "means and substance" prevailed in Scotland from 1579 to 1861; and shopkeepers often become overseers in order to pry into their rivals' stock-in-trade. The highway rates which from 1654 to 1767 affected personalty were seldom levied. (3) "Occupier" excludes lodgers, servants and dwellers in empty houses, but applies to flats, colleges, charities, and hospitals. If the rent is less than £8, or, in London county, £20, the "Compound Householder" system prevails. In Scotland rates are generally thrown half on owners, half on occupiers; and in Ireland a similar system exists with regard to the poor rate, and agricultural and pastoral holdings. Advocates of this plan are referred to by Blunden (ch. vii.). (4) The words "saleable" and "coal" were struck out in 1874, and sporting rights were added. (5) There was no one plan of estimating the payer's ability until 1836. Since then the overseers (i) estimate the rent which the premises would fetch if let to a yearly tenant free of tithes and tenants' rates and taxes; (ii) and then deduct repairs, insurance, and renewal expenses—(i) is called

"gross estimated rental," (ii) "net rateable value": (i) is usually about 6 per cent less than the corresponding income-tax assessments, and (ii) usually knocks off another 15 per cent (see Blunden, p. 126). The following figures are from Mr. Fowler's *Report*. Expenditure of local authorities, excluding loan expenditure, was met (in round figures) thus:

RATES COLLECTED.

	1868.		1902-3.
Urban	£3,027,000	Administrative County	
London	3,703,000	of London .	£13,835,000
Rural	1,416,000	County Boroughs .	14,443,000
Mixed	8,358,000	Other boroughs and urban districts .	14,535,000
Total	£16,504,000	Rural Districts . .	7,303,000
From Treasury	951,000		
Tolls, etc.	7,289,000	Total (England and Wales) . .	£50,116,000
Total	£24,744,000	From Imperial Funds	12,787,000
		Total	£62,903,000

And local debts had risen from £92,820,100 (1875) to £370,607,000 (1902-3), £67,515,000 purely, £303,092,000 partly urban. Rates per £ were 3s. 10¾d. (1817), 3s. 8d. (1827), 2s. 7d. (1841), 3s. 4d. (1868), 5s. 7·4d. (1902-3).

The Agricultural Rates Act 1896, and Elementary Education Act 1897, are estimated to make the Treasury Subventions, 1897-98, £8,979,000 (see BETTERMENT).

[There are three classical *Reports on Local Taxation*, by the Poor Law Commissioners (1843), Mr. Goschen (1870), and Sir H. H. Fowler (1893) (who reprints the Report of 1870). See also G. H. Blunden, *Local Taxation and Finance* (1895).—E. Cannan, *History of Local Rates in England* (1896).—Cobden Club Essays (ed. J. H. Probyn), *Local Government and Taxation*, 2nd ed. 1882.—H. R. Gneist, *History of the English Constitution*, trans. by Ashworth (1891).—J. J. O'Meara, *Municipal Taxation at Home and Abroad* (1894).—R. H. Inglis Palgrave, *Local Taxation of Great Britain and Ireland* (1871).—Reports of *Select Committee on Town Holdings*, 1889, vol. xv., Index *s.v.* "Rate," 1892, vol. xviii.—R. S. Wright and H. Hobhouse, *Outline of Local Government and Local Taxation in England and Wales* (1894).] J. D. R.

RATE IN AID. Previous to the year 1834 every parish had to provide for the relief of its own poor. The rate in aid was a rate levied upon neighbouring parishes to assist a parish which was unequal to this burthen. The principle of a rate in aid was first introduced by an act of 1555 (2 & 3 P. and M. c. 5), but only with reference to parishes in the same city or corporate town. An act of 1597 (39 Eliz. c. 3), which amended and consolidated earlier statutes for the relief of the poor, enabled two or more justices of the peace dwelling in or near a parish alleged to be unable to maintain its poor, if satisfied of that inability, to lay a rate in aid upon other parishes in the same hundred, or upon individuals in such parishes. If the hundred were judged unequal to assisting the parishes which could not relieve their poor, the quarter-sessions might levy a rate in aid upon any other parishes within the county. The celebrated act of 1601 (43 Eliz. c. 2) repealed the act of 1597, but re-enacted these provisions. Since the passing of the Poor Law Amendment Act 1834, the formation of unions of parishes, and the establishment of a common poor fund for London, has rendered the levying of rates in aid unnecessary.

[Cannan, *History of Local Rates in England.*] F. C. M.

RATI. See RUPEE.

RATING OF THE GUINEA. See GUINEA, INTRODUCTION AND RATING OF.

RATIO BETWEEN GOLD AND SILVER. See GOLD; SILVER; PRECIOUS METALS, DISCOVERIES OF.

RATIO OF EXCHANGE. See EXCHANGE, FOREIGN: also MINT PAR OF EXCHANGE; GOLD POINTS IN FOREIGN EXCHANGES.

RAU, KARL HEINRICH (1792-1870), born at Erlangen, studied in the university of that city, in which he became, 1816, an extraordinary, and, 1818, ordinary professor. In 1822 he accepted a call to the chair of political economy at Heidelberg, where in 1845 he was made a privy councillor. He was a member of the first Baden chamber, and was elected to the Frankfort parliament in 1848. He died at Heidelberg.

Rau was a follower of Adam Smith. At first, influenced by the older German economists, with whose writings he was thoroughly acquainted, he showed mercantilist tendencies and a leaning towards a protectionist policy, as well as an inclination in favour of a revived gild-system. But gradually, as he himself tells us, larger experience led him to change many of his opinions; he entered more and more fully into the views of Smith, and adopted the principle of freedom of trade and manufactures, though not with the rigour of the English school. He studied also the later English economists, and accepted the so-called Ricardian theory of rent. Early in life Rau inclined to the historical method, but he afterwards conceived the mistaken notion that that method dealt only with the past and did not concern itself with the improvement of existing conditions; and his interests became too exclusively practical.

Rau is not remarkable for precision of thought or strict accuracy of expression; his character is "erudite thoroughness." He interweaves with his abstract discussions many geographical and statistical illustrations. His writings are specially adapted for the use of public officials and members of the legislature, being very full on the application of theoretical principles to concrete cases. He was the economic teacher of the well-governed German middle states from 1815 to 1848, his doctrines having taken root among the liberal and enlightened civil servants of those states.

Among his most notable economic publications may be mentioned his early prize essay, *Über das*

Zunftwesen, 1815; *Ansichten der Volkswirthschaft*, 1821; *Malthus und Say*, 1821; and, above all, his *Lehrbuch der politischen Oekonomie* (1826-1837), which has appeared in many editions, and has been remodelled by Adolf Wagner and Erwin Nasse, the former doing much the greater portion of this work. Rau also gave in 1819 a free, but very good, translation of Storch's *Cours d'Économie politique*. He established in 1835 a periodical entitled *Archiv der politischen Oekonomie und Polizeiwissenschaft*, and conducted it, at first alone, afterwards in conjunction with Hanssen. A very large number of reviews and other papers by Rau appeared in the *Archiv*.

[Leser in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 847.] J. K. I.

RAUDOT, Claude Marie (1801-1879), born at Saulieu, Côte d'Or, died at Pontaubert, Yonne. He had been appointed a magistrate before the Revolution of 1830, but being a legitimist by conviction, he resigned in that year.

During the reign of Louis Philippe, Raudot published *La France avant la Révolution*, 8vo, 1st ed. 1841, 2nd ed. 1847), a faithful summary of the state of France when the *États-généraux* were convoked.

Elected a representative of the people in November 1848, Raudot was re-elected to the legislative assembly in May 1849.

The *coup d'état* caused him to return to private life. While he was in parliament he had published two works, which, like the first he wrote, were successful. The first of these was *De la décadence de la France* (4th edition, 1850), a sensational title which should not be taken literally. He desired to make it clear that France was strangled by the laws, but that these hindrances could be easily removed, and hence had made less progress than other countries. Administrative centralisation was the principal hindrance, and Raudot eloquently described the injuries it inflicted on France. His second work, the sequel and in some respects the complement of the first, *De la grandeur possible de la France*, 8vo, 1851, discusses, one by one, each of the public offices, and shows the reforms most required in each. Amongst these reforms decentralisation takes the first place. Even in the present day it would be well for the governing body of France, legislators and ministers alike, to study this work, one of great ability and much conscientious research. During the second empire Raudot published *Napoleon Ier peint par lui-même* (18mo, 1865). This condenses the first fifteen volumes of the conversation and correspondence, official and otherwise, of Napoleon I., collected, classified, and republished by order of Napoleon III., and contains revelations startlingly suggestive of the baseness of the causes of the wars, particularly the wars of conquest so disastrous to France.

This work may thus strengthen the feeling of security among nations. A. C. f.

RAYNAL, Guillaume Thomas François (1713-1796). After having studied at the Jesuit College, he became a Jesuit himself and a parish priest in Paris, until he left the church and began life anew as a man of letters.

His first works, all of them historical, are mere compilations and quite forgotten, but his *Histoire philosophique et politique des établissements et du commerce des Européens dans les deux Indes* (Geneva, 4 vols. 1770, 10 vols. 1781—first ed., without the author's name) made a great stir at the date of its publication, and was sentenced by the Paris parliament to be burnt by the public executioner. It is full of furious attacks on religion and existing institutions, written in a pompous and declamatory style, and provoked animosity from all quarters. Grimm stated that one-third of the book was the work of Diderot. Turgot was shocked by "its incoherence and by seeing the most opposite paradoxes defended with the same heat, the same eloquence, the same fanaticism. . . . He, the author, is more learned and has more natural sensibility and eloquence than Helvetius, but he is quite as desultory in his ideas, and as much a stranger to the true nature of mankind" (*Œuvres*, ii. p. 801). A passage from a letter of Horace Walpole to the Countess of Aylesbury (Dec. 20, 1772) conveys a lively picture of the contents of the book. "It tells one everything in the world: how to make conquests, invasions, blunders, settlements, bankruptcies, fortunes, etc.; tells you the natural and historical history of all nations; talks commerce, navigation, tea, coffee, china, mines, salt, spices; of the Portuguese, English, French, Dutch, Danes, Spaniards, Arabs, caravans, Persian, Indians; of Louis XIV. and the king of Prussia; of La Bourdonnais, Dupleix, and Admiral Saunders; of rice, and dancing women; of camels, ginghams, and muslins; of millions of millions of livres, pounds, rupees, and cowries; of iron cables and Circassian women; of Law and the Mississippi; and against all governments and religions" (*Walpole's Letters*, vol. v. p. 421, edit. Cunningham). Raynal expressly boasts that he has consulted all available sources, and in his overbearing way exclaims at the outset: "I have questioned the living . . . and the dead . . . in whatever language they have written. . . . If a man living at the pole or under the line, and capable of informing me on some important point, had been pointed out to me, I would have repaired to the pole or the line and challenged him to tell me the truth" (vol. i. p. 3, edit. 1781). In fact he inserted whole pages taken from previous writers or histories without acknowledging his obligations.

Putting on one side literary faults and extravagant attacks on religion, this treatise *de omni re scibili*, had it been cut down to one-half of its size, would not have been a bad historical work; a good deal of sound criticism on colonial policy is to be found in its pages. Raynal dissents from the prevailing mania of pseudo-philosophical admiration for the Chinese, and most of the historical summaries are put in a plain and sensible way. As an economist, though he does not commit himself to absolute doctrines, he still shows a predilection for agriculture and industry, and ascribes the decay of Portugal to its neglect of the cultivation of its territory: "Enlightened

men frankly regretted the neglect of the real sources of wealth, as the tillage of the soil, in order to run after those glittering objects, the precious metals" (vol. i. p. 241). This passage shows that he did not belong to the older school of mercantilists. E. Ca.

READ, SAMUEL—

is best known by his *Political Economy, An Inquiry into the natural grounds of right to Vendible Property or wealth*, published at Edinburgh for the author, 1829, the preface being dated from Roslin, October 1829. He had before written (1) *On Money and the Bank Restriction Laws* (May 1816). (2) *The Problem solved in the explication of a Plan of a safe, steady, and secure Government Paper Currency and Legal Tender*, Edinburgh, 1818. (3) In his *Exposure of Certain Plagiarisms of J. R. M'Culloch, Esq., author of two Essays on reduction of the interest of the National Debt, committed in the last published of those essays, the Scotsman newspaper and Edinburgh Review*, In recto decus, Edinburgh, 1819, he complained that M'Culloch in the second of his two essays on the national debt (Nov. 1816) borrowed without acknowledgment from the above tract on *Money* (*a*) the general rule of adjustment, namely, that creditors accept the exact weight of *bullion* which would have been bought at the time of contract with the currency advanced then by them to the borrowers. In M'Culloch's earlier essay the standard was not bullion but corn. (*b*) He borrowed the application to the stockholders, practically reducing the interest on the national debt. Read, in any case, was not followed by M'Culloch in applying the principle to all debts, private as well as public. He had written also on population (see below).

"Political economy," he writes in the preface to his *Inquiry*, "has been hitherto designated as the science which treats of the production and distribution of wealth, and it has been totally overlooked that this includes the demonstration of the right to wealth. It is here, therefore, for the first time, treated as an investigation concerning the right to wealth or property." "Its chief object (Introduction, p. xviii) is to demonstrate what is just or unjust in all the most important and difficult points relating to the production and distribution of property or wealth; property, *i.e.* vendible or transferable property being the chief, if not the only subject of the virtue of justice;—political economy might indeed be called the science of political justice." But if we expect from this beginning a treatise on the lines of the *Inquiry concerning Political Justice* by W. GODWIN, we shall be disappointed. Read's book is mainly economical, and to a large extent orthodox. Godwin's view of inherited property is expressly rejected (pp. 121, 122) on the ground that labour by itself is far from producing all the wealth in existence; accumulated capital plays a part that cannot be ignored (p. 124). Read deals severely with *Labour Defended against the Claims of Capital* (anon., 1825) (pp. 125-132). He has little but praise for Adam SMITH, but no praise for MALTHUS, against whom he had written a pamphlet, *General Statement of an Argument on the Subject of Population in Answer to Mr. Malthus's Theory* (Edinburgh, 1821). The principle of population seems to him to be in no other sense the cause of poverty and misery among the lower classes of the people "than as that principle is the cause of their existence" (*Inquiry*, p. 158, cp. 158-170, and 55 n.).

Read follows Adam Smith in considering "labour the only certain measure of value" as well as the chief though not the only "ingredient in the cost of production" (p. 199). He attaches importance to the idea of an "absolute value," though this is, he admits, less an economic than a philosophic idea; it is "happiness itself or pleasurable sensation" (p. 229). He considers that the desire of bettering our own condition is resolvable into the preference of pleasure to pain (p. 146). The utilitarian standard is to be continually borne in mind (p. 229, cp. *e.g.* p. 362). The fact of appropriation ought also to be better remembered than it usually is; Read deduces from it that rent enters into price (p. 243), and he justifies by it his use of "vendible property" for wealth (pp. 19-21). He is certainly no assailant of the received rights of property; and thinks to place them more surely beyond attack by a poor-law system that would allow 4s. a week to the aged and infirm, and 3s. to the unemployed, in addition to the usual forms of relief (p. 361). Like recent writers, he considers that, since the land is no longer open to the labourer, the labourer out of employment has a very special claim on society (pp. 364-375). "The right of the poor to support, and the right of the rich to engross and accumulate, are correlative and reciprocal privileges, the former being the condition on which the latter is enjoyed" (p. 375).

Finally, in regard to taxation, Read's view is that there is a point up to which it acts as a wholesome stimulus to industry (p. 388), but the limit is easily overstepped, and was overstepped in the late war. "Those who are old enough to remember the state of the country and of the labouring classes before the commencement of the late war, can bear ample testimony to the fact that their hours of labour were not so long, nor their exertions so arduous as they became towards the conclusion of it, and that they gradually increased with the increase of the taxes" (p. 390 n.).

Read is by no means the worst of the minor writers on political economy who abounded in the first half of the 19th century; and it is to be regretted that the dictionaries of English biography give no information about him. J. B.

REAL. From 1497 to 1772 the principal Spanish silver coin was the piece-of-eight reals, which subsequently to the latter date became known as the dollar (see DOLLAR, HISTORY OF; DOLLAR, HARD).

In 1642 a "real of new plate," intended solely for use in Spain, and known as a "provincial" coin, was introduced. The circulation of these pieces, however, was not restricted to the provinces of Spain, but the coins were largely exported to America.

The weight and fineness of these reals are given by Chalmers in his *History of Currency in the British Colonies*, as follows:—

Date.	Weight.	Fineness.
	grains.	
1642	42·59	931
1686-1707	42·2	931
1707	47·3	833·3

F. E. A.

REAL ESTATE. See PROPERTY, Sec. vi., Real and Personal Estate; and REAL PROPERTY.

REAL PROPERTY is the property the beneficial interest of which in the case of intestacy in the United Kingdom passes to one person called the heir-at-law, who, if the deceased owner leaves any sons, is always the eldest son. It is distinguished from "personal property," which is divided among the next-of-kin (see INTESTACY). Real property consists of freehold estates in land (see ESTATE; FREEHOLD), and certain rights called incorporeal hereditaments (see INCORPOREAL PROPERTY), *e.g.* advowsons. Leasehold interests in land are personal estate, as well as all movable property, stocks, shares, book-debts, etc. The *legal* interest in real property of persons dying after the 1st January 1898, by virtue of the Land Transfer Act 1897, passes in the same way as personal property. E. S.

REALISE. To convert a security into cash; also, in closing a bargain upon the stock exchange, to convert into a reality a profit or loss which is otherwise contingent upon quotations remaining unchanged. R. W. B.

REBATE. An abatement allowed in retiring a bill of exchange before maturity, calculated upon the number of days the bill has yet to run, and at the prevailing rate of interest, or at a rate decided by the custom of a special trade or place. In London it is now usually taken at one half per cent above the bankers' deposit rates.

Also, in bankers' book-keeping, an allowance in a balance-sheet for discount received upon bills not yet matured. In practice, rebate may be calculated either at a fixed or arbitrary rate, at the average discount rate for the last three or six months, at the rate of the day upon which the closing entries are made, or at the actual rate at which each bill was discounted (see also DISCOUNT). R. W. B.

RECEIPT. A written acknowledgment of the payment of money or of the delivery of goods. In the case of a ready-money transaction a receipt does not require a stamp, but where credit has been given, any written acknowledgment of the receipt of money or of a bill of exchange, or of a cheque or a promissory note or satisfaction of a debt, where the money, bill of exchange, cheque, note, or debt is £2 and upwards, requires an adhesive stamp of 1d. The obligation to provide the stamp is thrown on the person to whom the payment is made.

[Alpe's *Digest of the Stamp Acts*, 1896.]

J. E. C. M.

RECEIVER. Where it is desirable that property in dispute should be protected, or that income should be appropriated to satisfy a judgment, the court will appoint a receiver for the purpose. J. E. C. M.

RECEIVING ORDER. The name of the order made on the petition of a creditor or the debtor for the institution of bankruptcy proceedings. Its effect is to put the official receiver in charge of the debtor's property and to stay proceedings pending against the debtor (see BANKRUPTCY LAW AND ADMINISTRATION). E. S.

RECIPROCITY, as used by writers on trade, denotes a special class of trading arrangement between nations, which is limited by the grant of special advantages on one side in consideration of equal advantages given by the other. At one time the use of the term was so extended as to embrace a regular system of trade; at the present day it rather imports a principle which has its effect in special cases. The term first came into use in the early years of the century, in connection with the relaxation of the navigation laws of the United Kingdom, in return for similar relaxation of restrictions on shipping on the part of a foreign nation. The first application of this principle was in the treaty between Great Britain and the United States in 1815, which contains a clause to the effect that the ships of each of the contracting parties, on coming into the ports of the other party, should not be liable to any greater charges than the ships of that other contracting party were subjected to in the ports of the first. The action of Prussia in 1822 forced the hand of the United Kingdom into extending the same principle to our dealings with European countries. On 2nd April 1824, a convention was made with Prussia in which the principle of a reciprocal concession in regard to duties on tonnage was embodied (Hertslet's *Treaties*, iii. p. 313). The matter was taken up by HUSKISSON (*q.v.*), particularly from the point of view of the shipping interest, and the plan was then applied by treaty to the new South American states which had just declared their independence of Spain. Conventions during the immediately ensuing years were made with Buenos Ayres (2nd February 1825), Colombia (18th April 1825), France (26th January 1826), and Sweden (18th March 1826) (see Hertslet's *Treaties*, vol. iii.), and at the same time the principle was extended so as to apply to duties on imports.

This extension of the system to import duties suggested a new idea to certain economic writers, who conceived that the correct theory of international trade was to base it on reciprocal concessions, so that no nation would admit the goods of another on any given terms unless that other nation treated its commodities in an equally favourable manner. This is the idea

specially attached to the term "reciprocity" about the middle of this century, and its corollary was that retaliatory duties should be levied upon all countries imposing hostile tariffs on the national products. It found several adherents of note, and its claims are not unfrequently advocated in the pamphlet literature of 1840-50, but it made no headway in the face of the free-trade movement, and the act 12 & 13 Vict. c. 29, which embodied the principle of extending favours to foreign powers where those powers gave favourable treatment to British goods, carefully avoided any suggestion that such treatment must be a condition precedent to the grant of the favours.

The basis of the reciprocity theory is the idea that where two countries trade with each other to repeal an import duty in one while a high duty is kept up in the other is to make the first country, *pro tanto*, tributary to the second. It is put concisely in a letter from Col. TORRENS to Sir Robert PEEL.

"By a failure to oppose hostile tariffs with retaliatory duties we confer on foreign powers a bonus on the continuance of their restrictive systems, while by maintenance of retaliatory duties against countries refusing to receive British goods on terms of reciprocity we shall render it the palpable and unmistakable interest of foreign states to act upon the true principles of free trade" (Torrens' *Commercial and Colonial Policy*, 1844, *ad finem*, pp. 26, 27 of the "Letter" to Sir R. Peel).

The principle advocated by Torrens is much the same as that of late years current under the name of FAIR TRADE.

The term "reciprocity" survives in the commercial legislation and treaty arrangements of the United States of America. The "reciprocity treaty" has long been a favourite instrument with that republic. Under such a treaty one nation grants the other special reductions of import duties in return for equivalent reductions by the other country (see RECIPROCITY IN U.S.). It may be said, therefore, that the treaty policy of the United States has for some years been based upon a principle of reciprocal concessions.

This policy is nearly akin to the interpretation of the most favoured nation clause adopted by the United States government (see Parl. Paper C 4340, 1885). Under this interpretation, where any nation as a result of bargaining receives concessions in the ports of the United States, the States decline to give the benefit of the clause to any other nation which has not made specific concessions equivalent to those made by the nation to whom they grant their favours.

[Smith, *Wealth of Nations*, M'Culloch ed. 1870, note xii. p. 538.—Torrens, *Budget of Commercial and Colonial Policy*, London, 1844, pp. 48-49, 61, 242.—Huskisson's *Speeches*. See also Sir Louis Mallet, "Reciprocity" in *Cobden Club Papers*, p. 6. "The imposition of a duty by one country on the produce or manufactures of another only affects the transactions by rendering it less profitable both to the seller and to the buyer; the variations of supply and demand will cause the incidence of the tax to fall upon the seller and the buyer, the producer and the consumer, in varying degree; but, in the long run, it will be equally shared between them." Also bibliography, art. on RETALIATION.] C. A. H.

RECIPROCITY IN THE UNITED STATES.

Commercial reciprocity as a distinct system has had an uncertain existence in the United States. Upon the establishment of the present form of government in 1789, American legislation was in harmony with that of the rest of the world as to protection to home commercial interests. Higher duties were placed on goods imported in foreign ships. Treaties of 1794 and 1815 tended to liberalise commercial arrangements and to remove certain special restrictions. Between 1845 and 1854 there was considerable discussion as to reciprocal free trade between Canada and the United States, and in the latter year a treaty of reciprocity was ratified by which the British-American sea fisheries were open to citizens of the United States and free import of certain raw and some manufactured commodities was given to Canada. This was terminated in 1866. The advantage of this to the interests of the United States has been much questioned, as for example by James G. Blaine in *Twenty Years of Congress*, vol. ii. p. 620. An attempt was made to renew this treaty in the treaty of Washington of 1871, but was unsuccessful (for detailed references to this question see E. Schuyler's *American Diplomacy*, New York, 1886, p. 430).

In 1844 a treaty was signed with the ZOLLVEREIN providing for certain reciprocity favours, but was rejected by the United States senate on the ground that this was an invasion of legislative rights by the executive. Reciprocity treaties with Mexico in 1860 and 1883 also failed of ratification by the senate. A reciprocity treaty with the Hawaiian Islands was ratified in 1875, by which provision was made for the admission of sugar free of duty in the United States in return for the remission of duties on certain articles manufactured and produced in the United States. A reciprocity movement with the Latin-American countries developed in 1882, but for this it was also impossible to secure congressional endorsement.

By act of 24th May 1888, the president of the United States was authorised to invite delegates to an international American conference to consider measures for the formation of an American customs union. This proposition was found to be impracticable, but nearly all of the American republics recommended the negotiation of reciprocity treaties. This idea was incorporated into the Tariff (McKinley) Act of 1890, § 3. Agreements were made with various countries, notably Brazil, San Domingo, Costa Rica, and other countries by

which, in consideration for the removal by the United States of duties imposed upon sugar, coffee, and other raw productions of the countries named, those governments removed or reduced the import duties formerly imposed upon bread stuff, provisions, lumber, coal, and other products. This reciprocity provision was dropped from the Tariff Act (Wilson) of 1894. Owing to the brief existence of these agreements, and also to the fact that a severe commercial and financial depression interrupted trade in 1893, it is difficult to furnish evidence as to their value. In 1897, the republican party in general advocated the reintroduction of such a policy, while the democratic party opposed. The Tariff Act (Dingley), 1897, consequently reintroduces certain reciprocity provisions [*Commercial Arrangements concluded with Foreign Countries*, 55th Congress, 1st Session, Senate Doc. No. 52, p. 150; also *Report of the Committee on Ways and Means concerning Reciprocity and Commercial Treaties*, Washington, 1896, p. 643; also the Reciprocity Treaty with Canada of 1854, by F. E. Haynes in Pub. *Amer. Ec. Assoc.*, v. 7 pp. 417-486, and for subject in general, E. Schuyler's *Amer. Diplomacy*, New York, 1886, ch. ix.]

D. R. D.

RECOGNITION.

(*a*) Recognition of New Form of Government, p. 269; (*b*) Independence, p. 269; (*c*) Belligerency, 269.

International law knows at least three kinds of recognition, and it may be doubted whether a fourth is not slowly shaping itself. With the vast development of trans-oceanic commerce this subject becomes one of considerable economic importance.

(*a*) There is first *Recognition of a new form of Government* in an old-established state. This occurs when, as the result of a successful revolution, or a peaceful change, a monarchy is turned into a republic, or a republic into a monarchy, or a kingdom into an empire, or a new line of kings is established in a country, or a new president takes the place of one who is overthrown. It is the custom for other states to recognise the new government and carry on with it the intercourse they were wont to carry on with its predecessor, when events have shown that its own subjects and citizens are content to submit to its authority and allow it to speak on their behalf. The only alternatives to recognition in such a case are a cessation of intercourse or a war of intervention. The first is impracticable, unless the state in question is very insignificant; the second is happily rare. Despotic rulers are not eager to recognise republican governments, nor are powerful republics quick to enter into relations with successful dictators. But if the new political institutions prove to be stable, recognition must be accorded sooner or later. Thus Prussia, which was at first unwilling to treat as an established government the group of men who proclaimed the French Republic on 4th September 1870, entered into negotiations for peace with them in January 1871, after five months of strenuous warfare had shown that France entrusted her resources and her honour to their keeping.

(*b*) The next kind of recognition to be considered is termed *Recognition of Independence*. It happens when a new state is received into the family of nations and allowed to take its place as an international unit among the other powers of the civilised world. The rise of such a state is usually due to successful insurrection; and it is this case which has attracted the attention of statesmen and publicists, and caused the development of well-established rules. If a province or a colony revolts with a view to obtaining a separate state existence of its own, other powers may recognise its independence without giving just cause of offence to the mother country, when the struggle is actually or virtually ended in favour of the political community claiming to be a new state. A *de facto* independence which bids fair to be permanent, and against which no serious efforts are made by the state most concerned in destroying it, is a matter of which other states may take notice as their inclinations and interests prompt. But if they recognise independence while the recognised power is still engaged in an uncertain conflict, their act is an act of intervention which the mother country may justly resent by war. This was the case in 1778 when France recognised the independence of the revolted British colonies in North America, while Great Britain was putting forth all her power in order to reduce them to obedience, and the result of the struggle was a matter of the greatest uncertainty. We immediately went to war with France, as the French government had calculated that we should. On the other hand, our recognition of the independence of Buenos Ayres, in 1824, caused no war with Spain, because that power had for years practically abandoned the contest with its rebellious dependency, and left it to the enjoyment of actual self-government. Recognition of independence may be granted either by formal declaration or by entering into such relations as usually exist between independent states, as for instance the negotiation of a treaty, or the reception of a diplomatic representative. When a new state comes into being by some more peaceful process than separation from a state already in existence, there can be no question as to the propriety of its recognition as an independent member of international society, provided that it possesses a government capable of fulfilling the duties and supporting the responsibilities thrown upon civilised powers by modern international law (see Lawrence, *Principles of International Law*, §§ 57-60).

(*c*) *Recognition of Belligerency* forms the third of the kinds of recognition we are considering. When a community engages in insurrection against the constituted authorities with the object of changing the government, redressing grievances, or securing its own independence, it places itself in a peculiar and anomalous position. War is a function of states, and it is not a state—it may not even wish to become one. On the other hand, it is supporting armies, and possibly navies also, and is carrying on hostile operations with all the means at its disposal. If it is not a lawful belligerent its troops are bandits and their acts of force mere robbery and murder. Yet, as we have just seen, its independence and statehood cannot be

recognised, while the struggle still continues, without a breach of comity towards the parent state. Moreover, difficulties arise about such economic questions as the validity of attempts on the part of the insurgent governments to regulate foreign commerce at their ports by levying import duties, granting clearances, and exercising a general superintendence. These matters have been settled by what is called recognition of belligerency, which accords to the recognised community all the rights and obligations of a state as far as the war and foreign commerce are concerned, but no further. Its troops are lawful combatants, its ships of war lawful cruisers, its captures lawful captures, its customs lawful duties, and its blockades lawful blockades. But it may not send regular diplomatic ministers, or negotiate treaties, or carry on with neutral powers the usual official intercourse between government and government. Recognition of the belligerency of insurgents is never welcome to the state against which they are in revolt, though it gains by being free from international responsibility for the acts of its rebels, and by being able to enforce against recognising powers all the rights over neutral commerce possessed by a regular belligerent. But recognition gives it no just ground of quarrel if the recognised community possesses an organised government, ruling over a fairly well-defined territory, and carrying on war in civilised fashion with forces under a reasonable degree of order and discipline, and if, in addition, the interests of the recognising state are so closely affected by the conflict that it is obliged to decide how it will treat the insurgents and their operations. The question was thoroughly discussed in the controversy which grew out of the recognition of the belligerency of the southern confederacy by Great Britain in 1861, soon after the outbreak of the great civil war in the United States (see *Letters of Historicus*, London, 1863). The rules laid down above would be generally accepted to-day, but they do not cover every possible or probable case. Five times within recent years has a conflict against established authority been maintained mainly by a revolted fleet. On none of these occasions did other powers recognise belligerency, but whenever the revolt was serious and long-continued, they hesitated to treat the insurgent ships as pirates. Only in one case, that of Chile in 1891, was the insurrection successful. Yet in every case a distinction was made in practice between the revolted cruisers and ordinary pirates; and, with some few aberrations, the principle was acted upon that, as long as there was no attempt to exercise belligerent rights against the subjects and commerce of other powers, they on their part would not interfere with the operations of the insurgent squadrons, or prevent the exaction of reasonable customs duties in ports under insurgent control. Some name for this is required, and it might well be called recognition of insurgency (see an article by Lawrence called "Recognition of Belligerency considered in relation to Naval Warfare," in the *Journal of the Royal United Service Institution* for January 1897). Recognition by one power does not bind other powers, and the insurgents whose belligerency is recognised do not acquire the rights of war as against neutrals, except in respect of those states who have accorded them recognition. The mother-country cannot be expected to recognise in a formal and official manner the belligerency of its revolted subjects; but in practice it generally treats them as lawful combatants, from both humanity and a desire to avoid reprisals.

[See Hall, *International Law*, pt. i. ch. i. and pt. ii. ch. i., Oxford, 1904.—*Letters of Historicus* (*i.e.* Sir W. V. Harcourt), London, 1863.—Halleck, *International Law*, ch. iii. §§ 21-28 and notes, Baker's ed. London, 1878.—Lawrence, *Principles of International Law*, §§ 56-60, 302-305, London and Boston, 1900.—Oppenheim, *International Law*, pt. i. ch. ii. London, 1905.] T. J. L.

RECOGNITIONS. The system of recognition by jury was improved and extended under Henry II., who, in what is known as the Great Assize, applied it to obviate the need of having recourse to trial by battle in disputes as to land. Glanvill (*De legibus Angliæ*, ii. c. 7-17) states that the proceedings began by the person in possession applying the *Curia Regis* to stay all other proceedings until the cause for which he placed himself on the assize had been determined. His adversary then applied to the court for a writ by which four knights of the same country and neighbourhood should be directed to choose twelve lawful knights, also from the same neighbourhood, who should declare an oath which of the two litigants had the greater right to the land in dispute. When the four knights had appeared before the court, and the twelve had been nominated and sworn, the recognition proceeded on the day appointed, whether the case was defended or undefended. If the twelve jurors knew the facts of the case and agreed on a verdict the cause was ended; but if some of them were ignorant of the facts they were to be set aside, and others called in their place who were better informed. So, also, if they were divided in opinion, others had to be brought in until twelve were unanimously in favour of one side or the other. The course in the assizes of Novel Disseisin, Mort d'ancester, Darrein presentment, and others was the same, except that the sheriff nominated the jurors.

It will be observed that the jurors were sworn witnesses to the fact, and not, as at present, judges of the fact, founding their verdict wholly on testimony brought before them. It is also remarkable that their knowledge of the case might be derived *per verba patrum suorum*, or from persons in whom they implicitly trusted.

[Stubbs, *Const. Hist.*, i. p. 615.—*Select Charters*, p. 161.—Sir F. Palgrave, *The Merchant and the Friar*, 1837, 2nd ed. 1844. R. H.

RECOINAGES, or the calling in of old and issue of new coins, played a very small part in English history down to 1547. Nearly every alteration of the coinage (1066 to 1543) reduced its weight but not its fineness, and

since 1344 (when gold began to be regularly coined) affected both metals simultaneously; the exceptions are the lightening of gold only in 1465, and the issue of one base gold coin in 1526; so that as a rule the new circulated on equal terms with the old abraded and depreciated coins. True, we read of detached laws demonetising light silver and offering to recoin it at the holder's expense (1292), and in one case the king offered to waive his dues if light gold were brought in for recoinage within a certain date (1421), thus putting a premium upon speed. And, doubtless, the debasement of gold and silver (1543-45) drove out the old coin, but by natural and not artificial means. The difficulty of superseding the old coinage was never crucial until the task of restoring gold and silver was undertaken, in 1549 and 1548 respectively; for the two metals have, since 1548, been dealt with separately. In order to restore gold (1549-53) the old coins were exchanged at the mint during a certain interval at tale rates; afterwards their tale values were reduced. Similarly in such subsequent alterations of the gold coinage as have been due to the altered ratio of gold to silver, and therefore involved reductions of weight, the tale value of old pieces has been usually raised. Other restorations of the coin being due to light and base coin, have involved complete demonetisation, which has been effected differently at different times. The most important instances were the following:

In 1560-61 the mint took base silver testoons and groats at a reduced tale rate from 27th September to 20th May, adding, up to 25th April, a premium for large quantities. Lesser silver moneys were similarly bought in up to 20th September. Otherwise part of the base money was demonetised 9th April, and the other part 20th July. The mint bought in £638,113 : 16 : 6 tale, and netted a profit of £14,079 : 13 : 9 (Froude, *Hist. of England*, vol. vii. p. 453, confuses silver with total recoinage).

In 1696 tax collectors took light and base silver coin at tale rates from 1st Jan. to 4th May, and tellers of the exchequer up to 24th June (7 & 8 Will. III. c. 1); then they paid it in to the central and to five local mints to be recoined. After this last date its demonetisation was complete. The remaining hammered silver money was taken by weight at the mints from 4th Nov. 1696 to 1st July 1697 at a premium of 2d., and by tax collectors for a less period at a premium of 4d. per oz. over mint value; otherwise it was demonetised 1st Dec. 1696. These two recoinages amounted, according to Ruding, to £6,882,908 : 19 : 7 tale, and cost £2,700,000 (?) (Ruding includes recoinages from plates; Macaulay, *Hist. of England*, ch. xxi., confuses these two processes.)

In 1773-74 tellers of the exchequer, tax collectors, and special local exchangers, bought in at tale rates two classes of light gold coin during 1½ months and 3 months 19 days respectively, and exchanged them at the Bank of England, which forwarded them to the mint for recoinage; a third and worse class was bought in by weight. This recoinage cost £517,320 : 2 : 2½.

In 1817 tale values were given by the mint, helped by local exchangers and banks, for all light silver from 12th Feb. to 1st March, and for all but the lightest silver for another three months; otherwise the old silver was demonetised 1st March. In this recoinage most of the new coin was ready before the old coin was called in. This recoinage amounted to £2,599,487 : 5 : 2 tale, omitting coins coined in advance or out of plate, etc., and cost £793,624 : 13 : 5, £233,764 : 3 : 10 of which was paid out of profits of the new silver (token) coinage [*Accounts and Papers*, 1818, No. 227]. In the copper recoinage of 1817 copper more than twenty years old was brought in by weight with the usual premia for quantity and speed. The recoinages of gold, under the act of 1891, had withdrawn up to March 1905 about £49,800,000 in sovereigns and half sovereigns. For further details see LIGHT GOLD AND SILVER COIN.

[R. Ruding, *Annals of the Coinage*, 3rd ed. 1840.—United States *Annual Reports of the Director of the Mint* state annual recoinages of every important country.] J. D. R.

RECORDE, ROBERT (1510?-1558), was admitted at Oxford about 1525 and elected fellow of All Souls' in 1531. He taught mathematics and medicine at Cambridge, graduated M.D. there in 1545, returned to Oxford, and afterwards practised as a physician in London in 1547. He became controller of the mint at Bristol in 1549, and in May 1551 general surveyor of the mines and money in England and Ireland.

He was the first who wrote on arithmetic, geometry, and astronomy in English; he introduced algebra into England, and was probably the first among his countrymen to adopt the system of Copernicus. His works include some on medicine. The mathematical treatises are (1) *The Grounde of Artes* (1540, and many subsequent editions to 1699) on arithmetic, in which reference is made to a publication on alloys, contemplated by Recorde; (2) *The Whetstone of Witte* (1557, etc.) on algebra, the first English book containing the symbols + and −, and "a paire of paralleles, or Gewowe lines of one lengthe, thus:" = to represent equality; (3) *The Pathway to Knowledge* (1551, etc.) on geometry; (4) *The Castle of Knowledge* (1551, etc.) on astronomy.

[*Dictionary of National Biography*, vol. xlvii. p. 367-369.—Prof. de Morgan in *Companion to the Almanac*, 1837, p. 30.] H. R. T.

RECOUP (Fr. *recoupe*). To replace, or regain a sum advanced or lost. R. W. B.

RECOURSE. In dealing with bills of exchange, each holder has a right of recourse upon his immediate endorser and upon every other previous endorser, provided the bill has been duly presented at maturity, and noted or protested according to law, and also that the demand for repayment is made in due course without delay. As a matter of convenience it is usual, in extensive discount operations, in the case of bills endorsed in blank by previous holders, to dispense with actual endorsement of each bill by obtaining a written undertaking to admit recourse. In some cases bills are discounted without recourse, and are so endorsed. Coupons and notes, payable abroad, are sold with recourse unless otherwise agreed. R. W. B.

RECOVERY. A collusive action by means of which a tenant in tail could bar all entails, remainders, and reversions, and could either convey an estate in fee simple to a purchaser, or retain it himself. This was in ordinary use from the reign of Edward IV. to the year 1833. Roughly speaking, it was a device by which a man whose estate was entailed on his children could "cut off the entail," that is, deprive them of their right to succeed him, and could either keep his land as a fee simple, or sell it to strangers. It resulted from the desire of the judges to break down the statute of Edward I. known as *de donis*. In a common recovery with "double voucher," the lands were conveyed by deed by the tenant in tail to a person called the "tenant to the *præcipe*," against whom feigned proceedings were then taken in the court of common pleas. The "demandant," or intending purchaser, who desired to become the "recoveror," issued a writ against the tenant to the *præcipe* who thereupon called on the tenant in tail to warrant his title in accordance with a supposed agreement to do so. The tenant in tail, in his turn, vouched or called upon some landless person, usually the crier of the court, to warrant his own title. The demandant then, by permission of the court, took the crier or "common vouchee" aside to speak with him, and having once quitted the court, the man did not return. On this default judgment was given for the demandant or recoveror to recover the lands from the tenant to the *præcipe*, that is, in reality, from the tenant in tail; and for the tenant in tail to recover lands of *equal value* from the common vouchee, who, by disappearing, had failed to warrant his title. If lands of equal value had *actually* been recovered, they would have taken the place of those lost by the common vouchee's default, and would have descended to the issue of the tenant in tail; but as the man had no land, the judgment of the court against him was nugatory, and thus not only the rights of the issue, but also of the reversioners and remainder men were defeated, and the estate tail was therefore said to be barred. On the other hand, the demandant or recoveror obtained by judgment of the court an estate in fee simple of which the sheriff was directed by writ to put him in possession. This jugglery was abolished by statute 3 & 4 Will. IV. c. 74 (see ENTAIL, LAW OF; FINE).

[Joshua Williams, *Law of Real Property.*—Hallam, *Constit. Hist.*, cap. i.] R. H.

RECTA PRISA was the right which, according to *Fleta* (Lib. 2, c. 22, written *circa* A.D. 1290), the king exercised in taking one barrel of wine from the prow and another from the stern of every vessel laden with wine, on payment of twenty shillings for each such barrel. If he required more he was obliged to pay a price settled by trustworthy people (*precium fide dignorum*).

Whether this definition was correct or not in 1290, it does not altogether agree with that given in *Liber Albus*, written a hundred and thirty years later. In that work the king is stated to have been entitled to take 2 tons of wine from every vessel bringing 20 tons or more; and 1 ton from every vessel bringing 10 tons or more but less than 20 tons. From a ship bringing less than 10 tons he was entitled to take nothing.

The Cinque Ports and the port of London claimed to be exempt from *Recta Prisa*, but it is clear from the terms of the grant to the barons of the Cinque Ports in 6 Ed. I. that the exemption was only intended to apply to wines imported by them for their own use.

[See PRISAGE; PRISE.—Hubert Hall, *The Customs Revenue of England*, London, 1885, 8vo.] G. I. T.

REDEMPTION OF NATIONAL DEBT. The following table shows that between 1882 and 1897 the National Debt was diminished by about £118,000,000. The war in South Africa (1899-1902) raised it very largely. It stood in 1907 at about £743,000,000.

Aggregate Gross Liabilities of the United Kingdom, including the Funded Debt, Unfunded Debt, Estimated Capital Value of Terminable Annuities, Russian Dutch Loan, Liability, 1882-1891; *Imperial Defence Act,* 1888; *Barracks Act,* 1890; *Telegraph Act,* 1892; *Naval Work Acts,* 1895; *and from* 1882 *to* 1894 *the Estimated Amount of Trustee Savings Banks and Friendly Societies Deficiency.*

Years ended 31st March.	Aggregate Gross Liabilities of the State.	Years ended 31st March.	Aggregate Gross Liabilities of the State.
1882	£763,539,816	1890	£690,663,838
1883	756,946,020	1891	685,954,018
1884	749,214,331	1892	680,541,767
1885	743,124,689	1893	673,647,564
1886	745,039,844	1894	669,104,024
1887	738,779,176	1895	660,160,607
1888	706,727,581	1896	652,540,105
1889	699,300,769	1897	644,909,847

[For further details and explanations of this statement, see Parliamentary Paper, C 8227, 1897; and arts. DEBTS, PUBLIC; NATIONAL DEBT; SINKING FUND (*Statistical Abstract for the United Kingdom from 1892 to 1896*).]

REDEMPTION, EQUITY OF. See EQUITY OF REDEMPTION.

RE-ENTRY. The right of re-entry is the name given to a lessee's right to cancel the lease and take possession of the property leased in the event of the lessee failing to observe the covenants contained in the lease. This right has been rendered much less oppressive by recent legislation (see ENTRY, RIGHT OF). E. S.

REES, OTTO VAN (died 1868), born at Liège, Belgium, studied law at Utrecht from 1844 to 1851, and practised in it there till 1858. He then was appointed professor of Political Science at the university of Groningen, and in 1860 at that of Utrecht, where he lived until his death in 1868. Besides a large number of articles on different historical and economic subjects, for the greater part published in his periodical the *Pantheon*, Van Rees wrote the following more distinctly scientific works:

Verhandeling over de Aenwysing der politike gronden en maximen van Holland en West-Vriesland door Pieter de la Court. (Treatise and Summary of Political Bases and Maxims in Holland and West-Vriesland, by P. de la Court), Utrecht, Dekema, 1851.—*Prysverhandeling over de verdiensten van Gysbert Karel van Hogendorp als staathuishoudkundige, tenaanzien van Nederland.* (Prize-Essay on the Merits of G. K. van Hogendorp as an Economist, with reference to the Netherlands), Utrecht, Van der Post, 1854.—*Voorlezingen over de geschiedenis der Nederlandsche volksplantingen in Noord-Amerika, beschouwd uit het oogpunt der koloniale politiek* (Lectures on the History of the Dutch Colonies in North-America, considered from the point of view of Colonial Politics), Tiel, Campagne, 1855.—*Geschiedenis der staathuishoudkunde in Nederland* (History of Political Economy in Holland), Utrecht, Kemink en Zoon, 1865 and 1868.

Of these works, which all have an historical character, the latest mentioned especially has great merits; the first part of this contains a very complete history, not only of the science of political economy in Holland, but also of the general social development of Holland to the end of the 18th century, from an economical point of view; the second part gives the history of the East- and West-Indian Companies; it is the best work written on that subject.

A. F. V. L.

REEVE. The *præpositus* or representative usually elected by the villeins of a manor from among themselves, though sometimes nominated by the lord. He had the public duty of going with the priest and four other men, *hundredarii*, to attend the hundred court, the court of the county, and the justices in eyre, when the lord of the manor himself did not go. He also led the men to the FYRD (*q.v.*). At other times he acted as a kind of foreman of the villeins, superintending their labour and keeping account with the bailiff of the due performance of each man's yearly task. In return he was freed from all the ordinary duties of a villein in respect of his holding; but the office does not seem to have been desired, and Maitland (*Sel. Pleas in Manorial Courts*, pp. 23, 45) gives instances of considerable payments made for permission to relinquish it. At Whissonsett in 1382 (*Court Rolls*, in possession of Mr. Walter Rye) the office was annexed to certain holdings in turn. R. H.

REFEREE is the name for a person to whom a dispute is referred as arbitrator (see ARBITRATION).

All proceedings under a reference are now regulated by the Arbitration Act 1889, which deals with arbitrations agreed on by the parties, as well as with references under orders of court. In either case the referee has extensive powers as regards the summoning and the examination of witnesses, and his award is enforced in the same way as a judgment of the court. Three "official referees" are attached to the supreme court, but arbitrations ordered by the court may also be referred to "special" referees, whilst, on the other hand, voluntary arbitrations may be taken before the "official referees" (see *Arbitration Act*, 1889, § 3). E. S.

REFERENDUM means the decision of a political question, partly by the direct votes of the people, partly by representative institutions. Decisions by a people without representative institutions, as in Tacitus (*Germania*, xi.), or in the "Landesgemeinde" of Glarus, Uri, Unterwald, and Appenzell for the last six centuries, or in the "town meeting" of New England townships for nearly three centuries, or in Rousseau's or More's Utopias, illustrate "direct self-government," not the referendum. Again in 1888 *et seq.*, French and Italian mayors took the votes of their constituents on matters involving expense; this, like the votes in Belgian towns for universal suffrage (Feb. 1893), and the Durham miners' vote against eight hours (1891), and the South Australian vote on education (1896) binds nobody, and therefore does not belong to politics. Votes for a person are "plébiscites" not referenda; and the Belgian election in 1892, in order to revise specified articles of the constitution, was an election *ad hoc*, not a referendum. Again the Swiss laws of 1874 and 1892, under which one of the two federal councils or 50,000 citizens may demand a popular vote whether the constitution or some part of it shall be

amended, is "popular initiative" or "mandate"; and "mandate," though it may (since 1892) take the form of a "projet de loi," is not, strictly speaking, referendum. Again the arrangement under which the Swiss constitution of 1802 was rejected by a majority of actual but not of registered voters, and was declared accepted, is more properly classed as "veto"; but "mandate" and "veto" are sometimes classed as "referenda."

Origin.—In the 15th century certain communes in the Grisons of the "Landesgemeinde" type appointed delegates to form leagues; these delegates accepted the decisions of the league "ad referendum," *i.e.* subject to the approval of their respective communes. Similarly in 1643 four colonies formed New England, but the Plymouth delegates would not sign the federal articles until they were approved by their constituents. It arose in the federal efforts of directly self-governing townships.

Progress.—In the United States two of the eleven original states which framed constitutions after the secession submitted them to popular vote. In both the township system prevailed. Only one of the thirty-two state constitutions between 1868 and 1893 was not submitted to popular vote. And constitutional law has enlarged its scope so as to include state loans, etc. Again "local option" laws were almost unknown in 1850; since then each state has passed numerous laws to enforce free schools, teetotalism, land registration, etc., which are null and void, except where voters of some locality ratify them. Of Swiss federal constitutions since 1802 two were not (1803-1815), two were (1848 and 1874) submitted to the referendum. That of 1874, like that of 1848, contains a compulsory referendum in case of amendments to the constitution (art. 121) (compare the French system of 1795, art. 343, 346). It also has a permissive referendum in the case of all other laws and non-urgent general resolutions (arrêtés); these being null and void for 90 days, during which 30,000 voters or 8 cantons may demand a referendum (compare the French system of 1793). According to Lowell, between 1874 and 1897 $\frac{2}{3}\frac{0}{2}$ laws, etc., were submitted to permissive, 14 to compulsory, referendum. The people have thus accepted civil marriage plus divorce, bankruptcy, and factory acts, a federal monopoly of bank notes (1891) and spirits, compulsory purchase of railways by the federation (1897), compulsory insurance, a fighting tariff, and capital punishment, and have rejected compulsory vaccination, federal bank notes (1875) and secular education. They also used, in 1893, the "mandate" to obtain an anti-Jewish Slaughter of Animals Act, which their legislature wisely worded so as to make it inoperative; in 1894 a mandate for "le droit au travail" was rejected. As for cantons, the confederation only guarantees their constitutions, if ratified and alterable by a majority of citizens (art. 6). The referendum, confined to a few cantons in 1830, now figures in the legislation of every canton except those of the Landesgemeinde type and Fribourg; and the compulsory Zurich system of 1868, under which all laws and most general resolutions are null and void until accepted by the people in their meetings twice a year, had in 1895 spread to 9 other cantons. In Belgium a royal referendum has been proposed and rejected (1892-93).

In England adoptive acts have worked by means of a local referendum (1819-94). Guardians could, with the consent of the vestry, buy and let allotments since 1819. Other laws enabled (say) fifty ratepayers to require a poll—this is "the mandate," and a $\frac{2}{3}$rd, latterly a bare majority of voting ratepayers to adopt for their parish elected vestries (1831-94), lighting and watching (1833), burial places (1852), recreation grounds (1860), baths (1846), and libraries; but in boroughs the town council stood in place of the ratepayers except as to libraries, an exception which disappeared in England and Scotland, 1893-94. The constituents might since 1870 similarly create or, since 1876, destroy a school board subject to governmental discretion; a power which, since 1894, has been transferred to parish meetings or polls in rural districts. Advocates of temperance and a universal eight hours' day often rely on local option. Small groups of ultra-socialists (L. Gromlund, *Co-operative Commonwealth*, 1892, p. 129) and ultra-individualists (Auberon Herbert, *Anti-Force Papers*, 1885) advocate the Zurich system. A strike is usually preluded and concluded by a vote of strikers, though there are strike delegates.

In 1893 the House of Lords proposed to allow certain workmen by a $\frac{2}{3}$ majority to exclude the Employers' Liability Bill from their industry (Hansard, 4S. vol. xx. pp. 2 and 3); this proposal has not been revived in the discussions of the act of 1897; had it been passed it would have been the only instance of the popular veto in English legislation.

"Mandate" and "referendum" are also loosely used in political discussions, thus the proposal, made perhaps for the first time by Lord Salisbury twenty-five years ago (see Courtney's speech, *Times*, 9th Oct. 1884), often made by Conservatives and always rejected by Liberals, that an election should settle differences between the Lords and Commons, is commonly referred to as the "referendum de partage," instead of "the election *ad hoc*." The referendum can hardly be introduced into constitutional questions, except where the representative is regarded as a delegate, and that is not the case in England.

[J. Berney, *L'Initiative populaire et la législation fédérale*, 1896.—S. Deploige, *Le Referendum en Suisse* (1892), translated C. P. Trevelyan, with introduction and bibliography by L. Tomn.—Numa Droz, *Contemporary Review*, vol. lxvii. p. 328.—A. L. Lowell, *Government and Parties in Continental Europe* (1897).—E. P. Oberholtzer, *The Referendum in America* (1893).—R. de la

Sizeranne, *Le Referendum communal* (1893).—J. Signorel, *Étude de Législation Comparée sur le Referendum Législatif* (1896).—L. Tomn, "The Referendum in Australia and New Zealand," in *Contemporary Review* (August 1897), mentions attempts to introduce a "referendum de partage." —S. and B. Webb, *Industrial Democracy*, 1898.]

J. D. R.

REFINING. See ASSAY.

REFORMATORIES. See PRISON LABOUR.

RÉGALE. During the vacancy of an archbishopric or bishopric the French kings claimed the right (1) to receive all the revenues of the diocese, (2) to appoint to all benefices vacant during the interval, (3) to send royal officers to administer the temporalities of the see. These three rights, collectively called the *régale*, were first formulated in the testament drawn up by Louis IX. before his departure on the crusade. In the reign of Louis XIV. it was determined to extend the system of the *régale* to the provinces recently added to France. This gave rise to a vigorous struggle on the part of the bishops in the annexed provinces, and their cause was supported by the pope. To coerce the papacy, Louis obtained from the national synod of the clergy the four articles of 1682, which declared the practical independence of the Gallican Church. The Pope Alexander VIII. found it necessary to give way on the original ground of quarrel, and the *régale* was enforced in all the provinces of France as long as the monarchy lasted.

[Gasquet, *Précis des Institutions Politiques et Sociales de l'Ancienne France*, tome ii. ch. i.]

R. L.

REGALIA. The term *regalia* was used by the civilians to denote the royal rights of a sovereign. *Majora regalia* comprises the greater rights relating to the royal character or authority, *minora regalia* the lesser rights including rights to revenue. [Stephen's *Blackstone*, bk. iv. p. 1.]

The term is also used to denote the ensigns of royalty such as the crown, the sceptre, and coronation robes. J. E. C. M.

REGARDERS. See FORESTS, MEDIÆVAL.

RÉGIE. A French word which, in its widest sense, means the administration of goods by a responsible agent. In a more special sense, it is applied to levying taxes, in contrast to farming them (see FARMER GENERAL; FARMING OF TAXES; PUBLICANI), and to the construction of public works, by the state itself, instead of building by contract. It is also often used as the name of monopolies belonging to the state in France, particularly the monopoly of tobacco.

[Article "Régie" in the *Nouveau Dictionnaire d'Économie Politique.*] E. Ca.

REGISTRATION, SCOTTISH LAND SYSTEM. See LAND REGISTRATION; SASINE.

REGRATOR. See FORESTALLERS AND REGRATORS.

REGULATED COMPANIES were mercantile associations holding the exclusive right of trade with certain countries. Each member managed his own business on his own capital, but was obliged to observe the company's regulations.

The Hansards of the Empire (see HANSEATIC LEAGUE) and the merchants of the STAPLE were two of the earliest regulated companies. However they had decayed before the end of the 16th century. Of more importance to England's budding commerce were the Merchant Adventurers (see ADVENTURERS, MERCHANTS) the TURKEY, LEVANT, RUSSIA, and EASTLAND companies. The Adventurers sprang from the Mercers' Gild in 1407, and still existed at the end of last century; they traded between the River Somme and the Skaw in cloth. The Turkey Company, descended from the Grocer's Gild, was confined to merchants who were freemen of London. The fine on entrance was reduced to £20 by parliament in 1752 (26 Geo. II. c. 18), but Adam Smith declares it in his time "a strict and oppressive monopoly." The Levant Company was incorporated in 1581, continued by the Long Parliament in 1644, and suppressed in 1825 (6 Geo. IV. c. 33). The Russia or Muscovy Company's charter dates from Philip and Mary; it was one of the most exclusive associations, but its fees were cut down to £5 : 10s. by parliament (10 & 11 Will. III. c. 6). The Eastland Company, trading with the Baltic, was incorporated by Elizabeth; originally oppressive, its fees were reduced to 40s. in 1684 (25 Car. II. c. 7). Besides these, the EAST INDIA COMPANY from 1600 to 1612 was a regulated company, and in 1698 the "General" East India Company was formed on the same basis. The old "London" East India Company joined as one of its members, but ten years later the two combined on a joint-stock as the "United Company of Merchants of England trading to the East Indies." The China tea-trade was, however, managed till 1834 by the "Co-hong" under the system of regulation. The African Company (see AFRICAN COMPANIES, EARLY) at first on a joint-stock, became in 1750 a regulated association; it failed through want of funds and the difficulty of management, and was dissolved (1 & 2 Geo. IV. c. 28).

These companies were formed to meet the necessity of combination amongst merchants in foreign parts before the 16th century. They therefore supported consuls to look after their interests, and the Turkey Company contributed towards the expense of the ambassador at Constantinople. Once a company was formed, the regulated system was only a natural extension of the ideal of "well-ordered trade," from municipal to international commerce. No one but a member of the company might trade within its territory. No member might

sell below the standard price. No member might sell more than a certain quantity in each year. It was these regulations which made the companies so unpopular. The sudden flood of wealth from the New World caused the 17th century to be a time of great enterprise. Apprentices and men of straw rushed into trade on borrowed capital and cut prices down to an alarming extent before they failed. Against these INTERLOPERS the companies sought to guard by high entrance fees, and no doubt the £25 fine of the Levant Company and the £50 and £100 fine of the Adventurers did keep many men out; at any rate it must have prevented a general merchant speculating on an occasional voyage, when he saw a favourable opportunity. However, in the case of the Adventurers, their revival in 1616, after an eight years' suppression, the report of the commission on trade in 1622, and their successful resistance to the complaints of the Merchant Adventurers of Exeter in 1643, 1645, and 1661, show that their contemporaries approved of them. With most of the other companies, parliament had to interfere after the Restoration, but revoked the charter of none.

More doubtful was the effect of the regulation limiting a merchant's annual sales. This STINT may be compared with the VEND (*q.v.*) of the Newcastle coal-owners, by which the probable amount of the year's demand was fixed by a committee, and each owner raised his share, proportionately to the output of his mine, as estimated relatively to the others (cp. *Report of the Select Committee on the Coal Trade*, 1830, viii. 6). Its supporters urged that by this device no one man could engross all the trade and form a virtual monopoly. Its opponents declared that it limited the supply of goods and raised prices. To this the Adventurers answered that as only one-tenth of the merchants authorised to trade used their privileges, the deficient supply was due to the unprofitableness of the trade, not to the company's action.

Throughout the 16th century, the regulated companies held their ground; in the 17th they were out of date. Men cared less for "well-ordered trade," and preferred to regulate commerce by customs and bounties rather than by the hated monopoly system. Sir Josiah CHILD (*Discourse of Trade*, iii.) and Adam SMITH (bk. v. i.) declare the companies are useless, and this the latter thinks "the highest eulogy." Probably their accusations of oppression and restriction were very much truer after 1650 than before. From the Revolution the companies steadily declined, and by 1800 were of no importance. L. R. H.

REGULATION OF LABOUR. See INDUSTRY, ORGANISATION OF.

REHABILITATION (Fr.). An act of procedure to restore to the person rehabilitated the possession of the civil or political rights, the loss of which has been incurred by bankruptcy or condemnation for a grave criminal act. The most frequent demands for rehabilitation are those by a trader, who, since his bankruptcy and discharge, has paid all his former debts with interest and costs, including those from which he may have been released by composition or payment of a dividend. The petition must be addressed to a court of appeal, and if the result of the inquiry instituted is to show that the bankruptcy was not aggravated by any fraudulent acts, the rehabilitation is granted by a decree read in the court by which the demand was received, and is entered on the register. Among the disabilities of bankrupts removed by rehabilitation are incapacity to hold the offices of *agent de change* (see CHANGE, AGENTS DE) or broker, to enter a public bourse, to become an elector, or a member of a legislative body, or council of prud' hommes; to act as a juror, arbitrator, or witness to a notarial act, to obtain discount at the bank of France, etc. In England rehabilitation in the above-mentioned sense is obtained by an annulment of the Bankruptcy or by an order of discharge coupled with a certificate showing that the bankruptcy was not caused by misconduct (Bankruptcy Act, 1883, §§ 3 and 6). T. L.

REI. The rei, or ree, is the unit of account in both Portugal and Brazil. 1000 reis = 1 melreis (see MILREIS). F. E. A.

REICHSBANK. See BANKING: GERMANY.

REICHSMARK. See MARK (GERMAN).

RELATIVITY, PRINCIPLE OF, IN POLITICAL ECONOMY. The principle that the economic doctrines true for any given epoch are relative to the particular circumstances of that epoch, and cannot be regarded as permanent or true for all times, is an essential element in the teaching of the historical school of economists. The idea of the relativity of economic doctrines follows easily from the conception of economic life as exhibiting continuous organic growth and development, and this conception is itself the natural outcome of historical study.

Richard JONES and Friedrich LIST are to be regarded as important forerunners of the historical movement rather than as themselves typical representatives of the movement itself. What is most characteristic, however, in their teaching is the insistence upon relativity in two particular spheres; and a brief reference to their views will serve to illustrate what is meant by the principle of relativity in general. Jones specially insisted on the limited applicability of the Ricardian theory of rent as regards both place and time. A theory based on the assumptions of individual ownership and freedom of competition could not, he pointed out, apply to oriental states of society in which joint ownership is the rule and rents are regulated by custom, nor even to those

instances nearer home in which land is held on a customary tenure, as in the métayer system (see MÉTAYAGE). Similarly, as regards limitation in time, he showed that the Ricardian law could not hold good in a condition of affairs such as existed in mediæval economy, when land was to a great extent held in common, and the relations between the owners and the tillers of the soil were not controlled by free competition. Turning to List, we find that his defence of protective duties is based on the recognition of relativity in the conditions of economic productivity in a community. The foundation of the argument is the position that all civilised communities of the temperate zone pass through successive economic stages, of which the last three are the stage of agriculture pure and simple, the stage of agriculture combined with manufactures in a nascent and slowly developing condition, and then the stage in which agriculture, manufactures, and commerce have all reached a high and well-balanced development. In the purely agricultural stage free trade with richer and more developed countries is, in List's view, a necessary condition of advance, and in the last stage of all free trade is also advantageous. On the other hand, the training and development required for passing from the second stage to the third can be acquired only by means of a carefully arranged protective system; and in the second stage such a system is, therefore, necessary for progress. The solution of the problem of protection *versus* free trade is thus regarded as relative to each particular people, and the stage of development which they have reached.

The principle of relativity in the sphere of economics was expressed in a more general form by Wilhelm ROSCHER. Applying to economic phenomena ideas which writers on jurisprudence had already applied to legal institutions and conceptions, he insisted on the necessity of always taking into consideration the varying character of economic habits and conditions; and, in particular, he pointed out the fallacy of criticising economic institutions, regardless of a people's history, and the stage of social and industrial development to which they had attained. Karl Knies affirmed still more definitely the relativity of economic doctrines in opposition to what he termed the *absolutism of theory*, that is, the claim — explicitly put forward by some of the older writers, and tacitly assumed by others — to offer something that is true unconditionally and in the same way for all times, lands, and nationalities. "In opposition to the absolutism of theory, the historical conception of political economy rests," says Knies, "upon the fundamental principle that the theory of political economy, in whatever form we find it, is, like economic life itself, a product of historical development; that it grows and develops, in living connection with the whole social organism, out of conditions of time, space, and nationality; that it has the source of its arguments in historical life, and ought to give to its results the character of historical solutions; that the laws of political economy should not be set forth otherwise than as historical explanations and progressive manifestations of the truth; that they represent at each stage the generalisations of truths known up to a certain point of development, and neither in substance nor in form can be declared unconditionally complete; and that the absolutism of theory—even when it gains recognition at a certain period of historical development—itself exists only as the offspring of the time, and marks but a stage in the historical development of political economy" (*Die politische Oekonomie vom geschichtlichen Standpuncte*, pp. 24, 25). This extract may be regarded as expressing the general view as to the relativity of economic doctrines taken by the historical school distinctively so-called.

The relativity of current political economy is affirmed no less definitely, but from quite a different point of view, by Walter BAGEHOT, who regards it of importance expressly to limit the science to one particular kind of society, namely, "a society of grown-up competitive commerce," such as we find in the most highly civilized modern communities. Political economy is, in other words, limited to "the theory of commerce, as commerce tends more and more to be when capital increases and competition grows." It will be observed that whilst the object of the historical school is to concentrate attention on economic history and on the study of economic development as opposed to the study of economic relations in a given society, Bagehot's object is just the reverse. He wishes to concentrate attention on current economic phenomena, and to avoid the distraction that must result from turning aside to the superficially corresponding but yet essentially different phenomena of earlier epochs.

In endeavouring to form an estimate of the importance to be attached to the relativity of economic doctrines we shall do well to have regard (1) to the distinction between economic theorems and economic precepts, and (2) as regards economic theorems, to the distinction between abstract and concrete economics.

Roscher in his affirmation of relativity is thinking mainly of economic institutions and economic policy, and in this sphere the principle of relativity may be laid down with less qualification than when we are dealing with economic laws in the more strictly scientific sense, that is, with statements of uniformities as distinguished from recommendations as to what ought or ought not to be done in practice. It is only

by the aid of abstraction that any claim to universality can be made good, and in formulating an economic policy, we cannot profitably carry abstraction very far. In theoretical investigations hypothesis and abstraction are often indispensable; but when we apply our theory with the object of laying down rules of practice, it is desirable to have recourse to hypothesis but sparingly. It is indeed doubtful how far, in the examination and criticism of economic institutions and policies, we can advantageously carry our abstraction even to the stage of neglecting social considerations of a purely non-economic character. Both the social and the economic bearings of a given line of action will, however, vary with the circumstances of different nations and different ages. Hence a given economic policy can in general be recommended only for nations having particular social and economic surroundings, and having reached a certain stage of economic development. It may be possible to formulate as having universal validity certain negative precepts, namely, that certain lines of action cannot under any circumstances be advisable; but on the whole the principle of relativity may be broadly accepted so far as economic precepts are concerned.

Passing from economic precepts to the body of positive doctrine which constitutes more distinctively the science of political economy, attention must be paid to the fact that economic doctrines vary in the degree of abstraction which they involve. Without professing to be able to draw any hard and fast line, we may adopt the suggestion made by W. S. Jevons, and distinguish broadly between two stages of economic doctrine, which may be called the abstract and the concrete stage respectively (see article Abstract Political Economy). Concrete economics is not content with merely hypothetical results, but avowedly takes into account special conditions of time, place, and circumstance; and it follows immediately that the conclusions already arrived at with regard to the relativity of economic precepts apply equally to concrete economic theorems. For the more fully we have regard to special conditions of time, place, and circumstance, the more limited must be the applicability of our results. Many of the circumstances which exert an important influence on economic phenomena vary widely with the legal form of society and with national character and institutions; and even when the same forces are in operation there may be variation to an almost indefinite extent in the relative influence which they exert. The contrasts presented by mediæval and modern societies, and by contemporary oriental and European societies, considered in their economic aspects, are such as cannot possibly be overlooked. Many of the chief economic phenomena, such as Rent, Profit, Exchange, have their counterparts on each side of the comparison, but are singularly unlike in many of their characteristics; and over and above this, as societies progress, new economic phenomena, practically novel in character, spring into existence. Consider, for example, modern problems of Credit and of International Trade; or again, the relations between the modern factory operative and the modern capitalist employer. Less striking contrasts, but contrasts that ought not to be neglected, are observable when we consider different modern communities of the European type in respect of particular economic phenomena, such as the tenure of land, the mobility of labour, and so forth. In every case the extent of the divergence can be ascertained only by direct observation and comparison; and it may be remarked in passing that, as regards mediæval and modern societies, whilst there was formerly danger of the differences being insufficiently emphasised, there is perhaps at the present time more danger of their being exaggerated. The notion, for example, that during the middle ages the forces of competition were entirely inoperative, is far from being borne out by the facts.

The relativity of concrete economic doctrines having been admitted, a claim for universality may still be put forward so far as the more abstract principles of the science are concerned. These principles do not profess to set forth the full empirical reality. They are admittedly based on hypothesis and abstraction. They require therefore to be constantly qualified and limited, sometimes in one direction, sometimes in another, before they can serve for the interpretation and explanation of actual economic phenomena. At the same time, some at least of them are universal in the sense that they pervade all economic reasoning. The law of the variation of utility with quantity of commodity, and the principle that every man so far as he is free to choose will choose the greater apparent good, may be given as examples of fundamental economic principles, which, in the words of Jevons, "are so widely true and applicable that they may be considered universally true as regards human nature." There are many other principles, which, with due modifications, are applicable to economic phenomena under widely different conditions. Take, for instance, the Law of Substitution (*q.v.*) in the form that where different methods of production are available for obtaining a given result, the one that can do the work the most cheaply will in time supersede the others, or the doctrine that facilities of transport tend to level values in different places, while facilities of preservation tend to level values at different times. Compare, again, the Ricardian law of rent as ordinarily stated, with the principle of economic rent in its most abstract and general-

ised form. The Ricardian law, so far as it claims to determine the actual payments made by the cultivators of the soil, is a relative doctrine, that is to say, it is based on assumptions, which, as regards both time and place, hold good over a limited range only. The theory of economic rent in its most generalised form, however, merely affirms that where different portions of the total amount of any commodity of uniform quality supplied to the same market are produced at different costs, those portions which are raised at the smaller costs will yield a differential profit; and there is now no similar limitation to its applicability. This principle may even be said to hold good in a socialistic community, for the differential profit does not cease to exist either by being ignored or by being municipalised or nationalised. To take a further illustration, there is a good deal of abstract reasoning in regard to the laws of SUPPLY AND DEMAND that has a very wide application indeed. These laws work themselves out differently under different conditions, and in particular there are differences in the rapidity with which they operate. Their operation may, however, be detected beneath the surface even in states of society where custom exerts the most rigid sway. In all these cases and others similar the principles involved and the modes of investigation employed have a significance and importance which it would be misleading to call merely relative; and hence as regards the more abstract portions of economic doctrine the principle of relativity cannot be accepted.

The relativity of concrete economic truths, together with the universality of fundamental economic principles, might be illustrated by reference to the writings of the classical English economists. The historical school have rightly taught us that the works of these economists can be fully understood and appreciated only if they are studied in close connection with the economic history of the times when they wrote. Frequently the assumptions on which their reasonings are based have a special relation to the actual circumstances of their time; or, even if this is not the case, the form in which their doctrines are cast, or the emphasis laid upon particular points, will often be found to be specially related to the economic conditions in the midst of which they wrote. It is, however, going much too far to regard their whole teaching as limited throughout by the character of relativity which belongs to some of it. Much of what they wrote will be valuable for all time, not merely because of the light which their doctrines throw on the phenomena of particular periods, but because the principles underlying their best work are not confined in their applicability to any narrow or limited sphere.

In connection with the general subject of relativity in political economy, a word or two may be added with regard to the relativity of economic definitions. Partly on account of the familiarity of much of its subject-matter, and partly for reasons connected with the growth of the science, political economy is for the most part limited in its nomenclature to terms already in common use. In different departments of economic enquiry, however, lines of distinction may need to be drawn at rather different points, and hence it is sometimes difficult to avoid the multiplication of technical terms, unless we are content to use the same terms in slightly varying senses in different connections. Thus, from the point of view of PRODUCTION it may be convenient to give a definition of WEALTH, not in all respects identical with the definition that is appropriate from the standpoint of DISTRIBUTION. Again, with special reference to its measurement, there may be advantages in defining wealth differently from the cosmopolitan, national, and individual points of view respectively. This procedure, that is to say, the frank adoption of the principle of relativity in framing economic definitions, has considerable weight of authority in its favour; but it is clear that, in so far as it is adopted, special precautions are necessary to avoid confusion. Further, economic definitions may be relative, not only to different points of view or different departments of study, but also to different stages of industrial development. Thus, in relation to the complex conditions of modern trade and industry, such terms as MARKET and MONEY may need different definitions from those that are appropriate in relation to more primitive conditions. Whilst, however, many economic definitions may be allowed to possess a relative or progressive character, this relativity cannot be extended to the ultimate analysis of the fundamental conceptions of the science. If these conceptions assume a somewhat different character in different connections, we shall still find something generic or universal in each one of them. Hence in the case of economic definitions as well as in that of economic doctrines, the admission of the principle of relativity must not be absolute or unqualified.

[For further discussion in connection with this article, see ABSTRACT POLITICAL ECONOMY; HISTORICAL METHOD; HISTORICAL SCHOOL OF ECONOMISTS. Reference may be made to Bagehot, *Economic Studies.*—Ingram, *History of Political Economy.*—Jevons, "The Future of Political Economy" (*Fortnightly Review*, November 1876).—Keynes, *Scope and Method of Political Economy.*—Knies, *Die politische Oekonomie vom geschichtlichen Standpuncte.*—Cliffe Leslie, *Essays in Political and Moral Philosophy.*—Schmoller, *Zur Litteraturgeschichte der Staats- und Sozialwissenschaften*]. J. N. K.

RELEASE is a general name for the waiver or renouncement of rights. An interest in

land is conveyed by release, if the effect of such conveyance is the enlargement of the estate previously held by the person to whom such interest is conveyed. Thus, if a leasehold interest in land is to be enlarged into a freehold interest, the lessor *releases* his interest in such land to the lessee.

During the first half of this century the usual form of conveyance of land was by "lease and release"; the person wishing to convey the land in the first instance granted a lease, and at the same time executed a deed dated a day subsequent to the lease by which he released his interest. This somewhat cumbrous method, which was introduced during the 17th century for the purpose of evading the provisions of the Statute of Enrolments, was simplified in 1841, and rendered unnecessary by the Real Property Act of 1845. Releases operating as conveyances are therefore much less frequent now than they were at the beginning of the present reign.

The most common use of the word "release" in modern times occurs in the case of trust funds being divided among the beneficiaries, who thus "release and discharge" the trustees from the trust property, "and all actions, proceedings, claims, and demands in relation thereto." A release of this nature is, however, ineffective, unless all the facts are fully set out in the recitals, and it is also advisable that the parties executing the release should be separately advised, so as to avoid the possibility of the release being set aside on the ground of the beneficiaries not having been in a position to form an independent judgment. E. S.

RELEGATIO. The Roman punishment of banishment to a particular place; not, like *deportatio*, entailing loss of civil rights.

E. A. W.

RELIEF. The relief, with the other incidents of feudal tenure, was introduced into England by William the Conqueror. Its origin is to be traced in continental usage, and its growth coincides with that of hereditary succession. Early grants of land seem to have been made for the lifetime of the recipient, but it soon became usual to renew the grant to the heir of a deceased occupant, especially if the heir were willing to pay a sum to his lord for such renewal. As the right of succession to land hardened into law, so did this customary payment on the part of the heir, which is known as *relevamentum* or *relevium*. Thus the relief differs from the Anglo-Saxon HERIOT, in that the former implies, and the latter does not imply, a suspension of ownership. But the two payments were so similar in respect of occasion and incidence that the Norman lawyers found it difficult to avoid confusion between them. All lands granted by the Conqueror to his Norman followers, or re-granted to English holders, were henceforth bound to pay a relief on a change of occupants, and the same condition was naturally enforced by the mesne lords in their grants to sub-tenants. The amount payable was at first very uncertain, and William Rufus and Ranulf Flambard found reliefs a convenient method of exaction. Church lands were free from the obligation of reliefs, as from those of wardship and marriage; but Flambard, in his endeavour to extend to the church the usages of lay fiefs, hit upon the plan of demanding a relief directly from the sub-tenants of a bishop on the occasion of a vacancy in the see. At the same time exorbitant reliefs were exacted from the heirs of royal tenants, the penalty for non-payment being forfeiture of the inherited estates. These exactions caused great discontent, and Henry I. sought to conciliate support by a clause in his charter, which runs: "If any of my barons, earls, or other tenants shall die, his heir shall not buy back his land as he used to do in my brother's time, but shall relieve it by a just and lawful relief; and in like manner the men of my barons shall relieve their lands by a just and lawful relief." From this time there was a constant struggle to obtain an exact definition of the "just and lawful relief," and gradually the royal claims were subjected, first to customary, and then to written, limitations. Glanvill, writing in the time of Henry II., states that the "reasonable" relief for a knight's fee is 100s., and for land held in SOCAGE one year's rent from the land; but the chief barons must satisfy the king according to the royal will and mercy. The author of the DIALOGUS DE SCACCARIO also tells us that the relief for the knight's fee is 100s., but that the heir to a barony must make his own bargain with the king. In *Magna Carta* the barons finally got rid of this remaining uncertainty. Art. 2 declares that the *Antiquum relevium* is £100 on an earl's barony or a baron's barony; 100s. on the knight's fee; and in other cases according to ancient custom. By the time of Edward I. the relief on a baron's barony had been reduced from £100 to 100 marks. In spite of the steady decay of feudalism, the crown retained its rights to reliefs and to the other feudal incidents until the time of the Stuarts. Under James I. Robert Cecil endeavoured to arrange with parliament for a commutation of these ancient but still lucrative rights for a fixed annual revenue, but the "great contract" was never carried through. During the rebellion and the commonwealth the crown rights and the machinery for enforcing them fell into abeyance, and it would have been preposterous to attempt their revival at the restoration. Accordingly, in 1660, the convention parliament passed the statute by which reliefs and other feudal payments were abolished and the hereditary excise was granted to the crown in their place.

[Stubbs, *Select Charters* and *Constitutional History*. — Pollock and Maitland, *History of English Law*, bk. ii. ch. i. § 7.—Round, *Feudal England*, pp. 308-311.] R. L.

RELIEF. See POOR LAW.

REMAINDER. The legal conception of a REMAINDER is dependent on the legal conception of an ESTATE (*q.v.*). An estate is conceived in English law as involving not only the ownership of lands, etc., but also the length of time for which that ownership will last. If a man holds land in *fee simple* his estate in that land is infinite in point of time; he may cut it in pieces of different time-lengths, and assign each piece to a separate person, who is said to possess his portion of the estate now, although he may not enjoy the land itself for years. After all the finite portions have been distributed, there will still remain a portion of infinite duration; this the original holder of the fee simple may keep for himself or assign to another; in the former case it is a reversion, and in the latter a remainder.

[For a more elaborate explanation see Sir Wm. Markby's *Elements of Law.*] A. E. S.

REMEDY (MINT). A term used to express the amount of variation permitted by law from the exact standard, either of weight or of fineness, of coins issued from the mint. Absolute conformity to the legal weight and fineness, in the case of every coin struck, is mechanically impossible, at the rate of speed at which coins are made. A reasonable margin of variation ("remedy") is therefore provided for by the coinage laws.

In the case of British imperial coinage, the remedies now in force are those fixed by the Coinage Act of 1891 (54 & 55 Vict. c. 72). They are set forth in the schedule to that act as follows:—

Denomination of Coin.	Standard Fineness.	Remedy Allowance. Weight per Piece. Imperial Grains.	Weight per Piece. Metric Grams.	Millesimal Fineness.
GOLD:				
Five-pound	11/12 fine gold, 1/12 alloy; or millesimal fineness 916·6.	1·00	0·06479	2
Two-pound		0·40	0·02592	
Sovereign		0·20	0·01296	
Half-sovereign		0·15	0·00972	
SILVER:				
Crown	37/40 fine silver, 3/40 alloy; or millesimal fineness 925.	2·000	0·1296	4
Double-florin		1·678	0·1087	
Half-crown		1·264	0·0788	
Florin		0·997	0·0646	
Shilling		0·578	0·0375	
Sixpence		0·346	0·0224	
Groat or fourpence		0·262	0·0170	
Threepence		0·212	0·0138	
Twopence		0·144	0·0093	
Penny		0·087	0·0056	
BRONZE:				
Penny	Mixed metal, copper, tin, and zinc.	2·91666	0·18899	None.
Halfpenny		1·75000	0·11339	
Farthing		0·87500	0·05669	

It will be seen from the above table that the remedy for the weight of the sovereign is 0·2 grain. The standard weight of this coin being 123·27447 grains, it follows that no sovereign may be issued from the mint which weighs more than 123·47447 grains, or less than 123·07447 grains. The remedy of fineness being 2 per mille, and the legal fineness 916·6, the metal of which a sovereign is composed must not be of a higher millesimal fineness than 918·6, or lower than 914·6. Though the entire range of variation thus permitted is not great, the extreme limits of remedy are seldom approached, especially in the case of gold coins. The verdict of the jury at the trial of the PYX (*q.v.*) held in July 1905, records that of the sovereigns then examined (coins struck during the preceding twelve months), the heaviest weighed 123·285 grains and the lightest 123·108 grains. The coin richest in gold proved to be of the millesimal fineness of 916·86, while the poorest only fell to 916·46, the coins being within the standard prescribed by law. F. E. A.

REMITTANCE. The sending of funds from one place to another, whether in coin or bullion, in bank notes or drafts. R. W. B.

REMONETISATION means the renewed use of some metal for purposes (1) of currency, (2) or as a standard in currency. (1) Thus Frederick II.'s Sicilian solidus, the Florentine (1252) and English (1257, 1343-44) florins represent the remonetisation of gold in Europe. (2) If European nations opened their mints to unlimited purchase of silver, which should be coined so that mint values = commercial values, and then made the silver coins unlimited legal tender, this would be the remonetisation of silver (see DEMONETISATION; SILVER AS STANDARD). J. D. R.

RENAUDOT, THÉOPHRASTE (1584-1653) a physician and historiographer of France, who, through the interest of Richelieu, was appointed in 1612 general commissary of all the poor of the kingdom. Despite vigorous police ordinances, France and especially Paris were infested by legions of beggars, discharged soldiers, and persons ruined by the civil and foreign wars.

In 1630, Renaudot revived an idea originated by MONTAIGNE (*q.v.*) and obtained a licence "to open *Offices* or *Registers of Addresses* for the wants of all classes . . . and to practise or establish anything which might generally be useful or advisable for the regulation of the poor." His main object was to provide them with work through the agency of his *Bureaux*, after having in vain endeavoured to obtain employment for them, in cleansing the streets of Paris, a scheme he had been compelled to abandon by the Paris magistrates, eager at that time to oppose any project supported by the court. He explained his views in the *Inventaire des adresses du Bureau de Rencontre*, a very few

copies of which are still to be found in public repositories. Each entry in the registers cost only 3 sous, or for the poor was inscribed free. Renaudot also established, to assist the latter, his *consultations charitables*, and the first of the MONTS DE PIÉTÉ opened in Paris.

His *Traité des Pauvres* is lost. The success of Renaudot's *Bureaux* was such that he started in 1631 a *Gazette* to supply public news as well as the advertisements of the *Bureaux;* later on it took the name of the *Gazette de France*, and is the oldest French newspaper in existence. Renaudot also opposed the absurd medical theories then prevalent in the faculty of medicine at Paris, and sought to introduce instead the experimental method. He thus aroused an implacable animosity, which embittered the end of his life.

[Hatin, *Théophraste Renaudot* (1883) and *Histoire de la Presse*, vol. i. (1859).—Gilles de la Tourette, *Théophraste Renaudot* (1884).] E. Ca.

RENNY, ROBERT (died early in 19th century) wrote a *History of Jamaica, with Observations on the Climate, Scenery, Trade, Productions, Negroes, Slave Trade, Diseases of Europeans, Customs, Manners, and Dispositions of the Inhabitants. To which is added an Illustration of the Advantages which are likely to result from the Abolition of the Slave Trade*, London, 1807, 4to.

The work is divided into two books; the first deals with the discovery and subsequent history of the island up till the close of the Maroon War in 1796, and the return of the governor, Lord Balcarras, in 1801. Book ii. treats of the climate, soil, scenery, and natural productions of the island; of the towns, churches, courts, trade, revenue, taxes, coins, and militia. Ch. iv. is divided into eight sections, each of which describes one of the commercial products of Jamaica. Ch. v. deals at some length with the history of slavery there; strongly emphasises the necessity of doing the negroes justice, and of setting them free. The author deplores the contempt which the white expresses for the coloured man. A. L.

RENOUARD, AUGUSTIN CHARLES (1794-1878), was born and died at Paris. He left the normal school during the first empire, and, devoting himself to law, he was, at the time of the restoration, much esteemed as a counsel in difficult cases.

About 1825 he published several works on moral and legal subjects, the most important of which is his *Traité des brevets d'invention*, 1st ed. 8vo, 1825; 2nd ed. 8vo, 1844. After 1830 Guizot took him up; he became a privy councillor, then a deputy, and finally a peer of France. In the chamber he introduced several laws, especially that on primary education, Guizot's highest title to fame. During this period Renouard published *Mémoire sur la statistique de la justice civile en France*, inserted in 1835 in Wolowski's *Revue de législation et de jurisprudence; Traité des droits des auteurs dans la littérature, les sciences et les beaux-arts*, 1838-39, 2 vols. 8vo, and finally, *Traité des faillites et banqueroutes*, 2 vols. 8vo, 1st ed. 1842; 2nd ed. 1844; 3rd ed. 1857. After 1848 Renouard practised again at the court of appeal. It was he who, in the name of justice, brought in an indictment against the author of the *Coup d'état* of 1851, which brute force alone prevented him from following up. He kept aloof from public affairs during the whole of the second empire, and during that time he published *Du droit industriel dans ses rapports avec les principes du droit civil sur les personnes et sur les choses*, 8vo, 1860. After 1871, having been appointed *procureur-général* to the court of appeal, he spoke several times and with great weight. In the speech which made most stir, and by which even Berlin was moved, he refuted the famous aphorism, *La Force prime le Droit*. We are also indebted to Renouard for publishing the *Mélanges de morale d'économie et de politique* of Benjamin Franklin, preceded by a notice of his life, 3rd ed. 18mo. In 1861 he was elected to the *Institut* (*Académie des Sciences morales et politiques*), and in 1876 he became a senator. In 1845 he was elected vice-president, and in 1865 president, of the Economic Society of Paris. A. C. f.

RENT

Rent, Basis of, p. 282; Rent does not enter into Cost of Production, p. 284; Rent of Ability, p. 285; Rent-Charge, p. 286; Rent-Charge, Mediæval, p. 286; Rent, Labour, Mediæval, p. 287; Rent of Land, p. 287; Rent, Sec, p. 289.

RENT, BASIS OF. "Rent," wrote RICARDO, "is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." "The income derived from the ownership of land and other free gifts of nature is called *Rent*"; is the form of definition adopted by Professor Marshall. Both writers take care to point out that the word is commonly used to cover payments of a different character. Moreover, the modern developments of economic analysis have shown that land is but a special and specially important member of a large class, and that the income derived from the ownership of special facilities of production not accessible to all, possesses economic characteristics which correspond closely to those of the rent of land. A growing custom of modern writers is to employ the word rent for the whole class. This course is not altogether unexceptionable, though it possesses conspicuous advantages for many purposes. In this article the reference to land will be retained, though the conceptions dealt with will be such as to have a much wider application. Such extension of their application is not to be understood as excluded by the restriction of the terms used to the problem of land-rent.

The basis of rent, as indicated in what precedes, is to be found in the fact that the product of equal outlays of effort or of capital under different conditions is by no means identical. In reference to land, one field may produce, under similar cultivation, 25, 50, 100, etc., per cent, more than another field of equal area, the soil of which is of a different nature, or whose advantages in other respects

are different. A difference of situation, affecting convenience of cultivation or access to markets, operates as effectively as a difference in the mechanical nature or chemical constituents of the soil.

The essential underlying basis of rent is this difference of return to equal effort, and the amount which rent can reach is measured by the amount of the difference. Clearly the doctrine, even so briefly stated as in the definitions quoted above, assumes the ownership of the productive facilities in question, assumes that they are not equally open to every producer in fact; and this carries with it the other point, that an indefinite extent of productive facilities of the most favourable nature is not available. The best is limited, and is made the subject of ownership. The necessity to utilise opportunities less favourable than the best existing brings the fact and degree of their superiority to the front, and gives it value.

As in the illustration used by Ricardo, we may suppose land of three qualities, numbered accordingly, to yield with equal employment of capital and labour:—No. 1, 100 quarters; No. 2, 90 quarters; No. 3, 80 quarters. So long as there is No. 1 land unappropriated and free to any one to use, no rent emerges. It is only when the needs of the community become such as to require the cultivation of No. 2 land, and, later, of No. 3, that rent appears. When the best land freely available is of No. 2 quality, the cultivator would get an equal return for himself by paying 10 quarters for the right to raise 100 quarters on No. 1 land, as by raising, rent free, 90 quarters on No. 2 land. Similarly, when the best land freely available is of No. 3 quality, the payment for the privilege of using No. 1 land might rise to 20 quarters; for using No. 2 land to 10 quarters; while whichever quality of land was used under such a scale of payments, 80 quarters would be the return to the cultivator's efforts which remained for himself.

The differences in the amount of labour needed to give equal results may be due to the necessity for the expenditure of considerable labour in conveying the produce to market, if the land be remote from the market for its produce. Thus, of two portions of land, A and B, on each of which 100 quarters is the return to the same expenditure of capital and labour, if the carriage of the produce of A to the market be covered by the sale of 2 quarters, while the carriage of B's produce absorbs the worth of 12 quarters, A will bear a rent of 10 quarters more than B. If B be no-rent land, A's rent will be 10 quarters.

Another view of the matter is not less important than this, since it brings out the importance of the law of DIMINISHING RETURNS, as applied to land in the determination of the rent of the land.

Let it be assumed that, when the whole of the No. 1 land is taken up, it is found that the expenditure of twice as much capital and labour as before on a plot of No. 1 land yields 195 quarters; that is, that the return is increased by 95 quarters. Capital and labour will thus, by the more intensive cultivation of No. 1 land, be able to procure a yield of 95 quarters, while, if expended on No. 2 land, but 90 quarters would be yielded. It will not, in this case, be necessary to resort to No. 2 land so long as the supply obtained by the more intensive cultivation of No. 1 is sufficient. Using the term "dose," after James MILL (see DOSES OF CAPITAL), to indicate the expenditure of capital and labour contemplated as yielding respectively 100, 90, and 80 quarters on the different qualities of land, we may now say that a dose of capital and labour can yield on No. 1 land, by more intensive cultivation, 95 quarters. This amount must therefore be sufficient to remunerate the cultivator who is induced to expend the dose for this return, or it would not have been expended. If it were insufficient, a single dose only, yielding its 100 quarters, would be expended on No. 1 land; if we assume that it is possible to regard labour and capital as applied in "indivisible" doses, for the purposes of the present argument. If 95 quarters remunerate the second dose, they will suffice to remunerate the first, and 190 quarters will remunerate the two doses, while 195 quarters are produced. The remaining five quarters may be exacted as the price of the privilege of using No. 1 land. Similar arguments apply to yet more intensive cultivation. Thus even without the necessity for assuming the existence of land bearing no rent, as a means of determining the level from which rent may be measured, a point from which to measure rent in any individual case is capable of determination, namely, the point at which, in the more and more INTENSIVE CULTIVATION of the land, the stage is reached at which the increase of return produced by the application of additional capital and labour to the land would just, and only just, be sufficient to make it worth while to apply such additional effort to the land.

Whether from difference in the nature or situation of different portions of land, therefore, or from different powers of response to effort expended on the same land varying with the stage of intensity of cultivation previous to the expenditure of this effort, the amount of rent and the reason for its existence rest on differential advantages for the application of this or that dose of capital and labour. If all land possessed equal advantages, and if the return to capital and labour expended on land were in accordance with the LAW OF CONSTANT RETURN, rent would not emerge.

The expression "original and indestructible powers of the soil," used by Ricardo, has given

rise to some destructive criticism of his theory. It is, perhaps, not necessary, though quite possible, to enter on a defence, necessarily somewhat lengthy, of the precise terms used. The essence of the doctrine of rent is not bound up with the adjectives in this phrase. Capital invested in improvements may alter the original character of the land. The inducement to make such an investment is afforded by the expectation of increasing the facilities for production which it offers so as to increase its returns sufficiently to yield at least interest at current rates on the investment. When the investment is made, however, it becomes difficult to differentiate between the original and acquired powers of the soil in many cases. The doctrines above enunciated may be applied to the improved land, if it be supposed that, in its cultivation, its actual powers are preserved unimpaired. The capital invested is as much bound up with the soil as its original qualities, and may conveniently be treated on the same basis.

The problem which has been dealt with here is, strictly speaking, the elucidation of the causes which determine the amount of a "producer's surplus," to use the phrase adopted by Professor Marshall, the said surplus being that which accrues to the producer by reason of his having the use of facilities superior to those of some of his competitors. Whether precisely this amount will be actually paid as rent will depend on the conditions of tenure of land and the relations between the various classes interested in agriculture at the time and in the place considered. If the owners of the land be in active and intelligent competition for tenants, and are unscrupulous in exacting the utmost possible payment from tenants, while tenants are also in active and intelligent competition to secure tenancies on the best possible terms, the producer's surplus on an average of years represents the utmost which tenants can pay without reducing unduly their own remuneration for labour and risk, and hence the most which owners can procure. It may be further observed that, as produce from one portion of land has been taken as the equivalent of that from another, the corresponding hypothesis is that the produce considered is sold in the same active market, so that the hypothesis of but one price for the same article may be reasonably made.

In regard to the rent of building land, the element of advantage of situation, important in the case of agricultural land, becomes the principal feature. In the case of mine rent, while partly determined by the facilities for extraction of minerals and their superiority to those elsewhere, the payment exacted is in part a charge for material actually carried away. The powers of the mine are not preserved unaltered, so that the case naturally differs from that of the hire of productive facilities which are not destroyed by being used. In part, nevertheless, the superior ease of obtaining minerals from some mines as compared with others causes a part of the rent to be due to this difference, though the main portion be the price of material carried away. Wherever, in the hire of agricultural land, the contract provides for improvement of the land, or for exhausting previous improvements, a similar feature is introduced there to that which is most prominent in mine rents (see RICARDO). A. W. F.

RENT DOES NOT ENTER INTO COST OF PRODUCTION.—This statement is commonly understood to imply merely that rent forms no part of that cost of production which is the measure of exchange value, that is, not average cost of production, but marginal cost of production. The theorem rests on the conceptions explained under the head Basis of Rent. A farmer, having contracted for the hire of land, is in the position that it is to his profit to expend any "dose" of capital and labour the return to which exceeds the cost of its application. He will, therefore, be induced to apply dose after dose, though the margin of surplus of return over outlay become narrower and narrower, so long as the margin is on the right side. The point at which he will cease to cultivate more intensively is determined by the vanishing of this margin. The "marginal dose" only increases the return by enough to cover the expenses of its application. The increase of return thus procured contributes nothing to rent, rent does not enter into its COST OF PRODUCTION. Although the expenses of the producer may contain—as against the whole crop—the stipulated rent, the "marginal production" is sufficiently encouraged if its price leave no surplus for rent, but merely covers other expenses. To quote the well-known passage of Ricardo, "Corn is not high because a rent is paid, but a rent is paid because corn is high." A rise in price of produce results in a smaller return being sufficient to remunerate the cultivator for applying a dose of capital and labour. This leads to increasing intensity of cultivation and a rise of rents.

From the other standpoint, that of the existence of no-rent land, which may be at any distance from the market, the fact that such land comes under cultivation proves that the cost of production of its crops are covered by their price. Rent forms no part of their cost, therefore it forms no part of the price of the whole market supply.

The price may, nevertheless, be affected by rent, if the existence of rent operate to stint the supply of the produce of land, that is, if the owners of land be able to command a price for the privilege of cultivating even the poorest

land. Such a "monopoly-rent" may affect the price of the commodities produced under its influence. The same principles, too, come into play as the result of the fact that land may be applied to alternative uses. If for one of these uses certain land be sufficiently productive, in comparison with other land actually in use for the same purpose, to command a rent, the condition of its use for any other purpose is that it should pay at least as large a rent in the latter as in the former case. If it be less productive than the worst land already in use for this other purpose, it cannot be economically used until the price of the product in question rise to a sufficient height to enable it to yield not only the expenses of applying the necessary labour and capital, but also the rent obtainable by the assumed alternative use of the land. The cost of production of the most expensive portion of the supply does in this case include rent.

In general it is true that rent may be reduced and the margin of cultivation raised if fresh sources of supply, involving a smaller cost than that involved in the use of some of the sources actually in use, be brought into the market. If these fresh sources of supply be held out of use on account of their yielding a greater rent for some other purpose, the fact of rent does stint supply and raise price.

The introduction of the consideration of such an indirect influence of rent on price appears to be of considerable importance. It is from the treatment of land as if yielding a produce of one kind only that its influence is lost sight of in the general enunciation of the doctrine. It remains true, however, that if the cultivators of land were set free from their obligation to pay rent, such a change would not introduce motives tending to divert land from the purposes where it yields the greatest surplus to the producer over the expenses of its cultivation. Thus though the fact of alternative uses for land does reduce the supply of any one of its products below the amount which it might reach if all land were capable of use simply for the supply of this product alone, the abolition of the obligation to pay rent would not affect the relative supply of different commodities, except in so far as the rent is a true monopoly rent.

[Special reference may be made to Ricardo's *Works;* to F. A. Walker's *Land and its Rent;* and to Marshall's *Principles of Economics*, bk. v. ch. iv., as well as to the article on COST OF PRODUCTION, where some important points, not repeated above, are dealt with. Most leading authorities on economic theory have contributed some chapters to the discussion of the theory of rent.] A. W. F.

RENT OF ABILITY. In analysing the rewards of efforts and abstinences made for the satisfaction of wants under modern social conditions, economists have to reckon with that residual element of returns which is due to peculiar advantages of nature or the juncture of events, and not to any additional effort or abstinence. In agriculture this surplus revenue is called RENT, it being really accidental in economic theory whether it is handed over by farmer to landlord or appropriated by a free-holder. The term "rent," however, as defined in economics, cannot justly be confined to agriculture only, but, as N. W. SENIOR proposed, should be, and is indeed more or less, used to cover all cases of this residual element of reward which "nature or fortune bestows" in the shape of an exceptional or "differential" profit beyond the given average rate of remuneration. Rent of land thus appears as only a species, if "the most distinct and impressive" species (see von MANGOLDT), of a genus of reward, the conditions of which are those of a natural monopoly with a demand temporarily or permanently in excess of the supply.

In land-rent those conditions are superior natural fertility and advantages in connection with the disposability of produce; in other species of rent they are "extraordinary qualities of body and mind" (SENIOR, see below) to which may be added those accidents in demand or fortunate contingencies in time and space now classed as *Conjunctur*. Usually both sets of conditions are requisite. The inventive faculty that brings out a patent just when the public taste is amenable, the organising ability that can push an enterprise in advance of competition on the short-lived tide of public credit, the singer who, with a peculiar charm in organ or appearance, draws crowds while a possibly greater artist transcends the popular discernment, the author of a book abreast with, but not ahead of the age, the strategic genius launched on a military career just when a war breaks out—all that is conveyed by the expression "time and the man"—are cases where the surplus revenue, analogous to rent if not so-called, appears. And, as in agriculture, the difference is merely accidental, if in one case the owner exploits his own sources of rent, in another farms them out.

For the most part economists have preferred to class this residual reward under profits, only pointing out its analogy to rent derived from land. Mill refers to it as "cases of extra profit analogous to rent"; von Mangoldt, as entrepreneur's rent or as *Seltenheitsprämie;* Walker, as "profits partaking of the nature of rent"; Marshall, as a species of "quasi-rent" specially prominent in profits of business men; Nicholson, as "*Conjunctur*-profit" (see CONJUNCTUR). Yet it does not strictly fall under earnings of management, since it is not a monopoly of managers, and is, strictly speaking, an unearned increment of reward. Nor can it be claimed as interest unless what has been called

personal wealth be ranked as capital, for it is not the reward of capital invested in developing rare ability. To get extraordinary advantages in training may indeed be viewed as a lucky conjuncture for the talented youth. But for purposes of analysis, a distinction should be drawn between such good fortune and the sacrifice incurred by both parent and child in availing themselves of the best possible opportunities of education.

However classified, rent of ability and of fortunate contingency is a factor which under a system of competition militates ever more and more against any tendency to equality in returns, whether these are called wages or profits. The greater the investment of capital in the training of natural abilities, the more general the opportunities to cultivate the same, the more "differential" becomes the profit of those who in themselves and in the turn of events possess that species of monopoly analogous to that arising from the possession of the most remunerative portions of the earth's surface. For a pianist to be offered in England a thousand guineas in remuneration for one evening's display — as happened recently — would some years ago have been an impossibility.

On the first appearance in economic literature of this metaphor, see BAILEY, S., ON VALUE.

[Senior, *Political Economy*, 1850, p. 91.—Mill, *Political Economy*, bk. iii. c. v. § 4.—Von Mangoldt, *Die Lehre vom Unternehmergewinn*, 1855, p. 109.—Walker, *Political Economy*, § 307.—Sidgwick, *Principles of Political Economy*, 1st ed. bk. ii. c. ix.—Marshall, *Principles of Economics*, 3rd ed. bk. vi. c. viii.—Nicholson, *Political Economy*, 1893, i. p. 411.] C. A. F.

RENT-CHARGE. The payment of an annual sum is frequently secured by a charge on land belonging to the promisor. Such a charge is called a "rent-charge," and may, since the coming into operation of the Stat. 4 of Geo. II. c. 28, § 5, be enforced by DISTRESS (*q.v.*) in the same way as a rent reserved in a lease, whether the power of distress be expressly given by the deed creating the charge or not. A rent-charge granted otherwise than by will or marriage settlement is not binding on subsequent purchasers unless registered in accordance with the provisions of 18 Vict. c. 55, §§ 12 and 14. E. S.

RENT-CHARGE, MEDIÆVAL. The purchase of a rent-charge (*rent, census, Zins*) was one of the methods of investing money most frequently resorted to during the later middle ages. From the transfer from one person to another of the right to receive a rent already due the step was but a short one to the creation of an altogether new rent-charge, for the express purpose of raising money by the sale of it. At first, possibly, such charges were laid only on agricultural land; but the plan commended itself to townsmen; and the creation of rent-charges on town lands and even on town houses and shops became very general. It early came to be the practice to specify in the deed of sale the sum at which the seller could redeem the charge: and it was frequently enacted by civic or territorial authorities that all charges should be redeemable at so many years' purchase; so that there grew up in every district a current rate of return upon investments of the kind.

The practice would seem to have arisen spontaneously, and to have been by no means a mere evasion of the prohibition of usury. When brought before the attention of theologians and canonists, as in the cases submitted to Pope Martin V. in 1425 and Pope Calixtus III. in 1455, no doubt was felt as to its legitimacy, on the following conditions: that the charge was a *census realis, i.e.* was attached to some definite and permanent property of such a nature as to be a source of permanent income (*res frugifera*); that the person subject to the charge retained the right of redemption, but the recipient had no right to compel a return of the purchase money; and that the rent did not exceed a fair percentage upon the purchase money,—as to which last point the ecclesiastical authorities were ready to accept current usage. The existence of a "*real*" security, which, if transferred, carried the obligation with it, and the interminable character of the investment, so far as the investor was concerned, were the two features which were held to distinguish the contract from a mere *loan*. But Nicholas V. in 1452 permitted the people of Aragon and Castile, in order to escape the greater evils of usury, to make rent contracts based on their movable property, or indeed simply on their general credit, the so-called *census personales;* and such contracts were defended, outside Spain, by several eminent theologians of the sixteenth century. The return of Pius V. in 1568 to the earlier and severer view was too late to restore old conditions. But the theoretic discussion of the subject lost all interest, as the practice itself was gradually abandoned in favour of the freer form of investment rendered possible by the development of the theories of INTEREST and PARTNERSHIP (*q.v.*).

[The best history of mediæval practice is probably to be found in Max Neumann's *Geschichte des Wuchers in Deutschland* (1865), though it suffers under the twofold defect of maintaining that the practice was peculiar to Germany, and that it was opposed to canonist doctrine. W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, vol. ii. (1883), enters at length into the canonist discussion of the *Rentenvertrag*. On these works is based the account in Ashley, *Economic History*, vol. i. pt. ii. (in Amer. ed., vol. ii.), §§ 66, 74, 75. The German and French mediæval law are given in Schröder,

Lehrbuch der deutschen Rechtsgeschichte, 2nd ed. (1894), 696; and Viollet, *Histoire du droit civil Français*, 2nd ed. (1893), 679-683, respectively.]

W. J. A.

RENT, LABOUR (Mediæval). Under the manorial system of agriculture, the lord's portion of the estate was cultivated by the compulsory labour of the tenants, under the supervision of the bailiff. Such services were perhaps, even when valued in the accounts in terms of money, rather payments incidental to tenure than economic rents in the modern sense. Compulsory services, paid for with food or money, or both, are frequently met with, but unpaid labour was more usual. It was of two main classes, fixed "week-work," and unfixed "boon-work" or "*precariæ*"; the former was, on the whole, but not always, or in all places, required of unfree tenants only, while free and unfree, socager and villein alike, had to perform special services, boon-work, when called upon, and particularly at harvest-time. In cases where an unlimited amount of week-work might be demanded, it seems probable that the tenant was exempt from boon-work, but even the latter tended to become fixed, though remaining occasional. Every service which the lord of the manor needed might be required of the tenants, but the commonest were ploughing and carriage. The process of commutation of services for money rents no doubt began very early, it is impossible to say how early; but the labour rent system was not seriously broken down until the 13th or 14th century.

[(1) Original documents: Thorpe's *Ancient Laws and Institutes* (*Rectitudines Singularum Personarum*).—*Domesday*.—*Domesday of St. Paul's*, ed. Hale.—*Cartularies* of religious houses, (full list of these and other documents in Ashley, *Econ. Hist.*, vol. i. pt. i., authorities prefixed to ch. i.). (2) Early legal writers: Bracton, Glanville, Fleta, Littleton. (3) Modern writers: none of importance before Seebohm; subject scarcely touched by Kemble. Seebohm, *English Village Community*; for details of services, ch. ii., for early labour rents, ch. v., for Roman instances, ch. viii. sect. vii. x., and ch. x. sect. vii., viii.—Vinogradoff, *Villainage in England*, esp. Essay ii. ch. iii.; many particulars added to the manorial picture first clearly drawn by Seebohm.—Ashley, *Econ. Hist.*, vol. i. pt. i. ch. i. for clear sketch of results of modern research.]

E. G. P.

RENT OF LAND. A. Smith summed up the best views of his time with regard to "the rent of land," when he described it as a compound of two elements—interest on improvements and payment for what Ricardo afterwards called "the indestructible resources of the soil"; or A. Smith's "original," and Mill's "economic" rent. This last rent is, according to A. Smith, "a monopoly price,"—the effect and not the cause of the price of a commodity (i. xi. *init.*). His language is not always consistent, and he does not analyse the nature of this monopoly, but three of his illustrations imply a correct though incomplete analysis. The first is taken from his own experience, and is the lease of a foreshore. The next is a historical generalisation—"every improvement," he says, "in the circumstances of society, tends either directly or indirectly to raise the real rent of land" (i. xi. *fin.*); and takes us back to Locke's belief that high rents mean prosperity, and should therefore be an object of legislation (*Works*, ed. 1824, vol. iv. p. 69), (Tooke, i. 24), and it takes us onward through M'Culloch's famous table (edition of A. Smith, p. 452), to H. George's *Progress and Poverty*; and it also reflects the physiocratic view that rent is a "produit net," a view which is still expressed when economists write of rent as "a residue" or as "an excess of value above the cost of production." This half-truth will not save its advocates from error; nor will its opponents attain truth without it. A. Smith's third illustration is practical, and is contained in his suggestion that a special rent-tax would, if variable and moderate, fall exclusively on landlords, and would not discourage industry, so that "the real revenue of the great body of the people might be the same after such a tax as before" (v. 2 *fin.*). Attempts to realise this idea by tentative fiscal measures on a small scale, and, best of all, subject to local control, have proved successful; thus Giffen (*Essays in Finance*, i. 252) points out that "rates" are just such a land-tax, and have as a matter of fact kept pace with the increase of the unearned "Mehr-Werth" of land during the past fifty years, while the French "contributions foncières," which were apparently Smith's model, advanced at a far slower rate under like conditions. On the other hand, if A. Smith's idea is interpreted by an heroic "impôt unique," designed to secure all economic rent to the state, on the ground that individuals ought not to reap what they did not sow—such a scheme is foredoomed to failure; because any attempt to draw a hard and fast line between "economic rent" and "interest on improvements," is hopeless. Here are three attempts; Giffen said that at the then rate of increase (1871) land then worth £150,000,000 would in thirty years be worth £100,000,000 more, half of which would perhaps be unearned (*Statistical Essays*, i. 258). Caird in describing the increase of landlord's property from £55,000,000 annually in 1857 to £66,000,000 annually in 1875, estimated the unearned at $\frac{4}{5}$ths of the whole increment during that period (*Landed Interest*, p. 97). Leroy-Beaulieu (*Répartition des Richesses*, 1888, p. 119), following more or less Carey's *Past, Present, and Future* (1848), and Hippolyte Passy's *Des*

Causes de l'Inégalité des Richesses (1848), thinks that economic rent is already at vanishing point; but as he bases his thesis on the supposition that capital invested on improvements should bear interest (compound?), for 2000 or 3000 years, his arguments do not claim much weight. Similarly German princes (Roscher, *Geschichte der Nat.-Oek. in D.*, pp. 485, 631) and Indian administrators (Baden-Powell, *Land Revenue*, p. 179) have been baffled by the insuperable difficulties of valuing the "produit net" for the purposes of an "impôt unique." In any case, doctors disagree on the matter, and the wisdom of A. Smith's "variable," "moderate," and "might," is conspicuous in comparison with proposals, such as that of Mill's "Land Tenure Reform Association" (1870), to take the whole future "unearned increment" in taxation.

In what then has A. Smith's view been advanced by his successors? First, deductively by the so-called Ricardian theory of rent, discovered by Dr. Anderson in 1777 and 1801, re-stated by Malthus and West in 1815, and finally by Ricardo in 1817. This theory, so far as it states that the amount of rent of a situation depends upon its "differential advantages as compared with that situation where a given pursuit just pays," suggested the idea of "marginal utility" which is the foundation of the law of value, as stated by Jevons and Marshall; and added even more to the elucidation of "value" than of "rent." Secondly, there is the truth, partly deductive, partly inductive, emphasised by Ricardo and Mill, that improvements in mechanism and locomotion increase supply, and so send rents down until an increased demand sends them up again; to which Carey added that as civilisation goes on suitable soils are specialised to suitable growths, and new fertile lands, like Laveleye's "polders," are discovered; a process which produces the same effect as any other improvement (Carey, *Principles of Pol. Econ.*, 1837). Thirdly, there are several inductive additions to A. Smith, which are equally additions to Ricardo. (1) Ricardo's hypothesis that land always remains in cultivation which only pays wages and not rent, is as incorrect a statement of fact as A. Smith's guess that the opposite was necessarily the case with regard to agricultural land (see Roscher's *P. E.*, § CL., *n.* 2). (2) Ricardo overrated advantages arising from fertility, and forgot J. B. Say's maxim "L'éloignement équivaut à la stérilité," a maxim which at present determines English rents. Thus in 1881, Caird estimated landlords' improvements at £15 an acre (*Landed Interest*, p. 56), *i.e.* 10s. per annum (if his usual estimate of thirty years' purchase-value applies), and their "protection from cost of freight of wheat" at 42s. per annum per acre (*British Land Question*, p. 16). This would make economic rent vary, with the cost of freight, between 32s. per acre and zero, so far as wheat lands were concerned. (3) Cairnes's proof that Australian rents have raised prices contradicts Ricardo's view that rents never affect prices. Walker points out (p. 41) that Cairnes's exception only applies where the state is landlord, and rent is therefore a tax. But could not landlords combine to tax a community, or portion of a community? And is the distinction between taxes which may, and rents which may not raise prices, quite clear? Seebohm, whose figures must be received with caution, at all events proves that the same sort of mediæval English impost branched out into landlords' land-tax and farmers' rents (*Fortnightly*, January 1870); and according to Thorold Rogers farmers' rents were in no sense competitive before the 17th century. Again, the Devon Commission, 1845, proved that the effect of competition in Ireland was that impossible, and not merely as economists supposed the highest payable rents were habitually offered. Again, in British India the land revenue is universal, and yet the best administrators are unable to tell whether it is to be classed as a rent or as a tax; and those who collect it are sometimes treated like landlords subject to land-tax, sometimes like lessees who have under-tenants, and sometimes like excisemen who deduct their own pay (Baden-Powell, *l.c.* p. 49). Considerations such as these narrow the applicability of the doctrine of "economic rent," and suggest that rent may after all turn out to be more often than not a tax in disguise. (4) Ricardo's implied doctrine that in the distribution of wealth the rent-receiver is the residuary legatee of the capitalist and wage-earner, is ably combated by Mr. Hobson in his essay on the three rents (*Econ. Quarterly*, April 1891). His point is that interest and wages rise in the same sort of way as so-called rent. We may answer: "Yes, but not at the same rate." Thus beginning with the settling down of prices after the discoveries of precious metals in the new world:

Year.	Wages per week. s. d.	Rent per acre. s. d.
1650[1] at least	4 0	5 6[2]
1770	7 3	13 0[3]
1878	14 0	30 0[3]

Or to take a shorter period:—Wages rose 34 per cent, rent 100 per cent, between 1770 and 1850-51 (Caird's *English Agriculture*, 1850-51, p. 475). What is the reason of the extra pace at which rent runs, when once wages and rent move? Some will point out that during the last three centuries rent began to include

[1] Th. Rogers, *Hist. of Agr. and Prices*, vol. v. ch. xxiii.
[2] *Ibid.*, v. 804, as to 1625; Davenant on *Trade*, p. 219, followed by Prothero in *Pioneers, etc., of English Farming*, app. xi. as to 1688.
[3] Caird's *Landed Interest*, app. p. 177.

"profit upon capital laid out in improvements" to a far greater extent than previously, and that this accounts for the difference; others, alleging that 5s. 6d. rents represent a greater rise on mediæval rates than the current rate of wages at that time (Th. Rogers, *l.c.* v. 815), attribute this phenomenon to the superior agility of the landlords. Perhaps both causes were at work. Anyhow the wisest economists treat these and similar questions historically, and admit that hitherto history supplies results which do not justify confident predictions as to the future. J. D. R.

[In addition to the above-mentioned references to Caird, Giffen, Prothero, Thorold Rogers, A. Smith, etc., see L. Brentano, preface to *James Anderson, Drei Schriften über Korngesetze und Grundrente* (1893); E. Cannan, "Origin of the Law of Diminishing Returns" in *Econ. Journal*, ii. 53.—E. de Laveleye, *Primitive Property*, transl. Marriott (1878).—R. E. Prothero in *Social England* (1894), ed. H. D. Traill.—W. Roscher, *Political Economy*, transl. Lalor (1878), bk. iii. ch. ii.—F. A. Walker, *Land and its Rent* (1883).]

RENT SEC. A rent secured by rent charge not expressly giving a right of distress (see DRY RENT). E. S.

RENTAS ESTANCADAS, Spanish state monopolies for the production and sale by government of tobacco, salt, stamped paper, etc. The state monopolies of lead, brimstone, gunpowder, and quicksilver were called *rentillas*. The earliest state monopolies were created in 1632. E. Ca.

RENTE (Fr.). In primitive times, the annual fee paid by the vassal to the seigneur, or the tenant farmer to the landlord; now almost exclusively applied to the interests on the consolidated debt or *rentes sur l'État*, the word *loyer* being employed for the hire of land or buildings. The consolidated public debt dates from the creation of the GRAND LIVRE (*q.v.*) in 1793. The total nominal capital then amounted to 2,556,060,000 francs (£102,242,400), which increased to 3,494,320,000 francs (£139,772,800) in 1797, when two-thirds of the debt was paid off by ASSIGNATS or national bonds of little or no value, and the remainder was refunded under the designation of consolidated thirds. The nominal capital was thus reduced to 1,164,773,333 francs (£46,590,933), the rate of interest at 5 per cent remaining unchanged. In 1814, at the first abdication of Napoleon, the debt had only increased to 1,226,152,740 francs (£49,046,109). The borrowing during the restoration for the liquidation of the empire and the two invasions, had raised the debt in 1830 to 4,426,297,611 francs (£177,051,184). Down to 1825 the rate of interest had always been 5 per cent. In that year the first 3 per cent rentes were created for payment of the indemnity to partially compensate the royalists and *suspects* whose property had been confiscated during the revolution and sold for the benefit of the state as *biens nationaux*. The sum thus raised is known in history as the *milliard des émigrés*, and the operation was combined with an optional conversion of the existing five per cents into threes at 75, or four and a halfs at par, guaranteed for ten years against any further reduction of interest. The conversion was only accepted for a small portion of the debt, and a 4 per cent loan having been issued in 1829, four different stocks in rente existed down to 1852. In that year there was a compulsory conversion of the five per cents by reimbursement, with the option of an exchange for four and a half per cents. The next conversion in 1862 was an optional one without reimbursement. Holders of four and a half and four per cents were offered in exchange three per cents to produce the same amount of rente or annual interest on payment of a premium called a *soulte* of 5 francs 40 cent for each unity of 4½ per cent rente, and 1 franc 20 cent for the four per cents. The conversion was accepted for about three-fourths of the two stocks in circulation, and the *soulte* produced a sum of 157,820,296 francs (£6,312,811) to the treasury without any increase in the annual charge, but at the cost of a considerable augmentation in the capital of the debt. After this operation there still remained in circulation 38,443,707 francs of 4½ per cent in rente or interest, and 453,027 francs in four per cents. Between 1854 and 1859 four loans were issued in 4½ or 3 per cent stock at the option of the subscribers, and from the latter year down to the war of 1870 all the creations of rente were in three per cents. In October 1870 the government of national defence raised a loan of 250,000,000 francs nominal in London in 6 per cent bonds at 85. This loan was to be paid off by annuities in thirty-four years, and did not give rise to any creation of rente. It was reimbursed in 1875 by an appropriation of 14,541,780 francs of rentes belonging to the savings' banks, and held by the *Caisse des Dépôts et Consignations*, which received an annuity of 17,300,000 francs for interest and redemption for thirty-nine years. The bondholders obtained the same interest of 6 per cent as before in 3 per cent rentes, but, as in 1862, had to pay a *soulte* which produced to the treasury a bonus of 60,000,000 francs. The war indemnity loans of 1871 and 1872 increased the capital of the consolidated debt by 6,720,032,100 francs (£268,801,284) in five per cents, which were reduced in 1883 to four and a half per cents, and again in 1894 to three and a half, with a guarantee against any further reduction for eight years.

Originally all rentes were inscribed into names in the "grand livre," but in consequence of complaints of the formalities required to obtain

payment of the interest in the provinces or transfers of the capital, a law of 1831 authorised the creation of bonds to bearer with coupons, and in 1864 a new category called *rentes mixtes* (mixed) was authorised, the capital of which is inscribed but with certificates carrying coupons for the payment of interest. The sheets of coupons of the three and the three and a half per cents are for five years, and those of the *rentes mixtes* for ten years, after which they require to be renewed. Money being required in 1878 for M. de Freycinet's great scheme of spending four milliards (£160,000,000) in ten years on railways, roads, canals, and improvements in navigable rivers, another class of rentes was created by M. León Say namely, that of redeemable three per cents, the capital to be reimbursed in seventy-five years. This loan was issued as required in 175 numbered series for the drawings according to a table of redemption, the number of series to be paid off annually to increase progressively. There are no redeemable three per cents in *rentes mixtes*. A nominal sum of 4,070,690,000 francs (£162,827,600), which produced 3,286,580,884 francs, was thus raised between 1878 and 1884, but the system of redeemable rentes was abandoned in 1888, when a new loan of 500,000,000 francs was raised in ordinary three per cents as in all subsequent borrowings. The remainder of the old 4½ and 4 per cent outstanding from the conversion of 1862 was refunded in three per cents in 1877, and only three classes of rentes ordinary and redeemable 3 and 3½ now remain (1897) in circulation.

Rentes enjoy certain privileges over other classes of public securities. They are exempt from all taxes on capital or interest excepting those on succession and donations, and in the numerous schemes put forward for a general income tax their authors have invariably proposed to exclude rentes for the reason that, as the government had promised a certain rate of interest it would be a breach of faith towards the public creditor to levy a tax on the interest. Governments have also been influenced in exempting rentes by the consideration that future loans would have to be issued under less favourable conditions if the interest was exposed to taxation. A claim for the capital of rentes is not barred by lapse of time, but the interest cannot be claimed after five years from the date for payment. Rentes cannot be the object of a judicial seizure, and an injunction to suspend payment of interest is not allowed. They are expressly exempted from the operation of the law of 29th June 1872, relative to lost or stolen public securities. The bourse tax of five centimes per thousand francs paid by both buyer and seller in the same negotiation is also reduced to one-fourth of that rate for dealings in rentes. The smallest inscription of inscribed rentes admitted is three francs in interest for 3 and 3½ per cent; if to bearer, three francs in 3 per cent and two francs in 3½ per cent. Bonds of the redeemable threes are for 15 francs interest or 500 francs capital and multiples of the same. The capital of the three classes of rentes in circulation is about 25 milliards of francs (£1,000,000,000), but this does not constitute the total public debt of France, which, with the floating debt and the annuities capitalised, is estimated at over 30 milliards (£1,200,000,000). The number of inscriptions of inscribed rentes and bonds to bearer is about 4,500,000, but many *rentiers* or fundholders possess several inscriptions or bonds. The number of holders of rentes is believed to be about two millions. In no country is the public debt so widely disseminated among all classes of the people as in France.

[*Annuaire des Agents de Change.—Dictionnaire des Finances.*—Alph. Courtois, *Manuel des Fonds Publics* and *Tableaux des Cours des Principaux Valeurs depuis 1797.*—A. Neymarck, *Le Morcellement des Valeurs Mobilières* and *La Rente Française, son origine, ses développements.—Compte général de l'Administration des Finances.*]

T. L.

RENTLESS LAND. See Rent; Ricardo.

REPARTITION, Impôts de. See Quotité.

REPRODUCTIVE INDUSTRY. See Productive, The Terms, Articles on.

REPUDIATION, United States. This term, as commonly used in the United States, refers to the refusal of certain commonwealths and cities to redeem bonds issued under their respective authorities. Only once has the national government declined to pay in full its obligations, and that was at the beginning of its existence, in providing for the redemption of the continental currency issued during the revolution at a rate of 1 : 100 of its face value. The integrity of states and cities has not, however, been so strictly kept, partly because of the financial and commercial confusion incident to the establishment of new communities, and partly because of constitutional and political reasons not always clearly understood by foreign investors. Owing to the strong "states' rights" feeling existing in the United States and a desire to protect the dignity of the federating commonwealths, an amendment to the constitution of the United States (the eleventh, 1798) was adopted providing that "the judicial power of the United States shall not be construed to extend to any suit in law or equity against one of the united states by the citizens or subjects of any foreign state."

[The history of repudiation, its causes and remedies proposed, is very fully treated by William A. Scott in *The Repudiation of State Debts*, New York, 1893, p. 325. For State Repudiation see Sidney Smith. Repudiation has also been practised in other countries with disastrous results to their credit.]

D. R. D.

REQUISITES OF PRODUCTION. See PRODUCTION, INSTRUMENTS OF.

RES NULLIUS. A term of Roman law used to denote any object which has no proprietor, either because it has never been acquired by any one, as a wild animal at liberty, or a coloured pebble washed up by the sea, or because the proprietor has deliberately relinquished his right of property in it, *e.g.* a pair of worn-out shoes thrown on the roadside.

F. C. M.

RESERVE. The reserve of a bank is essential to its safety, but the amount must be left to the discretion of its managers. Few would be inclined to hold now the opinion of RICARDO, who, in his evidence before the committee of the House of Commons on cash payments in 1819, said, "I should think that a reserve of *three millions* would, under good management, be amply sufficient upon a supposition of *twenty-four millions* of Bank of England notes in circulation" (Tooke's *History of Prices*, vol. iv. p. 477, note).

The reserve of the Bank of England has of recent years been far larger in amount than the amount contemplated eighty years since. The average for the year 1894 was £25,800,000; for 1895, £29,900,000; for 1896, £34,600,000; and for 1897, £25,152,800. This sum, which, though nominally described as "notes," really consists of specie, represents a very large part of the reserves of the other banks of the country, which at times probably even exceed the amount of the reserve of the Bank of England. The "cash in hand, at call and at short notice," held by the banks of the United Kingdom at any usual time, may in a regular way amount to about £200,000,000. This sum includes the "till-money" of the banks, which is no doubt considerably larger now than in former years.

The natural objection on the part of those who have the management of banks to allowing any part, more than is actually necessary, of their deposits to remain "idle money," accounts for the smallness of the amount held in reserve, but there are many signs that an increase of it is very desirable.

[See *Banker's Magazine*, April number, 1894-1898.]

RESERVE LIABILITY. See LIABILITIES ON SHARES.

RESERVES (BANKING). The banker's cash reserve is that portion of his resources which he holds uninvested. In ordinary times the daily receipts may be roughly reckoned to provide for the day's demands, but there is the possibility of extra requirements, and for these a fair provision of cash in hand is necessary. In London the cash in hand includes, and mostly consists of, the balance at the Bank of England; with country bankers the cash reserve is largely kept on balance with their London agents.

The banking reserve held by the Bank of England consists of the bullion and coin in the banking department, which is really the "till-money" of the bank itself, and of the notes in hand in the same office. As these notes can be immediately exchanged at the issue department for gold, the reserve is practically held in gold.

It is not possible to lay down a proportion which the cash reserve should bear to the deposits. The experience of the banker can alone decide what is necessary or desirable, and this experience differs in different localities, and in different classes of business in the same locality. The ratio of the reserve of the Bank of England has been somewhat reduced in recent years. This is much to be regretted in view of increased and increasing demands on our market.

In 1885 it was	Highest	52·51 per cent
	Lowest	32·98 ,,
	Average	44·93 per cent
In 1906 it was	Highest	51·00 per cent
	Lowest	29·87 ,,
	Average	43·55 per cent

In the same years the cash reserve held by the London joint-stock banks having businesses in London only, was, both years, 15·3 per cent of the deposits. Besides the cash in hand there is a second line of cash reserve in money at call (see LIQUID ASSETS). In the national banking system of the United States the proportion of reserve is prescribed by law, and must consist of specie, legal tender notes, or gold and silver certificates; the ratio ranging from 15 per cent to 25 per cent; the former being for banks in the provinces, who may reckon therein their balances with agents in the reserve cities (see BANKS, NATIONAL).

R. W. B.

RESIDUAL AND WASTE PRODUCTS (BY-PRODUCTS) may be defined as those materials which in the cultivation or manufacture of any given commodity remain over, and which possess or can be brought to possess a market value of their own, apart from the value of the article from whose manufacture or in connection with whose cultivation they have resulted. In this way straw is a residual or by-product resulting from the cultivation of grain. J. E. Cairnes, *Some Leading Principles of Political Economy*, 1884, p. 128, refers to them as "accessory products," and defines them as commodities which are produced, not separately, but as parts of a common industry, and of which the most obvious examples are mutton and wool, beef, tallow and hides, gas and coke, and the like.

J. S. Mill, in his chapter on "Some Peculiar Causes of Value," *Principles of Pol. Econ.*, vol. ii. bk. iii. ch. xvi., treats of the joint cost of production of two such articles, and shows how

"the outlay is incurred for the sake of both together, not part for one and part for the other"; that cost of production does not determine their prices, and that to determine their prices we must "revert to a law of value anterior to the cost of production and more fundamental—the law of demand and supply. The gas may find an easy market, but purchasers may not be forthcoming for the coke, and *vice versâ*. In this case, the coke being lowered in price to force a market will lower the whole rates of profit on the joint production; it will cease to be remunerative and less gas will be produced, whereupon gas prices will rise, the stationary condition of the supply of coke will clear the market of it and cause a demand for more; the rise in gas and coke will attract capital, but, as to supply the demand for coke gas must be manufactured, gas prices will fall, and this time it will be the coke which has supplied the lion's share of the profitable return on the manufacture."

"Equilibrium will be maintained when the demand for each article fits so well with the demand for the other that the quantity required of each is exactly as much as is generated in producing the quantity required of the other" (p. 109 *ib.*). Mill then sums up: "When, therefore, two or more commodities have a joint cost of production, their natural values relatively to each other are those which will create a demand for each in the ratio of the quantities in which they are sent forth by the productive process."

Charles Babbage, in his *Economy of Machinery and Manufacture*, London, 4th ed. 1835, refers to waste products, p. 11, par. 9, such as the employment of hoofs of horses and cattle, and other horny refuse, in the production of the prussiate of potash; and also to the re-use of old iron and old tin-ware. On p. 217, par. 270, he writes: "Among the causes which tend to the cheap production of any article, and which are connected with the employment of additional capital, may be mentioned the care which is taken to prevent the absolute waste of any part of the raw material. An attention to this circumstance sometimes causes the union of two trades in one factory. . . . An enumeration of the arts to which the horns of cattle are applicable will furnish a striking example of this kind of economy. The tanner who has purchased the raw hides separates the horns, and sells them to the makers of combs and lanterns. The horn consists of two parts—an outward horny case, and an inward conical substance, somewhat intermediate between hair and bones. The first process consists in separating these two parts. . . . The horny exterior is then cut into three portions. . . . The lowest of these is made into combs; the middle of the horns forms a substitute for glass in lanterns of the commonest kind; the tip of the horn is used by the makers of knife handles, and of the tops of whips. . . . The interior or core of the horn is boiled down in water. A large quantity of fat rises to the surface. This is put aside and sold to the makers of yellow soap. The liquid itself is used as a kind of glue, and is purchased by cloth-dressers for stiffening. The insoluble substance which remains behind is then sent to the mill, and, being ground down, is sold to the farmers for manure, as also are the comb shavings from the horn."

This example will serve as an instance of the economic uses of a "waste product." Chief products and waste products are, however, relative terms. What is a waste product to one man may be a chief product to another. A. L.

[P. L. Simmonds, *Waste Products and Undeveloped Substances*, London, 1873; see also By-Product; By-Products, Theory of Value of; Progress, Influence of, on Value; Shoddy.]

RESIDUAL SHARE (Wages). A well-known American economist, the late F. A. Walker, has advanced the theory that wages equal the product of industry *minus* rent, interest, and profits, or in other words that "the labourer is the residual claimant of the product of industry." Hence he concludes that if the total amount of the production of a community be increased, the increase will go, not to the landlords, nor to the capitalists, nor to the employing class, but to the labouring class in enhanced wages. As a practical illustration he points to the western states in America, where "employers were paying their labourers by the year, giving the full wages only when the crops were harvested or the goods marketed, making meanwhile such advances as their means allowed, or as were required by the varying wants of their workmen." He allows that in England and other settled countries, the practice is wholly different, and that the labourers fail to obtain that share in the product to which, according to his theory, they are entitled. But he attributes this to imperfect competition, and especially to the immobility of labour and its consequent failure to find the best market. Given perfect and enlightened competition, he holds that the labourers and not the employers will receive the residue of the product, and that the other shares, no matter how they are actually paid, may be regarded as preliminary deductions.

This theory of wages has its basis in Mr. Walker's theory of profits. He holds that profits are akin to rent, that they vary with the abilities or other advantages of individual employers, and they do not form part of the price of goods. Just as the normal price of agricultural produce depends on the cost of production on those lands which pay no rent, so the normal price of manufactured goods depends on the cost of production in the hands of those employers who earn no profits. More

skilful and energetic employers make the goods cheaper and sell them at the same price. Hence they earn a reward which is due entirely to their own merits, which cannot be confiscated, and which inflicts no hardship either on the labourers or on the consumers. The only way in which these profits can be reduced is by raising all round the average skill and ability of the employing class generally, so as to diminish the exceptional gains of the great captains of industry.

For this view of profits there is much to be said, and it unquestionably accounts for some prominent characteristics of modern industry.

But Mr. Walker has pressed the analogy between profits and rent too far. Because rent is measured from no-rent land, therefore he holds that profits must be measured from a "no-profits" class of employers. To quote his own words, "no small part of the posts of industry and trade are filled by men inadequately qualified, and who, consequently, have a very checkered career and realise for themselves, taking their whole lives together, a meagre compensation, so meagre that, for purposes of scientific reasoning, we may treat it as constituting no profits at all." But this assumption seems to go too far. It is quite true that employers sometimes conduct an industry at a dead loss, and find their way to the bankruptcy court. But it is equally true that many people make foolish investments and lose both interest and principal. It is equally true that some landowners cultivate their own lands, and lose money every year in the process. But these exceptional circumstances cannot and do not affect any permanent theory of interest or rent. The minimum rate of interest at any time is not *nil*, but the lowest rate at which people can be induced to save. So the basis of the theory of rent is not land which is worked at a loss, but the land which it is just worth while to cultivate. The same considerations must apply to industry and trade. The normal minimum of the reward of the employing class must be that which will just induce men to give their time and labour to the work of supervision and organisation. And this minimum is probably one of the most substantial shares of the product of industry. If a struggling employer has succeeded in carrying on an industry for his lifetime, and during that time has supported himself and probably brought up a family, it is preposterous to consider his earnings as nothing at all. What those earnings are to be called is another matter. Mr. Walker would decline to call them profits, because they are not earned by any exceptional ability. The employer who earns them belongs to the lowest normal class of employers, the people who conduct an industry so as to just pay them and no more. The truth is that the earnings of this class are wages, what J. S. Mill called "the wages of superintendence." The primary difficulty of any theory of wages is the definition of the "labouring class." A man is none the less a labourer because he works with his head instead of with his hands. And a man is none the less a wage-earner because he pays his wages to himself instead of receiving them from another. The labour of supervision may be done by the master himself, or it may be done by a paid manager, who receives a salary, *i.e.* wages. The work is the same in both cases, and the reward is also the same. Thus the true conclusion seems to be that we must eliminate the temporary exceptions of production at a loss under conditions that cannot last. In the normal conduct of industry and trade all employers receive the wages of superintendence, and the more able receive an extra remuneration proportioned to their ability, which may be called profits or exceptional profits. The stage from which these profits must be reckoned, corresponding to the no-rent land, is the stage at which employers earn the bare wages of superintendence and nothing more.

If wages be taken in this extended sense, so as to include among the labouring class those who supervise industry as well as those who work with their hands, then Mr. Walker's theory may in the end be accepted, and it may be held that wages equal the residue of the product of industry, after deducting the rent of land, the interest on capital, and the profits of exceptional ability in direction. But this theory is of little practical use, as it leaves us face to face with the great problem of the present day, that this residue has to be further divided between employers and employed, between the class who pay their own wages and the class who receive their wages from others.

[F. A. Walker, *Pol. Ec.*, pt. iv., chs. iv. v. and vi., and *The Wages Question*, bk. ii.—Taussig, *Wages and Capital* (1896).—Bonar, "Residual Theory of Distribution," *Harvard Quart. Journ. Ec.*, October 1891.] R. L.

RESPONDENTIA BONDS. This form of security, now disused through changed conditions and the immense capital employed, was one under which advances were made to the captain of a ship on the security of her cargo; respondentia bonds differed, therefore, from bottomry bonds, whereby the ship herself is pledged as security. (Bottomry, Loan on.)

The contract of bottomry and respondentia seems to have deduced its origin from the custom of permitting the master of a ship when in a foreign port to hypothecate the ship in order to raise money to refit. Such permission is implied by the act constituting him master, not by common law but by marine law, for if the voyage is likely to be defeated for want of necessaries, it is better that the master should have power to pledge the ship and goods rather than the ship be lost or the voyage defeated.

The period at which respondentia bonds first came into vogue is obscure equally with their distinguishing name, but the traders of the ancient world, to whom the contract of insurance was certainly unknown, were perfectly acquainted with the contract of bottomry and respondentia. There are evident traces of these species of contract in the fragments of the famous sea laws of the Rhodians, who used to borrow and lend on the hazard of the voyage for an increased premium. These laws speak of advances to the masters of ships who were proprietors of one-third of the lading, whether for the outward or for the homeward bound voyage, or both. Again, if the masters or merchants borrowed money for their voyages, the goods, freights, ships, and money being free, they could not make use of suretyship unless there were some apparent danger either of the sea or of pirates; and for the money so lent the borrowers had to pay naval interest. The Romans, who adopted the Rhodian laws, called respondentia *trajectitiæ pecuniæ*, probably because money was exported with the object of bringing back goods. If the ship were lost, the lender lost principal and interest.

In the middle of the 18th century, respondentia bonds appear to have been a form of security commonly taken by bankers and others to cover advances made on ventures to eastern ports beyond the Cape of Good Hope. As in the case of bottomry bonds, and in more remote times in the case of FŒNUS NAUTICUM (*q.v.*), the security of respondentia bonds became the medium of a species of marine insurance, and even degenerated into gambling, money being lent on the mere hazard of the voyage, on the condition that the loan should be repaid with extraordinary interest in case the voyage should be safely performed. To check this tendency it was provided (19 Geo. II. c. 37, § 55) that "all sums of money lent on bottomry or respondentia upon ships belonging to His Majesty's subjects, bound to or from the East Indies, shall be lent only on the ship or on the merchandise or effects on board, or to be taken on board, and shall be so expressed in the condition of the bond."

As the commerce of the country increased and insurance became more prevalent, it was found necessary to insert in the policy that the interest insured was bottomry or respondentia.

Lord Stowell, in the case of the *Gratitudine*, decided that the master of a vessel may in a foreign port hypothecate the cargo for repairing damages absolutely necessary. There is no restriction by the law of England as to the persons to whom money may be lent on bottomry or respondentia, neither is the amount restrained by any regulation whatever, except that on ships and goods going to the East Indies the money lent must not exceed the value of the property on which the loan is made.

Lord Mansfield held that by the custom of merchants, respondentia is insured under a special denomination, but Kent has also suggested that the risk is peculiar, as there is neither average nor salvage, and a capture does not mean a temporary taking only, but one that occasions a total loss. If it can be shown to be the usage in any particular trade to insure these interests under general words, they may be recovered under a policy containing such words only. On the ground of such being the custom in the East India trade, a captain was permitted to recover, at respondentia interest, money he had laid out for the use of the ship under the general words goods, specie, and effects on board.

The security given by the bond was on the goods and effects carried from England on board the ship, and on all other goods and effects acquired during the voyage.

The form of account endorsed on the bond was as follows. The Mr. Ebenezer Blackwell named was a member of the banking firm of Martins and Co.

ENDORSEMENTS.

Respondentia Bond. Jenkins to Blackwell. £3000 out and home at 32 per cent. Dated 30th November 1756. Due 30th July 1758.

1756				
Nov. 30.	To Money lent on Respondentia	£3000	0	0
	To Respondentia on do. from 30th Nov. 1756 to 30th Nov. 1759, 36 months at £48 p. month .	1728	0	0
		4728	0	0
	To Interest on £4728 from 30th Nov. 1759 to ye 22nd May 1760 the day the ship came to its moorings being 5 mo. 22 days at 5 p. cent p. ann. . .	112	14	9
	To Do. on Do. from 21 June 1760 to the 9th July being 18 days at 5 p. c.	11	12	9
		£4852	7	6
1760				
July 9.	Recd. in part of the within Bond	1500	0	0
		3352	7	6
	To Intst. on £3228 from 9th July 1760 to 31 Xber being 5 mo. 22 days at 5 p. c. p. ann. .	76	19	4
		£3429	6	10
Dec. 31.	Recd. in further part of the within Bond	1500	0	0
		£1929	6	10
	To Intst. on £1728 from 31 Xber 1760 to 1 Jan. 1762 being 12 months at 5 p. c. . . .	86	8	0
		£2015	14	10

Recd. 5 April 1762 the sum of One thousand and fifty eight pounds five shillings and five pence our several proportions as under being 10/6 in the £ on the sum of £2015:14:10 the Ballance due on this bond the 1st Jany. last and for which we have given Receipts to Mr. Blackwell.

Martins Stones & Blackwell	1/3 . .	£352	15	1
Jos. Freame & Co.	1/6 . .	176	7	7
Jos. Salomons	1/6 . .	176	7	7
	1/6 . .	176	7	7
	1/6 . .	176	7	7
		£1058	5	5

[Park, *A System of the Law of Marine Insurance*, 1842.

—John William Smith, *Compendium of Mercantile Law*, 6th edition by G. M. Dowdeswell, 1859.—Marshall, *On Marine Insurance and Bottomry*, 4th edition by William Shee, 1861.—Lowndes, *The Law of General Average*, 1873.—Boyd, *The Merchant Shipping Law*, 1876.—Arnould, *The Law of Marine Insurance*, 6th edition, 1887.—W. Gow, *Marine Insurance*, 1895.] J. B. M.

RESSI, ADEODATO. A professor at the university of Pavia at the beginning of the 19th century.

He wrote a treatise on economics in four volumes, entitled *Della economia della specie umana;* this treatise contains many vague and confused ideas, especially in the general principles on which the work is founded. While it is neither remarkable for the order of the matter — being full of frequent digressions — nor for sound logical argument, yet it deserves praise for the extent of learning shown, particularly in the part which deals with theory.

Ressi makes acute observations on the population question in reference to the theory of progression maintained by Malthus. He applies the doctrine concerning population to the problem of charity, maintaining that the growth of population must be checked by severe laws on charity; he would also limit the rate of marriage among the poor.

Examining the phenomena of value in a somewhat confused and indefinite manner, Ressi follows the ideas of Molinari Valeriani, basing value on the relation between demand and supply, but he does not thoroughly understand Valeriani's mathematical formula.

He puts forward sound ideas on international trade, limiting its importance to the general interests of the country, and advocating the widest possible freedom for trade.

Ressi makes correct reflections on small and large cultivation, recognising the application of the one and the other system to be dependent on the conditions of place and the nature of the products. He desires that the state should create industries to employ workmen thrown out of work through the use of machinery.

He has strong views on finance and the organisation of the taxes. He opposes the single tax, and in the taxation of land and manufactories he would exempt that quota which supplies the physical minimum necessary for life.

Dell' economia della specie umana, four volumes, Pavia, 1817-1820. (See Graziani, *Le idee economiche degli scrittori emiliani e romagnoli sino al 1848*, Modena, 1893; Idem, *Storia critica della teoria del valore in Italia*, Milan, 1889.) U. R.

REST, THE (BANK OF ENGLAND). The "rest" of the Bank of England is the name given for the difference between the assets and the liabilities—in other words, for the amount of the undivided profits held by the bank. It never, of recent years, is allowed to drop below £3,000,000, but immediately before the distribution of the dividends on bank-stock, in April and October, it sometimes mounts up to about £3,800,000.

The rest was first instituted in 1722, the year in which the Bank of England bought £200,000 South Sea annuities, two years after the bursting of the South Sea Bubble (see BUBBLES; SOUTH SEA COMPANY). The rest has gone through various great fluctuations, the largest amount recorded being £8,639,680 (29th February 1816). Out of this surplus profit "an addition of 25 per cent was made to the capital stock of the proprietors" in the spring of 1816 (Tooke's *History of Prices*, vol. ii. p. 43). The rest did not long remain at this very high figure, which it attained during the suspension of specie payments, and it soon assumed proportions closely corresponding to those existing at the present time.

[Tooke and Newmarch, *History of Prices*, 6 vols. London, 1838-1857.—Francis, *History of the Bank of England*, 2 vols. London, 1847.—Marshall's *Digest*, London, 1833.—Turner, *Chronicles of the Bank of England*, 1897.]

RESTITUTIO IN INTEGRUM. Rescission of a legal act by the supreme authority of the prætor, where it has caused injury to the complainant, and there is valid ground, such as minority, fraud, or mistake, for reinstating a person in his original position. E. A. W.

RESTRAINT OF TRADE (LAW OF). In early days English law regarded all contracts in restraint of trade, that is to say, contracts by which a man bound himself not to carry on his trade or calling, as contrary to public policy, and therefore void. But about three centuries ago the rule became established that though a contract in general restraint of trade was bad, a contract in partial restraint might be valid. A man, for good consideration, might bind himself not to exercise his trade or calling to the prejudice of another within certain limits as to time and place. Of recent years the courts of equity have regarded the common law rule as a mere application of a more general principle, namely, that the restraint must be reasonable, having regard to the circumstances of the particular case, and not opposed to any obvious public interest. This principle has now received the sanction of the House of Lords, and will govern for the future. It was established in the case of *Maxim* v. *Nordenfelt*, A.C. (1894), 535, where a patentee and manufacturer of guns and ammunition for war purposes covenanted with a company to which his patents and business had been transferred, that he would not for twenty-five years engage in any similar business except on behalf of the company. This covenant was upheld as reasonable for the protection of the company. The history of covenants in restraint of trade is elaborately traced by Lord Bowen in the court below, L.R. 1 Ch. (1893), 651.

M. D. C.

RESTRAINT ON ANTICIPATION. It is a general principle of the law that a man cannot be deprived of the *ius disponendi* by a prohibition against alienation contained in the instrument under which he takes property. But in the case of married women such a

restraint can be imposed. After courts of equity had established the right of a married woman to hold separate estate, it was found that she might under the influence of her husband alienate the separate estate, and thereby defeat the object for which the estate was given. In order to prevent this, the courts of equity laid down the rule that a married woman might be prohibited from anticipation the income of her property, *e.g.* by sale or mortgage, so that she had power to deal with payments only as they actually became due. The restraint only attaches whilst marriage lasts, and therefore does not apply to a widow during her widowhood, but it will reattach on remarriage. By the Conveyancing Act 1881, a court may if it thinks fit, and if it appears to the court to be for the benefit of a married woman, make an order binding the separate estate notwithstanding that she is restrained from anticipating. J. E. C. M.

RESTRICTIONS ON LABOUR. What W. S. JEVONS calls "the evolutionist doctrine of freedom" has hardly a simpler or more effective illustration than the history of restrictions on labour. They were implied in the mediæval conception of unquestioned state control, and in the despotic theories of the new monarchy, and were discouraged simultaneously with the growth of philosophical ideas of liberty before and after the French revolution; while the movement for the abolition of political and religious disabilities in the early part of this century found its economic counterpart in the views of the MANCHESTER SCHOOL, whose advocacy of unrestricted *laissez faire* in the domain of industry was apparently strengthened by the proved advantages of *laissez passer* in the domain of commerce. In the struggle between state and society, as Von Plener says, the modern industrial society won a rapid victory; but the abuses of the new order caused a reaction, in origin not economic but moral, which led to a reassertion by economists of the necessity of state control, based not on the old authority principle, but on considerations of general utility (see ADMINISTRATION). During the present century "two great discoveries have been made in the science of government: the one is the immense advantage of abolishing restrictions upon trade; the other is the absolute necessity of imposing restrictions upon labour" (Duke of Argyll, *Reign of Law*, London, 1867, 2nd ed. 1884, ch. vii.). The LAISSEZ FAIRE school (*q.v.*) followed BASTIAT in confusing the art of legislation with the science of economics, and consequently misunderstanding both. The aim of legislation is not to secure the operation of scientific forces—which secures itself—but to provide the conditions under which those forces work for human good (Marshall, *Economics of Industry*, London, 1879, p. 3). On the one hand, the aspect of a situation is seldom purely economic; on the other, the peculiar nature of economic science makes it impossible for economic interests to conflict with any other human interests (CAIRNES, *Essays in Political Economy*, London, 1873, essay vii.). The *laissez faire* view of restrictions on labour arose from a misconception of one element of economic existence—the human factor—in the very region where misconception was most fatal, since a man who sells his LABOUR (*q.v.*) sells his personality for the time being. The supporters of the first Factory Act urged philanthropic as against economic considerations, but in reality they were better economists than their opponents. Liberty in the *laissez faire* sense was not liberty at all. Economic liberty, as Levasseur remarks (*Les Corporations et la Liberté du Travail*, Paris, 1866), demands security, individual responsibility, the protection of those citizens who from the nature of the case are not free, and the sufficient education of all; and experience showed that all these conditions were violated when industrial competition was unrestrained by the state.

To repudiate the principle of unrestricted liberty is not to invoke that of paternal government. Since the individual may be trusted to follow his own interest, *laissez faire* is the legislator's best general rule; since all persons are not equally capable of doing so, restrictions become necessary in special cases for the protection of the weak. It is not always possible to wait for the operation of natural laws to relieve an evil, since economic forces once started on a wrong course work with merciless rapidity; but state intervention is not always advisable even where individual and public interests are undoubtedly opposed. The degradation of labour is hastened by mistaken or excessive as much as by defective legislation. Every restriction destroys some good while removing evil; and its full effects are not at once perceptible. Jevons, therefore, advocates experimental legislation in limited areas. Experience is the legislator's sole guide, and in estimating the value of a restriction, time, place, history, and natural characteristics must be considered. A regulation destructive of freedom in an advanced civilisation may be its safeguard in a ruder state of society: for instance, the advantages of free contract in England are no argument against forced apprenticeship in South Africa. Definite conclusions as to restrictions on labour are forbidden alike by the empirical character of the legislative art, and by the elastic and progressive nature of the economic science. Restraint must stop short of the point where it produces instead of protecting weakness. It must not handicap the weaker against the stronger, nor diminish that responsibility for the conduct of life which forms an important part of national education, nor interfere with the certain good of freedom in order to

prevent evils merely hypothetical. Class legislations, like the Statutes of Labourers of Edward III. and the Parish Settlements Act of Charles II., are false in principle, and disastrous if put into practice.

Restrictions may be imposed by the state, or voluntarily adopted. Direct restrictions were made necessary in the interest of the labouring class by the abuses of the large industrial establishments which arose on the introduction of machinery. FACTORY ACTS (*q.v.*) were, however, in no sense class legislation; and, in fact, protect the better sort of employer against the competition of more unscrupulous rivals. Interference with individual liberty, or, as regards children, with the *patria potestas*, was in this case justified on both scientific and practical grounds. Danger from the competition of unrestricted foreign industries was urged against the acts; but, apart from the fact that factory legislation in England was gradually followed by similar, and, in some cases, more complete legislation abroad, the ultimate results of reform were not disadvantageous to the employers (see Von Plener, *English Factory Legislation*, English translation, London, 1873, p. 92; Tooke, *History of Prices*, London, 1857, vol. vi., appendix viii. p. 519). Of the various kinds of restrictions, (1) limitations on the labour hours of children and young persons, for reasons of health, and, in the former case, of education, are now recognised as necessary both by economists and legislators (see CHILDREN'S LABOUR). (2) Similar restrictions in the case of men cannot be discouraged on the principle of liberty, since an individual workman in a large industrial establishment is often not entirely a free agent; and the state has already conceded the principle of protective legislation for men, in the laws forbidding TRUCK payments and enforcing the fencing of machinery. FAWCETT opposed the nine hours bill as encouraging the growing tendency of workmen to rely on state intervention (*Speeches on some Current Political Questions*, London, 1873). ROSCHER thinks limitation of hours advisable only where the labouring class is not in a condition to defend itself by combination; he points out that, in any case, the "normal day" would require to be of different length in different trades. (3) As to the labour of women, opinions differ. The legislature recognises a distinction in restricting their labour hours and in forbidding their work in mines and collieries. Some economists, like J. S. MILL (*Principles of Political Economy*, popular edition, London, 1880, p. 579) and Fawcett (*loc. cit.*), protest against restrictions based on sex; others, not contradicting them in principle, advise restrictions on the ground of expediency. Roscher remarks that the question must be decided according to each case: it would be unfair if regulations, due possibly to jealousy, should deprive a widow, for instance, of the means of bringing up her children. Jevons advocates further restrictions in the case of married women, but admits the difficulty of legislative interference at present (see FEMALE LABOUR). Two species of industry demand particular notice. (4) The labour of shop assistants was until lately left free from restriction, as belonging to the sphere of trade; but the distinction is often purely artificial. Jevons, writing before the Shop Hours Acts, showed that for effective reform in this respect state intervention was necessary, and practicable. In view of possible disadvantage to the public, especially the working-class public, he suggested experimental legislation. (5) In agricultural labour legislation has been found necessary to break up the system of public gangs, and to secure the education of children. (see GANGS, AGRICULTURAL; GOVERNMENT REGULATION OF INDUSTRY).

Restrictions which begin with being voluntary become occasionally in course of time sanctioned, enforced, or prohibited by the state. Their character is necessarily greatly modified under these circumstances. The influence of the state is traceable in all three directions with regard to the most ancient and important of them, the GILD or TRADE UNION. So long as the state refrains from protective restrictions on the ground that men can make their own terms, it cannot justly refuse to labourers the right of combination which is often their only means of doing so (M'Culloch, *Treatise on the Rate of Wages*, London, 1868, ch. vii.); further, since common trade interest is one of the strongest of social bonds, prohibition usually results in the transformation of a trade union into an industrial conspiracy. On the other hand, to enforce the trade union on the public, as was the object of the English Statute of Apprentices in 1562, is to establish a monopoly with its attendant evils. The remarks of SAY (*Cours Complet d'Écon. Pol.*, Paris, 1852, pt. iv. ch. viii. ix. x.) and of SMITH (*Wealth of Nations*, bk. i. ch. x. pt. ii.) apply to the gild in its later, not in its earlier or free form. The objects of trade union restrictions are various. Attempts to limit the number of workmen in a trade, as checking the mobility of labour, are condemned by Howell (*Conflicts of Capital and Labour*, London, 1890, ch. v.), who, however, shows that in general there is little practical difficulty in entering a trade union. Regulations with a view to securing efficient workmanship existed in the gilds, as in the modern incorporated professions; here the trade unions have as yet shown little activity. In legislation on the methods of industry the efforts of trade unions, like those of governments, have usually been misdirected (Walker, *Wages Question*, p. 406); Howell thinks they have been slandered in this respect. The objections formerly urged against STRIKES

were based on the exploded doctrine of the WAGES FUND (*q.v.*). Economists now regard them as inevitable in the present position of employer and labourer; the state neither forbids nor protects this species of contract. The survival of APPRENTICESHIP (*q.v.*) in England is due chiefly to the trade union; the state no longer imposes any restrictions as to number, nor, except in the case of the medical and legal professions, as to time. SMITH (*loc. cit.*) advised the abolition of apprenticeship as producing neither industry nor efficiency. Jevons follows him, and would have restrictions placed on the power which, under the common law, parents still possess of binding their children as apprentices. Roscher, after describing the evils of the German system, suggests as remedies written contracts, trial periods, and the extension of the examination system. Like CARLYLE (*Past and Present*, London, 1872, bk. iv. ch. v.), he maintains the moral and economic necessity of permanent contracts between workman and employer, but doubts whether anything is to be gained by state regulation. He advises a system of *Arbeitsbücher* as likely to promote the desired condition of mutual appreciation and comprehension.

[See Roscher, *System der Volkswirthschaft*, Stuttgart, 1880-81, vol. iii. §§ 147-154.—Jevons, *The State in Relation to Labour*, London, 1882; and Walker, *The Wages Question*, London, 1891, *passim*. Levasseur's essay, quoted above, is part of Thévenin's *Cours d'Écon. Industrielle*. The historical aspect of restrictions is well given by Brentano, *The Relation of Labour to the Law of To-Day*, English translation, London and New York, 1891. On labour legislation see Howell, *Handy Book of the Labour Laws*, London, 1895.—Horner, *On the Employment of Children in Factories*, London, 1840.—Senior, *Letters on the Factory Act*, London, 1837.—Marx, *Capital*, English translation, London, 1887, ch. xv.-xvii. On gilds and trade unions see Brentano, preliminary essay in Toulmin, *English Gilds*, London, 1870.—Fawcett, *The Economic Position of the British Labourer*, Cambridge and London, 1865; and *Manual of Political Economy*, Cambridge and London, 1865, bk. ii. ch. ix., illustrates the wages fund theory. See also Thornton, *On Labour*, London, 1869, bk. iii. ch. iii., iv.]

E. R. F.

RESTRICTIONS ON TRADE. See TRADE.

RESUMPTION (IN U.S.A.) (the $ in this paper converted as 5 = £1) refers to the resumption of specie payments or redeemability of the legal tender notes, commonly known as greenbacks, by the United States government on 1st January 1879. These notes were issued by act of congress, dated 25th February 1862, to the amount of $150,000,000, (£30,000,000). On 11th July 1862 a second issue was authorised to the same amount, and on 3rd March 1863 a third issue, making $450,000,000 in all (£90,000,000). These notes were at first fundable into government bonds, but in July 1863 that privilege was withdrawn. The notes depreciated; in 1862 they were worth only 86 cents, in 1863 only 76 cents, and at one time in 1864 they sank as low as 38 cents. Before the end of the war, congress became alarmed at the depreciation, and on 30th June 1864 passed a resolution that "the total amount of United States notes issued or to be issued should not exceed $400,000,000 (£80,000,000), and such sum not exceeding $50,000,000 (£10,000,000), as may be temporarily required for redemption of temporary loans." On the conclusion of the war, Secretary of the Treasury M'Culloch, in his report (4th December 1865), recommended "the steady and persistent retirement of the legal-tender notes until we should get back to specie basis," and in his report for 1866 the secretary expressed the opinion "that specie payments may be resumed and ought to be resumed as early as the first day of July 1868." Congress did indeed authorise the secretary (12th March 1866) to exchange notes for bonds, but not more than $10,000,000 (£2,000,000) a month for the first six months and thereafter not more than $4,000,000 (£800,000) in any one month. But the retirement of these notes was counterbalanced by the issue of national bank notes, and the premium on specie remained about the same. Owing to the outcry about "contraction" of the currency, congress in January 1868 stopped further redemption. At that time there were about $356,000,000 (£71,200,000) of the notes outstanding. The next secretary (Boutwell) agreed with congress that the true policy was to wait for the country to "grow up" to the present volume of currency, believing that then the premium on gold would disappear, and specie payments might be resumed (Report, 1872, p. xxii.). The maximum fixed by law remained at $400,000,000 (£80,000,000), although the amount actually outstanding was only $356,000,000 (£71,200,000) or less. During the panic of 1873 the amount was increased to $382,979,815 (£76,595,963) by Secretary Richardson, who bought bonds in order to relieve the money market. An act of 20th June 1874 provided that "the amount of United States notes outstanding and to be used as part of the circulating medium shall not exceed the sum of $382,000,000 (£76,400,000), which said sum shall appear in each monthly statement of the public debt, and no part thereof shall be held or used as a reserve."

Finally an act of 14th January 1875, known as the Resumption Act, required the secretary of the treasury, on and after 1st January 1879, to redeem in coin the legal-tender notes on their presentation at the office of the assistant treasurer in the city of New York, in sums of not less than $50 (£10). To accomplish

this, the same act authorised an increase of the circulation of national banks, but required the secretary of the treasury to retire legal-tender notes, to an amount equal to 80 per cent of the national bank notes thereafter issued, until the amount of such legal-tender notes outstanding should be $300,000,000 (£60,000,000) and no more. This portion of the act was repealed in 1878, but the amount of notes outstanding had been reduced to $346,681,016 (£69,336,203) at which sum it has since remained. Still further, the secretary was authorised "to use any surplus revenue from time to time in the treasury not otherwise appropriated, and to issue, sell, and dispose of, at not less than par in coin, any of the 5, 4½, and 4 per cent bonds authorised by the act of 1870." The secretary sold bonds and accumulated a reserve of $135,000,000 (£27,000,000) of gold coin and bullion, or about 40 per cent of the outstanding notes. The banks of the country aided the government, holding at the date of resumption more than one-third of the outstanding notes, but none were presented by them for redemption. The people had confidence in the government and preferred the paper money. There was, therefore, no demand for payment of the notes, and the gold reserve increased more than $36,000,000 (£7,200,000) in the ten months succeeding resumption. The act of 1875 is continuous in its operation, and has since been made use of to replenish the gold reserve depleted by the panic of 1893 and the fear of free coinage of silver.

[Reports of Sec. of Treasury. John Jay Knox, United States Notes, N.Y., 1884.] R. M.-S.

RESUMPTION OF SPECIE PAYMENTS IN THE UNITED KINGDOM. See SUSPENSION OF SPECIE PAYMENTS.

RETAIL AND WHOLESALE. *Retail* derivatively means to cut up again (Fr. *retailler*, comp. *et gros et en détail*). It is generally used now in opposition to *wholesale* to express the act of selling commodities in small quantity, especially at shops or stalls. Originally the term meant something more than this, it conveyed the meaning that the phrase "retailing a story" does still; namely providing it at *second-hand;* but this implication seems practically obsolete at present, except in the above connection. A retail trader is consequently a purveyor of goods on a small scale, nothing more. The signification of *wholesale* is wider. It means dealing in the gross, or on a large scale, both as to buying and selling; in which former respect therefore it differs from the complementary term.

The Factory Act of 1883 (46 & 47 Vict. c. 53) contains a legal definition of retail in connection with the special occupation of *baking*. Section 18 enacts—"The expression 'retail bakehouse' means any bakehouse or place, the bread, biscuits, or confectionery baked in which are not sold wholesale, but by retail in some shop or place occupied together with such bakehouse, which is not a factory within the meaning of the act of 1878." This appears to be the only statutory definition of either term.

R. W. C. T.

RETALIATION. The idea of retaliation assumes that, in Bismarck's words, "Trade between nations is to the advantage of one party over another" (*Speech*, 2nd May 1879), and therefore one nation benefits its own by hurting another nation's trade. When Europe formed itself into nations this idea was almost universal. Bacon's "Quidquid alicubi adjicitur alibi detrahitur," Montaigne's "Le proufict de l'un est le dommage de l'autre," De Launay's "Quand on agit contre l'étranger on agit pour la nation," were maxims to which the most enlightened writers (like GROTIUS) only discovered exceptions; until TUCKER (1747), HUME (1752), QUESNAY (1756), and JUSTI (1759), and finally A. SMITH (1776), reversed their maxims, so that the only question which modern economists ask is: are retaliatory tariffs compatible with the undoubted truth that trade is mutual gain? Most nations answer this question in the affirmative, and the Swiss referendum (18th Oct. 1891) sanctioned the worst retaliatory tariff. Since 1860 France has had a double tariff on imports, and the maximum, which, since 1892, has been used for no other purpose than as a threat to extort concessions for French exports, is usually 41 per cent higher than the minimum; nor will she, since 1892, bind herself to the minimum tariff for more than a year. Germany in 1879 conferred on the executive, subject to confirmation by the legislative, power to add 50 per cent to tariffs on imports, and this was increased to 100 per cent in 1895. An act of 1828 authorised the U.S. executive to remit discriminating duties on proof of "reciprocal exemptions"; and the McKinley tariff (U.S.A., 1890) enabled the executive to impose duties on the then free breakfast-table, a provision borrowed by the Dingley tariff (1897), and copied by Germany in 1895. Every nation — except England — arms itself in one or all of these ways, and uses its arms if its exports are subjected to disadvantages. Lord Salisbury has often (*Times*, 12th Oct. 1881; 11th March 1897) expressed a wish that he might wield these weapons with regard to luxuries, even although their use would prove protective. Colonel TORRENS held similar views some sixty years ago. No one will deny nowadays that in sur-taxing imports we dwarf or destroy not only that trade, but also the export trade which buys the imports, unless the consumer or producer submit to be sur-taxed; that is to say, in any case retaliation must be double-edged. The only questions are: (1) Which edge is sharpest? Can we injure others

more than ourselves? (2) Is it worth while to maim ourselves temporarily in order to secure lasting health?

(1) RICARDO said, "every restriction which we put upon the production of our neighbours reacts with a *double* force upon our own" (Hansard, vol. lxviii. p. 902); and Fawcett wrote as though a tax on the consumer were the "inevitable" effect of an import duty (p. 57); but as Sidgwick and Nicholson point out, there may be cases where the producer reaps economic "rent," and cannot do better than sacrifice his "rent" in order to keep the old customer. But in the absence of concrete instances it would be folly to act on the supposition that these cases exist. Again, as £100 means more to the poor than £200 to the rich, so doubtless the old policy of England towards Ireland hurt the latter most. But it is not against poor countries that this weapon is asked for. As for rich countries, Fawcett and Farrer have proved that we are net exporters of manufactures to the United States and Germany, so that in case we might be tempted to retaliate by sur-taxing their manufactures, our exports would be likely to suffer most; and in any case our customs' arrangements would have to be more complicated and expensive if we treated each country differentially; and retaliation would generally involve protection unless supplemented by an excise-tax, for which we have not got the machinery. Finally, when the state deprives a trader of his customers, that is the same thing as confiscating his good-will; and trade cannot thrive where confiscations often occur.

(2) Retaliation is by no means an invariable prelude to peace. The commercial treaties which make for free-trade, namely the Anglo-French of 1860, and Caprivi's treaties with Austria-Hungary, Italy, Switzerland, and Belgium (1891-1903), were concluded without retaliatory threats or acts. It is true that the Russo-German, Franco-Swiss, Spanish-German commercial wars of 1893 *et seq.* led to treaties in 1894, 1895, and 1896 respectively, but at what a cost: Germany, France, and Spain hit as hard as their laws allowed them; and Switzerland laid 190 per cent duties on to imports from France, thereby creating temporarily protected industries which it does not like to destroy; indeed, it would seem that a strong reaction towards protection is the necessary result of a war of tariffs carried on on this scale. Further, the United States and Canada have fought since 1865 without being nearer peace. Retaliation is clearly a curse which comes home to roost; the indirect blessings it proposes are sometimes never secured at all, or if secured entail too great sacrifices. The diplomatic argument in its favour belongs, as A. Smith wrote, "not to the science of a legislator," but "to the skill of that insidious and crafty animal *vulgarly* called a statesman or politician." It is as dust when weighed in the balance against, for instance, the argument against protection.

[Lord Farrer, *Free Trade versus Fair Trade* (1882) pt. ii. — *Retaliation and Commercial Federation* (1892).—H. Fawcett, *Free Trade and Protection* (4th ed. 1881). — Prof. Lexis in *Handwörterbuch der Staats-wissenschaften* (1892), Supplement (1895), *s.v.* "Handels-Politik." — J. S. Nicholson in *Britannic Confederation*, ed. A. S. White (1892), ch. iv.—H. Sidgwick, *Principles of Political Economy*, 2nd ed. (1887), iii. 5.—A. Smith, *Wealth of Nations*, iv. 2.—*Statutes of the Realm* (fol. ed.) 7 Henry VII. c. 7 (earliest English retaliatory duty).—F. W. Taussig, "The McKinley Tariff Act," in *Economic Journal* (1891), p. 326.—"The U.S. Tariff Act of 1897." in *Econ. Jour.* (1897), p. 592.—M. Zablet, "La Question Franco-Suisse," in *Journal des Économistes* (1895), p. 232 (see RECIPROCITY.]

J. D. R.

RETENUE. In old French financial language, the stoppage of the payment of a part of a salary, pension, or annuity, due by the state. In times of distress, such *retenues* were a favourite expedient of the French governments before the revolution of 1789. In modern times, it is also applied to the legal percentage kept back on the salary of officials towards a pension, when they leave the public service, either by superannuation or any other lawful cause. E. Ca.

RETIRE A BILL. To withdraw from circulation before maturity. R. W. B.

REVENUE, PUBLIC. See FINANCES, PUBLIC.

REVIVAL, TRADE. "Revival of trade" is a phrase much employed colloquially in market reports and newspaper comments on the condition of industry and commerce. It has a correlative term, namely, depression of trade, and both expressions are frequently employed without much thought as to their meaning. In any case both phrases require explanation when used, for though it is quite true that, as a general rule, the majority of trades "revive" or become "depressed" together, it often happens that some one more of less important trade is an exception owing to a special cause. The term hardly admits of accurate and scientific definition, but certain signs which accompany revival of trade may be mentioned. Among these are increasing clearing-house returns, increasing railway and telegraph receipts, more activity in the markets for wholesale commodities, expansion of the leading branches of the imperial revenue, especially customs, excise, and stamps. Income tax is not so good a measure of trade revival as might be supposed, for it does not respond promptly to the movement, because increased revenues do not as a rule accrue to those engaged in industry until the trade expansion has been going on for some little time, a fact which was recognised

by the provision of the law allowing business men to take the average of the preceding three years as the basis for their assessment to income tax — rescinded by Mr. Asquith when Chancellor of the Exchequer in his budget arrangements, 1907. In like manner the income tax receipts often continue to come in well some time after trade has begun to grow slack, that is, when the volume of commercial transactions has begun to decrease. No one of these statistical statements alone can be regarded as affording a sign of expansion or contraction in trade, but when several of them are present at once they supply a strong presumption that a movement is taking place.

Very often when a "revival" or "depression" of trade is discussed in the newspapers the writer is thinking too much of some specific trade whose condition at that time has been thrust on his attention, sometimes by accident, sometimes by persons who are interested for the moment in creating an impression that the situation is hopeful or unpromising in their department. Most business men, when they talk of trade being "bad," mean their own trade.

[See J. S. Mill, *Pol. Econ.*, bk. iii. chs. xii., xiv. —Arthur Ellis, *Market Fluctuations.*] W. H.

REVOLUTION, FRENCH (ECONOMIC ASPECTS OF). The French revolution—the most typical revolution of modern Europe — involved a number of economic experiments, which we may conveniently classify into (1) destructive; (2) confiscatory; (3) reconstructive; (4) monetary. Under the head of (1) it is necessary to indicate some of the social conditions of France before the August of 1789. We shall then realise how completely the work of the following months transformed a mediæval into a modern industrial system.

1. Among the economic aspects of 18th-century France we may notice (*a*) a half-decayed feudal system; (*b*) a newly-established centralised autocracy, with a somewhat elaborate organisation of industry, built up chiefly by Colbert within a century, but already falling to pieces.

(*a*) In theory feudalism was based on reciprocal services. Privileges were granted to nobles and clergy in return for services rendered. But by the 18th century the privileges alone remained, whilst the services had ceased to be rendered. The nobles were no longer the administrators of districts. They were, for the most part, courtiers living on their privileges, and rendering no services to the community. Clerical privileges had similarly become mere abuses. Immense endowments were enjoyed by dignitaries who practically discharged no useful functions.

(*b*) The centralised organisation of industry had been partly the result of political circumstances, of the wars with England, and the need of national unity. But the royal power, thus built up, had tried to direct industry into channels that should be advantageous to the king, and to the classes that possessed political influence. The economic results were (*α*) an exceptionally unequal distribution of wealth, partly due to the exemptions from taxation enjoyed by the privileged classes, partly to the opportunities enjoyed by the latter for extorting wealth and unpaid labour from the poor; (*β*) a general depression of trade and manufactures, due partly to barriers that hindered the free passage of goods and labour from one district to another, partly to monopolies enjoyed by corporations, partly to, often well-meant, regulations as to how various industries were to be conducted, and even as to the prices at which certain commodities, especially bread, were to be sold. The burden of a heavy taxation to defray the expenses of long wars, and support the extravagance of the government, was aggravated by the absurd and unequal ways in which it was levied. The economic movement, which we associate with Adam SMITH, involved an indictment of the whole industrial system in France, and more especially of the restraints on trade. The famous phrase, *laissez-faire*, meant originally, "Let men make what they please, how they please"; and *laissez-aller* meant, "Let them move from place to place according to the demand for their labour or their commodities, without the hindrances of barriers and internal customs, of the restrictions of the feudal system, and rules laid down by a paternal government."

The economists practically triumphed on 4th August 1789, the St. Bartholomew of abuses. For among the abuses swept away by the national assembly, restrictions on trade and feudal obligations were prominent. That these restrictions and privileges were injurious is pretty generally admitted. It may be questioned, however, whether their gradual removal would not have been more expedient. So sudden a change was the cause of a vast dislocation of industry, and the industrial condition of France, though rendered less irrational, was little, if at all, improved. Moreover, with the abuses, many institutions were swept away which contained potentialities of useful development. Thus the schools were broken up, and 200,000 children dispersed. Many corporations, such as almshouses and hospitals, were demolished, because the revolutionists were too impatient to attempt their reformation. With the destruction of the old provinces, local patriotism was also to some extent destroyed.

2. This brings us to the *confiscatory* measures of the revolution, of which we may say, generally speaking, that, however necessary or justifiable some of them may have been, they tended to aggravate disorder, to drive capital abroad, and to discourage industrial enterprise.

These confiscatory measures may be divided into (*a*) those dealing with the church; (*b*) those directed against emigrants and other enemies of the revolution; (*c*) those directed against the rich, simply because they were rich; and (*d*) those prompted by the necessities of the government, or the need of pacifying hungry mobs.

Many of the confiscatory measures fall, however, under several of these heads. Thus the partial disendowment of the church (1789-1790) was due partly to hostility towards the clergy, partly to a desire to diminish the inequalities in clerical incomes, partly to the urgent need of money to choke the deficit.

The issues of inconvertible paper were mainly prompted by financial needs, but the special form of the issues (the ASSIGNAT) must be connected with the desire to increase the number of small proprietors, and this again grew partly out of the passion for equality, and partly from the desire to build up a strong class directly interested in the maintenance of the revolutionary settlement.

The heavy taxation of the rich must similarly be connected partly with the passion for equality, partly with the attitude of the propertied classes to the revolution, and partly with financial exigencies. The question how far such special taxation may justifiably be carried is one of the most difficult in economics, but it is certain that the National Convention carried the principle far beyond the bounds of expediency or justice. In so doing much injury was inflicted, even on the poor. The demand for the skill of those whose occupation had been to minister to the comforts and luxuries of the rich was almost annihilated. Many skilled labourers sank to the ranks of the unskilled; others became beggars and thieves.

3. The attempts of the dominant revolutionists to reconstruct the social system were very varied and complicated. Originally the revolutionary party included individualists like Count MIRABEAU, and socialists like Robespierre; and though the former were soon swept aside, the policy of the government varied continually according to the degree of socialism professed by its members.

(*a*) One of the most important and disastrous of the economic experiments of the convention was the attempt to fix a *maximum* beyond which the prices of the necessaries of life might not go. Irregular and partial efforts in this direction had been made even before the revolutionary days, as when the government subsidised the Paris bakers in times of dearth. In 1790 we find local authorities, and sometimes mere mobs of rioters, insisting on a maximum for bread, and sometimes also for meat and other commodities. In 1793, owing to the extensive issues of *assignats*, and to the diminished production consequent upon the interruptions of industry and the general disorder, prices rose with alarming rapidity. In April and May the convention passed decrees establishing a maximum for grain. At a later time the principle was extended to meat, fuel, clothing, vegetables, tobacco, beer, and other articles, including even many kinds of raw materials. Stringent measures were adopted in order to enforce the law, and to prevent evasions by private sales, or by accumulating supplies. But these attempts had only a partial success, though a law was actually passed to punish with death all who possessed supplies of these commodities, and would not offer them for public sale at the legal price. In spite, however, of all evasions, the law brought agriculture, manufactures, and commerce almost to a standstill. Farmers and peasants soon produced little more than sufficed for their own private consumption. Hardly anything was produced for purposes of sale. Many crops remained unharvested; factories were closed; fishermen refused to go to sea. People would not work if they saw no chance of getting remunerative prices for their produce. Many people were imprisoned for the crime of refusing to pursue trades in which they were not allowed to make profits, or of selling at prices which purchasers were glad to pay, but which were often 200 per cent above the legal maximum. Frightful distress followed, especially in cities and unfruitful regions, where people could not produce sufficient food supplies for their own support. Many were crushed to death in the scramble at the bakers' shops; many, especially of the children, were literally starved. After the fall of Robespierre (July 1794) the law was openly broken. Fortunately it had neglected to take cognisance of *live* cattle and sheep, and consequently, though there was a dearth of bread, meat became tolerably plentiful, when it could be sold at a fair price. Agriculture and manufactures began to revive, especially after the maximum law had been formally repealed (December 1794).

(*b*) Another attempt of the socialistic revolutionists was to secure employment for all who wished to work. Here again the revolution was in some respects only following the example of the *ancien régime*, under which unremunerative work had often been started for the benefit of the indigent of Paris. The revolution, however, carried this principle much farther. As early as 1789 there were 12,000 men in Paris employed on useless levelling, at a payment of 9d. a day. In 1793 the "right to labour" was formally affirmed by the convention, but no general attempt was made to secure it; though in Paris, and some other places, employment was artificially created. Some temporary relief was thus given, but the ultimate effect was to aggravate the general misery.

(*c*) Of the effects of the revolution on the distribution of land, we may speak very briefly. It is a complete delusion to suppose that the revolution either created or even extended the system of PEASANT PROPRIETORS in France. In 1815, as in 1788, about 14,000,000 hectares, or somewhat less than one-third of the agricultural land of France, was owned by small proprietors. Nor did the revolution produce or encourage the excessive subdivision of land on the system of small farming. Arthur YOUNG asserts that he saw many properties of 10 roods; and TURGOT complained, long before the revolution, that farms only just capable of supporting one family were divided up, at the owner's death, among five or six children. The part the revolution played in this matter was as follows. (*a*) It practically called into existence a class of medium-sized properties, such as were scarcely known in most parts of France under the *ancien régime*. The confiscated lands of the *émigrés*, of the suspects, of the church, and other corporations, were almost entirely purchased by the *bourgeois* class. The peasants were, in most cases, far too poor to buy even the smallest plots of land. But, in 1831, 700,000 moderate-sized properties existed, averaging 140 hectares each. In this, as in many other respects, it was the middle classes, rather than the poor, who gained by the revolution. (*β*) The revolution promoted an improved system of tillage by abolishing feudal and ecclesiastical dues, forced labour, inland duties, and many other obsolete or oppressive institutions. Quesnay calculated that, in 1750, one-fourth of the arable land of France lay uncultivated. This was largely due to want of capital. Arthur Young estimates the average capital per acre on French farms to have been only one-sixth of what it was in England at the same time. To this want of capital we may add want of knowledge, and, above all, the absence of motive for industry. The *métayer* (see MÉTAYAGE) in particular, knew that half of any increase in produce would go at once to the landlord, and that the rest would probably be taken from him, legally or illegally, by tax-gatherer or noble. The small proprietor and the *métayer* alike were released by the reforms that began on 4th August 1789, from burdens that made their positions almost intolerable, and deprived them of almost all motive for energy. Accordingly, though the revolution did not increase the amount of land owned by the peasantry, it did considerably improve the lot of those who survived the terrible sufferings of the days of the Terror and the reaction.

(*d*) It is scarcely necessary to speak of the attempts made under Robespierre to carry out Rousseau's idea that digging the earth is conducive to virtue. A certain number of pleasure-grounds were converted into potato-fields; but the declared policy of the triumvirate, to cut up France into a number of small estates, was never practically attempted.

On the same principle, we need not dwell on the various attempts made by the revolutionists to extend the agency of the state into the field of industry. These were mostly of so crude a sort that their failure throws scarcely any light on the very important question as to the limits of expedient state interference with free enterprise, or state management of industrial operations. Some of these attempts may have been justified by the critical position of France, or by the miseries of a transition period, especially when that transition is brought about by violence.

4. The currency experiments of the French revolution provide the most striking historical illustration of the injury that may be done to a community by excessive issues of inconvertible paper money (see ASSIGNAT). The first issue of 1790 produced no great evils. In fact, a very good case may be made out in its defence. The government had confiscated the church lands, and were anxious to convert them into small properties. But if these vast territories had been thrown on the markets at a time of general poverty and depression, the prices realised would have been utterly inadequate. Yet in the financial straits to which they had been reduced, partly by the misgovernment and extravagance of the old régime, partly by the early disorders of the revolution, the government could not afford to wait. Moreover, they had every reason to desire to interest the middle classes in the maintenance of the new system, and this could not have been done more effectively than by multiplying the proprietors of confiscated lands; for these would fear the reabsorption of their properties if the reactionaries triumphed. Accordingly 400,000,000 francs were issued in assignats, which the state undertook to accept at full value in the sale of lands, but which were not to be otherwise convertible. This inflation of the currency led, of course, to some rise in prices; but the assignats were not, at first, seriously depreciated. The transaction was in effect a mortgaging of state lands, and there appeared at that time to be force in Mirabeau's argument, that the paper money could not be greatly depreciated so long as its nominal amount remained far below the value of the land which was the holder's security.

The second issue of 1790 might be similarly defended, especially as it was accompanied by a pledge that the total issue should never exceed 1,200,000,000 of francs. It was, however, at least questionable whether the lands regarded as security could, in existing circumstances, be valued as highly as this; and prudent persons might well doubt whether the pledge would be kept. Accordingly, the second issue was only carried by a majority of eighty-five

votes, in spite of the ever-growing financial stress, and the political advantages of the policy from the revolutionary point of view. Nevertheless, the consequences though evil were not disastrous till, in the year 1791, when the national pledge was broken, and the promised limit exceeded by 600,000,000 francs. From this time the French currency became hopelessly disorganised. The precious metals disappeared under the natural operation of GRESHAM'S LAW. Bank notes had to be issued even to supply small change for petty transactions, and prices began to rise with fearful rapidity. By August 1793 there was a premium of 400 per cent on the precious metals. The rise in general prices was at least as high, and the government found itself almost compelled to issue more and more paper to defray its expenses, at the increased prices. The fall of Robespierre, and the triumph of the reaction, did not improve matters in this respect. There were still further issues, and by the beginning of 1796 there was paper in circulation to the nominal value of 3,600,000 millions of francs. The depreciation was now scarcely to be estimated. Industry was almost at a standstill. People produced for consumption, but hardly for exchange, and where exchange was necessary they preferred to resort to barter. It is probable that no branch of the revolutionary policy produced anything like the same amount of misery as the debased currency.

It is difficult to exaggerate the distress that existed in France at the close of the reign of terror, and in the following year (1795). It was almost certainly worse than that which existed under the *ancien régime*. Nevertheless, it can scarcely be doubted that France gained greatly in the long run by the revolution, in the two respects with which economics are chiefly concerned. The production of wealth increased greatly after the revolutionary wars, and the distribution of the product certainly became less unequal. Socialist writers are fond of arguing that it was only the *bourgeois* classes and the peasant proprietors who gained by the revolution. But even if this be admitted, it must also be remembered that these classes formed a very large portion of the nation; and in reality the artisan class undoubtedly shared in the improved industrial condition of France. The economic advantages gained do not, of course, justify the crimes by which the revolution was stained. It is, however, beyond the scope of the present article to pass judgment on these, or to consider the attempts that have been made to excuse or palliate them. Neither can we consider here whether the good might not have been obtained without the evil, or, in other words, whether the institutions of ancient France had sufficient vitality in them to admit of a peaceful development into accord with modern social and industrial conditions, or whether, on the contrary, they were only fit to be cut down and cast into the fire. J. E. S.

REYBAUD, MARIE ROCH LOUIS (1799-1879), born at Marseilles, died at Paris. During his whole life long he wrote, either as an economist, a journalist, or a novelist. He was elected a deputy in 1846, a representative in 1848—both to the constituent and the legislative assemblies, and in 1850 a member of the *Institut* (*Académie des Sciences morales et politiques*). Throughout he retained his individuality unchanged, he belonged to no group, to no party. His deafness isolated him from the crowd, but not from a few chosen friends. As a writer his position was far different; he was popular, and commanded thousands of readers.

To the masses he is the author of *Jérôme Paturot à la recherche d'une position sociale* (1843), an amusing, witty, but somewhat sceptical and cross-grained criticism of the literary schools of the first half of the 19th century; at another time, *A la recherche de la meilleure des républiques* (1848); he criticised often in rather a forced way the political world as it existed after February 1848—that is to say—everybody, since universal suffrage then ruled. To thoughtful minds, those who prefer moral and economic subjects, he is the author of *Études sur les réformateurs contemporains ou socialistes modernes* (1st ed. 1 vol. 8vo, 1840; 4th ed. 2 vols. 8vo, 1843; 7th and last edition, 2 vols. 8vo, 1864), which appeared in 1836 and 1838 in the *Revue des deux mondes*, and won him, 1841, the great Montyon prize. Other works recommend him no less directly to scientific thinkers, *Les économistes modernes*, Rich. Cobden, Fréd. Bastiat, Mich. Chevalier, J. Stuart Mill, Léon Faucher, and P. Rossi (8vo, 1862), also first printed in the *Revue des deux mondes;* then the *Études sur le régime des manufactures*, in 4 vols. 8vo (vol. i. 1859, *Silk;* ii. 1863, *Cotton;* iii. 1867, *Wool;* iv. 1874, *Iron* and *Coal*). Finally, in 1849, he made a most valuable report for the government on Algeria. All these works show an observant mind and an independent character. They are written with intelligence, spirit, and good sense. Reybaud was never moved by the opinions of the day. A warm republican during the monarchy, he was a doubtful partizan, even thought reactionary under the republic. Throughout honest and disinterested, there is no stain on his memory. A. C. F.

RICARDO, DAVID (1772-1823), of Jewish origin; his father, born in Holland, was engaged on the stock exchange, London, from the age of fourteen, and, after acquiring a large fortune with the universal esteem and respect of his competitors, began to retire in 1814, when he became a landowner in Gloucestershire, and, though never in Ireland, M.P. for Portarlington (1814-23). A. Smith's *Wealth of Nations*, which he read in 1799, was his only literary education; and his business, of which he said "competition was nowhere carried to such an extent and nowhere operated with more benefit"

(Hansard, xl. 356), exactly realised A. Smith's postulates. The identification of theory with such practice as lay within the scope of his experience is the secret of his character and influence; and he was the first English thinker who brought abstract arguments to bear on questions of the hour and produced immediate political effects such as the report of the BULLION COMMITTEE, and the resumption of cash payments. Indeed this "father of the deductive method," as he has been called, possessed a more vivid insight into certain industrial facts than many economists before or since. His *Political Economy*, "which would never have been published but for the entreaty of my father" (J. S. Mill, *Autobiography*, p. 27), grew out of his private *Letters to Malthus* (1810-23, ed. J. Bonar, 1887) and *M'Culloch* (1816-23, ed. Hollander, 1895), and out of conversations with J. Mill (1811-23), with whom he walked "almost daily" (Bonar, p. 150), Malthus, and (in 1823) M'Culloch. J. Mill said that he and M'Culloch were the only disciples of Ricardo; but Bentham called J. Mill his spiritual son, and Ricardo J. Mill's spiritual son. The solution of this contradiction seems to be that in economics Ricardo's was the master mind, that Bentham's political atomism influenced Ricardo's general views, and that in practical politics their aims happened to coincide. In arguing for a poor law which should aim at its own extinction, in examining the schemes of R. OWEN (1819) (*R. Owen's Life*, vol. i. p. 129, vol. ii. pp. 237 *et seq.*), in advocating benefit clubs with old-age pensions (J. Woodson, *Some Suggestions for the Improvement of Benefit Clubs*, 1824), in seconding Huskisson's and J. Hume's reforms, and in cross-examining witnesses before the committee on agricultural depression, 1821 (Hollander, pp. 105, 109), he did good work. He also proposed to pay off the national debt in one year at about £70 for £100, and to levy duties and grant bounties on corn just enough to countervail exceptional taxation, if any, on British agriculture (Hollander, pp. 58, 98, 99, 115). Perhaps no modern writer or speaker engaged in so many polemics and discussions and yet so completely eliminated the element of self.

M'Culloch's dictum, though tinged with the affection of a friend, may give the present generation some idea of the influence Ricardo had in his time. "The brevity with which Mr. Ricardo has stated some of his most important principles, their intimate dependence on each other, the fewness of his illustrations, and the mathematical cast he has given to his reasonings, render it sometimes not a little difficult for readers unaccustomed to such investigations readily to follow him. But those who give to his works the attention of which they are so worthy, will find that he is remarkably consistent in the use of terms, and that he is as logical and conclusive as he is profound and original. It was the opinion of Quintilian, that the students of eloquence who were delighted with Cicero, had made no inconsiderable progress in their art, and the same may, without hesitation, be said of the students of political economy who find pleasure in the works of Ricardo: *Sciat se non parum profecisse cui Ricardo valde placebit*" (M'Culloch, *Literature of Pol. Econ.*).

(*a*) *High Price of Bullion*, 1809, 4th ed. with app., 1811.—(*b*) *Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee*, 1811.—(*c*) *Essay on the influence of a Low Price of Corn on the Profits of Stock*, 1815.—(*d*) *Proposals for an economical and secure Currency*, 1816.—(*e*) *Principles of Political Economy and Taxation*, 1817, 3rd ed. (altered) 1821, ed. by E. C. K. Gonner (introduction, bibliography, and notes) 1891, first six chapters ed. by W. J. Ashley, 1895. —(*f*) "Essay on the Funding System" in *Ency. Brit.*, 1821.—(*g*) *On Protection to Agriculture*, 1822.—(*h*) *Plan for a National Bank*, 1824.—(*i*) *Observations on Parliamentary Reform*, 1824.—(*k*) *Notes on Malthus's Political Economy* (unpublished) see M'Culloch's Memoir, and Hollander, p. 84 n. i. —(*l*) *Speeches:* (1) On Western's Motion for . . . resumption of Cash Payments, 1822; (2) On voting by Ballot, 1824; (3) 126 in Hansard, not trustworthy, analysed by E. Cannan, *Ec. J.*, 1894; (4) on Owen, *Times*, 28th June 1819; (5) on J. Hume, cited Hollander, pp. 123-125.—(*m*) *Letters:* (1) three on the national debt, viz. Two to Place, *Ec. J.*, 1893, p. 289, and one to R. Heathfield, cited by Gen. C. Palmer, *Speech on the State of the Nation*, 1832; (2) five to J. B. Say. *Mélanges et Correspondance de J. B. Say*, 1833; (3) eighty-eight to Malthus, ed. J. Bonar, with preface and notes, 1887 (cites m. 2); (4) forty to M'Culloch, ed. J. H. Hollander, with preface and notes, 1895; (5) one on the currency to H. Trower in *Ec. J.*, 1896, p. 64; (6) twenty-one others to Trower, 1820-3, on corn values, notes to Malthus, Irish land, etc., unpublished, in University College, London; (7) Personal letters privately printed 1891 (Hollander, p. 138), and in the possession of Mrs. F. Ricardo.—(*n*) His examination before the secret committees on resumption of cash payments is given in *Reports from Committees*, 1819, vol. iii. (No. 282), pp. 133, 227; (No. 291) pp. 184, 196.

[*Ricardo's Works*, ed. M'Culloch (1846) contain a Memoir and (*a*) to (*i*), and (*l* 2).] J. D. R.

The importance of Ricardo's position in the history of economic theory is shown most clearly by the nature and vehemence of the criticism with which it has been assailed or supported. Whatever view a critic holds he rarely if ever fails to leave his readers with the conviction that for good or for evil Ricardo's influence has been a powerful force. While much of the diversity in views thus expressed arises out of the different attitudes which modern writers hold as to the correct method of study, much is doubtless due, first, to some definite defects in Ricardo, and secondly, to certain misunderstandings with regard to his works. Among the former may be mentioned —(1) A singularly defective literary style. Not only was Ricardo's vocabulary painfully limited, but he further increases the difficulty arising

out of a too great compression by the use of phrases and words in their more unfamiliar meanings. (2) His assumption of the almost absolute potency of regular competitive forces. This is, it must be admitted, qualified in certain instances; but speaking generally, deviations are treated as temporary and accidental. (3) A frequent reliance on hypotheses which are either obscurely stated or not stated at all. On the other hand, some part of the hostile criticism to which his writings have been exposed has had its origin in (1) the ready but erroneous acceptation of his main publication as being in his view a systematic treatise in economics; (2) the assumption that he was unwilling to recognise the validity of any but the most rigidly economic considerations. With regard to the first of the foregoing, the words of the preface to the *Principles of Political Economy and Taxation* are sufficient to disprove any intention on Ricardo's part to put forth a systematic treatise, so unequivocal is his own statement. Speaking of himself, he says: "It will not, he trusts, be deemed presumptuous in him to state his opinions on the laws of profits and wages, and on the operation of taxes. If the principles which he deems correct should be found to be so, it will be for others more able than himself, to trace them to all their important consequences"; while in what are almost the opening words he indicates as his subject an investigation into the laws which determine the proportions in which the total produce is divided among the different classes of the community. With regard to the second point, the publication of his letters to Malthus within comparatively recent years has done much to correct the exaggerations which formerly prevailed. But even when such misapprehensions are removed there remains considerable ground for criticism as to his methods and works. A final judgment as to their value must take into consideration certain other matters, as to the state of economics at the time when he wrote, and the alterations which he introduced into the treatment of certain portions of his subject. His influence and the importance which has been attributed to his work rest on these even more than on the positive contributions to the knowledge in particular directions contained in his exposition. First of all ranks the prominence which he gives to the problem of value in the general treatment of economics, and in particular in relation to distribution. In the second place, his qualitative treatment of wages, profits, and rent amounted to a kind of revolution in method. Lastly, it must not be forgotten that so far as distribution and exchange are concerned, Ricardo, however faulty in his own scheme, did much for his time by actually presenting a scheme that was coherent, and which, while requiring in some cases modification, in others reconstruction, afforded even hostile critics the benefit of something to criticise. In certain early stages of a study, systematic, even if inaccurate, statement is a matter of such fundamental importance that its subsequent correction or supersession should not avail to blind the eyes of later generations to the benefits conferred by the scholar who boldly endeavoured to combine and connect the floating opinions of his time. In this respect Ricardo did much. He brought the matter as it were out of the air, and in respect of certain problems endeavoured to sketch a definite plan. This will be seen best of all by a consideration of his writings, after which his more special contributions will require notice.

Ricardo's economic writings may be divided according as they deal with general economic theory, taxation, currency, and agriculture and protection. While this order has been chosen for purposes of convenience, it is the reverse of his historical arrangement—a matter of no little importance, inasmuch as it shows that instead of proceeding from the formulation of certain general principles to particular subjects, he approached the former through his study of the latter, and hence was likely to bring with him a not unnatural prejudice in favour of the methods which he had found useful in resolving the problems to which he first applied himself. Viewed chronologically, his *Principles, etc.*, is preceded as well as followed by writings on currency and the price of corn.

In the *Principles of Political Economy and Taxation*, without doubt the most important with regard to the general treatment of economics, there are three leading subjects of discussion — value, wages and profits, and taxation. Taking, however, the professed aim of the book, it would perhaps be even better to say that it falls readily into two portions—one concerned with the mode in which the wages and profits are proportioned, the other with the effects of various taxes, preceded by a preliminary discussion on value as a necessary principle to their respective determination. As has been elsewhere indicated, the somewhat desultory arrangement of the work, and especially of the later chapters, tends to conceal the definite aims which Ricardo explicitly had in view, which are stated above. A better classification of the chapter would make this clearer. He begins by a discussion as to the nature of value, and the possibility of a perfect standard of value, in which he arrives at the position that commodities exchange in the ratio of their respective cost in terms of labour. With regard to this there are two important qualifications. Labour is the common unit of exertion, in quantitative terms of which all labour, skilled and unskilled, and all capital, are capable of representation. Such exchange or value, while the natural, is not necessarily the market rate, which varies owing to accidental and temporary causes. In defining value, a distinction is drawn between relative value and absolute value; while the meaning of the former term is not in doubt, absolute value or real value is a conception which requires some

little consideration, for it is to its somewhat careless use that some of the misunderstanding of Ricardo's theory of value is due. Strictly conceived, it corresponds to the relation existing, not between commodities amongst themselves, but betweeen any commodity and its labour-cost. If the quantity of labour required in the production of a commodity diminishes, the real (taken for absolute) value falls; if it increases, the real value rises. In most cases, it is obvious, alterations in real value, thus achieved, will be followed by changes in the relative or exchangeable value, for a constant competition is assumed; but if, owing to the progress of invention, there be a general diminution in the amount of effort, or of capital and labour combined, needed to produce a certain quantity or mass of commodities, this given quantity after the improvement will be of less absolute value than before. In other words, while there cannot be a general rise or fall in relative value, there may be a general rise or fall in absolute value. This follows as a matter of course from an attempt to view value as Ricardo viewed it, as the estimate which the individual forms of any commodities as measured by the trouble they cost him. On this conception Ricardo does not dwell at great length, as alien to his purpose, "as the inquiry to which I wish to draw the reader's attention relates to the effect of the variations in the relative value of commodities, and not in their absolute value." The relative value of a commodity represents the degree in which it, as compared with other commodities, partakes of absolute value; thus he speaks of "the relative quantity of labour" as almost exclusively determining the relative value of commodities.

With regard to the definition of value and the use of the term by Ricardo, several points arise for remark. In the first place, the conception of absolute value has been attacked apparently on the ground that it is inconsistent with the view that value is essentially a matter of ratios. This objection does not seem very important in view of the great weight attached to relative value, the small use of value in any other sense or other connection, the somewhat like inconsistency in the more recent use of utility in the utility theory, and lastly the necessity of giving some reason for the relation in which various commodities stand to one another. Such terms as "utility," "estimation," "cost," and the like might have done as well, but the employment of "absolute value" in their place does not seem to require severe condemnation if a careful distinction be drawn between absolute and relative value. In the second place, what is at best a loose phraseology has given rise to doubt as to whether Ricardo did not in some sense regard labour-cost as a cause as well as a measure or index of value. Though the general study of the passages relating to this subject goes far to show that he did not actually fall into this confusion so far as he himself was concerned, his language is inconsistent, and open to grave objection. Lastly, he does not take into consideration the alterations in cost which ensue from differences in the quantities produced.

The discussion of the laws of value issuing in the above conclusions is, like the conclusions themselves, a preliminary to a consideration of the laws underlying distribution. No sooner are these approached than their meaning and importance become manifest. They afford the necessary means, the proportional division of the entire product, whatever be the productiveness of the energies of the community, whether they issue in much or little, does not matter, for the question is one of value; "it is not by the absolute quantity of produce obtained by either class that we can correctly judge of the rate of profit, rent, and wages, but by the quantity of labour required to obtain that produce." By treating the problem as one of value, one important result is immediately obtained, for it becomes obvious that rates of remuneration, wages, and profits cannot be a cause of price; that a rise or fall in them cannot occasion a corresponding rise or fall in price. Price being the mere expression of relative value in particular terms, such a consequence would mean a general rise or fall in relative value, or in the ratios in which commodities exchange.

But it may be urged that this position is invalidated by the payment or existence of RENT. Value is a ratio, but in the case of certain commodities their place in the ratio is determined partly by the necessity under which producers are of paying rent? Rent is, however, an exceptional payment, and wholly outside the question of relative or exchange value, which is determined by the relative quantities of effort expended under the most unfavourable circumstances. Thus the total rental of the country is the total surplus of produce obtained by labour exerted under more favourable conditions over that produced by labour under the most unfavourable conditions. An increase in rent coincides, then, with an increase in absolute or real value, and rent itself is formed by the excess of the total absolute value of the produce of the community over what would be the total absolute value were all conditions of production equally favourable. In other words, it is the difference between the actual value in cost of the more favourably produced portions of commodity and the relative value which is given them owing to the LAW OF INDIFFERENCE, and the impossibility of exchanging them at a different ratio from that which holds in the case of the portions produced most unfavourably. It stands wholly outside relative value; the total value remains to be divided among the factors engaged in production. Whatever is not allotted to one is taken by another. The rate at which any one is remunerated depends not on the quantity of commodities received, but on the proportion in which it shares in the whole, and thus a rise in the rate of remuneration of any one class necessarily implies a fall in the case of some other. In this case, as indeed throughout, it has been assumed that all exertion both of capital and labour is capable of treatment in terms of simple labour units in such a manner that with due allowance for temporary deviation, the law of equal reward for equal effort operates. Even in the relations prevailing between the remuneration of different kinds of labour the deviations deserve more than the passing consideration given to them, while between capital and labour, strictly so termed, equality in remuneration

through free competition cannot be said to hold good. In the discussion which ensues as to the division of value between profits and wages, Ricardo, passing by any analysis of interest, centres himself in wages and formulates the doctrine of the variable standard-of-comfort theory, which, with the suppression of the qualifying adjective, has obtained prominence in subsequent controversies as the iron law. Into profits falls the remainder—what is left, that is, after labour has been paid the amount necessary to maintain the necessary level of comfort, and without diminution in its numbers. The uncritical neglect shown in the absence of any treatment of interest is a very great defect in this connection.

TAXATION, which forms the substance of most of the later chapters of the *Principles*, is mainly dealt with from an abstract standpoint, and with the object of ascertaining the ultimate incidence of different taxes. Considerable reference is made to the laws regulating distribution, and in particular to the effect which the standard-of-comfort theory may have in shifting the burden of taxation from the working class to those presumably more able to bear it. In place of regarding the incidence of taxation as being mostly if not invariably on the land, like many of his forerunners, Ricardo contends that taxes may be paid out of three funds—from rent, from the pockets of consumers above the standard of comfort, and from profits, or, if we take his wages theory in its most rigid form, from rent or profits.

In the third group of writings—those, that is, which relate to CURRENCY, Ricardo is at his best. At one and the same time, we find a subject which stood in need of severely logical treatment, and we encounter Ricardo in much fuller mastery than elsewhere of the facts which relate to the matters at issue. Here he is both abstract and inductive. Facts come in sometimes as illustrations which vivify and correct his argument, and sometimes as the very body of the argument itself. The matters dealt with in the financial pamphlets and chapters fall under three headings: (1) the high price of bullion and the depreciation of paper money; (2) monetary theory; (3) the position of the Bank of England. These questions, actually cognate, had at that time an additional if artificial link by reason of the action of the Bank, which, an important agent in the first, conduced through the observation of the effects of its activity to certain important general conclusions. (1) The first question thus indicated occupies the principal part of the two treatises, *The High Price of Bullion*, and the *Reply to Mr. Bosanquet's Practical Observations*. After a few preliminary remarks as to the existing standard in England, Ricardo turns to the discussion of, first, the means at his disposal for testing the value of paper money, and secondly, the action of the Bank with regard to its issue. The means he sets forth as twofold. On the one hand, there is the continuance of heavily adverse exchanges. While such adverse balances may often occur, the extent to which they can continue thus unfavourable is, he urges, rigidly limited by the expenses attending the exportation of the precious metals. On the other hand, there is the continued elevation of the market price of bullion above the mint price. Here his contention is "not that gold as a commodity may not rise above its value as coin, but that it cannot continue so, because the convertibility of coin into bullion would soon equalise their value." The point remaining to be considered was as to the power of the Bank to force an undue amount of paper upon the country. Here he replies with remarkable clearness, and in passages many of which rank as classical, to the various contentions raised by the friends of the Bank. He disposes briefly of the argument that it is impossible to augment a currency already adequate by explaining the meaning of "redundant" and "adequate" in this connection, and he points out that the limitation of issue of paper to *bona fide* transactions is no safeguard. (2) So far as general monetary theory is concerned, the above pamphlets, together with the *Proposals for an Economical and Secure Currency*, and chapter xxvii. in the *Principles*, *etc.*, contain the most systematic contributions. The main conceptions treated of relate to (*a*) the quantity theory of money, which is carefully delineated and afterwards applied to the particular case of paper issues; (*b*) the distribution of the precious metals throughout Europe, and the conditions under which modifications of the existing distributions may take place; (*c*) the nature of a standard of value and the use of the precious metals as such. In all these directions he made remarkable additions to the knowledge of the time, while even now his writings stand in the very first rank of monetary exposition. In certain instances, as in the case of a double standard, and what is substantially the system of INDEX NUMBERS, his conclusions, though many economists of the present generation may differ from them, were almost inevitable under the circumstances of the time as to both knowledge and the existing political conditions. (3) As regards the position of the Bank of England, he concludes a biting survey of its action towards the public both as regards the issue of paper money and in sundry other and more general aspects with the contention that the time had come for a very radical change. The direction which this should take is set forth at considerable length in the *Plan for a National Bank*.

Agricultural protection and the importance of a low price of corn form the subject of two pamphlets: *An Essay on the Influence of a Low Price of Corn on the Profits of Stock*, and *On Protection to Agriculture*, in which Ricardo, basing his arguments on the theory of rent, set forth mainly by Malthus, combats the proposition that agriculture requires particular protection. "With a permanently high price of corn, caused by increased labour on the land, wages would be high; and as commodities would not rise on account of the rise in wages, profits would necessarily fall. . . . Profits would not fall in one trade only, but in all. . . . In this view of the law of profits, it will at once be seen how important it is that so essential a necessary as corn, which so powerfully affects wages, should be at a low price; and how injurious it must be to the community generally, that, by prohibitions against importation, we should be driven to the cultivation of our poorer lands to feed our augmenting population." In addition,

an irresistible temptation is, he urges, offered to capitalists to quit the country. Moreover, the high prices thus attained are unstable. These pamphlets, which are very unequal, are Ricardo's contribution to the anti-corn law movement, which was slowly shadowing itself forth (see ANTI-CORN LAW LEAGUE).

In addition to writings dealing with the subjects mentioned in the previous paragraphs, Ricardo wrote an *Essay on the Funding System*, in which he deals with the history of the sinking fund, and the various modes in which war expenditure may be met.

While general economic theory was greatly affected by Ricardo's treatment of certain branches, its special development in particular directions was equally due to what may be described as direct and more original contributions to knowledge. Of these, those relating to foreign trade, money and paper issues, and rent, have attracted and deserve chief attention. In these instances his work holds its high position either because of actual originality in doctrine, or because it is so original in statement and combination of ideas which previously were but faint and uncertain suggestions, or wanted their true value through their lack of conviction. With regard to foreign trade, he established the doctrines of comparative cost, and laid down the mode of the distribution of the precious metals. In the treatment of money we owe to him the logical statement of the quantitative theory which led to the clear and comprehensive view of the nature of paper money which we find in his pages (see QUANTITY THEORY OF MONEY). The theory of RENT was restated—while the explanation of its origin in the difference of yield to successive applications of capital and labour is so important as to merit the position of an original contribution.

But while in these respects economic study lies under a very great debt to the writings of Ricardo, in certain other respects his influence, or perhaps more truly that of his followers, was disadvantageous to its sound progress. Though a rational and temperate criticism will relieve him of the responsibility for the particular form of wages theory known as the Iron Law (see LAISSEZ FAIRE), as even HELD admits, his unfortunate mode of expressing himself did much to lead to the socialist conception of value as due to labour and labour alone. But here he and indeed Adam Smith also are to blame rather for defective and careless expression than for bad thinking, while in addition it must always be remembered that in Ricardo's view capital as well as labour was a necessary element in the determination of cost. To the enunciation of this particular point he devoted an important section of his chapter on value. But there are two other defects in English economic writings of the early part of this century which are largely due to the influence acquired by these writings. In them the human agents in economic growth and organisation are treated as inorganic rather than organic units, and as liable to elimination or supersession with no more result than would occur in a physical experiment. They are things of wood rather than of flesh and blood, and are swept round and round in the whirl of competition, to be succeeded in the course of time and development by others disconnected with them by any vital bond. This apparent conception of society as a mechanical rather than an organic unity, though by no means consciously acknowledged, was an obvious bias of the group of thinkers among whom Ricardo moved, and who on the economic side were his disciples, and has remained until recently as somewhat characteristic of economic thought in England. The fault lies not of course in the rigid adhesion to the conditions of hypothesis, but in the lack of a vivid permanent realisation of the other features and elements to be taken into account in the application of theory. The second of the two defects mentioned above is one for which his followers rather than Ricardo himself are to blame, for despite his warnings they chose to elevate his principal writings to the rank of a treatise, thus attaching the title of political economy to what was a partial treatment of but one branch of the subject. In this even they did not stand alone, but their action did much to narrow economic study and to mislead popular opinion into misconception as to the nature of political economy.

The incomplete character of Ricardo's work, with its splendid merit and its frequent defects, is largely due to the period in which it was produced. Like Adam Smith he worked and wrote in the very early dawn of sound economic study, and their progress is that of men walking in the morning twilight of science. Others have entered into their labours. If we wish to gauge the true importance of such, and especially if we wish to arrive at some general conclusion with regard to the position of Ricardo, we must take into account the time at which he wrote as well as his writings, and estimate the value of the latter as the necessary preliminary to much subsequent work on theory, and as affording by the distinctions contained, by the relations indicated, and by the generalisations arrived at, often crude, sometimes erroneous, and in most cases tentative rather than final, opportunity for much inductive inquiry.

E. C. K. G.

RICCI, LUDOVICO (1742-1799). Born at Castagneto, near Modena, Central Italy; he filled different offices in the duchy, chiefly connected with reforms in charity organisation and taxation. In 1797, after the revolution, he became one of the directors of the Cispadane republic; when this became merged in the Cisalpine republic, the directory appointed him minister of finance. He employed himself during his ministry in reorganising the taxes and the treasury of the republic, then empty; and drew up, by order of Napoleon, a plan of financial reforms which was highly esteemed by him. In 1798 Ricci was made general commissioner of the taxes of the republic, and died shortly afterwards.

Ricci left many papers, some unpublished, on economic and financial questions. The most important is the *Riforma degli istituti pii della città di Modena*, a valuable monograph, full of historic and scientific statistics. The depressed condition of the lowest stratum of the working classes in Italy,

during the time of Ricci, compared with the fairly favourable condition of beggars, to some extent sheltered and relieved by charitable institutions, showed the necessity of a better distribution of the assistance given. The economic problem of the administration of charity forced itself on the government of the Italian states, rich in charitable institutions, and several governments studied the question. At Modena the investigation of the subject was entrusted to Ricci; hence his valuable work, which far surpasses the limits of a monograph relating solely to a small state. He treats the subject of the reform of charitable institutions from a rational and systematic point of view, studying the problem deeply, and analysing the origin of charitable institutions which have their root in the moral and religious feelings of man, and tracing historically the progress and influence of such institutions. He further examines the causes of beggary, the vices and wants of the different classes of the poor, and maintains that the reorganisation of charity should be based on the elevation of moral character.

He shows the economic disadvantages of an improvident system of public charity, that it tends to the increase of beggary and of the numbers of the poor. It is necessary, says Ricci, that they should shake off their indolence and either emigrate or perish. Their indolence is fostered by alms-giving, which supplies a continuous stimulus to beggary, which increases proportionately to the development of charitable systems. Those poor only who are unable to work should be relieved, those able to work helped solely by work being procured for them. Following these lines, he examines minutely the charitable institutions of the town of Modena, shows the numerous evils they cause, and proposes a series of gradual and progressive reforms calculated to transform them completely. These reforms in great measure are in accordance with modern ideas.

Ricci's views on population are interesting theoretically. He has been called a precursor of Malthus; but, though he touches on the population question, he regards it from a different point of view from Malthus, and more closely approaches modern scientific conclusions. He has in fact the idea of a relative excess of population, apart from its absolute excess, and asserts that though the increase of population may be at a minimum, yet the lowest stratum may be in a most miserable condition. From these conceptions, which, however, Ricci merely points out without fully developing, he deduces his maxims for directing the organisation of charity so as to alleviate misery without fostering it.

Among his unpublished manuscripts Ricci left an outline of a treatise on taxation, conceived with a width of view, originality of plan, and deep learning, which he was not able to finish. He considered social economy a dynamic system of force, which sometimes acts in contrary ways, destroying itself by its own results. He regarded taxation as a moderating element in eliminating the causes of this dispersion of prosperity.

Riforma degli istituti pii della città di Modena, Modena, 1787. *Nuovo piano dell' estimo per gli Stati Estensi*, Modena, 1791. (See Augusto Setti, "Lodovico Ricci e la beneficenza pubblica nel secolo scorso," in the *Nuova Antologia*, 1st October 1880.

[Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.] U. R.

RICHARD DES GLANIÈRES (belongs as a writer to the second half of the 18th century).

In 1774 he presented to Turgot his *Plan d'Imposition économique et d'administration des Finances*, on which he was congratulated by the body of merchants of La Rochelle; he maintained his scheme in the *Réplique générale pour le présent et l'avenir aux observations faites et à faire sur son plan* (1775), and in the *Dixme royale de M. le Maréchal de Vauban comparée avec le plan d'imposition de M. R. D. G.* (1776).

He is an admirer of TURGOT and an advocate of free trade in corn, which he supports by the authority of SULLY. In his financial plan, which he regards as derived from VAUBAN, he would remove all the then existing internal customs duties to the frontier and would do away with the whole existing system of internal taxation, establishing instead, first, a graduated poll-tax, to which he gives the title of *droit de franchise*, calculated on the estimated consumption of each tax-payer, and secondly a real TAILLE or direct tax on every kind of property, including annuities. His statistical basis of taxation must certainly have been faulty, for he computed that about 800,000 persons would pay 200 francs (say £8) or more, but in 1847, when this amount was the legal qualification of a voter, there were shown to be only 250,000 persons directly taxed to this amount in France.

[E. Fournier de Flaix, *Les théories fiscales en France et en Europe aux XVIIe et XVIIIe Siècles* (vol. i. of *La Réforme de l'Impôt en France*), pp. 217-220, Paris, 1885.] E. Ca.

RICHELIEU, A. J. DU PLESSIS, CARDINAL DUC DE (1585-1642). Cardinal Richelieu deserves a place in economic history not so much on account of what he did as on account of what he failed to do. The central administration of monarchical France was on the whole a very efficient machine, but it had one fatal defect—the financial system was extraordinarily bad. Adam Smith (bk. ii. ch. ii.) has clearly pointed out the inferiority of French to English finance in the 18th century, and there can be little doubt that this inferiority was one of the chief causes of the failure of France to hold her own in the naval and colonial struggle with her great rival. At the same time it was the chronic deficit due to defective finance, and the discontent aroused by ill-devised and oppressive taxation, which led directly to the downfall of the French monarchy and social framework in the revolution.

It would, of course, be absurd to make Richelieu responsible for economic blunders, many of which were far older than his administration. At the same time it must be admitted that his failure to introduce financial

reforms did much to stereotype evils which none of his successors were strong enough to cope with. Richelieu was the one man in French history who had the strength both of will and of position which might have enabled him to trample on the opposition of the powerful classes whose interests impelled them to oppose reform. Some of the most obvious of the existing evils were the exemptions enjoyed by the privileged orders—the system of selling offices and of farming the indirect taxes (see FARMER-GENERAL; FARMING TAXES), the oppressive incidence and excessive amount of the TAILLE, and the almost ludicrous harshness and inequality of the GABELLE.

Richelieu was no trained economist, but that he was keen-sighted enough to realise the need for reform on these points is proved by innumerable passages in his memoirs, and also by a draft of proposed changes which he drew up for the king in the first year of his ministry. But he never made any serious attempt to carry his schemes into practice; on the contrary, in his later years the pressure of military expenditure led him to strain to the utmost all the old expedients, and to impose the most oppressive burdens on the tax-payers. And so immense was Richelieu's prestige and the weight attached to his example during the next century and a half that his financial maladministration may be said to have done as much for the ultimate weakening of France and her monarchy, as the triumphs of his foreign policy effected for their immediate exaltation.

At the same time it would be unfair to lay too much stress on this negative side of Richelieu's domestic administration. He reformed the army and practically created the navy of France. He did all in his power to encourage the growth of a mercantile marine, and to extend French commerce and colonisation. It is true that many of his schemes were costly failures, and that French companies too often added to the general defects of such corporations an excessive dependence on state patronage. Still it must be admitted that Richelieu is entitled to some measure of the credit which is usually given to COLBERT for that stimulus to economic and commercial progress which helped to make France for a time by far the first power in Europe.

[D'Avenel, *Richelieu et la Monarchie Absolue.*—Caillet, *L'Administration en France sous le Ministère du Cardinal de Richelieu.*—Hanotaux, *Histoire de Richelieu.*] R. L.

RIDOLFI, COSIMO (1794-1865). Born in Florence, of noble family, of great literary and scientific attainments, an educationalist and minister, and, in particular, a distinguished agriculturist. He travelled widely to carry out his study of agriculture. Ridolfi occupied himself greatly with the condition of Tuscan agriculture, and worked, with good results, to improve it practically. He established at his farm at Meleto a school of practical agriculture, mainly to supply practical instruction in this subject to the sons of landed proprietors. At the same time he interested himself in improving the condition of the peasant class. After this, at the university of Pisa, Ridolfi taught agriculture and founded a school for instruction in the subject there. He was one of the ministers of Leopold II., grand duke of Tuscany, in 1849, then plenipotentiary at Paris and London. In 1859 he became a minister with the Tuscan government, and afterwards a senator of the kingdom of Italy.

He wrote many important papers on agriculture and agrarian economics, published in the *Atti della Accademia dei Georgofili di Firenze* and in the *Giornale Agrario Toscano.*

[Lambruschini, *Elogio del Marchese Cosimo Ridolfi, agronomo fiorentino*, Florence, 1866.] U. R.

RIGHT TO LABOUR. A party watchword is often said to be most popular when ambiguous. This condition is satisfied by the "right to labour," which may be understood in two quite different ways. It may be taken to mean a right, moral or legal, of able-bodied persons, rendered destitute by exceptional circumstances, to temporary maintenance out of the public funds, labour being indicated as at once the test of destitution and the channel through which, by the wages paid for it, relief is administered. Or it may mean a supposed natural right of every citizen at all times to have secured to him by the state, when he alleges that he cannot find it for himself, employment of the kind he is fitted and has been trained to perform, so remunerated as to enable him to support his own existence and that of those dependent on him. It is in the latter sense that the phrase was for some time widely current in continental politics; and most of the democratic agitators who asserted the *droit au travail* would have repudiated as inadequate, and perhaps as degrading, the interpretation which would make it equivalent with the *droit à l'assistance.*

Some writers have erroneously supposed that this right was asserted by the PHYSIOCRATS. What they claimed for every member of the community was not the *droit au travail*, but the *droit de travailler*, which was altogether different, implying only a right to the removal of all restrictions which impeded industry and prevented the poor man from living by his labour. "Ce que l'état doit à chacun de ses membres," said TURGOT, "c'est la destruction des obstacles qui les gêneraient dans leur industrie"; and, in proclaiming this *droit de travailler*, what he had mainly in view was the abolition of the GILDS and other privileged corporations (see CORPORATIONS OF ARTS AND TRADES).

FOURIER was the first to introduce the claim, and the phrase associated with it, into the literature of social economy. In his earliest work, the *Théorie des quatre mouvements* (1808), and in his later *Théorie de l'unité universelle* (1822), he formally asserted the right, but

declared it to be impossible to realise it under "the régime of civilisation," that is to say, the existing economic order of society. He declares it to be the first and most important of the rights of man, without which all the rest are valueless. It is, according to him, the equivalent due to each individual of the means of subsistence by natural products, which every one possessed in the primitive state of barbarism, and parts with on his entrance into society. Considérant rests it on the same theoretic basis; he urged its practical adoption as a means of transition from the present to the future (Fourierist) order of things. ST. SIMON also appears to assert the right; but his want of scientific precision and his frequent self-contradictions make it difficult to affirm this with certainty. Louis BLANC conceives the right as a corollary of the right to existence, which he alleges to belong to every man at his birth, as a gift from his Maker.

The right to labour came avowedly into the field of practical politics at the revolution of 1848. By the decree of the 25th of February (see ATELIERS NATIONAUX) the provisional government announced that it "s'engage à garantir du travail à tous les citoyens." These words were dictated by Louis Blanc. J. S. MILL maintains that the *droit au travail* thus sanctioned meant "the poor-law of Elizabeth and nothing more." If more was not intended, it must be admitted that the authors of the decree were singularly unfortunate in the language they used. Louis Blanc seeks to shelter himself from blame by quoting Mill's view; but his opinions and objects, as stated by himself, are irreconcilable with that view. He says that the engagement which the government was undertaking—involving, as it did, "vast difficulties"—was intended for future, not immediate realisation, and that it could not be brought into practical operation except by the introduction of his own socialistic schemes. What he really aimed at, as he frankly informs us, was to lead the government to adopt those schemes by inducing them to issue the compromising decree. Whatever that decree may have meant, it is certain that when the bourgeoisie triumphed over the revolution, it was only a right to relief that was recognised in the constitution, and statesmen who had seemed to give the principle a wider construction explained away what they had previously said.

In Germany, FICHTE maintained the right as a consequence of the social compact (*Naturrecht*, 1797). Under French influence it was advocated by Ludwig Gall, the Fourierist Stromeyer, MARLO, and others, and the recognition of it was proposed in the Frankfort parliament, but without success. It was asserted in the broadest manner by Bismarck in the Reichstag in May 1884: "Ich erkenne ein Recht auf Arbeit unbedingt an"; but he took no step to carry it into effect. In Switzerland, it was made the subject of a REFERENDUM in 1894, and was supported by 75,880 against 308,209 votes. But though it was for a considerable time a favourite cry of the radical democracy of the continent, in England it never made any appreciable impression; it has been abandoned by the socialists, who now recognise, with Fourier, that it is unattainable under the existing conditions of industry, whilst it would be an immediate and spontaneous result of the establishment of the new organisation which is the goal of their efforts. It is, indeed, obvious that its practical adoption would lead directly to a socialistic system (see SOCIALISM). The members of a government undertaking to provide every applicant with labour such as he has learned to perform would become ENTREPRENEURS on the largest scale, agricultural, manufacturing, and mercantile, with a host of subordinates acting as overseers; and the private employer would be driven from the field.

When it is seen that there are no such things as natural rights, the right to labour disappears with other similar coinages of metaphysical politics. But when we approach the subject from the side of duty, the course to be followed seems sufficiently plain. Some regular means of relieving destitution should exist to meet the exigencies of individuals, and when they can perform work, it is reasonable to expect it from them as a partial return for the assistance they receive. When a great public calamity, such as failure of crops or a commercial crisis, plunges considerable districts of a country into distress, the government can best intervene by employing the able-bodied, who are without their ordinary means of support, in useful public works, whilst gratuitously maintaining the immature, the aged, and the infirm. The management of public works under these circumstances has obvious difficulties, but difficulties are no sufficient reasons for abstaining from action. The principal are those of determining who are fit objects of this sort of public aid, and what are the best works to be undertaken. On the ground of this double difficulty, such works will be more properly placed in the hands of local authorities than in those of the central government, though at least a share of the required funds ought to be supplied from the national exchequer, and consequently a power of general supervision should be reserved by the national executive. Even in such extreme cases, government, whilst bound to do their utmost towards *providing* labour, ought scarcely to *guarantee* it to all, such a promise being only too likely to prove incapable of fulfilment, whilst it would tend to stifle the exercise of private benevolence.

In ordinary times, one of the most serviceable kinds of action open to them for the benefit of the unemployed is the establishment of BUREAUX

OF LABOUR, having for their function the collection and circulation of trustworthy information as to the demand for labour in different localities.

[Arts. on MONTAIGNE; RENAUDOT; and for a detailed historical account in *Das Recht auf Arbeit in geschichtlicher Darstellung*, by Rudolf Singer (1895), and an instructive article by George Adler in the *Handb. der Staatswissenschaften.*—Also Louis Blanc's *Hist. de la Révolution de 1848*, and his *Révélations.*—Bonar, *Philos. and Pol. Ec.*—Ritchie, *Natural Rights.*—Jevons, *The State in relation to Labour.*] J. K. I.

RILEY, HENRY THOMAS (1816-1878), a distinguished antiquary, edited and translated a large number of the most valuable "sources" for English municipal history in the middle ages.

For the Rolls Series, Riley edited the *Munimenta Gildhallæ Londoniensis* (1859-1860).—For the Corporation of London, he translated the *Liber Albus* (1861), and a volume of extracts from the city archives for the period 1276-1419, under the title *Memorials of London and London Life* (1868).—For the Hist. MSS. Commission he inspected and reported on the archives of various municipal corporations (from 1869 onwards). But this by no means exhausts the list of his works. W. J. A.

RIN, a coin, the 1000th part of 1 yen (see YEN), 1000 rin = 100 sen = 1 yen (Japan).

RING. A ring in American politics is a group of partisans who agree to work together in order to get paid, elective, or public appointments apportioned among themselves in a certain way. The Tweed ring went further than this; and the officers when appointed agreed to exclude financial criticism. In Europe a ring is non-political, and means (1) an agreement (2) by capitalists (3) to exclude competition, and (4) so control and dictate terms to the market. (1) Monopolies are founded on privilege; and American trusts, French omnium, and English amalgamations, involve transfers of property, but rings are mere agreements. The agreement takes many forms. It may be an agreement not to sell on a given day below a certain price; or, as in the perfected *syndicats industriels* of the Continent, to create permanent agents who sell what members produce and pool profits according to elaborate rules. These agreements are usually void at law, either because they are "against public policy," as in England and U.S., or "against free trade," as in France, or against a law, *e.g.* the Austrian Law of 7, iv., 1870, § 4; indeed they are often called "gentlemen's agreements," "presidents' conferences," "consensus," as opposed to contracts (G. O. Virtue, p. 314). (2) Labourers' unions are not rings but sometimes join rings (*Ec. J.*, 1897, pp. 503-510). Subtler rings take in allied trades, thus American coal-rings, in imitation perhaps of the Newcastle VEND, are formed of carriers and producers. (3) It often kills competition by rebates, differential freights, maximum and minimum tariffs, and by recklessly underselling opponents—operations which resemble retaliatory tariffs and bounties between nations. (4) Control of the market and restricted production and enhanced price is the ultimate aim of all rings, *syndicats industriels*, trusts and monopolies. Hence efforts have been made to bring them within the criminal law. But the net has been spread too wide. The French Code Pénal (art. 419) penalises any combination to raise prices by not selling a commodity under a certain price; this, like our "engrossing" (see FORESTALLERS AND REGRATORS), hits all trade, and is therefore a dead letter. The Canadian Act of 1889 (52 Vict. c. 41, § 1 (b)) and U.S. Act of 1890 (§ 1) make contracts in restraint of trade criminal; now such contracts occur every day between shopkeepers and their former partners or assistants, so the judges held that this provision could only apply where dealers "practically control the entire commodity"—which is almost unprovable (52 *Federal Reports*, 104, 119). Other clauses of the Canadian act penalise contracts to unduly limit competitive production or sale—as though judges could tell where there is no over-production or unfair price. Similar objections were held fatal to an attempt made to bring a ring of shipowners within the English law of conspiracy ("Mogul S.S. Co. *v.* MacGregor," *Law Reports* (1892), App. Ca., p. 25; see Lord Bowen's judgment). There are many immoral practices on the part of rings; but competition, public opinion, and what Andrews calls "the tolerance of the market," have hitherto proved a more effective remedy than this abortive recrudescence of mediævalism.

[E. B. Andrews, "The Combination of Capital," in *International Journal of Ethics*, iv. 321.—"Trusts according to Official Investigation," in *Quarterly Journal of Economics* (Jan. 1889).—J. Bryce, *American Commonwealth*, chs. lxiii. lxiv. lxxxviii. lxxxix.—C. Buecher, "Les Syndicats Industriels," in *Revue d'Économie Politique*, Dec. 1894.—Von Halle, *Trusts or Industrial Combinations and Coalitions in the United States* (1895) (bibliography).—J. S. Jeans, *Trusts, Pools, and Corners* (1894).—J. W. Jenks, "Trusts in the U.S.," in *Ec. Journal*, 1892, p. 70.—Manuelov, *Industrial Syndicates*, St. Petersburg, 1895.—A. Menzel, "Les Cartels," in *Revue d'Éc. Pol.* (Nov. 1894).—T. C. Spelling, *Trusts and Monopolies*, 1893 (only legal).—Verein für Socialpolitik, *Ueber wirthschaftliche Kartelle in Deutschland und im Auslande* (1894) (perhaps the best).—G. O. Virtue, "The Anthracite Combinations," in *Quarterly Journal of Economics* (April 1896).] J. D. R.

RING MONEY, probably a specialised form of bar money; seems to have been in use at a very early period in the east, where, as in the west,

it preceded coined or stamped metal. That the Egyptians employed ring money is proved by their extant paintings, where heaps of rings of gold and silver are represented as weighed in scales. Some have thought that a metallic currency of this kind is alluded to in Gen. xliii. 21, where the sons of Jacob find their "money in full weight" in the mouths of their sacks.

Ring money still circulates in Africa, and under the name of *Manillas* is yet manufactured at Birmingham for African trade.

From the east, ring money probably found its way into Europe, and into Gaul and the British Isles, where Cæsar found it in circulation. "They use," he says, "either brass money or gold money, or, instead of money, iron rings adjusted to a certain weight" (E. Hawkins' *English Silver Coins*, pp. 8, 9, London, 1841, 8vo). One specimen found in Orkney is composed of three bars of gold twisted together like a cord. A remarkable silver chain of thirty-three rings weighing over ninety-three ounces, now in the Museum of the Scottish Antiquities, was dug up in 1805 near Inverness. About the middle of this century a hoard of silver ring money was found in the cuttings for the Waterford and Kilkenny railway, but unfortunately it was dispersed and lost with the exception of one ring, concerning which the Rev. Jas. Graves read an article before the Kilkenny Archæological Society on 16th March 1853.

[*Ency. Brit.*, "Money," quot. from Tylor, p. 283, also *Chambers's Ency.*, art. "Ring Money."]

A. L.

RISK (as element in cost of production) is the negative of the quantity which Laplace calls *espérance*, that is, probability multiplied by advantage. The advantage may be either "mathematical" or "moral," measured by value in exchange or value in use. When there is an even chance of obtaining a certain sum, the mathematical expectation of gain is exactly balanced by the risk; but the utility which would be lost by the subtraction of the sum is greater than what would be gained from the addition thereof. "Gambling involves an economic loss, even when conducted on perfectly fair and even terms" (Marshall, *Principles of Economics*, bk. iii. ch. vi. § 6, note 3rd ed.). Conversely, "a theoretically fair insurance against risks is always an economic gain" (*ib.*). The subjective "loss" is less, *ceteris paribus*, the less the "marginal utility" of money to the person incurring risk. This principle applies to the risk run by the capitalist entrepreneur, against which insurance is usually not available. The advantage which a large business has in being able to encounter risk has been lucidly pointed out by Professor J. B. Clark. The principle partly accounts for the growth of joint-stock companies.

Indemnity for risk, as explained by Mill (*Pol. Econ.*, bk. ii., on "Profits"), forms one element of gross profits. If we ascribe the other two elements—an "equivalent for abstinence," and "remuneration for the labour and skill of superintendence"—to interest and earnings respectively, remuneration for risk seems to remain as "pure profit."

It is difficult, however, to abstract risk from the care exercised by him who incurs it. "This use of the term" (profits), says Professor Marshall, "is on the whole not advantageous, because it tends to class the work of management with mere routine superintendence" (*Principles of Economics*, bk. vi. ch. viii. § 2, 3rd ed.). Risk, as an element of profit, appears in its purest form—most detached from labour of superintendence—in the case of joint-stock undertakings.

[Laplace, *Théorie Analytique des Probabilités*, ch. x. (De l'espérance morale).—Mill, *Pol. Econ.*, bk. ii. ch. xv.—J. B. Clark, *Quarterly Journal of Economics*, vol. v. p. 313 ("profit in an accurate sense of the term . . . results from an unbalanced condition of industrial groups").—*Ibid.*, vol. vii.—*Insurance and Business.*—Marshall, *sub voce*, "Risk." For increased value owing to absence of risk see PREFERENCE SHARES.]

F. Y. E.

RISTOURNE (Fr.). A term of marine insurance meaning the return of a part of the premium in the case mentioned in the *Code de Commerce*, art. 349, that is to say, in the event of the voyage being abandoned before the departure of the ship, in which event the insurer, instead of receiving the agreed premium, is entitled to ½ per cent of the insured value, by way of indemnity. Over-insurance is also a case for a *ristourne*.

T. L.

RIXDALER (DUTCH). The Rijksdaaler is a Dutch silver coin of the same weight, 25 grammes, or 385·8 grains, as the five franc piece, but of the millesimal fineness of 945, instead of 900. It thus contains 364·58 grains of fine silver, as compared with 347·22 grains, the fine content of a five franc piece.

The weight and fineness of the rijksdaaler were fixed by a law passed on 22nd March 1839. Prior to that date the weight had been 28·078 grammes, and the fineness 868, in accordance with the provisions of the law of the 28th September 1816. Before the passing of the last-mentioned law, the legal fineness had been 869·792.

Rijksdaalers are current in the Netherlands, where they pass as 2½ gulden pieces, but they circulate mainly in the Dutch colonies.

In Ceylon, Malacca, and the Cape of Good Hope, originally Dutch colonial possessions, the rixdaler was retained as the basis of the currency systems of those countries for many years after they became British colonies, and in the case both of Ceylon and the Cape, which finally became British possessions in the years 1795 and 1806 respectively, it was not until about the year 1840 that paper rixdalers were finally removed from circulation.

[Noback, *Münz- Mass- und Gewichtsbuch.* — Chalmers, *History of Colonial Currency.*]

F. E. A.

ROBERTS, LEWES (died 1641), merchant and captain of the city of London, belonged to a Beaumaris family, and was born in the Isle of Anglesey. He was a member both of the East India Company and of the Levant Company of Merchants. The 1st dedication of his *Mappe of Commerce* is to Alderman Abbot and Alderman Garraway, the governors of these companies; the 2nd dedication is to the Harvey family, of whom William Harvey, D. of Phys., was the first, which he had served as a factor; the 3rd dedication being to the merchants of England in general. The eulogies in verse—including the graceful lines signed Iz. Wa.—are witnesses to the respect in which the author was held. His sons Gabriel and William were also merchants (for the former, see *Memoirs of the Verney Family*, iii. 371).

His *Merchant's Mappe of Commerce*, 1638, very highly extolled on its appearance, is a handbook of practical mercantile knowledge, compiled with immense industry and care, and showing an intimate acquaintance with foreign customs and writers on commercial subjects. Besides the geography of the world, it contains a mercantile description of all places of any importance, of their produce and exports, their weights and measures, currency and exchanges, and of the course of their trade not only with England but with every other country concerned.

In his *Treasure of Traffike, or a Discourse of Forraigne Trade*, 1641, which he dedicated to parliament, Roberts ventured into the region of theory. The tract was an appeal for the encouragement of commerce by the state, and suggested state control through authorised merchants of experience. In it he advocated trading companies with geographical limits rather than independent adventurers; he laid stress on the importance of good roads and other internal communications, and on the necessity for a sound coinage; he upheld staple towns; he deprecated monopolies and private patents, and argued against heavy customs. While slightly discussing the policy of protective duties in general, he entered at some length into that of prohibiting altogether the export of the precious metals, showing by some examples that money might be plentiful or scarce independently of the laws regarding its exportation.

[*Harleian Soc. Publications*, vol. 17, p. 202, vol. 37, p. 4 (date of burial 12th March 1640, presumably old style, really 1641), and vol. 8, p. 323 (Neve's *Book of Knights*).—Introductory pages to 1st ed. of *Mappe of Commerce*, 1638.—Macpherson, *Annals of Commerce*, an. 1641.—M'Culloch, *Literature of Political Economy*, p. 37.—Rogers, *History of Prices*, vol. vi. p. 7.—MS. note to title-page of *Treasure of Traffike*, Brit. Mus. copy, 1641.]

E. G. P.

ROBERTSON, GEORGE (born a few years before 1765, living in 1829), a practical farmer and writer on agriculture. He lived in Midlothian, where he had a farm at Granton near Edinburgh, until 1800, in Kincardineshire till 1811, and at Irvine in Ayrshire, where he was factor to the Earl of Eglinton, probably until his death.

He was employed to draw up descriptions of the counties he knew best for the *General Report* of the agricultural state of Scotland which was brought out under the supervision of Sir John SINCLAIR (*q.v.*). Robertson's *General View of the Agriculture of Midlothian* was printed, in its preliminary form, in 1793; his *Agriculture of Kincardineshire, or the Mearns*, not until 1813. His reports are comprehensive and detailed, describing the state of roads, farm buildings, live-stock, tillage, implements, wages, etc., with a good many careful statistical tables. He contributed also some minor papers on special subjects, for example, on woods and plantations.

Besides these official reports his chief work was, *Rural Recollections, or the progress of improvement in Agriculture and Rural Affairs*, 1829, a book full of interesting information, chiefly drawn from his own knowledge of the three counties in which he had lived. Ch. xii. of the description of Midlothian contains an account of the old runrig cultivation (see RUNDALE). He was a keen and intelligent observer and a pleasant writer, confining himself almost entirely to facts, except when he touched on the corn laws, which he strenuously upheld against the free trade theories of the day.

His other works were less important: A continuation up to date of G. Crawfurd's *General description of the shire of Renfrew*, 1818; and a *Topographical description of Ayrshire, more particularly of Cunninghame*, 1820.

[Title-page of *Report on Midlothian.—Rural Recollections*, pp. 7, 8, for autobiographical details.]

E. G. P.

ROBINSON, HENRY (fl. 1641-56), merchant, parliamentarian, and member of the committee for taking the accounts of the Commonwealth (*Cal. of State Papers, Dom. Ser.*, 1654, p. 287), was the author of one important book, *England's Safety in Trade's Encrease* (1641); his other works, *e.g. Briefe Considerations concerning the Advancement of Trade and Navigation* (1649); *Office of Addresses* (1650); *Certain Considerations, etc.* (1651); *Certain Proposals, etc.* (1652); *Certain Proposals, etc.* (1653), are of practical value, but do not elucidate his economic theory.

His conception of wealth was in advance of his age. According to A. Smith (*Wealth of Nations*, bk. 4, ch. i.), the title of MUN's book, *England's Treasure by Foreign Trade, or the Balance of our Foreign Trade is the Rule of our Treasure*, was the fundamental maxim of that age, and no writer looked on home trade as wealth unless it subserved foreign trade. The title of Robinson's book and of ROBERTS's *Treasure of Traffike* (1641), and such sentences as these about home trade, "accord-

ing to the increase whereof the nation is not only accommodated and *enriched* either by what they deal in or *with what they stand in need of*, but" its foreign trade is enhanced (*B. C.*, p. 3), "the wealth and welfare of this kingdom may justly be measured by the kingdom's traffic" (*E. S.*, p. 24), reveal glimpses of a larger view, which also found official recognition (Scobell's *Parliament Acts*, 1656, c. 5, preamble). These three books dealt the first, A. Smith dealt the final, blow at that mediæval hostility to trade to which Sully and Francis Bacon had imparted new life (cp. Hahl, *Zur Geschichte der volkswirtschaftlichen Ideen in England*, 1893, ch. v.). Again, Robinson praised trade because it "makes a nation populous" (*C. P.*, 1653, p. 13): Fortrey (1663) and his successors converted and therefore caricatured this proposition. Again, Mun, Misselden, and Roberts always wrote that increased trade meant increased revenue: Robinson's warning that trade will not be more unless customs are less, so that revenue will neither swell nor shrink, snapped this last link between English economics and Bodin's identification of revenue and national wealth (*E. S.*, p. 9; *B. C.*, p. 7). Again, Von Heyking (*Zur Geschichte der Handesbilanztheorie*, 1880, p. 77) suggests that Robinson invented the plan of transferring customs from exported to imported manufactures, and especially to luxuries. This plan was an obvious application of the creed of the Balance of Trade (*q.v.*), which since Stafford (1581) had had a sumptuary tinge (*ib.* p. 67); Misselden foreshadowed it (*Circle of Commerce*, 1623, pp. 134-135), and Roberts approved of it (*T. of T.*, pp. 36-39). Again every pamphleteer, notably Hitchcock (1580), Gentleman (1614), and S. Smith (1661), recommended the home fishery as a cure for beggary and substitute for workhouses: many, like Keymor (1601), pointed out in Robinson's words that "all other trades will follow of their own accord, one as it were begetting another," that it was what A. Smith called productive labour; I. R. (*The Trade's Increase*, 1615) urged the strength it would add to the navy, and lamented the waste of East Indian sailors and ships (one of which was named *The Trade's Increase*). Robinson held on all these philanthropic, economic, and political grounds that home-fishery and East Indian trade—he purposely omits the wool trade—were England's two chief sources of wealth and strength, and wished to encourage fishing by reviving the quaint laws instituting compulsory fast-days (2 & 3 Ed. VI. c. 19; 5 Eliz. c. 5, § 12, etc.; cp. *Parl. Hist.*, iii. 253), and by driving Dutch fishermen from our shores unless they settled, or half the crew and owners of their boats were English. This numerical compromise was old (1 Hy. VII. c. 8), and reappeared in 1660 (12 Car. II. c. 18, § 6). Robinson's pleas for a national bank (*E. S.*, p. 34; *Cal. of State Papers, Dom. Ser.*, 1650, p. 182, 1654, p. 364), for a labour (*O. of A.*), land, and wills registry (*C. P.*, 1652, pp. 18, 21), one supreme court of equity and common law (*C. P.*, 1653, p. 23), and county courts (*ib.*), were new then, and bore fruit long afterwards.

Other schemes reflected the views of various schools. Thus, he echoed Misselden's plea for stricter aulnage, "a mont de piété," etc. (see Aulnager; Monts de Piété) while he swallowed Malynes's nostrum for regulating exchange (*B. C.* pref.). Like Culpeper, Misselden, and Malynes, he wished to limit interest by law, and succeeded in 1651; although like Misselden and Malynes he attributed high interest to scarce money. Like Misselden and Roberts, he advocated mercantile courts, assignable debts, and the incorporation of traders trading to one place: his language on this last head is peculiarly like that of Roberts (*E. S.*, p. 45; *T. of T.*, p. 51). J. D. R.

RODBERTUS, Karl Johann (Rodbertus-Jagetzow) (1805-1875), was born at Greifswald in Swedish Pomerania, where his father was professor of law in the university. The elder Rodbertus removed in 1808 to Mecklenburg-Strelitz, where his wife possessed landed estate. The son was a student of law at Göttingen and Berlin from 1823 to 1826. After being employed for some years in legal offices in Prussia, he studied political economy, history, and philology at Heidelberg, and then travelled in France, Switzerland, and Holland. He purchased in 1835 the estate of Jagetzow in Pomerania (from which he is often called Rodbertus-Jagetzow), and resided there from 1836, taking an active part in local administration, and much occupied with the management of his property. He became in 1847 a member of the provincial diet, and sat in the second united diet. He was active in the struggles of 1848 as a warm supporter of German unity, and, at the same time, an earnest maintainer of the independence of the popular assembly as against the crown. He was appointed minister of public worship and instruction in the Auerswald administration, but very soon resigned in consequence of a disagreement with the other members of the government. After 1849 he retired from public life and devoted himself altogether to social studies.

Rodbertus's writings produced little effect in his lifetime, and he was not held in much esteem as an economic theorist until some recent writers—especially Adolf Wagner—brought his name into prominence. He is now regarded, except by the partisans of Marx, as the father of the so-called scientific, as opposed to the utopian, socialism. At first, we are told, an enthusiastic believer in traditional economic doctrines, he early worked out for himself, as explained in this article, what was in many respects a new system, which during the rest of his life he held without any noteworthy variation. His essential principles are already stated in a tract written in 1837, and well worth reading for its clearness and vigorous, though not faultless, reasoning—*Die Forderungen der arbeitenden Klassen;* and they are expounded again and again in his later productions, with little change even in their formulation. In order to understand his views, we must keep steadily before us his fundamental

doctrine (stated in his *Soziale Briefe an v. Kirchmann*, 1850) that all commodities cost labour and only labour—a proposition on which MARX afterwards laid much stress, but which, unless explained away by distinctions, is not true, and gives a perverted idea of the conditions of production. From this proposition Rodbertus infers that the best measure of the value of a commodity is the amount of labour which it has cost, or rather which is, on the average, necessary for its production.

Like most of the recent socialists, he has a philosophy of history of his own, which he explains in his *Untersuchungen auf dem Gebiete der National-Oekonomie des klassischen Alterthums*, and more briefly in his *Beleuchtung der sozialen Frage*, pt. ii. According to his scheme, society, after the introduction of pasture and agriculture, passes through three stages—the first the heathenish-antique, including successively the theocracy (Egypt, Peru), the caste-state (India), the satrapy (Persia), and the *Polis* (Greece and Rome); the second, or Christian-Germanic, comprehending the church state, the class-state (Stände-staat), the bureaucracy, and, lastly, the representative state; and the third the Christian-social, which is the organisation of the future. In the first stage the worker himself is the property of another. The second is based on property in land and capital, property in men having ceased to exist, and exchange is carried on through money and credit. In the third, land and capital will be the property of society at large; no private property but that in labour will be recognised; any one who produces anything socially useful will have a claim to the product of a labour equal to his own out of the general fund of the society.

The most serious existing social evils are, in his view, the diminution of the worker's proportional share in the products of industry—a diminution which he thinks is in process of steady increase; and the frequently recurring industrial crises by which the workers are the greatest sufferers. Both these evils he considers necessary results of the present economic system. They can be removed only by the final organisation above-mentioned, which, however, he thought it would take 500 years to introduce. But in the meantime reform was possible, especially a reform of wages. The possession of land and capital remaining as at present, the share of the wage-earner in the product of his labour must be augmented, he must be made to benefit by the increased and increasing productivity of labour, and he must be withdrawn, so far as it is possible, from the operation of the chances and changes of the market. He explains this transitional system in his essay "Der Normalarbeitstag" in the *Berliner Revue*, 1871. In order to divide the result of the national production equitably, that is, in the proportion of the contributions made to it by the several workers, the performances of the latter must be reduced to a common measure. Labour in different branches of business would be compared by means of a normal time-labour-day. Using definite numbers only to fix ideas, the normal time-labour-day being one of ten hours, six hours of mining work and twelve of work in textile manufactures might be taken as equivalent to the normal ten, the amount of effort and self-sacrifice expended in those times in the different occupations named being taken to be the same. If a man, then, worked only three hours in mining or six in textile industry, he would be regarded as having worked half a normal day. But this rule would not suffice; for the product of the work done in a time-labour-day by different men in the same occupation will be different. A fair average of the actual result which might be achieved in a normal time-labour-day must be struck in each sort of work, in other words a normal work-labour-day must be fixed for each. If a miner, though working for six hours, or a weaver, though working for twelve hours, were to accomplish only half the work which ought to be produced in a full time-labour-day, he would be credited with only half-a-day of normal work-time. But not merely does Rodbertus thus reduce to a uniform mode of measurement the various divisions of labour and the different grades of industrial capacity or assiduity; he similarly regulates the amount of reward for each contribution of work. He establishes for this purpose a labour currency instead of a metallic. The product of every sort of labour being measured by normal work-time, products of equal work-time would be equal in value, and both would receive as their remuneration drafts on the common fund for an amount of commodities which was the product of the same amount of work-time. The system here explained would be the necessary regulator, not only of the final collectivist economy, but also of a capitalism carried out under the supervision of the state by private persons owning the means of production, if the distribution were to be according to services rendered, and not, as in some socialist programmes, according to the wants of individuals. If private property in the means of production existed, it would be necessary first to set aside, out of the total product, the portions to be allotted to the owners of land and the capitalists who took part in the production. The whole system would require periodical or occasional adjustment according to changes in the value-in-use of commodities and services—"otherwise supply and demand could not be held in equilibrium, and the constant free circulation of the forces of labour among the various departments of it would not be secured."

In politics, Rodbertus was national and

monarchical, because he thought that the solution of social problems could be best elaborated in a Germany united under a royal house. He kept aloof from the democratic agitations of his time. He would tolerate, he said, no movement for exciting the working classes against the executive power. In economics, as we have seen, he accepted the present order provisionally as the natural outcome of the past, though he looked for a better in the future, and would not plunge suddenly into a new industrial system having no links of connection with the present. When urged by LASSALLE to join the *Arbeiterverein*, he decidedly refused to do so, though he continued in uninterrupted correspondence with Lassalle till the death of the latter. He set aside Lassalle's no less than SCHULTZE-DELITZSCH'S associations as supplying no adequate solution of the labour-problem, of which indeed no solution could be improvised, though a partial improvement of the workman's condition was already possible. Though he was in favour of universal suffrage, he did not approve of the policy of setting it before working men as their first object; if a political aim such as this were added to their economic demands, he thought the effect would be to lead their aspirations and efforts into wrong channels.

It has been disputed how far Rodbertus's views were original. The doctrine of the iron law of wages and of the steady decline of the workman's proportional share of the nation's industrial income, were reproductions, or perhaps exaggerations, of theories of RICARDO. And the notion of surplus value, which we find in him, had certainly been propounded previously by William THOMPSON. The idea of labour-money had been suggested before 1830; it was practically tried in the third decade of the century by Robert OWEN (see LABOUR EXCHANGE), and, after him, by PROUDHON. The question of MARX'S indebtedness to Rodbertus has been keenly debated. Engels repudiates any such obligations on the part of Marx, which, nevertheless, seem to be real and even considerable. It is difficult to prove that a later author *borrowed* from an earlier one, because he may have independently arrived at the same conclusions; but there is no doubt that Rodbertus had previously put forward some of the views most prominent in Marx's system.

Besides the writings of Rodbertus named above, may be mentioned as of special importance his *Zur Erkenntniss unserer staatswirthschaftlichen Zustände* (1842), and his *Offener Brief an das Comité des deutschen Arbeitervereins zu Leipzig* (1863). He handled various questions which were merely occasional or of purely German interest. Thus, he gave much attention to the reform of agrarian legislation, and especially to improved arrangements for enabling agricultural proprietors to borrow on the security of their land. In the sphere of general theory, he combated the law of the diminishing productiveness of capital applied to agriculture, and rejected the Ricardian theory of rent, substituting one of his own, which, however, seems not to have met with acceptance from any other economist.

Such of his writings as remained unpublished at his death, and could then be recovered, have been edited by Wagner and Kozak; and there have also appeared several series of his letters to Wagner (1878), to Peters (1878), to J. Zeller (1879), and to Rudolf Meyer (1882). Lassalle's letters to him have also been edited by Wagner; but his letters to Lassalle have not been found.

[Diehl in *Handw. der Sozialwissenschaften.*—Würth in *Allg. Deutsche Biogr.*—Ad. Wagner, *Einiges von und über Rodbertus-Jagetzow* (in the Tübingen *Zeitschrift für die gesammte Staatswissenschaft* (1878).—Georg Adler, *Rodbertus, der Begründer des wissenschaftlichen Sozialismus.*—W. H. Dawson, *German Socialism*, ch. iii. "Karl Rodbertus and the Wages Principle" (1888).—J. Rae, *Socialism.*] J. K. I.

RODRIGUEZ DE COLMENAR. See COLMENAR, RODRIGUEZ DE.

RŒDERER, PIERRE LOUIS, Comte (1754-1835) politician and author, was born at Metz and died at Bois-Roussel (Orne).

He was a deputy to the *États-généraux* in 1789, and frequently reporter to the committee of finance.

On the 10th Fructidor, year iv. (28 August 1796), Rœderer established a review, published each *decade*, the *Journal d'économie publique, de morale et de politique*, and thus collected round him many able contributors, as Laromiguieres, Madame de Staël, Lacretelle the elder, J. F. Bourgoing, Saint Aubin, André Morellet, Benjamin Constant, Du Pont de Nemours, Arnoult, etc. At this time another review, the *Décade* of J. B. SAY, established 29th April 1794, was at the height of its prosperity. Rœderer represented from the economic point of view the meeting-point between the PHYSIOCRATS and the disciples of Adam SMITH. J. B. Say belonged to the latter school. Either there was not place for two journals dealing with the same subjects or the public preferred the more slashing *Décade*, and Rœderer's journal existed hardly a year (5 vols. in 8vo). When J. B. Say on entering the *Tribunat* ceased to edit the *Décade*, November 1799, Roederer, a few days later, 30 Frimaire, year viii. (21st December 1799), recommenced his review, calling it this time *Mémoires* instead of *Journal*. This new periodical, however, existed even a shorter time than the former (2 vols. 8vo), and soon this scientific journal disappeared for ever.

Rœderer also edited a daily paper, the *Journal de Paris*, established 1776. He wrote many pamphlets on subjects of the day; among these it will suffice to give the name of one which appeared in 1840, entitled *Mémoires sur quelques points d'Économie politique lus au Lycée en 1800 et 1801* (8vo). Rœderer taught in 1800 political economy at the *Lycée*, now the *Athénée* of Paris. He was appointed in 1796 professor of political economy at the normal school (where Vandermonde had taught), but he never performed the duties. A. C. f.

ROESLER, KARL FRIEDRICH HERMANN (1831-1895), born in Munich, was appointed professor of the political sciences in the university of Rostock; resigned that chair in 1878, and in the following year went to Tokio as adviser on public law and commercial policy to the Japanese foreign office. In this position he is said to have exercised great influence. He died in Austria on his return from Japan.

His principal writings, besides articles in different periodicals on value, prices, income, and the international division of labour, are: *Zur Kritik der Lehre von Arbeitslohn*, 1861; *Grundsätze der Volkswirthschaftslehre*, 1864; *Ueber die Grundlehren der von Adam Smith begründeten Volkswirthschaftstheorie*, 1867 (2nd ed. 1871); and *Vorlesungen über Volkswirthschaft*, 1878. He belonged to the historical school, and to that branch of it in particular which insists strongly on the close relations which exist between economics and jurisprudence. Roscher praised him as having pointed with special force to "the treasure of experiences and ideas on economic subjects collected by the jurists during ages, and handed down by the characteristically persistent tradition of their profession." Cossa accuses him of having fallen into gross errors in the interpretation and criticism of the fundamental doctrines of Adam SMITH. Cossa does not specify these errors, but appears to refer to Rösler's opposition to the individualist principles of the liberal economists. The book *Ueber die Grundlehren*, etc., in fact, contains a searching and acute polemic not so much against Smith himself as against what the Germans call *Smithianismus*, the system of the so-called classical school. Rösler's discussion of elementary ideas and his strictures on the ordinary terminology are often sagacious and just. In his *Vorlesungen* he maintained, as necessary and desirable, the predominance of the capitalist in the regulation of industrial life, and objected to coalitions amongst the working classes, as furthering the dangerous agitation of the social-democratic party. These opinions led to a sharp attack on him by Max Hirsch in an article entitled "How one qualifies oneself for Japan."

[Lippert in *Handw. der Staatsw.*—Cossa, *Introd. allo Studio dell' E.P.*, p. 438, English ed., 1893, pp. 286, 403, 420.] J. K. I.

ROGERS, JAMES EDWIN THOROLD (1823-1890). Thorold Rogers was educated at King's College, London, and at Magdalen Hall, Oxford, where he took his bachelor's degree, with a first class in *Literæ Humaniores*, in 1846. He entered holy orders in the Church of England, and took some part in the High Church movement, contributing an article to Orby Shipley's *Church and the World*. But his attention was drawn to economics by his friendship with COBDEN; and in 1862 he was elected to the Drummond professorship of political economy at Oxford.

The fruits of his professorship were the first two volumes of his monumental *History of Agriculture and Prices in England*, covering the period 1249-1400 (1866), his *Manual of Political Economy for Schools* (1868), and an edition of Adam Smith's *Wealth of Nations* (1869). Owing to academic antagonisms, however, the convocation of the university, which at that time had the right of electing to the Drummond Professorship, refused in 1868 to elect Rogers for a second term. He then turned to current politics, surrendered his clerical status, and in 1874 stood as a candidate for parliament at Scarborough. He did not succeed in securing his election till 1880, when he was chosen in the liberal interest at Southwark. He was re-elected for Bermondsey, a division of Southwark, in 1885, but he lost his seat in 1886. Meanwhile he wrote *Cobden and Public Opinion* (1873); edited the *Speeches of John Bright* (1868), the *Protests of the Lords* (1875), and Gascoigne's *Liber Veritatum* (1881); issued (1882) the third and fourth volumes of his *History of Agriculture*, covering the period 1401-1583; wrote a popular account of his conclusions concerning economic history, under the title *Six Centuries of Work and Wages* (1885); as well as a number of popular articles and booklets, of which perhaps the best is *The British Citizen* (1885). After the loss of his seat in parliament, he turned with renewed zeal to his historical researches, and was able to issue in 1887 the fifth and sixth volumes of his *History* (for the period 1584-1702), and the *First nine years of the Bank of England*. For many years he had held the almost nominal Tooke professorship of economic science at King's College, London, and he had lectured at Worcester College, Oxford; in 1888 he was re-elected to the Oxford professorship. Two courses of his professorial lectures have been printed under the titles, *The Economic Interpretation of History* (1888), and, posthumously, *The Industrial and Commercial History of England* (1892). The 7th and 8th volumes of his *History*, coming down to 1793, are being prepared chiefly from material he had collected, by one of his sons, Mr. A. G. L. Rogers.

Thorold Rogers's reputation rests on his *History of Agriculture and Prices*, which will remain an extremely valuable repertory of material for economic history, however much subsequent writers may dissent from the conclusions he believed he could draw from them, and however much it may need to be supplemented by evidence of other kinds. His attitude with regard to general economic theory and economic policy remained throughout that of the MANCHESTER SCHOOL; in his earlier writings he was also greatly affected by the writings of BASTIAT. In his later years, however, he saw his way to defend trades unions; he had long ridiculed the Ricardian doctrine of rent; and in his later works he was inclined to speak of "political economists" in terms which magnified his own divergence from them.

[See an article by W. J. Ashley in the *Political Science Quarterly* (New York), iv. (1889), 381; and the notice by E. Castelot in *Nouveau Dictionnaire d'Économie politique*, Supplément.] W. J. A.

ROHR, JULIUS BERNHARD VON (1688-1742), a protestant canon at Merseburg, displayed

from his very youth an active interest in economic questions ; early in life in his thesis for his doctor's degree, he took up the subject of the advancement of economic study (*De excolendo studio oeconomico tam principum quam privatorum*, Leipzig, 1712), and argued for the establishment of professorships of economics in the universities.

In his *Compendieuse Haushaltungs-Bibliothek*, Leipzig, 1716, Rohr also urged the foundation of state-subsidised economic societies, to which he desired to commit the supervision of economic measures of general interest ; the main object of his writings, however, is the minute investigation of the means of enabling each individual to prosper in his calling. To combat the contempt with which the nobility looked down on trade and traders, he maintains that as a matter of fact noblemen trade with their cattle and corn, the learned with their writings, the soldiers with their bodily and muscular strength : trade is thus almost universal among mankind.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 378.] E. Ca.

ROLT, Richard (1725-70), had served in the Jacobite army in the '45, and thereafter lived in London by his pen. Besides poems, operas, and especially political pamphlets, he produced a commercial dictionary with an introduction by Samuel Johnson, 1756. The contempt expressed for this book by M'Culloch in his *Commercial Dictionary*, 1832, and especially in his *Literature of Pol. Econ.*, 1845, goes too far, though the main motive of the three parties most concerned in it — Rolt, Osborne, and Johnson—was probably to make money.

The volume is a folio of between 400 and 500 unnumbered pages, preceded by a full-length frontispiece representing British commerce and maritime power, with the motto from *Æn.* v. 195, "Superent quibus hoc, Neptune, dedisti." The title runs : "A New Dictionary of Trade and Commerce, compiled from the information of the most eminent merchants and from the works of the best writers on commercial subjects in all languages, containing among other things :—

"I. An account of the natural productions which are conducive to trade throughout the world.

"II. The different manufactures established in each particular country.

"III. Explanation of all the terms used in commerce.

"IV. Explanations of the principal terms of geography, astronomy, and navigation, so far as they are connected with trade.

"V. An exact account of the coins, weights, and measures in use throughout the world, reduced to the English standard.

"VI. A description of the established banks, trading companies, and staple commodities of different countries.

"VII. The state of the British trade, national debt, funds, customs, excise, and other taxes.

"VIII. The laws relative to trade and commerce.

"For the use of the merchants and tradesmen of Great Britain as well as of private gentlemen. By Mr. Rolt, with the assistance of several eminent merchants." (London, Osborne, etc., 1756.)

The first or editor's preface is dated 24th December 1755, and addressed to Lord High Admiral Anson ; it refers to French competition and to Savary's *Dictionary* and its exaggerations of French greatness.

Boswell (*sub dato* 1761) gives Johnson's own admission of his authorship of the second preface, but says it first appeared in the 2nd edition, 1761. It appears, however, in the 1st edition, 1756. The style is characteristic. "The writers of this volume are not so far exempt from epidemical prejudices but that they please themselves with imagining that they have reserved their labours to a propitious conjuncture, and that this is the proper time for the publication of a Dictionary of Commerce." The dictionary proposes to exhibit "the materials, the places, and the means of traffick," the means including education, especially in book-keeping and money matters. "All this he [the merchant] must learn merely as a private trader attentive to his own advantage ; but, as every man ought to consider himself as part of the community to which he belongs, and, while he prosecutes his own interest, to promote likewise that of his country, it is necessary for the trader to look abroad upon mankind and study many matters which are perhaps more properly political than mercantile," such as the balance of trade, the good and evil of monopolies and companies, the state of our colonies, the duties and taxes. "To teach all this is the design of the commercial dictionary, which, though immediately and primarily written for the merchants, will be of use to every man of business or curiosity. There is no man who is not in some degree a merchant, who has not something to buy and something to sell, and who does not therefore want such instruction as may teach him the true value of possessions or commodities." "We therefore hope that we shall not repent the labour of compiling this work, nor flatter ourselves unreasonably in predicting a favourable reception to a book which no condition of life can render useless, which may contribute to the advantage of all that make or receive laws, of all that buy or sell, of all that wish to keep or improve their possessions, of all that desire to be rich; and all that desire to be wise."

The vindication of the alphabetical form of the book is worthy of the lexicographer : "Sciences [like arithmetic or geometry] in themselves systematical and coherent, are not very properly broken into such fortuitous distributions. But commerce comprised in its whole extent seems to refuse any other method of arrangement, as it comprises innumerable particulars unconnected with each other, among which there is no reason why any should be first or last, better than is furnished by the letters that compose their names." J. B.

ROMAGNOSI, Gian Domenico (1761-1835). Born at Salso Maggiore, Parma ; one of the most brilliant philosophers and jurists of Italy. He graduated at Parma, his first studies having been in physics and mathematics. He published in 1791 his *Genesi del diritto penale*, an important work which brought him into notice both in Italy and abroad. From 1791 to 1802 Romagnosi resided in Trent, first as a magistrate and then as a practising jurist. In 1802 he was appointed to the chair of public law at the university of Parma, in 1806 he was called by the ministers of the first kingdom of Italy to Milan, where he compiled the code of penal law. In 1807 he was made professor of civil law at the university of Pavia, and, shortly afterwards, was summoned by the government to Milan to occupy a professorship established for the improvement of higher legislation. During the latter years of Romagnosi's life he was deprived of his official appointments, reduced to live by writing for different reviews and to accept help from his devoted friends ; he died in Milan.

Romagnosi's energy embraced many branches of knowledge ; his numerous works, which went through several editions, bear witness to his ability. The chief are : *Genesi del diritto penale* (1791).—*Introduzione allo studio del diritto pubblico universale* (1805).—*Assunto primo della*

scienza del diritto naturale (1820).—*Dell' indole e dei fattori dell' incivilimento* (1832). The philosophy of Romagnosi is essentially eclectic and moderate in tone; without presenting new ideas, it gives a powerful synthesis of the political and social theories of the 18th century. Yet it is not lacking in true originality as shown by the conception of the philosophy of social life as the science of sciences and crown of knowledge; this places Romagnosi among the precursors of sociology. Germs of the present positive school of law are distinctly found in his work on the factors of civilisation as well as in his *Genesi*. Romagnosi's fundamental principle, the strictly positive method of observation he employs, the data he uses, the results he arrives at, are closely allied to the modern direction of juridical philosophy, and present a close analogy with the positivism of Herbert Spencer. Economic ideas abound in his principal works; particularly in his *Introduzione al diritto pubblico*, in his *Principii di diritto amministrativo*, in the *Assunto primo di diritto naturale*, in the *Fattori dell' incivilimento*, and more especially in the *Istituzioni di civile filosofia*, published 1839 after his death. Romagnosi wrote numerous articles on economic and statistical subjects, which appeared chiefly in the *Annali universali di statistica*, which develop more fully his economic doctrines and illustrate the relation between economics and law. These articles, written during the last and saddest years of his life, are not considered as among his best productions; they were collected in two volumes. He maintains that the material superiority of a nation can only be secured by an equal distribution of wealth; he vindicates the practical character of economic science, combating useless abstractions, and demanding that man be considered, not individually, but as a member of the social circle he lives in. Romagnosi formed an essentially historic conception of economic phenomena, studied objectively. Dogmatism in political economy, he says, is opposed to common sense—permissible, perhaps, in olden but not in modern times. He applies this idea to international trade, in which, while accepting the truth of the principle of absolute free exchange, he maintains the necessity of a reference to history, asserting that there exist social conditions under which universal competition is impossible. He examines private property in land from that standpoint, which regards it as an historical institution, changing as the social conditions change, and justified by the necessity of improving and developing the cultivation of the land to provide for an increasing population. Romagnosi's definition of political economy as the *Scienza dell' ordine sociale della ricchezza* is reproduced by Cossa and adopted by the majority of the present Italian economists. The most important points in Romagnosi's economic doctrine are those bearing on the relation between economics and law, free competition and state interference. The legal sociologist can be traced in all Romagnosi's economic writings; the liberal economist in those on judicial matters, and the experimental philosopher in both one and the other. He sees clearly the connection between economic and juridical principles, and aims at the conception of a public economic law as a guide to social requirements. He endeavours above all things to apply his doctrines practically. Romagnosi's enlightened eclecticism inspires his ideas on competition and state interference. *La Socialità* and free competition are, according to him, essential economic conditions. The conception of egoism must be modified by that of sociology. He formed a judicial conception of individual economic liberty, demanding restrictions for the protection of individuals and of society; different restrictions, according to the progress of social development. Free competition—the more efficacious, the more equal the intelligence and the freedom of each individual—requires, according to Romagnosi, three essential conditions, social powers to be made equal, this equality protected by the law, and mutual public assistance enforced to the advantage of the weak. Finally, as for state interference, though Romagnosi combats such interference in economic and commercial matters, he is very far from advocating an absolute absence of control. He urges the necessity of the formation and maintenance of a social power, limiting individual action, thus protecting the liberty of all, and to this power he assigns the task of promoting economic, moral, and political improvement. In economic matters state interference should be regulated by social requirements, differently developed according to the conditions of place and time, stepping in where individual action is incapable of obtaining good and useful results. The best edition of the complete works of Romagnosi, of which we have quoted the principal ones, is that of Milan, 1841. His papers on economy are collected in two volumes: *Collezione degli articoli di economia politica e di statistica di G. D. R.*

[Concerning the philosophical and juridical ideas of Romagnosi, see, among many others, G. Ferrari, *La mente di G. D. Romagnosi*, Milan, 1835.—A. Pilo, "La filosofia civile di G. D. Romagnosi," Milan, 1882, in the *Filangieri* (a well-known review published in Milan).—Concerning his economic ideas, see G. Valenti, *Le idee economiche di G. D. Romagnosi*, Rome, 1891.] U. R.

ROMAN LAW has now a history extending over twenty-three centuries. It has influenced the existing law of all civilised countries, and in a modified form is actually the law in a large part of Europe. The influence it has exerted over the rights of property renders it especially deserving notice in a work dealing with economics. The history of Roman law begins with the "twelve tables," 450 B.C. Their enactments, though not actually preserved in a complete form, are known through numerous quotations and references in the works of Roman historians and lawyers. This law dealt with the two principal transactions occurring in the life of ancient Rome—the "mancipatio," the sale in solemn form in the presence of five witnesses, and the person holding the scales in which the copper coin used for payment of the purchase price was weighed; and the "nexum," the loan in solemn form. As the development

of commerce in the following centuries necessitated conveyances and contracts, not being sales or loans in the strict sense, the pontiffs, whose duty it was to act as preservers and interpreters of the law, devised new means for giving legal validity to such conveyances and contracts. This was done with the help of what was called the "interpretatio" of the law of the twelve tables. This meant something more than interpretation in the strict sense, being rather an extension of the provisions of the law by way of analogy. Thus a rule of procedure contained in the twelve tables—according to which the admission of a claim in an action was equivalent to a judgment in favour of the plaintiff—was used as a convenient method of transferring ownership in cases where there was no sale, or where the forms of the "mancipatio" were not applicable. This procedure was called "in jure cessio," and had a very striking resemblance to the "common recovery" of English law, which was used as a means for barring entails (see ENTAIL, LAW OF). The further progress of "interpretatio" made it possible to use the forms of "mancipatio" for a variety of purposes which had previously not been thought of. The custom arose to comply with the form of "mancipatio" by paying down a nominal sum (mancipatio sestertii nummo uno), by which means, in the case of a real sale, the property was made to pass before the actual purchase price was paid; and in other cases the property could be transferred by the mere fiction of a sale. The transaction called "fiducia," introduced in a similar way, has special interest to English students of legal history, as it was the prototype of "uses" and "trusts." "Fiducia" was a conveyance of the property by "mancipatio," in connection with which the transferee undertook in certain events to reconvey the property to the transferor. This method was principally used when the property was transferred by way of security for a loan, and was to be retransferred on repayment of the loan, but was also applied for other purposes (depositum; commodatum; mandatum).

Another agency was at work by the side of the "interpretatio," which helped to deliver Roman law from the bondage of formalism. This was the expansion of the Roman state and the intercourse of Romans with persons who, though resident within Roman territory, were excluded from the privileges of Roman citizenship. These persons were not under the rules of the civic law—"jus civile," and their transactions were governed by a sort of natural law which was called "jus gentium," because it embodied certain elements common to all the tribes who traded with Rome. This law was also applicable to certain kinds of property in which the full ownership of Roman civil law ("dominium ex jure Quiritium") was not recognised, and which, in contradistinction to things which were transferred by "mancipatio" ("res mancipi"), were called "res nec mancipi." The former category included such things only as belong to an archaic agricultural community (land in Italy, slaves, animals used in connection with agriculture), whilst articles of trade and money belonged to the things which were transferable by mere delivery without the forms of mancipatio. Judicial arrangements, introduced 367 B.C., when a new office—that of the "prætor"—was created for the purpose of superintending the administration of justice, helped considerably to increase the influence of the "jus gentium" on Roman law. This was more particularly the case since the appointment, 242 B.C., of a special "prætor peregrinus" for disputes between aliens and Roman citizens, or between aliens *inter se*.

The prætor had a certain liberty in administrating the law, which enabled him to relieve the persons concerned from the harshness of the letter, as in England the equitable jurisdiction of the chancellor has been employed to prevent an abuse of legal rights. The methodical spirit of the Roman nation prevented a capricious exercise of these discretionary powers, and led to the introduction of a custom according to which each prætor laid down certain rules which he intended to observe permanently during his year of office, and which he collected in an edict called "edictum perpetuum." As successive prætors acquired the habit of retaining such parts of their predecessors' edict as did not require alteration, and of adding such new matter as seemed convenient to them, the pretorian edict soon became a regular body of law, called "jus honorarium." During the last century of the republic the edicts attained a stereotyped form, and were reissued from year to year without alteration. Under Hadrian the two edicts were put together and revised by Salvius Julianus, and made binding by statute (*Senatus consultum*). Thus Roman law at the beginning of the 2nd century A.D. consisted of the "twelve tables," the customary law added to them by "interpretatio," the "jus gentium" as embodied in the "Edictum Hadrianum," and those additions to law which had been made by imperial legislation—such legislation having already at that stage assumed a certain importance.

During the following centuries the influence of the jurists was the dominant factor in the development of law. This influence was fostered by the "jus respondendi," a privilege which, since the reign of Augustus, was granted by the emperor to distinguished lawyers, and gave their opinions the same authority which in England is attributed to the decisions of the superior courts. Massurius Sabinus, a follower of C. Atejus Capito—a well-known jurist during the reign of Augustus—appears to have been the first to establish a legal school during the reign of Tiberius, and an opposing school was formed by Proculus, a disciple of Labeo (another distinguished Augustan jurist); for some time afterwards the jurists were divided into two camps, the "Sabinians" and the "Proculians" (Celsus, Salvius Julianus, and Gajus being the most

prominent authorities of that period), but the difference between the two schools disappeared in the subsequent period, of which Scaevola and Papinian, Ulpian and Paulus are the best representatives. The "jus respondendi" ceased to be conferred after the end of the 3rd century, and from that time the power of the emperors was the only influence affecting the development of law. The work of the jurists had brought about the collection of the elements previously mentioned into a systematic whole, but the emperors now gradually exerted themselves to eliminate the differences between the various elements. This was facilitated by the gradual disappearance of the distinctions between "cives" and "peregrini" and the other changes which transformed the dominion of a city into the rule of a cosmopolitan empire.

But the emperors, besides this work of unification, set themselves another task, viz. that of codification. For this purpose the old law which had been digested by various jurists had to be declared in an authoritative manner, and the new statute law had to be collected and arranged. The first task was facilitated by a statute of Theodosius and Valentinian, which selected five authors whose works were to be the only ones possessed of authority. These were :—Papinianus, Paulus, Gajus, Ulpianus, and Modestinus. They were selected because, at the time, their writings were more widely circulated than those of other writers like Scaevola, Sabinus, Julianus and Marcellus, which were not to have any authority except in so far as they were quoted by the above-mentioned authors. In cases of difference of opinion the majority was to decide, but the opinion of Papinian was to prevail over the opinion of any other single writer.

The earlier statutes of the emperors, which, like the law expounded by the jurists, were considered part of the *old* law, were during the 4th century brought together in two collections respectively called the Codex Gregorianus and the Codex Hermogenianus, and the later statutes which constituted the new law were, in 438 A.D., collected in the Codex Theodosianus. The statutes subsequently issued are known as the Post-Theodosian Novels.

These materials, the selected writings of the jurists, the collections of older statutes, and the Theodosian collection and Post-Theodosian Novels were in existence when Justinian undertook his great work which now forms the Corpus Juris Civilis, and in its present arrangement consists of four parts: (1) the Institutes, being an elementary summary of the law divided into four books; (2) the Digest or Pandects, being a collection of passages from authoritative authors arranged according to subjects in fifty books; of these, the forty-seventh and forty-eighth books deal with criminal law and are commonly called "libri terribiles"; (3) the Codex, which embodies the whole of the imperial statutes, and is subdivided into twelve books; (4) the Novels, being Justinian's subsequent statutes, some of which contain very material alteration of the law.

The law, as embodied in Justinian's collection, is now commonly called "Roman Law." This body of law formed the subject of study when, on the foundation of the university of Bologna (about 1100 A.D.), students from all parts of Europe came to that seat of learning. It was then that the belief formed itself that "Roman law" was a kind of universal law, and that the native law prevailing in different places only represented local deviations from universal rules. This belief was, of course, strongest in the territories forming part of the holy Roman empire, regarded by many as a continuation of imperial Rome, and this fact accounts for what is called the "reception" of Roman law, which, subject to local customs, became the common law of the countries now forming part of the German empire, Holland, Austria, and Switzerland. The increased influence which the "doctors of law," who were persons learned in Roman law, began to obtain during the 15th century in comparison to the lay judges who administered the local law, helped to bring about this result, confirmed by express enactment of the establishment of the Imperial Chamber Court in 1465 (see CAMERALISTIC SCIENCE).

The system of Roman law thus introduced into Germany and other countries did not, however, in its permanent form, remain identical with the law of Justinian; a body of law somewhat modified by the principles of canon law, local custom, and the necessities of modern commercial intercourse, was gradually formed by the decision of the judges; and this modernised Roman law has survived in a great part of Germany, but will in 1900 be superseded by the new German civil code. The law which is now operative in other parts of Germany, in Switzerland, Austria, France, Holland, and Italy is also influenced to a great extent by the doctrines of Roman law, and Dutch-Roman law prevails in several British colonies and dependencies, *e.g.* the South African Colonies and Ceylon.

In England the influence of the Italian jurists was also considerable, but the fact that the English kings were national kings, and did not claim universal dominion, coupled with the circumstances that the English courts were much more centralised and better able to develop a national system of law than the courts on the continent, prevented the wholesale introduction of Roman law into this country. It is true that Roman law was, at a very early period, taught in Oxford by Vacarius and others, and that the writings of Glanville and Bracton represent the law of their time as very similar to Roman law; but their ideas did not, notwithstanding their great reputation, obtain a permanent footing. No doubt the Chancellors whose jurisdiction began to assume importance under Richard II. were influenced by certain ideas derived from Roman law—more particularly those which enabled them to draw a distinction between formal and beneficial ownership, but the equity jurisprudence which they established soon assumed a character of its own, not retaining many traces of a foreign origin. The law administered by the admiralty court and the bishops' courts, a part of which is still preserved in the practice of the probate division of the high court, was more directly influenced by the principles of Roman civil and canon law.

Owing to the long history of Roman law, it has received a vastly greater amount of attention from juridical science than any other system of law, and its study is therefore best fitted as a means for explaining the general features of law to beginners. At the same time the early stages of the development of the system, which antiquarian research, aided by the writings of the Roman jurists and historians, has reconstructed in a very complete manner, are eminently interesting to students of the progress of social and economic intercourse among men.

[The literature of Roman law is so vast that it is impossible to enumerate even the most important works. By way of general introduction, Sohm's *Institutes of Roman Law* translated by Ledlie, with an introductory essay by Erwin Grueber, will be found most useful as well as Salkowski, *Institutionen des rom. Rechts* (translated into English by Whitfield). See also Poste, *The Elements of Roman Law of Gajus*.—Moyle, *Imperatoris Justiniani Institutiones Libri Quatuor*, 2 vols.—Holland and Shadwell, *Select Titles from the Digest of Justinian*. Of the books containing a full account of the system of Roman law as now practised in certain parts of Germany, Dernburg's *Pandekten*, 3 vols., is distinguished by lucidity of exposition and arrangement.

An interesting account of the early history of Roman law is to be found in Mommsen's *Roman History*. Sir Henry Maine's *Ancient Law*, and Ihering, *Der Geist des römischen Rechts*, contain most valuable and ingenious observations on the spirit of Roman law, which, however, assume some previous knowledge in the reader. As to the influence of Roman law in England, see Pollock and Maitland, *History of English Law*, i. pp. 88-114; *ib.* p. 196 *et passim*; Goudy, *An Inaugural Lecture on the Fate of the Roman Law North and South of the Tweed*.]

E. S.

ROSCHER, WILLIAM (1817-1894), was born in Hanover, where his father held a high judicial post. After he had studied history and political science at Gottingen and Berlin, he established himself in 1840 as lecturer in both these studies at the university of Gottingen, where in 1843 he was appointed professor-extraordinary of political economy, and the next year was promoted professor. In 1848 he was called to the university of Leipzig, where he died in 1894, after forty-six years' successful discharge of his professorial duties.

The importance of Roscher lies rather in the field of method than in that of dogma. He is sometimes considered as the founder in Germany of the historical method in political economy. This, however, cannot be admitted without reservation. Before him, F. LIST had already produced, on an entirely historical basis, his *Nationales System der politischen Oekonomie*, 1841, and Schmitthenner, Adam MÜLLER, and even in the 18th century Justus MÖSER, had pursued similar studies. Auguste COMTE in France in his *Philosophie Positive*, which appeared between 1830 and 1842, had also claimed the historical method for the whole province of social science, even though perhaps he did not pursue it in every direction.

The numerous writings of Roscher may be divided into four groups:—

1. The historical philological writings, the earliest group, which include his dissertation for obtaining his doctor's degree, *De historicæ doctrinæ apud sophistas maiores vestigiis*, 1838, and *Lehre, Werk, und Zeitalter des Thukydides*, 1842: the projected continuation of this, which should have extended to Herodotus, Xenophon, and the Roman historians, was never written.

2. In this group we may include all the works in which he put forward his "System of Political Economy." To these there belongs first the preparatory synopsis: *Grundriss zu Vorlesungen über die Staatswirthschaft nach geschichtlicher Methode*, 1843; then, in five volumes, the expansion of this short study arranged as follows:—vol. i., *Die Grundlagen der Nationalökonomie*, 1854; vol. ii., *Die Nationalökonomie des Ackerbaues und der verwandten Urproduktionszweige*, 1859; vol. iii., *Die Nationalökonomik des Handels und Gewerbfleisses*, 1881; vol. iv., *System der Finanzwissenschaft*, 1886; vol. v., *System der Armenpflege und Armenpolitik*, 1894. The first volume by way of introduction deals with abstract or theoretical political economy. In the following volumes applied or practical economics are made the principal subject of inquiry. In the same group may be included a number of separate monographs and treatises, among which may be mentioned *Ueber den Luxus*, 1843; *Betrachtungen über Socialismus und Kommunismus*, 1845; *Ueber Korntheuerungen*, 1847; *Kolonien, Kolonialpolitik und Auswanderung*, 1856.

3. This group is composed of his numerous writings on the history of economical literature, as the essays: *Zur Geschichte der englischen Volkswirthschaftslehre im 16. und 17. Jahrhundert*, 1851-52; *Ueber die Ein- und Durchführung des Adam Smithschen Systems in Deutschland*, 1867; *Ein grosser Nationalökonom des 14. Jahrhunderts* (*Nicolaus Oresmius*), 1862, and his monumental work *Geschichte der Nationalökonomik in Deutschland*, 1874.

4. The last group contains some treatises belonging to the region of politics which appeared shortly before his death, collected and enlarged under the title of *Politik, geschichtliche Naturlehre der Monarchie, Aristokratie und Demokratie*, 1892. After the death of Roscher, his son Karl published further a collection of aphorisms written at various times, principally of a religious nature, The book is entitled *Geistliche Gedanken eines Nationalökonomen*, 1895.

Roscher calls his method the *historic* or *historico-physiological* in opposition to the *philosophic* or *idealistic* method. He contends that the object of political economy is not to point out the best possible state of things, as the system of the physiocrats would have it, and as socialism will have it at the present day, but to describe in its continuous process of development the state of things actually evolved. The best condition belongs more or less to the realm of imagination; the historical, on the contrary, is accessible to close scientific observation. Of the two principal scientific questions "what is?" and "what should be?" Roscher wishes to answer the former only. The latter can the less lead to exact results, as the "what should be" depends upon varying circumstances, and opinions about it have constantly fluctuated. If, accordingly, Roscher denies the possibility of a science on an idealistic basis, he, on the other hand, believes that by the study of what has actually occurred he can find a "firm island of scientific truth which may be accepted in the same manner as the adherents of different systems of medicine all admit the teaching of mathematical physics." Political economy in Roscher's sense would thus only "describe" and draw from historical parallels "threads of indication"—*Leitfaden*—leading up to the presumable economic movement of the future; he will neither criticise nor construct.

In the collective system of science, political economy has its place next to *politics*, of which, in a certain sense, it constitutes only a specially developed branch. If politics be denoted the science of national life, Roscher defines political economy as the science of the economic national life. Legal science is a third sister science inasmuch as legal, political, and economical science form a special group among subjects of scientific inquiry. They support each other mutually, and it is impossible to understand one of the three sides of national life with which they deal without at the same time keeping the others in view. It is a special peculiarity of the historico-physiological method to assist in this collective consideration.

Political economy, taken by itself, is divided, as has been already remarked, into a theoretic and a practical section. The study of the abstract or theoretical branch prepares the ground for the study of practical economics in the same way as the knowledge of anatomy prepares the ground for the study of physiology. It is concerned with "economic laws of development" which Roscher characterises as "laws of nature," not thinking, however, of mechanical but of organic nature. This is Roscher's meaning when he speaks of an "historic science of nature" dealing with politics and economics respectively.

Like the vegetable and animal world, the life of nations runs through four stages of development—childhood, youth (the time of bloom), manhood (the time of ripening), old age (the time of decay). Thus development moves in an ascending and a

descending direction. This movement is best studied by inquiring into the history of nations belonging to antiquity, because their completed career is before us.

Three principal economic factors govern the evolution of every nation; of these, one takes precedence in each successive period of life, namely, *Nature*, *Labour*, *Capital*. "In the earliest period," says Roscher, "nature still predominates throughout. In the second period, such as modern nations have lived through since the latter part of the middle ages, labour becomes ever more important. In the third, capital is predominant. . . . Usually the happiest time of nations coincides with the commencement of the third period." But this happy period does not last for ever. "At last political economy declines contemporaneously with the nation." Then gradually the peculiarities of the earlier stages of civilisation come to the front again. "Childish old age resembles the helplessness of childhood."

This historical model Roscher applies to economic conditions generally as well as to each individual department. In the childhood of every nation everything keeps within the bounds of natural economy (Natural-wirthschaft), or economics in kind, preceding money economics, or Geld-wirthschaft; it is the period of local and social restriction. Civilisation presses more and more towards freer administration of money and credit, which last exclusively governs the highest grade, the period of unrestricted competition. In the final stage, civilised life subsides again to natural conditions. Hence it is impossible to speak in absolute terms as to the expediency of any economic institutions. "The historic method," says Roscher in the preface to his *Grundriss*, "will not simply praise or blame any economic institution; for certainly but few institutions have existed which to all people, or in all stages of civilisation, have been absolutely beneficent or absolutely detrimental. The leading-strings of the child, the crutch of the aged would be unendurable to the man." And he adds by way of illustration:—"As a rule he can only rightly judge when, where, and why, for example, perpetual charges on property, forced-labour, guild-rights, monopolistic companies should be abolished, who has fully understood why in their day they had to be introduced." It is in connection with this that Roscher, in spite of his respect for the system of Adam SMITH, yet also ascribes fitness relatively to their date to the MERCANTILE SYSTEM and that of the PHYSIOCRATS. However, he does not always remain constant to this point of view. Thus, for example, the French Bishop Nicholas ORESME (*q.v.*) is praised as "the greatest scholastic political economist," because even in the 14th century he argued in favour of freedom as to the rate of interest and also advanced a monetary theory "almost entirely correct according to the opinions of the 18th century." Similar praise is given to Thucydides, who lived two thousand years earlier.

Roscher, however, exaggerated the conception of economic laws of nature when he wished them to include the observation that pigs are low in price both at the lowest and the highest grade of civilisation, or when he thinks he can explain by natural laws the reason "why hitherto steel pens have had so little success within the German customs union, sewing-needles in France, razors and scissors in Belgium."

Roscher himself is aware that with such a general theoretic basis there remains little scope for practical political economy, although, according to his opinion, it ought to form the most important part of the science. Hence he considers that he ought to warn his readers against the fatalistic inactivity which might otherwise result from the knowledge that "gegen das Alter kein Kraut gewachsen ist" (no herb is grown which can ward off old age). The *practical* statesman, he says, must always assume his people to be immortal, just as in fact every nation in this world aspires to immortality. Further, the mortality of a nation can fortunately as little be proved with certainty as that of an individual. He thinks that generally it is the statesman's part to act as physician for economic disease. "The therapeutic action of the art," thus Roscher continues, "will be profitable particularly for the following purposes: (1) to strengthen the curative powers of nature if they be too weak; (2) to moderate the impulse of nature if too violent; finally, (3) to rectify its direction if it should appear in the wrong place." From the point of view of national hygiene the period of maturity is in his opinion to be brought on as quickly as possible, and then to be retained as the stationary condition; in other words, the period of decay should be postponed as long as possible. Roscher, therefore, in no way adheres to the principle of absolute "laissez-faire et laissez-passer." On the contrary he reproaches List, for instance, with having recommended protective duties for manufacturing industry only and not for agriculture also, although the latter needs such support in a still greater degree than the former, especially in the more developed stages of civilisation; and at the same time with having undervalued the favourable effects of temporary export-duties and export-bounties.

Roscher's views of *Politics* run parallel with his economic theories. There are three constitutional types which respectively preponderate in the successive stages of historical development, viz. *Monarchy*, *Aristocracy*, and *Democracy*. This tripartite division, which was used by ancient writers, especially by ARISTOTLE, is, according to Roscher, still applicable at the present day. He places a constitutional system of government under the head of democracy, and says: "The England of the present day may be regarded as a democracy in fact, which, though moderate, is subject to but few legal restrictions." He admits another fourth form of government, which, however, is only a sub-species, and comes on with the advent of the declining period—"military tyranny," or, to follow the name of its greatest representative, Cæsarism. Cæsarism as a form of government appears when the distinction between rich and poor degenerates into a hostile contrast in social life. The proletariat is then content with that form of government which seems to offer it the most, and the possessing classes, urged by the threat of anarchy, ultimately take the same road and hand themselves over to a dictator, because, as Roscher expresses himself, "a man will rather allow body

and goods to be consumed by one lion than by ten wolves, or a hundred jackals, or a thousand rats."

Roscher explains that it is a difficult matter to decide at a given moment which of the several periods a nation has then reached, since the principal characteristics of a stage of development are manifested most clearly when the next period has already been entered on. The following are, however, according to Roscher, sure signs of a condition of decline: the growth of a brutal idea of morality; the emancipation of women; finally a marked development of socialistic and communistic currents of thought, the last especially being characteristic. As periods of universal history which have been distinguished by a powerful diffusion of socialistic and communistic ideas, the following are specially mentioned by Roscher:—

In ancient times the periods of declining Greek character and of the degenerating Roman republic; in modern times the period preceding the final success of the Reformation; and again the present time. Roscher himself is aghast at the inevitable conclusion that we consequently stand on the threshold of the period of decline. "Terrible parallel," he exclaims. "However," he adds by way of consolation, "yet a nation never declines from the height of civilisation to which it has once attained so long as it knows how to preserve the treasures of its moral life. Also, the essential differences between our own times and those of antiquity must not be forgotten, such as the abolition of slavery, and above all the presence of Christianity, bringing in its train the means of grace which render complete moral regeneration accessible to every man."

But Roscher's views could not consistently remain on this high level. They contrast so sharply with his conceptions of a natural law involving an ever-recurrent circle of growth and decay, that a relapse is inevitable.

In another place, he considers that no nation possesses unlimited intellectual capacity. If once all the ideals of a nation be used up, it must necessarily descend to lower aims which finally bring decay with them. The development of history according to Roscher therefore leads to conclusions far from optimistic. But all this only concerns life here. In the life to come, as he repeatedly brings out in his *Geistliche Gedanken*, there is added to existence eternal growth in eternal moral perfectibility, *i.e.* an eternally-continued development upwards.

This metaphysical doctrine explains how Roscher admits an earthly circle of development and of decay in the case of individual nations and persons, while he holds other views as regards humanity as a whole. He derides the attempts of certain historical philosophers, especially Herder, "to draw a parallel between the periods of universal history and the age of the individual, and even with the seasons," being of opinion that so long as we do not even know whether we are in the earliest or the latest part of the history of mankind, every scheme of universal history on such lines must be a castle in the air. Darwin's theory of evolution appears to him "a philosophy of nature in the bad sense of the word"; these views also determine his attitude towards the materialistic conception of history. According to him, MARX is "in general no close reasoner." HEGEL he admits, however, to have a great genius for history, but he thinks that on account of the "carelessness of his definitions" the perusal of his works is a bad preparation for political economists. Against CONDORCET he repeats the objections of the "great MALTHUS," and on similar grounds he opposes CAREY'S opinion of the progressively increasing capacity for advance of the human race. The well-known saying of Schiller, "*Die Weltgeschichte ist das Weltgericht*," ("the history of the world is the judgment of the world"), does not receive his approval. In the sense which Schiller intended, it is, in his opinion, certainly false, since in this world bad principles usually triumph. The views of A. COMTE were practically unknown to him.

If, on the one hand, Roscher was thus independent of the whole historical aspirations of his age, on the other, he is by no means in full accord with the historical school of German political economists which was founded under the influence of his teaching. Knies and HILDEBRAND already contradicted both his conception of the economic laws of nature and his rejection of progressive development of the whole human race. Schmoller and Brentano, though nearest to him in mode of thought, yet followed A. COMTE'S theory of social evolution.

But there are differences in method as well; this is insisted on by Schmoller in his article "Volkswirthschaft" in the *Handwörterbuch der Staatswissenschaften* (Jena, 1895). Referring to Roscher and Hildebrand, this article says: "The older historical political economy has repeatedly desired to turn too quickly to account the lessons of universal history; we are now aware that laborious inquiries into the details of economic history can alone supply the right basis for the study of history in its economic and joint aspect." Hence modern economic science dates only from the epoch of "economic historical monographs."

These observations aim more especially at Roscher's frequently criticised passion for scraps of information which is noticeable in many parts of his works, containing numerous analogies collected together from all periods of history without any reference to their special circumstances or essential conditions.

There is further this characteristic distinction, that Roscher places the theory of political economy at the beginning of this system, to which it is to serve as introduction, while the present adherents of this historical school place it at the end, or reserve it as a matter to be left to the future development of the science.

Schmoller explicitly declares in the above-mentioned essay his doubt "whether we can and should speak at the present day of historic laws."

But in one respect Roscher stands out far above all his successors. While these almost exclusively go to historical sources, and, broadly speaking, neglect the economic literature of the past, Roscher's principal strength is shown in the opposite direction. He did not fall into the neglect of the older systems, especially of classical political economy so strikingly prominent among

later writers. Yet while Roscher was undoubtedly one of the chief founders of the historic method of enquiry on the basis of political economy, he cannot properly be reckoned among the modern historic school of German political economy; he held on his way free from their weaknesses. Nor can we omit to record the influence of his early teaching, at a time when the study of economics had dropped almost out of touch with the requirements of the time. Those who remember the quickening effect of his early lectures at Leipzig still speak with enthusiasm both of them and of his power of interesting his hearers. Roscher, besides, was a true German, scholarly in nature, a man of an honourable disposition and disinclined to any connection with clique or party.

[G. Schmoller, *Zur Litteraturgeschichte der Staats- und Socialwissenschaften*, Leipzig, 1888.—Art. "Roscher" in *Handwörterbuch der Staatswissenschaften*, ed. by Conrad, Elster, Lexis, Löning, vol. v., Jena, 1895.—Dr. Henry, *Wilhelm Roscher und seine Bedeutung für die Nationalökonomik*, Leipzig, 1894.—Obituary notices on Roscher by Miaskowski in *Berichte über die Verhandlungen der kgl.-sächsischen Gesellschaft der Wissenschaften zu Leipzig*, 1894, with copious notices of Roscher's writings.—By K. Bücher in *Preuss. Jahrbücher*, July 1894.—By Ottokar Lorenz in *Magazin für Litteratur*, 1894.—By Julius Wolf in *Münchener allgem. Zeitung*.—By Brentano in *Berliner Nationalzeitung*.—Finally, Roscher's biography by his son Karl Roscher, prefixed to the posthumous publication *Geistliche Gedanken eines Nationalökonomen*, Dresden, 1895, with portrait.] A. O.

ROSE, Right Hon. George (1744-1818), came of a Nairnshire family. His father was an Episcopal clergyman in Forfarshire; he was brought up by an uncle in England, and served in the navy as a boy. Afterwards he entered on an official career and held several subordinate government posts, the chief one being that of secretary to the treasury, which he filled with only a few months' interval from 1782 until 1801. He sat in parliament, for Launceston, Lymington, and Christchurch, from 1784 till his death. From 1804 to 1806 he was joint paymaster-general of the forces, and vice-president of the board of trade in Pitt's second administration; and in 1807, under the Duke of Portland, he resumed the latter office and added to it the treasurership of the navy, which he held during the remainder of his life.

Rose was in the closest relations with Pitt, throughout the latter's ministerial career, and was constantly consulted by him; his intimate knowledge of the details of trade and of finance were especially valuable to the great fiscal reformer. He was the author of several pamphlets or tracts of considerable value in their day:

Brief Examination into the increase of the Revenue, Commerce, and Navigation of Great Britain since 1783, published anonymously in 1793; a similar *Brief Examination . . . from 1792 to 1799*, anon. 1799; in these he emphasised the improvements within those periods in imposition and collection of taxes, increase of revenue, better management of public debt, and the growing prosperity of the nation in spite of war expenditure; *Considerations on the debt on the Civil List*, 1802, in which the history of the civil list is sketched, and its recent administration exonerated from the accusation of waste; *Observations on the Poor Laws, and on the Management of the Poor in Great Britain*, 1805, which urged the reduction of pauperism by more systematic provision of employment for the poor, and by the better education of children, but without a thorough grasp of the facts of the case; *Observations respecting the Public Expenditure, and the influence of the Crown*, 1810, a careful explanation of the saving of 2½ millions sterling, effected by Pitt by improved management of the revenue and diminution of placemen; *Observations on Banks for Savings*, 1816; *Proposed system of Trade with Ireland explained*, 1785, a vindication of the proposals by which Pitt would have practically established free trade with Ireland.

[*Diaries and Correspondence of Right Hon. George Rose*, ed. Harcourt.—Irving's *Book of Scotsmen* (not quite accurate).—Stanhope's *Life of Pitt*.—*Gentleman's Magazine*, 1819.—Brit. Mus. Catalogue.—Parliamentary debates.]

E. G. P.

RÖSLER. See Roesler, Karl F. H.

ROSSI, Pellegrino Luigi Edoardo (1787-1848), born at Carrara and assassinated at Rome, was one of the most distinguished economists of the century, "although," as Joseph Garnier, whose opinion is a weighty one, says, "his name is connected with no great scientific discovery, his clearness of thought, his shrewd sense, and the lucidity of his style have assisted the clear exposition of all the great principles he has dealt with, and greatly contributed to the honour in which they are held by those learned men whose duty it is to popularise them." Rossi studied in Italy, at Pavia and at Bologna, where he learnt the first elements of political economy. But Rossi owes to himself rather than to others the deep knowledge of the science which, later in life, he expounded so well. Of the moral sciences, law was the one in which he earliest distinguished himself, and laid the foundation of his brilliant career.

After being, in 1813, a short time at Geneva for the sake of his health, he returned to Italy, where his association with the policy of the chivalrous Murat almost cost him his life, or at least his liberty. He happily escaped from the reactionists, and in 1816 was again at Geneva, living in a studious retreat, which he only left in 1819 to study jurisprudence applied to Roman law. His after-success as professor of Roman history gained him his naturalisation in Switzerland (March 1820), which preceded by two months his union with the worthy companion of his life, who survived him, proud of bearing his name, and fully appreciating his

worth. At the end of 1827 he commenced to lecture on political economy, and in 1829 made a short journey to Paris, to publish there his first important book, *Traité de droit pénal*, 3 vols. 8vo. This book reached, in 1872, the fourth edition (2 vols. 8vo, with an introduction by Faustin Hélie).

The revolution of 1830 was followed in Switzerland by a proposal to revise the constitution imposed on that country in 1815. The views of Rossi seemed at one time likely to prevail. The *Pacte Rossi*, as his project was called, was at first warmly received, but the opposition of seven cantons ultimately caused it to be abandoned. Rossi was deeply moved by this failure, the more so, as it coincided in time with the loss of nearly the whole of his wife's property. Under these circumstances he accepted the offers which Guizot and the Duke of Broglie made him to fix himself in France.

J. B. SAY had been professor of political economy at the *Collège de France* from 12th March 1831, and on his death, 14th November 1832, Rossi was appointed to his chair, 14th November 1833, notwithstanding the formidable competition of Say's son-in-law, Charles COMTE. No difficulties occurred on this occasion. It was otherwise when the chair of constitutional law at the faculty of law at Paris was created, 22nd August 1834, and Rossi was appointed professor. A conspiracy appeared to have been entered into between both professors and students to protest. His first lectures were stormy, "*A la porte l'étranger*" and "*Parlez français*" resounded from all sides. How did the matter stand? Rossi had not received the French diploma of doctor of laws, and, notwithstanding his long sojourn in Switzerland, he had retained an Italian accent, which, however, did not injure the charm of his delivery. It was a year before calm was re-established. Rossi's patience wore out his opponents, and popularity succeeded the unjustified uproar. Rossi was naturalised in 1834 and adopted France as his third nationality. In 1836 he became a member of the academy of moral and political science, and Charles COMTE, though dying, was carried to the *Institut* to vote in his favour. *Lettres de grande naturalisation* permitted his promotion to the peerage in 1839, and in March 1845 he was appointed ambassador of France at Rome. All these honours were heaped on him without any initiative on his part.

During this time he had founded at Paris, in February 1842, the first society of political economy; this, however, gradually melted away—member after member—into another society formed by Guillaumin, Garnier, etc., bearing the same name, over the learned discussions of which Rossi presided until his departure for Rome, so fatal to him.

The revolution of 1848 broke his connection with France, and he became semi-official councillor to Pius IX., elected pope in 1846, who at that time showed himself favourable to liberal reforms, and with the assistance of Rossi endeavoured to introduce parliamentary government in the pontifical states. If this movement had even been possible, a more resolute and judicious mind would have been needed to lead it than that of the then successor of Gregory XVI. Rossi's terrible murder, perpetrated under the eyes of an armed force, inactive, if not accomplices, amid the indifference of the official world, was the signal for a revolution which gave birth to an ephemeral republic.

Rossi was an able thinker, but caution appears to have restrained him within over narrow limits. The fear of introducing too radical reforms sometimes appears to have paralyzed his mind. Thus he supported the artificial monopolies of the stock brokers (see CHANGE, AGENTS DE), of the attorneys, and of the Bank of France, and was indulgent to the treatment of sugar (see BOUNTIES ON SUGAR), utterly opposed as this was to sound economic principle. It is deeply to be regretted that politics drew Rossi thus aside from the true path. His great logical power might have contributed to establish political economy on the authoritative basis justly taken by the natural and mathematical sciences. But after all, these are but exceptional blemishes in his work. The separation of pure political economy from applied political economy, the rent of land, commercial liberty, immaterial products, freedom of labour, the teaching and the popular teaching of economic science; above all, the principle of population, on which subject he wrote an introduction in the style of a master for the French edition of the masterpiece of MALTHUS, all furnished Rossi with subject matter for pages sound in thought and brilliant in style. It is to be noticed that the moment Rossi forgets politics his courage never fails him. "It would be a strange idea," he said in one of his lectures, "what the effect would be if the claim were admitted that there is no right to pass from slavery to liberty, from injustice to justice, from barbarism to civilisation, unless the transition could be made without any disturbance, without even a shade of inconvenience. Were this doctrine supreme, the world would still be plunged in the most terrible barbarism." The moment Rossi is clear from the trammels of government, he is the absolute and unshackled advocate of liberty. "Liberty is the one guarantee which nothing replaces, it alone opens to the producer a wide and noble career, it alone procures for the consumer abundance and cheapness; let us add that it favours the fulfilment of law and morality."

Of the works by Rossi which remain, the first two volumes of his *Cours d'économie politique* were

published (1st ed. 1840-41; 2nd ed. 1840) and revised and corrected by him. His occupations, his death, prevented him from doing the same for the rest of his works, but his pupil and friend, A. Porée, *chef de bureau* in the department of public works, had taken down in shorthand and collected the lectures of his master, at least those of 1834 and 1838. His industry enabled Rossi's son to publish, in 1851 and 1854, the 2 vols. following those mentioned above. The whole 4 vols., several times reprinted, attained, in 1887, their fifth edition. *Le Cours de droit constitutionnel* did not appear till 1866-67. This book is also due to the shorthand notes of Rossi's painstaking pupil, Porée. The second and last edition appeared in 1877; this has an introduction by the learned Italian jurisconsult, C. Boncompagni. Finally, the miscellaneous works, unpublished or scattered, were collected in 2 vols., one devoted to political economy, the other to history and philosophy, which appeared in 1857 under the title of *Mélanges d'économie politique, d'histoire et de philosophie* (2 vols. 8vo).

The memory of Rossi has been honoured in many ways, and his widow left the *Institut* of France a sum of 100,000 francs (£4000), the interest of which provides scholarships in economy or law.

[Mignet read the *Éloge* of Rossi at the *Institut de France*, 1849. Finally, the Economic society of which he was the first president, celebrated, 1887, the centenary of his birth with a notice of his life and works by the permanent secretary, M. Alph. Courtois. Let us add that M. le Comte Fleury d'Ideville has immortalised him in a large volume entitled *Le Comte Pellegrino Rossi, sa vie, ses œuvres, sa mort*, 8vo, 1887, more historical, however, than economic. On 30th September 1876 Carrara erected a statue in his memory.]

A. C. f.

ROTA, Pietro (1846-1875), was born at Bergamo and died at Genoa. He was for some time professor of social economy at the university of Genoa. Rota has left two admirable works on banking—a history of banks, and a volume on the principles of the science of banking. These works, though somewhat out of date now, were of importance when they appeared.

Storia delle banche, Milan, 1874.—*Principii di scienza bancaria*, 3rd edition, Milan, 1885.

U. R.

ROTURIER. In France, every man not belonging to the *noblesse* was called a *roturier*. This word is generally supposed to be derived from *ruptuarius*—he who breaks or clears the soil; still it was applied to the burgher as well as to the peasant. The latter were especially designated by the word *manant*, he who remains on, or is tied to the land. A holding *en roture* was a tenure at a perpetual fixed rent.

E. Ca.

ROUBAUD, Pierre Joseph André, Abbé (1730-1791), born at Avignon, died in Paris, where he had lived since he was twenty. He early allied himself with the Économistes of the school of Quesnay, to whose doctrines he constantly adhered. He worked principally as a journalist. In conjunction with Le Camus he edited the *Journal du Commerce*, from 1759 to 1762; in January 1765 he took part in editing the *Journal de l'Agriculture, du Commerce et des Finances*, his chief being Du Pont de Nemours.

When Du Pont resigned in 1779, Roubaud and d'Ameilhon edited this periodical, which was then entitled the *Journal de l'Agriculture, du Commerce, des Arts, et des Finances;* it ceased in 1783.

Up to 1772 Quesnay and the elder Mirabeau had contributed to the paper. Roubaud's attacks against the despotic system of the government led to his exile and Baudeau's by Maurepas in 1775. The next year both were recalled by Necker.

Besides his work for the journals quoted above, Roubaud wrote many pamphlets on the controversies between the Physiocrats and their antagonists, Voltaire, Galiani, Morellet, etc.

A. C. f.

ROUBLE. Russian silver coin of 100 kopecks. From 1839, when the currency of Russia was reorganised, and payments in silver were resumed, to 1886, the rouble was of the weight of 319·9 grains, and of the millesimal fineness of 868. In the latter year the fineness was altered to 900, and the weight diminished sufficiently for the coin to retain its intrinsic value, the rouble now weighing 308·5 grains. Its value in sterling silver at 2s. 3d. per oz. is 2s. 1·37d.; and in silver francs, 900 fine, 2·666 francs.

ROUNDSMAN. Before the passing of the Poor Law Amendment Act 1834, outdoor relief was practically unlimited. Every person applying for relief obtained an allowance from the parish according to a scale varying with the number of his family and the price of bread. Different expedients were tried to lessen the heavy burthen thus laid on the ratepayers by employing the persons in receipt of relief. One of these expedients was known as the "roundsman system." The parish paid occupiers of land to employ applicants for relief at the rate of wages fixed by the parish. The difference between the parish allowance and the sum which the employer was willing to pay for the pauper's labour was made good out of the poor-rate. What employers were willing to pay was in many places determined by putting up the paupers to a sort of auction. An able-bodied pauper might fetch 5s. a week; an infirm one 1s. 6d. to 3s.; but the exact figure would depend on local conditions. The roundsman system worked badly. Like the other methods of outdoor relief then in use, it tempted the able-bodied labourer to come on the parish; it kept down wages and made them independent of efficiency, and enabled

the employer to defray part of his wages bill out of the rates. It was condemned in the report of the poor-law commission, and became obsolete through the changes made by the Poor Law Amendment Act 1834. The name of "roundsman" was given to the paupers thus relieved because they went round from one farmhouse to another seeking for work.

[*Report of the Poor Law Commissioners*, 1834. —Eden, *State of the Poor*.—Nicholls, *History of the English Poor Law*.—Fowle, *The Poor Law* (English Citizen Series).] F. C. M.

ROUSSEAU, JEAN JACQUES (1712-78), wrote not as an economist, but as a political reformer. In so far therefore as he contributed to, and influenced, economic thought, it was chiefly due to the fact that in his day political economy was not differentiated from political philosophy. Those through whose labours this differentiation was then actually being begun, viz. CANTILLON, the PHYSIOCRATS, VERRI, STEUART, etc., were not forwarded in the work of specialisation by anything that Rousseau wrote. His one production purporting to be on the subject of political economy (1755)—the article so entitled in the *Encyclopédie*—is wholly occupied with a partial statement of his doctrine of politics, namely of the nature, object, and functions of government. In connection, however, with the last of these three points, it was inevitable that he should deal with matter of economic interest, and this is so not only in this article but in many of his writings. *L'ami de l'égalité*, as he dubbed himself to MIRABEAU, Rousseau in all his works that have a political bearing has for keynote the evil of inequality. This he struck in the discourse on the moral influence of art and science (1750), which first made him famous, developed in the discourse on the origin of inequality (1754), and made the real theme—more so than liberty—of the *Contrat Social* (1762); (see SOCIAL CONTRACT). From inequality came riches, thence luxury and idleness; and the social state, based on its primary, if tacit and unwritten, pact, has no other justification except the object of substituting moral and legal equality for the inequalities imposed by nature and the injustice resulting therefrom. Bad government fosters inequality, keeping the poor in poverty and protecting the rich in usurpation, giving only to him that hath ("Disc. on Art," etc., *Réponse au Roi de Pologne*, *C.S.*, I. ix.). Hence Rousseau could not fail to be much occupied with the subject of distribution of wealth, whether in relation to the functions of government, the maintenance of government, the increase of population, or the tenure of land. Whatever he wrote on these, as on other subjects, was widely read, and, owing to qualities in the spirit and style of the writer as well as to the conjuncture of social and political conditions of his time, had an extraordinary influence. Over and above the explicit adherence to his doctrines professed by some of the leading spirits in the French revolution, as well as the corresponding anti-Rousseauism in English thinkers, such as Adam Smith, Burke, etc., the origin of the physiocratic school seems to Professor Gide (*Economic Journal*, June 1897) to be best accounted for as a protest against the politico-economic doctrines of Rousseau. Whether this be or be not a tenable hypothesis, it cannot be correct to class Rousseau as a follower of the physiocrats, as is done in Kautz's economic history. All Rousseau's works were published before any distinctively physiocratic work appeared, excepting the *Tableau Économique* of QUESNAY, which preceded Rousseau's latest writings, the *Contrat Social* and *Émile*, by four years. Mirabeau, acting apparently on behalf of his set, sent Rousseau MERCIER DE LA RIVIÈRE'S *Ordre Naturel* (1767), and on receiving the former's criticisms of the extreme optimism of the book, and of the *système économique* in general, wrote a long reply endeavouring to convert Rousseau to "our" doctrine of property, population, liberty, and generally the essential laws of natural order. Rousseau's work, however, was done, and he only begged for affection, and no further worry. He could not bring himself to finish the *Philosophie Rurale*.

More plausible is the position claimed for him by Baudrillart, RAE, etc., as one of the fathers of modern socialism. It was his fearless speculations, inspired by HOBBES and especially LOCKE, not to mention the utopians of the two preceding centuries, that led directly up to issues for which the physiocrats, with their co-proprietorship of the sovereign in the soil, and their *impôt unique*, did but indirectly prepare the way (cp. Gide, *loc. cit.*). No one so forcibly as Rousseau had *socialised* the status of the individual, *democratised* the sphere of the sovereign power, and *emphasised* the notion of national property in land. Further, his hatred of inequality, together with his disbelief in the beneficent tendencies of the unregulated play of private interest, led him to utter opinions as to the equalisation of wealth which found an echo in all socialistic literature. The wage question had not then been forced to the front by industrial developments. Nor is there any very definite quarrel with capital in the crutch and ladder passage in the *Inégalité* discourse alluded to by ROSCHER (*Pol. Econ.*, lxii.), nor with competition in the preface to *Narcisse* quoted by Baudrillart. Neither does he, any more than the physiocrats, champion the cause of the peasant against the *cultivateur*. But, his general theme being to denounce moral or political inequality, *i.e.* "the enjoyment by some of the privileges of wealth, honour, power, rule, *to the prejudice*

of others," so that we see "the child ruling the old man, the idiot directing the wise, and a handful crammed with superfluities while the starved multitude lacks necessaries" (*Disc. sur . . . l'Inégalité*), his ideal economy was a state where there was "no fear nor need of any one, self-sufficing" . . . (*Sur le Gouvernement de la Pologne*, ch. xi.), in which "no citizen should be rich enough to be able to buy another, and none poor enough to be forced to sell himself" (*C.S.*, ii. 11). To bring this about, a state should give itself to agriculture, multiplying useful commodities *and consumers* as much as possible (success in compassing the latter without immigration being the hall-mark of a good government, *C.S.*, iii. 9), attend little to commerce, and contemn money, which is but the sign of wealth, and a shifting standard of value as compared with such commodities as are constants in utility (*Gouvernement de la Pologne*, xi.). To maintain such a public economy, government, as "one of its most important functions," should prevent (*prévenir*) extreme inequality of wealth, not by confiscating that of the rich, filling barns, or exempting from work, but by withholding the power of accumulating wealth; not by building almshouses (*hôpitaux*) for the poor, but in guaranteeing citizens against poverty. For instance, it should regulate the distribution of population, foster useful arts, stimulate agriculture, check luxury, abolish the tax-farmer, tax men's arms (*bras*) rather than their purses, commutation being more servile than CORVÉE, levy a proportional tax (not *unique*) on land, without any exemption, or, as this would involve a cadastral survey, on produce (*net* is not mentioned) by tithe or commutation, administer public education, and intervene generally where private interest brought the individual will out of harmony with the general will, or left it indifferent to the common good (*Econ. Pol.*). Better than any money contributions to carry on the expenses of government and justice was the plan of a "public domain" (*op. cit.*), as had been advocated by BODIN *q.v.*). Finally, to ensure political stability and executive efficiency, "the right which every individual has over his own property [in land] is always subordinate to the right which the community has over all" (*C.S.*, i. 9)—so runs Rousseau's view of what the physiocrats termed the *co-propriété du souverain*.

Comparison with the expositions given under the head of physiocracy and socialism, as well as with that under mercantilism (see The PHYSIOCRATS; SOCIALISM; MERCANTILE SYSTEM), will bring out how far, in these few indications, Rousseau appears as an innovator. On the last-named phase of economic thought, with its traditions of commerce, money, and international aggressiveness, he may fairly be said to have turned his back, excepting in his general antipathy to *laissez faire*. Apart from his disbelief in this and in "legal despotism," he was economically more in accord with that *système économique* that was taking form while he yet wrote. His thought, that "the introduction of the superfluous makes indispensable the division and distribution of labour" (*Émile*, iii.; cp. *C.S.*, iii. viii.), is closely followed by TURGOT. And the latter starts his *Réflexions* with an allusion to a social "state of nature" as admittedly hypothetical as was Rousseau's (cp. *Disc. Inégalité*). The pictorial genius and style of Rousseau lent to the setting forth of his own hypothesis an appearance of location in time and space beyond what he himself intended. He insisted to Mirabeau that "natural and political laws" were only true in the abstract, and, himself ever concerned with practical philosophy, deprecates the attempts of historical writers to establish what ought to be by what has been (*le droit par le fait*, *C.S.*, ch. i. 2). If, as some have said, he is known less by the real gist of his works than by his most forcible phrases, this is not seldom the fate of those in whom, as in Rousseau, "did lie prophetic meaning such as none of the others show" (Carlyle).

[*Œuvres*, ed. Auguis, 1825.—*Dict. de l'Éc. Pol.*, Coquelin et Guillaumin.—Baudrillart, art. "Rousseau."—Rae, *Contemporary Socialism*.—Levallois, *Rousseau, ses amis, etc., Correspondance*: "Mirabeau to Rousseau."—Bonar, *Philosophy and Political Economy*, p. 134.] C. A. F.

ROUTES, COMMERCIAL. See COMMERCIAL ROUTES (History of).

ROYALTY. Royalties, regalia, or jura regalia formerly meant those royal rights which could not be granted away with any piece of land except by being specially mentioned in the grant or charter by which the land was given. The most important of these were royal mines, wreck of the sea, and royal fish. In modern times the word "royalties" has acquired another meaning, being used in one of these senses—the money paid by the publisher of copyright books to the owner of the copyright; the money paid by the maker of patented articles by way of license to the patentee; the money paid to the owners of mines for the right of working them. A. E. S.

ROYER, CHARLES ÉDOUARD (1810-1847). A gardener in his youth, Royer, after a severe competitive examination, which he passed with great success, was, at the early age of twenty-eight, appointed to the chair of rural economy in the school of agriculture at Grignon.

Royer was sent by the French government to study the organisation of German Landbanks (the CRÉDIT FONCIER of France was not founded till 1852), and although he was quite aware that the object of these institutions primarily was political—to uphold German noble families—he pointed out the services which they might render to agriculture;

but he remained very doubtful about the usefulness of the *crédit agricole* to farmers who were not owners of land, and preferred greatly the extension of peasant proprietorship. His report was printed by official authority under the title of *Des Institutions de Crédit foncier en Belgique et en Allemagne* (Paris, 1845).

Royer previously had written a treatise on agricultural bookkeeping (*Traité de comptabilité agricole*, 1840), and a book on French agriculture (*De l'administration des richesses et de la statistique agricoles de la France*, 1843), which good judges still consider worth reading.

[See article on Royer in the *Nouveau Dictionnaire d'Économie Politique.*] E. Ca.

RUDING, Rev. Rogers, B.D. (1751-1820), came of a Leicestershire family (originally derived from Worcestershire), was educated at Merton College, Oxford, of which he became a fellow, and in 1793 was presented by his college to the vicarage of Maldon and Chessington, which he held until his death.

He published in 1798 a *Proposal for restoring the ancient constitution of the Mint, so far as relates to the expense of Coinage; together with the outline of a plan for the improvement of the money, and for increasing the difficulty of counterfeiting.* "Written to recommend the imposition of a seignorage on the coin." M'Culloch, *Lit. of Pol. Econ.*, p. 167. He contributed articles to the *Gentleman's Magazine;* and to the *Archæologia* "Some account of the trial of the Pix" (vol. xvii.), and a "Memoir of the office of Cuneator" (vol. xviii.). His chief work was *Annals of the Coinage of Great Britain and its dependencies*, 1817-19, a full and scholarly history of English coinage from earliest times, illustrated with numerous plates; it is still the standard work on the subject. His object was not scientific only, but economic; to point out defects in the coinage laws, and to indicate the true remedies, with a view to diminish the temptation to tamper with the currency.

[Nichols, *Hist. and Antiquities of the County of Leicester*, vol. iv. pp. 568, 569.—*Harleian Soc. Publ.*, vol. ii.—Brayley and Britton's *Hist. of Surrey*, iii. 164.—*Gentleman's Magazine*, vol. 90, pt. i. 1820.] E. G. P.

RUGE, Arnold (1802-1880), studied philology at Halle, Jena, and Heidelberg. Carried away by the views of Hegel, whom he read for the first time in 1833, he began in 1837 to contribute to the *Hallische Jahrbücher* that he might "infuse the Hegelian philosophy into the life of the state." This publication appeared from 1841 onwards under Ruge's sole direction, with the title of *Deutsche Jahrbücher*, but it was suppressed in 1843. This led to Ruge's departure for Paris, where, in connection with Marx (*q.v.*), he started the short-lived *Deutsch-Französische Jahrbücher*. In 1848 Ruge was elected representative of the town of Breslau in the Frankfort parliament, and he became the editor of the democratic newspaper *Die Reform*, destined to be the organ of the radical party, shortly afterwards suppressed during the political reaction. Ruge then settled down in Brighton (1850), where he resided to the time of his death.

Though a friend of Marx and Bakounin, his democratic views, like that of his other friend Mazzini, never merged into Communism.

His literary activity was very great. He translated into German the *Letters of Junius* (1847); Buckle's *History of Civilisation* (1875); Lewes' *History of Philosophy* (1871); and adapted Lytton's *Life of Palmerston* (1872). On his own account, he wrote many volumes and pamphlets, amongst which may be mentioned here—*Unser System* (1850).—*Revolutionsmodelle* (1850).—*Die drei Völker und die Legitimität* (1860).—*Was wir brauchen* (1861).—*Acht Reden über Religion, ihr Entstehen und ihr Vergehen* (1869).

[*Allgemeine Deutsche Biographie.*] E. Ca.

RUGGLES, Thomas (1745-1813), barrister, deputy-lieutenant and J.P. for Essex and Suffolk. He was an honorary member of the board of agriculture. For his friend Arthur Young he wrote in the *Annals of Agriculture* (1784-1815) letters on the "History of the Poor." He advocated schools of industry, with a view to training children to industrious habits and thus preventing pauperism. The success of some of these schools and of the Sunday school movement seemed to warrant the application of the act for the relief of the poor, 43 Eliz. c. 2, § 1, to this object. The children were employed in spinning and knitting, and were paid about 4d. a day. He was called into consultation by Pitt, when he was preparing his "Bill for the better support and maintenance of the poor," 1796, and clauses on this point were inserted in it (cp. as to these schools, Sir F. M. Eden's *History of the Poor*, 1797, vol. i., and Mrs. Trimmer's *The Economy of Charity*, 1801, vol. i. p. 193, and appendices). Ruggles is also a chief witness in regard to the houses of industry in Norfolk (see Workhouse), established 1757-1792. He shared the view entertained by Adam Smith and others of the economic evil of the old law of settlement; but he did not appreciate (*e.g.*) the evil of an allowance in maintenance of "supernumerary children" as proposed in Pitt's Bill (cp. Sir George Nicholl's *History of the English Poor Law*, 1854, vol. ii. p. 125, and Eden) or of a system of public employment for the poor (see Townsend). He gives an interesting sketch of means adopted to meet the distress of 1795-96 (cp. *Origin of the Allowance system in Berkshire* (1795); report by Richard Hall, 1st A. Rep. Poor Law Commissioners, 1835, p. 207). His writings are:—

The Barrister, or Strictures on the education proper for the Bar, London, 1st ed. 1792; 2nd ed. 1818.—*The History of the Poor; their rights, duties, and the laws respecting them*, London, 1st ed. 1793; 2nd, 1797 (see Union; Poor Law).

C. S. L.

RÜMELIN, GUSTAV VON (1815-1889), represented a district of his native Würtemberg in the German parliament of 1848, where he was an active member of the party which advocated the exclusion of Austria from the German confederation. He afterwards entered the ministry of public instruction and religion of Würtemberg, and became, in 1867, lecturer on statistics and philosophy in the university of Tübingen, of which university he was elected chancellor in 1879.

His best-known work, *Reden und Aufsätze*, 3 vols. 1875-1894, consists mainly of his addresses as rector. Rümelin was also for a long time at the head of the statistical office of Würtemberg. Statistics were always one of his favourite studies, though he also devoted himself to philosophy, philology, and literary criticism.

His width of view appears in his treatment of statistical problems; he is always anxious to show that statistics should be read in the light of existing social and moral conditions and tendencies. He does not admit that the investigation of the latter properly belongs to the sphere of statistical science, which he defines as "an *auxiliary* science having for its object the discovery of the character of human communities by means of the methodical (numerical) observation and calculation of similar phenomena," taking the word *communities* in its widest sense; in opposition to other German statisticians, he desires to hand over to the science of DEMOGRAPHY the descriptive or graphical part of statistics. In his *Geschichte der Nat.-Oekonomik*, p. 1011, Roscher contested the soundness of these views, pointing out that statistics would thus be degraded from the rank of a science to that of a mere method. This debate arose from the ambiguous sense of the German word *Staatskunde*.

The theories of MALTHUS on population attracted the attention of Rümelin over and over again, and though he readily admits that Malthus has perhaps not taken sufficient account of some prudential and social checks, which in themselves are neither moral nor immoral, he accepts in fact his main position; according to Rümelin, a constant struggle goes on between hunger and what he calls "the demoniac power" of sexual instinct. Frightened at the rapid increase of the German population after the war of 1870-71, he openly states in his *Aufsatz* on over-population (1881) that "it is the intelligent instinct of the French masses which has turned them into unconscious Malthusians. Christian and civic morality do not consist in unchangeable injunctions. . . . There have been times, which will recur, when fecundity was a social want and a social blessing; at other times, limitation and continence are a duty, and such is at present the case in Germany. . . . The present French system is the spontaneous outcome of intelligent reflection." The same assertions were repeated by Rümelin in his article on the theory of population (*Bevölkerungslehre*) in Schönberg's *Handbuch der politischen Oekonomie* (vol. i., 3rd ed. 1890).

Rümelin, as a writer, is a brilliant and thoughtful essayist, eager to avoid trenchant dogmatism, anxious also to consider all the aspects of social problems. Besides his above-mentioned *Reden und Aufsätze*, he was a frequent contributor to German periodicals and collective works on moral, philosophical, and statistical topics. Ten of the *Reden und Aufsätze* were translated into French, under the title of *Problèmes d'Économie et de Statistique* (Paris, 1896). E. CA.

RUNDALE was an ancient tenure of land in Ireland and the Scotch Highlands, under which the property of one owner was scattered in detached pieces about the estate of his tribe or clan. *Runrig* and *Changedale* were two variations of this system. Under the former the land was so divided that alternate "rigs" or strips belonged to the same owner; under the latter the portions of the common estate allotted to individuals were periodically changed amongst the members of the partnership.

The system springs from the days of collective ownership or occupation, when all the lands of a village belonged to all its inhabitants, and each individual had a right, not to a particular piece for ever, but to the use of a share in the common property for a certain time. Either to insure a just division of the land, when mensuration and arithmetic were classed with the black arts, or to prevent one man securing all the best lands, it was customary to give each man his share in every acre as it was ploughed up, or dividing the land into three classes according to their fertility, to assign a portion to individuals in each of them. The rundale tenure may be compared with the system in vogue amongst the Anglo-Saxons, before the introduction of INTENSIVE CULTIVATION, and to the customs of the early Welsh. As a rule it was only the arable fields and meadows that were treated in this way; the pasture and waste of the community were held in common. Arthur Young found the rundale and changedale systems exceedingly widespread throughout Ireland. As a rule a farm of 100 acres would be held by four or five families. The holdings were only separated by balks of grass, and as a consequence all the evils of the English "open field" culture were prevalent. In Ireland the system seems to have hardly died out yet. In the Scotch Highlands much the same tenure existed, and though by the statute of 1695, c. 23, any one partner was enabled to force a division of the lands, it seems to have lasted until fifty years ago. L. R. H.

RUPEE, HISTORY OF. The silver coin which is the standard money of India under British government can be traced back to the primitive system under which the precious metals passed as money by weight. The present rupee was inherited by the government from the East India Company, whose rupee was developed out of the many varying types of coin under that name issued by the native rulers whom the company displaced; and the original of these many types was the coined

embodiment of the standard weight of silver according to the earlier monetary system.

The unit of the system of weights was the *rati*, the seed of the *Abrus precatorius*, equivalent to 1·75 grains troy. The multiple of 100 *ratis* gave its weight (176 grains) to the first rupee of Sher Shah (1542). The numerous dynasties and petty states followed, each with its own coinage, and soon there was a multitude of rupees in local circulation of varying degrees of weight and fineness. The middle of the 18th century saw the company's territory largely extended, and its status definitely changed from that of a trading association to that of a governing power. One of the perplexing problems of the period was the confused condition of the currency. The different coins of gold and silver circulating in the bazaars were estimated to number not far short of a thousand, and of these the varieties of the rupee formed no inconsiderable part. The termination of the company's rule was already approaching before it succeeded in reducing this chaos to complete order by the establishment of one uniform rupee, but, in the meantime, in each of the three presidencies one particular type assumed predominance.

In *Bengal* the leading type was the Sicca rupee, deriving its name from the Arabic word for a coining-die. Its normal weight was nearly 180 grains, and its content of fine silver 176 grains. Among the currency troubles with which the Indian peasant was beset, not least was the money-changers' practice of charging discount on these coins according to the period for which they had been in circulation. To frustrate this device it was ordered in 1771 that rupees of the earlier years of the reign of Shah Alam, the last of the Moguls, should be rated equally with those of his nineteenth year, and that future issues should bear that year's date. Consequently the Sicca rupees, from 1773 onwards, were stamped as having been struck in the nineteenth year of Shah Alam. The coinage of the Sicca rupee continued until 1836, when it ceased on the introduction of the company's rupee.

In *Bombay* the Surat rupee predominated. The first English rupee had been struck in Bombay as far back as 1677. But the rupee of British manufacture, weighing rather less than the Sicca rupee, though containing a fraction more of fine silver, could not hold its own against the competition of the Surat rupee, a native coin of nominal equivalence, but of less intrinsic value. Its coinage ceased altogether for twenty years up to the close of the last century. In 1801 a new rupee was ordered to be struck for Bombay, its weight and fineness being almost identical with those of the present coin. In 1824 the Madras standard was adopted for Bombay.

In *Madras* several varieties of the Arcot rupee were current. Those coined at the Fort St. George Mint contained 166·477 grains of fine silver, and were styled "Madras Arcot rupees," as distinguished from other Arcot rupees of native manufacture. But for various reasons, prior to 1818, the silver rupee was not the effective standard in Madras, being over-ridden by the gold pagoda and by a nominally subordinate silver coin, the ANNA. In 1806 the company gave directions for the issue of a new rupee as the standard coin of Madras, to weigh 180 grains gross, and contain 165 grains of fine silver. It was not, however, until 1818 that currency was given by proclamation to the new standard coin.

The order given by the company in 1806 for the issue of a standard rupee in Madras was the first-fruits of the intention they had then formed to put an end to the inconveniences arising out of the existing diversity of moneys by establishing "one general system for the formation of the coin for the currency of the whole of our possessions on the continent of Asia." A generation elapsed before that intention was fulfilled. One fundamental decision reached at this time was that the future currency system should be based upon a silver standard. In earlier years the company had made several attempts to relieve currency difficulties by fixing the relative values of gold and silver as legal tender within their dominions. In 1806, convinced by the arguments in Lord Liverpool's famous letter, they adopted the view that one metal should be the standard, and that for India that metal should be silver. In 1817 the directors repeated this assertion, with the addition that no ratio should be fixed between the standard silver coin and the gold coin. Finally, in 1835, the Indian Act No. XIII. instituted one uniform silver rupee as the standard coin of British India. This rupee followed the type of the Madras rupee of 1818, having a gross weight of 180 grains and a fine silver content of 165 grains, or $\frac{11}{12}$ fine. No change has since been made in the weight or fineness of the coin; but in 1862, as a consequence of the transfer of the government to the crown, the queen's effigy was introduced into the design in place of the company's arms, and the name of the coin altered from "company's rupee" to "government rupee."

The fall in the gold price of silver, which began in the early 'seventies, and continued almost unchecked for the next twenty years, caused constant and increasing anxiety to the Indian government, as well as to the commercial interests in the country. The difficulties entailed upon the government admitted of no question. India having yearly to remit a large sum to this country in discharge of her gold obligations, every step in the fall of the exchange meant an increase in the number of rupees required to effect that purpose. The variations were sufficient to render any trustworthy budget estimate impossible; and the growing demands on the revenue, coupled with the limited resources of taxation, led at length to a position of affairs in which the authorities could not contemplate without dismay the prospect of a further fall. An additional cause of uneasiness to the government was the distress occasioned by the fall of silver to the many officers of the public service, who were under the necessity of remitting part of their rupee salaries to their families in England. It is impossible to speak with equal certainty as to the effects on the people and commerce of India. How far the fluctuations of exchange have operated to harass trade and to check investments in India has been much debated. But the representatives of the trading community were among the first and the most importunate in pressing upon the government the necessity for action. In 1876 memorials were addressed to the governor-general by the Bengal chamber of commerce and the Calcutta trades' association, urging a temporary suspension of the unlimited coinage of silver by the mints. The Indian government, while unable to agree that existing circumstances called for such a remedy, took the opportunity to represent to the secretary of state the necessity of being prepared for prompt measures, even to the extent of the transition to a gold

standard, in the event of France deciding to demonetise her silver legal tender money. This particular danger passed away, but the fall in silver continued, varied by occasional oscillations even more disconcerting than the steady fall. The gold value of the rupee, which averaged 28·126d. in the year 1871-72, before the commencement of the disturbance, had fallen to an average of 16·733d. in the year 1891-92. In June 1892 the Indian government, under stress of an apprehension that the United States might any day be driven to abandon her attempt to keep up the price of silver by her purchases of that metal, expressed to the home authorities their deliberate opinion that, failing a satisfactory agreement with the United States, the Indian mints should be closed forthwith to the free coinage of silver, and a gold standard be adopted. A draft scheme for carrying out this purpose, drawn up by the Indian finance minister, was submitted, and the proposal was referred by the secretary of state for consideration by a committee, over which Lord Herschell, the lord chancellor, presided. In their report, presented 31st May 1893, the committee discussed the plan of the Indian government, together with various alternative currency schemes which had been suggested. They were of opinion that the government expenditure admitted of no reduction adequate to the necessities of the situation, and that any resort to increased taxation would be fraught with difficulty and probable danger. The alternative schemes presented to them, such as an increased seigniorage on silver coinage, a duty on imported silver, or the coinage of a heavier rupee, were all open to objection; and not one could be recommended in preference to the government scheme. Accordingly, they felt unable to advise the secretary of state to overrule the proposals of the Indian government. But they advised that the closing of the mints against the free coinage of silver should be accompanied by an announcement that, though closed to the public, they would be used by the government for the coinage of rupees in exchange for gold at the ratio of 16 pence the rupee; and that at the government treasuries gold would be received in satisfaction of public dues at the same ratio. These modifications, designed to guard against a sudden and considerable rise of exchange, were acquiesced in by the government of India. On the 26th June 1893, the Act No. VIII. of 1893 was passed to provide for the closing of the mints to the free coinage of silver from that day; and by official notifications of the same date provision was made for the issue of rupees in exchange for gold, and the receipt of British gold coins into the treasuries at the rate of 15 rupees to the £. Some time passed before there had been a sufficient period of freedom from disturbing causes, and it was possible to pronounce with any certainty as to the success of this experiment. Among such causes may be mentioned the attempt of government during the later months of 1893 to maintain a minimum rate for the sale of India council bills. The abandonment of that attempt at the beginning of 1894 was followed by a fall in the gold value of the rupee, aggravated for a while by the addition to the circulation of a considerable store of coins drawn from native hoards. The latter cause is considered to have exhausted its effects in the course of that year. The value of the rupee, after falling to a minimum of less than thirteenpence, rose gradually, until at the beginning of November 1896 it exceeded fifteenpence, and it has not since fallen below that level. In time under the play of normal forces, the rupee exchange reached the stipulated point of sixteenpence. The possibility of assistance to Indian finance by raising the rate higher is obvious and should always be kept in mind.

Many of the native Indian states still cling jealously to their ancient right of coining, regarding it as a sign of sovereignty. Rupees of varying quality are issued from their mints. In 1876 the attempt was made to secure a common currency by providing that the government might coin rupees of the same weight and fineness as the government rupee, but with a different device, for any native state which would cease the operations of its own mint for thirty years. The act has had but little success, yet the native rupee is not nowadays a material factor in the circulation, owing to the limited numbers which are produced, and the restricted area within which they pass.

The silver coins subordinate to the rupees are of the value of one-half, one-quarter, and one-eighth of the rupee. They are of the same fineness as the rupee, and of proportionate weight. The rupee and half-rupee are alone legal tender to an unlimited amount, the two lower denominations being legal tender only for the fractions of a rupee. The symbol "Rx" denotes ten rupees. Its use was more conspicuous in the days of the stable parity between gold and silver, when the rupee was approximately equivalent to two shillings, and Rx to £. Large sums of rupees are expressed in lacs and crores, the lac being 100,000, and the crore 100 lacs.

[Thurston's *History of the Coinage of the East India Company*; Yule, *Hobson-Jobson*; Chalmers's *Colonial Currency*; *Report of the Indian Currency Committee* (1893), and parliamentary papers of the same year relating to the currency of India. For an elaborate investigation of the number of rupees in circulation before and since the closing of the mints, see papers by Mr. F. C. Harrison in the *Economic Journal* for December 1891, June 1892, and March 1896.] W. B.

RURAL DEPOPULATION. See DEPOPULATION.

RUSSIA COMPANY. This was a company formed by an association of London merchant adventurers (see ADVENTURERS, MERCHANTS), with the object of making discoveries for the promotion of trade. It had joint stock of £6000 in 240 £25 shares. Under the leadership of R. Chancellor, who was instructed by Sebastian Cabot, a trade route to Russia was opened, when a landing was effected near Archangel 1553, and Chancellor, proceeding to Moscow, received privileges for English merchants from the Czar. In 155⅘ the first charter of incorporation was granted by the crown for the discovery of lands, countries, isles, not before known or frequented by Englishmen (Macpherson, ii. 117). Under this the company was to be ruled by a governor (Sebastian Cabot for life) and a board consisting of four consuls and twenty-four assistants, appointed annually by the whole fellowship. Extensive privileges, including a monopoly of the trade with Russia and with any other country discovered by the company, were granted, while ample security for the protection of merchants was obtained from the Czar. In the course of a few years further discoveries resulted in the opening up of trade through Russia with Persia, but wars and other risks prevented any considerable development in this quarter. In 1566 the company, having suffered from the intrusion of interlopers, received parliamentary sanction (Hakluyt, i. 369, 10 Will. III. c. 6) and the monopoly of trade with Russia, Armenia, Media, Hyrcania, Persia, under certain conditions, while commodities were to be carried in English ships alone, manned with a majority of English mariners. Disappointed in his hopes of political alliance with England, the Czar suspended the privileges of the company in 1571, but these were restored through the intervention of Anthony Jenkinson. Fresh difficulties arose and repeated attempts to regain exclusive privileges failed, although, in 1583, lower customs than those paid by other nations were demanded of the company as the discoverer of the sea route (Camden, *Elizabeth*, sub an. 1583). The trade soon came to be on a precarious foot-

ing, owing to the fickleness of the Czar and the competition of the Dutch and Hamburgers, and by the close of the 16th century it was much decayed. Raleigh in 1603 states that but two or three ships had been sent in the previous year to Russia (*Observations touching Trade and Commerce with the Hollander*, ed. M'Culloch, p. 16). In 1598 the company began to engage in the whale-fishery off Spitzbergen (Macpherson, ii. 213); from 1612 difficulties arose owing to the attempts of the Dutch to take part in it. In 1613 the company obtained a charter from the crown excluding all others from sailing to Spitzbergen, and succeeded for a short time in driving out both foreign and English interlopers (Macpherson, ii. 273). In addition to the Danes and the Dutch the merchants of Hull and York disputed the company's claim to exclusive privileges, while a Scotch company chartered by James I. threatened to be a danger until its charter was revoked. In 1619 the Russia Company combined with the East India Company to form one joint stock for the whale-fishery (Macpherson, ii. 287), but the ill success of various undertakings led to the abandonment of the scheme. The company was heavily in debt at this time and unable to satisfy its creditors (Hewins, *English Trade*, p. 38). The struggle for the monopoly of the whale-fishery continued, and in 1654 the formation of a representative committee of management for the whale fishery was decreed by ordinance, but this did not lead to more satisfactory results. Attempts were also made to revive the trade with Russia by W. Prideaux in 1654 and by Lord Carlisle in 1663. Exclusive privileges could not be gained, and the company was merely permitted to trade on the same footing as the Dutch. The reorganisation of the company soon followed; henceforth it traded on a regulated and not a joint-stock basis, admission being granted to all who could pay the entrance and certain annual fees. By 10 Will. III. c. 6, the former was definitely fixed at £5, and under these conditions the company existed until the close of the 18th century. Throughout its early career it had to struggle against the competition of private traders at home and of the Dutch abroad, and its history is chiefly of interest as showing the gradual victory of the interlopers in breaking down the monopoly of an exclusive corporation.

[Macpherson, D., *Annals of Commerce*, ii. 1805. —Hakluyt, R., *Principal navigations, voiages . . . of the English Nation*, 1598.—Hewins, W. A. S., *English Trade and Finance chiefly in the Seventeenth Century*, 1892.—Camden, W., *Reign of Elizabeth*.—Raleigh, Sir W., *Observations touching Trade and Commerce with the Hollander*, edited by J. M'Culloch, in Select Collection of Tracts on Commerce, 1859.—Pamphlets in British Museum, 816 m. 11/111.]

E. A. M.

RUSSIAN SCHOOL OF POLITICAL ECONOMY.

1st Period, p. 336; 2nd Period, p. 338; 3rd Period, p. 340.

It is no easy matter to write the history of the Russian school of economics. There does not exist in Russian literature a single work on this important subject, nor even any complete bibliographical index of economic literature. Further, the compilation of such a chronicle as is needed is the more difficult because the greater part of the economic writings in Russian have appeared not as independent books, as is usual with such compositions in Western Europe, but as articles in periodicals, to trace which in the present position of Russian bibliography is almost impossible. It has been thought necessary to preface these remarks thus to explain the difficulty which has been encountered in preparing a statement which would satisfy both Russian economists and English readers.

First Period (*18th century*).—No economic literature appeared in Russia earlier than the commencement of the 18th century. Until the reign of Peter the Great (reigned 1689-1725), scarcely any secular literature existed, and such scanty cultivation as obtained was based on the meagre theological literature then current, and was influenced by an ascetic religious spirit. Among the important writers up to the time of Peter, the monk Sylvester, the chief counsellor of the Czar John the Terrible (reigned 1533-1584), who wrote *Domostroi* (*The Book of Household Management*), and the learned Galician, George Krizhanich (born 1617), one of the first teachers of Panslavism, should be mentioned. Both writers were dominated by religious feeling. The first confined himself to the inculcation of the order of life, which in his opinion ought to be established in every well-regulated private household; the second, in his work entitled *Politics*, written partly in Galician and partly in Latin, and in his work *De providentia Dei*, written in Latin, described Russian life as he knew it, compared it with the life of other nations, discoursed on the wealth of the state and the wealth of the people, of trade, farming, industry, and at the same time had a perfectly clear idea of money, explaining the connection between it and value within the country, and hotly protesting against its debasement. Krizhanich's work, written in Siberia, whither he was exiled by the government of Moscow under the convenient pretence that his opinions were dangerous, was written in a language incomprehensible at the time even to the greater part of educated Russians. This explains why it had no perceptible influence on Russian economic opinion. Much greater importance had the work of a self-taught peasant, John Possoshkoff (born 1665), entitled *On Poverty and Riches*, and written in a fluent, imaginative style. The author was unacquainted

with the literature of Western Europe, and quite independently accumulated a body of opinions somewhat similar to those which bear the name of mercantilism. He insisted on the development of industry and agriculture in Russia, on the diminution of imports and the increase of exports in order to attract the precious metals into the country and to regulate the value of merchandise. The value of money altogether depends, in his opinion, on the will of the government, and being by principle an antagonist of the debasement of the gold and silver coin, he recommended the substitution of copper coin for the latter for domestic use, with an obligatory tariff. An abundance of coins, that is, of monetary tokens, appears to him a good thing. He considers that the consequences of this show themselves in the strengthening of industrial activity; for international trade he recommends the employment of bills of exchange guaranteed by a supply of gold and silver at the government bank. It is very remarkable that Possoshkoff clearly saw that the abolition of the system of Russian serfdom—which at the period when he lived was very detrimental to the prosperity of the country—was necessary. He publicly expressed the opinion that a rich peasantry made a rich emperor. These were his reasons for insisting on the abolition of the unjust poll-tax, and the division of the peasants' lands from those of their landlords.

Possoshkoff's ideas agree in many respects with those by which Peter the Great was guided in his practical work, but at the time they appeared they seemed so bold that their author was thrown into prison. It should be stated that during the first half of the 18th century printing in Russia was very little developed. Some kinds of economic ideas were disseminated through reading the government proclamations generally called *ukases* (edicts), in which complete economic doctrines were often expounded. The *ukases* of this class, promulgated by Peter the Great and Catherine II., are especially characteristic. Government guardianship, the leading idea in the *ukases* of the former, is replaced by ideas of economic liberty in the *ukases* of the latter. While Peter I. was convinced that no progress could be made except by the exertion of the power of the monarch, Catherine II. maintained that economic progress could only be reached by the removal of the interference of government. This progress she sought to increase and revivify by giving freedom to trade and industry, and by other incentives. In the interval between the reigns of Peter I. and Catherine II., a great intellectual change took place in Russian society under the influence of the intercourse with Western Europe.

The educated part of society became acquainted with the different ideas of French writers, encyclopædists, and PHYSIOCRATS, and the empress Catherine II. herself stood at the head of this intellectual movement.

In 1765 she ratified the charter of a Voluntary Economic Society, which took its rise among those of the courtiers, lords, and ladies, who were well educated and who were intimate with the empress herself. This society was in consequence for a long time the centre of economic thought in Russia. The principal question that, through the initiation of the empress Catherine, interested this society almost from the very moment of its establishment, was that of "the peasantry and their state of servitude." In the year 1766 Catherine II. anonymously furnished the society with 1000 ducats to be given in prizes to those who had written the best essays on a theme formularised by the society in the following terms: "What would be most advantageous for the country; that the peasantry should own their land or that they should possess merely personal property, and how far should their rights with regard to property in land or to personal property extend?" It is an interesting fact that soon after the offer of the prizes, 167 essays were sent in, 7 the work of Russians, the remainder of foreigners. The most remarkable of the former was one written by Polevoi, in which he argues that in comparison with serfs, peasant proprietors cultivate the soil better and therefore more profitably, this being equally advantageous to themselves and to the state. The question of "servitude" has never ceased since that time to interest the Russian economic mind. Such writers as Miller devoted all their energy to discussing the subject with the celebrated LINGUET, who maintained that servitude (serfdom) would lead to an amelioration of the lot of the working classes, and with the well-known publisher Radichtcheff, whose book entitled *A Journey from Petersburg to Moscow*, 1790, gives a striking description of serfdom in Russia, and at the same time eagerly protests against it. Thus it will be seen that the question of the peasantry was the central one of the economic literature of the time of Catherine II. It is true that the journals of the Voluntary Economic Society published not a few other economic articles, but by far the greater part of them dealt with the practical side of the question, almost without touching questions of theory. The tendency of the Voluntary Economic Society was shown at the very outset of its operations by its admission how necessary it was to study the position of rural economy in Russia. Hence acting on the suggestion of Clingstate, one of its members, it sent out questions on the subject to persons who had studied the matter, and on the receipt of the replies, printed epitomes drawn up from them. Of the editors of *The Transactions of the Voluntary Economic Society* during this interesting epoch, Stephen Junckowski (born 1762) should be specially

commemorated. He studied for a considerable time agronomy in France and England, and was one of the principal authors of the many-volumed work entitled *A New and Full System of Practical and Rural Economy*, published in 1807. During the reign of Catherine II. no Russian authors wrote on theoretic economics. The empress herself and those who were on familiar terms with her were well acquainted with the writings of French authors, the encyclopædists and physiocrats, and read them in the original. There were translated into Russian from French, VON BIELFELD'S *Institutions Politiques*, by Prince Shakowski and Professor Bagroff, by order of the empress, 1768-1775. From the German, JUSTI'S *Die Grundveste zu der Macht und Glückseligkeit der Staaten*, by John Bogayeffski, 1772-78. The first part of SONNENFELS' *Grundsätze der Polizei, Handlung und Finanzwissenschaft* in 1787 by Gavriloff, and besides these in 1780 a Russian translation was made (from French) by Popoff of MURATORI'S work, *Della Pubblica Felicità*, 1749.

To complete the description of this period, it should be mentioned that in 1773 Reichal, history professor at the university of Moscow, included in his course of lectures some details of the economic description of other countries. These lectures were published in 1775 under the title *A Short Manual of Information on the Religious, Political, Economic, and Educational Condition of certain European States.* Besides this, between 1761 and 1769 the famous Schlatser lectured on the theory of statistics at the academy of science in Petersburg. Both of these were followers of the doctrine of Archenval, the historian of economic thought in Russia during the second period.

The Second Period — First half of 19th century. — The latter half of the reign of Catherine II. (died 1796) and the short reign of her son the Emperor Paul (reigned 1796-1801), were times of terrible reaction in Russia. Those who had lost confidence in Catherine's ideas of emancipation, of which she had dreamt in her youth, not only permitted no improvement in the condition of the peasantry, but even rendered serfdom more onerous and extended its influence through the whole of Little Russia. Radichtcheff's book, mentioned above, was kept out of the bookshops by the police, and he himself was subjected to a severe persecution. His book contained a plan for granting freedom to the serfs, for which he was condemned to death, a sentence afterwards commuted to exile to Siberia. The uprisings among the peasantry, which began in the reign of Catherine II.—one, especially violent, having taken place in 1774—under the leadership of Emilian Pugatcheff, continued up to the reign of Paul I., and were a perpetual source of terror to the whole empire. The liberal ideas of the PHYSIOCRATS which had been diffused among the better educated Russians were pronounced dangerous by the government, which began to take strong measures for their extirpation. A very severe censorship of the press was instituted, though the newspapers were trifling in size, their contents were generally trivial, and in particular the writers on the condition of labour, not only in Russia but in other countries, were prosecuted. After the accession of the emperor Alexander I. (reigned 1801-1825) to the throne, economic thought began again to be active and to discuss questions of social life in Russia and the necessity of freedom for labour.

The education of Alexander I. was influenced on the one hand by the republican ideas of his Swiss tutor Laharpe, and on the other by the severe discipline of a soldier's life, which he had been strictly held to during the reign of his father. This accounts for the duality of his thought and action. At the beginning of his reign he advocated self-help and enlightenment, at the end he relapsed into mysticism and despotism tinged with asceticism. All this had a great influence on the development of economic thought in Russia, and it may be said to have made great progress. The beginning of the reign of Alexander I. was marked by an order from the minister Vasilieff to translate Adam SMITH'S immortal work the *Wealth of Nations* into Russian. This translation was made by Nicholas Politkoffski, 1802-1806. Though it was not remarkable for exactness, especially in the definition of the terms employed, it had a great influence on Russian students, who very quickly accepted the economic ideas of the great Scotchman. Through the lectures of Christian Schlötzer and his book, *Anfangsgründe der Staatswirthschaft oder die Lehre vom Nationalreichthum*, published in German and Russian 1805, Smith's ideas became known to the students at the Moscow university. Soon after they reached a wider circle, for, stimulated by the new teaching, the Voluntary Economic Society proposed in 1802 a competition for a prize for an essay on the subject, "What measures need be taken to rouse a spirit of activity, energy, and industry among the peasants?" Of those who wrote essays, Junckowski, whose work was referred to above, should be mentioned, and Professor Jakob of the university of Charkoff, who besides translating into Russian J. B. SAY'S *Principles of Political Economy* in 1805, published in 1807 *Gründsätze der Polizeigesetzgebung und der Polizeianstalten*, 2 vols. The economic ideas of Adam SMITH were also introduced into the *Journal of Statistics* edited by the academician Germain, 1806-1808. Statistics continued to be a descriptive science, and Germain was known as the author of a popular manual of statistics, and a whole series of articles published in the journal he edited. There was also published

in this journal a work very remarkable at its date, written by Michael Balugienski, rector of the university of St. Petersburg, entitled *A Description of Different Economic Systems*, in which the author discusses in minute detail the ideas of the mercantile school, of the physiocrats, and of Adam Smith. Another contributor to the journal, Vurst, wrote in the same spirit as Smith, chiefly on the finance and trade of Russia. Count Valerian Stroinoffski may be described as a representative of the school of physiocrats. His book *The Universal Economy of Nations*, was written in Polish, but translated by the author into Russian and dedicated to the heir to the throne, the grand-duke Nicholas (emperor 1825-1855). Stroinoffski's work was based on QUESNAY'S *Tableau Économique*, which had been translated into Russian in 1817 after the Russian public had become acquainted with STORCH'S excellent *Cours d'Économie Politique*, published in French in 1815. This may be said to have done more than anything else to make Adam Smith's ideas popular in Russia. Well acquainted with English and French economic literature, and also with the state of agriculture in Russia, Storch was able to give his pupils, the grand-dukes Nicholas and Michael, most useful instruction on production, exchange, and taxation. He also wrote in six volumes a work containing much of historical and practical information. Those questions on which Storch differed from Smith are pointed out by Dr. Ingram, *History of Pol. Econ.*, pp. 188, 189.

Russian scholars will notice in particular those pages in Storch's work in which he explained to the grand-duke Nicholas, the future autocrat of Russia, that individual freedom and security of private property are indispensable to the development of the economic well-being of the country—a truth which it is often necessary for Russian scholars to defend even at the present time. This same truth is emphasized by two other economists of that epoch—Arsenieff, professor of statistics at the university of St. Petersburg, author of *A Sketch of the Statistics of the Russian Empire*, 2 vols. 1818, and N. T. Turgueneff, the son of the rector of the university of Moscow, whose work, entitled *The Theory of Taxation*, 1818, is still at the present day of great value. According to Turgueneff's own statement, he sought to prove in this book that freedom is the only true basis of economic theory as for the theory of administration. Turgueneff often quotes England as an example; to prove his theory he describes the free institutions of that country, asserting that these have built up her glory and wealth.

After the war of 1812 another period of reaction recommenced, and freedom both of speech and thought was suppressed. Arsenieff and Balugienski were persecuted by the director of the St. Petersburg educational system, Runitch, who was considered, at the time, one of the most powerful supporters of civilisation. He declared the lectures of these professors to be dangerous and prejudicial to the wellbeing of society, as they maintained that freedom of labour and industry were essential to the economic development of the nation. There is little doubt that both Arsenieff and Balugienski would have been exiled had not the grand-duke Nicholas, who was personally acquainted with Arsenieff, interfered on their behalf. The affair ended with a large group of professors being deprived of their lectureships, and, in consequence, the almost entire disappearance, for the time, of economic literature in Russia. The accession of Nicholas I. to the throne (1825-1855) was, as is well known, accompanied by the political conspiracy of the "Decemberists" and an uprising of the people in the streets of St. Petersburg. After the suppression of the latter by armed force, a period of severe persecution of the slightest indication of free theoretical thought commenced. At the same time the financial affairs of the country, already embarrassed by the wars with the first Napoleon, were in a serious condition. The paper circulation was so depreciated in value that four and a half roubles in bank notes had to be given for one silver rouble. When the discussion of questions bearing on the theory of economics was forbidden, Russian economists turned their attention to the study of the practical questions, as far as was possible under the severe censorship. It is characteristic of this period that the economists endeavoured to avoid discussing in their writings the then state of affairs in Russia, and took refuge in describing, historically, the economic conditions of bygone times. In this manner there arose that school of economic thought in Russia which ROSCHER has called the Russo-German school, regarding Storch (1766-1825) as its founder.

Among the followers of this school may be mentioned Orloff, author of a book entitled *On the Credit of the State* (1833).—Gagamaester, who published in the same year his *Survey of the Finances of Ancient Russia.*—Afonasieff, author of *On Finance during the time of Peter the Great* (1848).—Gorloff, who was celebrated for his lectures at the universities of Kasan and St. Petersburg, on *The Theory of Finance* (1842), and *Economic Statistics* (1849).—Count Tolstoi, who published *The History of the Financial Institutions of Russia up to the Death of Catherine II.* (1848). This history was so much admired that Tolstoi was appointed minister of public instruction and of the home department. Vernadski, formerly professor at the universities of Kiev and Moscow, and author of *A critico-historical Investigation of Italian politico-economic Literature to the beginning of the 19th Century* (1849), and Butoffski, who wrote *An Essay on National Wealth, or the Principles of Political Economy* (1847, 3 vols.). The principles of both the two

last-named authors, especially Butoffski, were in accordance with those of the MANCHESTER SCHOOL. Generally speaking, they had no great success in Russia; their writings were commented on by a talented critic, the historian J. A. Milutin. His article, criticising Butoffski's book mentioned above, printed in the *Contemporary* (1847), may be compared to Roscher's works on method and logic. Another member of the Russo-German school was Count Cancrin, by birth and education a German, and the author of several works of a theoretical and practical character. Among these we may mention *Weltreichthum, Nationalreichthum und Staatswirthschaft*, in which he discusses the financial policy of the minister Gurier. Cancrin was, however, chiefly known through his practical work. During his ministry a great reform in financial affairs took place, and in a short time the metallic currency was re-established.

Third Period—Second half of 19th century.—Alexander II., ascending the throne in 1855, at a time of complete disorder in the national economy of Russia,—the close of the Crimean war, which had so clearly revealed the deficiencies of the government, the absence of the rights of the people, and the despotism of the nobility and of officials, began to reform some of the evils he found, and first of all to abolish serfdom. In 1856 a secret committee was established to consider the question of serfdom, the emperor himself being president. In 1858 the committee was reorganised; it was called the principal committee for discussing the affairs of the peasantry, and Russian society was called on to accomplish one of the grandest of the peaceful reforms of the century. Instead of 22,000,000 enslaved people, a free peasant class was created, with considerable power of self-administration, within the limits of their community and *volost*. The rights granted by law in 1861 to those peasants who were servants of the nobles were by degrees extended to all other peasants. A consequent result of the peasant reform was the appearance of an extensive literature, both of a theoretical and a practical nature, which was encouraged by the sympathy of the government. In a short time, between 1855 and 1861, Russian economic literature was enriched by works of a theoretical character. Babst, a professor at Moscow, and author of an excellent work on *John Law and the Financial Crises in France* (1852), published in 1857 his lectures *On some Conditions contributing to the Augmentation of the National Capital*, and in 1860 *A Public Lecture on Political Economy*. In 1857 he undertook the editorship of a journal entitled *The Economic Guide*, which gave information as to the state of economic science in Europe and England. In this journal were published the writings of Vernadski's wife, Marie Vernadski, describing investigations on women's labour, which were very important considering the time when they were written. The work of Tengoborski, *Études sur les forces productives de la Russie*, in which may be found a highly circumstantial description of different views of industry in Russia, was translated into Russian in 1858, and in 1859 a dissertation by the present professor at the Charkoff university, Gregory Tsekanovetski, was published, entitled *The Significance of Adam Smith in the History of Political Economy*, in which the author, giving due credit to Adam Smith's work, reproaches him with rationalism, and with not regarding the life of the people from the historical point of view. He also cautioned practical workers from being carried away by the idea of unconditional freedom in economic matters. This warning was the more necessary as the advocates of the cause of the freedom of the peasantry respecting the division of their land, based their arguments on the principle of unconditional freedom. In the same year, 1859, there appeared an excellently written and copious *Principles of Economics* by Professor Gorloff, written in accordance with the teaching of J. B. SAY, and free from extreme views as to labour. This work is in great esteem as a university text-book. No detailed account of the extensive literature which sprang up after the issue of the ukase announcing the imminent liberation of the peasantry can be given here. These essays occupied the greater part of the monthly periodicals of the time, which devoted a part of their pages to the discussion of the condition of the peasantry both from a political and an economic point of view. It is enough to state simply that these writings were permeated with the idea of the necessity of the emperor's protection of the poorer classes of his subjects, reserving to him the right to promote the free development of economic industry. "The common affairs of the whole nation are the private business of each of its members," wrote the contributors to the economic journal of the Slavophils, *Rural Reorganisation*, published in Moscow under the editorship of Koshiloff, the intimate friend of Prince Tcherkasski and G. Samarin, his colleagues. The following periodicals were imbued with the same spirit:—*Native Notes*, *The Reading Library*, the latter being in opposition to the *Russian Messenger*, edited by Katkoff, which held retrograde views, and in particular *The Contemporary*, for which one of the most distinguished of Russian economists worked, Tchernychevski, who was unfortunately exiled to Siberia under suspicion of being a member of a secret revolutionary society. Tchernychevski may be called the founder of scientific socialism in Russia. His economic novel, *Que faire* (see NIHILISM), and his *Remarks on the Principles of Political Economy of J. S. Mill*, which had been translated by him into Russian in 1860, were afterwards prohibited in Russia. They have been republished abroad, but are still not allowed to be circulated in Russia. In the period from 1861-75 all the most important economic works in English and German were translated into Russian, and new university regulations published, by which the teaching of political economy was established at the universities. The consequence of this was that the science became very popular in Russia, and at the present time there is not a single periodical in the country which does not contain articles of an economic nature. The following questions have been discussed with particular interest in Russian economic literature since the reform in 1861 to the present time:—(1) The agrarian question. Thanks to the excellent work of the local self-governing bodies, the Zemstvos, the economic statistical investiga-

tions effected in the course of the last twenty-five years in Russia provide rich materials for study both with regard to the agrarian question and other points of economic interest. Passing over the enormous amount of journalistic literature treating on this subject, the chief works devoted to it may be mentioned. As early as 1877, Janson, author of the best work in Russia on theoretical statistics, and a professor at the university of St. Petersburg, published *An Essay on the Peasants' Land and Taxation*, in which he explains the incompatibility between the portion of land given to the peasants by their former masters and the charges on it, and he attributed this to the legislation of 1861. In 1879 the founder of the economic statistical bureau in the government of Moscow, V. Orloff, published his *Forms of Peasant Land-Holding in the Government of Moscow*, an inquiry which may be regarded as classical, on the question of the common land-holding of the peasantry of the central parts of Russia, and the economic view of the subject. A year earlier, 1878, the present editor of the liberal paper, *The Russian Gazette*, Posnikoff, then a professor at the Odessa university, published a book entitled *The Common Ownership of Land*, in which he maintains, after comparing the English, German, and Russian system of land-holding, that this form was superior to all others. At the same time John Kaisler published his excellent work in German, *Zur Geschichte und Kritik des bauerlichen-Gemeinde-Besitzes in Russland*, the last volume of which only appeared in 1877. *Land-Possession and Agriculture in Russia and other Countries*, by the wealthy landowner prince Vassiltchikoff, was published in 1881. Professor Hodski's work, analogical in its contents, but far less able than the last-named, appeared in 1891, it is entitled *The Land and the Agriculturist*, the second volume dealing with the study of the economy of the recently emancipated serfs. The four following important works relating to the agrarian question deserve mention:—V. Posnikoff's *South-Russian Peasant Economy* (1891).—*The Common Good of the Peasantry*, by Dr. Vorontsovi, the author of many works on economic subjects; his book gives a careful revision of the materials gathered together by the Zemstvos on the subject of the welfare of the peasants. Professor Karisheff's book presents a similar detailed revision of peasant leases other than those granted to the emancipated peasants by their masters in 1892; and lastly, Danielson wrote *Outlines of our Reformed Economy* (1895), in accordance with the teaching of Karl MARX, whose book on CAPITAL Danielson translated into Russian. The following writers have studied the agrarian question as it exists in other countries:—Maxime Kovalevski, formerly professor at Moscow university, whose book, *The Common-Holding of Land, the Causes, Course, and Consequences of its Decline*, has a widespread reputation throughout western Europe; and Mannilov, the assistant professor at the same university, who has devoted himself to the study of *Rents in Ireland* (1895).

The peasant reform of 1861 caused, at the same time, a reform of the whole economic organisation of Russia. During the last thirty years Russia has become intersected by a wide-spreading network of railroads; a considerable number of banks have appeared both for commercial and for agricultural credit. Industrial works and factories have sprung up on her plains in increasing numbers. At the same time the indebtedness of the landowners have considerably increased, as have also the taxes levied on the people. The national debt has reached the proportions of 2,278,894 thousand roubles (roubles converted as 6·25 = £1) (£364,623,040), and the constant fluctuation in the value of paper money, while it could not be exchanged into gold, has caused periodical crises in the national economy of the country. It is not therefore wonderful that the study of the science of economics in Russia has been concentrated on the above-named questions. Some of the principal works of interest in connection with these questions may be mentioned here. As early as 1861 the academician, Bezobrazoff, published his work entitled *Landed Credit and its Contemporary Organisation in Western Europe*, a book which for a long time was the recognised authority on the various banks for land-credit which arose at that time. Ten years later, in 1871, another work appeared equally authoritative on this point, entitled *Credit, Banks, and the Currency*, by Kaufmann, a professor at St. Petersburg university. Both of the last-named economists follow the teaching of the Manchester school. The tenets of RODBERTUS and the socialists found an adherent in Tchaslawski, whose book *On the Question of Landed Credit* appeared in 1881, and also in a degree, in Hodski, author of *Landed Credit in Russia and its relations to the Peasant Landowners* (1882).

Railway economics have been carefully examined by Tsekanovetski, professor of the Charkoff university, who wrote *Railroads and the State*, 1869; by Tchuproff of the Moscow university in *Railway Economy*, 1875; by Golovatchoff in *History of the Railway System in Russia*, 1881; by Pickno of Kieff university, in *Railway Tariff*, and by Witte, the present minister of finance (1897), in *Principles of the Railway Tariff*, 1884. These works had an immediate effect on the progress of railways in Russia. As is well known, the greater part of the railroads have been bought by the government, which also controls the tariffs of those lines which still belong to private companies.

The question of the currency in Russia has been much before the public there during the last ten years; an impetus being given to this through the work of Adolph H. Wagner, then professor at Dorpat, afterwards at Berlin, on Russian paper money, *Die russische Papierwährung, eine volkswirthschaftliche und finanzpolitische Studie nebst Vorschlägen zur Herstellung der Valuta*, Riga, 1868. This book was translated in 1871 into Russian, by Professor N. Bunge of the Kieff university, afterwards minister of finance. To Bunge the honour must be ascribed of having placed Russian finance on a sound footing. Under his influence, and in view of the imminent reform of the money currency, the work of Prof. Antonovich of Kieff, afterwards deputy-minister of finance, entitled *The Theory of Paper Money, Currency, and Government Notes*, 1883, was published,

Antonovich did not sympathise with Witte in the question of the money reform, and was obliged to leave his post as deputy-minister. The book by Brant, *The Theory of Rates of Exchange*, 1892, closely analyses the phenomena of the rates of exchange. Prof. Sudaikin, of the St. Petersburg university wrote on *The Government Bank*, 1891. This work is important as explaining the Russian money currency and the arrangements of the bank. Prof. Alexander Miklashevsky of Dorpat wrote *Money: An Attempt to Investigate the Main Positions of the Classical School of Economic Theory in connection with the History of the Question of Money* (Moscow), 1895 (see *Economic Journal*, 1896, pp. 234-37); this book forms an exhaustive treatise on the theory and history of money.

The greater number of Russian economists have been mono-metallists. Of the bimetallists two only deserve attention — Sokalsky, professor of statistics at the Charkoff university, recently dead, who published in 1896 a pamphlet entitled *Reforms in Terms*, and Prof. Isaieff of the St. Petersburg Lyceum, who has written several articles in journals advocating a money reform at the present time.

Our economists have assigned, comparatively speaking, very little place in their researches up to the present time to questions concerning the condition of large manufactories, as also to the labour question in Russia, perhaps because the system of home industries has prevailed. The growth of large industries working for a large market which profit in Russia by a highly protective tariff, has not yet been thoroughly studied. But at the present time the questions of free trade and protection, and whether it is indispensable that Russia should pass through the same phases of economic development as Western Europe, while there is no need that she should do so, divide Russian economists into several groups, antagonistic among themselves. The merchants and manufacturers are strong partisans for protection, as an apologist for which should be named the celebrated Russian chemist, Mendelaieff, whose book *A sensible Tariff or an Investigation of Industry in Russia in connection with her general Customs' Tariff*, published in 1897, supplies much interesting information about the natural riches of the country, and the growth of its industries, but it is marked at the same time by highly doctrinaire views. Landowners and that vast class of persons who live on their private means are in Russia the partisans of free trade. It falls to the lot of these classes to bear all the expensiveness of the products of the large Russian industries. The book by Noffikoff, *Protection*, 1891, may be set against that of Prof. Mendelaieff as an eager defence of the idea of free trade. The studies of Prof. Yanschull of the Moscow university are altogether objective and impartial in character. He wrote *English Free Trade*, 2 vols. 1876-82, in which, having traced its history, he describes those circumstances which have made free trade an economic necessity in England. Prof. Yanschull is one of the most industrious among Russian economists. When during the administration of Bunge, as minister of finance, an inspectorship of factories was established in Russia, Yanschull was appointed inspector for the Moscow district, and his *Reports*, even at the present time, serve as a valuable text-book for the study of the condition of factories in Russia. Of a whole pile of writings by this same scholar on various questions, we may mention here his extensive course of lectures on finance, 1895, and "Industrial Syndicates or entrepreneurs unions for the regulation of production especially in the United States of America," St. Petersburg, 1895, which are described in the journal *Revue d'Économie Politique*, 1896. Prof. Isaieff, previously mentioned, has also applied himself to the study of questions of industrial economics—he wrote the best treatise on *Theoretic Economics in Russia*, 1st ed. 1895, and a treatise on *Industrial Societies in France and Germany*, 1879. A socialist in his views, Prof. Isaieff has very attentively studied that common form of industrial co-operation in Russia known as workmen's associations (see ARTÉL), and also the peasant trades of the government of Moscow. These vast researches appeared in 1877 and 1881. Isaieff believes in a future development of the welfare of the peasant class through productive associations, thus approximating to the group of economists which appropriates to itself the appellation nationalist; seeking thus to connect itself with the idea of the nation, it favours collectivism and the management of industries by the state, and trusts to do this by means of workmen's associations, founded on the principle of the general possession by the workmen of the instruments and results of production. Among well-known representatives of these opinions are Dr. Vorontsovi, Prof. Karisheff, and also Fortunatoff, the professor of statistics at the institute of rural economy at New Alexandria, the author of numerous works on the statistics of rural economy in Russia, and Kablukoff, assistant-professor at Moscow university, author of *The Question of the Working Class in Agriculture, 1884*, in which he looks into the significance of hired labour in English rural economy and studies the influence of its present organisation and the condition of the working class on production. This group of writers have their organ, the journal *Russian Wealth*, published in St. Petersburg. One must acknowledge that writers of this school have the merit of studying attentively the economic condition of the peasants, but one cannot also avoid reproaching them with the want of originality of their theoretical and in particular of their philosophical views. The followers of the teaching of Karl MARX form another division of Russian economists: as philosophers these are economic materialists. As the best example of this mode of thought, Ziber, the late professor of the Kieff university, may be cited. His works, *Outlines of primitive Economic Culture*, 1883, and *Ricardo and Karl Marx in their socio-economic Researches*, 1885, may be compared with the best works of the writers of Western Europe, both for the fulness and brilliancy of their exposition and for the width of the study they evince. Among the latest writers of this school may be named Tugan Baranoffski, assistant professor at St. Petersburg university, author of an able enquiry into in-

dustrial crises in England (1895)—a fellow-labourer who is publishing at the present time, in Russia, a large encyclopædic dictionary, and who is the author of several pamphlets—Struve; and the Russian political exile, Plechanoff. This school published its own organ, a journal entitled the *New World*, in St. Petersburg.[1] This school believes that economic development in Russia will follow the same lines as it has done in Western Europe; that no workmen's associations, and no peasant communities will save Russia from the calamity of the supremacy of capitalistic economy—that in the development of manufacturing industries the systems of small industries now connected with agriculture will disappear, that the peasantry in the future will change into a landless working-class, and that the sooner this wearisome process comes to an end the sooner will it be possible to enter on the organisation of a working class of society which thus belongs altogether to the future. Unfortunately the present state of this working class of society is far from bright, and is very imperfectly studied. No works thoroughly investigating the condition of the working-class exist, probably because the censors would not allow such works to pass. Meanwhile in spite of facts, expressed sometimes in the form of immense strikes, which constitute, according to existing legislation, a serious capital crime, it is asserted in competent circles, and by the conservative press, that the labour question does not exist in Russia at all, and that the relations between the working people and employers are altogether of a patriarchal character. A little information concerning the condition of the working-class in Russia is, however, scattered through journalistic literature. Amongst these are some remarkable articles by the historian, Semevski, on the working-people and gold-mines in Siberia—some is to be found in the reports of factory inspectors, who unfortunately have ceased to publish them for general information, and some in certain publications of the trade and factory department of the minister of finance. In 1895 the assistant professor of the St. Petersburg university, Yarotski, published his work, *The Insurance of Workpeople in connection with the responsibility of Employers*, more theoretical than practical.

The historical school of political economy has but few representatives in Russia. Among them is Korsak, whose book *On Forms of Industry in General and of the Signification of Home Production in Western Europe*, 1861, is still important. Aristoff, the author of a valuable work, *The Industry of Ancient Russia*, 1866. Professor Yanschul and Professor Tsekanovetski previously mentioned, and Tchuproff of the Moscow university, author of a text-book on political economy and its history, used throughout the Russian universities. Levitski, professor at Charkoff university, wrote on the problems and method of the science of national economy 1890, and Ivan Miklashevsky, who wrote in 1894 an *Investigation into the History of Rural Economy and the Colonisation of Southern Russia*. In conclusion, it should be mentioned that during the last ten years the Russian ministry of finance and agriculture has published very valuable researches on different questions of economy, prepared by the officials of these departments. Such for instance is the collection of information on different phases of industry in Russia published by the ministries in Russia and England on the occasion of the exhibition at Chicago 1893, and of that of Nijni-Novgorod in 1896 and many others. The present head of the ministry of agriculture in Russia, Jermoloff, is the author of a valuable investigation of systems of agriculture, 3rd ed., 1895. Of economists who have studied the questions of finance and taxation the following deserve notice: Bloch, the author of a four-volumed work on *The Finances of Russia during the 19th Century*, furnished with extremely exact statistical data, 1882, and such details regarding their history that the work was not allowed to be sold; the professor of the university of Kasan, Levoff; of the St. Petersburg university, Lebedeff; of the Moscow university, and also the historian, Mihoukoff, at present professor at Sophia (Bulgaria); and Lappo Danileffski, professor of the St. Petersburg Historio-Philological Institute. The first published, 1892, a full investigation entitled *The State Economy of Russia during the first quarter of the 18th Century and the Reforms of Peter the Great*, the second is known for his work *The Organisation of Direct Taxation in the Government of Moscow in the 17th Century*. Both the above named works are founded on careful study of still unpublished materials among the archives of Russia. I. M.

[1] This journal is now (1898) forbidden by the government.

RYOT (literally "protected") denotes an Indian cultivator whether he is under a ZEMINDAR or, as in Bombay and most of Madras, independent in his relation to the revenue authorities. It is in the latter capacity that he is usually referred to and will be described here.

Where land is settled on the "raiyatwárí" system, as it is called, the land of some ryot is taxed field by field according to its soils, position, and irrigation, but so as not to exceed 50 per cent of the net produce. The settlement holds, usually, for thirty years. The waste is not "settled." Extracts from the settlement register are used as title-deeds. The ryot may give up his holding and also his liability for revenue. About 85 per cent in Bombay may be called owners, and they own on the average 24 acres each. Assam and Burma are "settled" on similar lines.

In "raiyatwárí" districts an overlord in receipt of what may be called fee farm rents from the ryot, and joint ownership of a ryot and other members of his family, are sometimes present. Again, "Zamindárí" tenures of individuals, and of landlord groups of villagers, and "raiyatwárí" tenures, have passed in historical times one into the other; for all this the fiscal corresponds to a real

distinction something like ours between a district of MANOR, the MARK SYSTEM, and PEASANT PROPRIETORS respectively; but in India taxation, in Europe ownership, is the root of the distinction. The differentia of the "raiyatwárí" district is that there is a "headman" of each village, whose holding is usually free of land tax, and he is never responsible for his co-villagers' land taxes. The other officers of the village are also usually rewarded with free holdings.

[See ZEMINDAR where authorities are specified. Yule, *Hobson-Jobson*—R. Jones, *Peasant Rents* (1831), rep. in *Economic Classics* (1895), classes peasant rents thus: (1) serf or labour; (2) metayer; (3) ryot; (4) and cottier rents. He does not sufficiently keep European ideas of ownership out of the Indian discussions. J. D. R.

S. W., GENT. (W. Smith, according to W. C.[1] *England's Interest Asserted*, 1696, p. 19), wrote *The Golden Fleece wherein is related the English Wools in its Manufacture* (1656), in which he urged the restoration of searching and measuring powers wielded, before 4 James I. c. 2, § 22, by the royal AULNAGER, whose office he overvalued as MALYNES did that of the Royal Exchanger (see EXCHANGER, ROYAL). His arguments are mainly derived from J. May (1613) and the title recalls Sir W. Vaughan (1626). He also (like W. SCOTT) urged strict apprenticeships; and his wish to limit the export of wool started the famous controversy in which FORTREY (1663), CHILD (1667), and W. C. (1669), took part. J. D. R.

W. S. (STAFFORD). See W. STAFFORD.

SAAVEDRA-FAXARDO. See FAJARDO.

SAC AND SOC. See SOCMEN and SOCAGE.

SADLER, MICHAEL T. (1780-1835), a vigorous opponent of MALTHUS (*q.v.*) and "the political economists," was M.P. for Newark 1829-1832. Though concerned with continuing controversies, his two books *Ireland, its Evils and their Remedies*, London, 1828, 8vo, and *The Law of Population*, London, 1830, 8vo, are little help to the modern reader. Great as has been the influence of MALTHUS's essay on subsequent thought, the essay itself is little read—much less the answers it called forth. Sadler's two remedies for Irish ills were a poor law, enacted a few years after the issue of his book, and a tax on absenteeism. More interesting was his attitude on other questions. In opposing the reform bill of 1831 he anticipated a line of argument, afterwards used by Disraeli, that the bill, establishing a uniform middle-class franchise, was largely an anti-democratic and disfranchising measure. A bill he introduced the same year is interesting in the light of subsequent history. Cottages were to be rebuilt, and garden allotments granted to agricultural labourers. The deserving were to be rewarded by the opportunity of keeping a cow, to be depastured on a general allotment. Rightly does the author of his *Memoirs* characterise his system as "paternal." He was more practical in espousing the cause of the factory children. His labours as chairman of the committee on the subject—session of 1831—probably shortened his life. He was the Parliamentary leader of Factory Reform, and it was only when he lost his seat that Lord Shaftesbury (Lord Ashley) was pressed into the front place. This deserves commemoration, as the Factory Acts struggle may be regarded as the occasion when LAISSEZ FAIRE received its first serious blow. He was a strong advocate of the corn laws and protection; he opposed the new poor law, and, on currency questions was in favour of inconvertible paper money. But the man was himself of more importance than his opinions. His speeches contain passages of undoubted eloquence; and he may be remembered as the most disinterested and guileless of tory democrats.

[*Memoirs of the Life and Writings of Michael Thomas Sadler*, London, 1842, 8vo]. H. E. E.

SAINT-AUBIN, CAMILLE (1758-1820) born in the duchy of Deux Ponts, died at Paris. A German by birth, he was attracted by the revolution, and threw in his lot with France. During the reign of Terror he was imprisoned, but liberated on 9th Thermidor, an ii. (27th July 1794), was appointed professor in one of the central schools (colleges of secondary education) established under the directory, then after the *Coup d'État* of 18th Brumaire, an viii. (9th Nov. 1799), he entered the *Tribunat* on 4th Germinal, an x. (25th March 1802), whence his opposition spirit caused him a few months later to be expelled. Up to that date he had written many pamphlets, all on subjects of the day, but too often paradoxical. This caused J. B. SAY to nickname him the *bouffon* of political economy, but at times his works were full of good sense and truth—during the empire he devoted himself to education, in particular to a course of instruction in finance, and wrote a pamphlet on the *Monopoly of Tobacco*. He died soon after, leaving behind him a translation of J. BENTHAM'S *Rewards and Punishments*.

His best work from an economic point of view is his pamphlet *Les Banques Particulières* (an v.

[1] W. C. was William Carter, a busy informer and writer of pamphlets against exporting wool, *e.g.*, *Brief Advertisement*, 1672; *Full and clear Answer to a Paper intituled Reasons for a limited Exportation*, 1677; *Summary of certain Papers*, 1685; *Proceedings against Transportation*, 1693; *Abstract of Proceedings*, 1688, 1694; *Usurpations of France*, 1695, cp. J. Smith, *Memoirs of Wool*, 1757, v. i. pp. 163, 168 n., 179, 199; *Cal. of State Papers*, Dom. Ser., 1671-72, pp. 155, 156. His writings are dull, and owe much to W. S., and assume that no wool can be manufactured unless wholly or partly British or Irish. Possibly the same W. C. wrote *Trade's Destruction . . . or Excise decryed*, 1659; and *A broadside against the Window Tax*, 1695.

1797), in which he speaks in favour of a free issue of notes to bearer by certain banks to be cashed in specie on demand.

Besides DU PONT de Nemours, he is the only writer we know of at that date in favour of the freedom of banks, though, to be exact, there was also the president of the Bank of France, Lecoulteux-Canteleu, whom the emperor contrived to replace by a governor nominated by himself, when, in 1806, he granted the monopoly of issue to that great house of business. A. C. f.

SAINT CHAMANS, VICOMTE AUGUSTE DE (1777-1861), born at Paris, died at Chaltrait (Marne). A deputy, 1824-27, then councillor of state till the restored monarchy came to an end.

His works are based on two erroneous views which corroborate each other:—the MERCANTILE SYSTEM and PROTECTION. He was the most distinguished of the upholders of the theory of the BALANCE OF TRADE. Just as the Spartans held out the drunken slaves to their sons as warnings to them against intoxication, let us give, for those who now deride free trade, the titles of St. Chaman's books, which, in their day, had some reputation. *Du Système d'impôt fondé sur les principes d'économie politique*, 8vo, 1820.—*Nouvel essai sur la richesse des nations*, 8vo, 1824. These two books, revised, formed the foundation of his *Traité d'économie publique*, 3 vols. 8vo, 1852. In this last work the following sentence appeared. We will give it without comment, to be admired by the veteran adherents of protection. "*Bénissons les obstacles que la cherté du combustible oppose chez nous à la multiplicité des machines à vapeur*" ("Let us be thankful to the obstacles to the increase of steam-power in applied machinery, which are caused by the dearness of fuel in France"). It should be added that these works are examples of good literary power, and their author has always held the esteem of the public. A. C. f.

SAINT HAIPPY, M. DE. See LOTTIN, A. P.

SAINT PÉRAVY (JEAN NICHOLAS MARCELLIN GUÉRINEAU DE) 1732-1789; author of novels, comedies, and books on social and economic topics, he was a contributor to the *Journal de l'Agriculture et du Commerce* of DUPONT DE NEMOURS.

In 1767, his *Mémoire sur les effets de l'impôt indirect sur le revenu des propriétaires de biens-fonds*, printed the following year in Paris, received a prize from the *Royal Agricultural Society of Limoges* in competition with GRASLIN, who only obtained a *mention honorable*. TURGOT wrote *Observations* (*Œuvres*, ed. Daire, i. pp. 416 *et seq.*), on the papers of both; Saint Péravy closely followed QUESNAY'S views on the *produit net* exclusively yielded by land, whilst Graslin maintained that wealth was derived from labour. In a note reprinted by DAIRE (p. 416), Dupont de Nemours remarks that both papers cannot be read without difficulty, owing, amongst other causes, to an affectation of metaphysics common to both rivals. E. Ca.

SAINT-PIERRE, CHARLES IRÉNÉE CASTEL, Abbé de (1658-1743), born at the château of St. Pierre-Église near Barfleur (Manche); was a man who formed many plans, generally acknowledged at the present day as likely to succeed, and some of them even have been realised. He always kept the interest of the public before him as his aim, never his own. He was a man of strong character; as an example of this, he allowed himself to be expelled from the French Academy of which he had been a member since the year 1695, because he would not give Louis XIV. the title of the "great." He was moved to this by the misery of the people during the last years of that king's long reign—we will not call it that grand reign.

His *Projet de paix perpétuelle*, 3 vols. 12mo, 1713, has, perhaps, more than anything else, made people regard him as a visionary.

In our time, however, international arbitration has had some success, which makes us think the dream of the Abbé de St. Pierre may perhaps one day be at least partially realised. His *Discours sur la Polysynodie* (1718, 4to; 1719, 12mo), is some kind of plan for a political and administrative constitution. Like the disciples of St. Simon a century later, he maintained that the Golden Age was in the future, not in the past. One work of his, less known though perhaps better worth knowing, is *Annales politiques*, a contemporary public history of the period 1658-1739, containing original thought and, very often, the signs of good sense and consequently of a sober and impartial judgment. The works of this "*homme de bien*," as he was called in his time, are rare and difficult to collect, sometimes they are heavy reading.

M. Gustave de Molinari has devoted a volume to the Abbé de St. Pierre, entitled *L'abbé de Saint-Pierre, sa vie et ses œuvres*, 18mo, 1857, in which, after a concise account of his life, he gives some extracts—those most worth knowing—from his works. A. C. f.

ST. SIMON (ST. SIMONISM), CLAUDE-HENRI, COMTE DE (1760-1825). The count de St. Simon was descended from the younger branch of the family of the Duke de St. Simon, the celebrated author so well known as connected with the court of Louis XIV. He was very proud of his noble birth and relates that his servant had orders to call him every morning with the words, "Rouse yourself, Monsieur le Comte, you have great things to accomplish to-day." In the same spirit he made it a rule "to lead, while his strength lasted, the most original and most active life possible." And he adhered strictly to this maxim; first he served in the war of American Independence, then he made a plan for cutting the Isthmus of Panama, was imprisoned during the revolution, travelled in England and Germany, played the part of a grand seigneur, was ruined, fell into the most terrible want, attempted to commit suicide in 1823 only a short time before his death from natural causes, and finally, after his death, was regarded as the apostle of a new religion.

It was not till 1817, and therefore when he

had attained a considerable age, that he brought out his first works—among these was his celebrated *Parabole* (1819), a bitter satire directed against the governing classes, against whom he inveighed as parasites. For this he was prosecuted by the government, but their opposition made him famous. His principal work is *Du Système Industriel* (1821). But it was only after his death that the influence of St. Simon became at all considerable. This was principally due to his two pupils BAZARD and ENFANTIN, who were the founders of the St. Simonian School. They set on foot a systematic course of promulgating their doctrines in different quarters of Paris, established many journals of which the best known was the *Globe*, and finally established a community almost resembling a religious house, at Ménilmontant, a suburb of Paris; this, however, was broken up by the law prohibiting such associations. The influence exercised by St. Simon and his followers was incredible, it was a perfect fascination. Almost every one who is well known of the generation which dates from 1830 belonged more or less to the school of St. Simon. It is enough to mention here, besides the most illustrious of all, Auguste COMTE, economists like Michel CHEVALIER, socialists like LEROUX, engineers like Lesseps, financiers like E. PEREIRE, politicians like Hippolyte Carnot (the father of the late president of the French republic), artists like the musician Félicien David, historians like Augustin Thierry, and many more. This influence, more than the personal fascination so extraordinary but so very real, exercised on their contemporaries by St. Simon and Enfantin—le Père Enfantin, as he was called—can be explained as follows. The doctrine of St. Simon, highly aristocratic in reality, since he would entrust the government only to "the most worthy," marked a reaction against the French Revolution—against the idea of an absolute, a "brutal" equality. It marked, also, a still more absolute reaction against the martial and military spirit of the Napoleonic period, and announced—as Herbert Spencer did later—the substitution of the industrial for the military régime. Thus it was admirably adapted to entrap *savants*, manufacturers, and artists to whom it promised sovereign power. On the other hand, it professed to carry on and complete the work of the revolution by abolishing the privileges of birth. Privileges of birth had been abolished by the Revolution only in matters relating to public functions, but not in matters relating to economic functions, those of the employer, for example, or the landed proprietor. These powers still, as formerly, fell to the recipient by the chances of heredity, no matter how incapable or unworthy he might be. St. Simonism sought to suppress the last and the most important heritages—hereditary wealth and hereditary poverty. The abolition of heredity, to have its due effect, was to involve, if not the abolition of the absolute right of property, at least its transformation into a life-interest, forming a kind of public trusteeship. According to St. Simon the landed proprietor, the manufacturer, and the merchant should all become really "public functionaries," employing the instruments of production confided to their charge to the best possible advantage for the interest of society—as the captain with his warship or the artilleryman with his gun.

The basis of all this is the theory taught at the present time by various schools, and especially by that of CHRISTIAN SOCIALISM, that the proprietor and the employer should consider themselves as exercising a social function, and should make the most of what has been entrusted to them as in the lesson contained in the parable of the "talents." But the followers of St. Simon were not content with a simple metaphor. They drove the idea of association to its extreme limits, even as far as assimilation, and refused to admit that a social function might be hereditary without any guarantee of capacity. Their doctrines were briefly and clearly summarised in a letter dated 1st October 1830, which we give here, addressed to the president of the Chamber of deputies and signed Bazard and Enfantin: "The followers of St. Simon believe in the natural inequality of men, and look on this inequality as the basis of association, as the indispensable condition of social order. All they desire is the abolition of every privilege of birth without exception, and as a consequence the destruction of the greatest of all these privileges, the power of bequest, the effect of which is to leave to chance the apportionment of social advantages, and to condemn the largest class in number to vice, ignorance, and poverty. They desire that all instruments of labour, land, and capital, which now form, subdivided, the inheritances of private owners, should be united in one social fund, and that this fund should be operated on principles of association and by a hierarchy, so that each one will have his *task* according to his *capacity*, and *wealth* according to his *work*" (*Doctrine de St. Simon*, vol. i.).

But who is to regulate this hierarchy? Who is to distribute to each his duty, the idea of descent being abolished! By what sign is the most worthy to be recognised? On these points the teaching of the followers of St. Simon is very vague. They say that the *chef-industriel* in each city, whom they term the mayor (*maire*), "will distribute to each one his duties according to capacity and not according to birth, give to each tools for work, regulate the remuneration, the income of the employment," but they do not tell us by whom these

chefs-industriels themselves will be chosen. *Quis custodiet ipsos custodes?* However, they tell us in enigmatical form, that this care will devolve "on him to whom social destiny is most dear" (*Doctrine de St Simon, Exposition*, 7me Séance in note), that is to say, on him whom he calls "the priest," and on whom sovereign power is conferred. Thus the St. Simonian organisation becomes a real theocracy, St. Simon and Père Enfantin being the true priests of its mysteries. The ruin of the school of St. Simon was brought about by its pretensions to found a new religion,—"Moses, Jesus, St. Simon, are the three living laws,"—and also by its doctrine on the relations of the sexes, which tended to a sort of mystical eroticism, and led to a schism in the school. Of the doctrine of St. Simon there remain, however, some ideas which the socialists of the present day have availed themselves of to their advantage, for instance,—the idea that rights of property, inheritance, and individual liberty ought to be subordinated to social utility, and that the actual economic organisation, which is founded on individual liberty, rights of property, laws of inheritance and competition is anarchical, and finally that the only means of remedying this is to subordinate all these individual rights to social utility as the primary base.

Œuvres de St Simon, 2 volumes, 1832, edited by his pupil Olinde de Rodrigues, containing not all, but his principal publications. *Doctrine de St Simon*, 2 vols. 1831-32, containing an explanation of the doctrine by Bazard in a series of conferences, and re-edited by him with the help of Enfantin and Hippolyte Carnot.

[Louis Reybaud, *Études sur les Réformateurs*, vol. i., 7th ed., 1840.—William Sargant, *Social Innovators and their Schemes*, 1858.—Paul Janet, *St Simon et le St Simonisme*, 1879.—Warschauer, *St Simon und die St Simonisten*, 1892.—George Weill, *Un précurseur de socialisme, St Simon et son Œuvre*, 1894; also *L'école St Simonienne, son histoire, son influence*, 1896.—Booth, *St. Simon and St. Simonism*, London, 1871.—J. S. Mill, *Autobiography*]. C. G.

SALE OF GOODS. The law as to the sale of goods has been codified by the Sale of Goods Act 1893. This act is divided into six parts, of which the first deals with the formation of contracts for the sale of goods, whilst the second, third, fourth, and fifth respectively relate to the effects of such contracts, their performance, the rights of unpaid sellers, and actions for breach of contract; the sixth part is supplementary. In the first part a distinction is drawn between contracts which have the effect of passing the property to the purchaser and mere agreements to sell; and the rules are given as to the formalities prescribed in respect of the formation of contracts for the sale of goods. As a general rule such a contract may be made in writing or by word of mouth, or partly in writing and partly by word of mouth, or may be implied from the conduct of the parties; but a contract for the sale of any goods of the value of ten pounds or upwards is not enforceable by action unless the buyer has accepted the goods or has paid part of the purchase price, or unless the party to be charged has signed a written contract relating to the sale. This part of the act also deals with the conditions and warranties generally implied on the sale of goods and their effect.

The second part contains rules for ascertaining the intention of the parties as to the time when the property passes, and also deals with the effect of sales by persons not being owners of the goods. As a general rule the buyer acquires no better title to the goods than the seller had, unless the owner of the goods is by his conduct precluded from denying the sellers authority to sell, but this rule is subject to certain exceptions among which those arising under the provisions of the FACTORS ACTS (*q.v.*) and the case of sales in market overt according to the usage of the market, are the most important.

The third part, besides containing rules as to time and place of delivery and the risk of transit, also defines what constitutes a final "acceptance" of the goods. "The buyer is deemed to have accepted the goods when he intimates to the seller that he has accepted them, or when the goods have been delivered to him and he does any act in relation to them which is inconsistent with the ownership of the seller, or when, after a lapse of reasonable time, he retains the goods without intimating to the seller that he has rejected them."

The rights of unpaid sellers, as laid down in the fourth part, consist of a right to retain possession of the goods until payment (vendor's lien), and also of the right, in the event of the purchaser becoming insolvent, to stop the goods before they have actually been delivered to the purchaser (stoppage *in transitu*). The fifth part enumerates the seller's and buyer's remedies in case of breach of contract. The seller who has delivered the goods has an action for the price of the goods; if the goods have not been delivered, and the purchaser wrongfully neglects or refuses to accept them, the seller is entitled to damages, the measure of damages being, as a general rule, the difference between the contract price and the market price of the goods at the time fixed for delivery.

If the seller wrongfully neglects or refuses to deliver the goods to the buyer, the buyer is entitled to damages, the measure of damages being the same as in the case of an action against the buyer; but if the contract related to specific or ascertained goods, the court may, on the plaintiff's application, order SPECIFIC PERFORMANCE (*q.v.*) without giving the defendant the option of retaining the goods on payment of damages. The term "goods," as

defined by the act, includes all CHATTELS (*q.v.*) not being chattels real, choses in action, and money.

The Sale of Goods Act, besides being of direct interest in itself, is also remarkable as an excellent specimen of the art of codification, being the work of Sir M. D. Chalmers, the author of the Bill of Exchange Act.

As to the sale of land, see VENDOR AND PURCHASER. E. S.

SALE AND PURCHASE. See VENDOR AND PURCHASER.

SALE AND RESALE. See INTEREST AND USURY.

SALMASIUS (CLAUDE DE SAUMAISE) (1588-1653) at Saumur en Auxois (Burgundy). He studied at Paris and Heidelberg, and became a lawyer practising before the parliament of Lyons in 1610, and succeeded Scaliger as Professor at the University of Leyden in 1632, where, with short intervals, he remained till his death in 1653. He died at Spa.

Salmasius received many honours from several governments of his time, and passed some time at the court of Christina of Sweden.

His writings on interest are the most important of his economic works, and on this subject he held many eager discussions with his contemporaries.

These writings are: *De usuris liber*, L.B., 1630; *De modo usurarum*, L.B., 1639; *Dissertatio de foenore Trapezetico, in 3 libros divisa*, L.B., 1640; *Diatriba de mutuo: non esse alienationem, adversus Coprianum quendam juris doctorem auctore Alexio a Massalia*, L.B., 1640; *Responsio ad calumniatorem epistolam Cloppenborgii*, 1640; *Brevis confutatio notarum larvati cujusdam Theologi in excerpta dissertationis de trapezitis*, L.B.; *Disquisitio de mutuo qua probatur non esse alienationem auctore S.D.B.*, L.B., 1645.

Salmasius in these works defends the taking of interest, not only by explaining the passages in the Bible that seemingly forbid it, but also as a matter of principle. Interest, he argues, being a remuneration for the use of money, is nothing else but an indemnity to the person who lends it out; for, when using it himself, he could get fruits from it; though this might not be directly, nevertheless it would be obtained by buying productive objects. Public banks for advances, *montes*, he disapproved of, but argued that competition would lower the rate of interest.

[Böhm Bawerk, *Geschichte und Kritik der Kapitalzinstheorieen*, 1884, pp. 37, 40-45.]

A. F. V. L.

SALMOUR, RUGGERO G., count of (d. 1878), was born in Paris. He was a deputy of the sub-alpine parliament; secretary-general in the ministry of finance, 1855; senator of the kingdom of Italy, 1860.

Salmour wrote very able monographs on landed and agrarian credit, and its organisation in the Sardinian states and in Italy. He studied carefully the organisation and results of these institutions in other countries, and the conditions on which it might be advisable to adapt them to Italy.

[*Dell' ordinamento del credito fondiario negli Stati Sardi*, Turin, Chirio, 1853.—*Del credito fondiario e del credito agricolo in Francia ed in Italia*, Turin, Paravia, 1862]. U. R.

SALT DUTIES. See GABELLE; SALT, TAXES ON.

SALT, TAXES ON. Salt has long been a favourite object of taxation. In both republican and imperial Rome, as under the French monarchy (see GABELLE), it was regarded as a peculiarly lucrative source of revenue. Even at present most countries—Great Britain, where the salt duty was repealed in 1825, and the United States, are significant exceptions—impose heavy duties on it. Thus since 1806 France has had a salt tax, freed from the worst faults of the old GABELLE, yielding about £1,300,000 annually. The German empire obtains £2,250,000 from a combined custom and excise on salt. In Italy a state monoply has been created. Both branches of the Austro-Hungarian empire follow the same method. But British India affords the most remarkable case of a high return being obtained by salt taxation. The different methods of state monopoly, excise duties and customs, are employed to suit the several provinces, and by these combined agencies a revenue of (1904-5) £5,355,000 at present exchange is collected, placing salt next to the land tax and the duty on opium as the third in productiveness of the branches of the revenue system.

The economic objections to this form of taxation are obvious, for (1) it falls on a necessary of life, and therefore, presses unduly on the poor, and more especially trenches on the MINIMUM OF SUBSISTENCE; while (2) it affects an important constituent of some manufactures, and seriously hinders their development.

For these reasons it was one of the first English taxes repealed in the fiscal reforms of the present century, and where other productive forms of revenue are available, the continuance of such a comparatively burdensome impost is undesirable.

The benefit to the English chemical and glass industries of the repeal was evident and considerable, not merely by the reduction of charge, but also by the decrease in the supervision required. For a poor population the pressure of what is equivalent to a poll-tax is heavily felt and often produces grave discontent. But it must be remembered that in many cases fiscal policy can be only a choice of evils; that the necessity for procuring revenue is too great to allow of any productive duty being abandoned; and that the salt tax may be the least inequitable and oppressive mode by which the

needful contributions of the poorer classes can be secured. Thus the attainment of the position at which this tax can with prudence be given up marks a stage in advance, as its necessary retention is an indication of national poverty and financial need.

[Adam Smith, *Wealth of Nations* (ed. Nicholson), p. 369.—P. Leroy-Beaulieu, *Science des Finances* 5th ed.), vol. i. pp. 653-661.] C. F. B.

SALTSILVER. One penny paid at the feast of St. Martin by the tenants of some manors, in the middle ages, in commutation of the service of carrying the lord's salt from the market to his larder.

[Cowel, *Interpreter*.] A. E. S.

SALVAGE.

Civil Salvage, p. 349; Military Salvage, p. 349; Insurance Salvage, p. 349.

SALVAGE. There are three kinds of salvage: (1) civil salvage; (2) military salvage; and (3) insurance salvage.

1. *Civil Salvage.*—A service which saves or helps to save maritime property, *e.g.* a vessel, its apparel, cargo, or wreck, or the lives of persons belonging to any vessel when in danger at sea, or on the shore, or in tidal waters; such service being voluntary and not due to legal obligation, self-preservation, or official duty. The word salvage is often used to denote the reward as well as the service rendered. The right to salvage may arise out of an actual contract; but it does not necessarily do so. "It is a presumption of law, arising out of the fact that property has been saved, that the owner of the property, who has had the benefit of it, should make remuneration to those who have conferred the benefit upon him, notwithstanding that he has not entered into any contract on the subject," Sir J. Hannen, in the case of the *Five Steel Barges*, 15 P.D., at p. 146. Sir Robert Wiseman, a judge of the admiralty court, in his *Law of Laws*, London, 1657, refers the origin of salvage to the Roman law doctrine of *negotiorum gestio* (*Dig.*, bk. iii. tit. 5), which gave an action to a person who had acted for another without any mandate (see Hunter's *Roman Law*, p. 661). Sir Christopher Robinson, in the *Calypso*, 2 Hagg., 209, adopted the same view, and showed that both military and civil salvage "resolved themselves into the equity of rewarding spontaneous services rendered in the protection of the lives and property of others." The reward is not, however, measured by the benefit derived by the shipowner, public policy is also taken into account, and to this extent the Roman law doctrine has been considerably extended. "Salvage is governed by a due regard to the benefit received, combined with a just regard for the general interest of ships and marine commerce," Dr. Lushington, *The Fusilier*, Br. and Lush., at p. 347. On rendering the services the salvor acquires a lien in respect of his reward, and such lien takes precedence previously attaching to the subject matter. The lien can be enforced in a court of admiralty. The amount of the reward is within the discretion of the court, and depends on value of the property saved, the value of the property employed in the salvage service, the danger involved and the skill shown, the expense or delay incurred, and all other circumstances that appear to be material.

[Sir W. R. Kennedy, *The Law of Civil Salvage*, London, 1891.]

2. *Prize or Military Salvage.*—When a ship captured by the enemy is retaken it is restored to the owner on his paying the captor a reward for the expense and trouble of the recapture. This principle was recognised by the *Consolato del Mare*, and is discussed in detail by Bynkershoek, *Quaestiones Juris Publici*, l. i., cc. iv. v. The chief maritime states have embodied the principle in their legislation. In England the Prize Act 1864, 27 & 28 Vict. c. 25, provides that the owner is to pay as prize salvage a sum to be decreed by a prize court, not exceeding one-eighth the value of the prize; but where special difficulty or danger is involved, the salvage may exceed one-eighth but not one-fourth.

In the United States, the Act of Congress of the 3rd March 1800, c. 14, fixed the amount of salvage at one-eighth of the value if the recapture was by a public ship, and one-sixth if by a private ship.

[For the English and United States practice see Story's *Notes on the Principles and Practice of Prize Courts*, edited by Pratt, London, 1854.

Phillimore's *Commentaries on International Law*, vol. iii., contains a summary of the principles followed by the chief European states. For France, see Pistoye et Duverdy, *Traité des Prises Maritimes*, Paris, 1855. For other European states, see De Marten's *Essai sur les Armateurs*, translated by Horne, London, 1881.]

3. *Insurance Salvage.*—The word salvage is applied to denote the residue of goods that remain unburned or partially burned after a fire, and in respect of which the insurance has to pay the sum insured. When a loss occurs by a fire, and goods are materially injured, it is usual to ascertain the amount of damage by a sale by auction, with the consent and for the benefit of all parties. The difference between the value of the goods at the time of the fire and the proceeds of the sale is then made good by the insurers.

[Bunyon, *Law of Fire Insurance*, London, 1875.] J. E. C. M.

SAMPLE. A portion of a large quantity of goods tendered or shown as evidence of the quality of the whole. In the case of a sale by sample there is an implied warranty that the

bulk will correspond with the sample in quality and condition.

[Chalmers on the *Sale of Goods*, London, 1894.]
J. E. C. M.

SAMPLING (Conditioning) is the testing commodities offered for sale. Sample is an abbreviation of *ensample*, a specimen. It is common in modern industry for travellers to go round to likely customers, carrying with them samples of the merchandise they have for disposal. This class of dealers, formerly called bag-men, now commercial travellers, has much increased of late, owing to more urgent competition and increased facilities of locomotion. In other instances sampling is performed at the places where the goods are actually made or sold.
R. W. C. T.

SANCTIS, M. A. See De Sanctis.

SANCTUARY, Economic Aspects of. The privilege of sanctuary, *i.e.* of securing protection by taking refuge within a church or other consecrated ground, and sometimes in other places also, is common to continental as well as to English law, and goes back to remote periods. In England the practice was in vogue in A.S. times. Ina, Alfred, Athelstan, all recognised the temporary immunity thus afforded, for the privilege did not remit but lessened the severity of the penalty and excluded death or mutilation. In the so-called laws of Edward the Confessor, it is for the first time connected with that essentially English institution "abjuration" so admirably described by M. Réville ("l'abjuratio regni" in *Revue historique*, l. pp. 1-42). It is there mentioned in connection with thieves, but during the 12th century the usage seems to have extended to criminals also; and in the 13th we get a clear view of the working of the system. The fugitive having made a confession of guilt before the coroner, might take an oath to abjure the kingdom within a limited period, usually forty days, and was helped by officials to carry out this purpose. But if he failed to take the oath, the sanctuary might, after forty days, be surrounded, and the victim, if unable to effect his escape, would be slowly starved into surrender. In the earlier period it is not easy to see what may have been the economic effects of this custom, and the recorded cases are fewer than might be expected (Réville, p. 23). But from the 14th century onwards the privilege of sanctuary was abused by debtors of all sorts, and frequent complaints are met with in the rolls of parliament on the subject. Thus in 1347 the citizens of London petitioned for redress against a debtor who, by fleeing into sanctuary, defrauded his creditors (Rolls, ii. 187 b); in 1376 it was decided that enfeoffment to friends followed by flight on the part of debtors to sanctuary, should be void as against creditors, if it could be shown that the debtor had profited (Rolls, ii. 369 a). The abuse was so grave that in response to a petition the opinion of justices and doctors of both laws was taken in 1387 as to the limits of the privilege. Their verdict was that it only covered cases of life and limb (Rolls, iii. 37 b, 51 a). Wiclif laid a memorial before the parliament of Gloucester in 1378, which may have been the formal opinion presented by the experts. The circumstances are described in his *Tractatus de ecclesia* (c. vii. *et seq.*), from which some idea of the system may be obtained. This he vehemently denounces, and notes that the extension of the privilege to debtors was a recent innovation (*Tractatus*, p. 243). It was not, however, abolished, but in 1379 protection was given against debtors who having made "feigned" conveyances, fled to sanctuary; such were henceforth to appear, on proclamation, to the suits of their creditors, or be liable to an execution on their lands and goods (2 Ric. II. st. ii. § 3). Complaints of such conveyances continued (Rolls, vi. 110 a), and although, in 1487, Innocent VIII. by bull took away the privilege from fraudulent debtors, this was an ineffective measure, and it was found necessary early in Elizabeth's reign (1558-1603) to attach certain conditions to the privilege at Westminster with a view to preventing the admission of such debtors (Stow, *Survey*, ii. bk. vi. p. 39).

Early in the 15th century the Commons complained that apprentices and servants living in London, or resorting thither, fled to the sanctuary of St. Martin's-le-Grand with their masters' goods and lived safely; also that the inhabitants of the sanctuary purchased from citizens, and had conveyed to them through their friends, goods for which payment was procurable; and the sanctuary was described as harbouring murderers, traitors, clippers of coin, thieves, and others who hid by day and went forth to do evil deeds by night (Rolls, iii. 504 a). To check the grave disorders at St. Martin's, an ordinance was passed in 1457 which somewhat limited the freedom of the inhabitants, and excluded pickers of locks, forgers, and counterfeiters of various commodities from its privileges, while artificers were forbidden to work on Sunday or feast days (Stow, i. bk. iii. p. 104). Merchant aliens apparently sometimes obtained merchandise, and fled with it into sanctuary without making payment; this led to an enactment that ready money alone should be taken from aliens (Rolls, iv. 360 b).

The sanctuary system, though maintained, was gradually modified by the Tudors. New openings for adventurous spirits, easier means of communication, more definite knowledge of distant lands—all these contributed to make voluntary exile a not unpleasant way of evading justice, and many abjured the realm. This was felt to be a serious danger from several points of view. It led not only to a diminu-

tion of the able-bodied population available as skilled mariners or soldiers, and thus lessened the defensive force of the realm, but it provided the enemies of England with apt instructors in the practice of archery, who moreover divulged secrets of considerable importance. It was therefore enacted that, in future, men fleeing to sanctuary for murder, robbery, or felony—such offences alone are mentioned in the statute—should, after confession and abjuration, proceed to some sanctuary within the kingdom and remain there to the end of their lives, but without being under any special discipline (22 Henry VIII. c. 14). The lightness of the punishment proving an incentive to crime, irksome rules for the daily discipline of sanctuary men, certain limitations on their independence, both enforced by the authority given to "governors of sanctuaries" of whom we hear for the first time, were adopted in 1535 (27 Henry VIII. c. 19). Even this more stringent supervision did not check the evil; in 1540 the privilege of sanctuary was limited to churches, cemeteries, and a few definite places, and certain only of the offences punishable with death received immunity (32 Henry VIII. c. 12). The restrictions were practically repealed by Edward VI. with the elaboration of milder punishments. With the increased ability of the state to deal with offenders against justice all need for a system which had its use in times when the central authority was more or less powerless to protect individuals had passed away, and during the reign of James I. all statutes affecting sanctuaries were repealed (1 Jac. I. c. 25; 21 Jac. I. c. 28). Certain of the notorious London sanctuaries long remained the haunt of debtors, and successfully evaded the law; effective legislation did not touch them until the 18th century (8 & 9 Will. III. c. 27, § 15; 9 Geo. I. i. c. 28, § 1; 11 Geo. I. c. 22, § 1).

[For the privilege of sanctuary, see Shakespeare. Rich. III.—*Rolls of Parliament* (Record Commission).—Réville, A., "L'abjuratio regni" in *Revue Historique*, l. (1892), a most valuable contribution. —Wiclif, J., *Tractatus de ecclesia*, ed. J. Loserth (1886). —Bulmerincq, A. von, *Das Asylrecht* (1853).—Stow, J., *Survey of London*, ed. J. Strypey (1720)]. E. A. M.

SANDELIN, Pieter Alexander (1777-1861), a Belgian judge. At the time of the Belgian revolution (1830) his house at Bruges was burnt by the mob on account of his fidelity to the Orange dynasty. He narrowly escaped with his life, fled to Holland, and was made, in 1844, a councillor of state of the kingdom of the Netherlands.

He wrote on industry and the patent law, *Considérations sur la situation actuelle de l'industrie, du commerce, et de la législation des brevets d'invention*, 1846; also a general syllabus of economics, *Répertoire général d'Économie Politique ancienne et moderne*, 6 vols. Hague, 1846-48, comprising amongst other things, reprints from leading periodicals and reviews.

[Van der Aa, *Biograaphisch Woordenboek*, Haarlem, 1874]. E. Ca.

SANDER (or Sanders), Nicholas, D.D., (about 1527-1582), was a Roman Catholic writer on controversial theology.

He wrote, *A briefe Treatise of Usurie*, 1568, published at Louvain. His views are those general in his age. Starting from the standpoint that a loan is a free gift for a limited time, he condemns all loans made in the expectation of profit; and assuming that no man will lend to a richer than himself, he argues against usury as oppressive to the poor—only the poor requiring and receiving loans. Usury in fact is a "gentlemanly theft." He draws a distinction between the loan of (*a*) property which can be returned, *e.g.* a horse, and that of (*b*) property, *e.g.* food, immediately consumed by use so that only something similar can be returned. In the former the loss, if any, falls on the lender, in the latter on the borrower. In the first class hiring-out for profit is regarded as lawful, but money, being classed with food because the identical coins will not be returned, must not be put out at interest. Shifting his ground, he next argues that as it is not usual to expect more goods to be returned than were lent (forgetting the hire of a horse for profit), so money, which merely represents goods, is barren, and cannot really produce interest. Yet in one place he allows business profits to be legitimate; and though he does not dwell on the consideration that men will not lend without interest because repayment of the principal is uncertain, he yet suggests that those who are not sure of repayment need not lend.

The confusion of his ideas is shown by the fact that, in several passages, rent is considered as equivalent to interest, and from first to last his arguments rest on the assumption that loans were instituted for the good of the borrower, and on the inference that they ought not to be turned to the good of the lender.

[Cunningham, *Industry and Commerce, Modern Times*, p. 83.—*Dictionary of National Biography*.] E. G. P.

SANDYS, Thomas. See Interlopers.

SAN SALVATORE (Di), Padre Antonio—one of the regular clergy (17th century), wrote a treatise on exchanges, in answer to the critique on *cambi colla rincorsa*, by Padre Giustiniani. The latter maintained that these exchanges (see Giustiniani) were not lawful, according to the doctrines of canonists, because they were not real, but fictitious, exchanges, serving to conceal usury. San Salvatore, being asked by merchants to give an opinion on the subject, supports the lawfulness of this class of transaction, observing that it is possible to have banking-houses in several places which can be relied on, and maintaining that, the different legal points involved in the transaction being lawful, it must as a whole be lawful. All this is merely a play upon words, a quibble, which was attempted to justify a transaction

that could not in reality be justified according to the doctrines of the canonists; a quibble employed to resist a doctrine which no longer corresponded to the requirements of the day.

Trattato della ricorsa e continuationi dei cambii fatte a se' stesso, e di quei che si fanno da fiera a fiera, Milan, 1623.

[Gobbi, *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, Hoepli, 1889.]

U. R.

SANSOVINO, FRANCESCO (1521-1586), was the son of the celebrated Italian sculptor and architect.

In his book *Del governo dei regni e delle repubbliche cosi antiche come moderne* (Venice, 1561), he describes the administration of ancient and contemporary states, and may, in some respects, be considered as one of the forefathers of statistics. He mentions with praise More's *Utopia*, "an agreeable fiction written in order to teach men how to live honestly"; he also describes the foundation and working of the Bank of St. George in Genoa. His *Concetti Politici* (Venice, 1578) refer to wealth, taxation, dearths, etc.

[U. Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, pp. 12 and 65 (Milan, 1889).]

E. Ca.

SARCHIANI, GIUSEPPE (1746-1835), was born at San Cassiano in Tuscany. He was one of the most active and able co-operators in the extensive and liberal economic reforms made by Pietro Leopoldo I., grand duke of Tuscany (1765-1790). Sarchiani was director of the diplomatic archives in Florence and secretary of the academy of the Georgofili.

With the view to convince the public of the usefulness of freedom in trade and labour, and to prepare them for the abolition of corporations (abolished in Tuscany, 1770), Sarchiani, by order of the minister Tavanti, translated a pamphlet by Abbé Coyer (a species of satirical romance showing the absurdities of corporate regulations), he then wrote several anonymous articles illustrating the advantages of liberty and free competition, and the defects of the corporations. In his treatise on commerce he gives the history of Tuscan arts and crafts. His articles on the gilds of the goldsmiths and the silversmiths, of the shoemakers and the leather-makers, are full of spirit and advocate the abolition of all privileges.

Sarchiani, like other Tuscan authors of the day, accepts the doctrines of the PHYSIOCRATS, whose influence on the Tuscan statesmen, who carried out the Leopoldine reforms, is undeniable; his work on public taxation contains a clear and detailed explanation of the doctrine of the physiocrats on the subject of the single tax. Sarchiani supports the claims of the physiocrats to the honour of establishing in theory the basis of a true and fair system of taxation, advocating, with them, a single tax on land, criticising all other forms of taxation, and advising gradual reform in taxation as desired by the physiocrats.

Ragionamento sul commercio, etc., Florence, 1781.—*Memorie economico-politiche*, Florence, 1783.—*Intorno al sistema delle pubbliche imposizioni*, Florence (Accademia dei Georgofili), 1796.

[Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Alberti, *Le corporazioni d' arti e mestieri, e la libertà del commercio, etc.*, Milan Hoepli, 1888.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881].

U. R.

SARPLER (OF WOOL). See MEASURES AND WEIGHTS.

SARTORIUS, GEORG FRIEDRICH (1766-1828), was born at Cassel, and became in 1783 a student of theology at Göttingen, but soon directed himself to the study of history. From 1792 he lectured as *privat-docent* on the history of the 18th century and on politics. In 1797 he became extraordinary, and in 1802, ordinary professor of philosophy in his university. He succeeded SCHLÖZER in 1814 as professor of politics, and at Goethe's suggestion was employed by the grand duke Karl August of Weimar as a sort of confidential adviser of the representatives whom he sent to the congress of Vienna. From 1815 to 1817 he was a member of the Hanoverian assembly of estates, and thenceforward devoted himself exclusively to his academic labours. In 1827, in consideration of his scientific services, he was ennobled by the king of Bavaria as Baron of Waltershausen, to enable him to hold a noble estate which he had purchased. He died after thirty-one years of activity as a teacher in the university of Göttingen.

Sartorius was a man of real eminence, and did much for the education of the people of Germany. That he exercised a powerful and healthy influence on the young men of promise with whom he was in contact, is testified alike by men so different as Heinrich Heine and J. F. Böhmer. His importance in the history of political economy lies in the fact that he was the first to introduce the teaching of Adam Smith at a German university. "Convinced that the doctrine was true, he felt it his duty," he says, "to contribute to its diffusion." He published accordingly a series of extracts from the *Wealth of Nations* for use in academic lectures. His most important original work on economics is his *Abhandlungen die Elemente des National-Reichthums und die Staatswirthschaft betreffend*, 1806, in which, whilst adopting Smith's views in the main, he differs from him on several points; where he diverges from him he has been followed by the great majority of later German economists. Acknowledging free-trade as the general rule, he admits exceptions, and holds that the government must interfere in economic life to prevent private interest from compromising the public weal. Sartorius saw the value of historical studies in relation to politics, and, in particular, to economic politics. He was himself the author of three approved histories—of *The German Peasant War*, 1795; of *The Hanseatic League*, 1802-1808; and of *The Ostrogoths in Italy*; this last won a prize offered by the French institute, 1811. His widow, a gifted and highly-cultivated woman, wrote

memorials of him—*Zum Andenken an G. Sartorius*, which have been reprinted with additions by his son, also known as an economist, and who, after having filled a chair at Zürich, became a professor in the university of Strasburg.

[Frensdorff in *Allg. Deutsche Biogr.*—Schmidt in *Handb. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 615]. J. K. I.

SASINE (SCOTS LAW). In Scotland, under the forms of the feudal system, the root idea of land transfer is actual delivery, analogous to the English livery of seisin (see LIVERY). In early times this was carried out by the appearance of the granter and the grantee upon the lands: the granter gave the grantee "heritable state (estate) and sasine" by a ceremony of handing over to him earth and stone or other appropriate symbol. The grantee was then said to be infeft in the lands; and the transfer, or the ceremony, was called infeftment (see FEOFFMENT). It soon became the practice for a notary to accompany the parties and draw up an authenticated narrative of the facts, to be retained by the grantee, and to serve him as written evidence of the transaction; and this was called an "instrument of sasine." Subsidiary complexities soon arose through the growth of a custom under which the granter and grantee did not appear personally on the lands, but sent their representatives. Then a deed had to be drawn up, specifying the grant and directing the granter's representative, or bailie, to give sasine on behalf of the granter to the grantee's attorney. Between these representatives the symbolic ceremony had to be gone through, and the notary again drew up his instrument of sasine; but now he had better material at hand—the granter's written deed—than he had had when all proceedings were oral; and he was therefore able to make his instrument of sasine precise, and to give a clear account of any limitations or conditions or reservations to which the grant was subject. Thus the notarial instrument of sasine became a means of proving title to redeemable rights (mortgages) and limited titles as well as absolute legal titles. As time went on, it became the custom for the granter to draw up a formal deed of grant or DISPOSITION, in the course of which he directed his representative to give sasine as before, but left the name of his representative blank: this deed was handed to the purchaser, who had thereafter to appoint some one to act as the vendor's representative and give sasine to his, the purchaser's, own attorney. We may now look at the purchaser's right in three successive stages: (*a*) when he had made a contract with the owner to give him a grant, at which time he had a personal right, founded on contract, as against the owner, but had as yet no right in the land, his right being only to lead an adjudication in implement, that is, to go to the court to help him in an action against the owner, by giving him the land in execution, which would be done in terms of the contract if no third party had acquired a right in the meantime; (*b*) when he had received his deed of grant or "disposition" but had not yet gone through the ceremony of taking sasine, at which time he had a right, but a merely personal right, in the lands, liable to be defeated by some other grantee getting sasine before him; and (*c*) when he had taken sasine of the land on the land, at which time his right had become a real right, properly feudalised by infeftment in the lands themselves, and he was the lawful owner of the lands. In the first of these stages he had to go back to his vendor to receive his deed of grant; in the second he had got it, and it was his own fault if he did not go on and complete his title, for the whole matter was in his own hands; and in the third he was fully vested in the rights which had been conveyed to him. The same principles of law still apply under the altered formalities of the present day. The conclusive document was then the instrument of sasine, which showed that the third stage had been reached; and this was the title-deed to the lands. This scheme of transfer was simple though somewhat cumbrous, but was found to be open to abuse in respect that there might be fraudulent concealment of latent rights affecting the lands, for a man might show an intending purchaser his instrument of sasine and yet fail to disclose the existence of reversionary rights or mortgages. Therefore in 1617 an act was passed by the Scots parliament enacting that all instruments of sasine, and generally all documents of title to rights affecting land, were to be registered within sixty days (see LAND REGISTRATION), and that unless registered they were to be ignored by the courts so far as they might be prejudicial to third parties acquiring just and lawful rights. This act was not completely obeyed, and in 1693 and 1696 other acts were passed under which all sasines were declared preferable according to the date and priority of registration, and no sasine or other writ (*i.e.* deed) affecting land was to be of force against any but the granter and his heirs unless duly booked in the register, so that if not booked within sixty days they became mere nullities as against third parties. After these acts there were therefore five steps: (1) the bargain and the obligation to convey; (2) the delivery of the deed of grant to the purchaser; (3) the purchaser securing infeftment by taking sasine of the lands; (4) the drawing up of a notarial instrument of sasine; and (5) the purchaser hastening to get this instrument of sasine registered so as to secure priority and prevent his sasine being reduced to a nullity as against third parties by the lapse of the sixty days. Thus things went on until 1845, in which year

the ceremony of taking sasine was rendered unnecessary and the sixty days limit was extended to the lifetime of the granter, while registration of the instrument of sasine was made equivalent to infeftment. The steps in the transfer were therefore reduced to (1), (2), (4), and (5), above. In 1858 a further simplification was introduced by abolishing step (4), and from that year onwards in place of step (5) the deed of grant or disposition was to be registered directly. All traces of the ceremony of taking sasine on the lands thus disappeared, and registration is now the effective mode of completing title to land or of affecting land with any securities over it. In practice the purchaser sends his conveyance forthwith to get it registered as soon as it is executed. There is nothing to be gained by not doing so, and he may lose his priority if he neglects to do so. The only exception to the rule that priority of registration confers priority of right arises in cases where the holder of the title has acted in bad faith in taking a title, as for example where the purchaser has bought land which he knew his vendor, a trustee, had no right to sell to him; in such a case the court will annul the conveyance, and its judgment will be entered on the register. But the rule is adhered to with some pertinacity: mere knowledge that another person has acquired a right to get a CONVEYANCE is not sufficient to overcome it; following up one's legal rights, even against a blundered sasine or registration, is not bad faith; and generally a purchaser in good faith is protected and may rely on the registers without making further enquiry, for unrecorded conveyances, including mortgages, are absolute nullities as against him and his representatives, and the rule of priority of right being conferred by priority of registration, operates to keep him safe.

[See Montgomerie Bell's *Conveyancing*.—Menzies's *Conveyancing*.—Begg's *Conveyancing Code*.—Duff on *Feudal Conveyancing*.] A. D.

SASSETTI, FILIPPO (1540-1588), a Florentine merchant who wrote a treatise on commerce between Tuscany and the Levant, showing briefly and clearly the advantages of foreign trade and the influence on it of freedom from restriction. He analysed minutely the advantages which merchants obtained from trade with the east, and advocated that the state should remove every obstacle to this trade and favour its development in various ways. Its importance was well understood by him, and greatly appreciated throughout an active commercial life, and in the long journeys which he made to the remotest regions of the east.

Sassetti proposed to abolish custom duties, or at least to diminish them greatly.

The actual scientific importance of the defence in theory of free exchange which Sassetti made in times when restrictions in trade were prevalent, is not so great as it appears to be, because similar ideas were based by him and other writers of that period on the interests of the commercial classes alone, and also that he discussed only trade with the east, that is to say, trade in products which could not compete with the industries of his own country. Sassetti said plainly that the greatest benefit was connected with the export trade, which, by favouring the arts, increases wealth; he cannot therefore be fairly classed among the precursors of the modern theory of free trade.

Ragionamento sopra il commercio fra i Toscani e i Levantini (written in 1577; published in the *Lettere edite ed inedite del Sassetti*, Florence, 1855).

[See Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, Milan, 1884.—Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893]. U. R.

SATIETY PRICE. The fact that human beings have varied tastes becomes of considerable importance in putting a limit to their consumption of individual commodities. A point may be reached where further reduction of price would result, not in additional purchases of the same commodity, but of a transference of some part of the purchasing power to some other object. Such a point, where further reduction of price brings no increase of demand, is the satiety price for the commodity in question to the individual considered. If a whole community could reach such a condition in regard to the commodity, what has been stated of the individual would be true of the community. It is difficult to conceive, for most commodities in general use, of any price above zero, which would be a satiety price to the whole of a nation such as those of Western Europe. In special cases, however, the conception is possible, and in reference to individuals, represents a sufficiently common experience (cp. LAWS OF POL. ECON.; LAW OF SATIABLE WANTS). A. W. F.

SATURATE. In any case where, for an individual or for a community, the price of any commodity has reached the point defined as the SATIETY PRICE (*q.v.*), the demand of that individual or community for the commodity in question may be said to be saturated. A. W. F.

SAUNDERS, N. See SANDER, N.

SAUNDERS, ROBERT (end of 18th century):—

Author of two pamphlets, *Observations on the Present State and Influence of the Poor Laws, founded on Experience by Robert Saunders, Esq.*, 1799. Preface 15 pp., 173 pp; and *Abstract of Observations on the Poor Laws with a Reply to the Remarks of the Rev. James Nasmith, D.D., by Robert Saunders, Esq.*, 1802, preface 4 pp. and 43 pp.

The author was interested in promoting a school of industry, and in connection therewith became, in 1796, an overseer of the parish of Lewisham.

The office of overseer, he says, is an unworkable medley of high and uncontrolled responsibility and menial duties, such as "no person of respectability and independence can accept to execute *literally*." The sweets of office reconcile the less desirable sort of overseer to his work. He suggests as remedies the separation of the assessment and collection of the rate from the administration of relief, and an effective system of audit. The miscarriage of Pitt's proposals for remodelling the poor law convince him that parliament is unfit to legislate in detail. "If there be a great national subject . . . that requires the superintendence and controul of a board of commissioners more than any other . . ." it is the poor law. He prefers a "supreme board in the metropolis" to county or local central control proposed by Pitt, and embodied in Gilbert's Act, though he quotes these as precedents. His argument thus anticipates the commissioners' report of 1834, and the suggestion of central control is apparently original. In 1834 his pamphlets seem to have been forgotten, but their prescience and sagacity deserve a brief record. The author dates his pamphlets from South End, Kent, but no other particulars regarding him have been recovered. T. M.

SAVARY FAMILY. — SAVARY, JACQUES, the father (1622-1690), born at Doué (Maine-et-Loire), died at Paris. He published *Le parfait négociant ou instruction générale pour ce que regarde le commerce des marchandises de France et des pays étrangers* (1st ed., 1675; last ed. 2 vols. 4to, 1800), which long had a well-deserved popularity in the business world. He also helped to draw up the celebrated trade decree of 1673, and later the model of the French commercial code (see CODE NAPOLÉON).

JACQUES SAVARY DES BRULONS (1657-1716), the youngest of his sons, followed his father's example and training, and also devoted himself to the science of trade. Appointed in 1686 inspector-general of customs, he formed the idea of writing his *Dictionnaire universel de commerce, d'histoire naturelle, d'arts et métiers* which death prevented him from finishing.

THE ABBÉ LOUIS PHILÉMON SAVARY, his elder brother (1654-1727), finished this work and published it in two volumes, folio, in 1723; the third, a supplement, appeared in 1730. This work, with some alterations and numerous supplementary remarks, went through several editions, in 1726-32 it appeared in 4 vols. 4to, in 1748-50, 3 vols. folio, and finally in 1759 in 5 vols. folio.[1] MORELLET, who should have known what labour was involved, since he had worked twenty years without finishing a similar work, reproaches him with errors in the principles, and of only attending to technical details. At all events, it had the merit of being the first of its kind published in France. It was valued on account of the facts, especially in the later editions, which were contributed by men holding the highest places as manufacturers, traders, and government-officials. A. C. F.

SAVIGNY, FRIEDRICH CARL VON (1779-1861), was a descendant of well-to-do Protestant immigrants from Lorraine, a native of Frankfort on the Maine, a student at Marburg and Göttingen, professor of Roman law at Berlin (1810-42), member of the Prussian council (1817), and of the appeal court for Rhenish Prussia (1819-42), and Prussian minister for the revision of laws (1842-48).

He wrote (1) *Das Recht des Besitzes*, 1803, translated by Perry, 1848, as *Treatise on Possession*, 1848, in which he first crossed this *pons asinorum* of Roman law; (2) *Ueber den Beruf unserer Zeit für Gesetzgebung und Rechtswissenschaft*, 1814, translated by Hayward, 1831, as *On the Vocation of our Age for Legislation and Jurisprudence*, in which he likened codifiers to those who, in their haste, set up a golden calf in the place of the yet invisible tablets of the law; (3) *Geschichte des römischen Rechts im Mittelalter*, 6 vols., 1815-31, vol. i. translated by Cathcart, 1829, as *History of the Roman Law during the Middle Ages*, in which he put the relation of mediæval to ancient and modern history in its true light for the first time; (4) *System des heutigen römischen Rechts*, in seven books, bks. i.-iii., 1840-51; bk. v., called *Obligationenrecht*, 1851-53, and the rest unwritten; bk. i., translated by Holloway, 1867; bk. ii., by Rattigan, 1884; bk. iii., by Guthrie, 1869, 1880; "modern Roman law" meant such elements of Roman law as were then, either in their pure or in a modified form, the common law of Germany and other states; (5) helped by Eichhorn and Göschen, he founded the *Zeitschrift für geschichtliche Rechtswissenschaft*, 1815, his preface to which, denouncing unhistorical jurists and claiming to found a "historical school" of jurisprudence, is epoch-making. His contributions to this and other periodicals are contained in his *Vermischte Schriften*, 5 vols., 1850. His ideas are the same as those of his contemporaries at Berlin. Thus Schleiermacher too tried to form schools of co-operative thought, and the Hegelian system, in which "the history of philosophy became for the first time an integral part of the system of philosophy . . . was exactly the right philosophy for the historical school of law" (Erdmann, *Hist. of Philosophy*, translated by Muirhead, vol. iii. p. 328). When he refers to language he recalls W. v. Humboldt, and his historical sense reflects that of Niebuhr. His central thesis is that law does not merely consist of laws any more than language does of writings; and you will not find its essence either in a remote past or a remote future or in the present, but in the character of a nation, *Volks-Geist*, as revealed in its complete legal history. Invention, conquest, contract, individual whim, *Willkür*, and blind custom may modify but cannot create nor develop law; for it is a spontaneous growth of the entirety, *Gesammtheit*, of the nation. With him *Willkür* stands for the false, *Gesammtheit* for the true. The "natural right" of ignorant dreamers, the didactics

[1] *A Dissertation on the Plan, Use, and Importance of the Universal Dictionary of Trade and Commerce, translated from the French of the late Monsieur Savary*, was published in London 1749; see also POSTLETHWAYT, ROLT, and M'CULLOCH, Preface to 1st ed. of Commercial Dict.

of ill-digested pedantry, the attempt of a half-educated present to dictate to the future by means of codes are resented as a sin against *Gesammtheit*, and although "customary law" most vividly illustrates *Gesammtheit*, he hates the word because it suggests an origin in *Willkür*, and after that *inertia*.

Critics of Savigny forget that he only used philosophic theory sufficiently for his purpose, he did not formulate a philosophy. Von Ihering calls Savigny romantic because he said that law grows by "the silent working of inner forces," whereas fighting made and keeps it alive (*Battle for Right*, translated by Ashworth, 1883). C. Menger says Savigny looked on money as inexplicable and independent of individual volition (*Obl.* i. 406), instead of as the *tertium quid* resulting from the different things which A and B do and intend to do (*Untersuchungen*, p. 173). Both criticisms are right in so far as they supplement Savigny, for Savigny never investigated the exact process by which many individual efforts produce one collective result, although he invariably traced the latter to the former. The accusation that he identified the systematisation and history of law is borne out by one passage (*V. S.*, vol. v. p. 2) and refuted by another (*S. des h. r. R.* p. xiii.), and his greatest work is called "system," his second greatest "history"; not but what the systematisation and history of thought are always very nearly akin. Members of the historical school are often denounced for holding that whatever is is right, and for minimising the sphere of legislative innovation; but permanence is one test of right. How far this accusation hits Savigny it is difficult to say, as his greatest work is expressly confined to private law, and therefore his principle that legislation must adjust law to "changed morals, views, and needs," found little application.

He rarely went outside this bare minimum of indispensable philosophy, or jurisprudence, or legal history, but there are (at least) two exceptions. In one place he summarised Hufeland, Helferich, and Hoffman's exposition of the value of money, and inferred that the market value of money is the best standard for deferred payments (*Obl.*, i. p. 404 *et seq.*). In another he described progress thus: "bei steigender Cultur nämlich sondern sich alle Thätigkeiten des Volkes immer mehr, und was sonst gemeinschaftlich betrieben wurde, fällt jetzt einzelnen Ständen anheim," etc. (*Ueber den Beruf*, p. 12). This may be represented in H. Spencer's language, "as civilisation advances all the national activities are differentiated more and more, and pursuits which were formerly homogeneous are now heterogeneous." Savigny adds that the link between the pursuit which has now become technical, and the entirety of the nation, is henceforth political.

[A. F. Rudorff, *F. C. von Savigny, Erinnerung an sein Wesen und Wirken* (1862). Translations have made the *System* say that social growth is "independent of individual will" (Holloway, p. 14), have misled the *Edinburgh Review* (*Philological Museum*, vol. i. pp. 196-200), and have made Savigny make mistakes about mediæval money (*Atti e memorie della r. deputazione di storia patria* (1894), pp. 140, 295), so that they must be used with care]. J. D. R.

SAVING, PRODUCTIVE AND UNPRODUCTIVE. See PRODUCTIVE, THE TERMS.

SAVING in the case of an isolated individual, or in the case of a communistic society, obviously means the action of producing in a given period of time a surplus of goods over and above those consumed during that period. Thus Robinson Crusoe "saved," when in addition to providing for his daily needs he managed to build himself a boat. The boat was the addition to his capital which he "saved." A communistic society, too, would "save" when it added to its capital any useful material object, such as a house, a mill, or a ship. In a community recognising private property and practising exchange, the process of saving is just the same. The savings of any particular period appear at the end of that period in the form of additions made during it to the capital or stock of useful material objects in existence. The savings of the United Kingdom, for example, since 1830, include the whole of the railways therein. This is clear enough as regards the community in general, and the fact that the individual saver reckons his "savings" in money which he "invests," must not induce us to believe with Adam SMITH, MALTHUS, and J. S. MILL, that what is saved is spent or consumed. The individual who has an income of £1000 a year has the power of annually consuming commodities and services to the value of £1000. If he "saves £500" it simply means that he decides that he will take £500 worth of goods, not in the form of commodities for his personal consumption, but in some form, say, for example, a cycle factory or telephone wires, in which they will constitute an addition to his capital and that of the community.

[The old view will be found expressed in Adam Smith, *Wealth of Nations*, bk. ii. ch.iii.—Malthus, *Political Economy*, 1820, pp. 31, 32.—J. S. Mill, *Principles*, bk. i. ch. v. §§ 4-6. It is criticised in Cannan, *Production and Distribution*, 1893, pp. 71-74, 100, 103-105, and shown to be based on a confusion between the income of the saver which is saved and not consumed (being taken in the form of non-consumable commodities) and the wages or income of the persons employed to produce the additions to the capital. See Irving Fisher, "What is Capital?" and "Senses of Capital," in *Economic Journal*, Dec. 1896, June 1897. A good idea of what the actual concrete additions to the capital of a modern community really consist of may be obtained from Giffen, *Growth of Capital*, 1889]. E. C.

SAVINGS BANKS. See BANKING.

SAY, HORACE EMILE (1794-1860), eldest son of J. B. SAY (*q.v.*). He spent several years of his youth in business in the Brazils, and founded in 1818 in Paris a commission firm for trade with South America. He was successively a member of the *Tribunal de Commerce* and of the municipality of Paris, and was for some time a councillor of state (1849-

1851). In 1857 he was elected a member of the *Académie des Sciences morales et politiques*,

In 1830 he wrote his *Histoire des relations commerciales entre la France et le Brésil*, but afterwards devoted himself to the study of the administration and of the industrial interests of Paris, publishing, in 1846, his *Études sur l'administration de la ville de Paris et du département de la Seine*, and a few years later the *Statistique de l'industrie à Paris*, the outcome of an extensive inquiry which he himself led as president of the *Chambre de Commerce*, during which 64,816 heads of firms were heard, and their evidence noted, 32,000 manufactures and workshops visited in detail, in the midst of the uproar and troubled times of the second republic.

Horace Say was the devoted follower of his father's economic doctrines, and his house was ever open to students of the conditions of social welfare. One of the founders of the *Société d'Économie Politique*, of the *Journal des Économistes* and of the *Journal du Commerce*, to both of which he was a frequent contributor, he also wrote several articles for the old *Dictionnaire d'Économie Politique*, and he gave a decided impulse to the popularisation of economic literature in France, when he assisted Guillaumin in founding, in 1840, his well-known publishing firm.

[*Nouveau Dict. d'Éc. Politique* and *Annales de la Société d'Économie Politique*, vol. iv. pp. 135-145.—Bonar, *Ricardo's Letters to Malthus*, p. 91.]

E. Ca.

SAY, Jean Baptiste (1767-1832), belonged to a Protestant family which had been obliged to flee from France at the revocation of the Edict of Nantes, but which returned towards the middle of the 18th century. He was the head of a complete dynasty of economists,—his brother Louis Say, his son Horace Say, and his grandson Léon Say.

J. B. Say remained inconspicuous during the French revolution. Napoleon, while first consul, appointed him a member of the tribunal of 1799, but he fell into disgrace through his liberal opinions and the publication of his *Traité d'Économie Politique*, 1803. He then occupied himself with business. At the fall of the empire in 1815 he opened at Paris a gratuitous course of lectures in political economy —the first given in France; and occupied in succession a chair at the *Conservatoire des Arts et Métiers* (1819) and at the *Collège de France* (1830) but a short time before his death.

His most important work is his *Traité d'Économie Politique* which passed through many editions and has been translated into many languages. It was the first really popular treatise on political economy ever published in France; his main divisions and his terminology have become classical and have served as a model for innumerable subsequent treatises. Another more fully developed treatise in six volumes was published in 1828-29 under the title of *Cours Complet d'Économie Politique Pratique*. It is the reproduction of the course of lectures given at the *Conservatoire des Arts et Métiers*, but is inferior to his first book. His other works are of little importance.

J. B. Say is usually ranked, with A. Smith and Ricardo, amongst the fathers of economic science. He is very inferior to the first as regards historical and philosophical knowledge, and to the second in originality and depth of view, but it would be unjust to consider him a mere populariser. He was in the true sense of the word the leader of a school—of the liberal and optimistic school, the influence of which was so great in France, particularly during three quarters of a century, and is even now felt. It is he, more than any other writer, who impressed on political economy the character of a *natural* science, as is clearly shown in the subtitle of his book *Simple exposition de la manière dont se forment, se distribuent et se consomment les richesses*, meaning by that, that riches are formed, distributed, and consumed *spontaneously*, without the necessity of any intervention; and in reference to this he criticises the definition of political economy given by Adam Smith at the beginning of bk. iv. of the *Wealth of Nations*. No one has insisted more than he on the natural laws of political economy, these laws "which are derived from the nature of things, just as certainly as the laws of the physical world; they are not imagined—they are found; they govern those people who govern others, and can never be violated with impunity" (*Discours Préliminaire*). Far more than Smith is he the representative of the liberal school in his aversion to the state "whose intervention is always objectionable even when it is indispensable," and again "as to its benefits one cannot praise them without being open to the charge of folly; what benefits can an administration distribute without causing expense to the people administered?" (bk. i. ch. vii. note).

It is true that nowadays these doctrines are generally discarded, but they have none the less exercised an enormous influence. Besides this J. B. Say contributed fundamental ideas which will always be highly valued in the science. The following are the most important:

(*a*) Tripartite division of political economy; *production; distribution; consumption*. It is true that a fourth has been added since—*circulation*, but the suitability of this improvement may be questioned, and J. B. Say, who included *circulation* in *production*, appears to be more logical.

(*b*) The method of inquiry based on observation of facts was doubtless previously practised by A. Smith, but J. B. Say is perfectly justified in opposing this to the method of the physiocrats, "who commence by assuming abstract generalities called axioms," and to

that of Ricardo, who, "drawing all his results from a small number of principles, putting or leaving aside all others, arrived at results different from the real state of the case," and even to the mathematical method, which he had anticipated before it actually existed. "It is not enough," he said, "to make facts the basis only, it is necessary to place oneself in the midst of them, to march with them, and to constantly compare the results deduced from them with the facts observed" (*Discours Préliminaire*).

(*c*) In the same way that the merit of having shown the part that *land* plays in production belongs to the PHYSIOCRATS, and the part taken by *labour* to Adam Smith, to J. B. Say belongs the honour of having shown the part of the third factor of production—*capital*, and, still more, of having analysed its three essential and classic elements—*instruments*;—continued means of subsistence during the process of production;—*raw materials*; of having shown that capital only lasts on condition of being continually destroyed by reproductive consumption; and again, of having said, long before J. Stuart MILL, "that the industry of a nation is not confined by the extent of its territory, but by the extent of its capital" (bk. i. ch. v.).

(*d*) J. B. Say first employed the well-chosen term *Entrepreneur* to designate that most important economic function of the man who collects in his hands the productive forces of capital — labour and natural agents,—and whom English economists designate by the equivocal name of "capitalist." Also as he cleverly said, "English economists almost always confuse, under the name of *profit*, the return that the *entrepreneur* obtains from his industry and his talent, and that which he derives from his capital. This imperfect analysis prevents them from giving a faithful representation of the facts" (bk. ii. ch. v.).

(*e*) Of all the theories of J. B. Say, that to which he himself attached the most importance was the *théorie des débouchés*. He said proudly, "It is the theory of heat, of the lever, of the inclined plane, which have put all nature at the disposal of man. It is the theory of exchange and openings for trade (*débouchés*) which will change the policy of the world" (*Discours Préliminaire*).

The theory of openings for trade consists simply in this, "each producer seeing that the rarer the products of his industry are, the better he sells them, has, by generalising from his experience, drawn the conclusion that overproduction is an evil." Say denies this, and claims that on the contrary each product can only be exchanged against other products, and can be exchanged so much better in proportion as the other products are the more abundant and the more varied, thus there is advantage for all—not only for consumers, but also for producers,—to him whose products are as abundant as possible.

Say does not deny that excess of production in a special class of goods would lead to a reduction in price of these goods, but the sole remedy for this evil is the proportional multiplication of other goods, "whence, what at first seems to be a paradox is deduced, namely, that production opens new channels to the goods produced" (see his *Traité d'Économie Politique*, bk. i. ch. xv. and art. DÉBOUCHÉS, THÉORIE DES).

It is an exaggeration to believe, as Say does, that this theory would change the policy of the world. Its optimism and the idea that individual and general interest are necessarily or naturally harmonious, both tend to the general well-being. The impression of this optimistic spirit evidently inspired the whole of the French school; but, it cannot be denied that there was not in the theory thus expressed any clear idea on the position of the questions of free trade and crises at the present day.

A reference, though brief, must also be made to J. B. Say's views on the distinction between science and art in economic teaching, on utility as the basis of value, on immaterial products, on the superiority of thrift over luxury from the point of view of social interest, and on almost every point of political economy.

The *Works* of J. B. Say form volumes ix. x. xi. and xii. of the *Collection des Principaux Économistes*, published by Guillaumin (1840-41-48); Ricardo's *Letters to Malthus, passim*.

A small volume of selected works has also appeared with an introduction by M. Baudrillart in *la Petite Bibliothèque Économique*, published by Guillaumin. C. G.

SAY, LÉON (1826-1896), son of Horace E. SAY and grandson of J. B. SAY (*q.v.*), was one of the most prominent statesmen of the third French republic; under the second empire, he became known by his powerful criticism of the financial administration of Paris in the *Journal des Débats*, of which he was one of the proprietors. After the *Commune*, he was appointed prefect of the department of the Seine, and reorganised the administration of Paris; a little later, although well known as a staunch free-trader, M. Thiers, president of the republic, himself quite as staunch a protectionist, summoned him to the ministry of finance. In this office he directed the payment of the enormous war indemnity to Germany, probably the most colossal financial operation of our century; his official *Report*, reprinted as an appendix to the 2nd edition of his translation of Mr. Goschen's *Theory of Foreign Exchanges* (1st ed. 1866, 2nd, 1892) is a masterpiece of clear and lucid exposition. As minister of finance, he created a new type of French stock: the *rente 3 per cent amortissable* (redeemable consols). In 1880 he was sent as ambassador to England to negotiate a new treaty of commerce, but he

was thwarted in this by the rising influence of the French protectionist party. After a fresh, but transient period of office as finance minister, he resumed his seat in parliament, first in the Senate and then in the House of Deputies, where he became the leader of the free-trade party, and where his brilliant and incisive speeches against protection and socialistic legislation were listened to with eagerness, even by his opponents. He was also elected a member of the *Académie des Sciences morales et politiques* and of the French academy.

As an economist Léon Say neither left any large work nor created any new school, but he remained to the end of his life faithful to the opinions of his grandfather J. B. Say, and a sincere and intelligent advocate of the liberal theories of the English school of the middle of our century. Present at the banquet offered in 1846 to Cobden in Paris, he ever after expressed a warm admiration for, and a steady adherence to, the tenets maintained by the Cobden Club. But he could do justice to other schools, and acknowledge for instance that the German *Kathedersocialisten* (see Socialists of the Chair), have performed "admirable scientific work."

He was a frequent speaker on the most varied subjects at the meetings of the Paris Société d'Économie Politique, see the Index of the *Annales de la Soc. d'Éc. Pol.*, vol. xvi. pp. 340-342. His speech at the annual dinner of the British Economic Association (25th March 1896) made shortly before his death, enabled his English friends to admire his brilliant eloquence and the cheerful optimism that looked forward to the ultimate triumph of sound economic doctrine. He also delivered lectures at the *Cercle Saint Simon*, a literary and historical club, and at the *École des Sciences Politiques*. These lectures were printed under the respective titles of *Le Socialisme d'État* (1884), and *Les Solutions Démocratiques de l'Impôt* (2 vols. 1886). In the former he analyses the particular drift of socialistic tendencies in England, in Italy, and in Germany, and comes to the conclusion that "state socialism is a German system of philosophy; . . . legitimate in Germany, it is spurious anywhere else."—*Soc. d'État*, p. 3. The *Solutions Démocratiques de l'Impôt* are directed against the proposal to use taxation as a means of social equalisation; the author maintains that the basis of taxation ought ever to be *real* and never *personal, i.e.* should take no account of the personality of the owner of the thing subjected to taxation. The method used is often historical; thus he gives at the end of the first volume a very interesting picture of the democratic systems of taxation prevalent in Florence from the 14th to the 16th century. Both books, and the excellent biography of Turgot in the *Collection des Grands Écrivains Français* (1887), are characteristic of the author's habit of mind: the literary charm of his style, his wide range of thought, and the extent of his knowledge both of theory and history. The standpoint from which this calm-minded thinker, who never was a radical, contemplated the social problems and the development of the present time may be exemplified by a few extracts from his *Socialisme d'État:* "Democracy is not a fact to be judged, to be discussed, to be blamed, or to be praised; it is an atmosphere, an existing medium. . . . Men who do not understand democracy have nothing to teach us; they do not belong to the world of the living" (pp. 14-15). The aims he pursued were in fact an alliance, if not of love, at least of reason, between liberty and democracy, and will be best expressed in the words used by himself when referring to Mr. Goschen in England, and Signor Luzzatti in Italy: "They perfectly know what democracy may call into life, and what it may destroy; they take it as it is. What they want to demonstrate, is that liberty, individual self-help, and foresight are able to find a principle of development and to breathe in the very atmosphere of democracy."

Besides the above writings, León Say published the following books and pamphlets: *Histoire de la Caisse d'Escompte* (1848).—*La Ville de Paris et le Crédit Foncier.—Observations sur le système financier de M. le Préfet de la Seine* (1865).—*Examen critique de la situation financière de la ville de Paris* (1866).—*Les Finances de la France* (1883).—*David Hume* (in the *Petite Collection Guillaumin*).—*Dix jours dans la Haute Italie* (an account of Italian popular banks), and *Contre le Socialisme* (1896). Since his death, his work *Les Finances*—a description of the mechanism of the French ministry of finance,—has appeared. He also edited the *Nouveau Dictionnaire d'Économie Politique* (1892) and the *Dictionnaire des Finances*, and was a frequent contributor to the *Journal des Économistes*. Under the title of *Léon Say* (*Liberté du Commerce; Finances Publiques*) a selection of his works has been published in Guillaumin's *Petite Biblioth. Éc.*, 2 vols. 1896, with a complete bibliography. See *Journal des Économistes* (April to June 1896), pp. 161-169, the *Economic Journal*, vol. vi. pp. 318-323, and *Annales de l'École des Sciences Politiques*, 15th November 1896. E. Ca.

SAY, Louis Auguste (1774-1840), a brother of J. B. Say, and founder of two great sugar refineries at Nantes and Paris.

He wrote several works on economics: *Considérations sur l'industrie et la législation* (1822); *Études sur la richesse des Nations et Réfutation des principales erreurs en Économie Politique* (1836); *Principales causes de la richesse des peuples et des particuliers* (1818); *Traité élémentaire de la richesse individuelle et de la richesse publique* (1827).

A severe and uncompromising critic, he insists on the necessity, "if one wants to be clear and well understood, to call each thing by its name," and inveighs against the looseness and fluctuation of the terminology of Adam Smith and Ricardo. He also accuses the former of exclusively prizing things "after the fashion of merchants" who only care about the price at which an article can be sold. "His book contains highly interesting parts and a great deal of valuable information, but his theory of value has done much harm to the progress of theory." Louis Say considers his brother's book as "having above all previous works presented in the best way the greatest number of useful truths"; still he reproaches him with having too often forgotten the leading

principle "that there can be no production of wealth without a creation or increase of utility." He steadily and repeatedly states that "a thing is only wealth in proportion to its degree of utility"; the question of its *value in exchange* is quite a secondary matter.

[See Bonar, *Ricardo's Letters to Malthus*, p. 211 and note.] E. Ca.

SCACCIA, Sigismonde (17th century), a Roman jurist. His classical treatise on commercial law contains points of importance to economists; among these is an explanation of the then prevailing ideas on value and price, which, according to Canon Law (*q.v.*), were not to be determined by the contracting parties but by rules fixed by law in order to maintain the Justum Pretium and to establish objective justice in a contract. Hence, it was the monarch who fixed the price; failing this, Scaccia considered a fair price to be the one for which similar things can generally be obtained, and it may be high, medium, or low according to circumstances.

Scaccia also gives a clear and accurate description of the manner in which exchanges were effected at that period.

On the subject of loans, though he still adheres to canonical law, he endeavours to reconcile them to the movement of thought in his time, to diminish their severity, and to encourage comparatively liberal ideas. Scaccia, as well as other authors of his day, feels the necessity of justifying certain credit operations of undoubted economic utility, and of modifying the theory of the illegality of usury so as to meet the requirements of trade.

Thus, without denying that doctrine, he justified certain contracts whose usefulness was patent (see Dry Exchange).

Tractatus de commerciis et cambio, Rome, 1619.

[See Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *L' economia politica negli scrittori Italiani, etc.*, Milan, Hoepli, 1889.] U. R.

SCAET. See Sceatta.

SCARUFFI, Gasparo (1519-1584). Born at Reggio Emilia, of an ancient family of bankers, was a merchant and banker. He was assayer of the mint at Reggio in 1552, which work he carried on for some time. Later on, he held other public and civil appointments, at the same time carrying on his banking business.

Between 1575 and 1579 he compiled his book on money, published in 1582, which gave him an important place in the history of economic science. Scaruffi entitled his work *Alitinonfo*, a strange name derived from the Greek, signifying *true light*, and taken from his desire to spread true light on the subject of money.

Scaruffi's work is a theoretic treatise on money; it does not contain any systematic statement; it is a practical treatise written with the object of formulating suggestions intended to improve the monetary system, then in a state of great confusion, owing to alterations in the money, a multiplicity of coins, bad coinage, and abuses of every description.

The author's suggestions are bold, especially for those times; and on the whole, his general ideas on money are accurate and clear.

Scaruffi distinguishes the two principal uses of money—a measure of value and a general means of exchange. He is of opinion that the value of money should be independent of the will of the monarch, who, he says, only confirms it, and that the coining money should not be a source of income to the state, but merely a service to the public.

Scaruffi, in order to get the monetary circulation of his day, then in a condition of great confusion, into order, proposes the adoption of bi-metallism with a fixed ratio of 1 to 12. Owing to the scarcity of metals at that period, and the large number of coins of both metals then in use, bi-metallism became a necessity, and mono-metallism practically inconceivable, and the ratio of 1 to 12, proposed by Scaruffi, corresponded very fairly with the real one of the day. At this point it is necessary to note the error into which Scaruffi fell in determining this relation. He believed it to be natural and invariable, attributing the variations which had taken place to the confusion in the monetary systems, and not to the natural and variable causes which influence the value of gold and silver.

Scaruffi made many practical suggestions for the adjustment of the circulation, proposing the adoption of a monetary unit, the imperial *lira*, which was to be used as a current coin as well as a money of account. He further made suggestions on the name, weight, and manner of coining money to prevent its alteration, and discussed the organisation of mints, maintaining that the expenses of coinage should not be deducted from the coins by attributing to them a higher value than their intrinsic value,—this in his day was a source of serious inconvenience. All these suggestions of Scaruffi's led up to another proposal of his, showing a breadth of ideas and a high-mindedness far superior to his times, namely, the establishment of a universal mint, the adoption of one uniform coinage throughout Europe, based on bi-metallism, with the same shape, weight, and name in every country, "as if the world were one city and one monarchy," to quote Scaruffi's own words. He acutely observes that, with this monetary union, the less valued metal could not go out of circulation because it could not be sent profitably to other countries.

This proposal of Scaruffi's is indeed surprising and wonderful for its depth and boldness, and for the scientific arguments with

which he illustrates it, considering the political and monetary conditions of the times, the great number of small states, all clinging to their vast number of different coins.

Scaruffi's works are commented on by a fellow-citizen and contemporary, Bernardino Pratisuoli, and they are reprinted in the Custodi collection (*Scrittori Classici Italiani*, Parte Antica, tomo ii., Milano, 1804.)

L'Alitinonfo di M. Gasparo Scaruffi, Reggiano, per fare ragione et concordanza d' oro e d' argento che servirà in universale, etc., Reggio Emilia, 1582.

[See Bernardino Pratisuoli, *Considerazioni sopra l' Alitinonfo del Signor G. Scaruffi*, Reggio, 1604 (reprinted in the collection of *Argelati*, Milan, 1752).—Andrea Balletti, *Gasparo Scaruffi e la questione monetaria nel secolo XVI.*, Modena, Vincenzi, 1882.—Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *L'economia politica negli scrittori Italiani, etc.*, Milan, Hoepli, 1889.—Graziani, *Le idee economiche, etc.*, Modena, 1893]. U. R.

SCEATTA. (SCEAT, SCEATT, SCAET, pl. SCEATTAS. The word denotes a part, division, or tribute, as well as a coin.) The most ancient of Anglo-Saxon coins. They are mentioned in the laws of Æthelbert, king of Kent. A.D. 565-616 (Wilkins, *Leges Anglo-Sax.*, p. 6), The types are numerous and rude, the earlier being less debased in art than later specimens; they often include Christian emblems. The earlier legends are sometimes Runic, sometimes unintelligible imitations of those on Roman coins. Weight from 7½ to 20 grains of silver, but the average is 17. In the laws of Æthelstan (Wilkins, p. 64), 30,000 *sceattas* are said to be equal to 120 pounds; but difficulties arise on this point, and nothing reliable can be stated as to their current value. Gold *sceattas* are sometimes found. These average 19·9 grains, like the Merovingian *trientes*, but one of the British Museum specimens is of the same type as a silver *sceatta* (Hawkins, No. 554) in the same collection.

[Ruding, *Annals of Coinage*, i. 108.—Hawkins, *Silver Coins of England*, ed. Kenyon, p. 24.—R. L. Kenyon, *Gold Coins of England.—Proceedings of Soc. of Antiq.*, xiv. (2nd series), p. 313.] R. H.

SCHILLING or SKILLING. The German, Dutch, or Scandinavian name for a silver coin, generally of about the same value as an English shilling.

The recent decimalisation of currency, however, in the countries where this ancient coin circulated, has involved the removal of the schilling, both as a coin and a money of account, from the currency systems now legally in force. As a denomination of account in common use it nevertheless survives in much the same way as the GUINEA (*q.v.*) does in England.

The following is a list of various schillings formerly current, showing at the same time the modern currency of the countries enumerated:

	Modern currency.
SWEDEN AND NORWAY— 4 stivers=1 skilling; 48 skillings=1 daler	100 öre=1 kroner
DENMARK— 16 skilling=1 mark [daler]; 6 marks or 96 skilling=1	100 öre=1 kroner
HOLLAND— 5 cents=1 stiver; 6 stiver=1 Flemish schilling	100 cents=1 florin or gulden
HAMBURG AND LUBECK— 12 pfennige=1 schilling; 16 schilling=1 mark	100 pfennige=1 mark

F. E. A.

SCHLETTWEIN, JOHANN AUGUST (1731-1802), regarded as the chief of the PHYSIOCRATS in Germany, was born at Weimar, studied CAMERALISTIC SCIENCE at Jena, where, from 1756 onward, he published his first writings on cameralistic and philosophic subjects. In 1763 he was invited to enter the service of Margrave KARL FRIEDRICH of Baden. Besides his official duties in Karlsruhe, he lectured on cameral science and, in 1765, founded an economic society to interest a wider circle in reform. Schlettwein, however, was not a physiocrat any more than was the Margrave, at whose court, a few years before, the Scotch refugee and mercantilist James STEUART had stayed long as a guest and had worked at his *Inquiry*. The state archives at Karlsruhe show that Schlettwein at that time was still a strong Cameralist.

Probably the margrave and the professor were converted simultaneously to QUESNAY's teaching by the ÉPHÉMÉRIDES Du Citoyen, published from 1767 by BAUDEAU, and later by DU PONT. In 1769 distress was felt in the village of Dietlingen near Durlach. It was resolved to counteract it by the measures recommended by the physiocrats. Schlettwein was entrusted with the execution of the reforms, which were started in 1770 with the assistance of some ladies of rank, among whom was Schlettwein's future wife Fräulein von Gersau. The earliest description of the measures taken was given by Schlettwein in his book *Les moyens d'arrêter la misère publique et d'acquitter les dettes des États*, 1772. It was written, or rather finished, the year before in Paris, whither the Margrave had gone in company with Schlettwein, to confer personally with the leaders of the physiocratic school, especially with MIRABEAU. Already at that time an estrangement seemed to have arisen between the Margrave and Schlettwein, which caused the latter to resign his office in October 1773 and to go to Vienna. His hope of finding a place in the imperial administration was not realised, and after a year's absence he

returned to Karlsruhe, where he tried in vain to be appointed again. At this time (1775) his marriage took place. In the autumn of 1776 he settled with his friend and co-physiocrat, Isaac ISELIN (*q.v.*), editor of the *Ephemeriden der Menschheit*, at Basle, where he received permission to give lectures at the university. In 1777 F. K. von MOSER, minister of state at Hesse-Darmstadt, offered him a professorship in the newly founded *Oekonomische Fakultät* at the university of Giessen.

As early as 1772 he had published his work on the physiocratic system, under the title *Die wichtigste Angelegenheit für das ganze Publikum; oder die natürliche Ordnung in der Politik überhaupt, besonders aber die allgemeine Freiheit im Handel und Wandel, etc.* 2 vols. He now wrote the second of his principal works: *Grundveste der Staaten oder die politische Oekonomie*, 1778, which he made the basis of his lectures. He then edited one of the many periodicals devoted to physiocratic ideas: *Archiv für den Menschen und Bürger in allen Verhältnissen*, 6 vols. of which appeared between 1780 and the end of 1784. Certain views in it gave offence to his colleagues at the university and also at the Hessian Court, and in order to avoid difficulties he resigned his professorship in 1785 and withdrew to the estate at Beseritz in Mecklenburg which his wife had inherited. Here he continued his periodical under the title *Neues Archiv für den Menschen und Bürger*, from 1785-1788 in 5 vols. In the 3rd vol. he began a copious history of his experiments on physiocratic principles undertaken in Baden: *Vollständige und beurkundete Nachricht von der im Jahre 1770 geschehenen Einführung des Physiokratischen Staatswirthschaftssystems in dem Baden-Durlach'schen Orte Dietlingen, und von den Wirkungen dieser politisch-ökonomischen Reformationen.* The treatise was not finished, as the periodical was definitely given up in 1785. In Beseritz, Schlettwein abolished serfdom, on which account he was at strife with his neighbourhood; he separated from his wife and emigrated to Greifswald, where he is said to have lectured at the university as *Privat-docent*. His daughter was the mother of RODBERTUS.

Schlettwein may be described as the most zealous, but also as the most one-sided physiocrat. He resembles in some ways the Marquis MIRABEAU, whose rhetorical pathos he shared as well as his wilfulness in matters of doctrine. If QUESNAY had described an "ordre positif" besides the "ordre naturel," of which the latter should have an absolute, and the other, because referring to practice, a relative character, this distinction entirely disappeared with Schlettwein.

Like Mirabeau he held most rigidly the dogma that the "evidences" of natural order must instantly and without restriction be brought into practice. When his early friend, Schlosser, to whose district the villages Theningen and Bahlinger belonged, where the introduction of the physiocratic régime was introduced, wrote, that with the introduction of the new freedom, the abolition of the gilds might be gradually proceeded with, Schlettwein answered: "No. If there is anything injurious to human society, slothful hesitation to remove it is not becoming in a wise and good man: only children would act thus." A violent doctrinaire, he was an extreme champion in the literary dispute which arose in Germany towards the end of the 18th century over the merits and demerits of the physiocratic system (see GERMAN SCHOOL OF POLITICAL ECONOMY).

[R. Zuckerkandl, article in the *Deutschen Biographie*, vol. 31.— A. Emminghaus, "Karl Friedrich von Badens physiokratische Verbindungen, Bestrebungen und Versuche, ein Beitrag zur Geschichte des Physiokratismus," *Jahrbücher für Nationalökonomie*, xix., 1872; "Ein deutscher Physiokrat," in the periodical *Im neuen Reich*, 1873.—K. Knies, *Carl Friedrich von Badens brieflicher Verkehr mit Mirabeau und Du Pont*, 1893.—A. Oncken, "Zur Geschichte der Physiokratie," in Schmoller's *Jahrb. für Gesetzgebung*, 1894.—Schmidt, article in the *Handbuch der Staatswissenschaften*, vol. v.] A. O.

SCHLÖZER, AUGUST LUDWIG VON (1735-1809), was born at Jagstadt, studied history, medicine, and oriental literature at Wittenberg, Göttingen, and Upsala, became in 1761 private secretary of the Russian historiographer Müller at St. Petersburg, and in 1764 professor of history in the Petersburg academy. In 1769 he quitted the Russian service, and accepted an invitation to fill the chair of philosophy at Göttingen. On ACHENWALL's death, in 1772, he succeeded him as professor of politics, European history, and statistics, became a Hanoverian Hofrath in 1782, and was ennobled by the emperor Alexander in 1804.

Schlözer is classed among the "liberal eclectics" of his century. His principal strength lay in the combination of history with political philosophy. He preached the doctrine, now universally accepted, that history has to deal with something more than military or diplomatic transactions "after the manner of the Anno-Domini men," and should present a view of the whole life of a people, and, in particular, of its economic conditions at different epochs, and of the economic consequences of political acts. This idea he expressed epigrammatically by saying that he thought a history of tobacco as interesting as that of Tamerlane or of the ancient Assyrians, if the importance of events were measured by their influence on world-changes, and that the introduction of tea, coffee, and sugar had wrought as considerable effects in Europe as the invincible Armada or the war of the Spanish succession. But he wanted the highest historic capacity—the power of entering into the spirit of different times and stages of culture. As an economist, he is mercantilist in his general views, following in the track of Sonnenfels; like him he exhibits partial leanings towards free trade, and does not entertain the exaggerated estimate of the importance of a large population which was one of the reigning prejudices of his period. In statistics he was the most remarkable of Achenwall's disciples, and the principal representative of the Göttingen school in that department. He regarded statistics as a part of politics, to which it was related as the knowledge of the human

body to therapeutics. He defined history as statistics in motion, statistics as history at rest. There is yet another character, in which he is specially memorable as the "founder of publicity" in Germany. As editor of the periodical publications entitled *Staatsanzeigen* and *Briefwechsel*, he exercised a great, and sometimes a formidable, influence—exposing abuses in public life, and contending against tyranny and repression of opinion, especially in the petty principalities, where mediæval institutions, restrictions on the press, and arbitrary interferences with personal liberty still prevailed. He is said by his criticisms to have led even powerful sovereigns like Maria Theresa and Joseph II. to carry out some of the reforms with which their names are associated.

[Frensdorff in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher in *Gesch. der N. O.*, p. 582]. J. K. I.

SCHMALZ, Theodor Anton Heinrich (1760-1831), born at Hanover, studied theology and philology at Göttingen from 1777 to 1780, and, returning to that university in 1783, devoted himself to jurisprudence. He became professor of law at Rinteln in 1788; and was called to fill the corresponding chair at Königsberg in 1789. He was appointed assessor in the East Prussian war-and-domains chamber in 1793, and in 1801 was made chancellor and director of the university. He was transferred to Halle in the same capacities in 1803; and when that city became incorporated in the kingdom of Westphalia, he resigned his functions, and went to Frederick William III. at Memel, to represent to him the propriety of removing the university of Halle to Berlin. The king preferred the plan of a new foundation for his capital, but meantime employed Schmalz as a lecturer in Berlin, and conferred on him high judicial office; when the university of Berlin was established in 1810, he made him its first rector, as well as ordinarius of the faculty of law. Schmalz died at Berlin. He was brother-in-law of Scharnhorst, the military re-organiser of Prussia. In political opinions he was an absolutist; he opposed the creation of representative institutions, and rejected the principle of the separation of the legislative, executive, and judicial powers. In 1815, by a pamphlet on political societies, directed against the Tugendbund and later bodies of a similar kind, he sounded the note of reaction against the men who had taken the lead in the war of liberation, and, in particular, against H. F. K. vom Stein. This tract produced a great sensation, and was answered by Niebuhr, Schleiermacher, and others. The king of Prussia after a time forbade the continuation of the controversy.

In economics, Schmalz has been called "the last of the physiocrats." Though he criticised Adam Smith severely, he was opposed to protective duties. He compared Colbertism to the Ptolemaic, physiocracy to the Copernican system of the world, Smith being the Tycho Brahe holding an intermediate position between the two. The doctrines of Quesnay, he was convinced, would ere long everywhere triumph. He is a graceful and versatile, rather than a profound, writer. Most of his publications related to law, in which he builds on the doctrine of the Jus Naturæ. Of his economic, or partly economic, writings may be mentioned a commentary on the Prussian emancipating edict of 9th October 1807; *Handbuch der Staatswissenschaft*, 1808; and *Staatswirthschaftslehre in Briefen an einen teutschen Erbprinzen*, 1818 (translated into French by Jouffroy).

[Landsberg in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 498]. J. K. I.

SCHMEITZEL, Martin (1679-1747), was originally professor of history, geography, and philosophy in the university of Jena, and after 1731 of history and political law in Halle. He used the word *statistics* much earlier than his pupil Achenwall (*q.v.*), who is sometimes credited with having coined it. Thus, in 1725, he advertised in Jena his *Collegium Statisticum*, where he intended to lecture on the state of the nations of Europe. In fact, the adjective *statisticus* seems to have appeared for the first time in 1672 in the title of Helenus Politanus's *Microcosmium Statisticum*. By a happy stroke Schmeitzel introduced it in the official vocabulary of universities, and thus launched it into scientific circulation, but he did not employ it in the title of his *Einleitung zur Staatswissenschaft*, Halle, 1732. Achenwall, however, followed to a great extent, in his teaching, the lines adopted by his master.

[Article Schmeitzel in Conrad's *Hdwbuch der Staatswissenschaften*, vol. v. p. 582.—Roscher, *Gesch. der Nat. Oekonomik in Deutschland*, p. 466, note 1, and *Allgemeine Deutsche Biographie*]. E. Ca.

SCHMIDT, Caspar. This writer was best known as Stirner, Max (*q.v.*).

SCHÖN, Heinrich Theodor von (1773-1856). His father, who was a pupil and friend of Kant, sent him to study jurisprudence and politics at the university of Königsberg, where he came much under the influence of the philosopher. In economics Kraus was his teacher; "he mastered me entirely," says Schön himself; "I followed him without reserve." And, as Kraus was a thorough-going disciple of Adam Smith, he imbued his pupil with the doctrines of the *Wealth of Nations*, and, in particular, with free-trade ideas, which profoundly affected his public action in his maturer years. In 1793 he became Referendarius under Von Schrötter, ober-president of East Prussia. In 1796-98, by desire of his official chief, he travelled in Germany and England, keenly observing, as his diary shows, the social condition and character of the populations. He was an ardent admirer of the institutions and people of England; he said in after-life, "through England I first became

a statesman." In 1800 he was attached to the general directory at Berlin, and became prominent after the Prussian catastrophe of 1806. He had a considerable share in the Stein-Hardenberg legislation, though, as Professor Seeley and others have shown, not so large a share as in later years he claimed. He was a member of the Immediate commission appointed under Hardenberg's ministry, which prepared the reforms of 1807, and he drew up the report of 17th August of that year, in which is embodied the substance of the emancipating edict. But to the contents of this report Stägemann, Altenstein, and probably Hardenberg himself, contributed quite as much as Schön. When the edict was being framed, he desired to push the principles of free-trade to an extreme, proposing that the lord should be at liberty to dispose of his land at will, unrestrained by the hitherto existing prohibition of the diminution of the number of peasant holdings. But Stein wisely introduced provisions to protect the small tenants, which prevented the absorption of their farms, and softened the transition to the new system. When Stein finally retired, Schön was put forward by the patriotic party as candidate for the office of finance minister; but the king by Hardenberg's advice preferred Altenstein, and Schön was placed at the head of the department of trade and manufactures. Stein's political testament was written by Schön, though of course the substance of it is not his. When Hardenberg came into office as chancellor, he had in contemplation bold financial projects, which, however, were disapproved by Schön and Niebuhr and also in some degree by Stein, whom Hardenberg acknowledged to be his master in finance; hence these projects were only partially carried out. In their modified form they included, besides other things, forced loans on the domains and on Protestant and Roman Catholic ecclesiastical property, with the announcement of a future sale of the domains and disendowment of both churches and of the Order of St. John. Schön was made president of Lithuania in 1809. He was sincerely patriotic in sentiment during the war of liberation, though in some cases he impeded the national movement through exaggerated caution and a pedantic legality. He was appointed president of East Prussia in 1816, and in 1824 was placed at the head of the united provinces of East and West Prussia. In these governments he showed great ability, exercising an enlightened despotism, and holding himself very independent of the ministry at Berlin; he improved the means of communication, extended public instruction, and promoted the progress of agriculture. Strange to say, he opposed the foundation of the Zollverein. His great weakness was vanity, and in his later years, thinking his services not to have been duly recognised, he looked with suspicion as well as envy on his eminent contemporaries, and in particular sought to belittle Stein, for whom, when actively engaged at his side, he had expressed the warmest admiration. He retired from office in 1842.

Though Schön was too abstract and absolute in his economics, his official reports and other state papers prepared or matured many important measures. The collection entitled *Aus den Papieren Schöns* (4 vols. 1875-76) contains much autobiographical matter, which, with due deduction for his exaggerated estimate of his own work, is very instructive, especially for the critical period of the Prussian revival.

[Pertz's and Prof. Seeley's Lives of Stein.—Ranke's *Memoirs of Hardenberg*.—Maurenbrecher in *Allg. Deutsche Biogr.*—Roscher, *Gesch. der N. O.*, p. 712]. J. K. I.

SCHRÖDER, WILHELM FREIHERR VON (d. 1689) was, after J. J. BECHER and P. W. von HORNECK, the third of the eminent cameralists (see CAMERALISTIC SCIENCE) who flourished during the reign of the emperor Leopold I. (see GERMAN SCHOOL OF POLITICAL ECONOMY). Like his two colleagues, he was by descent neither Austrian nor Roman Catholic. The year of his birth is unknown. As son of the chancellor of the Duke Ernest of Gotha, he appears to have been for a time in the service of the duke. He was also a zealous alchemist. In the last capacity he passed (1663), soon after his father's death, into the employ of Charles II. of England, in whose laboratory in London he, according to his tract, *Unterricht vom Goldmachen*, was occupied many years. In 1670 he presented to the king, as a new discovery, a drinking vessel of red glass which he had prepared. He was also for some time in Holland. In 1674 he entered the Austrian service, with which his becoming a Roman Catholic was connected. More on this point is unknown. At first Schröder had been appointed to the chamber at Oedenburg; he then became Becher's successor as director of the *Kunst und Manufakturhaus* which had been established at the Tabor, near Vienna. But Schröder was destined to have as little good fortune in this as his predecessor. In 1633 the house which was to have been a training school of arts and manufactures was burnt at the siege of Vienna by the Turks. The attempt to recall this institution again to life in 1635 failed.

In 1636 Schröder was offered an administrative place in Hungary. He completed in the same year his celebrated work dedicated to the emperor, *Fürstliche Schatz- und Rentkammer*. Later on some of his earlier treatises were added as supplements, the *Disquisitio Politica vom absoluten Fürstenrecht*, the treatise *Nothwendiger Unterricht vom Goldmachen*, and the *Dissertatio*

de Ministrissimo vom Ober-Staatsbedienten. The publication of his *Oesterreichs entdeckte Wunden*, which he was preparing, was prevented by his sudden death in 1689.

In his cameralistic views Schröder was in accordance with BECHER and HORNECK. He also made use of the works of foreign authors, as of MUN'S *England's Treasure by Foreign Trade*, and of P. de la COURT'S *Het Interest van Holland*.

ROSCHER has rightly blamed him for not mentioning his indebtedness to Mun's work. But Roscher goes too far in placing Schröder among the rigid mercantilists in the sense of confusing money and wealth. Schröder held that it is "not the import and export of money, but the equilibrium of the different trades which causes the wealth or poverty of a country." He even approaches the opinion that coin can be dispensed with, and replaced by a bank-note issued from a *landesfürstliche Wechselbank*, under the immediate authority of the prince. As the chief authority over the exchange operations of the country, the prince could dispose of the whole of the capital of his subjects, for whose business he provided the circulating medium. He would thus become the "belly" from which all the members of the body, that is, of the state and nation, derived their nourishment. Of the three productive classes of the people, the peasants, the mechanics, and the merchants, the merchants were regarded as the "hands and feet of the state," because external movement results from them. On the other hand, he suggests that they should not be chosen as advisers for the economic welfare of a country, as they are more "cives orbis quam urbis," whence it must be regarded as an "axiom that a merchant thinks of his own advantage and not of the prosperity of the state." To discover what is of service to a country, Schröder recommends the preparation of a general inventory of home manufactures after the pattern of one that had been prepared under the direction of his former master, Duke Ernest of Gotha. By drawing up tables of the imports and exports of a country, it was certainly possible from such an inventory for a statesman to form an accurate idea of the condition of home products and what was needed for their improvement. He characterised this, which he called the "spectacles of the state," as the "strongest pillar of a state," as the "great arcanum status" by which "the whole system of government, both theory and practice, may be mechanically managed." Schröder was amongst the earliest of the German cameralists who distinctly supported the balance-of-trade theory which he had derived from Mun. "Free trade" (see FREE TRADE, EARLY HISTORY OF) was regarded by him as "the principal and the best means whereby a country may become rich." But assistance must be given by a suitable system of duties, as through duties "the whole clockwork of commerce and manufacture can be set to go fast or slow." The principal rule of the policy of the government must be that "nobody be allowed to wear anything not produced in the country." Schröder emphatically declared himself in favour of the absolute sovereignty of princes. Every restriction of the rights of the sovereign was opposed to God's law, and was not binding for princes.

[Roscher, *Geschichte der Nationalökonomik in Deutschland*, 1874.—"Oesterreichische Nationalökonomik unter Leopold I.," in Hildebrand's *Jahrb. f. Nat. Oek. und Statistik.*—G. Marchet, *Studien über die Entwickelung der Verwaltungslehre von der zweiten Hälfte des 17. bis zum Ende der 18. Jahrhunderts*, 1885.—A. T. Hatschek, *Das Manufakturhaus auf dem Tabor in Wien*, 1886.—*Allgemeine deutsche Biographie*, art. "Schröder."]

A. O.

SCHULZE-DELITZSCH, FRANZ HERMANN (1808-1883), was born at Delitzsch in Prussian Saxony. His family name was Schulze simply, but he took the suffix Delitzsch, or others gave it to him, when he became a member of the national assembly, to distinguish him from other Schulzes, and the addition continued to be used after his connection with the locality had ceased. He studied jurisprudence at Leipzig and Halle, 1826-29, and afterwards filled several judicial posts. In 1848 he was elected to the national assembly as representative of his native place, and in 1849 was a member of the second chamber. He was one of those who in that year were put on their trial for refusing to pay taxes, and conducted his own defence and that of the other accused persons with brilliant ability and success. At a later period he was a member of the Prussian landtag and the imperial diet. In 1851 he resigned his official position under the government in consequence of a conflict with the minister of justice. He was the originator of the co-operative movement in Germany, and in the creation, guidance, and extension of these associations he laboured with voice and pen to the end of his life with unwearied assiduity. His self-sacrifice in this cause impoverished him, and his friends and admirers in 1863 presented to him a gift of £7500, of which, however, he accepted only a small part for himself, devoting the rest to an institution for the furtherance of his social plans.

It is as a sagacious and energetic practical worker that Schulze-Delitzsch is memorable. As a theoretic economist he has no claim to distinction. He borrowed his fundamental principles in the main from BASTIAT. He was an advocate of free-trade and unlimited competition, and maintained the policy of self-help as against state-help. He was thoroughly acquainted with the condition and wants of the small producers and traders, and it is possible that his schemes were better adapted to their needs than to those of the proletariate. LASSALLE assailed him with gross abuse, on the ground that his programme of self-help was of no value for those who could not help themselves, and only tended to lead the working classes into wrong paths. Lassalle's culture and dialectic skill gave him the advantage in the controversy, but the violence of his attack was unjustifiable. Whatever we may think of

co-operation as a solution of the labour problem, we cannot deny to Schulze-Delitzsch the praise of having wrought out a useful partial reform, and of having exhibited remarkable courage, perseverance, moderation, and good sense in the disinterested pursuit of a social end. In 1881 he was able to announce the existence in Germany of 3481 co-operative associations of consumption (*Consumvereine*) or credit (*Vorschussvereine*). The latter, under the name of People's Banks, form a special feature of Delitzsch's scheme. Something of the same kind was originated for the rural population by RAIFFEISEN, but both reformers seem to have devised their respective foundations independently of each other.

There is a German biography of Schulze-Delitzsch by A. Bernstein, 1879, and an *Esquisse biographique* by B. Rampal, 1874.

Of his very numerous publications, which had usually an immediate object, and therefore only a temporary interest, the following may be mentioned: *Kapitel zu einem deutschen Arbeiter-Katechismus*, 1863; *Soziale Rechte und Pflichten*, 1867, and *Die Entwickelung des Genossenschaftswesen in Deutschland*, 1870.

[Eheberg in *Allg. Deutsche Biogr.*— Schmidt in *Handw. der Staatswissenschaften.*— Roscher, *Gesch. der N. O.*, p. 1016]. J. K. I.

SCIALOJA, ANTONIO (1817-1877), was born at San Giovanni a Teduccio (Naples). As a youth he studied at Naples the writings of the older Italian economists as well as the more modern Italian and foreign economists. At twenty-two, in the year 1840, he published his *Principii di economia sociale*. This work had a great success in Italy and elsewhere, went through many editions, and was translated into French (1843). In 1846, Scialoja was summoned to Turin to occupy the chair of political economy, then established there. After two years he resigned this post and became minister of Ferdinand II., king of Naples, when the latter for a short time pretended to pose as a reformer and a liberal. After this, Scialoja was imprisoned by the reactionary Neapolitan government and condemned to a long term of imprisonment; this sentence was commuted into exile in 1852. After three years' imprisonment, Scialoja took refuge in Piedmont, where he enjoyed the friendship of CAVOUR; then, again, he became minister of finance in Naples, when Garibaldi was dictator there; minister of finance of the kingdom of Italy in 1865, and at a very critical time he was obliged to establish the *Corso forzoso*; later on he became minister of public instruction. Scialoja's book, *I principii d' economia sociale*, is, considering the date when it was written, a very noteworthy work. The author discusses broadly the principal arguments of economics and finance, following in the footsteps of English economists and in their temperate but eclectic views. In this, as in his other works, Scialoja stoutly upheld the principles of liberty, at a date when Naples was the stronghold of absolutism and protection. In the *Principii*, he asserts the importance of mathematics in economic researches, and recognises the expediency of using them, especially in the theory of value.

His work, *Carestia e Governo*, written in the style of BASTIAT, sparkles with controversial vivacity. Another of his works on the finances of the kingdom of Naples made a great stir in his time, through the comparison instituted between Sardinian and Bourbon administration.

As a minister of Italy he made a special study of the land tax, advocating, in opposition to others, the theory of "consolidation."

He desired to establish a fixed minimum land tax, which he thought would become consolidated and for which an authorised rate of redemption would be allowed, also an individual tax on agricultural industries as part of the tax imposed upon all returns.

Principii di economia sociale esposti in ordine ideologico, Naples, 1840.— *Trattato elementare di economia sociale*, Turin, 1848.—*Carestia e Governo*, Turin, 1854.— *Note e confronti dei bilanci del regno di Napoli e degli stati Sardi*, Turin, 1857.

[See De Cesare, Carlo, *La vita, i tempi e le opere di Antonio Scialoja*, Rome, Forzani, 1879.—Cossa, *An Introduction to the Study of Political Economy*, London, 1893.] U. R.

SCIENCE, ECONOMIC, AS DISTINGUISHED FROM ART (see *supra* ECONOMIC SCIENCE AND ECONOMICS). The distinction between political economy as a science and as an art has been discussed at length by J. S. MILL, SENIOR, F. A. WALKER, Cossa, and Sidgwick. The last-named writer points out the causes of the "widespread confusion—or at least fusion —" of these two standpoints, that must strike the student of economic literature. They must be sought in the conditions of social existence, and in the evolution of thought and language. In the social state, however men may discuss and theorise concerning the nature of social phenomena, the problems arising in relation to the most effective methods for satisfying wants and securing government are ever pressing for solution. Practical considerations, therefore, have been the historical *prius* in economic literature. The science of political economy has only in this century ceased to be ancillary to them. Again, specialisation in "moral" philosophy or science, whether as to subject-matter or method, is of recent growth. The term "political economy" is itself an instance of relatively undifferentiated thought. And it is but yesterday that the word "science" stood for any body of truths or reasoned thought, with or without a view to practice, which, in Mill's words, had "acquired a collective denomination." Economists may now insist with him that their subject, *quâ* science, has nothing to do with the "do this; avoid that"

of art, yet M'Culloch, no less than Smith, speaks of a practical "object" for the "science," while De Laveleye so fused the two standpoints as to define political economy as "the science which determines what laws men ought to adopt," etc. Besides these more general causes of confusion, a special circumstance in the history of economic thought has been pointed out by Professor Sidgwick. The principle of *laissez faire* for trade advocated by the Physiocrats as the logical corollary of their optimistic philosophy—involving their whole social standpoint—tended to identify the "ought to be" of subsequent economic doctrine with the "natural" or existing organisation of society. Steuart's "great art" of political economy melted gradually, at least in this country, into a view of economic phenomena best described by the title of Smith's immortal treatise. And finally, the repudiation by economists of any essential standpoint beyond that of scientific analysis and prediction, has been to some extent one of self-defence against the attacks directed by ethical writers at the apparently anti-social "teachings" of their "dismal science." Their ambiguous definitions and methods, as well as the want of scientific training in their assailants, led the latter to see precepts where, more or less, only statements of cause and effect had been formulated.

With the growth of lay intelligent interest in economic inquiries, and the improved clearness in methodological procedure in experts, it is neither to be feared nor desired that political economy should limit itself overmuch in range or treatment, or reserve the term "art of political economy" for questions of revenue, or what the *laissez faire* spirit has termed the "interference" of a central government. There is no question relating to the satisfying of wants under a social mechanism that may not be legitimately discussed from the economic point of view, whether it be by way of analytical or historical inquiry into economic phenomena, or of more or less abstract theory pure or applied, or of social ideals in their economic bearing. The advantage of the German term *Lehre* in the term *Volkswirtschaftslehre* lies in this combination of lore and doctrine, of science and art. Thus while the Schönberg *Handbuch* and the Jena *Handwörterbuch* assert that the *Lehre* of national economics as taught in Germany is a science of investigation into social functioning, it is also insisted that out of these inquiries into the development of national life, and on its behalf, ideals are by "political economy" both to be extracted and propagated.

[Mill, *Definition and Method of Political Economy.*—Senior, *Pol. Econ.*, pp. 1-5.—Walker, *Pol. Econ.*, §§ 27-31.—Cossa, *Introduzione allo Studio, etc.*, 3rd ed. ch. iv. § 1.—Sidgwick, *Principles of Pol. Econ.*, ch. ii.—M'Culloch, edition of Ad. Smith's *Wealth of Nations*, pp. xv. 187; *Principles of Pol. Econ.*, p. 8.—De Laveleye, *Pol. Econ.*, I. i. § 1.—Cairnes, *Character, etc. of Pol. Econ.*]

C. A. F.

SCIENCES, Moral and Political. It is usual to group the sciences under two principal heads, the moral and the physical. The external or sensible world, including the human frame, is the subject of the physical or natural sciences. The internal or invisible world of thought and will is the subject of the moral sciences. The moral sciences are supposed to imply, the natural sciences to exclude, the idea of freedom or self-determination. The natural sciences deal with blind force, the moral sciences with reason more or less conscious. Both the natural and the moral sciences assume a rational order in the phenomena under investigation. But, so to speak, in the one case the rational order is imposed from without, while in the other it is evolved from within. The law of gravitation is equally fulfilled in the case of an apple falling from a tree and a man jumping from a wall. But the apple has no choice as to falling, and passes no judgment on the results of its fall. The man chooses whether to jump or no, and is satisfied or dissatisfied with the result as may happen. As a mass of matter descending he is an object of physical science. As a thinking and willing agent he is an object of moral science. The physical sciences range from mathematics, the science of pure number and extension, to sciences dealing with the most subtle and complex forces, such as physiology. The moral sciences are also many, and their boundaries are even more difficult to trace with precision. The science of psychology is concerned with what we may term the natural history of the mind or soul, the description and classification of its various faculties. The science of logic is concerned with the action of the speculative faculties, with the process of knowledge. It seeks to solve the problem how man comes to know. The science of ethics is concerned with the action of the practical faculties, with the process of conduct. It seeks to explain the meaning of moral good and evil, of duty, conscience, and virtue. The moral sciences thus far enumerated concern themselves primarily with man as an individual. But man is also a member of society. We cannot fully understand man as an individual unless we understand society, for society is the outcome of the needs and capacities of the individual, whilst these needs and capacities are in turn transformed by the action of society. The science of society is a great and indispensable part of moral science. For the science of society we have not, unfortunately, any appropriate name. To the Greeks it was known as politics. But our conception of the

study of society has been so much enlarged as to include much that lies outside the Greek conception of politics, whilst the term politics has been so much narrowed and degraded as to have lost nearly all its scientific associations. The term sociology, invented by A. COMTE, is a barbarous hybrid, but it is the only term which has found wide acceptance of late years.

The science of society is in fact a group of sciences. Thus it includes politics proper, the science of that highly complex form of society which we call the state or the commonwealth. What are the conditions of the rise, duration, and decay of the state? What is its essence? What are its possible forms? What are the possible relations between the governing and the subject elements in the state. These are some of the principal inquiries included in the science of politics. But before the rise of anything that can be called the state there existed more elementary forms of society based solely on kinship or religious ideas. These elementary forms of society come within the scope of anthropology. Even after the rise of the state there are numberless forms of association other than the strictly political one. Human beings combine for domestic life, for worship, for intellectual advancement, for pleasure, for the accumulation of wealth, and for many other objects which cannot be fully attained but by combination. Each of these modes of association has peculiarities of its own, and may be studied to some extent in isolation from the rest. As regards political economy, we must remember that, although the desire for material well-being is an individual appetite, the production, the distribution, and consumption of wealth on any but the smallest scale are possible only in and through society. Hence political economy is a branch of the science of society. The epithet political, indeed, implies something more. The economists of the mercantile school (see MERCANTILE SYSTEM) studied wealth primarily as an element in the power of the state. Even their great adversary, Adam SMITH, entitled his treatise the *Wealth of Nations*. But his successors, obeying the impulse which he had given to the study of free individual activity, tended to regard wealth as the means of individual happiness. This tendency is best exemplified, perhaps, in the writings of J. S. MILL. But whichever view be preferred, it is man in society that is the subject of economic study. PLATO and ARISTOTLE were therefore right in regarding economics as a branch of politics in the very wide sense which they gave to that term. Men associate, Aristotle said, at first in order to secure life, and afterwards in order to secure a good life. In either case wealth is the indispensable means to the end for which society exists, and the science of society includes the science of wealth. F. C. M.

SCIRE FACIAS. As a general rule a judgment against a corporation cannot be executed against the members of the corporation. There are, however, certain companies (including companies incorporated under the Companies' Clauses Consolidation Act, but *not* including companies governed by the Companies Acts), with respect to which judgments obtained against the company may, subject to certain conditions, be enforced against the shareholders. According to the former practice a proceeding in the nature of a new action and known by the name of "Scire Facias" had to be instituted by a creditor who wished to avail himself of this right; this procedure has not been abolished, but as the same object may now be obtained by proceedings under the rules of the Supreme Court, order 42, rule 23, which are much simpler, "Scire Facias" proceedings are no longer resorted to.

[See Lindley, *The Law of Companies*, 3rd ed., 1889, pp. 276-292.] E. S.

SCOLA, GIOVANNI (18th century), was the author of a treatise on taxation; of this Scola distinguishes three,—personal taxes, those imposed on articles of consumption, and those imposed on property and interest-bearing funds. He analyses the first two, showing the difficulty of imposing equitably, and dwells especially on the third, maintaining it to be the greatest and most certain source of public revenue. He studied the CATASTO, especially criticising the method on which it was organised, and proposes a new system for general taxation, not only on land and buildings but also on manufactures and trades. His ideas on the basis of taxation are, however, somewhat vague and undefined.

Saggio sopra le pubbliche imposte, Venice, 1787.

[See Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881]. U. R.

SCOT AND LOT. To "scot and lot," or "to be in scot and lot," is a common phrase in mediæval town records, and means to be subject to rates and taxes. Some writers say that "scot" refers to taxation, while "lot" refers to the active duties of a burgess, above all, to the holding of office. This view is untenable as regards the middle ages; the distinction made by some writers between "paying scot" and "bearing lot" is a modern and erroneous interpretation of the mediæval phrase. There is abundant evidence in municipal records to show that "to be in scot and lot" meant merely to participate in assessments or pecuniary charges (tallages, aids, etc.). "Scot" and "scot and lot," are often employed as synonyms, and both are used interchangeably with other words denoting money contributions or pecuniary burdens.

[Fry, *On the Phrase Scot and Lot*, in the transactions of the Philological Society, 1867, pp. 167-197.—Gross, *Gild Merchant*, i. ch. iv.] C. GR.

SCOTT, WILLIAM, a London "draper," *i.e.*

cloth merchant (see Ashley, *Economic History*, ed. 1893, p. 212), wrote *An Essay of Drapery or the Compleate Citizen* (1635), which, may be compared with Defoe's *Complete English Tradesman*. For theological point of view see the *Ayenbite of Inwyt* (a translation from the French work: *Le Somme des Vices et des Vertus*). Scott's attempted reconciliation of his two axioms that "the end of trade should be the good of both parties," and that buying cheap and selling dear is "a common vice," leads to curious casuistry, of which we give two samples. "Men are not apt to take so exact notice of spiritual blessings . . . unless temporal blessings be added to them; therefore, labour for them" (p. 115). "In some cases my citizen may mingle profit with honesty, and enter into a composition with both; he must never turn his back to honesty, yet sometimes go about and coast it, using an extraordinary skill" (p. 137). J. D. R.

SCRIP. This is the name given to the provisional certificates which on a new issue of government bonds or debentures or shares are handed to the subscribers and are subsequently exchanged against definite certificates. They may be issued to bearer, in which case they are treated as negotiable securities.

[Palmer, *Company Precedents*, 6th ed. p. 700.]
E. S.

SCROFANI, Saverio (1756-1837) a Sicilian priest, originally professor of agriculture at Venice, lived, after the destruction of the Venetian republic, several years in Paris, where he was chosen a member of the Institute of France. In 1814 he was appointed director of the statistical department at Naples, but on account of his liberal tendencies was obliged to resign in 1822.

Strongly imbued with the ideas of the French Physiocrats (*q.v.*), Scrofani regarded landowners and agriculturists as "the only possessors of future wealth," and "those who essentially compose the nation." On this basis he maintained the necessity of freedom of trade in corn in particular and of free-trade in general. His views are stated in his *Memoria sulla libertà del commercio dei grani della Sicilia* (included in Custodi's *Scrittori classici italiani dell' ec. pol.* Parte moderna); in his *Elogio del Granduca Pietro Leopoldo di Toscana* (reprinted in Gianni's *Raccolta degli economisti Toscani*, vol. i., Florence, 1848); and in his *Memorie di economia politica* (Pisa, 1826); in the latter he also treated on ancient and modern systems of taxation, and discussed Italian manufactures. Towards the end of the last century a memorial in favour of free trade in corn, founded on facts collected in Tuscany, was presented by him to the king of Naples under the title of *Riflessioni sopra le sussistenze, risvegliate da fatti osservati in Toscana*, and printed as an appendix to Biffi Tolomei's *Confronto della ricchezza dei paesi che godono libertà nel commercio frumentario* (1795). An adaptation of his early works was published in French under the title of *Essai sur le commerce en général des nations de l'Europe avec un aperçu sur le commerce de la Sicile en particulier* (Paris, 1802).

[U. Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, pp. 268-269 (Milan, 1884).]
E. Ca.

SCROPE, G. Poulett (1797-1876) economist and geologist, was originally called Thomson, but took the name of his wife on marrying the heiress of the Scrope family. After travelling extensively, he published in 1824 his *Considerations on Volcanoes*, in which he combated the Wernerian theory of the aqueous origin of all rocks. In 1827 appeared his *Geology and Extinct Volcanoes of Central France*, and at a later date he issued a monograph against Von Buch's theory of elevation craters.

But it was as a political economist that Scrope was most widely known. From 1833 to 1868 he sat in the House of Commons for Stroud, and both in parliament and through the press he inculcated his economic theories. He was known as "Pamphlet Scrope" from the number of his tracts on banking and currency questions, the poor laws, the condition of the agricultural labourers, and various questions of political economy. He was one of the first persons in England to advocate the use of Index Numbers (*q.v.*).

In 1833 Scrope published an able pamphlet entitled *An Examination of the Bank Charter Question, with an Inquiry into the Nature of a just Standard of Value*. The arguments in this treatise were embodied in his *Principles of Political Economy*, 1833. A second edition of the work appeared as *Political Economy for Plain People*, London, 1873. In this work, ed. 1833, p. 406, Scrope "proposed to correct the legal standard of value, or at least to afford to individuals the means of ascertaining its errors by the periodical publication of an authentic price-current, containing a list of a large number of articles in general use, arranged in quantities corresponding to their relative consumption, so as to give the rise or fall, from time to time, of the mean of prices; which will indicate, with all the exactness desirable for commercial purposes, the variations in the value of money; and enable individuals, if they shall think fit, to regulate their pecuniary engagements by reference to this *Tabular Standard*."

This he proposed should be published "by competent authority." Scrope further argued, p. 423, in favour of "the substitution of the ancient silver standard in use previous to 1773, for the far more vacillating and inconvenient gold standard first established as the *sole* legal standard of value in 1816," considering that "the rejection of silver as our standard of value in conjunction with gold has raised the value of the standard" by about eight per cent.

Many of Scrope's writings had for their object the refutation of "that most pernicious dogma which has long been palmed off on the public as the fundamental axiom of political economy, viz.

'the tendency of population to exceed the procurable means of existence.'" He sought to demonstrate that man's deficiency of subsistence was his own wilful fault, and that in his aggregate capacity he had always had everywhere within reach the sources of an abundant supply for the satisfaction of all his reasonable wants. Scrope's free trade principles were exemplified in such tracts as *Don't Tax, but Untax* (1850); *The Rights of Industry* (1848).

[*Transactions of the Royal Society*, 1876; Jevons's *Investigations in Currency and Finance*, 1884; Scrope's *Principles of Political Economy*, 1833; and his various pamphlets.] G. B. S.

SCUDINO, a gold coin of Modena current in the last century and equal to 9 lire.

[Kelly's *Cambist*, *s.v.*] C. A. H.

SCUDO (from *scutum*, a shield) was the name of various coins, all doubtless springing from the same original, in different parts of Italy. It was in common use during the last century in various principalities, not only as a coin, but also as a money of account. It is found combined with various distinctive expressions, usually indicating use as money of account, *e.g.* scudo d'oro, scudo di cambio, scudo corrente, the complete differentiation of which would require a considerable treatise.

The coin varied in value in different capitals, *e.g.* scudo of Bologna = 4s. 5·6d.; scudo of Sardinia = 3s. 9d. (approximately); scudo of Sicily = 4s. 0d. (do.), and the number of lire which were reckoned to it, varied from 5 to 9 in different principalities.

The scudo was also the original standard of the old Maltese coinage.

The word "escudo," found in Spanish currency, is of exactly the same origin.

[Kelly's *Cambist*, index *s.v.*, *passim.*—Chalmers' *Colonial Currency*, p. 307.] C. A. H.

SCUTAGE. See KNIGHT'S SERVICE.

SCYTHE-PENNY. Supposed to be a payment to the lord of the manor for every scythe; *dabunt etiam denarium pro falce quod Anglice dicunt sithpeni* (*Custumale Roff.*, ed. J. Thorpe, p. 4, *a*). Vinogradoff (*Villainage in Engl.*, p. 291) regards this and similar payments as original taxes, and not as quit-rents or commutation rents. But doubt is raised by the words *qui non habet falcem debet falcatoribus jd.* in the *Custumals of Battle Abbey* (Camden Soc.), p. 89, and similar entries in other records. R. H.

SEARCH, RIGHT OF. A right accorded by general consent of international law to belligerent powers to stop and search vessels sailing under neutral flags on the high seas and in territorial waters. It must be exercised only by commissioned vessels; otherwise it becomes an act of piracy.

This right is considered essential to determine the neutrality of a vessel, and it is a corollary of the right to seize an enemy's property, or any contraband of war.

It is also called "right of visit," sometimes "of visitation."

[See all the treatises on *International Law*, *e.g.* Wheaton, pp. 685-86, and note thereon for authorities, Hall, 4th ed. p. 746.] C. A. H.

SECKENDORFF, VEIT LUDWIG VON (1626-1692), born near Erlangen, the scion of a Franconian family ruined by the religious wars, was leader of the Protestant branch of the Cameralists after the thirty years' war divided into two "confessions" (see GERMAN SCHOOL). As a boy he was received at the court of Duke Ernest of Saxe-Gotha, whose assistance enabled him to study at the university of Strasburg. In 1646 he entered the service of the duke, and gradually rose (1663) to be chancellor. In 1664 he was invited to pass into the service of Duke Maurice of Saxe-Zeitz, where he remained until the duke's death in 1681, when he retired into private life and moved to his estate at Meuselwitz.

He had published in 1656 his famous work *Der teutsche Fürstenstaat*. He now made use of his leisure to finish his supplementary work, *Der Christenstaat* which appeared in 1685. A year later, 1686, he published his *Teutschen Reden*. Seckendorff had been counsellor to princes of all the reigning houses into which Saxony was then divided. In 1692 he was invited by the elector of Brandenburg to undertake the chancellorship of the proposed university at Halle. But he did not live to see the opening of this institution. The title of the "great Seckendorff" given him by his contemporaries, has not been confirmed by later times. Seckendorff had indeed a quick eye for the movements of practical life, but he was no philosopher. His writings are deficient in originality. In the *Fürstenstaat* he confines himself to a brief description of a German state of his time, in order, as he says, to give young statesmen some insight into their duties. He announced that he did not write as a reformer, but merely to give descriptions—the question, which kind of government was the best, appeared to him as a private individual, "too delicate." Notwithstanding the *libertas philosophandi*, he would give no opinion on this point. Seckendorff opened a new era for political science in Germany by writing in his native tongue instead of writing in Latin. He is in this respect the father of scientific terminology in Germany. The expression "state" was first used by him in its modern meaning. He apologised for not having been able to find a better expression. Seckendorff as a teacher holds with Luther. This appears especially in his later work *Der Christenstaat*, where he defended the writings of the reformers against the attacks of Roman Catholicism on the one side, and of atheism on the other side.

The "sovereign" is by right the holder of the secular and the spiritual power, but still, this power is to be neither despotic nor absolute; on the contrary the prince is bounded on two sides, on the one by the emperor, on the other by the estates of the realm. The title "By the grace of God" he might only use in his dealings with

his subjects, not with reference to the emperor. In the matter of taxation (*jus collectandi*) he would levy no impost without the consent of the estates. The main object of public policy is the "numbers of the subjects"; this is regarded as the "true wealth of the country." The government has to see "that all its subjects should, through their industry, find a livelihood." For this all raw material should be worked up in the country, so that the inhabitants should lose no opportunity of employment. Foreign goods, except in the case of an absolutely necessary article, are to be kept out by high duties. Seckendorff, however, did not insist on the theory of the balance of trade. In internal trade the greatest possible freedom of production should prevail, which would cause the reduction and ultimate disappearance of the privileges of corporation of artisans. On the other hand, Seckendorff was strongly in favour of the introduction of compulsory education for the people. Not only was the general prosperity raised by this, it also provided a good weapon for the struggle with evil. Seckendorff was, moreover—and it was very characteristic of him, considering the ideas prevalent in his time, —an opponent of alchemy. He calls it a "rash tempting of God." Only honest labour has been promised a heavenly blessing in the scriptures. The centre of gravity in the *Fürstenstaat* is the discussion as to the sources of income to the treasury. Seckendorff preferred the EXCISE (*q.v.*) to direct taxation. By this, the rich might be favoured more than the poor. But that was no injury to the state, as the well-being of the upper classes caused more employment for the masses.

Besides the works named above, Seckendorff published the following treatises in Latin:—*Schola latinitatis ad copiam verborum et notitiam rerum comparandam, usui paedagogico accomodata*, 1662.—*Justitia protectionis in civitate Erfurtensi*, 1663.—*Compendium historiae ecclesiasticae*, 1666. —*Repetita et necessaria defensio justae protectionis*, 1669.—*Jus publicum Romano-Germanicum*, 1687. —*Commentarius historicus et apologeticus de Lutherianismo, seu de Reformatione*, 1688-1792.

[D. G. Schreber, *Historia vitae ac meritorum Viti Ludovici a Seckendorf*, Lipsiae, 1733.—O. Nasemann, "Veit Ludwig von Seckendorff," *Preussische Jahrbücher*. bd. xii., Berlin, 1863.—W. Roscher, "Zwei Sächsische Staatswirthe im 16. und 17. Jahrh." (Ossa and Seckendorff), *Archiv für sächsische Geschichte*, 1863.—*Geschichte der Nationalökonomie in Deutschland.—Allgem. deutsche Biographie*, bd. 33, 1891.—G. Marchet, *Studien über die Entwickelungsgeschichte der Verwaltungslehre in Deutschland*, 1885.] A. O.

SECRÉTAN, CHARLES (1815-1895) was professor of philosophy in the university of Lausanne, and as a philosopher was held in high repute. His great work, *La Philosophie de la Liberté* (1849), seeks to reconcile reason and religious faith, by showing that the fundamental dogmas of Christianity are the best philosophic explanation of the origin and destiny of man.

As he grew older Secrétan turned his attention to social problems, and devoted himself wholly to these; the reference to him in these pages is taken only from this point of view.

Of his writings on this subject *Civilisation et Croyance* (1887) was the earliest. This treated the question from the side of philosophy. It was followed by more works in a more popular style in rapid succession. *Les droits de l'humanité* (1890)—*Études sociales* (1891)—*Mon Utopie* (1892). Secrétan was an advocate of liberty and opposed to COLLECTIVISM, but he did not rank himself as one of the adherents of the MANCHESTER SCHOOL. While he held that, in principle, liberty should be the only solution of the social question; he also held that in practice this is impossible, because the economic order now existing *is not the product of liberty*. He considered the land as a usurped possession, and that this usurpation—justified as it was in some respects by the advantage resulting to the community — still required as just compensation the recognition of the right of the needy for assistance. He regarded property and the system of labourers' working for hire, etc., as institutions which drew their historical origin from the abuse of the right of the strongest. Hence these cannot be considered as the ultimate stage in human progress, and it becomes necessary to modify the social organisation from its base to bring it into conformity with justice. As Secrétan would not permit, even in order to attain these ends, that anything contradictory to justice should be employed, because "good that is obtained by coercion is no longer good," there are no other means but free association, co-operation, and profit-sharing.

This shows that the doctrines which Secrétan held were very close to those of the Christian Socialists (see CHRISTIAN SOCIALISM), who, half a century since, had so large a share in the co-operative movement in England, and of those who at the present time advocate the nationalisation of the land. Secrétan, however, gave this theory a more original and a more solid character by basing it on solidarity and by showing that solidarity is the real basis of Christianity. Even allowing for the apologetic character of this doctrine, it has none the less exercised a considerable influence over the younger school of economists who take solidarity for their motto (see SOLIDARITY). C. G.

SECURITIES. As ordinarily understood, securities are the written or printed documents which secure to a holder his right to any property. They may include certificates of consols, or any other government or municipal stock; exchequer bonds or bills, foreign government bonds or scrip; railway shares or bonds; and debentures or share certificates of any other companies. As against advances the securities held may also include deeds of freehold or leasehold property, mortgages, dock warrants, bills of lading, or any other

document of title, and bills of exchange. In legal language the term "security" must always have reference to a loan. Thus a trustee who is authorised to invest in real *securities* is entitled to take mortgages but must not purchase land. R. W. B.

SEGNI, GIOVAN BATTISTA (17th century). Was a canon at Bologna. In his treatise on famines, Segni upholds in the most absolute form the *annonario* system of dealing with the food supply, which at the beginning of the 17th century constituted a complete system of political economy. This system, which originated in the desire to provide an abundance of corn, in reality only injured the internal production of the country and absolutely hindered trade.

In his book, written in the form of a dialogue, Segni gives a terrible description of the famine that devastated a great part of Italy in 1602; he attributes this famine principally to the manner in which the corn trade was conducted, this he vehemently attacked. In reality, if the corn merchants did not cause the famine, they often took advantage of the scanty means of transport in those days, and monopolised the corn trade. Segni explains the arrangements adopted at that date by governments to prevent famines, and suggests highly restrictive measures. He would altogether stop trade in the means of subsistence; he would have the bakers buy corn direct from the producers at fixed prices, and would entirely prohibit the export and monopoly of articles of food, and even demands that foreigners who consumed the corn which should serve to feed the inhabitants be expelled from the cities, as was done by the grand-duke of Tuscany in 1590.

Segni's works are inspired partly by principles of ecclesiastical and moral law, partly by the conditions of the times; he invokes energetic action on the part of the state in favour of the poorer classes; asserting that, in times of famine, rulers should compel the rich to distribute their superabundance among the poor. His book is *Trattato sopra la carestia e fame, sue cause, accidenti, provvisioni, reggimenti*, Bologna, 1602.

[Supino, *La scienza economica in Italia*, Turin, Loescher, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, Hoepli, 1884.—Graziani, *Le idee economiche, etc.*, Modena, 1893]. U. R.

SEIGNORAGE. Royal revenue obtained by means of charges imposed for coinage.

The word seignorage, also spelt seigneurage, seigneuriage, and seigniorage, is of Norman-French origin. Under the feudal system the right of coinage was an exclusive privilege of the king or seigneur. This personage not unnaturally took the opportunity of exacting a fee when the mint was employed in the coinage of metal belonging to his subjects. The money thus raised was retained by the king for his own use, and it was to this portion of the royal income that the title seignorage was applied.

The seignorage charge varied considerably from time to time, being apparently governed not so much by the exigencies of trade, as by the sovereign's wants, avarice, or caprice. A high charge for coinage, however, deterred merchants from sending bullion to the mint, but this difficulty was often surmounted by the issue of a proclamation calling in for recoinage the coins already in circulation, thus necessitating a new issue. Such recoinages caused much inconvenience, and in some instances the king was induced to adopt an alternative method of increasing his revenues, namely, the imposition of a triennial tax called *moneyage*, on the understanding that frequent and unnecessary recoinages should not be insisted upon. Moneyage does not appear to have been exacted in England before the time of William the Conqueror, and it was abolished as early as the reign of Henry I.

The total amount paid by merchants for the privilege of having their bullion converted into coin, was the sum of two charges, one of which went to the king, and the other to the officers of the mint. The first was the *seignorage*, the second the BRASSAGE, but as this latter term has never been generally used in England, it seems preferable to refer to it under the head of *mint-charge* (see MINT) or charge for coinage.

These two charges were fixed at a sum per pound calculated on the gross weight of coin produced from the bullion sent in, and their amount was collected by a deduction from the coin delivered to the merchant. Thus we find that in the reign of Edward III. (1345) the deduction made at the mint from gold coins delivered to the public was at the rate of £1 : 3 : 6 per lb., of which £1 went to the king as his seignorage, and 3s. 6d. to the mint to defray the cost of coinage. In the same year the charge for coining silver was fixed at 1s. 3d. per lb., of which 9d. went to the officers of the mint, and 6d. to the exchequer.

The total sum collected in charges at the mint is frequently referred to as the seignorage, and this use of the word can be upheld on the ground that both charges were fixed under the authority of the king, either by act of parliament or mint indenture, and that the subsequent division of the money between the sovereign and the officers of his mint is a matter of but slight importance. On the other hand it seems more correct to restrict the use of the word seignorage to that portion of the revenue derived from coinage which actually formed a part of the king's income. The latter view is supported by the following quotation from a statute of the ninth year of Henry V. c. 2, in which the charges collected at the mint are expressly stated as covering both the coinage *and* seignorage charges. This act directed that persons bringing worn coin to the mint "should within eight days receive the full value of what they brought, paying for the seignorage and coinage of gold after the rate of 5s. for the pound of the

Tower, and for the seignorage and coinage of silver fifteen pence for the pound and no more."

The revenue directly raised by the seignorage charge was at various times supplemented by one or both of the following means: (*a*) the use of the Tower pound; and (*b*) advantage taken of the Remedy, or Shere, allowance to issue coins uniformly short of their full legal weight (see REMEDY).

The Tower pound was equal in weight to 11 oz. 5 dwt. troy, so that 16 lbs. Tower = 15 lbs. troy. Metal sent to the mint for coinage was received by troy weight, but given out to the coiners by Tower weight. The legal number of pieces per pound was then coined from this diminished weight of metal. The king thus added to his revenue a sum equal to the value of one-sixteenth of all the metal brought to the mint for coinage, while he derived the same amount from the seignorage charge as if the coin had been weighed and delivered by troy weight, this charge being based upon the number of *Tower* pounds of coin produced. The use of the Tower pound in the mint was abolished in 1527 by a proclamation of Henry VIII.

The various rates of seignorage from the year 1345 onwards are given by Ruding, in his *Annals of the Coinage*, and the maximum and minimum charges imposed by each sovereign, which are set forth in the annexed table, have been taken from that record :—

MINT CHARGES ON THE COINAGE OF GOLD.

Reign.	Year.	Amount deducted per Pound. For Seignorage. Highest. £	s.	d.	Lowest. £	s.	d.	For Mint Expenses. £	s.	d.	Total. £	s.	d.
Edward III.	*1345*	1	0	0	..			0	3	6	1	3	6
" "	*1357*	..			0	5	6	0	1	2	0	6	8
Richard II.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry IV.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry V.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry VI.	*1446*	..			0	3	6	0	1	6	0	5	0
" "	*1461*	0	10	6	..			0	2	6	0	13	0
Edward IV.	*1465*	2	7	8	..			0	2	4	2	10	0
" "	*1483*	..			0	5	0	0	2	6	0	7	6
Henry VII.	*1488*	0	5	0	..			0	2	6	0	7	6
" "	*1489*	..			0	0	8	0	1	10	0	2	6
Henry VIII.	*1509*	..			0	0	8	0	1	10	0	2	6
" "	*1546*	5	2	0	..			..			5	2	0
Edward VI.	..	1	10	0	..			..			1	10	0
"	..	..			0	2	9	..			0	2	9
Elizabeth	*1558*	..			0	4	0	..			0	4	0
"	..	0	5	3	..			0	4	9	0	10	0
James I.	*1613*	1	19	0	..			0	6	0	2	5	0
" "	*1620*	..			0	15	0	0	6	0	1	1	0
Charles I.	*1627*	0	15	0	0	15	0	0	6	5	1	1	5
Commonwealth	..	0	12	7	0	12	7	0	2	5	0	15	0
Charles II.	..	Free coinage introduced.									..		

Seignorage and coinage charges on both gold and silver were abolished by the act of 18 Charles II. c. 5, and all further possibility of profit from coinage operations seemed to be at an end. On this point Ruding writes: "We know that the coinage act which was originally passed in the eighteenth year of Charles II., and was made perpetual by the 25th chapter of a statute in the ninth year of George III., has deprived the state

MINT CHARGES ON THE COINAGE OF SILVER.

Reign.	Year.	Amount deducted per Pound. For Seignorage. Highest. £	s.	d.	Lowest. £	s.	d.	For Mint Expenses. £	s.	d.	Total. £	s.	d.
Edward I.	*1280*	..			0	0	5	0	0	7	0	1	0
" "	*1300*	0	0	9	..			0	0	5½	0	1	2½
Edward III.	*1350*	0	0	9	..			0	0	6½	0	1	3½
" "	*1357*	..			0	0	2¾	0	0	6¼	0	0	9¼
Richard II.	*1395*	0	0	1	0	0	1	0	0	7	0	0	8
Henry IV.	*1408*	0	0	3	0	0	3	0	0	7	0	0	10
Henry V.	*1422*	0	0	3	0	0	3	0	0	9	0	1	0
Henry VI.	*1428*	0	1	2	..			0	0	10	0	2	0
" "	*1445*	..			0	0	3	0	0	9	0	1	0
Edward IV.	*1465*	0	3	4	..			0	1	2	0	4	6
" "	*1472*	..			0	0	6	0	1	0	0	1	6
Henry VII.	*1488*	0	1	6	..			..			0	1	6
" "	*1489*	..			0	0	2	0	0	10	0	1	0
Henry VIII.	*1509*	..			0	0	2	0	0	10	0	1	0
" "	*1545*	2	0	0	..			..			8	0	0
Edward VI.	*1552*	8	8	0	..			..			2	8	0
" "	*1553*	..			0	1	0	..			0	1	0
Mary "	..	0	1	0	0	1	0	..			0	1	0
Elizabeth	*1577*	0	0	10	..			0	0	8	0	1	6
"	*1601*	..			0	0	8	0	1	4	0	2	0
James I.	*1605*	0	1	2	0	1	2	0	1	4	0	2	6
Charles I.	*1637*	0	0	10	0	0	10	0	1	2	0	2	0
Charles II.	*1660*	0	0	6	0	0	6	0	1	6	0	2	0
" "	..	Free coinage introduced.									..		

of all possibility of profit from the mint, while on the other hand we possess from undoubted authority accounts of the expenses of working the same, commencing from the beginning of the year 1777."

From 1666 to the present time (1898), the coinage of gold in England has been undertaken by the state free of charge (see FREE COINAGE), an importer of bullion to the mint receiving gold coin of precisely the same value as that of the metal sent in. Not only, therefore, has seignorage on the gold coinage ceased to exist, but all expenses of the manufacture of these coins have been borne by the state for the last 230 years; while since 1891, the whole cost of the loss due to the wear and tear of gold coin in circulation has also been defrayed by the government [see LIGHT GOLD AND SILVER COIN, WITHDRAWAL OF.]

Gold was adopted as the standard of value, and gold coins became the "only legal tender" to an unlimited extent, by the act of 1816 (56 Geo. III. c. 68). Section 9 of this act, however, also granted power to the king to issue a proclamation appointing a day after which silver coin and bullion might be brought to the mint to be coined at the rate of 66s. per lb. troy of standard silver, of which 62s. were to be returned to the importer of the bullion, and 4s. retained by the mint. Section 10 enacted that sums of money arising from this allowance of 4s. per lb. "shall in the first place be applied in and towards the payment of the expenses of the coining of such silver, and the surplus thereof (if any) after the payment of such expenses shall be carried to and made part of the consolidated fund." Thus, after a lapse of 150 years, statutory provision was made by which, in given circumstances, seignorage on the silver coinage might have accrued. The proclamation, however,

upon which this revival of seignorage would have been based was never made, and no coinage of silver on behalf of private persons has been undertaken since the adoption of the single gold standard. That change in the currency system of the country necessarily relegated coins of any metal other than gold to the position of tokens, though the inclusion in the act of 1816 of the above provision for the coinage of silver seems to indicate that this fact was but imperfectly realised at the time. Now, however, owing to the great fall in the price of silver, no further demonstration of the subsidiary function performed by the silver currency is needed than the mere fact that the metal contained in the coins is of less than half the value at which they circulate, and that this is so not only without loss to individual holders of the coins, but with great gain to the national exchequer.

Profit derived from the difference between the nominal and currency values of token coins is dependent in amount upon the market price of the materials of which the pieces are composed, and is not a seignorage resulting from any royal charge for coinage. It seems open to question, therefore, whether the use of the word seignorage can be justified in connection with any revenue obtained from coinage since 1666. Nevertheless, the title has been generally applied to the profit on the token silver coinage, and has for many years been used in this sense in official documents. It is interesting, however, to notice that at the same time the gain to the state on the coinage of bronze, accruing in a precisely similar manner to that on the silver coinage, has never been referred to as anything other than "profit."

On the 25th August 1895, a statement was made in the House of Commons by the parliamentary secretary of the treasury, to the effect that "perhaps it" [the use of the word seignorage] "is not wholly justifiable for a token coinage." Since that date the word profit has appeared in mint reports in many places where seignorage was formerly used, and it now seems likely that the profit on the modern token silver currency will no longer be referred to as seignorage. In view, however, of the long period during which this use of the word has prevailed, a table is here appended showing the amount of revenue derived from the issue of token silver coins since the year 1861 :—

SEIGNORAGE (PROFIT) ON THE COINAGE OF TOKEN SILVER, 1861-1905.

Period.	Profit on the coinage of silver.			Average price per ounce of standard silver.
	Total.	Annual average.	Rate of profit per cent.	
	£	£		pence.
1861-70	153,162	15,316	8·4	60·9
1871-80	531,868	53,187	18·1	55·9
1881-90	2,149,486	214,919	38·6	47·6
1891	253,337	843,899	45·6	45·1
1892	215,137		65·8	39·8
1893	370,456		81·7	35·6
1894	343,645		125·6	29·0
1895	403,903		117·3	29·9
1896	476,866		117·7	30·7
1905	72,542	72,542	140·5	27·8

[ABRASION ; ALLOY ; BRASSAGE ; CLIPPED MONEY ; COINAGE, THE RIGHT OF ; DEBASEMENT OF COIN ; FINENESS OF COINS ; FREE COINAGE ; GARBLED COIN ; GOLD ; INGOT ; JOURNEY (*Mint*) ; LIGHT GOLD AND SILVER ; MINT ; MINT PRICE OF BULLION ; MINTAGE, FREE ; MONEYERS ; REMEDY.]

F. E. A.

SEIGN PRIVÉ. Written documents, embodying contracts or promises in countries governed by French law, are divisible into two classes, being respectively called *actes authentiques*, and *actes sous seign privé*. An *acte authentique* must be executed before a public notary, whilst an *acte sous seign privé* is binding if signed by the party or parties liable under the contract or promise without any further formality. Deeds of gift, marriage contracts, and mortgages are invalid unless they are evidenced by an *acte authentique*, but mercantile contracts may be validly made by *acte sous seign privé*, and in many cases even by word of mouth.

[Code Civil, §§ 1317-1321, 1322-1332, 1834 ; Code de Comm. § 109.]

T. L.

SEISIN. The possession of a freehold estate in land, *i.e.* of a fee simple, of a fee tail, or of a life estate. The doctrine of seisin and the principles connected with it enter deeply into the law of real property in England.

[Challis on *Real Property*, London, 1892.—Maitland, "The Beatitude of Seisin," *Law Quarterly Review*, vol. iv. pp. 24 §§, 286 §§.]

J. E. C. M.

SELF-INTEREST. The importance which economic writers have attached to self-interest as a source of economic activity has changed from time to time.

T. MUN recognised it in the well-known passage in which he distinguishes between "the gain of the kingdom, and the profit of the merchant," and suggests a possible antagonism between these and the treasure of the king. (*England's Treasure by Foraign Trade*, London, 1664, ch. iii.).

Defoe (*Mercator*, No. 27, London, 1713) states clearly that "Gain is the Design of Merchandise: Trade is a Commutation of Merchantable Commodities between one Country and another, and for the mutual Profit of the Traders. The Language of Nations one to another is, *I let thee gain by me that I may gain by thee.*

This very definite recognition of the power of self-interest was not confined to English writers. TURGOT, writing of GOURNAY in 1759, said "Tout ce prétendu *système* était appuyé sur cette maxime, qu'en général tout homme connaît mieux son propre intérêt, qu'un autre homme, à qui cet intérêt est entièrement indifférent" (Turgot, *Œuvres*, Paris, 1844, 2 vols. p. 270), and Turgot himself said "La morale et la politique dépendent de l'amour de soi, réglé par la *justice*" (Neymarck, *Turgot et ses doctrines*, Paris, 1885, vol. 2, p. 28).

There has been much controversy as to how

far Adam SMITH based his *Wealth of Nations* on this doctrine. He attributes great importance to a love of barter, innate in mankind, but proceeds immediately to point out that the barter can only be affected by an appeal to either affection or self-interest, and maintains that the latter is probably the more effective; "He will be more likely to prevail if he can interest their self-love in his favour and show that it is for their own advantage to do for him what he requires of them" (*The Wealth of Nations*, 1776, bk. i. ch. ii.). In another place he wrote, ten years earlier, "Regard to our own private happiness, and interest too, appear upon many occasions very laudable principles of action; attention and application of thought are generally supposed to be cultivated from self-interest motives" (*Theory of Moral Sentiments*, 1766, p. 336). An excellent summary of the discussion on Adam Smith's dependence on the doctrine is given by Prof. Hasbach in his article on Adam Smith, *Political Science Quarterly*, December 1897.

WHATELY bases the theory elaborated in his lectures at Oxford in the year 1833 entirely on the foundation of self-interest. Quoting Archbishop Sumner, he says: "The first, who having enclosed a plot of ground, has taken upon himself to assert, *This is mine*, and has remained undisturbed in possession of it, gives a new aspect to society" (*Lectures on Political Economy*, London, 1855, lecture vi.). This supreme belief in the universality of the doctrine was eminently characteristic of the economists of that time; every one appears to have accepted it as unquestionable in spite of the criticisms of CARLYLE. His essay in the *Edinburgh Review* in 1829 was an attempt to shake the universal faith, a severe criticism of the prevalent belief.

J. S. MILL began with a more or less complete acceptance of the universality of the doctrine, but under various influences he gave it up gradually in later life. It is noteworthy that in his *Principles* he attempts to argue the case for LAISSEZ-FAIRE, based on "the popular dictum that people understand their own business and their own interests better, and care for them more than the government does, or can be expected to do." However, in a later portion of his work he practically abandons the position and admits large provinces of social life which may advisedly be regulated by government. Professor Edgeworth's article on J. S. MILL (vol. ii. p. 756) may well be consulted.

Since Mill's time the doctrine has developed in two directions. The altruistic school (see ALTRUISM) appear to attach more weight to the pleasure derived from observing enjoyment in others than to that derived from individual enjoyment. The hedonistic school (see HEDONISM) attempt to establish a calculus of pleasure to the individual. At present no satisfactory means has been suggested whereby the gulf between the individual and the community may be bridged (see Edgeworth, *Mathematical Psychics*, 1882).

It should be observed that it is one thing to take self-interest as the principle on which society is founded, and work this out as some economists have done; another to assert that society is actually composed of people who live for self-interest and nothing else. The hypothetical character of the principle was quite clearly seen by some economists, though not by others. Popularly it was supposed that economists meant it as actual. Had they made their meaning clear, "they would have escaped many grievous misrepresentations. The splendid teachings of Carlyle and Ruskin as to the right aims of human endeavour and the right uses of wealth, would not then have been marred by bitter attacks on economics, based on the mistaken belief that that science had no concern with any motive except the selfish desire for wealth, or even that it inculcated a policy of sordid selfishness" (Prof. Marshall, *Prin. of Ec.*, 2nd ed. 1891, p. 76).

[During the last quarter century many writers, JEVONS, CAIRNES, F. A. WALKER, Sidgwick, Marshall, and others have criticised the doctrine and contributed to its elucidation. These contributions will be found summarised in Walker's *Political Economy*, § 16, London, 1887; and, for influence of Hegel, Bonar, *Philos. and Pol. Econ.* ch. iv.]

J. M'K.

SELKIRK, THOMAS DOUGLAS, FIFTH EARL OF (1771-1820), Baron Daer and Shortcleugh in the Scotch peerage, was the seventh and youngest son of the fourth earl, and the intimate friend of Sir Walter Scott.

His unexpected accession to the earldom in 1799 enabled Selkirk to contemplate the realisation of those long-matured plans of colonisation which had resulted from a personal study, in 1792, of the social and economic evils from which the small Highland tenantry were suffering. Undismayed by the lukewarmness of the government, Selkirk secured the island of St. John in the gulf of St. Lawrence (now Prince Edward's Isle) and in the summer of 1803 established there a colony of 800 selected emigrants. He himself visited them more than once. In 1805 he was obliged to defend himself against the calumnious reports as to his colonising motives; and to this end he published his previous conclusions under the title of *Observations on the present state of the Highlands of Scotland, with a view of the causes and probable consequences of Emigration* (London, 1805, 8vo, 2nd ed., Edinburgh, 1806). He ascribed the economic distress and discontent of the cottars, crofters, and tacksmen to the disbanding of the clans after the '45, with the inevitable and consequent dissolution of the ancient feudal tie between the landlord and his free tenant whose war service and partisanship had hitherto been accepted in full quittance of rent.

Side by side with the upbreaking of these relations came the change in the agricultural aspect—the substitution of pasture for cornland caused precisely that demand for cattle-grass

which the Highland landlord was well able to supply. Consequently the landlord's choice was limited: either to sharing the poverty of his tacksmen and cottar tenantry or to dispossessing them in favour of the well-to-do graziers who bid for his farms. The eviction of the old tenantry was socially dangerous and economically embarrassing, and it was for the better class of these Highland-bred peasants, indisposed by training to the irksomeness of industry and a town life, that Selkirk sought to find an outlet in emigration. The author (p. 116) quotes Malthus in support of his theory that emigration is no bar to permanent population. Referring to the bill of 1803 for the transport of emigrants, he finds the Highland Society's report of the causes of emigration to be:—(1) over-population; (2) the removal of tenants from farms; (3) the seductive accounts of the advantages to be gained in America. The book closes with an account of the planting and progress of Selkirk's own colony.

In 1806-7 Selkirk was chosen one of the sixteen representative Scotch peers. Among his various parliamentary speeches that of 10th Aug. 1807, *The Defence of the Country*, was immediately published in pamphlet form, second ed. same year. He advocated the encouragement of the volunteer establishment, side by side with a new local militia, in a volume *On the Necessity of a more effectual System of National Defence*, London, 1808, 8vo; republished by Sir J. Wedderburn, London, 1860, 8vo. In 1809 Selkirk wrote and published a *Letter addressed to J. Cartwright, Esq., on the subject of Parliamentary Reform*, 1st and 2nd ed.. London, 1809, 8vo; another ed. Manchester, 1816, 12mo.

But Selkirk did not allow political controversies to divert him from his great colonising plans. In 1810, having by his large purchase of stock practically acquired the directorate of the Hudson's Bay Company, he applied for a further grant of land, which he proceeded to colonise. His settlers, however, came into violent contact with the North-West Company's people, and after a territorial warfare of many years, Selkirk himself had to take a body of men to their rescue. The victory cost him dear, and, worn out by troubles and annoyances, he retired to the south of France, where he died. His settlement is now represented by the province of Manitoba, where his name survives in the town and county of Selkirk.

Besides the works mentioned above, Selkirk published *A Sketch of the British Fur Trade in North America, with Observations relative to the north-west Coast of Montreal*, London, 1816, 8vo. A. L.

SELLA, Quintino (1827-1884), was born at Mosso (Biella-Piedmont). A manufacturer like the rest of his family, he was also an eminent geologist, skilled in mineralogy, an orator, a financier, and a statistician. He was a deputy; minister of finance for the kingdom of Italy in 1862, from 1864 to 1865, and again from 1869 to 1873. His work as minister of finance, in most critical times, has left traces which still survive.

A supporter of strict and rigid finance, he was not afraid of facing unpopularity; he converted the tax on grinding corn into a powerful instrument of financial improvement (see Macinato), and employed the *corso forzoso* as a temporary method, painful but necessary, of avoiding loss in payment of interest on loans raised for useful purposes. Through his efforts the Italian budget was made to balance. Italy owes her post-office savings banks and the increase of professional schools to Sella.

Sella left behind him many scientific works; his numerous parliamentary speeches, collected in five volumes, are of economic and financial importance. *Discorsi parlamentari di Quintino Sella*, raccolti per ordine della camera dei deputati, Rome, 1887-90.

[See Alessandro, Guiccioli *Quintino Sella*, Rovigo, 1887]. U. R.

SEMPERE Y GUARINOS, José (1754-1839), Originally royal attorney in the high court of chancery in Granada, and member of the council of finance, he took an active part in the political events of 1812, and was compelled to leave Spain after the restoration of king Ferdinand VII. He then remained about fifteen years in Bordeaux.

His *Biblioteca Economico-Politica* (Madrid, 4 vols., 1804-1821) gives extracts from the most important old Spanish writers on economic subjects from the 15th to the end of the 17th century, besides some contributions of his own on the poor, the Spanish poor laws, etc. A learned economic historian of his country, his best-known works are his *Historia del Lujo y de las Leyes Sumptuarias de España* (History of the Spanish sumptuary laws), Madrid, 1788, and the *Historia de los Vinculos y Mayorazgos* (History of Entails and Majorates), Madrid, 1801. His views on economic reform may be described as those of a liberal, admitting the necessity of reform, but desiring to proceed with caution. E. Ca.

SEN, a Japanese coin, the hundredth part of a yen (see Yen).

SÉNAC DE MEILHAN, Gabriel (1736-1803), *intendant* of several provinces of France in succession, was put at the head of the general commissariat of the army in 1775, but soon lost this high position. During the revolution he retired to Russia, where he received a pension from the Empress Catherine; at her death he settled first in Venice, then in Vienna, where he died.

His book *Considérations sur les richesses et le luxe* (Paris and Amsterdam, 1780 and 1787), was mainly directed against the abbé Terray and Necker. Brilliantly written, but rather superficial, this work wants depth and precision.

[On Sénac as an official, see Legrand, *Sénac de Meilhan et l'intendance du Hainaut et du Cambrésis sous Louis XVI.*, 1868]. E. Ca.

SENECA, Lucius Annæus, son of Marcus Annæus Seneca the rhetorician, born about 4 B.C. He was tutor to Nero, and afterwards one of

his chief advisers. Though he used his position to obtain vast wealth, it is believed that he was a restraining influence over the emperor. New favourites, however, machinated against him, and he retired from Rome; but being suspected of complicity in Piso's conspiracy, he was forced to kill himself in A.D. 65. In addition to ten tragedies, many of his philosophical and moral treatises are extant, as are also a series of letters on varied subjects, from which valuable hints may be gathered as to the rural and urban industries and the economic condition of the Roman empire at a period of extreme luxury. He developed the Tironian shorthand, as to which see the *Notae Tironis et Senecae* in the appendix to Gruter's *Inscriptiones Antiquae*, 1603. A good text of his prose works is supplied by Haase (Teubner, 1872). R. H.

SENEUIL, JEAN GUSTAVE COURCELLE-, (1819-1892), Seneuil being only the additional name taken from his native place in the department of the Dordogne, studied law in Paris and was admitted to the bar in 1835, but returned to his native province in order to manage iron works; at the same time, owing to his friendly relations with the leaders of the republican party under Louis Philippe, he became an active contributor to their newspapers. During the second republic he was for a short time director of the public domains; after Prince Napoleon's *Coup d'État*, he went over to South America, where he lectured for several years on economics in Santiago de Chile. He returned to France in 1863, and was made a councillor of state under the third republic.

His *Traité théorique et pratique d'économie politique* in two volumes was first published in 1858; a second edition was issued in 1867. Courcelle is certainly one of the most thoughtful and scientific among French economists, he is put by JEVONS in the class of those "who have not at all attempted mathematical treatment in an express or systematic manner, but who have only incidentally acknowledged its value by introducing symbolic or graphical statements" (Preface to the 2nd ed. of the *Theory of Pol. Econ.*). One of these, for instance, he applies to the law of population (vol. i. p. 120, ed. 1867). Courcelle rejects none of the methods in use, and in another work (*Préparation à l'étude du droit*, p. 365) he declares that the inductive and deductive, analytical and synthetical, historical and experimental methods are all to be used within properly determined and rational limits. The most striking feature of his *Traité* is the rigid division he maintains between theoretic economics or PLUTOLOGY, and applied economy or *ergonomy* (see APPLIED ECONOMICS); to several branches of the latter he devoted special works, the *Traité théorique et pratique des entreprises industrielles, commerciales, et agricoles* (1854), and his *Traité théorique et pratique des Opérations de Banque* (1852), a seventh edition of which has recently been reprinted under the supervision of M. André Liesse (1896). Another characteristic feature of the theoretical part of his *Traité d'écon. pol.* is that he studies the *production* of wealth in strict interdependence with its *consumption*, making man rather than wealth the central object of his investigations, although giving an ample space in the second subdivision of vol. i. to its *distribution* or *appropriation*. On the whole, Courcelle belongs to the liberal school; for instance, he is in favour of the unlimited liberty of banks, but he admits practical derogations from his principle, such as public assistance on a local basis, and is against all abrupt passages from the system of authority to the system of liberty.

He always took a lively interest in social and political questions (*Études sur la science sociale*, 1862; *Liberté et socialisme*, 1868; *L'héritage de la Révolution*, 1871; *La société moderne*, 1892); writing from the standpoint of an independent and discriminating adherent of Republican doctrines, he never condescends to curb his own independent judgment before the *idola* of the tribe. He translated into French, Graham Sumner's *Duties of Social Classes;* and with Dussard, J. Stuart Mill's *Principles of Political Economy*. He wrote numerous articles in the old and new *Dictionnaire d'économie politique*, and was for almost half a century an active and untiring contributor to the *Journal des économistes*.

[The best general account of his career will be found in M. Juglar's *Notice sur la vie et les travaux de J. G. Courcelle-Seneuil*, read before the *Académie des sciences morales et politiques*, of which Courcelle had been a member. See also *Journal des économistes*, July 1892, pp. 73-81.]

E. Ca.

SENIOR, WILLIAM NASSAU (1790-1864), was called to the bar in 1819. In 1825 he was appointed to the newly-constituted Drummond chair of political economy at the university of Oxford. He was a member of the royal commission of 1832, to whose labours is mainly due the reform of the poor law (see POOR LAW). In 1836 he was made a master in chancery. From 1847 to 1852 he served a second term of office as professor at Oxford. He was also examiner for political economy at the university of London, and presided over the economic section of the British Association at their meeting in Oxford in 1860. Although Senior's economic writings were not large in bulk, their influence has been considerable. He was the first distinctly to formulate the ABSTINENCE (*q.v.*) theory of capital. Adam SMITH and RICARDO had taught that labour alone creates value; LAUDERDALE had asserted for capital an independent productive power, and MALTHUS had explained profit as a constituent part of the costs of production. Senior recognised that it was impossible to square either the first or the last view with facts, while capital could not be a simple original instrument, inasmuch as it was itself the result of the co-operation of labour, natural agents, and abstinence. Abstinence is defined as "that agent, distinct from labour and the agency of nature, the concurrence of which

is necessary to the existence of capital, and which stands in the same relation to profits as labour does to wages." Senior himself expressly states "mere abstinence can produce nothing." By abstinence he meant such a postponement of immediate gratification as may allow the law of INCREASING RETURNS (*q.v.*) to operate. This law that the power of the instruments which produce wealth may be indefinitely increased by using their products as the means of further production, is stated to be among the four elementary propositions of political economy, which are "the result of observation or consciousness." It is in the field of actual capitalist production that the explanation must be sought of Senior's views. The exchange value of goods depends partly upon their usefulness, partly on the limitation of their supply. Where monopoly does not come in, the limit of supply is regulated by the sacrifice involved in their production. The costs of production must be divided into the costs of production of the seller, and the costs of production of the purchaser. These latter are "the amount of the labour and abstinence which must be undergone by those to whom a given commodity or service is offered for sale, if, instead of purchasing, they themselves . . . were to produce it" (Senior, *Pol. Econ.* ed. 1854, p. 101). We thus find that the costs of production of the seller are equal to the minimum and those of the buyer to the maximum of price. Abstinence must then always be a constituent part of the costs of production, and the value of goods must be great enough to leave a compensation for this abstinence. (For a statement and criticism of Senior's position, see Böhm Bawerk, *Capital and Interest*, trans. by W. Smart, 1890, bk. iv. ch. i. and ii.). It would thus seem clear that Senior must be ranked with the "cost of production" school of political economists, and not with the "utility" school (see EXCHANGE, VALUE IN, HISTORY OF THEORY). Although his general definition of value as depending upon utility and limitation of supply appears to be pointing to the conclusions of the later school (cp. Léon WALRAS's definition of value as the "rare," *i.e.*, what is both useful and limited in quantity. *Éléments d'économie politique*, 1874; and *Théorie de la Monnaie*, 1886) Senior is not included in the bibliography of writers leading the way to Jevons's theories contained in the 1879 ed. of Jevons's *Theory of Political Economy*.

Mention has been already made of the law of increasing returns as stated by Senior. The contrast between the DIMINISHING RETURNS (*q.v.*) of agriculture and the increasing returns of manufacturers had been noticed by previous economists, but it was elaborated by Senior. The theory was in great measure a generalisation from the leading position of England in commerce and industry in the middle of the century. "The only check by which we can predict that the progress of our manufactures will in time be retarded is the increasing difficulty of importing materials and food." Granted, however, the truth of the view, which modern economists will only admit under serious limitations (see INCREASING RETURNS), the argument it lends to the fostering of home industries is at once apparent. In his *Letters on the Factory Act*, Senior himself had said "the more our rivals produce the cheaper they will be able to produce"; and it may plausibly be maintained that protection to native industries is justifiable to give the law of increasing returns time to come into force (see Prof. Marshall's *Presidential Address at the Economic Section of British Assoc.*, 1890).

On the theory of INTERNATIONAL TRADE (*q.v.*) Senior, in his *Lecture on the Cost of Obtaining Money*, took the first step beyond RICARDO. "The portableness of the precious metals and the universality of the demand for them renders the whole commercial world one country, in which bullion is the money, and the inhabitant of each nation forms a distinct class of labourers" (see C. F. Bastable, *Theory of International Trade*, 1903). On the question of the WAGES FUND (*q.v.*) Senior occupies a half-way position between the view of a fixed wage fund and more modern theories on the subject. It appeared to him almost self-evident that wages depend upon the extent of the fund for the maintenance of labourers compared with the number of labourers to be maintained; but this view does not amount to a statement of the wage-fund theory, because the principal means by which the fund for the maintenance of labourers can be increased is by increasing the productiveness of labour (see E. Cannan, *History of Theories of Production and Distribution*, 1893). Senior was the first English economist who definitely formulated principles of economic method. After recognising in his *Introductory Lecture*, 1826, a practical side to political economy, Senior in his *Outlines* regarded it exclusively as a theoretical, abstract, and deductive science. It is a science not an art, and its conclusions are theorems of fact not precept (see *The Scope and Method of Political Economy*, by J. N. Keynes, 1897). Those conclusions are not hypothetical. So far as they relate to the nature and production of wealth they are universally true, and, although those which relate to distribution are affected by disturbing causes, the natural state of things can be laid down as the general rule, and anomalies can be afterwards accounted for. The more advanced state of society may fairly be called the natural. "A situation of society, if it can be called society, without the intervention of exchanges, neither deserves nor requires scientific investigation." It was this side of Senior which doubtless led Professor Bastable (in his *Presidential Address to the Economic Section, British Assoc.*, 1894) to speak of Senior as the typical representative of the strong and weak points of the

English orthodox school of political economists, "undue insistence on the omnipotence of purely material motives, a somewhat cynical disregard of the moral forces that influence human action in respect to wealth, and a certain love of paradox." But, in fact, at the age of five-and-twenty Senior formed the determination to reform the condition of the poor of England. He expressly states at the beginning of his course *On the rate of Wages* that inasmuch as "the labourers form the mass of every community, the inquiry into the causes affecting wages is the most important branch of political economy," and, in striking contrast with his theory, he everywhere displays a close grip of contemporary fact, and a power of pertinent illustration, which recall the writings of Bagehot. He is found continually quoting the evidence of practical men. His dislike of trades unions and combinations, and the drastic measures with which he proposed to combat them (Webb, *History of Trades Unionism*, 2nd ed., 1896, p. 124), were due not to any *à priori* theory as to wages, but to the actual cases of intimidation which had come under his notice when sent to investigate the facts by Lord Melbourne in 1830. (His report was never published, but the substance of it is embodied in vol. ii. of Senior's *Historical and Philosophical Essays*, 1865) In the same way the curious statement (*Letters on the Factory Act*) that the whole net profit in cotton factories was "derived *from the last hour*," was founded on an analysis of actual returns, and were in no way the issue of mere theory. Upon the whole it is clear that his views in favour of *laissez-aller*, *laissez-faire* (see LAISSEZ-FAIRE) were based rather on his experience of the working out of a contrary system in the case of the old poor law, and of the corn laws, than on any doctrinaire or cynical bent in Senior's own method of regarding things. In actual life Senior was a busy lawyer, and man of affairs, to whom economic studies were of necessity more or less of a "parergon." Under the circumstances it is surprising that he should have achieved as much as he did in advancing political economy. Apart from this the merit of his work is found in the practical improvement of the life of the people silently and steadily carried out.

Besides numerous works in the province of politics and belles lettres, Nassau Senior was the author of *An introductory lecture on Political Economy, delivered before the University of Oxford the 6th Dec. 1826*, London, 1827, 8vo.—*Three lectures on the transmission of the Precious Metals and the Mercantile Theory of Wealth, delivered in June 1827*, London, 1828, 8vo.—*Two Lectures on Population, delivered in Easter Term 1828, to which is added a correspondence between the Author and the Rev. T. R. Malthus*, London, 1831, 8vo.—*Three Lectures on the cost of obtaining Money, and of some effects of Private and Government Paper Money, delivered in Trinity Term 1829*, London, 1830, 8vo.—*Three Lectures on the rate of Wages delivered in Easter Term 1830, with a Preface on the Causes and Remedies of the present Disturbances*, London, 1831, 8vo.—In 1836 there was published in Paris, *Principes fondamentaux de l'économie politique tirés des leçons édites et inédites de N. W. Senior*, by J. Arrivabene, 8vo. This book contains six of the published lectures, viz. the introductory one, enlarged and modified, the three on the transmission of the precious metals, and the two on population, together with the substance of nine MS. lectures furnished by Senior to the French editor. The whole forms a more methodic work than do the separate English lectures.

In 1836 Senior contributed "An outline of Political Economy" to the *Encyclopaedia Metropolitana*, which was republished in 1850, London, 8vo.—*Four introductory Lectures delivered before the University of Oxford*, appeared London, 1852, 8vo.—On the poor law, Senior wrote: *A letter to Lord Howick on a legal provision for the Irish Poor*, 3rd. ed., with a preface *Containing suggestions as to the measures to be adopted in the present emergency*, London, 1832, 8vo.—*Statement of the Provision for the Poor . . . in a considerable portion of America and Europe, being a Preface to the Foreign Communication contained in the Appendix to the Poor Law Report*, London, 1835, 8vo.—*Remarks on the opposition to the Poor Law Amendment Bill*, by a guardian, London, 1841, 8vo.—Senior also published *Letters on the Factory Act as it affects the Cotton Manufacture*, London, 1837, 8vo, and contributed an able summary of the ambiguities in the terms of political economy to Whateley's *Logic*, showing the very serious effect on the national welfare which has sometimes resulted from these ambiguities.

[*Annual Register*, 1864, p. 203; see also ref. to Senior in art. on POLITICAL ECONOMY.]

H. E. E.

SEPARATE ESTATE. At common law a married woman could not take or enjoy real or personal estate independently of her husband. The courts of equity, however, laid down the doctrine that a wife could hold real and personal estate as if she were unmarried, and such estate came to be called separate estate. The power to hold separate estate may be reserved to a wife by marriage articles, or an actual settlement made before marriage, and may be conferred by a will. All that is required is the use of words indicating a desire that the wife shall have the property for her own use and benefit. Gifts made by a stranger, and profits made in trade, where such trade is carried on apart from the husband, will be regarded as separate estate. A wife could dispose of her separate estate, but in the case of fee simple or fee tail estates she required the concurrence of the persons in whom the legal estate was vested, in order to convey the legal as well as the equitable estate. The deed or settlement giving the separate estate might contain a clause prohibiting a married woman from alienating

the *corpus* of the property whilst the marriage lasted.

In 1870 an act was passed to empower married women to hold and dispose of certain kinds of separate estate. By subsequent acts the principle was extended, and now, by the Married Women's Property Act 1882, a married woman holds all real and personal property accruing to her as if she were a *feme sole*, free from the legal control of her husband.

[J. R. Griffiths, *The Married Women's Property Acts*, London, 1891.] J. E. C. M.

SEQUESTRATION. The method of enforcing execution against a beneficed clergyman. *Bona ecclesiastica* cannot be touched by a lay hand, but a writ can be issued to the bishop of the diocese, ordering him to enter into the benefice and hold the same; the judgment is satisfied out of the profits. The bishop sends out a sequestration of the profits, directing the churchwardens to collect the profits and satisfy the judgment.

[Stephen's *Commentaries on the Laws of England*, vol. iii., London, 1890.] J. E. C. M.

SEQUIN (or ZECCHINO). A gold coin circulating in Italian countries before the formation of the modern kingdom of Italy.

Zecchino of Venice,	3·49 grammes,	993/1000 fine.	
,, Milan,	3·46 ,,	990/1000	,,
,, Genoa,	3·46 ,,	995/1000	,,

F. E. A.

SERF (SERFDOM). This term is often treated as the equivalent of *slave* (see SERVUS), whereas it should only be applied to a peasant who renders obligatory personal service in return for the land on which he is bound to dwell. The English villein (see VILLANUS) is typical of the partly unfree class in western Europe, for the French *vilain* paid a fixed rent in produce, gave a fixed amount of labour, and had a better position before the law.

Serfdom, unknown in Normandy after the 11th century, gave way early in northern France. The main emancipation had been effected by the beginning of the 14th century; but the peasants still had feudal rents and payments to make, chiefly in produce, and performed FORCED LABOUR (*q.v.*) (see also CORVÉE) on the roads. From these duties they were not freed until August 1789. The German serfs had in some parts obtained their liberty towards the end of the 13th century, in others they remained unfree until the present century. M. de TOCQUEVILLE, *France before the Revolution*, ii. c. i., states that in no part of Germany, at the close of the 18th century, was serfdom quite abolished, and in the greater part of the country the people were still *ascripti glebæ*. The end certainly came late; in Baden not till 1783, in Prussia not effectually until 1809. In Saxony serfdom lingered up to 1832, and in one other principality till 1833. Austria had completed the abolition in 1811. In Denmark, where there had been, as in the Scottish cases of 1799, a lapse from early freedom, it ended in 1804. Serfdom had quite disappeared from Italy by the beginning of the 15th century. In Spain, in Castile, under Alphonso XI. (1312-50), the serf was irremovable so long as he paid fixed dues, and his holding became hereditary. In Russia the history of serfdom is one of the gradual lapse of slaves, free peasants, and small farmers into one class of serfs, from whom the Tsar Boris Godunóf (1598-1605) took away the right of migration. Once tied to the soil, they gradually lost their rights, and the power of their owners to sell them apart from the land became recognised late in the 17th century. The poll-tax, imposed by Peter the Great, led to proprietors being made responsible for their serfs, who, if not attached to a commune or a lord, were treated as vagrants. A peasant war broke out in the early days of Catherine II., but it failed. A reaction, however, began under Paul I. (1796-1801), who tried to limit the peasants' work to three days in the week, but it was not until after the Crimean war that effective measures were taken. These ended in the final abolition of serfage on 3rd March 1861. The dues of the Russian serf were, as usual, labour, money, and farm produce, and he was, in some cases, the victim of cruelty and oppression; but Mr. Wallace remarks that a serf might often die at a ripe age without ever having been conscious that serfage was a burden. The same writer observes that a serf's natural defences were passive resistance, flight, arson, and murder. War seldom availed him much. The revolt of the Spartan Helots in B.C. 464, and the slave wars of republican Rome, had their milder counterparts in England in 1381 and 1450; but the latter appear insignificant beside the peasants' revolts in Germany in the 15th and 16th centuries. These were fearfully sanguinary, and so far from improving the condition of the serfs, greatly delayed their emancipation.

Mr. Seebohm observes that the discovery of silver in the New World did not benefit the French or German serf. The produce in which the Frenchman paid his dues increased in value just as his land did, and the German had to work just as much in each week as before; but the English peasant, who had commuted his services and paid 4d. in 1500, still paid 4d. in the year 1600, so that his rent had fallen to ⅛th or ⅛th of the burden it had formerly been.

[The literature of the subject is enormous, being unduly mixed up with that of SLAVERY; and the list of authors appended to the article "Slavery" in the *Encyclopædia Britannica* (9th ed.) will be found valuable. Three articles by Canon Brownlow on the "Abolition of Serfdom in Europe" in the *Month* for 1891 (vol. lxxi. p. 239 and p. 537; and vol. lxxii. p. 73) give a slight but useful sketch of the subject, and cite recent authors. F. Seebohm, *The Era of the Protestant Revolution*, 1874, gives a masterly account of the peasants' wars, and of serfdom in France, Germany, and England, giving due prominence to the economic side of the question. Sir D. Mackenzie Wallace, *Russia*, 2nd ed., 1877, is invaluable for eastern Europe.] R. H.

SERJEANTY, PETIT (*parvum servitium regis*) is a rare kind of free socage or freehold tenure (see SOCAGE), in which the tenant holds his land of the king, "yielding" therefor a

bow, sword, or "other small thing belonging to war." The "yield" is annual, fixed, and, like rent, non-personal. Other incidents, if any, of this tenure were taken away by 12 Car. II. c. 24. The Dukes of Marlborough and Wellington have, since their creation, held lands in *petit serjeanty*, the annual "yield" being a flag.

[Co. Littl. 108 a. b.] J. D. R.

SERRA, ANTONIO (17th century), was born at Cosenza; nothing is known as to his life except that he wrote his treatise on the abundance of money in the prison of the Vicaria at Naples, where he was imprisoned on a charge of coining. This treatise, unnoticed by his contemporaries, had no influence on the condition of the kingdom of Naples, where the contrary opinions of his adversaries prevailed, but was at a later date highly appreciated by economists, and its importance is such as to place Serra in the foremost ranks among the economists of his day. The importance of Serra's work was exaggerated and misunderstood by many who believed that he studied the theory of international trade, whereas he was only considering the actual balance of reciprocal international engagements. Some considered him a free-trader because he advocated free trade in money, without observing that he in no way deduced this doctrine from the consideration of international trade; others, again, accused him of mercantilism, but, though he over-estimated the value of money, he did not go so far as to confound it with actual wealth.

Serra, whose attention was occupied by the great scarcity of specie which was then the source of much distress to the kingdom of Naples, studied this feature as a monetary phenomenon independent of its economic significance. He combated the opinion of DE SANCTIS that the high rate of exchange caused a scarcity of money, forming a theory of his own on payments between one country and another. He perceived that the rate of exchange is merely the sign of debt contracted outside the country, and was thus induced to examine into the true causes which induced money to flow into a country. Excluding the indigenous production of minerals, the kingdom of Naples produced no precious metals. These causes have their basis in international trade, in those transactions which render one country the creditor of other countries.

Serra describes these conditions—the superabundance of the produce of the land for exportation; the quantity of manufactured goods which can also be exported; the enterprising character of the population, which does not content itself with carrying on industries at home, but establishes and carries them on abroad, bringing home the profits; and, lastly, the profit to be made by a country acting as an intermediary in trade between other countries. Serra, however, stops short here; and being unacquainted with the theory of international trade, he confines himself to the more limited question of payments.

Serra's ideas on the value of money deserve notice; they are based on the conception that the value of each coin is connected directly with the amount of pure metal it contains, and depends on the conditions of the market and not on legal regulation. But he ignores the quantity theory of money, though he admits that an abundance of the precious metals is an absolute benefit to a country. Serra advocates permission for free export of money, but he cannot be called a free trader in the present acceptation of the word. He holds that the export of money becomes necessary if debts abroad exceed the credits; and that as long as this state of matters lasted it was useless and injurious to prohibit the export of money. On the other hand, he maintains that the government is entitled to interfere and to influence the exchanges in order to stimulate the export of national products, and thus to cause the balance of international credit to be favourable, especially by protecting and encouraging the development of national industries.

Serra's writings contain powerful and minute criticism on every subject he discusses; he supplies proofs of several elementary truths, though he neither originated nor perfected any distinct economic theory.

Breve trattato delle cause che possono fare abbondare li regni d' oro et argento, dove non sono miniere. Con applicazione al regno di Napoli, Naples, 1613.

[See Trinchera, *Di Antonio Serra e del suo libro*, Naples, 1865.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, Milan, 1882.—*Studi sopra Antonio Serra e Marc Antonio De Sanctis*, Pavia, 1880.—Gobbi, *La concorrenza estera, etc.*, Milan, 1884.—Cossa, *An Introduction to the Study of Political Economy*, London, 1893.—A. De Viti De Marco, "Le teorie economiche di Antonio Serra," *Atti del R° Istituto Lombardo*, Milan, 1890].

U. R.

SERVICES.

Material and Personal, p. 381; Predial and Military, p. 383.

MATERIAL AND PERSONAL. A service is an action performed by a person or body of persons for the benefit of another person or body of persons. The giver of the service is generally not the same as the receiver of the service. In exceptional cases, however, the giver and receiver are identical; *e.g.* a professional vocalist may sing for his own entertainment, a consulting physician may treat his own case, or a man may mend his own clothes. We exclude from the scope of the term *economic service* such personal relations as affection, admiration, and confidence, because a man cannot choose at will to render such services to one person rather than to another, and moreover his dispositions and sentiments towards one person do not neces-

sarily interfere with similar dispositions and sentiments towards another. An economic service can be more exactly defined as a beneficial action which can be rendered according to choice for the benefit either of one person or of another, and can therefore enter into any mutual agreement between man and man. In this sense, all economic services may be said to be *transferable*. Owing to their transferability, services may come to have an EXCHANGE VALUE. Economic science is mainly concerned with those services only which, being transferable, have also an exchange value. Such a service must be looked at from two points of view, viz. what it means for the giver and what it means for the receiver. To the giver of the service, the action is a DISCOMMODITY (negative wealth); to the receiver of the service, the action is a COMMODITY (positive wealth). We need not, however, assume that the discommodity in the one case and the commodity in the other case are measured by the disutility and utility respectively involved in the action. The terms discommodity and commodity are to be measured objectively by their exchange value. The correlated disutility and utility are measured subjectively. In fact, the total effect on the performer may be positively pleasurable, and perhaps the total effect on the receiver may be positively painful.

It is obvious that services must be included in any enumeration of the things on which the income of an individual or community may be spent. A considerable portion of a man's income may be spent on such services as *advice*, *entertainment*, *instruction*, etc. We must, however, distinguish the *ability* to perform a service from the actual performance; as well as the *benefit* derived or expected to be derived from the service from the actual receipt of the service. For the ability to perform a service comes under the head of personal capital possessed by the giver; and in many cases the benefit conferred on the receiver is also a purely personal non-transferable good.

On the side of the receiver we may distinguish between material services and personal services. A material service is one which provides a utility embodied in matter; such as the service of cleaning or repairing articles, of conveying goods from place to place, of working up raw materials in the processes of manufacture, etc. Material services cover practically the same ground as labour, including most forms of domestic labour, as understood in economics. The immediate effect of an employé's work is to confer a service upon his employer; and this service is manifested in the increased value of the employer's material goods. It is for this increased value that wages are paid. Two kinds of service may be here distinguished—a *production-service* and a *consumption-service*; the former adds to the value of the employer's production-goods, the latter to that of the employer's consumption-goods. Compare the employment of *factory hands* with that of *gardeners* in a private family. So far we have considered material services. A personal service is one which provides a utility embodied in a person, such as the service of advice or instruction. For instance, medical advice may be expected to restore the patient's health, professional instruction may be expected to increase the pupil's knowledge. But here it must be noted that the pupil or patient does not *purchase* knowledge or health; these are non-transferable personal utilities. He purchases merely the services of instruction or advice, which have been called transferable goods. One important case of rendering a service is that involved in handing over the *goodwill* of a business or professional practice. Strictly speaking, the goodwill cannot be bought; for it is a personal non-transferable possession analogous to reputation or knowledge. What is bought is the service of introduction and possible diminution of interference from competition, etc.; and what secures a price for this service is the expectation that the "custom" of the business or practice will be maintained under new hands (see GOODWILL).

Turning from the receiver to the giver of a service, we have already observed that the power to perform a service is a species of personal wealth or personal capital, which is non-transferable. The personal possession is a durable good, which may be either a production-good or a consumption-good. So far as the ability is used for the direct enjoyment of the owner, it is a consumption-good. So far as it is used for other ends beyond direct enjoyment, it is a production-good. In the latter case, the work comes under the head of economic labour; and we define a production-good as that which is utilised by an expenditure of economic labour. Another distinction must be drawn according as the ability to perform a service is a free gift of nature or the result of previous labour and expense. In the former case, the return for the service is partially of the nature of rent, in the latter of the nature of interest.

The more exact consideration of the distinctions between rent, quasi-rent, interest, and profits will apply to the employment of personal capital just as to the employment of material capital. A fundamental distinction will however remain between wages in its broadest sense on the one hand and interest and rent on the other hand. The earnings of labour will always include, not only a return for natural advantages and past expenses of training or education, but besides this a recompense for the exertion of effort and loss of leisure actually incurred in the work itself (see also GOODS, CLASSIFICATION OF).

W. E. J.

Services, Predial and Military.

Predial, p. 383; Villein, p. 383; Free Tenant, p. 383; Military, p. 384.

1. Predial.—These differ greatly in degree, when they form the return made by a villein to his lord for his holding on a manorial farm, or when they are done by Soomen or Libere Tenentes. The latter usually worked at the harvest Precariæ and on a few other days, and then only by deputy; but they were bound to be present with rods and to keep the actual labourers up to their work, and they provided their stipulated number of men.

The villein (see Villanus) was bound to Week-Work (*q.v.*) all the year round with few intermissions. Ploughing, harrowing, and hoeing, with the further duty of providing seed in some cases, were one main form of predial service. *Bedripes* (*i.e.* bidden reapings), the reaping and mowing of corn or grass, formed a second variety, but to these were added ploughing and reaping *precariæ*. A third principal class of labour consisted of *averagia*, or the carrying of crops from, and manure to, the fields. Beyond these there was miscellaneous farm work such as hedging, ditching, threshing, washing and shearing sheep, thatching, cutting brushwood, and guarding sheep-folds. Most of these, with the *prestations* or offerings of poultry, eggs, sucking-pigs, and the like, were in course of time commuted for money payments. Matters of this kind are recorded with such minute care in manorial extents that this would alone tend to show that lords could in practice only claim a stipulated portion of the time of men who in strict law were absolutely their chattels. The exact nature of these predial services can scarcely be realised without actual examples from the records, and the following compressed translations from the *Ramsey Cartulary* (i. 287, ii. 47) will show the general work exacted from tenants of different classes about A.D. 1340:—

'*Free Tenant.* Andrew, son of William the free man, holds a Virgate and a half, and for it owes suit of the hundred and county courts as well as of the manorial. He finds two men at the first *precaria*, whom the abbot must feed, and he himself goes among the reapers with his rod and eats with the *servientes*. He pays as much Hidage and scutage as belongs to his holding and he pays *Heved Peny*, which excuses him from attending the halimote more than twice a year (i. 369). *Workmen, etc.* William, the carpenter, holds a toft for 32d. and *ben* and *bedripe* (ploughing and reaping *precariae*). John, the shepherd, a toft for 20d. and *ben* and *bedripe*. Gilbert, the reeve, a toft for 2s., and *ben* and *bedripe*. The workmen and manorial officers were at Ramsey allowed the corn from three acres and á similar amount of barley (i. 351). *Villein.* Richard atte Green holds one virgate for which he pays 12d. annually *ad heusyre* (house-hire), and for the aid of sheriff and hundred 4¾d. At Christmas he brings one fowl and one bushel of wheat called *benesed*, and one ring of oats for *foddercorne*, and ¾d. in Lent as *fissilver* (in lieu of fish), and twenty eggs at Easter. He pays also Tallage, hidage, Pontage, Pannage, Merchet, Heriot, fine on marriage of a daughter, and wodehac (fuel money). Once a year he shall find a man to work for a day in the vineyard until sunset, or pay 1d. to the vine-master. From Michaelmas to Whitsuntide he shall alternately work for four days and plough on the fifth in one week, and work on two days and plough on the third in the next week. From Whitsuntide to Michaelmas he shall work for four days and, if necessary, plough on the fifth every week, but will be excused on festivals. If he has to do task-work he will thresh twenty-four sheaves of corn and thirty of barley, beans, or oats, as one day's work. He shall gather in the wood and carry one bundle of brushwood to the farmyard or one bundle of thorn, and if he makes an enclosure with thorns he shall be quit of the day's work if the bundle is large; if it is small he must go back to the wood and get another. He shall enclose by task-work one and a half or two rods (per day) fetching the thorn. On level ground he shall dig a (ditch) of 16 feet long, 5 feet wide at the top and 2 at the bottom, and 2 *spadegrafes* or more in depth. In an old ditch he shall dig 32 feet of the depth of one *spadegrafe*, and shall trim the sides well so as to make the ditch as wide as it was at first, to the satisfaction of the *serviens* or the reeve. He shall gather three bundles of brushwood and trim them and cart them to the farmyard. He shall scatter manure over one acre strip, and shall harrow at sowing-time with the harrow he uses on his own land from morning till sunset without interval. He shall also hoe from morning till evening with a short time for food, also he shall mow from morning till evening with one able-bodied man, who will have food at noon and at once return to the mowing; and at evening he shall have one bundle of grass as much as he can lift on his scythe, but without breaking the scythe or touching the ground, or he will lose the bundle. Also he shall mow half an acre of meadow and shall unite with others for the work of one day, and he and his fellows shall have one measured acre of meadow called Sythaker. In every week of the year, except thirteen days at Christmas, he shall plough one acre strip with as many oxen as he has in the team, and besides that ploughing, at wheat-sowing he shall plough one acre strip for a *lovebone*, which ploughing shall reckon as a day's work. At oat-sowing he shall come to all the ploughing *precariae* as he is ordered, and the abbot shall feed him. At the first autumn *precaria* he shall find four labourers, of whom two shall have three loaves, beer, fresh meat, and one portion of cheese. And if that *precaria* shall be taken, through the forwardness of the season, before 1st August, on the morrow of the *precaria* he shall work with one man as a recompense for the dinner of the preceding *precaria*. If the *precaria* is taken after 1st August he shall find two men for labour in the same way as before. At the second *precaria* he shall provide three men, and two men shall have three loaves as at the first *precaria*, and six

herrings, cheese, and water; and on the morrow he shall find one man for the work allotted to him. And if a third *precaria* is necessary he shall work with one man without food. This shall reckon in place of one day's work. He shall cut the straw or bind it as often as he is told throughout one day as a day's work, having a short time for eating. Jointly with another virgate-holder he shall do cartage for a whole day in autumn with a cart, two men, and two horses, with a short interval for food. This is to reckon as one day's work. And if he does this before 1st August on the morrow he will be quit of work, but on the next day he, with one man, shall do what the bailiff orders. Similarly he and another virgate-holder shall find a cart with two horses and two men to carry hay. They will have one knight's loaf of bread and beer, but the cartages will not reckon (as a day's work). Also he shall gather one *calligata* (perhaps one quarter bushel) of nuts as one day's work. If he does it on a festival he shall do a day's carrying at the abbot's, will within or without the county. And he and another virgate-holder shall do a day's carrying within or without the county which shall not reckon as a day's work. Each load will be one ring of corn or six bushels of barley or oats. He shall take one ring of corn to the mill, which a cottar shall safeguard until it is ground to flour, and then Richard shall take it to Ramsey. Also he and another *virgatarius* shall take one load of cheese or bacon and shall have for each load a loaf and ale the day before Good Friday and on Tuesday in Easter week. He shall gather twigs and make from them one screen nine feet long as one day's work, or one partition between the booths at St. Ives for two days' work. As often, too, as he shall watch as a guard over thieves he shall be quit of work on the morrow of that night. If he shall fall sick, for the whole time of his sickness up to the end of a year and a day, he shall be quit of all work except ploughing, and if his illness lasts longer he shall thenceforward do what pertains to his holding. If he dies before his wife, his widow shall give 5s. as a heriot, for which she shall be quit of all work for thirty days. And if he shall die unexpectedly, leaving no will, the abbot shall have SEISIN of his houses and chattels to dispose of at his pleasure, which houses the widow cannot enter or stay in except with the assent of the abbot. On the day on which he ploughs upon the abbot's land he ought not to be distrained by taking the beasts that are that day in his plough-team, but the distraint should be put off till the morrow.

The above is an instance of a rather exacting lord; but there are, of course, variations of all kinds from the specimen here given. The punishments inflicted on manorial tenants who failed in any of these duties may be read *passim* in Prof. Maitland's *Select Pleas in Manorial Courts*.

There are many curious varieties of minor exactions, such as *unlawenearth* and *godlesebene*, which speak of hardness and unreason; for lists of them, accompanied by such interpretations as can be given, see Vinogradoff's *Villainage in England*.

MILITARY.—These services, so far as concerns the higher ranks of the army, are fully discussed under KNIGHT'S SERVICE; but the FYRD which, with the mercenaries, furnished all the infantry in early feudal times, requires a short notice.

The *Assize of Arms* of 1181 (*Benedict*, i. 278) orders the *communa* of free men to supply themselves with a coat of mail, head-piece, and lance. These were of course men-at-arms; but this is only a portion of the matter, for records show that the villein class went to the FYRD with their reeve at their head. But the REEVE was generally a VILLEIN himself, and a better equivalent of the modern non-commissioned officer seems to be suggested by the presence of the *servientes*, in French *serjanz*, who have given us the name now used for the class. The early PIPE ROLLS contain numerous entries respecting knights and *servientes*, which as Mr. Round shows, prove that the former were paid 8d. and the latter 1d. *per diem*. The roll for 11 Hen. II. p. 85, has an entry as to wounded men juxtaposed with one as to the payment of *servientes rustici*, who were of course villeins, but no doubt trained for military service. These "sergeants" often existed in large numbers, the abbot of Abingdon alone supplying Henry II. with as many as 100. Jordan Fantosme (*ll.* 1200-1242) shows them in battle "les meillurs serjanz k'unkes barun retint," but gives no clue to their position or duties; and yet these paid sergeants going out with the *villani* to the fyrd could scarcely have dropped altogether the authority which manorial records show they had over the same *villani* in the harvest field. We must not go into more details of the military matters of this period. Gradually the ancient fyrd system was transformed by the assize of arms, and, lasting through other changes, survives in the modern militia. R. H.

SERVICIO (or PEDIDO). An aid or subsidy (see AID, AUXILIUM); granted (*servido*) by the cortes of Castile to the king, who had demanded (*pedido*) it in extraordinary emergencies.

[Piernas Hurtado, *Tratado de la Hacienda Pública*, vol. ii. p. 47 (4th ed., Madrid, 1891), and Canga Arguelles, *Diccionario de la Hacienda* (London, 1826), under the word Pedido.] E. CA.

SERVITUDE, NATURAL. Servitudes fall into two classes: (1) those granted by landowners; (2) those created by law. The latter class are sometimes called "natural servitudes."

[Goddard on *Easements*, London, 1891.]

J. E. C. M.

SERVITUDES. The *servitutes* of the Roman law. These were certain rights over the property—not only upon lands but also upon cattle, furniture, and slaves—of another person which could be enforced by legal remedy. They are usually classified as (1) *personal*, when given to a particular person, such as, USUS (*q.v.*) and Usufructus, *operæ servorum*, and *operæ animalium*; (2) *prædial*, when associated with the ownership of something (the *res dominans*) by right of which the servitude was enjoyed over something else (the *res serviens*). This section included (*a*) *urban servitudes*, such

as *jus tigni immittendi, stillicidii, projiciendi,* and several others; and (*b*) *rustic*, as for example the *jus eundi*, or right of way on foot or on horseback; and *aquæ ductus*, the right of passage for water.

[*Institutes of Justinian*, bk. ii. tit. 3-5.—T. E. Holland, *Jurisprudence*, 1893. As to Servitudes in English Law, see EASEMENT.] R. H.

SERVITUS signifies in Roman law (1) slavery, (2) the subjection of a thing, *i.e.* the relation which arises from a thing belonging to the person, being subject to a limited extent to one right of another, such right being either for the benefit of a particular person, a personal servitude, or for the benefit of neighbouring property, a real or predial servitude. The right to a servitude cannot be separated from the person or thing it is intended to benefit, *i.e.* the right itself is inalienable. A servitude is a right available against all the world, which entitles a person either to interfere positively with the property of another, as by walking over his land, or to prevent another from dealing with his property, as he otherwise might have done, as from building his house above a certain height (see SERVITUDES and EASEMENT). E. A. W.

SERVUS (Roman law). The class of slaves was chiefly recruited by captures in war, prisoners being usually sold after a battle to the slave dealers who followed the Roman armies. Cæsar (*De Bell. Gall.*, iii. 16), mentions that after the war with the Veneti he sold the sea-board people *sub corona*, that is, into slavery. Servile birth, evasions of military service or public taxation, and debt, increased the number. In legal theory the master had complete power, even of life and death, over his slave; but in the early days slaves were, as Plautus shows, kindly treated on the whole. In the times of corruption and debasement, restraining laws had to be passed against killing them, and Antoninus Pius enabled them to obtain some protection from cruelty, yet even in the days of Justinian the slave had acquired no legal rights. He could not, according to strict law, hold property and could not marry. Custom was, however, as usual in direct opposition to strict legal theory. The slave was generally permitted to accumulate earnings, and his *peculium* was often allowed to become the means of procuring his manumission. He was encouraged to learn trades, and the artisans and even teachers and physicians of Rome were often slaves. Indeed, they frequently kept their masters in affluence by their skill. The slave's *contubernium* was, in effect, viewed as marriage; and in sales of property there was a rule of law against separating near kindred. It was not in the power of a private slave to bequeath by will—though even this took place in fact—or to make valid contracts for his own benefit. Any advantage from such contracts enured to his master. On the other hand, manumission could be gained by many exceptional methods, such as the revelation of plots, detection of crimes, and military service, as in the Punic wars. The punishment of slaves by whipping and branding was common, while crucifixion was the fate of those condemned to death.

Romans of the wealthiest class, under the emperors, often owned thousands of slaves, and the war of Spartacus testifies to the large numbers of the class at an earlier date. They were employed in large gangs in agricultural work; but many were reserved for domestic duties and the cruel service of the arena. To the Roman villa there was usually attached an *ergastulum*, part of which was an underground prison in which the more dangerous slaves, who worked in chains, were kept at night, while those who were reliable lived in the upper part of the building.

There were, however, two main classes of slaves, public and private. The former were in a far better condition, and were employed as minor public officials. The fact that they could leave half their *peculium* by will marks a real difference in their position.

(*Mediæval.*) The story of the English youths in the slave market at Rome in A.D. 578, connects the mediæval with the Roman traffic in human beings. In the laws of Ina (about A.D. 688), the sale of persons whether bond or free, to be taken out of the realm, is forbidden (Wilkins, p. 17); but Domesday Book (i. 26) contains a reference to the trade (Tolls at Lewes, *de homine, iiij. d.*), and William of Malmesbury (*Vit. S. Wulstani*, Wharton, ii. 258) describes its prevalence at Bristol under the Conqueror, mentioning the cruelties and immoralities which accompanied it. Some were sent to Denmark (*W. of Malm.*, i. 245); but they were chiefly exported to Ireland, though the Irish bishops strove to stop the traffic (Gir. Cambr., *Expugn. Hibern.*, i. c. 18).

Bishop Stubbs classifies the slaves of the early Anglo-Saxon times as the *theow* or slave simple, whether *wealh*—that is of British extraction—or the descendants of the slaves of the first colonists; the *esne* or slave who works for hire; and the *wite-theow* reduced to slavery for debt, or self-sold into slavery to avoid starvation. They had no *wergild*, no credibility, no legal rights; but there are traces of a practice which was better than the legal theory, and it was possible for a slave to save up money and buy his freedom.

Domesday Book enumerates 25,156 slaves, nearly one half being in Gloucestershire, Wilts, Dorset, Somerset, Devon, and Cornwall, and very few in the northern half of England. Although the strongly Danish eastern counties contained 3672, the concentration was on the Celtic side of England, and the Danelagh was

comparatively free. There is thus some ground for believing that the ancient Celtic population furnished the bulk of the *servi*. The Hundred Rolls of 1279 contain many entries of *servi*, but though many of these (*e.g.* ii. 825, where the *servi* hold virgates) are careless designations of *villani*, Vinogradoff points out such expressions as *ut villani, ut servi, ut libere tenentes* (ii. 690, 691), which are clear, and yet, as these men held small plots of land, they were slaves more in name than reality. In legal theory even a *villanus* was a slave; but in such documents as the *Liber Niger* of Peterborough (*circa* 1125), or the Ramsay cartulary, i. 281 (1251), there is no trace of a genuine *servus*, and Professor Ashley is probably right in saying that absolute slavery disappeared in less than a century after the Conquest (*Economic Hist.*, i. 18).

[Smith, *Dict. of Greek and Roman Antiq.*—Stubbs, *Constit. Hist.* i.—Cunningham, *Growth of Eng. Industry and Commerce*, i. 81.] R. H.

SESTERTIUS (Latin for $2\frac{1}{2}$), Roman silver coin, first struck 269 B.C., weight 288 to the lb. or 17·5 grains, later 15 grains, original value = the "libral as" of 250 scruples, *i.e.* $2\frac{1}{2}$ 4 oz. asses of that period. Soon after 269 B.C. it became, and whether silver, or, under the empire, bronze, remained the monetary unit until Diocletian, when the "follis" took its place as coin. 100 sesterces = 25 denarii = 1 aureus. Obverse, female head helmeted and winged, and IIS (= $2\frac{1}{2}$); reverse, Dioscuri on horseback.

[S. M. Stevenson, *Dictionary of Roman Coins*, (1889).] J. D. R.

SET-OFF. The right of set-off is the right of a debtor, from whom the amount of the debt is claimed, to deduct any amount which his creditor owes him. This right is not a common-law right, but was introduced by statute 2 Geo. II., c. 22, § 13, and is now recognised by the rules of the supreme court (order 19, rule 3), and also by the Bankruptcy Act 1883 (§ 38), subject, however, to the reservation that a person, who at the time of giving credit to a person to whom he is indebted, had notice of any act of bankruptcy committed by the latter, forfeits his right of set-off. In such a case the person so giving credit must pay to the trustee in bankruptcy the whole amount owing by him to the person to whom he gave credit, and must prove in the bankruptcy for the amount of the debt owing by the bankrupt to him.

E. S.

SETTLED LAND. See SETTLEMENT.

SETTLED LAND ACTS. See ENTAIL, LAW OF; SETTLEMENT.

SETTLEMENT.

Settlement (Land), p. 386; Settlement, Poor Law, p. 387.

A settlement is defined in Sweet's *Dictionary of English Law* as "an instrument by which property, or the enjoyment of property, is limited to several persons in succession." The usual object of a settlement is to provide for the wants of a family. Property can scarcely be turned to the best account by any but an absolute owner; but it may be lost altogether by his folly or misfortune. Its safety is ensured by giving only a restricted interest to each of those individuals whom it is intended to benefit. A settlement may be made by deed, by will, or even by a private act of parliament. In the majority of cases it is made by deed, and on the occasion of a marriage (see MARRIAGE SETTLEMENT).

Settlements differ chiefly as the property settled is personalty or realty. Settlements of personal property are comparatively simple. The common law recognises no restricted interests in chattels corresponding to *estates* in lands. In order, therefore, to secure the enjoyment of personalty to several parties in succession, it is necessary to create a trust (see TRUST; TRUSTEE). The fund is vested in trustees, who have many of the powers of an owner for preserving and administering it, but who are bound to pay the income arising from it, and eventually to distribute the principal according to the directions contained in the settlement. The conception of a trust was due to the court of chancery, and trusts are still enforced by the chancery division of the high court of justice. Settlements of personal property are comparatively modern; for most of those kinds of personal property which produce a permanent income, such as stocks and shares, were unknown till comparatively recent years.

Settlements of real estate have a longer history. From the earliest time down to a time comparatively recent, land was immeasurably more important than all the other forms of wealth put together. The great majority of civilised men derived their living and their social position from the land which they held. Hence the frequency of restraints on the alienation of land imposed in the interest of the owner's family. Such restraints appear to have existed among the German peoples who invaded the Roman empire. With the development of feudalism (see FEUDALISM) the power of alienation was yet further restricted. Each man's political and military duties were determined principally by his relation to the land. Landed property assumed a public character. The same causes which tended to produce a rigid rule of succession to kingdoms tended to produce a rigid rule of succession to private estates. That estates should be inalienable and indivisible might seem conducive to public order; it certainly prolonged the greatness of families, and assisted the overlord in enforcing his feudal claims. In England the power of making a will of lands disappeared after the

Norman conquest, except in a few places where it was preserved by tenacious custom (see WILL, BEQUEST BY). The Statute of Westminster the second, *De Donis Conditionalibus*, 1285, took away the power of alienating an estate tail (*i.e.* an estate given to a man and the heirs of his body). Thus every entailed estate was placed in perpetual settlement. Much inconvenience ensued, but the statute, instead of being repealed, was evaded. Unable to dispose of the land itself, men disposed, by will or otherwise, of the use or beneficial interest in the land, and the chancellor gave effect to their dispositions. The Statute of Uses (1536) was designed to prevent the creation of such interests, but failed of its object, giving rise to new and unprecedented methods of dealing with land. The courts of common law encouraged the collusive actions known as fines and recoveries, whereby it became possible to bar entails so as to get rid of the restraint on alienation imposed by statute. It was laid down that a tenant in tail could not by any means be deprived of his right to have recourse to these actions. To protect estates from the exercise of the power of alienation thus obtained, settlements of realty were gradually developed. By the middle of the 17th century these settlements had taken the form which they kept for more than two hundred years.

As the common law has always recognised limited "estates" in land, it is not necessary to a settlement of real property that the land should be vested in trustees. Those who are to take the land will have legal and not equitable estates. By means of the application made of the Statute of Uses these legal estates can be made to arise or to shift from one person to another in a way which would have been impossible in the middle ages. The settlement usually gives an estate for life in possession to a particular person followed by estates tail in remainder to his children. A tenant for life had no power of alienation at common law, and a tenant in tail in remainder cannot bar the entail without the concurrence of the tenant for life. When the eldest son of the tenant for life comes of age, the land is usually re-settled, and his interest cut down to a life estate, estates tail in remainder being granted to his children. Thus, by means of settlement and re-settlement, the land is hindered from ever becoming subject to an estate tail in possession which might be barred by the sole will of the tenant in tail. It therefore became inalienable until recent legislation. By means of an intricate legal mechanism a settlement of real estate also provided for the widow and younger children of the tenant for life, and vested in trustees such powers of selling, exchanging, leasing, etc., as were deemed necessary to the proper management of the estate. But the main purpose of such settlements, to make the settled land inalienable, has been entirely defeated by the Settled Land Acts. Under these acts the tenant for life has powers of dealing with the land little inferior to those of a tenant in fee simple, and in particular has a power of alienation which is all but unlimited, and which he cannot by any means bind himself not to employ. The proceeds of the sale of settled land must be invested for the benefit of the persons entitled under the settlement. A settlement of real estate can no longer ensure the indefinite retention of the same land by the same family. It can only ensure the preservation of a fund which may take the form of land or of certain other investments, and must descend as though it were land.

The time during which property, real or personal, could be tied up by the provisions of a settlement is restricted by the rules against perpetuities (see PERPETUITIES), which were gradually worked out by judicial decision. No interest in such property can be created which would not necessarily take effect within a life or lives in being at the time of the settlement or twenty-one years after. In addition to this the statute 39 & 40 Geo. III. c. 98, commonly known as the Thellusson Act, because occasioned by the unreasonable will of a Mr. THELLUSSON (*q.v.*), forbids the accumulation of the income of settled property for any time exceeding the life of the settler and twenty-one years after.

In conclusion it may be said that settlements as the means of making particular objects of property inalienable are likely to disappear altogether. They are not favoured by economists, and they conflict with modern ideas. But settlements as the means of making provision for parties about to marry, and their children, are likely to become more common with the growth and diffusion of wealth.

[Williams, *On Real Property and on Settlements.*—Pollock, *Land Laws* (English Citizen Series).—Digby, *History of the Law of Real Property.*—Williams, *On Personal Property.*—Davidson, *Precedents in Conveyancing.*—Tudor, *Leading Cases in Conveyancing.*—And the authorities cited in art. ENTAIL, LAW OF.] F. C. M.

SETTLEMENT, POOR LAW, means the place liable, or which, where there is irremovability (see below), may again become liable for a person's maintenance, should he become destitute. Settlement is often dated from the act of 1662; but, in fact, the principle had been generally recognised in previous legislation. The earliest English laws enforced the responsibility of the community for its members,—stranger and outlaw were, in the beginning, almost synonymous terms. When, with the industrial revolution of the 15th century, the evils of vagrancy grew to a head, the attempted remedy was the vagrant's removal to his birthplace (12 Rich. II. c. 7 and 8; 19 Hen. VII. c. 12, 1 Ed. VI. c. 3). In the numerous

statutes which culminated with the great act 43 Eliz. c. 2, the burden of relief is always recognised as falling on the parish. A person was considered settled in the parish where he was born, or in which he had dwelt for the last three years (1 Ed. VI. c. 3), or in some cases one (39 Eliz. c. 4). A mass of settlement law had accumulated, and quarter-sessions and assizes were continually occupied with the decision of these cases (Inderwick, *Interregnum*, 1891, 8vo, p. 91). Moreover, the mischief was practical. The administration of the poor law differed widely in different parishes. In many, rates were not levied for thirty or forty years after the passing of the act of Elizabeth (tract quoted by Eden, *State of the Poor*, vol. i. p. 144); and cases were frequent of able-bodied men leaving their homes and wives and children chargeable upon the parish (7 Jas. I. c. 4, § 7). In these circumstances, the settlement act in effect enacted that forty days residence within a new parish conferred a settlement; but that, in the interval, the new comer should be removable to his birthplace. Whatever its intentions, the results of the act were disastrous. If it did not forge the fetters of the labouring poor, it fastened them afresh, when they were dropping off. Under a new name the working classes became once more *ascripti glebæ*. On this one point critics of the poor law were agreed; theorists and practical men were at one. The assailants of the system included Adam Smith and Pitt. A striking picture of its effects is found in Arthur Young's *The Farmer's Letters to the People of England*, 1767, 8vo, p. 173. "The prodigious restrictions thrown on their settlement tends strongly to prevent an increase of their numbers." Landlord and farmer carried on "an open war against cottages," thus widening the breach between employer and labourer which was sufficiently open before. "Nor is the hardships of removals less: a man is resident in a parish, where by his connection or nature of his business he is much better able to maintain himself than in any other place—this circumstance often is as three to one; he marries, immediately he receives notice to quit . . . and his example hangs *in terrorem* to prevent others from being guilty of the folly of marrying." (See also *Wealth of Nations*, ed. by M'Culloch, 1863, pp. 62-65.) In spite, however, of protests, no substantial alteration was made in the law until 1795 (35 Geo. III. c. 101), when it was enacted that persons should only be removable *on becoming actually chargeable*. Henceforth, the main evils of settlement law lay in its complexity and costliness, rather than in its interference with the mobility of labour (see Labour, Mobility of); and it will here be sufficient, without endeavouring to trace each step of progress, to give a brief summary of the existing law.

Settlement is obtained (1) *by birth: Prima facie*, a person's settlement is his birthplace, and this rule applies to children (Coleridge, J., 14 Queen's Bench, p. 219). (2) *By parentage:* legitimate children follow the settlement of the father, and illegitimate that of the mother (sec. 71 of act of 1834), if such settlements can be shown, sixteen being the age of emancipation for both classes (Lord Watson, *14 Appeal Cases*, p. 484, interpreting the obscure 35th sec. of 39 & 40 Vict. c. 61). (3) *By marriage:* The wife follows the husband's settlement, if he have one; otherwise, she retains her maiden settlement. A widow keeps her late husband's until she acquires a new settlement (Common Law and 49 Geo. III. c. 124). (4) *By residence:* Settlement is obtained by three years' residence "without break," but a short absence, where there is *animus revertendi*, does not constitute such break (39 & 40 Vict. c. 61, § 34, and cases decided on § 8 of 28 & 29 Vict. c. 79). By this section, residence for one year "without break" gives irremovability, and the distinction between settlement and irremovability is often overlooked. Wherever settlement by residence takes the place of birth settlement, the effects of irremovability continue only while residence lasts, *e.g.* A has V for birth settlement; he acquires a settlement in X by three years' residence. He afterwards resides a year in Y, and is, for the time, irremovable. Afterwards, he goes to Z for some months, but returns to Y, and becomes there chargeable, before the expiration of a year from his return. His settlement is X, although, while he was irremovable in Y, that settlement was in abeyance. (5) *By apprenticeship:* Settlement is obtained by indenture or other deed, if the apprentice, in pursuance of the deed, reside forty days in a particular place (3 W. and M. c. 11, § 7). (6) *By estate:* Settlement by estate sprang from the rule that a man could not be removed from a parish where he had an estate of land, coupled with the effect of the act of 1662, giving settlement after forty days' residence. When the estate is by purchase, the consideration must be at least £30 (9 Geo. I. c. 7, § 5). (7) *By payment of parochial taxes:* The tenement must be *bonâ fide* rented for at least £10 a year, for the term of one whole year. The rent must have been paid and the premises actually occupied for at least one year (6 Geo. IV. c. 57, § 2). Settlement even now is limited to the parish, but this has become immaterial since the passing of the Union Chargeability Act 1865 (28 & 29 Vict. c. 79), which substitutes the union for the parish in respect of the poor rate.

The foregoing summary shows that the history of settlement is an admirable example of English methods of legislation. Practical inconvenience has been remedied, while logical symmetry has suffered. Numerous committees

of the House of Commons have recommended the total abolition of removals; a bill embodying this proposal was introduced by the president of the poor-law board more than thirty years ago; there is complete unanimity among all versed in the subject. But parliament has not yet found time to legislate, and the costs and technicalities of removals still go on. Meanwhile, it has been suggested that a partial remedy would be, to make compulsory the provisions of § 12 of 14 & 15 Vict. c. 105, which gives power to boards of guardians to submit disputes as to settlement to the central board.

With respect to the aged poor, the royal commission, 1895, recommended that legislation should be introduced, enacting "that persons over sixty-five years of age shall not, in general, be liable to removal." "The whole law of settlement," they reported, "is in its working exceedingly costly and complicated, and is one of the first questions needing attention in the general arrangement of the poor law. As regards the aged . . . there is a consensus of opinion that, if rigidly applied, it involves considerable hardship."

[The most exhaustive discussion of the history and theory of the question is in the *Report to the Poor-Law Board*, by G. Coode, 355 pp. Parliamentary papers, 1851 (675), vol. xxvi. The appendix contains a detailed examination of the reasons given for the introduction of the act of 1662, and valuable extracts from various authorities on settlement. See also Eden's *State of the Poor*, 3 vols., 1797.—Nicholls' *History of the English Poor Law*, 2 vols., 1854, 8vo.—Cunningham's *Growth of English Industry in Modern Times*, 1892, 8vo, p. 206.—*The Report of the Royal Commission on the Aged Poor*, 1895. The provisions of the existing law will be found in Symonds' *Handbook on the Laws of Settlement and Removal*, 3rd ed., 1891, 8vo; and Archbold's *Poor Law*, 14th ed., 1885, ed. by Glen.

Consult for whole subject Glen's *Poor Law Statutes*, vols. i. and ii. 1873; vol. iii. 1879. An admirable treatment of settlement will be found in Aschrott's *The English Poor Law System*, trans. by Preston Thomas, 1888, 8vo.] H. E. E.

SETTLING DAY. On the London stock exchange, bargains, except when expressly stipulated as being for cash, are made for the "settling" or end of the "account"—the "account" being a period of about a fortnight. The transactions of the account are closed in the last three days, *i.e.* for the first half of the month, from about the twelfth to the fifteenth; and for the second half, from about the twenty-fifth onwards. The first day is "contango" day, when arrangements are made for carrying over, or continuing bargains to the next account; the second is "ticket" day, when brokers pass tickets and names for stock and shares they have to receive; and the third day is "settling" day, for payment and delivery of cash and stocks.

Consols' Settling Days occur only once in each month, generally during the first week in the month.

Special Settlements. In the case of new shares or stocks, bargains are sometimes made for the "coming out," *i.e.* for settlement upon the issue of certificates in the new company, but in the majority of cases bargains are first made for the special settlement, which takes place upon a day appointed by the stock exchange committee.

On foreign stock exchanges the periods of settlement differ. In Paris they take place once a month; in New York there are no fixed settling days. R. W. B.

SEYD, Ernest (1833-81), was born at Elberfeld in Prussia. At an early age he visited the United States, and subsequently went to Paris, and was present during the revolution of 1848. Returning the next year to Germany, he took an active part in the revolutionary movement which resulted in the congress of Frankfort-on-Main, and the present German constitution. He was afterwards engaged in banking and exchange business in Paris, San Francisco, and London. On the adoption of the gold standard by Germany in 1873, he protested in the strongest manner against the change to a single gold standard, and foresaw with wonderful prescience the monetary dislocations that have since taken place. In his remarks on this subject E. Seyd's opinion coincided with, while it preceded, that of Prof. Walker, as to the prejudicial effect of the action of Germany on the trade of the world (Walker, *Money, Trade, and Industry*, 1880, p. 191). Ernest Seyd was also asked by the United States congress to report on the American Coinage Bill of 1873 then pending. Seyd's writings on banking, bullion operations, and kindred subjects are well known, and his persistent advocacy of the use of silver as a standard, and his opposition to the policy of demonetisation of that metal, constitute him a leading, if not the principal pioneer of the present "bi-metallic" movement in England.

Ernest Seyd had great influence in the arrangements of the German bank act of 1875. The provisions in §§ 9-10 under which the Reichsbank is allowed to exceed the authorised limit of issue on payment of a tax of 5 per cent on the excess, is believed to be due to his initiative. This plan has many advantages over that of the English bank act of 1844 (see German bank act of 1875. *Journal of Statistical Society*, 1875, also art. on Bank Note).

His principal works are those in English, all published in London:—*California and its Resources*, 1858.—*Bullion and Foreign Exchanges Theoretically and Practically Considered*, 8vo, 1868.—*The Question of Seignorage and Charge for Coining*, 8vo, Effingham Wilson, 1868.—*The Depreciation of Labour and Property which would Follow the Demonetisation of Silver*, 8vo, 1869.—

Letters to the Times. See the *Gold Coinage Controversy*, reprinted for private circulation by the Bank of England, 1869.—*Enquête sur la Question Monétaire*, published by the French government.—*Die Münz-Währungs und Bankfragen in Deutschland*, 8vo, Bädeker, Elberfeld, 1871.—*Suggestions in Reference to the Metallic Currency of the United States of America*, 1871.—*The London Banking and Bankers' Clearing House System*, 8vo, 1872 (translation in French, E. Guyot, Rue de Pacheco 12, Brussels).—*Reform of the Bank of England Note Issue*, London, 1873.—*The Decline of Prosperity; its Insidious Cause and Obvious Remedy*, 1878.

Ernest Seyd, son of above, is the author of *Bi-metallism in 1886, and the Further Fall in Silver.—The Silver Question in 1893.*

SHAREHOLDERS. A person who owns one or more shares in a company is called a shareholder in the company. The management of a company, except in very small private companies, is generally entrusted to a board of directors elected by the shareholders, but the latter have certain rights of control, which they exercise at general meetings or otherwise in accordance with the provisions of the articles of association. E. S.

SHARES. The capital in limited companies (except in the case of companies limited by guarantee, which in practice are of very small importance) must be subdivided into shares of fixed and equal amounts, which cannot be converted into STOCK (*q.v.*) until they are fully paid up. In some foreign countries a minimum amount is fixed for shares so as to prevent small investors from risking their savings in taking shares of speculative companies; thus in Germany the minimum amount of a share as a general rule is 1000 marks (£50). In France the minimum was formerly 100 francs (£4) in the case of companies having a capital of not more than 200,000 francs (£8000), and 500 francs (£20) in the case of larger companies; but since 1893 it has been reduced to £1 in the first-mentioned case and £4 in the last-mentioned case. In the United Kingdom a share may be of any amount from a farthing upwards. E. S.

SHEFFIELD, JOHN BAKER HOLROYD, Earl of (1741-1821), the friend and executor of Gibbon, wrote copiously on the poor and corn laws, Ireland, the slave trade, and other economic questions of his day.

He entered the army in 1760, but in peace intervals farmed his extensive lands at Sheffield Place, Sussex. As member for Coventry in 1780, he took a prominent part in the suppression of the Gordon Riots of that year, at the close of which he was created Lord Sheffield in the Irish peerage. As member for Bristol he vehemently opposed the abolition of the slave trade. On this as on the CORN LAWS, Lord Sheffield's views were extremely definite, but hopelessly insular and short-sighted. In advocating free trade with Ireland, and the Union, he proved himself, however, to be more than abreast of his times. He wrote:—

Observations on the Manufactures, Trade, and Present State of Ireland (1st ed., 2 pts., also 3rd ed., London, 1785, 8vo; another ed., Dublin, same year). After disproving the aspersions cast on the Irish character and industry, Lord Sheffield proceeds to deprecate all trade jealousies between the sister countries, showing how injurious to both a war of tariffs would be, since England takes the whole manufacture of Irish linens, while Ireland provides a valuable market for British woollens. The increase (p. 12) of the woollen manufacture in Ireland need not alarm British manufacturers; at the same time, the Irish are warned against irritating England by the attempted exclusion of her woollens from Irish markets. The volume closes with a lengthy commentary on the cattle produce, fisheries, and manufactures of Ireland.

Fourteen or fifteen years later, Lord Sheffield is consistently advocating the same economic policy, both in his *Speech* of 2nd April 1799, . . . *upon the subject of the Union with Ireland* (London, 1799, 8vo), as in his *Observations on the Objections made to the Export of Wool from Great Britain to Ireland* (London, 1800, 8vo). He concludes by re-advocating the Union from the point of view of commercial advantage, remarking that "as an Irishman, he was highly gratified by the liberality of giving the turn of the scale in almost every instance to the weaker country."

Observations on the Commerce of the American States (1st, 2nd ed., London, 1783, 8vo; 3rd to 6th ed., London, 1784, 8vo; new ed., Dublin, 1784, 8vo), which ran to six editions the second year of publication. The work is chiefly statistical, being a sort of comparative export and import calendar for the two countries, Britain, including the West Indies, and the American states. It contains fifteen tables; of these tables I. and II. give the amount of the American and West Indian staple commodities imported into or exported from Great Britain during the prosperous year 1773, and the disastrous 1782. III. The total of these exports and imports during a period of ten years, showing their fluctuations in peace and war, and the bad effect of war on commerce. IV. American imports from South Europe, Africa, and the West Indies. V. and VI. Exports from America to all parts. VII. The number and tonnage of the vessels employed by the colonies before the revolt. VIII. The state of the Newfoundland fishery before the war of 1744. IX. Imports and exports of South Britain from and to all parts. X. and XI. The value of all imports and exports of England and Scotland from 1780-1782. XII. The total of the imports and exports of South Britain from 1771-1782. XIII. The total imports and exports of South Britain to and from all North America from 1771-1782. XIV. The total imports and exports of South Britain to and from the United States from 1764-1782. XV. The imports and exports of South Britain to and from the British West Indies for twelve years, 1771-1782.

In his *Observations on the Project for Abolishing the Slave Trade and on the Reasonableness of*

attempting some practicable mode of relieving the Negroes (1st ed., 1790, 8vo; 2nd ed., with additions, 1791, London, 8vo), Lord Sheffield considered the disposition professedly of a great part of the community to relieve negroes from slavery "so inconsiderate that it disgraces the national character of good sense."

In 1791 appeared *Observations on the Corn Bill now depending in Parliament.* Lord Sheffield strongly opposed the bill on the ground that nothing could be more dangerous than the dependence of a kingdom such as this on other countries for subsistence. He decries the notion that England is a highly cultivated country, pointing out that not one-fourth of it was worthy of such a description. He advocates a higher and steadier price of corn, to be secured by closing the ports to foreign corn, and bringing more inferior land under tillage instead of using it for pasture; and expresses the curious economic doctrine that a high price of corn is advantageous to our manufactures. He prefers to depend on other countries for clothing than for food. "Why should we give a monopoly of the supply to the manufacturers of wool, and not to the manufacturers or tillers of land?" This pamphlet is written in a protectionist spirit, in the interest of the farmer and landowner rather than in that of the consumer.

Lord Sheffield held the same views to the close of his life. *Letter on the Corn Laws, and on the means of obviating the mischief and distress which are rapidly increasing* (London, 1815, 8vo; 2nd ed., 1815). In this publication he deprecates the application of general principles to the political economy of this country, considering its actual taxation and the price of labour. He would protect the British farmer by an absolute prohibition of import until the price of wheat rises to 80s. the quarter; then a high duty till it is at 90s.; and a lower high duty till it is at 100s.; then open the ports and let it enter duty free.

Lord Sheffield's *Strictures on the necessity of inviolably maintaining the Navigation and Colonial System of Great Britain* (London, 1804, 8vo; new ed., with appendix, 1806, 8vo), point out that the NAVIGATION LAWS had been suspended by recent temporary legislation; and the danger of such a course "because such suspension must render England a free port, of the consequences of which," Lord Sheffield conceives, "neither the legislature nor the country are sufficiently aware" (p. 11). He further shows the violation of the navigation laws to be "injurious to every branch of our marine; discouraging to seamen, and to the shipbuilding trade; and adverse to the prompt equipment of a great naval force." He comments on the extraordinary decline of British, and the increase of American tonnage (p. 15); and (p. 33) differs totally from the opinion of M. GENTZ, that the navigation laws are "commercially injurious," but "politically wise."

Lord Sheffield's presidential addresses at the wool meetings of Lewes were collected and published in a volume *On the Trade in Wool and Woollens, including an exposition of the Commercial Situation of the British Empire* (London, 1813, 4to). He notices the diminution of export of British manufactures to the American states; defends the ORDERS IN COUNCIL promulgated in answer to the BERLIN DECREES prohibiting English goods on the continent; and tries to show how little the trade of the country depends on a direct traffic with the American states; the English and colonial markets being, he says, quite sufficient to consume the greater part of our manufactures. He advocates the importation of Spanish sheep for breeding purposes.

Observations on the impolicy, abuses, and false interpretation of the Poor Laws, and on the Reports of the two Houses of Parliament (London, 1818, 8vo). In it he strongly condemns the present management of the poor as a disgrace to the policy and political economy of the country. In many parishes the heavy onus of the poor rate has so ruined the small tradesman as to have added to rather than relieved the existing number of paupers. He advocates the abandonment of the whole system, not patching it up; the separation and classification of paupers, the education of pauper children, and their separation from criminal parents. He would further apply to agricultural employment the surplus of the pauper population. In the following year Lord Sheffield published his *Remarks on the Bill of the Last Parliament for the amendment of the Poor Laws, with observations on their Impolicy* (London, 1819, 8vo). A. L.

SHERBROOKE, VISCOUNT (Robert Lowe), (1811-92), was educated at Winchester and Oxford, taking a first-class in classics and a second-class in mathematics. He was called to the bar, but in 1840 went out to New South Wales. The colony was in its infancy; gold had not been discovered, and only the rudiments of representative government existed. Lowe speedily took part in every public movement in the colony, and after holding for a time a seat in the legislative council he resigned this to become member for Sydney. He interested himself in all social, political, and industrial movements. After playing a conspicuous part in the development of the colony, he returned to England in 1850, and two years later was returned to the House of Commons for Kidderminster.

He quickly made his mark as a debater, and as a sleepless critic of the administrative departments. In a short time he became vice-president of the board of trade—an office which he held for three years—and one of the joint secretaries of the board of control. This part of his official life was not without results bearing upon the trade and economic conditions of the nation. Though we do not owe to him the full adoption of the principle of limited liability, he introduced measures which led up to the act of 1862. Few clearer or more cogent arguments for reform have been presented to parliament than that contained in his speech in 1856, introducing the Partnership and Joint-Stock Companies Bills.

In 1859 Lowe was returned for the borough of Calne by the influence of the Marquis of

Lansdowne; and he represented London University from 1868 until he went to the Upper House in 1880 as Viscount Sherbrooke. During 1859-64 he was vice-president of the education board—and virtual minister for education. In this capacity he made several changes in our educational system. In 1860 he brought forward the revised code, and the system of payment by results, on the merits of which he never ceased to insist, but which is being rapidly obliterated as practically unworkable.

In constitutional matters Lowe inclined towards the school of Canning and Peel. He held the office of chancellor of the exchequer in Gladstone's first liberal ministry. The post, however, was one for which he was ill-fitted, owing to his doctrinaire views. These led him to remove the registration duty on corn, and to express the opinion that a chancellor of the exchequer was one who pays out the public funds, not one who controls the expenditure. It was in 1870, during his tenure of the office, that the Coinage Act of 1816 was annulled. This act contained a clause authorising the crown at any moment, by order in council, to reopen the mint to the public for unlimited coinage of silver, subject to a seigniorage of 4s. an ounce. His decision that the income-tax should be paid in advance, helpful for the finance of the year when instituted, has remained a permanent inconvenience. Yet his first ingenious budget was received with considerable favour in the outset, and his annual surpluses proved to be large, almost beyond example. He exerted himself to keep down the public expenditure, but his brusque treatment of all claimants on the public funds brought him no little unpopularity. This odium was accentuated by his ill-starred proposal for a match tax, an impost excellent in theory, but practically impossible owing to the popular feeling aroused against it. This was somewhat aggravated by the classical dictum, "Ex luce lucellum." He was also the author of an unsuccessful plan for establishing SEIGNIORAGE on the coinage.

To the last Lord Sherbrooke was an active member of the Political Economy Club.

[*Biographies of Lord Sherbrooke*, by Patchett Martin and J. F. Hogan, 1893; *Annual Register*, 1892; *Chambers's Encyclopædia*, vol. ix.; *The Times*, July 28th, 1892.] G. B. S.

SHERIFF. In Anglo-Saxon time the sheriff, or shire-reeve, was the royal officer in the shire, and was always appointed by the king. His chief function was to look after the interests of the crown, and especially to collect the proceeds from demesne lands and the royal share in the profits of justice. The Norman Conquest witnessed a great increase of the powers of the sheriff. Hitherto the ealdorman had been the presiding officer in the shiremoot and the leader of the military forces of the shire. This office was now abolished, and its functions added to those of the sheriff or *vicecomes*. Henceforward the sheriff became the chief military, judicial, and financial officer in the shire. He was responsible for the collection of all taxes, though many of the older dues he was allowed to farm and to pay in a fixed sum twice a year. The office was now of such importance that it was often held by powerful barons, and in the reign of Stephen many sheriffdoms were practically hereditary. The kings now found it necessary to impose limitations on their too powerful servants. The EXCHEQUER was organised to supervise their financial administration, and twice a year, at Easter and Michaelmas, the sheriffs had to appear at Westminster to pay in and to give a strict account of their receipts. In 1170 a great inquest or inquiry was held into the conduct of the sheriffs, and Henry II. seized the opportunity to get rid of the baronial holders of the office, and to fill their places with his own trained servants. During the same reign regular circuits were instituted of itinerant justices, and one of their chief functions was to check and supervise the local administration of the sheriffs. From this time the powers of the office steadily declined. In Magna Charta (art. 24) the sheriffs were forbidden to hold pleas of the crown. Their judicial and police duties were gradually curtailed by the appointment of conservators, and later of justices, of the peace. In 1258, by the Provisions of Oxford the office was made annual, and for a time under Edward I. the freeholders of the shire obtained the right of election. But this was only temporary, and under Edward III. the modern practice was instituted of nominating the sheriffs every year in the exchequer. The last great diminution in their powers took place in the reign of Queen Mary (1516-58), when the control of the militia was taken from them and entrusted to lords lieutenant. From this time, in spite of the dignity and precedence to which a sheriff is entitled during his year of office, the post has come to be regarded rather as a burden than a privilege. Its chief duties are the reception of the justices of assize, and the responsibility for enforcing judicial sentences within the shire. The sheriff also has, either in person or through his under-sheriffs, to make all arrangements for parliamentary elections during his terms of office. Although the sheriff is strictly and etymologically a shire officer, the city of London obtained from Henry I. the right of appointing sheriffs, and several of the older boroughs, such as Norwich and Oxford, still have sheriffs of their own.

[Stubbs, *Constitutional History*.—Gneist, *Englische Verfassungsgeschichte*.] R. L.

SHILLING. English silver coin of the value of twelve pence, first struck in the reign of Henry VII.

The following list gives the weights of the various shillings issued since that time :—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Henry VII. . .	1504	144	925	1/7½
Henry VIII. .	1543	120	833·3	1/2½
Edward VI. . .	1547	120	333·3	/6d.
Edward VI. . .	1549	80	333·3	/4d.
Edward VI. . .	1552	96	925	1/1½
Mary . . .	1553	96	921·25	1/1
Elizabeth . .	1560	96	921·25	1/1
Elizabeth . .	1601	92¾	925	1/0¾
James I. to George III.	1603 to 1816	92¾	925	1/0¾
George III. and subsequently	1816 onwards	87½	925	1/

The origin of the word shilling is obscure, but it appears to have been handed down from Anglo-Saxon times, when fourpence equalled a scill or scilling. F. E. A.

SHIP-MONEY. From 1629 to 1640 Charles I. endeavoured to govern without a parliament. In order to avoid exceptional expenditure, it was necessary during these years to keep England out of the great struggle which was going on in Europe. But though England was neutral, Charles was constantly negotiating in the hope of obtaining the restitution of the palatinate to the dispossessed elector. And to give weight to his diplomacy it was necessary to make some parade of English strength, while the growing naval power of France and Holland made it imperative for England to take some steps in the same direction. This was prescribed both by the motive of self-defence and by the desire to maintain the sovereignty of the seas which Charles claimed for this country. Under these circumstances the king and his ministers sought to devise some means of obtaining money for naval expenditure without having to appeal to parliament for supplies. Noy, the attorney-general, suggested that under the Plantagenets, and as late as 1626, it had been customary for the crown to call on the sea-ports to man and equip ships for the defence of the realm. Acting on this hint, the council issued a writ on 20th October 1634, ordering the authorities of the coast towns to assess on the inhabitants the money necessary for fitting out and maintaining for six months a certain number of ships and the requisite crews.

This writ departed from earlier precedents only in two points: (1) it demanded money instead of actual services, and thus imposed something nearly akin to a tax, whereas by the petition of right the king was pledged to levy no taxes without consent; (2) previous levies had been made in time of actual warfare, while this was to meet a prospective danger which might be very variously estimated. However, the writ met with no resistance, except from the citizens of London, and they had to give way. This success emboldened the crown to take a much more serious step in the next year. By a writ dated 4th August 1635, the sum of £208,900 was demanded, and this was to be collected, not only from the dwellers on the coast but from the whole community, on the ground that all were equally interested in the defence of the country. The last assertion was difficult to contest, but it was felt that it was put forward to defend a wholly novel expedient, and it was difficult to perceive that there was any danger so pressing that it must be met before parliament could be consulted. Thus the second writ of ship-money provoked much more general opposition than the first, and in spite of the zeal of sheriffs and justices of the peace, it was difficult to carry out the work of assessment and collection. In order to justify compulsion, the king obtained a written opinion signed by ten out of twelve judges to the effect that when the kingdom was in danger the charge of defence ought to be borne by the whole kingdom, and further that of such danger the king was the only judge.

Meanwhile the fleet that had been equipped had effected nothing, the royal diplomacy was as far from its end as ever, and more than £20,000 of the money due under the last writ was still unpaid. Charles determined to persist, and the third writ of ship-money was issued again to the whole kingdom on 9th October 1636. This was a practical assertion that ship-money was not a mere temporary expedient to meet a passing danger, but that it was to be an annual charge on the community. It might be true that the sums hitherto collected had been spent on the navy, but there was no security that this would continue, and if the king could raise a secure revenue at will, there need never be another parliament. Many of the peers were not prepared to entrust the crown with such absolute power, but their remonstrances, instead of weakening the king's resolution, only impelled him to extort a favourable opinion from the judges, so that they might be pledged to decide in favour of the crown any case that might be brought before them. The judges again affirmed—(1) that in time of danger the king may command all his subjects to provide and furnish such number of ships and for so long as he shall think fit; and (2) that the king is the sole judge of the danger and the means of meeting it.

Thus the decision of the judges was a foregone conclusion when, in 1637, the question of the legality of ship-money was brought before them in the case of John Hampden. Hampden's counsel argued that the king's control over the

persons and property of his subjects could only be exercised in a normal way through parliament; they admitted that in an extraordinary crisis the crown could act without waiting for parliament, but denied that in the present case there was any evidence of such pressing and immediate danger. The crown lawyers replied that the question of fact was not before them, that the king was in law the sole judge as to when an emergency arose, and that behind the king's judgment the court could not go. As a matter of strict law this contention was probably sound, but under the circumstances it was opposed to the common sense of the community. However, seven out of twelve judges decided in favour of the king, and some of them, notably Chief Justice Finch, went out of their way to magnify the royal prerogative. But the victory of the crown, complete as it appeared at the time, was very short-lived. In 1641 the Long Parliament declared ship-money illegal, and impeached the judges who had decided against Hampden.

[Gardiner, *History of England*, vols. vii. and viii. State Trials.] R. L.

SHODDY[1] is the name given to the waste of various manufactures, as for instance to that of coal or iron; but the term has become particularly associated with the re-manufactured refuse of cotton and woollen yarn. This refuse consists of the tangled or broken remainders of cotton or woollen yarn which are left by the weaver upon the reels, and are commonly referred to as "cop-bottoms" or "cop-refuse." As this "refuse" cannot be further utilised in the manufacture of fine woollen or cotton cloth, it is sold in the mass by the Lancashire or Yorkshire manufacturer (it is occasionally sent from the Indian factories) to the manufacturers of shoddy, and is by them re-converted into "shoddy cloth" by a wonderfully ingenious mechanical process.

The whole mass is first thrown into a series of "tearing" cylinders, filled with toothed rollers of graduated fineness, which, revolving at high speed, tear the yarn refuse back into a substance closely resembling, and only to be distinguished by an expert from, the original American bale cotton. By this tearing process, however, the original cotton fibre is wholly destroyed, and the artificial fibre thus produced is at once too short and too fragile to permit of it being drawn out for purposes of fine spinning. It is therefore "carded" and spun into a coarse yarn, and then used merely as the "weft" in the manufacture of "shoddy" cloth or calico, as owing to its fragile and artificial nature it will not bear the strain necessarily put on the "warp" in the weaving process.

The "warp" of shoddy cloth has therefore to be supplied by yarn spun from pure American cotton, such as is used in ordinary weaving; and it is the stoutness of this "warp" which gives strength and endurance to the woven "shoddy" material.

"Cotton" shoddy is manufactured chiefly in Lancashire, in the district of Rochdale, Haslingdon, Bolton, Bacup, and Crawshaw-Booth. Woollen shoddy is manufactured at Bradford, in Yorkshire. The material is warehoused as taken from the loom, and sold to dyers and printers for the home trade. In the same factory various qualities of shoddy are produced, from the heavy habit and cheap tailoring cloths to the coarse sheetings, and cheap shirtings, largely in demand among dock labourers. Some of this "shoddy" calico is specially woven and dressed for the Levant trade, where the coloured shawls made from it find a ready market. The manufacture of "shoddy" also creates a further "refuse" from which, by a similar process to the one described above, the "cops" are again broken up into an artificial fibre, then spun into a very coarse yarn, and woven into the well-known cheap Bolton quilts and coverlets. A. L.

SHORT, THOMAS (1734-1772), M.D., was a physician and meteorologist:—

He "collected, with incredible labour, extracts from the mortuary and baptismal registers in a great many market towns and country parishes of England, chiefly in the northern counties, and in almost every variety of soil and situation, and reduced them into tables in various ways so as to enable him to draw useful inferences from them" (Milne, *Ency. Brit.*, quoted in M'Culloch's *Literature of P.E.*). The result of these labours appeared in *New observations, natural, moral, political, and medical, on city, town, and country bills of mortality* (London, 1750). This consists of statistical tables of respective parishes with their registers of births, deaths, marriages, their soil and situation, and average death-rate. Also *A Comparative History of the Increase and Decrease of Mankind* (London, 1767). A. L.

SHORT EXCHANGE. The rate for cheques or drafts at sight, or payable within a day or two. There being no question of interest involved, the variations of the short exchanges above or below the MINT PAR (*q.v.*) is the measure of the momentary balance of trade,—including therein the movement of floating capital. R. W. B.

SIGHT (=DEMAND). Formerly, it was customary to claim and allow three days' grace upon bills drawn "at sight," but they are now payable immediately, as if they were drawn "on demand." Bills drawn at any period after sight require presentation for acceptance before the term begins to run. R. W. B.

SILIO, GUGLIELMO (end of the 18th century), a Sicilian mathematician and economist who advocated the application of the calculus to the solution of the most important economic problems. Following BECCARIA, who had already

[1] For economic use of such articles, see RESIDUAL AND WASTE PRODUCTS.

attempted a mathematical inquiry on smuggling, he prepared a series of problems to determine the best means for suppressing smuggling. Silio demonstrates, by means of a mathematical analysis, the error of supposing that a constantly increasing revenue would be obtained by continually raising the customs duties, and that moderate duties would yield a better financial result and would diminish smuggling, increase consumption, and stimulate foreign trade.

Saggio sull' influenza dell' analisi nelle scienze politiche ed economiche applicata ai contrabbandi, Palermo, 1792.

[See Montanari, *La matematica applicata al l'economia politica, etc.*, Reggio Emilia, 1892.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881.] U. R.

SILVER.

Silver, as Standard, p. 395; Silver, Discoveries of, p. 396; Silver Legislation in the United States, p. 401.

SILVER AS STANDARD. Wherever silver coins are full legal tender and constitute the money in which commercial exchanges and values are measured, and where other coins are rated in their relation to silver coins, the silver standard may be said properly to exist. A still further condition is really necessary, namely, that the mints of a country having the single silver standard must be open to the free coinage of silver. These conditions were very generally fulfilled in all countries during most of the period from the middle ages down to the beginning of this century. Gold was also used, of course, as money, but its position in coinage was an undetermined one, and it was mainly considered as to its value measured in silver.[1]

Great Britain began the race for gold in adopting the gold standard in 1816, and to-day the above named conditions are imperfectly fulfilled, and that only in a few of the countries where silver was in use a century since. (see SILVER, DISCOVERIES OF). Many of the leading nations have passed through, or are still in an intermediate stage of monetary development in which there is officially a double standard combining gold and silver according to some established legal ratio. In recent years, however, the conditions affecting the production and consumption of the precious metals have, by their differing variations, made the task of maintaining both metals in circulation so difficult that the so-called double standard countries have nearly all suspended entirely the coinage of full legal-tender silver coins, and have taken all sorts of steps to protect and add to their stock of gold. Within the year 1897, just closed, Japan, Chili, and Salvador have adopted the gold standard. India is on a fiat-money basis, and has closed her mints to silver and is trying to introduce gold payments at a parity of 1s. 4d. as the exchange value of the rupee. Russia has officially adopted the gold standard, but has a depreciated paper circulation based on silver, which she now agrees to maintain at a fixed ratio in gold, and is making an effort to secure enough gold. The Indian government has discussed the possibility of doing the same.[2] Strictly speaking, China never has had any other than a copper standard so far as the legal conditions for a standard are concerned, though of course silver has been, and still is, the basis of exchange values in all her dealings with foreign countries.

The great revolution therefore that has taken place in the monetary status of silver, and the completeness with which the whole civilised world has discarded it as a standard, are facts which will doubtless be considered as the most significant in the general economic history of this century. This movement has been chiefly confined to the period since 1873. The results of it are still a matter of grave doubt, and they have certainly given rise to considerable debate and have produced an enormous supply of economic literature on monetary topics.

The first and perhaps most direct result of the abandonment of the silver standard and of the greatly increased demand for gold for monetary uses in recent years, has been a considerable appreciation in the value of gold. The supply of gold has increased materially, however, and may continue to increase so as to partially neutralise further tendencies towards appreciation. It is claimed that the general downward tendency in wholesale prices has been due in part to this appreciation; and in further support of such claim, it is stated that prices in silver-standard countries, up to recent times, remained steadier than in gold-standard countries. This point is, however, disputed. It does seem to be true that the fluctuations have not been so great in silver-standard countries, but it may be true that in those countries other than monetary causes affecting prices, and tending to lower the general level of prices, have been proportionately absent or inoperative. A mass of evidence, on this point, with complete statistics of prices in eastern countries, is to be

[1] In the 17th century "silver" and "money" may be regarded as synonymous, and the expression "argent" for "money" is familiar. Thus Locke, *Further Considerations of the lowering of Interest and raising the Value of Money*, says "that the fittest metal to be 'the money of account and contract and the measure of commerce in any country' is silver."

[2] Both India and Russia are really on a "fiat-money" basis so long as the respective governments are holding silver in the one case and paper currency in the other at a fixed parity with gold by legal enactment. Russia is, however, accumulating a stock of gold, and both seek to secure the gold standard in the future. For account of recent legislation, see Lexis, articles on "Papiergeld," and "Münzwesen," in Conrad's *Handwörterbuch, Zweiter Supplementband*, Jena, 1897; and H. P. Willis, "Monetary Reform in Russia," art. in *Journ. of Pol. Econ.*, June 1897, Chicago.

found in the report, minutes of evidence, and more especially in the appendices, of the Indian Currency Committee. In an English consular Report on China, and one dealing particularly with the effect of the fall in value of silver on prices of commodities in China (Foreign Office, 1893, Miscel. Series, No. 305), we note the following statement in commenting on the tables of statistics: "As regards articles which are both produced and consumed in China, silver prices have on the whole tended to decline (during last twenty years). There is a moderate rise in a few articles, principally food stuffs, but all over there is a decline of about 9 per cent. As regards articles of native origin exported to foreign countries, the silver price has not advanced with the fall in exchange. Prices on the whole are almost exactly on the level of the years 1870 to 1874. As regards articles of foreign manufacture or production imported for sale in China, the average price in silver has declined very considerably."

The second and main argument concerning the effect of the fall in the gold value of silver refers to the fact that the falling rate of exchange, especially in relation to long-period contracts, has acted as a bounty on exports and as a protective tariff on imports for the silver-standard country. The argument in favour of this position is stated strongly by Mr. E. Held in his volume on *The Joint Standard* and finds some support in the evidence presented to the Indian Currency Committee. That its general effect on the condition and prosperity of India has been greatly exaggerated is also amply shown by evidence from the same sources. Most contracts are not long-time contracts, and, while credit may have been somewhat curtailed as a result of this cause, there were really no serious commercial fluctuations after the banks began to balance exchanges and cancel the result of such fluctuations in exchange, and thus insure their respective customers in both countries from losses of this character.

[See reports of Indian Currency Committee, 1893, C. 7060; C. 7098; C. 7060-I; minutes of evidence and appendices (the most complete source of information), C. 7060-II; Index, C. 70-86. This report has been reprinted by the U.S. Gov. under the title of "The Herschell Report on Coinage of Silver in India," Sen. Mis. Doc. 23, 53rd Cong. 1st Sess., price $1·20.—Held, *The Joint Standard*, London, 1894.—Muhleman, *Monetary Systems of the World*, 2nd ed. 1897, New York.—Del Mar, *Hist. of Money*, London, 1885.—U.S. Special Consular Reports, "Money and Prices in Foreign Countries," vol. xiii. pt. i., Washington, 1896, pt. ii., Washington, 1897.—"Silver in China," Talcott Williams, *Annals of Amer. Acad.*, vol. ix., 1897.—The "Currency of China," Willard Fisher, *Yale Review*, March 1897.—"Silver Prices in India," Fred. J. Atkinson, *Journ. of Royal Statistical Society*, Mar. 1897.] (See BIMETALLISM; GOLD AS STANDARD; MONEY; PRECIOUS METALS.)

And App., GOLD, INCREASE IN THE PRODUCTION OF; SILVER, PRODUCTION AND COINAGE OF, 1896-1905.

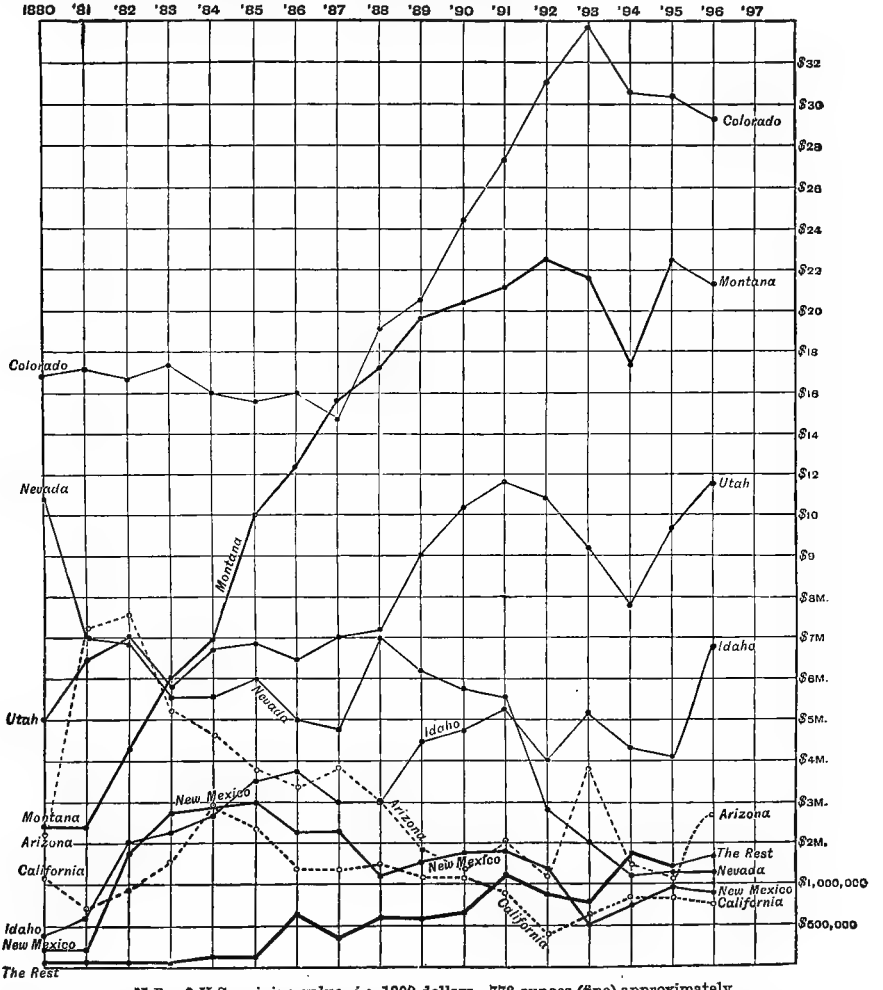
S. M'C. L.

SILVER, DISCOVERIES OF. There are no authentic accounts of the discovery of any silver mine in antiquity, although there were silver mines in almost every known state except Italy. New sources of supply of the precious metals were opened up by conquest, and not by adventure. Adventure and discovery play a large part in the history of mediæval and modern mining; and the stories retailed by Jacob (*Inquiry into the Precious Metals*, i. 241, etc.) of the discovery of Chemnitz in Hungary (745 A.D.), Freiburg in Saxony (10th century), and the Hartz (972 A.D.), are paralleled by the stories of the sleeping shepherd at Pasco in Peru (1630, Tschudi's *Peru*, p. 328), the sleeping hunter at Chañarcillo, Chili (1832, Browne's *Mineral Resources of the United States*, 1868, p. 650), the falling hunter at Potosi (about 1640, Acosta's *Peru*, iv. 6), a lady at a picnic at Utah (1863), or by some of those "moving accidents" which make Lord's "Monograph on the Comstock Lode, Nevada" (discovered 1859, *U.S. Geological Survey*, 1883) read like a romance. Another illustration of the different attitude of mind in antiquity and in comparatively modern times is that while the modern business man keeps accounts which are a fairly accurate foundation for statistical generalisations, and while travellers' guesses, such as those embodied in Acosta's or Robertson's *History*, bear no relation to the truth, we find neither business accounts nor wild guesses about ancient mines; but Herodotus's allusion to the Laurian mines in Attica (vii. 144; Boeckh's *Public Economy of Athens*, app. ix.; Büchsenschütz, *Besitz und Erwerb*, etc., p. 102; but see Grote's *History*, vol. i. 154 n.), and Strabo's allusion to the Turdetanian mines in Spain (iii. 2, 9), probably present sober statements of truth. It is fair to contrast ancient with modern history in these respects because they were separated by a great gulf; mining, it appears, was discontinued under the Roman empire until it was tentatively resumed by the Moors after the Moorish conquest of Spain in the 8th century.

Amongst the many interesting productive problems raised in connection with silver discoveries, it is a universal rule that new supplies, instead of superseding, stimulate existing sources of supply. Thus the cession of part of Mexico in 1848 and 1853 to the United States enabled the latter to commence mining, and its success reacted upon Mexico in a manner which recalls the effect produced by silver-mining in the new world upon silver-mining in the old world three or four centuries ago. The reason of this apparent paradox is that new supplies beget new inventions which directly affect the production of silver but not of gold—for instance, first, by adding to the

brief life and, therefore, usefulness of the product; secondly, by facilitating its production; thus Medina's cold amalgam (1557) and the numerous processes (Pattinson, Karsten, Parkes, Cordurié, Lauthertal, etc.) invented between 1842 and 1869 for extracting silver from lead ore "have been equivalent to the discovery of new mines" (Jevons, *Currency*, p. 76; Prof. Roberts Austen, "Memorandum on Cost of Production of Silver," app. vi.,

Distribution of Production of Silver among the different States of the U.S. Compiled from U.S. Mint Reports. Compare Annual Reports of the U.S. Geological Survey, entitled *Mineral Resources of the United States*, and compare note (K) p. 399.



N.B.—$ U.S. coining value, *i.e.* 1000 dollars=773 ounces (fine) approximately.

Report of Gold and Silver Commission, 1887). Again, between the time of Job and 1848 (*Papers Relating to the Californian Gold Discoveries*, 1856, p. 47) silver lay in, gold on the earth. What bad mining means may be judged by "A Miner's Notes on the Silver Mines of Honduras" (*Harper*, 1856, vol. xii. p. 721), or Jacob's history of the mine of Guadalcanal in Spain (*Precious Metals*, vol. i. p. 274).

Passing to exchange questions, the effect of the earlier American discoveries was gradually ripening in England between 1570 and 1648, at which date wheat had risen 250 per cent, and grain generally 220 per cent, according to Thorold Rogers, who agrees in the main with A. Smith (see, too, Cunningham's *Growth of English Industry*, § 168). The effect on the ratio between gold and silver is illustrated

by the table printed in the article PRECIOUS METALS. The *Reports of the Committee of the H. of C. on the Depreciation of Silver*, 1876, and on *Gold and Silver*, 1887 and 1888, point out that the U.S., where the main discoveries were being made, actually decreased its exports of silver during one critical period, 1873-79, when the ratio was falling; and, further, under the Bland Act 1878-90 and Sherman Act 1890-93, 459,946,700 fine ounces of silver were bought for coinage by the federal mint, which had been comparatively idle up to 1871. It is, or was in 1888, in spite of this new demand for silver in the U.S.—a demand far exceeding any similar demand in any civilised country in the whole history of coinage—that silver fell. Perhaps the still greater amount of the new demand relatively to the new supply of gold—due to the increase of banking reserves (£187,500,000, 1873-85, *Quarterly Journ. of Econ.*, i. 350, J. L. Laughlin), and institution of new gold coinage by France from 1850 (Cairnes, *Essays*, p. 142,—£100,000,000), and Germany from 1870 (£100,000,000, Rep., 1888, § 38)—has made silver fall relatively to gold—if so, the history of the Roman empire affords a close parallel; there, while silver was becoming dearer because it was diminishing four times as fast as gold, this natural tendency was reversed by a social and political tendency—the tendency, namely, to hoard gold and exchange a silver for a gold coinage, so that the ratio fell from 11·91 to 14·4 : 1, at which figure it probably stood between 397 A.D. and Justinian's time (Mommsen's *Verfall des römischen Münzwesens*, p. 277; cp. *History of Rome*, trans. Dickson, ed. 1894, iii. 88; *Geschichte des römischen Münzwesens*, p. 834). But this theory is unnecessary to explain the first, and is inapplicable to the subsequent depreciation; thus U.S. exports of silver did not fall during the second critical period, 1884-89, and in the third critical period, when silver cheapened, 1891-94, they rose from 23 to 51 million dollars. And, further, it is quite possible that state-made ratios which held when the output of silver was 20 million ounces a year (1840) would hardly have done so when it was three (1870) or eight times (1893) as much. Regulation of prices has never succeeded, except on a small scale. This problem will be again discussed after the tables of production and consumption.

As for the distributive questions raised by Chevalier's *De la Baisse d'or*, Cairnes's answer in his essay on Chevalier, that prices rise because wages are raised, and that wages are first raised at the mines, then in those industries which are nearest to the mines, whether locally or industrially, is probably correct.

Estimates of Production of Silver.—The following estimates of silver produced during different periods are most often cited in works on political economy:—

Humboldt's *Nouvelle Espagne*, 1811, iv. 212, 218, 220.—Jacob's *Inquiry into the Precious Metals*, 1831, ii. pp. 70, 131, 214, 267.—J. T. Danson's "Gold and Silver sent from America to Europe," 1850, *Journ. of the Statistical Society*, xiv. 11.—Birkmyre's "Letter to the *Times*," xxi. 5, 1852 (for 1846-50), cited in M'Culloch's *Commercial Dictionary*, art. "Precious Metals," and in D. F. Campbell's trans. of Chevalier's *Production of the Precious Metals*, 1853, pp. 93 *et seq.*—Chevalier's article in *Revue des Deux Mondes*, 1846, xiv. 1033, 4; and "De la Monnaie," which is pt. iii. of his *Cours d'Éc. Pol.*, 1842-50, pp. 222, 228, 307, etc. (cited in Tooke's *Prices*, vi. 144).—Faucher's *Production of the Precious Metals*, etc., 1851, Eng. trans., 1852.—J. D. Whitney's *Metallic Wealth of the U.S.*, etc., 1854, pp. 182, 183, 506 (esp. 1800, 1845, 1850, and 1854).—J. A. Phillips's *Mining, etc., of Gold and Silver*, 1800-67 (esp. 1800, 1850, 1865), p. 320.—W. P. Blake's *Production of the Precious Metals*, 1869, p. 361.—Sir Hector Hay's "Tables," 1850-76, printed in app. 6*b* to the *Report on the Depreciation of Silver*, 1876.—Baron Reinach, 1852-75, trans. in *Banker's Magazine*, N.Y., Oct. 1876, and cited in Walker's *Money*, 1878, p. 237, and others.[1] See also Adam Smith, "Digression concerning the Variations in the Value of Silver," *Wealth of Nations*, bk. i. ch. xi.

In 1879 Dr. Soetbeer published his *Edelmetall-Produktion* as a supplement (vol. xiii. No. 57) to Petermann's *Mittheilungen aus Perthes' geographischer Anstalt*, a work which has superseded every other authority on the subject. Dr. Soetbeer admits in his *Materialien*, 1886 (trans. in app. xvi. to the *Report* of 1888, p. 149), that missing links of evidence may be found which will make it necessary to revise the entire work, meanwhile it is not worth while to seek to mend his calculations after the fashion of Professor Lexis (*Jahrbücher für Nationalökonomie*, xxxiv. 361, etc.). Dr. Soetbeer utilises every shred of evidence hitherto obtained, and fills in *lacunæ* as best he may. After 1850 his table of odds and ends is arbitrarily divided between America and Australia, etc., otherwise the figures on p. 399, down to 1880, are, with a few abbreviations, etc., transcribed from Dr. Soetbeer's work of 1879, and an essay of his on the same subject in Conrad's *Jahrbuch*, 1881.

Estimates of Consumption of Silver.—In the table on p. 400 estimate enters more or less largely into all figures

[1] R.W. Raymond's summary of the estimates of Phillips (1800, 1850, 1865), Birkmyre (1846, 1850), Whitney (1854), and Blake (1867), shows a general agreement between these estimates as to the relative importance of different nations and periods. Humboldt's estimates for America were derived, in many cases, from the registers of the state tax on the product of each mine; Danson supplements this information with consular reports, *e.g.* those published in app. iv. No. 7 to the Report of 1876; and Soetbeer adds collections of documents relating to Mexico and Bolivia, published 1864 and 1875, Laur's treatise in *Annales des Mines*, 1871, etc.; but Humboldt's estimates are still used where there is no direct authority. Humboldt's estimates for Europe are derived from Héron de Villefosse, co-editor of the official *Journal des Mines*, and author of *De la Richesse Minérale*, 1810-11; and from Georgi's *Geogr. Phys. Beschreibung des Russischen Reichs*, 1797-1800. Jacob added André's *Neueste Zahlenstatistik*, 1823, to his own observations. Chevalier and Danson utilised Duport's *De la production des metaux précieux au Mexique*, 1843, for modern Mexico.

earlier than 1831, and the same leaven still leavens the most recent lump sums for industrial use. But exports to the east have, during this century, and especially since 1835, presented trustworthy statistics, and reliance can now be placed upon them (see note *d*, p. 400). These exports amounted (1701-1895) to 2,645,220,000 out of 5,831,940,000 fine ounces, or 45 per cent of the total consumption. This item is but lightly affected by

Average Annual Production of Silver in 1000 *oz. Troy of Fine Silver, transcribed and adapted from Soetbeer.*

	Progressive Stage.				Stationary Stage.						
	1495-1520	1521-1544	1545-1560	1561-1580	1581-1600	1601-1620	1621-1640	1641-1680	1681-1700	1701-1720	1721-1740
Europe[a]	1,511	1,897	2,006	1,559	1,328	945	868	844	977	1,070	1,485
Mexico[b]	..	109	482	1,614	2,389	2,611	2,336	3,172	3,543	5,266	7,420
South[c] and Central[d] America.	..	594	7,529	6,456	9,751	10,040	8,950	7,290	6,472	5,096	4,958
All the known world[e]	1,511	2,900	10,017	9,629	13,468	13,596	12,654	11,306	10,992	11,432	13,863

	Progressive Stage.			Retrogressive Stage.	Progressive Stage.						
	1741-1760	1761-1780	1781-1810	1811-1830	1831-1840	1841-1850	1851-1860	1861-1865	1866-1870	1871-1875	1876-1880
Europe[f]	2,027	2,355	2,551	2,635	2,779	4,215[g]	6,650	7,814	8,596	13,122	14,268
Mexico[h]	9,677	11,780	17,989	9,272[i]	10,642	13,513	14,691	15,207	16,747	19,348	21,084
United States[k]	..	..	..	..	..	..	233	5,594	9,678	18,158	31,529
Rest of America[d]	5,487	6,851	7,883	4,190[i]	5,755	7,362[m]	6,896	6,465	7,709	12,368[n]	11,574
Rest of world	..	..	..	..	..	..	322	322	322	322	322
All the known world	17,141	20,986	28,423	16,097	19,176	25,090	28,792	35,402	43,052	63,318	78,777

Average Annual Production of Fine Silver Compiled from the Annual Tables, and Printed in the Annual Mint Reports of the United States.

	Oz. Troy of Fine Silver.		
	1881-1885	1886-1890	1891-1895
Germany	4,689,117	963,010[q]	5,944,378
Austria	1,473,950	1,681,675	2,006,686
Russia	325,847	442,459	352,726
Spain	2,006,237	1,655,826	2,109,730
France	498,658[o]	2,008,648	2,086,742
Rest of Europe	1,051,811	1,106,531	2,010,320
All Europe	10,045,620	7,858,149	14,510,582
United States	36,575,683	46,208,970	56,323,038
Mexico	22,566,233	33,645,338	45,007,047
Peru, Bolivia, Chili.	16,113,231	15,283,807	22,058,574
Rest of America	1,045,734	2,201,777	4,306,138
All America	76,300,881	97,339,892	127,694,797
Australia	252,930	3,938,688[r]	14,907,322
Japan, etc.	672,657[p]	1,219,219[p]	1,829,183[p]
All the World	87,272,088	110,355,948	158,941,884

[a] About three-quarters must be credited to Germany and Austria in almost equal shares, but Austria yielded twice as much as Germany, 1495-1544; Germany twice as much as Austria, 1721-40.

[b] Spaniards arrived in Mexico, 1519; the silver plunder and ransom was about 835,900 oz. Zacatecas was worked, 1548, but ineffectually till 1558. At this time some mines, chiefly in S. Luis, Potosi, and Central Mexico, were also worked and gradually improved. Guanaxato was worked 1558 to about 1600, but ineffectually.

[c] Spaniards came to Peru, 1533. Potosi, the chief of the three great silver mountains of Peru, was opened, 1545. The silver yield of Potosi attained its maximum, 1581-1600, and 1601-20, when it averaged respectively 8,176,000 oz. and 6,619,000 oz. per annum. Pasco, the second greatest silver mountain of Peru, discovered 1630. Chili first counts, 1721.

[d] The contributions of Central America are trifling.

[e] China, etc., not included.

[f] Tarassenko Otreschkoff, *De l'or et de l'argent*, says that Nertchinsk, the first Russian mine, was discovered in 1691, Kolyvan in 1723 (pp. 132-34); Kolyvan began to be fruitful, 1744; Nertchinsk, 1775.

[g] This rise was due to discoveries near "Alicante," Spain, 1843-1845, alluded to in E. Levasseur's *Question d'or*, 1858; M'Culloch's *Comm. Dict.*, p. 1124; cp. Phillip's *Mining, etc., of Silver*, p. 326. Spanish mining had been dormant, 1493-1827.

[h] Guanaxato, the richest silver mine of Spanish America, was re-discovered, 1760. In 1785-90 Guadaxato, S. Luis, Potosi, Zacatecas, and Central Mexico yielded two-thirds the silver produced by New Spain. The Mexican mining districts credited with increase, 1861-80, were the same; they yielded then five-sixths the silver produced by Mexico.

[i] This shrinkage was due to the Civil War.

[k] "Silver-mining in the U.S. may be said to have only begun in 1860" (*Geological Survey, Mineral Resources of the U.S.*, 1883 *et seq.*, 1st annual vol., p. 181), and it first exported silver in 1864. In the seventies the Comstock Lode, Nevada, rose steadily from 4,822,500 oz. in 1871 to 15,496,600 oz. in 1876, its record year (Lord's "Monograph," app. ii.), and then rapidly fell. Utah yielded its first silver in 1870. Leadville, the silver capital of Colorado, was only christened 1877 (Emmons' "Monograph" in *U.S. Geol. Survey*). The Eureka district (Nevada) (Curtis' "Monograph") and Arizona (*Banker's Magazine*, N.Y., 1878, p. 811) began to be of importance at the same date.

[l] Gualgayoc, the third silver mountain of Peru, discovered, 1771.

[m] This expansion was due to the discoveries in the "Atacama" Silver Desert, Chili, 1829-31, 1831-48, etc. (see Philippi's *Reise*, 1853-54, p. 112).

[n] Bolivia rose from 2,893,500 oz. *p.a.* (1866-70), to 7,155,000 oz. *p.a.* (1870-75), owing to the increased yield of Caracoles.

[o] First reckoned separately in 1882.

[p] Almost exclusively Japan; China is not included.

[q] This does not represent a decline in German production, but an altered mode of calculating it by excluding foreign ores (*U.S. Mint Report*, 1889, p. 166).

[r] *U.S. Mint Report*, 1886, p. 182; 1891, p. 223.

political events; thus though the Indian mints were closed, 26, vi., 1893, net exports to the east from England and the States totalled in 1891, 43; in 1892, 80; in 1893, 92; in 1894, 87; and in 1895, 58 million ounces; and the last figure, which is nearly the same as those for 1896 and 1897 is nearly one-third more than the average figure for 1886-90. The question how much of this vast supply in the eastern reservoir consists of hoards, and therefore does not affect prices, is all-important but insoluble; and the question how far it exists as coin, or in other active forms, though soluble is irrelevant; for in the east coin, ornament, use and hoarding are hardly distinguishable. As a matter of curiosity, out of 79,000,000, the average for 1891-95, 46,000,000 can be traced into or as coin; but perhaps imperfections in the United States' tables of recoinages and old material may reduce this figure by a million or so. Whether as coin or hoard, nearly half the silver of the world is dammed

Average Annual Consumption of Fine Silver in 1000 *oz. Fine Silver.*

	Net Exports to the East.			Other Use.			
	From England, Mediterranean, and United States, to India, China, Straits, etc.	From Holland to Dutch Possessions; *plus* trifling Levantine and Russo-Chinese Trade.	Total.	New Material used in Arts and Manufactures.	New Material used in Coinage *less* coin exported to the East. (Actual Recoinages of old Coin, and 10 per cent Estimate for other old Material deducted.)	Loss by Abrasion.	Total Average Annual Consumption.
1701-1810	..	..	4,112[e]	5,888[f]	6,200[f]	1,800[b]	18,000
1811-1830	..	..	3,938[e]	4,561[f]	5,502[f]	1,500[b]	15,501
1831-1850	5,799[a]	1595	7,394[b]	6,751[b]	12,056[b]	1,575[b]	27,776
1701-1850	..	..	4,526	5,826	6,887	1,730	18,970
,, (%)	..	..	24	31	36	9	=100
1851-55	17,496[b]	3224[b]	20,720	8,680[b]	−14,468[b]	1640[b]	16,572
1856-60	48,965[b]	3225[b]	52,190	8,680[b]	−14,468[b]	1640[b]	48,042
1861-65	47,570[b]	6185[b]	53,755	9,967[b]	−11,252[b]	1511[b]	53,981
1866-70	19,055[b]	6185[b]	25,240	9,967[b]	−11,252[b]	1511[b]	25,466
1871-75	20,469[b]	3276[b]	23,745	14,468[b]	+ 4,300[h]	1480[b]	43,993
1876-80	43,528[b]	3276[b]	46,804	15,143[b]	+17,500[h]	1480[b]	80,927
1881-85	38,465[cd]	3055[c]	41,520	16,868[g]	+28,869[h]	964[b]	88,221
1886-90	42,884[cd]	4894[c]	47,778	20,909[g]	+32,721[h]	964[b]	102,372
1851-90	34,804	4165	38,969	13,085	+ 3,994	1399	57,447
,, (%)	61	7	68	23	+ 7	2	=100
1891-95	78,860[i]	2640[k]	81,500	30,992[l]	24,350[h]	863	137,705
,, (%)	..	..	59	22	18	1	=100

[a] *Report of Committee on Depreciation of Silver*, 1876, App. 26 *c*, 28 *b*, give annual Indian statistics, 1835-75.

[b] Soetbeer, *Edelmetall-Produktion*, 1879, p. 136, etc.; *Jahrbuch für National-Ökonomie und Statistik*, ed. Conrad, N. F., 1881, vol. ii. p. 347; vol. iii. pp. 121, 195, etc., III^te F., 1891, vol. i. pp. 518, 563, etc.; *Materialien*, 1886, transl. in Report of Gold and Silver Commission, 1888; *Litteratur-Nachweis*, 1892.

[c] Actual re-exports to Europe from India, 1881-90, have been deducted; also those from Straits, 1885-87, and Chinese Treaty Ports, 1889-90. They amount (1886-90) to only 2 per cent. Soetbeer under-estimates re-exports from Java (1886-90) by at least 130,000 oz., according to Straits Settlement Reports, 1885-87, or possibly more, 1881-85, according to Van der Berg, *Rep. of G. and S. Commission*, 1888, App. vi. Otherwise he is followed.

[d] Official reports of average annual net imports into India by sea, 1881-90, =27,011[000] oz.; into the Straits, 1885-87, =1520[000] oz.; into Chinese Treaty Ports, 1889-90, =457[0000] oz.; into Aden, Ceylon, Mauritius, Java, Mekran, Somniani, Persia, Philippines, Abyssinia, Mozambique, Zanzibar, Malay, Siam, Corea, Japan, Cochin-China, and Java, from India, =2147[000] oz.; from Straits =4055[000] oz.; from Chinese Treaty Ports =56[000] oz., in those respective years; and French silver coinages for French possessions, 1887-90, =1093[000] oz. (Soetbeer); total, 1881-90, 40,452[000] oz. The total in the table is based on exports from Europe and United States, and =40,674[000] oz. Though Chinese statistics are not quite satisfactory, as amongst other things silver and gold have to be separated by estimate, yet this comparison is sufficient to show that the results for these years are accurate.

[e] Van den Berg and Helferich, respectively, as cited by Soetbeer.

[f] Estimate.

[g] Soetbeer, corrected as to United States statistics by United States Mint Reports (see Table xliv. in Mint Report of 1896, which apparently excludes from new materials "foreign bullion." Totals adopted for United States are, 1881-85, 4008[000] oz.; 1886-90, 4887[000] oz.

[h] United States Annual Mint Reports, deducting trade dollars, etc., meltings of foreign bullion, and recoinages. Totals in 1000 oz. are, 1876-80, 17,500; 1881-85, 20,832; 1886-90, 24,683; 1891, 17,521; 1892, 3515; 1893-95, 1874 p.a. (average). The purchasing clauses of the Sherman Act were repeated, i. xi. 1893. United Kingdom annual reports give (1) coinage, (2) old silver sent in, and (3) net exports since 1873; (2) and (3) and 10 per cent for old material is deducted. Otherwise Soetbeer is followed until 1890. After 1890, the United States Mint Reports of coinages and (known) recoinages, etc., of the world, are followed; the east being of course excluded, also Mexico, Central and South America.

[i] English net exports to India, Straits, Japan, China, and Egypt, as given in the *Annual Statement of the Trade of the United Kingdom*, for 1895 and 1896; *plus* United States ditto; *plus*, French coinage, for Indo-China, etc., and Spanish coinage for Philippines, and German for Zanzibar, etc., and Egypt.

[k] Dutch gross exports of silver *plus* former estimates for land trade, etc.

[l] United States figures give 6277[000], 1892; 6082[000], 1893; 7206[000], 1894; 8,167[000], 1895. French figures give 4728[000], 1892; 4548[000], 1893; 4988[000], 1894 (De Foville, *less* 10 per cent for old materials), and 6076, 1895 (United States Mint Report, *less* as above). Total 11,005, 1892: 10,630, 1893; 12,194, 1894; 14,243, 1895. For other figures see Lexis in Conrad's *Jahrbuch*, 1896, p. 507.

up in the east; and the strength of the dam depends on a state of mind which, though it has existed ever since history began, may some day cease to exist, as it has already begun to cease to exist in Hayti, and Japan (1897). If it ceased to exist, nearly half the existing, and more than half the future silver supplies would be let loose on the civilised world, to which however the east would then belong. It is to be remembered that this possible revolution in the conditions of demand only menaces silver, it does not menace gold.

We have excluded from the category of coinage Mexican, South, and Central American coinages; as, first, no check can be placed on their recoinages and use of old material; secondly, most drifts eastward and westward, and finds its way into other columns; thirdly, the trade dollar is usually accepted as an article of merchandise, and it seems irrelevant to distinguish it from bullion. The figures for the United States exclude some 168,000,000 ounces of bullion purchased under the Sherman Act 1890-93, except in so far as it has been coined; the reason for this is that we have no guarantee that the residue which (30 vi. 1897) amounted to 115,438,461 ounces, will be ever coined.

Production and Consumption Compared.—From 1701 to 1850 production probably exceeded consumption by 40,000,000 oz., *i.e.* by 1½ per cent. The average ratio of silver to gold fell from 15·27 (1701-10), to 15·83 (1841-50), or 3½ per cent.

Next, between 1850 and 1870 the ratio rose 1 per cent to 15·55 (average for 1866-70); meanwhile supply fell short of demand by 40,000,000 oz., or 4 per cent of the supply during that period. In 1870 there was an apparent balance, but it was only apparent. Between 1850 and 1870, what Soetbeer calls "latent reserves," consisting of hoards, etc., must have returned into circulation to some extent, and that perhaps was why the ratio rose as little as it did.

Between 1871 and 1875 production exceeded consumption by 96,000,000 oz., and the first great fall in the ratio occurred from 15·63 in 1872 to 18·40 in 1879; this process was then arrested, and the 96,000,000 was reduced successively to 85,000,000 in 1880, and 81,000,000 in 1885. During the next four years the second great fall in the ratio occurred, from 18·57 in 1884 to 22·10 in 1889; and the hanging balance of 81,000,000 of idle ounces was simultaneously increased to 121,000,000. The third fall of the silver ratio from 23·72 in 1892 to 32·96 in 1894, synchronised with a final excess of production over consumption which raised the 121,000,000 to 227,000,000. Out of these 227,000,000 the stores of bullion accumulated under the Sherman Act account for 125,000,000 oz.; and the residue, probably in the form of redundant trade dollars, makes Mexico, Peru, Bolivia, and until lately Chili, pay double what they used to pay for every imported commodity. The same result has been produced in the east, by such of the eastern exports as are not hoarded. In addition to the 227 surplus millions of ounces, we must reckon Soetbeer's "latent reserves," which however cut both ways; inconvertible paper currencies in Brazil, Buenos Ayres, and until lately in Chili, driving silver out of sight, while commerce elsewhere lures hidden silver back to the light of day. We will therefore leave this unknown quantity alone.

There have been then three successive doses of 96, 40, and 106 millions each spread over 5 years. Against the idea that an increased coinage of 19, 8, and 21 millions per annum during those respective periods of five years would have counteracted the fall of the ratio, must be set the fact that consumption has increased nearly sixfold in 25 years, 1870-95; and that this sixfold increase is inconceivable without a corresponding decrease of price. Thus had coinage taken off the surplus silver without altering its price, it is possible that exports to the east might still register only 20,000,000 a year, industrial use only 10,000,000, and that the residuary 129,000,000 a year would deluge the mints of civilised states; but this could not take place without lowering the gold value of silver coin. Silver would have certainly fallen, and the ratio to gold would have to have been revised more than once; and what civilised states would have lost by the immense purchases which they would have made, and by recoinages, it is impossible to estimate. The influence of mints may be easily overrated. Large quantities of silver have never been bought by civilised states for coinage before 1870; although large quantities of coined silver were sold for gold between 1851 and 1870, sales which could not have been effected but for the eastern demand. Experience takes us but a little way; but it proves that what saved Europe from the silver flood, and helped France to exchange a silver for a gold coinage, was the silver thirst of the east. This alone has kept pace with the unprecedented increase of the supply; and it is idle to speculate whether a combination of civilised silver-coining states might have effected at a far greater cost and without any accruing benefit to themselves, and with but little better results to the silver owner, the task which the east silently effected. See App., GOLD, INCREASE IN THE PRODUCTION OF; SILVER, PRODUCTION AND COINAGE OF, 1896-1905. J. D. R.

SILVER LEGISLATION IN THE UNITED STATES. The coinage of silver as well as of gold was authorised by the general coinage act of 1792, and full legal-tender quality was given to the silver dollar. By the act of February 12, 1873, the dollar coin was omitted from the list of silver coins, and consequently authority for its coinage ceased; and in 1874 the legal-tender power of silver was limited to an amount not exceeding $5 in one payment. With regard to the motives and methods which led to this legislation, there has been much prolonged and bitter dispute; the advocates of silver coinage asserting that the omission of 1873 was brought about without fair notice or discussion. By the act of 28th February 1878 (BLAND ACT, *q.v.*), provision was made for the purchase of a limited amount of silver at the market price by the government, of not less than $2,000,000 or more than $4,000,000 monthly, which should be coined into dollars, as provided in act of 1837. The seigniorage was paid into the treasury. The amount within these limits was left to the discretion of the secretary of the treasury, and during the twelve years in which this law was in operation the minimum purchase was adhered to. As silver depreciated in value this provided for the purchase of about thirty million silver dollars a year. Authority was also given for the issue of silver certificates of larger denominations upon the deposit of silver dollars. This legislation was brought about by the prevailing conviction in congress that a larger supply of money than gold could furnish was needed, and by opposition to the contraction of the currency; and was a compromise for the original bill of the house of representatives which provided for the free coinage of silver without limit. The existence of a struggle is indicated by the fact that the measure was passed over the veto of the president. As Prof. Taussig remarks (*The Silver Situation in the United States*, p. 7), "This characteristic of the measure, it need hardly be said, was the result not of any deliberate intention to try a new experiment, but of the spirit of compromise which explains so many anomalies in the legislation of democratic communities." An attempt was made by the banks belonging to the New York clearing-house to prevent the use of silver in their mutual settlements. On the other hand, to encourage the use of silver, congress appropriated funds for the use of the treasury

department to ship silver free of expense to all applicants in any part of the country. Again, in 1886, congress authorised the issue of silver certificates in denominations of one, two, and five dollars (30th June). By the act of 14th July 1890, as the result of further popular agitation for a still more extended use of silver, another compromise measure, popularly known as the Sherman Act, was enacted, providing, in place of the legislation of 1878, for the purchase of silver bullion to the amount of 4,500,000 ounces monthly, or so much thereof as may be offered at the market price not exceeding $1·00 for 371¼ grains of pure silver (equivalent to $1·2929 per ounce), and for the issue in payment thereof of treasury notes. Of this purchased silver, so much should be coined, after 1891, as was necessary to provide for the redemption of such special treasury notes as might be presented in exchange for silver. As, however, it was the policy of the treasury department to redeem these notes in gold if demanded, there was little call for the full coinage of silver on this account. The treasury notes thus issued are a complete legal tender. This act was repealed in 1894, and at the present time (1898) there is no general authority for the purchase of silver for coinage purposes. The operations of the Sherman Act are well presented in the annual reports of the director of the American mint.

The following table exhibits the operations under the law which went into effect 13th August 1890 to 30th June 1897 :—

Silver bullion purchased, cost	168,674,682 fine oz.,	$155,931,002
Bullion coined into dollars, fine oz., cost	53,236,220	51,594,689
Balance (after allowance for wastage), fine oz., cost	115,438,461	104,336,312
The bullion produced about	$68,750,000	
After deducting seigniorage (over $17,000,000), there remain for redemption of treasury notes		51,594,689
Treasury note issue		$155,931,002
Redeemed in silver and cancelled		41,063,722
Outstanding 30th June 1896		$114,867,280

[F. W. Taussig, *Silver Situation in the United States*, New York, 1893, originally published by the American Econ. Assoc., No. 1, vol. 7, in its *Publications*. The demonetisation of silver in 1873 is discussed by F. A. Walker, *International Bimetallism*, London and New York, 1896, pp. 183-187; *Bimetallism in the United States*, by J. L. Laughlin, New York, 1886, pp. 92-105; *Money and Banking*, by H. White, New York, 1896, pp. 213-223. For the legislation of 1878 see also Laughlin as above, pp. 179-204. See App., GOLD, INCREASE IN THE PRODUCTION OF; SILVER, PRODUCTION AND COINAGE OF, 1895-1906.] D. R. D.

SIMON, JAMES (*ob.* 1757).

A native of La Rochelle, settled in Dublin, where he was a merchant, joined the Physico-Historical Society, became F.R.S. (1748), and published his *Essay towards an Historical Account of Irish Coins* (1749), with eight plates, appendices containing acts, etc. This work was based on Sir J. Ware's and Bishop Nicholson's work, but was, according to Ruding (*Annals*, pt. ix.), who is echoed by J. R. M'CULLOCH (*Literature of Pol. Econ.*, p. 163) and M. Chevalier (*Dictionnaire de l'Ec. Pol.*) "the most valuable of all the publications upon the coinage of any part of the united dominions"; and J. Lindsay has added but little to what he calls its "extreme accuracy and deep research"; *View of the Coinage of Ireland* (1839). There are good criticisms on portions of his work in the *Numismatic Chronicle*, 3rd ser. i. 310; ii. 308. The edition of 1810 embodies Snelling's *Supplement* (1770) with three additional plates, and also a fourth plate.

[*List of the Fellows of the Royal Society* (1664-1797).—*Catalogue of Coins sold 1757.*—*Notes and Queries* (1857), p. 9, (1896), vol. x. p. 24.]

J. D. R.

SIMONY. See PATRONAGE.

SIMPLE CONTRACT. A term used to describe contracts not couched in the form of a deed under seal. All such contracts, even though they be in writing, which is in some cases required by law, are simple contracts. Consideration is necessary to the validity of every simple contract. The right of action arising under a simple contract is available for six years after the date fixed for performance. Creditors under simple contract can prove in bankruptcy equally with creditors under a contract by deed (see CONTRACT, LAW OF; SPECIALITY DEBT). F. C. M.

SINCLAIR, SIR JOHN, Bart. (1754-1835), was brought up to the law, but never practised. He sat in parliament for Caithness in 1790 and 1807, and afterwards for several English constituencies. His public activity was many-sided and untiring, both in practical work and in literature, but it was to agriculture and finance that he devoted most attention. A society for the improvement of British wool was established by him at Edinburgh, and he was the main mover in the institution of the BOARD OF AGRICULTURE. Of this board he became president. In the same year he suggested and promoted the restoration of public credit, after several bank failures, by the issue of exchequer bills; but in 1797, standing aloof from government, he distrusted their bank restriction act, though he afterwards gave it his approval.

His chief contributions to agricultural literature are the *Statistical Account of Scotland*, a valuable

compilation, the making of which he directed, and the *General Report of Scotland*, drawn up by the board of agriculture, and of internal improvement, which he superintended, writing himself the introduction and the conclusion. In this work he advocated a "judicious system of encouraging regulations," for instance, experimental farms at the public cost, protective duties on imports and bounties on exports, and the improvement, by government help, of the means of communication, such as roads and bridges.—*Report on the subject of Shetland Wool* in 1790, and an *Address to the Landed Interest on the Corn Bill* in 1791. In the department of finance, besides several pamphlets or books on joint-stock enterprises and banking, he wrote *Hints on the state of our Finances*, 1783, and *History of the Public Revenue of the British Empire* in 1785 (3rd edit. 1805). This is full of detail without neglect of general principles, plentifully illustrated with tables, and ample in its treatment of later periods, though rather insufficient, in the light of modern knowledge, for the earliest periods. Particular attention is given to the national debt and to Pitt's financial administration. His views of the future of the revenue were sanguine.

[*Memoir* by Rev. John Sinclair, his son.—*Dict. of Eminent Scotsmen.*—*Dict. of Living Authors*, 1816, with considerable list of his writings.] E. G. P.

SINECURE. A sinecure (*sine cura*) may be defined as an office to which only nominal duties are attached. Such offices have abounded at certain periods both in church and state. In France, before the revolution, they were very numerous. The *abbés*, so frequently mentioned in French history and literature, were ecclesiastical sinecurists. By the concordat of 1516, the French crown acquired the right to nominate *abbés commendataires* of certain monasteries. These persons received a large proportion of the revenues, but had no share in the government of their respective houses. They were not required to reside, and they did not always take orders. Similar abuses prevailed in the neighbouring countries. The celebrated General Prince Eugene was known as "Monseigneur l'Abbé de Savoie," because he was titular abbot of San Michele in Chiusa. The civil administration of France also swarmed with sinecurists. The governorships of the different provinces had hardly any duties attached, the real administration being in the hands of the "intendants." Just before the revolution the governorship of Guienne was valued at 120,000 livres, and the governorship of Languedoc at 160,000 livres. In the court, too, sinecures abounded. The royal kitchen alone comprised 295 officers, most of whom had little or nothing to do with the preparation of the royal repasts. The household of the infant daughter of Louis XVI. numbered 80 persons, chiefly serving for show. Though the evil was gravest in France, it was not trifling in England. Down to 1783 the royal household contained many well-paid offices which served chiefly as means of parliamentary corruption. Thus the king's turnspit, as Burke tells us, was a member of parliament. But the most lucrative sinecures were those connected with the treasury, the places of the tellers, the auditors, and the clerk of the pells. As these officers were paid by fees and percentages on the monies which passed through their hands, the work being done by deputies, their profits were always growing. In 1783 a fixed salary of £2700 a year was assigned to the tellers. In 1812 Lord Camden, the last of the tellers appointed under the old system, surrendered to the state all the profits in excess of this salary to which he would have been entitled. By this liberality on his part the treasury saved £244,400 in twenty-two years.

Various causes have tended to multiply sinecures. Offices which had once been important, but had been rendered useless by changes in administration, have been retained either through sheer neglect or as a means of influencing an aristocracy or a parliament. At other times, offices which were useless from the beginning have been created to swell the pomp of a court. In France, under the old monarchy, the creation and sale of sinecure offices was a familiar means of raising money when the treasury was exhausted. The general suppression of sinecures in the 19th century has been brought about partly by the better control of governments by the tax-payers, and partly by the pressure of needful expenses which makes frugality imperative. The growth of bureaucracy tends, however, to produce a number of petty sinecures. In some states, notably in Italy and Greece, the officials are far more numerous than their work requires.

The existence of sinecures has sometimes been of advantage to men of real merit in science or letters. Many eminent Englishmen in the 18th century held sinecure offices. Sinecures such as the presidency of the council or the chancellorship of the Duchy of Lancaster serve as a provision for statesmen who are useful in the cabinet, though unable to undertake a department. A few ornamental sinecures in a court are harmless if the stipend is nominal. But speaking generally, sinecures must be considered pernicious abuses. They exhaust the revenue, they encourage idleness, they assist corruption, and are obstacles to administrative reform. Their multiplication is a sign of political decay; their suppression a symptom of political vitality.

[For examples of sinecures, see the literature and general histories of France and England in the 18th century; Taine, *Ancien Régime.*—Burke, *Speech on Economical Reform.*] F. C. M.

SINECURES, Colonial. One of the most discreditable political abuses on record was that of conferring posts of responsibility in the colonies on men in England who took no personal part whatever in the duties, and never went out even to see the colonies where their office lay. They were simply devices for extracting fees in order to furnish incomes for

court favourites at first, for parliamentary partisans later on. The abuse ran on for nearly two centuries. The offices were conferred by letters patent, and the patentees at once appointed deputies *en permanence*. In fact they put the office up to auction; the lessee to pay over a certain amount, do the work, and get what he could. The proportion of revenue allotted to the work is illustrated in the letting of an office estimated at £1050 for £840 a year. Of course the holders of the leases had to squeeze out fees to the utmost from the unfortunate colonists. The perniciousness of the system needs no demonstration, but it is strikingly shown in the fact that, owing to the comptrollership of customs at Kingston, Jamaica, being a patent office, fees on shipping in that port were five times higher than those in the Atlantic ports after the independence of those colonies.

These abuses prevailed over all our colonies and plantations where crown offices were concerned. In 1814 it appears that the "colonial secretaryship," *i.e.* the chief administrative office under the governor, was in the hands of absentees in *every* one of our colonies. The climax of abuse was, however, inflicted on the great colony of Virginia which had to pay an absentee governor, the Earl of Orkney, for forty years.

In vain did the colonial legislatures protest; in 1699, 1711, 1715, they passed acts against non-residence; but the absentees lived near Westminster, and these acts were "disallowed." At last, in 1782, Lord Lansdowne, secretary of state, forbad the issue of more non-resident licenses; but the colonial fees were too convenient for government purposes to be parted with hastily, and it was sixty years before reform was effected. In 1814 there were still 94 such offices, held by 55 absentees—several had more than one—and of these 90 had been issued since Lord Lansdowne's order. But the atmosphere of the approaching reform bill proved effective, and by 1834 they had been reduced to 6, and soon they disappeared.

A. C.

SINGLE TAX, THE, is the ordinary name for the proposal "to obtain all public revenue, national and local, by taking as nearly as may be all the rental value of natural opportunities, without regard to improvements." This, however, is only the fiscal side of the proposition. The real problem, as stated in George's *Progress and Poverty*, is to discover the law which associates increasing want with advancing wealth, the cause of "recurring industrial depressions, and of the tendency of wages to a minimum which will give but a bare living." Advocates of the single tax find this cause in the institution of private property in land. The proposed method of collecting public revenue, by appropriating economic rent to public services, and leaving to producers of wealth the exclusive enjoyment of their entire product, will, it is believed, reverse the present tendency of wages and interest to a minimum and cure the evils arising from the unjust and unequal distribution of wealth. The proposition is to abolish all taxation save that upon land values. The argument for the proposition rests upon a distinction between the wealth produced as the result of individual effort (wages and interest) and that which results from the aid given by the community as a whole to individuals (economic rent); or as otherwise expressed, between the product of industry on land at the margin of cultivation and the greater product of any industry more favourably situated. "Economic rent" is identified with unearned increment (see INCREMENT, THE UNEARNED). The effects which are expected to follow from the adoption of the single tax are:

1. That it would "lift the whole enormous weight of taxation from productive industry," opening new opportunities for the investment of labour and capital.
2. That it would "counteract the tendency to inequality."
3. That "all classes whose interests as land owners do not largely exceed their interests as labourers or capitalists, or both, would directly gain."
4. That "greater simplicity would be possible in government."

Physiocratic writers had favoured a LAND TAX upon grounds not unlike those now put forward by advocates of the single tax, and John Stuart Mill was president of a society for the promulgation of the idea that future unearned increment should be appropriated by the state. But the modern single taxer proposes not merely the appropriation of the future increment, but also the confiscation of all existing land values to the amount "that will leave the least selling value by which the action of the market will serve to measure assessments and make sufficient return to induce private individuals to act as real estate agents without direction of government." It is argued that to leave land owners in possession of their present incomes would be to continue a wrong against society.

Herbert Spencer, in *Social Statics*, deduced the right of each man to the use of the earth from the law of equal freedom, and held that the maintenance of this right necessarily forbids private property in land. (This has since been retracted by him). The recent tendency among advocates of the single tax is to place the weight of their argument upon the principle that the rental value of land justly belongs to the community, rather than upon the economic and social blessings to be obtained from the measure. It thus becomes a question of ethics rather than of economics. Economic prosperity could not survive the carrying out of the pro-

posal, as the mainspring of individual energy would be broken.

[See the writings of Henry George: *Progress and Poverty* (New York, 1879); *Social Problems* (New York, 1884); *The Land Question* (New York, 1888).—Alfred R. Wallace, *Land Nationalisation* (London, 1882).—F. A. Walker, *Land and its Rent* (Boston, 1883).—W. T. Harris, *The Right of Property and the Ownership of Land* (Boston, 1887). Discussion by Henry George, E. R. A. Seligman, and others, published by the American Social Science Association (Concord, Mass., 1890; also arts. on DOVE and T. SPENCE.] E. T. D.

SINKING FUND.

History of the Sinking Funds, p. 405; Walpole's Sinking Fund, 1716, p. 405; Sinking Fund, 1717-1758, p. 405; Sinking Fund, 1786, p. 405; W. Pitt's Sinking Fund, p. 405; Vansittart's Sinking Fund, 1813, p. 406; Principle of a Sinking Fund, p. 407.

A sinking fund is a fund formed by the investment of annual savings or other contributions with a view to the ultimate application of the moneys so accumulated in payment of a previously incurred public debt.

The mismanagement of certain attempts to form a sinking fund for Great Britain during the 18th century discredited the term, which has been held up to ridicule by many writers on finance as representing an illusory and unscientific expedient. This, however, is to mistake the abuse of a thing for its use.

It is a sound policy in finance to begin making gradual provision for the repayment of a loan from an early period in the currency of the loan. It is practically impossible in national finance to arrange for the payment of large masses of debt at one time. It is of little use as a matter of experience to devote the surpluses of good years to reduction of debt. The payment of interest on a debt has become so much part of a nation's life that it seems easier to let it run than to make a sacrifice and repay it. But if a regular annual provision over and above the interest be put by every year for the purpose of forming a capital fund and for ultimate use in repaying the debt, it becomes a sort of sacred obligation, which it is discreditable to shirk.

The authors, therefore, of the earlier sinking funds were on a sound basis as far as principles went.

History of the Sinking Funds.—Although there seem to have been certain earlier germs of a special fund for repayment of certain debts (see 8 & 9 Will. III. c. 20 in 1697 and other later acts), the first plan for the discharge of the national debt formed on a regular system was Sir Robert Walpole's sinking fund, which was finally established in 1716 (3 Geo. I. c. 17); the terms of the act establishing it enacted that the surplus of certain specified duties and funds "shall be appropriated, reserved, and employed to and for discharging the principal and interest of such national debts and incumbrances as were incurred before the 25th December 1716, and are declared to be national debts and are provided for by act of parliament, in such manner and form as shall be directed or appointed by any future act or acts of parliament to be discharged therewith or out of the same, and to or for none other use, intent, or purpose whatsoever." Various acts were passed from time to time for carrying further sums to the credit of the fund. This first sinking fund broke down obviously because, at an early period of its existence, acts were passed to charge expenditure of different kinds upon the fund. In fact parliament deliberately diverted the fund from its legitimate objects, first by small encroachments, afterwards by charging upon it more than half the interest of the national debt together with the greater part of the other annual expenditure. In the reports of the public accounts commissioners of 1780-83, the fund as such scarcely figures, and the early formation of a plan for the reduction of the debt was urged, with the recommendation that the obvious means to this end was the creation of a fund to be invariably employed under proper direction to the gradual diminution of the public debt.

The thorough rottenness of this piece of financing will be seen at once from the following figures:—

Total legitimate receipts of the sinking fund from 1717-88 .	£200,613,693
Amount of fund applied to pay interest on debt 1717-88 . .	£98,768,623
Amount applied to ordinary expenditure	93,251,704
	£192,020,327
Amount applied to reduction of debt	£23,984,344
Excess of expenditure over income in the whole period 1717-88 .	£184,615,814
Amount of loans raised . .	£189,417,658

in other words the fund was almost entirely absorbed by expenditure other than the repayment of debt; notwithstanding this, there was an excess of expenditure over income in the whole period which approached the whole amount of the sinking fund; and while on the one hand a sinking fund was being diverted from its purpose of repaying debt, on the other a new debt almost equal in amount to the sinking fund was being incurred.

In 1786 the consolidated fund was formed with the view of taking over the charges which had exhausted Walpole's sinking fund, and a new sinking fund was instituted by W. PITT under 26 Geo. III. c. 31. The real author of the scheme was said to be Dr. PRICE; and he showed that he rightly grasped the principle which should guide such legislation—consignment to a permanent commission, penalties for

dereliction of duty, determination to keep up a settled rate of contribution. The proposal was to set aside £250,000 quarterly, or £1,000,000 a year, out of the old surplus duties which formed the previous fund, according to an act of the following year out of the consolidated fund; all moneys were to be paid into the Bank of England, to the credit of certain commissioners who were to apply them to the reduction of the national debt, and in no other manner whatsoever. Certain other sources for income were also assigned to the commissioners. With the total received they were to purchase portions of the public debt, and if possible below par; stock so purchased was to be transferred to the account of the commissioners at the Bank of England, which received future dividends thereon for credit of the commissioners till the dividends so received reached £4,000,000 a year.

It appears to have been intended that thus £5,000,000 a year would be devoted to the purchase of stock, on which the dividends would lapse, the nominal capital being transferred to the credit of the commissioners till it amounted to the same sum as the debt.

In 1792, besides a further incidental provision for discharge of debt sometimes called a sinking fund but not properly one, there was introduced the principle of the true sinking fund as it is now understood, viz. that in raising further loans, besides interest an annual provision of 1 per cent should be made for gradual redemption. This plan, however, was modified in 1798.

The two sinking funds above described were combined in 1802, the main features of each being, however, maintained.

Of Lord Henry Petty's proposal for a new sinking fund on more complex principles it is unnecessary to say anything, as it came to nothing.

In 1813 the sinking fund was modified by Mr. VANSITTART when chancellor of the exchequer; the details of the change are not important; its main points were the final discharge of the old debt of 1786 and a general and continuous application of the fund to all loans thereafter raised. The act (53 Geo. III. c. 35) legalising the change recited that the amount of £238,350,143 : 18 : 1 had been actually purchased by means of the sinking fund.

In 1817 the sinking fund of Ireland was consolidated with that of Great Britain, and in 1819 the whole question of those funds was considered by a committee of the House of Commons which passed a resolution in favour of setting aside £5,000,000 a year surplus income for the purpose of discharging debt. In practice this led to a series of illusive operations with a view to showing a surplus of £5,000,000 yearly—a chief feature in which was borrowing from the sinking fund itself.

In 1823 (4 Geo. IV. c. 19) one more effort was made to reconstitute the sinking fund on the simple basis of a provision of £5,000,000 a year from the consolidated fund. But in the ensuing years this provision was misapplied in aid of the conversion of the debt.

Thus far it would appear that the general principle described was tolerably sound and based upon a laudable intention. The method in which the principle was applied or rather infringed provoked the criticism of every sound financier. The fund may be considered to have received its death-blow from Lord Grenville's essay in 1827 followed by the recommendations of the parliamentary finance committee in 1828.

The facts of the operations up to that date were as follows:—

Receipts of Sinking Fund—	
Issues from the exchequer . .	£73,294,278
Percentage on new loans, etc. .	166,473,919
Other receipts	97,126,693
	£336,894,890
Application of Fund—	
To pay off debt. . . .	£330,050,455
To pay life annuities, etc. . .	6,844,435
	£336,894,890
Nominal amount of debt redeemed	£472,942,703
Fresh loans raised . . .	£1,052,536,700

from which it appears that just about half the actual receipts of the fund were raised by loans; and that while the fund was accumulating further debt was being incurred, so that in any case the reduction of debt was imaginary rather than real.

There was, however, an actual loss to the nation upon the continuance of the fund, for it has been calculated that the loans raised during the great war at the beginning of the century carried interest at an average rate of £5 : 0 : 6 per cent, whereas the previous loans to the extinction of which the sinking fund was devoted carried only £4 : 10s. per cent interest. In fact, debt was incurred at a higher rate of interest to pay off debt at a lower rate, —a piece of unsound finance which the straits of the nation did not justify, which cost us over ½ per cent on at least £330,050,455, or more than a million and a half a year for many years.

It is little wonder that the sinking fund was assailed by the economists of the second quarter of this century. "This worthless compound of delusion and absurdity"—M'Culloch calls it. "We doubt," he says, "if the history of the world can furnish another instance of so extraordinary an infatuation."

The House of Commons committee of 1828 restored the idea of the sinking fund to its

original and proper basis, although at the time the recommendation had an air of novelty; it decided that a sinking fund can only depend on a surplus of revenue; and suggested that the aim of the chancellor of the exchequer should be to obtain an annual surplus of £3,000,000 a year to be devoted to the extinction of debt. A modification of this recommendation was proposed by Goulburn in his budget speech of 11th July 1828, and in 1829 a definite arrangement was carried into effect whereby one-fourth of the surplus of revenue in each year was to be issued to the national debt commissioners who were empowered to buy up exchequer bills or other portions of funded or unfunded debt as seemed to them most advantageous.

For about forty years this arrangement was in force, but the annual amount devoted to the extinction of debt never reached anything like £3,000,000; on the average of years it was not more than £1,300,000.

In 1866 the special acts relating to sinking funds were repealed and the remnants of the old sinking fund of 1786 swept away, but a provision was retained under which certain surplus revenues were applied to the extinction of debt. The results of this provision still survive under the name of the "Old Sinking Fund"; in 1875 (38 & 39 Vict. c. 45), the present "New Sinking Fund" was instituted by the enactment that a certain annual sum should be devoted to the service of the debt, and that such balance of this amount as was not required for interest should be applied as a sinking fund.

But these arrangements, which have on occasion been suspended for a time, are not true sinking funds; and the most recent attempt at such a fund in this country, the provision of a true sinking fund to pay off the local loans annuities (44-45 Vict. c. 55), has been shortlived.

It may be stated broadly that in recent years the idea of devoting any definite proportion of the surplus revenue to the extinction of debt, has been abandoned in favour of the plan of terminable annuities, or special schemes of conversion. But considerable reductions were made in the years 1906 and 1907. [See NATIONAL DEBT.]

Sir Robert Giffen in 1867 (*Essays in Finance*, 1st series, 4th ed. (1886), p. 259) made a stand against the prevailing sentiment, and formulated an able plea for a national effort to reduce the debt, though this at present presses very lightly on the British nation as compared with the time when it was contracted. A good sketch of the change of opinion in this direction is given in a parliamentary return of 1869, 366, I., pp. 724-25.

Principle of a Sinking Fund.—As indicated in the opening words of this article, a sinking fund is in its essence a good thing. It is used with great effect in modern public loans of a limited currency. In spite of the discredit which fell upon the old sinking fund the essence of the system has been preserved and applied by financiers during the last fifty years. The United States, for instance, after the war of 1862, set aside 1 per cent of their entire debt every year as a sinking fund (*Foreign Office Reports*, 289, United States, 1888, p. 18).

The successful application of a sinking fund depends on two things: (1) the regular investment of a given annual sum, the produce of taxation or savings, to be applied to the reduction of debt; (2) the accumulation of all the interest upon such sums for the same purpose.

The claim made by Dr. PRICE for the old sinking fund, that it was accumulating at compound interest and paying off debt by its own unaided force, was theoretically accurate; if the fund had been invested outside the country and the interest received had been also so invested each year—each annual sum would have been bearing compound interest. The claim, however, was in the particular instance based on a fallacy, because the annual contributions were invested in the purchase of the debt which they were intended to pay off; therefore the dividends received on the contributions were in effect payments on a dead debt and in themselves unnecessary,—in other words increased contributions from the tax-payer under the guise of dividends. Under such a scheme, especially when the principal was often raised from loan funds, it was absurd to attribute any merit to the sinking fund beyond the bare facts.

In the case of loans to communities such as some of the crown colonies of the British empire, whose resources are not unlimited, and whose credit is easily shaken by over-borrowing, the sinking fund is a guarantee which greatly increases the confidence of the lending public. Such loans are usually repayable within a limited period. To provide for that repayment without undue pressure at any one time the borrowing body—colonial government, or municipality, or whatever it may be—provides usually 1 per cent per annum on the capital of the loan over and above the interest, payable to trustees who invest the sums so received in the securities of other bodies, and accumulate both capital and interest in such a way as to form a fund amounting by annual accretions and at compound interest to the total debt to be repaid. Almost all the smaller British colonial loans at the present day, whether issued in bonds or as inscribed stock, carry a sinking fund of this kind, calculated to pay off the capital at the expiration of the currency of the loan. The success of such funds is undeniable, because they can obtain the two conditions essential to success, viz. official trustees of unimpeachable integrity and an area of absolutely sound in-

vestment much larger than the debt which they are intended to pay off.

The latter of these conditions is not readily available in the case of the debt of a great nation, which cannot find a large field for foreign investment without unduly driving up the price of the stock in which it elects to invest, and in any case must take a risk of loss if it quarrels with the nation whose stock it holds. For such a nation simple paying off and wiping out of its own debt is the safest plan.

[The literature of the old sinking fund is considerable, vide M'Culloch's *Literature of Political Economy*, 1845, pp. 320 *et seq.* See especially *Parl. Return*, 366, I., of 1868-69, pp. 710 *et seq.* Price, *Appeal to the Nation on the Subject of the National Debt*, 1774.—Hamilton, *An Inquiry into the National Debt*, 1813.—Grenville, *An Essay on the Sinking Fund*, 1827.—M'Culloch, *Taxation and Finance*, pp. 446 *et seq.*, London, 1849; *Parliamentary Returns*, c. 8520-1847.—Ricardo, *Works*, pp. *seq.* and *Letters.*] C. A. H.

SISA. The grant to the treasury of Aragon, and later on of Castile, of a certain proportion of each parcel of goods weighed or measured. The levying of the SERVICIO (*q.v.*) was often voted under this form.

[Piernas Hurtado, *Tratado de la Hacienda*, vol. ii. p. 55 (4th ed., Madrid, 1891), and Canga Arguelles, *Diccionario de la Hacienda* (London, 1826).] E. Ca.

SISMONDI, JEAN CHARLES LEONARD SIMONDE DE (1773-1842), born and died at Geneva. Celebrated principally as an historian, he deserves to be studied for the independence of his intellect, the integrity of his character, and his lofty humanitarian sentiments—notwithstanding the errors in his economic views, particularly with regard to labour questions.

He began life as an employé in a house of business at Lyons, which was broken up by political events and the commencement of the revolution. After returning to Geneva, his family were obliged, for the sake of safety, to take refuge in England. They soon returned to make a short stay in Geneva, where young Charles narrowly escaped death in defending his fellow-countrymen.

His father then bought land in the country near Florence, and Charles Sismondi gave himself up entirely to agriculture. This was the beginning of his study of political economy, and it was a happy beginning. The economic conditions of this branch of industry were to him the object of deep study,—interesting traces of which are to be found in all his later works.

Among other things, the advantages of MÉTAYAGE have often been ably illustrated by him.

His first work, *Tableau de l'agriculture toscane*, 8vo, 1801, dates from this period. Two years after he published *La richesse ou principes d'économie politique appliqués à la législation du commerce*, 2 vols. 8vo, 1803, his masterpiece, in which he boldly avows himself on the side of Adam SMITH, seeking, however, to correct him in some points. He was not then acquainted with J. B. SAY, whose great work *Traité d'économie politique* appeared in 1803. However, they agreed on several subjects, not the least important of these being FREE TRADE. The weak side of Sismondi after this date was the question of the division of the value of a product between the different factors by which it had been created. His mistake on this question, which was only half formulated in 1803, may be described as the theory of the essential wage—what the Roman Catholic Church at the present day calls the *juste salaire;* this took definite form as time went on. His views are questionable also on the question of the basis of the right of property which he regarded "as a fortunate usurpation, a gift of society, and not a natural right anterior to it." Between 1807-18 he published his celebrated *Histoire des républiques italiennes du moyen-âge* (16 vols. 8vo), a work of the first rank in which economic subjects are often approached with a masterly hand.

A journey which he made, at the commencement of the restoration, to England, where he had not been since 1793, had an unfavourable influence on his economic views. The influence exercised by the increase of machinery on the condition of the work-people on the other side of the Channel touched him deeply. The sufferings he witnessed moved him to such an extent as to influence his public opinions. From that time his reason was the slave of the sentimental impulses of his heart, and *Les nouveaux principes d'économie politique ou de la richesse dans ses rapports avec la population* (2 vols. 8vo, 1st ed. 1819; 2nd ed. 1827) display serious incongruities when compared with his work of 1803. In the latter he declares that economic science is "in many respects the domain of sensibility and the imagination," and attacks with vigour the doctrine of *laissez-faire, laissez-passer*. This work is a mine whence the socialists have extracted those erroneous but moving arguments with which they attack the natural order of economic society. In conclusion, Sismondi proposes two remedies, the one—prohibition by law of the marriage of all who cannot prove they have sufficient means to bring up a family. He proposed this specific in 1819; he gave it up in 1827. The other—the charging the employer with whatever is required to make up what he terms the *necessary wage* of the workmen.

In other words, the supposed needs of the labourer—things which are extremely variable, varying according to country, period, individuals, profession, age, customs, etc.—are to fix his salary.

This discussion on the position of the workman's wage is characteristic of the time when Sismondi wrote his principal works, a period influenced by the distress caused by the great war on the continent and the economic troubles which followed when peace returned to Europe.

The development of the erroneous doctrine of the necessary wage is set forth theoretically in *Richesse commerciale*, 1803. A letter to Channing written in 1831 shows that Sismondi at last had doubts as to the efficacy of the second remedy, and

renounced it while proposing others. A collection in three volumes appeared 1836-38 under the title of *Études sur les sciences sociales*—the first was devoted to *Études sur les constitutions des peuples libres*, and the two others to *Études sur l'économie politique* which reproduced the views in the former work almost literally, or at least views inspired by the same doctrine.

Sismondi devoted twenty-three years of his life (from 1818 to 1842) to his *Histoire des Français* consisting of thirty-one volumes of which one volume contains the tables. He was prevented by death from doing more than twenty-nine volumes, and the thirtieth as well as the general index is written by M. Amédée Renée. It is an excellent work, but it would have gained, especially as regards style, by another revision.

Sismondi, in conjunction with Fix, assisted in the establishment of the *Revue nouvelle d'économie politique*, which, in spite of its excellent editors, existed only for a short time (1833-1835).

Sismondi took part throughout his life in the political movements of his country—he was a member of the *Assemblée constituante helvétique*, and was appointed an active member a few days before his death, when he delivered a speech, though with great difficulty.

Besides those just mentioned, Sismondi produced many works, the most important of which are *De la littérature du midi de l'Europe* (4 vols. 8vo, 1813), republished in 1819 and 1829; *Julia Sévéra ou l'an 420* (a description of the manners and customs of the Gauls of the time of Clovis) (3 vols. 12mo, 1822).—*Histoire de la renaissance de la liberté en Italie, de ses progrès, de sa décadence et de sa chute* (2 vols. 8vo, 1832).—*Histoire de la chute de l'empire romain et du déclin de la civilisation de l'an 250 à l'an 1000* (2 vols. 8vo, 1835).

M. Mignet, in May 1835, and M. Alph. Courtois in October 1892, read notices of Sismondi and his works before the *Institut de France, Académie des sciences morales et politiques*, the former regarding him as an historian and a man of letters, the latter as an economist. A. C. f.

SIXPENCE. English silver coin, first struck in the reign of Edward VI.

The following is a list of the coins of this denomination issued since that time:—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Edward VI. . .	1552	48	925	6½d.
Elizabeth . .	1560	48	925	6½d.
Elizabeth to George III.	1601 to 1816	46½	925	6½d.
George III. and subsequently	1816 onwards	43·6363	925	6d.

F. E. A.

SLAVERY.

Slavery, p. 409; Slave Trade, p. 409; Slave Labour, p. 410.

From the earliest times in all nations the system by which the stronger enslaved the weaker has for a time prevailed. In early times it was customary to reduce to the status of slave all captives taken in war, however noble their birth might be. Alike in the East, in ancient Greece, and in ancient Rome, the system flourished. Of the conditions of slave life in Greece and Rome full accounts have come down to us, but to enter into the details of the status and its ameliorations is hardly within the scope of this article (for further information see Abolitionist; Emancipation; Serf; Villeinage). The general recognition of slavery as a lawful status was made more and more impossible by the spread of the Christian religion.

Slave Trade.

Nevertheless, in the course of the 16th century, a new and systematic traffic in slaves was inaugurated by Christian nations, and a *régime* of cultivation based on slavery was continued almost to our own day. The use of negro slaves by the Moors in North Africa, which had existed from time immemorial, probably suggested the idea of negro slaves to the Portuguese and Spaniards. The importation of the African negro into America and the West Indies became a recognised and profitable traffic which quickly fell into the hands of the Dutch, and later, under the Assiento Treaty of 1713, was almost monopolised by the English. The facility of obtaining such labour built up the sugar industry of the West Indies, but placed it on a wasteful and extravagant basis; the same facility opened the mines of Mexico and Peru. To some extent the Spaniards and Dutch also enslaved the American aborigines; but these were inferior labourers, and the Dutch in their greatest American settlements—those in Guiana—found it the best policy to treat the natives as friends and allies. The king of Denmark, in 1792, took the lead in abolishing the traffic in negro slaves, England followed in 1807, and in the same year the United States completed their legislation against the trade. France was not long behind. The Spanish government, which had always secretly encouraged the traffic, though interdicted from its actual exercise by the power of the Dutch, were last to give way. It followed naturally from the abolition of the slave trade that slavery itself should be abolished. It is hardly necessary to do more than refer to the emancipation of all slaves in the British colonies in 1833, and to the abolition of slavery in the United States in 1862 which led to civil war the same year. Through the action of Cuba (1886) and Brazil (1887) slavery in nations of European origin has entirely disappeared. Yet even at the present day, amongst highly civilised nations, forms of slave traffic are liable to revive from time to time, and are only checked by a lively public morality.

Slave Labour.

It is generally admitted by economists that slave labour is dear labour, extravagant in method as well as brutalising in effect both on the master and slave. This may be fairly adopted as the broad principle based on experience and history; but it is not always of the essence of slave labour; many instances have occurred, both in the West Indies and the southern states of America, where a sort of feudal attachment had sprung up between slaves and the employer. It is possible that this could only take place where a creature of low organisation could not look beyond mere bodily comfort. There are certainly many who know the West Indian negro well who would argue that a negro slave, really well cared for, will do better and more cheerful work than many a free man. This side of the picture has been too often overlooked by writers on slavery; they have naturally revolted from the whole conception of slavery, and detested the thoughtlessness and barbarities which were too often the most conspicuous accompaniments of slave life in the West Indies and the southern states.

So far as the condition of slaves was regulated with harshness, their labour was marked by the following defects:—

(1) A low degree of productiveness, because there was no personal inducement to do good work.

(2) Great wastefulness and expense (*a*) because of the necessity of a disproportionate amount of supervision; (*b*) because of waste of life and the importation of fresh slaves at a high cost.

It is so generally admitted that "slave labour is of all kinds the most inefficient, and that punishment and authority are inferior to reward and free contract as stimulants to exertion" (Nicholson, *Principles*, p. 359), that it is hardly necessary to discuss the question fully. It is desirable, however, to point to the particularly fair and impartial summing up by Mill as to the extent to which slave labour in the West Indies may have enabled the organisation of the sugar industry, and been a source of wealth to the employers.

[The literature of slavery is endless, especially the English works during the first half of this century. For an account of it in Greece and Rome see Smith, *Dictionary of Antiquities; s.v.* "Servus," and Wallon, *Histoire de l'Esclavage dans l'antiquité*, Paris, 1879, 3 vols. 8vo. For Rome see also Ramsay, *Manual of Roman Antiquities*, pp. 94-100. For a summary of negro slavery, see Payne, *European Colonies*, p. 73-5.—Caldecott, *English Colonisation and Empire.*—Lucas, *Historical Geography—West Indies*, pp. 65 *et seq.* For economic effects consult Adam Smith, *Wealth of Nations*, bk. iii. ch. ii.—Mill's *Principles of Political Economy*, bk. ii. ch. v.—Nicholson, *Principles*, pp. 358-359.—Cairnes, *Slave Power*, 2nd ed. 1863.] C. A. H.

SLIDING SCALE (WAGES).

Sliding Scale, p. 410; the Standard Wage in the Sliding Scale, p. 411.

Sliding Scale (Wages). In trades where it is recognised that the wages of labour may appropriately vary with the price of the particular product into which the labour enters, as in coal-mining, and where there are organisations of capital and labour strong enough to obtain trustworthy statistics and enforce decisions, the sliding scale seems to commend itself as an admirable way of regulating wages. The initial difficulty lies in determining the "standards"; that is, the price which may be considered normal and the wage which may be considered normal when this price rules (see Standard Rate (of Wages)). The second difficulty lies in fixing the percentage of rise or fall of wage which shall accompany rise or fall of price, in such a way that there shall be an approximately satisfactory division of the added price between labour and the other factors. Usually a certain period of time, from one to six months, is taken as normal, and the average prices and wages ruling during this period are taken as the "standards." The relative percentages of rise or fall are likewise empirically determined. A revision-period of two or three months being decided on, at the end of each revision-period chosen accountants, who have access to the books of the employers, decide whether price has risen or fallen, and, on this finding, intimate an advance or reduction of wages.

For example, when the South Wales sliding scale was established in 1875, the standards were taken by reference to the prices and wages ruling during the year 1869: the revision-period was fixed at six months; and the percentages were 7½ rise in wage for every shilling per ton advance in the price of coal. Since then various changes have been made from time to time; at present the standard price is between 7s. 10¼d. and 8s. Wages alter 8¾ per cent for every shilling in the rise or fall of coal; the revision-period is two months.

The advantages of a sliding scale as, to a certain extent, reconciling the interests of labour and capital, need not be dwelt on. It is, of course, only in a few cases that labour enters so largely and directly into the making of a particular commodity that wages can be regulated by its price. But in coal and iron-stone mining, and in the manufactured iron and steel trades, the application of the sliding scale is easy, and the fact that, for over twenty years, the richest and largest coal-fields in Great Britain, those of South Wales, have held by the system without a break is sufficient proof of its practicability.

The practical difficulties encountered may for the most part be traced to an economic weakness in principle. Granted that labour and capital, as instruments of production, get their value from that realised by their products,

and that the total remuneration of labour may be expected to follow the value of the total product of industry (national dividend), it is questionable if this principle is realised by a system which establishes a direct connection between price of any one kind of labour, and price of any one product. It is evident that the price of coal may be advanced or reduced without much reference to general prosperity, and a particular class of wages may, under a sliding scale, be raised or depressed at the same time that wages generally are taking an opposite direction, in which case the miner obtains a disproportionate share of the national produce. In the long run this would probably work out fairly enough, but it is a common experience that workmen are slow to recognise that, if they get an advance of wages when, irrespective of general prices, the prices of their particular product rise, they must submit to a reduction when the prices of their particular product fall. Where it is customary for employers to take contracts for delivery over long periods at a fixed price, as in shipping orders, in supply for gas works, etc., another form of the same difficulty emerges. In such cases the rise of wages which might be expected from the current newspaper quotations for coal does not come at the end of the revision-period, and may never come at all if prices should fall again before the contracts expire. The men are apt to think that they would have been better off without a sliding-scale system. It is difficult, too, to persuade them that their employers, in making the contracts, have not trusted to the sliding scale to keep wages down, particularly if miners in other parts of the country, not under the sliding scale, are enjoying an advance.

The experience of South Wales, however, has proved that when men and masters meet round a table to discuss points of conflict, the difficulties mentioned are found not insuperable.

THE STANDARD WAGE IN THE SLIDING SCALE. The determination of the "standard wage" on a sliding scale is usually empirical, being either the current wage at the time when the scale is established, or the average wage over a period of time taken as normal. Theoretically, the standard wage should be the wage which will keep the remuneration of the particular labour in equilibrium with that of all other kinds of labour of similar skill and conditions in the country; rises or falls therefrom being regarded either as accidental or as tending to balance each other. According as the empirical determination coincides with the theoretical standard, may the sliding scale be expected to work satisfactorily or not (see SLIDING SCALE).

[J. E. C. Munro, *Sliding Scales in the Coal Industry.—Sliding Scales in the Iron Industry.*—L. L. Price, *Industrial Peace.*—Smart, *Studies in Economics*, No. III.] W. S.

SLIP. When an insurance broker is requested to effect a marine insurance he prepares a brief memorandum (called the slip) of the particulars of the proposed risk, which is presented to the underwriters, who each initial it for the sum he underwrites. The slip forms the agreement between the parties, but by the 30 Vict. c. 23, § 7 and 9, a marine insurance must be embodied in a policy. The slip, therefore, is not enforceable, though it may be given in evidence, if material (see INSURANCE, MARINE).

[Arnould on *Marine Insurance*, London, 1887.] J. E. C. M.

SMALL HOLDINGS ACT 1892 (55 & 56 Vict. c. 31). Ever since J. S. Mill's *Principles of Political Economy* dwelt so earnestly on the usefulness of PEASANT PROPRIETORS, there has been a growing opinion in favour of an increase in the number of small landowners in England. But such a result is more easily desired than attained. Agricultural estates in England are usually of considerable extent, and their owners are commonly anxious to keep them undiminished. When the owner is disposed to sell, he generally finds it more convenient to sell in considerable quantities. Even when the owner is disposed to sell the land farm by farm, a single farm is usually more than the most thrifty labourer can purchase. He finds it cheaper and altogether more advantageous to hire than to buy. Partly through these obstacles, and partly through the opportunities of a different kind offered by the towns, the ambitious and energetic labourer seldom even thinks of becoming a landed proprietor. Occasionally he becomes a tenant farmer, but though this may be a more comfortable condition, it is not what agrarian reformers have desired for the country. In recent years the decline of agriculture has made many landowners anxious to sell at a low price to any one who would buy land, and the legislature has passed the Small Holdings Act to assist the labouring class to take advantage of this opportunity. Any county council may, and every county council not of a borough must, appoint a committee to consider whether there is cause for putting the act into operation. Any county elector may petition the council to do so, and if his application is in good faith, it must be acceded to. The county council may buy or lease land for small holdings, but has no power of compulsory purchase. It may also execute such works of road-making, draining, and fencing, as can best be carried out before the land has been divided. It may then sell the land in small holdings, that is to say, holdings of more than one acre but not of more than fifty acres, or exceeding an annual value of £50. One-fifth of the purchase-money is to be paid on completion of the contract, and the balance by half-yearly instalments of principal and

interest spread over fifty years. Moreover, a fourth of the purchase-money may be secured by a perpetual rent-charge. Where the land has only been leased to the county council, or where the person desiring to occupy it cannot afford the purchase-money, it may be let in small holdings of not more than fifteen acres, or £15 annual value. Small holdings are only to be provided for those who mean to cultivate them personally, and must not be used for any but agricultural purposes, or be divided, assigned, or let without the sanction of the county council. The county council may also advance to tenants of small holdings on private estates the money necessary to purchase such holdings. Where small holdings have been provided, the county council may delegate its powers to a committee containing representatives of the parish council in whose jurisdiction the small holdings are situated. The intention of the act is that the county council should not incur any permanent loss in carrying out its provisions. The temporary burthen imposed on the county must not be more than can be met by a rate of 1d. in the pound.

No appreciable effect has been produced at present by this act. A parliamentary return, printed August 1895, showed that up to that time petitions under the act had been presented in rather less than half the counties of England and Scotland, that small holdings had been provided only in some eight or nine counties, and that their total extent was but a few hundred acres. It is impossible to predict whether the act will be more operative in the future.

[See text of act. Arts. ALLOTMENT; HOLDINGS OF LAND; LAND; MORCELLEMENT.—Wright and Hobhouse, *Local Government and Local Taxation*, 2nd ed. 1894.—Parker, *Duties of County Councils.*]

F. C. M.

SMALL NOTES. See BANK NOTES.

SMITH, ADAM (1723-90), was born at Kirkcaldy, Fifeshire, N.B., a few months after the death of his father, who was comptroller of the customs of Kirkcaldy. He attended the grammar school there, was barely three years student at Glasgow University (1737-40), and went with a Snell Exhibition in 1740 to Balliol College, Oxford. There he remained till 1746, returned to Kirkcaldy, delivered lectures on literature as well as on economics at Edinburgh 1748-49, and edited the poems of Hamilton of Bangour, published 1749. In 1751 he became professor of logic at Glasgow, and was transferred to the chair of moral philosophy in 1752. He contributed to the short-lived *Edinburgh Review* 1755, and gained fame outside of Scotland by his *Moral Sentiments* 1759. Charles Townshend persuaded him to resign his chair in 1763 and become travelling tutor to the young Duke of Buccleuch. Under these auspices he visited Paris, Toulouse, Bordeaux, Montpellier, and Geneva, but stayed longest (a year and a half) at Toulouse, and nearly a year at Paris. The *Wealth of Nations* was begun at Toulouse; and the author owed to this French visit the knowledge of French industries, finance, and administration so abundantly manifested throughout that work. His pupil's rank, his own rising fame, and, not least, his friendship with David HUME, secured him access to the philosophical, political, and literary celebrities whom he would most have desired to know, including VOLTAIRE, TURGOT, and QUESNAY. Returning to England October 1766, he was back at Kirkcaldy in May 1767, and was little out of it, except to visit Edinburgh and London, till the end of 1773, when he seems to have lived in London till his book was out at the beginning of 1776, the year of Hume's death. Two years afterwards Adam Smith was made commissioner of customs at Edinburgh 1778, and remained there till his death in 1790.

What Adam Smith proposed to achieve was not merely a treatise on moral philosophy and a treatise on economics, but a complete moral and political philosophy, in which the two elements of history and theory were to be closely conjoined. This was his programme as early as 1759, for it stands recorded in the concluding sentences of the *Moral Sentiments*. It was carried out for ethics in the *Moral Sentiments;* but Adam Smith found the rest of the programme too large for one book. "I shall in another discourse endeavour to give an account of the general principles of law and government and of the different revolutions they have undergone in the different ages and periods of society, not only in what concerns justice, but in what concerns police, revenue, and arms, and whatever else is the object of law" (*Moral Sentiments*, 1st ed., p. 551). In the *Wealth of Nations*, however, he dealt only with "police, revenue, and arms," in fact, with regulations founded on expediency, while those founded on justice remain almost entirely untouched as well as the general theory of jurisprudence itself. Some light is thrown on his probable lines of treatment by the Glasgow student's *Notes of Lectures*, edited by Mr. Cannan.

Adam Smith's theory of moral sentiments is, in brief, that they are founded, not, as Hume said, on self-interest, but on fellow-feeling—the power one man has of putting himself in the place of another, and judging others by himself, himself by others. On this foundation are built two distinct kinds of moral judgments, judgments of propriety and judgments of merit. To have propriety, an action done by another must show an effect proportioned to the cause, it must not imply a passion greater than I should feel in the circumstances; outbursts of passion must be so toned down that the spectator can enter into them. On the other hand, to have merit, an action must show a tendency to

produce a beneficent effect. In both cases, the judgment depends on a regard for others which is a reflected regard for ourselves. Thus the treatise is, as described in the later title-pages, "an analysis of the principles by which men naturally judge concerning the conduct and character first of their neighbours, and afterwards of themselves." One of the moral virtues, however, stands by itself, namely justice. It begins with fellow-feeling, but its main support is utility. Without justice, society could not remain in existence. We have seen that the *Wealth of Nations* itself may be said to have grown out of a projected treatise on justice. It is true that there is no reference in the *Wealth of Nations* to the earlier book, but there is no conflict between them, and we must believe the express statements of the author that they form part of one whole. A belief in the "invisible hand" is common to both, and there is the same belief that, on the whole, "nature" works for human happiness and progress. There is no confusion of happiness with wealth; we are told in the earlier book that happiness is fairly well distributed over all ranks of life rich and poor.

The *Wealth of Nations* (1776) is the book that has probably secured its author as near an approach to immortality as can fall to any economic writer. The following are the main outlines.

"Political Economy" is to Adam Smith "an inquiry into the nature and causes of the wealth of nations." (Title, compared with IV. ix. 307, 1, ed. M'Culloch, 1863) "The annual produce of the land and labour" of a country makes "the real wealth and revenue of all its inhabitants" (II. iii. 149, 1). "The annual labour of every nation is the fund which supplies it with all the necessaries and conveniences of life which it annually consumes" (I. Introd.). The labour is the "cause" and the commodities, the necessaries and conveniences are the "nature" of the wealth of nations.

The subject is treated in five books. The first is devoted to labour, the second to stock, including capital, the third to the history of the growth of wealth in different nations, the fourth to systems of political economy, and the fifth to the state and its revenue.

Why are savage societies less wealthy than civilised? Mainly because of the division of labour that prevails in the civilised, to the immense increase of the productive powers of the labourers. It improves dexterity, saves time, and leads to inventions. It is due to a "natural propensity" of men to barter and exchange with one another, but it is not itself devised by men, it has grown up of itself. It is not due to difference of talents; on the contrary it creates these. It is limited by the extent of the market, being the more applicable the more the market is widened (I. iii.). It leads, through the growing difficulties of barter, to the invention of money (I. iv.). It is at once the cause and the condition of the formation of stock (I. i. cp. II. i. Introd.).

The mention of money leads to an inquiry into value, and a distinction of value in use from value in exchange. Money is for short periods a good common measure of value in exchange, and corn is a better for long periods; but labour, which was the first price for all things, is the best measure of their value. By "labour" here Adam Smith means the labour purchased by an article, not the labour involved in the making of the article; but he finds it hard to hold by this distinction, and to keep the senses of the words clear. (See I. iv. v.)

What are the "component parts of the prices of commodities" as they are? They are mainly three—wages, profits, and rent (I. vi.). These are "the three original sources of all revenue as well as of all exchangeable value. All other revenue is ultimately derived from some one or other of these" (I. v. 24, 1).

Now there is in every given society or neighbourhood an ordinary, average, or customary rate of wages, profits, and rent, determined by the circumstances. This rate may be called the "natural" rate, and when goods are sold at such a price as to yield just this rate, then they are sold at their "natural" price. The market price is determined by the demand and supply of the moment, and may be above or below the natural price, but it "gravitates" towards the natural price (27, 2); if the producers are to carry on their business, the price "over any considerable time" must be equal to the natural price, the price it has really cost to bring the goods to market (I. vii. 25, 26).

In detail, the "natural rate" of wages was at first the whole produce (I. viii. 29, 1), but, after the appropriation of land and the accumulation of stock, it is part of a contract between employer and employed. The lowest wages would yield only physical necessaries, but the actual customary rate is beyond that point in most countries, especially in England, where the customary rate has happily been rising. How high it is depends on the state of industry in a country, whether progressive, stationary, or declining (I. viii.).

The condition of the labouring poor, that is of the great body of the people, is happiest in the progressive state when society is advancing to the further acquisition of wealth (37, 1, cp. 35, 2). We seem to be in that state at present. On the contrary the rate of profit, reflected in the legal rate of interest, has been falling; "the increase of stock which raises wages tends to lower profit" through the competition of merchants (I. ix. 40). The two can be high together only in the exceptional circumstances of a new colony (42, 1).

If there is a "natural rate" for wages and profits, why is it that different trades are very differently rewarded? The answer is that in the long-established trades, under ordinary conditions, in the same neighbourhood, and apart from interference of government, "the whole of the advantages and disadvantages of the different employments of labour and stock must be either perfectly equal or continually tending towards equality" (I. x. 45, 2, cp. 52, 2); but this means that the disagreeable, difficult, responsible, precarious, and inconstant employments must have a money reward in proportion to their drawbacks. In the case of profits, the disadvantages that secure compensation are mainly disagreeableness and risk. Profits tend much more surely to a level than wages (50, 2).

Even where liberty exists, there would be causes at work to disturb the balance. But there is not perfect liberty. Corporations, apprenticeships, laws of settlement, restrict competition and hinder the circulation of labour in one department, while endowments increase competition in another. The result is a disturbance of the natural progress of the country, to say nothing of the wrong often done to the labourer by the infringement of his most sacred rights of property, "the property which every man has in his own labour" (I. x. pt. ii., Inequalities occasioned by the policy of Europe).

"Rent, considered as the price paid for the use of land," stands on a different footing from wages and profits. The landlord's interest is to leave the tenant "no greater share of the produce than what is sufficient to keep up the stock from which he furnishes the seed, pays the labour, and purchases and maintains the cattle and other instruments of husbandry, together with the ordinary profits of farming stock in the neighbourhood"; what remains is the "natural rent of land." It is a monopoly price, and is "not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take, but to what the farmer can afford to give" (xi. 66, 67). If the price of the produce is less than enough to repay the farmer his outgoings with ordinary profits, there will be no surplus for rent. Hence rent enters into price in a different way from wages and profits. "High or low wages and profits are the causes of high or low price; high or low rent is the effect of it" (67, 1). Land on which food is raised always affords a rent, for men multiply in proportion to the means of their subsistence, and so food is always in demand. Such land almost always produces a surplus for rent, though the amount of the surplus will vary (1) with the fertility, (2) with the situation (67, 2). The surplus too is greater for corn lands, and the value of these and their produce is greater also, till the time when with the extension of cultivation the supply of meat from the native pastures becomes insufficient,

and it becomes worth the landlord's while to turn corn lands into pasture (68, 2). In Europe for the most part corn lands regulate the rent of all other cultivated land (73, 1). If the common food were potatoes or rice, cheaper food than corn, the landlord's surplus would be larger, and the potato or rice fields would regulate the rent of the rest (73, 74).

The lands, which furnish not food but clothing or building materials, sometimes do and sometimes do not afford rent. "Countries are populous not in proportion to the number of people whom their produce can clothe and lodge, but in proportion to that of those whom it can feed." Among savages, perhaps one-hundredth part of the year's labour will be spent on clothing and lodging; the other ninety-nine will be no more than enough to provide food" (75, 2), and in the less civilised countries there will be no rent on any lands except those yielding food. But in civilised countries one half the population can provide food for the other half, the latter then producing luxuries, the desire for which, unlike the desire for food, is quite unlimited (75, 2).

In order to obtain food, the poor will vie with each other to provide luxuries of all kinds for the rich, and the land producing the materials for these luxuries will yield a rent, for example coal mines and timber forests (76-78). It is in this connection that Adam Smith investigates the causes that have made gold and silver the chosen metals for the money of almost all nations (78-80).

This first book of the *Wealth of Nations* concludes with a long "digression" concerning the value of silver, introduced by the question whether or not the effects of "the progress of improvement" are uniform. It might have been expected that the value of the materials for luxury should uniformly increase in comparison with that of the materials for food. The case is not so simple. We have three sets of circumstances: (1) Where the demand for silver increases faster than the supply the value of silver rises and the price of corn falls. (2) Where the supply of silver increases faster than the demand, the price of corn will rise higher and higher. (3) Where the supply of silver simply keeps pace with the demand, the price of corn will remain nearly the same (80, 81). The first was the case in Europe from 1350 to 1570; the second from 1570 to 1640, when silver fell after the American discoveries; the third from 1640 to 1776, when silver was steady, with a slight tendency to rise, though "the best opinion which I can form upon this subject scarce perhaps deserves the name of belief" (99, 2, but cp. 224, 2). There had been an increased production from the mines, but trade and the need for silver had increased perhaps still more. A high value of silver is no proof of general poverty or riches any more than a low one (110, 2). Low prices of particular articles, such as cattle and poultry, in comparison with corn, are a decisive proof of poverty (III. 1), and judged by this standard, for the converse is true, England is rich. In the present century (18th) corn has been low and other sorts of provisions have been high (111, 112). Hence the value of land has been high; and "the land constitutes by far the greatest, the most important and the most durable part of the wealth of every extensive country" (112, 1). The real interest of the landlords (not that they are always aware of it) is always at one with the general interest of the society; every improvement tends to raise their rents (115). The interest of the labourers is so too, but not so necessarily the employers', for they seek monopoly wherever they can get it (116).

In the second book Adam Smith treats of "the nature, accumulation, and employments of stock"—"stock" meaning, be it observed, accumulated wealth whether used as capital or not. Under division of labour, production takes time, and even for exchange we must wait. "A stock of goods" must be "stored up," sufficient to support the weaver, for example, till he has completed and sold his web. "The quantity of industry therefore not only increases in every country with the increase of the stock which employs it, but in consequence of that increase the same quantity of industry produces a much greater quantity of work" (119, 2).

A man's stock may be either (*a*) spent on his own consumption, or (*b*) intended to afford him a revenue. In the second case it is his capital, and it may be either circulating—going from him in one shape, returning to him in another; or fixed—not leaving his possession, but yielding him a profit *in situ*, as a machine or instrument. In different trades the proportion of these two is very different (120). Adam Smith includes, under the fixed capital of a country or society, permanent improvement of land, through draining for example (cp. II. i. 121, 2), and "the acquired and useful abilities of all the inhabitants and members of the society," such abilities having cost wealth to acquire (122). The circulating capital includes the money, provisions, materials, and finished but unsold work (122). Fixed capital is derived from circulating, and needs to be continually supported by it; fixed capital cannot yield a revenue but by circulating capital. Both of them have as their sole end the increase and maintenance of the stock reserved for immediate consumption. In all civilised countries "every man of common understanding will undoubtedly employ whatever stock he can command in procuring either present enjoyment or future profit" (123, 1).

The author passes in his second chapter to "Money considered as a particular branch of the General Stock of the Society," but first repeats his analysis of price into its three elements, and adds to it the distinction of gross revenue and neat revenue. Real wealth is in proportion to neat revenue, whether for an individual or a country. For a country, all the expense of maintaining the fixed capital must be deducted, but not that of maintaining the circulating. The circulating capital of a shopkeeper, for example, consists in what is part of the neat revenue of other people (124, 125), and they replace it to him from their revenue. "Money, therefore, is the only part of the circulating capital of a society of which the maintenance can occasion any diminution of their neat revenue" (125, 1). Money in fact is, to the society, not circulating but fixed capital; it is an instrument of commerce which has to be maintained. It is machinery, "a great wheel of circulation," and makes no part either of "the gross or the neat revenue" (125, 126, 2). The goods and not the money are the revenue. Paper money is like an improved machine; it diminishes the cost of circulation, that is all (126, 2). Banking enables this invention to have its perfect work (129-145). Adam Smith is not against all interference with freedom of issue. "Such regulations may, no doubt, be considered as in some respects a violation of natural liberty; but those exertions of the natural liberty of a few individuals, which might endanger the security of the whole society, are and ought to be restrained by the laws of all governments, of the most free as well as of the most despotical. The obligation of building party walls, in order to prevent the communication of fire, is a violation of natural liberty exactly of the same kind with the regulations of the banking trade which are here proposed" (143, 1), namely (*a*) the restriction of notes to sums that would confine the use of the notes to dealers and exclude ordinary folk, and (*b*) the obligation to pay notes in gold or silver. There would be then no fear that notes would raise prices, for whatever was added to the currency in notes would be taken from it in the gold or silver (143, 1). The multiplication of banks can then do nothing but good, and the competition of bankers should be as free as possible (145, 2).

Adam Smith proceeds (in II. iii.) to introduce a distinction between productive and unproductive labour, in doubtful consistency with his general view of division of labour in Book I., and with his view of acquired abilities at the beginning of this second book. Productive labour, he says, adds to the value of the subject on which it is bestowed, while unproductive does not. The one is maintained by capital, the other by revenue. The one "fixes and realises itself in some particular subject or vendible commodity," which is, as it were, "a certain quantity of labour stored up" (146, 1); the other consists in services which perish in the rendering. Hence, all manufacture is productive, all menial service and all professional and official service must be reckoned unproductive. The more of the former there are in a country, the richer the country becomes; the more of the latter, the poorer.

Where revenue predominates over capital, as in a residential town, idleness tends to prevail over industry, and the working classes themselves become degenerate (148, 149). Every prodigal is a public enemy, every frugal person a public benefactor (150, 151). The desire to better our condition is, on the whole, stronger than the passion for present enjoyment; and, as the former is the great motive to accumulation, there is hope of continued progress in the right direction (151). Even the mischievous interference of government is not strong enough to prevent progress (152, 153), and the prodigality

of governments, though worse than any private prodigality, is counteracted by the industry of their subjects (154). Even among borrowers (II., iv.) the number of the frugal and industrious surpasses that of the prodigal and idle, and the usury laws have wisely (158) put difficulties in the way both of prodigals and projectors. As to the reward of those who save and lend, we must not suppose it to depend on the value of money. What is wanted is not money but money's worth; the same pieces of money can serve for two or three different loans. The rate of interest will decrease if the stock offered increases, partly because of the general principle that market price will be lowered by quantity, partly because new "profitable methods of employing capital in a country" become harder and harder to find. Competition of employers by raising wages reduces profits, and therewith interest (156-58). The end of all capital is the maintenance of productive labour; yet some employments of capital employ much more than others, and some add much more than others to the annual produce of the country. There are four chief employments: (1) the getting of raw materials; (2) the manufacture of them; (3) the transport of both; (4) the retail distribution of them (159, 160). The profits of the two last are all drawn from the goods of the two first, and the two first are therefore to be reckoned more productive. Of the two first, the getting of raw materials, whether agricultural or mineral, is more productive than manufacture (III. v. 161). In manufacture "nature does nothing, man does all"; in agriculture the "fertility of nature" needs simply direction (161, 2). Our American colonies have prospered so remarkably because almost their whole capitals have been employed in agriculture (163). Of the two last, transport and retail trade, transport together with wholesale trade has three branches. The first of these, home trade, is the most productive, the foreign less so, the carrying trade least of all (164-66). Still all are advantageous if allowed to come as and when "the course of things" introduces them. The carrying trade is at least a symptom of wealth, as in the case of Holland and England.

Book III. shows that the natural course of things has not been followed (166, 167). The improvement of the country would in order of nature precede and occasion that of the towns, but human institutions have frequently reversed the order (168). The development of manufactures would naturally precede and occasion foreign trade, but human institutions have often reversed the order (169, 170). The land was often considered "not as the means of subsistence merely, but the means of power and protection"; and so primogeniture and entails were contrived to keep up large estates and prevent the multiplication of those large proprietors who are naturally the best improvers of land (171). Slaves are perhaps the worst cultivators, and the disappearance of slavery is largely due to the recognition of the fact (172). In Europe the cities obtained political liberty sooner than the country districts; hence came a great impulse to commercial prosperity, with benefit not only to the cities themselves, but to the country districts (176-81). The vanity and improvidence of the great proprietors led gradually to the breaking up of their estates, and the establishment, in the country, of industrial conditions similar to those of the town. The folly of the proprietors and the industry of the merchants, neither of them disinterested, thus brought about "a revolution of the greatest importance to the public happiness" (185, 1). But the natural progress would have secured the same result more surely if more slowly (186, 187).

If the *Wealth of Nations* is to be viewed, as it once was, mainly as an attack on protection, the foregoing three books are a mere preface to the fourth, in which the attack is delivered in full force. The view is too narrow, but undoubtedly the fourth book, for better or worse, stands out from the rest. It has greater pungency of style. In spite of its length, it has more rapid movement. There is much fierce indignation, and there is little of the composure exhibited, for example, in the opening chapters of the first book, where the author at his leisure "artificum manus inter se operumque laborem miratur." In the fourth he is nothing if not critical. He is to deal with systems of political economy, in the current sense of the term, a branch of statesmanship proposing to provide a revenue both for the people and for the sovereign (187). There were in his time two prevailing systems, the Commercial and the Agricultural, the latter existing on paper chiefly, the former reduced to practice, and hardly expressed in theory with any fulness. It is the commercial system that invites his attack. It leans, he says, on the popular notion that wealth consists in money, and the notion is due, to the double function of money, as the tool of exchange and as the measure of value. This notion has led European states to hinder the exportation and encourage the importation of gold and silver; it has led them to prefer the foreign trade to the more productive home trade (187-90). Even writers like Mun, who oppose restrictions, do so on the ground that the result of the unrestricted trade may be the eventual importation of more gold and silver. If bullion goes out to buy foreign goods, and if we sell these goods again, we have the bullion again and more of it (188). It was believed that a proper attention to the "balance of trade" will secure a constant flow of money into the country (188, 189). It was not seen that "freedom of trade" will always secure us as great a supply of money as we want, and the "high price of exchange" following from an "unfavourable" balance, will of itself lead to the correction of the balance (189). The demand for gold and silver in a country is limited by the use there is for these metals, and the main use is to circulate commodities. Money runs after goods, goods not necessarily after money; and money not wanted for circulation of goods is as superfluous as a stock of pots and pans beyond the needs of households. It is as much a 'utensil' as the pots and pans (192). Even to maintain fleets and armies, it is not money but consumable goods that are wanted, and the goods are to be purchased with the surplus of the annual produce of domestic industry (192, 193). Remittances themselves can be made more conveniently in goods, as is shown by the great exportation, without corresponding imports, during a war (193-94). Bullion acts as an international money—"the money of the great mercantile republic" of nations—and its circulation and amount are determined by just the same causes as at home (194). The benefit of foreign trade is not any resulting importation of gold and silver, but the importation of goods of all kinds. The discovery of America benefited Europe by opening new markets for goods, at the cost, it must be said, of "savage injustice" to the natives. The benefit would have been much greater had there been no restraints (196, 197).

In discussing the "restraints upon the importation from foreign countries of such goods as could be produced at home" (198-208, ch. ii.), Adam Smith takes occasion to lay down a few general principles. The sum total of industry in any society must be in proportion to the sum total of the capital in that society. Therefore any regulation of commerce which encourages one particular trade may certainly cause more labour and stock to go into it than before, but only at the expense of diverting them from others (198). The distribution of labour and stock is better where there is no such diversion. Leave each individual trader to himself, and "the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment [of his capital] which is most advantageous to the society" (198, 2). "He is, as in many other cases, led by an invisible hand to promote an end which was no part of his intention;" and it is the better served when he does not intend it: "I have never known much good done by those who affect to trade for the public good" (199, 2). Statesmen should leave private interest to work its way alone, and they may rest content that "what is prudence in the conduct of every private family can scarce be folly in that of a great kingdom." Nobody will make at home what it will cost him more to make than to buy; and the country will only buy goods from abroad if the goods can be supplied more cheaply there than at home. Allow the individuals of the nation to buy thus freely, and you increase their revenue, and therewith the capital and the revenue of the whole country (200). The change from interference to liberty might cause injury to some existing manufactures; it could hardly injure agriculture (201, 202). There are two cases where a special burden may rightly be put on the foreigner: (1) the case of the Navigation Laws, where for the sake of "defence" we sacrifice the less important "opulence" (204, 1); and (2) the case of articles taxed at home by the excise, where a corresponding customs duty may be imposed (204, 2).

Taxes, extending as they do now to the very necessaries of life, increase the cost of labour, produce the same effects as a poor soil and bad climate, and pull down

rich countries to the level of poor ones (204, 1). If other countries tax our goods, it is not clear that we gain by retaliation. It is a question for that "insidious and crafty animal" the politician to decide, whether the retaliation is likely to secure its end; if it does not, we have simply injured our whole people in order to revenge an injury done to one particular section of the people; we have benefited nobody, not even the sufferers (206,1). It is true that for humanity's sake repeal of restrictions should be gradual; yet the disbanding of a particular class of manufacturers causes much less distress than the disbanding of an army. "It is easier to change the direction of industry from one sort of labour to another than to turn idleness and dissipation to any." Unhappily it would be utopian to expect the adoption of free trade: the monopolists are too strong (206, 207). The legislature should be careful to create no more of them, and should guide itself in future "not by the clamorous importunity of partial interests but by an extensive view of the general good" (208).

Besides restraints due to self-interest and the spirit of monopoly, there are those due to national prejudice and animosity, such as on the trade with France. These are unreasonable both on the principles of the commercial system itself and on general principles. On the former, because, when articles are imported more cheaply from France, for example, than from other quarters, then the sum total of our importations must in value be less than if they must be got elsewhere, and the "balance" must be the more in our favour (208, 209). Adam Smith himself thinks slightingly of the "balance," and doubts if we can ever depend on custom house returns for knowledge of it. He refers to the complication of European trade; thinks we probably pay for Hamburg goods by bills on Holland; and takes occasion to make a long digression on the bank of Amsterdam and other banks of deposit (211-15). Returning to the restraints on such trades as the French, he gives his second proof of their "unreasonableness," namely the proof from general principles. The whole idea of the balance of trade is full of error. It implies that, when two people trade with each other and the balance of advantage is even, then neither gains and neither loses, but, when it inclines to one side then one gains and the other loses in exact proportion to the decline from equilibrium. But it is not so. "That trade which without force or constraint is naturally and regularly carried on between any two places is always advantageous, though not always equally so, to both" (216, 1). The advantage is to be measured not by the precious metals but by increase of revenue. Where two places both exchange home goods, they will usually gain equally, since each is replacing a capital used in preparing a surplus for a foreign market. Where the trade is in home goods for foreign goods, as when England buys French wines for Virginian tobacco, then both gain but not equally. The revenue derived from the trade goes entirely to French industry on the one side but not entirely to English industry on the other. If the foreign goods had been gold, England would have been neither more nor less impoverished than if they had been tobacco. There is always some gain. The people are the richer for having more goods to enjoy in place of a surplus they do not want. As the "trade with the ale-house" is not necessarily a losing one, neither is the trade in wine or tobacco (217). We kept up our duties on French wine in order to benefit the Portuguese who dealt at our shop, thus erecting "the sneaking arts of underling tradesmen into political maxims for the conduct of a great empire" (218, 2). Nations have been taught that it is their interest to beggar their neighbours, and commerce, which is naturally a bond of union, has been made a source of discord. We cannot hope to extinguish the injustice of rulers, but we can surely prevent "the mean rapacity, the monopolising spirit of merchants and manufacturers who neither are nor ought to be the rulers of mankind, from disturbing the tranquillity of anybody but themselves" (218, 2). "The interest of the great body of the people" is to buy whatever they want of those who sell it cheapest; and it is their interest that neighbouring nations should be rich, not poor (219, 1). The important balance is not that of trade, or Holland for example, as well as our American colonies, would long ago have been ruined, but of the annual production and consumption; the value of the produce must exceed that of the consumption. This favourable balance may exist in a country without any foreign trade at all, just as "in the whole globe of the earth, of which the wealth, population, and improvement may be either gradually increasing or gradually decaying" (221, 1).

Adam Smith proceeds to examine the various expedients "merchants and manufacturers" have devised for the encouragement of exportation. The first is DRAWBACKS, for which he has little but praise, as a drawback tends to restore the natural distribution of labour and capital disturbed by duties (IV. iv. 221, 222, 223). BOUNTIES, on the contrary, find little favour with him (IV. v.). They are of two kinds: (*a*) on exportation, (*b*) on production. The former are his special abhorrence. As we cannot force foreigners to buy from us, we pay them for buying. Bounties are only given to trades too weak to stand by themselves, their expense being greater than the return. If all trades were like them, there would soon be no capital left in the country (224). Bounties force trade into channels where it would not run of its own accord. Since the establishment of the corn bounty under William III., the value of the exported corn has exceeded that of the imported by much more than the bounty; but the price of the exported corn has to replace the farmer's capital with ordinary profits or else "the national stock is so much diminished"; and the bounty is given because the price is supposed to be insufficient to do this. The cost to the society is therefore not only the bounty but a whole capital and profits devoted to an unprofitable employment (224). The bounty tends to raise the price in the home market, both in years of plenty and years of scarcity. It is true that, as a matter of fact, since the bounty, prices have been low, but that is in spite of the bounty, and, he added in 1784, because of the rise in silver. Adam Smith in his Glasgow lectures (see *Lectures*, pp. 181-82) had at first allowed that the bounty might have occasioned a lowering of price; but the contrary is his riper view, and it is significant that in the 3rd ed. of the *Wealth of Nations* he adds to his arguments. The extension of the market, he says, is at the expense of the home market, and imposes two taxes on the people, first the tax to pay the bounty, second the increased price of the home corn, the second being the heavier of the two. The higher price to the farmer is an illusory benefit, for he must raise the wages of his labourers in proportion. The effect is not a rise in the real value of corn but a fall in the real value of silver (226). Now such a fall, if due to the fertility of the mines, would be equal for all parts of the commercial world; but, if due to a particular circumstance in one country, it is a discouragement to that country. Spain hinders the exportation of gold and silver; but the effect is as when water is dammed up; soon, as much will pour over the top of the dam as would have come if there had been no dam at all; prices will increase in Spain to the injury of Spain, till they are high enough to flow over. The injured party is Spain itself. Now the bounty alters the level in the same way, making silver cheaper, and only injuring our own people (227, 228).

The injury extends to the country gentlemen who were so misguided as to procure the bounty, for, by lowering the real value of silver, they tended to discourage the general industry of the country, and especially the improvement of their own lands (229). If bounties on exportation lowered prices, as some allege, it is curious that "I have known" "undertakers of some particular works" to give a bounty among themselves on the exportation of goods which they feared would overstock the market (230, 1). He does not dwell long over bounties to production, the chief instance of which was the herring bounty. He would allow them only for warlike supplies and naval stores. But premiums for manufactures he considers not only pardonable but praiseworthy. He quickly launches us on a long "Digression concerning the Corn Trade and Corn Laws," a characteristic passage (232-42). He shows (1) that the interest of the inland dealer coincides with that of the public; prices should be such that the supply will just outlast the season, as a ship's rations the voyage (233). Engrossing and combination are mere phantoms (234). Yet in the fear of them the legislature has tried to force the farmer to be his own dealer. "The law which prohibited the manufacturer from exercising the trade of shopkeeper, endeavoured to force this division in the employment of stock to go on faster than it might have done; the law which obliged the farmer to exercise the trade of a corn merchant, endeavoured to hinder it from going on so fast; both laws were evident violations of natural liberty and therefore unjust; and they were both too as impolitic as they were unjust" (236). But

the latter was the worse, for it prevented the farmer from devoting all his capital to the cultivation of his land (237).

Adam Smith then shows (2) that the interest of the merchant importer is also that of the public. He lowers prices, but this means a higher real value of silver, and is otherwise a public benefit (239). The frequent suspension of the duties on importation is a symptom of their impropriety (239).

(3) The trade of the merchant exporter indirectly contributes to a plentiful supply at home, for, unless the growers know that any surplus will find a market, they will pinch the supply intended for home consumption. When encouraged by a bounty, he may, it is true, find it his interest to carry out corn from his own country during a scarcity, if there were actual famine, and therefore still higher prices elsewhere. Hence the suspensions of the bounty on such occasions. "Were all nations to follow the liberal system of free exportation and free importation, the different states into which a great continent was divided would so far resemble the different provinces of a great empire. Among the different provinces of a great empire, the freedom of the inland trade appears both from reason and experience not only the best palliative of a dearth but the most effectual preventive of a famine; so would the freedom of the exportation and importation trade be among the different states into which a great continent was divided" (240, 2). But at present the bad policy of one country hinders the adoption of the best policy by another. "The laws concerning corn may everywhere be compared to the laws concerning religion"; the people are so deeply interested in their present food and their future happiness that government must yield to their prejudices for the sake of peace in both cases (241, 1). Finally (4) the trade of the merchant carrier, or importer of foreign corn for re-exportation, is for the public interest, for when his corn is here and prices rise he will find it his interest to sell here, and thus contribute to plenty (241).

It thus appears that our legislation on corn deserves little praise. British prosperity did not spring from that source, but from political security, and "the natural effort of every individual to better his own condition." The prosperity has been posterior to the bounty, but "it has been posterior likewise to the national debt," and "the national debt has most assuredly not been the cause of it" (241, 2). It is fair to add that throughout this chapter (v.) Adam Smith recognises that later laws have often been wiser than earlier, and have given hope of better times.

In the following chapter (vi.) on "Treaties of Commerce," the METHUEN TREATY between England and Portugal is roughly handled. The relations between the mint and the bullion market are incidentally discussed. Then comes the long and important chapter on "Colonies." Ancient colonies were founded because of "irresistible necessity," or "evident utility," the modern from neither of these, but from love of gold (250, 251), or desire to escape oppression (264, 2). Yet the prosperity of many of the modern has been rapid. The colonists bring with them arts and agriculture, laws and government; they find abundance of good land, no rent or taxes, and a scarcity only of labour. The result of this last is high wages and the encouragement of population (253, 254). English colonies have thriven better than Spanish because their home government paid less attention to them. The Danish, Dutch, and French colonies prospered much more rapidly when their exclusive companies fell (254-6). The English colonies, though better treated than the others, have not escaped interference. The Act of Navigation, it is true, leaves their best raw materials "non-enumerated," but hinders many important manufactures, in "manifest violation of the most sacred rights of mankind" (261, 2). "The policy of Europe" has little to boast of as regards the colonies; Europe bred the men who made the colonies, and the colonies owe it gratitude for nothing else whatever (264, 265). Europe itself, "considered as one great country," may thank the discovery of America for increasing its enjoyments and increasing its industry. "New values, new equivalents" were introduced into European trade (265). By restricting the American trade Europe is diminishing both the enjoyments and the industry, and putting "a dead weight upon the action of one of the great springs which put into motion a great part of the business of mankind." It gains no military strength. The whole benefit to the mother country is supposed to be the exclusive trade. "To promote the little interest of one little order of men in one country, it hurts the interest of all other orders of men in that country, and of all men in all countries" (276, 1). The benefit to the merchants soon ceases when their high profits attract competitors at home who reduce their profits again; but there is mischief done in the diversion of capital (267, 268). Adam Smith allows that the Act of Navigation has kept the rate of profit up to a greater height than would have been the case under free trade in the branches concerned. But he considers high profits to be at least as great a disadvantage as high wages (269, cp. 275 *et seq.*). Moreover, the colonial trade is of slow return, and therefore increases the annual produce of land and labour much less than a home trade (270). The monopoly has, besides, forced capital from a trade with a near country to a trade with a distant, and has turned a direct trade into a roundabout one (270, 271). British commerce, instead of running in a number of small channels, has been forced into one great channel, at the cost of security and healthiness, as if in the human body one great blood-vessel had been swelled unnaturally at the expense of the rest (272). Some relaxation in the direction of free trade is the only safeguard; but the remedy might be for the moment worse than the disease. Let the legislators find out the best way of restoring "the natural system of perfect liberty and justice" (273, 1). As long as the monopoly is regarded as the chief benefit of the colonies, they will continue to be a source of expense to the mother country, especially for defence, for they do not strengthen it. "Great Britain is, perhaps, since the world began, the only state which, as it has extended its empire, has only increased its expense without once augmenting its resources" (277, 280, 1). The colonies might, perhaps, be taxed by a representation of them in the British parliament, which would have many indirect effects (280, 281), including perhaps the removal of the capital to America, soon to be the richest part of our empire (282).

In the East Indies we have seen a somewhat different example of the effects of monopoly. In America all nations have claimed to engross the whole market of their colonies; in the Indian seas the ports have been open to all nations, but each nation has had an exclusive company. The result is to divert from a rich country, like Holland, its full share, and give to a poor one, like Denmark, more than its full share of the trade (285, 1). The result is also, as regards the sovereign, to waste his revenue and lessen the powers of the subject peoples to produce revenue for him (287, 2). The EAST INDIA COMPANY has tried to combine the two functions of trading and governing, which are quite incompatible. "It is a very singular government in which every member of the administration wishes to get out of the country, and, consequently, to have done with the government as soon as he can, and to whose interest, the day after he has left it and carried his fortune with him, it is perfectly indifferent though the whole country was swallowed up by an earthquake." It is less the fault of the men than of their situation. The fact is that "such exclusive companies are nuisances in every respect" (289, 2).

To these seven chapters on the mercantile system Adam Smith added in his 3rd edition an eighth chapter, "Conclusion of the Mercantile System," which is mainly an account of some particular cases where importation was encouraged or exportation discouraged, still on mercantile principles (289, 2). He takes occasion to remark that "it is the industry which is carried on for the benefit of the rich and powerful that is principally encouraged by our mercantile system; that which is carried on for the benefit of the poor and the indigent is too often either neglected or oppressed," as in the case of linen yarn (290, 2). The wool trade provides examples of protective laws which, "like the laws of Draco, may be said to be all written in blood," but were too cruel to be put in operation (292). In all these cases a great principle is violated. Not only could tools not be exported, but "the living instrument, the artificer," was to be kept from moving so far as possible (297, 298). "Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it" (298).

The agricultural systems (ch. ix.) "represent the

produce of land as either the sole or the principal source of the revenue and wealth of every country" (299, 1). The most important of such systems is that of the French economists (see PHYSIOCRATS). It was a reaction from the excessive attention of COLBERT to manufactures. "If the rod be bent too much one way, in order to straighten it you must bend it the other" (300, 1). Quesnay, "himself a physician, and a very speculative physician," seems to have thought that the political body would thrive only under a particular regimen, namely, of perfect liberty and perfect justice. He did not see "that in the political body the natural effort which every man is continually making to better his own condition is a principle of preservation capable of preventing and correcting in many respects the bad effects of a political economy in some degree both partial and oppressive"; otherwise no nation anywhere would have prospered (304, 305). In detail, the capital error of the theorists consists in representing the labour of artificers, manufacturers, and merchants as unproductive. (1) If this class annually reproduces, as they grant, the value of its consumption, it is not barren, any more than a marriage which produced a son and a daughter. It is true that agriculture is *more* productive. (2) The labour of menial servants is not worthy to be classed with that of manufacturers; the latter is fixed or realised in a vendible community; the former alone is barren. (3) It is not true that the manufacturing class do not increase the real revenue of the society. The value of what they produce is added to what they consume, and is all revenue (305, 306). (4) It is true that they can only increase the real revenue by parsimony, but this is equally true of the agricultural class. (5) Even if revenue always meant subsistence, it is greater with than without manufactures. Manufactures draw subsistence, from abroad for instance; and a small part of manufactured produce purchases a great deal of raw produce (306).

Nevertheless the theory never did any harm in the world, and it does good by representing wealth as consumable goods, and perfect liberty as the only effectual expedient for raising the annual produce to a maximum (307).

If agricultural systems go farther than this [as in China, Egypt, and India], they may err as much on the one side as the mercantile system on the other (308, 310).

Here is the conclusion of the whole matter: "All systems, either of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man or order of men. The sovereign is completely discharged from a duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human wisdom or knowledge could ever be sufficient—the duty of superintending the industry of private people, and of directing it towards the employments most suitable to the interest of the society" (311, 1).

By this "system of natural liberty" the sovereign has only three duties—the protection of the society against other societies, the securing of justice between man and man, and the undertaking of such public works as are too great for individuals and yet necessary to the community (311, 1). In the fifth book, accordingly, Adam Smith considers the revenue of the sovereign or commonwealth, and its threefold employment, explaining, (*a*) which expenses are to be defrayed by a general contribution of the whole society, and which by contribution from particular members only; (*b*) what are the different methods of raising the general contribution; and (*c*) what has caused the mortgage of these revenues or the contraction of debt, and with what effects (311, 2).

Among barbarous nations defence costs little to the sovereign. The progress of manufactures and the improvements in the art of war have increased the expense of armies for the protection of the country (313). To be a good soldier, too, a man must devote his whole time to the business, and we cannot depend on militias (314). The latter can learn the use of arms, but not that habit of ready obedience which is more important (316, 1). But standing armies and modern weapons mean great expense, and give advantage to the richer nations, and therefore to civilisation (319).

The administration of justice, too, is of very different costliness in different times. Men who have no property can only injure each other in their persons or reputations, and nobody is the gainer; but, where property is concerned, there may be a gain equal to the loss. The injury to reputation is prompted by the transient passions of "envy, malice, resentment," often restrained by prudence; and where there is little or no property, there need be no civil magistrate. "But avarice and ambition in the rich, in the poor the hatred of labour and the love of present ease and enjoyment, are the passions which prompt to invade property, passions much more steady in their operation and much more universal in their influence. Wherever there is great property there is great inequality. For one very rich man there must be at least 500 poor, and the affluence of the few supposes the indigence of the many. The affluence of the rich excites the indignation of the poor, who are often both driven by want and prompted by envy to invade his possessions." Without the aid of the civil magistrate there could be no security for the rich man (319, 2). Civil government is founded on an antecedent subordination, which may be due (*a*) to the respect for bodily, and especially mental, superiority; (*b*) to the respect for age; (*c*) to the respect for fortune. "The authority of riches, though great in every age of society, is perhaps greatest in the rudest age of society which admits of any considerable inequality of fortune" (320); (*d*) to respect for birth, which supposes ancient fortune or the greatness which brings fortune with it. "There never was, I believe, a great family in the world whose illustration was entirely derived from the inheritance of wisdom and virtue" (321, 1). Thus birth and fortune are the two chief circumstances that set one man above another antecedently to civil government; and regard for them establishes order and authority apart from any perception of the usefulness thereof. Once government is introduced, the utility of it as a defence of the rich against the poor becomes evident enough (321, 2).

Adam Smith's short historical sketch here of the judicial system in England corresponds to a much longer one in the *Lectures* (pt. i. div. i.). The subject belonged to the projected and never-executed treatise on jurisprudence. He is not quite content with things as they are. He is satisfied, indeed, with the separation of judicial and executive powers, being always suspicious of the interference of politicians; and he would maintain the irremovableness of judges. But he thinks the whole expense of law proceedings might be met by fees of court, on the ground that "public services are never better performed than when their reward comes only in consequence of their being performed" (323, 2). The only risk would be the temptation to encourage litigation (324, 2).

The subject of public works is treated at much greater length. There are, 1st, the public works and institutions for facilitating the commerce of the society, either as a whole or (as was added in 1784) in particular branches. Roads, bridges, and canals are for the general benefit of commerce. Canals may be left to private persons to manage; not so the roads, which should be left neither to private persons nor to government, but to local road-commissioners. Government might raise the tolls too high, oppress the poor more than the rich, and neglect repairs with impunity (326-327).

The coinage yields the state a profit (SEIGNORAGE), and the post-office is one of the few commercial enterprises all governments have successfully managed (325, cp. 368). As to the assistance of commerce in particular branches, we have instances in the forts for protection of African and East Indian traders, and ambassadors to watch trading interests in foreign courts (329); and we have worse instances in the powers given to REGULATED COMPANIES, such as the TURKEY COMPANY and the AFRICAN (331, 332), and still more to the JOINT-STOCK COMPANIES, like the SOUTH SEA COMPANY (333, 335, 336), and (greatest of all) the EAST INDIA COMPANY. The story of the last is given at some length (336-9), and the comments are very unfavourable. A temporary monopoly, he says, is perhaps the best recompense the state can give for "a dangerous and expensive experiment of which the public is afterwards to reap the benefit," just as with a new machine or a new book;

but the term ought to be fixed and thereafter the trade laid open. Without a monopoly, a joint-stock company cannot long carry on any branch of foreign trade; it would fall before private adventurers (339, 2). The only trades where this would not happen are those capable of being reduced to routine, such as (*a*), banking; (*b*), insurance; (*c*), canal-making and canal-management; (*d*), water supply (340, 1). To authorise the "establishment" [in the Scotch sense of an Established Church] of a joint-stock company it should appear that the utility of its object would be more general than in common trades, and that more capital is needed than can be got by private partnership. This was so with the Bank of England (340, 341).

There are, 2nd, the public works for the education of youth (V. i. art. 2, 341-353). Our author gives his views on education freely. The teacher is best paid by his fees, which are his "natural revenue." Through all Europe, however, he has been largely supported by endowments, and consequently he has had the less motive to do his utmost. "In every profession the exertion of the greater part of those who exercise it is always in proportion to the necessity they are under of making that exertion" (341, 2). "It is the interest of every man to live as much at his ease as he can," and endowments set his interest at variance with his duty. We see the effects in the state of the universities, especially Oxford, where the professors do not teach at all (342), and the tutors teach in the manner easiest for themselves. "Where the masters really perform their duty there are no examples, I believe, that the greater part of the students ever neglect theirs." After twelve or thirteen years of age force or restraint is quite unnecessary in education. "Such is the generosity of the greater part of young men," that if the master shows a serious desire to serve them they pardon a great many shortcomings (343).

Where there are no public institutions, as with fencing and riding, the teaching is best, and the private schools teach children to "read, write, and account" better than public schools (344, 1). There are no public institutions for women's education, and it has much more usefulness and less absurdity than men's (350, 1). If it be said that, though the universities teach badly, but for them their subjects would not be taught at all, Adam Smith answers, at some length, that their subjects were originally intended for the medieval clergy and are quite unsuitable now (344-6). The poor Scotch universities have adapted themselves to the changed times much better than the richly-endowed English universities and the "learned societies" which are the sanctuaries for "exploded systems and obsolete prejudices" (347). Nothing but the discrediting of the universities could have led to the practice adopted by our gentlefolks, of sending their sons at seventeen or eighteen for three or four years of foreign travel. They return home with an imperfect knowledge of some foreign languages, and a greatly-increased conceit and incapacity of application (347). From Adam Smith's biography it is clear that the foreign tour he made with two young pupils was a benefit to both parties, and it is surprising to find so unqualified a condemnation of such tours in the *Wealth of Nations*.

The history of Greek and Roman education lends no support to the modern English system (347-9). Endowments came late. The ancient philosophers, who acquired great power over their hearers, depended entirely on their own exertions; not as now, when the private teacher, as opposed to the privileged, is like the merchant without a bounty competing with a rival who has a considerable one. "The endowment of schools and colleges have [*sic*] in this manner not only corrupted the diligence of public teachers, but have rendered it almost impossible to have any good private ones" (349, 2).

Ought there, therefore, to be no public institutions for education? Adam Smith answers: Yes, they are needed for the education of the common people. In these days of division of labour all variety, elasticity, and spirit are taken out of a workman's life. "His dexterity at his own particular trade seems to be acquired at the expense of his intellectual, social, and martial virtues"; and in every civilised society this will be the state of the labouring poor, the great body of the people, "unless government takes some pains to prevent it" (350, 2). In a rude people there is much variety in the occupations of the individual, little in those of the whole society; in a civilised, the exact opposite is true; but the result must be mischievous, even for defence, if not prevented. To secure every man the opportunity of acquiring the essential parts of education would be well worth the expense. In Scotland it is fairly done in the parish schools; in England, though less well, in the charity schools. Compulsion might take the form of a provision that a certain amount of education should be the condition of apprenticeship in trades. It would be well to supplant Latin in the parish schools by geometry and mechanics that would be useful to every working man (351-2). A well-instructed people are always more decent and orderly than a stupid one, and in a free government we should neglect no means of making the people wise (353, 2). Adam Smith is said to have expressed strong approval of Robert Raikes and his Sunday Schools as a step in the right direction (Rae, p. 407).

There remain, 3rd, the public works and institutions for the instruction of the people of all ages. Adam Smith's reasonings about religion are of a piece with those on education. He inclines (355) to a purely voluntary system, the resulting competition of sects making the churches singly harmless against the state, and the effects of austere enthusiasm being corrected by philosophy on the one hand, and public amusements, especially the drama, on the other (357). The mischievous power of the Romish Church was weakened most effectually when the great barons and the Episcopal clergy discovered that modern improvements enabled them to spend their wealth on themselves (361). Where there is an established church, it is better that it should be, as in Scotland, of only moderate wealth (366, 1).

Finally, there is to be considered the expense of supporting the dignity of the sovereign, which must naturally be something greater than that of a lord-mayor (366, 2).

From the expenses, we pass to the sources of revenue from which they are to be met (367, ch. ii.). The sovereign in some cases has a fund or source of revenue of his own, as in Holland and Venice a bank, in Hamburg a wine cellar and apothecary's shop (367, 2). The government of England would be ill-advised if it undertook banking (368, 1). The Post Office is within its powers (see above). It manages the crown lands ill, and is quite incompetent to undertake the management of all the lands of the kingdom (369, 370).

Whence, then, is its revenue to come? Plainly, from taxation, for which we may lay down four maxims "recommended by evident justice and utility" (372).

(1) *Equality.*—The subjects should pay "in proportion to their respective abilities"; in other words, to the revenue they enjoy under the protection of the state. "The expense of government to the individuals of a great nation is like the expense of management to the joint-tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate." It is neglect of this maxim which causes inequality. It is true that "every tax which falls finally upon one only of the three sorts of revenue is necessarily unequal in so far as it does not affect the other two"; but this is over and above the other inequalities which will be considered in detail, those that are caused in the course of the taxation of one and the same kind of revenue (371, 2).

(2) *Certainty.*—A very considerable degree of inequality is a less evil than a small degree of uncertainty and arbitrariness.

(3) *Convenience.*—The tax ought to be levied at the time and in the manner in which it is most likely to be convenient for the contributor to pay it (371, 372).

(4) *Economy.*—The tax should take from the people as little as possible that is not to reach the public treasury. The maxim is violated (*a*) when the salaries of tax-collectors eat up the proceeds, or their perquisites form a second tax; (*b*) when the tax obstructs and discourages industry; (*c*) when it ruins individuals through penalties, and through temptations to evasion and smuggling. "The law contrary to all the ordinary principles of justice first creates the temptation and then punishes those who yield to it"; (*d*) when it inflicts odious visits of the tax-gatherer, not strictly an expense, but a discomfort from which a man would be glad to redeem himself by expense. In all these four ways a tax may be "more burdensome to the people than beneficial to the sovereign" (372, 1).

By the four maxims Adam Smith proceeds to judge the various taxes, existing or proposed, especially in

England, but with abundance of illustrations from other nations.

The land tax, owing to the stationary valuations and varying improvement of different counties in cultivation, has become unequal. It agrees with the other three maxims (372, 2). The tithe, being a tax not on rent but on produce, is unequal, "a certain portion of the produce being in different situations equivalent to a very different proportion of the rent." On rich lands the tenant might afford more, on poor he may be unable to afford as much. The tithe is a great obstacle to improvement (377, 1).

The section dealing with taxes upon the rent of houses (378-381) is abreast of most modern discussions of the subject. The author presents a clear view of the speculative builder and his relations to the ground landlord. He thinks, however, "A tax upon house rent, payable by the tenant and proportioned to the whole rent of each house, could not for any considerable time at least affect the building rent. If the builder did not get his reasonable profit he would be obliged to quit the trade, which, by raising the demand for building, would in a short time bring back its profit to its proper level with that of other trades. Neither would such a tax, say of 5s. in the pound, fall altogether upon the ground rent; but it would divide itself in such a manner as to fall partly upon the inhabitant of the house and partly on the owner of the ground" (379, 1). For the tenants of houses at £60, for example, would now content themselves with houses at £50, and so down the scale till the lowest class is crowded. All except the lowest would fall in value, and the ground landlord would suffer. The tenant would suffer the inconvenience, and the landlord the loss of revenue (379). There would be inequality because of the different proportion of house rent to income in the case of men of different fortune. "It is perhaps highest in the highest degree [of fortune], and diminishes gradually through the inferior degrees, so as in general to be lowest in the lowest degree."[1] It is food that is most necessary to the poor (see WORKMEN'S BUDGETS), and most of their revenue is spent on food. A tax on house-rent would therefore fall most heavily on the rich. "It is not very unreasonable that the rich should contribute to the public expense not only in proportion to their revenue, but something more than in that proportion." (*ib.*)

Rent of land is for a productive object, of houses for an unproductive. The rent of the houses is, therefore, drawn from some other revenue, either wages, profits, or rent of land, like taxes on consumable goods. There is no better way of judging of the "liberality or narrowness of a man's whole expense" than by seeing what his house-rent is (380, 1). Apparently it was thought better to tax the hearth or the windows, because of some fancied difficulty in ascertaining the rent of the house and taxing that directly. The first way, HEARTH TAX, was odious and soon dropped. The second, window tax (see TAXATION), involves inequality of the worst kind (381).

Prof. Bastable (*Public Finance*, 1892, p. 396, compare Rae's *Life of Adam Smith*, p. 294) points out that in 1778 Lord North adopted our author's suggestion of an INHABITED HOUSE DUTY. No government has yet adopted his further suggestion of a tax on ground rents, though he says these are "a still more proper subject of taxation" than house rents. In both cases he considers there is a revenue derived by the owner without any particular care of his own, and the real wealth and revenue of the people might be the same after such a tax as before (380). He is not in favour of the taxing of profits or interest. A man's rent can be known, but less easily his capital and profits, and they are subject to continual variations; moreover, "the proprietor of stock is a citizen of the world," and if you tax him heavily he will remove his stock elsewhere, to the injury of the national industry (383). The land tax was intended to include capital, but it has rarely or never done so effectually (383). Elsewhere the plan has been tried in reality, as in Hamburg, Zürich, and Holland (384). As to taxes on the profits of particular employments, they will always in the end fall on the consumers, though, if not proportioned to the amount of trade, they may, as in hawkers' licences, oppress the small dealer (384). The personal TAILLE in France is the most important tax in Europe on the profits of the cultivator. It is both arbitrary and unequal; and it discourages cultivation (385-86). The poll taxes in the southern states of North America are really on the profits of "a certain species of stock employed in agriculture," namely, negro slaves. There was once in Europe a similar tax on bondmen, and hence taxes were represented as badges of slavery. But taxes to the payer of them are a badge not of slavery but of freedom (387). Lord North introduced a tax on manservants in 1777, but hardly on our author's suggestion, as the reference (387, 1) to the tax on manservants is to a tax already imposed, and occurs first in the second edition of the *Wealth of Nations*, 1778, where the comments on it are not entirely favourable.

Death duties are treated under the head of "Taxes upon the capital value of Land, Houses, and Stock" (V. ii., app. to art. i. and ii. 387-90). They are usually stamp-duties or duties on registration. They fall on the inheritor. Taxes on the sale of land fall on the seller, who usually is more necessitous than the buyer; whereas taxes on the sale of houses, if they are old, fall on the seller, and, if new, on the buyer (389). Duties on law proceedings fall on the litigants, and reduce the capital value of the property in dispute (389). All taxes on the transference of property, so far as they diminish its capital value, "tend to diminish the funds destined for the maintenance of productive labour. They are all more or less unthrifty taxes, that increase the revenue of the sovereign, which seldom maintains any but unproductive labour, at the expense of the capital of the people which maintains none but productive." Though not arbitrary, and not levied inconveniently, they are unequal (390, 1).

Direct taxes on wages (art. iii.) are open to special objections. As shown in bk. i., wages depend on the demand for labour and on the average price of provisions. A tax on wages, when provisions have not fallen, will simply raise wages, and somewhat higher than the amount of the tax (390, 2). It will not raise the price of corn, for the farmers recover the additional wages out of the rent of the landlord (391). But the salaries of officials may be taxed without hardship to any one (392, 1).

The next group considered is that of "taxes intended to fall on every different species of revenue indifferently" (art. iv.). The chief are (*a*) capitation taxes, which are liable to be both unequal and arbitrary (393, 1), and (*b*) taxes on consumable commodities. The latter are a means of taxing the revenue of the subject "indirectly" by the taxing of their expenditure, which is thought to be in proportion to that revenue. The effects differ according as the commodities taxed are (*a*) necessaries; (*b*) luxuries. Necessaries include not only what is indispensable for support of life, but what custom renders it indecent for respectable people, however poor, to be without. All other things are luxuries. If necessaries are taxed, wages will tend to rise in proportion (393). "The labourer, though he may pay it [the tax] out of his hand, cannot, for any considerable time at least, be properly said even to advance it. It must always, in the long run, be advanced to him by his immediate employer in the advanced rate of his wages." If the employer is a farmer, he recovers from his landlord; if not a farmer, he recovers from the public in higher prices (394). It is otherwise with luxuries. A tax on tobacco, spirits, or tea, will not raise wages, but will act as a sumptuary tax, and may even have the effect of increasing the power of the industrious poor to bring up a family by causing retrenchment. As for the disorderly and idle, their children survive, if at all, only to be public nuisances (394).

In Adam Smith's time there were many taxes on necessaries. Salt, soap, and coals, to say nothing of corn, were taxed. Instead of a tax on coal carried coastwise, a *bounty* might even be allowable, says our author (395). Consideration of the ways of levying taxes on consumable goods leads us back, of course, to the ways and means of the mercantile system. High duties have increased smuggling, so that, "in the arithmetic of the customs," two and two make often only one. Bounties have even created a new kind of smuggling; goods after being once shipped are fraudulently relanded that the cargo may get the bounty again. The result of this smuggling and of drawbacks together, is that the customs produce much less to government than is extorted from the public (398). "Heavy duties being imposed on almost all goods imported, our merchant importers smuggle as much and make entry of as little as they can. Our merchant exporters, on the contrary, make entry of more than they export, sometimes out of vanity and to pass for great dealers in goods which pay

[1] This could not be said now.

no duty and sometimes to gain a bounty or a drawback. Our exports, in consequence of these different frauds, appear upon the custom-house books greatly to overbalance our imports, to the unspeakable comfort of those politicians who measure the national prosperity by what they call the balance of trade" (399, 1). In any case the system of our customs is inferior in clearness and precision to that of our excise, and should be remodelled accordingly (399, 1). We should have more moderate taxes on fewer and better chosen objects if we want a larger revenue (399, 2). We should adopt the bonding system, and at the same time relieve all necessaries and materials of manufacture from taxation (399, 400). "The value of money is in proportion to the quantity of the necessaries of life which it will purchase; that of the necessaries of life is altogether independent of the quantity of money that can be had for them" (400, 2). We should, therefore, cheapen them. The whole consumption of the poor is in every country much greater not only in quantity but in value than that of the rich and the middle classes. Taxes on expenditure, therefore, falling chiefly on the higher ranks, will produce less than taxes falling on all ranks. So the excise on liquors is of all such taxes the most productive. The private brewer, however, escapes it, and the tax becomes unequal. It would be better, therefore, as has often been proposed (401), to put a single tax and a lighter one on malt, which will bring in much more because collected more surely (402, 403). This was one of the taxes which North is said to have borrowed from Adam Smith (Rae's *Life of Adam Smith*, p. 294), though our author was hardly the inventor of the idea.

It should be noted that though he considers beer and ale "wholesome and invigorating liquors," he speaks less confidently of spirits, and would retain the heavy taxation of distilleries as a sumptuary tax (403). He would also retain taxation of sugar on the ground that the planters themselves say the price is at a maximum, and therefore it would seem a monopoly price; now "the gains of monopolists, whenever they can be come at, are certainly of all subjects [of taxation] the most proper" (404, 1).

But on the whole he is not favourable to the taxation of commodities even when they are luxuries. Not only are they unequal, for the Irish ABSENTEE, for example, may draw a rich revenue and pay no taxes (405, 1), but they offend against the fourth maxim [of Economy] in every possible way (405-7). In France the defects of such taxes appear still more clearly, for the French system is worse than the English. In this respect the Dutch also are not in advance of us (409-10), though we must allow for their special difficulties (411).

Going on now to his last subject, public debts (V. iii.), he begins with a genial contrast between the present times and the good old times, when there was hospitality without luxury, and liberality without ostentation (411, 2). Nowadays our manufacturing industry prepares luxuries which minister to the frivolity and pageantry of rulers; and the parsimony that leads to accumulation prevails as little in republican governments as in others. "The want of parsimony in time of peace imposes the necessity of contracting debt in time of war" (412). But the very causes which make it necessary for the government to borrow, produce in the subjects the ability and inclination to lend, namely, the abundance of manufactures, the presence of merchants and manufacturers trading not only with their own capitals but with borrowed, and the existence of that confidence which comes from a settled state of society and just government (412, 413). "The progress of the enormous debts, which at present oppress, and will in the long run probably ruin all the great nations of Europe, has been pretty uniform." Governments first borrowed on personal credit, hence the unfunded debt; then on mortgage of particular taxes, hence the FUNDED DEBT (413, 414). If they had been content with anticipation of taxes, they would soon have freed themselves from debt; but no governments have been able to confine themselves to this, thence they are driven to reduce debt by such expedients as (1) a SINKING FUND, which, though raised to pay old debts, facilitate the contraction of new (414, 415); (2) an ANNUITY, especially favoured in France, where there is greater demand for incomes perishing with the first owner than in England, where the funds are wanted as a readily marketable commodity by business folk (417, 1). The reduction of debt in Great Britain since the "ruinous expedient of perpetual funding" has never equalled its increase in time of war. Adam Smith gives a sketch, drawn largely from other authors, of the growth and vicissitudes of the English debt and its interest (418, 419). His economic judgment on the whole policy is his own. The public funds are not a great capital for the extension of trade; they are a capital converted into revenue, and employed to maintain unproductive instead of productive labourers (419). When public expense is defrayed by funding, it is defrayed by the annual destruction of some capital which had before existed in the country. The waste may be repaired by private energy, and this may be less heavily burdened by funding than if heavy taxes had paid off the debt within the year. But when the war is over the interest remains a constant burden. Moreover, it is good for the citizens to have the meaning of a war brought home to them in heavy taxes, that they may not lightly undertake wars at all. It is no defence of funding to say (420, 421) that it is the right hand paying the left, for (1) foreigners may be the lenders; (2) in any case the lenders are usually not producers, and have no concern in the good condition of land or good employment of capital (422, 1). The liberation of Great Britain from debt is very improbable (424, 2). A great increase of revenue would result, it is true, from an extension of the British system of domestic taxation to all the different provinces of the British empire; but these provinces would first need to be represented in a parliament or states-general of the empire. Private interests would probably prevent this. It will be curious, Adam Smith continues, to consider how this idea might be carried out; it may be "a new utopia"; but, if less amusing than the old, it is at least "no more useless and chimerical" (425). So he goes over the taxes *seriatim*, and decides which might and which might not be adopted for the whole empire. If taxed like Great Britain, which has 8 millions of people, with a revenue of 10 millions of pounds, the whole empire, including Ireland with its 2, and the American colonies with their 3 millions, should yield a revenue of 16½ millions of pounds for their 13 millions of people (426). We might deduct one million sterling for the expenses of civil government in Ireland and the colonies. There would be still enough to allow about 6½ sterling for reduction of debt. This is on the assumption that all taxes on necessaries and on materials are removed, to the benefit of all trade and manufacture both here and throughout the empire (427, 1). It is also on the assumption that our author's proposals, for bonding, for a malt duty, and for assimilation of customs to excise, are adopted (428, cp. 426). "The British empire would thus afford within itself an immense internal market for every part of the produce of all its different provinces" (425, 2).

It is just that both Ireland and America should contribute to the discharge of our debt, which was incurred in their cause as well as our own. By a union with Great Britain, Ireland would gain not only freedom of trade, vexatiously obstructed hitherto, but a complete deliverance from an oppressive aristocracy founded on the most odious of all distinctions, that of religious and political prejudice, to which we owe the present mutual hatred of the two countries (430, 1; cp. 425, 2).

A union with Great Britain would deliver the colonies from the factions inseparable from small democracies. "In the case of a total separation from Great Britain, which, unless prevented by a union of this kind, seems very likely to take place, those factions would be ten times more virulent than ever." They would soon break into open violence and bloodshed [witness the events of 1861-65]. At the extremities of a great empire such factions tend to be less formidable than at the centre. In Scotland they are less so than in England, and they would be so in Ireland and the colonies (430, 2).

If this "utopian" scheme still does not yield sufficient revenue, there is nothing for it but a diminution of expense. It is the wars that are expensive, especially those in defence of the colonies. The colonies are "a sort of splendid and showy equipage of the empire." "The rulers of Great Britain have for more than a century past amused the people with the imagination that they possessed a great empire on the west side of the Atlantic. This empire, however, has hitherto existed in imagination only. It has hitherto been not an empire, but the project of an empire; not a gold mine, but the project of a gold mine—a project which has cost, which continues to cost, and which, if pursued in the same way as it has been hitherto, is likely to cost immense expense, without being likely to bring any profit, for the effects of the monopoly of the

colony trade, it has been shown, are to the great body of the people mere loss instead of profit. It is surely now time that our rulers should either realise this golden dream in which they have been indulging themselves perhaps, as well as the people, or that they should awake from it themselves and endeavour to awaken the people. If the project cannot be completed, it ought to be given up. If any of the provinces of the British empire cannot be made to contribute towards the support of the whole empire, it is surely time that Great Britain should free herself from the expense of defending those provinces in time of war, and of supporting any part of their civil or military establishments in time of peace, and endeavour to accommodate her future views and designs to the real mediocrity of her circumstances" (431, 2, end).

The foregoing account of the *Wealth of Nations*, being largely in Adam Smith's own words, will perhaps enable the reader to understand the influence of the book, which was without parallel in economic literature, and yet was not at first, and is not now, a popular influence. Its first-fruits were the treaty of commerce with France in 1786; Huskisson's reforms followed, a generation later; and by Cobden, Bright, and Peel was realised that free trade which our author himself calls utopian. But Adam Smith's arguments have, as a rule, reached the masses through an interpreter. The reasonings, though clear, are usually close and without sentiment; they are models of what economic reasoning ought to be (cp. ENGLISH SCHOOL, pp. 733, 734).

Adam Smith was not the first to write on political economy, and like other good authors he acquainted himself as far as possible with what had been written and was being written on the subject by others. If we select those to whom he was most indebted, the list would include CANTILLON, DECKER, DUVERNEY, HUME, HUTCHESON, LOCKE, MAGENS, MONTESQUIEU, PETTY, and (though not named in the *Wealth of Nations*) MANDEVILLE, MOREAU DE BEAUMONT, POSTLETHWAYT. He does not mention STEUART; and on the whole he went to contemporaries chiefly for facts, quoting their arguments only to controvert them. The *Lectures* refer to many more (see especially pt. ii. § 9). It seems very probable that he owed to the PHYSIOCRATS the greater prominence given to distribution in the *Wealth of Nations* as compared with the *Lectures* (see *Lectures*, Mr. Cannan's pref., xxx, xxxi). He owed to them also the distinction between value in use and value in exchange. Dugald STEWART (*Pol. Econ.*, ii. 6) tells that the analysis of prices into wages, profits, and rent was suggested by James Oswald of Dunikier, a Kirkcaldy friend, whose *Memorials* (Edin., 1825) show him to have taken an active part in economic discussion as well as political life in the middle of the century. Adam Smith must have picked up many hints in Glasgow among the merchants and manufacturers (see Rae's *Life of Adam Smith*, ch. vii., "Among Glasgow Folk"). He had a hereditary interest in the custom-house. His knowledge of France and Switzerland was gained by personal travel as well as from books, and his knowledge of Holland from friendships there.

There are defects and gaps in the best scientific masterpiece when surveyed critically a century after publication. It has been suggested that Adam Smith gave voice to an industrial revolution of which he was ignorant. There were many inventions that he did not foresee, and a few of which he did not see the importance; but it is evident from such passages as the description of feudal society in contrast with modern (bk. III.), and the lamentation over the bad effects of division of labour (bk. V. i.), that he recognised the decay and disappearance of the idyllic and medieval stage of English industry. He was conscious not indeed of being on the eve of a revolution, but of being in the full progress of a revolution that had dawned some time before him.

Another general objection is that humanity is represented throughout as governed by selfish motives. The quotations given above are enough to show that the allegation is too sweeping. A passage from the *Lectures* (p. 232) throws some light here: "Those principles of the human mind which are most beneficial to society are by no means marked by nature as the most honourable. Hunger, thirst, and the passion for sex are the great supports of the human species, yet almost every expression of these excites contempt. In the same manner, that principle in the mind which prompts to truck, barter, and exchange, though it is the great foundation of arts, commerce, and the division of labour, yet it is not marked with anything amiable. . . . The plain reason for this is that these principles are so strongly implanted by nature that they have no occasion for that additional force which the weaker principles [*e.g.* generosity] need." This passage occurs in that part of the *Lectures* which is of greatest interest to students of the *Wealth of Nations*, namely, pt. ii., "Of Police." It is precisely here, however, and in pt. iii., "Of Revenue," that we are obliged to accept all statements with reserve, unless they are repeated in the later book. There can be little doubt that the *Lectures* are a genuine copy; but it is also certain that as early as 1773 Adam Smith expressed an anxious desire to destroy the original, thus estimating that it no longer represented his mind on these matters (see *Life* by Dugald Stewart prefixed to *Essays*, p. lxxxix, cp. lxxxvii). It was destroyed with other MSS. at his own request just before his death in 1790 (*l.c.*).

The following is a list of Adam Smith's writings:—

(1) Preface, dated Glasgow, 21st December 1748, to the *Poems on Several Occasions* (of William Hamilton of Bangour), Glasgow, Foulis, 1749. The poet's name is given in the 2nd ed. 1758, where there is a dedication to Wm. Crauford, probably by Ad. Smith (see Rae, pp. 38-41; see also the new edition by Jas. Patterson, Edinburgh, 1850, p. 10).

(2) Two contributions to the *Edinburgh Review*, of which publication the title ran: "The Edinburgh Review Numb. I. To be published every six months. Containing an Account of all the Books and Pamphlets that have been published in Scotland from the first of January to the first of July 1755. To each number will be added an appendix, giving an account of the books published in England and other countries that are most worthy of notice" (Edinburgh, Hamilton and Balfour, 1755, price 1s.). Adam Smith's contribution is in the appendix, art. 3, Johnson's *Dictionary* (a specimen is given in Craik's *English Prose Selections*, vol. iv. pp. 320, 321). Adam Smith re-writes Dr. Johnson's articles on "But" and on "Humour" in his own way.

The *Edinburgh Review*, from July 1755 to January 1756 (no title page), p. 63. *A Letter to the Authors of the Edinburgh Review* (urging that they have been too indiscriminating, and should pick out of European literature only the publications likely to last for, say, thirty or forty years, going on to compare the state of literature and science in Britain with its state on the continent, more especially France, singling out the French *Encyclopédie* for high praise, comparing French and English philosophical works, and ending with an elaborate parallel and contrast between Mandeville and Rousseau). For Adam Smith's authorship of the review and the letter see *Life*, by Dugald Stewart, p. 19; Rae, p. 120-124. There was a reprint, Longman and Constable, Edinburgh, 1818, with authors' names, and preface by Sir Jas. Mackintosh (see Mackintosh, *Miscellaneous Works*, 1854, vol. ii. pp. 466-475).

(3) About this time (1755) Adam Smith wrote a paper vindicating himself from a charge of plagiarism, and showing that he had been teaching the doctrines of natural liberty in matters of trade, not only in his first Glasgow lectures, but in his courses at Edinburgh in 1749. See Dug. Stewart, *Life*, pp. lxxx, lxxxi; Dr. Carlyle's *Autobiography*, p. 285; Rae, 62-65.

(4) *Essays on Philosophical Subjects*, by the late Adam Smith, LL.D., Fellow of the Royal Societies of London and Edinburgh, etc., to which is prefixed an Account of the Life and Writings of the Author by Dugald Stewart, F.R.S.E. (London, Cadell and Davies; Edinburgh, Creech), 4to, 1795. "The greater number of them appeared to be parts of a plan he once had formed for giving a connected history of the liberal sciences and elegant arts. It is long since he found it necessary to abandon that plan as far too extensive; and these parts of it lay beside him neglected until his death" (Advertisement by the Editors, Joseph Black and James Hutton, his executors). The account of the life had been read by Stewart to the Royal Society of Edinburgh, 21st January and 18th March 1793 (*Transactions*, iii. 1794). It was republished in the *Scots Magazine*, January and February 1796; and in the *Biographical Memoirs of Adam Smith, William Robertson, and Thomas Reid*, by Dugald Stewart, Edinburgh, 4to, 1811, with an indifferent portrait. The "Notes," pp. 121-152, are new, and valuable both to the biographer and the economist.

The essays are as follows:—

(*a*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of Astronomy*, pp. 1-93 (written before 1758, see p. 90 and note).

(*b*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of the Ancient Physics*, pp. 93-111.

(*c*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of the Ancient Logics and Metaphysics*, pp. 115-129.

(*d*) *Of the Nature of that Imitation which takes place in what are called the Imitative Arts*, pp. 134-184 (probably from the lectures at Edinburgh, 1748-49).

(*e*) *Of the Affinity between certain English and Italian Verses*, pp. 187-194.

(*f*) *Of the External Senses*, pp. 197-244 end (the only psychological essay).

(5) *The Theory of Moral Sentiments*, by Adam Smith, Professor of Moral Philosophy in the University of Glasgow (Millar, London; Kinnaird and Bell, Edinburgh), small 8vo, 1759; 2nd ed. 1761. *The Theory of Moral Sentiments, to which is added A Dissertation on the Origin of Languages.* This addition, pp. 437-478, is described on p. 437 as "Considerations concerning the First Formation of Languages and the Different Genius of Original and Compounded Languages"; 3rd ed. (unchanged) 1767; 4th, 1774; 5th, 1781. In the sixth edition not only was the title expanded, but there were many alterations in the text. It was published in two volumes in the year of the author's death. The title runs now: *The Theory of Moral Sentiments, or an Essay towards an Analysis of the Principles by which Men naturally judge concerning the Conduct and Character first of their Neighbours and afterwards of themselves. To which is added A Dissertation on the Origin of Languages*, by Adam Smith, LL.D., Fellow of the Royal Societies of London and Edinburgh, one of the Commissioners of His Majesty's Customs in Scotland, and formerly Professor of Moral Philosophy in the University of Glasgow. The sixth edition, with considerable additions and corrections, in two volumes (Strahan and Cadell, London; Creech and Bell, Edinburgh, 1790).

(6) *An Inquiry into the Nature and Causes of the Wealth of Nations*, by Adam Smith, LL.D. and F.R.S., formerly Professor of Moral Philosophy in the University of Glasgow, Strahan and Cadell, London, 1776, 2 vols., 4to. (It was really printed at the end of 1775 and beginning of 1776. See preface to third edition.) The second edition, also in two 4to volumes, was published in 1778. There are very few changes. One is noted above. The third edition (1784) is in three volumes 8vo, and has considerable additions, especially in bk. IV., to the chapters on "Drawbacks" and "Bounties." There is a new chapter inserted in bk. IV., entitled "The Conclusion of the Mercantile System," and a new article (art. 2, "For Facilitating Particular Branches of Commerce) in bk. V. The additions and corrections were also published separately, 4to. The fourth, in three vols. 8vo, 1786, contains no alterations, but acknowledges the debt of the author to Mr. Henry Hope of Amsterdam for the information about the bank there. The fifth (and last in the author's lifetime), 1789, 3 vols. 8vo, Strahan and Cadell, contains no alterations. Besides the above there are Dublin editions, 1785 and 1793, in 2 vols. "pirated" from the 4th and 5th editions.

(7) *The Life of David Hume, Esq., written by himself* (Strahan and Cadell, London, 1777). Adam Smith contributed to this book a "Letter to William Strahan, Esq.," dated 9th November 1776. It gives an account of Hume's last illness and a warm appreciation of his character.

(8) Letters of Adam Smith to various correspondents have been printed by Dugald Stewart, Sir John Sinclair, Hill Burton, M'Culloch, Dr. Birkbeck Hill, also in the Life of Kames, the Life of Oswald, and in the Catalogue of his library. All may be traced in Mr. Rae's biography.

(9) *Lectures on Justice, Police, Revenue, and Arms, delivered in the University of Glasgow*, reported by a student in 1763, and edited with an introduction and notes by Edwin Cannan (Clar. Press), 1896. Allusion has already been made to this volume. The contents are: Introduction. Part I., "Of Justice, including Public Jurisprudence, Domestic Law, and Private Law," pp. 1-153. Part II., "Of Police, including Cleanliness and Security, Cheapness or Plenty, Commerce and Manners," pp. 154-236, 253-259. Part III., "Of Revenue, including Taxation and [Government] Stocks," pp. 237-252. Part IV., "Of Arms, including Militias, Discipline, and Standing Armies," pp. 260-264. Part V., "Of the Laws of Nations, including War, Rights of Neutrals, Rights of Ambassadors," pp. 265-280.

Biographies begin with Dugald Stewart's (see above), which is the foundation of all the best others. The biographers include W. Smellie (1800), PLAYFAIR (1805), James Patterson (in his notes to Kay's *Edinburgh Portraits*), Brougham, M'CULLOCH, BAGEHOT, Leser (1881), J. A. Farrer (1881), Delacour (1886), Haldane (1887), Courcelle SENEUIL (1888). Professor Leser's was perhaps the most thorough in details and knowledge of sources, till Mr. John Rae's *Life of Adam Smith* (Macmillan, 1895) superseded all others. Mr. Rae's publication has no portrait. Two fresh items have been added since its appearance. The correspondence of 20th, 21st, and 22nd March 1895 in the *Scotsman* newspaper showed that Adam Smith's father married twice, and our author had a half-brother, Hugh, who was born in 1709 and died in 1750. A letter of Adam Smith to the then Duc de Rochefoucauld, dated 1st Nov. 1785, was published by Mr. Rae in the *Athenæum* of 28th Dec. 1895, and will be found in the *Economic Journal*, March 1896, pp. 165, 166.

The *Catalogue of the Library of Adam Smith*, published for the London Economic Club (Macmillan, 1894), is a *catalogue raisonné* of about 1000 books then known to be his, and about a score have been added to the list since then, the most important being Mercier de la Rivière's *L'Ordre Naturel et Essentiel*, 1767. There is a chapter on the Portraits of Adam Smith, by the late John M. Gray. The will is given, also the plan of the house at Kirkcaldy, also the facsimile of a letter. A similar facsimile was appended by J. R. M'Culloch to his *Life of Adam Smith* in its separate form (Edinburgh, 1855). M'CULLOCH's edition of the *Wealth of Nations* in its later issues contains the Tassie medallion and the full-length portrait by Kay, very fairly executed.

As to editions of Adam Smith's works, the only edition of the collected works is that of Dugald Stewart, in five volumes, published in London, 8vo, 1811-1812. It is headed, *The Works of Adam Smith, LL.D.*, and includes the *Moral Sentiments*, vol. i., 1812; the *Wealth of Nations*, vols. ii., 1812; iii., 1811; iv., 1811, with index; *Formation of Languages, Essays, Life*, as above, with the notes, appendix containing the two contributions to the *Edinburgh Review*, vol. v., 1811.

Wealth of Nations, 11th ed., edited with introduction and Life by William Playfair, 3 vols. 8vo, and footnotes, Cadell and Davies, 1805. (Obtrusively anti-Gallican).—*Wealth of Nations*, with Life, comparison with French economists and Garnier's method (see below), 3 vols. 8vo, Maynard and Zinke, London, 1811. Similar editions founded on Garnier had been printed at Edinburgh, 1806, and Glasgow, 1805.—*Wealth of Nations*, edited, with notes and additions, by D. Buchanan, 4 vols. 8vo, Edin., 1814 (see BUCHANAN).—*Wealth of Nations*, edited, with life, introduction, notes, and supplement, by J. R. M'Culloch, 4 vols., 8vo, Edinburgh, 1828. This passed through many editions, and the edition of 1863 in one thick volume 8vo is the one cited throughout this article. *Wealth of Nations*, with Life, comparison with French economists, etc., from the French of G. GARNIER, edited by Edward Gibbon WAKEFIELD, 4 vols. 12mo, London, 1835-39.—*Wealth of Nations*, edited by J. E. Thorold Rogers, 2 vols. 8vo, Clar. Press, 1869.—*Wealth of Nations*, with introductory essay, and notes, by Prof. J. S. Nicholson, 1 vol. 8vo, Nelson, Lond. and Edin., 1884. The text was set up from the types of the edition of Thos. Nelson and Peter Brown, Edin. Univ. Press, 1829. The special value of the book is in its new introduction and notes. Joyce (Jeremiah) published *A Complete Analysis or Abridgement*, Cambridge, 1797, small 8vo, which passed through several editions. The 3rd (London, 1821) supplements Joyce's own analysis by Garnier's. Mr. W. P. Emerton's *Analysis of the First Two Books* (Oxford, Thornton, 1877) is founded on Joyce and Garnier, with notes based on ROGERS, FAWCETT, and other later authorities. Selected chapters from the *Wealth of Nations* are given in Professor Ashley's *Adam Smith*, "Economic Classics," Macmillan, New York, 1895.

An Analysis of the Moral Sentiments is given by J. A. Farrer (English Philosophers Series, Sampson Low, 1881). The first translation of the *Moral Sentiments* into French appeared in 1764 in 2 vols. 12mo, under the curious alternative title, *Métaphysique de l'Ame*, by E. Dous; a better by Abbé Blavet in 2 vols. 12mo, 1774, and still better by la Marquise Condorcet, 1798, 2 vols. 8vo. It was translated into German, 1 vol. 8vo, Brunswick, 1770, and by Kosegarten, Leipzig, 1791.

The *Wealth of Nations* was translated by Blavet piecemeal for the *Journal de l'Agriculture* of Ameilhon, 1779 and 1780, and then published in 6 vols. 12mo at Yverdun, and 3 vols. in Paris, 1781. Another translation, by the poet Roucher, not, as he had hoped, assisted by Condorcet, 3 vols. 8vo, 1790. But the translation of Count Germain GARNIER superseded its rivals. It was published in 5 vols. 8vo, Paris, 1802. It has a Life and a portrait from the Tassie medallion, reversed. The 1st volume contains a long preface, including Garnier's famous *Method for facilitating the Study of the Wealth of Nations*. He regards the main doctrine of Adam Smith as all contained in the first two books; the rest can be read separately for illustration. He then divides the subject of the two books into three parts: (1) Value, including price, wages, profit, and rent; (2) stock, including fixed and circulating capital; (3) production and distribution of wealth, including division of labour, employments of capital, exchange. Garnier's last volume (v.) consists entirely of notes and index. In 1843-44 Garnier's translation was republished in 2 vols. 8vo with *variorum* notes from Blanqui (the editor), Buchanan, M'Culloch, Malthus, Ricardo, Mill, Sismondi, and Say. There was a new portrait. For more details see the French *Dict. de l'Ec. Pol.*

The first German translation appeared anonymously in 1776-78—vol. i. 1776, vol. ii. 1778 (Leipzig, Weidmann). It is ascribed to J. F. Schiller, who is not to be identified with the poet. (Prof. Cohn calls him a German living in London, *Nat. Oek. Grundlegung*, 1885, p. 110.) The first German review seems to have been in the *Göttingische gelehrte Anzeigen*, 10th March and 5th April 1777 (Roscher, *Nat. Oek. in D.*, p. 599). There was a translation by the philosopher GARVE and the official Dörrien in 3 volumes, 1794, which reached a 3rd edition in 1810, Roscher, *ib.* 603; by Max Stirner in 1846-47; and, finally, by C. W. Asher, under the title *Ueber die Quellen des Volkswohlstandes*, Stuttgart, in 1861.

The *Essays* were translated into French by P. Prévost of Geneva, 2 vols., Paris, 1797. Mr. Rae tells us, ch. xxiv., that a Danish translation of the *Wealth of Nations* by Dræbye appeared in 1779-80, an Italian in 1780, and a Spanish by J. A. ORTIZ in 1794, after the book had been suppressed by the Inquisition for "the lowness of its style and the looseness of its morals."

Germany has made amends for a late recognition of Adam Smith by publishing more monographs on him than any other nation. In England he has had a place in almost every treatise on political economy in the century, but monographs have been fewer, even if we include articles in reviews (as BAGEHOT'S and Cliffe LESLIE'S). The Dutch monograph by J. F. B. Baert, *Adam Smith and his Inquiry into the Wealth of Nations*, Leyden, 1858, must be mentioned. Professor Rösler's *Grundlehren der von Ad. Smith begründeten Volkswirthschaftstheorie*, Erlangen, 1868, contains the paradox that what Adam Smith calls in one place division of labour he calls in another capital. Professor Leser has treated of the *Notion of Wealth in Adam Smith* (1874), and Professor Oncken of *Adam Smith in der Culturgeschichte*, Wien, 1874; and in "Das Adam Smith-Problem," *Zeitschrift für Sozialwissenschaft*, I. Band, 4 Heft, Berlin, 1898: Professor Inama Sternegg, of his *Bedeutung für die mod. Natiök.*, 1876. Professor Oncken, in his *Adam Smith und Immanuel Kant* (1877), tries to make us believe in a close kinship between the two philosophers. Perhaps the best of recent books of the kind are those of Dr. R. Zeyss, *Ad. Smith und der Eigennutz*, Tübingen, 1889, and Prof. W. Hasbach, *Die allgemeinen philosophischen Grundlagen*; of Quesnay's and Adam Smith's political economy (1890); and *Untersuchungen über Adam Smith* (1891). Both writers embrace the philosophy as well as the economics, as is done on a smaller scale in Bonar's *Philosophy and Pol. Ec.* (1893). Dr. Zeyss disposes *inter alia* of the notion of Skarzynski, *Ad. Smith als Moral Philosoph*, 1878, that Adam Smith's philosophical views were completely changed by his French journey. Adam Smith's relations to Quesnay are fully discussed by Hasbach, and to Turgot by Dr. S. Feilbogen, *Smith und Turgot* (Wien, 1892).

For general estimates of Adam Smith's economics, see Mr. L. L. Price's *Political Economy in England*, London, Methuen, 1891, chapter i., and his *Economic Science and Practice*, Essay XII. on "Adam Smith and his relations to recent Economics," London, Methuen, 1896.

For an estimate of his views on taxation, see Prof. Bastable's *Public Finance* (1892) throughout, where amongst other things there is noted the remarkable omission of the poor rate in connection with taxation (p. 81), perhaps due to the absence of a Poor Law in Scotland. Mr. Edwin Cannan, *History of Theories of Production and Distribution, 1776-1848* (1893), gives a full discussion of Adam Smith.—Buckle, *Civilis.*, i. 195 n., has chronicled the occasions on which Adam Smith was mentioned in parliament during the first seventeen years after publication of the *Wealth of Nations*. The first was in 1783.—Toynbee, *Industrial Revolution*, ch. vii., 1884, considers Adam Smith's relation to the mercantilists. For estimates of the *Moral Sentiments*, it will be sufficient to refer to Mackintosh's *Dissertation on Ethical Philosophy*, and Mr. Leslie Stephen's *English Thought in the Eighteenth Century*, vol. ii. J. B.

SMITH, CHARLES (1713-77), a wealthy owner of corn-mills chiefly in Essex, wrote—

A Short Essay on the Corn Trade and the Corn Laws (1758), and *Considerations on the laws relating to the Importation and Exportation of Grain*, and *A Collection of Papers relative to the Price, Exportation, and Importation of Corn*, both published 1766 and called "second edition." The whole was republished in 1804, *plus* notes by Catherwood and extracts from Chalmers's *Estimate*, etc. C. Smith's list of corn prices (1595-1765) (ed. 1804, p. 123) was taken from the Eton audit books either directly or through Bishop FLEETWOOD (*Chronicon Preciosum* (1707), pp. 125-130), and was utilised by A. YOUNG (*Farmer's Letters* (1767), pp. 40, 48), Combrune (*Inquiry* (1768), pp. 36, 37), and others, until Thorold ROGERS did the same work on a far larger scale in his *History of Agriculture and Prices* (1887), vol. v. pp. 170 *et seq.*; official figures began only in 1771. A. SMITH who speaks highly of C. Smith's work refers also to the obvious fallacy of his and A. Young's approval of the export bounties levied since 1688 on corn because they cheapened corn (*Wealth of Nations*, ed. M'Culloch, p. 224). Although he wrote, "Quantity alone can frustrate all attempts to ingross or forestall," so that if crops are good "no art can inhance the price of grain," if bad, "no art or regulation of government will keep the prices low" (p. 92), C. Smith praised the "discreet" use of assizes of bread, corn duties, and corn bounties. J. D. R.

SMITH, EDOUARD (1789-1852), director of statistics in the Belgian ministry of the interior, wrote:—

Statistique Nationale, Développement des trente et un tableaux publiés par la Commission de Statistique et relatifs aux mouvements de la population dans les Pays Bas depuis la création du royaume jusqu'en 1824 (Brussels, 1827).—*Statistique des Pays Bas publiée au nom de la Commission Royale* (Brussels, 1827-1829).—*Recherches sur la reproduction et la mortalité de l'homme aux différents âges et sur la population de la Belgique* (1832).—*Statistique criminelle de la Belgique* (1832), and *Recherches statistiques sur la Belgique faites au nom du Ministère de l'Intérieur* (1836). E. CA.

SMITH, ERASMUS PESCHINE (1814-1882), studied in Columbia College, New York, and in Harvard Law School, was an editor in Rochester, N.Y., and for two years professor of mathematics in the university of Rochester. He resigned this position to be superintendent of public instruction for the state of New York (1852), and was subsequently reporter of the court of appeals

of the same state. He served the national government as commissioner of immigration and as examiner of claims. In 1871 he went to Japan as special adviser to the Mikado in international law, serving for five years as a sort of foreign secretary, during which time treaties were negotiated and better relations established with several European countries. While in this position he was instrumental in breaking up the Chinese coolie trade.

His *Manual of Political Economy* (New York, 1853) was translated into French by Camille Baquet in the year after its publication. He is a close disciple of Henry C. CAREY (*q.v.*), expressly waiving in his preface any claims of originality as against him. The book deserves attention, however, for its emphasis of the physical conditions of production and its analysis of the methods by which soils are produced. His definition of the object of political economy is quite in the spirit of Carey: To investigate the laws which explain man's attainment, through association, of enlarged power over matter in all its forms, and the development of his intellectual and moral faculties, in virtue of that power. E. T. D.

SMITH, HENRY (1550–*d.* about 1592), lecturer at St. Clement Dane's.

Was the author of the *Examination of Usurie* (two sermons appended to the *Preparative to Marriage*), 1591. In these the condemnation of usury, elaborately founded on scripture, is extended not only to loans to the poor and needy, but to money lent at interest in business, on the ground that lenders expect to share in gains but not in losses. The inference that to a lender who consented to take his part in losses interest might reasonably be paid, is prevented by a later passage where the preacher forbids the borrowing of capital, first because people should not wish to be richer than their own means can make them — an empty maxim—and secondly because prices must rise if interest as well as profit is to come out of them. The relation between profit and interest is not clearly seen; through Jewish practices the word "usury" had gained an ill reputation, and the innocent thing was prejudiced by its name (see CANON LAW; INTEREST AND USURY).

[Wood, *Athenæ Oxonienses*, vol. i. with discussion on date of death.—Fuller, *Church Hist.*—Chalmers, *Biographical Dictionary*.—Cunningham, *Industry and Commerce, Modern Times*, pp. 79-82.]
E. G. P.

SMITH, JOHN. A London merchant:

Was the author of the *Trade and Fishing of Great Britain displayed*, 1661, and of *England's Improvement Reviv'd*, 1673 (written and intended to be published a few years earlier). The former describes a journey round the north and west of Scotland, with the object of investigating native and Dutch methods of fishing, and includes an account of the Orkney and Shetland Islands, and proposals for so conducting the fishing as to oust the Dutch; a slight historical sketch is added of the successive control of trade by the "Venetians, Genoese, Portingals, EASTERLINGS, or HANSE TOWNS, Hollanders, and English." When he wrote this, Smith was apprenticed to "Mr. Matthew Cradoch of London, merchant, one of the society for the fishing trade of Great Britain."

His other work was written to encourage timber-growing. After pointing out the damage done by careless and wasteful felling of trees, without replanting, especially on royal lands for the navy, the writer gives full directions for the planting and cultivation of different trees, with accounts of their special uses, and calculations of cost according to the spaces to be left between them. The tract on fishing was incorporated as the sixth book of this work.

[Preface to *England's Improvement Reviv'd.*]
E. G. P.

SMITH, JOHN (18th century)—

Was the compiler of a highly valuable work on the wool-trade, entitled *Chronicon Rusticum-Commerciale, or Memoirs of Wool, etc.; being a collection of History and Argument concerning the woollen manufacture and woollen trade in general, particularly the rise, progress, improvements, declensions, revolutions, and the respective causes thereof in England; as also an account of the several laws from time to time made and of many schemes offered for preventing the exportation of raw wool, with occasional notes, dissertations, and reflections upon the whole*, London, 1747, 2 vols. 8vo; 2nd ed., 1756-57, 2 vols. 4to—a most careful and detailed account of the incidents and references relating to the woollen and cloth trade from the earliest mention of wool until the middle of the 18th century. He quotes from the parliamentary petitions, statutes, patent and other rolls, of each reign, and inserts all the available contemporary literature of each period bearing upon the subject. In this way he prints[1] "W.S.'s" *Compendium or brief examination of certain ordinary Complaints of divers of our Countrymen in these our Days* (ch. xxiii.); *A Treatise of Commerce*, or a brief history of the merchant adventurers. by John Wheeler, secretary to that society (ch. xxv.); John May's *Declaration of the state of clothing now used within this realm of England;* also the writings of MISSELDEN, MALYNES, and (ch. xlvii.) Sir Josiah CHILD'S *New Discourse of Trade.* He continues to embody in his work the writings of many small economic writers of each period, and with whose works it is not otherwise easy to become acquainted. He strongly urges a duty on wool as the principal means of restraining its being exported raw, on the grounds that "an absolute prohibition hath never yet had the effect that was genuinely intended by it." The writer of these "Memoirs" was immediately attacked by a Mr. Temple, who, as Smith himself summed up, charged him upon the four following points: — (1) that Mr. Smith had made that the price of the best English wool which was very far from being so; (2) that he had treated the wools of Cotswold as the *finest* clothing wools of England, which they are not; (3) that the best Spanish wools were not at Amsterdam in 1719 of the price mentioned (Mem. ch. 172); (4) that most of the Spanish wools are of a lower price than the lowest there mentioned; (5) that the author has shown great ignorance in making any comparison between the

[1] See also WILLIAM STAFFORD.

price of English wool, as sold from the farmers in England, and Spanish, as well as obtained for wools at the market of Amsterdam.

All these objections Smith replied to in a volume entitled *The Case of the English Farmer and his Landlord in answer to Mr. Temple's pretended Refutation of one of the Principal Arguments in Memoirs of Wool*, London, 1750 (?), 8vo.—Smith also published *A Review of the Manufacturers' Complaints against the Wool Grower*, pt. i. *Wherein of Pitch and Tar Marks, the Excess, the Injury, and their respective Remedies, are considered minutely*, London, 1753, 8vo.

The dearness of wool, said the Manufacturers' Petition, tended to cause the farmers to increase the weight of their wool by excessive pitching and tarring. Also they complained of false and deceitful winding. Smith defended the growers by disputing the charge of over-marking; and proposes as a remedy to reduce the necessary brandings and to limit their size, and to prohibit the use of tar or pitch in other markings made by the owner. A. L.

SMITH, JOSHUA TOULMIN (1816-1869), was an ardent writer on local self-government and its history.

The best known of his many works is *The Parish: its Obligations and Powers* (1854, 2nd ed. 1857). Besides this, he made the collection of returns from *English Gilds*, afterwards published under that title by the Early English Text Society (1870). These furnished for some years the only, as they do still the chief printed material for the history of the "social-religious" fraternities of England during the middle ages. *Local Self-government and Centralisation, the characteristics of each, and its Practical Tendencies as affecting Social, Moral, and Political Welfare and Progress.* London, 1851, 8vo, pp. 408. This treatise states the broad permanent principles of the English constitution, and their historic application to great questions of law and economics, with some contrasted infringements. W. J. A.

SMITH, PRINCE. See PRINCE-SMITH.

SMITH, SIR THOMAS (1514 or 1515-1577), was born at Saffron Walden and educated at Cambridge, where he became regius professor of civil law; he was employed under Edward VI. and Elizabeth as ambassador and secretary of state. He was one of the most active movers in the Elizabethan attempt to colonise Ulster.

His chief literary work was *The Commonwealth of England*, an imitation in the first part of Aristotle's *Politics*, and a description, historically interesting, of English ranks and classes, and of the English constitution and law courts, with a view to the comparison of our common law with the civil law used by continental nations. The book, though it is not remarkable as a literary or philosophical work, is valuable as comprising a considerable number of important details concerning legal procedure and social distinctions—the clear line which could be drawn then between the classes of esquires, yeomen, and farmers, etc., in contrast to our present looseness of class, is particularly to be noticed (Strype's *Life*, ed. 1820, p. 85, note).

Sir Thomas Smith also wrote elaborate tables of money, especially as a guide to the calculation of Roman money in English denominations; they are printed at the end of the *Life*.

[Strype, *Life of Sir Thomas Smith.*—Wright, *Queen Elizabeth and her Times*, contains much of Smith's correspondence with Lord Burleigh.] E. G. P.

SNELLING, THOMAS (1712-1773), a Fleet Street bookseller and coin-dealer, wrote:—

(1) *A View of the* (*a*) *Silver* (1762), (*b*) *Gold* (1763), and (*c*) *Copper* (1766) *Coin and Coinage of England* from (*a*) William I., (*b*) Henry III., and (*c*) Elizabeth respectively, down to George II., with copper-plate engravings and historical and critical notes. The plan had been devised by the Society of Antiquaries, whose members—S. M. LEAKE and Martin FOLKES—had carried it out, but far less accurately and completely than Snelling. His (2) *View of the Origin, Nature, and Use of Jettons* (1769); (3) *Miscellaneous Views of the Coins struck by English Princes in France*, etc., *by the East India Company West India Colonies*, etc. (1769), and (4) *Supplement to Mr. Simon's Essay on Irish Coins* (after 1769) throw light (amongst other things) on the connection of coinage, traders' tokens (which perhaps an ancestor of his coined; Boyne, *Trade Tokens of the Seventeenth Century*, ed. Williamson (1889), p. 704) or promissory notes, and municipal charities, and are still authoritative (*Antiquary* (1873), pp. 8, 165, 309); (5) His *View of the Silver Coin and Coinage of Scotland* (1774) shows that he had begun to do for Scotland what he did for England, and displays critical sagacity of a very high order (E. Burns, *Coinage of Scotland* (1887), i. 98, 99; ii. 113). His (6) *View of the Coins at this time current throughout Europe* (1766), and (7) *Doctrine of Gold and Silver Computations* (1766) are less important. He also published engravings of (8) *Seventy-Two Plates* (1757) (prepared in 1652—*Numismatic Chronicle*, 2nd ser., xiv. 159; Ducarel, *Anglo-Gallic Coins* (1757) p. 3); (9) *Five Plates of Gold Coins*, etc., *of Scotland*—an appendix to (5) and (10); *Thirty-Three Plates of English Medals* (1776). Some of his plates for (1) had strayed into Ducarel's book, and into *Twelve Plates of English Silver Coin printed for Withy and Ryall* (1756); and most of his plates were prepared by F. Perry, J. Lodge, C. Hall, and others; but whatever was "printed for Snelling," though coarse when judged by modern standards, is still invaluable.

[Ruding, *Annals*, 3rd ed. (1841), p. x.; R. W. Cochran-Patrick, *Records of the Coinage of Scotland* (1876), pp. 6, 7; E. Hawkins, *Silver Coins of England*, ed. Kenyon (1887), pp. 3, 4.] J. D. R.

SOCAGE. The chief free tenures in mediæval England were tenure by KNIGHT'S SERVICE, tenure in SERJEANTY, FRANKALMOIGN, and socage. Socage has been defined as the great residual term, which includes all free tenures not included under the other heads. Thus there is great variety as to the conditions of socage tenants—some hold on condition of almost nominal service, some on payment of a

money rent, and some on condition of agricultural services not very different in kind from those of the VILLEIN. In early times land held in socage was divisible among sons, but the custom of PRIMOGENITURE gradually became the rule, except in Kent and other districts where special customs, such as GAVELKIND, prevailed. Socage tenants were always exempt from compulsory military service, and though they paid AID and RELIEF, they were free from the burdensome incidents of wardship and marriage. The guardian in socage was the next of kin who could not inherit. The act of Charles II. (1660) abolishing feudal rights made socage tenure practically universal.

[Pollock and Maitland, *Hist. of English Law.*—Digby, *Hist. of the Law of Real Property.*] R. L.

SOCIAL CONTRACT AND SOCIAL SCIENCE.

Social Contract, p. 427; Social Science, p. 428; Social Science (Sociology), p. 430.

SOCIAL CONTRACT, THE. The doctrine of the social contract may be described as the doctrine that every state owes its existence and constitution to the free and deliberate agreement of its original members, and that its present members by continuing within it are presumed to acquiesce voluntarily in its authority by reason of receiving its advantages. It thus involves the assumption of a state of nature and a law of nature antecedent to civil society and to civil law. The date of its origin is difficult to fix, for the theory that society has its origin in convention is as old as the Greek sophists, and has been in vogue at intervals ever since. It is easier to fix the time at which the doctrine of the social contract had most influence. With the decline of mediæval beliefs men felt the necessity of some justification for the authority of the state, apart from theological arguments or ideas of feudal tenure. Science was still so little advanced that hardly any one thought of asking how the state has actually arisen. The notion of an original compact became popular in the 17th and 18th centuries. The three most celebrated exponents of this notion are HOBBES, LOCKE, and ROUSSEAU.

Hobbes's conception of the social contract is set forth in his *Leviathan* (1651). As he had been profoundly impressed with the miseries of civil discord in England, he sought to found on the social contract a system of absolute government. He assumed an original state of nature in which man was subject only to the natural law of self-preservation, and was therefore justified in taking every advantage of his fellow-creatures. Such a state of nature was necessarily a state of universal war, and whilst it lasted the life of man was "solitary, poor, nasty, brutish, and short." The same law of self-preservation constrained men to seek for an escape from this wretched condition. Therefore they came together and entered into a covenant, every man with every other, whereby each resigned all his natural rights into the hands of a particular person or body of persons, on condition that every one else did the same. Thus they created a sovereign who was not indeed a party to the social contract, but who derived from it an absolute authority which could not be revoked, because the members of society had reserved no rights to themselves. The sovereign was subject neither to legal nor to moral restraint, and political liberty meant merely liberty to do that which the sovereign had not forbidden.

Locke, in his *Treatise on Civil Government* (1690), gave a new complexion to the theory of the social contract. According to Locke the state of nature was one of freedom and equality. Whilst in that state men were subject to the law of nature which restrained their rights over their own or their neighbours' life and property. Thus the state of nature was not necessarily a state of war or of misery. It was, however, a state of insecurity, as there was no impartial and irresistible arbiter to protect each individual in the enjoyment of his rights. Therefore men agreed to form a society and to resign to a ruling authority so much of their natural rights as was necessary for this purpose. They could not invest their governors with unlimited rights over life and property, for they had not possessed such rights themselves. Nor could they be supposed to resign more of their natural rights than they were obliged to do, in order to secure the benefits of civil society. Therefore the sovereign could not claim more than a limited authority, and if he betrayed his trust, he might lawfully be deposed. In this way constitutional government was made to appear the logical corollary of the social contract.

Rousseau published his famous book on the social contract in 1762. In this work he combines some elements derived from Hobbes, with other elements derived from Locke. He seeks to harmonise the absolute authority of the sovereign with the absolute freedom of the citizen. The aim of the social contract, he taught, was "to find a form of association which may defend and protect, with the whole force of the community, the person and property of every associate, and by means of which, each coalescing with all, may nevertheless obey only himself and remain as free as before." Like Hobbes, Rousseau held that, by the social pact, each individual surrendered the whole of his natural rights. But, unlike Hobbes, he held that the community formed by this pact necessarily remained sovereign. Sovereignty being inalienable and indivisible, the "prince," *i.e.* the government, could only be a subordinate authority. The "prince" wielded the executive power, but the legislative power always remained with the people, and when the people assembled they resumed plenary authority, and

the "prince" was suspended from his functions. With ingenious sophistry, Rousseau tries to prove that this absolute power of the body means the absolute freedom of its members, so that when an individual suffers death in virtue of a law enacted by the people, he is really a consenting party to his own execution, and if he thinks otherwise, is not thinking clearly. It will be clear, from what has been said, that each writer will deduce from the hypothesis of a social contract the legitimacy of that form of government which he thinks most beneficial. The hypothesis rests on a sharp distinction between the state of nature and the social state, between the law of nature and the civil law. But these distinctions have no basis in history. From the first, men lived in rudimentary associations, and these passed by gradual development into what we call political society. How the state has arisen is a purely historical question which must be solved by the collection and interpretation of historical evidence. No genuine instance of a social contract has been found, nor, if found, would it support inferences like those drawn by Hobbes, Locke, or Rousseau. That savages could foresee the political needs of later generations, or bind those generations by their covenant, has been proved absurd by anthropology. Nevertheless, the theory of the social contract contains in mythical form a serious truth. Government cannot be justified simply on grounds of force, of tradition or even of instinct. It can be justified only on the ground that it conduces to the good of the governed. It is most powerful when it has their conscious approval. In this sense it is true that the consent of the governed is the basis of government. The theory of the social contract had the merit of contradicting the theories which based government on divine right, on patriarchal right, or on proprietary right. It was an instrument of intellectual and social revolution, not a scientific summary of historical fact.

[Hobbes, *Leviathan* and *De Cive.*—Locke, *Civil Government.*—Rousseau, *Contrat Social.*—Hume, *Essays.*—Green, *Theory of Political Obligation.*—Ritchie, *Natural Rights.*—Pollock, *History of the Science of Politics.*—Bluntschli, *Theory of the State.*] F. C. M.

SOCIAL SCIENCE. Social science is a new word for the old Greek science of politics—which included every kind of human association. But the old point of view had been shifted and enriched by mediæval writers, who looked more at the spirit which created than at the thing created, and whenever the social sense wove some spiritual texture, or struck some unintended harmony, their first impulse was to contrast it with the state; and they believed in universal history: "The entire succession of men," wrote Pascal, "must be regarded as one man always living and incessantly learning." That is why TURGOT and HEGEL took for their theme "l'esprit humain," or "Volksgeist," and rang on it subtler and more various changes than ARISTOTLE dreamt of. And the results of Greek thought had been so clean forgotten that VICO (1725) called his science—founded on the axiom that man is social—"a new science," "the philosophy of humanity," etc.; and DUPONT (1768) attributed the "discovery" that "natural" meant "social" law, to GOURNAY and QUESNAY (1755), and this too was called "a new science"—"la science sociale et économique," etc. (*Ephémérides d'un citoyen*, 1767). After J. B. SAY (1803)—much to Dupont's regret (1815)—sacrificed social to economic science, FOURIER (1808) invented "a new science"—"la science sociale," and disciples of Cabanis, like DESTUTT de Tracy (1824), and of ST. SIMON counterclaimed for the title. Then A. COMTE (1830-42), the last European inventor of "a new science," took the name sociology—partly in order to distinguish the constructive views of the 19th from the individualism of the 18th century. But this was also St. Simon's aim; nor has the aim been reached; thus to-day Ferri's nationalised industries, Schäffle and Siciliani's autonomous industrial groups, S. P. Andrew's and H. Spencer's *laissez-faire*, Fouillée's compromise, and Lilienfeld's (iv. 386) reconciliation of these opposing schools, are all claimed as offshoots of this same stock. Comte also rebelled against the watery, non-national, levelling doctrines of men like CONDORCET, and looked towards a federation of the leading races of the world; but St. Simon, Kant (1784), whom Comte had read, and Vico, had already found salvation in this idea. As Comte put forth three stages of progress as the first-fruits of his new science, so had BODIN (1580) and Vico; and Vico's first stage was theological, and his third scientific; Turgot characterised the second stage as one where men substituted abstract essences for causes (Say et Chaillet, *Dict. de l'Économie Politique*, *s.v.* "Sociologie"); and St. Simon named the second the critical or metaphysical, and, following a hint of Burdin (1797), the third the positive or reconstructive stage (*Œuvres Choisies*, i. 198; ii. 20). The truth is that there was no new science, but only the old Greek science draped by the middle ages, and the discovery by modern writers of the nude beneath the drapery upset their minds. Vico stood between the mediæval and modern world; after him the way parted in three directions.

(1) The first was towards a philosophy of history. Hegel's *Philosophy of History* (1825) is a sequel to his *Philosophy of Right* (1821). The latter criticises associations from the successive points of view of a Roman lawyer, a French economist, and a Greek philosopher. In the former he looks at history metaphysically as the externalisation of

spirit, and also historically, but through a telescope. Every historian feels himself in contact with "secret living impulses" (v. Ranke), which are half empiric laws, half aspirations grounded on self-knowledge; and Hegel's generalisation that consciousness of freedom (De TOCQUEVILLE'S (1835) "Democracy") passes down the ages in ever-widening circles is an effort to see what the philosophic historian feels; and so far only, Hegel tells us, history accords with what other scientific processes might lead us to expect. The philosopher, therefore, does not follow history any farther than this. True, this is only a vague rough outline, which historians must fill in with the aid of their microscopes; and even they desist from details the moment that their sympathies wane. But it has the merit of being a bridge which leads straight on from science to history, and so to real life. As Schlözer's *Vorstellung einer Universal Historie* (1772) was the prelude to his *Welt-Geschichte* (1785) so (as Bernheim tells us) v. Ranke's *Welt-Geschichte* (1881) took up the thread where Hegel dropped it. And history itself only reaches up to real life a little farther than scientific knowledge; so that philosophies of history mark the dividing line where science gradually fades away and loses itself like a dream in the waking world.

(2) The extreme sociologists start from the opposite point of the compass. As the physiocrats made natural science, so, since Cabanis (1795), biologists have made biology reach down to human life, as though there were some law of the outer which would unlock every secret of the inner world. Thus St. Simon and Comte wished to explain the social sense as a force like gravitation; yet Fourier and Fouillée were surely wiser in writing of gravitation as a sort of social sense, for "we come nearer to a real knowledge of the causes" in the case of "the working of an intelligent will," than in the case of "an unexplained force" (E. A. Freeman, *Methods of Historical Study*, p. 154), and St. Simon and Comte therefore explained "ignotum per ignotius." Again, H. Spencer's law of progress as progress towards definite and orderly variety is admirable but for his genitive cases—the "integration of *matter*," and "dissipation of *motion*," which may suit the stars but do not suit human life. Even he holds that human beings are under the yoke of physical laws. Again, Spencer, Lilienfeld, Schäffle, De Greef, and Worms, define society as "a discrete organism," or "superorganism," and Giddings as "an organism with duplicate functions," *i.e.* potential and actual institutions. Yet organism applied to humanity is only a metaphor which they, like Plato, have a perfect right to work out each in his own way, but which, if pressed, misleads. Much of what goes to make society, some fraction even of its language, folk lore, and common law, is deliberate invention, and might more justly be compared to mechanism than to organism; and the residue—"wisdom without reflection," as Burke called it—grew partly by the influence of mind on mind (Bagehot, Durkheim, Tarde), partly by other motives which may act like, but are not an organ. And if they were an organ—no one understands why organs work together, every one partly understands why he and his class contribute to the well-being of a society; for in the first case he attacks the problem from outside and sees it through a glass darkly; in the second case he attacks it from within, and what he knows he knows at first hand. The metaphor of organism leads us into a blind alley, somewhat farther from the truth than the point from which we started. Again, efforts to make "survival of the fittest" a central social principle have failed, for nations struggle in a way that single men do not, and even with nations "consciousness of kind" tempers the wind to the shorn lamb (Gumplovicz, Novicov, Huxley, Vaccaro, Giddings, among others); indeed Brentano in that passage in which he declared his method identical with COMTE'S method traced competition and union—with a view to extinguish competition—to one and the same cause, namely, industrial changes in a free state (*Arbeitergilden* (1871), ii. 310); moreover, the whispers of individual consciences produce social effects of great moment, thus a good poor law softens natural with what Ritchie calls moral selection, and MALTHUS knew the moral and immoral checks to births. Again Comte, and perhaps H. Spencer (ch. xxvii.), made sociology into history, while BUCKLE made history into sociology. Now science has only to do with types and typical relations; it selects them from the real world, and discovers laws which are immutable only because conflicting units or relations are left out. But Comte and Buckle, ignoring what they omitted, transferred laws and prophecies about sociological man—a type to which no one ever quite conformed—to real men. The method of regarding one's units as "quantities" and therefore "*négligeables*"—which, by the way, science has not yet justified in the case of organisms—is the only possible method with external nature, of whose units we can know nothing; but in human sciences it must only be followed provisionally and for a purpose, for there the scientist is, and therefore must know the unit. Or the matter may be put thus: these writers forget that life consists of an action and reaction between individuals and society; but for society individuals are phantoms; but for individuals society is a shadow, therefore social laws apply literally to shadowland alone; they can only be applied to the inexplicable sea of human life—every wave of which is unlike its fellow—with modifications suited to each case.

(3) Social science is also regarded as a science which selects its material, and therefore its results only hold good of one aspect of life. If so it is just like political economy and the other special social sciences; and the only wonder is that they have done so much and it so little; so that it seems, as A. Clément and Letourneau virtually admit, but a mosaic composed of them. True, Mill claimed Malthus as a sociologist; but that was not Malthus's view, and the best writers in English on those questions which natural selection has suggested—Bagehot and Ritchie—call their subject-matter politics. Again, Maine was perhaps encroaching on sociology when he wrote that society goes from status to contract; and De Greef supports and Durkheim combats this "sociological" view. Again, social philosophy figures

along with political economy on the title page of the book always cited as Mill's political economy, Pulszky brackets the theory of law and civil society (1887), G. Mayr statistics and social theory (1897), and so on. Why then, if social science has a legitimate sphere of its own, have the special social sciences invariably encroached upon this sphere? The reason must be sought in the peculiar character of those sciences which deal with human nature. A common-sense summary of every human problem is dimly present to every one's consciousness; hence, if an inquirer who has with the artificial aids of science investigated some part of human nature—wealth, language, etc.—ends off with his scientific results, there is a conflict between these results and his instinctive common sense; it is as though he ended with a discord. The nature of his task urges him to look across the gap between what his science supplies and his common sense demands. And the same reason causes not only the special social sciences but social science itself to overflow its banks; thus, for instance, a healthy mind cannot long keep its ideals out of its ideas about society. Mill and Maine ought really to have trespassed further afield in order to probe the soil in which their sciences were rooted. Not only the social and political sciences — as Schmoller and the New York Society of that name call them—but all branches of "moral and political science" —to use Hume's name, and the name of the modern French Académie—hang in a cluster; their subject-matter, if divided for a moment, must be reunited. Division and reunion is the only means by which we advance our knowledge of human nature. L. v. Ranke wrote of social scientists, "they embrace not Juno but a cloud, and turn vendors not of truth but of formulæ and empty wind"; but formulæ are often valuable half truths, and the wind (though not solid) is not empty. Science cannot be a substitute for, but it may be the utmost help to history, and to a keen perception of the concrete facts of life.

[Criticisms on sociology: (1) Philosophical, W. Dilthey, *Einleitung in die Geisteswissenschaften* (1883) (classes philosophies of history with sociology).—C. Menger, *Untersuchungen über die Methode der Socialwissenschaften* (1883).—J. S. Mill, *Logic*, bk. vi. (2) Historical, E. A. Freeman, *Methods of Historical Study* (1886) (identifies politics and history).—W. E. H. Lecky, *Political Value of History* (1892).—L. v. Ranke, *Werke*, bd. xxiv. p. 280. (3) Both, E. Bernheim, *Geschichts-Forschung* (1880); *Lehrbuch der Historischen Methode* (1889). (4) Political science, Sir G. C. Lewis, *Methods of . . . Politics* (1852), p. 51, etc. —Sir J. Seeley, *Political Science* (1896), p. 25, 142, etc.—H. v. Treitschke, *Die Gesellschafts-wissenschaft* (1859).

Recent writings which express sociological views and belong at least partly to the third type are:—*American Journal of Social Science* (1869, etc.); *American Journal of Sociology* (1895, etc.).—*Annales de l'Institut international de Sociologie* (1894).—S. P. Andrews, *Science of Society* (1851). —W. Bagehot, *Physics and Politics* (1872).—J. Bascom, *Sociology* (1887).—T. Braga, *Systema di Sociologia* (1884).—H. Carey, *Social Science* (1877). —A. Clément, *Essai sur la Science Sociale* (1867).—J. Courcelle-Seneuil, *Études sur la Science Sociale* (1862).—P. Delbert, *Social Evolution* (1891).—A. Dulk, *Entwurf einer Gesellschaftslehre* (1889). —E. Durkheim, *Cours de Science Sociale* (1888); *Les Règles de la Méthode Sociologique* (1895).—A. Espinas, *Des Sociétés animales* (1877).—E. Ferri, *Socialismo e Scienza positiva* (1894).—A. Fouillée, *La Science Sociale Contemporaine* (1880); *Le mouvement positiviste et la conception sociologique* (1896).—F. H. Giddings, *Principles of Sociology* (1896).—G. de Greef, *Introduction à la Sociologie* (1886).—M. L. Gumplovicz, *Der Rassenkampf* (1883); *Sociologie und Politik* (1892).—G. Hauriou, *La Science sociale traditionnelle.*—T. H. Huxley, *The Struggle for Existence* (1888); *Nineteenth Century*, xxiii. 161.—Combes de Lestrade, *Eléments de Sociologie* (1889).—C. J. M. Letourneau, *La Sociologie d'après l'Ethnographie*, 3rd ed. (1892).—P. v. Lilienfeld, *Gedanken über die Sozialwissenschaft der Zukunft* (1873).—J. S. Mackenzie, *Introduction to Social Philosophy* (1895).—J. M'Clelland, *Social Science and Social Schemes* (1894).—A. Majorana, *Teoria Sociologica della Costituzione politica*, 2nd ed. (1894).—J. Novicou, *Les luttes entre sociétés humaines* (1893); *Les gaspillages des sociétés modernes* (1894); *Conscience et Volonté Sociales* (1897); *Revue internationale de Sociologie* (1893, etc.).—D. G. Ritchie, *Darwinism and Politics* (1889); *Rivista Italiana di Sociologia*, 1897.—E. de Roberty, *La Sociologie* (1881).—A. Rondelet, *Philosophie des Sciences Sociales; Le Psychisme Social* (1894).—M. Sales y Ferré, *Tratado de Sociologia* (1894).—A. Schäffle, *Bau und Leben des sozialen Körpers* (1875).—P. Siciliani, *Socialismo, Darwinismo e Sociologia moderna* (1879).—G. Simmel, *Ueber soziale Differenzierung* (1890); *Die Probleme der Geschichtsphilosophie* (1892).—A. W. Small and G. E. Vincent, *Introduction to the Study of Society* (1894).—H. Spencer, *Principles of Sociology* (1874-96).—G. Tarde, *La Logique sociale* (1895); *L'Opposition universelle* (1897); *Transactions of the National Association for the promotion of Social Science* (founded by Lord Brougham, 12th October 1857, as "a point of union for social reformers," and for promoting legal, sanitary, educational, and economic reforms by means of annual public meetings: dissolved 15th April 1886).—A. Vaccaro, *La Lotta per l'esistenza* (1886).—I. Vanni, *Programma critico di Sociologia* (1888).—L. F. Ward, *Dynamic Sociology* (1897).—R. Worms, *Organisme et Société* (1896).] J. D. R.

SOCIAL SCIENCE (SOCIOLOGY) A hybrid word first employed by Auguste COMTE to denote the vast department of knowledge which was earlier in this century termed the science of society or SOCIAL SCIENCE, and is dealt with in the dictionary under the latter name. Mr. Herbert Spencer in the preface to vol. i. of the *Principles of Sociology*, defends the word in spite of its origin on grounds which have been generally accepted as sufficient. Purists have suggested the word "politics," the title of ARISTOTLE'S great work on social

science as conceived by the Greek mind of the fourth century B.C.; but this word has long since acquired in European languages a much narrower signification, and is therefore inadmissible.

Strictly speaking sociology, in the sense in which it is generally used, would seem to require the qualifying epithet "human," for the class of phenomena under consideration, which Mr. Spencer, and others who have followed him, term "super-organic," are seen to some extent among communities of various kinds of birds and other animals, and of bees and ants. Such qualification is, however, needless in most cases.

The science of society is still in an extremely imperfect condition, and probably will remain so for a considerable time. It is only during the present century that exact quantitative observation of social facts has received systematic attention, and even now the difficulties in the way of obtaining such facts are very great. Much more has been obtained regarding some classes of phenomena than others. Many facts of an economic character, and what are called vital statistics, are collected with considerable regularity and accuracy, but regarding vast fields of investigation the information is scanty. Nevertheless several eminent philosophers have expressed a confident hope that eventually a science of sociology will be constituted, and Mr. Herbert Spencer, in the concluding volumes of his *Synthetic Philosophy*, has sketched in a masterly manner the lines on which, so far as can be seen at present, it must be constituted. In the *Principles of Sociology*, pt. i. ch. ii., and *ib.* pt. ii. chs. i. and xii., will be found a summary of the views of Mr. Spencer on the subject; but the whole volume, and those which precede and follow it, should be read in order to acquire a clear conception of the position he takes up. Mr. Spencer conceives of society as an organic whole constantly tending to differentiation of parts and functions, between which, however, a great degree of interdependence subsists. This complexity and interdependence of parts tends to increase with the growth of the social body. Many writers have conceived of a science of society, from PLATO and Aristotle to Comte, Spencer, and Schäffle. The latter philosopher's voluminous work, *Bau und Leben des sozialen Körpers*, is well worth the attention of the inquirer. His philosophical standpoint differs in some important particulars from that of Spencer, as well as of Comte.

It is hardly necessary to say that history, anthropology, ethnology, and economics, are the basis of sociology, and that the statistical method is one of the most valuable aids in sociological inquiries. For many branches of sociology it is the only method available, and this fact has led some thinkers to claim for statistics the position of an independent science (Maurice Block, Sir R. W. Rawson, Gabaglio), but this claim is not conceded by the majority of authorities. The claim of economics to the position of a distinct sub-science appears to be more tenable, but would not now be admitted as readily as a quarter of a century ago.

[Herbert Spencer, *Synthetic Philosophy, passim*, but more particularly the volumes relating expressly to sociology.—Comte, *Philosophie Positive.*—Schäffle, *Bau und Leben des sozialen Körpers*, Tübingen.—F. H. Giddings, *Sociology.*] W. H.

SOCIALISM.

Definitions and Character of Socialism, p. 431; Socialism merges into Social Democracy, p. 431; Reaction against Laissez-Faire, and Individualism established by French Revolution, 1794, p. 432; Influence of St. Simon, p. 432; A. Comte, p. 432; Fourier, p. 432; Socialism in connection with French Revolution of 1848, p. 432; Spread from France to other countries of Europe, p. 432; Scientific Socialism and K. Marx, p. 432; German Social Democracy and Lassalle, p. 433; Statistics of Socialistic Vote in different countries, p. 433; Socialism in Germany, p. 432; Socialism in Austria, p. 433; Socialism in Switzerland, p. 434; Socialism in France, p. 434; Socialism in Belgium, p. 434; Socialism in the United Kingdom and the Colonies, p. 435; Socialism in the United States, p. 435; Political Influence of Socialists, p. 435; Internationalism and Anarchy, p. 435; Socialism, State, p. 436; Socialists of the Chair, p. 437.

SOCIALISM AND SOCIAL DEMOCRACY. The term socialism, as opposed to INDIVIDUALISM, was coined by Pierre Leroux in 1838. It was then adopted by L. Reybaud in his *Études sur les Réformateurs ou Socialistes modernes* (1840); in its widest signification it is a protest against the doctrine of LAISSEZ-FAIRE, and a general attack on capitalistic enterprise. Socialism requires that the process of production and distribution should be regulated, not by competition, with self-interest for its moving principle, but by society as a whole, for the good of society. The term COLLECTIVISM more accurately connotes its aims and methods. This implies that the individuals who make up society should, in their collective capacity, possess all the instruments of production, and thus prevent the evils arising from the present industrial system. It implies the subordination of the individual to the community, and puts public utility above private interest. Under the new socialistic *régime*, it is assumed that all will receive their due, according to the measure of their capacity and willingness to perform the social duties assigned to each by public authority.

ANARCHISM, the exact opposite of socialism, would do away with state authority and destroy the present social system. There are several varieties of socialism: State Socialism (see SOCIALISM, STATE), regulation by government. Voluntary CO-OPERATION (see article CHRISTIAN SOCIALISM) is the application of the principle of association, instead of egotistical conflict of interest. But whatever its varieties, the essential character of socialism is some economic

theory which shall prove a corrective of the existing order of things, and prevent the recurrence of those social inequalities and inequitable arrangements which have produced social dissatisfaction and the problems now calling for solution. It proposes to remove the existing conflicts between capital and labour and the dependence of the worker on his employer. Thus socialism merges into social democracy, which seeks to solve the problem how to reconcile the increase of political power among the masses with the increase of wealth among the classes, and to equalise not only political rights, but also economic possessions, to enable all to share the results of human effort in more equal proportions. The earlier history of socialism is described in UTOPIAS. Here we may refer to the schemes of the fathers of the movement, St. SIMON, FOURIER, and OWEN, which contain the first protests against the theory of *laissez-faire*, or the practical working of the individualism established by the French revolution of 1794, which, as A. HELD points out in his *Sozialismus, Sozialdemokratie und Sozialpolitik* (1878), was itself a reaction against the state socialism of the *ancien régime* —against those effects of unlimited competition which were established by the political and aggravated by the industrial revolution in France and elsewhere, with the introduction of steam and machinery. The early socialists raised their protest, and in their works we see reflected the contemporary reaction of romanticism as opposed to the rationalism of the revolution. The socialism of St. Simon was eminently religious—he calls it *le nouveau Christianisme*—and it was mainly ethical; he desired to apply the principle of Christian brotherhood to industry, and that of association under the authority of a "hierarchy of capacities," in fact a "centralised industrialism under royal patronage," and all this with a view to prevent the "exploitation de l'homme par l'homme." St. Simon, and his friend and disciple A. COMTE, first introduced the idea of social evolution, with the growth of the altruistic sentiment, into economic literature. FOURIER'S leading principle, that if men were permitted to follow their own bent they would select that kind of work for which each is best fitted, and do it cheerfully and well, as opposed to the prevailing economic doctrine that all labour is repugnant to human nature, was the basis of his elaborate theory of the association of labour. Fourier suggested the grouping of the workers into "phalanges," according to their predilections and passions, in his *Nouveau monde industriel*. OWEN also desired a new organisation of labour on a moral basis, and emphasised the importance of education, as, in the "new moral world," co-operation is to replace competition. Labour tickets, representing the value of so much work done, are to be the medium of exchange in the place of money. Each of these proposals, it will be seen, militates against some of the evils of society which arise out of the free play of economic forces, and searches for some new method for reuniting the scattered units of the industrial world, so that all the weak as well as the strong may be protected and encouraged in the industrial warfare. Their final object was *l'association pacifique universelle* (see *Les précurseurs du socialisme moderne*, by B. Malon in *La Revue Socialiste*, tome xi., No. 61). The next stage of socialism was reached in 1848, in connection with the revolution of that year in France. An attempt was made to organise labour by the state. As the first revolution claimed the "rights of man," the revolution of 1848 (see ATELIERS NATIONAUX), through Louis BLANC, demanded the "rights of labour." The opening of national workshops, and the foundation of co-operative association supported by government, form the beginnings of state socialism. In his book on the organisation of labour, L. Blanc shows that the state, as the greatest capitalist, can alone compete satisfactorily with the power of capital; let it, then, become the chief competitor as an employer of labour, and by degrees the uneven conflict between capital and labour will disappear. Thus the state becomes the "sovereign of industry," but only for a time. By degrees the direction may be left to those concerned—the producers themselves—by acting committees elected out of their own class. From France, social democratic ideas found their way, through the instrumentality of secret societies, to other parts of Europe—Belgium, Switzerland, and Germany.

Germany.—In this country it led, under the influence of MARX and Engels, to the formation of the *Kommunistenbund*, from which emanated the celebrated "Communistic Manifesto," which contains the leading ideas of "scientific socialism" in embryo, and constitutes the "literary arsenal of the social democratic party." It concludes with the words, "Working men of all countries, unite," and points to a new departure of socialism, which ceases to be now a political, and becomes a purely economic movement in theory, though still using the state for party purposes. (See an article on "Socialism" (historical), in No. 2 of *Subjects of the Day*; also on further development of German socialism up to 1884, *Fortnightly Review*, for December of that year, pp. 30-34, by M. Kaufmann.)

Scientific socialism is a deduction from the doctrine of value "that labour is the only measure of value," as held by the old economists, after A. SMITH. Lassalle, following the same track, adopts Ricardo's theory of the "iron law" of wages. From the doctrine of Surplus Value, the "mother idea" of K. MARX'S negative criticism is deduced the doctrine that the capitalist is enriched by appropriating the surplus

value of commodities created by the workmen over and above that which is necessary to keep them alive. Thus "the productive power of labour in society becomes the productive power in the interest of the capitalist" (see Scheel in *Handbuch der politischen Oekonomie*, 3rd ed., p. 124 *seq.*; also HELD, on the principles and tendencies of contemporary socialism, *loc. cit.*, pp. 14-16). These ideas are ably and succinctly summarised under the following five heads by B. MALON. They are: (1) class antagonism; (2) the technical organisation of production with modifications which determine the organisation and transformation of economy and politics; (3) the capitalistic modes of production are distinguished from those which preceded them by (*a*) the separation of the producer from the instruments of production; (*b*) the intensification of work under conditions rendered more severe through those who direct and those who are engaged in the work being not brought into personal relations with each other; (*c*) reduction of wages, together with the employment of women and children, owing to the use of machinery and uncertainty of employment; (*d*) incessant increase of capital at the expense of underpaid labour, which becomes in turn the cause of further exploitation; (*e*) "the absorption" of small into large capital enterprise; and the rise of an industrial governing force, gradually diminishing in numbers and increasing in wealth and power; (4) from this results an acute antagonism between capitalists and producers whose massing in factories favours combined effort; the victory of the latter is to be attained by "la conquête des pouvoirs publics," *i.e.* by securing parliamentary majorities. (5) The victorious proletariat can only fulfil its historical mission either by gradual or by revolutionary means, according to circumstances (*Revue Socialiste*, tome xi., No. 62, pp. 137-138). As to methods of action socialists differ to some extent. There have been always the moderate and the more advanced sections, inclining towards reformatory or revolutionary methods respectively, the former willing to take their share in politics and party organisation; the latter despising and discarding such expedients in order to obtain concessions piecemeal from reluctant legislatures, and determined to work for the entire *bouleversement* of the present social order. Thus LASSALLE, the original organiser of German social democracy (1862-64), demanded universal suffrage and state subvention of productive associations. RODBERTUS-JAGETZOW proposed a gradual modification of the laws of property and such governmental interference for the protection of labour (*e.g.* fixing a normal day of labour and regulation of the rate of wages) as would gradually bring about a complete transformation of social conditions. K. MARX, the founder of the INTERNATIONAL, though opposed to ineffectual revolts against society, regarded the social revolution as inevitable, and identified it with evolution and its natural results. A union, by way of compromise, was effected between these two wings of social democracy at the Gotha congress (1874), expressed in the programme of the party (see the text in appendix to Zacher's *Die rothe Internationale*, p. 173; and the *Statutes of the International Labour Association*, *ib.*, p. 171). This programme has since been superseded by that adopted at the Erfurt congress (1891), which omits the preamble that labour is the source of all wealth and culture, and the reference to the "iron law of wages," so as to bring the programme into greater conformity with contemporary economic science. It also drops the Lassallean demand for productive associations, and emphasises the importance of class struggles. The confident tone of the early triumph of social democracy is its special characteristic (see full text of the programme in the *Protokoll über die Verhandlungen des Parteitags*, now printed in every subsequent yearly report under that title, and cp. H. Herkner, *Die Arbeiterfrage* (1894), pp. 126-128, 173 *seq.*; also the *Handwörterbuch der Staatswissenschaften*, Band v. p. 725, for the latest developments of German socialism). The following statistics show the growth of the party. In 1874 the socialist vote in the German empire amounted to 351,670; in 1884 to 549,990; in 1893 it had reached 1,800,000. The contributions from members in 1883 amounted to 95,000 marks (£4750); in 1893 to 258,326 marks (£12,916). As to the socialist press there existed in 1893, 75 political party organs in addition to 58 trades-union papers—which in Germany are mainly under socialist influence—the number of subscribers to the central organ *Vorwärts* was 42,500, and its annual profit 40,655·10 marks (£2033). Its predecessor of the same name, confiscated in 1878, had only 12,000 subscribers, whilst the whole of the party organs in that most flourishing year of social democracy did not exceed 44. The social democratic deputies in the German parliament numbered 56 in 1898, compared with 46 in 1894, and 24 in 1884. These figures explain the confident tone adopted of late by the party leaders and programmes.

Austrian Socialism, originally imported from Germany by Oberwinder and A. Becker, both followers of Lassalle, has also considerably advanced with industrial progress, greater freedom of association, and liberty of speech and meeting. The official programme of the party, adopted at the Hainfeld congress (1888-89), was framed on German models. Dr. V. Adler, son of a Jewish millionaire, is at the head of the party. Here, as in Germany, a minority of young zealots threaten from time to time to divide the party, but as yet without serious

effect on its organisation and strength. Here, too, the growth of trades unionism under socialist leaders is highly important in estimating the strength of the movement, though in both countries the practical and conservative tendencies of trades unionists provoke the fear and jealousy of the socialist protectors. Austrian socialism is also remarkable for the success of the yearly celebrations on 1st May, decreed at the Paris international congress in 1889. At the congress held March 1894, a resolution demanding universal suffrage, and recommending a general strike in the event of its refusal, was passed by 66 against 42 votes. The official organ of the party, the *Arbeiterzeitung*, has 150,000 subscribers; in all, there are 14 party prints apart from trades-union papers, with a collective impression of 78,400, which may give a clue to the numerical strength of the party. The annual receipts for the purpose of agitation, etc., according to recent reports, amounted in Austria to fl. 10,000 (£833), in Hungary to fl. 60,000 (£5000). Considering the hampering effect of still existing press laws and official opposition, overt and concealed, to party propagandism, these numbers indicate some vigour in the movement. The number of delegates from the different lands composing the Austro-Hungarian monarchy, at the Vienna congress, which increased from 67 in 1889 to 133 in 1893, speaks for itself; 74 attended the Hungarian congress at Buda-Pest. Here the land question and land nationalisation form the chief subject of discussion, industrial enterprise being still in its infancy.

Switzerland. — In Switzerland, which has been, though at different times, the centre and rallying-point of socialism, especially when persecuted elsewhere, the prevailing political institutions and conditions of local industry have thus far impeded the progress of socialism.

France. — In France, the original home of socialism, the revolutionary tendencies of the people, their impatience of party discipline and control, arising from the individualistic bent in the national character, have been the cause of division and splitting up into factions which seriously weakens the movement. Moreover, the presence of a property-loving rural proletariat and the existence of a considerable body of petty tradesmen in the towns, prove an impediment to socialistic progress. The first attempt to re-organise the party after the suppression of the commune in 1871 was made in 1876, when Jules Guesde and G. Deville, both Marxists, framed a collectivist manifesto. But the definite programme of the party was adopted at the Havre congress, 1880, following that of Gotha. At the St. Etienne congress, 1882, a split occurred between the Marxists and the Possibilists, who owe this nickname to Guesde. It expresses their opportunism, *i.e.* willingness to accept any possible social reforms by way of instalment. Their name is *Fédération française des travailleurs socialistes révolutionnaires*, Brousse and the late B. Malon being the original leaders, whilst the former call themselves *Parti ouvrier*. These contain the abler minds, the others the larger following. A further division into "Broussistes" (from Brousse) and "Allemanistes" took place in 1890 at the Châtelherault congress. But these differences spring from personal jealousies rather than from differences of principle. All aim at "l'expropriation de la bourgeoisie capitaliste" and "la socialisation des moyens de production" (on the state of socialism in France up to 1887 see an article by M. Kaufmann in the *National Review* for November 1887). Measured by electoral successes in France, the party does not appear to great advantage. In 1889 the Possibilists received 53,316 votes in Paris, their stronghold; in 1893 the socialist vote throughout France was 600,000. The anarchists do not enter into the political arena. The other socialists, including Blanquists and independents, uniting for this purpose as *L'Union révolutionnaire socialiste*, secured 123,003 votes in 20 departments. Estimated by number of party organs, and specially by the high-class tone and literary excellence of the monthly *La Revue Socialiste*, founded by Malon (d. 13th September 1893), French socialism would appear to be much more widely diffused than the votes obtained indicate, and many of its supporters are to be found among the cultured and well-to-do. There are indeed secret sympathisers, "crypto-socialists" as M. Leroi-Beaulieu calls them, from whom the movement receives material support, apart from the moral support of the "groupe des deputés républicains socialistes" in parliament. It is also strongly represented in the municipal council of Paris, which has been called "le grand conseil de collectivisme," one-fifteenth of the councillors being socialists. The increase of trades unions, more or less under socialist influences—there were 402,125 members in 1893 against 288,770 in 1892 (see *Revue Socialiste*, March 1894, p. 359),—and the concentration of socialistic forces of late, corresponding to the republican concentration, indicate a movement towards more united action.

Belgian Socialism. — In Belgium with its highly-developed industry and opportunities for combination, and the support given to socialism and its press by co-operative associations under its control, considerable advances have been made, especially since the fusion of the two main sections, the Flemish and Walloon, under Anseele, Velders, and Bertram, in 1879. It is calculated that no less than 50,000 to 60,000 persons entertain socialist theories, whilst no country can boast of so many philosophical socialists, such as Collins, the late Dr. Paepe, Agathon de Potter, Defuisseaux, and Professor

Denis of the Brussels university. The political influence of the socialists has also considerably increased since the late extension of the suffrage voters. The socialist vote in 1896 amounted to 461,000. Passing over Holland, the Scandinavian and the two Latin peninsulas, where by reason of retarded industrial development socialism has not as yet attained to anything like formidable strength, we may now turn to Great and Greater Britain and the United States.

The United Kingdom and the Colonies.—The number of actual and active adherents in England is comparatively small, but the indirect influence of socialistic propaganda on the new trades unionism is considerable. The new Independent Labour Party, together with the "Social Democratic Federation," the "Socialist League," and the Fabian Society are comparatively few in number. But their publications, meetings, and efforts have familiarised the minds of many with the doctrines of K. Marx and his school. In the colonies, owing to the powerful organisation of trades unions, and the pressure which the labour party can bring to bear on the legislature and government, state socialism has made considerable progress, whilst the philanthropic movement and the growing tendency of the ruling class to protect the weak, and to promote the welfare of those less favoured by fortune, through private and public action, has done much at home and in the British dependencies to break the force of class antagonism and to lessen the chances of socialistic agitation (see S. Webb's *Socialism in England*).

The United States.—In America, where the gulf between wealth and poverty is greater than in Europe, and the industrial warfare at times much fiercer in consequence, the theories of socialism are beginning to take root. In 1878, there were about 10,000 professed socialists in the United States. They appear to have risen to 30,000 or 40,000 since, though out of 78 sections 14 only are English-speaking. America is the home of European malcontents, and it is those who have introduced internationalism (first organised by Sorge in 1867) and anarchy. Both are busily at work, at times conjointly, at other times separately, in spreading their views among the labour associations, such as the knights of labour and the federation of organised trades unions. These they join for the purpose of becoming the "sappers and miners of the coming revolution." Some headway has been made among native Americans, who, however, whilst accepting socialistic criticisms on the existing order of things, are by no means willing as yet to entertain proposals for the establishment of a collective commonwealth. It has to be noted, however, that H. George's book on *Progress and Poverty* and Bellamy's *Looking Backward* have had a marvellously large sale in the United States. It is significant that the populist vote in 1892 amounted to one million, whilst Bryanism commanded six millions in 1896. The Controller of New York State, in his official report, regarded this as so great a danger to society that he recommended an "inheritance tax" to stay the concentration of wealth in a few hands, to which fact he ascribed it.

Thus, both in the old and new world, socialism has made considerable progress of late years; whilst the unanimity of view entertained, minor varieties notwithstanding, the methods adopted by socialists all over the civilised world, and the readiness to act in concert and to merge differences in a common assault on society, renders the movement as a whole more formidable than similar but more isolated movements in the past. With the growth of democratic representation and the increased intelligence of the labouring population in making use of their political power, the "revolutionary vote" is fast becoming a great factor in politics. Militant socialism, moreover, as a revolutionary force, may be said in membership to be equal to, or approaching in numbers the effective force of the military establishments in modern Europe—the socialist vote in Europe and America is about five millions. As the latter are recruited from the body of the people and to it return after serving their time, well trained for action in the field, and since attempts are constantly made to disseminate socialist views among soldiers, the safety of society, as far as it depends on material force, is by no means on the footing it used to be, though it has to be remembered that "the battalions of labour" are not armed. And this is rendered still more serious by the fact that the efforts of social democracy are now chiefly directed to systematic agitation among the agrarian proletariat, having for their object the capture of this strongest force of resistance to its pretensions. This being so, a critical study of the movement as a whole is all the more important, so as to discover its real danger, and, if possible, to provide the proper remedy.

Here we are only concerned with it as an economic theory, and in its influence on the development of economic doctrine. As has been said already, it is founded on the theory of surplus value as established by K. Marx, which itself rests on the fallacy that underpaid manual labour is the sole cause of accumulation of capital, which in its turn is used for the further enslavement of labour; that, in the words of the Erfurt programme, the means of production thus become the monopoly of the few, and that private property is used for the expropriation of the masses; that for this reason capitalistic industry must be

replaced by a socialistic direction of the process of production and distribution to insure social harmony in the place of competitive warfare, and concord in the place of class conflicts. It is enough to point out here in answer to this the importance of capitalist enterprise and of the direction of labour by men of high mental ability. These points are overlooked by socialism, as is also the danger of committing to public functionaries the entire control of the economic process, there being no guarantee whatever that the administration of the "Co-operative Commonwealth," if called into existence by and dependent on the will of "the people," would prove more efficacious and reliable than that of "government by class," as now carried on. On the contrary, the stimulus of individual rivalry, self-interest, and ambition being removed, social efficiency could only be secured either through a highly centralised organisation of labour by the authority of the collectivist state, which would sacrifice liberty, or by means of a moral regeneration throughout the whole community, which would cause altruistic duty to become the ruling principle of economic action. But such a moral change cannot be expected from the proposed alterations in the economic mechanism. While socialism has supplied economic science with a closer view of the darker aspects of modern industrial life, the deductions, however erroneous, of K. Marx and others, have given a clearer conception of the consequences to which an abstract view of the science may lead, unless the utmost care is taken in formulating the conclusions arrived at. Meanwhile the speculations of socialists and of utopian dreamers have been useful in reminding society of its own shortcomings by building up a high social ideal (see CONJUNCTUR).

[L. Stein, *Der Sozialismus und Communismus des heutigen Frankreichs*, 1848, and an important art. by the same writer in vol. vii. of the *Gegenwart*, pp. 517 *seq.*—G. Adler, *Die Geschichte der ersten Sozialpolitischen Arbeiterbewegung in Deutschland*, 1885, also, by the same writer, the articles on "Sozialismus" and "Sozialdemokratie" in the *Handwörterbuch der Staatswissenschaften*, edited by Prof. Lexis, where see also the most important works referred to at the close. Dühring, *Kritische Geschichte der Nationalökonomie und des Sozialismus*, 1879.—Ely, R. T., *The Labour Movement in America*, 1886.—Hyndman, *The historical Basis of Socialism in England*, 1883.—*Fabian Essays*, 1889.—F. A. Lange, *Die Arbeiterfrage*, 1875.—B. Malon, *Histoire du Socialisme*, 1882-84, and his *Socialisme Intégral*, 1891.—Rudolph Meyer, *Der Emanzipationskampf des vierten Standes*, 1874-75, and 2nd ed. of the 1st vol. 1882, which, however, is not much more than a reprint of it.—F. Mehring, *Die Deutsche Sozialdemokratie*, 3rd ed., 1879.—Mermeix, *La France Socialiste*, 5th ed. 1886.—J. J. Rossbach, *Geschichte der Gesellschaft*, vii. Theil, 1875.—W. L. Sargant, *Social Innovators and their Schemes*, 1858.—A. Sudré, *Histoire du Communisme*, 5th ed. 1856.—Schäffle (A. L. Fr.), *Die Quintessenz des Sozialismus* (1875), *Die Aussichtslosigkeit der Sozialdemokratie* (1885); and 2 vols. of his *Bau und Leben des sozialen Körpers*, 1878, containing a revised edition of *Kapitalismus und Sozialismus* by the same (1870); of which an authorised presentment by M. Kaufmann, under the title *Socialism, its Nature, its Dangers, and its Remedies*, appeared in 1874.—Hans v. Scheel, *Unsere Sozialpolitischen Parteien*, 1878.—J. J. Thonissen, *Le Socialisme depuis l'antiquité jusqu'à la constitution française du 14 Janvier 1852*, Louvain, 1852.—Werner Sombart, *Sozialismus und soziale Bewegung im 19 Jahrhundert*, 1896. See also throughout the invaluable *Bibliographie des Sozialismus und Communismus* by J. Stammhammer, 1893, and the three volumes of the *Jahrbuch für Sozialwissenschaft und Sozialpolitik*, edited by Dr. L. Richter, 1879-81. Only original writers are given above, not popularisers, with E. de Laveleye at their head, who more or less quote them; an exception, however, may be made in favour of l'Abbé Winterer, whose compilations under the name *Le Socialisme contemporain* 1878, 1882, 1885, and 1890, may serve as helps in following the movement. The original works of the principal socialist writers, like K. Marx, etc., all are given under their names *supra*. The *Handbuch des Sozialismus* by C. Stegeman and C. Hugo (1897) may also be consulted.] M. K.

SOCIALISM, CHRISTIAN. See CHRISTIAN SOCIALISM.

SOCIALISM, STATE, both in name and in fact, originated and has always found its chief home in Germany. Other nations have adopted the name, and their legislation has been modified, often very profoundly, by the ideas expressed by the name, but hardly outside Germany has there arisen any professed school of state socialists, and in no other country has the theory of state socialism been so energetically and consistently carried out.

As the name itself seems to imply, state socialism is essentially of the nature of a compromise. It may be described as an attempt to engraft certain socialistic conceptions on to the existing trunk of the historical state, and by doing so, to secure all that is good in socialism without the loss of anything that is healthful and strong in the existing order of society. While retaining the two fundamental laws of the existing historic state—the right of private property and the institution of the family—it would yet leaven the existing state with a new spirit of socialism; not subverting the state, but using it as an instrument for carrying out in certain particulars the socialistic ideal. The object which it keeps steadily in view is to aid the weak in their struggle against the strong, and by doing so to restore that equality of opportunity in which it sees at once the surest guarantee for the permanence of society and

the best means of removing the acknowledged evils which at present exist. Thus while socialism proper treats all the citizens of the state as incapables, inadequate to look after their own interests, and undertakes for them a task which it considers them incompetent to discharge for themselves, state socialism would protect, not all, but some only of the existing citizens, those, namely, whom their failure to obtain a satisfactory maintenance shows to stand in need of the assistance which the state is able to give. The theory sounds excellent and excites great enthusiasm, and there are cases, as all must admit, when the aid of the state may be legitimately invoked to redress evils which are obvious and pressing; but it may be doubted whether in practice it is a wise course for the state to interfere to save people from the foreseen consequences of their own acts; and the attempts which have been made to redress evils by the direct intervention of the state have already been productive of other evils scarcely less formidable than those which state socialism has been invoked to cure.

The theory and practice of state socialism have been, both of them, as already stated, most highly developed in Germany. The so-called SOCIALISTS OF THE CHAIR (*q.v.*) *Katheder-sozialisten*, have not only formulated a considerable body of doctrine, but have also profoundly affected the legislation of Germany during the last five-and-twenty years. It is necessary only in this connection to cite the names of Gustav Schmoller, Adolph Wagner, Lujo Brentano, and above all of ROESLER, whose writings furnish the most adequate text books of the theory. In practice the famous protective legislation of Prince Bismarck and his still more famous measures for compulsory insurance (see INSURANCE, STATE), and the establishment of old age pensions, furnish the most noteworthy examples of the application of the theory to actual legislation. The same tendency which was at work most actively in Germany did not fail to manifest itself also in other European countries. Amongst ourselves, while the term state socialism has never become fully naturalised, the ideas denoted by it have been by no means without influence. Not only was the factory legislation of Lord Shaftesbury and Mr. Disraeli a considerable practical step in the direction indicated, but J. S. Mill, in *Principles of Political Economy*, pleaded, though rather hesitatingly, for a larger measure of government interference than most of his predecessors would have been willing to sanction. Most of his successors, notably Professor CLIFFE LESLIE and Professor Ingram, have been willing to advance much farther along the same path. Nor has their teaching been without influence on much of our recent legislation—Mr. Gladstone's two Irish Land Acts are an advanced embodiment of the theory, and a large amount of recent legislation, including "the Workmen's Compensation for Injuries Act," etc., bear the same stamp.

In another direction the proposals which have been made, and to some extent carried out, to "municipalize" many undertakings, particularly those which are to some extent of the nature of monopolies, *e.g.* the supply of gas and other forms of lighting and of water to towns, are an additional proof of the practical hold which the ideas denoted by the term "state socialism" have gained amongst us. So far as the experiments have gone at present, the evidence furnished by them has been of an extremely mixed character. That such undertakings can be carried on, and even profitably carried on, by the state or municipality has been amply demonstrated. On the other hand, there are evils which experience both at home and abroad warns us will have to be carefully guarded against. They are such as these—the tendency to throw an undue share of the cost of such undertakings on a particular class; to create a body of specially-favoured workmen with peculiar privileges and special advantages; to make things pleasant all round to those in the service of the community, to the obvious detriment of the interests of the tax-payers or rate-payers generally. The proposal lately made to subsidise the opera or theatre out of public funds furnishes another instance of the spread of the ideas in question, and of the difficulty of setting limits to the principle when once admitted.

In Austria the most noteworthy adherent of the theory of state socialism is to be found in Schäffle, originally professor at Tübingen, subsequently Austrian minister of commerce. His work *Bau und Leben des sozialen Körpers* attacks the theories of orthodox political economy on grounds which are biological as well as economic.

[Besides the works already referred to, the subject may be studied in Mill, *Principles*, bk. v. ch. 11; J. E. Cairnes, *Logical Method of Political Economy*, 1875; and in the excellent work of Maurice Block, *Les Progrès de la Science Économique depuis Adam Smith*, Paris, 1890.—Ingram, *History of Political Economy*, ch. vi., Black, Edinburgh, 1888.—A. Wagner's *Lehr und Handbuch der politischen Oekonomie*, Leipzig, 1892.

See also HELD; GERMAN SCHOOL.] W. A. SR.

SOCIALISTS OF THE CHAIR, *i.e.* the professorial chair, (*Katheder-sozialisten*), was the nickname given by the liberal journalist, H. B. Oppenheim, in 1872, to a number of the younger German professors of political economy, and quoted by one of the most influential of them, Professor Gustav Schmoller, of Strasburg, in his opening speech at the Eisenach congress of economists held in the same year. The

group of teachers thus characterised agreed in believing that there were grave social questions to which it was their duty to call attention, and that these could not be solved, as the MANCHESTER SCHOOL, then dominant in the German press, and organised in the *Volkswirthschaftliche Kongress*, believed, by a mere resort to *laissez-faire*. On the other hand they differed from the social democrats in that they disbelieved in the possibility or desirability of violent revolutionary changes; and they rejected as inaccurate the "scientific" formulæ both of Lassalle and Marx,—the "iron law" and the doctrine of "surplus value." Among themselves, opinions ranged all the way from a disposition to think well of trades unions to an eagerness for state intervention in industry in all directions. But most of them were moderate in their expectations and cautious in their proposals. From Hegel and the philosophers on the one side, and from the bureaucratic traditions of the Prussian monarchy on the other, they had learned a high doctrine of the state; but they were guided in their application of it by their firm hold on the principle of relativity which had been inculcated by Roscher and the creators of the historical school. The whole group may be described as the historical school become militant,—under the stress of new industrial conditions, the stimulus of the social democratic movement, and with the confidence engendered by the establishment of the German empire. They did much to promote factory legislation, and to prepare the way for the system of compulsory insurance which may be regarded as the most notable outcome of their activity (see SOCIALISM, STATE). The term "socialists of the chair," after playing a considerable part in the controversies of a decade, chiefly in the mouths of their critics, seemed to have passed out of current use. Marked divergences had made themselves apparent among those who once bore that name,—as in practical politics between Professors Brentano and Schmoller, and with regard to scientific method, between Professors Schmoller and Wagner; while the Liberal and *Fortschritt* parties had begun to manifest a greater interest in social reform. Thus the apparent unity and distinctness of the group of 1872—then chiefly the unity of protest—had largely disappeared; though most German economists were still dominated by the leading principles of the Eisenach congress. But in 1896-97 in the attack in the German Reichstag, led by the Freiherr von Stumm, upon Professors Schmoller and Wagner, and most of the other teachers of political economy in the country, the use of the term "Katheder-sozialisten" was once more resorted to as indicating the dangerous character of their teaching, and many explanations were again given of its origin and significance.

[The best general accounts of the movement are given in the chapters under that head in Emile de Laveleye, *Le Socialisme Contemporain* (2nd ed. 1883), and John Rae, *Contemporary Socialism*, (2nd ed. 1891).

The most characteristic writings of the period are perhaps Adolf Wagner, *Rede über die soziale Frage* (1871); Gustav Schmoller, *Ueber einige Grundfragen des Rechts und der Volkswirthschaft* (1875), in reply to the attack of the historian Von TREITSCHKE in a pamphlet, *Der Sozialismus und seine Gönner;* and Lujo Brentano, *Das Arbeiterverhältniss gemäss dem heutigen Recht* (1877). See also GERMAN SCHOOL; A. HELD.

Among the fugitive writings concerning the more recent discussions, may be singled out the article by Professor Hasbach in *Die Zukunft* for 14th August 1897.] W. J. A.

SOCIETAS is a contract of Roman law whereby two or more persons undertake the mutual performance of certain acts in order to effect a common purpose. It is a contract of a less limited kind than the corresponding English contract of partnership.

Societas omnium bonorum is an entire union of property by agreement of two or more persons. *Societas* may be restricted to a particular undertaking, as making a journey in common. The acquisition of gain or profit, though it is generally the object of this contract, is not necessarily so.

Societas leonina is an agreement that a socius or partner is to be subject to loss, but not to share in the profit of the common undertaking; such a contract is void.

Unless it is agreed to the contrary, the shares of the *socii* are equal. In the administration of the common property, each *socius* is only bound to be as careful as he is in the management of his own individual property, not to take the care of a careful *pater familias*. (See PARTNERSHIP, HISTORY OF). E. A. W.

SOCIÉTÉS COMMERCIALES (Fr.). French law recognises three kinds of commercial associations—(1) ordinary partnerships, called *sociétés en nom collectif*, the title of the firm comprising the name of one or more of the partners, and the liability of each being unlimited; (2) *sociétés anonymes*, so called because they are designated by the object for which they are formed: these are the ordinary limited-liability companies in shares; (3) *Sociétés en commandite*, which share the characteristics of the two others, being composed of two classes of persons, the acting partners or *commandités*, with unlimited liability, and the passive or *commanditaires*, who are only liable for the amount of the capital put into the firm, but cannot take any part in the management even by proxy, without incurring the same liability as the acting partners, as specified in art. 28 (*Code de Commerce*). *Commanditaires* are distinguished from lenders at interest, as they are only remunerated from

the profits, and have a right to examine the books and accounts, be present at inventories, and exercise other prerogatives of a partner. Public companies could formerly only be constituted by a direct authorisation of the government. A first step was made towards liberty of association for commercial affairs by a law of 1863 which permitted their formation without authorisation, provided that their capital did not exceed 20,000,000 francs. That law was followed by one of the 24th July 1867, in sixty-seven articles, which forms the substance of the present legislation on public companies, with some modifications introduced by a law of 1893. As in the English law, a minimum number of seven founders is necessary for the formation of a company. The statutes must be deposited at the tribunal of commerce, or, where none exists, at the *mairie* of the locality, and be published with the documents annexed in one of the journals appointed for the insertion of legal notices. Under the law of 1867 shares could not be of a less nominal value than 100 francs (£4) when the capital did not exceed 200,000 francs (£8000); nor less than 500 francs (£20) if above 200,000 francs. The whole of the capital had to be subscribed and one-fourth be paid up before the company was constituted. By the law of 1893 shares may be of as small a value as 25 francs (£1) if the capital is not above 200,000 francs, but in that case the whole must be paid. With a capital exceeding 200,000 francs shares must not be of a lesser nominal value than 100 francs, but payment of one-fourth on allotment is sufficient. The law of 1893 modified that of 1867 on some other important points. Previously, shares might be converted by a vote of a general meeting from registered shares to shares to bearer, and the original holders only remained liable for the uncalled part of the capital for two years from the date of the meeting. By the law of 1893 shares must remain nominative until fully paid up. Ordinary shares given in part or whole payment for a business converted into a company cannot be negotiated for two years from the date of the constitution of the company. That provision was not contained in the law of 1867, and by an omission, probably not intended, the prohibition in the law of 1893 does not apply to founders' shares. The statutes of a company fix the number of shares to be held, rarely less than twenty-five, to give the holder a right to attend and vote in meetings of proprietors. Holders of a lesser number were not represented, but a clause in the new law permits them to put their shares together to make up the required number and appoint one of themselves to act as their delegate. Foreign companies whose shares are dealt in on the French market, or which have an agency in France, must appoint an approved representative, a Frenchman of substance, liable for the taxes to which the company is subject in France.

[*Code de Commerce*, arts. 18-64.—Laws of 24th July 1867, and 1st August 1893.—Duvergier, *Recueil des lois et decrêts.—Commentaire de la loi du 24 Juillet 1867 sur les sociétés* par Rivière—*Régime fiscal des Valeurs mobilières etrangères en France*, par Maurice Jobit, 1893.] T. L.

SOCIOLOGY. See SOCIAL SCIENCE.

SOCMEN. Manorial tenants who were free in status, though their land was not held by charter like that of a freeholder, but was secured to them by custom. They paid a fixed rent for the virgate, or part of a virgate, which they generally held, and, taking the Peterborough socmen as samples, they were bound to render farm produce, such as fowls and eggs, at stated seasons; to lend their plough teams thrice in winter and spring; to mow and carry hay; to thresh, harrow, and do other farm work for one day; and to help at harvest for one or two days. These services, contrasted with the WEEK-WORK of a villein, were little more than nominal, and are comparable to those of the RADMANNI (*q.v.*). The Peterborough socmen reappear under the *Descriptio Militum* of the abbey, where it is said that they served *cum militibus;* but this appears to be exceptional. Socmen were, like *libere tenentes*, frequently liable to merchet, heriot, and tallage.

Their tenure was the origin of the free socage, common in the 13th century, and now the prevailing tenure of land in England; for socmen held by a fixed money payment and by a fixed, though trivial, amount of base services which would ultimately disappear by commutation.

All socmen, as customary tenants, required the intervention of the steward of the manor in transfers or sales of their rights.

About 23,000 socmen appear in Domesday, of whom one-half were in Lincolnshire and the remainder mainly in the other Danish counties; but later records show them all over England living under the soke or jurisdiction of lords, paying rent and taking a nominal share in the cultivation of their manors. Some tenants *in capite* held of the king by free socage, but were scarcely socmen, while a few true socmen appear to have held considerable estates with villeins upon them. A few socmen, on the other hand, could not leave the manors in which they were settled, that is, could not sell their holdings.

An inquisition of the time of Edward I., now in the public record office, distinguishes the three classes of manorial tenants above the villeins as freeholders *per cartam;* freeholders who are called freesokemen; and socmen who are called MOLMEN (*q.v.*).

Two other varieties of socmen are found. Bond socmen, who appear to have differed from freesokemen only in the fact that they gave labour in lieu of rent; and villein socmen

or privileged villeins, on lands in ancient demesne, who were men free in blood holding land in villenage.

[Vinogradoff, *Villainage in England*; — *Chronicon Petroburgense*, Camden Soc., app. p. 159.] R. H.

SODEN, Friedrich Julius Heinrich Reichsgraf von (1754-1831) was born at Ansbach. He studied law at Erlangen and afterwards at Jena and Altdorf. He was employed in the department of justice in his native state until it, with Bayreuth, was given over to Prussia in 1792. Before this, in 1790, in consideration of his services, he had been made a count of the empire. He was a Prussian official till 1796, when from a divergence between his views and those of the government on German politics, he retired to his estates, and devoted himself for the rest of his life chiefly to dramatic authorship, to the patronage of the theatre and the creation or support of other public institutions, and to the study of political economy, which he took up by desire of Karl Friedrich of Baden. In 1825-27 he represented the circle of the Upper Main in the second chamber of the Bavarian diet.

Soden was a very prolific, as well as versatile, writer; his works fill eighty vols., dealing with a great variety of subjects. His principal work is his *National-Oekonomie*, 9 vols. 1805-24, which arose out of a review of Garve's translation of the *Wealth of Nations* which he had been requested to undertake. He is one of those who, when the principles of Adam Smith had been made known in Germany, adopting them in the main, sought either to present them in a more systematic form or by a critical revision to fix more exactly the fundamental conceptions of the science. Soden stands essentially on the basis of Smith's doctrine, which, however, he does not always represent correctly; he rejects the mercantilist views, and condemns prohibitions and high duties on imports or exports, but is not an unconditional advocate of the free-trade principle. He depreciates unduly the *Wealth of Nations* in regard to its form and style, speaking of it as utterly wanting in orderly arrangement, so as to be only a series of "precious fragments," and as marred by obscurity and ambiguity. He also censures Smith as not possessing a grasp of the whole subject, and as too narrowly English in his ideas. Cossa avenges Smith by describing Soden himself as "obscure, prolix, and inclined to merely verbal disputes."

[Gross in *Allg. Deutsche Biogr.* — Schmidt in *Handw. der Staatswissenschaften.* — Roscher in *Gesch. der N. O.*, p. 674. — Cossa, *Introd. allo studio dell' E. P.*, p. 322]. J. K. I.

SOETBEER, Adolph (1814-1892). Few German economists, or to be more exact, few German specialists, have enjoyed a greater reputation in foreign countries than Adolph Soetbeer. He was one of the first authorities on monetary questions and especially on the statistics of the precious metals to which subject exclusively he devoted the best years of his life.

Born in Hamburg, 23rd November 1814, the son of a prosperous merchant of that city, he studied at the universities of Berlin and Göttingen, taking his doctor's (Ph.D.) degree at Göttingen in 1837, having given special attention to philosophy and history. After his return to his native city he began studying the Hamburg customs' regulations, Hamburg being at that time a free Hanseatic city. It was the published results of this work that started Soetbeer in his career as an economist and brought him successively the offices of librarian (1840) and secretary (1843) of the Hamburg chamber of commerce. In these important positions he rendered great and well-recognised service to the cause of good statistics by his methods in the editorship of the statistical publications on Hamburg commerce. After the Frankfurt parliament in 1848, in which he took part, he was for a time connected with the Magdeburg chamber of commerce as "Kammerkonsulant" and later again in Hamburg. In 1872 he returned to Göttingen, where he lived quietly as honorary professor of the university, restricting his work and lectures to his special studies on monetary topics.

Undoubtedly Prof. Soetbeer was well versed in general economic literature, as may be inferred from the fact that he made a very satisfactory translation of John Stuart Mill's *Political Economy* with critical notes; but since 1846, when he published his *Denkschrift über Hamburgs Münzverhältnisse* (published in Hamburg 1846, but reprinted in numbers 13, 14, and 15 of the weekly supplements to the stock exchange list, Hamburg, 1850), he showed a decided and ever increasing interest for monetary studies, and it is in this line that he rendered the greatest service to the economic literature of his time.

He was always a gold monometallist. Where he lived and worked he saw most plainly the evils caused by the current silver coins, which lacked uniformity, throughout the various German states before their unification, and he knew well Germany's loss in the commercial world, due to her unfavourable position in foreign exchanges. He believed that Germany could compete with England in foreign commerce if she had as stable and sure a monetary system, and because England's coinage was on a gold basis Germany's must be also. To accomplish this was Soetbeer's dream long before the German coinage acts of 1871-73 became a possibility. Almost alone in the early battles, he fought for gold coinage when he had nearly all the powerful commercial and political forces against him, and he well deserved the name that was later given him,

"father of the German gold coinage." The success of his project once assured, after so many long and hard battles to obtain it, and later to maintain it, it is not to be expected that he would agree to any proposal to destroy the work he had done, even if changed conditions made its expediency doubtful. He therefore was among the first to call in question the results of the researches of the celebrated Vienna geologist, Eduard Suess, whose *Zukunft des Goldes* in 1877, with its gloomy predictions for the future of the production of gold, spread general alarm in economic circles. Yet Soetbeer knew better than many of his less liberal followers the evil effects of the continued fall in the value of silver. He gave every plan for attaining to a qualified restitution of its former purchasing power careful consideration, always, however, with the determination that no change should receive his approval which would disturb the single gold standard as a monetary basis. Shortly before his death he made suggestions to various conferences proposing plans by which silver should be given as large a place in the world's coinage as would be, according to his opinion, consistent with the maintenance of the single gold basis. He and Prof. Suess discussed, on the most friendly terms, all possible proposals to prevent the continued fall in the gold price of silver, though Soetbeer would never have agreed to Suess's suggestion of a single silver standard, nor did he have any faith in the soundness or possibility of the bimetallic solution.

Soetbeer's literary activity was really astonishing. His independent and noteworthy publications number over one hundred. Besides these he published much in newspapers and periodicals. A fairly complete list of his works is to be found with some biographical references in Schmidt's article on Soetbeer in Conrad's *Handwörterbuch der Staatswissenschaften* (bd. 5, p. 692, Jena, 1893). The most important are as follows:

1. *Materialien zur Erläuterung und Beurteilung der wirtschaftlichen Edelmetallverhältnisse und der Währungsfrage*, Berlin, 1885. Second and enlarged edition, Berlin, 1886. The second edition is translated into English and published in the appendix to the final report of the gold and silver commission, London, 1888, price 2s. 6d. Another English translation, made by Prof. Taussig of Harvard University, is to be found in the United States consular reports, special report, entitled *Bimetallism in Europe*, Washington, Dec. 1887. There is a French translation by Ringeisen, Nancy, 1889. 2. "Edelmetallgewinnung und Verwendung in den Jahren 1881-90." Conrad's *Jahrbücher*, folio 3, band 1, Jena, 1891. 3. *Edelmetallproduktion und Wertverhältniss zwischen Gold und Silber seit der Entdeckung Amerikas bis zur Gegenwart*. Gotha, 1879. 4. *Beiträge zur Geschichte des Geld- und Münzwesens in Deutschland*, 1-3 Abschnitt (*Forschungen zur deutschen Geschichte*, 1 und 2 bd.) Göttingen, 1861 and 1862, 4 Absch. same collection, vols. 3 and 4, Göttingen, 1864. 5. *Denkschrift betreffend die Einführung der Goldwährung in Deutschland mit besonderer Rücksicht auf die Hamburger Bankvaluta*, Hamburg, 1856. 6. *Andeutung in Bezug auf die vermehrte Goldproduktion und ihren Einfluss*, Hamburg, 1852. 7. *Zur Frage der deutschen Münzeinheit, mit besonderer Rücksicht auf die abweichenden Währungen in Hamburg und Bremen.* Printed as manuscript for the Heidelberg Handelstag, 1861. 8. "Bericht über die bevorstehende Münzreform; gegen die vorgeschlagene Doppelwährung. Der Uebergang zur Goldwährung" (Aufsätze in *Bremer Handelsblatt*, No. 899, 924-927), Bremen, 1869. See also a paper with similar title in proceedings of the twelfth congress of German economists held at Lübeck in 1871. Proceedings published, Berlin 1872. 9. "Die Wirkung der Silberentwerthung," Conrad's *Jahrbücher*, 1884, Jena. 10. *Deutsche Münzverfassung. Mit Erläuterungen versehen von Soetbeer.* This important collection of German monetary laws with Soetbeer's interesting notes and explanations, and an introduction of thirty-four pages, bears no date nor mark of place of publication (Erlangen, 1874-76) 11. *Litteraturnachweis über Geld- und Münzwesen*, Berlin, 1892. The most complete bibliography of monetary literature extant but less complete on the side of the English literature than on that of the German.

[See articles on INDEX NUMBERS; PRICES, HISTORY OF, 1850-1896; SILVER, DISCOVERIES OF; SOETBEER'S TABLE OF PRICES; TABULAR STANDARD.]

S. M'C. L.

SOETBEER'S TABLE OF PRICES. In the seventh part of Dr. Adolph SOETBEER's remarkable work entitled *Materials toward the Elucidation of the Economic Conditions affecting the Precious Metals and the Question of Standards*,[1] he has devoted a quarter of his book to a discussion of variations in general prices and in the purchasing power of gold. The work was prepared at the request of the Society for Preserving the Economic Interests of Trade and Manufactures, and is an impartial collection of statistical data rather than an argument for any particular view of the money question. Dr. Soetbeer's previous publications on the precious metals, dealing more particularly with the disputed statistics of the production of gold and silver, were characterised by such painstaking methods that his price statistics were accepted at once as authoritative guides in all subsequent discussions.

[1] *Materialien zur Erläuterung und Beurteilung der wirtschaftlichen Edelmetallverhältnisse und der Währungsfrage.* Herausgeg. vom Vorstande des Vereins zur Wahrung der wirtschaftlichen Interessen v. Handel und Gewerbe. Berlin, 1885, 4mo. "Zweite vervollständigte Ausgabe," Berlin, 1886. *Graphische Darstellungen in Bezug auf die Silberfrage.* Ausgearbeitet von H. Soetbeer, Berlin, 1886. An English translation of the second edition, together with the charts prepared by the son of Dr. Adolph Soetbeer, was made by Prof. F. W. Taussig, and published in the United States Consular Report, No. 87, for December 1887. Another translation into English has been published in the appendix to the final report of the royal commission appointed to inquire into the recent changes in the relative values of the precious metals, London, 1888. This translation does not include the charts.

The method by which the quotations were obtained gave these tables additional value. From 1847 to 1888 a statement giving the weight and quality of all goods brought into Hamburg by waggon, rail, or water, including sea and river traffic, was sent to the Hamburg bureau of commercial statistics. Opposite each entry was placed by the officials of the bureau the value of the article calculated from the market rate for that day as quoted on the commercial exchange. For articles for which no quotation was given on the day of entry the probable price was estimated in the absence of other data from the purchase price plus the cost of importation. Where more than one quotation was given for the same quality the average was taken. This method eliminated the usual objection to prices based on import values as given by the importer, as is customary at United States ports of entry, because in such cases the importer is often interested in making false returns. Over three hundred articles were quoted in the Hamburg tables for the several years, and the average price of each was given, based on the average for the year of the value per unit of measurement of all the importations, inland and foreign, calculated for the most part from the actual quotations of sales on the bourse on the day of each importation. Hamburg was, moreover, during this period an important market for all raw materials. It was also a free port without duties or differential taxes.

Dr. Soetbeer selected one hundred representative articles from the Hamburg statistics, choosing those whose prices could be best followed for the whole period 1847 to 1885-86. A percentage statement of the changes in five and ten year periods of the average prices of the hundred articles for the years 1851-1880, compared with the average price of the same articles for the four years 1847-50 was published by Soetbeer at first in Conrad's *Jahrbücher für Nationalökonomie und Statistik* in 1881, new series, vol. iii. In the *Materialien* these figures were changed slightly in order to meet certain criticisms and to make them generally available as a test of the movement in the purchasing power of the standard of value. Some articles of small importance were thrown out; other articles of great importance, but whose price data were not accessible from this source, for the whole period were added and their wholesale prices taken from the yearly accounts of large institutions at Hamburg. This was the case with meat, butter, eggs, and milk. Fourteen articles of British export and manufacture whose quotations were derived from British trade statistics were added, making in all 114 articles. In the first edition of the *Materialien*, the average prices were given only for five and ten year periods: in the second edition, however, the average price of each article for each year (1851-1885 inclusive) is quoted. The articles are grouped as follows:—

I. *Products of Agriculture.*—Wheat, wheat-flour, rye, rye-flour, oats, barley, malt, buckwheat, peas, beans, potatoes, hops, clover-seed, rape-seed, rape-seed oil, linseed oil, oil-cake, raw sugar, refined sugar, spirits from grain or potatoes. Total 20.

II. *Animal and Fish Products.*—Beef, veal, mutton, pork, milk, butter, cheese, tallow, lard, hides, calf-skins, leather, horse-hair, bristles, feathers, bone, ox-horns, mucilage, eggs, herring, cured-fish, fish oil. Total 22.

III. *Southern Products.*—Raisins, currants, almonds, prunes, olive oil, French wine (exclusive of champagne), champagne. Total 7.

IV. *Tropical Products.*—(Exclusive of cotton). Coffee, cocoa, tea, pepper, pimento, cassia, rice, sago, arrack, rum, tobacco, indigo, cochineal, logwood, red-wood, mahogany, cane, palm oil, ivory. Total 19.

V. *Minerals and Metals.*—Coal, pig-iron, bar-iron, steel, lead, zinc, tin, copper, quicksilver, sulphur (raw), saltpetre (raw, Chile), salt, lime, cement. Total 14.

VI. *Textile Materials.*—Cotton, wool, flax, hemp, silk, cordage, rags. Total 7.

VII. *Miscellaneous Articles.*—Guano, india-rubber, gutta-percha, rosin, potash (prussiate and chromate of), pitch, potash (carbonate of), soda, tallow candles, tar, wax. Total 11.

VIII. *Cotton Manufactures.*—(British manufactured articles of export). Cotton yarn, piece goods (plain), piece goods (printed), stockings and socks, thread for sewing, glass (common bottles), linen yarn, linen (plain), linen sail cloth and sails, woollen and worsted yarn, clothes, etc., flannels, etc., worsted stuffs, carpets, etc. Total 14.

In addition to the price quotations (in marks) for each article for each year, Dr. Soetbeer gave an index number (see INDEX NUMBERS) for the average yearly price of each article, and also for each group of articles. We reproduce here the group index numbers for five-year periods from 1851-1885, which show the percentage of variation for each group compared with the average prices for the group during the four year period 1847-50, which is taken as 100.

1847-50 =100	Group I.	Group II.	Group III.	Group IV.	Group V.	Group VI.	Group VII.	Group VIII.	Groups I-VIII.
1851-55	129·99	114·79	110·43	110·97	107·03	105·20	106·65	98·47	*112·22*
1856-60	131·84	132·31	134·72	122·61	113·59	107·12	108·21	102·41	*120·91*
1861-65	124·46	128·24	114·13	118·64	102·11	131·83	144·33	127·56	*123·59*
1866-70	137·74	136·35	121·54	118·32	95·47	129·17	105·90	130·55	*123·57*
1871-75	144·90	154·57	131·50	130·72	116·90	117·17	114·98	126·44	*133·29*
1876-80	138·12	146·76	138·91	126·38	94·35	102·33	96·79	111·70	*123·07*
1881-85	130·77	150·65	134·41	119·91	81·55	96·65	91·11	103·28	*117·68*

In the last column of the above table will be found the index number for all eight groups combined, covering 114 articles. Dr. Soetbeer has always laid much stress on the necessity of having a large number of articles in order to secure a safe method for measuring changes in the monetary standard. He regarded the twenty-two articles of the "Economist" as too limited a list. Many writers, on the other hand, object to a

large number of articles on the ground that it involves the assigning of too great importance to articles of which only small quantities, if any at all, enter into average consumption.

Dr. Soetbeer's figures can be continued from the same sources down to 1888, but in that year Hamburg joined the German customs union, and entry was made henceforth only of articles coming into Hamburg by sea. Therefore the figures for years since 1888 are not strictly comparable with those in the Soetbeer tables. Dr. Heinz, director of the Hamburg chamber of commerce, has estimated the corrections necessary to be made in order to use this material up to the year 1891; (see *U. S. Senate Report on Wholesale Prices*, 1893, vol. i. p. 258 ff.); but such estimates are necessarily unsatisfactory. Dr. Heinz has also revised the data for the years 1851-1888, so as to give the prices of about 180 articles based on the sea importations. This constitutes, however, a new series of prices for those years, because several of the articles included in the Soetbeer tables are not given in Dr. Heinz's list. His list is continued down to 1895 in the last report of Hamburg's *Handel und Schiffart* (1895), and will doubtless be given in subsequent reports (Dr. Heinz's tables are also given in Exhibit A, vol. i. of *U. S. Senate Report*, 1893).

In an article entitled "Veränderung im Niveau der allgemeinen Waarenpreise in den Jahren 1881-1889" (Conrad's *Jahrbücher*, neue folge, bd. 21, 1890), Dr. Soetbeer spoke less confidently of index numbers, and maintained that the number of articles is always too small. As the basis of this discussion he took the latest statistics of the German empire, giving the export and import value of goods for the whole German customs union since 1881 (published by Kaiserliches Statistisches Amt). The values are not those given in the invoices, nor those estimated at the time of entry as at Hamburg, but are calculated by a commission of experts in the leading lines of trade which is called together periodically to make reports to the bureau. Values were assigned to 933 articles by 39 experts (*Sachverständiger*) (see Band LX. *der Statistik der deutschen Reiches*). Soetbeer took the total value of the imports and exports for the year 1881, and deducted all duties paid on imports and bounties on exports, and compared the result with the total value of imports and exports similarly calculated for 1882 by placing the 1881 prices for the 1882 quantities. He found that the value of imports fell off 6·5 million marks or about 2 per cent, and that exports increased 23·2 million marks or about 7 per cent.

	Imports.	Exports.	Imports and Exports.
1881	100·0	100·0	100·0
1882	99·8	100·7	100 3
1883	98·2	98·5	98·4
1884	93·3	92·8	93·1
1885	85·8	85·8	85·8
1886	85·4	83·8	84·6
1887	85·5	83·5	84·5
1888	85·4	84·7	85·0
1889	88·6	87·2	87·9

Combining exports and imports, there was a net increase of 0·3 per cent, which amount, according to Soetbeer, is a fair measure of the change in the purchasing power of the standard of value. Adhering to the same method for the several years up to 1889, he got the results given above. Dr. Soetbeer in all his statistical work was extremely painstaking and eminently fair. Many students in all countries looked to him for reliable data concerning the production and consumption of the precious metals and the course of general prices, and still regret that no one has continued his work along the same lines, in the same comprehensive and thorough manner. S. M'C. L.

The place of Soetbeer's tables in England is practically taken by those of the *Economist* and of Mr. Sauerbeck, who by communicating his calculations to the public press every month, has done a great service to statistical enquiry.

SOFT MONEY. A term occasionally given to notes (paper money), whether issued by government or otherwise, especially applied to the "green-back" circulation of the United States. This was "first issued in 1862, in the amount of $150,000,000 (£30,000,000), as *a measure of resource*, the recognised alternative being the selling of government bonds below par in gold" (Prof. F. A. Walker, *Money*, 1878, p. 369). One issue followed another with great rapidity owing to the pressure of the civil war. In July 1864 the green-back currency was worth but 35 cents to the dollar, "but at least it maintained its currency as the general medium of exchange unimpaired from the moment when it was first issued, whether wisely or mistakenly, under the stress of war down to the moment when it was made equal in value to gold by the patience of the American people, and the courage and constancy of the present secretary of the treasury" (John Sherman, 1878).

[Prof. F. A. Walker, *Money, Trade, and Industry*, 1880, p. 201.]

SOKE. In the custumary of the manor and soke of Rothley (*Archæologia*, xlvii. 128), a soke is defined as *secta ad homagium in curia . . . secundum consuetudines regni;* and it is seen that free socmen, whose holdings were scattered all over the county, owed suit to the manorial court of Rothley. The same is apparent from the lists of suitors at the courts of the abbey of Ramsey given in full in the cartulary (i. 41-43). A soke was thus a jurisdiction over free tenants without as well as within a manor. It was derived in many cases from a royal grant, as for instance that of the *soka Fraunchewyl* mentioned in the Rot. Hundred., ii. 180; but in others it was a growth of which the origin cannot be traced (see SOKEMANEMOT). R. H.

SOKEMANEMOT. A manorial court attended by free sokemen mentioned in the *Rotuli*

Hundredorum, ii. 143. Possibly like the occurrence of *curia militum* and *curia villanorum*, it is a sign of a division of the two classes of tenants in the *halimot* into the so-called court baron and the customary court; but the matter is beset with difficulties.

[F. W. Maitland, *Select Pleas in Manorial Courts*, p. xx.—Vinogradoff, *Villainage in England*, p. 365.] R. H.

SOL. The standard of value in Peru.

A silver coin weighing 25 grammes of silver 900 fine, the equivalent of the peso or dollar of Chile, and also of the five franc piece. F. E. A.

SOLDO. A copper coin of Venice and Milan. Prior to the formation of the modern kingdom of Italy, the currency system of Venetian Lombardy was as follows:

5 centesimi . .	1 soldo austriaca
20 soldi or 100 centesimi	1 lira austriaca

Besides the copper soldi, the following gold and silver coins were at that time current:—

Gold—
- Sovrano (or 40 lire piece)
- Half-sovrano (or 20 lire piece)

Silver—
- Scudo (or 6 lire piece)
- Half scudo (or 3 lire piece)
- Lira austriaca
- Half lira (or 50 centesimi piece)
- Quarter lira (or 25 centesimi piece)

F. E. A.

SOLIDARITY. The word solidarity expresses the relations of mutual dependence existing between the individual members of one and the same whole. Thus, in biology we speak of the solidarity between the organs of the same body,—between the functions of the brain, for instance, and those of the heart. Thus also in jurisprudence there is said to be solidarity between persons responsible for the same debt. Solidarity may exist not only in the order of co-existence, but in the order of succession; thus, in history there is solidarity between the present and the past generation.

This theory of solidarity has for some years held an important place in sociology, economics, and philosophy—it has even become the motto of a new school which has gathered its adherents, by a rare coincidence, both among Christian socialists and positivist and evolutionist socialists (see bibliography). Auguste Comte exemplified the subject as "the connection of each to all others under many different aspects, so as to render the feeling of social solidarity extending to all time and in all places instinctively familiar" (*Discours sur l'esprit positif*). But long before him St. Paul, addressing not only the church but the whole human race, had uttered the noble sentence, "We all are members of one body"—a speech in itself the noblest illustration of the solidarity of the race of man.

The discovery by science of order, under very different aspects, has given examples how far these declarations are founded on fact, for instance, in political economy in the question of the division of labour. It is obvious, also, that the larger part of the great recent inventions—railways, telegraphs, telephones, and, above all, of modern journalism, tend to increase continually "these relations of mutual dependence" which exist between men, and make them vibrate throughout the universe in the community of the same emotions, causing economic and political crises to be as contagious as epidemics.

The "school of solidarity" believes that this growing interdependence of individuals and peoples is a harmonic law, and that the solution of the social question must be sought in the continual development of this solidarity, especially in co-operation in all its forms, since co-operation, with its motto "Each for all, and all for each," is only the practical application of solidarity. Some objections, however, may be made to this doctrine. At first it seems that solidarity appears as a simple *fact*, devoid of all moral value and often even opposed to our ideas of justice. For instance, nothing can appear more unjust than that solidarity which makes the innocent suffer for the guilty, and visits the sins of the fathers on the children, or that which binds the destiny of the bee to that of the drone, of the industrious to that of the parasite; and almost justifies the severe remark, "the only solidarity discoverable in the world is that of mutual exploitation." The reply to this is that, even as a simple fact, solidarity testifies to the unity of the human species, its common origin and its common destiny, and compels our attention to all that happens to our fellow-creatures, whether fortunate or not, since all that concerns them concerns us. Thus, the certainty of contagious disease obliges the rich to interest themselves in the question of dwellings for the poor, to construct workmen's houses, to impose laws with regard to unhealthy dwellings, etc. Again, the feeling of the solidarity of nations, from the point of view of their economic interests, is the principal check on war.

But solidarity will gain a high moral value when it is understood, accepted, and desired by men, when it becomes the basis of *duty*, and when men, instead of resigning themselves to it as to a fatality, endeavour to realise freely that "Moral good will then be the desire to be and to behave as members of a common humanity. Moral evil will then be the desire to isolate ourselves and to keep separate from the body of which we all are members" (C. Secrétan, *Civilisation et Croyance*). Now this is exactly the course of evolution; history shows us solidarity becoming free and voluntary, gradually separating itself from the "drift of circumstance." In primitive society solidarity reigns,—a solidarity imposed by the accidents of nature or of birth. For example, all the

members of the Roman *Gens*, or of the clan, were responsible for all offences committed or all debts contracted by one of them, and the inheritance of this was obligatory on the heir (see art. NECESSARII HEREDES). The necessity of contending with the Nile floods compels all the inhabitants of Egypt to solidarity in labour and cultivation. The struggle against natural forces obliges weak individuals to combine—"Nature commands either solidarity or death" (Metchnikoff, *Les Grands Fleuves Historiques*). But little by little, and in proportion as men become more powerful, the individuals incline to separate from the primitive collectivism:—in fact, as regards offences, each one now answers only for himself. Men would proceed rapidly to absolute individualism if the feeling of human solidarity did not fortunately stop this dispersion by bringing them back by means of the thousand forms of association and insurance under a bond of a voluntary solidarity similar in a degree to primitive solidarity, but as superior to it as liberty is superior to fatalism.

At this point this theory closely approaches that of Herbert Spencer, which consists in the progressive substitution of an industrial system resting on free contract for a military system depending on coercion, in other words, the substitution of spontaneous co-operation for obligatory co-operation. This school, however, differs from that of Herbert Spencer in the sense that it does not reject all state interference, but, on the contrary, regards the state as the highest form of social solidarity. It is true it has the defect of being coercive, but it can and ought to serve to develop in the people the feeling of solidarity, which remedies the defect and prepares the means for its realisation—for instance, the system of obligatory assurance in Germany. Also, it is almost needless to add that the school of solidarity, in opposition to the individualism of Spencer, or of the Manchester school, does not favour competition, but raises the device, "union for existence," against the phrase, "struggle for existence"; and "each for all"—against "everyone for himself."

[Auguste Comte, *Cours de Philosophie positive, passim*, especially vol. iv. (1839).—Leroux, *De l'Humanité* (bk. iv. "De la Solidarité.")—Littré, *August Comte*—Renaud, *La Solidarité* (école de Fourier).—Fouillée, *La Science Sociale Contemporaine*, 1880.—Schäffle, *Bau und Leben*, etc.—Spencer, *Sociology*.—Wundt, *Ethik, eine Untersuchung der Thatsachen und Gesetze des sittlichen Lebens*, 1886.—Secrétan, *La Civilisation et la Croyance*, 1887.—Metchnikoff, *La Civilisation et les Grands Fleuves Historiques*, 1889.—Marion, *La Solidarité Morale*, 1890.—Guyau, *Éducation, hérédité*, 1890 and *passim*.—Gide, "L'École nouvelle," in *Quatre Écoles d'Économie Sociale*, Geneva, 1890; "L'École de la Solidarité" in *Quatre Écoles d'Économie Sociale*, 1890.—Denis, inaugural lecture at the university of Brussels on *Socialisme*, 1892.—Durkheim, *De la Division du Travail Social*, 1893.—Pioger, *La Vie et la Pensée*, 1893.—Lecture on *Philosophie positive*, 1893.—Gide, *L'idée de la Solidarité en tout le programme économique* (pamphlet), 1890.—Recolin, *Solidaires*, 1894 (lectures).—Bersier, *Solidarité* (lectures).—Izoulet, *La Cité Moderne*, 1895. See also publications of Christian Social Union, esp. the *Economic Review*, arts. on C. KINGSLEY; F. D. MAURICE.] C. G.

SOLIDUS (or *nummus aureus solidus*), gold coin struck by Constantine, *c.* 312 A.D., 72 to the lb. or 70·2 grains fine, the same weight as the first denarii, milliarenses, and half folles, superseded the "aureus" of Julius ($\frac{1}{40}$ lb. or 126 grains), Nero (111 grains), Caracalla (101 grains), Diocletian (84 grains), etc.

As the aureus was modelled on the Persian DARIC, so modern gold coins are modelled on the solidus, and its divisions "semis" ($\frac{1}{2}$) and "triens" ($\frac{1}{3}$). Obverse, portrait of Caesar, later with saint; reverse, allegorical or later religious; exergue often stated weight thus lxxii. or thus OB.

In the east the weight was kept uniform, and it was the standard (*c.* 312-1453 A.D.); 1 solidus = in silver 12 milliarenses, or 24 siliquæ, in copper (*c.* 312-500) 288 folles or 5760 denarii, or (*c.* 870-1453), 288 obols ($\frac{1}{2}$ folles). As the bezant it circulated among traders from India to Portugal.

In the west (after *c.* 550) its weight was $\frac{1}{7}$th less and its value 21 siliquæ; or under the salic law 40 silver deniers. Under Pepin (755 A.D.), and for nearly 5 centuries afterwards, gold coins ceased and silver sous or solidi became the standard. Pepin fixed the values thus; 1 lb. silver (= 5055 grains) = 22 sous (compare siliquæ) = 264 deniers (compare folles); Charlemagne (801 A.D.) restored the Babylonian numbers, and enacted that 1 lb. silver = 5710 grains? = 20 sous = 240 deniers. In England in the 9th century 1 lb. silver (= 5400 grains) = 20 "scillings" (*i.e.* sous) = 240 pence (the only coin); and these weights and methods of reckoning were retained until gold coinage was effectively introduced in the 14th century; Henry VII. first coined the pound into a (gold) coin, and the shilling into a silver coin of that name, but these coins were coined as though money pound (£) meant about $\frac{1}{2}$ lb. silver. In France the money pound, as such, was never coined; in 1080 A.D. it = 1 marc (3777·3 grains) (4608 Paris grains) and soon afterwards was a mere figure of speech. "Sou" was also a figure of speech in the 13th century; and in 1258 and 1305 A.D., 1 marc = 58 gros tournois, and 1 g.t. = 1 nominal sou (1258), but 3 nominal sous $3\frac{3}{4}$ deniers (1305). Yet Frenchmen reckoned by livres, sous, and deniers after the Carolingian proportions down to 1789, when deniers had long ceased to be coined; and peasants still call the 19th century representative of the 13th century livre 20 sous. For similar reasons an Italian "lira" is still said to = 20 "soldi." Germany has repeated French history with considerable variations; thus *e.g.* (1) mark and *lb.* are never confused, and mark = 8 oz.; (2) the Rhenish system, 1 gulden = 60

kreuzer=240 pfennige largely displaced the Carolingian system; (3) the English system prevailed in Cologne, where a mark=3600 grains=160 pfennige; (4) the money of account often comes very near to actual coins; thus the (coin) gulden in the 16th century=75, 72, or 68, but never 60 kreuzer; (5) the threefold depreciation of the nominal schilling (or sou) occurred between the first half of the 14th instead of in the second half of the 13th century.

[Mommsen, *Geschichte des römischen Münzwesens* (1860), pt. viii.; Sabatier, *Description générale des Monnaies Byzantines* (1862), p. 51 (ancient). Ducange, *Glossarium ad Scriptores mediae et infimae Latinitatis*, ed. L. Favre (1886), s.v. "solidus" (mediæval); Vuitry, *Études sur le régime financier de la France avant la révolution de 1789* (1878), p. 422; new series (1883), i. 181, ii. 220; A. de Barthélemy, *Numismatique de la France* (1891), (French); C. F. Keary and R. S. Poole, *Catalogue of Coins in the British Museum*, vol. i. (1887), vol. ii. (1893), see introductions, (English); Lexis in *Handwörterbuch zur Staatswissenschaften* (1892), s.v. "Münzwesen" (German); Lexis and Keary also deal with the whole topic.] J. D. R.

SOLUTIO in Roman law is the discharge of an obligation by performance of that which is due under it. The performance may be made to the creditor either by the debtor himself or by any third person. E. A. W.

SONNENFELS, Joseph Reichsfreiherr von (1733-1817), was born at Nikolsburg in Moravia. His grandfather had been a Jewish Rabbi at Berlin; his father, a learned Semitic scholar, emigrated to Austria, became a Roman Catholic, and was ennobled by the name of Sonnenfels. The young man, in consequence of family difficulties, entered the army as a private soldier; but, when his father's circumstances improved, he commenced the study of jurisprudence at the university of Vienna in 1754. In 1763 he was appointed to the newly-created professorship of police and cameral science in that university. He held several high offices under Maria Theresa and Joseph II., and threw himself with ardour into the movement of intellectual *Aufklärung* and practical philanthropy which marked those reigns. In particular, he laboured earnestly for the improvement of the penal system, and the abolition of torture in Austria was largely due to his exertions. He was made a baron of the empire in 1804, and appears to have retained the confidence and favour of the court to the end of his life. He died at Vienna.

The principal work of Sonnenfels was *Grundsätze der Polizei, Handlung und Finanzwissenschaft*, 1763-67. His importance in the history of economics arises from the fact that this work became the official text-book of political science in the universities and lyceums of Austria (and of Hungary through the Latin translation of Beke), and continued to be in use during several decades of the present century. He was not an original thinker, nor much interested in the scientific analysis of phenomena; he was more occupied with practical precepts—with what, according to his conceptions, ought to be, than with what is. His doctrines represent an improved version of the mercantilist theory. He follows Justi's views in the main, giving them a more systematic basis, and carrying them out to all their consequences. He was also largely influenced by the "inimitable" Forbonnais, as he calls him. He emphasises still more strongly than the earlier members of his school the importance of a dense population regarding it as one of the highest objects of statesmanship to bring about by various devices. The lengths to which he and others went on this subject help to explain the counter-exaggerations of the Malthusians at a later period. It should, however, be observed that he also insists on the useful employment of the population, and casts this burden in the last resort on the state, which accordingly he regards as authorised, and indeed bound, to interfere in industrial life, directing the activity of the citizens into such lines as will be most conducive to the good of the whole community.

Sonnenfels published his collected works in ten vols. 1783-87; the first vol. of the series contains an autobiography.

[Muncker in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 533]. J. K. I.

SORCHIN was one of the items in the ancient revenues of the petty princes of Ireland. It was an exaction of [the equivalent of] meat and drink for one soldier for one day in each fortnight. C. A. H.

SOU, the name in colloquial French of the brass coin of 5 centimes, almost equivalent to and resembling an English halfpenny. Colloquially the expressions *pièce de dix sous, de vingt sous, de quarante sous*, and *de cent sous* are also often used for half a franc, 1 Franc, 2 franc and the Five Franc Piece.

In former times gold and silver *sous* existed, for instance the *solidi aurei* of 70½ grains coined under the Merovingian kings. The *solidus aureus* was divided into 40 *denarii*, and the *solidus argenteus* into 12; for further information see Guérard, *Prolégomènes du Polyptique d'Irminon*, Paris, 1844, pp. 114 *et seq.*, according to whom the *sou d'or* was relatively worth 90 francs (say £3:12s.). Pepin ceased coining gold, and introduced the silver "solidus." From the 12th century the French monetary system may be considered to have been based on the Livre, the lineal ancestor of the present franc, being either the *livre tournois* (coined in Tours) or the *livre parisis*, the latter one-fourth more valuable, but always a nominal money only used for accounts, both of them subdivided into 20 *sous* or *sols* of 12 *deniers*. One *sou parisis* was thus equal to 15 *deniers tournois*. For several centuries the *sous* have been simply copper coins; there was a general recoinage of *sous* in 1738, and severe penalties were enacted during the last century against the introduction of foreign copper coins—d'Avenel, *Histoire des Prix*, vol. i. p. 57.

note 1. Quite recently, 1st December 1896, a statute was again passed against the introduction and circulation of foreign *sous;* large quantities had been imported from such countries as Spain, Italy, Greece, the republic of Plata, etc., when the rate of exchange secured a considerable margin of profit to this operation, the type of coinage being the same as the type adopted in France since 1852. The amount of these foreign *sous* in circulation at the time when the law was passed was officially estimated at 13,000,000 of francs, say half a million sterling.

[See art. SOLIDUS]. E. Ca.

SOUS DE CLOCHE. French *sous* roughly coined at the time of the French REVOLUTION out of the metal derived from the bells of the churches destroyed or devastated at that time.

E. Ca.

SOUTH SEA COMPANY (SOUTH SEA BUBBLE). The war of the Spanish succession (1701-1713) involved the expenditure of large sums, and a number of navy, victualling, transport, and other debentures were afloat at a considerable discount and without any regular fund for their discharge, when, in 1711, Harley attempted to quiet the monied men and to restore public credit. It was determined by 9 Anne, c. 21, to incorporate the proprietors of those debts into a "Company of merchants of Great Britain trading to the South Seas and other parts of America, and for encouraging the Fishery." With the exception of the Portuguese and Dutch possessions, the company was granted the right of exclusive trade with the east side of America from the Orinoco to Tierra del Fuego, and also along the west, to a distance of not more than 300 leagues from the shore. Territory discovered within these limits was to be owned by the company under the crown, while power was given to the queen to direct that a stock of 20s. on every £100 of stock should be kept apart for the improvement of the fishery. To encourage the company to make settlements within the limits of their charter (8th September 1711), commercial powers and privileges, apart from any redemption of the fund, were granted in perpetuity by 10 Anne, c. 30. The stock soon rose, and preparations were made for the dispatch of a cargo in 1712, but the continuance of the war rendered this impossible.

By the Treaty of Utrecht (1713) between Great Britain and Spain, a grant was made to the queen and "to the company of her subjects appointed for the purpose," of the contract "el pacto de el assiento" (see ASSIENTO TREATY), for introducing negroes into Spanish America at the rate of 4800 annually for thirty years, and under the conditions previously enjoyed by the French Guinea Company (Koch and Schoell, ii. 125). Former assientists had been losers; and to guard against this, the company to whom the queen presented the contract was to be allowed to send to Spanish America annually for thirty years a ship of 500 tons; the king of Spain, however, reserved to himself one quarter of the profits on this ship and 5 per cent on the remainder. According to Macpherson (*Annals of Commerce*, iii. 33), "this sugarplumb of an annual trading ship . . . was too much clogged with difficulties to prove of any certain advantage," for the license for such ships was frequently suspended and the company's goods were constantly liable to seizure. A license for two additional ships to accompany the annual vessel was obtained and finally presented for the use of the company without a demand for a percentage. The ports open to the company were Panama, Portobello, Carthagena, Vera Cruz, Buenos Ayres, and Havana; inland sub-factories were also permitted, and their agents were to be found in Jamaica, at Cadiz, and Madrid. The first annual ship sailed in 1717, its tonnage having been fixed by an explanatory treaty at 650 tons, Spanish measure. The policy of paying off part of the national debt by incorporating it with the stock of successful companies was still popular, and the capital stock and yearly fund, augmented in 1714 to £10,000,000 (1 Geo. I. § 2, c. 21) was further increased in 1717 when the proprietors of certain short annuities, amounting to about £135,000 and having twenty-three years to run, were permitted to subscribe the residue into stock at the rate of eleven years purchase at 5 per cent (5 Geo. I. c. 19). A further development took place when, in 1719, the directors proposed to absorb the national debt by purchase or subscription. That portion which consisted of irredeemable, they desired to convert into redeemable funds: the various funds were then to be united in a single stock, and after seven years the interest on the debt was to be reduced from 5 per cent to 4 per cent. With the profits they hoped to start a sinking fund for the gradual extinction of the debt, while they offered the large sum of £7,567,000 for the debt. A bill to promote this scheme passed in 1720 (7 Geo. I. st. 1, c. 5). The support of the government, erroneous calculations as to the value of the South Sea trade, rumours of extraordinary profit, and the high price offered by the company, led the public to speculate wildly until the stock rose to £1000 for every £100 subscribed. The "bubble" then burst, bringing ruin not only to holders of South Sea stock, but to many others who had taken shares in the impossible speculations of the day. Walpole, who had always opposed the scheme, now came forward, and by his great financial ability gradually restored public credit. The directors were leniently dealt with, and their estates handed over towards the discharge of the company's liabilities; the payment

guaranteed to the public was remitted, and upon a division of stock among the proprietors a dividend of 33⅓ per cent was declared (Lecky, i. 326). In 1723 the capital was divided into (*a*) annuity and (*b*) trading stock, while in 1727 all debtors who had not repaid the sums borrowed in 1720 were discharged upon payment of 10 per cent of the loan. The company now turned its attention to the encouragement of the fishery. Twelve ships were built for the prosecution of the whale fishery, which had been entirely abandoned by the English, and the government, to further the scheme, repealed the duty on whale fins. But the eight voyages undertaken (1725-1732) were singularly unsuccessful, and in 1732 they sold off their ships and stores. Although their negro traffic with Spanish America, for which about thirty ships were employed, was encouraged by a license (from the E. I. Co.) to ship negroes from Madagascar to Buenos Ayres, their trade in general was precarious and unsuccessful, owing to the mismanagement of agents and the seizure of property upon slight provocation. Spain, in 1733, proposed as an equivalent for the annual ship, a return of 2 per cent on the flota and galleons during the remainder of the company's term (see GALEON). The question was discussed for several years, and though no steps were taken, no ship seems to have been dispatched after 1733 (*Macpherson*, iii. 199). The proprietors would probably have gained by the equivalent, but the profits of the illicit trade carried on by their servants was considered by many to be more valuable.

The high-handed measures taken by Spain to check this illicit trade, especially the enforcement of a right of search, led to war in 1739, and the trade was consequently interrupted for some years. By the Treaty of Aix-la-Chapelle, art. 16 (1748) the assiento was indeed renewed for the four years during which it had still to run, but it was soon seen that the execution of the clause was not to be permitted. War seemed imminent, but by the Treaty of Madrid (1750) England agreed, upon grant of compensation, to renounce the assiento and the annual ship (Koch and Schoell, ii. 438). Their trade with the Spanish West Indies being at an end, the company converted their trading stock into annuity stock, and practically ceased to be a trading company (A. Smith, bk. v. c. 1). It was not, however, until 1807 that their exclusive trading rights were formally lost (47 Geo. III. sess. 1, c. 23), when a guarantee fund for their indemnification was raised by the imposition of a 2 per cent *ad valorem* duty on certain commodities imported from within the limits formerly occupied by them until such time as the guarantee fund should be completed (55 Geo. III. c. 57).

[Macpherson, D., *Annals of Commerce* (1805). —Lecky, W. E. H., *History of England in the Eighteenth Century*.—Koch, C. G. de, and Schoell, F., *Histoire abrégée des traités de paix*, 1817.—Smith, A., *W. of N.*—M'Culloch, J. R., *Dictionary of Commerce and Commercial Navigation*.]

See BUBBLES, HISTORY OF; TAVEREEL; WALPOLE, Sir R.

E. A. M.

SOVEREIGN. English gold coin, first struck in the reign of Henry VII.

The following is a list of the several varieties of coins of this denomination issued since that time:—

Reign.	Year.	Rating.	Weight.	Fineness.	Value in gold 916·6 fine at £3 : 17 10½d. per oz.		
			grs.		£	s.	d.
Henry VII . .	1485	20/	256	994·8	2	5	1
,, VIII. . .	1527	22/6	240	994·8	2	2	3
,, VIII. . .	1543	20/	200	916·6	1	12	6
,, VIII. . .	1545	20/	192	916·6	1	11	2
Edward VI. . .	1549	20/	169·25	916·6	1	7	5
,, VI. . .	1550	24/	240	994·8	2	2	3
,, VI. . .	1551	30/	240	994·8	2	2	3
,, VI. . .	1551	20/	174·5	916·6	1	8	4
Mary . . .	1553	30/	240	994·8	2	2	3
Elizabeth . .	1558	20/	174·5	916·6	1	8	4
,, . . .	1601	20/	172	916·6	1	7	11¼
George III. and subsequently	1817	20/	123·27	916·6	1	0	0

From the reign of James I. to the beginning of that of Charles II. the principal gold coin was the UNITE; while from 1663 to 1816 the chief English gold coin was the guinea (see GUINEA). The sovereign, therefore, did not assume its present important position in the currency system of England until the passing of the coinage act of 1816, when this coin was adopted as the standard of the new gold currency, and became the "pound sterling" of gold in place of the former "pound sterling" of silver (see POUND STERLING).

F. E. A.

SOVEREIGNTY. A *sovereign state* is a state whose government, while receiving the habitual obedience of the bulk of its subjects, does not itself render habitual obedience to any human superior.

The *Sovereign* in an independent state is that person or body of persons which exercises supreme control, and is not legally bound to submit to the control of any other authority, internal or external. *Sovereignty* is the power of supreme control, possessed by the sovereign one or number. It has been divided into internal and external sovereignty. The former refers to the final and absolute determination of domestic affairs, the latter to a similar authority over dealings with foreign powers. The distinction is useful when we discuss those anomalous political communities which are said to possess "autonomy" under the suzerainty of some external ruler, by which is meant that the home government controls internal matters, but cannot settle the relations between the community and other states without the consent of the suzerain power. Sometimes only certain classes of foreign affairs are thus reserved; and such

cases are described by saying that the local rulers are deprived of a portion of the powers of external sovereignty. Another important distinction is drawn between legal and political sovereignty. Legal sovereignty is defined by Professor Dicey as "the power of law-making unrestricted by any legal limit"; while of political sovereignty he says, "that body is politically sovereign or supreme in a state the will of which is ultimately obeyed by the citizens of the state" (*Law of the Constitution*, Lect. II.). He illustrates his meaning by a reference to the British constitution, where we have in parliament a supreme legislative assembly, which can make or unmake any law, and has no legal authority above it to set it laws which it is bound to obey. But nevertheless this parliament, or rather the most important part of it, the House of Commons, must in the last resort conform to the will of the majority of the electorate, which has no power of itself to make laws, but can, at a general election, call into being a law-making body pledged to carry out its wishes. The definition of legal sovereignty just quoted might with advantage be enlarged so as to include administration as well as legislation. With this alteration in the statement of terms, the distinction we are considering is most valuable; but it does not apply to states which are living under autocratic rule. It would be absurd to speak of the Russian people as possessed of political sovereignty. Moreover in countries which live under a federal system of government, for instance the United States of America, it is very difficult to discover where the legal sovereignty is placed.

[See Austin, *Jurisprudence*, Lect. VI., London, 1869; Maine, *Early History of Institutions*, Lect. XII., London, 1875; Bluntschli, *Allgemeine Staatslehre*, bk. vii., Stuttgart, 1875; Dicey, *Law of the Constitution*, Lects. I.-IV., London, 1886]. T. J. L.

SPANISH SCHOOL OF POLITICAL ECONOMY. During the 16th, 17th, and 18th centuries, Spain produced a considerable number of writers on economic subjects, many of whom are quite worthy of attention, though in that fragmentary and empirical age, as it has been aptly called by Professor Cossa, they only dealt with the possible remedies against the frightful existing evils and abuses.

Ferdinand of Aragon and Isabella of Castile (1474-1516) had left Spain a united kingdom, with prosperous trades, arts, and agriculture, and with a currency restored on a sound and dependable basis. Their grandson, the emperor Charles V. who was king of Spain from 1516 to 1556, and after him Philip II. (1556-1598), strained the resources of the country by employing it as the instrument of their schemes of universal dominion. Under their successors, the four last kings of the Austrian dynasty, Spain became more and more an utterly exhausted and ruined kingdom ruled by a squandering, dishonest, and pompous court, encumbered with unpaid debts and painfully raising a bare hand-to-mouth subsistence by the most oppressive and often absurd fiscal exactions. The opening of the New World gave at first a wonderful impetus to the export of Spanish manufactures, but the enormous rise of prices caused by the abundance of American silver, which was experienced in Spain earlier than in the rest of Europe, and was intensified by the prohibition of the export of bullion, prevented the possibility of exchanges on the normal basis with the neighbouring nations. Simultaneously the final expulsion of the Moors and the legal disqualifications imposed on the descendants of converted Jews (*Marranos* and *Cristianos nuevos*), annihilated the only classes conversant with the successful cultivation of land and the working of the money-market. Besides the systematic debasement of the currency dating from the first years of the 17th century, the neglect of all public works; the stringent official and fiscal trammels (*Plateos y Tonelada*) imposed on intercourse with the colonies; a fitful economic policy, at one time striving to suppress foreign imports, at other times anxious to secure cheapness by favouring them and restricting exports; the taxation of corn; the privileges of the powerful association of owners of wandering sheep flocks (see MESTA; TRANSHUMANCE) preventing the extension of agriculture; the stringency of taxation, as the ALCAVALA and the MILLONES, levied on the daily sale and consumption of the necessaries of life; the terrible mismanagement of state MONOPOLIES—all concurred to turn the soil of Spain into wide and uninhabited wastes (*despoblados*), where, according to the Venetian ambassador Soranzo, "every thing was wanting and at inexpressibly high prices." The middle classes almost ceased to exist as an economic force. Foolish pride assisted in this; after 1505, every Castilian burgher and almost every mechanic was allowed to entail his property both real and personal, and became eager thus to raise his family to the rank of *hidalguia* (gentility), which conferred exemption from direct taxation, but debarred the possessor from all professions connected with trade and manufactures. In short, the whole drift of the legislation, especially for Castile, cannot be better summed up than in the words about Sicily used by Coleridge in his *Table Talk*: "You may learn the fundamental principles of political economy in a very compendious way by taking a short tour through Sicily and simply reversing in your mind every law, custom, and ordinance." Owing to their political and fiscal autonomy and privileges, as well as to their favourable situation on the sea-shore, Valencia, Catalonia and the Biscayan provinces alone more or less succeeded in keeping alive something of their former prosperity.

This short sketch enables us to realise what an ample field was opened for proposals of reform.

One class of writers may be dismissed summarily, namely the so-called *arbitristas* and *proyectistas*, or inventors and defenders of interested or foolish financial nostrums intended to fill the empty coffers of the royal treasury; Colmeiro devotes to them the last chapter of his economic history of Spain. But the more serious writers or *políticos*, as they are called in Spain, deserve to be noticed; almost all of them belonged to the secular or regular clergy, except during the 18th century, under the domination of the reforming kings of the Bourbon family, when they were recruited among the higher ranks of the civil service.

Although theoretically distinguishing between the intrinsic and the extrinsic value of money on the lines of AQUINAS,—MARIANA stands forward prominently as a firm upholder of monetary honesty; besides him, father Marquez, preacher to King Philip III. and professor of theology in the university of Salamanca, maintains the same principles in his *Gobernador cristiano* (1612), as well as Gonzalez de Ayala (*Discurso sobre la reduccion de la Moneda*, 1626), Cellorigo (*Memoriales sobre la política necesaria á la república de España*, 1600), Carranza (*El Ajustamiento de la Moneda*, 1629), DÁVILA Y LUGO, FAJARDO, and DORMER. Many of these express opinions akin to those of GRESHAM as to good money being driven out by bad, and also inveigh against the unwisdom of the nation which owned the silver and gold mines of Peru and Mexico in opposing the export of the precious metals. In the absence of satisfactory official returns, several contemporary writers endeavoured to ascertain the quantities of these metals imported into Spain; among these were Father Mercado (*Tratos de mercaderes*, 1569), Valle de la Cerda (*Desempeñod el patrinonio de S. M.*, 1618); MONCADA, NAVARRETE; Peñalosa (*Libro de las cinco Excelencias del Español*, 1629); Perez de Rocha (*Epítome político*, 1644), Mendo, (*Príncipe perfecto*, 1662), and Solorzano (*De Indiarum Jure*, 1672). In the 18th century, UZTARIZ adopted the calculations of Moncada and Navarrete, and continued them up to his own time (1724). During the second half of the same century, Salazar (*Restauracion política de España*) and at the beginning of ours, Canga Argüelles in his *Diccionario de Hacienda* (article "Caudales") have also attempted to solve this statistical problem.

The conquest and colonisation of the New World attracted thousands of Spanish adventurers, and everywhere complaints arose about the *despoblacion* resulting from this emigration towards the *bella retirada*, as America was called in the popular language of the day. These complaints are often echoed in the writings of the *políticos* such as MONCADA, NAVARRETE, and Peñalosa; generally, however, they point out the injurious influence of the European wars then being carried on, and of the progressive and continuous decay of trade and manufactures. In the 18th century, UZTARIZ and LARRUGA (vol. vii. of his *Memorias políticas y económicas*) steadily maintained that the depopulation of the country, which has perhaps been exaggerated, had for its principal and almost only cause the loss of its productive industries. On the closely related question of the expulsion of the remaining descendants of the Moors, it is worth mentioning that two *políticos*, themselves members of the clergy, NAVARRETE, royal chaplain and canon in Santiago in his *Conservacion de Monarquías* (*discurso vii*) and father Alonso Fernandez (*Historia de Plasencia*, bk. iii. ch. xxv.) boldly remonstrated against the sweeping though popular measures taken against these, perhaps disaffected, but industrious and useful subjects of the Spanish crown.

If population decreased, crowds were still left who, through necessity or disinclination to work, became professional beggars, and the question of the poor was permanently debated from the beginning of the 16th century. The humanist VIVES, whose treatise *De Subventione Pauperum* (1526), dedicated to the magistracy of Bruges in Flanders, inspired most of the legislation of Northern Europe, was a Spaniard by birth; in Spain itself a copious and special literature was constantly pouring forth from the days of GIGINTA, MEDINA, and HERRERA to those of UZTÁRIZ and even WARD. With differences as to the method of proceeding, there exists among them a general agreement that the law ought to coerce vagrants and idlers, whilst providing for those actually destitute. Moved by his theological zeal, the Dominican Soto, in his *Deliberatio in causa Pauperum* (1545), stood isolated in his protest that moving from one place to another and begging was a natural right, and that the state is not entitled to set up a distinction between *bona fide* and pretended poor, whatever may be their nationality.

As to foreign trade, STRUZZI and DORMER were the sole and unheeded champions of its liberty; to the very end of the 18th century all the leading writers belong to the mercantilist school, with, during the latter period, a loudly professed admiration for COLBERT. During the 16th century the national policy had fluctuated between the mediæval anxiety to secure plenty and the desire to favour native industry, but from the beginning of the 17th, MONCADA, Damián de OLIVARES, and Gracian Sarrano, showed themselves unflinching partisans of the most inflexible mercantilism; during the 18th, its principles were in the same uncompromising way defended by UZTÁRIZ and ULLOA and with more moderation by WARD, with this difference, however, that instead of repelling industrious and skilled foreign artisans, they proposed to attract

them by liberal and favourable treatment. Having travelled abroad, they had learned to prize the superiority of foreign countries. Notwithstanding this universal faith in mercantilism, a persistent and almost unanimous opposition was manifested against state interference with internal trade, and especially against the regulation of the price of corn. From the very commencement of the 17th century, Cellorigo, NAVARRETE, and MARTINEZ DE LA MATA strenuously attacked this last-named system, and showed its injurious influence. Still the internal corn trade only became free in the second half of the 18th century, thanks to the enlightened statesmen, FLORIDA BLANCA, CAMPOMANES, and JOVELLANOS, although the suppression of the old system had again been powerfully advocated some years before by Zabala in his *Representacion á Don Felipe V.* (1732).

From early times direct taxation had been comparatively light, but indirect taxation had continually become more oppressive and vexatious, and the idea naturally arose and spread that a great improvement would be effected if all these many and iniquitous taxes could be merged in one single and direct tax derived from the very fountain of wealth, namely land: under the pressure of circumstances, this favourite tenet of the French PHYSIOCRATS (see IMPÔT UNIQUE) was put forward in Spain almost a century before it was supported by the physiocrats themselves. Putting on one side some rather indefinite proposals as old as the reign of Philip II., Centani proclaimed in his *Tierras* (1671) that land being the only real and solid wealth, one single land-tax ought to supersede all existing taxes. Under the ministry of ENSENADA, about eighty years later, steps were taken to introduce this *Unica Contribucion*, and the necessary preliminary operations of survey and valuation of land were even effected, but this plan was afterwards abandoned. Urged by the same motives, but proceeding on other lines, Father Bautista DÁVILA (*q.v.*) had in 1651 extolled the advantages of a single and progressive poll-tax. The liberal Spanish statesmen and writers of the end of the 18th century, such as CAMPOMANES, JOVELLANOS, and others, placed more confidence in cautious and gradual reforms than in the promulgation of extreme theories or the introduction of radical innovations; their books and reports prepared the reform of the laws concerning the privileges of the *gremios* (crafts) and of the *Mesta*, and insisted on measures for the promotion of agriculture.

All the writers reviewed up to this point wrote under the spur of the existing circumstances, and excepting the mercantilists of the 18th century, without having undergone any foreign influence whatever. From the date of the translation of Adam SMITH into Spanish (by J. A. ORTIZ in 1794), opinions were entirely reversed, and Spanish economists as a rule strictly followed the guidance of Adam SMITH and of J. B. SAY, and later still of BASTIAT. Towards the end of the first quarter of the present century FLOREZ ESTRADA may be said to have acquired a distinct pre-eminence by his first-hand knowledge of James MILL and RICARDO. But he is the servile follower of no one, and never gives up his right of independent criticism, so that his *Curso de Economia Política* (1828-31—1841-48), despite the title of its French translation (*Cours Éclectique*), is not by any means the production of a shallow eclecticism. Half a century later the leading Spanish economists, such as Madrazo (*Lecciones de Ec. Pol.*, 1874-75) and Olozaga y Bustamente (*Tratado de Ec. Pol.*, 1885-86), may still be considered as a wing of the French liberal school, advocating free trade and the extension of the principle of *laissez-faire*. The celebrated economic historian, Colmeiro, whose *Tratado elemental de Ec. Pol. ecléctica* (1845) displayed a strong bias in favour of protection, reconsidered his views and took the opposite standpoint in his *Principios* (1859 and 1873), and in his valuable *Historia de la Ec. Pol. en España* (1863). The same strongly marked tendency prevails in Coll y Masadas (*Principios de Ec. Pol.*, 1872), and quite recently in Vidaurre y Orieta (*Economía Política*, 1892); this last work, developed on purely deductive and abstract lines, without the smallest tinge of induction, is remarkable from the amazingly long string of *natural laws* evolved by the author.

Notwithstanding this almost undeviating adherence to the doctrines of the French school, another tendency, already noticeable as a sort of undercurrent in Florez Estrada, comes out openly in the systems of some of the recent Spanish writers, namely the predominance given to the ethical aspects of economic problems. Although his distrust of state interference and his confidence in the unrestricted display of individual activities clearly separates him from the German *Kathedersozialisten* (see SOCIALISTS OF THE CHAIR), Carreras y Gonzalez, in his *Filosofía del Interés Personal* (1874), steadily insists on the difference between self-interest (*interés personal*) and selfishness, and Professor Piernas y Hurtado, in his *Estudios Económicos* (1889), proceeding further in this direction, maintains that pure *laissez-faire* is "mere physiocracy, nothing but physiocracy." Both keep their homage undivided between ethics and economics; and in Piernas there is also a distinct opinion expressed that economics have been led astray by abandoning the direction given and the method used by Adam Smith. Besides, for him there exist no such things as specific economic laws: laws described as such are simply universal laws considered in their

application to economic activities. A plea in favour of the relativity of economic phenomena will also be found in Rivas (*La Ec. Pol. de España*—meaning political economy for Spain,—1889) and in Conde (*Cuestiones agrárias en España*, 1889) who maintain that an economic policy ought to be primordially *national*. Nevertheless Spanish economics have not received any direct impulse from the contemporary German schools, and the influence of the latter, if felt at all, has reached Spain in completely indirect ways. Recent theories concerning marginal utility (see FINAL DEGREE OF UTILITY, and MARGIN) and VALUE also seem to be left, up to the present date, unnoticed beyond the Pyrenees.

If in the sphere of pure economics Spain does not stand high, it has not ceased to produce excellent works on financial, fiscal, and economic history. The first rank undoubtedly belongs to Colmeiro's *Historia de la Ec. Pol. en España*, 1863, which, carried to the close of the last century, is both a history of facts, institutions, and theories, presented in their historical connection. But before him, Canga Argüelles' *Diccionario de la Hacienda con aplicacion á España* (Spanish finance, 1826 and 1833), is also mainly historical; Capmany's *Memorias históricas sobre la marina y el comercio de Barcelona* (1779), and *Código de las costumas maritimas de Barcelona* (1791), and *Ordenanzas Navales* (1787), have afforded copious and interesting materials to foreign scholars; the same is also true of the works of Sempere and of the *Ilustraciones* (appendix) to Clemencin's *Elogio de la Reina Católica Isabel* (1807), which extend to the 15th and 16th centuries. On specialised subjects are to be noticed Pastor's *Historia de la Deuda Pública Española* (History of the public debt) (1863); Santillan's *Historia de los Bancos* (1865); Cardenas' *Historia de la Propiedad Territorial en España* (1873), and Iglesias, *Historia de la Beneficencia Pública en España* (1876). Besides its qualities of clearness and fulness, Piernas y Hurtado's *Tratado de Hacienda Pública*, 4th ed., 1891, must be mentioned for the historical *résumé* it gives of the development of Spanish taxation and finance from the Roman period up to 1875, vol. ii. (pp. 1-145).

[Excepting Sempere's *Biblioteca Economico-Política* (1801-1821), and Colmeiro's *Biblioteca de los Economistas Españoles* (1880), Spanish authorities are mentioned above. Out of Spain the economic history of the peninsula has been investigated by Forbonnais, *Mémoire sur le commerce et les finances de l'Espagne* (1753); de Bourgoing, *Tableau de l'Espagne* (1789, 1797, and 1807—the two first edit. anonymous); Ch. Weiss, *Des causes de la décadence du Commerce et de l'Industrie en Espagne* (Strasburg, 1839); Maurice Ansiaux, "Histoire économique de l'Espagne au XVIe et au XVIIe Siècles" (in the *Revue d'économie politique* of 1893); Konrad Haebler, *Die wirtschaftliche Blüte Spaniens im 16ten Jahrhundert*, 1888 (a vindication against Spanish historians of the economic policy of Charles V.); and Bonn's *Spaniens Niedergang während der Preisrevolution des 16. Jahrhunderts* (Stuttgart, 1896). Goury du Roslan's *Essai sur l'histoire économique de l'Espagne* (1889) stops with the middle ages; a clear picture of Spanish administration will be found in Gounon-Loubens, *Essais sur l'Administration de la Castille au XVIe Siècle*, 1860. See also Villars, *Mémoires de la Cour d'Espagne*, pp. 123, 167, and 185 (edition, Morel Fatio, Paris, 1893).

For modern Spain, books and articles in periodicals generally give very scanty information about the economic movement. Professor Max von Heckel has, however, traced its evolution in an article entitled *Zur Entwickelung und Lage der neuern staatswissenschaftlichen Literatur in Spanien*, inserted in the *Jahrbücher für Nationalökonomie* (vol. 21, new series), which, with the notices to be found in Cossa, *Introduction to the Study of Political Economy*, Eng. trans. by Dyer (Macmillan, 1893), is by far the most reliable and available source of information. See also Villeneuve Bargemont "De l'état actuel de l'économie politique en Espagne" (*Journal des économistes*, vol. vii. pp. 358 *et seq.*, 1844) and the transactions of the *Sociedad Económica de Madrid.*] E. CA.

SPECIALITY DEBT. A debt arising under a contract made by deed under seal (see CONTRACT, LAW OF) is called a "speciality debt." Whilst an ordinary contract debt is barred by the statute of limitations (see LIMITATION, STATUTES OF) after six years, a speciality debt becomes barred after the lapse of twenty years only. A speciality debt was formerly also entitled to certain privileges in the administration of the estate of a deceased debtor, but these privileges no longer exist.

E. S.

SPECIE. See MINT.

SPECIE POINT. See GOLD POINTS.

SPECIFIC PERFORMANCE. According to English law, the only remedy to which a party injured by a breach of contract is entitled is, as a general rule, an action for pecuniary damages. The courts of equity have, however, in certain exceptional cases in which damages were not considered a sufficient compensation, ordered the defaulting party to perform the act promised by him, which they were able to do owing to their peculiar power to enforce their orders by imprisonment. Specific performance can now, in a suitable case, be ordered by any court, but most actions for specific performance are still brought in the chancery division.

The most common instances of orders for specific performance occur in the case of contracts for the sale of land; contracts for the sale of chattels are not, as a general rule, specifically enforced, but exceptions have been made when the object sold was "unique" and

had a "pretium affectionis" over and above the market value. The case of the celebrated Pusey Horn (Pusey *v.* Pusey, 1 Vern. 273, cp. White and Tudor, Leading Cases, 454), is generally referred to as the leading authority on this point, though it did not arise in connection with the non-performance of a contract. Contracts for the sale of shares in companies are specifically enforced, as they relate to a subject matter which exists in limited numbers only, and cannot always be readily procured, but in the case of sales of public stock, damages are the only remedy. Contracts for personal services are not specifically enforced, but a promise *not* to give one's services to a third person during a certain time is specifically enforced by injunction (Lumley *v.* Wagner, 1 D., M. and G. 607).

The exercise of the jurisdiction relating to specific performance is subject to a number of conditions and restrictions which cannot be understood without being described in detail. It is sometimes stated by writers on the subject that the remedy of "specific performance" does not exist, or exists in an incomplete form only in systems of jurisprudence not influenced by English law, but this statement is based on misapprehension. As a matter of fact, the scope of specific performance is more restricted in English law than in the continental system of law.

[Fry on *Specific Performance*, 3rd ed. 1892; and see *Law Quarterly Review*, vol. viii. p. 250.]

E. S.

SPENCE, THOMAS (1750-1814), an English radical agitator and agrarian communist, was born at Newcastle-on-Tyne a short time before the American revolutionary war. The son of a shoemaker, he was educated for a school teacher. In a lawsuit respecting an enclosed common, it was decided that the rent of this land should be divided amongst all the freemen of Newcastle (see GILDS OF NEWCASTLE-UPON-TYNE). This led Spence to read, in 1775, before the philosophical society of his native town, a paper in which he argued that the rent of all land should be similarly dealt with. For printing this paper the society expelled him, and he removed to London and settled there as a bookseller. He edited from 1793 to 1795 a periodical entitled *Pigs' Meat, or Lessons for the Swinish Multitude*, which was made up of selected extracts from the writings of Priestley, GODWIN, SWIFT, D'Alembert, etc. He was several times prosecuted. He had a small body of followers, who, as appears from the reports of the committee of secrecy, were regarded as wild revolutionists, and excited an alarm quite out of proportion to their importance. On the appearance of OWEN, their principles seem to have passed for the time out of sight.

The doctrine of Spence consisted of a single thesis, which he preached with monotonous iteration in prose and verse. All his pamphlets are only variations on the first paper of which we have spoken, which was re-issued in 1796 with the title *The Meridian Sun of Liberty, or the whole rights of man displayed and most accurately defined, etc.*, republished 1882 by Mr. Hyndman. Every man, he holds, has a right to live, of which his social predecessors could not justly deprive him, and the individual occupation of the soil is a usurpation which later generations ought not to recognise. The soil belongs inalienably to the commune, which should let it and the buildings on it by public auction in small parcels every seventh year. The existing owners should be dispossessed, by force if necessary, and should receive no compensation, for the first occupiers were robbers and those who purchased from them are concealers who are as bad as the thieves. They have no claim on the score of capital invested in the land, for it is really the working classes who ought to be thanked for the improvements which have been made. Out of the rent payable to the commune, first its share of the general taxes, and next the entire local expenditure, should be defrayed, and then the residue divided in equal shares between all the men, women, and children in the commune, rich and poor, without distinction.

Spence was a man of very limited culture and a narrow range of ideas. Though he regards labour alone as the source of value, he confines his attack altogether to the proprietors of land, and ignores the conflict between the working man and the capitalist. The one practical measure which he all along had in view was the same as that which Mr. George has advocated; but in Spence's mind it rested, not on economic ideas, but on the sentiment of equality and the supposed rights of man.

His writings, which are now not often met with, were, in addition to the paper above mentioned—*The Rights of Man*, a poem, 1783; *The End of Oppression*, apparently 1795; *The rights of infants, or the imprescriptible right of mothers to such a share of the elements as is sufficient to suckle and bring up their young*, 1797; and *A receipt to make a Millennium or Happy World*, 1805. [Held's *Zwei Bücher zur socialen Geschichte Englands*, p. 110.—Anton Menger, *Recht auf den vollen Arbeitsertrag*, 2nd ed. 1891, pp. 143-146.]

J. K. I.

SPENCE, WILLIAM (1783-1860).

Was the author of the *Radical Cause of the Present Distresses of the West India Planters pointed out*, etc. 8vo, London, 1807, and of *Britain Independent of Commerce; or Proofs deduced from an Investigation into the true Causes of the Wealth of Nations, that our Riches, Prosperity, and Power are derived from Sources inherent in ourselves, and would not be affected even though our commerce were annihilated*, 8vo, London, 1807. M'CULLOCH, in his *Literature of Political Economy*, says of the former that it is a "well-reasoned and, indeed, unanswerable pamphlet," but of the latter he remarks that, "owing to the peculiar juncture of circumstances at the time, the nature of the statements put forth by Mr. Spence, and the little attention paid by the bulk of the people to such

subjects, which disposed them to lend a willing ear to the wildest paradoxes, this pamphlet met with a ready sale and went through several editions," and declares that it is an "exaggeration of the exploded errors of the economists." It called forth replies from James MILL (*q.v.* for the notice, in vol. ii., of his criticism of this pamphlet) and Colonel TORRENS.

SPENDINGS was an item in the ancient revenues of the petty princes of Ireland, and denoted an arbitrary imposition levied on extraordinary occasions. It was either the same as, or very similar to, TALLAGE. C. A. H.

SPOILS SYSTEM. The constitution of the United States vests the appointment of all federal officers in the president, subject to the right of congress to pass laws giving the power of filling up inferior offices to the courts of law or the heads of departments. This power of appointment was held to involve the power of dismissal also; and as a result all office-holders under the central government held their posts at the pleasure of the president for the time being, or of some ministerial chief. Moreover, acts of congress, the first of which was passed in 1820, fixed four years as the duration of about 4000 of the most important offices, and made the terms run out soon after each new president entered upon his duties.

In the early days of the national government there were no wholesale evictions. Washington and his immediate successors held that no one should be dismissed except for inefficiency or misconduct, and from 1789 to 1828 there were but seventy-three removals. But in 1829 President Jackson adopted the doctrine that "to the victors belong the spoils," and displaced large numbers of office-holders in order to fill their places with his own partisans. Other presidents followed in his steps, till the whole vast patronage of the federal government became the prize of the winning side in party warfare. The custom spread to state and municipal offices. The executive departments all over the union were filled with men whose first care was to secure victory for their party at the next elections, and whose salaries were almost invariably charged with a regular percentage for the replenishment of the party coffers. The system was defended on the ground of democratic equality. Rotation in office was elevated to the rank of a great political principle; and the danger to popular liberty from a permanent bureaucracy was constantly insisted upon. The "spoilsmen" had their own reasons for approval, and the rest of the community did not trouble themselves much about the matter. But after a time high-minded men began to revolt against methods which gave the nation inefficient service at a high cost, demoralised politics, and wasted the energy of the president, and those senators and representatives who recommended their supporters to him, upon the petty details of personal services rendered to their party. The writer of this article has himself seen, three months after the inauguration of a president, the room of his secretary of the treasury at Washington filled with applicants for office, waiting for an audience. At first the opposition to the system made little progress, and the early attempts to modify it were frustrated by interested politicians. But the corruption and inefficiency engendered by it became so glaring that public opinion ceased to tolerate them. In 1883 an act of congress was passed, which gave the president power to nominate civil service commissioners, whose duty it should be to institute competitive examinations of candidates for about 15,000 minor offices. This plan has worked well, and has been extended by subsequent legislation. The president can now by executive order add whole categories of offices to what is called the classified service. This power was largely used by Mr. Cleveland in 1896; and it is calculated that, out of about 130,000 posts in the national civil service, as many as 83,000 are at the present time won by merit and not by favour. Some of the more enlightened municipalities are beginning to apply the same method to the appointment and promotion of their officials.

It is quite possible that the United States, having long been behind Great Britain in the efficiency and purity of its civil services, may lead the way for the old country in a much-needed reform of those municipal and local services which are growing more numerous and more important every day with the growth of the functions of local government.

[See Bryce, *American Commonwealth*, ch. lxvi., London, 1895; and also the *Reports of the U.S. Civil Service Commissioners*, and the address of Mr. Carl Schurz at the annual meeting of the National Civil Service Reform League, held at Philadelphia in December 1896]. T. J. L.

SPRINGER, JOHANN (1727-1798), successively professor of political and cameralistic science in Erfurt; later an official in the financial administration of Darmstadt. He was one of the German PHYSIOCRATS, and even maintained that this system was actually applied in China 4000 years since (see Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 489, note 3).

He published *Grundriss der Cameralwissenschaft*, 1766.—*Die Grenzen der Kameral-Oeconomie- Finanz- und Polizeiwissenschaften in ihrer Verbindung*, 1767.—*Oeconomisch-kameralische Tabellen*, 1771.—*Das physiocratische System*, 1780. E. Ca.

STABILITY OF VALUE. See VALUE.

STAFFORD, WILLIAM. There was published at London in 1581 a treatise entitled "A compendious or briefe examination of certayne ordinary complaints of divers of our countrymen in these our dayes: which although they are in some part unjust and frivolous, yet are they all by way of dialogues thoroughly debated and discussed, By W. S., Gentleman."[1] The work is dedicated to Queen Elizabeth. The idea was entertained by some that "W. S." stood for William Shakspeare, and this supposition was put forward in the edition of 1751. But it was refuted by Farmer in his

[1] See also John Smith.

Learning of Shakespeare, who pointed out that Antony à Wood had attributed the work to one William Stafford of whom nothing is certainly known. Until of late he has continued to be regarded as the author.

Miss Elizabeth Lamond examined the extant MSS. of the treatise, and, in an article in the *English Historical Review* for April 1891, shows that it is extremely probable that it was written long before it was published—in fact, in the reign of Edward VI., that the author was John Hales, M.P. for Preston in 1548, and that W. S., whoever he may have been, dishonestly brought it out as his own, introducing changes to adapt it to the time of Elizabeth.

It takes the form of a series of dialogues between a merchant, a knight—representing the landowners, a husbandman, a capper—representative of the artisans, and a doctor of divinity. The last of these expresses the views of the author. He hears the complaints of the others respecting the economic evils of the period—the dearth (*i.e.* high price) of all things in comparison of the former age, "though there be scarceness of nothing"—the desolation of countries, *i.e.* depopulation of rural districts by inclosures and substitution, on a large scale, of sheep-farming for tillage (see articles on Depopulation)—the "desolation of towns for lack of occupations and crafts." The rise of prices is spoken of as affecting everything except corn, which, in consequence of the late large harvests, was cheap. Various causes are assigned for it—the debasing of the currency, the importation of base coin from abroad, the undue raising of the rent of land, the preference of foreign to home manufactures, and especially the fondness for foreign fripperies and follies. Most of these are shown by the doctor not to account for the facts, and in the end, and as has been truly said, "then almost unconsciously," he hits upon the true cause of the "dearth" so universally complained of, namely the influx of the precious metals from the American mines. The author, to use the words of Mr. Matthew, is "not a scientific economist; he is only a shrewd empiric," but his views on currency are sane, his miscellaneous observations are often acute, and he gives us indirectly much information concerning the England of Elizabeth.

The treatise was printed in vol. ix. of the *Harleian Miscellanies* (1808). The New Shakspere Society published, in 1876, an excellent edition of it, by F. J. Furnivall, with an Introduction by F. D. Matthew. J. K. I.

Dr. Furnivall urges that W. S. cannot stand for the William Stafford who was concerned in a rebellion in 1587. Dr. Leser, in his introduction to the German translation (*Sammlung älterer u. neuerer staatswirthschaftslicher Schriften*, No. 5, 1895), argues that a Stafford, who was surveyor to the bishop of Norwich and is mentioned in the *Calendar of State Papers*, Domestic, 1578, p. 551, may have been the author, but there is little evidence in support of this suggestion. In the introduction by Dr. Cunningham to Miss Lamond's edition, which was published under the title *A Discourse of the Common Weal* (Camb. Univ. Press, 1893) it is suggested that no great weight need be attached to Anthony à Wood's assertion (*Fasti Oxon.*, pt. 1, col. 378) that the author's name was Stafford, and an attempt is made to set up a claim on behalf of William Smyth, the nephew of Sir Thomas Smyth.

STAIR, John Dalrymple, fifth earl of (died 1789), became a member of the faculty of advocates in 1741, succeeded to the earldom in 1762, and from 1771-74 was one of the representative Scottish peers in parliament.

He was the author of several despondent tracts on the financial position of England at the close of the American war and in the following years, attempting to prove by figures that the national resources were unequal to the support of the war, that ruin must follow the secession of the colonies, and that the annual revenue could never average more than £12,000,000, while the ordinary peace expenditure, including interest on the debt, amounted to £15,000,000 or even £16,000,000. He depreciated the taxable capacity of the nation, and its probable progress after the conclusion of peace. According to Horace Walpole he was called the Cassandra of the nation.

His gloomy forecasts were refuted at the time by Sir John Sinclair (*q.v.*) in his *Hints on the State of our Finances*.

The pamphlets are entitled: *The State of the National Debt, the National Income, and the National Expenditure*, 1776; *Facts and their Consequences*, 1782; *State of the Public Debts*, 1783 (the last two went through several editions). *An Attempt to balance the Income and Expenditure of the State*, 1783; *An Argument that it is the Indispensible Duty of the Creditors of the Public to insist that Government do forthwith bring forward the State of the Nation*, 1783; *Comparative State of the Public Revenues for 1783 and 1784*, published 1785.

[M'Culloch, *Literature of Pol. Economy.*—*Memoirs of Sir J. Sinclair*, vol. i. p. 102-105.—G. E. C., *Peerage of England, Scotland, Ireland, etc.*] E. G. P.

STAMP DUTIES, properly so termed, are duties charged on documents and writings having a legal operation or forming necessary steps in suits in the law courts. These duties are collected by means of stamps impressed on, or affixed to, the instruments. Among stamp duties, however, were formerly included, mainly for administrative purposes, several taxes on articles of consumption (*e.g.* hats, gloves), which taxes, though collected by means of stamps, were in their essence excise duties. The present stamp duties on medicines and playing cards are of this latter description. On the other hand, postage and fee stamps do not represent duties at all, but are used as the simplest method of paying the charges of government

for particular services rendered. For administrative purposes stamps are used to denote the fixed death duties of 30s. and 50s., payable in respect of small estates.

Stamp duties were first imposed in England in 1694. They were introduced from Holland, in which country they had been adopted in 1624 at the suggestion of a private individual in response to a proclamation of the states-general offering, at a time of dire necessity, a reward for the invention of a new tax. The first English duties were *fixed* charges of 40s., 5s., 2s. 6d., 1s., 6d., and 1d, according to the class in which the instruments made liable by the act (5 & 6 W. and M. c. 21), were placed. The duties were charged for every skin, or piece of parchment or paper, upon which the instrument was written, and in order to prevent any curtailment of length with a view to avoid payment, all deeds and writings were required to be engrossed and written in the manner theretofore customary. The duty was consequently, to a certain extent, a tax on the amount of paper used. With exceptions as regards a few instruments, this was the governing principle of the various stamp acts passed subsequently down to the year 1797, when Pitt, acting in conformity with Adam Smith's opinion (*Wealth of Nations*, bk. v. ch. ii. pt. ii., appendix to articles 1 and 2), that stamp duties should be charged by reference to the magnitude of the transaction evidenced by the document rather than to the number of words used, applied the *ad valorem* principle to bonds, and proposed it without success for transfers of property, which continued till 1808 to be charged according to length. By 1815 *ad valorem* duties had become general, but the scales were arbitrary and jumping, with maximum charges for transactions over a certain amount. This defect in principle was not remedied till 1850, when *percentage* duties on bonds, conveyances, mortgages, and settlements, were substituted for the unsatisfactory scales hitherto existing. The last important step was one apparently backward, opposed to the *ad valorem* principle. In 1853, Gladstone, applying the principle of the penny postage system, imposed a fixed duty of 1d. on receipts in place of a scale with charges ranging from 3d. to 10s., and allowed an adhesive stamp to be used. The change being popular and productive, other penny duties were subsequently imposed, the principle being to tax everyday transactions at the lowest possible rate in the manner most convenient to the tax-payer.

The stamp duties now in force in the United Kingdom are those imposed by several acts now consolidated in the Stamp Act 1891. They fall broadly under four heads:—

(1) *Ad valorem* duties on bills of exchange and promissory notes.
(2) *Ad valorem* duties on transactions relating to property, *i.e.* sales, settlements of money, leases, and securities for money.
(3) Penny duties on receipts, cheques, etc.
(4) Fixed duties on deeds and instruments not before mentioned.

The liability to duty extends to all instruments of the descriptions specified which are executed in the United Kingdom, or relate, wheresoever executed, to any property situate, or to any matter or thing done or to be done, in the United Kingdom. The stamping of instruments is enforced by the general provision that, unless duly stamped, they shall not, except in criminal proceedings, be given in evidence or be available for any purpose whatever. In certain cases also personal penalties (to be sued for and recovered in the high court) are incurred by the omission to stamp. If an instrument is not stamped within a limited time, thirty days generally, after execution, it can only be stamped subsequently on payment of a penalty, £10 generally, which penalty the commissioners have power to mitigate or remit. But there are certain instruments (*e.g.* inland bills of exchange) which by law cannot be stamped after execution, and which are, therefore, void for all purposes if unstamped. The duties are placed, by the Stamp Duties Management Act 1891, under the care and management of the commissioners of inland revenue, who supply the stamps through stamp offices, post offices, and licensed vendors (Dowell's *History of Taxation, etc.*, 2nd ed. vol. iii. pt. ii.—Alpe's *Law of Stamp Duties*, 5th ed., 1896).

The net receipt of stamp duties in the United Kingdom in the year ended 31st March 1906, was as follows:—

Bills of exchange, bankers' notes, and composition for duty on bills and notes	£892,565
Companies capital duty and loan capital duty	449,440
Deeds, bonds, contract notes, foreign certificates, and share warrants	4,345,293
Licenses, certificates, and cards	197,876
Life and marine insurances	318,986
Patent medicines	324,112
Receipts, drafts, and other penny stamps	1,624,720
	£8,152,992

(*Statistical Abstract for the United Kingdom*, 53rd number, p. 13.)

"Stamp duties, if moderate in amount, imposed by clear enactments, and accompanied by reasonable facilities for obtaining the requisite stamps, are an easy method of revenue. To regard them from the tax-payer's point of view: He pays the smaller contributions without effort, while he considers any *ad valorem* payment as, prac-

tically, part and parcel of the transaction to which the instrument liable to duty refers, to the expense of which the duty forms a hardly appreciable addition. To regard them from a revenue point of view—The tax is easy to collect, and the cost of collection is small, consisting principally of the trifling expenses of dies and plates, and payments to agents for distribution of the stamps. . . . The practical advantages which stamp duties possess have induced the adoption of this mode of taxation, in one form or another, in many countries, including France, Russia, Austria, Prussia, Italy, Spain . . . Belgium, Holland . . . some of the cantons of Switzerland, India, and several of our colonies" (Dowell's *History and Explanation of the Stamp Duties* (1873), p. 124). In France a considerable revenue, 177,568,500 francs (£7,102,740), in 1896, is obtained from stamp duties on instruments, the charges being to a small extent proportional, but mainly non-proportional, the latter category including duties payable according to the dimensions of the paper used. (For statistics for the years 1800-1892, see *Bulletin de Statistique;* July to December 1893, pp. 55-85). In Germany there are imperial stamp duties at proportional rates on securities, contracts, and lotteries, the produce in 1895-1896 being 55,036,000 marks (£2,801,800) (*Statistisches Jahrbuch für das Deutsche Reich*, 1897, p. 178). For the new Prussian stamp duties (law of 31st July 1895) see *Bulletin de Statistique*, July to December 1895, pp. 381, 513). In the United States the stamp duties (proportional for bills, conveyances, leases, mortgages, and probates) charged during the civil war on various legal and commercial instruments have been repealed, but since 1868 stamps have been used for the collection of substantially the whole of the internal revenues, the duties on tobacco, malt, liquors, spirits, and licenses being paid in this way. (*Taxation and Taxes in the United States under the Internal Revenue System*, Howe, 1896.—*United States Internal Revenue Tax System*, Eldridge, 1895). F. A.

STAMPS. See STAMP DUTIES.

STANDARD GOLD AND SILVER. See also ALLOY. The standard of fineness for gold in the United Kingdom is $\frac{11}{12}$ fine, or 916·6 (quoted also as 22 carats, *i.e.* $\frac{22}{24}$), and has remained unaltered for more than two centuries. When gold coins were first introduced by Henry III. in 1257, they were made of fine gold; and, a few years later (1265) with $\frac{1}{132}$ part of alloy. In the time of Henry VIII. some gold was coined at 20 carats ($\frac{20}{24}$ fine), but gold crowns were struck $\frac{11}{12}$ fine, which was made the sole standard in the reign of Charles II.

Standard silver is $\frac{37}{40}$ fine, or 925, *i.e.* 11 oz. 2 dwts. fine, and 18 dwts. of alloy; and assays are reported at so many pennyweights, "better" or "worse." This has been the standard since at least the time of Edward I., with the exception of from 1532 to 1552, when the coin was very much debased, even as low as 3 oz. fine to 9 oz. alloy. In 1552 the standard was raised to 11 oz. 1 dwt. fine, and in 1558 was restored to its present proportions.

In most countries the standard is $\frac{9}{10}$ fine both for gold and silver coins of unlimited tender, with a lower standard for the subsidiary coinage.

The details are as follows:—

	Gold.	Silver.	Subsidiary silver coins.
United Kingdom	916·6	925	925
British India	916·6	916·6	..
Portugal	916·6	916·6	..
Uruguay	917	900.	900
Holland	900	945	640
United States	900	900	900
Germany	900	900	900
Chili	916·6	835	900
France, and Latin Union [1]	900	900	835
Austria	900	900	835
Spain	900	900	835
Japan	900	900	800
Russia	900	900	500
Denmark and Scandinavian Union [2]	900	800	600 and 400
Mexico	875	902·7	902·7
Egypt	875	833·3	833·3

R. W. B.

STANDARD OF COMFORT. See COMFORT, STANDARD OF.

STANDARD OF VALUE. This subject will be more particularly dealt with under the heading of VALUE. In this place reference will mainly be made to the choice of a material which shall be available as a medium of exchange and shall provide a fixed and unchangeable standard for contracts extending over long periods of time. It is by no means a matter of necessity that the medium of exchange should be this standard of value, though it is a matter of convenience that it should be so. As it is impossible to find a commodity in which the two requisite qualities are combined we have to content ourselves with trying to get all possible stability as a measure of value in the recognised and authorised medium of exchange.

In practice no commodity whatever has yet been discovered which completely satisfies this demand. Gold and silver were chosen for the purpose even before the dawn of history, yet, to use the words of Ricardo, "Neither gold . . . nor any other commodity can ever be a perfect measure of value for all things," while but little practical inconvenience has been felt from gold and silver being the general medium in which the value of all other things is estimated. Though undoubtedly these form a variable measure of value, there are probably no commodities subject to fewer variations, and these have been spread over a period of many years, a circumstance which has greatly diminished the inconvenience arising.

At the present time (1898) in all the principal countries and commercial centres of the civilised world, gold is the sole standard of

[1] France, Italy, Belgium, Switzerland, and Greece.
[2] Denmark, Sweden, and Norway.

value. A gold coin, the sovereign or pound sterling, is the recognised embodiment of the standard in the United Kingdom for all business purposes.

This suffices for present wants. For historical purposes in all comparisons of values made over long periods it is usual to take as the "standard of value" something other than the common means of exchange, to seek to allow, in fact, for the variations in the value of money by estimate of the price of corn, the quantity of wheat which the usual day's wages of an ordinary working man will purchase, etc.

It is thus sought to obtain a measure of the variableness of the value of money, and for that purpose to set up some "standard of value" as a reference standard which shall itself be invariable.

Such invariability is impossible of achievement, impossible even of conception, if we require the same standard to be invariable for all persons and all times. The impossibility arises out of the human element of value, from the fact that value has reference not to a property inherent in a commodity, but to the estimate by a person of the desirability of the possession of the commodity.

As in the nearly analogous case of INTRINSIC VALUE (*q.v.*), the position of the standard of value depends on circumstances extraneous to itself.

STANDARD RATE (OF WAGES). The insistence on payment according to some definite standard, uniform in its application, is the most universal of TRADE UNION regulations.

The most rudimentary forms of combination, such for instance as the "shop bargain" in an unorganised trade, require that all workmen shall receive the rate fixed for the particular job. The organised union, whether local or national, requires that all its members in the town or district shall be remunerated for their effort according to a fixed standard rate of payment. The standard rate is never a maximum but only a minimum. Thus the London Central Master Builders' Association and the Friendly Society of Operative Stonemasons agree that the minimum wage of able-bodied masons shall be tenpence per hour. This, however, does not hinder any individual stonemason from receiving more if his employer thinks his character and skill justify a higher rate. Thus, again, the "log" settled between the Amalgamated Society of Tailors and the local Master-Tailors' Association fixes the payment for making each kind of garment in any particular town, but many master-tailors will be paying their workmen much higher rates. We are aware of no case of members of a trade union being prevented or discouraged by their union from receiving higher rates than those decided on for the whole body as the general standard.

A considerable equality of rates results from the existence of this standard, notwithstanding that it is a minimum and not a maximum. It is observed, and no doubt correctly, by employers that the being compelled to pay each man at least a certain fixed minimum rate must lead to a more uniform rate than would otherwise prevail, and hinders the system of graduating the rate "according to merit." This result cannot be proved to be inevitable by any deductive argument except that which asserts the existence of a fixed and unalterable "wage fund." The "rent of ability" may always be obtained, in theory, by any workman above the class considered by the employer as the worst, this being merely the equivalent of his superiority, whatever arrangements the employer makes with the workmen below the average. No fair-minded trade unionist however would deny that for all competent workmen the minimum rate tends to become a uniform rate. When the employer gives up his right to take full advantage of the necessities of the individual workman, he expects that other workmen, though they may be in a position to exact better terms, will submit to the standard rate collectively agreed to for them by representatives of the whole body.

This result has been denounced as paying "bad and lazy workmen as highly as those who are skilled and industrious"; setting a premium on idleness and incapacity, "destructive to the legitimate ambition of industry and merit," and as being, that "worst kind of communism," an equal remuneration of all men. Such criticisms confuse the rate of payment with the amount actually earned. A standard "rate" of payment for the work actually performed is a necessary condition of collective bargaining. But this in no way interferes with workmen's receiving pay most widely differing in amount. Thus the standard rate insisted on by most trade unionists is not any definite sum per hour, but a list of piece-work prices.

It is seldom realised how largely these piece-work lists extend over the country. In countless trades, such as basketmakers, boot-makers, brushmakers, compositors, coopers, tailors, etc., there are lists of prices dating from the beginning of the century, revised from time to time and signed by both employers and employed. These are but little known even by those who have heard of the elaborate tonnage rates of the ironworkers, steel-smelters, and miners, and the complicated cotton lists, which together determine the wages of a third of the trade union world. And since, in all the above-mentioned trades, the standard rate is drawn up in the form of a schedule of piece-work prices, there can be no question of equal earnings.

Nor does the standard rate imply any equality of wages in industries in which it is a definite wage per hour, and not per piece.

The weekly pay of the workmen in these trades will be found to be very different even when they have worked the same length of time. For instance, a uniform rate per hour is paid for ordinary bricklaying, masonry, and plumbing, but it is to the advantage of the employer to pay a higher rate to any man engaged in work demanding special capacity—a course warmly supported by the trade union. Thus a rate from ten to fifty per cent over the standard is paid for such jobs as brick-cutting or "gauge work," furnace-building, or sewer construction, with the result that the superior bricklayer seldom works at the standard rate. In other trades the superior workman has the advantage of working under more agreeable conditions. In the case of a large building, the best stonemasons are appointed to do the carving, an occupation admitting some personal liberty and not needing great muscular exertion, whilst the ordinary workmen are setting stones under incessant supervision. Heavy mechanical tasks, such as laying down flooring, are given to the rough carpentering hands, leaving the superior workman to perform in the workshop the fine work combining variety and lightness when they are not earning extra rates for "staircasing" and "handrailing."

In short, the difference in the efforts and sacrifices actually made may be great, and therefore the rate of remuneration may be very different though the actual number of shillings received by the men at the end of the week are the same.

The standard rates which at the present time govern industries in the United Kingdom are of every degree of complexity, and include every form of "time" and "piece-work" wages.

If all the trade unions in the United Kingdom having over 1000 members, those of unskilled labourers and transport workers excepted, are classified according to the method of renumeration they enforce, we find there are 49 societies with 573,000 members which actually insist upon piece-work, 24 societies with 140,000 members which willingly accept in various departments both piece and time-work, and 38 societies with 290,000 members which insist upon time-work.

This divergence of view arises exclusively from the character of the operations performed. In those trades where piece-work is consistent with collective bargaining, that is, where the work is of such a nature that a standard list of prices can be compiled and is adhered to by the employers, the trade unionist willingly accepts or even actually enforces piece-work. Where, on the other hand, the work varies from job to job, and from man to man, a standard list is impossible, and piece-work becomes merely a reversion to the individual bargain, the trade unionists strenuously insist upon time-work rates. What they are aiming at in the one case as in the other is uniformity in the *rate* of remuneration for the work actually done. In some industries this can be maintained only by insisting on time wages. In others, covering, as it happens, a far larger number of organised workmen, time wages would produce just the opposite result, and the trade unionists accordingly insist with equal determination on payment by the piece.

[See *Industrial Democracy* by Sidney and Beatrice Webb (Longmans, London, 1902).—Reports of the Labour Department of the Board of Trade on Wages and Hours of Labour, 1894, pt. ii. (c. 7567, i.), "Standard Piece Rates," and pt. iii. (c. 7567, ii.), "Standard Time Rates"; also *Methods of Industrial Remuneration*, by D. F. Schloss (Williams and Norgate, London, 1898).—*The History of Trade Unionism*, by Sidney and Beatrice Webb (Longmans, 1902); and especially for a description of the experience of an exceptionally able employer, the *Life of William Denny*, by A. B. Bruce (London, 1889) and art. on W. DENNY.] S. and B. W.

STANDARDS, WARDEN OF THE. By the Standards of Weights, Measures, and Coinage Act 1866, the custody of the imperial standards of weights and measures was transferred from the office of the exchequer to the board of trade. For the purposes of the act a new department of the board was constituted, the head of which was styled the warden of the standards. It was his duty (1) to conduct comparisons, verifications, and operations with reference to the standards in aid of scientific research or otherwise when authorised or directed by the board, (2) to make an annual report to the board on the proceedings and business of the department to be laid before both Houses of Parliament.

The act was repealed by the Weights and Measures Act 1878, which declared that the board of trade should have all powers and perform all duties relative to the standards vested in or imposed upon the warden of the standards by the act of 1866 or otherwise. G. I. T.

STANNARIES. The name "stannaries" (*stannum*, tin) is an ancient legal designation embracing the whole of the tin mines of Devon and Cornwall. The mining industry being of pre-historic antiquity, was from very early times prosecuted in accordance with a code of customs which are described as "ancient" by the Black Book of the Exchequer of 1198. These customs were consolidated and enlarged by a charter of Edward I. (1305), which formed a precedent for other later mining charters. Labour was attracted to the mines by the privilege of enfranchisement granted to escaped serfs. Courts were established for the settlement of questions affecting their interests, with the exceptions customary in these local franchises of life, limb, and land. The connection of the stannaries with the princes of Wales began with a grant of 1337, which entitled the princes to draw royalties from them. It must be remembered that at that time tin mines were held to belong to the crown (MINES). The government of the

stannaries was immediately in the hands of a warden (*Custos*), who had the right of impressing labourers and compelling them to work for wages. Devon and Cornwall were each divided into stannary districts. To each district, called a stannary, belonged a civil court and a court-leet for trial of police offences. The revenues of the princes of Wales arose partly from coinage duty, partly from a right of pre-emption which was farmed. The coinage duty in Devon remained at 15s. 6d. a 1000 weight from the time of Henry III. until 1838, and for centuries at 40s. per 1000 weight in the case of Cornwall. Prices were settled at meetings of the tinners with the farmers convened at Crockentor twice in the year. These meetings were called great courts or parliaments. On these occasions the regulations were drawn up under which tin was to be worked, coined, etc. Representation at these parliaments was not to be confined to working tinners, but extended to capitalists interested in the development of the mines. In 1511 a collision occurred between the parliament of the tinners and the parliament of Westminster. Richard Strode, who sat for Plympton, one of the stannaries, introduced a bill into parliament to prevent the tinners silting up the Devonshire harbours with the detritus from their works. This was construed by the stannaries as an attack on their chartered franchises, for which Strode was presented at a stannary court, fined, and imprisoned in the castle of Lidford, assigned to them as a gaol by the grant of Edward I. This led to the passing of an act which first laid down the important constitutional principle that members of parliament were not liable to actions for proceedings by them in parliament (4 Hen. VIII. c. 8, *Pro Ricardo Strode*). But the nuisance continued until 1532, when parliament was aroused to action by the repeated complaints of the western ports. By the act 23 Hen. VIII. c. 8, stream works near the tributaries of rivers were prohibited, and all others were ordered to be provided with "hatches," to check the choking of water-courses. By this act the initiative in the suppression of the nuisance was left to the inhabitants, who shrank from legal conflicts with the neighbouring landowners, so that the statute remained inoperative. This led to another act (27 Hen. VIII. c. 23), passed in 1536, which increased the penalties and let in the common informer. The introduction of another bill into the House of Lords in 1539 is evidence that the difficulty was not at an end, but no further legislation took place until the time of Charles I. In 1632 a new charter was granted reaffirming the ancient privileges of the stannaries as to exemption from process in other than their own courts, from toll, and the concession of the right to search for tin. In 1640 an act was passed (16 Car. I. c. 15), to restrain the encroachments of the stannary courts, which were asserting a jurisdiction over the entire counties of Devon and Cornwall "out of the places where the tinners do work." In 1836 an act of parliament (6 & 7 Will. IV. c. 106), regulated anew the jurisdiction, constitution, and powers of the stannaries courts. By 18 Vict. c. 32, the respective parliaments or stannary courts of Cornwall and Devon, the customs of which presented a general similarity, were consolidated in one court. These customs are in short (1) the right of "free tinners" to work upon rendering a proportion called the "toll-tin," usually one-fifteenth of the produce, to the owner or lord of the soil. (2) The right to such tinners to "bound any unappropriated waste lands, or any several or inclosed lands which have been formerly waste land," subject to the custom and the delivery of toll-tin to the lord of the soil. The bound is marked by turf or stone, and is about an acre in extent. Particulars of the bound have to be returned to the stannary court. These bounds are in Cornwall accounted personal, in Devon real property. They must be annually renewed and may be sublet, subject to the payment of "farm-tin" or "tin-dues." The principal acts regulating the stannaries down to the year 1896, are the 6 & 7 Will. IV. c. 106; 11 & 12 Vict. c. 83; 18 & 19 Vict. c. 32; 25 & 26 Vict. c. 89; 32 & 33 Vict. c. 19; 50 & 51 Vict. c. 43; and 53 & 54 Vict. c. 63. These acts chiefly affected procedure. In 1896 an act was passed "for abolishing the Court of the Vice-Warden of the Stannaries" (59 & 60 Vict. c. 45). By this act the jurisdiction and powers of the stannary court were transferred to the county court sitting at Truro, the judicial office entitled the vice-wardenship of the stannaries being abolished. But it must be remembered that the foundation of the law of the stannaries still remains ancient custom and the charters which embodied it.

[Edward Smirke, *The case of Vice against Thomas, determined on appeal before the Lord Warden of the Stannaries of Cornwall*, London, 1843.—W. Bambridge, *Treatise on the Law of Mines and Minerals*, 4th ed. by A. Brown, London, 1878.—Rowe *v.* Brenton, 3 Manning and Ryland's Reports, Appendix of Documents relating to the Duchy of Cornwall.] I. S. L.

STAPLE, THE STAPLE SYSTEM. The company of merchants of the staple had a monopoly of exporting the staple commodities of England, and certain staple towns were appointed as centres of their trade. The staple exports were wool, woolfells, leather, tin, and lead, and of these the chief was wool, the "sovereign treasure" of England, wherewith she was said to keep the whole world warm. Before the reign of Edward I. the export trade of England was principally carried on by foreigners, of whom the most important were the Hanse merchants (see HANSEATIC LEAGUE). The

staplers asserted that their company dated from Henry III.'s reign, but at this time the exports were taken to various marts, chiefly in Flanders because the Flemish excelled in cloth-making (see MERCHANTS, ENGLISH). An association of English merchants was in existence as early as 1313, in which year Edward II. sent Richard Stury, "mayor of the merchants of our kingdom," as ambassador to the Count of Flanders. In order to concentrate the wool trade, Edward I. fixed the centre at Antwerp, which he bought from the duke of Brabant, and in 1313 Edward II., by letters patent, "pro certa stapula pro mercatoribus Anglie," ordered the mayor and community of the merchants of England to appoint a staple in the Low Countries; they might change the town at will, and were to fine to the king's use those who took staple wares to any other mart abroad. "The system of the staple was, it would seem, a combination of the principle of the guild and of the royal privilege of establishing fairs and markets" (Stubbs, ii. 447), (see FAIRS and MARKETS; GILDS; MARKET OVERT). It was necessary for mutual protection and for regulation of trade and prices that merchants should form a company, and it was also profitable to the king, as both increasing the customs revenue and facilitating its collection. Since the customs had been fixed, it had become necessary, for the better control of trade, to restrict the export of the staple commodities to certain English ports where collectors of customs were stationed, and Edward II. appointed home staples at Newcastle, York, Lincoln, Norwich, London, Winchester, Exeter, and Bristol in England; at Dublin, Drogheda, and Cork in Ireland; and at Shrewsbury, Carmarthen, and Cardiff in Wales. During the reigns of Edward III. and Richard II. the staple towns were frequently changed, foreign and home staples sometimes existing at the same time. The power of changing the staple town was useful as a political weapon, and also as a means of gaining the goodwill of foreign merchants from whom the king wished to borrow. In 1328, during the minority of Edward III., and again in 1334, all staples were abolished, and trade was free according to the Great Charter; but this free trade did not last, and the staple was fixed at Bruges in 1344. Bruges, Ghent, and Ypres were the three great marts for Flemish cloth, and were loath to let the coveted wool of England pass through their hands; accordingly, the Lombard, Brabant, and Spanish merchants were prevented from buying, that the Flemish towns might have a monopoly; this, together with the unsettled state of Flanders, lowered prices by lessening competition, and in 1353 the staple was withdrawn to England. The decay of feudalism had gradually made the king dependent on the produce of the land, rather than on the land itself. The toll, which was the king's prerogative of merchandise coming to or leaving his kingdom, had been definitely fixed in the customs, and was becoming increasingly important; with this the king paid his Lombard bankers, and with this, augmented by a yearly subsidy on wool, the French war was chiefly maintained. On the other hand, Edward II. made several attempts to collect the scutage levied by Edward I. for the Scotch war, and Edward III. issued a writ for the same hopeless purpose (see KNIGHT'S SERVICE). Profiting so little as feudal lord, the king turned his attention to the wool trade, from the development of which he and his subjects alike would gain, and in 1353 the Ordinance of the Staple was issued. This measure appointed ten staple towns in England, and to those not on the sea a port was assigned; these towns were Newcastle, York and Hull, Lincoln and Boston, Norwich and Yarmouth, Westminster, and London, Canterbury and Sandwich, Chichester, Winchester and Southampton, Exeter, and Bristol, in England; Dublin, Waterford, Drogheda, and Cork, in Ireland; Carmarthen, in Wales; also for tin, Asperton in Devonshire, Lostwythiel and Truro in Cornwall. The merchants of each staple town, both native and alien, were yearly to appoint a mayor and two constables. The weight of wool for export was to be certified by the mayor, and at the port it was to be again weighed, and an indenture of the weight made between the mayor and the customs officers. Export trade was restricted to aliens under pain of death, and altogether prohibited to Berwick and Scotland. Staple goods were to be taken to the staple towns for forty days, after which they could be sold elsewhere. Merchants were to be under the jurisdiction of the mayor of the staple only, according to LAW MERCHANT; aliens were to be tried by aliens; merchants were to use lodgings and warehouses, the rent of which was fixed by the mayor and constables of the staple and four leading inhabitants. At first, the offices of mayor of the town and mayor of the staple were held by different persons, but later in Bristol, Southampton, London, and probably elsewhere, the mayor of the town acted as mayor of the staple. In some Irish staple towns the mayor and bailiffs of the town became, for the following year, the mayor and constables of the staple. The appointment of home staples only was thought to be advantageous to England because it would break the monopoly of Flanders, and the consequent competition would raise the price of wool, while the foreign merchants would bring "money and plate, gold and silver, and merchandise of other lands"; and the increased revenue from the customs, which were heavier for aliens than denizens, would bring in larger supplies for the "arduis negociis," under which the king was continually groaning. But the

high duties, as well as the extensive smuggling which evaded them, prevented home staples from being successful, and in 1363 the staple was established at Calais. The taking of Calais, the nearest continental port and a home of pirates, was of great importance to the English export trade, and with short intervals, when it was removed to Flanders or to England during war with France, the staple remained there until 1558. The staple merchants paid no toll between Dover and Calais, they yearly chose a mayor and two constables, whose jurisdiction alone they were subject to, and the mayor was responsible for their lodgings in Calais. Like the Jews and the Lombards who had been under the king's protection and not answerable to the common law, the staplers lent large sums to the king, and in return he assigned to them a portion of the customs revenue; "riches follow the staple" became a proverb. Statutes were passed from time to time, protecting the staplers and the staple town. The cherished monopoly was in danger, not only from illicit traders, but from those whom, not being staplers, the king licensed to export wool. Petitions were presented against these licenses, until, in 1449, when the revenue from the Calais staple had fallen, since Edward III.'s time, from £68,000 yearly to £12,000, by means of frauds and licenses, it was enacted that all such licenses should be void, five only excepted. The staplers, by their "ordinance of partition," charged so highly on the wool sold at Calais, that there was much smuggling, the mint at Calais fell into decay, and the price of wool went down; therefore, it was ordained, in 1442, that wool should be sold only according to the form and at the price of the staple, and that a third part of the price should be taken in silver, coined at Calais, and brought by the merchants to England. Henry IV. granted a charter to the merchant adventurers (see ADVENTURERS, MERCHANTS) of England who dealt in cloth; and to the number of staplers, and especially to their dealings with this company, Armstrong, writing in the reign of Henry VIII., attributes all the evils of the time. The number of staplers so increased, he says, in Edward IV.'s time, "by meane of apprentishode withowt any consideracion of the welth of the holl reame" that "the merchants began to giff rewarde to fermours and to their wiffes to have wolle oon before another," and, in consequence, the cloth-makers suffered from want of material. So much wool was taken to Calais, that the buyers "perceyvid they shuld never lakk non, but have it soo plentuous which causid theym to forsake to pay redy money and bullion at the staple to bye it for respite," paying partly at the staple, partly at a mart in the Low Countries. This gave rise to a system of exchange with the merchant adventurers who traded largely in the Netherlands, and the staplers, instead of minting their money at Calais, and sending home the much-needed coin, received bills of exchange in London, payable abroad. So many staplers were there in London, that middlemen were employed, "and then," says Armstrong, "began the rank myschyff and distruction of the holl reame." To supply enough wool, the farmers began "to putt ther erthe to idulnes," and four hundred or five hundred villages in the Midlands were destroyed in sixty years, the profits of the wool being spent in importing "artificiall thynges," with which England became "stuffid, storid, and pesterid," to the ruin of English handicrafts. Many merchants became exchangers, which is "pleyn usury." The inferior pasture of sheep who fed on sites of villages and off "rank, foggye, wild gresse," affected the quality of the wool, and Spanish wool, mixed with English in cloth-making, threatened the market of the latter. From this time the staplers were continually in disputes with foreign merchants and merchant adventurers, and could only sell their wool to the Flemings, in 1509, by taking all risks until delivery. In 1522, a treaty was made with the Emperor touching the price and weight of the staple wool. Many of the lodgings and warehouses in Calais, formerly used by staplers, stood empty, to the loss of the townsfolk, and the staplers complained to Wolsey of bad seasons, Spanish competition, and the evil ways of the foreigner; in consequence of a riot in the Calais garrison, who, during the Wars of the Roses, were not paid for eight years, the customs had been raised from 6s. 8d. to 40s. on a sack of wool, that their wages might be furnished by this branch of the revenue. The conversion of arable land into pasture had thrown many out of employment, and in 1515, to promote manufacture, commoners were forbidden to wear imported cloth, as, in 1337, it had been forbidden to all save the royal family. The decrease in the export of wool, and the loss of Calais in 1558, brought about the downfall of the staplers, though their liberties were preserved in later statutes regulating trade, and the staple was established for a short time at Bruges. From 1660 to 1787, the export of wool was entirely prohibited.

[C. Gross, *The Gild Merchant* (1890).—Stubbs, *Const. Hist.*, ii. (1880).—W. Cunningham, *The Growth of English Industry and Commerce* (1890).—H. Hall, *History of the Customs Revenue* (1885).—W. J. Ashley, *Introduction to English Economic History and Theory* (1888).—H. Hall and W. A. S. Hewins in *Social England*, vol. ii. (1894).—C. Armstrong, *Treatise concerning the Staple and the Commodities of the Realm* in R. Pauli, *Drei volkswirthschaftliche Denkschriften* (1878).—G. Burnet, *History of the Reformation*, collection of records, v. 109 (1865). — D. Macpherson, *Annals of Commerce* (1805).—H. R. F. Bourne, *English Merchants* (1886).—W. H.

Jones in *Wilts Arch. Mag.*, ix. (Aug. 1865).—Rhymer, *Fœdera* (1816).—*Statutes of the Realm* (Record Commission, 1810).] M. T. M.

STATE-AIDED PENSIONS. When in the last century methods of insurance were first introduced, several proposals were made in England for its adoption by the state, in the hope that by that means the poor might provide for themselves instead of coming on the parish (cp. Eden, *State of the Poor*, 1797). Similar motives have suggested the establishment of state insurance in most European countries during the last twenty years. In Germany and Denmark state-aided pensions have been provided. In Germany (cp. J. G. Brooks, *Compulsory Insurance*, Report of Commissioner of Labour, Washington, 1893), philosophic and economic theory, the philanthropic desire to equalise social conditions, the enfeeblement of voluntary associations by legislative interference, and the policy of neutralising socialism by legislation, combined to create a system of state insurance to provide for accidents, sickness, disability, and old age.

The German system of pensions applies to persons sixteen years of age who are wage-earners, employees with a salary of £100 or less, or small employers in certain trades. It is regulated by the disability (*Invalidät*) and old age insurance law of 1889. Disability is defined as such inability to work permanently or for a complete year as prevents the insurer from earning a third of his average wage reckoned according to certain definite principles. It does not depend on age, and is payable after five years' contributions. At the age of seventy, after thirty years' contributions, the insurer is entitled to a pension. The contribution-year is taken at forty-seven weeks. The contributions are graded in four classes (under 350 marks or £17·13 a year; 550 or £26·92; 850, or £41·61; and over 850 marks) according to the average annual remuneration of the insurer's calling. They are paid weekly by the purchase of stamps which, pasted on cards, serve also as vouchers. The employers are responsible for their payment. They amount according to the four classes to 14 pf. (1·84d.), 20 (2·35d.), 24 (2·82d.), and 30 (3·55d.). The annual allowances for disability amount respectively to £5·64; £6·08; £6·43; £6·89. The old-age pensions amount to £5·22; £6·60; £7·99; and £9·78 respectively. (For cases worked out see Brooks.) To women on marriage, and to widows and orphans, compensation for past payments is given. The insurance fund consists of (*a*) contributions (as above) from the employee; (*b*) equal contributions from the employer, and (*c*) 50 marks (£2·45) a year from the imperial exchequer for each pension. For the conduct of business there are thirty-one insurance offices with committees on which the government, the employers, and the employees are represented. There is also supervision by local committees (*Vertrauensmänner*). In 1895 the disability allowances amounted to £411,102, the pensions to £764,248; and on 31st December 1895, 110,377 persons were in receipt of the former, and 195,723 in receipt of the latter or 13 per thousand of the population over 70.

In Denmark, subject to certain restrictions, at the age of sixty persons are entitled to a pension if they cannot provide for themselves or those dependent on them. The communal authorities grant the pension and pay half the cost. The government pays the other half. On 1st January 1894, 46,581 or 210 per thousand of the population over 60, were thus assisted.

In England several schemes have been much discussed (cp. *Report of Royal Commission on the Aged Poor*, pp. lxix., cxv.); Canon Blackley's—compulsory payments between the ages of sixteen and twenty-one, and a pension of 4s. a week at sixty-five or seventy; Mr. Chamberlain's—5s. a week at sixty-five provided by a government bonus on voluntary payments; or under certain conditions by the doubling of working-class insurances by a government grant; Mr. Booth's—a pension of 5s. to all at the age of sixty-five, without contribution required; and Canon Fowle's—a government grant of 5s. a week to each member of a sound friendly society, coupled with the abolition of outdoor relief. These schemes have hitherto been set aside for the following amongst other reasons: (1) compulsion is unacceptable in England; (2) the aged for the next forty years or so would not benefit; (3) the friendly society movement would be hampered or brought eventually under direct government control—a very undesirable result; or (4) the cost is too great—in Mr. Booth's scheme at least £24,500,000 a year.

One or two of the arguments on the general question may be mentioned: (1) after the lapse of a certain time, as experience shows, state aid, and especially state maintenance, weakens individual energy very seriously. In Germany, of the very scanty average pension of 2s. 6d. a week, about two-thirds is paid by the state and the employer. Thus it is rather a special form of relief, than insurance, and unlike well-administered relief, it makes the bulk of the working class state-dependent. In England those in receipt of poor relief over sixty years of age number approximately only 137 per 1000 of the population of that age (cp. Denmark above). (2) There is no sufficient evidence that the large outlay is recouped to any substantial extent by reduction in expenditure on the poor. (3) The bargain considered as insurance is disadvantageous. Of males alive at sixteen only 52 per cent reach their sixtieth, only 34 per cent their seventieth year. A state bonus in these circumstances runs counter to social as well as individual interest. The working man is right to save or invest his money in such a way as to reap benefits earlier and to provide in part for old age indirectly. There are other better forms of insurance. (4) In working-class life, the family is the unit of obligation in this matter. State aid will do more harm in weakening it than good in subsidising individuals. (5) The state-aided pension will tend to relieve the trades unions of the payments now made to old members, and to promote a minimum working life at a maximum wage (cp. on points (4) and (5), *English Economic Journ.*, vol. v. p. 347, 1895.) State Pensions for Old Age were established in New Zealand in 1898.

[P. Bödiker, *Die Arbeiterversicherung in der europäischen Staaten*, Leipzig, 1885 (one-sided and insufficient as to England).—*Select Comm. on Nat. Provident Insurance*, 1885 (chiefly Blackley's scheme).—Maurice Block, *Les assurances ouvrières*, 1895.—C. S. Loch, *Old Age Pensions and Pauperism*, 1892.—J. A. Spender, *The State and Pensions in Old Age*, 1892 (French and German schemes). Prof. J. S. Nicholson, *Political Economy*, 1896. For England in last century, see Eden's *State of the Poor*, 1797.] C. S. L.

A Comm. (cp. *Report of the Comm. on Old Age Pensions*, 1898) recently reported on some of the above-mentioned schemes and others, disapproving of them on the ground of injurious interference with wages, with self-reliance, with self-government in Friendly Societies, etc.

STATE INSURANCE. INSURANCE, STATE.

STATE INTERFERENCE. GOVERNMENT REGULATION OF INDUSTRY.

STATE NOTES

[Rates of conversion: £=33 drachmai=$5=25 francs=12 guilders=11 gulden=25 lire=24 milreis=13⅓ pesos (Chile)=9½ roubles=15 rupees.]

STATE NOTES fall into three groups;—

(1) The EXCHEQUER BILL (*q.v.*) [6] [7] payable *in futuro*, affecting the loan market but not the currency; (2) coin-receipts,[8] which are never loans, and enter into, but, being fully covered, do not inflate the currency. They are usually issued where coin is difficult to transmit, or when, being at a premium, it is likely to be hoarded or exported, and Chile has been censured for neglecting this precaution while trying since 1. vi. 1895, to redeem its notes, then £2,209,425, but now almost extinguished. Instances are: Indian gold and silver currency notes, under acts of 1861 No. xix., 1871 No. iii., 1882 No. xx., 1890 No. xv., 1893 No. viii., and 1896 No. xxi., in so far as £6,666,666⅔ is exceeded [9]; Canadian Dominion gold notes in so far as £4,000,000, is exceeded [10]; U.S. gold certificates first issued 3. iii. 1863, now £7,756,434; and Russian gold notes issued [1] *e.g.* 1. viii. 1895. Similarly, Austria-Hungary deputed its bank to issue, against equal gold, silver coin or notes first up to £14,545,454, 9. vii. 1894; then up to £7,272,727, April 1898 [11]; these sums *plus* £6,545,456 silver coin are being used to redeem the state notes of 1866, which in 1894 were £28,363,636. These gold receipts, though only justifiable on local and temporary grounds, often become chronic; otherwise they are innocent. But Indian silver currency notes since 1893,[3] when the mint was closed to silver; Italian "buoni di cassa" for one and two lire, issued, 1894-95, against silver in place of similar bank notes, and now £4,400,000; U.S. Bland certificates of 28. ii. 1878 *et seq.*, now over £75,000,000 [6] and Sherman treasury notes of 14. vii. 1890 to 1. xi. 1893 [4] now over £22,900,000, being issued against a metal not the standard, present peculiar risks. Thus the Sherman notes are usually cashed in gold and reissued; except therefore when cashed for silver or for Bland certificates—which happened, 1891-97, at the rate of over £1,000,000 per ann.,—they have the same effect as indefinite issues of uncovered convertible paper. And there is the added risk that cover may fail through a fall in the market price of silver, and silver has fallen one half since the mint value of most silver coins was fixed, so that the earlier U.S. certificates are now only half covered, and all silver coin-receipts have degenerated into class 3 (*c*). The United States proposed, October 1897, that England should adopt the policy of silver coin-receipts, but England refused.

(3) The state note, in its narrowest sense, is a compromise between (1) and (2), and steals a loan from those who wish to use but not to lend money by adding to the currency. It creates chaos as well as loss, and therefore its initial mischief is incalculable, and finally either—like the *billets d'état* of the regency, the credit notes of the North American colonies, and the ASSIGNAT in the last century, and the notes of Louis Kossuth (1849) in the present century—it leads to repudiation, or it involves the very loan for which it was meant as a substitute. It is always either inconvertible legal tender, or non-interest bearing; sooner or later it always circulates at a discount, but its essence is that it is meant to be taken as money and not like (1) under a contract of loan; this being a question of fact, not of form. There are three chief varieties: (*a*) *Inconvertible notes.*—Brazil notes have been inconvertible since 1835, and now=£15,485,042. U.S. notes [3] [5] [8] for £90,000,000, under acts of 25. ii. 1862, 11. vi. 1862, and 3. iii. 1863, were, until 1. vii. 1863, fundable (but scarcely any were funded), and until 31. v. 1878 slowly redeemed: the gold premium, once 185 per cent, first vanished 1. i. 1879, when the state resumed cash payments, thus transferring these notes, then and now £69,336,203, to group (*c*). In Greece, state notes guaranteed by the banks and amounting to £606,060,[3] [4] and bank-notes issued on account of the state up to £2,242,424,[3] [4] will, if the estimates of the International Commission are realised, be redeemed next century at the rate of at least £30,303 per ann. until they belong to class (*c*). In 1866 Austria-Hungary took over bank notes for one and five gulden, and then replaced them by similar state notes [3] [4] [8]; their total value was £28,363,636. Until 1879 they were below par, and thereafter at or above par with silver, which was, 1879-92, the "limping standard" of Austria-Hungary; they were always at a discount with gold, and latterly of 16 per cent. The programme of 1892, now nearing completion (*vide supra*), is to make gold the standard and raise enough gold, less 16 per cent, to redeem these notes at face value. Some similar exclusively Austrian notes, now about £500,000, will be redeemed within a year.[11] Italian notes [3] [4] [8] for 5, 10, and 25 lire, worth £16,000,000, 31. xii. 1895, are meant to undergo a similar transformation, but are still in the chrysalis stage of bank notes taken over by the state, with inadequate metallic cover, and Italy has never taken the necessary preliminary step which Austria-Hungary, Russia, Chile, Japan, and Haiti have taken of saving or borrowing coin equal to their whole value; the loans of 1883 and 1894 were merely partial, and the surpluses on which the budget for 1898 relies are surely visionary. In addition to these notes, fractional notes and currency certificates exchangeable for them, aggravated their evil; all the fractional

notes have been lost, redeemed, or have disappeared, although in the United States they once aggregated £10,000,000. (*b*) *Interest-bearing notes.*—U.S. one and two year notes [3] [5] [7] of 3. iii. 1863, and three year notes [3] [5] [7] of 30. vi. 1864 for £53,200,000, substituted for the former,—are a cross between loan certificates and cash. Thus these were replaced by notes at interest; but a similar Austrian issue in 1849 was replaced in 1853 by Reichsschatzscheine [3] [6] [8] without interest for £12,181,818, and the latter by bank-notes borrowed at interest. (*c*) *Convertible demand-notes.*—These notes should be to the state what bank-notes are to a bank; but the state is a bad banker, because it has the law in its own hands, and therefore notes of this class are sure to degenerate into class (*a*) in times of stress. Thus U.S. demand-notes [2] [6] [8] of 17. vii. 1861, and 12. ii. 1862 for £12,000,000—said to be the first of their kind in the States but foreshadowed in 1843 by an issue for £170,000—became inconvertible after 28. xii. 1861, yet commanded almost as great a premium as gold down to their virtual withdrawal in 1863. Russian credit roubles [1] [2] [4] [8] are the successors of the old assignats; they were all but at par when convertible 1843-54 (cover $\frac{1}{3}$th), and like the Austrian gulden at par with or above silver and below gold when inconvertible, 1854-96; they are now convertible into gold at $\frac{2}{3}$rd the value of the former gold rouble; they equalled £77,447,690, 13. ix. 1897, and the redemption fund handed by the state to the bank was £62,500,000 and the state held over £19,000,000 more for this and other purposes. The U.S. notes of 1862-63 which since 1879 [2] [5] [8] belong to this class and are now £69,336,203 (about $\frac{1}{3}$rd cover in gold), the German inperial notes for £6,000,000 (since 1890) [2] [6] [8] which in 1874 replaced various state issues, the Canadian notes up to £4,000,000 [2] [4] [8] [10] ($\frac{8}{10}$ths cover in gold [1]), and Indian notes up to £6,666,666$\frac{2}{3}$ [2] [4] [8] [9], and the Dutch notes for £850,000 [2] [4] [8] mentioned by Prof. Lexis—are exposed to a special risk, though they circulate at par. Being always in existence, though cashed again and again, they may at a critical time be used to drain the treasury reserves. Mr. Sec. Carlisle recently referred to the American notes—which must be reissued—as presenting an impossible task, and gold-loan after gold-loan has been raised to convert into gold what is often reconverted into silver. Mr. Sec. Gage proposed in December 1897 to change them into gold receipts.[2] These convertible, reconvertible, phœnix-like notes are really a mixed species half way between convertible and inconvertible notes, and cannot be defended on the analogy of bank-notes.

The latest schemes in Japan, Greece, and Haiti for redeeming the residue of their government paper, are too recent (1897) for criticism. Chilian, Brazilian, Italian, Austro-Hungarian, and Russian problems are complicated by bank issues to which we have not referred; nor have we referred to the difficulties of Argentina, Spain, and Portugal, which are exclusively referable to bank issues.

[R. Chalmers, *History of Currency in the British Colonies*, 1893 (a standard work, includes India).—C. F. Dunbar, "Safety of the legal tender note" in *Quarterly Journal of Economics*, April 1897 (a powerful indictment).—*The Economist*, *passim*.—France, Ministère des affaires étrangères, *Arrangement financier avec la Grèce*, *Travaux de la Commission Internationale*, 1898.—O. Haupt, *Monetary Question in 1892*,—*Indian Currency Report*, 1893.—J. J. Knox, *United States Notes*, 1885.—R. Koch, *Reichsgesetzgebung über Bank- und Münzwesen*, 1890.—K. Kramar, *Das Papiergeld in Oesterreich*, 1886.—A. N. Miklashewsky, "Monetary Reform in Russia," in *Journal of Economics*, 1896, p. 632.—United States, *Annual Mint Reports*.—A. Wagner, *Staatspapiergeld*, 1874, and in *Preussische Jahrbücher*, 1893, p. 262.—F. A. Walker, *Money*, 1878, pt. ii. (early history of North American notes, etc.).—H. P. Willis, "Monetary Reform in Russia" in *Journal of Pol. Econ.*, June 1897.—R. Zuckerkandl, "Die Währungsreform in Oesterreich-Ungarn" in *Handwörterbuch der Staatswissenschaften*, Supplement, 1895, *s.v.* Papiergeld; see also articles by Lexis and Ferraris in *Handwörterbuch der Staatswissenschaften*, and in Supplement, 1897, *s.v.* Banken, and Papiergeld.] J. D. R.

[1] Since 1860 Russian state notes are issued by the bank which stands for this purpose to the government much as the "department of issue" stands to the Indian government.

[2] Convertible. [3] Inconvertible. [4] Legal tender.
[5] Legal tender except for customs.
[6] Not legal tender except for state dues.
[7] At interest. [8] Without interest.

[9] Indian notes are given for gold and silver, all of which is retained by the treasury except £6,666,666$\frac{2}{3}$ which is invested. That limit was exceeded, in 1897, by £9,168,872.

[10] Canadian issues up to £4,000,000 are guaranteed by $\frac{8}{10}$ gold and $\frac{1}{10}$ securities. Notes, if any, in excess of this limit are guaranteed by gold which the treasury retains, *Statutes of Canada*, 1895, c. 16.

[11] We assume that the proposals of April 1898 will pass into law.

STATE SOCIALISM. See SOCIALISM, STATE.

STATES-GENERAL. See ÉTATS-GÉNÉRAUX.

STATICS, SOCIAL, AND SOCIAL DYNAMICS. Auguste Comte's mode of conceiving in terms of applied mathematics the essential factors of the social state, and the order of its evolution, have been already alluded to (*v.* COMTE, A., art. ii.). Under the head of social statics Comte set out a number of "social instincts"—sociability, benevolence, labour (of muscle and mind), family life and co-operative activity—the action and reaction, or equilibrating functioning of which results in what he termed "the spontaneous order of human society." Under social dynamics he treated of "the theory of the natural progress of human society," finding that the disturbances in social equilibrium made on the whole for improvement, and analysing this progressive tendency into the three stages, theological, metaphysical, and positive, now current as perhaps the most popular formula in his philosophy.

To political economy, even if classed as a branch of the inchoate science of sociology, these mechanical concepts have not in the way of method proved useful. Adopted for a time by writers who felt the inspiration of Comte's great co-ordinating vision, and applied with rhetorical laxity, they are already virtually superseded in economics by the more abstract generalisations of pure mathematics on the one hand, and the more concrete and therefore more cognate concepts of organic phenomena on the other. Herbert Spencer, it is true, adapted them to some extent, defining social

statics as treating of the equilibrium of a perfect society, and social dynamics, of the forces by which society is advanced towards perfection. Nevertheless they form in the economy of his thought a less effective scaffolding than the notion "social organism." In considering social philosophy under a statical and dynamical aspect, he claims to be dividing the subject as J. S. MILL, following Comte, divided political economy. Mill, however, though implicitly mindful of the analogy, only applies it, as an illustrative figure, at a late stage of the *Principles* (*v. infra*), and, in the two works where he does take account of that mechanical aspect is more concerned, in the one to criticise Comtism, in the other to formulate the logic of that historical method for social science where Comte's concept of social dynamics has really, if indirectly, proved fruitful in results. He is as little concerned as either Spencer or Comte to give more than (to use the latter's qualification) "an exploratory value" to the mechanical metaphor, or to waste himself in fitting a more abstract view of things to the *relatively* more concrete world of his hypothetical wealth-craving economic man. In this last-named abstract entity indeed, reacting to the "pressure" of his one desire, in so far as this is not neutralised by the opposing forces of dislike of work and of abstinence, Comte might have found, as BAGEHOT did, room for mechanical analogies. But it was precisely the hypothetical, or so-called "metaphysical" character of political economy, pursued half consciously half unconsciously by earlier economists, that turned Comte from that science.

The really fruitful result in Comte's method of letting the "simpler" concepts of mechanics play around the field of social phenomena lay in his two governing ideas of continuity and solidarity. The statical aspect showed him the elements of the social structure as an interrelated, interacting whole. And the true spirit of social dynamics, he held, "consists in conceiving of each consecutive social state as the necessary result of the preceding, and the indispensable mover of the following, according to the axiom of Leibnitz, etc." Thus far, then, a mathematician of genius inspired Comte. Probably not even the modern standpoint of regarding statics and kinetics as modes of dynamics would have led him farther, viz. to a more critical research into those apparently irreducible factors of that on which he bestowed the somewhat musty designation of "spontaneous order." For this it required advance in that historical method which he so earnestly prescribed, and in those biological inductions which, for him, were less dominated by "the master-thought of . . . the gradual development of humanity" than was his own social dynamics.

[Comte, *Positive Philosophy*, bk. vi. chs. iii. v. and vi.; cp. bk. i. ch. iv.—Spencer, *Social Statics* (1892), p. 229.—Mill, *Principles of Pol. Econ.*, bk. iv. ch. i.; *Auguste Comte and Positivism*, pp. 88-106; *Logic*, bk. vi. ch. ix. and x.—Bagehot, *Economic Studies*, pp. 73-77.] C. A. F.

STATIONARY STATE. Adam Smith mentioned the "stationary state," describing it as the state in which a country had "that full complement of riches which the nature of its laws and institutions permits it to acquire" (*Wealth of Nations*, bk. i. ch. viii.; in bk. i. ch. ix. the "full complement" is said to be determined by "the nature of its soil and climate"). China is several times referred to as being in the stationary state; Holland is really stationary; Bengal is even "decaying." In the stationary state, as described by Adam Smith, wages are low; it is only in countries which progress rapidly that wages are high. Profits also are low. Adam Smith said nothing as to rent in the stationary state, but it was an easy step for his followers to proceed to say that rent was high. James Mill simply followed the hints in the *Wealth of Nations*, when in *Commerce Defended* (1807) he remarked that in a stationary country wages are at "the lowest rate which is consistent with common humanity" (ch. vi. p. 87). Ricardo, while he did not mention the stationary state in so many words, yet made the conception more definite. The stationary state virtually is that in which profits are just high enough to make the "trouble" and "risk" of "accumulation" worth while. Wages in any case are fixed, being the natural or necessary wages which habit and custom fix for the labourers. With the progress of society and the resort to poorer soils, profits fall and rents rise until profits are at the minimum which just suffices to maintain accumulation. But when "the very low rate of profits will have arrested all accumulation" (Ricardo's *Works*, p. 67), "almost the whole produce of the country, after paying the labourers," will go to the landowners. This was certainly considered by Ricardo a deplorable situation, and was expressly so described by his contemporaries, and especially by M'Culloch. For writers of the school of M'Culloch wages were "naturally" low, and high profits were "the real barometer, the true and infallible criterion of national prosperity"; hence any approach to a stationary state in which profits were at the minimum was an evil. Some protest against this point of view was raised by Chalmers (*Political Economy*, vol. i. p. 43, vol. ii. p. 133) who pointed out that wages might be kept high "by the moral preventive check" even in "the ultimate stages of the wealth of a country." J. S. Mill finally protested eloquently against the notion that the stationary state was to be looked forward to with aversion (*Political Economy*, bk. iv. ch. vi.). Indeed, he wished the progress of society to relax before the utmost limit

had been approached, pleading in noble language for the enjoyment of solitude and of the beauties of nature, for mental culture, and for moral and social progress. With later writers, the discussion of a stationary state has ceased. The assumptions of an inevitably low, or at least fixed, rate of natural wages, and of a stage when accumulation would cease, which dominated the reasoning of the followers of Ricardo, have been shaken by the experience of a gradual and steady advance in wages, and by an extraordinary and uninterrupted accumulation of capital; while the rapid progress of the arts has lessened the likelihood of any approach to a really stationary state. Hence the topic hardly appears in recent books on political economy. A writer like Roscher, imbued with the historical spirit, refers to "flourishing" and "declining" states of society (thus with reference to wages, to population, to luxury; *Politische Oekonomie*, §§ 171, 225, 244); but a clearly-defined stationary state is not deemed worth mention, even in a historical sketch of population. Professor Marshall, again, uses the conception of a stationary state, not as indicating a stage which society will certainly or even probably reach, but as a means of reasoning hypothetically on permanent tendencies in the distribution of wealth. "The hypothesis of a stationary state is useful to illustrate many points in economics; but it is the nature of such hypotheses to be treacherous guides if pursued far away from their starting-points" (*Principles of Economics*, bk. v. ch. xi. 2nd and 3rd editions). In one sense, France may be said to present the case of a country that has in fact reached the stationary state. The population of France, after having advanced at a fairly steady though gradually slackening rate through the greater part of the 19th century (setting aside changes from gain or loss of territory), has become practically stationary since 1886. The census figures for the population of France were 38,218,903 in 1886; 38,342,948 in 1891; 38,961,945 in 1901. But industrial progress has continued in France; wealth has augmented, capital has increased, wages have tended to rise, cities have gained in numbers, the country districts have lost, so that the stationary state, in the sense in which the older economists understood it, has not been reached (POPULATION, ECONOMIC THEORY).

F. W. T.

STATISTICS

Statistical method, p. 467; Statistics, p. 469.

STATISTICAL METHOD in its common acceptation consists in the study of social phenomena which can be counted or expressed in figures.[1] The ways in which the observations are made, and the mode of analysis, so that they may yield facts for social science, have been examined in the article METHOD OF POLITICAL ECONOMY.

The material is either population, the number of people, number of births, deaths, marriages, blind, paupers, criminals, or facts connected with the population—*e.g.* prices of commodities, wages of labour, distribution of wealth, amount of bank notes, etc.

Observations are of two kinds—either enumeratory at a particular time, like a census, an agricultural *enquête*, a German *Gewerbezählung*; or continuously enumeratory, like registration of births, deaths, and marriages.

The way in which the observations are made comprises the technique of statistics. The first step is collecting the statistics. This is a matter not only of administrative skill, but also of scientific judgment. We cannot gather statistics of all social phenomena. Some are incapable of measurement; others would not repay the effort. We must make a choice and gather those that are of most importance. As a matter of fact, statistics are collected mostly through governmental agency, and those are gathered which are of administrative interest, such as the amount of exports and imports, or those which can be easily obtained in connection with administrative activity, such as the statistics of crime. In modern times the statistical activity of governments has been extended to investigations of simply social or scientific interest, such as births, deaths, and marriages, occupations, wages, etc. Thereby extended, the statistical method becomes a most important instrument of investigation in the social sciences.

The statistical method reaches its limits owing to the difficulties of classification. When population is studied statistically, it is divided into groups, all the members of which, while differing in many particulars, have one common characteristic. Classification fails either because the characteristic is not sharply enough defined, or because it depends upon the testimony of individuals whose statements cannot be controlled. Classification by age, sex, and conjugal condition is elementary, and not difficult. Classification by nationality or race is possible on the basis of place of birth, because that is definite and generally known; on the basis of political allegiance it is false; on the basis of blood or physical characteristics or language it is indefinite. For instance, the great mass of Prussians are German on the basis of language, but if we take into consideration physical characteristics, only 35 per cent of the population is pure German, *i.e.* German in speech and blonde in type; 24 per cent is principally German, *i.e.* German in speech, but mixed in type—blonde hair and grey eyes; and 28 per cent is German in speech, but partly slavic or romance in type—dark hair and grey

[1] Levasseur, "La statistique est l'étude numérique des faits sociaux." Lexis, "Die Statistik ist die zahlenmässige, Untersuchung des gesellschaftlichen Menschenlebens."

eyes (*Zeitschrift des Preussischen statistischen Bureaus*, 1893, p. 199). In the United States census of 1890, they tried to ascertain the number of persons of pure and mixed African blood by distinguishing blacks, mulattos, quadroons, and octaroons. But no physical distinction is always to be depended upon, and the persons themselves were ignorant of their genealogy, so that the attempt was a failure. In these cases the characteristic was not definite enough to permit trustworthy classification.

Classification of the population according to wealth or income fails because direct inquiries will not be answered truthfully, and outward marks fail. Even such a question as whether one is employer, employee, or working on one's own account was imperfectly answered in the English census of 1891, either because it was misunderstood or through perverseness. It is said that questions in regard to religious denominations excite suspicion in France; and questions in regard to mental or physical infirmity of members of the family excited considerable feeling in the United States in 1890. Difficulties of classification occur also in occupation statistics, in regard to degrees of infirmity (blind or partly blind), degree of illiteracy, wages, etc.

The practical statistician attempts to overcome these difficulties by making his schedule as simple and the questions as direct and unequivocal as possible, and by arranging the questions so that the answer to one will control more or less the answer to another. In some cases it is better to take a portion of the class rather than the whole class, *e.g.* wages from the pay-rolls of large establishments rather than from individual returns by all workmen. Again, one set of statistics will sometimes control another, as the ages of very young children may be ascertained more accurately from birth and death statistics than from the returns of parents, who often simply give the age to the nearest year. Finally, where it is impossible to reach a classification directly, some symptom or neighbouring circumstance may be used, as the number of persons to a room or a house, or keeping or not keeping a servant, may indicate social class or economic well-being (cp. Ch. Booth, *Life and Labour in London*).

The second step in statistical method is tabulation and analysis of the returns. Summing up the figures in each class gives us of course the absolute numbers. For the purpose of analysis and comparison these numbers may be expressed as proportions, rates, and averages, *e.g.* the population of the United States consists of 85·33 per cent native-born, and 14·77 per cent foreign-born; or of 87·8 per cent white and 12·2 coloured. A rate is the proportion between a number of events occurring in a year and the total population or some portion of the population immediately connected with the event. It is generally expressed in decimal form. Thus a birth-rate would be expressed by saying there are 25 births for 1000 of the population. It might be expressed by saying 1 birth for every 40 of the population. The former method is generally preferred. The suicide rate in England is 80 per 1,000,000. Sometimes a fraction of the population is taken, as in France there are 171 legitimate births to 1000 married women under the age of fifty. In England (in 1891) there were 8314 males employed per 10,000 males of and above ten years of age, and 3442 females employed per 10,000 females of and above ten years of age.

A *per capita* proportion is sometimes used in statistics, for instance dividing the total amount of tea consumed in any given country by the number of inhabitants, we get the *per capita* consumption; or dividing the total wealth by the number of inhabitants, we get the *per capita* wealth.

Finally we have the *average* or mean, which represents an intermediate value of a number of quantities, *e.g.* average wages, average birth-rate, etc. (cp. AVERAGE; MEANS, METHOD OF).

The average is of inestimable use in statistics. It is the short expression for a long series, and hence can be used for purposes of comparison, *e.g.* the average marriage-rate in France and Germany for twenty years. Some averages or means are more than this—they are the middle value about which the variations tend to concentrate, as the average stature of recruits. In that case, the average is said to be typical.

There are two common misuses of the average in statistical work. The first is averaging quantities which are not similar. Thus we often have an average wages of men, women, and children, which shows us nothing either in respect to wages as income or wages as labour-cost (cp. WAGES IN UNITED STATES OF AMERICA). Such an average is not typical. Again, averages are drawn from too small a number of cases, so that any variation may be purely accidental. The mathematical method of determining whether a variation is accidental or due to cause, is explained under the article ERROR, LAW OF (see further Edgeworth, *Statistical Methods*, in jubilee volume of London Statistical Society).

The third step in statistical method is to compare the statistics of one social phenomenon with those of another, in order to discover if there be any relation between the two. These relations may display themselves either in space or time, *e.g.* high death-rates in urban communities; hard times and an increase of crimes against property. This is simply the method of concomitant variations (see art. METHOD OF POLITICAL ECONOMY, vol. ii. p. 745). In the complexity of social phenomena many causes are bound together, and there is always danger of attributing to one cause an effect due to

another. Crime, for instance, is more frequent among the foreign-born population of the United States than among the native-born. But if we take account of the larger proportion of adult males among the foreign-born, we shall suspect that the greater criminality is due as much to the sex and age proportion as to the nationality.

If we could really isolate any single cause, the statistical method would enable us to measure its intensity. How much is bad economic condition responsible for the increase of crime? This is a matter of greater refinement of method which is sometimes possible but is more often impossible. Bad economic condition increases crime, but is very seldom of such importance that a variation in it results in a proportionate variation in the amount of crime.

The statistical method, therefore, gives us quantitative measurements of social phenomena. It reveals to us certain relations which are more or less constant. Some of these are merely the expression of a fact whose cause we do not know, *e.g.* the constant excess of male over female births. Others are the expression of a relation which remains constant so long as circumstances remain about the same, as that the rate of suicide in England is 80 per 1,000,000 inhabitants. Others are expressions of variations which are put into the form of cause and effect, *e.g.* that economic condition is a cause of crime. The expression of these relations is sometimes called a statistical or sociological law. In regard to these so-called laws, it is only necessary to remark (1) that they are merely empirical laws of no high degree of validity—simple regularities that may be easily affected in a great variety of ways. Suicide is influenced not only by economic condition, but by social opinion, religious belief, external hindrances, etc., so that the number varies from year to year. (2) That the regularities of the mass have no compelling force over the individual. That the rate of suicide in England remains constant from year to year, does not mean that I am in any more danger of committing suicide than if the rate fluctuated capriciously. (3) This last affirmation means that statistics do not affect the doctrine of the freedom of the human will. They only show that social actions are controlled often and demonstrably by certain great and general influences. These things are sometimes forgotten when we speak of the inevitableness of social laws, of the responsibility of society for the crimes committed in its bosom, of the budget that must be paid, the budget of the galleys, the scaffold, and the prison (see article on STATISTICS).

[Von Mayr, *Statistik und Gesellschaftslehre*, Erster Band: *Theoretische Statistik.*—Meitzen, *Geschichte, Theorie, und Technik der Statistik.*—Westergaard, *Die Grundzüge der Theorie der Statistik.*—Von John, *Geschichte der Statistik.*—Rümelin, *Reden und Aufsätze*, vol. i. p. 208, *Zur Theorie der Statistik.*—Lexis, article "Statistik" in *Handwörterbuch der Staatswissenschaften.*—Bertillon, *Cours élémentaire de Statistique.*—Levasseur, *La Population Française.*—Edgeworth, *Statistical Methods*, in Jubilee Volume of Statistical Society.—Venn, *The Logic of Chance.*—Keynes, *The Scope and Method of Political Economy.*—Mayo-Smith, *Statistics and Sociology.*] R. M.-S.

STATISTICS. In view of the fact that it is still unsettled whether statistics is more properly a science of things or a science of method, the term may be held to cover both fields. As a science of method it is treated in the article STATISTICAL METHOD (*q.v.*). Even as a science of things, however, controversy is not slight as to its precise content, whether it be concerned only with the examination of the conditions, past and present, of different states and peoples, and the best modes of securing knowledge in this field; whether the facts with which it is concerned are limited to those which permit of presentation in numerical form; or whether facts presentable in such form, no matter to what branch of knowledge they relate, are to be considered within its scope. It is certain that workers of great eminence have not been contented to limit the scope of statistical investigation to the facts of human societies, while very valuable additions to knowledge have been made by the statement and description of conditions which were not susceptible of any accurate measurement for precise comparison with cognate facts.

In any branch of statistical investigation which deals with human beings, and matters in which they are concerned, the observation of a numerous aggregate of cases, grouped together on account of similarity in some condition of importance in connection with the subject of investigation, is necessary. Individual cases show considerable differences in the intensity of any characteristic possessed by them; but in a numerous aggregate it frequently happens that the degree of irregularity is not so great but that some type can be determined to which all more or less approximate. The determination of the type and of the extent and frequency of variations from it are important problems. The comparison of the measurements corresponding to the type derived from different aggregates is one of the most useful of the applications of statistical knowledge. The aggregates may differ either in the time or in the place at which they are observed, or in both. Country and country, time and time, may be compared by comparison of the tabulated measurements of the characteristic in question, and the progress of different countries over any selected periods may also be compared. The GRAPHIC METHOD (*q.v.*) is one of great utility for the effective carrying out of such comparisons.

The comparison of various phenomena which are symptomatic of the moral condition of the aggregate under examination is of more than merely scientific interest, inasmuch as it may point the way to an advantageous modification of the influences of which the symptom in question serves as a measure. In this connection it should be remarked that the regularity manifested by some phenomena of this class has been incorrectly interpreted as indicating a lack of free-will on the part of individuals. The steadiness of the number of crimes in proportion to population has impressed some observers with the idea that the criminal is a victim of some evil necessity for which he is not personally responsible. A closer and wider investigation of facts is sufficient to demonstrate that criminality is dependent on human character, and is only constant under conditions which imply constancy in the moral tone of the aggregate under examination. In any case the regularity in the aggregate implies no compulsion on any individual. As above pointed out, careful research into related phenomena may reveal the appropriate means for introducing beneficent modifying influences to diminish criminality. A connected subject is that of forecasting the future from observations of the past. The observed regularities in statistical phenomena can only be expected to continue on the hypothesis that the producing causes, of the operation of which the observed phenomena are symptoms, continue to operate in equal intensity in future.

In all statistical enquiries having as their object the determination of a type which may be representative of the aggregate to which the enquiry refers, it is of importance that the characteristics of the aggregate should not be lost by including under the one aggregate two or more groups of essentially different characters. Recently Professor Karl Pearson has shown how, in certain cases, the observations relating to such separate groups may be sufficiently disentangled to permit of studying the results separately, by the application of a suitable principle in dealing with the numerical observations when the separation of the groups themselves, before making the observations, is not open to the investigator (cp. *Phil. Trans.*, 1894 and 1895).

[For the history of the progress of statistical science reference may be made to Meitzen, *Geschichte, Theorie und Technik der Statistik*, and for a statement of the development of official statistics and their present position, to the articles, chiefly by Dr. E. Mischler, "Die amtliche Statistik in den einzelnen Staaten" in Conrad's *Handwörterbuch*; also to the works mentioned in the article on STATISTICAL METHOD, to the address by Sir Rawson Rawson and the papers by Dr. Mouat and Mr. Guy in the Jubilee volume of the Royal Statistical Society and the presidential address to the same society by Mr. J. B. Martin in the *Journal* for 1896, and to Dr. Jacques Bertillon, *Cours élémentaire de Statistique*. For first use of term, see ACHENWALL, G. There are several very useful compilations of comparative statistics, among which that of Dr. von Juraschek, *Geographisch-statistische Tabellen*, is very compact and includes much of general utility in its annual issues. The elaborate bibliographies of various subjects attached to the chapters of Dr. von Mayr's *Statistik- und Gesellschaftslehre* may be referred to for information as to the extensive literature under special heads. W. F. Sheppard "On the Geometrical Treatment of the 'Normal Curve' of Statistics" in the *Proceedings of the Royal Society*, vol. lxii. number 381, p. 170, 1897.] A. W. F.

STATUTE OF MERCHANTS. This measure, recognised as law in 1285, possesses a two-fold importance, the one in the history of constitutional, the other in that of commercial law. It was really an ordinance put forth by the king and council at Acton Burnell in 1283 in the presence of deputies from the towns, owing to which last circumstance it acquired the authority of a parliamentary statute. Commercially it was of importance as being designed to facilitate the recovery of debts. The machinery for creating a "contract of record," which is the legal definition of the statute merchant, had before the accession of Edward I. been by way of recognisance. This procedure, which took place in the king's court, was afflicted with "the law's delay" (stat. merc. 13 Ed. I. c. 6), to remedy which the new measure was enacted. It was probably borrowed at the instance of foreign merchants, as the preamble of the act discloses, from the debt book (*Schuldbuch*) of Hamburg, Riga, and other continental towns. The expository re-enactment in 1285 of the ordinance of 1283 recites the "malice and false interpretation" of the sheriffs as its justification, an evidence that the law had influential opponents. The original ordinance of 1283 provided that a debtor should appear with his creditor before the mayor of London, Hull, or Bristol, make acknowledgment of his debt and of the day of payment, and witness with his seal the entry of this acknowledgment or recognisance by a clerk upon a bill obligatory (*escrit de obligacion*) sealed with the king's seal. This bill was transcribed on to a roll in the custody of the mayor. On the day of payment due the creditor was entitled to present his bill to the mayor, and on its verification by the roll, the mayor was empowered to cause the movables of the debtor to be sold to the amount of the debt or in default of a purchaser to be delivered to the creditor at a reasonable price. The king's seal conveyed a title to the purchaser. In default of movables within the mayor's jurisdiction, the recognisance might be certified into chancery, and any sheriff on receiving a writ from the chancellor was authorised to seize and sell the debtor's

movables within his jurisdiction. In default of goods, the person of the debtor might be seized and imprisoned at the creditor's expense for bread and water, which expense was added to the debt. If the creditor were a merchant stranger the debtor's goods might further be charged with the expenses occasioned by detention in England. Sureties were permitted, subject to the same penalties as the principal debtor. In 1285 this was modified by the provision that the creditor might procure the arrest of the debtor's person immediately upon default, and a compulsory sale of the debtor's chattels was legal only after the interval of two quarters of a year, within which time the imprisoned debtor was at liberty to order the sale himself. This charge, while improving the security of the creditor, was also in a measure favourable to the debtor as facilitating a profitable realisation of assets (see LAW MERCHANT). The statute was also extended to all fairs (see FAIRS AND MARKETS; MEDIÆVAL FAIRS on the Continent). Another provision shows that the use of the ordinance had been enlarged to secure debts due from English landowners; for the merchant creditor became entitled to an assignment of the debtor's lands, and therewith to the rights incident to a freehold such as the writ of Novel Disseisin, to protect his possession, and this even against the debtor's heir. It is evident that these changes gave great offence to the landed gentry, for in 1311 the lords "ordainers" procured, among the ordinances of that year, a prohibition of the extension of the statute of merchants to parties other than merchants, and of seizures under it to other lands than burgages, *i.e.* lands in towns holden at a rent. At the same time the statute was excluded from fairs where it interfered with the seignorial rights, but extended to the towns of Newcastle, Nottingham, Exeter, Southampton, Lincoln, Northampton, Canterbury, Shrewsbury, and Norwich. The procedure under the statute of merchants which went by the name of a "statute merchant" became, at a later date, practically indistinguishable from that of a "statute staple" (see STAPLE). The statute merchant is described by Tomlins's *Law Dictionary*, ed. 1835, as "one of the common assurances of the kingdom." The act of 1285 was repealed by the Statute Law Revision Act 1863.

[D. Macpherson, *Annals of Commerce*, London, 1805, i. 439, 441.—*Statutes of the Realm*, 1810, i. 53, 98, 165, 285.—T. E. Tomlins, *Law Dictionary*, London, 1835 (4th. ed.), (*s.v.*).—G. Schanz, *Englische Handelspolitik*, Leipzig, 1881, i. 389, 542.—W. Stubbs, *Const. Hist. of England*, Oxford, 1877, ii. 116, 330. *Chronological Table of Statutes*, London, 1890, p. 14.—Pollock and Maitland, *Hist. Eng. Law*, Cambridge, 1895, ii. 202.] I. S. L.

STATUTE OF MERTON. See MERTON, THE STATUTE OF.

STATUTUM MERCATORUM. See STATUTE OF MERCHANTS and LAW MERCHANT.

STEELBOW TENANTS (Scotland) were farmers, receiving from the landowner a certain quantity of stock, corn, straw, and implements with the land. These "steelbow goods" had to be returned in kind at the end of the lease. The system arose at the beginning of the 14th century. Villeinage was falling into decay, and the new class of free tenants had not enough capital of their own to stock their farms without aid from the landowner.

Similar circumstances in England produced the same results in the "stock and land" leases, which appeared after the Black Death. Adam Smith mentions the survival of this tenure in the Highlands, and compares it with the metayer system of France (see METAYAGE). He complains that the great share the landowner took of the farm produce—one half—must be a great hindrance to improvement of the land.

No tenant would take the trouble, risk, and expense of improvements, of which he did not reap the whole benefit. Moreover, the landowner's cattle were used too much for carriage and other outside purposes, the profits of which were not shared with the landowner.

L. R. H.

STEELYARD, THE, was the establishment in London of the EASTERLINGS, the German merchants belonging to the Teutonic HANSE.

It was situated on the north bank of the Thames, a short distance to the west of London Bridge; occupying, in fact, part of the site of the present Cannon Street railway station. It formed a parallelogram, somewhat less than 200 feet wide along the river, with a depth twice as great back to Thames Street; it included, besides wharves, warehouses, and residences, a stately hall adorned by Holbein with allegorical representations of the Triumph of Riches and the Triumph of Poverty; and the whole was enclosed on the three landward sides by strong walls. That such defences were necessary is shown by the events of 1493, when a London mob burst in and pillaged the warehouses and chambers. After the expulsion of the Hanseatic merchants from England in 1598, the land and buildings remained the property of the League, and were let to German and other merchants for business purposes. Even when the old edifices were burnt down in the great fire of 1666, it was thought well to replace them by new warehouses, which continued to belong to the Hanseatic cities, Lübeck, Bremen, and Hamburg, until the property was sold to a railway company in 1852. There were similar though smaller establishments at Boston and Lynn, known by the same name.

[The one great authority is J. M. Lappenberg, *Urkundliche Geschichte des hansischen Stahlhofes zu London*, Hamburg, 1851, where will be found the most minute and intricate details of the history of the several buildings. Based upon this is the popular article on "The Hanseatic Steelyard in

London" in R. Pauli, *Pictures of Old England*, Eng. trans. 1861. The origin of the name and of the German equivalent *Stahlhof* is uncertain; with the older explanations in Lappenberg pp. 70, 174, compare the more recent in the *Century Dictionary* (*s.v.*). Pictures and plans of the Steelyard are given at the end of Lappenberg, and in Herbert, *Livery Companies*, vol. i. ch. ii.—where, however, there are some gross mistakes in the identification. Of the account, probably somewhat idealised, given by Werdenhagen, *De rebuspublicis Hanseaticis*, 1641, of the quasi-monastic or collegiate regulations for the daily life of the residents, an abridgement will also be found in Herbert (*u.s.*). Stow, *Survey of London*, 1598 (in ed. Morley, 1890, p. 233) gives a list of Hanseatic imports, and of the buildings in his time. The most recent account of the last days of the Hanse in England is that of Richard Ehrenberg, *Hamburg und England im Zeitalter der Königin Elizabeth*, Jena, 1896] (see HANSE OF LONDON; HANSE TOWNS; HANSEATIC LEAGUE). W. J. A.

STEIN, HEINRICH FRIEDRICH KARL, FREIHERR VOM (1757-1831), was by birth an imperial knight, sovereign in his own territories, and owing no allegiance to any one but the emperor. In 1773 he went to Göttingen, then the great centre of juristic and political teaching, where he studied law, and, in an extra-academic way, English history, politics, and political economy. He became well acquainted with the work of Adam Smith, and adopted his doctrines, diverging from him only in points on which, as statesman, German, and man of the 19th century, he was led to modify his views. In 1777 he left the university and travelled in Germany for about three years. In 1780 he entered the service of Frederick the Great in the department of mining, and, four years later, was appointed director of the Westphalian mines. Nor was he unfitted for the position; Alexander von HUMBOLDT declared him to be one of the men of his time best acquainted with metallurgy. In 1784 he was employed on a mission to induce the elector of Mainz to join the league of princes which Frederick was forming to oppose the designs of Joseph II. in relation to South Germany; in this mission he was successful. In 1786-87 he made a mineralogical and technical visit to England. Declining diplomatic appointments which were offered to him, he was made a director of the war-and-domains chambers of Cleves and Hamm, and became in 1796 supreme president of all the chambers in Westphalia, where he introduced the system of road-making without corvées. He was employed in the transfer to Prussia of the dominions of the Westphalian bishoprics in accordance with the principal resolution of the imperial deputation in 1802, and performed the task with great judgment and forbearance. In 1804 he became Prussian minister of state, with the charge of customs, excise, trade, and manufactures — an office which he carried on with his accustomed vigour and industry. His most important achievement in this position was the abolition of provincial customs, or, in other words, the establishment of free trade within the Prussian dominions (December 1805). He was by nature a practical economist, and, up to the time of the Prussian catastrophe, he had devoted himself to the conduct of the national industry and finance exclusively. But the circumstances of his country inspired him with a war policy. Objecting to a man so able and patriotic as HARDENBERG being passed over by the king at a critical period, as well as to the maintenance of a personal cabinet distinct from the ministry, he asked for and obtained his dismissal in January 1807. He was recalled in the same year, and remained in office for thirteen months. His immediate task was to bring the French occupation to an end by paying the indemnity; his further task was the civil reorganisation of Prussia, as Scharnhorst was charged with the military. He now carried out in conjunction with Hardenberg the great peaceful revolution—for such it deserves to be called—usually designated the Stein-Hardenberg legislation. In September 1808 Napoleon intercepted a letter of Stein's which revealed his anti-French designs, and at the same time the king refused to adopt the minister's warlike policy, whilst the French party among the *noblesse* caballed against him. Accordingly in the November of that year he resigned office. He drew up in his retirement a political testament, from which, as well as from other manifestos of his, we gather that, besides the economic, administrative, and municipal reforms already effected or at least matured in conception, he contemplated the abolition of hereditary jurisdictions, a reform of the nobility, an ecclesiastical and educational reform, and the introduction of some sort of parliamentary system.

Having taken a leading part in the reconstruction of Prussia, he became, after an interval of forced quietude, the principal author of the liberation of Germany. In December 1808, Napoleon issued a decree of proscription against him, and he retired first to Bohemia and Moravia, afterwards by invitation of the emperor Alexander to Russia, becoming for years his chief adviser, especially on German affairs. He accompanied the Russian army in its march to Prussia, and was usually at the headquarters of the allies till they entered France. When the central administration for the government of the recovered provinces was formed, Stein was made a member of it, and, on its reconstitution after the battle of Leipzig, he was placed at its head. He was a strong advocate of the displacement of Napoleon and the restoration of the Bourbons—which latter

seems, indeed, to have been the only possible policy at the time. He was invited by Metternich to preside in the diet of the new confederation, and by Hardenberg to act as representative of Prussia in that body, but declined these offers. He took, however, some part in local government, presiding over the provincial estates of Westphalia during three of their sessions. The king appointed him a member of the council of state in 1827. He spent much of his later years in organising a society for the publication of the original materials of German history—a project realised in Pertz's *Monumenta*.

Stein had great moral elevation and a massive grandeur of character, and is altogether an impressive and imposing figure. There is much about him that reminds us of TURGOT. He had, no doubt, his defects, amongst which was a somewhat narrow Germanism, which however probably aided him in the discharge of his historic office by giving him the necessary concentration and intensity. He was not without aristocratic prejudices, and was only imperfectly imbued with the modern spirit. But he was a great man and did a great work; and not only Germany but Europe should hold his memory in everlasting honour.

The principal feature of the Stein-Hardenberg legislation was the abolition of serfdom. But it must not be supposed that the two ministers whose names are peculiarly associated with it were alone in advocating or planning the emancipation edict. Frederick William III. had always had such a measure at heart; it was thoroughly prepared in public opinion, and had been elaborated by a special commission (see HARDENBERG and SCHÖN). In this edict, signed by the king October 9, 1807, it was decreed that the serfdom (*Unterthänigkeit*) of those who possessed their peasant holdings by hereditary tenure should at once cease to exist throughout the monarchy, and that serfdom should come to an end altogether from Martinmas 1810. The menial services to which peasants had been subject were also abolished; but any obligations to their lords, binding them as free persons—arising, that is to say, out of their possession of property or out of a special contract—were to remain unchanged until redeemed by mutual agreement. Frederick William I. had abolished serfdom on the royal domains in the kingdom of Prussia, properly so called, in the case of peasants holding directly from the crown; and now on 28th October 1807 a cabinet order extended this abolition to all the domains; and in the following July the domain tenants obtained full right of property in their holdings, subject, however, to the continued payment of certain dues and services.

The emancipating edict also established free trade in land, though not in the modern English sense of the phrase. It was a rule of law that noble estates could only be held by nobles, and that persons of the middle class (*bürgerlicher Herkunft*) could only possess them by special permission of the king; so also that peasant land could only be held by peasants, and lands belonging to civic communities by citizens. All these rules were now abolished, special provisions being introduced at Stein's suggestion to prevent the undue consolidation of peasant holdings or their absorption into the estates of the landlords. The restrictions were also removed which prevented the members of the several social classes from engaging in certain occupations, and in general forbade their passing into classes to which they did not previously belong; and every one was set at liberty to choose or change at will his calling or trade. It cannot be doubted that these reforms greatly contributed to the regeneration of Prussia, and did much to awaken the strong sentiment of patriotism and sense of national unity which brought about in the following years the liberation of the country from the tyranny of Napoleon.

Hardenberg afterwards considerably extended the provisions of the emancipating edict. By the ordinance of 16th March 1811, all dues and services from tenants on the domain lands were abolished in consideration of definite money payments; and on 14th September of the same year a corresponding edict was issued relating to peasants on the estates of landlords. This last made the peasant full owner of the land he cultivated, and relieved him of all payments in kind or in money, and all labour on the property of the landlord, who was compensated by receiving a portion of the tenant's holding—one-third in the case of hereditary tenancies, and one-half in the case of a tenancy for life or for a term of years or at will—and by being at the same time set free from all his legal obligations of contributing towards the maintenance or assistance of the tenant. For the surrender of the fixed proportion of the holding might be substituted, with the consent of the landlord, either a yearly rent or the immediate payment of an equivalent sum of money. These enactments had the effect of establishing the system of peasant proprietorship as it now exists in Prussia.

Further steps were also taken to remove restrictions on trade. In December 1810, it had been enacted that a trade certificate should authorise the holder to practise a trade anywhere in the monarchy, without interference from any corporation or individual. By the edict of 7th September 1811, Hardenberg practically abolished gilds, or at least deprived them of all coercive power, and changed them into voluntary associations. This later legislation of Hardenberg, both as

to land and as to trade, was disapproved by Stein, who was more conservative by temperament, and wished rather to reform than to abolish old German institutions.

[Stein wrote, at the request of the crown prince of Bavaria, an autobiography, in very curt and official style, which originally ended at the Peace of Paris, but to which some passages were subsequently added, describing his occupations after his retirement. E. M. Arndt, author of *Des deutschen Vaterland*, who saw much of Stein from the beginning of the war of liberation to the end of his life, wrote in 1850, by desire of Bunsen, his recollections of the statesman. The standard German life is that by G. H. Pertz (the editor of the *Monumenta Germaniae Historica*) in 6 vols., a most valuable work on the man and his period. The English reader will find a full account of both in Prof. Seeley's *Life and Times of Stein* (3 vols., 1878), a work founded throughout on original documents, and these collected from the most various sources and studied with conscientious care and penetrating judgment]. J. K. I.

STEIN, LORENZ VON (1815-1890), born at Eckernförde in Schleswig, was educated at a military school and at the gymnasium of Flensburg, and studied at the universities of Kiel and Jena. After having been for some time employed at Copenhagen as a government official for Schleswig, he went to the university of Berlin to complete his scientific education. During a subsequent residence at Paris, he studied closely the life of the people, became acquainted with Louis BLANC, Considérant and CABET, and thoroughly learned the characters and principles of these and other leading socialists. In 1846 he was appointed professor extraordinary of the political sciences at Kiel, but lost this position in 1850, when the supremacy of Denmark in the duchies was restored. In 1855 he was called to Vienna as professor of political science, and worked there as such, with undiminished zeal and spirit, till 1888, when he retired, maintaining, however, his intellectual activity to the end.

His writings cover the entire field of economic science and a part of the theory of politics, properly so called. His *Lehrbuch der National-Oekonomie* appeared in 1858 (3rd ed. 1887); his *Verwaltungslehre* in 1865 *et seq.*, and an abridgment of it, entitled *Handbuch der Verwaltungslehre* in 1870 (3rd ed. 1887-88) and his *Lehrbuch der Finanzwissenschaft*, in which he studied the financial systems of all the countries of Europe, in 1860 (5th ed. 1885-86). He and R. von MOHL are regarded as the creators of the modern science of administration; they substituted, says Cossa, for the empirical *Polizeiwissenschaft* of the cameralists (see CAMERALISTIC SCIENCE) a new science of administration adapted to the wants of our own time, and, of necessity, comprising economic elements. Stein compares, in his work on the subject, the administrative systems of France, Germany, and England. All his writings give evidence of a very high order of ability, though sometimes they were too much influenced by the metaphysics of HEGEL (*q.v.*), while he sometimes is led, by his love of system and his lively imagination, to erroneous or premature generalisations. A special object which he keeps in view is to exhibit the close relations which exist between economics, law, and philosophy. The work by which his name is best known in England is his *Socialismus und Kommunismus des heutigen Frankreichs* (1843; 2nd ed. 1848), in which he utilised his early Parisian experiences. It was afterwards re-written and expanded, and published under the name *Geschichte der socialen Bewegung in Frankreich* (1850-51). Stein was in a high degree awakening and stimulating as a lecturer and teacher, and had many thousands of pupils, including a number of Japanese youths, sent over by their government to study the western sciences. He was editor of the *Centralblatt für Eisenbahnen und Dampfschiffahrt*, 1861-87, and of the *Zeitschrift für Eisenbahnen und D. der österreichischen Monarchie*, 1886-90.

[Inama in *Allg. Deutsche Biogr.*—Stammhammer in *Handw. der Staatsw.*—Cossa, *Introd. allo Studio dell' E. P.*, ed. 1892, p. 534; English ed. 1893, p. 408.] J. K. I.

STEPHEN, JAMES (1759-1832), lawyer and distinguished anti-slavery agitator, was master in chancery Feb. 1811 to March 1831. He may be regarded as one of the ablest legal advocates of the anti-slavery group (see also ABOLITIONIST).

The publication of his most famous work, *The Slavery of the British West India Colonies delineated* (2 vols., London, 1824-30, 8vo) extended over six years. The title exactly describes the work. Vol. i. treats of the legal status of the West India slave, showing how he or she was debarred from giving legal evidence, bereft of the right of self-defence, and shamefully neglected in education. The volume closes with an account of the different kinds of ENFRANCHISEMENT and MANUMISSION. Vol. ii. treats of agricultural labour in the torrid zone, and the pernicious effect of its excess when forcibly exacted, with the consequent decline of population among the predial slaves on sugar estates. Chap. iv. exposes the barbarities practised on these plantations in excess of labour exacted under the lash, both as to time and actual physical exertion. Not only is the feeding, clothing, and housing of the negroes bad to the last degree, but they are even treated harshly when sick. Instances are quoted of ill-treatment, resulting in the slave's death. Chap. viii. concludes the work. Slavery is shewn to be a disgrace to Great Britain. The author quotes Mr. Pitt's view of compensation, and makes an urgent appeal to parliament to "undo the heavy burthen and let the oppressed go free."

This great work was both preceded and accompanied by smaller publications on the subject, *New Reasons for abolishing the Slave Trade*, by the author of *War in Disguise* (J. S.), 1807, 8vo. —*A Defence of the Bill for the Registration of Slaves in Letters to W. Wilberforce*, London, 1816, 8vo.—*ibid. Letter the Second*, London, 1816, 8vo. —*England enslaved by her own Slave Colonies*, 1st ed. London, 1826, 8vo, 2nd ed. 1826, London, 8vo. Stephen also published *War in Disguise, or the Frauds of Neutral Flags*, 1st ed. London,

1805, 8vo; 3rd ed. London, 1806, a pamphlet on international law, and *The Dangers of the Country, by the author of War in Disguise* (J. S.) London, 1807, 8vo. A. L.

STERLING. See EASTERLINGS; POUND STERLING.

STEUART, SIR JAMES (1712-1780), was born at Edinburgh, the only son of Sir James Steuart, solicitor-general of Scotland; great magistrates were also among his ancestors on both sides. Educated in the university of his native city, he was admitted as an advocate in 1735. He then, according to the custom of the period, went abroad and travelled for some years in the Netherlands, France, Spain, and Italy. At Rome he was presented to the Young Pretender, and became one of his most devoted and faithful supporters; he drew up the manifesto addressed to the people of England at the commencement of the insurrection of 1745. After Culloden, Steuart retired to France, and took up his residence at Angoulême, where he applied himself to the study of political economy and finance, for which he had always shown a marked predilection. He afterwards removed with his family successively to Paris, Brussels, Frankfort, Tübingen, Venice, Padua, and Antwerp, thus extending the range of his social observation. At the peace of 1763 he was allowed to return to Scotland on certain conditions; and in 1767 recovered the full rights of citizenship. In 1770 the work on which his reputation rests appeared. The range of subjects with which it deals is indicated in the title—*An Inquiry into the Principles of Political Economy, being an Essay on the Science of Domestic Policy in Free Nations, in which are particularly considered Population, Agriculture, Trade, Industry, Money, Coin, Interest, Circulation, Banks, Exchange, Public Credit and Taxes.* He describes it as "an attempt towards reducing to principles and forming into a regular science the complicated interests of domestic policy," offering it only "as a canvas for better hands than his to work upon." The book was at first well received at home, but after the publication of the *Wealth of Nations*, it fell into neglect, and has never since been much studied in England. Opinion respecting it has varied much among foreign economists. Many of the Germans from HUFELAND (1807) to Hasbach (1891) have estimated it very highly. HERRENSCHWAND declared Steuart to be the most thorough (*Grüindlichste*) of all the English economists. Rehberg thought him more important than Smith, and valued so highly his exposition of the theory of money and prices that he said it ought, as a work of instruction, to be placed beside the *Principia* of NEWTON. He thought it very desirable that Steuart should find an interpreter (*Bearbeiter*), as Smith had found one in J. B. SAY. Roscher also holds him to have been "a great economist," who, by the higher merit of Adam Smith, and especially by the classic form of the latter's exposition, has been thrown unduly into the shade. On the other hand, in the view of GENTZ, "Steuart is to Smith what a very practised calculator is to a profound mathematician"; and the Italian Cossa, whilst admitting that he has good ideas on population, taxes, machinery, the influence of the market, and the distribution of systems of cultivation, adds—"It is mere pedantry to compare with the PHYSIOCRATS and with Adam Smith, a writer who could not distinguish between money and capital, value and price, wages and profits." One characteristic which has doubtless won for him the special esteem of the Germans is the *relativity* of his conceptions (which Roscher regards as among the most marked advances in economics before Smith), his constant reference to the stage of general national culture as influencing industrial life, and his often repeated enforcement of the necessity of adapting public policy to "the spirit, manners, habits, and customs of a people." He agreed, too, with most of the recent Germans in his sense of the danger of excessive abstraction, of too wide generalisation in deductive reasoning, and of neglecting "the influence of concomitant circumstances" on economic facts.

Steuart is to be viewed as one of those eclectics of the 18th century who, like FORBONNAIS in France, JUSTI in Germany, SONNENFELS in Austria, and GENOVESI in Italy, attempted to produce a connected series of dissertations on the several subjects with which political economy deals, before the foundation of the study on a truly scientific basis. He, as well as those foreign writers, adopted a system of moderate mercantilism, from which his acquaintance with the *Essays* of Hume had not converted him. In the spirit of the mercantile school, he considered political economy (he had adopted that name from MONTCHRÉTIEN) to be not so much a science as an art, having for its object "to provide food, other necessaries, and employment for every member of a society." We find in him many survivals of the characteristic prejudices of the mercantilists. Thus, for example, he entertains an altogether exaggerated view of the influence which statesmen can exercise on the national well-being. He dwells too much on the circulation of money as the one thing needful, the doing which tends to obscure all our notions of industrial economy. He over-estimates the importance of foreign as compared with domestic trade. And he seems to countenance the old opinion expressed by MONTAIGNE, that in the commerce of peoples "le profict de l'un est le dommage de l'aultre."

The plan and leading features of the *Inquiry* will be understood from the following summary:—Bk. i. is devoted to *Population*. Steuart is one of those named by MALTHUS in the preface to his *Essay* as having preceded him on this subject;

and he is generally admitted to have treated it well. He compares the generative faculty to "a spring loaded with a weight, which always exerts itself in proportion to the diminution of that weight," and explains clearly how increase and decrease of numbers follow the increase and decrease of the available amount of food. Bk. ii. is on *Trade and Industry*. Here he seeks to show how a judicious statesman ought to be constantly endeavouring, by legislative interference adapted to varying circumstances, to encourage some and discourage other branches of industry and commerce. He dissents from, and criticises, the views of Hume with respect to what the latter writer considered unfounded ideas as to the balance of trade. Bk. iii. is on *Money and Coin*, which are treated at great length; British coin, in particular, being historically dealt with, and its defects and the necessary remedies being elaborately discussed. In bk. iv. the author treats of *Credit and Debts*, and goes fully into the theory of banking and the history of some foreign banks, especially the Bank of France, and also into the doctrine of exchange. Bk. v. is on Taxes, which he divides under three heads: 1. those upon alienation, which he calls *proportional;* 2. those upon possessions, which he calls *cumulative;* and 3. those exacted in service, which he calls *personal*. A proportional tax is paid by the buyer who intends to consume at the time of the consumption, and is consolidated with the price of the commodity. Examples are excises, customs, stamp duties, postage, and the like. A cumulative tax implies no transition of property from hand to hand; instead of being laid on any determinate piece of labour or article of consumption, it is made to affect past, and not present, gains. Examples of this class are land-taxes, poll-taxes, window-taxes, etc. Of the third class, the CORVÉE in France was an example, as was also the militia service in England before pay was allowed.

The most important general rule respecting taxation, according to Steuart, is that it ought to impair the fruits, and not the fund-income and not capital. The net produce of the land remaining after deduction of the cost of production should alone be taxed, and so also only the produce of artisan work over and above the "physical necessary" of the workman, that is, his maintenance and his expense on tools. He refutes the notion that taxes act as a spur to industry, whilst admitting that a wise expenditure of them by the government may have that effect. He discusses the *Dîme Royale* of VAUBAN, and considers the question of the mode of collection of taxes, whether by farming or through government commissioners.

Steuart is not an attractive writer. His failure to achieve popularity must be in part attributed to his defects of style. Cossa complains of his tiresome digressions, and Dugald STEWART, while acknowledging him to be "very ingenious and well informed," remarks on the profusion of words with which he often obscures his meaning. Indeed, Steuart himself apologises for his prolixity and other faults of style, and tells his readers that he has sacrificed everything else to perspicuity. But more adverse still to his acceptance and reputation was the state of opinion in his time, when the principles of industrial liberty were strongly tending towards the decisive ascendency, both intellectual and political, which they were destined soon to acquire from the superior genius of Adam Smith. Steuart's book must, however, always retain at least a historical interest and value, as abounding in information respecting facts and institutions, and exhibiting the transitional stage of economic studies immediately before the new era opened by the *Wealth of Nations*.

Other writings of Steuart are:—*A Dissertation upon the Doctrine and Principles of Money applied to the German Coins*, 1761; *The Principles of Money applied to the Present State of the Coin of Bengal*, 1772; *A Dissertation on the Policy of Grain*, 1783; *Plan for Introducing Uniformity of Weights and Measures over the World* (published posthumously). These tracts will be found in the edition of his collected works published by his son General Sir James Steuart (6 vols., 1805). Appended to this edition are *Anecdotes of his Life*, by the editor. There is also a biography by his nephew Lord Buchan, 1780.[1]

[Roscher, *Geschichte der N. O.*, pp. 563, 745, 757; Kautz, *Geschichtliche Entwickelung der N. O.*, p. 285; Cossa, *Introd. allo Studio dell' E. P.*, ed. 1892, pp. 255 *et seq.*, Eng. ed. 1893, p. 233.]

J. K. I.

STEWART, DUGALD (1753-1828), was son of Dr. Matthew Stewart, the able successor of Maclaurin as professor of mathematics in the university of Edinburgh. To that university the young Dugald passed from the High School as early as 1765, and was there a pupil of Adam FERGUSON; he was afterwards a student at Glasgow for a session, where Reid was then teaching. In 1785 he succeeded Ferguson in the chair of moral philosophy, which he continued to fill till 1810.

It was the practice of the Scottish professors of moral philosophy to include in their courses lectures on political economy. Stewart did so, and with great effect, exerting by his teaching of this, as of the other subjects he dealt with, a powerful influence on many hearers who afterwards became distinguished, as for example Lords Lauderdale, Palmerston, Lansdowne, Brougham, and Jeffrey, Francis Horner and Sydney Smith. "His disciples," says Sir James Mackintosh, "he lived to see among the lights and ornaments of the council and the senate; and, without derogation from his writings, it may be said that his disciples were among his best works." The course on economics delivered by Stewart was prepared by

[1] The anxious care Steuart devoted to his work, his desire to do his very utmost for the benefit of his country, his earnest anxiety to be impartial, stamp his work with a powerful and vivid individuality. His very motto—

Ore trahit quodcumque potest atque addit acervo

is characteristic of his energetic toil and his consciousness that at the time he wrote patient labour was what was most needed to advance the study, the interests of which he had so closely at heart.

him for publication in a corrected and amplified form; but his son, in a fit of disappointment and despondency, destroyed the manuscript, only a small portion accidentally escaping, along with those of other writings of his father and almost all his correspondence. What could be recovered of the economic lectures, whether in this revised form or in their earlier shape, with additions from notes taken by students when they were delivered, has been published in Sir William Hamilton's edition of *Stewart's Collected Works* (1877), vols. viii. and ix.

Whilst in general agreement with the practical conclusions of the *Wealth of Nations*—of which he elsewhere said that it was "the most comprehensive and perfect work that had yet appeared on the principles of any branch of legislation"—he occasionally criticises Smith's statements of theory and technical phrases and distinctions, differing from him, however, with reluctance. In advocating liberty of individual enterprise and unrestricted exchange of the products of personal or national industry, he goes even farther than his master, as with respect to the NAVIGATION LAWS. He also examines with care the doctrines of the PHYSIOCRATS, and to some extent defends them against the strictures of Smith. He seeks to enlarge the comprehension of political economy, so as to make it comprise "all those speculations which have for their object the happiness and improvement of political society." His observations everywhere exhibit good sense, clearness of thought, and a fine enthusiasm for justice, liberty, and progress. But he is sometimes unduly prolix, and degenerates into commonplace; and he is too much given to quotation, even where there is nothing in the passage cited which might not as fitly have proceeded from his own pen.

The subjects successively dealt with by Stewart in his lectures are — population, including the question of the comparative advantages of small and great farms, enclosures, and agrarian policy in general; national wealth, with the distinction of productive and unproductive labour; money, prices, and interest; trade, especially the trade in corn; taxation; and the relief and maintenance of the poor. After the study of those subjects which strictly belong to political economy, follow a brief treatment of the education of the lower orders, and a pretty full discussion of politics proper or the theory of government. The bibliography of the lectures is very valuable.

Besides the lectures, he was author of an "Account of the Life and Writings of Adam Smith," read before the Royal Society of Edinburgh in 1793, and published in vol. iii. of its *Transactions*. There is a biography of Stewart by John Veitch in vol. x. of Hamilton's edition of his works. J. K. I.

STINT, sometimes called a cattle-gate, was pasture on which the tenants of a MANOR, and even the lord himself, might graze only a limited, "stinted," number of cattle, usually perhaps for a limited season of the year. The right of grazing cattle on stinted pastures was not a general but a specific right of common; it did not carry with it ownership of the soil, but it was a real estate, tenable and transferable as a freehold or a copyhold tenement, like any other estate in land.

The term is said to be chiefly used in the north.

[Elton, *Law of Commons and Waste Lands*, ch. ii. and *Law of Copyholds*, p. 18, note.—Woolrych, *Law of rights of Common*.—Joshua Williams, *Rights of Common*.—Fitzherbert, *Extent Maner.*, 12, 13.—*Gen. Inclosure Act*, 8 & 9 Vict. c. 118.] E. G. P.

STIPULATIO is the ordinary contract of Roman law entered into between the parties in the presence of each other by the oral form of question and answer, *e.g.* the stipulator or promisee asks the other party, the promissor or person promising: Do you promise to pay me 10 *aurei?* The promissor answers: I do promise.

The stipulatio might be either absolute or conditional.

It was a general form, by which any kind of agreement might be made.

Stipulatio poenae nomine corresponds in principle to the bond of English law.

The *stipulatio* did not require witnesses, but it became usual to draw up a written memorandum (*cautio*) of its terms, at the time of its being entered into, and the existence of such a memorandum was under the law of Justinian presumptive evidence of the fact that the form of question and answer had been observed.

E. A. W.

STIRLING, PATRICK JAMES, LL.D. (1809-1891), for fifty years a well-known and much respected lawyer in Dunblane, N.B.

Author of *The Philosophy of Trade, or Outlines of a Theory of Profits and Prices, including an examination of the principles which determine the relative value of Corn, Labour, and Currency.* (Edinburgh, Oliver and Boyd, 1846): also of *The Australian and Californian Gold Discoveries and their Probable Consequences* (Oliver and Boyd, 1853): translator of BASTIAT'S *Harmonies* (1860) and *Sophismes* (1863), the former with a notice of Bastiat's life and writings. *The Philosophy of Trade* treats, in a highly abstract way, of value, labour, profits, rent, foreign trade, the chief contention being, in opposition to Ricardo, that value depends solely on the relation of demand and supply. It purports to describe in outline the laws which would regulate the operations of trade in its healthy and unfettered state, assuming freedom from external interference of every kind, even from taxes for revenue. It had the good fortune to be highly praised in the *N.B. Review*, Nov. 1846, by Dr. T. CHALMERS—whose favourite student Stirling had been in St. Andrews—as "something far higher than an exposition: it is a rectification of first principles"; and by George Eliot in the *Westminster Review*, Oct. 1847, for "the extreme clearness of its illustrations and the almost geometrical form of its doctrines and demonstrations."

In the *Gold Discoveries* one sees the misgivings

with which the new flood of precious metal was regarded. Stirling anticipates "a great social and commercial revolution, a disturbance of the relations and distribution of property"; suggests that prices may be trebled or quadrupled; and seriously "counts the cost" of adhering to the gold standard. He has, however, the true banker's belief in the sacredness of the money contract. "The man who has undertaken to pay his creditor £100 sterling has in law and in fact engaged to deliver to him 100 sovereigns, or 25$\frac{2}{3}$ oz. of standard gold. Providence, in the meantime, has furnished the debtor unexpectedly with cheaper and more abundant means of fulfilling this engagement. Is he to be deprived by arbitrary legislation of the benefit of those means?" In the end he concludes that the question embraces considerations of justice and equity as well as of policy and expediency, and should be handed over to the politician or practical statesman. W. S.

STIRNER, Max (1806-1856), born at Bayreuth, is the name by which Caspar Schmidt, the philosophic individualist anarchist, is most generally known in Germany. After studying philosophy and theology, he became a master at the Gymnasium in Berlin, and was also a teacher in a girls' school. He published, in 1845, his chief work, *Der Einzige und sein Eigenthum*. This had a brilliant but transitory success. He also wrote a *History of the Reaction after 1848*, and published translations of Adam Smith and other English economists. His life was spent in humble circumstances, and he died in poverty. His position was that of an individualist anarchist of the most extreme and uncompromising kind, preaching the cultus of the *ego* of the individual almost as a religion. He maintained in his *Einzige und sein Eigenthum* the crudest form of the doctrine "might is right," deriving every right and moral sanction from the individual alone. His views on property are best expressed in his own words, which form a remarkable contrast to Proudhon's view that "property is theft." "What is my property?" asks Stirner, and answers at once, "Nothing but that which is in my power: to what property am I entitled? to any to which I entitle myself. I myself give myself the right to property by taking property." He accepts the principle that in labour-questions each should look out for himself, and will have no organisation and no division of goods among the community. He would let all struggle for existence, and fare as best they can. The only form of community he would admit is that of a "free union of egoists," which should only last as long as any one member of the union pleased. Stirner, in fact, is the philosophic exponent of the extremest form of Laissez Faire and Individualism (*q.v.*) in society and economics, and as such has had considerable influence over the modern school of anarchists in Germany and Russia.

[Stirner's chief work is *Der Einzige und sein Eigenthum*, Leipzig, 1845, republished by Ph. Reclam of Leipzig, with an introduction by Paul Lauterbach.—See also *Max Stirner und Friedrich Nietzsche, Erscheinungen des modernen Geistes*, by R. Schellwien, Leipzig, 1892; and (better) *Der Anarchismus*, by E. V. Zenker, Jena, 1895.—Cf. Nordau, *Entartung*, 1892.] H. de B. G.

STIVER, the full predecimal money of account of Holland, Flanders, Brabant, Liège, Clêves, and Westphalia, may be stated thus:—lb. (£) = 3 rix dollars = 6 florins [£] = 20 schillings (s) = 120 stiver [s] = 240 groat (d) = 960 pfennig (Clêves) = 1440 deniers [d] = 1920 pfennig or (in Clêves) heller; but some only of these items are selected, and those to which we have given the Carolingian titles £ : *s* : *d* do not appear twice over in the usual money of account. The stiver, when coined, was in modern times the least silver coin; it has now been superseded by the 5 cent piece, with which it is popularly identified.

[P. Kelly, *Universal Cambist* (1835). — Tate, *Modern Cambist* (1893).] J. D. R.

STOCK. Public loans may be raised in one of two ways: either by the issue of bonds, obligations, or debentures, or by the issue of "stock." Bonds, obligations, or debentures are issued in fixed amounts; stock, on the other hand, may be allotted and transferred in any amounts appearing suitable to the parties concerned, subject, however, in some cases to certain restrictions prohibiting fractions of pounds or of larger or smaller amounts. In the case of securities of the first named description the investor receives a document stating his rights, whilst in the case of stock the document, if any, which the holder receives, merely states that he is the holder of stock for a certain amount constituted by some statute, or trust deed or general bond, by which the rights of the shareholders are defined (see Debenture Stock).

The expression "stock" is also used in respect of such part of the capital of a company as has ceased to be divided into shares of fixed and equal amount. Shares in companies may be converted into stock as soon as their nominal amount is paid up in full.

[Companies' Act 1862, §§ 12 and 28; Companies' Clauses Consolidation Act, § 61. The conversion of shares into stock is almost universal in the case of English railway and canal companies.] E. S.

STOCK EXCHANGE. See Exchange, Stock.

STOCK JOBBING. See Jobber.

STONE. See Measures and Weights.

STOPPAGE IN TRANSITU. If a buyer of goods becomes insolvent, the unpaid seller who has parted with the possession of the goods has a right of stopping them *in transitu*, that is to say, he may resume possession of the goods so long as they are in course of transit,

and may retain them until payment or tender of the price.

[As to the Roman law, see Moyle, *Contract of Sale in the Civil Law*, Oxford, 1892. As to English law, Sale of Goods Act 1894, §§ 44-46; Chalmers on the *Sale of Goods*, London, 1894; and as to the French law, art. 1664, of the *Code Civil*, and arts. 574-576 of the *Code de Commerce*].

J. E. C. M.

STORCH, HEINRICH FRIEDRICH VON (1766-1835), is sometimes regarded as having, along with C. von Schlözer, founded a Germano-Russian school of economics; he had at least the principal part in naturalising economic studies in Russia (see RUSSIAN SCHOOL). Born at Riga, he studied philosophy, law, and political science at Jena and Heidelberg. He afterwards travelled in South Germany and France, and published the results of his observations in *Skizzen, Scenen, und Bemerkungen auf einer Reise durch Frankreich gesammelt 1787*. In 1788 he returned to Russia, and was appointed professor of belles lettres to the corps of cadets at St. Petersburg, and secretary to the chancellor of the empire. In 1799 he was employed as teacher of the daughters of the czar Paul I., and obtained, some time after, the title of court councillor, which conferred on him hereditary nobility. He was charged by Alexander I. and the empress mother with the instruction in political economy of the granddukes Nicholas, afterwards emperor, and Michael. The lessons which he gave to his imperial pupils composed the substance of his principal work, *Cours d'économie Politique, ou exposition des principes qui déterminent la prospérité des nations*, 6 vols., Petersburg, 1815.

Storch is, in essentials, a follower of Adam SMITH. He also uses J. B. SAY largely, but judges the opinions of both these writers with independence. On the theory of RENT, he approaches the School of RICARDO. There is not much originality in the portion of the work relating to general theory, but he is strong on several special subjects; thus, he gives a full and luminous account of the organisation of almost all the banks of Europe. As BLANQUI remarks, he was favourably situated for studying peculiar conditions and institutions which existed in Russia, but which had been overlooked or insufficiently considered by the economists of the western nations; hence his work is valuable in relation to SLAVERY and the emancipation of the working classes. He described with praiseworthy honesty the vices of the contemporary administration of justice in Russia, the spendthrift and irregular lives of the nobility, and the economic and moral evils resulting from SERFDOM. The book was too liberal in tone for the Russia of his day, and a Russian translation of it was forbidden by the censorship.

We find in Storch germs of the principles of the HISTORICAL SCHOOL. He points out the impossibility, in many cases, of arriving at theorems of universal validity, and the necessity of studying economic phenomena in their relation to the stage of development which the wealth and institutions of a nation have attained. He shows a tendency to the expansion of economics into a general theory of civilisation, as is indeed indicated by the title of his principal work. With this tendency are connected his treatment of personal intellectual and moral acquisitions and possessions as economic goods (see GOODS, ECONOMIC), and his discussion of the differences between agricultural, manufacturing, and commercial societies. He freely introduces ethical considerations, led to this, doubtless, as ROSSI has suggested, by a sense of the importance of calling the attention of his princely pupils to higher things than economics. J. B. Say published in France an unauthorised edition of the *Cours* (1823), with notes, in which he sharply contradicted some of the author's opinions. Storch, justly indignant at this, replied to some of Say's criticisms in a treatise entitled *Considérations sur la nature du revenu national* (1824), which may be regarded as an additional volume of the *Cours*, and is, perhaps, his most mature and scientific work. In it he corrects and completes Say's theory of immaterial products, and refutes his doctrine that for an entire people the gross and net revenue are identical.

The *Cours* was freely translated into German, with additions, by RAU (1819-26), and the *Considérations* into the same language by Storch himself (1825). Other works of Storch are—*Statistische Uebersicht der Statthalterschaften des russischen Reichs*, 1795; and *Historisch-statistisches Gemälde des russ. Reichs am Ende des 18ten Jahrhunderts* (9 vols. 1797-1803). He also edited (1803-1811) a periodical entitled *Russland unter Alexander I.*

[Roscher, *Gesch. der Nat. Oek.*, p. 799.—Cossa, *Introd. allo Studio dell' E. P.*, p. 330, ed. 1892; English ed. 1893, p. 311.—Kieseritzky in *Allg. deutsche Biogr.*]

J. K. I.

STORY, JOSEPH (1779-1845) jurist, son of Elisha Story, was born at Marblehead, Massachusetts, on 18th September 1779, graduated at Harvard in 1798, becoming LL.D. in 1821, and gave himself to the study of the law, commencing practice in Salem in 1801. He rapidly acquired distinction, was elected to the state legislature as a democratic member for Salem in 1805, and to congress in 1808. In 1811 he became speaker of the Massachusetts assembly, and the same year was appointed associate justice of the supreme court of the United States. In 1829 he was elected to be the first professor of law at Harvard. In 1881 he declined the post of chief justice of Massachusetts. He died at Cambridge, Mass.

Story was a profound lawyer, and the number of works he left behind him is extraordinary. The aspect of his work which concerns this dictionary is the value of his contributions to INTERNATIONAL LAW. His judicial career began just before the war of 1812-14, and he had to face the intricate questions of admiralty law, salvage, marine insurance, and prizes. His study of these questions led up to that great work entitled *Commentaries on the Conflict of Laws*, Boston,

1834. A selection from his decisions, entitled *Notes on the Principle and Practice of Prize Courts*, was published in London in 1854.

[Appleton's *Cyclopædia of American Biography*.]

C. A. H.

STOTINKI. A Bulgarian copper coin equivalent in currency value to the French centime.

100 stotinkis—1 leu (or franc). F. E. A.

STRACCA, Benvenuto (1509-1578), born at Ancona, of a business family. An eminent jurist and originator of scientific commercial law; he collected and compiled, on absolutely systematic lines, a body of precepts which, up to that date, had been scattered over innumerable volumes of *Commentaries* and *Opinions*. His works contain information of interest to economists. He shows the usefulness of trade and navigation; discusses the restrictions on certain branches of trade, and expresses comparatively moderate opinions on the theory of usury.

He wrote *De Mercatura seu Mercatore*, Venetiis, 1553.

[See Franchi, *Benvenuto Stracca, giureconsulto anconitano del secolo XVI.*, Rome, Loescher, 1888. —Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, Milan, Hoepli, 1884].

U. R.

STRIKES. A strike is a cessation of work resulting from an agreement on the part of a body of workmen either to break or not to renew their existing contracts of service. Since the passing of the Conspiracy and Protection of Property Act 1875, it has ceased to be, in any case, a criminal offence (see Conspiracy, Common Law Doctrine of); but, where there is breach of contract, the employers affected can recover damages both from their workmen and probably also from the promoters of the strike (see Lumley *v.* Gye, 2 E. and B. 216; and Bowen *v.* Hall, L.R. 6, Q.B.D., c. 333). A cessation of work resulting from an agreement not to renew existing contracts may be the occasion of many acts civilly or criminally wrongful; but it affords in itself no ground for any legal proceedings whatever, except possibly in so far as its promoters may be proved to be acting "maliciously" (see Temperton *v.* Russell (No. 2), 1893, 1 Q.B., 715).

To conduct a strike successfully, the men must be able to prevent the employers obtaining a sufficient supply of labour from other sources. With this end in view, they generally station "pickets" to guard the approaches to their places of work and persuade other workmen to keep away. The mere act of "picketing" was formerly considered "intimidation," and, therefore, a criminal offence. Under the Criminal Law Amendment Act 1871, however, "intimidation" ceased to be criminally punishable unless it was of such a character as to justify a magistrate in binding over the intimidators to keep the peace; and it has been decided that the Conspiracy and Protection of Property Act 1875 has made no change in the law on this point (see Curran *v.* Treleaven, 1891, 2 Q.B., 545).

Sir R. Giffen, when controller-general of the commercial, labour, and statistical departments of the board of trade, calculated from a comparison of the board of trade wages statistics with the census returns that the amount annually paid in wages to British manual labourers is about £633,000,000 (see Wages), and from the figures given in the annual reports of the labour department on strikes and lock-outs (see Labour Department), it would appear that a further sum of nearly £1,500,000, which would otherwise be paid in wages, is annually lost on average, during strikes, to the workers employed by the firms immediately affected. According to the report on the strikes and lock-outs of 1892 (*Parl. Papers*, c. 7403 of 1894), 700 disputes, having an average duration of 32 days, and throwing out of work 371,799 persons employed in the 3000 establishments directly concerned, at an aggregate loss in their wages of about £3,900,000, occurred in the course of that year. These figures relate to a period not only of bad trade, but also of considerable industrial disturbance; and they will appear the more significant when it is remembered that they take no account of the economic effect of the strikes upon the trades that depend upon the affected industries for their material or custom. It may be observed, however, that a temporary cessation of work may sometimes serve a useful purpose in enabling the employers to clear off their surplus stocks, and that the loss in wages, amounting, as it does after all, only to a fraction of 1 per cent of the total wages paid annually, is, in many cases, made up for by increased activity after the strikes are over.

It appears from the report of the royal commission on labour that by far the largest proportion of disputes, strikes, and lock-outs have direct reference to the increase or diminution of the standard of wages, or the introduction of fixed price-lists. Many other disputes relate to the standard of hours, a question which, in many cases, forms part of a conflict with regard to wages. Other conflicts are undertaken by trade unions to obtain the "recognition" of employers, to strengthen and enlarge their organisation, to limit the number of youths entering the trade, to prevent the employment of non-unionists or sometimes that of women and children, to defend unionist colleagues or assert unionist rules and customs, and, generally speaking, to protect the monopoly of workmen already in the organisation. But, in all cases, the ultimate object is to obtain as large a share as possible of the receipts of the in-

dustry, and to exercise a voice as to the general conditions under which it is carried on. Many disputes are connected with special customs or circumstances in particular works, with attempts to alter or prevent the alteration of various working arrangements, with questions of piecework, overtime, holidays, meal-times, and the introduction and abolition of systems of fines, deductions, and so forth. Some are of a merely personal nature, being connected, for example, with the unpopularity of particular officials. "Sympathy" or "on principle" strikes are those in which men engaged in one occupation strike without alleging any special grievance of their own, expressly in order to support men engaged in some other occupation who are involved in a conflict with their employers. A common instance of this kind of strike, in recent times, has been the refusal of dock labourers to discharge or to coal ships manned by non-unionist crews. There are also cases where a number of employers close their works in order to support a particular employer against whom a strike is being directed. Finally, there are the "demarcation" disputes, in which organised bodies of workmen, employed in some complex trade, like shipbuilding, are at issue with regard to the province of work belonging to each section. In this last case, employers, though not directly concerned in the disputes, yet have to bear the inconvenience and expense of the strikes or stoppages of work to which they lead (see *Fifth and Final Report of the Royal Commission on Labour*, p. 39, par. 100).

The history of strikes is the history of a series of struggles on the part of trade unions to substitute collective for individual bargaining between employers and workmen. It is noticeable that, as organisation in any given trade becomes more perfect, strikes become less frequent, though more severe. For, strong organisation on both sides makes possible both the formation of representative joint-boards to discuss differences and the enforcement of arbitrators' awards. The more advanced section of the labour leaders are of opinion that, in most cases, "the points at issue are not such as admit of decision upon any principles that both parties accept," and they, accordingly, conclude that "the only complete solution of the problem is to be found in the progress of the industrial evolution, which will assign to the 'captains of industry,' as well as to the manual workers, their proper position as servants of the community." *Fifth and Final Report of the Royal Commission on Labour*, pt. i. pp. 145 and 146; *Parl. Papers*, c. 7421 of 1894. But the remarkable increase that has taken place in the course of the last few years in the number and effectiveness of boards of conciliation and arbitration encourages the hope that industrial peace may be best secured by their agency.

Statutory provision for the settlement of labour disputes by regular tribunals with power to enforce their awards has existed ever since the middle of the 14th century. But from the time that the legislature allowed the conditions of service to become a matter of free contract, neither employers nor workmen have ever been induced to make use of the judicial machinery provided for them, but they have always preferred to form voluntary tribunals of their own. The act of 5 Geo. IV. c. 96, passed in 1824 and amended in 1837, which empowered magistrates to nominate arbitrators with judicial authority on the application of either party, was never appealed to, and the acts of 1867 and 1872, enabling disputants to confer similar judicial powers upon boards chosen by themselves, proved equally unsuccessful. The policy of these acts, however, still meets with some favour among politicians. Thus, one of the members of the royal commission on labour, Sir John Gorst, reported in favour of an act enabling the central government and county councils to form boards consisting of representatives of employers and employed in equal numbers and independent chairmen, with power to compel parties to industrial disputes to appear before them and give evidence (see *Fifth and Final Report of the Royal Commission on Labour*, pp. 148, 149; *Parl. Papers*, c. 7421 of 1894). The majority of Sir John Gorst's colleagues were of opinion that "no central department has the local knowledge which would enable it to attempt with success the creation of such institutions, and that the intervention of local authorities cannot be usefully extended at present beyond experimental action with regard to industrial tribunals to decide cases arising out of existing agreements" (see *Fifth and Final Report of the Royal Commission on Labour*, p. 100, par. 301; *Parl. Papers*, c. 7421 of 1894). The Conciliation Act, 1896, has since been passed, repealing the Acts of 1824, 1867, and 1872, and empowering the board of trade to employ persons to investigate the causes and circumstances of particular strikes, and assist the disputants to come to terms.

[Crompton, *Industrial Conciliation*, London, 1876.—J. E. Davis, *Labour and Labour Laws*.—Howell, *The Conflicts of Capital and Labour*, London, 1890.—Jevons, *The State in Relation to Labour*.—Price, *Industrial Peace*, London, 1887.—Sir J. F. Stephen, *History of the Criminal Law of England*, London, 1885.—Spyers, *The Labour Question*, being an epitome of the evidence and report of the royal commission on labour, London, 1894.—Wright, *Industrial Conciliation and Arbitration*, Boston, U.S.A., 1881; and *The Labour Gazette*, the *Annual Reports on Strikes and Trade Unions*, Board of Trade. See also LABOUR DEPARTMENT; TRADE DISPUTES, LAW AS TO; TRADE UNIONS; TRADE UNIONS AND STRIKES, Appendix.]

T. G. S.

STRINGENCY IN THE MONEY MARKET is produced, not by any actual scarcity of currency, but by fear lest, owing to loss of credit, there may be a greater demand for liquid funds than can be readily supplied. A crisis of this character, when intensified and prolonged, becomes a Panic (see CRISES). The most notable instances, during recent years, of stringency stopping short of panic, are the crises of October 1878 and of November 1890. In the former the stoppage of the City of Glasgow Bank, on the 2nd of October, was the first indication of loss of credit. Several other failures followed, but in the end the necessities for forced liquidation proved less than had been expected. The bank rate was not raised beyond 6 per cent, and though the banking reserve fell from 44 per cent to 28 per cent of the liabilities, both the bullion and the active circulation increased by about two millions. In November 1890 the crisis arose out of the heavy liabilities of Baring Brothers and some other firms interested in South American finance. Arrangements were made for the liquidation of the Barings' estate under guarantee by the bankers and merchants of the city of London, and of other important cities, and for a special import of gold from France. The circulation remained almost stationary, the bullion and the reserve rapidly increased, and the danger subsided without requiring the increase of the bank rate beyond 6 per cent. [See STRINGENCY, Appendix.] R. W. B.

STRUZZI, ALBERTO (17th century), an Italian by birth or descent, was naturalised in Spain and became an officer in the household of one of the Royal *Infantas* (see SPANISH SCHOOL).

His *Diálogo sobre el Comercio de estos reinos de Castilla*, published 1624 (no place mentioned), is perhaps the earliest work which advocates absolute international free trade. It precedes the *Discourses upon Trade* (1691) of DUDLEY NORTH by almost three-quarters of a century; and though LUNETTI, his contemporary and countryman, advocated the suppression of the Neapolitan customs duties in his *Politica Mercantile* (Naples, 1630), he still upheld the legal regulation of the rate of exchange, and did not admit free export of money. In his *Biblioteca de Economistas Españoles*, and his *Historia de la Economía Política en España* (ii. pp. 338, 339), Colmeiro gives the following account of Struzzi's decidedly liberal views on the subject. Trade is free by the natural law of nations. The diversity of the territories of nations compels free exchange of goods; this ensures plenty and cheapness both for agricultural produce and manufactures. Prohibition causes waste; it is evaded by smuggling, and any attempt to repress smuggling is fruitless; one might as well attempt to keep people out of an open field merely by putting up a gate at the entrance. Free trade leads to a natural return for the goods which leave the kingdom; gold and silver ought not to be retained in Spain under penalty of forfeiture of the king's taxes and dues. As Spain is unable to provide her colonies with the manufactures required, to exclude foreign goods is equivalent to driving out of Spain half the amount of the precious metals which have been extracted in the New World, or to showing foreign nations the way to carry them off themselves. Struzzi concludes with this sentence: "It is easy to talk about the prohibition of [foreign] goods, but to do this is no easy matter." See also Cossa, *Saggi di Ec. Pol.*, p. 47 (Milan, 1878). E. Ca.

STYLE OR TRADE NAME. It is usual for traders, whether trading singly or in partnership with others, to adopt a name under which the trade is carried on, which need not necessarily be the name of the person or persons who carry on such trade. English law allows complete liberty in this respect. A man may trade under any name he chooses to adopt, and may carry on a number of separate trading-establishments under a number of different names. One trader may use a trade name implying that several persons are carrying on the business together, and several partners may carry on a business under a single name. The only limit to this complete freedom in the choice of trade names is imposed by the necessity of respecting the rights of others.

If a person uses the trade name of another person with the intention of making his customers believe that they are dealing with such other person, he may be restrained from using such trade name—though it may be his own name; but in case of a person using his own name, the intention to deceive must be proved, whilst in the case of a person using the trade name of another not being his own name, the intention to deceive is presumed (see Reddaway *v.* Banham [1896], A. C.; Tussaud *v.* Tussaud, 44 Ch. D.).

In continental countries the rules about trade-names are much stricter. In Germany a single trader starting a new business may not use any name except his own surname with or without Christian names (*German Mercantile Code*, § 16; after the 1st January 1900 one Christian name at least, written out in full, must form part of the trade name—*New German Mercantile Code*, § 18), and the trade name of a newly-established firm must contain the name of one of the partners at least, and if it does not contain the names of all of the partners, must add an indication showing that there are other partners (*e.g.* the words "and Company"); (*German M.C.* § 17; *German N.M.C.* § 19). The trade name of a single trader or of a firm may, however, remain unchanged notwithstanding the accession or retirement of any partner, and any person or persons purchasing an existing business may continue the use of the former trade name if authorised to do so by the former owner or owners of such business (*German M.C.* §§ 22 and 24; *German N.M.C.* §§ 22 and 24). The German law also provides that a new trade name must be distinguishable from any existing trade name used in the same place (*G.M.C.* § 20; *G.N.M.C.* § 30).

The provisions of the French law are similar—

(*Code de Com.* § 20), but in France the trade name of a single trader cannot be continued by his successor or successors, and the trade name of a firm may not contain any names not being the name of one of the actual partners (*Code de Commerce*, § 21; as to Switzerland, see *Swiss Code of Obligations*, § 872).

In many continental countries all trade names must be registered, and in these countries it is always possible for all persons by searching the register to ascertain who at a given moment are the owners of a business carrying on trade under a given trade name (see for instance *G.M.C.* § 19; *New G.M.C.* § 21; Swiss *Code of Obligations*, § 861). The absence of such a provision in English law has frequently been the cause of inconveniences and loss. It is often most difficult to ascertain the name of the owner of a business or to find out whether any of the persons whose names appear in a firm name are still partners in the firm using such firm name, and it is much to be regretted that the attempts made from time to time in this country to remedy these evils by legislation were frustrated by the passive resistance of persons who probably did not realise the extent of the mischief which they helped to perpetuate. If compulsory registration of trade names were introduced, the freedom of choice in the selection of a trade name which is characteristic of British as distinguished from foreign law, would cease to have any prejudicial effects. E. S.

SUB-CONTRACT—or the system under which Jones contracts with Smith to do some work for Smith, and with Brown that Brown should do it or part of it—is, like agency, almost as universal as trade. Two kinds of sub-contractor have recently attracted attention. First there is the middleman. He figured in the Devon (1845) and Bessborough (1881) commissions as the lessee who lived by rackrenting subtenants, unchecked by that custom, public opinion, and remote self-interest, which sways British landowners, and therefore—the conditions of competition being unequal — woe followed in his wake. Similarly, where poor people cluster in large towns, some sub-lessors have left the same trail (*Report of S. C. of H. of C. on Artisans' Dwellings* (1882), vol. vii. p. 35; *Report of Royal Commission on the Housing of the Working Classes* (1884-85), vol. lxxx. p. 21), although others have bettered and brightened the houses which they sub-let, Mr. Casby and Miss O. Hill being found in the same ranks. Again cases have been cited where Brown consisted of desperate destitute immigrants whose ways and language Jones knew and Smith did not, or where prices have fallen and Smith has been ashamed to pay Brown less than customary prices, so that it pays for Jones to buy from Brown and resell to Smith at competition prices. Jones, in the former case, is better known as "the Jew" of the tailoring trades, and in the latter case as the "fogger" of the chain- and nail-making trades; but both cases are very rare, and both "Jew" and "fogger" have other functions. None of these intermediate parasitic interests can last long, and a little more or a little less competition than that which created, invariably kills them.

Secondly, the artisan contractor or, more usually, sub-contractor—who is quite distinct from the middleman—is a worker of the same kind as his labourers, and he represents the integration, they the division, of labour. Fletcher, one of the assistant commissioners on hand-loom weaving (1839-41), described him thus: before 1815 there were in Coventry (1) a "master-manufacturer" who bought thrown silk and had it dyed, (2) then let it out to the "master-weaver" or "undertaker," (3) who with his family warped and wound it, and (4) his journeymen, helped by (5) unpaid apprentices, did the rest under his supervision with his looms in his house. Then (2) returned the perfected article to (1), who warehoused it in London. Estimates for waste, and prices as between (1) (2) and (4), called list prices, were until 1815 customary, afterwards a matter of contract and competition, so that (2) was henceforth contractor or sub-contractor. Then competition evolved the London non-manufacturing shopkeeper, squeezed out (2) and (3) —the "undertaker" (2) becoming (1) "little master," or the "master-manufacturer" (1) dealing direct with the 4th class through one of its members (a foreman)—and assimilated (4) and (5); soon no producers were left except a dead level of labourers on the one hand, and on the other hand a master, large or little, who sometimes produced independently, sometimes under contract with non-manufacturing shopkeepers. Here sub-contract emerged for a moment at the point at which the mediæval passed into the factory system. Next CAIRNES in his essay on "Co-operation in the Slate Quarries of North Wales" (*Essays*, p. 166) rediscovered him in a new disguise—(1) a lessee who works a quarry sub-lets part of the quarry and quarrying to (2) "bargainers"; (3) the family is usually absent; and (4) journeymen—misspelt "germyns"—are often (5) learners. Cairnes, M'Culloch, and Thornton have praised the system as akin to co-operative production, Brassey, *Lectures on the Labour Question* (1878), pp. 124-128, as akin to piecework. These cases, which still exist, deserve the praise bestowed on them, but are carried on under peculiar conditions; thus the principal contractor or lessee seldom parts with control over the ultimate employees for fear of Mines and Quarries' Acts and strikes, for the men work in the open and may combine; and he sometimes stipulates for usual wages (*Report of Labour Commission* (1894), vol. xxxv. pt. ii. p. 42); and, in Brassey's cases, selects his sub-contractor with the utmost care. Finally, this species was re-discovered about ten years ago, and called by

the hated name of "sweater"; for it was then a popular fallacy to identify sub-contracting and SWEATING; and nail- and chain-making, and cheap tailoring, and a few other unskilled and therefore overcrowded trades, were adduced in support of this theory. The history of nail- and chain-making is a replica of that of hand-loom weaving. About 1870 list-prices, estimated waste, and unpaid learners, were being superseded, and the non-manufacturing shop-keeper or "fogger" first appeared; and master-manufacturers' factories with their improved discipline and machinery began to grow on the ruins of the doomed domestic workshops, and the "master worker," passing through the stage of sub-contractor into that of "little master," began to cut himself adrift from the master-manufacturer, and to buy his own iron from, and to sell his own chain and nails to, the "fogger." Briefly, the old system is dying, and the new being born. Cheap tailoring is permanent, but its forms perpetually change: (1) is usually a shopkeeper who begins on his materials, then lets them out to the (2) "garret master"; for it is the same story over again, but (4) and (5) are fused, the ill-paid learners being called "greeners," button-holing is often sub-sublet, and the "garret master" turns "little master" in hard times. This "garret" or "little master" is he who chastises his employees with whips and himself with scorpions, but it is impossible to condemn the system without condemning competition, which would be useless, or home work and work in the homes of one's friends, which would be unnatural. Granted that where unrestricted competition, which does not include competition between the skilled, is grafted on the mediæval stock, danger results, yet the danger may be lessened: our war office introduced stipulations against out-workers (*c.* 1882); the London county council (1889) insert in their contracts stipulations for usual or trades union hours and wages, all School Board (1889) and government (1891) contractors undertake to pay specified or usual wages, or wages above a minimum, and similar provisions have been widely adopted by public bodies, and the Factory Act 1891, § 27, compels certain tradesmen to register out-workers. Similar clauses have passed into bye-laws, state laws (New York), and even constitutions (Utah), in America. One solution clearly lies in this method of increasing the employers' responsibility without impairing the sub-contractors' independence. But this solution only touches some artisan sub-contractors and contractors; others, and all the little masters—who are economically indistinguishable—are left untouched. It may be doubted whether the evils associated with the latter can be removed except by sanitary legislation, by example, by publicity, and public opinion. The tap-root of the evil is an ignorant recklessness on the part of customers as well as of employers as to how, when, or where a thing is done, provided that it is done.

[The authorities for the last part of this article are: *Reports of the Select Committee of the H. of L. on Sweating* (1888), vols. xx. xxi. (1889), vols. xiii. xiv. (1890), vol. xvii.—*Reports of the Royal Commission on Labour*, 1892, xxxiv.-xxxvi.; 1893, xxxii.-xxxix.; 1894, vol. xxxv.—United States, *Bulletin of the Department of Labour*, 1896, pp. 360, 721 *et passim.*—C. Booth, *Life and Labour of the People in London* (1891-97), vol. iv. ch. x.; vol. ix. ch. iv.—Lord Farrer, *London County Council Wages Bill* (1892) (a pamphlet).—Hansard, *Parliamentary Debates*, 13th Feb. 1891, comp. *Ec. J.*, 1896, p. 153.—B. Potter, "The Lords and the Sweating System," *Nineteenth Century*, vol. xxvii. p. 885.—*How best to do away with the Sweating System* (1892) (a pamphlet).—D. F. Schloss, *Methods of Industrial Remuneration* (1894), chs. xiii. xiv.—A. Sherwell, *Life in West London* (1897), pp. 86-120.] J. D. R.

SUBINFEUDATION. Land held in fee simple could not at common law be alienated so as to make the alienee hold of the chief lord unless the alienation extended to the whole of the land held by the same tenure. But the owner of a fee simple could always alienate by creating a sub-tenure, the alienee holding direct from such owner. The creation of a sub-tenure was called subinfeudation. Subinfeudation was abolished by the statute QUIA EMPTORES, temp. Edward I.

[Challis on *Real Property*, London, 1892.] J. E. C. M.

SUBSIDIES. The word is defined by Cowel (*Interpreter*) as "an aid, tax, or tribute granted by parliament to the king." That it was a parliamentary grant is the characteristic distinguishing it from the customs which were from time immemorial raised by royal prerogative. There were several kinds of subsidy. (1) The subsidy in excess of the customs and designated from the commodity to which it referred. (*a*) Such was the subsidy of wool and leather, linked to the ancient custom on wool and leather. (*b*) Another subsidy of the same class linked to the new customs by which duties were imposed upon imports and exports of wine and cloth by aliens. This subsidy, under the name of poundage (see TONNAGE AND POUNDAGE), was subsequently extended to every species of merchandise, whether carried by aliens or denizens, and under that of tunnage was a subsidy granted upon every tun of wine imported by aliens or denizens. (2) The subsidy on lands and goods in lieu of the ancient feudal levies, granted from about the middle of the 14th century. They took the place of the obsolete scutages and carucages, and were the precedents for the land-tax and income-tax of modern times (see TAXATION). All these subsidies, conformably to their origin, were limited in duration.

[Cowel, *Interpreter*, London, 1701.—T. Madox, *History of the Exchequer*, London, 1711.—S. Dowell, *History of Taxation*, London, 2nd ed. 1888, vol. i.—Hubert Hall, *History of the Custom-Revenue*, London, 1885, ii. 145. Id. *Antiquities of the Exchequer*, London, 1841, p. 217.]

I. S. L.

SUBSTITUTION, LAW OF. See LAW OF SUBSTITUTION.

SUCCESSION (SCOTS LAW). The guiding principle of Scots law, applied with but one exception of recent introduction, is that in matters of succession the relationship to be considered is relationship through the father, and through the father only. It will be convenient to make the explanation of the rules of succession hinge round the first personal pronoun.

If, then, I am a Scottish landowner, I may make my will as I please in respect to my land; but if I die without a will or a settlement, and thus leave my land to the ordinary law of intestate succession, my eldest son succeeds to it, or his heirs; failing them, my second son or his heirs, and so on; and failing all sons or their heirs, it passes as an undivided whole to all my daughters, who become heir-portioners, that is, they acquire equal interests in it, except that the eldest daughter gets the mansion-house, garden, and orchard, and in the event of a division of the estate, has the first right to claim her share of land out of the land immediately surrounding the house. It does not matter whether my sons are all by the same marriage or not; the list of them must be exhausted before my daughters can succeed. If I leave no descendants, my brother succeeds; that is, if I am the eldest brother of the family, my next younger brother or his heirs, and so on downwards; if I am the youngest, the next older or his heirs, and so on upwards; if I am a middle brother, first the next younger brother or his heirs and so on downwards; and on failure of them, my next elder brother or his heirs, and so on upwards. If I have no brothers of the full blood, my landed estate then goes to my full sisters (or their heirs) as heirs-portioners, as explained before. In the event of there being none such, the next in the order of succession are my half-brothers, being my father's, not my mother's sons, and their heirs, in a downward or upward order, as the case may be; and the next to them are my half-sisters, daughters of my father, or their heirs, who would take as heirs-portioners as before. In no case would landed property go to half-brothers or sisters the children of my mother, or their heirs, even though the estate may originally have come through my mother's family, for my father himself, if he be alive, stands next in the order of succession, and if he be not alive, his brothers and sisters first of the full blood, then of the half-blood, being children of my paternal grandfather, or their heirs, succeed in the same order as my own brothers and sisters or their heirs would have done. If all this fail, the succession goes back to my paternal grandfather and his descendants, such as a son of his by another marriage, and then to his brothers or sisters or their heirs, all as before and so on until an heir is found; and in the event of failure to find any heir, the estate reverts to the crown as *ultimus haeres*. In all this scheme, a person is always represented by his heirs, so that for example in the event of my having no issue, and my late only brother having only left daughters, the estate will go to these my nieces, who represent my brother as his heirs, while he, if he had been alive, would have been my heir. Such is a general account of the rules in succession to heritable or real property. Now let us turn to the rules in succession to movable or personal property. In this there is no preference given to sex or seniority: all who are equally nearly related divide equally, with one exception, which is that the heir to the heritable (*i.e.* real) property, if he is also one of the next of kin, is kept out of any share in the personal property unless he is willing to collate his heritage, that is, to throw his real property into hotchpot and divide all equally. It must, however, be kept in mind that under Scots law, even if a man makes his will, it can have no effect as regards personal property over more than the law allows. The moment he dies, his wife and children acquire a vested right to part of his movable property; one-third to the widow, and one-third to the children equally; or if there be no children, one-half to the widow; or if he survive his wife, one-half to the children equally. The only case in which he can make a will to take effect over his whole personal property is that in which he leaves neither wife nor child. In all this it is assumed that there have been no settlements or renunciations to vary the normal course of events. The only part of his movable or personal property in respect to which a man can die intestate is the part which it had been in his power to bequeath, and this is the only part to which the term "succession" is applied in the technical language of Scots law. Limiting ourselves then to such portion of the movable estate as might be bequeathed, the following are, speaking generally, the rules of succession to that portion in the event of there being no will. If I leave children, these children or their representatives will, whether they be male or female, or whether they be by one marriage or by more than one marriage, divide the available fund into equal shares: and if any of them be already dead, leaving their children to represent them, the respective shares of my deceased sons or daughters go to their children, my grandchildren, share and share alike within the limits of each family. But if I leave no descendants, then if my father be alive he takes one-half; if he be not alive, my mother, if living, takes one-third: subject to such deduction, if any, my full brothers and sisters or their representatives get the fund, share and share alike, those who have died before me being represented by their respective families of children; and if there be no full brothers or sisters, then my father's other children, my half-brothers or sisters, if there be any, or their representatives, get the fund on the same terms. Next, if all the preceding fail, and if there be half-brothers or sisters of mine who are my mother's children, or descendants of these, one-half of the available fund is to be distributed

among them. At this point, the rule that a family represents its deceased parent fails us, and we have to take the groups of persons actually existing in the same relation to me at the time of my death. Thus, subject to any such deductions as have already been referred to in favour of my father or of my mother, or of my half-brothers and sisters on the mother's side, my movable property next goes to be divided equally among all my paternal uncles and aunts of the full blood who actually survive me; and if they have all died already, to be divided equally among all my first cousins on the father's side, who happen to survive me; and failing them, equally among their children actually surviving me, and so on. Then if these relatives of the full blood all fail, the next in order of succession are the similar paternal relatives of the half-blood (through the father). In default of all the preceding, the same order of succession is applied to my father's paternal uncles and aunts, to his first cousins, and so on, first of the full blood, and then of the half-blood, and then to my grandfather's, and so on until at length, in default of heirs in movables, we arrive at the crown as *ultimus haeres*.

[Lord M'Laren's *Wills and Succession in Scotland*.] A. D.

SUCCESSION DUTY. See DEATH DUTIES; TAXATION.

SUGDEN, EDWARD BURTENSHAW, Baron St. Leonards (1781-1866), judge and jurist, was solicitor-general, 1829-30, lord-chancellor of Ireland 1835, and again 1841-46. He was lord high chancellor 1852, and was at the same time raised to the peerage as Baron St. Leonards.

He published among other things *A cursory Enquiry into the Expediency of repealing the Annuity Act, and raising the Legal Rate of Interest* (London, 1812, 8vo). This was issued in a series of letters. He deplores the iniquity of the sale of annuities, showing them to be a mere shift to evade the usury laws by raising money at an illegal rate of interest. The principal evils attending such sales are (1) the enormous interest —from 25 per cent, given on such loans; (2) the want of power in the grantor to redeem or repurchase the annuity. The bill for the repeal made all annuities redeemable, prohibited dealings with infants, moderated the allowance for brokerage, and gave the courts summary jurisdiction to set aside annuities under or over-valued. The bill did not, however, succeed in repressing grants of life annuities. Letters vii. and viii. deal with the inefficacy of the usury laws.

Sugden subsequently expanded these ideas into a volume entitled *Considerations on the Rate of Interest, Redeemable Annuities, and Foreign Loans* (London, 1817, 8vo).

The work opens with a brief recital of the former objections to usury; and quotes Bentham's justification of interest. It then enumerates the legislation on the subject from the 37 Hen. VIII. onwards. Sugden boldly advocates the raising of the legal rate of interest by 2 per cent, which would bring it to 7, instead of the 5 per cent at which it then stood. He blames the usury laws then in force for the commercial stagnation of the country, since loans cannot be procured on reliable security at 5 per cent. If the rate of interest were raised, the author insists that the usury laws would be no longer evaded by the sale of annuities. A. L.

SULLY, MAXIMILIEN DE BÉTHUNE, DUC DE (1560-1641). The Duc de Sully was the friend in childhood, the companion in arms, and minister of Henri IV. from his accession to the throne to his death. A Huguenot by religion, he did not follow his master when he became a Roman Catholic, though Henri advised him to do so. He belonged to that class of statesmen and economists who, like COLBERT and Chaptal, devoted themselves entirely to promote the prosperity of France.

Opposing the theory of the mercantile school (see MERCANTILE SYSTEM), and anticipating by more than a century the doctrines of the PHYSIOCRATS, Sully held that the source of wealth lay, not in commerce, in colonisation, and in coin, but in the products of the soil. It was he who said to the king that "husbandry and pasture were the two breasts which supplied nourishment to France (*les deux mamelles de la France*), and the real mines and treasure stores of Peru." He even opposed, though fortunately without success, the efforts of Henri IV. to acclimatise the mulberry and the silk industry in France. He said that France was not suited to such baubles:—in this he was obviously not a good prophet.

He regarded the manufacture of cloth with more favour, but he occupied himself principally and successfully with the reformation of the finances and the development of agriculture. Thus, "to prevent any misfortune to the country people," he busied himself in making roads, canals, and treaties of commerce—with Spain in 1604, England in 1606. The ordinary and extraordinary revenues of the treasury were raised by him in ten years—between 1600 and 1609—from 20,000,000 to 32,000,000 livres. This was done notwithstanding that he reduced the public debt and diminished the heaviest taxes on the peasant, such as the TAILLE. He desired to change the vexatious tax on salt, the GABELLE, into a monopoly to be worked by the state, as has since been done with tobacco. The assassination of Henri IV. prevented the realisation of this original plan.

Sully wrote his own memoirs under the title of *Économies Royales*. The first edition, 2 vols. folio, appeared in 1638. It has this curious feature that the author always speaks in the second person. The traditional explanation of this is that his secretary is said to have been instructed by Sully to describe his career in the form of an address to himself, saying, "You did such and such things on such a day." The most complete edition appeared in the *Collection des Mémoires relatifs à l'Histoire de France*, vols. xvi. xvii. A small edition, containing selected passages, with

an introduction by M. Chailley-Bert, appeared in the *Petit Bibliothèque Économique*, published by Guillaumin. C. G.

SUMPTUARY LAWS. The legislation of Greece and Rome included many laws of this description, which imposed severe restrictions on dress and entertainments.

Among the most extensive sumptuary laws of the middle ages are those of Philip IV. of France (reigned 1285-1314), who limited the number of dresses to be worn as well as their cost, and regulated food and dress according to rank. The sumptuary legislation of England, which we may take as generally illustrative of mediæval legislation on the subject, from the middle of the 14th to the middle of the 16th century, is chiefly directed against extravagance in dress, and is a sign of the diffusion of wealth which followed the growth of commerce and the break-up of the old distinction of classes. The principal English law dealing with food, the statute *De Cibariis Utendis*, restricted the meals of all classes alike, to two courses, with a third course on the principal feast-days, "and each mess of two sorts of victuals at the utmost, be it flesh or fish, with the common sorts of pottage." This law was passed in 1336, when Edward III. (reigned 1327-1377) was in need of supplies for war, which were not readily forthcoming, and its object was to check the extravagance of the people "whereby they are not able to aid themselves nor their liege lord in time of need, as they ought." The statute contains no penalty for its infringement, and though it was not repealed until 1856, it was probably never enforced even at the time of its enactment. The English victories in France and the spoil brought into England gave rise to much display and extravagance in dress; and in dress, the distinction of class which was bound up with feudalism was chiefly apparent, for among the higher classes it had reached a state of luxury and display when the houses and manner of living of all ranks were still comparatively simple. Hence, in 1363, by an act "for the outragious and excessive apparel of divers people against their estate and degree, to the great destruction and impoverishment of all the land," regulations were laid down for the dress of each class. Carters, ploughmen, and others whose goods did not amount in value to 40s. were to wear no cloth, but blanket and russet and a girdle of linen; those of higher degree were to dress in cloth of different prices according to their rank, the statute providing that all makers of cloth should supply the various qualities. A limited class only were allowed to wear cloth of gold or silver, silk or fur which came from abroad, and thus this statute, repealed the next year, was, like other English laws of this description, favourable to native industry. The importation in the 15th century of silken goods and other things, mostly for use in dress, and the "excessive and inordinate array and apparel" of both men and women, "to the impoverishing of this realm of England and to the enriching of other strange realms and countries," led to the prohibition, in 1463, of the importation of foreign wares, and to the elaborate regulation of the apparel of different classes. Ermine, velvet, satin, and "counterfeit cloth of silk resembling to the same," were prohibited to those below the rank of knight; and padding of clothes, and shoes with pikes more than two inches long, were forbidden. In 1482, materials to be worn were again regulated with the aim of compelling English people to wear native fabrics; woollen cloth made abroad was forbidden to those below the rank of lord, and importation of wrought silk was prohibited. Although the act of 1482 sets forth that for want of enforcement of former sumptuary laws, the "realm has fallen into great misery and poverty and like to fall into more greater," it is less stringent than that of 1463; women above the rank of labourer's wife are altogether exempted from it. The sumptuary laws of 1463 and 1482, as compared with the statute of 1444, regulating wages and the price of clothes given as part of wages, show a considerable rise in prices. While legislation was endeavouring to keep gold and silver in the kingdom, and the coinage was being repeatedly debased, sumptuary laws restricted the extravagant use of the precious metals in dress, and in 1515 those below the rank of knight were forbidden to wear a gold or gilt chain on pain of forfeiture. These laws were an expression of the general protective policy of England. While Edward III.'s statute of apparel set forth that it was directed against the "apparel of divers people against their estate and degree," in the later sumptuary legislation only economical considerations are advanced. The rich fabrics, which it was sought to limit to a few, were made out of England, and the object of the laws was not so much to encourage thrift as to prevent "the draining out of our treasures" into the ready hands of foreigners. Legislation against the importation of foreign manufactures was to some extent evaded by smuggling. "Infinitely more effectual than the preventive service of the ports were the sumptuary laws. People who broke these laws went about with the evidence of their offence on them" (Rogers). Edward VI. (reigned 1547-1553) and Elizabeth (reigned 1558-1603) enforced abstinence from flesh on fast-days in order to promote seamanship, and were careful to point out that their motives were not such as could be considered superstitious. The last sumptuary measure passed in Great Britain was a Scotch law of 1621. Most English laws of this nature were repealed in 1603. The economists of the 17th century looked unfavourably on sumptuary legislation, considering the consumption of luxuries good for trade, but the use of certain foreign fabrics has since been forbidden, and in 1745 a penalty of £5 was imposed on selling or wearing French lawn, with a direct view to the development of industry in England.

[W. Cunningham, *The Growth of English Trade and Industry*, 1890, 1892.—J. E. T. Rogers, *The Economic Interpretation of History*, 1888.—W. J. Ashley, *An Introduction to English Economic History and Theory*, 1893.—W. Longman, *The History of the Life and Times of Edward III.*, 1869.—*Social England*, vol. ii. ed. H. D. Traill, 1894.—Knight's *Pictorial History of England*, 1849.—W. Denton, *England in the Fifteenth Century*, 1888.—"Statutes of the Realm," *Encyclo-*

pædia Britannica.—Roscher, *Ueber den Luxus in Ansichten der Volkswirthschaft aus dem geschichtlichen Standpunkte.*] M. T. M.

SUPPLEMENTARY ESTIMATE. Whenever the vote assigned by parliament for any given head of expenditure during a current financial year has been expended, it is not lawful for the treasury to pay sums in excess of the vote without further parliamentary sanction. It is therefore necessary for the government of the day either (1) to submit to parliament a fresh estimate which may provide in advance sums of money to cover votes which are expected to be exceeded—this, of course, is the proper and legitimate course,—or (2) to obtain the sanction of parliament for expenditure on votes which have been already unavoidably exceeded—a course which has received the sanction of usage and convenience in many cases.

This further estimate is known as a "supplementary estimate." The term is in use also in all the British colonies, their financial systems being modelled more or less on that of Great Britain.

In the United Kingdom the supplementary estimates are usually taken in parliament in February, or about four weeks before the close of the financial year (see SUPPLY). C. A. H.

SUPPLY.

(1) Conditions of Supply, p. 488; (2) the Supply of Commodities, p. 488; (3) Diminishing, Constant and Increasing Returns, p. 489; (4) Components of Supply Price, p. 489; (5) Supply Price as connected with Rent and Quasi-Rent, p. 489.

Supply, pp. 488, 489; Supply and Demand, p. 490; Supply, Parliamentary, p. 496.

In the article on SUPPLY AND DEMAND, it is explained that (1) the *conditions of supply* of any commodity are known when the price which would lead sellers to offer any given amount of the commodity has been ascertained. This price in general would vary with the amount offered. Hence every commodity has its law of supply, which expresses the variations in supply-price which are correlated with variations in supply-amount. There are special difficulties in constructing such a law of supply, which do not arise generally in the construction of a law of DEMAND. For the supply of any commodity depends on the co-operation of many different kinds of productive agents, and the simultaneous and successive union of many different productive processes. Hence the supply-price of a commodity depends upon the current prices at which the services of the agents of production can be obtained, and the proportions in which these services have to be combined in producing the commodity. In the theory of the exchange value of commodities (see EXCHANGE, VALUE IN), it is necessary, for the sake of simplification, to assume that the rate at which each kind of agent has to be remunerated has been determined by general social conditions. These rates of remuneration are thus given independently of any conditions affecting the variations specially attaching to the supply of the commodity under consideration. On the other hand, the theory of DISTRIBUTION is concerned with the economic forces which determine the rates at which the several kinds of agents are currently remunerated. And here it is convenient to assume that the prices at which each kind of commodity can be sold have been determined independently of the rates at which the agents are remunerated. But this latter assumption requires very considerable modification if we are to avoid circular processes of reasoning.

(2) *The supply of commodities.*—The term *price* is a convenient abbreviation for a sum of money paid for a *unit* of any kind of commodity. The term *aggregate price* may be used for a sum of money paid for a certain given *amount* of the commodity. Hence the *aggregate price* is always the arithmetical product found by multiplying the *price*, per unit, by the *amount*. The supply-price of a commodity is found by adding together the prices which have to be paid to the different agents who contribute to the production of a *unit* of the commodity. In this connection the prices of the agents may be called the *component* prices, and the sum of these prices may be called the *resultant* supply-price. The term *expenses of production* is sometimes used in a slightly different sense from that of *supply-price*. For when different businesses are competing in the supply of the same kind of commodity to the same market, what are called the *expenses of production* in one business may be found to differ from the expenses of production in another business. And even in the same business the expenses of producing the earlier units may be less than those of producing the later units. Now the supply-price must be equal to the expense of producing that unit which is most expensively produced. This unit is technically called the *marginal unit*, and the expense of producing it is called the *marginal expense*. Hence we have the law:—*The supply-price of a commodity for any amount is equal to the marginal expense, per unit, incurred in producing that amount.* It follows that the aggregate supply price may be in excess of the aggregate expenses of production. This excess is called producer's surplus or PRODUCER'S RENT (*q.v.*), or, we may say that *each unit* (except the marginal unit) is produced at an expense less than the price for which the unit is sold; this difference constitutes the producer's surplus *for that unit*. Before referring to the difficulties connected with the theory of producer's surplus, it is necessary to point out its connection with diminishing or increasing returns.

(3) *Diminishing, constant, and increasing returns.*—The supply of a commodity is subject to diminishing, constant, or increasing returns, according as the price at which it is offered increases, remains constant, or diminishes as the amount supplied is increased. The production of every commodity is subject to two opposing tendencies; for as the scale of production is enlarged, it is necessary to have recourse to less economical combinations of land, labour, and capital, so far as more labour and capital have to be concentrated on a given piece of land; and, on the other hand, opportunities arise for the more economic use of division and co-operation of labour, and of aiding labour by machinery and so on. If the former tendency overbalances the latter, the commodity is subject to diminishing returns; if the two tendencies balance one another, to constant returns; while, if the latter tendency overbalances the former, the commodity is subject to increasing returns. An increase in the aggregate scale of production thus entails changes in the prices at which *all* the units in the aggregate can be produced. We cannot then find the aggregate expenses of production on a larger scale by merely adding the expenses of the new units to those previously incurred on the smaller scale. The marginal expense may increase or diminish as the scale of production is enlarged. Where we speak of *marginal* expense, we imply the existence of a *producers' surplus.* Such a surplus may be spoken of in the case of INCREASING RETURNS as well as in that of DIMINISHING RETURNS. This can be shown diagrammatically by constructing what Professor Marshall calls a *particular expenses curve* for each different scale of production. The particular expenses curve indicates at the same time the marginal expense and the producer's surplus, corresponding to each aggregate amount produced. The supply-curve is the *locus of the terminal points* of all the different particular expenses curves.

(4) In analysing the *components of supply-price,* it is legitimate and convenient to neglect the variations in the expenses at which the different units are conceived to be produced, and thus to defer consideration of producer's surplus. The prices of all the agents are understood to be determined by the general forces of competition. When an agent is employed in any particular industry, the price which he can demand is a price independent of the conditions of that particular industry; for it is the price *which he could have secured if he had been employed in some other alternative way.* In this sense, even a piece of land hired by a farmer for any particular agricultural use has a current price, viz. the price which some other farmer would be willing to pay. The individual farmer, therefore, regards "rent as entering into the expenses of production." Similarly, the wages paid to different classes of labour, and the interest for the use of any capital that is borrowed, are determined at current rates depending on general social conditions. There remain *profits, i.e.* the return to the undertaker of the business, who also owns some of the capital employed in it. So far as, under the influence of competition, society may be said to have to pay business ability at a certain rate, we may finally include *profits* in the supply-price of any commodity. The analysis of supply-price can of course be carried out into much greater detail, which will be found in the modern text-books of economics (see COST OF PRODUCTION).

(5) *Supply-price as connected with rent and quasi-rent.*—When the total amount of a commodity is conceived to have been produced at a different expense in different competing businesses, the supply-price is the same as the marginal expense, and any unit, except the marginal unit, sells for a price greater than its expense. The excess of the selling price of the unit over its expense of production is the producer's surplus for that unit. The expenses of production must now be defined more exactly. When we contrast the expenses of production with the producer's surplus, it is understood that the expenses have been incurred under the *anticipation* of a remuneration which will be covered by the price of the commodity. It is this *anticipation* which operates in determining the amount of the commodity that is produced. Any remuneration which is obtained independently of the influence of anticipation in determining the amount produced is of the nature of a producer's surplus. Now we may consider the effect of anticipation as exerting its influence over a longer or a shorter period of time. (*a*) If a period sufficiently long to provide the specialised capital, material or personal, in adaptation to the anticipated demand is taken into consideration, then the expenses of production will include *the expenses of producing such specialised forms of capital.* The only kind of remuneration that here constitutes producer's surplus is the remuneration for the use of *natural agents* (see AGENTS OF PRODUCTION), of which the quantity applied in the industry cannot be increased under the stimulus of anticipation. Such a natural agent would be *land used for agricultural purposes.* Hence we arrive at the well-known doctrine of RICARDO that "the rent of land used in agriculture does not enter into the expenses of production which determine the supply-price of agricultural produce." (*b*) If now we consider a shorter period of time, commencing after specialised capital has been already created, then the expenses of producing this capital cannot any longer operate as an influence determining the amount of the commodity produced. The

remuneration received by the owners of such specialised capital is excluded from the expenses of production, and constitutes a *quasi-producer's-surplus; i.e.* an element which, for the shorter period under consideration, does not influence the amount of the commodity produced, and thereby determine its price. So far the theory of producer's surplus has been shown to depend on considerations of the *period of time* during which the influence of anticipation is conceived to operate. A further qualification is needed, which depends on the *range of alternative uses* to which an agent can be put. Thus the Ricardian theory of agricultural rent would have to be differently interpreted, according as we consider *agriculture in general*, or only some particular agricultural produce, such as *wheat*. Any piece of land could be applied to the production either of wheat or (say) of barley. The producer's surplus, which corresponds to the price of *wheat*, is not the whole rent of the land, but only the excess of the rent over that rent which could have been obtained if the land had been turned, say, to the growing of barley. It is this excess value which may be strictly said not to enter into the determination of the price of wheat. For if a *tax*, not exceeding the above value, were levied on the wheat-growing land, while barley-growing lands were exempt, the burden of the whole tax would fall on the receiver of rent, and there would be no rise in the price of wheat. The true surplus, which does not enter into the price of *wheat*, is, therefore, only the excess of the rent on wheat-growing lands over the rent that could be obtained by some alternative mode of employing the land. Thus if the tax on any piece of land that is growing wheat exceeded this value, the land would, in time, be turned, say, to barley-growing; the area for wheat-growing would be restricted, and the price of wheat would rise. Summing up, we find that the theory of producer's surplus has to be differently interpreted (1) according as a *longer or shorter period of time* is considered, during which the influences of anticipation are allowed to operate, and (2) according as a *larger or smaller range of alternatives* is considered in regard to the directions in which an agent may be employed.

[The above treatment of the problems of supply follows in the main the lines laid down by Prof. Marshall, *Principles of Economics*, vol. i. In particular see bk. v., chs. v. viii. ix. xiv.; and bk. vi., chs. v. viii. ix.] W. E. J.

SUPPLY AND DEMAND.

(1) The General Theory of Supply and Demand, p. 490; (2) Consideration of the Term Supply and Demand, p. 492; (3) Equilibrium between Supply and Demand, p. 493; (4) Joint and Alternative Demand, Joint and Alternative Supply, p. 494; (5) Connection between the Theories of Distribution and of Exchange, p. 495.

1. *The General Theory of Supply and Demand.*—The central problem of economic theory is an enquiry into the balancing of two opposed classes of motives, the one consisting of *desires* for certain sources of satisfaction or enjoyment, the other consisting of *aversions* to certain forms of sacrifice or toil necessarily undergone in order to gain command over those sources of satisfaction. The simplest case of balance between desire for a COMMODITY and aversion to a DISCOMMODITY is found when a man directly satisfies his own wants by his own work. The problem is solved by applying two simple principles which are complementary to one another. The first principle is the LAW OF DIMINISHING UTILITY, which may be expressed as follows: The utility afforded by any increment of a commodity diminishes with increase in the amount of the commodity possessed. The second principle is the *Law of Increasing Disutility*, which may be expressed in corresponding terms thus: The disutility incurred by any increment of a discommodity increases with increase in the amount of the discommodity undergone. Thus, if a man has to work to obtain his food, we may measure the amount of commodity acquired by the *weight* of the food, and the amount of discommodity by the *time* he works. The two laws state: (1) Every additional ounce of food yields him a smaller increment of utility; (2) Every additional hour of work yields him a greater increment of disutility. It is then obvious that the balance between desire and aversion is reached by working just so many hours and thus obtaining just so much food, as that the additional disutility of the last hour's work is equal to the additional utility of the food obtained by that last hour's work. In EQUILIBRIUM, the marginal disutility of the last piece of work equals the marginal utility of the last piece of food. The result may be expressed in another way which is important in further developments. Each hour's work involves a certain disutility which is rewarded by a certain amount of food yielding utility. The economic problem is thus solved by *maximising the surplus of utility over disutility*. This surplus is a combination of producer's and consumer's surplus, which, in the simplest case, accrues to the same individual man. This surplus is a purely psychological conception, and cannot be measured in objective units. On the other hand, the amount of food and the amount of work *can* be measured in objective units; the former in *lbs. weight*, the latter in *hours*. We have then to conceive of one law of variation which connects the amount of food with the amount of utility, and a second law of variation which connects the amount of work with the amount of disutility. These two laws are purely psychological, depending on the individual's private character. But it will be seen that these two laws alone

are not sufficient to solve the problem. For nothing has been said as to the relation between the amount of work done and of food produced. We cannot assume that every fresh hour of work will produce an equal increment of food; and hence we must introduce a third law of variation, which will explain how much food corresponds to each several quantum of work. This law mediates between the law connecting amount of utility with amount of food and the law connecting amount of disutility with amount of work. At the basis of the theory of supply and demand we thus find three kinds of laws of variation: (1) The law of utility connecting commodity acquired with pleasure afforded; (2) the law of disutility connecting discommodity undergone with discomfort incurred; (3) the law of efficiency, connecting discommodity undergone with commodity acquired.

It is only the third of these three laws of variation which can be objectively ascertained. Whereas the variation of utility is always subject to the principle of diminution, and the variation of disutility to the principle of increase, the variation of efficiency which connects the objectively measured amounts of commodity and discommodity, may be subject to a principle either of increasing, of decreasing, or of constant returns. The further investigation of the law of efficiency will be taken up later.

We will now consider how it is possible to give an objective measure of utility and of disutility. This is most simply effected by means of *money*. If a man has money, he may put a *price* on his satisfactions and his sacrifices; and, thereby, they become measurable through their exchange-value. In this way the law of variation of utility is transformed into a law of variation of *demand* for a commodity, which assigns for every several amount of the commodity the *price* at which that amount will be purchased. Similarly, the law of variation of *disutility* is transformed into a law of variation of *supply* of a service, which assigns for every several amount of the service the price at which that amount will be offered. It will be seen that the laws of supply and demand in their simplest form are identical. For the supply of a service may be regarded as a demand for the income derived from that service; and the demand for a commodity may be regarded as a supply of money offered for the commodity. In both cases we may speak of some utility to be acquired and of some sacrifice to be incurred. The law connecting the amount sacrificed with the amount acquired will be as follows:

Any change favourable to the individual, in the terms on which he can secure an acquisition in return for a sacrifice, will induce him to *demand* a larger amount. When the terms are comparatively unfavourable, this larger amount will be obtained by an increased offer; until with increasingly favourable terms, the offer reaches a maximum; after which, when the terms have become comparatively favourable, he will be securing an increasing amount in return for a lower offer. There is thus a certain *price* which will induce him to make the highest offer. This point might be called the critical point in the curve connecting amount offered with amount demanded. He would always be increasing his acquisition under increasingly favourable terms; but for sub-critical points, this would involve an *increasing* outlay of sacrifice, and for supra-critical points, this would involve a *decreasing* outlay of sacrifice. A few figures will make this clear. Consider a man's annual demand for coal. At the price £7 a ton, the amount demanded might be 1 ton involving an outlay of £7; at £6 a ton, amount 1⅔ tons, involving outlay £9; at £5 a ton, amount 3 tons, involving outlay £15; at £4 a ton, amount 4 tons, involving outlay £16; at £3 a ton, amount 5 tons, involving outlay £15; at £2 a ton, amount 6 tons, involving outlay £12; at £1 a ton, amount 7 tons, involving outlay £7. Here the critical price is £4 a ton, with maximum outlay £16. As price falls, the elasticity of a man's demand may be normally expected to decline; so that, while at relatively *dear* rates, he is induced to spend *more* as the article falls in price, at relatively *cheap* rates he is induced to spend *less* as the article falls in price. Separating the dear and the cheap rates, there is the *critical rate*, at which his expenditure reaches its maximum.[1] The same principle applies as regards the supply of services in production. For example, if a man's wages are relatively *low*, he will be induced to work *longer* hours for a higher wage per hour; but, if his wages are relatively *high*, he will be induced to work *shorter* hours for a higher wage per hour. In both cases the increase in the *rate* of wages per hour will lead to an increase in the *total day's wage*. The same applies to capital. If the rate of interest is relatively *low*, the capitalist is induced to increase his investments under the stimulus of a higher rate of interest; but if the rate is relatively *high*, he will be induced to diminish his investments under the stimulus of a higher rate of interest. In both cases, the increase in the *rate of interest* will involve an increase in the *total income* derived from capital investments. It might be thought that the teachings of history are in direct opposition to this last theoretically obtained result. But the answer to this objection will throw further light on the real meaning of the law. The law presupposes *constancy in the conditions of supply*

[1] It is not strictly necessary to assume *only one* maximum point; but the above account is sufficiently accurate for most cases.

of capital, or of demand for the income that can be derived from investments. Now during the period in which the rate of interest has fallen, the conditions affecting the supply of capital have changed enormously. The accumulated wealth—out of which the savings of the community are derived—has been rapidly increasing; and the *habit* of saving has at the same time probably been fostered. This accumulation of wealth in its turn has been partly due to the discoveries made in the industrial arts. These discoveries have been chiefly operative, as supplying fresh opportunities of displacing labour by capital; so that their *primary* effect would have been to *raise* the rate of interest and lower the rate of wages. But the secondary effect has been to increase the amount of capital relatively to labour to such an extent that the rate of interest has fallen. In this case it is practically misleading to regard the conditions of supply of capital as independent of the conditions of demand for capital. For as the demand for capital is raised—owing to industrial inventions,—the income of that class out of whose resources most of the new investments are made is at the same time increased; and thus the very same conditions which produce a change in the *demand* for capital produce also a change in the conditions affecting the *supply* of capital. When it was said that at a relatively low rate of interest an increase in the rate would lead to larger investments, and a relatively high rate of interest would lead to smaller investments, it must be remembered that what is relatively low at one period may be relatively high at a later period; if the amount of accumulated wealth at the former period is considerably less than that at the later. At the present time we could say that a rate of $4\frac{1}{2}$ per cent is *relatively high*, while fifty years ago it would have been *relatively low*.

2. *Considerations of the Term, Supply and Demand.*—Both the terms supply and demand are often used in a loose way, which renders it impossible to express economic theory in a quantitatively exact form. For this purpose it is necessary to define and distinguish the three phrases "conditions of supply," "supply-amount" and "supply-price," and the three phrases "conditions of demand," "demand-amount," and "demand-price." The conditions of supply of a commodity or service must always be considered as independent of the conditions of demand for that commodity or service—at least in the abstract theory. In speaking of *given* conditions of supply, we mean that the following determining factors are assumed to be constant, viz. the character and resources of those who offer the commodity or service, their individual or collective efficiency, and the knowledge of the industrial arts. In the same way, the conditions of demand are said to be *given* when we assume the following determining factors to be constant, viz. the resources and the tastes of those who wish to buy the commodity.

Corresponding to any given set of conditions of supply, we construct supply-schedules or SUPPLY-CURVES (*q.v.*). This gives the relations of variation between the supply-price and the supply-amount. It is expressed in a series of hypothetical or conditional statements; thus: "If the price were so much, the amount offered would be so much; if the price were so much again, the amount offered would correspondingly vary, and so on." The relations thus expressed are spoken of as relations between supply-price and supply-amount.

Similarly we construct demand-schedules or DEMAND-CURVES (*q.v.*) corresponding to any given set of conditions of demand. This again is expressed in a series of hypothetical statements: "If the price were so much, the amount demanded would be so much, and so on."

Hence neither the conditions of supply nor the conditions of demand are sufficient alone to determine either the price or the amount at which the sale or purchase will be transacted. In all cases the *two* sets of conditions taken together are needed to determine the two unknowns—*price* and *amount*.

The old controversies as to whether it was demand or supply which settled price have been finally abandoned. It is now seen that where price seemed to be determined by one or other of these two agencies exclusively, this was because the amount was tacitly assumed to be fixed by the conditions of the other agency, or *vice versa*. Thus we have four possible limiting cases which appear at first sight to be exceptions:

(1) Where the amount supplied cannot be varied we may say roughly "Price is determined by (the conditions of) demand." [Inelastic Supply.] *E.g.* natural agents; pictures of great artists.

(2) Where the amount demanded cannot be varied we say roughly "Price is determined by (the conditions of) supply." [Inelastic Demand.] *E.g.* absolute necessaries in a stationary population.

(3) Where the supply-price cannot be varied we can say "Amount is determined by (the conditions of) demand." [Constant Returns.] *E.g.* long-established manufactures of staple commodities.

(4) Where the demand-price cannot be varied we can say "Amount is determined by (the conditions of) supply." [This last case could hardly arise, except under the influence of governmental interference, or in very exceptional cases of the force of custom or habit, such as the penny newspaper.]

The *price* and *amount* which are determined

so as to satisfy conjointly the conditions of supply and the conditions of demand are spoken of as the equilibrium-price and the equilibrium-amount in reference to those conditions. It is not meant that no transactions take place in the market except at the equilibrium-price. What is meant is that when this equilibrium-price and the corresponding equilibrium-amount are reached, then the conditions of supply and demand would not tend to produce any re-adjustment of price. For most practical purposes we may limit ourselves to *stable equilibria*, and in this case we can express the actual facts more precisely. Any accidental variation from the price that corresponds to stable EQUILIBRIUM will bring into operation forces tending to restore the price to its equilibrium value. An equilibrium is stable under the following conditions: viz. when for amounts less than the equilibrium-amount, the supply-price is less than the demand-price, and for amounts greater than the equilibrium-amount, the supply-price is greater than the demand-price. Thus, if the required supply has been underestimated, producers find that they are getting a higher price than is sufficient to remunerate them; this encourages a larger supply and leads to a fall in the demand-price. Conversely, if the supply required has been overestimated, producers find that they are receiving a lower price than is sufficient to remunerate them; this checks the supply, until the demand-price rises to its equilibrium value.

3. *Equilibrium between Supply and Demand.*—The equilibrium between supply and demand of commodities depends essentially upon the action of producers in *anticipating* the demand. So far as the forecasts made by those who supply a market are correct, we can say that the amount supplied is such that the supply-price is equal to the demand-price. Hence the element of *time* enters into any consideration of equilibrium. For the processes of production occupy a longer or shorter period of time before the commodity is finished and transferred to the consumer in a condition for direct use or enjoyment. The most serious difficulties that arise in connection with the equilibrium of demand and supply depend upon the interval of time which elapses between the earlier applications of labour and capital and the final transference of the finished commodity into the hands of the consumer. Prof. Marshall has proposed to distinguish the discussions of equilibria between demand and supply according to the length of the period which we may take into consideration in defining supply-price. The supply-price corresponding to any amount may be defined in general as the price at which, under the circumstances of the case, it would be worth the while of the producers to sell that amount. But in this anticipation any *differences in the circumstances of the case* would be liable to make important differences in the supply-price calculated in reference to those circumstances. For instance, if expenditure has already been incurred in creating specialised capital, either material or personal, the estimate of the price at which it would be worth while supplying the commodity might be very different from that based on the state of things previous to this expenditure, when the outlay could be freely directed towards the production of suitable buildings and machinery, and towards the training of suitable skill and knowledge. The circumstances in which the amount of specialised material and personal capital is given will thus constitute the conditions of supply for a relatively short period between production and consumption; and the circumstances in which no capital has been fixed and specialised for the production of the commodity will constitute the conditions of supply for a relatively long period between production and consumption (see PRICES, LONG-PERIOD SUPPLY, SHORT-PERIOD SUPPLY). The equilibrium obtained by equating the *long-period supply-price* with the demand-price is called the *normal* equilibrium; and that obtained by equating the *short-period supply-price* with the demand-price is called the *sub-normal* equilibrium. Finally, if we limit the period to its utmost, we shall regard not only the fixed instruments of production as given, but even the amount of the finished commodity itself. In this case, unless the sellers are in a position to withhold their offer and can speculate for a rise in price, the conditions of demand taken by themselves may be regarded as determining the price at which the commodity will be sold. Such an equilibrium is called a *temporary equilibrium*. In each of the three cases, the equilibrium-price is a theoretically determined or *ideal* price. With this *ideal* price we must contrast and connect the actual or *market price*. The market-price oscillates about the theoretically determined equilibrium-price. Thus, during the day, say, the actual price may fluctuate above and below the price corresponding to the temporary equilibrium. Again, the actual prices occurring during a short period would fluctuate above and below the price corresponding to a sub-normal equilibrium; and those occurring during a long period would fluctuate about the price corresponding to a normal equilibrium. Roughly speaking, we can say that the normal price is the average of the actual prices taken over a long period; and that the sub-normal price is the average of the actual prices taken over a short period. For the prices ruling throughout any period might be expected to fall as often and as much above as below the anticipated price, owing to deficiency or excess in the amount offered during the period. Of course the market-price would throughout approximate more closely to the equilibrium-price the more

quickly the commodities were consumed and reproduced.

But further when we regard the equilibrium-price as the average of the varying market-prices, we presuppose constancy in the conditions of demand and supply during the period over which the average is taken. Owing to changes of fashion or taste, the conditions of demand may be continually varying; and owing to changes in the industrial arts, the conditions of supply may be continually varying. Hence it would generally be impossible to determine the equilibrium-price by averaging the variations in market-price during any period of time.

4. *Joint and Alternative Demand, Joint and Alternative Supply.* — The general theory of distribution and exchange requires us to note that the amounts and prices of different commodities are often very closely connected either through the conditions of demand or through the conditions of supply or both. There are four typical cases in which this dependence is strikingly manifest. These are (1) *Joint Demand*, (2) *Joint Supply*, (3) *Alternative Demand*, (4) *Alternative Supply*.

The following brief definitions may be given :—

(1) A demand for "A and B" is called a *joint demand;*
(2) A supply of "A and B" is called a *joint supply;*
(3) A demand for "A or B" is called an *alternative demand;*
(4) A supply of "A or B" is called an *alternative supply.*

The terms above given are chosen to indicate in each case whether the interconnection comes primarily from the side of demand or from the side of supply. But it will be found in each case that the phenomenon can be regarded from the opposite point of view.

Thus we shall find that,

(1) *Joint Demand* involves *Complementary Supply;*
(2) *Joint Supply* involves *Complementary Demand;*
(3) *Alternative Demand* involves *Competitive Supply;*
(4) *Alternative Supply* involves *Competitive Demand.*

In the further explanations which follow the relations will be described in an exact form which is often only approximately realised in actual economic phenomena. An ideal simplicity is introduced in order to give greater clearness to the exposition. We shall derive formulæ for each of the four cases separately, but it will be convenient at once to anticipate the results by pointing out the analogies that will be disclosed between the four cases. It will be found that in passing from the formula of joint demand to that of joint supply, or from the formula of alternative demand to that of alternative supply, we shall have merely to interchange throughout the terms *supply* and *demand* or *demand* and *supply*. And again, in passing from the formula of joint demand to that of alternative demand, or from the formula of joint supply to that of alternative supply, we shall have merely to interchange thruoghout the terms *price* and *amount* or *amount* and *price*. These symmetrical results will be found helpful in obtaining a general survey of the problems investigated.

In the cases of joint demand and joint supply, we shall find that whereas the amounts of the two constituent articles vary in the same direction, their prices will tend to vary in opposite directions. In the cases of alternative demand and alternative supply, on the contrary, the amounts will vary in opposite directions, while the prices will vary in the same direction.

Joint demand, involving complementary supply. This deals with cases in which things are not demanded separately, but have to be used in conjunction with one another in order to meet the needs of consumers; such as *wood* and *bricks* in the building of a house, *blades* and *handles* in the manufacture of a knife. The connection here is from the side of demand, while the conditions of the supply of the two factors may be assumed to be independent of one another. The processes of supplying the two factors *complement* one another, so as to produce a commodity which it is worth while for the ultimate consumers to purchase. Thus the supply-price at which any given amount of the finished article will be offered is the sum of the supply-prices of the several factors which contribute their part in the total productive process. Equilibrium between demand and supply is, therefore, reached at that amount for which the demand-price of the finished article is equal to the sum of the supply-prices of the several factors which co-operate.

Joint supply, involving complementary demand. This deals with cases in which things cannot be produced separately, but are produced together by a single process, such as *beef* and *hides*, or *wheat* and *straw*. The connection here is from the side of supply, while the conditions of the demand for the two commodities may be assumed to be independent of one another. The two things are produced by the same process, so that the expenses of producing both the things together are the same as the expenses of producing one of them alone. The demands for the two commodities *complement* one another in making it worth the while of producers to meet the two independent needs. Thus the demand-price at which any given amount of the productive process will be called for is the sum of the demand-prices of the several commodities which are jointly produced in the process. Equilibrium between supply and demand is, therefore, reached at that amount for which the supply-price of the productive process is equal to the sum of the demand-prices of the several articles jointly produced.

Alternative demand, involving competitive supply. This deals with cases in which the same ultimate need can be met by one or other of two commodities equally well, so that either

can be used as an equivalent for the other, or instead of the other, it being understood that the more of the one article is used the less of the other will be in consequence needed. Thus it can be said with approximate accuracy that the demand for non-intoxicating stimulants is an *alternative demand* for tea or coffee. The connection here, as in joint demand, is from the side of demand, while the conditions of the supply of the two articles may be assumed to be independent of one another. The sources from which the alternative demand is met *compete* with one another, because the more that is taken from one source the less *ceteris paribus* will be taken from the other. The simplest possible case of alternative demand, or competitive supply, is that in which precisely the same quality of article is supplied from different sources, as corn from America and corn from Russia. Let us return, however, to the case of *tea* and *coffee*, and state the simplest assumptions necessary for regarding the two commodities as strictly alternative in demand. We assume that a certain amount of tea, say 2 lbs., yields always the same utility as a certain amount of coffee, say 3 lbs. Hence the conditions of demand will cause the price of 2 lbs. of tea to be always equal to that of 3 lbs. of coffee, however the actual price and amount of tea and coffee may vary. With these quantities as units, *the price of tea is always equal to the price of coffee.* Then the supply-amount of non-intoxicating stimulants which will be offered at any given price is the sum of the supply-amounts of tea and of coffee. Equilibrium between demand and supply is, therefore, reached at that price for which the demand-amount of non-intoxicating stimulants is equal to the sum of the supply-amounts of tea and of coffee.

Alternative supply, involving competitive demand. This deals with cases in which the same industry or the same productive agent can be applied to the production of one or of another utility indifferently, it being understood that the more of the one utility is produced, the less of the other can be in consequence produced. Thus it can be said that a piece of land can be applied either to pasture or to other agricultural purposes; or, with approximate accuracy, that the dairy business can be applied indifferently to producing *cream* or *butter;* the poultry business to the production either of *chickens* or of *eggs*. The connections here, as in joint supply, are from the side of supply, while the conditions of the demand for the two articles may be assumed to be independent of one another. The needs which are met by the alternative supply may be said to *compete* with one another, because the more is supplied for one need, the less, *ceteris paribus*, will be supplied for the other. The simplest possible case of alternative supply, or competitive demand, is that in which precisely the same kind of service or product is applied to meet different classes of consumers, as coal for domestic and coal for industrial uses. Let us return, however, to the case of cream and butter, and examine the simplest assumptions necessary for regarding the two commodities as strictly alternative in supply. We assume that a certain amount of cream, say one pint, involves the same expenses of production as a certain amount of butter, with skimmed milk thrown in, say 1 lb. Hence the conditions of supply will cause the price of one pint of cream to be always equal to that of 1 lb. of butter, however the actual price and amount of butter and cream may vary. With these quantities as units, *the price of cream is always equal to the price of butter.* Then the demand-amount of dairy productions, which will be required at any given price, is the sum of the demand-amounts of butter and of cream. Equilibrium between demand and supply is, therefore, reached at that price for which the supply-amount of the dairy industry is equal to the sum of the demand-amounts of butter and of cream.

The most important problems under the above four heads relate to temporary disturbances in the supply or in the demand of *one* of the connected commodities. The problem is then to discover the virtual or derived schedule of demand or of supply of the commodity of which the supply or the demand is temporarily disturbed. The following formulæ will be seen to be of general application:—

Joint demand.—If the supply of handles is temporarily disturbed, then, for each several amount of knives, the virtual demand-price for handles = the demand-price for knives *minus* the supply-price for blades.

Joint supply.—If the demand for beef is temporarily disturbed, then, for each several amount of slaughtered bullocks, the virtual supply-price for beef = the supply-price for slaughtered bullocks *minus* the demand-price for hides.

Alternative demand.—If the supply of tea is temporarily disturbed, then, for each several price of non-intoxicating stimulants, the virtual demand-amount of tea = the demand-amount of non-intoxicating stimulants *minus* the supply-amount of coffee.

Alternative supply.—If the demand for cream is temporarily disturbed, then, for each several price of the dairy productions, the virtual supply-amount of cream = the supply-amount of the dairy processes *minus* the demand-amount of butter.

5. *Connection between the Theories of Distribution and of Exchange.*—The investigation of the problems of joint and alternative demand, and of joint and alternative supply, is necessary in order to bring into connection the theories of

DISTRIBUTION and EXCHANGE. Distribution deals with the prices and amounts of the several agents of production. Exchange deals with the prices and amounts of the several commodities for consumption. The demand for consumption-goods is a *direct* demand; that for the agents of production whose services complement one another in producing finished goods is an *indirect* demand. Thus the formulæ of joint demand giving the virtual or derived demand for any factor, has to be applied in determining the indirect demand for the several agents of production. Again, the supply of productive agents is a *direct* supply; that of the finished commodities is an *indirect* supply, and hence the formulæ of joint demand have again to be applied in determining the supply-price of a finished commodity. Moreover, every agent of production may, at different stages in the productive process, apply himself in either one of various employments; and hence the formulæ of *alternative supply* become of essential importance. The element of *time* is essential in considering the effect of alternative openings possible for an agent; for so far as his employment has been already specialised, these possible openings are restricted in number. The theories of PRODUCER'S RENT or producer's surplus are founded upon this consideration. All the problems of distribution will thus be seen to depend upon the investigation in particular of *joint demand* and *alternative supply*. The laws of the direct demand for consumption goods, and of the direct supply of production agents, were formulated in the first section of this article. It was there pointed out that a *law of efficiency* of production was needed to mediate between the ultimate principles of *demand* and *supply*. Everything has its own law of efficiency. In examining the law of supply of finished commodities, it is convenient to regard the prices of the *agents* as already determined. We then can calculate the resultant supply-price by adding the supply-prices of the co-operating agents, on the assumption that they will co-operate in such proportions as will secure the most efficient result. This is the assumption underlying the law of substitution. In examining the law of demand for productive agents, it is convenient to regard the prices of the *finished commodities* as already determined. The calculation of the demand-price for an agent here requires chiefly subtraction instead of addition. The determination involves very serious complexity. Briefly we can say that the demand-price of an agent is found by subtracting from the price of the finished commodity the supply-prices of the remaining agents. Rather more accurately: the demand-price corresponding to any amount of an agent's services is found by determining its net marginal efficiency; *i.e.* the value which would be added to the total product by employing an additional unit of its services, on the assumption that the amounts and prices of all the other agents are kept constant. This indicates the lines on which the complex problem of distribution has to be solved.

W. E. J.

SUPPLY, PARLIAMENTARY.

General Remarks, p. 496; Estimates, p. 496; Motions and Resolutions, p. 497; Appropriation Act, p. 497.

General Remarks.—A parliamentary term for the grants of money made by parliament to meet the crown's demand for "aids and supplies" for the maintenance of the public service, used in the speech from the throne at the opening of each session. That demand is necessary, for, whilst the right of "granting aids and supplies to the crown is in the Commons alone," unless the crown has recommended the expenditure they cannot vote the smallest grant of public money; and even when a grant of money is finally sanctioned by the appropriation act, it cannot be issued by the treasury department from the CONSOLIDATED FUND, unless the issue is authorised by an order under the sign manual of the sovereign. By royal command, also, estimates of the annual public expenditure containing statements of the total sums required with details of the expenditure divided into sub-heads and items are submitted to the House of Commons, who thereupon refer these estimates to a committee of the whole house, known as the committee of supply, appointed at the beginning of every session, and kept on foot until the supplies for each financial year have been voted.

Estimates.—The estimates presented at the opening of each session are the ordinary estimates for the service of the current year, for grants on account, and for supplementary and excess grants. Estimates, also, for a vote of credit to cover extraordinary naval or military charges, and for occasions creating exceptional expenditure arising during the session, are occasionally presented. As the parliamentary session commences but few weeks before the close of each financial year, on the 31st of March, the maintenance of the public service during the opening months of each financial year, which commences on the 1st of April, must be provided for. Grants on account, *i.e.* grants in advance upon the estimated annual expenditure, are therefore a sessional necessity. Supplementary grants are either for sums in addition to grants already demanded for the current financial year for services sanctioned by parliament, or for grants caused by fresh occasions for expenditure arising since the presentation of the annual estimates. An excess grant arises when a department has by advances from the civil contingencies fund, or from "extra receipts," carried expenditure upon a service beyond the amount granted for that service

during the financial year. As a vote of credit is demanded to meet unexpected expenditure for undefined services, an estimate is presented of the total sum required, without the detail given in ordinary estimates. Exceptional grants may also be required to defray the cost of imperial undertakings apart from the current service of the year; such as grants for the purchase of the Suez Canal shares, to maintain the dignity of the crown, or to reward its distinguished servants.

Motions and Resolutions.—Motions are proposed in the committee of supply which become, when agreed to, the resolutions of the committee, that the sums specified in each estimate be, for the object therein defined, granted to her majesty during the financial year for which the demand is made. Such a motion, if not by consent withdrawn, must either be refused by the committee, or be accepted, with or without a reduction of the amount therein stated, no increase of a grant, nor modification of its destination, being permitted. Each resolution of the committee is, upon their report, submitted separately to the consideration of the House.

The resolutions for a money grant of the committee of supply, and of the House, are, however, inoperative, unless the House by another resolution authorises the treasury to draw a sum out of the consolidated fund (see CONSOLIDATED FUND, vol. i. p. 389) sufficient to provide the "ways and means" for the payment of the grant. The committee of ways and means is accordingly appointed, at the commencement of each session, simultaneously with the committee of supply, for the consideration of these resolutions; and the chairman of the committee of ways and means acts as chairman of committees of the whole House. In former times the principal duty of this committee was to initiate by their resolutions the taxation that was required to create a sufficiency of "ways and means" to meet the annual demands of the crown for the public service. Nowadays, as all the sources of taxation are rendered permanent by statute, except the duty on tea, and the income tax, the control of the committee over taxation is restricted to the consideration of the BUDGET statement made yearly by the chancellor of the exchequer, wherein he explains his calculation of public income and expenditure for the current financial year, and obtains the annual continuance of the tea and income taxes, with such modifications as may to the committee seem expedient. The increase or imposition of taxation, not demanded by the crown, is beyond the power of the committee.

As has been previously mentioned, the committee of ways and means is charged with the duty of voting the resolutions which authorise grants out of the consolidated fund "towards making good" the grants for the public service resolved upon by the committee of supply, and by the House. It is upon the report of the closing resolution to this effect, which provides the issue of the balance of ways and means required to cover the supply grants voted for the current financial year, that the appropriation bill is brought in. This bill authorises the issue of that balance from the consolidated fund, and enacts—hence the title of the bill—that each grant of supply voted during the session shall be expended on the service for which it has been voted, and to which it is thereby appropriated.

Appropriation Act.—As the treasury cannot touch the consolidated fund save under the authority of an act, and as the appropriation act cannot be passed until the financial business of each session is completed, a process usually ranging over a period of six or seven months, a more prompt issue must be made at the commencement and during the progress of each financial year of the grants voted for the service of the crown. Bills accordingly are passed from time to time during each session, known as consolidated fund bills, which empower the treasury to issue out of the consolidated fund, for the maintenance of the departments for whose use the grants are voted, such sums as they may require in anticipation of the final sanction conferred by the appropriation act. R. F. D. P.

SUPPLY-CURVES are designed to represent the relation between the price of a commodity and the amount supplied at that price. In the construction which Prof. Marshall has made familiar the quantity is measured on the horizontal axis, the corresponding price on the vertical axis. The converse construction is employed by Cournot.

The simplest species of supply-curve might be constructed thus: "If for the moment we assumed that production depended solely upon the exertions of a certain number of workers, already in existence and trained for their work," we might "set forth theoretically . . . various amounts of exertion and therefore of production" with "the prices which must be paid to induce the available workers to put forth these amounts of exertion" (Marshall, *Principles of Economics*, bk. iv. ch. i. § 2, 3rd ed., of a "supply-schedule" corresponding to the "demand-schedule" of bk. iii. ch. iii., which may be "translated into a curve"). The matter is not so simple when we no longer suppose production to depend upon the exertions of a given set of workers, but to be affected by the "external" and "internal economies" and the pressure on the resources of nature which may attend production on a large scale, and even by the growth of knowledge, population, and capital (*Principles of Economics, passim*; in particular the notes on pp. 450, 503-504 and 518, 3rd ed.). If now

for each amount of production we take a point representing the corresponding "normal supply-price," the *locus* of these points is the normal, or "long-period," supply-curve.

The relation of this secondary supply-curve, as it may be called (cp. *Economic Journal*, vol. iv. p. 436), to the primary one at first described is very delicate. According to Mr. H. Cunynghame, to every point on the secondary there corresponds a primary curve, one of the "successive cost-curves" (*Economic Journal*, vol. ii. p. 41). Attention should be called to Mr. Cunynghame's view that the composition of the demand-curve is exactly parallel to that of the normal supply-curve. The former, he holds, is not "a phenomenon depending on time" (*ibid.* p. 38). Are we to extend this remark to the parallel case of supply-curves; and to regard the whole series of "successive cost-curves" as simultaneous, in the same sense as the parts of an ordinary demand-curve are intended to represent existing co-dispositions?

[Supply-curves of some kind are employed by all the mathematical economists.] F. Y. E.

SURENCHÈRE (Fr.). Higher bid. According to French law, real property offered for sale by auction (*à l'enchère*) in the course of judicial proceedings is not definitely sold to the highest bidder until a period of eight days has elapsed after the date of the auction. During that period any interested party may make an application to the court for a second auction, accompanied by an offer of a price exceeding at least by one-sixth the highest price-bid at the auction. This offer is called *surenchère*, and if the price offered by the applicant (*surenchérisseur*) is not reached the latter must purchase the property at that price or make up the difference. Similar proceedings may take place in the case of a mortgagee selling by private contract, and in the case of a bankrupt's real property being sold by the trustee in bankruptcy, but in these cases the period allowed for the *surenchère* is somewhat longer, and the amount of the excess is not required to be more than one-tenth.

[Code de Procédure, §§ 708-710, 832-833, 965; Code de Comm., 573; Code Civil, 2185.] T. L.

SURETY. He who becomes bound for another. A surety who discharges the liability of the principal is entitled to an assignment of all the securities, if any, held by the creditor (see Guarantee).

[De Colyar on *Guarantees*, London, 1885.] J. E. C. M.

SURPLUS. The effect on price of a short supply of a commodity of such prime necessity as wheat has formed the subject of many speculations, and these have even taken the form of a definite estimate, as in the table given by Davenant, of the extent to which "a defect in the harvest may raise the price of corn." These figures were adapted to an algebraic formula by Jevons (*Theory of Political Economy*, ch. iv.), who found that Davenant's data agreed very closely with the results given by

$$\text{price of corn} = \frac{\cdot 824}{(x - \cdot 12)^2},$$

x being the proportion of the supply to that of a normal or average year. The price given by the formula is the proportion of the actual money price to that of a time when the supply is normal.

If the same formula be applied to indicate the result of crops more abundant than the average, the indications it gives are as follows:—

Percentage excess of supply above average . .	5	10	20	30	40	50
Percentage reduction of price resulting . .	10	19	33	44	53	59

The meaning of this is simply that, assuming Jevons's formula to represent the Demand Curves for corn, not merely for prices higher than the average, but for prices below the average, the effects on price of excesses of supply in the degrees named in the first line of figures are given by the corresponding figures of the second line.

It need hardly be stated, however, that there is no special reason for believing that Davenant's data are sufficient to give for our time, even if they should do so for his own, the demand curve for corn. Not only so, but every separate commodity will have its own peculiarities in this respect, so that, were we able to state the numerical connection of enlarged supply with reduced price for the case of corn, the connection could not be held to apply to other important markets.

The extent of the fall of price necessary to carry off an increase of supply will depend on the nature of the commodity and on the extent of its previous use. If the lower price extend its consumption to large classes of the community, a very large increase of supply may take place without greatly disturbing the price after it has fallen to the necessary point to tap the new stratum of consumers. If, on the other hand, no ordinary fall of price can thus bring the commodity within the reach of large numbers of new consumers, and if, further, the actual consumers have already nearly as much of the commodity as they care to use—a state of things by no means inconceivable—the lowering of price necessary to dispose of supplies but moderately in excess of the normal may be quite large. If new channels for disposing of the commodity, where its utility is but little below what it had in the uses to which a normal supply was applied, are not discoverable, the surplus may be only disposable in uses where its utility is far below that attained in ordinary uses, and the fall of price be, consequently, large. The whole supply being assumed disposed of in the same market, the price of the surplus will

also be the price at which the ordinary supply will be sold. Should it be possible to dispose of the surplus at a price other than that at which the ordinary supply finds a market, without, in fact, disturbing the price received for the ordinary supply, the loss which producers would suffer from the fall in the price of their whole output may be diminished or entirely obviated. In this case the surplus supply would, from the point of view of the ordinary market, be as if non-existent.

What is stated above may be more briefly expressed by saying that the effect on price of a surplus of supply is entirely dependent on the elasticity of demand of the particular commodity in question. This elasticity of demand is of course very closely connected with the possibility of substituting the commodity in question for other commodities, or *vice versa*, according as the relative prices show opportunity for advantageous substitution, or not.

If y be the price at which a quantity x of the commodity can find purchasers, the equation $xy^n = c$ is that of a demand curve showing at every point an elasticity of demand equal to n [see Marshall, *Principles*, mathematical note iii.]. Such a demand implies that, as a result of a small fall in the price, the amount demanded increases by an amount varying inversely as the $(n+1)^{th}$ power of the price. To reduce the price by one-half, the supply must be multiplied by 2^n. If $n=1$ we have the case of a *constant outlay demand*, in which the amount spent on the commodity is the same at all prices; every fall in price results in a proportionate increase of the amount bought. The absolute increase of amount bought varies inversely as the square of the price, or, which is the same thing for this case, directly as the square of the amount previously bought.

In the general case, the percentage decrease of price consequent on a given small increase of supply is $\frac{1}{n}$th part of this percentage increase of supply, at all points on the demand curve at which the elasticity is n. If n be greater than unity, the total cost of a supply x increases with x. If n be less than unity, the total price obtainable for an enlarged supply falls short of that for which the smaller supply would sell, and the sellers would gain on the whole, by combining to destroy a part of their supply.

The equation obtained by Jevons differs little, when x is not far from unity, from that of a demand curve in which the elasticity is constant and equal to $\frac{1}{2}$ throughout. The result of a given small percentage surplus of supply is a fall of price of double this percentage.

In general, then, the question of how great the fall of price will be which results from a given surplus of supply, is answered by obtaining the measure of the elasticity of the demand with the ordinary supply. This is only strictly true for cases where the elasticity of demand is constant, but it is sufficiently near to the truth when the surplus is but a small percentage of the total supply. We may expect that demand curves in general will show varying elasticity. In that case, a surplus of supply which is more than a *small* percentage of the whole supply will cause a percentage fall of price greater or less than in the case of constant elasticity, according as the elasticity of demand is decreasing or is increasing as we pass from the point representing ordinary supply to the points representing supply in excess of the ordinary. Corresponding statements may be made for the case of deficient supply.

In what precedes, it is taken for granted that the surplus supply, be it great or small, is not held off the market, but disposed of in the existing conditions of demand. In so far as circumstances permit of retaining a store for anticipated higher prices, the fact of extra supply being available does not produce its full effect on the price of the market. By being in reserve, in case prices should rise sufficiently, it limits the rise, but not being thrown on the market at all at prices below a definite figure, cannot depress prices beyond that point, at any rate if we exclude the influence of trade-connections, etc., influences tending to modify the effects of unfettered competition.

The word "surplus" has, in what precedes, been employed to designate all the excess of supply above the ordinary—a distinctly vague conception. The ideas on which the discussion has been based are those of a steady supply and a steady demand in a market with an equally steady price for the commodity. Into such a steady market is introduced the modifying influence of a growth of supply. The addition to the supply is what is here called "surplus." It cannot be said to be in excess of demand except on the hypothesis that the price do not fall. It is not "surplus" to the consumers who, at the reduced price, are able to obtain goods beyond their reach at previous prices. In one sense of the word, goods cannot be in excess, cannot be truly a surplus, so long as there remain any purposes to which these goods would be applied if they were free, but to which, having a cost price, they are not actually applied. In the more usual sense, however, any supply the disposal of which requires a reduction of price may be denominated a surplus supply. It may be observed that an enlarged supply would not, in this sense of the word, imply any "surplus," if it were accompanied by such a development of demand that the whole could be disposed of without any reduction of price below the customary level. In so using the word, agreement with the ordinary language of business is preserved (cp. arts. ELASTICITY OF DEMAND).

A. W. F.

SURPLUS, LAW OF. See SURPLUS.

SURPLUS VALUE. See MARX, H. K.; VALUE.

SURVIVAL OF THE FITTEST. Natural selection, which tends to the preservation of creatures more adapted to the medium they have to live in, and to the disappearance of those less so, is, beyond doubt, a *vera causa* in the organic world. It leads, in general, to the physical improvement of breeds, and, if the general Darwinian hypothesis be correct, may be a real factor in the production of new species, though Darwin does not claim for it that it affords a complete explanation of their origin (see DARWINISM). Its consequences can be modified by human intervention, which may prefer, and therefore protect, weaker individuals or races among the lower animals; for it is obvious that qualities, such as gentleness and capacity for affection, which might render a creature less formidable, and therefore less successful, in a state of nature, may make it more useful and acceptable when domesticated or employed as an auxiliary of man.

In the case of man himself, as in that of other animals, there is a natural tendency to the survival of the physically soundest and strongest; and some theorists have not shrunk from carrying the Darwinist idea so far as to assert that it is desirable in the interest of society that the existence of the physically weak should not be prolonged by the care of their fellows, but that they should be allowed to disappear as "unfit." But, as has been well said, a great proportion of those to whom the world owes most would never have been considered in a physical point of view the strongest, and were not seldom among the weakest, whilst, on the other hand, many of the physically strongest could well have been spared. "Fitness" is relative to all the conditions; and physical advantages may be extremely important in some times and places, and of comparatively little account in others. In the more advanced stages of human development they are greatly outweighed by intellectual and moral superiority. Even in warfare, whilst the tall and muscular man formerly was the leader, it is now often a person of comparatively feeble frame, to whom nature has given a resolute spirit and a genius for command. Another suggestion founded on Darwinian principles, and more plausible in character than that above referred to, has been made, namely, that those who are likely to transmit some form of disease or infirmity to their descendants should be prevented from marrying. The result at which this proposal aims is certainly desirable, if it could be attained by moral influence; and such influence might and ought to be used for the purpose; but to attempt to effect the object by coercion would be a proceeding at once tyrannical and ineffectual. Neither this sort of compulsion, nor the old expedient of infanticide, is at our disposal for the improvement of the race, being rendered impracticable by feelings which the progress of society has itself developed. We must take the human material as supplied to us, and modify it as far as possible, in the public interest, by judicious treatment—by physical education and hygiene, and, in general, by better conditions of life.

When we consider the social, as distinguished from the physical, "struggle for life" (a Darwinian phrase which must not be taken as expressing, in this application, more than a half-truth), natural selection is, here too, a real agency. But it is a serious error to suppose that its operation is always beneficent. For, while the respectable elements in our natures sometimes lead to success, the lower and even the vicious ones do so also. Viewing contemporary life, if we use CARLYLE's threefold scale of the vulpine, the beaver, or *un*moral industrial, and the genuinely human qualities, we must admit that the first often have a large share in winning success and predominance. A steady and vigilant selfishness, a dogged refusal to acknowledge the claims or others wherever they can be disputed, and a constant endeavour after personal gain, will sometimes render a man "fit" for the medium he lives in, and assist him in improving his position. One who rudely elbows his way through a crowd will often make progress where a more modest person, with greater regard for others, will be retarded or altogether brought to a stop. As Huxley has said, "the creature that survives a free-fight only demonstrates his superior fitness for coping with free-fighters, not any other kind of superiority." Some who have not been able to sustain themselves in the stress of competition, but have succumbed to the pressure, though less "fit" for the struggle, may have been superior to the successful in all the higher elements of human character. Similar remarks will apply to cases in which success is won by dishonest arts, by mean compliances, by flattery of the wealthy or the powerful, by unworthy self-advertisement. Those who do not stoop to such expedients may be distanced in the race of life, but society is a loser by their failure. In the social sphere, as in the physical, judicious human intervention may do much to correct the evils which arise from the uncontrolled action of natural forces. Persons who, by intellectual gifts of the nobler order and by moral superiority, are really fitted to be useful, though likely to be crushed in the warfare of competition, may be rescued and sustained. And, by "artificial selection," those who for the welfare of society ought to fill positions of influence may be elevated to those positions, even when incapable of attaining success by energetic or politic self-seeking.

[Bagehot, *Physics and Politics.*—Bonar, *Philos.*

and Pol. Ec.—Ritchie, *Darwinism and Politics.*] J. K. I.

SUSPENSE ACCOUNT. In bookkeeping an account sometimes raised for temporarily holding an item, whose final disposition is not yet settled. R. W. B.

SUSPENSION OF SPECIE PAYMENTS. One of the most important instances of a general suspension of cash payments was that which commenced in this country in 1797. The enormous expenditure abroad on our army and navy during the first years of the war against Napoleon, as well as the loans and subsidies granted to some continental states, caused a steady export of bullion (see DRAIN OF BULLION). An Order in Council was addressed to the Bank of England on 26th February 1797, requiring it to cease giving out cash in payment until the sense of parliament could be ascertained. Soon after the meeting of parliament an act was passed (3rd May 1797), known as the Bank Restriction Act, requiring the bank not to pay cash except for sums under 20s. This act would have expired 24th June in the same year, but on 22nd June it was continued until the following session, and, in November 1797, another act was passed extending the restriction until six months after the termination of the war. In consequence the note issues, both of the Bank of England and of the country bankers, were largely increased, and being inconvertible, caused gold to go to a premium. In 1800 the price of standard gold rose to £4 : 5s. per ounce, and continued to fluctuate at more or less premium until 1819. In 1811 it was quoted at £4 : 17 : 6, and in 1814, as high as £5 : 8s. per ounce. Conversely stated, the value of the £5 note was then at its lowest point, £3 : 10 : 10, being nearly 30 per cent discount.

Peace was finally concluded in November 1815, and the Restriction Act should have expired six months later, but it was continued till July 1816, 1818, and 1819 successively. In 1817 the bank gave notice that it desired to pay certain of its notes in gold, but it was prevented from doing so by parliament. In 1819 Resumption was provided for by Peel's Act (59 Geo. III. c. 49), which required the bank to resume specie payments by stages, redeeming its notes in gold bullion at the following rates :—

From 1st Feb. 1820 to 1st Oct. 1820 at £4 : 1s. per oz. std.

From 1st Oct. 1820 to 1st May 1821 at £3 : 19 : 6 per oz.

From 1st May 1821 to 1st May 1823 at £3 : 17 : 10½ and thereafter in gold coin.

In 1821 the bank obtained an act permitting it to pay all its notes under £5, which was done by payment in sovereigns, then first coined. In preparing for the resumption of specie payments the bank found no difficulty whatever in accumulating an ample stock of coin and bullion, and the whole history of the events of this period fully justifies the conclusion that in a solvent country with a sound currency the quantity of money in use will be regulated by the requirements of trade and of prices. The following table gives a view of the currency, in periods of five years each, showing the *average* circulation of the bank and of the country bankers, and the *total* of gold and silver coined from 1792 to 1831 :—

Period.	Average Note Circulation.		Total Coinage.
	Bank of England.	County Banks.	
	£	£	£
1792-1796	11,637,470	No return before 1814.	7,436,293
1797-1801	14,023,530		6,657,303
1802-1806	16,733,330		1,851,625
1807-1811	19,811,410		1,299,859
1812-1816	25,153,520	18,935,400	2,324,973
1817-1821	25,287,230	14,186,950	23,172,781
1822-1826	21,469,520	10,961,800	22,283,903
1827-1831	20,691,710	8,798,500	9,134,894

A general suspension of specie payments also took place in the United States at the time of the civil war. At the beginning of 1861 the paper currency consisted entirely of notes of the various banks amounting to about 40 millions sterling. The acts of 17th July and 25th August 1861 authorised the issue of treasury notes, redeemable in coin on demand, but they were received with dislike. In December 1861 specie payments were suspended, and the issue of government legal-tender notes was authorised by act of 25th February 1862. Their amount rapidly increased, till, in 1865 the total of demand notes in circulation was about 150 millions sterling. Their value in gold as rapidly decreased, and in 1864 it fell to 35·1 cents per dollar, equal to a price for gold of 285 per cent. In 1866 the Treasury began to redeem them, at the rate of 4 million dollars per month, by cancelling them as received for taxes, but redemption was suspended by congress in 1868. The act of 14th January 1875 provided for the resumption of specie payments, directing the cancelling of legal-tender notes to be continued, and requiring the secretary of the treasury to prepare and provide for their redemption in coin upon the 1st January 1879. For this purpose, besides using the surplus revenues, he was authorised to create and sell for coin interest-bearing bonds of the United States. Under these powers bonds for $90,000,000 (say £18,000,000) were sold, realising $95,500,000 (say £19,000,000). This amount was not applied in reducing the amount of legal-tender notes, because the act of 31st May 1878 prohibited any further reduction, and required the treasurer to pay them out again after redemption. It has, however, since been always regarded that $100,000,000 (say

20 millions sterling) of the balance in the treasury should be reserved for note redemption. But the general resumption of specie payments was carried into effect before the time contemplated by the act, and on 17th December 1878 gold touched par. The following table gives the highest price of gold in each year from 1861 to 1878 :—

1861—104	1867—145⅝	1873—119⅛
1862—134	1868—150	1874—114⅝
1863—152½	1869—162⅓	1875—117⅝
1864—285	1870—123⅓	1876—115
1865—233¾	1871—115⅝	1877—107¼
1866—167¾	1872—115⅜	1878—107

[For Great Britain, see *Report of Bullion Committee.*—M'Leod's *Theory and Practice of Banking.*—Tooke's *History of Prices.* For U.S.A., Bolle's *Financial History of United States.*—Knox's *United States Notes.*—*Journal of Institute of Bankers*, vol. vi. pp. 262-270.] R. W. B.

SÜSSMILCH, Johann Peter (1708-1767), was the author of the earliest works which can be described as "statistical" in the modern sense of the term. Süssmilch was a Prussian army-chaplain who in 1742 published a remarkable book entitled: *Die göttliche Ordnung in den Veränderungen des menschlichen Geschlechts, das ist gründlicher Beweis der Göttlichen Vorschung und Vorsorge für das menschliche Geschlecht aus der Vergleichung der Geborenen und Gestorbenen, der Verheiratheten und Geborenen wie auch insonderheit aus dem beständigen Verhältniss der geborenen Knaben und Mädchen u. s. f.* This very long title was materially shortened in the next edition, which was not issued until 1761. The title then ran thus :—*Die Göttliche Ordnung in den Veränderungen des menschlichen Geschlechts aus der Geburt, dem Tode, und der Fortpflanzung desselben erwiesen.* The 4th edition (3 vols.) was printed in Halle and published in 1798 at the *Realschule*, Berlin, carefully edited and revised. Süssmilch's book deservedly won him high consideration among men of science, and also, which in those days did not necessarily follow, in the official world, for he became an *Oberconsistorialrath* and a member of the royal Prussian academy of sciences. Süssmilch was the first systematic student of "political arithmetic" (see Arithmetic, Political), as Sir William Petty termed investigations into what are now known as "vital statistics," who was not satisfied with merely recording facts, but deduced general laws from them. This is no disparagement to his predecessors, for they had even less materials to work upon than Süssmilch. Such was the success of *Die Göttliche Ordnung* that it was not long before there arose a school of "mathematical" statisticians who perversely refused to admit that any elucidation of figures was needed, maintaining that they told all that was required. Süssmilch himself was really in advance of his time; he was a shrewd man as well as a very painstaking and learned one, and made excellent use of the imperfect materials at his disposal.

[Haushofer, *Lehr- und Handbuch der Statistik*, Vienna.—Maurice Block, *Traité Théorique et Pratique de Statistique*, Paris.—G. Mayr, *Die Gesetzmässigkeit im Gesellschaftsleben*, Munich.—Bonar, *Malthus and his Work.*] W. H.

S., W. See W. S.

SWAN, Colonel James (1754-1835), American merchant, politician, soldier, and author, helped to throw the tea-chests into Boston harbour, and was also aide-de-camp to General Warren at Bunker's Hill in 1775. In 1787 he left for France, a ruined man, but having speedily accumulated a fortune, returned in 1795 to his former associations in the States. His next thirty years were occupied in litigation, and the greater part in a Paris prison. In March 1830 his prosecutor died, and Swan was liberated. But he remained in Paris till his death.

He published *A Dissuasion to Great Britain and the Colonies from the Slave Trade to Africa* (Boston, U.S.A., 1773, 8vo). In the opening dedication to the governor of Massachusetts, Swan describes himself as a "Scotsman." He shows slavery to be derogatory to the spirit of Christianity, encouraging internal war among the African tribes, that the traders may buy the prisoners for slaves. He details the horrors of the slave-ships, points out the preferable economic advantages of amicable commercial relations with the negroes, and obtaining (pp. 31, 32), in return for our trifling wares, their ivory, gum, spices, and gold. If this were done he assures us that where British merchants "now export twenty shillings worth of commodities thither, they would then export an hundred pounds" (p. 32).

In *An Address to the President, Senate, and House of Representatives of the United States, on the means of creating a National Paper by Loan Offices which shall replace that of the discredited Banks, and supersede the use of Gold and Silver* (Boston, Mass., 1819, 8vo), Swan proposed that the United States should, on the credit of its 800,000,000 acres of unsold land of the value of 1,600,000,000 dollars, issue 150,000,000 dollars "in current bills, bearing interest at 3 per cent per annum." "That amount," he continues (p. 9), "is not a tenth part of the capital, and that credit would be so much the more solid since not a dollar of these bills could be put into circulation but from loans made to individuals with three solvable signatures; or to merchants on the deposit of goods for sale; or to proprietors on mortgage of real estates with bonds of the borrowers; all these loans to be had on paying 6 per cent per annum, and as the current bills borrowed of Government bear 3 per cent interest, these loans would be really offered at 3 per cent interest instead of 6, the legal usage for money."

Swan also wrote and published *National Arithmetic*, by J. S. (1786, 8vo).—*Causes qui se sont opposées aux progrès du commerce entre la France, et les États-Unis de l'Amérique, avec les moyens de l'accélérer . . . en six lettres adressées à M. le Marquis de La Fayette. Traduit sur le manuscrit anglais du Col. S.*, Paris, 1790, 12mo.—*Courtes*

observations sur l'état actuel des manufactures du commerce et des finances de l'Europe, et sur celui de l'agriculture en France, et les moyens de l'améliorer, Paris, 1828, 8vo. A. L.

SWANIMOTE. See FORESTS, MEDIÆVAL.

SWEATING. A term that has somewhat recently become naturalised in economic technology, but of which the precise signification is still uncertain. It was originally a slang expression, denoting a system of SUB-CONTRACT (*q.v.*) in certain industries, of which the clothing trade in all its branches is the most conspicuous, and was so applied by Charles KINGSLEY in his novel of *Alton Locke*, published 1849, and his tract *Cheap Clothes and Nasty* by Parson Lot, which made its appearance a little earlier. In the latter a definition of it is afforded in the following terms:—"Part of the work, if not the whole, is let out to contractors or middlemen — sweaters, as their victims significantly call them,—who, in their turn, let it out again, sometimes to the workmen, sometimes to fresh middlemen; so that out of the price paid for labour on each article, not only the workmen, but the sweater, and perhaps the sweater's sweater, and a third, and a fourth, and a fifth, have to draw their profit." This definition agrees with one furnished nearly half a century later, in an elaborate report on the sweating system of Chicago, forming Part II. of the report of the bureau of labour statistics of Illinois (1892), where the whole matter is dealt with at length, and most intelligently. In the opinion of the writer of this report, the "sweating system is one of respectable antiquity, and is a surviving remnant of the industrial system which preceded the factory system, when industry was chiefly conducted on the piece-price plan in small shops or the homes of the workers. . . . In practice, sweating consists, he says, of the farming out, by competing manufacturers to competing contractors of the material for garments, which in turn is distributed among competing men and women to be made up. The middleman, or contractor, is the sweater (though he may also be himself subjected to pressure from above), and his employés are the sweated or oppressed. He contracts to make up certain garments at a given price per piece, and then hires other people to do the work at a less price. His profit, it is pointed out, "lies in the difference between the two prices" (pp. 357, 358). On the other hand, these definitions do not agree with the conclusions arrived at by a special committee of the House of Lords, appointed in 1888 to investigate the same subject. After an exhaustive enquiry, this committee reported that sub-contracting was not synonymous, or even conterminous, with sweating. The middleman is "the consequence, not the cause, of the evil"; and is "absent in many cases in which the evils complained of abound" (vol. v. par. 181). The sweating system may exist under any method of employment, when "the conditions of the labour market afford abundant materials to supply an unscrupulous employer with workers helplessly dependent on him" (185). "In some cases the man known as a sweater is merely an agent, knowing nothing of the business. Sometimes he acts the part of a foreman, and directs the work of every branch, understanding the whole business thoroughly. Sometimes he works as hard as any of his employés" (par. vii.). Their definition of sweating is, "taking advantage of the necessities of the poorer and more helpless classes of workers" (171); or, "grinding the faces of the poor,"—as still more compendiously expressed by a prominent witness, Mr. Arnold White (par. 172).

These quotations reveal a fundamental difference of opinion on the part of two competent authorities, speaking from either hemisphere, and it is to be remarked in addition that no English political economist, or historian of eminence, has ventured yet to make any specific use of this term. In Mr. Howell's *Conflicts of Capital and Labour*, it occurs but once (p. 114), the passage being little more than the incorporation of another from Mr. Brentano's *History and Development of Gilds* (p. 129) referring to the repeal of 5 Eliz. c. 4 (in 1814), the "immediate consequence of which," this writer says, was "such a growth of the system of *sweaters* and half-pay apprentices, that the journeymen were driven to famine, and the female workers to prostitution." It is in fact a very unfortunate term in more ways than one and were better perhaps discarded altogether where scientific accuracy is aimed at.

Such as it is, however, and regarding its use in the limited sense of having a direct relation with sub-contracting, in which it seems to have originated, there are, according to the American authority referred to, two principal modes in which the sweater operates: "he will furnish shop-room and machines to some, and allow others, usually the finishers, to take the work to their living and lodging-rooms in tenements." Some remarks on the former of these modes of industry will be found under the heading TOOL RENT; the latter is one that has from time to time aroused public attention and sympathy, both at home and abroad, ever since the inquiry of the Second Children's Employment Commission (1862-66), if not earlier; and which, under the name of Home Work, was again (1894) a prominent subject of controversy in view of the grave evils still found to be associated with it. It is obviously an exceedingly difficult matter to deal with. On the one hand, it would certainly seem a highly arbitrary and oppressive act to forbid, or even attempt to regulate very strictly this work; on the other, it is truthfully argued

that such methods of employment inevitably bring down the wages of better-organised labour, tend to lower the standard of living, and are often pursued under terribly insanitary conditions. It is known that such considerations affecting labour were a principal concern of the mediæval guilds, and in certain modern trade unions a campaign against all home work has been inaugurated, while in all it is discouraged in a greater or less degree. The question remaining for decision is, whether this campaign should be made general; and, in particular, should be enforced by the mandate of the state. In some countries, as Switzerland and a few of our own colonies, an experiment of this kind has been already tried, and the English factory act of 1891 contained a provision of the nature of a preliminary step in the same direction. The 27th section of the 54 & 55 Vict. c. 75 imposed the obligation on "the occupier of every factory and workshop . . . and every contractor employed by any such occupier in the business of the factory or workshop . . . if so required by the secretary of state," to "keep in the prescribed form and with the prescribed particulars lists showing the names of all persons directly employed by him . . . outside the factory or workshop, and the places where they are employed . . . and every such list shall be open to inspection by any inspector under the principal act, or by any officer of a sanitary authority." A still more recent one (1895), 58 & 59 Vict. c. 42, requires further that such lists be sent to the inspector of factories for the district twice a year, and another provision, sec. 16, has for its object to prohibit work being taken home to be operated on "except during the period of employment." The secretary of state (home secretary) has, in virtue of the powers herein conferred upon him, scheduled certain manufacturers accordingly. They are: the manufacture of articles of wearing apparel; the manufacture of electro-plate; cabinet and furniture making, and upholstering; the manufacture of files (see SUB-CONTRACT).

[Charles Kingsley, *Alton Locke;* with which is bound up *Cheap Clothes and Nasty*, by Parson Lot (new ed. 1887).—*Seventh Biennial Report of the Bureau of Labour Statistics of Illinois*, Springfield, 1893. — George Howell, *Conflicts of Capital and Labour* (1878). — Lujo Brentano, *History and Developments of Gilds and the Origin of Trade Unions* (1870).—Charles Booth, *Life and Labour of the People* (1888).—R. W. Cooke-Taylor, *Modern Factory System* (1891); *Report to the Board of Trade by its Official Labour Correspondent* (1888); *Fifth Report from the Select Committee of the House of Lords on the Sweating System* (1890).—*Factory and Workshop Act* (1891).—D. F. Schloss, *Methods of Industrial Remuneration*, 1892.] R. W. C. T.

SWIFT, JONATHAN (1667-1745), dean of St. Patrick's, Dublin, the austere Rabelais, the party pamphleteer from whom Rousseau learnt to detest politics and society, the high churchman from whom Voltaire and Lessing learnt their religion, the author of *Gulliver's Travels*, is a writer to whose economic views critics are often unjust. *The Humble Petition of the Colliers, Cooks, Cook-maids*, etc., against the use of focussed rays by a supposed company instead of fires, represents that this "will utterly ruin . . . your petitioners . . . and trades on them depending, there being nothing left to them after the said invention but warming of cellars and dressing of suppers in the wintertime." And "whereas the said" company "talk of making use of the moon by night as of the sun by day, they will utterly ruin the numerous body of tallow chandlers," and so the tallow tax will fail. The fame of BASTIAT is chiefly based on his expansion of this parable in the seventh of his *Sophismes Économiques* (1846), of which his admirers still say "nothing is more brilliant, nothing more French." Swift's *Maxims controuled in Ireland*, suggested perhaps by Sir W. TEMPLE (*Works*, ed. 1814, vol. i. p. 177), exposes, after the manner of Bastiat, popular economic fallacies which deceived Temple, LOCKE, and CHILD, whom he had studied; *e.g.* that a large population, high prices for land, dear provisions, and big towns (cp. BARBON) *must* imply wealth, and that low interest *must* be due to much money. For "must," he says, you should write "may"; thus, in trading countries like Holland and England, low interest and high capital values for land were effects of the causes alleged, but in Ireland of the absence of trade, and therefore of a demand for loans. He perceived "that in the arithmetic of the customs two and two, instead of making four, make sometimes only one" (A. Smith, *W. of N.*, bk. v. ch. ii.). Otherwise Swift belongs to his age. Thus the king of Brobdingnag's belief that "whoever could make two ears of corn or two blades of grass to grow . . . where only one grew before would deserve better of mankind . . . than the whole race of politicians," and the echo of this belief at the end of the last of the DRAPIER'S LETTERS resembles Molesworth's ideas (1723), and afterwards became a favourite motto with A. YOUNG. He thinks with Locke that taxes fall mainly upon land, which, like HARRINGTON, he overrates (*Works*, ed. 1824, vol. iii. p. 518); and his anger against ploughlands being turned into sheep-runs makes him akin to LATIMER, Boulter (*Letters*, 24th February 1727), and, as he himself said, to Ajax. He pillories the trading spirit in his abuse of the Dutch; and wishes a weavers' corporation to regulate prices and qualities, and to punish offenders by "warnings" (*Works*, vol. vii. pp. 49, 50, 137). He denounces "the restriction" and urges Irishmen to raise by way of reply what Berkeley called "a wall of brass a thousand cubits high" round Ireland; and thinks that this could be

done by a resolution to consume home-made goods instead of "unwholesome drugs and unnecessary finery" imported from India and elsewhere (*Proposal for the universal use of Irish Manufacture*). His sumptuary mercantilism is the same as that of Sir W. TEMPLE, POLLEXFEN and BERKELEY. For the rest he advocated national education and beggars' badges, and adopted Temple's fallacy that high rents caused high prices, PRIOR's facts and fallacies on absentees, and Molesworth's views on rack-rents; he deplored with Temple the destruction of timber, and opposed Boulter's lowering of the gold coin, and Berkeley's proposal for a bank; and like Prior, Berkeley, James King, Simon, and others, he advocated an Irish mint in his DRAPIER'S LETTERS (1723-24). In these Swift's economic objection to Wood's copper—if stripped of its figures, which Swift meant to be figures of speech[1]—was that the coin being hammered and not milled was easily forged, was base, excessive, and not convertible by the patentee; further, the patent did not make it legal tender, so that when this was known it would at once lose its mint value unless it should, by an abuse of the royal prerogative, be made full legal tender, in which case it would drive out gold and then depreciate. Swift did not, nor could any writer at that time, analyse the latter process, and he omitted a third possibility, that it might be made limited legal tender.[2] If this omission was uncandid what shall we say of his critics Leslie Stephen (*Swift*, pp. 153 *et seq.*) and Moriarty (*Swift*, 1893, p. 211), who assume that the coin was legal tender up to 5½d.? Further, token coins, if redundant and difficult to convert, are open to these objections, so that the omission weakens but does not vitiate the argument. Lastly, facts and dates indicate that there was a likelihood that these coins would be made legal tender either to an unlimited or to a dangerously high extent. Wood boasted, 9th February 1722, that his coins were or would be made legal tender (Coxe, *Walpole*, ii. 371); and from Lady-day 1722, when his coining rights began, to 16th September 1723, the terms were unknown even in Dublin Castle; had the whole amount, £100,800, been floated in the dark, the hands of ministers must have been forced and most of Swift's fears realised. Again, the crown rent was £100, and Walpole's report valued it at £800; under the Armstrong-Knox patent of 1680 the copper need not be quite so good, and was only limited legal tender, but the rent was only £16. Further, there was virtually no silver in Ireland (Sir J. Browne, *Scheme*, 1729; British Museum, Add. MSS. 34358, pp. 74, 79); and every one was either bimetallic or silver-monometallic; and only thirty-three years before James II. had substituted full legal tender brass for silver. Further, the customs officers were practically ordered (Coxe, *l.c.* p. 393) to receive these coins without limit, and in the efforts referred to in Coxe (*l.c.* pp. 346-438) and Monck Mason (*l.c.* app. note *c*) to dissuade ministers from making them legal tender, no limit is mentioned. Lastly, it was clear ever since the first letter that the patent would always be onerous; yet when it was revoked, 14th August 1725, the treasury paid Wood instead of Wood paying the treasury; a compact with Wood to make the coins legal tender would explain this. Ruding cites against these arguments Walpole's *Report of the Privy Council*, 24th July 1724, which disclaimed any intention to make the coins legal tender; and argues that because danger was averted it was not real. Yes, but Swift's first *Letter* was published November (?) 1723,[3] and doubtless caused the report, just as the second letter doubtless caused its publication, and the third letter criticised it; in the next two letters the storm centre shifts from economics to politics; the next is retrospective, the last prospective. Or it will be said "how absurd to think that Walpole would do what James II. did and in the same way!" Of course the patent was a mere blunder; if the coin were private it ought to have been, like promissory notes, convertible into legal tender coin by the issuer; if public, it ought to have been legal tender; and it was neither. But blunders often have the same effect as crimes. To conclude, Swift described, with popular but not misleading rhetoric, a grave economic peril which he more than any one averted.

[Public record office, patent rolls, 8 Geo. I. pt. v. No. 5, bears out Monck Mason's abstract of Wood's patent, *History of St. Patrick's* (1820), p. 326 n., so that the dates in Leslie Stephen, Froude, etc., are wrong. The errors mentioned in notes 1 and 3 occur in Faulkner's (1735), Hawkesworth's (1755), the Edinburgh (1761), Sheridan-Nichols' (1801), W. Scott's (1814, 1824), J. B. Daly's (1887), H. Craik's (1892),

[1] Swift, in order to make this plain, wrote that Wood's patent was for "fourscore and ten thousand pounds" (cp. *Works*, vol. x. p. 78; vol. xi. p. 35) in his first letter, £140,000 in his second. In his pirated third edition (1735) Faulkner changed these allegorical figures to £108,000, a figure which occurs correctly in the fourth letter in another context. Swift's figures as to the commercial value of Wood's coin presuppose fraud on the part of Wood; this charge was corroborated with regard to the first year's coins, disproved with regard to the second year's coins (Monck Mason, p. 340). But the figures vary from ¼ to ½, and are not serious.

[2] His critics miscite his reply to Wood's proposal that Wood and his agents should force 5½d. at a time on some class of people; which is that this would not make it legal tender generally, so that the first recipients would lose (vi. 379). When he discusses a possible proposal to force it on people generally by proclamation (p. 383) he mentions no limit.

[3] Faulkner's reprint (1725) misprints "four" for "three" in the third paragraph of the first letter, and so makes the date autumn 1724. A similar sentence occurs in the seventh letter (vol. vii. p. 52) where "four is correct; the seventh is therefore a year later than the first letter, and its date is the end of October 1724. Lord Midleton probably refers to the first letter as written but not yet published, 1st November 1723 (Coxe, vol. ii. p. 372).

and we believe every edition since 1735. The economic case against Wood is put into economic language by D. B. in *Some reasons showing the necessity . . . for continuing to refuse Mr. Wood's coinage.* Faulkner's reprints (1725) says D. B. was Swift, but he was clearly David Bindon, author of *Essay on the Gold and Silver Coin current in Ireland* (1729). D. B.'s figures are practically the same as those approved by Lecky, *History of England in the 18th Century*, vol. ii. p. 424 n. Massie (British Museum Lansdowne MSS. 1049) also ascribes to Swift a *Letter to a Country Gentleman about Coin in Ireland* (1736), unknown to Scott, Craik, etc. The *Humble Petition* is sometimes ascribed to J. Arbuthnot. There are references to Swift in Macpherson, *Hist. of Commerce*, vol. iii. 392 n.; Hume, *Works*, ed. Green and Grose, vol. iii. pp. 332, 344.] J. D. R.

SYCEE. The silver ingots commonly used in China as currency are known under the general title of sycee. The word conveys the idea of pure silver, having been derived from *Se-sze*, meaning silk-fine, that is to say pure enough to be drawn into a fine wire or thread. The millesimal fineness of this silver varies from about 960 to 990, being thus as nearly fine as the rough method of assay employed by Chinese merchants can verify.

The usual shape of sycee ingots bears some resemblance to that of a Chinese shoe, and such ingots have come to be generally known as "shoes" (see CASH and TAEL). F. E. A.

SYNDICATE. This word is used to describe a body of persons who combine for the purpose of some financial transaction. The most common syndicates are the so-called underwriting syndicates, who, in return for a commission, undertake to take over so much of any public issue of stock exchange securities as shall not be taken over by the public. As a general rule the members of a syndicate do not enter into any regular partnership arrangements, but it is sometimes found advantageous to register a syndicate as a limited company (see RING; TRUSTS). E. S.

SYNDICATS PROFESSIONELS (Fr.). Trades unions. The present legislation on such associations was established by a law of the 21st March 1884. Unions of workmen had existed in France from the earliest times, and even survived the revolutionary law of June 1791, abolishing all trade gilds and corporations; but their powers were restricted by arts. 291-294 of the penal code, which prohibit meetings of more than twenty persons without authorisation for the discussion of religious, literary, political, or other subjects, and incitements to crime or misdemeanour by speeches or exhortations, or the reading, display, publication, or distribution of any writings whatever; and by art. 416 of the same code, which punished by imprisonment for six days to three months, and fines of from 16 francs to 300 francs, or either of those penalties, any workman, master, or contractor for work, who, by means of fines, prohibitions, proscription, or exclusion, after a concerted plan, should have restricted the free exercise of labour or an industry. The law of 1884 enacts that arts. 291 to 294 of the penal code shall not be applicable to workmen's syndicates, and abrogates art. 416 of that code. The subsequent sections declare that associations, even of more than twenty persons, may be freely formed without authorisation; their object must be exclusively the study or protection of economic, industrial, commercial, or agricultural interests. The unrestricted right of combination has not tended to improve the relations between masters and workmen. Strikes and coalitions to impose on masters the exclusion of non-syndicated workmen, which were formerly punishable under art. 416, are now more frequent than ever. The only corrective to the abuse is that judges sometimes award damages against the syndicate to the aggrieved workman. T. L.

SYNTHESIS AND SYNTHETIC METHOD. —The synthetic method is often identified with deduction in contrast with induction, which is called the ANALYTICAL METHOD (*q.v.*). This identification may be explained as follows:— Deduction is primarily defined as a process of inference from more general to less general propositions. Now the most general propositions of such a science as economics are extremely abstract; and the process of deducing specific conclusions leads to the formulation of increasingly concrete propositions. The concrete are obtained from the abstract by a combination or *synthesis* of elementary principles; and the conclusions are obtained by investigating the effect of a number of different causes acting together. To apply the synthetic method we must know (1) the effect of each of a number of different causes; and (2) a principle for calculating the effect of a combination of such causes when the effects of the separate causes are known. The original premisses of the synthetic method are chiefly derived by induction from common experience of human motives and natural forces. For example, we can inductively obtain the general nature of the conditions of demand for any commodity, and also of the conditions of SUPPLY. By a mental synthesis of these two sets of conditions, we can calculate the price and amount at which transactions in that commodity will take place. Again, we may learn inductively from common experience the nature of the factors required to co-operate in the production of a commodity and of the conditions connecting the price and amount at which these factors are supplied. By a mental synthesis of these conditions, we calculate the conditions for the supply of the finished commodity. The method leads to more concrete results when the separate effects of CUSTOM, HABIT, ignorance, inertia, etc., are taken

into account, and the joint result of these several influences is calculated. Special importance attaches to the calculation of the effects of MONOPOLY and COMBINATION.

But it is doubtful whether the terms synthetic and analytic should be used to indicate the contrast between the DEDUCTIVE and INDUCTIVE METHODS. For both in deduction and in induction both analysis and synthesis are employed. In fact it will be found that Professor Marshall repeatedly uses the phrase analytical method to represent what is here called the synthetic method; see in particular *Principles of Economics*, bk. i. ch. vi. Thus he writes (p. 92, note 1) "those who rate highly the importance of analytical methods are glad to acknowledge the great services which the historical method, in the hands of really able men, renders to economics generally, and even to economic analysis." Here, and throughout the chapter, the terms analysis and analytic method are pointedly referred to what is otherwise known as the *a priori*, or deductive treatment of economic problems. And it is undoubtedly true that analysis is much more prominent than synthesis in the calculations carried out by deductive economics. For the first step is to extricate from amongst the complicated forces known to operate in society, those which bear on the special problem. When any piece of deductive reasoning is presented for criticism, the questions to be asked are "*is the analysis correct?* Have all the forces which would operate in the case presented for discussion been taken into account? Or has the reasoner omitted to notice that condition A would have been followed by condition B, or counteracted by condition C, and so on." Such considerations naturally present themselves as involving the mental process of analysis; and the mental synthesis which accompanies or follows the analysis strikes one as relatively unimportant. Turning to the inductive method, which rests on a historical and comparative examination of events presented in actual experience, it might be said that here the process of collecting and connecting facts is a sort of synthesis. But this view could not properly be maintained. For the term *synthesis* should be used to denote the mental combination of different characteristics by which we apprehend a complex phenomenon. It should *not* be used to denote the bringing together of various complex phenomena with the purpose of comparing them and extracting their essential points of agreement and difference. Of course, however, no analysis is complete unless supplemented by a process of synthesis in which we reconstruct in thought the complex whole first apprehended as an unanalysed unity. Since an analysis of complexes and a synthesis of elementary conditions are together involved both in deduction and induction, it becomes important to point out how the analysis or synthesis differs in the two methods. The obvious difference is that in the A PRIORI method we construct *imaginary* cases, illustrative of the forces which we know from general considerations to be in common operation; whereas in the A POSTERIORI method we consult the records of events which provide *actual* cases. Now these illustrative cases can be much more adequately analysed than any cases provided by history, because the latter are indefinitely complicated and contain an unknown number of unknown factors. A complete analysis of real instances is impossible. Thus, induction rests on a necessarily superficial analysis of concrete cases aided, if possible, by a wide comparative survey needed to compensate for the necessary superficiality of the analysis. Deduction offers a complete analysis of the illustrative or hypothetical cases with which it deals; but of course its results cannot be straightway applied in explanation of facts in all their circumstantial detail (see ANALYTICAL METHOD; DEDUCTIVE METHOD; HYPOTHESIS; INDUCTIVE METHOD). W. E. J.

SYSTÈME was the name given to the whole mass of financial measures promoted by LAW from June 1716 till his flight from France, December 1720. Law had begun to develop his plans in an unpretending and cautious manner. A joint-stock discount bank in which private individuals were partners, discounting commercial bills at 5 per cent, issuing notes payable to bearer at sight, in bank crowns-notes of 10, 100, and 1000 crowns—the crown (*écu*) was worth 5 livres at that time—opening banking accounts and current accounts.

The capital of this bank was 1,200,000 crowns, divided into shares of 1000 crowns each, standing in the name of 1200 persons. The whole amount was paid up at once, but at the rate of 25 per cent in specie and 75 per cent in government notes, which stood then at a discount of from 75 to 80 per cent of their face value. The actual capital in specie was hence only 375,000 livres (*Tournois*). The actual issue of notes was in no way limited, and by September 1718 it attained the amount of 51 millions of livres. The public were attracted; confidence in the paper, though slightly hesitating at first, soon became unbounded. It should be explained that Law, in issuing it, made some concessions to public favour. The plan was only, in his eyes, a stepping-stone, for, as subsequent events proved, he desired to establish a state bank and paper money, and was a partisan of the MERCANTILE SYSTEM. The government of the regency and the Duke of Orleans in particular welcomed Law's plans warmly—consequently the General Bank became from December 1718 the Royal Bank, the king repurchasing the shares at par. Encouraged by this first success, Law started an enterprise of greater importance which was no less well received by the public. He established a company, this time with a capital of 100 millions

livres, divided into 200,000 shares to bearer of 500 livres each, payable in government notes. We may observe that shares to bearer were now seen in France for the first time. The state was bound to pay to the new society, named the *Compagnie d'Occident*, interest at 4 per cent on the 100 millions of notes withdrawn from circulation. The first annuity, 4 millions, was to form the floating capital for the new enterprise, which was called by the public the *Compagnie du Mississipi*. Its object was to trade with Louisiana, Canada, and the west coast of Africa, with all the rights of sovereignty over those countries. The shares were paid in full, and the duration of the company was fixed at twenty-five years, dating from 6th September 1717. The subscription was only completed in July 1718. The foundations of the *Système* were laid, but the brothers Paris (see PARIS DUVERNEY) sought to undermine them, and, availing themselves of the plan originated by Law, they set to work to compete with it. They valued the royal farms (see FARMER-GENERAL) at 48,500,000, which they divided into shares. This was the *anti-système*, but it was short-lived, and when a year after, 28th October 1719, Law offered 52 millions, the grant to the *anti-système* was cancelled in favour of Law, an arbitrary proceeding, though not thought so then. The notes did not at that date form a forced currency, but the state treasurers had orders to receive them. Besides this the bank opened offices in the country to facilitate their circulation; this became necessary since the bank crown, which formed an ideal and invariable coin, had just been replaced by the *livre tournois*, a coin subject to arbitrary modifications in value; this fatal decision having a reactionary effect, the old notes of 10, 100, and 1000 crowns were exchanged against the new ones of 10, 100, and 1000 livres. It is true that the public, beginning to feel the influence of the fascination which Law exerted, neither understood the meaning of this change nor took any notice of it.

At this date, 4th September 1718, the farm of tobacco came to an end. Law took it at 4,020,000 livres instead of 2 millions, the former rate; as the state owed him 4 millions annually this only left 20,000 livres to be found by the company, on the other hand, the company found in this monopoly a favourable outlet for the produce of its colony, Louisiana.

In May 1719 a share of the *Compagnie d'Occident*, payable, it will be remembered, in depreciated state notes, was worth only 300 livres; the shares soon rose to par. From this time the *Système* took a feverish turn which inevitably proved fatal. To the privileges which it already possessed those of trade with the West Indies and China were added, and on this occasion the *Compagnie d'Occident* took the name of the *Compagnie des Indes*, which it retained until 1769. To pay for this privilege Law was obliged to issue 50,000 shares payable in twenty months, of 550 livres each, being thus at 50 livres premium. From this moment the infatuation of the public was such that in spite of being compelled to present four original shares called *Mères* in order to be able to subscribe to one new one called *Fille*, the operation succeeded. Encouraged by this success, Law made a tender for the mint at 50,000 millions, and issued on this occasion 50,000 new shares of 1000 livres this time, 5 old shares (4 *mères* and 1 *fille*) having to be presented to be able to subscribe one new one —a *petite fille*. It should be added that as in the case of the preceding issue, twenty months were allowed in which to pay up by monthly instalments. The operation was another success for Law. His boldness was encouraged. His turn for gambling led him on to the end of his tether. He attempted the most amazing operation ever yet heard of, the re-paying of the annuities and the value of the offices—1,500,000,000 livres.

To realise this sum, gigantic as it was for the period, Law opened successively three subscriptions at close intervals, 13th and 28th September and 2nd October 1719, for 100,000 shares each issued at 5000 livres, payable in tenths each month, but of which only the first four-tenths could be paid. It may be added that for this triple subscription it was no longer necessary to present again the old shares to which they were in some degree related. As to the value of these shares it continually rose, and the prices of the above-mentioned issue were only the enfeebled reproduction of it. Thus in November 1719, after the aforesaid decree and in consequence of it, they rose to 10,000 livres; they did not long remain at that figure, and in January 1720 they reached their maximum of 18,000 livres.

Finally, it may be said that after having opened the subscription for payment in specie, the holders of state paper of whatever class it might be for every determination of state debt, income, pension, or office, were able to subscribe as a privilege, but by a chance only too easily explicable the shares which these creditors might lawfully have claimed by right were not any longer disposable, having been taken by others. There only remained to them the opportunity of being paid off in notes at par, and with these notes of buying shares, no longer at 5000 but at 10,000 livres. Their disappointment may be understood, but their complaints were lost in the hubbub of the market. Reckoning up the successive issues, there were 600,000 shares which produced at the price of issue—deducting what was not paid —777,500,000 livres, that is, a premium of 477,500,000. In reality 624,000 shares were created, but the rate realised for the last 24,000 is unknown, as they were issued by order of the regent himself. With respect to the issue of notes, it may be understood that the enormous amount of the transactions swelled it extremely. In fact it amounted to 3,070,750,000 livres, as the cashier of the bank chronicled. We are now at the end of this mad and wild speculation, in which nearly every one took part. As to Law, bold but cool-headed gambler as he was, just as success never intoxicated him, he never lost his *sangfroid*, fighting courageously against the storm. He gambled more for pleasure than for gain, as his disinterestedness afterwards showed. The public, when once their cupidity was thoroughly aroused, gave themselves up shamelessly to uncontrolled gambling—to that stock-jobbing which gave the Rue Quincampoix, the street which witnessed this fit of madness, such an unhappy

reputation. From this time the ascendency of the influence of Law over the public began to decline; many people realised their holdings.

Law at first strove against the tide by the issue of decrees; we may mention that of the 11th March 1720, which suppressed the legal currency of specie whether gold or silver—afterwards confusing the position and the rights of creditors and shareholders — that of the 21st May following, which fixed the rate of exchange between notes and shares. Clearly the regent himself gave up the *Système*, though he did not desert Law. Indeed the decree of the 21st May was attributed to the enemies of the *Système* and not to its author. At bottom Law believed that the existence of an inconvertible paper money without a basis of any metal was possible. Also he urged on the issue of notes and the proscription of all precious metal or real value which might take their place; gold, silver, jewels, were the object of his antagonism,—to possess them was to be the enemy of the *Système*. In this Law was a bigoted sectary.

All that remains of the history of the *Système* is a series of contradictory acts, some in favour of the paper currency, some in favour of forced concessions to public opinion or to actual facts. From these arose overwhelming disorders up to the time when Law was compelled by the general indignation to quit France, never to return. The regent, always friendly to Law, sent him at this moment a passport and money. He accepted the passport alone—the only property he carried away with him being 5 millions in valueless bank notes, 800 louis, and 2 rings each worth 2000 crowns; one of these he sent as a gift to Madame de Prie, who had helped him to escape. His fortune when he came to France had been a million and a half.

[Duhautchamp, *Histoire du Système*, The Hague, 1739, 3 vols.— Thiers, *Histoire de Law*, 8vo, Paris, 1826, 2nd ed., 1858.—Émile Levasseur, *Recherches historiques sur le système de Law*, 8vo, 1854.—André Cochut, *Law, son système et son époque*, 1853. — Alph. Courtois, *Histoire des Banques en France*, pt. i., 1881 (see John Law; Tavereel).] A. C. f.

TABULAR STANDARD (see also Index Numbers) is simply, to borrow Professor Nicholson's concise and admirable definition, "an official index number" (*Money and Monetary Problems*, p. 31). The practical object which those who now advocate the adoption of the tabular standard propose is the attainment of a perfectly stable currency for the payment of rents or other deferred contracts. The proper construction of an index number for the regulation of the currency is explained on page 386, Vol. II., of this Dictionary. In other words, the employment of such a standard is expressly limited to *deferred* payments; in these it is proposed (if we may make a local application) that account should be taken by means of a tabular standard of changes in the purchasing power of the sovereign. It is not very easy to mark out the sphere of an inquiry into the tabular standard, but it is clear that the theory of index numbers is a wider field in which the practical correction of the monetary standard is only one of the aims proposed. This will be made clear by a reference to the history of the subject. The compilation of a history of the theory of a tabular standard is generally ascribed to Jevons. But as a matter of fact he borrows almost everything from Joseph Lowe, who, in his *Present state of England*, 1823, as a preliminary to propounding his own scheme, discusses those of previous writers.[1] He mentions at the beginning of ch. x. the works of Bishop W. Fleetwood, Adam Smith, and Sir Frederick Eden on the fluctuation of prices, and finally Sir George Shuckburgh Evelyn's "endeavours to ascertain a standard of weights and measures." This interesting essay was published in *Philosophical Transactions* for 1798, pt. i. p. 176. Lowe is very severe upon Evelyn, and forgets to give the credit due to originality. He refers to the paper as "a tabular statement, which from the clearness of its form, and the confidence of its deductions, obtained much more credit than it deserved, being far from correct even in the fundamental points." In this view he is no doubt influenced by the criticism in Arthur Young's *Inquiry into the progressive value of Money in England*, 1811. We append Sir George Evelyn's table in a much abbreviated form. It will be seen that he has clearly grasped the principle of a consumption standard. His inclusion of day labour is interesting, as its exclusion from most of the recent index-number systems has been a favourite ground for criticism.

Years.	Wheat.	Twelve Miscellaneous articles, viz. an ox, cow, poultry, etc.	Butcher Meat.	Day Labour.	All.
1550	100	100	100	100	*100*
1675	246	239	166	118	*210*
1740	197	492	266	250	*287*
1760	203	492	400	275	*342*
1795	426	752	511	436	*531*

Arthur Young, in the pamphlet above referred to, objects that the grounds of calculation are far from accurate. "Butcher meat"[2] is put on par with wheat; although with the mass of the population it does not form a fifth part of the consumption. Each of the twelve miscellaneous articles is considered of equal importance, and manufactures of every sort are omitted. Put into modern language, his objection amounts to this: the articles are badly selected and are not "weighted" according to their

[1] See Jevons, *Investigations in Currency and Finance*, pp. 122, 123, *n.*

[2] A. Young wrote "Butcher meat."

relative importance. The section in which Sir George Evelyn introduces his "tabular standard" (he is the inventor of the term as well as the thing) is of particular interest. He twice apologises for leaving the mathematical precision of weights and measures for such mean subjects as the prices of provisions and the necessaries of life, but concludes with the hope that, however he may "appear to descend below the dignity of philosophy in such economical researches," he may "find favour with the historian at least, and the antiquary." The following is Evelyn's description of his method:—"It would carry me infinitely too wide to give a detail of all the facts I have collected: I shall therefore content myself with a general table of their results, deduced from taking a mean rate of the price of each article at the particular periods, and afterwards combining these means, to obtain a general mean for the depreciation at that period, and lastly, by interpolation reducing the whole into more regular periods, from the conquest to the present time."

He gives a list of his authorities,[1] and mentions that the various changes which took place during the different reigns, in the weight and alloy of the coins, are allowed for in the table. Thus Evelyn may be regarded as the first writer who definitely proposes a tabular standard; while Joseph Lowe, in the work already quoted, is the first to lay any considerable stress upon its practical value. In § 2 of ch. x. he describes it as a "plan for lessening the injury from fluctuation, and giving a uniform value to money incomes."

Lowe is followed by G. POULETT SCROPE in *An Examination of the bank charter question, with an inquiry into the nature of a just standard of value and suggestions for the improvement of our monetary system*, London, 1833. He there suggests a tabular standard, or table of reference:—"The table need only be sufficiently extended to afford, in the mean price of the whole number of articles contained in it, a standard of value (in its true sense of general purchasing power) as near to complete invariability as can be desirable for any practical purposes." After pointing out the "perfect equity" of such a standard, he attempts to prove its "vast utility" by dwelling on the commutation of tithes, on charity endowments, and on leases. There can be no good agriculture, he argues, without leases. But prudent landlords and solvent tenants "are prevented from entering on the lottery of a long lease at present by the uncertainty that prevails as to the value of money. . . . The use of a tabular standard would obviate all the disadvantages which are justly objected to in corn rents, and give complete security that the rent agreed to shall not vary in value." Scrope advises that the employment of the tabular standard should be entirely optional. He rightly scouts the objection that interested persons, or any combination of them, could possibly, by any efforts, make any appreciable impression on an average "calculated on the mean prices of a long list of articles in all the great markets of Britain through six or twelve months." Scrope's *Principles of Political Economy*, 1833, reproduces the reasoning of the pamphlet. In a note at the end of ch. i. of the pamphlet, he observes, "after the greater part of the above was written, I have found in Mr. Lowe's valuable work a proposal to the same effect." No such acknowledgment is to be found in G. R. PORTER'S *Progress of the Nation*, 1838, 2nd ed. 1851, who, with a naïve assertion of originality, suggests that "it would be highly instructive if tables of prices were made and recorded." Jevons wrongly regards Porter's scheme as identical with that of Scrope. But Porter, a writer of very inferior calibre, seems to have entangled himself and his standard inextricably with other and quite irrelevant aspects of monetary theory. Thus on p. 425 of the 1851 edition, it is clear that he proposes the tabular standard as a remedy for countries with a "local and inconvertible currency." His table will not, he thinks, be needed where a general rise in prices occurs in countries with a gold or silver standard. But under such conditions as led to the famous bullion report (see BULLION COMMITTEE, REPORT OF), "it must be at all times," says Porter, "an interesting and a valuable question to determine whether prices are actually rising or falling or stationary; and to ascertain the degree of such a rise or fall as an indication of the state of the currency." He states, however, the proper principles of a tabular standard, and appends a table compiled in accordance with them, showing the average monthly fluctuations of fifty commodities between the years 1833 and 1837. Porter therefore thinks that the practical value of a tabular standard becomes evident when it is used as a test of the proper behaviour of an inconvertible paper currency. Jevons, in his *Investigations in Currency and Finance*, ch. iii., regards Porter as the author of a method similar to his own. But Jevons, like Scrope, had "almost completed his calculations" when he made the discovery. Porter's mean of fifty articles for the years 1833-37 gives fluctuations which resemble in direction, but greatly exaggerate, those indicated by Jevons's mean of forty articles.

[1] In the construction of Evelyn's table, besides most of the old chronicles and historians, the following books were consulted:—
Bishop Fleetwood, *Chronicon Preciosum*, 2nd ed. 1745. *Liber Garderobae*.—J. Bree, *Sketch of Establishments*, 1791.—*Collection of Ordinances of Royal Household*, Edward III.-William III., 1790, Anon.—*Archæologia*, vol. ii.—Combrune, *Enquiry into Prices of Wheat*, 1000-1765, 1768. Smith, *Wealth of Nations*.—Sir James Steuart, *Principles of Political Economy*, 1767.—Henry, *History of Great Britain*, 5 vols., 1771 (A. Smith's copy).

In ch. xxv. of his *Money*, Jevons argues very strongly in favour of a tabular standard. Now, after sixteen years, the "foresight" shown by Elizabethan statesmen by their act obliging the colleges of Oxford, Cambridge, and Eton to lease their lands for corn rents, would not receive the encomium of a practical economist.

Jevons regards the "multiple legal tender" as an extension of the bimetallic principle for lessening fluctuations by spreading them over a larger area. The only real difficulty which he foresees is that of deciding the proper method of deducing the average. Mr. L. L. Price, *Money and its relation to Prices*, pp. 37, 38, is more pessimistic. "Objection may be raised to the employment of such a standard on the ground of unfamiliarity, or perhaps of a certain refinement of calculation, which is likely to confuse or alarm the plain man, and it may easily prove to be cumbrous or even impossible." Another objection urged by Mr. Price is that it is exceedingly awkward to separate your standard of deferred payments from your medium of exchange. Nevertheless it is highly important that both functions should be satisfactorily performed, and "the instructed economist" would be ready to recognise that "to satisfy this criterion, it is not necessary, it is even unlikely, that the medium and the standard should be identical." Assuming, however, the desirability and practicability of a tabular standard, we are still in the dark as to how it may best be constructed. On this head the reader should refer to the article on INDEX NUMBERS. But a word should be said here on the report of the British Association for 1889, which contains a memorandum by Professor F. Y. Edgeworth on the Index Numbers Committee Report. An explanation is there given of Professor Foxwell's method, which aims at the correction of the currency. This method is distinguished by "the conception of quantity produced, or rather sold, *per unit* of time." This is strictly a currency standard, and the idea of the inventor is "to obtain not the exact amount of metal which should be added to or subtracted from the currency in order to keep it perfectly stable, but rather that ratio in which, if the quantity of currency were increased, other things remaining constant during the increase, the level of prices would be restored."

It will be seen that such a scheme is not adapted to the interests of creditors or annuitants. Nor does it profess to be. A far more fatal objection may be brought against it, viz. that the number of times in which articles change hands is unknowable. The weighting would have to be done by guess work, and a preliminary mean would have to be agreed on as between the guesses of selected experts. Nevertheless, Professor Edgeworth considers that the currency standard deserves more attention than it has received. The index number advocated by Prof. Foxwell would be based on all vendible commodities, no distinction being made between articles of consumption and agents of production. The relative importance of each article would be proportioned to the demand which it makes upon the currency. In other words, Professor Foxwell, "in averaging the respective price variations, would assign to each an importance proportioned to the corresponding value, or rather to that value multiplied by the number of times it changed hands."

Theoretically, therefore, the currency standard is distinguished from the consumption standard in two ways. It includes the prices of labour as well as of commodities; and, in weighting it, pays regard to the work entailed on the currency. In practice, however, we need not expect to find the difference very considerable. The variations shown by different systems of index numbers have been surprisingly small; and Professor Foxwell's method is likely in the words of its exponent to prove "less revolutionary in practice than destructive in theory." An error which may be considerable in the weights becomes inconsiderable in the mean. Meanwhile, the system which commands and deserves the greatest practical consideration is that proposed by Sir Robert Giffen and the committee of the economic section of the British Association. These reports for the years 1887, 1888, 1889, with the memoranda drawn up by Professor Edgeworth, may fairly be regarded as the *locus classicus* for the theory of index numbers and their application to the correction of the monetary standard (see INDEX NUMBERS). F. W. H.

TACITUS, C. CORNELIUS, the historian, was born before 61 A.D., and died after 117 A.D. His chief remaining works are the *Historiæ* and the *Annales*, both fragmentary, and the *Vita Agricolæ*. His short treatise *De situ, moribus, et populis Germaniæ* is of special interest, for, being fuller and written at a much later date than Cæsar's brief notices, it furnishes a distinct picture of the social and economic condition of the ancestors of the English and German nations. Tacitus sketches their organisation in peace and war, describing their national councils—the *principes*, and their *comitatus*—the judicial assemblies, the duties of the priests, the honourable position of the women, and the condition of the slaves, including the free men who had gambled away their liberty. Then he affords (cap. 26) a glimpse of the Teutonic tribal community, with its scattered homesteads, and briefly mentions the annual allotment of the land to the free men in proportion to their public importance, and the change each year of the area of cultivation devoted to corn. For the questions of interest arising from this treatise see Seebohm's *English Village Community*, and Stubbs's *Const. Hist.*, i. pp. 18-41; Pollock, *Land Laws*. R. H.

TACK, TACKING. A technical expression of the English law of mortgages. In Scotland it is used for lease, leasing, and is now practically obsolete.

TAEL. The monetary unit of China is a weight of silver known as the tael. This weight is not identical throughout the empire, varying from that of the government tael (579·198 grs.)

of silver of about 900 fine, to that of the tael of Hankow which weighs about 517 grains. The Canton tael weighs 580 grains, and this is the weight generally used in dealings with foreigners (see CASH and SYCEE). F. E. A.

TAIL. See ENTAIL, LAW OF.

TAILLE. The *taille* is one of the most famous taxes in history. In its origin it was the same as the English TALLAGE (*q.v.*), *i.e.* it was a demesne tax, levied by the king on the royal demesne, and by the great seigneurs on their own lands. As France became more unified and the monarchy stronger, the ÉTATS-GÉNÉRAUX occasionally granted the king a general *taille*. This was resented by the lords as an infringement of their rights and as diminishing the contributions of their vassals to themselves. But the overwhelming national impulse which followed the appearance of Jeanne d'Arc, and led to the recovery of the English conquests, gave the crown a signal victory over the great nobles. In 1439 the states-general at Orleans passed the famous ordinance, which authorised the formation of a standing military force under the control of the king. For the support of the troops the king was authorised to levy a general *taille*, and the nobles were forbidden to levy *taille* on their estates or to obstruct the collection of the payments due to the crown. From this time the *taille* becomes a national and royal tax instead of a local and seigneurial charge.

The ordinance of 1439 is usually said to have established the permanent *taille*, and this is substantially, though not verbally, accurate. There is nothing in the ordinance about the permanence of the charge, but it seems to have been taken for granted as involved in the permanence of the army. On this assumption was based the subsequent claim of the crown to impose taxation without consent. The demand for renewed convocations of the states-general was met by the answer that the people ought to be spared the expense of these assemblies. Thus not only was the *taille* levied as an annual impost, but its amount was arbitrarily increased. The original amount was 1,200,000 livres, but before Charles VII.'s death it had risen to 1,800,000, and under Louis XI. to 4,000,000. In spite of the attempts of subsequent ministers, notably COLBERT, to diminish the *taille*, the receipts under Louis XVI. were reckoned at more than 90,000,000 livres. The tax had long ceased to be specially applied to military expenditure and was absorbed in the general revenue, of which it was the chief component. The enormous increase of the *taille* was the more serious for France because the incidence of the tax was extremely limited. The nobles, as owing personal military service, were from the first entirely exempted from payment. At all time payment of the *taille* was a sign of *roture* (see ROTURIER). And by the 18th century the privilege of exemption was very widely extended. It was shared by the clergy, by the magistracy, by the holders of the innumerable offices which were created from time to time for sale, by members of the university, by municipal corporations, and by a number of towns which had purchased immunity by payment of a commutation. Thus as the burden of the *taille* increased, there was a corresponding diminution of the classes and persons subject to its exaction. Practically it was a tax on the agricultural classes, levied directly either on the value of the land or on the profits of cultivation.

In some provinces of France the *taille* was a land-tax, the *taille réelle*. In these provinces the assessment was based upon a *cadastre*, *i.e.* a sort of small Domesday book compiled at regular intervals (see CADASTRAL SURVEY). The obligation to pay the real *taille* depended not on the status of the cultivator but on the original tenure of the land. Land which had once paid *taille* continued to pay it even though it had passed from a *roturier* into noble hands. The provinces in which the *taille* was real belonged almost entirely to the *pays d'états*, and in them the collection was entrusted not to royal officers but to agents of the provincial estates. But the amount which the province was forced to contribute was always determined by the royal council on information received from the intendant.

In all the other provinces the *taille* was personal and was levied on the presumed profits of the cultivator. The assessment was perfectly arbitrary, and was usually based on the stock used in farming or on a man's mode of life. The French peasant was subjected, in fact, to a dilemma like that of MORTON'S FORK: if he lived in comfort, his power to contribute was obvious; if, on the other hand, he lived meanly, then his savings must be considerable. The unit of assessment was the parish, and the responsible official was called the collector, and was elected by his fellow-villagers in the parish assembly. The collector received from the intendant a statement of the amount due from the village, which was usually fixed every three years. This sum he divided arbitrarily among the villagers, according to his own estimate of their wealth, and then proceeded, accompanied by a constable, to collect the amount due from each. If he failed to produce the required sum, his property and person could be seized as security for the deficit. The office was so loathed, that it was considered necessary to choose a new collector every year. Not only was the holder frequently ruined, but he was naturally the object of his neighbours' hatred and distrust. TURGOT declares that "the office of collector drives to despair, and generally to ruin, those on whom it is imposed; by this means all the wealthier families in a village are successively reduced to ruin." Few taxes

have been so disastrous in their results as the *taille personelle*. Adam Smith has shown that it constituted a direct discouragement to the improvement of agriculture, and its social consequences were quite as lamentable as its economic defects. No man knew from year to year what he would be called upon to pay. If he was unfairly assessed, he had practically no remedy, and it was impossible for the assessment to be otherwise than unfair. The peasants who possessed any savings resorted to the most ingenious devices to conceal them. It was one of their chief aims in life to disguise from their neighbours the real state of their affairs. At the same time it was everybody's interest to ascertain or even to exaggerate the wealth of his neighbours, because an increase of their *taille* might result in direct relief to himself. Thus the result of this wretched system was to create in every district an inveterate habit of suspicion and concealment, and so to poison or to destroy all the amenities of neighbourly intercourse.

[Clamagéran, *Histoire de l'Impot en France.*—De Tocqueville, *L'Ancien Régime.*—Adam Smith, *Wealth of Nations*, bk. iii. ch. ii., and bk. v. ch. ii.] R. L.

TAILZIE. See ENTAIL, SCOTLAND.

TALE. Payments into the exchequer were formerly made in one of two ways, *ad scalam* (or *ad pensum*), that is to say, *by weight*—when the money was weighed and the amount reckoned by its weight; or *numero*, that is by *Tale*, when the coin was simply counted, and each piece reckoned at its face value.

[Pipe Roll Society's publications, vol. v.] A. E. S.

TALENT, GREEK. The ancient weight known under this name was equal to 60 minæ or 6000 drachmæ. Its weight has been estimated at about 57 lbs. avoir., and its value in sterling at about £240.

The modern Greek talent is a weight equal to that of 150 kilogrammes. This weight is, however, but little used. F. E. A.

TALENT, HEBREW. A weight and also a money of account. Much uncertainty now exists as to the precise weight and value of the talent, the former being variously estimated at from 93 to 117 lbs. avoir.

The silver talent was the equivalent of 3000 silver shekels, and the gold talent of 10,000 gold shekels. The value of the silver talent in sterling is estimated at from £340 to £400, and that of the gold talent at from £5000 to £6000.

[Williamson's *Money of the Bible.*] F. E. A.

TALLAGE. Before the Norman conquest there was but little national taxation, and the ordinary expenses of the king were mostly defrayed by the revenue received from his demesne. The circumstances of the Norman conquest enabled the king to choose his demesne, and William I. was wise enough to include in it most of the rising towns. The lands belonging to the crown at the time of Domesday come to be known as "ancient demesne," as contrasted with those lands which subsequently fell in to the crown by ESCHEAT or FORFEITURE. For special purposes the king could demand supplies from his demesne tenants, and these are called sometimes *donum* and *auxilium* (see AID), but more usually *tallagium*. These tallages are assessed by royal commissioners, but the chief towns, such as London, usually paid a composition, and levied an equivalent sum on the citizens by their own methods. In the 13th century various attempts were made to limit the king's arbitrary power of raising a revenue. In the great charter he was made dependent on the consent of the *Commune Consilium* for aids and scutages, but no mention was made of tallages. In 1297 Edward I. was compelled to confirm the charters with additional articles restraining his power of taxation. The articles which Edward actually agreed to do not mention tallages, but the record of Walter of Hemingburgh seems to prove that the barons proposed their inclusion. In the time of Charles I. the articles given in Hemingburgh were construed as being a genuine statute, and are quoted in the Petition of Right as the statute *de tallagio non concedendo*. But there can be no doubt that Edward did not resign the right of taxing demesne, and tallages continued to be levied by himself and by his son and grandson. It is probable that the barons were less persistent on this point than others, because a resignation of the royal right of tallage would involve a loss of their own power of tallaging their own tenants. But as the system of national taxation developed, and the powers of parliament increased *pari passu*, it was impossible to leave the crown in possession of such an independent revenue as it could obtain by the arbitrary taxation of the cities and boroughs which had grown up on the ancient demesne. A statute of 1340, though making no specific mention of tallage, seems to have had the effect of necessitating parliamentary consent for all direct taxes. From this time the separate taxation of demesne came to an end, and the whole community was taxed by parliamentary grants assessed upon personal property. But the special obligations of demesne tenants were still expressed in the fact that they paid a tenth while the counties outside the demesne paid a fifteenth (see also SPENDINGS).

[Stubbs, *Constitutional History.*—Dowell, *History of Taxation and Taxes in England.*] R. L.

TALLIES. An ancient form of voucher or receipt formerly used in all transactions whose nature rendered a voucher necessary. A piece of wood was taken, shaped roughly like a thick knife blade. In the edge

notches were cut to represent the amount of money or goods changing hands; notches of different sizes representing the different denominations of money or weight. The nature of the transaction was then written in duplicate on the two sides. The piece of wood was then split lengthways through the notches by means of a cut parallel to the sides, and each party kept a part, a thin piece of wood with notches in the edge and writing on one side. If either party disputed the payment the matter could easily be settled by fitting the two parts together and seeing whether they matched or not. If it became necessary to distinguish between the two parts of the tally, the part kept by the payee was called the counter-tally, the other part being called the tally. Tallies were used in the exchequer as lately as 1827 in giving receipts to accounting officers for interim payments on account. The tallies of that date are much larger than those in use in the middle ages, the former being often 3 or 4 feet long, while the latter seldom exceeded as many inches.

[Hall, *Curiosities and Antiquities of the Exchequer*.] A. E. S.

There is an interesting reference to tallies in connection with Wm. Godwin: "In his old age a small sinecure office (yeoman usher of the exchequer, *Godwin's Life*, vol. ii. 322) was given to him by the Grey ministry, with rooms in connection with the House of Commons, and there he loved to show the old Star Chamber, which was so soon to be destroyed before his face, and to exhibit the tallies, the burning of which was to occasion the destruction" (Miss Martineau, *Hist. of the Peace*, iv. p. 80).

TALLY. See Tallies.

TALLY SHOPS, See Truck.

TALLY TRADE. A system of "selling goods on short credit," the accounts of which are kept by an arrangement of tallies in the place of book or ledger accounts. These goods were thus retailed on these terms at the tally-shops which were commonly to be seen a generation ago, and are doubtless yet to be met with in remote districts—as also they were sold by pedlars who hawked them about the country, receiving payment for the same by weekly instalments. "The unconscionable tallyman," we read, " . . . lets them have ten shillings' worth of sorry commodities, or scarce so much, on security to pay him twenty shillings by twelvepence a week" (*Four for a Penny*, Davies, 1678, Harl. Misc., 148).

The term "tallyman" is also applied to one who "sells by sample goods to be delivered afterwards, or who takes orders for such goods" (S. Dowell, *Taxes in England*, iii. 38). *Vide* also Mayhew, *London Labour and London Poor*, i. 422, quoted from in the *Century Dictionary*, art. "Tallyman."—Disraeli's *Sybil*. A. L.

TALON. Securities to bearer (see Bearer) are generally provided with a sheet containing a number of certificates, entitling the holder to the interest specified thereon at the time named thereon, which are successively detached as they fall due, and are called "coupons" (see Coupon). Sometimes "coupons" are not furnished for the whole time of the currency of the security, and in such a case there is frequently a certificate entitling the bearer to a new coupon-sheet at the time of the old coupon-sheet being exhausted. This certificate is called the "Talon." E. S.

TAMMANY HALL. A political society in New York city that for many years has exercised a powerful influence in city and state and even in national politics. The name is also given to the building of the society, and to the political party organisation separate from the society, though largely controlled by it. It derives its name from an Indian chief who is said to have welcomed William Penn and made the first treaty with him. The society was founded in 1789, called the Columbian Order. Tammany was taken as its good genius, and when it was incorporated in 1805, the name Tammany society was added. It had for officers a grand sachem and twelve subordinate chiefs of tribes, a wiskinski (doorkeeper), a sagamore (master of ceremonies), etc. The Indian names for its officers are still retained.

Its purpose was apparently social and charitable at first; but it soon began to exercise political influence, and doubtless contributed much to the selection of Aaron Burr as vice-president. Its chief field of activity has been New York city, whose officers for many years have been largely in its control. It has been most widely known from the scandals connected with its highest officers during the period of the "Tweed ring."

William M. Tweed, in early life a chairmaker, later a fireman, had made himself so popular in politics in his ward and later in the city, that he had been elected to the state senate and to congress. He and three or four other Tammany officers, through his control of the party organisation, got so complete a control of the city that, holding in their own hands and those of their creatures the chief offices of the city and some of the courts, they were able to plunder the city treasury almost without stint. Through their judges they naturalised voters; with their ill-gotten money they bought them. By their influence in elections they so controlled the state legislature that laws were passed amending the city charter so as to put even more power into their hands, and the governor elected by their influence could veto any hostile legislation. They sold contracts; bought property, and made city improvements to increase its value; then by their appointees lowered the burden of taxes for betterments on it. They let contracts to companies in which they were interested, nearly $3,000,000 (£600,000) being paid them in two years for

printing and stationery alone, while paving contracts were scarcely less profitable.

False claims against the city were presented by them, audited by themselves, and paid. A new court house estimated in 1868 to cost $250,000 (£50,000) had cost in 1871 from $8,000,000 (£1,600,000) to $13,000,000 (£2,600,000), according to different authorities, and it was still unfinished. Contractors were compelled to add sums to their bills, which were taken by the ring.

At length one of the subordinate accomplices, dissatisfied with his treatment by the leaders, attempted to gain more by threats, and finally in revenge for failure gave information regarding the practices of the ring to the *New York Times*, which published it.

This attack was followed by others; the best men in the democratic party and in Tammany turned against the corrupt leaders. They were cited before the court; their candidates were opposed in the next election, and finally, some of the corrupt members of the ring fleeing, others resisting the action of the courts, the people defeated nearly all the Tammany candidates but Tweed at the polls, and broke the power of Tammany. Tweed, though re-elected to the state senate by his own district, was soon arrested, tried, convicted, and sentenced to prison for twelve years. Later, released on a technicality, he was re-arrested on a civil suit by the city on a claim of $6,000,000 (£1,200,000) damages, escaped, fled to Spain, was sent back, and died in prison, 1876.

The breaking of the ring put Tammany into the control of the better element; and, under John Kelly as grand sachem, within a few years, it again controlled New York city. After his death control passed to Richard Croker, who, until his refusal to continue in his position, 1894, managed its political affairs with consummate ability.

Again, in 1894, an investigation proved that the policemen and other officers were levying blackmail on citizens and securing illicit gains for Tammany leaders. A popular revolt wrenched the control of the city government from their hands, and until 1897 Tammany had practically no voice in the city government. In 1897 Richard Croker was again placed at its head; its opponents were divided, and it won a complete victory, which gave it control of the city government.

Its careful organisation, unison of social features with its political activity, and especially its unquestioned adherence to the spirit of democracy in its broadest, freest sense, with its unscrupulous use of city patronage in the promotion of its interests among the poor, binds the great mass of the poorer, more ignorant voters of New York city to it, and so closely that we may expect it continually to reappear in power as often as it puts itself even temporarily on the side of right and good government.

No other political organisation has so successfully and permanently controlled the mass of voters, who, with real power in their hands, have been willing to yield almost absolute control to their leaders, so long as the latter were successful in carrying elections, and discreet in distributing the spoils of office.

J. W. J.

[The example of Tammany Hall is given as one of the most prominent instances of the influence of faction and corruption on local matters. This has been of late years considerable and very injurious. It opens the question whether a better method of election of local officers than that at present existing might not be devised.]

TANISTRY. An ancient Irish custom, by which the lands of a deceased lord descended, not to his nearest relative, but to the most capable and powerful of his near relatives. This custom was a natural result of the disturbed state of the country, which made a strong hand necessary to hold any land at all. Equally naturally, by causing continual quarrels in families, and quarrels in Ireland were not settled without fighting in those days, the custom tended to perpetuate the unsettled state in spite of all efforts to the contrary. When the reform of Irish affairs was undertaken in the reign of James I., tanistry was declared illegal.

[Hallam, *Constitutional History*, vol. iii. ch. xviii.] A. E. S.

TANTEO. A privilege granted to Spanish manufacturers, empowering them to prevent the export of raw material, such as silk, wool, corn, etc., produced in Spain, and which was required in their trade.

[Canga Argüelles, *Diccionario de la Hacienda* (London, 1826).] E. Ca.

TAPIA, CARLO (DI) MARCHESE DI BELMONTE (17th century). Born at Lanciano (Abruzzi), a magistrate with jurisdiction over the provision markets in the kingdom of Naples. He wrote a treatise on *Abundance*, in which he shows the need of modification in the system of food supply then existing, so as to meet the requirements of the day, of which, as a magistrate responsible for the corn supply of the kingdom, he had practical knowledge. Tapia analyses the system of food supply more scientifically than the other Italian writers of the day, either because he is more moderate in theory, or because he regards the question as a magistrate and not as a moralist. He classifies the causes of famine into those that are supernatural, natural, and accidental, and explains the regulations as to food supply then enforced by governments and practically upheld by all writers. He does not, like these, express absolute aversion to trade as a means of subsistence, and recognises the injury incurred by the prohibition of export of corn; he would

allow the export of any surplus in order that agriculture might not suffer through restriction. Though Tapia advocates a fixed legal price for corn, he suggests that, in doing this, account should be taken of cost of production, in order, partially at least, to satisfy both sellers and buyers.

Trattato dell' abbondanza (written earlier), Naples, 1638.

[See Gobbi, *L'economia politica negli scrittori italiani del secolo XVIe. XVII.*, Milan, Hoepli, 1889.—*La concorrenza estera, etc.*, Milan, Hoepli, 1884.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, Milan, Hoepli, 1882.] U. R.

TARE AND TRET. These terms are becoming obsolete in practical commerce, but are still found in books on arithmetic. *Tare* is an allowance for the weight of the box or package containing goods bought; *Tret* an allowance of 4 lb. in 104 lb. for waste; CLOFF, another term now obsolete, was an allowance of 2 lb. in 3 cwt., made in order that the retailer might cover the loss incurred in dividing the goods into small parcels for sale, and sell the whole for the same weight as he bought it.

[*Penny Cyclopædia*, Art. "Tare."] A. E. S.

TARGIONI, LUIGI (18th to 19th century), a Neapolitan writer, the author of several pamphlets, the most important being one on the means of providing for the numerous poor in the kingdom of Naples. Targioni attributed the increase of begging to the raising the nominal value of the coins, to the condition of agriculture—the excessive taxation, and the deficiency of means of communication. The improvement of these conditions was the only method of providing work for able-bodied men. Targioni advocated compelling the rich to help the poor in order to provide for the incapable.

Saggi fisici, politici ed economici, 1786.—*Idee relative ai mezzi migliori per mantenere ed impiegare i poveri*, 1802.—*Memoria sulla agricoltura e la pastorizia, etc.*, Naples, 1814 (see Fornari, *Delle teorie economiche nelle provincie napoletane II.*, 1888). U. R.

TARIFF, a Moorish term which has come into our language through the Spanish, *la tarifa*, properly the enumeration of prices. It is not unfrequently used in English in a perfectly general way, as in the case of the tariff of a hotel. Its usual signification in financial or economic language is the schedule of duties charged on the importation of any articles into any given country. That is what is always understood by the tariff of a country (see IMPORT DUTIES). C. A. H.

TATHAM, William (1752-1819).

An American engineer, attorney, colonel, etc., but born and resident in England 1752-69, 1789, 1796-1805, wrote six books or pamphlets on waterways: (1) *Two Tracts relating to the Canal between Norfolk and North Carolina;* (2) *Plan for insulating the Metropolis* (1797); (3) *Remarks on Inland Canals* (1798); (4) *Political Economy of Inland Navigation* (1799)—this, his most important work, incorporates (2) and (3), and is mainly practical, but refers to Sir J. Stewart's theories on self-interest, population, and the scope of political economy as authoritative, pp. 65 *et seq.*; (5) *National Irrigation* (1801)—mainly abstracted from the reports organised by the British board of agriculture; (6) and two reports *On the Navigation of the Thames.* His (7) *Communications concerning the Agriculture and Commerce of the United States* (1800)—a supplement to a communication to the board of agriculture; (8) *Essay on the Culture and Commerce of Tobacco* (1800); (9) *Oxen for Tillage* (1801); (10) *Circular Architecture* (1803); and reports on (11) Tennessee, and (12) Virginia, are drier but practical. His (13) *Collection of Sundry Documents respecting Himself* (1797), is autobiographical.

[Appleton, *Cyclopædia of American Biography* (1889).] J. D. R.

TAULA DE CAMBI (Catalan for table of exchange). In 1401 a bank of exchange and deposits was founded under this name in Barcelona; its operations spread rapidly, and in a royal charter granted in 1472 by King Juan II. it is described as "*Tabula insignis, celebris et tutissima.*" In Valencia, where, as in Catalonia, the laws against usury were not so stringent as in the rest of Europe, a bank was also established under the same name by royal charter, and worked under the supervision of the municipal authorities of the city.

[See Colmeiro, *Historia de la Economía Política en España*, i. pp. 411-12.] E. Ca.

TAVEREEL (or TAFEREEL)

Het groote Tavereel der Dwaasheid. "The great picture of Folly, representing the rise, progress, and decline of the trade in Shares, Bubbles and Wind, in France, England, and the Netherlands, in the year 1720. Being a collection of all the Rules and Projects of the Companies started for Assurance, Navigation, Commerce, etc., in the Netherlands, both those actually carried out and those rejected by the governments of particular provinces.

"With Engravings, Comedies, and Poems, by several amateurs, in mockery of these shameful and fraudulent concerns whereby in this year so many families and persons, gentle and semple, have been ruined and impoverished, and whereby genuine business has been brought to a standstill, both in France, England, and the Netherlands.

"So long as money-loving man
Is full-equipt with gold and gear
He falls sure prey to charlatan
Whom grasping fools feed all the year.

"Printed for the warning of posterity in the year fatal to so many wise men and fools, 1720."

The above is a free translation of the title-page

of a singular anonymous folio volume, without name or place of publication, but perhaps published by Isaak Stokman, Amsterdam, whose name occurs on pamphlets often included in the collection. The list of companies and undertakings was, however, published by C. Hoffeling at the Hague in 1721. The elaborate frontispiece representing the Share-Booth or Vestibule of Quinquenpoix (the Exchange Alley of Paris in those days), the account of the various Dutch companies (25 pages) at the beginning, and the series of Dutch comedies (52 pp.) and Dutch poems (35 pp.) at the end, are common to most copies; but the number and the order of the engravings differ very greatly in the different copies. They are usually between sixty and ninety in number, including the portraits of John LAW, who is the *bête noire* of all the artists. Nearly all the cartoons have interpreting verses or mottoes in Dutch; French occurs rarely, English more rarely still. A full account is given of the whole book in Frederik Muller's *Tavereel der Dwaasheid*, reprinted from the *Beredeneerde beschrijving van Nederlandsche Historieprenten*, pt. ii. (Fred. Muller, Amsterdam, 1876). See also the catalogue of satirical prints in the British Museum, vol. ii., 1837, No. 1612-1693. J. B.

TAXATION

History, p. 517; General Principles, p. 518; Tax Systems, p. 519; Classification and Incidence, p. 520; (1) Taxes on Land, p. 520; (2) On Houses, p. 521; (3) On Property and Capital, p. 521; (4) On Income, p. 521; (5) Customs, p. 521; (6) Excise, p. 522; (7) On Communication and Transport, p. 522; (8) Stamps, p. 523; (9) Death duties, p. 523.

HISTORY.—"A tax[1] is a compulsory contribution of the wealth of a person or body of persons for the service of the public powers" (Bastable, *Public Finance*, 1895, p. 249). The contribution is not necessarily one of money or goods, for compulsory military service and FORCED LABOUR (*q.v.* and CORVÉE) must be reckoned in the category of taxes. Dealing here, however, with money and goods only, we find that a contribution of such was, until comparatively recent times, as a rule merely a supplement to other sources of public revenue, such as crown lands and mines, penalties, feudal aids, etc. Hence Blackstone, writing in 1765, terms these last the "ordinary" revenue of the English kings, whilst he classes taxes as "extraordinary" (*Commentaries*, bk. i. ch. 8).

In ancient Egypt there was no taxation proper, the payment by the peasants to the king of one-fifth of the produce of their lands being rather in the nature of a *métayer* rent than a land-tax (see Herodotus, bk. ii. 109).

In Greece the ordinary revenue of the Athenian state, arising from tribute and the silver mines at Laureion, was supplemented by taxes in the shape of customs and tolls, a percentage on rates, fees for state protection, law-court fees, and fines. The extraordinary revenue required for war purposes was obtained partly from voluntary contributions, partly from a graduated income or property tax. Rich citizens were further liable to special burdens, called *leiturgies*, as the giving of plays and the equipping of ships (Gilbert, *The Constitutional Antiquities of Sparta and Athens*, 349-376).

With the Romans the system of taxation was better organised. Dowell (1st ed., pt. i. ch. iii.) gives the following as the principal taxes in use by them at different times and in different countries—tribute from lands, taxes on houses and animals, successions, income taxes on senators, tradesmen, and others, poll taxes; with, as indirect taxes, duties on exports and imports, and on commodities sold at auction, or in the public market (see also Clamagéran, *Histoire de l'impôt en France*, i. 1-108).

With the decline of the Roman power the system of taxatiou also fell into confusion. According to Hallam (*Middle Ages*, ch. ii. pt. ii.) "the early European kingdoms knew neither the necessities, nor ingenuity of modern finance. From their demesne lands (see DEMESNE), the kings of France and Lombardy supplied the common expenses of a barbarous court. Even Charlemagne regulated the economy of his farms with the minuteness of a steward. . . . Their actual revenue was chiefly derived from free gifts, made, according to an ancient German custom, at the annual assemblies . . . of the nation, from amercements paid by alodial proprietors for default of military service, and from the freda or fines accruing to the judge out of compositions for murder."

In England the rent of the royal demesne sufficed originally for all ordinary purposes, but in Anglo-Saxon times we find occasional land-taxes in the shape of Shipgeld (see SHIP-MONEY) and DANEGELD, and a HEARTH-TAX. Subsequently the incidents and casualties of the feudal tenures afforded for nearly six centuries a considerable revenue, the charges being, however, rather occasional extortion from individuals than systematic taxation. Expenses of wars were provided for partly by levy of scutage in lieu of KNIGHT'S SERVICE, and TALLAGE (*q.v.*), all the demesne contributing to the latter sums, fixed after negotiation with the exchequer officers. Towards the end of the 13th century scutage and tallage were practically superseded by general taxes on movables, granted from time to time by parliament. These were known from 1334 to 1623 as FIFTEENTHS AND TENTHS, and were represented by a lump sum. About the same period also CUSTOMS DUTIES began to be important as permanent sources of revenue. From 1377 poll-taxes were tried at intervals till 1698, but were unpopular on

[1] Tax, short for *taxatio*, from low Latin *taxare*, is the same as assessment. It occurs in the Statute Book first in 1327. . . . (Dowell, *History of Taxation*, 2nd ed. p. xii.).

account of their directness and inequality. Early in the 15th century special taxes were imposed occasionally on landowners and holders of rent-charges. These developed later into forms of a graduated income-tax. In the Tudor period SUBSIDIES, raised nominally by a poundage rate on lands and goods, were granted to supplement fifteenths and tenths. This system of direct taxation, together with increasing duties of customs, supplied the crown with revenue until, under Charles I., parliamentary control temporarily ceased. By this time almost all the demesne had been granted away. During the Commonwealth MONTHLY ASSESSMENTS took the place of subsidies, and the EXCISE was introduced. After the Restoration, the various direct taxes hitherto levied merged by degrees into a LAND TAX of varying but moderate amount, the rapidly increasing needs of the state being met by additional duties of customs and excise, by stamp, house, licence and death duties, and by an income tax, till by the close of the Napoleonic wars hardly a luxury, or even a necessary, hardly a manufacture, escaped charge. The subsequent history of taxation in this country is one mainly of repeal, reduction, and adjustment, under the combined influence of the diminution of pressure, the study of general principles, and the growth of democracy (Dowell, 2nd ed., vols. i. and ii.).

GENERAL PRINCIPLES.—The grounds for adopting the different kinds of taxes at various times, and in various conditions of society, were practical rather than theoretical, and it was only towards the end of the 18th century that the general principles which should govern taxation began to be seriously considered. These may be expressed in the well-known maxims of Adam Smith (*Wealth of Nations*, bk. v. ch. ii. pt. ii.).

(1) "The subjects of every state ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state."

(2) "The tax which each individual is bound to pay, ought to be certain, and not arbitrary. The form of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person."

(3) "Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it."

(4) "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state."

These maxims, which may be shortly described as inculcating equality, certainty, convenience and economy, although adopted by most economic writers, have of late been subjected to hostile criticism (*e.g.* F. A. Walker, *Political Economy*, §§ 587-589). Bastable (*Public Finance*, p. 388), surveying the most prominent attempts to supply a fresh series of precepts, lays down the following principles for the guidance of the practical financier:—Taxation should be (1) productive; (2) economical—that is, inexpensive in collection and of a nature to retard as little as possible the growth of wealth; (3) justly distributed; and (4) elastic. That it should be (5) certain, and (6) convenient, he regards as matters of less interest, these canons being now generally observed. In the event of conflict betweeen the several canons, a solution of the difficulty should be reached by the surrender of the less important rule. Thus, the successful administration of the state being the final object, convenience, or even equity, may have to yield to productiveness. (See also Dowell, *Income Tax Laws*, 4th ed. p. lxi.).

Reverting to Adam Smith's four maxims, it may be observed that the last three are obvious rules or administrative precepts respecting *taxes*, to be followed in the case of each separate tax. But the first is a rule of *taxation*, and is applicable to the tax system in general. Taking the rule as a whole, it has been urged that its precise meaning is open to doubt. The last six words, "under the protection of the state," "are either irrelevant, or else they mean that the protection enjoyed affords the measure of the duty to contribute" (F. A. Walker, *Political Economy*, § 588). If this interpretation were correct the rule would embody the favourite doctrine of the 17th and 18th centuries, that taxes are a *quid pro quô*—the price paid for the services of the public authorities. This doctrine was employed as a plea for universality of taxation at a time when, whilst receiving at least equal benefits, certain privileged classes were exempted, as in France before the Revolution, when the peasant bore the whole cost of government. It is, however, no longer accepted. "It is now generally agreed that we pay taxes not because the state protects us, or because we get any benefits from the state, but simply because the state is a part of us. The duty of supporting and protecting it is born with us" (Seligman, *Essays in Taxation*, p. 72. See also Ely *Taxation in American States and Cities*, pp. 13-18). To some small extent, indeed, it may be possible to measure the value of the services rendered by government in matters of law and police, and to exact payment in the shape of fees; but it is manifestly impossible to assess each individual for the benefit accruing to his person and property by the maintenance of national existence and social order (Sidgwick, *Political Economy*, pp. 560, 561; Cohn, *Science*

of Finance, §§ 83, 84, 97, 108). In fact, as Bastable (p. 253) states, "The equivalence between the amount of taxes paid and the benefits obtained is rather to be found in the case of the community as a whole than of any special part of it."

For the taxation required to defray the greater part of the governmental expenditure of a modern state, some other principle of distribution than payment in proportion to services received (called the Social Dividend theory, see F. A. Walker, *Political Economy*, § 583) must therefore be sought. It is to be found, as Adam Smith indicated, in payment according to respective ability, a phrase which is, however, not now interpreted as implying strictly in proportion to revenue, for equality of taxation means (J. S. Mill, *Political Economy*, bk. v. ch. ii. § 2) equality of *sacrifice*. To secure this equality the necessaries of life should go free, superfluous consumption only being charged. "People should be taxed, not in proportion to what they have, but to what they can afford to spend" (*Ibid.* § 4). The exemption of necessaries in a country with a system of poor-relief would seem to be a matter of course, for "If government risks some of the evils of communism in order to secure the poorer citizens from want of the necessaries of life, consistency requires that it should not endeavour to *take* by taxation from the poor who remain independent a part of what it would have to *give* them if they sought its aid" (Sidgwick, *Elements of Politics*, p. 174). In opposition to this practical view of the exemption of the minimum of existence, see the view in Cohn that the state is part of the necessaries of life, and its demands therefore part and parcel of the demands of subsistence (*Science of Finance*, §§ 222, 242). In the *Final Report of the Royal Commission on the Financial Relations between Great Britain and Ireland*, dated 1896 [c. 8262], one of the conclusions drawn is that identity of rates of taxation does not necessarily involve equality of burden. This conclusion is based partly on arguments that what may be luxuries or superfluities in one country are necessaries in another (*e.g.* p. 40). Whether equality of sacrifice does not require that taxation should be progressive, *i.e.* that the percentage of charge should rise with the amount of the income, is a problem practically attempted to be solved in recent times by progressive income taxes and death duties. This attempt is due perhaps rather to financial necessity and the growth of democracy than to the force of economic reasoning (see GRADUATED TAXATION). (See Edgeworth, "The Pure Theory of Taxation," *Economic Journal*, vii. 550, for the view on utilitarian grounds, that *minimum*, rather than *equal*, sacrifice is the sovereign principle of taxation.)

TAX SYSTEMS.—Taxation based on the foregoing general principles may be raised under various systems. The most simple and logical plan would seem to be to claim from each taxpayer his contribution in one amount having reference in some way to his income. But such a method, though often advocated by theorists, as also have been single taxes on expenditure, land, rent, realised property, and capital (see IMPÔT UNIQUE; SINGLE TAX), has not in practice been adopted by any country. At the present time there is a strong agitation in America in favour of a single tax on land-values. The many special objections, fiscal, political, moral, and economic, to a tax of this description (see Seligman, *Essays in Taxation*, pp. 64-94), would not apply to a single tax on income, but the difficulty of making a correct assessment, and the irritation that would be caused by the collection of such a large and undisguised impost, are sufficient obstacles to a successful attempt in this direction. A multiple or plural system is thus practically necessary. The taxes forming it may be either "direct," on income—rent, interest, earnings—and property; or "indirect," on commodities (see, however, DIRECT TAXATION, INDIRECT TAXATION, for various interpretations of these terms). The bulk of the taxation revenue of a modern state is raised by a judicious mixture of both forms, the intermediate class of charges on transfers, communications, etc., being used as supplementary only. Such a combination, whilst it minimises the effects resulting from the unpopularity of direct taxes, and the disturbance of industry caused by indirect, has an additional advantage in its elasticity, which makes it possible to adjust receipts to expenditure without undue inconvenience to the taxpayers. "The steady growth of the receipts from commodities in times of prosperity, the definite yield of direct taxes, and the power of altering the rate of the income-tax, taken together, provide the conditions for securing such growth or contraction of receipts as may be thought most desirable" (Bastable, *Public Finance*, p. 336. See, however, Blunden, "The Position and Function of the Income-Tax in the British Fiscal System," *Economic Journal*, ii. 637, for an objection to the use of the income-tax in normal times to adjust taxation). Plehn, *Introduction to Public Finance*, pp. 148-168, states that the great reforms of 1893, made under the leadership of Dr. Miguel, place Prussia far in advance of all other countries in the theoretical perfection of her tax system. In England, he says, special difficulties and objections have been met with little reference to any general plan, the result being a steady approach to a better state of affairs, with only an occasional intensification of existing evils, due to the attempt to cure symptoms rather than to

seek the underlying causes of the trouble. He animadverts strongly on the entire absence of system in American taxation.

CLASSIFICATION AND INCIDENCE. — Before proceeding to consider the particular charges which the threefold system of taxation indicated above might embrace, it is desirable to allude to the difficulty experienced in making a satisfactory classification of taxes. Besides the varying division into "direct" and "indirect," a distribution of taxes into "real" and "personal" is sometimes found,—taxes on land, houses, and goods being regarded as "real," and capitation and income-taxes as "personal." This distinction is inconvenient for purposes of classification, all taxation, including that nominally charged on things, being in the last resort paid by persons. Owing, however, to the frequent possibility of shifting the burden as originally imposed, the determination of the actual person by whom a particular tax is ultimately paid is a very difficult problem. Adam Smith, holding that every tax must be finally paid from one or other of the different sources of revenue mentioned by him—rent, profit, and wages—or from all of them indifferently, proceeded to group taxes under those three heads, with sub-divisions. This classification, which English economists have endeavoured to follow as far as possible, is also open to the objection that taxation falls on persons, not things; persons, moreover, often receiving their income from more than one of the different economic shares in distribution mentioned. Further, the ultimate source of taxation is not now deemed to be revenue only, but the collective wealth of the country, including, at any given time, both capital and revenue. "To provide that taxation shall fall entirely on income, and not at all on capital, is beyond the power of any system of fiscal arrangements" (J. S. Mill, *Principles*, bk. v. ch. ii. § 7). "Any tax is certain to take some wealth that would otherwise have been devoted to the aid of production, and also some that, if left to the taxpayers, would have been consumed unproductively. . . . The real aim should be to so direct it [taxation] as to interfere to the smallest extent with the action of the forces that promote accumulation" (Bastable, *Public Finance*, p. 275). The defects in the economical mode of classification have led to what Bastable (p. 261) terms the "empirical" or "fiscal" one, which takes the actual kinds of taxation and arranges them in the most convenient way. The categories thus formed, mostly by German economists, vary considerably. Cohn adopts Wagner's (*Finanzwissenschaft*, § 451) classification into taxes on earnings, on possession, and on consumption, "with the thought that it may serve the purpose of bringing uniformity and agreement into the systematic treatment of taxation" (*Science of Finance*, § 332). But whatever broad divisions may be adopted, the charges imposed in a modern state usually range themselves under some of the following heads: —Taxes on (1) land, (2) houses, (3) property and capital, and (4) income; (5) customs, (6) excise, (7) taxes on communications, (8) stamps, (9) death duties.

In any consideration of the best mode of combining these different kinds of charges in order to produce equality of taxation, it should be borne in mind that, as before indicated, the real and the apparent incidence of a tax often differ. Reference has been made below to the conclusions arrived at with regard to the incidence of different kinds of taxes by Prof. Seligman, in whose essay "On the Shifting and Incidence of Taxation" (*American Economic Association*, VII., Nos. 2 and 3, 1892) all the theories previously advanced are examined. In certain cases the views of Bastable (*Public Finance*) are given. But whatever theory be adopted, it is important to observe that in practice the apparent pressure of the burden may be a factor of greater moment than the actual (see *e.g. Report from Select Committee on Town Holdings*, pp. 214, 292, p. xviii.).

1. TAXES ON LAND.—These, which are of very great, if not of the greatest, antiquity as a source of revenue, were originally charged by reference either to the gross produce of the land cultivated, as in ancient Egypt, or to its area, as in Rome and England at one time. The former method was partly adjusted to the productiveness of the soil, but the latter, which is still adopted in some of the British colonies, took no account whatever of the differences in fertility. A moderate approach to equality of charge was indeed sometimes (*e.g.* Humbert, *Essai sur les Finances et la Comptabilité chez les Romains*, note 899) made by arranging the lands in classes taxed at different proportions or rates. Even a classification of this kind is but a rough and ready mode of reaching the true value of the land for taxation purposes—that is, the net yield after the expenses of cultivation have been deducted. To ascertain the net yield, a minute system of valuation is necessary, the valuation being based either, as in France (where it is preceded by CADASTRAL SURVEY), on estimates of produce, prices, and cost of cultivation, or as in England, for the purposes of the INCOME TAX, on the rent at which the land is worth to be let. The tax raised on the valuation may be either "apportioned" or "rated." In the first case, a total fixed sum is collected from each district, the lands being charged at the pound rate necessary to produce it (*e.g.* the English LAND TAX, the French *Impôt Foncier*); in the second, all the lands of the country are charged at a fixed pound rate or percentage (*e.g.* the English income tax, Sch. A). Cohn approves the former system (*Science of Finance*, § 377) as affording the local authorities a support and standard in making correct assessments. It may, however, become inelastic, and practically, as in England, reduce the land tax to a rent-charge. Under such a system, besides, the burden tends to become unequal in different

districts, and this inequality has serious consequences where, as in France, local revenue is raised by additional charges (*centimes additionels*) proportioned to the state tax (Leroy-Beaulieu, *Science des Finances*, 1892, i. p. 321). The amount of revenue now raised by the taxation of land is in most countries considerable, the tax possessing special advantages as a source of income for local purposes (see *Taxation of Lands and Buildings in European Countries, etc.*, P.P. [c. 6209] and 181/91).

If a tax on landed profits or property be a part of a general income or property tax (*e.g.* the English Income Tax, Schedule A), it cannot be shifted and will be borne by the landowner (Seligman, *Incidence*, p. 96). If imposed as an exclusive tax on cultivating owners, it will even then be apt to remain where first put (pp. 97-99). If charged on the tenant-farmer (as the English local rates are), the tax will fall on the landowner in the case of pure competitive rents, and will be divided between landowner and tenant in the case of non-competitive rents (p. 100).

2. TAXES ON HOUSES.—Houses were originally taxed only as included with the land on which they stand—their separate assessment being a development of taxation. In England the HEARTH MONEY or chimney tax of feudal times was succeeded by the window tax, finally replaced in 1851 by the INHABITED HOUSE DUTY. Houses, including in the term shops, factories, and premises generally, invite taxation by the ease with which they can be assessed, and the evidence they afford of the wealth of the occupier. Like land, they are therefore usually made to contribute largely to both imperial and local revenue. Bastable (The Taxation of Ground Rents, *Economic Journal*, iii. 255) argues against the proposal to charge a special tax on the ground rent of houses.

A tax on houses levied according to rental value and assessed on the occupier (as the Inhabited House Duty and local rates are in England) rests in the main ultimately on the occupier (Seligman, *Incidence*, pp. 117-128. See however Bastable's criticism, *Public Finance*, 2nd ed. p. 419; also G. H. Blunden, Distribution of Rates and Taxes, *Journal of Royal Statistical Society*, 1896, p. 644).

3. TAXES ON PROPERTY AND CAPITAL.—Except in the shape of lands and houses, property, including its interest-bearing form, capital, is now rarely made a subject of taxation apart from death duties or a general income tax. The reason is no doubt mainly the practical difficulty of correct assessment, resulting from the varied forms that, in civilised countries, property takes, and the consequent facilities for evasion. The almost invariable history of the general property tax, common in the Middle Ages, is that, originally developed out of a land-tax, it has in the course of time reverted to its primitive form, personalty having gradually slipped out of assessment (see CATASTO). It has therefore, in most countries, been supplanted by separate taxes on land, houses, wages, profits, interest, etc., or in quite modern times by an income-tax (Seligman, *Essays in Taxation*, pp. 23-61). In Switzerland and the United States, however, the property tax is still used for cantonal and state, as opposed to federal, purposes. In France the *impôt sur les valeurs mobilières* is found as a special charge on income derived from capital in shares of companies, the alleged justification being that the holders are idle capitalists whose liability is limited (Leroy-Beaulieu, *Science des Finances*, i. p. 418). In England the small stamp duty recently charged on the share capital of companies is intended rather as a check on excessive nominal capital than a tax on a form of wealth. Prussia and Holland have recently introduced special taxes on property (Seligman, *Essays in Taxation*, 322-335; H. B. Greven, Fiscal Reform in Holland, *Economic Journal*, iii. 534; A. J. Cohen Stuart, Progressive Taxation in Holland, *Economic Journal*, viii. 325, and art. FINANCES, NETHERLANDS). Cohn maintains that it is the office of the property tax to fill up a gap left by the income tax through its inapplicability to property which yields no profits, such as a private picture-gallery. It is only when applied to such property that it is anything more than an income-tax under a different form (*Science of Finance*, §§ 241, 242, 353, 354). A tax on personal property, which is not capital, cannot be shifted. A tax on mortgages or other loanable capital will as a general rule fall on the borrowers (Seligman, *Incidence*, p. 139).

4. TAXES ON INCOME.—Income is now so generally recognised as the normal source of taxation that it is somewhat surprising to find that it has been only after property and other taxes have failed to produce the revenue required that the plan of a direct tax on income has been adopted. Three of the component parts of income—rent, wages, and profits—had indeed early been laid under contribution by means of land taxes, poll taxes, and licences to trade, the last mentioned being now represented in England by the licences required by auctioneers, etc., but the first tax on income as such was the invention of W PITT in 1798. The unpopularity of this tax led to its abolition in 1816, but it was revived in 1842 for purposes of fiscal reform, and now may be assumed to have taken a permanent place in the English system of taxation. (For the practical difficulties in applying the progressive principle to the British Income Tax, see Blunden, "A Progressive Income Tax," *Economic Journal*, v. 527. Burns, "A Graduated Income Tax," *Westminster Review*, Nov. 1896, suggests how the difficulties may be overcome.) In France there is at present no income-tax (see Leroy-Beaulieu in *L'Économiste Français*, 8th February 1896 *et seq.*, for the tax recently proposed), but its place is partially taken by the PATENTE, introduced in 1791, under which trades, occupations, and professions are arranged in certain classes with a view to a rough approximation to a charge on the

amount of profits. In Germany and Austria taxes on industry are found, modelled more or less on the *Patente* (see J. A. Hill, "The Prussian Business Tax," *Quarterly Journal of Economics*, viii. p. 77. This tax is now devoted to local purposes). Austria has in addition a progressive general income tax, based on individual economic ability (R. Sieghart, The Reform of Direct Taxation in Austria, *Economic Journal*, viii. 173). Italy has a heavy income-tax of the English type, but with differentiation of the classes of income, and the Swiss Cantons supplement their property taxes by charges on income, in many cases progressive (see Palgrave, "Progressive Taxation as levied in Switzerland," *Journ. Stat. Soc.*, 1888). In America an income-tax was imposed for five years from 1st January 1895 (Seligman, "The American Income Tax," *Economic Journal*, iv. p. 639), but was subsequently held by the Supreme Court to be unconstitutional.

A general income-tax, being simply a combination of taxes on the separate ingredients of income—rent, interest, profits, and wages,—its incidence as a whole must depend upon the laws applicable to each separate part. Speaking broadly, it cannot be shifted (Seligman, *Incidence*, p. 178). A tax on profits will, if confined to the profits of some particular occupation, in the long run, be shifted to the consumer. If it extends to all profits, it will be borne by the producer (pp. 164-167). A trade-license tax, if fixed and high, will tend to be borne by the producer (p. 169). Given a monopoly in a trade, any fresh tax (whether imposed by way of license or otherwise) will fall on the producer (pp. 160, 162, 168). A special tax on professional men (*e.g.* Solicitor's Certificate Duty), will not be shifted (p. 172). A tax on wages will fall on the workmen, unless as the result of a long and fierce struggle it can be shifted to profits (p. 176).

5. CUSTOMS.—Taxes on commodities, or on consumption, may be levied either as customs at the ports or frontier, as excise with supervision over the producer, or by a state monopoly of production. The tax in all three cases is intended to fall on the consumer, the fundamental principle of a tax on consumption being (Cohn, *Science of Finance*, § 359) "that it accepts the demand of the taxpayer for consumable goods as the standard by which to measure his ability to contribute to the public expenditures." As regards customs (see CUSTOM; CUSTOMS DUTIES; IMPORT DUTIES), England is almost the only country that uses such duties purely for fiscal purposes, and confines them to luxuries. In France, food, raw materials, and manufactures are all subject to import duties, and there is no due relation, such as exists in England, between the customs and the internal taxes. A similar system prevails generally among the other continental nations.

A tax on either absolute necessities or expensive luxuries, whether imposed as an import or an excise duty, will, on the assumption that a corresponding rise in price will not affect demand, be shifted in its entirety to the consumer. A similar tax on comforts and minor luxuries, that is, the general mass of commodities, will be divided between the consumer and the producer in proportions varying with the elasticity of the demand and the ratio of produce to cost (Seligman, *Incidence*, pp. 147-152. See also Bastable, *Public Finance*, pp. 347-351, 509-511).

Export duties, in early times a part of the customs, and popular as a charge (as then believed) on foreigners and a restriction on exportation, are now found only in countries with exceptional products, as, for example, India with opium and rice, Brazil with coffee, the West Indies with sugar (see EXPORTS, DUTIES ON).

In such cases the tax may be partly passed to the foreign consumers. Otherwise, an export duty will be chiefly paid by the country imposing it (Bastable, *Public Finance*, p. 531).

6. EXCISE.—An EXCISE on similar commodities produced within the country should, unless protection rather than revenue is aimed at, or unless (Cohn, *Science of Finance*, §§ 366, 368) there are insuperable practical difficulties, accompany the imposition of customs duties at the ports or frontier. Thus in England each customs duty has its countervailing excise duty if the article taxed is capable of production in this country, except indeed, as is the case with tobacco, its production here is forbidden. On the other hand, if it is intended to raise revenue by the taxation of commodities produced at home, a corresponding customs duty must be charged on the same commodity if imported (see COUNTERVAILING DUTY). In England the internal taxation of commodities is confined to luxuries, and is for imperial purposes only. In France such taxation is applied to necessaries, —*e.g.* salt, food, and fuel—as well as luxuries, and is used for municipal as well as state purposes (see INTERNAL CUSTOMS AND TOLLS; LOCAL FINANCE; OCTROI). A system of internal taxation somewhat similar to the French prevails on the continent generally.

The inclusion of necessaries is due rather to the inadequacy of other sources of revenue than to a determination on abstract grounds to tax the poorer classes. The selection of articles for internal taxation depends mainly on the amount of revenue required to be raised by this means. For administrative reasons the articles should be few in number, and if a large revenue is needed they must be in general use among the people. In order not to infringe the fourth of Adam Smith's maxims, they should be such as will suffer least from excise restrictions on production; and for a like reason raw materials—the duties on which would have to be advanced for a long period—should be excluded from the list. By a state monopoly of production, as existing *e.g.* in France for tobacco, probably the largest revenue may be raised with the smallest amount of restriction. Under such a system an AD VALOREM DUTY becomes practicable (Cohn, *Science of Finance*, § 379). But where, as in the case of alcohol, it is desirable to secure the continual development of new processes, production is best left to private individuals. It must be remembered that in the taxation, whether by monopoly or a duty,

of tobacco, alcohol, and OPIUM, there is a moral ground, real or alleged, the object being not only to raise a revenue but to check the consumption of an article regarded as tending to be injurious (Bastable, "Taxation through Monopoly," *Economic Journal*, i. 307). A moral ground may also partly be alleged as the origin of the ASSESSED TAXES in England, which were chiefly of the nature of sumptuary charges. Such as survive—licences for carriages, men-servants, etc.—are now collected as excise, and paid over for local purposes. Taxes of this kind are an unpopular and decaying form of impost, both here and abroad (see Leroy-Beaulieu, *Science des Finances*, i. ch. ix.). They cannot be shifted. Cohn regards the English system of consumption taxes as one-sided, in that it charges the majority of the population for the benefit of that portion which does not smoke or drink. He, writing in 1889, would wish to see an increase in the scope and number of our taxable articles, and a more adequate equalisation of the burden by further special taxation of the upper classes (*Science of Finance*, § 365).

7. TAXES ON COMMUNICATIONS AND TRANSPORT.—In England the POST OFFICE, a state monopoly, is carried on at a profit, and the surplus, being applied as revenue, is a tax on commercial and private correspondence. A higher charge than is necessary to meet expenses is a check on trade, and an undesirable form of taxation. In other countries the postal service is generally carried on at a loss; and this is the case also with another form of government enterprise—state railways, the receipts from which rarely cover expenses, including interest on debt. The Prussian railways are a conspicuous exception, and the profit arising from them is a tax on transport. The making of such a profit was no part of the original policy of state acquisition, but Cohn ("Railways and Waterways in Germany," *Economic Journal*, iv. p. 543) speaks of the surpluses with approval as a kind of taxation which affects those strata of the population which are most able to pay taxes. As regards railways in private hands, a small amount of revenue is raised in England by the Railway Passenger Duty, a special tax on part of the gross receipts from passengers. The present law is founded on the report of the select committee of the House of Commons appointed in 1876, which however recommended the repeal of the duty whenever the state of the public revenue would permit (pp. 312, 376). In France a considerable sum is raised by a tax on goods and passengers carried on the railways, and in America there are state taxes on either the gross or net earnings of the lines. In so far as these taxes fall on goods and travellers on business (see Bastable, *Public Finance*, pp. 536-7), they act in restraint of trade, and are undesirable.

8. STAMPS.—This term denotes merely the mode in which certain taxes are collected. When charged in respect of law proceedings and juridical acts, STAMP DUTIES, so far as they exceed the level of fees for services rendered, are open to objection, the administration of justice being a general interest affecting rich and poor, litigants and non-litigants, alike. In England and France a small amount only of revenue is raised in this manner, but in Germany the fees contain a larger tax element. As charges on commercial transactions and transfers of property, stamp duties are, however, largely used in England, France, and Italy. They are easy to collect, and although tending to check trade and production, are, when charged at low rates as in England, open to little practical objection as a subsidiary source of revenue.

According to Bastable (*Public Finance*, pp. 546-7), stamp duties on commercial instruments, such as bills and receipts, may be regarded as falling on business gains, whilst those on transfers of land and other property are probably divided between buyer and seller.

9. DEATH DUTIES. SUCCESSION DUTIES.—Duties on the transfer of property from the dead to the living, though theoretically objectionable as tending to fall on capital, and thus to retard the growth of wealth, are almost universally regarded as an essential constituent of a well-arranged system of finance. In practice, so long as small estates passing to widows and children are lightly charged, and adequate measures are taken to prevent evasion, perhaps the only limit to the rate of duty is the danger of diminished productiveness through either genuine gifts *inter vivos*, or, eventually, the stoppage of accumulation. Seligman, discussing the various arguments for an inheritance tax, as death duties are called in America, advocates a charge of this kind as a supplement to an income or general property tax, in order to reach the real faculty or ability of the individual, which has been increased by an accidental or fortuitous receipt. He also regards the tax as a convenient method of applying the principle of differentiation in the taxation of income derived from property and labour (*Essays in Taxation*, 121-135. See also Max West, *The Inheritance Tax*). The principle of graduation according to the amount of property left by the deceased has now been adopted in England, more especially since the introduction of the estate duty (Finance Act, 1894), (*38th Report of Commissioners of Inland Revenue*, 19-28; Seligman, *Essays in Taxation*, 307-311; Bastable, *Public Finance*, 556-560). A tax on inheritances or bequests cannot be shifted.

[See books mentioned in the following: M'Culloch, *Literature of Political Economy* (1845), pp. 318-349.—Ely, *Taxation in American States and Cities* (1888), pp. 94-101.—Cohn, *Science of Finance* (1889), American translation, 1895, §§ 8-19.—Bastable, *Public Finance* (1892).—Cossa, *Introduction to study of Political Economy* (1893).—Seligman, *Essays in Taxation* (1895),

pp. 358-398; also, for American taxes, pp. 62, 263 and 422.—*The Statesman's Year Book* (lists of official and non-official publications)]. F. A.

[Besides arts mentioned in the text, see ASSESSMENT; COST OF COLLECTION OF TAXES; DEATH DUTIES; DÉCIMES; DENIER; DIFFUSION THEORY OF TAXATION; DÎME ROYAL; DIRECT TAXATION; DISCRIMINATING DUTIES; EXCISE SCHEME; FARMING OF TAXES; FARMING TAXES, Principle of; FIRST FRUITS AND TENTHS; FOOD, Taxes on; GABELLE; INDIRECT TAXATION; MACINATO; NEW CUSTOMS; NEW IMPOST; NEW SUBSIDY; PAPER, TAXES ON; PAULETTE; QUOTITÉ; SALT, TAXES ON.]

TAXATION, EQUALITY OF. See TAXATION.

TAXATION, GRINDING. See MACINATO.

TAXATION, INCIDENCE OF. See TAXATION.

TAXATION, INDIRECT. See INDIRECT TAXATION.

TAXATION, MAXIMS OF. See TAXATION.

TAXES. See TAXATION.

TAXES, COST OF COLLECTION OF. See COST OF COLLECTION OF TAXES.

TAYLORS, MERCHANT. The tailors were among the most thriving artisans of mediæval London, and their organisation as a craft probably dates from the middle of the 13th century. In 1327 the tailors and linen-armourers represented to the king that they had been accustomed "to hold their gild once every year to rule their mistery and order the state of their servants," and prayed for the confirmation of the same. This was granted by a charter, which gave them also the control over the admission of tailors to the freedom of the city. The number of members would seem to have then been twenty-four. During the same period there existed a religious fraternity of St. John Baptist of tailors in the city of London, which was probably at first formally distinct from the organisation of the craft as such. But, if so, the two had coalesced by 1390, when Richard II. confirmed the privileges of "the gild and fraternity of tailors and linen armourers" "in honour of St. John the Baptist," and empowered them to elect annually, from among themselves, a master and four wardens.

From that time onward their history resembles, in its main features, that of the other LIVERY COMPANIES of London (see also CORPORATIONS OF ARTS AND TRADES, GILDS, LIVERYMEN, and MERCERS). By a charter of 1408 the fraternity was formally incorporated; by one of 1439 it was authorised to make search concerning the mistery within the city and suburbs. Henry VII., by his charter of 1502, of his "special grace" "transferred and changed the gild and fraternity into the name of the gild of *merchant* taylors of the fraternity of St. John the Baptist"; on the ground that "the men of the mistery, . . . from time whereof the memory of man is not to the contrary, do use, occupy, and exercise in all quarters and kingdoms of the world, all and every kind of merchandises, to the renown, honour, and benefit of our kingdom." During the 15th century a divergence of interests between masters and journeymen made itself felt, leading to the formation of a fraternity of "yeomen," which gave the company some trouble (see JOURNEYMEN'S SOCIETIES). The company also began to be enriched by the bequests of deceased members, and to be made the trustee of lands devised for benevolent and religious purposes. In 1547 it surrendered to the crown, in accordance with the statute to that effect, its religious endowments; redeeming charges amounting to about £100 by selling lands which fetched £2000, and by paying that sum to the crown. In 1561 the company established the school in London which it has since maintained, and which has remained in close association with St. John's College, Oxford, founded a few years earlier by Sir Thomas White, merchant taylor and lord mayor. Between 1550 and 1571 the company vigorously defended, especially against the cloth-workers and haberdashers, the alleged right of its members to exercise any occupation, and succeeded in preventing any prohibitory legislation. Their success must have hastened the decay of the gild system in London; henceforth, though the companies survived as social bodies, they gradually dropped their connection with the occupations from which they had arisen. The internal constitutional history of the Merchant Taylors' Company is obscure. But it would seem probable that the subordinate organisation known as the Bachelors' Company was composed in the 17th century largely of working tailors, and that the refusal of the court of assistants in 1691 to reappoint officers for the bachelors may be regarded as marking a distinct withdrawal from interest in the tailoring occupation; though the formal testing of cloth measures in Bartholomew Fair by officers of the company was kept up until the abolition of the fair in 1854. In 1837 it was stated that "the greatest number of the company were members of the stock exchange or corn factors." In 1882 the number of liverymen was 226, the corporate income £31,243, and the trust income £12,068.

In all considerable English towns there were similar, though less flourishing, fraternities of tailors in honour of St. John the Baptist. That in Bristol possessed ordinances dating from 1392, and began to call itself "the company of *merchant* taylors" in the latter part of the reign of Elizabeth. It became extinct with the death of the last surviving member in 1824.

The tailors were, in many towns, among the most powerful of the crafts; for their struggles with the municipality of Exeter see *English Gilds* (Early English Text Soc.), and Mrs. J. R. Green, *Town Life in the 15th Century*, vol. ii. ch. vii.

Their social importance may be explained, in the main, by the elaborateness and costliness of attire among the upper and middle classes in the later middle ages. But it was doubtless increased in some places, such as London, by the share which their occupation led them to take in more or less wholesale trade—a subject which awaits investigation. Some light may perhaps be cast upon the position of affairs in London by that in certain continental towns. In Stralsund the company of *Wandschneider*, explained as cloth dealers, belonged to the *Kaufmannstand*, while the *Schneider* belonged to the *Gewerkstand*. In Lübeck the *Gewandschneider* were grouped with the merchants travelling to foreign parts, and reckoned among the *bürgerliche Collegien*, and yet the *Schneider*, another body, was second among the four great *Handwerksämtern*, to which the other seventy-two crafts were subordinate.—V. Maurer, *Städteverfassung*, ii. §§ 337, 354.

[W. Herbert, *Livery Companies* (1834), vol. ii.; now superseded by C. M. Clode, *Memorials of the Guild of Merchant Tailors* (1875), and *Early History of the Guild of Merchant Taylors* (1888), 2 vols.—both works printed by the company for private circulation. For the recent history of the company the *Report* of the royal commission on the livery companies (1884) must be consulted, or the summary in W. Carew Hazlitt, *The Livery Companies of the City of London* (1892). For Bristol, Francis F. Fox, *Merchant Taylors of Bristol* (1880), printed for private circulation.] W. J. A.

TEINDS (SCOTLAND), *i.e.* TITHES. In early times it came to be held as part of the common law of Scotland that, by reason of divine law, a tenth part of the fruits of the land of the laity ought to be paid to the clergy, and the latter were accustomed to claim and receive this. Substantially the bulk of the tithes or teinds in Scotland were those imposed upon cultivated land, and even these were practically, if not wholly, imposed only upon corn. These constituted the parson's tithes, the rectorial teinds, or *decimæ garbales;* and as the obligation to pay one-tenth of the corn to the parson ran along with the right to retain the remaining nine-tenths, the parson's right to his one-tenth could never lapse from non-user. At the same time there were local customs according to which petty tithes, or "vicarage teinds," were levied, ostensibly for the maintenance of the parson or rector's substitute or vicar. If the vicar were appointed by the patron of the church, the representative of the original founder of the church, these petty tithes were paid directly to the vicar; but if not, they were paid to the parson himself, to supply him with means to pay his own vicar. The history of the right to teinds is a record of confusion; and during the centuries preceding the Reformation we find that by one means and another the religious houses ousted the parsons and vicars to a large extent, and that the right to claim and receive teinds became vested in them in many places; and more, that many laymen contrived to become possessed of them at the expense of the religious houses. This latter process was greatly accelerated immediately before the Reformation, when it became almost a general practice for the religious orders to grant away their own lands, which up to that time had remained exempt from tithes, "*cum decimis inclusis et nunquam antea separatis,*" as the phrase went; and a title to that effect is still recognised as exempting the land to which it applies from liability to pay teind. When Scotland emerged from the confusion of the Reformation, and the accompanying wasteful grants to needy nobles and courtiers of the period, it was found that the parish clergy had practically ceased to have any interest in the teinds, the right to claim and receive which had come to be vested either in the crown or in the titulars of teinds—that is, persons entitled to the teinds in virtue of crown grants of teinds or of church lands—or in the patrons who represented the original founders of the churches, or in those who had acquired church lands from churchmen. These were practically all laymen, and their exercise of the right was found to be most oppressive; for example, they would refuse to come and gather their tenth sheaves until some special bargain was driven, for until they did so the remainder of the crop could not be taken off the fields. On the other hand, the parish clergy had no satisfactory means of support, and the confusion became so great that in 1628 Charles I. induced all parties concerned to submit the whole arrangements to his arbitration and to revision by him, the alternative apparently being that the crown would assert its own rights as against the existing holders of the teinds. King Charles issued an award which was the basis of the present system. According to this, instead of one-tenth of the fruits of the land, the teinds were to consist of one-fifth of the rent or annual value of the land. Then there was a right given to have this rent valued once for all, so as to fix in money the annual value of the teinds. The great majority of the lands in Scotland have had their rents valued for this purpose very long ago, so that the teinds have in modern currency very small values, and do not approach one-fifth part of the rents of the present day. But there are some instances, come upon from time to time, in which no such valuation has ever taken place; and in such cases the teind amounts to one-fifth the actual rent at the present day, with this exception, however, that where the land in question has been covered by the houses of a town, it is taken at a full agricultural value; in Edinburgh £4 per acre, so that the corresponding teind is 16s. per acre. Next we have to mention a peculiarity of the existing system, which is, that whatever may be the value of the teinds within a parish, it is only in some cases that the minister of the parish

receives the whole of them. The theoretical rule would be that he never does so, because the teinds are held as property for their own advantage by the heritors—that is, by the proprietors of land and houses liable in payment of public burdens—and the heritors do not pay the teinds as such to the clergy, but are at the same time bound to make a suitable provision out of the teinds for their support. If the whole of the teinds happen to be required for this purpose, the whole will be absorbed in meeting this obligation, but not otherwise; and if this be the case, the teinds are said to be exhausted. When a minister thinks his actual stipend is too small he may raise an "action of augmentation," an action to get his stipend augmented or increased. This action he brings against the heritors before the teind court. He pleads the increase of his parish in population, the increased cost of living, etc. etc.; the heritors apply themselves to prove that he can live quite comfortably on his existing stipend, or perhaps that there are no unexhausted teinds left in the parish. Assume that the minister satisfies the court that he ought to have an increase, and that there are unexhausted teinds in the parish from which an increase may be granted, it is awarded to him in terms of so much oats, so much barley, etc., the conversion of which into terms of current coin is a mysterious arithmetical operation, dependent for its result, year by year, upon the verdict of a jury summoned yearly for this purpose by the sheriff of each particular county. This old-world method of paying the minister nominally in grain and really in money, the amount of which varies with the current prices of grain, has had the effect of impoverishing the Scottish clergy, never too sumptuously provided for, considerably during recent years; but the minimum money stipend is in current practice taken as £150. If an augmentation be granted as just explained, the next step is a "locality" that is an allocation or apportionment of the burden among the heritors concerned. This is a proceeding which has seldom failed to set neighbours by the ears more or less; for unless there have been a previous "locality" in the same parish, the records of which can be referred to, it involves raking up old titles to prove exemption or to prove old valuations, or to solve questions of alleged postponed liability, while the interest of a heritor's fellow-heritors is to show that he cannot produce any old valuation, and is therefore liable to contribute on the footing that his teind is one-fifth of the actual present-day rent or annual value of his property. At the same time there are certain rules which it is not necessary here to consider as to the order in which the teinds will be applied to the purpose of giving the minister a suitable stipend; for example, the first to be encroached upon will be any teind belonging to the parish and found in the hands of the crown, not having been ever granted to any layman, should any such be discovered; and the last to be touched will be any teind already appropriated to one of the four Scottish universities.

[Connell on *Teinds*.] A. D.

The present value of parochial teinds is about £240,000 yearly, and there is an estimated value of £133,000 "unexhausted teind" available for future augmentations of stipend; 880 parishes participate in the distribution. There is a bill now before parliament for compulsory valuation of all unexhausted teinds, etc., etc., so as to put an end to the confusion, actual or potential, at present existing.

TELEGRAPHIC TRANSFERS. Since the introduction of transatlantic cables a new mode of effecting international payments has come into use, the operation of which appears from the following illustration:—

A in New York purchases from *B*, a London stockbroker, shares to the value of £10,000. They are purchased on the 28th of the month for the 30th, which is the next settling day; and as *B* has resold the shares for delivery in New York on the 10th of the next month, they cannot be carried over, and *B* must be in possession of the £10,000 on the 30th. *A* therefore purchases from *C*, a banker in New York, a telegraphic transfer to *B* for £10,000, upon which *C* immediately telegraphs to his correspondent in London, *D*, to pay *A* £10,000. *C* must of course reimburse *D*, and this may be done in various ways; if the exchange in New York is so much in favour of London that it pays to send gold, he may send gold; if this is not the case he may send stocks or shares for sale, or employ other means of remittance; but the most usual mode of covering cable transfers is the remittance of long-dated bills of exchange, and the price for telegraphic transfer depends, therefore, on the price of such bills. In fixing the former price the following circumstances have to be taken into consideration:—(1) the loss of interest while the bill is travelling; (2) the discount on the bill calculated from its date of arrival in London; the actual rate will be taken as the basis of the calculation, but a small percentage will be added by way of insurance premium in view of a possible rise in the rate; (3) the bill stamp; (4) a *del credere* commission for *C*, who runs the risk of the bills he purchases; (5) a reasonable profit for *C* and *D*.

Therefore, if the price of sixty days sight bills on London in New York is $485 (which means that for $485 a bill for £100 can be obtained), the price of cable transfers on London in New York is calculated in the following manner:—

	$	cents.
Cost of bill	485	0
Interest 8 days at 4 per cent	0	43
Discount 63 days at 2 per cent (the market rate being 1¾, and ¼ being added so as to cover the risk of a rise)	1	70
Bill stamp	0	25
Del credere commission for C, $\frac{1}{10}$ per cent.	0	49
Profit for *C* and *D*, $\frac{1}{8}$ per cent.	0	97
A cable payment of £100 would therefore approximately cost	488	84

The business of selling telegraphic transfers cannot be carried out properly, unless elaborate arrangements of a permanent kind are made between the parties ordering them and the parties by whom they are effected. These arrangements include the preparation of telegraphic codes with secret keys—so as to avoid the risk of acting on fraudulent telegraphic orders—constant telegraphic communication as to the standing of the mercantile firms on whom the foreign house usually purchases bills as to rates of discount and their tendency, etc., and involve so much labour and expense that the transactions for which they are required cannot be remunerative unless they are undertaken on a somewhat extensive scale. As the amounts paid must be advanced whilst the bills sent by way of cover are travelling, it follows that only such companies and firms as are possessed of considerable liquid means can undertake to effect cable payments. Such payments cannot, therefore, be obtained to an unlimited amount.

On the other hand, it will be seen from the calculation given above, that it must generally be cheaper for a person having to make remittances to distant countries to buy bills instead of telegraphic transfers, even after making allowances for discount, bill stamps, etc. These transfers are, therefore, not used as a means of remittance except in connection with certain special classes of business transactions. Among these, stock exchange arbitrage dealings, which necessitate very quick payments, are the most prominent, but there may be other circumstances under which it is profitable to incur the additional cost involved by the employment of this mode of remitting money to distant places. If, for instance, a merchant in Hong-Kong, from which place a letter to London takes about six weeks, has to make a certain payment in London at a certain date, it may be of the greatest benefit to him to avail himself of the six weeks' additional space of time, which he gains, by employing the cable instead of the steamboat as the carrier of his remittance; this will occur if money, during the intervening six weeks, can be employed to great advantage, or if he has reason to believe that the rate of exchange will be more favourable later on. Where large amounts have to be remitted, the circumstance that the purchase of cable transfers involves less risk than the purchase of bills, may also be a motive influencing the parties concerned.

In actual practice telegraphic transfers are used in few countries only. The largest volume of transactions occurs in transfers purchased in New York and effected in London in connection with arbitrage dealings in American stock-exchange securities, but cable payments to be effected in London are also purchased in some eastern places—Bombay, Calcutta, etc. In the latter case they are probably purchased, as a general rule, with the intention of deferring the fixing of the rate of exchange to the exact moment when the payment is to be effected. The drafts on India which the Indian government negotiates in London are also sometimes issued in the form of telegraphic transfers. E. S.

TELEGRAPHS. See the POST OFFICE.

TELLERS OF THE EXCHEQUER. These were officials belonging to the lower chamber or exchequer of receipt (see EXCHEQUER, EARLY HISTORY OF) appointed to count all money paid in. Four was apparently the usual number, although from Pipe Roll, 1 Richard I., it seems that ten tellers accompanied the treasurer and chamberlains to Salisbury for the collection of a tenth (Maddox, T., *History of Exchequer*, ii. 303). Originally in a subordinate position, the tellers became officials of some dignity in Tudor and Stuart times, when their work was done by deputies (Hall, *Antiquities of the Exchequer*, p. 81). The tellers' office undertook both the receipt and the payment of money. A note of all money paid in was entered in a book; of this a transcript on parchment called a bill or teller's bill was at once made and thrown down a pipe into the tally court, where a TALLY (*q.v.*) was struck indicating the amount paid in for which the teller was responsible (Thomas, F. S., *Ancient Exchequer of England*, pp. 26, 134). The clerk of the pells also recorded on the pell of receipt every teller's bill; the earliest extant is dated 4 Hen. III. (*ibid.* 92). Upon disuse of tallies a memorandum of the teller's bill known as "the bill of the day" was drawn up. The tellers also issued payments upon warrant (*ibid.* 134). One key of each teller's chest was kept by the clerk of the pells, who charged the tellers daily with the amount received, and deposited it in the chests. The tellers were also under the control of the auditor of the exchequer, who examined their chests at his discretion (*ibid.* 130). With the abolition of the receipt department of the exchequer by 4 & 5 Will. IV. c. 15, the office ceased to exist in 1834.

[Madox, T., *History and Antiquities of the Exchequer* (1769).—Hall, H., *Antiquities and Curiosities of the Exchequer* (1891), and "Introduction" *in Pipe Rolls Society's Publications*, iii. (1884).—Thomas, F. S., *The Ancient Exchequer of England* (1848).—*Dialogus de Scaccario* in Stubbs's *Select Charters illustrative of English History*.] E. A. M.

TEMPLARS, THE KNIGHTS. The leading facts of the history of this military order are well known: at the time of the first crusade they were founded to defend pilgrims to the Holy Land against the infidel; they enjoyed exemptions, granted by special papal bulls, from ordinary ecclesiastical jurisdictions; they acquired immense wealth, became unpopular both in England and in France, and, in the latter country, were suppressed by an unscrupulous stroke of authority of King Philip the Fair, who condemned the grand master Molay and other dignitaries to death, and confiscated, in 1307, a large part of the wealth of the order. Though in England such extreme proceedings were not taken, Edward I., in 1295, carried away by force from the Temple a sum of £10,000, and Edward II., shortly after his accession, seized £50,000 in silver, besides gold and jewels, which had been deposited in their treasury (Cunningham, *Growth of English Industry*, p. 254).

During almost the whole of the 13th century the house of the Templars in Paris acted as bankers to the kings of France, the royal princes, noblemen, rich burghers, and merchants. Its dealings in this capacity were for the first time submitted to a searching and exhaustive analysis by M. Léopold Delisle in his *Mémoire sur les Opérations financières des Templiers* (*Mémoires de l'Académie des Inscriptions et Belles Lettres*, vol. 33, 1889), of which the following is a summary.

Owing to the sanctity ascribed to their precincts, monasteries were, during the middle ages, favourite places for deposits of the precious metals, jewels, chattels, etc., but the *Commanderies* of the Temple distinctly acted as bankers by (1) being chosen as deposits for disputed funds, (2) granting loans and acting as securities for the fulfilment of contracts, (3) transmitting monies and paying them at a distance, and (4) accepting and effecting payments for customers who had a running account with them. All these operations have been identified by M. Delisle and are authenticated by original documents printed in his appendix. Deposits in cash were sometimes locked up in special *hutches* marked with the names of the owners, in which case they could not be touched without the express consent of the depositors, but generally the Order was allowed to make use of the deposits at its discretion, but of course under its responsibility.

Fragments of one of the books kept in the Temple at Paris for the daily receipts of money, and printed in the appendix (pp. 162-223), afford an insight into their daily transactions, and show how the payments effected were either put to the credit of the owner of an account (*super talem*) or carried over to another account such as *in parvo libro novo*, *in magno libro*, etc. For each day the name of the brother in charge heads the entry; and at night the monies received are as a rule transferred to the central office (*Solvit in turre*). About 800 different names are entered in the relatively short space of fifteen months (12th March 1295 to 4th July 1296); the reference to about ten distinct other registers, such as *in magno libro ad debemus*, etc., show that the Templars understood the advantages of systematic book-keeping.

From 1202, the Temple became the central treasury of the kings of France, and under Lewis IX. the royal auditors even held their meetings in the Temple; it also paid the pensions granted by the king, the amounts of which were transferable. From the balance-sheets, which have been preserved (1286-1295), it appears that the king was sometimes debtor and at other times creditor. Towards the very end of the 13th century Philip the Fair established a separate royal Treasury in the Louvre and kept the latter entirely under his own management. The accounts of the Temple with the king at the time of its suppression appear to have been destroyed, probably from sinister motives.

In the defective state of records it is impossible distinctly to state what remuneration the Templars secured for their financial services, beyond the extensive and "perpetual" fiscal privileges granted by the kings, and some special and commercial exemptions, which they temporarily enjoyed. In other words, did they actually charge interest on their loans? That they paid such (*pro custibus solutis*) on account of the king to merchants and bankers is demonstrable, but beyond this nothing can be ascertained. Still, there is evidence that they acted on the principle admitted by AQUINAS that a man who lends money may without sin contract for a compensation in case of delay of repayment (see LOAN, CANONIST DEFINITION OF); thus in the collection of old French judicial sentences known under the name of *Olim*, a judgment occurs concerning a loan of £3000 made by the Templars with the stipulation that in case of non-payment at the prescribed term, they would be entitled to a fine of another £3000 (*Olim*, éd. Beugnot, vol. ii. p. 128). M. Delisle mentions this transaction, but perhaps does not lay sufficient stress on its bearing.

[See also Addison, *History of the Knights Templars*, 1842.—H. de Curzon, *La Maison du Temple de Paris*, 1888.—Michelet has edited the documents concerning their trial in the *Monuments Inédits de l'Histoire de France*, 2 vols. 1841.]

E. Ca.

TEMPLE, SIR WILLIAM (1628-99), diplomatist and essayist, was the only English thinker of that epoch who saw clearly through "the state of nature" and the "social contract," and who traced law and trade-morals to custom, the state to the family, and modifications of the state to conquest and treaty (*Essay upon the Origin and Nature of Government* (1671?), *Works*, ed. 1814, vol. i. p. 1). These anticipations of Savigny and Maine are almost uncanny; the more so because his *Observations upon the United Provinces* (1672) (*Works*, vol. i. pp. 163-185), and *Essay upon the present State of Ireland* (1667) (cited, by T. P. Courtenay, *Memoirs*, vol. i. p. 380), and *Advancement of Trade in Ireland* (1673) (*Works*, vol. iii. p. 1) exactly reflect contemporary views about wealth and poverty under the respective images of Holland and Ireland. He starts, like FORTREY, with a dense population, which raises rents and the price of necessaries and so (1) sets money free for trade, (2) and creates the economic sense which with MISSELDEN and HOBBES he usually calls "frugality and industry," but sometimes with the older moralists "avarice" (*Works*, vol. i. p. 141). He seems to think that wealth is the necessary result of these two data; and that the economic sense—on which he lays chief stress—is developed by physical and political conditions. Like Fortrey (1663) and the author of *Britannia Languens* (1680), and unlike the author of *England's Greatest Happiness* (1677), and BARBON, and MANDEVILLE, he condemns imported consumable luxuries partly with the usual balance-of-trade arguments, partly because they sap the economic sense; and unlike Fortrey he condemns home-made luxuries on the latter ground (vol. i. p. 177; vol. iii. p. 8). Like R. COKE (1670), he wants to stamp out idleness and foster new manufactures by means of workhouses. He is keenly alive to the value of "mutual trust" which good government, banks, traders' corporations authorised to search and stamp exports (contrast MILLES and W. S.), land registries, and low customs will easily effect. Like all mercantilists he is nationalist to the core, and though he wishes the good of Ireland, he wishes that of England more. He condemns the "raising" of the chief Irish coin as likely to drain away other coins, and the cattle-trade prohibition (1666) as not likely to benefit Ireland, nor, which is more important, to raise English rents; and he wants to encourage horse-breeding and linen manufactures in Ireland but to discourage cloth manufactures, which must be set apart for England. His panacea is more population (cp. PETTY, *Treatise of Taxes* (1662)); therefore let the state tax bachelors (cp. Louis XIV.'s edict of 1666, the proposals of WALES and MASSIE) and invite foreigners (cp. VIOLET); these measures, along with state control and regulation (he seems to forget markets), will raise up trade out of nothing—as was the case in Holland—then just past its zenith—and will be the case in Ireland. His belief that external necessity inevitably moulds character, and that character is all that is wanted to enrich a nation, is the main feature which distinguishes him from all those who since Sir

W. RALEGH turned their eyes to Holland, much as German economists now turn their eyes to England. His theory of population merely flowed from these premises.

[Sir W. Temple is largely quoted and approved in *Britannia Languens* printed in *Select Collection of Early English Tracts on Commerce* (1856); and in *Enquiry how far it may be expedient . . . to permit the importation of Irish Cattle* (1743). And see F. I. Herriott, *Sir W. Temple on the Origin and Nature of Government* (1891); *K.-sächsische Ges. der Wiss.*, Abh. Bd. II.; W. Roscher, *Zur Geschichte der eng. Volkswirthschaftslehre*, p. 125; Hume, *Essays*, Pt. ii. Essay viii.] J. D. R.

TEMPLE, WILLIAM, a clothier of Trowbridge (18th century), "who has immense erudition in his own way" (Lord Woodhouselee's *Memoirs of the Hon. H. Home of Kames*, iii. 161), published his *Vindication of Commerce and the Arts*, 1758, under the pseudonym of B. I., M.D. (or I. B., M.D., on the title-page of M'Culloch's edition). It was written to refute the conclusions of a university prize essay by W. BELL, who had asserted agriculture to be the main cause of populousness, and had contemned commerce and the arts as useless and pernicious. Temple, on his side, attributed "populosity" to more various causes—to good laws, religious toleration, encouragement of foreign commerce and immigration, climate, the employment of foreign mercenary soldiers; and he denied that agricultural pursuits and rural simplicity could give a strong enough spur to industry to increase population or to produce wealth beyond the accustomed necessaries and comforts of the workers. If these could be produced by three days' labour, labourers would only work for three days. A great plenty and a great industry must be incompatible, chiefly for want of the spur of necessity, but also from the temptation to drink. "The only way to keep a populace temperate is to deprive them of the means of debauchery by paying them low wages." To strike an average between times of plenty and of scarcity, Temple put forward the curious suggestion that in the former a tax should be laid on necessaries to form a sort of state provident fund in times of dearth, sickness, or other distress, payments per head being recommended to encourage population.

Commerce and the arts were then treated, in opposition to the views of the essay he was attacking, as productive not of penury but of plenty and prosperity.

[Cunningham, *Growth of English Industry and Commerce, Modern Times*, pp. 560 n. and 689; another pamphlet, *Essay on Trade and Commerce*, and a refutation of part of Smith's *Chronicon Rusticum*, are here ascribed to the same author.] E. G. P.

TENANT-AT-WILL. A tenancy-at-will means a tenancy which either the landlord or the tenant may terminate at any moment by the mere expression of a wish to that effect. Such a tenancy may result either from express agreement (no particular form being required by law) or it may arise by implication, as where a tenant for years continues in possession after his lease has expired. As tenancy-at-will is unfavourable to agriculture, the common law always regarded it with disfavour, and the courts would lay hold of any indication of a wish to create a more permanent tenure (*e.g.* the stipulation of a yearly rent) to turn a tenancy-at-will into a tenancy from year to year.

[Williams, *Principles of the Law of Real Property.*] F. C. M.

TENANT RIGHT. Tenant right hardly admits of accurate definition. It may be described as a beneficial interest in the land which remains in the tenant when his lease has expired. It may originate in a claim to compensation for improvements which the tenant has made, and which are not exhausted at that date. Or it may originate in a claim not to be evicted at that date so long as he pays his former rent, or at least a rent not determined merely by the discretion of the landlord. For if the landlord may ask what rent he pleases, the right of the tenant to remain on condition of paying rent would be nugatory. Or the tenant right may be founded on both of the above claims by the tenant. Tenant right may be either customary or legal. Various customs securing compensation for improvements to the outgoing tenant have prevailed in different parts of England. The Agricultural Holdings Act of 1883 has created a statutory right to such compensation. In Ulster and elsewhere in Ireland, custom imposed a check upon the arbitrary raising of rent when the tenant's term had expired, and thus gave rise to the Ulster tenant right. The Irish Land Acts (see LAND LEGISLATION, IRISH), giving fixity of tenure at judicial rents, have created a statutory tenant right available all over Ireland. The tenant who wishes to quit his farm may sell this tenant right, which usually fetches a very considerable sum.

[See articles AGRICULTURAL HOLDINGS ACTS and LAND LEGISLATION, IRISH, and the authorities therein referred to.] F. C. M.

TENEMENT. The strict meaning of tenement is anything that can be the subject of tenure at common law, *i.e.* land, seignories, peerages, advowsons, and probably chief rents. But in practice the word has been extended to cover all hereditaments that savour of land or realty, *i.e.* any estate or interest in land that on the death of the owner intestate would devolve on the heir. A tenement is the only property that can be entailed under the statute *De Donis*. Personal property, therefore, cannot be entailed, as it does not come under the definition of a tenement.

[The meaning of the term is discussed in the *Law Quarterly Review*, vol. v. p. 526, and vol. vi. p. 69. See also Challis on *Real Property*, London, 1892]. J. E. C. M.

TENTHS. See FIRST FRUITS AND TENTHS.

TENURE OF PROPERTY. See LAND TENURES.

TERCIAS REALES, two-ninths of the

ecclesiastical tithes which had been granted to the kings of Castile by the Popes Alexander II. and Urban II., to assist them in their wars against the Moors. These grants were made perpetual by the Popes Innocent VIII. and Alexander VI. in 1487, 1493, and 1494. In course of time a great part of this revenue was alienated; yet, as late as 1800, Canga Argüelles (*Diccionario de la Hacienda*) computes that they still yielded 15,000,000 of reales (say £150,000) to the Treasury. E. Ca.

TERCIO DIEZMO (third tithe). When Catalonia and the kingdom of Valencia were wrested from the Moors, the Christian conquerors became possessed of the tithes which the Moors had levied on the produce of land. King James I. of Aragon granted two-thirds of these tithes to ecclesiastical purposes, but reserved one-third under this name to the state. After having been a plentiful source of revenue, these *tercios diezmos* were almost completely lost through donations, usurpations, and alienations in times of pressing financial wants.

[See Canga Argüelles, *Diccionario de Hacienda*, London, 1826.] E. Ca.

TERM OF YEARS. A person holding land on lease is said to be the owner of a term of years, or of an "estate for years."

See ESTATE; LEASE. E. S.

TERMINABLE ANNUITIES. There is scarcely any subject in state finance on which so many misconceptions are held as this.

It is frequently alleged (1) that it would be practicable, as well as advantageous, to raise large loans by the grant of equated or fixed annuities of an unvarying amount per annum for a long or short term of years as the case may suggest, in preference to the usual plan of perpetual annuities with or without power of redemption by repayment of the capital at par at specified future dates; (2) that it would be possible to establish a stock exchange market for terminable annuities, and to enable sales and purchases and transfers to be registered of any subdivided or fractional parts, as is done with imperial government or local government stocks; and was suggested so recently as in 1895, by a bill promoted by the London county council to consolidate and amend the law relating to the raising and provision of money, for its expenditure, and to issue terminable annuities to be called Metropolitan Annuities.

It was intended by the bill referred to, that the dividend warrants for payment of such terminable annuities should either state what portion represented principal and what portion interest, or that separate warrants should be issued for the portion of each instalment which represents interest, so as to save the holders of the security from income-tax on capital. The bill was not proceeded with, on the election of a new council, so far as regards this provision in their bill of 1896; so that income-tax is, as hitherto, deducted from the whole of the dividends on terminable annuities that may be granted by local authorities, in the same way as it is deducted from the whole of similar annuities granted by the government or local authorities, unless the subdivision or separation of the instalments of sinking fund to repay principal, and of the portion to meet interest on the periodically diminishing indebtedness to the original lenders, is explicitly set forth in a deed executed by the borrowers, at the outset of any special transactions and with the express view of excluding all instalments of principal from the incidence of the income-tax. But loans secured by deeds such as this are not negotiable or stock-exchange securities, like those which the county council bill of 1895 sought to introduce. It is an error, both scientific and practical, to suppose that such a thing could ever be brought about. Both the sum repaid, and the interest on the sum remaining unpaid, vary, at each instalment, in every terminable annuity of a fixed or equated amount, for each year of the term for which it is granted. It is a geometric proportion (1) of increase of principal or sinking fund at each instalment; and (2) of corresponding decrease of interest consentaneously. How loans of greater or less magnitude, and with such perpetually shifting conditions, could be consolidated so as to become negotiable securities, or stock-exchange values, and to be transferable in fractional sums, would be quite impossible for the most ingenious of financiers to arrange. The British government, since 1855, have, with the solitary exception of the Red Sea telegraph loan, then carried through by a temporary annuity of £36,000, expiring 1908, which is quoted as a stock exchange security, not been able to issue any terminable annuities publicly dealt with, or not subject to income tax on the full amount of each of the instalments. This applies to the whole of the terminable annuities in existence as in 1897, and the capitalised value of which at that date was about 50 millions, the possession of which (with the exception of the life annuities) is held by the government itself, as against its savings banks and other departmental liabilities, the annual charge for interest and sinking fund being £7,149,743. In the same way, although local authorities in England and Wales and London and county councils, had, in 1897, an indebtedness of about 272 millions, which included many millions borrowed from insurance companies in exchange for terminable annuities, either of equated equal amounts for terms of years, or of amounts diminishing by instalments repayable at fixed periods, none of these are in any sense of the word negotiable, divisible, or stock-exchange stocks, and are mainly held, and intended to be kept, as investments by the original subscribers until the terms of years for which each annuity was granted shall have expired. The teaching of the last two centuries of our financial history, as well as the opinion of modern men of business, is decidedly against any attempt to raise large public loans on terminable annuities being either successful, or consistent with popular wants or economy in finance. As regards the past, we annex a few remarks. The public debt of England was inaugurated in the first years of the government of the revolution. The large expenses of its French and Irish wars forced the executive to impose heavy taxes on the country. Nevertheless the large revenue from this source was not enough to supply sufficient ways and means. It was necessary to have recourse to loans. These were at first contracted by the plan which, from ancient times, had been followed by the kings and parliament, namely, by pledging as security certain special taxes, generally customs duties and excise monopolies. This system completely failed. The deficit at the end of the year 1690 had grown to about 8½ millions. In 1692-94, an attempt had been made to obtain money by the offer of life annuities, both by way of TONTINE and also by the offer, at any age of the lives, of 14 per cent on one life, 12 per cent on two lives, and 10 per cent on three lives. In this way 1 million had been raised by tontine, and £300,000 pounds by life annuities. In 1694, 1 million was raised in exchange for an annuity of £140,000 for a fixed term of 16 years. This represents the extravagant rate of more than 11 per cent interest. The bank of England was founded in the same year, the loan of £1,200,000, at 8½ per cent, which it advanced to the government, was the foundation of the public perpetual debt. In 1695, the holders of annuities on one life at 14 per cent at any age were offered, on payment by them of an additional sum in cash, an exchange into annuities for a term of ninety-six years certain. The length of time these terminable annuities had to run caused them to be called "long annuities." The rate of interest for the term of ninety-six years, after allowing for the further cash payment on the conversion, was no less than 8½ per cent, and £134,122 a year of life annuities were thus exchanged for long annuities. The improvidence of raising money at so high a rate of interest soon became obvious to many economists and practical men, and numerous were the projects submitted to Charles Montague, afterwards EARL OF HALIFAX, for his guidance as chancellor of the exchequer, to raise funds at the more reasonable rate of 5 per cent by "transferable funds of perpetual interest." Thus early, that is in 1694-96, was it thoroughly well understood that money could only be raised on terminable annuities upon comparatively costly terms. They continued, however, to be raised in this way, notwithstanding the adoption of

the perpetual annuity plan for some loans. In 1717 the national debt was about 40½ millions. Of this, 19 millions had been raised by perpetual annuities at an average, from 1692 to 1717, of about 5½ per cent, and 21½ millions by terminable annuities at rather over 7½ per cent interest, or at a loss of extra interest of no less than 2 per cent. The inevitable waste of money, and the inferior, if not absolutely impossible, negotiability of terminable annuities on the stock market, was foreseen in the clearest manner by PATERSON, founder of the Bank of England: *vide* his "Conferences of the Wednesday Club." Down to 1745 the annual charge imposed on the exchequer for interest and sinking fund together paid to holders of terminable annuities never exceeded £200,000 per annum. In 1760 it had grown to £232,000. In 1761 took place the first new creation of long annuities according to the more modern system of issue of such securities subscribed for afterwards at different times, but having, for each issue, a common date of ending, 5th January 1860, and offered to the public, *not* as the main means of raising a loan, but solely as an auxiliary. In point of fact, from 1762 to 1813, nineteen different loans were subscribed in consols, with a small amount of long annuity given in as a *douceur*, or supplementary advantage. Take for example the loan of £12,000,000 at par raised in 1762, for each £100 paid £100 of consols bearing 4 per cent perpetual interest (afterwards reduced to 3 per cent) was allotted to subscribers, together with £1 per annum of long annuity, having ninety-eight years to run, that is expiring at the common date of expiry before mentioned, namely 5th January 1860. The year 1813 saw an end to the issue of terminable annuities as a *douceur* to subscribers to consols loans, but, with the close of the loan of that year, the total annual charge for terminable annuities had grown to £1,359,453. In 1855, however, an experiment in the same direction was again made, 16 millions sterling were added to the national consols debt in that year, and £116,000 per annum of temporary annuities, for thirty years, expiring in 1885, were also issued. The writer of this article has before him a minute he made on the relative prices of the two classes of security. He may be allowed perhaps to quote it as an illustration in point. "The price, on the day we are writing (12th April 1862), is 15½ for an annuity having twenty-three years to run. Buyers can therefore secure themselves a return of 3¾ per cent. The price of consols is about 94, which represents a return of only 3½ per cent, or ¼ per cent less than that from the temporary annuity. The cause of this is, in part, the far less number of buyers, or, to use the familiar phrase, the worse market for terminable as compared with perpetual annuities; and in part the well-known fact that the burthen of income tax is felt to weigh much more heavily on the temporary than on the perpetual annuity, being imposed on sinking fund or capital in the case of the former as well as on the interest, whilst in the case of the latter it falls on the interest alone; there is a confiscation therefore of part of the capital in the one instance, whilst the perpetual annuity escapes it for the simple reason that it is all interest only." The question of incidence of income tax on the sinking-fund, part of a temporary annuity, has been fully discussed in the article ANNUITY in the first volume of this Dictionary. F. H.

TERMON LANDS is the Irish term for church lands, which in the old Irish financial system enjoyed entire exemption from taxation. C. A. H.

TERRITORIUM. After the conquest of a country, the Romans always hastened to consolidate their power by planting colonies in it. A separate *lex colonica* was passed, which settled the number of the colonists; directed the formation of *civitates*, or colonial towns; and gave to each *civitas* its *territorium*, which was either to be *juris Italici*, that is allodial, or in *possessio*, and so theoretically resumable by the state. Other details were settled by the same law, and the *territorium* was then marked out in accordance with it by *agrimensores*. Roads east and west, intersecting each other at the spot where the city was to be founded, divided the territory into four *regiones*. Lesser roads, or *limites*, cut up these *regiones* into rectangular plots or *centuriæ*, commonly of 200 *jugera*, each forming the estate of a colonist. When two or three *centuriæ* were assigned to one man, the estate was called *latus fundus* (Siculus Flaccus, Lachmann, p. 157); but such an estate would not exceed 375 English acres, and must not be confused with LATIFUNDIUM (*q.v.*). An elaborate system of marked stones defined the *centuriæ*, and mounds, pits, or stones distinguished the boundaries of different *territoria*. The conquered races were generally left as *coloni*, free, though attached to the soil.

[C. Lachmann, *Gromatici Veteres.*—H. C. Coote, *The Romans of Britain.*—Elton, *Origins of English History.*] R. H.

TERTIUS DENARIUS. This, the third part of the profits of his jurisdiction, belonged in early times to the ealdorman of the shire. Under Edward the Confessor, the earl appears to have had the third penny of the county, which included one-third of the *firma burgi* of the towns (*Domesday Book*, i. 1, 203, 246, 336, 337) (see FERM). In the Pipe Rolls, from 2 Hen. II., the earl had a third of the revenue from the pleas of each county. The payment can be traced as late as 1336.

[Stubbs, *Constitutional History*, i. 113, 160; iii. 471.—Ellis, *Introd. to Domesday*, i. 167, 168.] R. H.

TESAURO, GASPARE ANTONIO (17th century), a Piedmontese jurist, wrote a treatise on the alterations in the value of the coins, *augmentum monetarum*, as it was called by the writers of that period—and defined by Tesauro as "the raising the nominal value of the current coins by the public authority irrespective of their metallic value." Tesauro examined the various methods in which this alteration was effected, and the complicated judicial arguments it led to, especially in payments and in contracts which did not fall due for a long period.

The introduction to Tesauro's treatise, on the money requirements for facilitating negotiations, is of importance from an economic point of view.

Tractatus de augmento monetarum, 1609. [See Supino, *La scienza economica in Italia, etc.* 1888. —Gobbi, *L' economia politica, etc.*, 1889.] U. R.

TESTA DE NEVILL. This name is given to the whole of the return, otherwise called *Liber Feodorum*, printed by the record commission in 1807; but it strictly applies only to the parts of it incorporated from a roll so entitled, a fragment of which is extant. The record is probably to a considerable extent a compilation from much older materials. There are descents of land (*e.g.* Sowe, p. 87), from the conquest, and an interesting manorial extent is included (p. 186). It gives an account of the estates of tenants *in capite*, and of their widows and heiresses; of fees held of tenants *in capite;* of fees in frankalmoigne; of

serjeanties held of the king; of churches in the king's gift; of escheats; and of the sums due from each tenant for scutage and aids. It thus shows the way in which the country was parcelled out in great estates under Henry III. and Edward I., to whose reigns it chiefly relates (see DEPOPULATION).

[Scargill Bird, *Guide to Public Records*, p. 114.—W. Rye, *Records and Record Searching*, ed. 1897, p. 39.] R. H.

TESTAMENT. See WILL, BEQUEST BY.

TESTAMENTUM signifies in Roman law a will or testament by which a person appoints a universal successor (*heres*) to succeed him after his death. Besides the appointment of a universal successor which is essential to a Roman will, and distinguishes it from a codicil, a will might contain charges on the succession by way of legacy and other provisions. For the history of the testamentum and the modes of its execution, see Smith's *Dictionary of Greek and Roman Antiquities*, *s.v.* E. A. W.

TESTOON was the name given to the debased nominal twelve-penny silver pieces coined and current 1543-60; the standard twelve-penny piece coined 1504-43, and after 1560 being called shilling (see RECOINAGES, and for value, the SHILLING). Holinshed (*Description of England*, ch. xxv.) gave the name of testoon to the sixpence; and it may be doubted whether it ever passed current at more than that sum. The word means a coin with a head on it, and came immediately from France; the first, those of Francis I., = 10 sous; the last, those of Louis XIV., = 20 sous 6 den. It was originally derived from the Italian testone, which was not finally superseded till 1865; in Tuscany the coin equalled 2 lire. In Portugal the tostão in 1802 contained 42·5 grains pure silver, and therefore all but equalled our sixpence. It is now identified with the 100 reis-piece; which, being token money, is slightly debased (see REI).

[W. A. Shaw, *History of Currency* (1896), p. 422.—Ducange, *Glossarium*, *s.v.* "Moneta Argentea."] J. D. R.

THACKRAH, CHARLES TURNER (1795-1833), a Leeds physician and physiologist, wrote a report on lodging-houses to a Leeds committee (1819), and *The Effects of Arts, Trades, and Professions on Health and Longevity* (1831, 2nd ed. 1832). This remarkable book, after showing that "the duration of human life is considerably less in the West Riding, the manufacturing districts, than in the other parts of Yorkshire," and especially in Leeds, states, after the manner of Ramazzini, the writer's experience of diseases incident to trades, and his belief that most were preventable.

[J. Hutchinson, "Contributions to Vital Statistics," in *Journal of Statistical Society of London*, vii. 193, 206; *ib.* ii. 420.—M'Culloch, *Literature of Political Economy*, p. 273.—H. Whytehead, Biographical Memoir in Thackrah's *The Blood*, ed. 1834. The subject has lately been dealt with by Dr. Arlidge, *Diseases and Occupations* (1892), and Dr. W. Kley, *Die Berufskrankheiten* (1897). See also Dr. Farr, *Vital Statistics* (1885), pp. 392 *seq.*] J. D. R.

THALER. See DOLLAR, History of; and DOLLAR, Maria Theresa.

THELLUSSON, PETER (*d.* 1797), was a wealthy banker and merchant, the provisions of whose will led to the passing of an act of parliament bearing his name. He was the son of Isaac de Thellusson, Swiss ambassador at the court of Louis XV. Settling in London as a merchant, about the year 1750, Peter Thellusson acquired enormous wealth, and this he disposed of by will in such a way as to result in prolonged and costly litigation. First, he bequeathed large fortunes to all the members of his family; and then he left the residue of his wealth to trustees, to accumulate during the lives of his three sons, and afterwards of all their sons. Considering that at the time of his death the testator's estates were valued at £4500 a year, and that his personal property amounted to £600,000, some idea may be formed of the gigantic nature of his prospective arrangements. The will further provided that the accumulated fund—estimated as likely to produce some £19,000,000—was to be used to purchase estates for the eldest lineal descendant of his three sons. The accumulation of property was to proceed for twenty-one years beyond the life of the last of the testator's grandchildren.

Such an unparalleled concentration of property induced the legislature to prohibit similar dispositions in the future. Accordingly, in the year 1800, the Thellusson Act was passed. The act restricted the accumulation of income—except for the payment of debts, etc.—to a period of twenty-one years from the death of the settler, or some other of the limited periods described in the act. This act, as a matter of course, had an application to Thellusson's will, which was, however, contested on other grounds. After protracted litigation on the subject, which ended in 1859, the property was found to be so much encroached on by legal expenses that the actual sum inherited was not much beyond the amount originally bequeathed by the testator.

[*Acts of Parliament.—The Annual Register*, 1797.—*Chambers's Encyclopædia*, vols. viii. and x.] G. B. S.

THEORY. The term *theory* is perhaps most frequently used in opposition to *fact*. Economic theory and economic history are contrasted; and theoretical enquiries are regarded as having little or no bearing on practical questions. A certain ambiguity, however, is involved in contrasting theory with fact, and theoretical with practical enquiries. When *theory* and *fact* are placed in antithesis, the distinction relates

to the abstract or general on the one side and the concrete or particular on the other side. But when a *theoretical enquiry* is contrasted with a *practical enquiry*, the former is understood to be concerned with the *explanation of facts* and the latter with the *regulation of conduct*. We have, therefore, to recognise a four-fold rather than a two-fold distinction in the treatment of economic problems: viz. (1) abstract positive; (2) abstract regulative; (3) concrete positive; (4) concrete regulative. It may perhaps be maintained that the distinction between the abstract and concrete is more fundamental than that between the positive and regulative aspects of economic doctrine.

Apart, however, from these distinctions all will be prepared to agree that theory deals with the *explanation of facts* and history deals with the *collection of facts*. We have then to examine the mutual relations between the explanation and the collection of facts. It is sometimes thought that facts speak for themselves, that, when a record of events is presented in their chronological relations, the causal relations will straightway be manifest; and thus history will give rise to theory. But without some sort of theory it is impossible to connect facts even according to their chronological significance. For many events that are temporally contiguous are not causally connected; and many events that are causally connected are not temporally contiguous. Thus Dr. Keynes writes (*Scope and Method of Political Economy*, 2nd ed. p. 281): "A knowledge of theory, *i.e.* of previously established general propositions relating to economic phenomena, teaches the historian what kinds of facts are likely to have an important economic bearing. Even when engaged in the mere collection and registration of events, it is often advantageous, as Jevons has pointed out in the case of the physical observer, that our attention should be guided by theoretical anticipations. . . . Knowledge of cause and effect in the economic world is, accordingly, of assistance for discriminating between the facts to be specially noted and those that may without risk of error be disregarded." The value of the historian's work is to be estimated, not so much by the accuracy and exhaustiveness with which events are described and dated, as by the clue which his presentment affords for penetrating into the obscure relations of cause and effect. "The narration of events is influenced by the narrator's theoretical views." The *same* series of events may even be so presented as to suggest or confirm *opposite* views in economic theory. For example, Carey "collected a great mass of evidence in support of his proposition that the general progress of cultivation has been from lands which would be regarded as poor in an old and settled country, to those which would be regarded as rich." These facts were collected with the view of attacking Ricardo's doctrines on DIMINISHING RETURNS and rent as applied to agriculture. But, as Professor Marshall proceeds to maintain, many of these cases really afford instructive illustrations of those doctrines when rightly understood. It is necessary that theory should be used in guiding the historian's selection and interpretation of facts; and, therefore, it is essential that the theory should be sound, since it is impossible for theory to be altogether discarded. It may, however, be maintained that theories should be used only *provisionally*, and that the historian has merely to take care that his theories do not bias him in his interpretation of facts, and that theories should be adopted and maintained only so far as they are confirmed by an unprejudiced survey of particular facts. This is true, but it does not give sufficient weight to the necessity for other means of establishing theory besides that afforded by agreement with historical facts. We may rightly hold to a theory in the face of facts, if the theory has been established by an analysis of general laws of human or physical nature. In such a case, the apparent contradiction between theory and fact will lead us, not to reject the theory, but to modify our apprehension of the fact. It will lead us to search for a completer and exacter analysis of the case; to look for some concurrent conditions which have influenced the action of the force whose law has been formulated in the theory. In this way our knowledge of facts is actually determined by our understanding of theory. That there is danger of perverting our account of facts under the influence of preconceived theory is undeniable; but there is some truth in the paradox, "Take care of the theory, and the facts will take care of themselves." For economic phenomena become increasingly complicated as civilisation advances, and it is impossible without the intellectual machinery of ideas to obtain an adequate grasp of the interactions between the various conflicting and co-operating factors which contribute to the production of an "economic fact."

Dr. Keynes, in chapter ix. of his *Scope and Method of Political Economy*, has pointed out the various ways in which historical and theoretical enquiries are mutually related. He treats first of the functions of economic history in theoretical investigations. He points out how a study of the phases through which industrial conditions have passed helps us to perceive more distinctly the characteristics of significance in our present organisation of industry with which theory has to deal. He then shows how economic theories, reached by abstract reasoning, can be *illustrated* by history; and how these illustrations confirm theory, and aid the student in grasping the severely abstract form which

the reasoning often involves. He next points to the function of history in *criticising* theory, which leads to the qualification or limitation of doctrines that may have been laid down too unreservedly. And finally, he examines how far economic theories can be *established* by history with or without the aid of deductive reasoning. He then turns to consider the functions of economic theory in historical investigations, and points out that "just as it is a function of history to criticise theory, so it may be regarded as a function of theory to criticise history. Theory often cannot tell definitely what actual results will follow from any given change; but it can determine the kind of effects that are probable or possible, and it can often particularise the conditions under which each will occur. . . . It is often competent to declare that a given effect cannot have been due to the assigned cause, or at least that this cannot have been the case under the stated conditions." He lastly shows how the history of economic theories throws light on the course of economic events, owing to the continual interactions between facts and ideas.

When the importance of theory is depreciated it is frequently done on the ground that *common sense* can decide economic questions for itself without the apparatus of a highly technical science. In answer to this contention it would seem enough merely to point to the contradictions disclosed in the deliverances of common sense, as found in different countries and at different epochs, in regard to almost every economic problem of practical importance. Can common sense deal with the questions of free trade *versus* protection, of monometallism *versus* bimetallism, of state insurance and of poor relief, even when restricting its consideration to the purely economic aspects of these problems? Surely the extremely opposed conclusions to which practical men familiar with business affairs have arrived in attempting to decide these thoroughly practical and urgent issues, constitute a convincing ground for maintaining the essential need of theory as a basis for the guidance of practice. W. E. J.

THIERS, Louis Adolphe (1797-1877), born at Marseilles, died at Saint-Germain-en-laye (Seine-et-Oise). We shall not discuss Thiers as a statesman here, and will only mention that if this incomparable orator, this devoted and patriotic citizen was a protectionist all his life, he was for all that a resourceful and versatile financier and a genuine follower of Baron Louis.

We will pass over his great historical works:—*L'histoire de la Révolution* (1823-27) and *Le Consulat et l'Empire* (1845-62), powerful and full of interest—charming in style, from the pages of which political economy, though the author did not intend to bring it in, is never long absent. Besides this, he wrote with much charm in the only published number of the *Revue Progressive* (1826) "l'Histoire de Law," or rather the history of his system.

The publication of this work in 1848, during the empire (reprinted 1858, 18mo) had its origin in alarm caused by the errors of the socialists. His book *De la Propriété* owed also its origin to his desire to oppose these errors, but he did not perceive that at the same time he struck a severe blow at protection. His *Discours*, which so often deal in his own manner with economic subjects, have been collected and reprinted, in 15 vols. 8vo, by M. Calmon.

Some aphorisms which have won popularity with the enemies of the science, such as, "Taxation is the best investment," and, "Political economy is dull reading," were ascribed to Thiers, and he never denied their paternity. A. C. f.

THIRLAGE, a feudal right in Scotland by which an obligation was imposed on the inhabitants of a district to grind their corn at a particular mill. The lands thus astricted were known as the "thirl" or "sucken." Nearly every manor had a mill, and in some cases there were several, each with its own thirl. A proportion of the grain ground was charged as the "multure," or fee for the use of the mill; out of every boll a certain measure went to the mill owner, half as much to the miller, and a quarter as much to the miller's man. Thirlage was a right, not a Servitude, and was conferred by grant, expressed or implied, or by prescriptive possession, founded on written title. It formed the subject of many grants by king or baron to religious houses. An abbey would sometimes receive the right to a mill, or a certain annual sum secured on a mill, sometimes it would be exempted from multure dues. A landowner could let his thirlage-dues for eight, nine, or even twenty-one marks per annum, or demand a like sum as a composition instead of them. Besides having to bring their corn to be ground at the mill, the Villeins were obliged to repair the dams. In the case of country mills, thirlage applied only to corn ground in the thirl; in the case of borough mills, to all the corn within the sucken, whether produced there or imported. The owner of the mills at Leith tried to levy multures on all the flour brought to the port for the use of Edinburgh, until his extortion was stopped by parliament (8 Parl. J. IV. c. 15, James IV. 1489-1513). In the Highlands the thirl was called "siucam," and the multures "cis." (For example as a national tax, see Macinato.) L. R. H.

THISTLE RENT. When sheep were driven from one part of the country to the other in the middle ages, the owners of the lands through which they passed received payment for allowing them to graze. This payment was called *Thistle Rent*.

[Cowel, *Interpreter*.] A. E. S.

THOMAS, PIERRE ÉMILE (1822-1880), a French engineer, was, 6th March 1848, appointed director of the famous ATELIERS NATIONAUX (*q.v.*). Here he contrived to maintain order, but was abruptly dismissed 27th May.

His *Histoire des Ateliers Nationaux*, published a few weeks later, and summarised in the *Quarterly Review* for June 1850 (vol. 87, pp. 118-141), is full of bitter recrimination against some of the ministers of the period. It is mainly a pleading *pro domo*, but interesting through the number of original documents inserted. At the end of 1848, Thomas was officially sent on a mission to the French colonies, where slavery had just been abolished, to organise a system of free labour. His official report *De la réorganisation du travail libre et de l'immigration européenne aux Antilles* was printed in 1849 at the *Imprimerie Nationale* in Paris. Thomas, who was a strong advocate of free trade, published in 1850 a pamphlet entitled *Des conditions vraies de la science économique, de la théorie de la rente et du principe de la population*, and in 1852 a French translation with notes of the *Organisation of Industry* by T. C. BANFIELD (*q.v.*). E. Ca.

THOMASIUS, CHRISTIAN (1655-1728), an eminent member of the protestant branch of the German cameralists of the 17th and 18th centuries (see CAMERALISTIC SCIENCE; GERMAN SCHOOL OF POLITICAL ECONOMY), was the son of a professor of rhetoric at Leipzig, and afterwards became a teacher of jurisprudence at that university. An ardent adherent of PUFENDORF, a teacher of natural law, he became, though strictly religious himself, engaged in a dispute with his orthodox colleagues. He made many enemies by lecturing after 1688 in German instead of Latin. In 1690, he fled from the persecution of his opponents to Halle, where the elector of Brandenburg allowed him to continue his lectures at the school for young noblemen (Ritterakademie) of that place. He had there a large following of students, and this led the elector to found the university at Halle, 1694. At this rapidly developing university, of which he was soon made principal, the prince being the head, Thomasius gave instruction in all branches of jurisprudence, including economics. His proposal to establish chairs of CAMERALISTIC SCIENCE at the universities was carried out a year before his death, as in 1727 King Friedrich Wilhelm I. of Prussia appointed Professor S. P. GASSER to the chair at the university of Halle, and Professor T. C. Dithmar to that at Frankfurt on the Oder.

From an economic point of view, Thomasius may be placed between SECKENDORFF and SCHRÖDER. Thus he was nearer in mind to the earlier Cameralist, Ossa of Saxony, whose work *Prudentia regnativa*, 1556, he republished in 1717 with notes. He gives no fresh views in this; his other numerous works have little to do with political economy.

Thomasius did far more by stimulating the desire to study than by any original work. A resolute opponent of the "trial of witches," of judicial torture, and the inquisition, he must be considered as one of the harbingers of the period of enlightenment. By his use of the German language in his pamphlets, and in a monthly publication he brought out towards the end of his life, he must be regarded as the founder of journalism in his country.

[Luden, *Christian Thomasius nach seinen Schicksalen und Schriften*, Berlin, 1805. — Hinrichs, *Geschichte der Rechts- und Staatsprinzipien*, bk. iii., Leipzig, 1852. — Bluntschli, *Geschichte des allgemeinen Staatsrechts*, München, 1864. — Roscher, *Geschichte der deutschen Nationalökonomie in Deutschland*, München, 1874. — Nicoladoni, *Chr. Thomasius, ein Beitrag zur Geschichte der deutschen Aufklärung*, Dresden, 1889.] A. O.

THOMPSON, THOMAS PERRONET (1783-1869), the midshipman-fellow of Queen's, the British general who invented an enharmonic organ and an Euclid without axioms, is better known as proprietor of the *Westminster Review* (1829-36), M.P. for Hull (1835-37) and Bradford (1847-52, 1857-59), and author of tracts in favour of a limited inconvertible paper money (*Westminster Review*, 1824, rep. 1830; *Catechism on the Currency* (1848); Hansard, 3 S. vol. cxxii. pp. 899-901), and best of all as the radical anti-corn-law pioneer and author of *The true Theory of Rent* (1826); *Catechism on the Corn Laws* (1827, 18th ed. ster. 1834), and other writings abstracted by R. Cobden (1842). The "true theory" ascribed rent, along with diminishing returns, to rising prices due to the pressure of a growing demand upon a limited supply. RICARDO, against whom the pamphlet was aimed, also wrote of the high price of corn as "causing" rent (*Works*, ed. M'Culloch, p. 40); but also wrote of diminishing returns as "causing" increased rent (*ib.* p. 202; although he usually wrote "regulating" a word which Thompson wrongly construed as "causing"). What was correct in this criticism had been anticipated by a writer in the *Quarterly* (vol. xxv. p. 476); and Malthus, *Third Report on Emigration*, 1826-27 (qu. 3341), and J. B. SAY endorsed it. He also combated Ricardo's and J. S. Mill's view that agricultural improvements would lower rent; but all three disputants underrated the effects of increased demand for secondary necessaries of life. He also regarded land tax and tithe—this was before the commutation—as mere deductions from rent, not with Ricardo as taxes on the consumer. But his theoretical writings are always unsatisfactory. His *Catechism on the Corn Laws*, praised by Lord King, J. Hume, and J. S. Mill (*Westminster Review*, vol. vii. pp. 178-186), was the first and one of the most brilliant examples of economical polemics which the free-trade movement evoked. The method was doubtless

suggested by J. B. Say's *Catéchisme* (1815); but its point and humour are original.

His *Exercises, political and others* (1842), collect his writings up to date. His *Audi alteram partem* (1858-61) and *Catechisms on the Ballot* (1855, 1864) are political.

[A. Bisset, *Notes on the Anti-Corn Law Struggle* (1884), pp. 36-85.—A. Held, *Sociale Geschichte Englands* (1881), pp. 325 *et seq.*—S. Smiles, *Howitt's Journal*, vol. ii. p. 66.—C. W. Thompson, *Memoir* (1869).] J. D. R.

THOMPSON, WILLIAM (? 1785-1833), a socialistic theorist of some distinction, was a native of the county of Cork. He was a man of singularly pure, unselfish, and public-spirited character, and an earnest student of moral, social, and political science. In Bowring's edition of the works of Jeremy BENTHAM is given a letter from the philosopher to Thompson, who had consulted him on the subject of establishing a "Chrestomathic" school in Cork. This is followed by a second letter (September 1819) in which he invites Thompson to stay at his house while in London. Thompson afterwards resided with Bentham for several years; but besides the above, there is no further mention of him in Bowring's book. He was under the influence of OWEN as well as Bentham, and hence we find in him a combination of radicalism with socialism—of the love of freedom with the desire for equality; and these tendencies remained unreconciled, the latter finally predominating. His principal work is an *Inquiry into the Principles of the Distribution of Wealth most conducive to Human Happiness* (1824). It "fell still-born from the press," says William Pare, who republished it in a considerably abridged shape in 1850. Thompson died at Clounksen, in the barony of Roscarbery, county of Cork. He made a will leaving the great bulk of his property, consisting of freehold estate in that county, to trustees for the purpose of propagating his principles and aiding in their practical application. He also bequeathed his books to the library of the first co-operative community that should be established in Great Britain or Ireland. Following the example of Bentham, and wishing, like him, to protest against what he considered a mischievous prejudice, he directed that his body should be publicly examined by a lecturer on anatomy, and the skeleton preserved in an anatomical museum. His editor states that these directions were complied with, notwithstanding strong opposition on the part of the neighbouring peasantry. But the disposition of his property was contested by some of his relatives; and, when Pare re-edited the *Inquiry*, litigation respecting it was still going on in the Irish court of chancery.

The title of Thompson's principal work may be regarded as implying a protest against the ORTHODOX ECONOMISTS, who declare, as did SENIOR for example, that they are concerned, not with happiness, but with wealth, and are perhaps even bound to omit all considerations which have no influence on wealth. For happiness, Thompson holds, the distribution of wealth is more important than the increase of its amount, chiefly because a right distribution tends to moral improvement. To this subject, accordingly, his work is devoted. He sets out from the principle of utility, conceived according to the Benthamite formula, and from the economic assumption that labour is the sole source of wealth, as well as the sole measure of value. He then lays down the following as the three natural laws of distribution: "(1) All labour ought to be free and voluntary, as to its direction and continuance; (2) all the products of labour ought to be secured to the producers of them; and (3) all exchanges of these products ought to be free and voluntary." The operation of the second law would lead to inequality of distribution; but, according to him, equality, as the means of the greatest happiness, should be the rule, except in so far as inequality is admittedly necessary to guarantee the security of enjoyment required for the stimulation of human energies and the consequent continuance of production. As things now are, the labourer receives, instead of the entire produce of his labour, only a bare maintenance, a large part being absorbed by the claims of the landlord for rent and the capitalist for profit. These claims he does not absolutely dispute, but thinks that their amount should be greatly reduced. Under the present organisation of industry, however, he believes the reconcilement of equality with security to be but imperfectly attainable, and he accordingly proposes to substitute for the present economic order, resting on individual competition, a new system, essentially that of Owen, founded on mutual co-operation in communities based on voluntary association. In the course of the discussion here summarised, it becomes plain, as Menger has observed, that Thompson had conceived and worked out the theory of surplus value, which has been commonly attributed to RODBERTUS or MARX. In meeting actual or possible objections to his system, he goes into an interesting polemic against the doctrines of MALTHUS. He hoped that the régime of voluntary equality in the distribution of wealth and the means of enjoyment would be attained, if only restraints were removed, through the action of reason, early education, and the diffusion of knowledge; and repudiates any use of force to establish it. Thompson's faults of style have interfered with the effect of his work. His treatment is prolix, there is a good deal of repetition, and some undue elaboration of commonplaces. But the book is throughout elevated in moral tone, and, notwithstanding its erroneous or visionary elements, contains much that is suggestive and awakening.

His other publications were: *An appeal of one-half of the human race, Women, against the pretensions of the other half, Men, to retain them in political, and thence in civil and domestic slavery; in reply to a paragraph in Mr. (James) Mill's celebrated Article on Government*, 1825.—*Labour Rewarded. The Claims of Labour and Capital conciliated; or how to secure to labour the whole products of its exertions*, 1827.—*Practical direc-*

tions for the speedy and economical establishment of Communities on the principles of Mutual Co-operation, United Possessions, and Equality of Exertions and of the means of enjoyment, 1830.

In the last-named work, whilst he maintains the necessity of freedom in entering a community; when a member has once entered, freedom is entirely sacrificed to equality. The nature of the labour to be performed by each member is determined by a universal vote, which practically means that it is fixed by the elected administrators of the community.

[Pare, preface to his edition of Thompson's *Inquiry*.—Lippert in *Handb. der Staatsw.*—Held, *Zwei Bücher zur sozialen Geschichte Englands*.—Menger, *Das Recht auf den vollen Arbeitsertrag*.—J. S. Mill, *Autob.* (ed. 1873), p. 125.] J. K. I.

THONISSEN, JEAN JOSEPH (1816-91), was born at Hasselt (Belgium), and died at Louvain. A statesman and an authority of the first rank on criminal law, Thonissen in politics belonged to the Roman Catholic party, and while he was a sincere supporter of the Belgian constitution, he gave it a second place to the encyclicals of the pope,—in short he was ultramontane.

In 1871, a Roman Catholic cabinet attained power for the first time in Belgium. Thonissen refused then to take part in it, he had little ambition for power, and he preferred to retain his chair at the Roman Catholic university of Louvain, where from 1848 to 1884 he gave instruction in penal and criminal law. It was only on 16th June 1884 that he became a minister of state, but in October 1887 his health obliged him to resign office.

As a lawyer his works, and in particular his *Études sur le droit pénal chez les anciens* (4 vols. 8vo, 1868, 1869, and 1875), made his reputation. He considered capital punishment as useless for the repression of crime, and frankly sought to abolish it.

As an economist he employed his elegant, calm, and lucid style to contend with socialism by proof from history. Thus in 1850 he wrote *Le Socialisme et ses Promesses* (2 vols. 18mo), and in the following year *Le Socialisme dans le passé* (3 vols. 18mo). These two works remodelled, formed the following *Le Socialisme depuis l'antiquité jusqu'à la constitution française du 14 janvier 1852*. "Ideas," he wrote in the introduction of this book, "should be combated by other ideas. . . . The intelligence of the masses must be raised, and morality brought home to their hearts." But, according to him, to bring morality home to the heart could only mean to reclaim it to Roman Catholicism. "There can only be one form of worship," he exclaimed, 19th February 1873, in the tribune of the chamber of representatives, where he had been sent by the electoral college of Hasselt 1863. Thus he protested against freedom of religion, as during the same session he protested against freedom of the press.

His loyal and open mind, his cordial and sober bearing in private life, earned him, however, general esteem even among his political opponents.

A. C. f.

THORNTON, HENRY (1762-1815), banker, was M.P. for Southwark from 1783 till his death. He was one of the founders of the Sierra Leone Company (see AFRICAN COMPANIES, EARLY), of which he was for a time chairman. Thornton shared the views of his friend William Wilberforce, and was the representative of business among a group which, though small, was a marvellously well-equipped body of men, and of whom W. PITT was the most prominent. Thornton was in favour of a graduated income-tax and paid his contribution himself to the exchequer "on the scale of his ideal not his legal debt." (See *Contemporary Review*, vol. lxviii. art. on "F. F. Stephen" by Miss J. Wedgwood.) He was also the author of several devotional works, which were very popular.

Thornton published in 1802 *An Inquiry into the Nature and Effects of the Paper Currency of England*, London, 8vo; the value of which is attested by T. Tooke in his *History of Prices*, vol. iv. p. 85. It was reviewed by F. Horner in the first number of the *Edinburgh Review*, November 1802, with the aim of moulding the irregular materials of the original work into a useful arrangement (see *Memoirs of F. Horner*, vol. i. p. 203). Horner's analysis treats the subject under four heads: (1) he considers the principles involved in the general theory of paper credit; (2) and (3) he summarises Thornton's account of the system of credit and paper money established in England, and his statement of the difficulties of the Bank of England in 1787 (see *Bullion Committee, Report of*); and (4) he quotes and discusses Thornton's views with regard to the influences of the paper currency upon prices. Thornton's book contains a temperate defence of the action of the legislature in suspending cash payments. He also published in 1811 the *Substance of two Speeches on the Report of the Bullion Committee*, London, 8vo.

[*Gentleman's Magazine*, vol. lxxxv. pt. i. p. 182.]

H. E. E.

THORNTON, WILLIAM THOMAS (1813-1880), economist, in 1836 entered the London house of the East India Company (*q.v.*). On the transfer of the government to the crown, Thornton was appointed secretary for public works in the India office, which post he held till his death. He was made a C.B. in 1873. Besides the economic works mentioned below, he published several volumes of verse, and translated *Horace*.

Thornton's earlier works were *Overpopulation*, London, 1846, 8vo, and *A Plea for Peasant Proprietors*, London, 1848, 8vo, a new edition of which, enlarged and improved, appeared in 1874. His work *On Labour*, London, 1869, 8vo, is of greater interest. The first chapter contains an elaborate criticism of the theory of price, as depending upon the equation of supply and demand. Thornton's own view is that price is determined by competition, which competition, again, depends upon the estimates formed by the competitors, of prospective supply and demand,

the competition being, in nearly all cases, between the dealers. The price of labour is determined in the same way except that the competition is between the customers and not the dealers. "In a state in which labourers are too poor to combine . . . the price of labour is determined . . . by combination among the masters." Incidentally in a footnote, Thornton attacks the theory of the WAGES FUND (*q.v.*). His arguments called forth from his friend and colleague J. S. MILL (*q.v.*) a complete retractation of his former view. The chapter "on the claims and rights of labour" contains a vigorous onslaught upon the position of those who advocate, on the grounds of justice, what has since been much before the public under the phrase of "a living wage" (see WAGES). Nevertheless, Thornton shows genuine sympathy with the working classes. At a time when trades unions were not strong, as they are now, in public opinion, and when the Sheffield outrages had only recently occurred, he recognised in unions the best means for workmen to strengthen their position. Under the heading of "labour and capital in antagonism," he discusses in turn the "Ends of trades unionism," "its ways and means," and lastly "its good and evil." Sympathetic, however, as is his attitude towards unionism, he regards it, in great measure, as educational, and as tending in the end to bring about a closer alliance between capital and labour. The goal to which he looks forward is "capital and labour in alliance," and the conclusion of the book contains a sympathetic notice of industrial partnerships (see PROFIT-SHARING), co-operative stores and co-operative societies (see CO-OPERATION). A poetic epilogue sets forth "Labour's Utopia." Thornton also wrote *Indian Public Works and cognate Indian Topics*, London, 1875, 8vo.

[*Annual Register*, 1880, p. 175.] H. E. E.

THRALL. A person in *thraldom*, from the Anglo-Saxon *thræl*, a slave (see SERVUS). R. H.

THREE-FIELD SYSTEM (with TWO-FIELD SYSTEM). The open or common arable fields of mediæval manors were most frequently divided into three sections, which appear to have been very often called the East Field, West Field, and South Field. From these have been derived numerous local names in all parts of England. These hedgeless fields were divided into *furlongs* by wide balks of grass, each *furlong* consisting of parallel acre or half acre strips (*seliones*), each divided off from the next by a narrow balk of turf. At one end of each furlong, where the plough turned, was a slip called the *headland*, which ran transversely across the ends or heads of the strips. The holding of each tenant, whether freeholder or villein, was scattered in strips all over these *fields*, and the strips which formed the demesne of the lord of the manor were often intermingled with the others. These were cultivated by the joint labour of his tenants. Two of these *fields* were under crop, while the third lay fallow for twelve months; or rather, from the August harvest of one year to the autumnal ploughing and sowing of the next. Thus field A, which had been sown with wheat in the previous autumn, would be reaped in August; and B, which was sown with barley in the spring, would also be harvested about the same time; but C would have been lying fallow from the harvest of the previous year. The following year A would yield a crop of barley; B would lie fallow; and C would be under wheat. In the third year A would be fallow; B would have grown wheat; while C would have yielded a crop of barley; but oats, rye, or beans would of course have been grown occasionally instead of barley. In this way, out of a villein's virgate, or holding of about 30 acres, 20 would always be under crop. The system is shown clearly by the words which Vinogradoff quotes from an Inquisition of 20 Hen. III. n. 14, in the Record office: *sunt ibidem 360 acræ terræ . . . et seminatæ sunt per annum 240 acræ.*

On the *two-field system*, which was merely an alternation of crop and fallow on the arable land of a manor divided into two sections or *fields*, there would only be 15 acres of each virgate cultivated annually. It was, however, doubtless the custom to alternate the crop on the half which was in use, wheat being succeeded after the fallow year by barley, oats, rye, or beans.

It is probable that the villeins (see VILLANUS) who joined their teams to work the eight-oxen ploughs belonging to the lord of the manor joined them similarly for their own common cultivation. The scattered slips of one villein in the east field, for instance, were thus being ploughed indiscriminately with their own by his neighbours, while he and some associates were reciprocating by equally indiscriminate ploughing in the west field, the south field meanwhile lying fallow.

These hedgeless, and so *open fields*, needed temporary fencing to keep the cattle, allowed to wander over the fallows, from trespassing on the crops, and one of the laws of Ina (Wilkins, *Leges Anglo-Sax.*, p. 21, § 42), in alluding to this, shows that the general system was at work in the 7th century. Its opening words, "if churls have a common meadow or other partible (*gedál*) land to close in," *i.e.* to fence, clearly relate to open-field cultivation with its land partible into virgates and their component strips.

The meadows reserved for the hay crop were similarly fenced in for the necessary part of the year (see LAMMAS-LANDS), and were shared, as were wood, waste, and brushwood, in due proportion to the amount of each man's arable holding.

This curious system possibly points, as Vinogradoff observes, not to the manor, but to the primitive VILLAGE COMMUNITIES (*q.v.*), in which all had annually apportioned shares, and no one owned any part of the arable land

in severalty. This system, which still survives in Russia and elsewhere on the continent, has left many traces in modern England, and since the middle of the 18th century, thousands of enclosure acts have been passed to effect the transition to present methods. People now living have experienced great difficulty in consolidating property which has devolved upon them in the state of scattered acre plots a mile or more apart.

[Scrutton, *Commons and Common Fields.*—Seebohm, *Village Community.* — Vinogradoff, *Villainage in England.*—G. L. Gomme, *Village Community.*] R. H.

THREEPENCE. English silver coin, first struck in the reign of Edward VI.

From the year 1663, when the practice of milling the edges of silver coins was introduced, the pieces of lower denomination than the sixpence were no longer struck for general circulation, though they were manufactured each year in small quantities for distribution with the Maundy alms. Thus the threepence, in common with the other Maundy coins (4d., 2d., 1d.), is still issued with a smooth edge.

From 1663 to 1844 no threepences were coined for general circulation. In 1845, however, £16,434 in coins of this denomination were struck, in addition to the small quantity required as Maundy coin; and from that date to the present time threepences have been coined for general use in every year except 1847, 1848, 1852, and 1869, when coins for the Maundy distribution only were struck.

The following list gives the weights of the coins of this denomination since their introduction in the reign of Edward VI.:—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Edward VI. . .	1552	24	925	3¼d.
Elizabeth . .	1560	24	925	3¼d.
,, to George III.	1601 to 1816	22·25	925	3d.
George III. and subsequently	1816 and onwards	21·82	925	3d.

F. E. A.

THRIFT.

1. Natural Conditions, p. 539; 2. Political Conditions, p. 539; 3. Opportunities for enjoyment and religious and moral ideas, p. 539; 4. Opportunities for saving and the reward of saving, p. 539.

Thrift may be defined as that disposition which leads us to prefer future wellbeing to present enjoyment. As the wealth which can be extracted from natural objects has limits, whilst the desires of man are unlimited, it would be easy even for the most favourably-situated to consume in idleness, in riot, or in sheer waste, the whole of the return to their labour. That mankind do not usually act thus is due to the faculty of forethought. Thrift is made possible by foresight; it is strengthened by habit and instruction. Wealth itself is most rapidly increased not by saving at all costs, but by such saving as is compatible with high productive efficiency. Economists have found it no easy matter to note the circumstances favourable or unfavourable to thrift, as they appear to operate now one way and now the other.

1. *Natural Conditions.*—The spirit of thrift may be encouraged or depressed by conditions of soil, climate, and situation. In some countries nature discourages thrift by anticipating every want; in others by making the return of self-denial petty or uncertain. Natural conditions which call for energetic effort, and ensure its reward, encourage thrift; and, accordingly, thrift is most conspicuous among the peoples of the temperate zone. The utmost frugality and simplicity are often practised in tropical countries, but this is commonly due to a low state of the arts of production combined with a dense population; in other words, it is the result of necessity.

2. *Political Conditions.* — The influence of political conditions on the spirit of thrift is manifold. In general, order and security stimulate thrift. If men are to save, they must be assured that they will be allowed to keep the wealth which they lawfully acquire. Political freedom or self-government may strengthen habits of thrift by making men more manly and rational. But these considerations do not exhaust the subject. The tyranny which excludes a people from public life and social distinction sometimes intensifies thrift by making wealth the sole object of desire. Thus the Jews of the middle ages seemed to absorb as by magic the wealth of the Christian kingdoms in which they were regarded as an inferior race. The Christian peoples subject to the Ottoman Porte are noted for their spirit of accumulation.

3. *Opportunities for Enjoyment, and Religious and Moral Ideas.* — These exert an immense influence upon the practice of saving. It is only in exceptional ages that any considerable part of mankind has any great range of pleasures; but in such ages, *e.g.* the prosperous period of the Roman empire or the nineteenth century, the expenditure on pleasure becomes enormous. Self-indulgence reacts on temperament, and the public become more and more averse to the privation implied in frugality. Religious ideas may modify these tendencies; there can be little doubt that an austere form of religion, if it does not break individual energy, favours the growth of riches. The Lowland Scotch, the New Englanders, and, in a less degree, the English mercantile class, from the time of the Commonwealth to the commencement of this century, are instances which will occur to all students of national character. But whilst individual examples of asceticism occur in the most luxurious age, abundant opportunities of pleasure sap the force of ascetic doctrines with the body of the people.

4. *Opportunities for Saving, and the Reward of Saving.*—An abundance of safe and profitable

investments for accumulated capital tends to promote the spirit of thrift. Throughout the middle ages capital was scarce, and therefore commanded high rates of interest, but the openings for its safe employment were few. In modern times these openings have been multiplied. Savings banks, co-operative and building societies, have made it easy to invest petty savings, and have thus diffused the spirit of accumulation. But these facilities for investment have, in combination with other causes, promoted the growth of capital to such an extent that the return on capital has seriously diminished, and the reward of the sacrifice involved in thrift has dwindled in proportion. How the fall in the rate of interest will affect the spirit of thrift is a difficult and interesting question. Men must continue to save as an insurance against want of employment, illness, or old age; and what they save they will continue to invest, though the return on their investments may become small. Hope is the most powerful spur to thrift as to every other exertion of will, and it must be enfeebled when the reward of exertion grows steadily smaller and smaller. That reward will disappear altogether if the state should push to extremes the policy of relieving the incapable from the consequences of their incapacity at the expense of those who could provide for themselves. It is as true now as when Burke employed the quotation: "Magnum vectigal est parsimonia." Many incidental references to the causes which affect thrift are to be found in almost all systematic treatises of political economy, such as Adam Smith's *Wealth of Nations*, Mill's *Principles of Political Economy*, Marshall's *Principles of Economics;* and the literature of philanthropy abounds in suggestions for encouraging thrift. Socialist literature contains many passages in depreciation of thrift, and Mummery and Hobson's *Physiology of Industry* is an ingenious argument against extreme thrift; but the subject is hardly one which admits of discussion in separate treatises. F. C. M.

THRYMSA. An imaginary coin or money of account used by the Anglo-Saxons to denote three-fifths of a shilling when its value was fivepence, or about three-fourths of it when worth fourpence. It was therefore perhaps equivalent to threepence; but the matter is not free from difficulty. The *wergild* of a ceorl in the days of Æthelstan was 266 *thrymsæ*, which were equal to 200 Mercian shillings (Wilkins, *Leges Anglo-Sax.*, p. 71).

R. H.

THÜNEN, Johann Heinrich von (1783-1850) was son of a landed proprietor in Oldenburg. He received his early education at the high school of Jever, which was near the place of his birth, and was afterwards thoroughly instructed in the theory and practice of agriculture. He settled in Mecklenburg-Schwerin on the estate of Tellow, which he had purchased, and which became famous for the perfect system of cultivation which he carried out there. In 1830 the university of Rostock conferred on him the honorary degree of doctor of philosophy. He was a noble-hearted and public-spirited man. Deeply impressed with a sense of the probability of a formidable conflict between the capitalist employers and the artisan class, he devoted serious attention to social questions. The desire to do something towards averting such a catastrophe prompted alike his theoretic researches and his practical efforts. He thought it monstrous that, as the economists admitted, a working man obtained for his labour the bare cost of his maintenance, and he studied for a long time the problem of normal wages, *naturgemässer Arbeitslohn* (see articles on Wages). He believed himself to have discovered its solution; but his theorem on the subject has not been generally accepted. "Setting out," says Cossa, "from arbitrary and insufficient premises, he arrives at the conclusion that the required amount is the geometric mean between a and p, where a is the value of the things necessary for the maintenance of the labourer and p that of the products which are the fruit of his labour." Such was his confidence in the correctness of this formula that he desired $\sqrt{ap}$ to be engraved on his tombstone. It may here be observed that, whatever be the worth of the proposition as an abstract theorem, Thünen himself, in his experience at Tellow, found it incapable of practical application from the impossibility of determining the fruit of the labour of each individual, and accordingly adopted a different system—similar, however, in spirit and tendency—that, namely, of Profit-sharing, which he was one of the first to introduce.

His principal work, in which this doctrine of natural wages finds a place, is entitled *Der isolirte Staat in Beziehung auf Landwirthschaft und National-oekonomie* (1st vol. 1826, 2nd ed. 1842; 2nd vol. 1850-1863; 3rd vol. 1863). It is brightly written, and takes rank as an economic classic. The primary object of the work was to establish certain principles by which agriculturists could ascertain the best system of cultivation to be adopted under given conditions, and in particular to determine the natural territorial distribution of those systems according to the distance from the market. He had studied the theory of Rent independently of Ricardo, and arrived at results similar to his; but he thought the "rent of situation," though not indeed ignored by the English economist, had not been sufficiently considered by him. He applies to the problem the same method which Ricardo habitually followed, the study of an imagined state of facts, in which abstraction was made of all the non-essential features of the real case. He supposes an isolated region, without navigable rivers or canals, similar throughout as regards fertility; and he asks according to what law the distance from the centre, where the sole market is situated, modifies the system of cultivation to be pursued in the several concentric belts of territory. That distance is, of course, only one

of the elements of the practical question which the cultivator has to decide, the system to be adopted as the most profitable depending also on the capabilities of the soil, the price of labour, and other data; and the effects of these other conditions would require to be studied separately in a similar manner. But the method followed is legitimate, provided that no real element is finally left out of account. It is difficult, however, to verify results arrived at in this way; and they have, like those of Ricardo, lost much of the practical value which might otherwise belong to them by the opening of the home markets to the productions of distant countries.

The first part of *Der isolirte Staat* was translated into French by Laverrière (1852), and the second by Wolkoff (1857).

[Roscher, *Gesch. der N. O.*, p. 879.—Cossa, *Introd. to the Study of P. E.*, English ed. p. 404.—Lippert in *Handb. der Staatswissenschaften.*—Sedley Taylor, *Profit-Sharing*, 1884.] J. K. I.

TICAL. The standard of value and the money of account in Siam is the tical, a silver coin weighing 233·5 grains of silver 902 fine. It is rated as equal to three-fifths of a Mexican Dollar (*q.v.*). The tical is divided into thirty-two pies, the Pie (*q.v.*) being itself divided into ats and half-ats. Two hundred cowries are generally accepted as the equivalent of the pie, but since the coinage, in 1887, of copper pies, ats, and half-ats, the use of cowrie shells (see Cowrie), as currency, has been largely discontinued.

The Siamese currency system is as follows:—

2 half-ats	=1 at	bronze coins.
2 ats	=1 pie	
4 pies	=1 fuang	silver coins.
2 fuangs	=1 salung	
4 salungs or 32 pies	=1 tical	
4 ticals	=1 tamlung	moneys of account.
20 tamlungs	=1 cattie	

F. E. A.

TILLAGE DUTIES is a term found in the Irish financial system before the union with Great Britain. In the early years of the reign of George II. an act was passed to encourage tillage of the soil and inland navigation (3 Geo. II. c. 3, Irish). Commissioners were appointed to carry out the act, and to them power was given to levy certain small duties on dice, cards, plate, coaches, and other articles of luxury. C. A. H.

TIME BARGAINS.

Defined, p. 541; Contracts for Future Delivery, p. 541; Options, p. 541; Time Bargains in Specified Goods, p. 542; Time Bargains in Goods Described by Quality, p. 542; Produce Clearing Arrangements, p. 542; German Legislation on Time Bargains, p. 542; Effect of German Legislation on Business, p. 543.

Time Bargains are contracts entered into between two parties for the transfer at a fixed price of a certain quantity of a commodity, security, or right from one to the other on a specified future date or within a specified time from the date of the contract. In colloquial language they fall under two heads, viz. (1) sales or purchases for "future" or "forward" delivery; (2) options.

(1) *Contracts for future Delivery.*—In practice the parties to these contracts are the body of persons forming "the market" in the article or security dealt in and the persons doing business with them. The terms employed to denote such contracts vary in different departments of business. On the stock exchange all contracts are for future delivery unless otherwise specified, the "contract note" stating that such and such a security has been bought or sold for the next "settlement"—that is within, at longest, nineteen days from the date of purchase; the intervals between stock exchange settlements being usually about fifteen days, and only occasionally longer, except for consols, in which there are monthly settlements. In practice actual delivery of securities may take longer owing to various causes, such as delay in obtaining signatures to transfer deeds, but, in theory, the contract should be fulfilled on the date mentioned. If a buyer or seller wishes to take or make *immediate* delivery, the bargain is entered as "for cash"; but such bargains can only be made, except as a matter of negotiation, in consols and a few other stocks of the highest class. For these latter two prices are regularly quoted in the official list—one "for money" and the other "for the account." Even in their case, however, the price *par excellence* is the "account" price, and any one inquiring "what are consols now," would receive that price as a reply.

In other great markets, such as those for wheat, cotton, iron, and other leading commodities, the usual practice is to quote a price for "prompt" delivery and a series of other prices for a fortnight, and for one, two, three, or more months "forward." The customs in these markets vary from time to time, being changed to suit the altering conditions of business. In wheat and cotton it is often possible to make contracts six or seven months "forward," either for delivery or sale; in iron the most usual forward terms are "one month" or "three months," but there have been periods in the history of the Glasgow pig-iron market when "cash in a fortnight" was one of the recognised modes of settling transactions. In all these cases the principle is the same, namely, that the parties agree that a certain quantity of a given article shall be transferred for a consideration at a given date.

(2) *Options.*—An option contract gives the buyer of the option (called on the stock exchange the "giver," because he "gives" money for the option) the right to purchase, or sell, a specified amount of a certain commodity or security, during a period the termination of which is stated in the contract. It is more frequently employed in the case of securities

than commodities. The stock exchange dealer in options quotes a price expressed as so much per cent of the nominal value of the stocks he is prepared to do bargains in on this system. If he "takes money" for the right to buy a security from him, he is selling a "call." If he receives the consideration for the right to sell to him, he sells a "put." Dealings are also not unfrequently made in "put and call" options; and in this case the "taker" of the money contracts either to buy from or to sell to the "giver" at the latter's option, within the period named. The price for this option is of course higher than for "single" options (see PUT and CALL).

There is nothing in the principle of a "time bargain" which makes it necessarily a speculative transaction for either party. (See the evidence given by Mr. G. W. Medley before the Royal Commission on the London stock exchange, 8437 *et seq.*).

It is important to note that those who attack "time bargains" as encouraging speculation, almost invariably mean bargains in which the party whom we may call the "customer," as opposed to the merchant, dealer, or "jobber," makes a sale. In other words, they disapprove of *sales for the fall*, and think that they can be prohibited, failing to perceive the elementary truth that for every seller there must be a buyer. It is strange that this fact with all it implies is so often forgotten. It is absolutely necessary for any one who wishes to understand the phenomena of markets to keep it firmly in his mind.

[Arthur Ellis, *Market Fluctuations*. The evidence given before the Royal Commission on the London Stock Exchange, 1877, in which various witnesses, besides Mr. Medley referred to above, gave their views on "time bargains."]

[See CLEARING SYSTEM; DEALER; EXCHANGE, STOCK; FUTURES; GRADING; JOBBER; MARKET; OPTIONS; PRODUCE CLEARING; PROMPT; PUT AND CALL; SETTLING DAY.] W. H.

It should be pointed out that in the case of stock-exchange transactions, which are nominally settled on the half-monthly, and in the case of consols on the *monthly* account-day, the really speculative transactions are not generally closed on the next account-day, but carried over (see CARRYING OVER). No doubt the difference between the contract price and the market price of the day must, when the account is made up, be paid; but, as in the case of many time bargains in produce, the margin must also be constantly kept up, this does not differentiate stock-exchange time bargains from produce time bargains. The real difference between the two classes of transactions is, that the produce speculation is for a definite, the stock-exchange speculation for an indefinite period.

Stock-exchange OPTIONS are very rarely sold for the next account-day. Sometimes a very long time is given. In this case therefore the vendor of the option, who runs an unlimited risk, speculates for a definite long period, without having to pay up differences or to keep up a margin, as he would have to do in the case of a speculative unconditional sale on the stock exchange or of a time bargain in produce.

Time bargains in produce must be divided into two classes. In the one case specified goods are sold, in the other case a quantity of goods described by quality, but not otherwise specified, is sold.

(A) *Time bargains in specified goods.*—If a cargo of sugar shipped per *Castalia* which left Mauritius on the 1st February, is sold, the purchaser need not take delivery till the cargo arrives, which may take three months. As a general rule the ships which carry such cargoes call for orders in the Channel and the purchasers are frequently speculators who try to resell the cargo either in the United Kingdom or some continental port. On arrival of the ship in Falmouth, or whatever other port may be selected, the captain telegraphs to the consignee of the ship, who informs the purchaser, who then directs the ship to proceed to the port to which he has sold the cargo. In this case the vendor is not a speculator, but the purchaser generally is—he does not intend to take delivery himself, but to resell before arrival.

(B) *Time bargains in goods described by quality.*—These are generally of a more speculative character than those first named, because *both* vendor and purchaser may be speculators; the former may sell goods he does not possess with the intention of repurchasing at a cheaper price, the latter may not intend to take delivery, but to sell with a profit, and only to pocket the difference. But time bargains of this nature are frequently entered into by the purchaser for entirely non-speculative purposes. Thus a spinner who uses certain qualities of cotton, and has sold yarn to the consumer for several months ahead, *must* buy the qualities of cotton used by him for delivery at the time he wants them. *In his case the omission to make a time bargain would be speculation.*

Produce Clearing arrangements deal exclusively with time bargains in goods described by quality. The working of these time bargains cannot be properly understood unless these clearing-house arrangements are studied. There are three important clearing-houses of this nature in England:—

(*a*) The Cotton Association in Liverpool for time bargains in cotton (see CLEARING SYSTEM, COTTON CLEARING).

(*b*) The Corn Association of Liverpool for time bargains in wheat and grain generally.

(*c*) The London Produce Clearing-House for all kinds of produce, which is chiefly used for time bargains in coffee (see CLEARING).

It should be pointed out that time bargains in goods described by quality are necessarily confined to certain kinds of goods produced in qualities which can be easily classified by reference to certain standard types. With some kinds of goods (*e.g.* wool) this is impossible. Such goods are therefore generally bought by sample obtained from the specified lot which the vendor has to sell. It would be interesting to examine, by the aid of statistics, whether the fluctuations in this class of goods are less violent than the fluctuations in those which are sold by description. The result would throw some light on the economic advantages or disadvantages of time bargains.

German legislation on time bargains.—The subject of time bargains was gone into very carefully by an imperial commission in Berlin which took evidence four or five years ago under the chairmanship of Dr. Koch, the governor of the Reichsbank.

The report of the commission led to the passing of the German *Bourse Law* of 1896, which, however, went much further in the direction of state interference than the recommendations contained in the report, and the proposals of the original Government Bill. The statute in question, which came into force on 1st January 1897, after defining the term "time bargains" in a somewhat complicated manner, and so as to exclude contracts of the nature described above, sub. (A), deals with the class of transactions to which it refers in two separate ways: (*a*) it prohibits time bargains (1) in mining and industrial shares, and in shares in companies not having a capital of at least 20,000,000 marks (£1,000,000); (2) in corn and flour; (3) in such stock-exchange securities or kinds of produce as the federal council or the authorities of any stock exchange or produce exchange may by order declare to be subject to the prohibition; (*b*) as regards such classes of time bargains as are not prohibited under the rules referred to sub. a, it provides that they cannot be entered into except by persons registered as dealers on a register, to be kept for the purpose by the authorities by whom the local mercantile registers are kept and open to public inspection, and paying an admission fee and an annual registration fee.

Time bargains in prohibited securities or produce, and all time bargains between parties not being both registered in accordance with the above-mentioned requirements, are void, as well as any contracts of agency or partnership with reference to any such time bargains. It is also provided that time bargains of the first-mentioned kind may not be effected through any official

broker, or referred to in any printed list of quotations (*Börsengesetz*, §§ 48-69).

Effect of German legislation on business.—The effect of these provisions as regards trade in produce—more especially corn—has been partly to decentralise business by withdrawing it from the great markets for time bargains to provincial places in which business in specified goods is transacted, which in several respects is an advantage; but it also appears that a great part of the business in question has been driven away from Germany altogether. This may, however, in part be due to the spirit of non-compromising opposition with which the act was met by the traders concerned. Several means of evasion have been attempted, but their legality is disputed. It is clear that the act has not stopped or hindered speculation, for which there are always so many channels open that the obstruction of one or two must of necessity be ineffective; but the restriction of speculation was not the principal object of the act, which, especially as regards corn, was intended to promote a greater steadiness of prices, on the assumption that fluctuations must be more violent as long as time-bargains are allowed, as these may be entered into to an unlimited extent, whilst business in specified goods is naturally restricted to the stock of goods in existence. The time during which the act was in force has been too short to allow any reliable conclusion to be drawn as to its effectiveness in this respect, but it seems probable that a prohibition extending to one country only cannot have a permanent influence on prices. As regards stock-exchange transactions, the effect has been to divert the speculation from time bargains to cash business with borrowed money or borrowed securities, which affords exactly the same facilities for gambling transactions as business in time bargains.

[See *Börsen-Enquête-Kommission: Stenographische Berichte*, with reference to answers to questions 2-9 (and see the admirable summary of the answers in the index); *Börsen-Enquête-Kommission: Sitzungs-Protokolle* (particularly pp. 241-367); see also the articles "Börsengeschäfte," "Zeitgeschäfte," "Börsenwesen" (1st supplementary volume), "Börsengesetz" (2nd supplementary volume), in Conrad's *Handwörterbuch* and Professor Weber's articles in Goldschmidt's *Zeitschrift für Handelsrecht*, vols. 43-45.] E. S.

TITHES.

General Statement, p. 543; Tithe Commutation Act 1836, p. 545; Terms of Commutation, p. 545; Impropriated Tithe, p. 545; Incidence of Tithe, p. 545.

TITHES were originally free-will offerings, but gradually became compulsory, first by church law, afterwards by statutes. Much of the law concerning them was the growth of practice sanctioned by the courts. The earliest authentic mention of them, as customary in England, seems to be in a document of the end of the 7th century (Haddan and Stubbs, *Councils*, iii. 191, 203). Neither the contested points of date and of the tripartite division, nor the process by which a large proportion of tithes was acquired by religious houses or impropriated by laymen, need be dealt with here; but the fact that a large part of the country has in consequence been for many centuries tithe-free is of real economic interest. Pope Pascal II. (1099-1118) exempted all the lands of abbeys, monasteries, etc., from the payment of tithes; Adrian IV. (1154-1159) restricted the exemption to Cistercians, Templars, and Hospitallers; Innocent III. (1198-1216) added the Præmonstratensians; the Lateran council of 1215 ordained that only lands held before that date by these four "privileged orders" should be tithe-free. At the dissolution of the monasteries the bulk of the monastic lands made over to the king by 31 Hen. VIII. c. 13 remained, or became, by statute exempt from tithes; but the lands of houses dissolved before that year, 1539, were made subject to tithes if they had been free before. Forest land in the hands of the crown or its lessee, but not of its feoffee, were also free from this charge.

Tithes were the tenth part, free of the cost of cultivation, but not of collection, of the yearly increase of the land "by the act of God," not of the substance of the ground except in a few customary and local instances. They were of three kinds—predial, arising immediately from the soil; mixed, arising from things nourished by the soil; personal, arising from the profits of industry. Predial tithes were paid by grain of all sorts, hemp and flax, hay, fruit, herbs, saffron, acorns (under certain conditions), rushes, wood of less than twenty years' growth, and, in the case of some non-timber trees, even of older growth; mixed tithes were of colts, calves, lambs, wool, pigs, fowls or their eggs (not both), ducks, geese (but perhaps not turkeys), milk or cheese (not both), pigeons, and bees (in the form of wax and honey). Personal tithes were the tenth of the *clear* profit of tradesmen and artificers, with the tithes of mills and of fishing which were reckoned as personal—in the latter case the tenth fish was usually commuted for a small sum of money. Only in a few exceptional instances was tithe paid on mines, quarries, limekilns, and salt; and it is only in the city of London and a very few other towns that houses and building lands have been subject to tithes until commuted by the City of London Tithes Act of 1879 (42 & 43 Vict. c. 176).

Corn, hay, and wood composed the great or rectorial tithes; all others belonged to the class of small or vicarial tithes. In 1836 the former were usually reckoned at from 5s. to 7s., the latter at from 3s. to 4s. an acre.

That disputes should arise was not wonderful. A claim put forward by a parson just before the Commutation Act of 1836 to the tithe of turnips grown to feed sheep, when tithe would be paid later on of the same sheep in the form of lambs and wool, illustrates one side of the question (*Parliamentary Debates*, 1835); but it is pretty certain that the clergy suffered oftener than the farmers from unfair treatment. Vexatious claims, unjust resistance to just claims, the inconvenience caused to the clergy by their being obliged to receive their dues in kind, and to collect them themselves into their tithe-barns off the different farms in the parish, often produced most undesirable friction between tithe-owners and tithe-payers, between pastors and their flocks. In later times, as the pressure of population increased the value of land, and as enclosures became common, such a charge upon cultivation no doubt hindered the outlay of capital upon the land, and thus economic argu-

ments were added to social and moral objections to tithes in kind, or even to tithes at all. Many enclosure acts, especially after 1750, included clauses for endowing the parson with glebe land, apparently usually a seventh or eighth part of the land enclosed, in lieu of tithes (*Parliamentary History*, xxii. 47, for debate in Lords on such a clause, 1781); one reason for the change being that, after enclosure, corn land, if titheable, was in danger of being converted to pasture which was tithe-free. Another method of remedying the inconvenience of payments in kind was by voluntary agreement between the parties to commute the tithes into

AVERAGE PRICES FOR SEVEN YEARS.

Per London Gazette.	Wheat per imperial bushel.	Barley per imperial bushel.	Oats per imperial bushel.	Value of tithe rent charge of £100.
	s. d.	s. d.	s. d.	£ s. d.
To Christmas *1835* on 9th Dec. 1836	7 0½	3 11½	2 9	100 0 0
,, *1836* ,, 13th Jan. 1837	6 8½	3 11¾	2 9	98 13 9¾
,, *1837* ,, 12th ,, 1838	6 6¾	3 11¼	2 8¾	97 7 11
,, *1838* ,, 4th ,, 1839	6 6¼	3 9¾	2 8	95 7 9
,, *1839* ,, 3rd ,, 1840	6 9	3 11¼	2 9¼	98 15 9½
,, *1840* ,, 8th ,, 1841	6 11¾	4 1	2 10¾	102 12 5½
,, *1841* ,, 7th ,, 1842	7 3¾	4 2	2 11¼	105 8 2¾
,, *1842* ,, 6th ,, 1843	7 7½	4 1½	2 10½	105 12 2½
,, *1843* ,, 5th ,, 1844	7 7⅝	4 0½	2 9½	104 3 5¼
,, *1844* ,, 3rd ,, 1845	7 7	4 1½	2 9	103 17 11½
,, *1845* ,, 2nd ,, 1846	7 4	4 1½	2 9	102 17 8¾
,, *1846* ,, 1st ,, 1847	7 0½	4 0	2 8½	99 18 10¼
,, *1847* ,, 7th ,, 1848	7 1½	4 1½	2 9¼	102 1 0
,, *1848* ,, 5th ,, 1849	6 10½	4 1½	2 8¾	100 3 7½
,, *1849* ,, 8th ,, 1850	6 7½	4 1½	2 8½	98 16 10
,, *1850* ,, 3rd ,, 1851	6 5½	4 0	2 8	96 11 4¾
,, *1851* ,, 2nd ,, 1852	6 2¾	3 10½	2 7½	93 16 11½
,, *1852* ,, 7th ,, 1853	6 0½	3 9½	2 6⅝	91 13 5¾
,, *1853* ,, 6th ,, 1854	6 0	3 9½	2 6½	90 19 5
,, *1854* ,, 5th ,, 1855	6 0¾	3 7¾	2 6	89 15 8¾
,, *1855* ,, 11th ,, 1856	6 6	3 8½	2 7½	93 18 1½
,, *1856* ,, 9th ,, 1857	6 11½	3 11½	2 9¼	99 13 7½
,, *1857* ,, 8th ,, 1858	7 2¾	4 3½	2 11	105 16 3½
,, *1858* ,, 7th ,, 1859	7 4	4 5½	3 0½	108 19 6½
,, *1859* ,, 6th ,, 1860	7 4½	4 6½	3 1¼	110 17 8½
,, *1860* ,, 11th ,, 1861	7 4½	4 7¾	3 2	112 3 4¾
,, *1861* ,, 10th ,, 1862	7 0½	4 7½	3 1	109 13 6
,, *1862* ,, 9th ,, 1863	6 8¾	4 7⅛	3 0	107 5 2
,, *1863* ,, 8th ,, 1864	6 3½	4 5¾	2 11½	103 3 10¾
,, *1864* ,, 30th Dec. 1865	6 0	4 3½	2 10	98 15 10½
,, *1865* ,, 9th Jan. 1866	5 11½	4 2½	2 9½	97 7 9½
,, *1866* ,, 8th ,, 1867	6 0⅞	4 3	2 9¾	98 13 3
,, *1867* ,, 7th ,, 1868	6 3¼	4 3¾	2 10¼	100 13 8
,, *1868* ,, 5th ,, 1869	6 5½	4 5¼	2 11	103 5 8½
,, *1869* ,, 4th ,, 1870	6 5⅝	4 6¼	2 11⅜	104 1 0¼
,, *1870* ,, 2nd ,, 1871	6 4	4 6¼	3 0½	104 15 1
,, *1871* ,, 1st ,, 1872	6 7½	4 7⅜	3 1¼	108 4 0½
,, *1872* ,, 7th ,, 1873	6 10⅝	4 9½	3 1⅔	110 15 10½
,, *1873* ,, 6th ,, 1874	7 0⅝	4 10	3 1⅝	112 7 3
,, *1874* ,, 5th ,, 1875	6 10⅝	4 11	3 2¼	112 15 6¾
,, *1875* ,, 4th ,, 1876	6 6¾	4 10	3 2⅛	110 14 11
,, *1876* ,, 2nd ,, 1877	6 6¼	4 9	3 2⅛	109 16 11⅓
,, *1877* ,, 1st ,, 1878	6 8½	4 10½	3 3½	112 7 5½
,, *1878* ,, 7th ,, 1879	6 6¼	4 11	3 3	111 15 1⅓
,, *1879* ,, 6th ,, 1880	6 3½	4 10½	3 2¾	109 17 9¼
,, *1880* ,, 4th ,, 1881	6 0⅞	4 8¾	3 2¼	107 2 10½
,, *1881* ,, 3rd ,, 1882	5 10½	4 6	3 0¾	102 16 2
,, *1882* ,, 2nd ,, 1883	5 10½	4 4½	2 11¼	100 4 9¾
,, *1883* ,, 1st ,, 1884	5 9½	4 3⅝	2 10¼	98 6 2¼
,, *1884* ,, 6th ,, 1885	5 4⅝	4 1⅝	2 9	93 17 3
,, *1885* ,, 5th ,, 1886	5 1⅝	3 11⅜	2 8½	90 10 3½
,, *1886* ,, 4th ,, 1887	4 11	3 10	2 7½	87 8 10
,, *1887* ,, 3rd ,, 1888	4 8½	3 8½	2 6¼	84 2 8⅔
,, *1888* ,, 1st ,, 1889	4 5½	3 7½	2 5	80 19 8½
,, *1889* ,, 7th ,, 1890	4 2½	3 6¼	2 4¼	78 1 3½
,, *1890* ,, 6th ,, 1891	4 0¼	3 5⅔	2 3½	76 3 3¼
,, *1891* ,, 5th ,, 1892	4 0½	3 5½	2 3½	75 18 3¼
,, *1892* ,, 3rd ,, 1893	4 0	3 4¼	2 3¼	74 15 2⅔
,, *1893* ,, 2nd ,, 1894	3 11	3 4	2 3¼	74 3 9½
,, *1894* ,, 1st ,, 1895	3 9	3 4	2 3⅓	73 13 0½
,, *1895* ,, 7th ,, 1896	3 7	3 2¾	2 3	71 9 6¾
,, *1896* ,, 5th ,, 1897	3 6¼	3 2	2 2¼	69 17 11½
			61	5976 4 2¾
		General average for the 61 years		97 19 4¾

a corn rent payable in money, or by arranging some other "modus decimandi"; but such agreements had to be renewed with each incumbent, as none could bind his successor.

Tithe Commutation Act of 1836.—A general alteration of the whole system was first made after several attempts by the Tithe Commutation Act of 1836, 6 & 7 Will. IV. c. 71. By this law tithes were converted into a rent charge, a corn rent payable in money calculated on the average tithe paid in each parish during the seven years previous to 1836, and fluctuating yearly in value according to a septennial average of the prices of wheat, barley, and oats. The table on the preceding page (Willich) shows the fluctuations in prices and rent charge since that date.

Personal tithes, except of mills, and the CORN RENTS (*q.v.*) already substituted in some cases, were not touched by the act of 1836; the former have become nearly obsolete, the latter were allowed by 23 & 24 Vict. c. 93 to be commuted into a rent charge in the ordinary way. The tithe on hop grounds, orchards, and gardens was to be specially valued for rent charge upon a seven years' average, with provisions for change of cultivation on such lands and for lands newly cultivated in these ways; and this "extraordinary" tithe, though affected by subsequent laws, still remains a charge upon such lands except where it has been redeemed under the act of 1886, 49 & 50 Vict. c. 54. Power was given in 1836 to the clergy to sell or pull down the now useless tithe-barns.

As tithe rent charge and rent bear no relation to each other, they do not rise or fall together. Between 1836 and 1876, land rental, according to Sir James Caird, rose from 33 to 50 millions, tithes remaining at 4 millions. Of late years, as in the decade ending 1897, rent in many parts of England, especially in the corn-growing districts, dropped more in proportion than tithes. But sometimes with increasing produce the tithes have become greater than the rent, especially on hop lands and where the cost of cultivation is high, as tithes do not share in the expenses of cultivation. In the old poor-law days, however, when labourers' wages were supplemented by the poor rate, tithes, which are subject to rates, did practically bear part of the cost of tillage.

By the Tithe Act of 1891 the liability to pay tithe rent charge was imposed on the owner of land notwithstanding any contract to the contrary between such owner and the occupier. See TEINDS (Scotland).

[Gibson, *Codex Juris Ecclesiastici Anglicani.*—Watson, *Clergyman's Law.*—Phillimore, *Ecclesiastical Law.*—Lord Selborne, *Ancient Facts and Fictions* and *Endowments and Establishments of the Church of England.*—Selden, *Hist. of Tithes.*—Lindwood, *Provinciale.*—Willich's *Commutation Tables.*—Stubbs, *Const. Hist. of England.*—Caird, *Landed Interest.*—*Annals of Agriculture*, vol. xxxii.—Inderwick, *Taxes on Agriculture*, a speech against the extraordinary tithe.—Hansard, *Debates*, 9th Feb. 1836.—Clarke, *Hist. of Tithes* (uncritical and one-sided).—Parnell, *Financial Reform.*—Rogers, *Industrial and Commercial Hist.*, 218.—Cunningham, *Industry and Commerce, Modern Times.*—Morris Fuller, *National Review*, Nov. 1886.]

E. G. P.

Terms of Commutation.—The average value for the seven years ending with 1835 was taken for wheat, oats, and barley severally. Then it was asked how many bushels of each at cost price would make £33:6:8, the aggregate to be £100, and in each parish its tithe was fixed at so many of these £100. It worked out thus: wheat, 7s. 0½d. × 94·96; barley, 3s. 11½d. × 168·42; oats, 2s. 9d. × 242·42. These multipliers are the fixed multipliers in use ever since, and each year the three prices are taken for the year to 31st December, then the average prices for the last seven years are multiplied by the above fixed multipliers, and the sum is the T. R. C. for the next year. One effect of the process is that variations in the price of oats count for more than those in barley, and for wheat the least of the three.

As the years 1828-35 showed corn at a higher price than was being obtained on the continent at the time, M'Culloch pointed out that the amount of tithe then laid upon each parish would prove high if foreign corn ever came in, and would tell against British agriculture regarded as a whole, landlords' rents included (as an industrial competitor). This is so from that point of view. But there are reasons, arising out of the details of the apportionments, for holding that the commutation really diminished the share of the owners of the tithes.

Impropriated Tithe.—When the tithe is allotted to some corporation or individual for other purposes than the discharge of the pastoral offices it is said to be either "appropriated" or "impropriated." It is appropriated when the beneficiary is a church body: thus deans and chapters of cathedrals, universities, and colleges (considered as "ancient and religious" foundations and quasi-ecclesiastical), the ecclesiastical commission; it is impropriated when it is due to laymen or laywomen. In former times the appropriating corporation usually supplied the duty by means of one or more of its own members, but vicarial tithes were allotted in some parishes for this purpose, and gradually it became possible to draw the tithes, and neither perform the pastoral duty nor pay for its being done. The prevalence of the title of vicar indicates the extent to which expropriation of the greater tithes was carried. The Tudor legislation was even more expropriating than this would show, for most of what is now clerical tithe was not left with the church purposely, but has arisen from the improvement of lands then waste or of little value.

Much tithe has been extinguished by being exchanged for land or corn-rents or fixed sums, by over 2000 private acts of parliament.

The distribution of the tithe of England and Wales at 1896 values is: incumbents, £1,930,000; appropriators strictly, *i.e.* ecclesiastical bodies doing work for the church, £544,000; lay impropriators, with no work attached, £613,000; colleges and schools, Oxford and Cambridge, Eton, etc., open to all comers, £157,000.

Incidence of Tithe.—There is a good discussion of this in M'Culloch's note xxvii. to his edition of the *Wealth of Nations.* Adam Smith had simply laid it down: "Taxes upon the produce of land are in reality taxes upon the rent; and, though they may be originally advanced by the farmer, are finally paid by the landlord." Ricardo has said that the consumer is affected by increase of price so long as resort has to be made to land which will only give profits plus wages; the tithe in such case must come out of an enhanced price. M'Culloch points out (1) that such a rise in price would diminish consumption. In order to prevent this, landlords would reduce rents, and probably the actual result would be that part of tithe would be raised in one way and part in the other. (2) That if there is any land untithed it will not have to raise its prices, and the tithed land will have to reckon with this. (3) If there is admission of foreign produce it will be in a similar position.

As to (2), in M'Culloch's day there was one-third of land, according to rental-value, tithe-free; and this proportion

has gone on increasing. But as to (3), we now import four-fifths of our wheat, immense quantities of substitutes, and even of meat and vegetables, and therefore the tithed land is only a fraction of the whole in the circle of agricultural competition; prices are therefore determined apart from it, practically, and the tithe is definitely a charge on rent. In so far as land-rents are returns for capital invested, and are not monopoly-rents, tithe acts as a charge upon agriculture as an industry.

Parliament has now fixed a two-thirds limit as a proportion to annual rent of lands beyond which tithe cannot be claimed, *i.e.* on agricultural lands. A. C.

TITHING. Originally perhaps a tenth of the hundred, but no proof remains that this proportion was strictly maintained. Tithings are still found in Somersetshire and Wiltshire. C. H. Pearson (*Middle Ages*, i. 250; and *Historical Maps*, p. 59) remarks that the hundreds of Devon usually contain ten parishes, and argues that the parish corresponds to an old tithing or cluster of tithings (see TOWNSHIP).

[Vinogradoff, *Villainage in England*, p. 363.—Stephen, *Com. on Laws of England*, i. 126.]

R. H.

TOCQUEVILLE (1805-59), ALEXIS CHARLES HENRI CLEREL DE, was born at Paris. His father, the Comte de Tocqueville, became prefect of Metz and other towns under the restored Bourbon monarchy, and rose to be a peer of France. His mother was a granddaughter of M. de Malesherbes, the celebrated lawyer who defended Louis XVI. at the bar of the convention, and perished in the reign of terror. Educated partly at home and partly in the college of Metz, his literary talent distinguished him early. In 1826 and 1827 he made a long tour in Italy and Sicily, where he first exercised his faculty for the minute study of political and social phenomena. On returning to France at the age of twenty-one, he was nominated *juge auditeur*. But the narrow sphere of the duties of this office was intolerable to a mind so active and independent. Tocqueville was a man of strong though moderate political convictions, equally averse to revolution and to despotism, and loyal to monarchy if the monarch were sincere in the observance of the constitution. As Charles X. was incapable of understanding constitutional freedom, Tocqueville acquiesced in the revolution of 1830. But doubtful of the future, and convinced that the progress of democracy was irresistible, he resolved to travel in America and study the institutions of that typical democratic commonwealth, the United States. Together with his colleague and intimate friend, Gustave de Beaumont, he obtained leave of absence in order to examine some of the prison systems in force in that country. Tocqueville and Beaumont reached New York in May of 1831. They spent a year in travel and observation, varied by fatigues and hardships, peculiarly trying to Tocqueville's delicate constitution. It was this journey, in which every moment and every opportunity was utilised to the utmost, which supplied the bulk of the materials for *De la Démocratie en Amérique*. Soon after their return Beaumont forfeited his official position by an act of conscientious firmness, and Tocqueville, sympathising with his friend, tendered his own resignation. Left the full use of his leisure, he wrote, in the two following years, two volumes of his great work. The manuscript was declined by the first publisher to whom it was offered, but the book achieved an immediate and universal success. Everybody read it, and all the most competent critics praised it. Soon after its publication he married Miss Mary Motley, an English lady, who proved a most affectionate wife to a most loving husband. Tocqueville had many English friends, and understood England far better than most Frenchmen. In 1840 he sent forth the two concluding volumes of *De La Démocratie en Amérique*. He had been returned to the chamber of deputies in the preceding year by the department of La Manche. During the next nine years he spoke and voted as a member of the constitutional opposition. He regretted the revolution of 1848, but thought himself bound to do what he could to promote the stability of the republic when once proclaimed. He held the post of minister of foreign affairs for some months in the year 1849. He was among the prisoners whom Louis Napoleon confined in the castle of Vincennes on the evening of the 2nd December 1851. Thenceforward Tocqueville retired from public life to his country house in Normandy, and to literature. He now commenced his second great book, *De l'Ancien Régime et la Révolution*. The first volume appeared in 1856. It was received with unanimous applause. So high did Tocqueville's reputation stand that at the end of a visit to England, which he made in the following year, a ship of the royal navy was placed at his disposal to convey him to France. But his health, never robust, now began to give way. Symptoms of consumption obliged him to quit Normandy for Cannes, where, after a winter of suffering, he died.

Tocqueville's collected works fill nine volumes, but his fame rests almost entirely upon *De La Democratie en Amérique* and *De L'Ancien Régime et la Révolution Française*. These attest his wonderful gifts as a student of institutions. In Tocqueville were happily combined the appetite for facts and the habit of meditation. A most accurate observer of contemporary life, and a most indefatigable student of historical records, he was constantly accumulating materials upon which his acute and restless intellect was for ever at work. In spite of the immense knowledge which they embody, his books impress the reader rather as historical reflection than as history. A cultivated and sympathetic man of the world rather than a lawyer or antiquarian, he never forgot that institutions are the outcome of national character and circumstances. "It is the ideas and passions of

men, not the mechanism of the laws, which are the moving force in human affairs." He combined earnestness with impartiality. His experience of political life gave him new insight, but did not turn him into a sceptic or a partisan. His great qualities were accompanied with some inevitable defects. Possessing in the highest degree the logical faculty characteristic of Frenchmen, he was prone to refer all the peculiarities of a given epoch to one dominant principle such as the love of equality. Influenced by his own experience, he sometimes ascribed, let us say to democratic society in general, tendencies which were peculiar to Frenchmen. Cautious as he was in predicting, he made several predictions which have been falsified. But these are comparatively small blemishes on works so vast in conception and so solid in execution as those of Tocqueville. Valuable for their wealth of knowledge, their admirable arrangement, and their severely beautiful style, *De la Démocratie en Amérique* and *De l'Ancien Régime et la Révolution* are above all valuable for the stimulus which they give to reflection. Their formative impulse has been felt by minds the least in sympathy with Tocqueville and the least capable of resting in his conclusions. In private life Tocqueville was simple, upright, and lovable. In public life his delicate health, sensitive temperament, and rigorous sincerity, denied him any large measure of success.

[*Œuvres Complètes d'Alexis de Tocqueville*, including the sketch of his life by M. de Beaumont and many letters.—*Souvenirs d'Alexis de Tocqueville par le Comte de Tocqueville.—Correspondence and Conversations of Tocqueville* with N. W. Senior, ed. 1859, vol. ii.—J. S. Mill, *Dissertations and Discussions*, vol. ii. ed. 1859, pp. 1-83; *Autobiography*, ed. 1873, p. 191.] F. C. M.

TOKEN-MONEY. See MONEY.

TOKENS, HISTORY OF. Jettons or counters were employed early in the 14th century in England for reckonings of many kinds, and gradually passed into common use as small change. A jetton of the reign of Edward III. is extant. There is a statute (9 Edw. III. 2, c. 4) forbidding the circulation of *black money*, which was perhaps made of *billon*, a mixture of copper with a little silver, though some have understood it to mean abbey-pieces or Nürnberg tokens. Certainly in the year 1402 (*Rot. Parl.*, iii. 498 *b*) *signes de plombe* as well as *galey-halpenys* are referred to as current for lack of small change, and Erasmus (*Adagia*, ed. 1629, p. 130) writes, about 1510, of the *plumbeos Angliæ* then current. About 1574 tokens of lead, tin, and even leather, were in use. A leaden one, of Bristol, is extant, struck in 1591, and the same city obtained from Elizabeth before 1594 license to coin tokens; but in 1613 the *Domestic State Papers* (p. 184) refer to the abuse of tokens, and mention Lord Harrington's patent for farthing tokens of copper. In 1619 the state papers (p. 75) show a patentee for making farthing tokens, complaining of a man who had circulated a leaden issue; and in 1633 some offenders of this sort were pilloried. An allusion again occurs in 1640 (p. 271) to farthing tokens. There had been various efforts made to issue a regal coinage of copper; but they failed, and the irregular coinage really passed current for centuries. Cromwell, just before his death, was preparing to substitute a genuine mint issue, but none of proper value appeared until 1665. This, however, together with a proclamation in 1672, stopped the enormous private issues which had begun in 1648, though one or two towns disobeyed for a time. In Ireland, which had had a copper coinage from the days of Elizabeth, tokens were first made in 1646 and ceased only in 1679. Between 1648 and the cessation, London and Southwark had issued 4044 varieties, the rest of England 7816, Wales 92, Ireland (from 1646) 779, and Scotland 1 (at Dunbar). They were chiefly farthings. The art shown on these coins was of a humble order. Square, octagon, diamond, and heart shapes occur. Several issues were of lead and even of stamped leather.

Neglect of public needs towards the end of the 18th century again led to a great private coinage, beginning with the Anglesea Druid penny in 1787 (not 1784, as commonly stated), and proceeding until, in 1797, the national coinage of copper was begun in earnest. The tokens were, however, not at once stopped, but 25th March 1813, and afterwards 1st January 1818 (the latter by statute 57 Geo. III. c. 46) were fixed as the last days for circulation, except at Sheffield and Birmingham, which places were allowed a few years' grace. Colonial tokens are found of a much later date, and indeed tokens are still used in England in an obscure way. Lack of small change had caused the issue; but the resulting profit had been great, and was not readily surrendered. Before 1800 there had been struck in England 2153, Wales 309, Scotland 245, Ireland 317, and in places not stated 248 varieties. The vast majority were half-pennies; but Birmingham issued a half-crown, and shillings and sixpences were coined in several places. The best Anglesea pennies and some others were excellent in point of art.

[T. Snelling, *A view of the origin of Jettons*, 1769.—Ruding, *Annals of the Coinage.*—J. A. Blanchet, *Numismatique du Moyen Age.*—W. Boyne, *Trade Tokens of the Seventeenth Century*, ed. Williamson, 1891.—J. Atkins, *Tradesmen's Tokens of the Eighteenth Century*, 1892.—J. Y. Akerman, *Tradesmen's Tokens.—Journ. Brit. Archæol. Assoc.*, i. 200.] B. H.

TOLLS, INTERNAL, MEDIÆVAL. See INTERNAL CUSTOMS AND TOLLS.

TOMAN. A Persian gold coin of the standard weight of 52·8 grains of pure gold, equivalent in value to 9s. 4d. sterling.

The toman is rated as equal to ten khrans

(see KHRAN). The currency system of Persia being as follows:—

50 dinars = 1 shahi
20 shahis = 1 khran
10 khrans = 1 toman

The gold and silver coins of Persia are as follows:—

	Weight.	Fineness.
	grains.	
Gold, toman	52·8	1000
,, half-toman	26·4	1000
,, 2 khrans	10·6	1000
Silver, 5 khrans	355·0	890
,, 2 khrans	142·0	890
,, khran	71·0	890
,, ½ khran	35·5	890
,, ¼ khran	17·7	890

F. E. A.

TONNAGE AND POUNDAGE. Tonnage, sometimes written tunnage, was a duty on every tun of wine imported; poundage an *ad valorem* duty on every pound's worth of merchandise imported or exported. The practice had commenced 1347. The traditional and usual rate at which tonnage and poundage were fixed was—tonnage 3s. per ton imported, and poundage 1s. on every pound's worth of merchandise imported or exported, alien merchants being charged an extra 3s. on every ton of sweet wine, and an extra shilling poundage on tin. The levying of tonnage and poundage by Charles I., without the authority of parliament, was one of the constitutional questions which arose during his reign; it was, however, compromised by a grant being made by parliament of tonnage and poundage for life to the king. After the Restoration the ancient traditional rates were discarded, and the character of the levy was altered, tonnage and poundage being levied at whatever rate parliament considered the exigencies of the time to require (see CUSTOM).

[*Rolls of Parliament.*—Hall, *History of the Customs Revenue.*] A. E. S.

TONTINE. The tontine (name derived from that of the inventor Tonti, an Italian banker of the 17th century) has been defined as "an annuity shared by subscribers to a loan, with the benefit of survivorship, the annuity being increased as the subscribers die, until at last the whole goes to the last survivor, or to the last two or three, according to the terms on which the money is advanced." The principle was in former times frequently applied in Great Britain, sometimes to assist private enterprises, more frequently to raise funds for the government. The speculative element was an attraction to many, the investor staking his money on the chance of his own life or that of his nominee being better than that of his neighbours. An example of the working out of a tontine is given by Mr. John B. Martin in his book, *The Grasshopper in Lombard Street* (London, 1892). In this he mentions (p. 100) that Mr. James Martin, who died 1870, in his ninety-second year, "was the last survivor but one in a government tontine. At the time of his birth, in 1777, during the crisis of the American war of independence, the English government was content to borrow £228,600 (Irish[1]) at 7 per cent, each subscriber contributing £100 per share in his own name or that of his nominee, the principal being forfeited at his death, while the entire interest was divided among the survivors. James Martin was nominated as a subscriber to this tontine." The profits of the survivors in the tontines were sometimes enormous. In the last year of Mr. James Martin's life his half-yearly income from the original investment of £100 amounted to

1870 January dividend for preceding six months. £3875 0 4
,, July dividend for preceding six months . . 3891 10 2

TOOKE, THOMAS (1774-1858), one of the many eminent Englishmen who have brought to bear on the theories of economics and finance the practical experience of business life, was born at St. Petersburg. At an early age he had the management of a large Russian house in London. He took an active part in many public movements, such as the starting of docks, railways, life assurance, etc., and became recognised as a leading authority on all questions connected with commerce and banking. In 1820 he was elected a F.R.S., and in 1853 a correspondent of the Institute of France. Tooke drew up in 1820 the MERCHANTS' PETITION (*q.v.*), which summarised concisely and lucidly the arguments in favour of FREE TRADE (*q.v.*), and was thus the pioneer of the free trade movement on its first appearance within the range of practical politics.

Tooke was the author of *On the Currency in connection with the Corn Trade and on the Corn Laws*, London, 1820, 8vo.—*Considerations on the state of the Currency*, London, 1826, 8vo.—*An Inquiry into the Currency Principles and the connection of the Currency with Price, etc.*, London, 1844, 8vo.—*Thoughts and Details on the High and Low Prices of the Last Thirty Years*, London, 1824, 8vo, afterwards altered and enlarged into *A History of Prices and of the State of the Circulation during the Years 1793-1856*, 6 vols., London, 1838-57, 8vo. This work, of the last two volumes of which Mr. W. Newmarch was joint author, is recognised by M'Culloch (*Literature of Political Economy*, p. 196), while criticising the stress it lays on variation in the supply and cost of corn as opposed to variations in the quantity and value of money as "a standard work, valuable alike to practical and speculative inquirers." In the first four volumes the subjects treated are (1) the prices of corn and the circumstances connected with them in the relations of cause and effect; (2) the prices of produce other than corn; and (3) the state of the circulation, under which head was comprised a review of the whole currency question. Tooke was opposed to the Bank Act of 1844, which he regarded as "one of the most wanton, ill-advised,

[1] £108:6:8 Irish = £100 English.

pedantic, and rash pieces of legislation" which had ever come within his observation. He pointed out with great clearness the disadvantages which must result from dividing the Bank of England into two departments, and from limiting the country note circulation. He considered the sudden and frequent alteration in the rate of discount to be closely connected with this legislation. It is to be observed that these arrangements were not followed in the German Bank Act of 1875, and that greater steadiness in the rate of interests charged by the *Reichsbank* has resulted during the period of autumnal demand (see arts. AUTUMNAL DRAIN; BANK OF GERMANY). The fifth and sixth volumes contain fresh topics, viz. railways and the railway system, the origin and progress of the free-trade movement; the state of finance and banking in France, and the effect of the new discoveries of gold.

[*Nouveau Dictionnaire d'Économie Politique*, par M. Léon Say et M. J. Chailly, Paris, 1892.—*Ricardo's Letters to Malthus.*] H. E. E.

TOOL.

Tool, p. 549; Tool Rent, p. 549.

TOOL. The difference between a tool and a machine has been long a subject of controversy. Mr. Babbage (*Economy of Machinery and Manufactures*) saw very little difference between them. "A tool," he says, "is usually more simple than a machine; it is generally used with the hand, whilst a machine is frequently moved by animal or steam power. . . . The simpler machines are often merely one or more tools placed in a frame and acted on by a moving power." Dr. Ure was of much the same opinion, and popular writers, like Mr. Samuel Smiles (*Industrial Biography, Iron Workers and Tool Makers*, ch. x.), mostly follow in their wake. On the other hand, it is clear that, whilst a tool may well form part of the mechanism of a machine, it is not itself that mechanism; nor will any number of tools placed in mere juxtaposition be so; and in this connection the definition of a machine by a recent writer, Mr. Alexander B. M. Kennedy (*The Mechanics of Machinery*, p. 2), may be compared with the above. "A machine," says Mr. Kennedy, "is a combination of resistent bodies whose relative motions are completely constrained, and by means of which the natural energies at our disposal may be transformed into any special form of work." Two important characteristics, in which a tool is wanting, emerge from this definition, its potential division into parts, and the alleged circumstance of energy being "transformed," not merely transferred, when applied to move it. The same view is strenuously argued by Karl Marx (*Capital*, pt. iv.). "All fully developed machinery," he contends, "consists of three essentially different parts, the motor mechanism, the transmitting mechanism, and finally the tool"; a machine "is a mechanism that, after being set in motion, performs with its tools the same operations that were formerly done by the workman with similar tools." If these latter views be accepted as being the more correct, it would follow that a tool is an implement for merely transferring energy applied to itself alone, and when combined with other tools "whose relative motions are completely constrained," it becomes part of a machine.

[Charles Babbage, *Economy of Machinery and Manufactures.*—Dr. Ure, *The Philosophy of Manufactures.*—A. B. M. Kennedy, *The Mechanics of Industry*, Macmillan and Co., 1886.—Karl Marx, *Capital*, vol. ii., English translation.—R. W. Cooke-Taylor, *Modern Factory System*, ch. ii.—J. R. M'Culloch, *A Dictionary of Commerce*, article "Tools and Machines."] R. W. C. T.

TOOL RENT is a name given to the price paid for the use of an artificial instrument of production. In certain industries it has been common to hire out tools and machines to workers at a fixed price, the hirer being sometimes the employer of the workers as well, sometimes not. This has generally happened where the tools or machines were of a complicated construction, and therefore expensive to purchase, and at times or in places where the factory system had not made much way. In the stocking industry, for example, it was, until quite recently, a very common method of production, which prevails to some extent still. The charges in this instance took the name of "frame" rents, and in some cognate instances of "loom" rents, where a loom was the implement supplied. This system has been always open to many abuses. In the *Life of Thomas Cooper* (p. 139) there is a particularly good account of some of these, and a comparative estimate of its merits with those of the factory system, which are worth quoting. "A cotton manufacturer builds a mill," he explains, "and puts machinery into it, and then gives so much per week, or so much per piece of work, to the men and women and boys and girls he employs. But I found that the arrangement in the hosiery trade was very different. The stocking and glove manufacturers did not build mills, but were the owners of the 'frames' in which the stockings and gloves were woven. These frames they let out to the masters or middlemen at a certain rent, covenanting to give all the employ in their power to the said masters. . . . The masters employed the working hands, giving so much per dozen for the weaving of the stockings or gloves, and charging the man a weekly frame rent—which was, of course, at a profit above the rent the master paid the owner of the frame." The prominent position of the middleman was an ominous portent in this transaction, and the worker was subject, it seems, to many direct exactions at his hand. "He had to pay not only 'frame-rent' but so much per week for

the 'standing' of the frame in the shop of the master, for the frames were grouped together in the shops generally, though you would often find a single frame in a weaver's cottage as well. The man had also to pay threepence per dozen to the master for 'giving out' of work. He had also to pay so much per dozen to the female 'seamer' of the hose; and he had also oil to buy for his machine, and lights to pay for in the darker half of the year. . . . But the foul grievance was this: each man had to pay a whole week's frame-rent although he had only half a week's work . . ." and so on, this authority finally giving his verdict in favour of the factory system in preference to this system of production. Tool rent was, however, known long before this time, and is specially mentioned and condemned in an act of parliament of Mary's reign (2 & 3 Phil. and Mary, c. 11), entitled "An Act touching Weavers," where we read of persons guilty of the offence of "engrossing looms into their hands and possession, and letting them out at such unreasonable rents as the poor artificers are not able to maintain themselves, much less to maintain their wives, families, and children." Clearly too it is a system as applicable to agriculture as manufacture, and, indeed, to any occupation in which tools or machinery play a part.

[*The Life of Thomas Cooper written by Himself* (Hodder and Stoughton, 1879).—R. W. Cooke Taylor, *The Modern Factory System*, p. 53.—William Felkin, *History of the Machine-Wrought Hosiery and Lace Manufactures*, Longman, 1867.—J. A. Froude, *History of England from the Fall of Wolsey*, ch. i.] R. W. C. T.

TORRE, RAFFAELE DELLA (17th century), the author of a treatise on exchange, which contains a comparatively liberal opinion, for the time, on the scholastic doctrine of usury.

Torre, while professing the most absolute respect for the principle of gratuitous loans, admits some practical means of evading it. After describing the different forms of exchange, he examines with great acumen the much-debated question of the lawfulness of exchange. He investigates what constitutes profit in different contracts; distinguishing loans from exchange; falls into the error of denying the usefulness of loans, in opposition to which he upholds the advantages of exchange; he therefore admits exchange, provided the price be a fair one, fair by which he means legal. According to him distance of place, and distance of time, the latter absolutely limited to the distance of place, in order to avoid loans in the form exchange, are necessary to constitute exchange.

De cambiis, Genoa, 1641 [Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, Hoepli, 1889.] U. R.

TORRENS, ROBERT, COLONEL (1780-1864), soldier and political economist, was born in Ireland, and entered the Marines in 1797, becoming captain in 1806, and major, for services at Anhalt, in 1811. At the close of the great war he was placed on half-pay, and devoted himself to politics and literature, entering parliament, after various unsuccessful efforts, as member for Ashburton in 1831. He entered with great vigour into the scheme for colonising South Australia by means of the South Australian Company, of which he was chairman for several years.

Torrens was a prolific writer on economic subjects; his works took usually the form of letters to the ministry of the day. They lack polish of style, and as a rule are devoid of permanent merit. He was a great supporter of the so-called RECIPROCITY (*q.v.*) system.

The principal works which need be cited are as follows:

The Economists refuted, or An Enquiry into the Nature and Extent of the Benefits conferred by Trade and Commerce, etc., London, 8vo, 1808.—*An Essay on Money and Paper Currency*, London, 1812.—*An Essay on the External Corn Trade*, London, 8vo, 1815; 3rd ed. 1826; 4th ed. 1827.—*A comparative Estimate of the Effects which a Continuance and a Removal of the Restriction of Cash Payments are Respectively Calculated to produce. . .* London, 8vo, 1819.—*An Essay on the Production of Wealth*, London, 1821.—*Letters on Commercial Policy*, Lond., 1833.—*On Wages and Combinations*, Lond., 1834.—*A Letter to Lord Melbourne on . . . Bank reform*, Lond., 1837.—*A Letter to Sir Robert Peel on the Condition of England*, Lond., 1843.—*The Budget, or Commercial and Colonial Policy*, Lond., 1844.—*The Principles and Practical Operation of Sir Robert Peel's Act of 1844 Explained and Defended*, London, 1847; 2nd ed. 1857.

[*Gent. Mag.*, 1864, pt. ii. p. 335. Papers, South Australian Co. Reference in Ricardo's *Letters to Malthus*, 1837.] C. A. H.

TORRENS, SIR ROBERT RICHARD (1814-1884), author of the TORRENS ACT (*q.v.*), was son of Col. Robert TORRENS (*q.v.*). Born at Cork, he was educated at Trinity College, Dublin, and became collector of customs in South Australia in 1851. In 1856 he became colonial treasurer, in 1857 he entered the house of assembly, and on 27th January 1858 carried the act which bears his name, for the transfer of land by simple registration of title. In 1863 he returned to England, and in 1865 entered parliament, where he tried to press his views as to simplifying the transfer of lands.

He wrote *Political Economy and Representative Government in Australia*, 1855; *Reform of the Law of Real Property*, 1858; *Registration of Title of Land*, 1859. C. A. H.

TORRENS ACT. This act of South Australia, which introduced the system of transfer of title to land by simple registration, was the conception of Sir Robt. Richard TORRENS (*q.v.*), and carried into law entirely by his personal exertions. The idea was derived from the registration of shares in ships. Torrens, while colonial treasurer of South Australia, became

deeply impressed with the idea that one of the chief things required for the success of the colony was simplification of the transfer of land: he carried his views in the legislature in 1858 (act 15 of 1857-58). The benefits of the system became rapidly manifest. Victoria was the next colony to introduce it. Now it is the general system adopted in all Australasia. It has also been extended to Fiji, to the Leeward Islands, and to Trinidad in the West Indies.

Under this system the transfer of land is carried on by a government department. Great care must be exercised in registering a title for the first time, but when once a title has been entered in the official registers it cannot be questioned, its registration is sufficient evidence of its soundness, and it can be encumbered, disencumbered, or transferred by simple entry with proper formalities in the register.

It is generally admitted that the system conferred immense benefits on Australia; elsewhere it has usually been received with suspicion, and in an old country the expense of investigating and first registering an old title has prevented the adoption of the plan.

The English Land Transfer Act 1897 (60 & 61 Vict. c. 65) gives powers to the privy council which may be used for the gradual introduction of a compulsory system of registration of title to land in England (see LAND REGISTRATION; MORTGAGES, REGISTRATION OF). C. A. H.

TORRI, LUIGI (1719-1814), a nobleman of Verona. In one of his works, written for a prize competition, set by the academy of Verona in 1789, on trade-gilds, which he won (see MARACHIO), Torri eclectically expounds the reasons for and against the restrictions of freedom in trade, and without giving a decided opinion he says circumstances must be the guide.

Dreading the excesses of liberty, he admits a partial retention of the old systems. His book is a long treatise on trade, and in the last part he considers trade-gilds—though he recognises their abuses, he would retain and reform them by eliminating these. Torri's work is of importance in spite of its vagueness and want of originality; partly because he sums up the reasons given by the first writers of the day against trade restrictions, and particularly against trade-gilds; partly because he echoes the prevailing public opinion on secular institutions, traditionally respected, though their very serious drawbacks were recognised.

Considerazioni sopra i mezzi conducenti alla prosperità delle arti e del commercio, 1793 [see Alberti, *Le corporazioni d' arti e mestieri e la libertà del commercio, etc.*, 1888.—Gobbi, *La concorrenza estera, etc.*, 1884]. U. R.

TORT is the name for a wrongful act inflicting damage on another person and entitling the injured person to pecuniary compensation. In certain cases a party threatened or injured by a tort is also entitled to an injunction restraining the commission of the threatened act or the continuance of a wrongful course. Assault and battery, slander and libel, unlawful imprisonment and malicious prosecution, fraud, trespass and wrongful conversion, are the most obvious instances of tortious acts. A tort may be, but is not necessarily, a criminal offence.

There is one material difference between the liability arising out of a contract and the liability arising out of a tort. The benefit as well as the burden of a *contract* is not affected by the death of either party; but in the case of a *tort* the death of the wrong-doer as well as the death of the person wronged, as a general rule, destroys the liability. Legislation has, however, engrafted various exceptions on this rule, the result being that injuries to property may now be sued upon by the deceased owner's personal representatives, but that personal injuries, not resulting in the death of the person concerned, must be considered as forgiven if the injured party has not instituted proceedings in his lifetime. The representatives of a person whose death has been caused by a wrongful act, neglect, or default have, by virtue of Lord Campbell's Act (9 & 10 Vict. c. 93; and see 27 & 28 Vict. c. 95), a right of action for the benefit of the wife, husband, parent, and children of the deceased.

[Pollock on *Torts*, 4th ed. 1895.] E. S.

TOTAL UTILITY denotes sum-total of satisfactions. The total utility of a commodity to a person is the whole of the pleasure which he derives from its consumption; the total utility of an occupation is the whole of the pleasure derived from the remuneration and in the exercise thereof. The total utility of commodities or actions, less by the attendant total disutility, constitutes their net utility or "net advantages" (Marshall); to maximise which is the end of the "economic man."

The economic measure of the total utility of an object to a consumer is "the maximum sacrifice that he is prepared to make in order to procure it for himself" (Dupont, "De l'utilité," *Journal des Économistes*, July 1853). The same, less by the sacrifice which he has actually to make, in the measure of the net utility. Thus the "relative utility" (Dupuit) or CONSUMERS' RENT" (Marshall) of a purchased commodity is the money-measure of its total utility less by the purchase-money. But it must be remembered that when the "maximum sacrifice" is very great, it can no longer be measured by money (*Principles of Economics*, p. 203, 3rd ed.).

The constructions which are employed to represent the total utility of an individual may be extended to the collective total utility, the Gesammtnützlichkeit of all parties. (In a régime of market.) The proposition that under the conditions of competition economic equilibrium is determined by rendering the collective total utility a maximum consistent with the

given conditions, forms the highest generalisation of economics (cp. Marshall, *Principles of Economics*, Mathematical Appendix, note xiv.).

[Margin; Pleasure and Pain; Utility. Marshall, *Principles of Economics*, *sub voce* "Surplus," *et passim.*—Auspitz und Lieben, *Theorie des Preises.*] F. Y. E.

TOWN REEVE. See Reeve.

TOWNS.

Towns, Decay of (mediæval), p. 552; Towns, Policy of the (mediæval), p. 552.

Towns, Decay of (mediæval). From 1433 to 1472 the Rolls of Parliament record the relief from taxation allowed to Lincoln, Great Yarmouth, Andover, Cambridge, Cheltenham, and other "towns, cities, and burghs desolate wasted and destruyed or over gretely empoverished." The cause is not always stated; but fires and incursions of the sea explain the distress in some cases. These facts might seem to be local and accidental were it not that more than sixty years later the statutes show that Canterbury, Cambridge, the Cinque Ports, Exeter, Gloucester, Lincoln, Northampton, Plymouth, Salisbury, Stafford, Yarmouth, York, and many other towns, English and Welsh, were in a semi-ruinous state. Houses were in danger of falling; uncovered vaults and cellars were a peril to passers-by; and streets were choked with rubbish. Seven statutes (26 to 35 Hen. VIII.) attempted a remedy by ordaining that if the owners did not rebuild, or at least wall off the sites, corporations might do so, and in that way acquire the freehold.

The cause of this ruin is not clear. The Wars of the Roses had reduced the population, and the harsh regulations of the craft-gilds respecting apprentices and journeymen were driving the industrial classes to work in villages, as for example around Worstead in Norfolk, in order to escape from burdens and restrictions.

The needs of the state again and the French wars had caused customs dues and taxes to become heavy burdens on merchants and craftsmen; and the manorial system had fallen into ruin, so that liberty, of which towns were at one time the chief centres, could be enjoyed in the country on easy terms. Probably therefore the temporary decay of the towns marks the period of transition which prepared the way for a new era of trade and industrial prosperity. It is possible that the rise of Manchester, Birmingham, and Sheffield about 1550 or later is a sign of revival.

The statutes from 4 Hen. VII. c. 19 to 39 Eliz. c. 1, which forbade the pulling down of towns, relate to places of about 200 inhabitants, and so to rural not urban life.

[Cunningham, *Growth of English Industry.*—C. Gross, *The Gild Merchant*, i. 51, 52.] R. H.

Towns, Policy of the (mediæval). During a well-marked period in the economic development of Europe, the whole of the commercial and industrial life of the time was concentrated in, and indeed confined to, the towns; was controlled, assisted, and limited by municipal regulation. This was a phase which began and ended at different times in different countries, but which may be regarded as generally culminating in the 14th and 15th centuries. During this period every town, from that which was hardly more than a village, and was subject to the authority of a strong monarchy, to that which had become an independent city-state, pursued a policy in its spirit and main features identical. Each burgess body avowedly pursued what it regarded as its own material interest as against the burgesses of all other towns, much in the same spirit as is shown to-day by the several nations; and, what we cannot find a modern parallel for, it followed the same self-regarding ends in relation to the inhabitants of the surrounding agricultural areas. It admitted the men of other towns to its markets only on the payment of tolls from which its own burgesses were exempt. It sought to benefit as much as possible by their presence, while preventing them from encroaching on what the burgesses regarded as their own exclusive rights; for instance, it was very common to exclude outsiders or "foreigners," as they were called, from all retail trade as well as from all direct dealings in the town with other "foreigners." Every town expected to obtain for its own consumption the surplus food grown in the country around, and sought to prevent the rustics from engaging in any industry which could compete with its own manufactures. The more powerful and independent the towns were, the more thorough were the measures resorted to, to secure these results. In Germany, where both the imperial and the territorial authorities were weak, the towns were able to proceed to extremes (as *e.g.* in the "staple-right") unknown in England.

But the regulations of the municipal government aimed not only at securing the interests of the town as against the world outside; they aimed at securing what were regarded as the interests of the great mass of the citizens as against members of the burgess body itself. This is especially true in regard to the purchase of victuals, though it is illustrated by regulations with regard to other articles of common use. The intention of the authorities was to bring the producers, *i.e.* chiefly the peasants from the country around, as far as possible into direct contact with the actual consumers. Dealers were not admitted to the market to purchase until after the ordinary householder had had an opportunity to satisfy his needs. None must come between the consumer and producer, and obtain what was deemed an

illegitimate profit by engrossing or by forestalling the market (see FORESTALLERS AND REGRATORS).

When the town governments were gradually compelled to surrender their powers to the territorial or national rulers, the latter very commonly adopted, for larger areas, the policy which the towns had pursued for their own benefit; and thus the mediæval towns contributed one element to what is now known as mercantilism (see MERCANTILE SYSTEM); while in their administrative organisation they furnished at least suggestions towards the formation of the later state bureaucracy.

As to the justification of the town policy, opinions differ—from that of those who regard it as short-sighted and self-defeating, to those who consider it as suited to the larger requirements of the economic stage then reached, though, of course, narrowly selfish in its immediate intent. Opinions likewise differ as to the degree of success with which it was carried out. Probably on both these points insufficient attention has been paid as yet to differences of time and place.

[There is a great mass of material to be found in the works on town history, especially those in German; beginning with K. D. Hüllmann, *Städtewesen des Mittelalters*, 4 vols. 1826, 1827, 1828, 1829. Recent sketches of the whole subject, with numerous bibliographical indications, will be found in Ashley, *Economic History*, vol. i. pt. ii. (Amer. ed. vol. ii.) ch. i., for England; and in K. Bücher's article "Bürger" in Conrad's *Handworterbüch der Staatswissenschaften*, vol. ii. for Germany. G. Schmoller has sought to place the period of town dominance in its due relation to economic evolution in an opening chapter in his *Studien über die wirthschaftliche Politik Friedrichs des Grossen*, in his *Jahrbuch für Gesetzgebung*, 1884 (trans. under the title *The Mercantile System*, 1896); and in an article "Die Epochen der Getreideverfassung und -politik" in the same *Jahrbuch* for 1896 he has made perhaps the first attempt to distinguish the *nuances* of policy, in the action of the small, middle-sized, and large towns respectively.] W. J. A.

TOWNSEND, REV. JOSEPH (1739-1816), of Clare Hall, Cambridge, and graduate of the university, Edinburgh, practised as a physician, but subsequently took orders. He is mentioned as a popular preacher. He was rector of Pewsey in Wiltshire, and domestic chaplain to the Countess of Huntingdon (see *Gentleman's Mag.*, and, as to his parentage, *Notes and Queries*, 6th series, vol. iii. p. 507). He was well read, a versatile and able writer. He travelled much both in Great Britain and on the continent.

Townsend's *Journey through Spain* reached three editions (1791, 1792, 1814), and may be compared with Arthur YOUNG'S *Travels in France*. He is probably best known for his *Dissertation on the Poor Laws*. He wrote *Observations on various plans offered to the public for the relief of the poor* 1788.

His *Dissertation on the Poor Laws* is an important pamphlet (1st ed., 1786; 2nd, 1787; 3rd, 1817) in the poor law controversy of the 18th century. He argued in principle that the "whole system of compulsive charity" should be abolished. The Poor Laws, "beautiful in theory," "promoted the evils they were meant to remedy, and aggravated the distress they were intended to relieve." Prices had fallen, wages increased as six to four in the past century, and rents doubled, yet the poor rates had doubled in fourteen or even seven years, and in some manufacturing towns 10s. in the £ on the improved rental. Manufacture and agriculture were both alike checked. Further, under better economic conditions, there was less diligence on the part of the poor. This resulted from the rigid system of settlement (see SETTLEMENT, POOR LAW), coupled with the obligation placed on the parish to provide employment. The pauper, and not the independent family, had to be first considered. The former received not merely maintenance but the lesser luxuries also. The general inducements to labour were thus relaxed; and in this and other ways a larger number of persons and a higher class became pauperised. The poor laws were a limited communism. They defeated the natural law under which hunger or the fear of hunger incited to energy and schooled character—for the poor are not stimulated by the higher ambitions. They might, it was true, be compelled to labour, but compulsion was practically impossible. Industrial workhouses were no remedy; nor were work houses with (what was perhaps called later) "the offer of the house." That was tantamount to a repeal of the poor laws for those who would not enter the "house." But there might be day workshops in parishes to train the poor in industry. The poor rate might be reduced nine-tenths in nine years; horses might be taxed, and oxen, which are cheaper to feed, used instead. Still, in the main, voluntary charity should be relied on and would suffice.

Many of the positions held by Townsend were challenged (cp. *e.g.* RUGGLES, T., *History of the Poor;* EDEN, Sir F. M., *State of the Poor*), yet on the main issues he may be deemed justified. In general, he adopted views similar to those of MONTESQUIEU (*Esprit des lois*, bk. xxiii. ch. 29), Lord Kames, and MALTHUS, but the peculiarity of his position is this; he was profoundly convinced of the social utility of voluntary charity, though opposed to any "certain and constant provision for the poor"—cp. his remarks on the effect of charitable gifts and doles, and also "Industrial Workhouses" in Spain (see *Journey*, I. 218, II. 115, ed. 1815); and hunger, he argued, was the natural penalty for idleness or incompetence. State relief was, he insisted, an apparent substitute for this. Yet it could only take its place if the rule of "the offer of the house" were strictly applied, and this was equivalent to the repeal of the law, so far as the able-bodied were concerned. And to this alternative he was strongly averse on the grounds of experience. Workhouses were ill-classified badly

managed, etc., and where they had been tried, after a few years, owing probably to change of policy, they had ceased to be a check. Thus he accurately appreciated, though he actually rejected, the policy adopted by the poor-law commissioners in 1834—a policy subsequently enforced and elaborated by central supervision and poor-law orders; and, instead, he proposed various half-measures which could be of no service in the face of the grave social evil of pauperism. His general analysis of it was, however, admitted to be correct. His pamphlet was reprinted in 1817, when "the experience of thirty years had but too fatally verified our author's predictions."

C. S. L.

TOWNSHIP.

Township, p. 554; Township and Towns in the United States, p. 554.

TOWNSHIP.—The *vicus, villata, tún-scipe*, from *tún* the hedge or enclosure of the primitive village. It represents the most elementary form of the organisation of a community, but when it is first historically visible in England it is found that either absolute or conditional ownership of land accompanies it, and that the freeholds and customary holdings of a manor are its ultimate features. Ordericus Vitalis (iv. c. 12) speaks of the township and manor as identical; *villas quas a manendo manerios vulgo vocamus;* but existing records contradict him. J. H. Round has shown, from the *Inquis. Com. Cantabrigiensis*, that a township might include several manors, or might be merely a part of one manor; but in the latter case the township, not the manor, was still the political unit. The HUNDRED was first assessed as a whole; sometimes as a double hundred (200 hides, see HIDE); sometimes as a half or intermediate hundred of 50, 70, or 80 hides, and the apportionment was then made in terms of a 5-hide unit. Rural townships as well as towns were thus assessed at 5 hides, or a multiple of 5 hides. Sometimes grouping was permitted, three townships at 25 hides, or a pair at 7 and 3 respectively; but otherwise there seems to have been little allowance for area or value. A township may be a parish in itself, or may be combined with one or more townships to form an ecclesiastical unit, and the tithing—the area of joint responsibility for civil peace and order—is limited by the same boundaries. Thus the PARISH ultimately became the unit which comprised, and still comprises, all the primary elements of social organisation. (Hence recent legislation has appointed parish councils, not township councils.) On its manorial side there was an elementary jurisdiction in matters civil and criminal with which was associated the view of frankpledge; on the other the matters of common interest, partly ecclesiastical, partly civil, which lay outside the limits of the manorial courts.

The position of the township as a social unit is well illustrated by many entries in Maitland's *Select Pleas in Manorial Courts* (Selden Society).

The headman of the township was the *tún-gerefa*, and where the township was dependent on a lord, was nominated by him. In free townships the headman would either be chosen by the people or nominated by the king, as is seen in the case of the *burhs*, which retained the essentials of free townships. Bede (*Hist. Eccles.*, ii. c. 16) mentions a *præfectus* or *gerefa* at Lincoln as early as the 7th century. These free townships were the beginning of most of the present market towns.

[Stubbs, *Constit. Hist.*, i. 82, 426.—Vinogradoff, *Villainage in England*, p. 394.—C. H. Pearson, *Historical Maps*, p. 59.—J. H. Round, *Feudal England*, p. 7.] R. H.

TOWNSHIP AND TOWNS IN THE UNITED STATES. The system of survey of the public lands of the United States—a system devised, some say by Thomas Jefferson, others say by Albert Gallatin—has given to the words township and town an importance and peculiar significance in the western states not known elsewhere.

In each state a base line, running due east and west, and a principal meridian north and

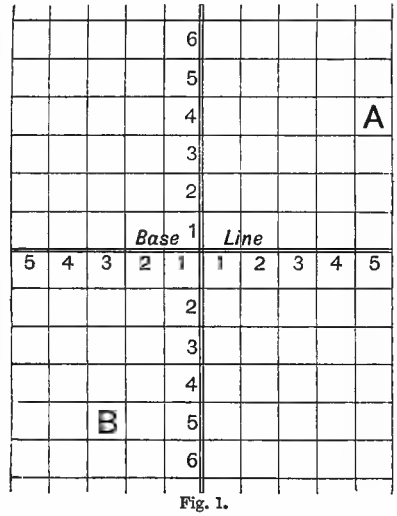


Fig. 1.

south, are established; then, parallel to these, at intervals of six miles, are run other lines, thus dividing the state into "townships" six miles square. Beginning from the intersection of the base line and principal meridian the "ranges" are numbered east and west, the townships north and south. Thus, in the diagram, fig. 1, *A* is township 4 north, range 5 east. *B* is township 5 south, range 3 west, etc.

Between the range and township lines are also run lines one mile apart dividing each township into thirty-six sections, each one mile square (640 acres). The surveyors

mark also in their work the half-mile points, so that the territory is all surveyed into blocks of 160 acres. It requires then only the slightest knowledge of land measurement to divide these quarter-sections of 160 acres each into quarters, and the country is divided into 40 acre blocks. In fact we find in all settled parts of the country that has been thus surveyed, the farms in 40, 80, 160, etc., acre pieces.

The sections in each township are uniformly

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Fig. 2.

numbered in the order shown in diagram, fig. 2, and land, instead of being described by metes and bounds, is simply located as on the map. For example, if block *C* on the diagram, fig. 3,

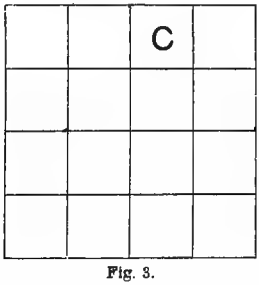


Fig. 3.

is 40 acres in section 22 in the township marked *A*, fig. 1, in *e.g.* Michigan, its description is the north-west quarter of the north-east quarter of section 22, in township 4 north, range 5 east, state of Michigan, or more accurately, range 5 east of the first principal meridian, which runs through Michigan, or as abbreviated N.W. ¼ of N.E. ¼ of sec. 22, T. 4 N.R. 5 E., Mich., and any farmer can find for himself the surveyor's marks locating his land.

The word "township," then, means the territorial division, divided and located as above. When civil government was set up in these states, instead of the towns growing first, and the county and state being aggregations of towns as in New England, the process was reversed. The state was divided into counties, and, under state law, the counties into towns. The territorial townships, however, make convenient boundary lines, so that a county regularly embraces from twenty to thirty townships. The townships being of convenient size for local government, the county is generally divided into local town governments on township lines. As long as the county is thinly settled a town (civil division) may contain two or more townships, and later be divided into two or more towns, each one coincident with a territorial township. The town takes a name, as Marion, Washington, Oakland. The township is described by its number and location.

Though the distinction of meaning given above is properly made, we still find the words often used almost interchangeably (see also LOCAL GOVERNMENT IN THE UNITED STATES). J. W. J.

TOYNBEE, ARNOLD (1852-1883), the second son of Joseph Toynbee, a well-known aurist, was born in London. Soon after his birth, his father removed to a house at Wimbledon in Surrey, where Arnold spent most of his childhood. His early preference for a soldier's career induced his father to send him to be prepared as a candidate for the army examinations. After his father's death ill-health and intellectual ambition led him to alter his plans. He returned home, became a student at King's College, London, and resolved to adopt the bar as his calling. A second change of purpose was due to the same causes which produced the first. He resolved on a life of study, and retired for many months to solitary lodgings in the country, first at Bracknell in Berks, and afterwards at East Lulworth in Dorset. In January 1873 he became a member of Pembroke College, Oxford. Finding himself ill at ease, he migrated two years afterwards to Balliol College, of which Dr. Jowett was then master. Hitherto he had been groping his way towards a suitable life. Now he had found it. Although continued ill-health made university honours impossible for him, he found in Balliol judicious teachers and sympathetic friends who recognised his rare gifts of intellect and character. The first proof of his singular personal influence was seen in the ascendency which he exerted over many able, ambitious, and highly critical fellow-students. At this period of life he was passing through a spiritual crisis. Hitherto he had been chiefly interested in the study of history. He now became possessed with religious emotion. Naturally serious and compassionate, he now felt a new interest in the condition of the poor which became the ruling influence of his after-life. This feeling more than any other led him to concentrate his powers on political

economy as the science which explains the conditions of human well-being. In this sense it may be said that the spirit of charity made him a political economist. Himself a poor man, he had to consider how he could earn his livelihood after taking his degree, a question made difficult for him by bodily weakness and recurring ailments. Fortunately he had made so deep an impression on the master and fellows of Balliol that they entrusted him with the care of the numerous probationers of the Indian Civil Service who were then attached to the college. Soon afterwards he married and was eminently happy in his domestic life. His leisure he gave to political economy, especially to economic history. But zeal for doing immediate good forbade him to devote all his powers to study. Longing to mediate between those who study and those who labour with their hands, he formed the resolution of giving every year a certain number of popular lectures on economic subjects. He felt no unreasonable confidence that he could break through the prejudice which workmen feel for political economy, and convince them that economists do care for their welfare. In the course of the years 1880-1882 he lectured with success at Bradford, Newcastle, and Bolton. But he had fatally overstrained his powers. A zealous college tutor, an indefatigable student, the most active of local philanthropists, he never allowed himself any rest save change of occupation. The fatigue of two lectures, delivered at St. Andrew's Hall in London in January 1883, brought on a fatal illness, and he died of inflammation of the brain.

Toynbee's literary remains were published in 1884. They consist chiefly of a course of lectures on the industrial revolution in England which was to have been elaborated into a history. As they stand these lectures are a mere outline which must be superseded by more elaborate works. Yet they testify to the profound historical research and insight of their author. On the impetus which he gave to the then infant study of economic history in England, Toynbee's claim to a place among English economists must partly be founded. He was, however, singularly free from the besetting fallacy of economic historians, that the mere accumulation of economic facts constitutes political economy. Much as he prized and honoured research, he viewed its results chiefly as material for thought. He desired above all things to understand economic phenomena as a means to social reform. In the same volume were included an immature essay on RICARDO, a few popular addresses, and some brief fragments chiefly on those moral and spiritual themes which were always nearest his heart. But nothing that he has left in writing can convey an adequate sense of the beauty of his character, his rare nobility of nature, and his exquisite kindness.

One of Toynbee's many endeavours to make himself personally acquainted with the poor in order that he might help them more wisely, suggested the foundation of the now famous University Settlement in Whitechapel which bears his name, though founded by others after his death. It has afforded the model of several similar institutions both in London and the United States.

[See Toynbee, *The Industrial Revolution*, etc., 1884.—*Progress and Poverty, a Criticism of Mr. Henry George.*—Milner, *Arnold Toynbee: A Reminiscence.*—Montague, *Arnold Toynbee.*—*Johns Hopkins University Studies.* — Price, *A Short History of Political Economy in England*, which contains an admirable estimate of Toynbee as an economist. For a criticism see Cossa, *Introd. to the Study of P. E.*] F. C. M.

TRACY, DESTUTT DE. See DESTUTT DE TRACY.

TRADE.

Trade, p. 556; Trade Coins, p. 557; Trade Disputes, Law as to, p. 558; Trade, Foreign, Regulations of (to time of Commonwealth), p. 559; Trade, Large and Small, p. 561; Trade Mark, p. 562; Trade Name, p. 563; Trade, Revival of, p. 563.

TRADE is the occupation or business of buying and selling commodities. It is commonly divided into *foreign* and *domestic*, and *wholesale* and *retail* (see RETAIL AND WHOLESALE). In ordinary use the term is but little distinguished from commerce, except that the latter connotes the idea of the circulation as well as the exchange of products. In another direction it is often used in close conjunction with manufacture, without any very clear distinction being drawn between them, as when a manufacturer, *i.e.* a producer, is said to be "engaged in trade." In this case it must be always understood that the manufacturer is one who produces for sale (see MANUFACTURE). By 22 Geo. III. c. 82, a BOARD OF TRADE for Great Britain was established "for the consideration of all matters relating to trade and foreign plantations," and definitely constituted four years afterwards (1786). The members of this board, which is a committee of the privy council, include a president and vice-president, the first lord of the treasury, the three principal secretaries of state, and other great officers; but in practice the president and vice-president have had the direction and management of it from the first. The vice-president of the board of trade ceased to exist in 1867, but since that time there has existed the office of the secretary. Many of its early functions have been since transferred to other departments of government, as the colonial office. On the other hand, several new duties have been imposed upon it; the supervision of canals and railways, harbours and lighthouses; the superintendence of the registration of trade marks, patents, and designs; the control of weights and measures; the direction of bankruptcy proceedings; and the registration and winding up of companies; increased responsibilities in regard to merchant shipping, etc. In 1832 a department was created for

collecting and arranging statistical information for the use of parliaments, and more lately a labour department, for circulating information on industrial subjects.

The trade, both home and foreign, of the United Kingdom is enormously vast and complex. Our imports and exports, taken together, are estimated, according to Lord Farrer, "to be nearly one-fourth the foreign trade of the whole world; and if the trade carried on with English capital between foreign countries were included, our foreign trade would be found to amount to much more." We are the greatest of brokers also, and carriers and money-lenders. "Good statisticians estimate our investments abroad at not much less than £2,000,000,000"; . . . and our ocean trade "is two-thirds or more of the ocean trade of the whole world." "The value of our ships is estimated to exceed £100,000,000; the amount of cargoes afloat under our flag at any given moment is very much larger; and the property covered by it in the course of a year is probably not less than £1,000,000,000." Of our domestic trade the same authority says, "The aggregate value is not given in any official statistics."

[T. H. Farrer, *The State in Relation to Trade*, English Citizen Series (Macmillan, 1883).—H. D. Trail, *Central Government*, same series.—R. W. Cooke Taylor, *Introduction to a History of the Factory System*, ch. i.] R. W. C. T.

TRADE, BALANCE OF. See BALANCE OF TRADE.

TRADE, CHAMBERS. See CHAMBERS OF COMMERCE.

TRADE COINS. For a very long period, probably from the earliest times of the trade between Europe and the East, a large part of the exports from eastern countries has been paid for by the import of coin. This has been due partly to the backward condition of those countries in regard to coinage, but chiefly to the absence of a desire for other western products.

The coins thus acclimatised have been chiefly three—the Spanish DOLLAR, or CAROLUS, the Mexican DOLLAR, and the MARIA THERESA, or Levantine DOLLAR (see also DOLLAR). The Spanish dollar, or Carolus, sometimes called the "pillar dollar," from the two pillars, said to represent the Pillars of Hercules, on the reverse, is no longer in use in Spain, but was still coined there till quite recently, for use in the Spanish West Indies and the Philippines, within which limits it was not strictly a "trade coin," but the currency of the colonies. For many years, however, it has been known in China and the Malay Peninsula, and was at one time preferred there to all other coins, but having varied considerably both in weight and fineness, it has gradually been supplanted, in China at least, by the Mexican dollar. It still holds the field in the interior of the Malay Peninsula, and in other countries more nearly adjacent to the Philippines.

The Mexican DOLLAR was originally coined as an exact reproduction, in weight and fineness, of the Spanish dollar, namely 8½ dollars to the Castilian marc of silver $\frac{9}{12}$ fine. This corresponds to 417·79 grains troy 902·7 fine, and although at one period the Mexican dollar varied somewhat, it has for more than half a century now been very close to the standard, and has thus almost entirely supplanted the Carolus in the trade of Hong Kong and the other treaty ports of China. For circulation the coins were formerly stamped with the "chop" or mark of one of the native merchant-houses, but latterly "chopped" dollars have declined in favour, and they are now generally circulated as imported. These dollars are still the standard coin of Mexico, but the greater part of the production of the mints there is exported either through the Mexican Pacific ports and San Francisco, or through London to Hong Kong, where they usually command a premium of 4 or 5 per cent over their melting value, the coinage charge in Mexico being 4·41 per cent. In the seven years 1889-1895 the silver dollars coined in Mexico were $181,712,582, of which $149,197,021 were exported. Mexican dollars were formerly sent to Japan in large quantities, chiefly for use in the balance of trade between that country and Korea, where they are still much used, and form the basis of account.

For Indo-China the Paris Mint coins PIASTRES to supersede Mexican dollars. These were formerly the same as the U.S. "trade dollar," viz. 420 grains, 900 fine, but they are now coined only weighing 416·67 grains.

Several attempts have been made to supersede the Mexican dollar in the China trade, but hitherto without success. A British mint was established in Hong Kong in 1864 for this purpose, but it was closed in 1868, partly owing to the expense incurred, but mainly because it was found impossible to overcome the prejudice in favour of the Mexican dollar. In 1895 this last-named coin was, by order in council, made the standard for the colony; but it was at the same time decided to establish a new British silver dollar, to be coined at one of the mints in British India, for use in the Straits Settlements, in Hong Kong, Labuan, and other eastern colonies.

Upon the closing of the Hong Kong mint, the coining plant was bought by Japan, and, in 1871, a new system of coinage was adopted by that country founded upon the YEN, which is practically the same as the Hong Kong dollar, namely, 416 grains of silver 900 fine.

The United States, in 1873, coined a "trade dollar," in the hope of creating a market for the produce of their mines by supplanting the Mexican dollar. With this view the coin was made slightly heavier, viz. 420 grains; but the attempt was unsuccessful, and the coinage was abandoned, as to large quantities, in 1878, and entirely in 1883, up to which time $35,965,924 had been coined, of which $28,778,862 had been exported. Those remaining in the States were redeemed and melted under act of 3rd March 1887.

The Austrian Maria Theresa, or Levantine dollar, is heavier than either of the above-mentioned coins, but is much lower in quality, and contains a less amount of pure silver. It is still coined by the Austro-Hungarian mints,

bearing date 1780, but is intended solely for export, being no longer a legal coin within the country. It is used chiefly in Africa—in Zanzibar, and Abyssinia, and other places on the east coast; on the west coast, in the Niger country and other parts; and it also finds its way through Morocco to various countries of North Central Africa. Previous to recent reforms in Egypt, Maria Theresa and Carolus dollars circulated largely there, but this was scarcely as trade coins. They were used, with still larger quantities of British sovereigns, because of the scarcity and badness of the native currency. They have now been almost driven out of the country. In Madagascar the Mexican dollar once circulated largely, but it is now no longer legal there.

The following are the weights and fine contents of the dollars above referred to :—

	Weight.	Fineness.	Fine Silver.
	Troy grs.		Troy grs.
Carolus—standard .	417·79	902·7	377·17
,, actual	413·7 to 416·	892· to 896·	369· to 372·7
Mexican . .	417·79	902·7	377·17
Hong Kong . .	416·	900·	374·4
British . .	416·	900·	374·4
U.S. "Trade" .	420·	900·	378·
Maria Theresa .	433·09	833·3	360·76

The ancient Dutch guilder was formerly much used throughout the islands and peninsulas of Southern Asia, but is now only used in Java and Sumatra, in which places it is not a trade coin, but the currency of the colony.

GOLD DUCATS (see DUCAT) are also coined in several European countries for use as trade coins. Holland coins trade ducats and double ducats of gold ·983 fine; whilst in Russia, up to 1869 at least, "ducats of Holland" were coined of fineness ·9791; Russian gold currency and the Russian ducats now coined being only 916·6 fine. Austria coins gold ducats, and double ducats, for use only as trade coins. It appears probable that these coins were originally struck as well for international trade on the continent as to facilitate trade with Africa and the east at a time when the ducats of Venice were widely known.

These coins compare in value as follows :—

	Weight.	Fineness.	Fine Gold.
	Troy grs.		Troy grs.
Russian Ducat . .	60·593	916·6	55·543
Russian "Ducats of Holland" . .	53·853	979·1	52·731
Holland Ducat . .	53·921	983·	53·004
Austrian Ducat .	53·866	986·1	53·112

(See also art. TOKENS, HISTORY OF.) R. W. B.

TRADE DISPUTES, LAW AS TO. The law as to trade disputes is best stated under two separate heads, viz.: 1. Disputes between individual employers and individual workmen. 2. Disputes between combinations of workmen and individual employers or combinations of employers. The two classes of disputes are often closely connected together; if, for instance, a workman, by arrangement with other workmen employed in the same trade, leaves his employment, there is a dispute between the individual employer and the individual workman, but it really arises out of the dispute between a class of workmen and a class of employers.

1. Disputes between individual workmen and individual employers are, of course, within the jurisdiction of the ordinary courts, but legislation has created additional tribunals, and provided additional remedies in respect of claims arising out of such disputes. A series of statutes beginning with 20 Geo. II. c. 19, ending with 10 Geo. IV. c. 12, gave the justices of the peace summary jurisdiction in respect of such disputes, and power to order workmen to be imprisoned for breach of contract. The law remained in this state till 1867, when, on the recommendation of a committee of the House of Commons, an act was passed introducing material alterations in favour of the workmen, which act was repealed in 1871 by legislation still more favourable to the interests of workmen. The law on the subject is now regulated by the Conspiracy and Protection of Property Act 1875, and the Employer and Workman's Act 1875. The first act repeals all former enactments, making breaches of contract criminal offences, and imposes criminal punishment for breach of contract in the following cases only: (*a*) in the case of a workman employed in an undertaking for the supply of gas or water to a town, who has reason to believe that the probable consequences of his breach of contract will be to deprive the inhabitants of their supply of water or gas; (*b*) in the case of a person wilfully and maliciously breaking a contract of service or hiring, who has reason to believe that the probable consequences of his breach of contract will be to endanger the life or health of any person, or to cause injury to valuable property.

The Employer and Workman's Act of 1875 facilitates the procedure and prevents oppressive proceedings; it gives discretionary powers to county courts with reference to disputes between employers and workmen, which go much beyond their ordinary powers; thus the court may, "if, having regard to all the circumstances of the case, it thinks it just to do so," rescind any contract between employer and workman "upon such terms as it thinks just," and it may also, instead of awarding damages, order performance of the contract of service. In cases involving claims not exceeding £10, a court of summary jurisdiction—that is to say, two justices or one stipendiary magistrate—may adjudge between employer and workman; the proceedings in such a case being held to be civil and not criminal proceedings.

In many continental countries special tribunals, wholly or partly composed of laymen, exist for the decision of disputes between employers and workmen. Thus in France and Belgium, the so-called *Conseils de prud'hommes*, composed of

members of the trade from which disputes are brought to them—half of them being employers, the other half workmen,—exist in many towns, after having been first introduced in Lyons in the year 1806. In Germany a statute, passed in 1890, has introduced trade tribunals (*Gewerbegerichte*), composed of a chairman, a deputy chairman, two employers, and two workmen; they must, in the first instance, try to induce the parties to compromise; and if that attempt fails, adjudge in the dispute in the same manner as an ordinary court of first instance.

2. The legislation as to disputes between combinations of workmen and employers is partly of a repressive, and partly of a conciliating nature; but the repressive legislation has been to a great extent repealed. Its development, together with the development of the doctrine of "conspiracy" in its application to combinations for the purpose of improving the wage of workmen, is admirably described in Stephen's *History of the Criminal Law*, vol. iii. pp. 202-226, and summed up by the same writer as follows: "First, there is no law at all, either written or unwritten. Then a long series of statutes aim at regulating the wages of labour, and end in general provisions, preventing and punishing as far as possible all combinations to raise wages. During the latter part of this period an opinion grows up that to combine for the purpose of raising wages is an indictable conspiracy at common law. In 1825 the statute law is put upon an entirely new basis, and all the old statutes are repealed; but in such a way as to countenance the doctrine about conspiracies in restraint of trade at common law. . . . In 1871 the common law doctrine as to agreements in restraint of trade being criminal conspiracies is repealed by statute. But . . . the doctrine of a conspiracy to coerce or injure is so interpreted as to diminish greatly the protection supposed to be afforded by the act of 1871. Thereupon the act of 1875—being the Conspiracy and Protection of Property Act 1875 quoted above—specifically protects all combinations in contemplation or furtherance of trade disputes . . . and provides positively that no agreement shall be treated as an indictable conspiracy unless the act agreed upon would be criminal if done by a single person."

By the side of the repressive legislation there is already at an early date an attempt to provide machinery for the purpose of conciliation, and in 1824 a consolidation act was passed, repealing the anterior legislation on the subject (5 Geo. IV. c. 96), but this act as well as the Councils of Conciliation Act 1867, and the Arbitration (Masters and Workmen) Act 1872, remained ineffective, and was, together with the last-mentioned statutes, repealed by the Conciliation Act 1896. This act enables the board of trade, in the case of any difference existing between an employer or any class of employers and workmen—(*a*) to inquire into the circumstances of such differences; (*b*) to take steps for bringing the parties together; (*c*) to appoint a person or persons to act as conciliator, or as a board of conciliation; (*d*) on the application of both parties to appoint an arbitrator. The act also provides for the registration of boards of conciliation and for the furnishing of periodical returns to the board of trade by such boards, and gives power to the board of trade to aid in the establishment of boards of conciliation for districts or trades, in respect to which adequate means do not exist for having disputes submitted to conciliation.

In France an act for the settlement of trade disputes between whole classes of workmen and employers was passed in 1892. It provides that the justice of the peace of the district shall convene representatives of the contending parties, and appoint an umpire for the settlement of the dispute, unless they can be induced to agree to a friendly arrangement, or in the selection of arbitrators, or of an umpire. In Italy an act was passed on the same subject in 1893. In Germany the act of 1890 (mentioned above) gave power to the trade tribunals (see above) to act as boards of conciliation, but the provisions in question do not seem to have had much practical effect.

[See the statutes referred to above; also Macdonell, *Law of Master and Servant.*—Ramsey, *Handbook for Employers and Employed.*—And see Professor Stieda's articles in Conrad's *Handwörterbuch, s.v.* "Einigungsämter"; "Gewerbegericht," and the same author's article "Einigungsämter" in the supplemental volume (see CONCILIATION, BOARDS OF; CONSEILS DE PRUD'HOMMES; PRUD' HOMMES.] E. S.

TRADE DOLLAR. See DOLLAR.

TRADE, FOREIGN, REGULATIONS OF (to the time of the Commonwealth). Before the Danish settlement, England had little foreign trade. English merchants travelled to the great continental fairs, and in 796 Charles the Great granted a safe-conduct to subjects of Offa of Mercia, trading in his dominions, on condition that Offa extended the like protection to men of the Empire. English exports consisted of raw produce to be worked up by other nations, and, in order to keep up the price of material on which the foreign market depended, Edgar prohibited the sale of a weigh of wool for less than 120d. on pain of forfeiture of 46s. from both buyer and seller. A minimum price of wool, the chief strength of England, was also fixed by Edward III. Ine, and after him Athelstan, encouraged commerce by making thegn-worthy merchants who had thrice crossed the sea by their own means (see MERCHANTS, HISTORY OF ENGLISH). Ethelred's laws declared that "the men of the Emperor who come in their ships are held as worthy of good laws as we are," and companies of German merchants, of whom the most important were men of Cologne and of the HANSE TOWNS, early founded a colony in London, and obtained extensive privileges from Henry II. and his sons. By the laws of Edward the Confessor, foreign merchants were forbidden to take up work on which natives were employed, and to sell retail or to each other, restrictions reimposed in the fifteenth century, when the citizens complained that alien merchants encroached on their privileges (see FOREIGN TRADERS AND THEIR RIGHTS). By

granting safe-conducts and licences to trade, in return for a fine, the king kept the control of trade in his hands, and prohibition to export wool was a weapon ready to his use in time of dispute with Flanders, the great cloth-making country. Freedom from excessive dues and tolls was promised by the Great Charter, but it was one of the complaints of the barons at the parliament of Oxford 1258, that the king's exactions on merchandise impoverished English merchants and kept away aliens, and the resistance caused by the seizure of the wool in 1297 led to the confirmation of the charters. Edward I. improved the conditions of trading by making it subject to the same laws throughout the kingdom, instead of being regulated only by local custom and authority. The Statute of Merchants enacted in 1283 that debts owing to foreign merchants, and acknowledged in appointed towns before the king's officers, could be distrained for; before this time there was "no speedy law provided for them to have recovery of their debts at the day of payment assigned, and by reason hereof, many merchants have withdrawn to come into this realm with their merchandises." The fixing of the customs in 1275, on wool, woolfells and leather, the chief exports, and on wine, the chief import, was another measure of this reign for the regulation of trade. In 1303, by *Carta Mercatoria*, aliens agreed to pay higher customs in return for permission to stay longer than the usual forty days, to sell spice retail, and other privileges (see IMPORTS AND EXPORTS). To develop cloth-manufacture in England, Edward III., 1337, offered protection to Flemish weavers and prohibited export of wool on pain of death, and import of cloth on pain of forfeiture. These restrictions did not continue in force for long, and in 1353 it was provided that imported cloths under ASSIZE (*q.v.*) were to be allowed for in price, instead of being forfeited, because alien merchants "do withdraw them to come with Cloths into England." The export of wool and import of wine were both regulated in the interests of foreign merchants, the fare between Calais and Dover was fixed, and, in 1353, aliens were placed under the king's protection by the Statute of the Staple, which organised more fully the Company of Merchants of the Staple who exported wool (see STAPLE). A result of the encouragement given to foreign merchants was the large circulation of base money in England (see POLLARDS AND CROCKARDS). In order to check the import of this coin, and also the export of English money, much of which was taken abroad in payments to Rome, it was enacted in 1335 that "no Religious Man or other" carry gold or silver out of England; in 1340, for every sack of wool exported, silver plate of two marks value was to be imported, but the Flemings also forbidding export of bullion, this act was repealed. The extensive import of finished goods, chiefly brought by the Italians, interfered with the growing industries of the English. In 1435, import of silken goods was forbidden, and in 1463 and 1484 the prohibition was extended to very many small wares, the artificers having "piteously shewed and complained" that they "be greatly impoverished and much hindered and prejudiced of their worldly Increase and daily Living, by the great Multitude" of ready-made goods imported. Side by side with the laws to keep foreign goods out of the kingdom in the interests of manufactures were those to keep gold and silver within it as the measure of the national power. In 1390, aliens were required to spend half the value of their imports (extended, in 1402, to the whole) on exports; at the same time, denizens were forbidden to export wool, and merchant strangers were to be well treated in England "to the Intent that they shall have the greater Courage to repair into the same." In 1478, half the payments for staple wares were required to be in money and bullion, sent in three months to the mint, while export of gold and silver was made a felony; it was not allowed without a licence before 1660, but in 1510 the penalty of felony was repealed. The object of these laws, and also of the Navigation Acts, passed in 1381 and renewed under the Tudors, for the protection of English shipping (see NAVIGATION LAWS), was to increase the national power; while the aim of Edward III. had been to promote the present well-being of the people themselves. The immediate result of his regulation of trade was that foreign luxuries became cheaper and more numerous and trade increased, but it led to the decay of native shipping and the injury of native manufactures. Against these dangers, legislation was directed from the time of the Good Parliament (1360-1377). As commerce became a national matter, commercial treaties took the place of safe-conducts and licences. By the Treaty of Utrecht in 1474, the HANSARDS were confirmed in their privileges in London, but the English were to be free to take part in the Baltic trade which had always been carried on by the Hansards (see HANSEATIC LEAGUE). In 1496 the Great Intercourse (see INTERCURSUS MAGNUS) secured free trade with the Netherlands, to the advantage of the Company of Merchant Adventurers, who exported cloth, and had their mart at Antwerp (see ADVENTURERS, MERCHANTS). The protective policy of the 15th century continued through the 16th. The extensive conversion of arable land into pasture (see ARABLE LAND, CONVERSION TO PASTURE) in the reigns of Henry VII. and Henry VIII. drove a large proportion of the rural population into the towns, and the consequent competition among craftsmen was increased by the number of foreign wares imported, many of them by the

Merchant Adventurers. In 1515 it was forbidden, as it had been in 1336, to those not of high rank to wear foreign cloth. In 1512, import of hats and caps was prohibited as the cause of "great Idelnesse, enpoveryshyng and utter undoing of great multitude of the Kyngis naturall subjectis borne wythin this said Realme"; in 1529 they could be imported, but sold only at fixed prices. Statutes of Henry VIII.'s reign prohibited the sale of the best cloth to aliens unless there were no English buyers, the import of tinware, and the buying up of wool for alien merchants. An act was passed 1563, and confirmed 1628, prohibiting import of small wares, such as cutlery and haberdashery, which had been imported so largely as to lead "to the decay of the population of towns and the loss of skill in the like mysteries within the Realm of England." Attempts were made by restricting the import of wine and foreign luxuries, to check the extravagance and "excesse of apparell," which was "at these daies so gorgious that" "godly and necessary lawes, made of our Princes, and oft repeated with the penalties, can [not] bridle this detestable abuse." Velvet hats were forbidden, in 1566, to those below the rank of son of a knight or lord. Elizabeth welcomed Protestant refugees from Flanders and France, who introduced new industries, especially new methods of working up wool into "bayes, sayes, arras," and worsted, as the Flemings, under Edward III.'s protection, had developed English cloth manufacture. Export of live sheep was forbidden in 1566, on pain of forfeiture of goods, a year's imprisonment, and loss of the left hand, a second offence being felony; for nine unwrought cloths exported one was to be exported wrought "for the better employment and Reliefe of greate multitudes of the Queenes Majesties Subjectes using the Arte and Labour of Clothe woorking." MONOPOLIES (*q.v.*) were granted for manufacture of salt, paper, and other things which before had been imported. The associations formed in the 16th and 17th centuries for trade and exploration, unlike the older trading societies, were joint-stock companies; the monopoly which they enjoyed was an incentive to extend trade. The Muscovy Company (see RUSSIA COMPANY) obtained a charter in 1553, and the following year eastern trade was granted to them on condition that they employed English ships and sailors, and exported only English cloth. Much of the carrying trade with the east had been in the hands of the Venetians, whose "Flanders Galley," instituted in 1317, yearly visited Southampton and Bruges; this trade declined in the 16th century, partly in consequence of the legislation against the import of ready-made goods. In 1588 the Levant Company (see TURKEY COMPANY), founded 1581, undertook the trade of the Venetians, whose last fleet to Southampton was wrecked off the Needles in 1587. The revenue from feudal dues having decreased, James I., in order to supplement the parliamentary supplies, levied an imposition on imports which was resisted by a merchant named Bate (see BATE'S CASE). The case was tried, and the king was declared to be keeping within his prerogative. Impositions were also exacted during the Commonwealth, though the same party had opposed them when levied by the king. The English, who from being an agricultural were becoming a commercial nation, had formidable rivals in the Dutch, who, in the first half of the 17th century, had control of most of the trade formerly carried on by the Venetians and Hansards. The aim of the Stuart policy, as of the Elizabethan, was to develop trade as a means towards the security and power of the kingdom, rather than to increase its wealth. In 1608, James I. withdrew the charter of the Merchant Adventurers until 1615, with the object of encouraging in England the finishing processes of manufacture, for which cloth was usually sent to the Netherlands. A commission on trade was appointed in 1622 to inquire into the fall in the price of wool, the regulation of merchant companies, the best means of obtaining money payments for exports, and many other matters concerning trade. A trade commission was also appointed by Cromwell in 1655. The EAST INDIA COMPANY (*q.v.*), incorporated in 1600, had many struggles with the Dutch, who themselves founded an East India Company in 1602; the Navigation Act of 1651, prohibiting any import from Dutch fisheries, and imports from the colonies unless brought in English ships, while it caused the price of imports to rise, increased the English carrying-trade at the expense of the Dutch.

[*Statutes of the Realm.*—W. Cunningham, *The Growth of English Trade and Industry*, 1890, 92. —*The Commercial Policy of Edward III.* (Trans. R. Hist. Soc., New Series, vol. iv.) 1889.—H. Hall, *A History of the Customs Revenue of England*, 1885.—W. J. Ashley, *An Introduction to English Economic History and Theory*, 1892.—W. Stubbs, *Select Charters*, 1870.—*A Constitutional History of England*, 1880.—*Social England* (ed. H. Traill), vols. 1-4, 1893-95.—J. B. Williamson, *The Foreign Commerce of England under the Tudors* (Stanhope Essay), 1883.—B. Thorpe, *Ancient Laws and Institutions of England*, 1840.—T. Rymer, *Foedera*, 1816.—H. R. F. Bourne, *English Merchants*, 1886.—C. Armstrong (temp. Henry VIII.), *A Treatise concerning the Staple and the Commodities of the Realm* (R. Pauli, *Drei volkswirthschaftliche Denkschriften*, 1878).—D. Macpherson, *Annals of Commerce*, 1805.] M. T. M.

TRADE, FREE. See FREE TRADE.

TRADE, LARGE AND SMALL. Many of the considerations raised in the discussion of the relative advantages and drawbacks of production on a large and a small scale (*vide* PRODUCTION) are either identical with, or at

least analogous to, those which present themselves in any estimate of the respective merits and demerits, from an economic point of view, of trade pursued on a large and a small scale. In the sphere of that *commercial* competition, which arises in trading, as contrasted with the *industrial* competition distinguished by CAIRNES as affecting production, the larger competitors enjoy certain advantages of buying and selling, of handling a mass rather than a small quantity of goods; while the smaller competitors are able to pay greater personal attention to the peculiar wants of individual customers. On the one hand, the larger houses can spread their purchases over a wider market, they can employ more competent and experienced buyers, they can offer a better chance of a regular demand, they can afford more easily to risk the loss of having some goods left on their hands. They command more extensive resources than those at the disposal of their smaller competitors. They can also sell on better terms. They can advertise their goods more effectively. They can employ a larger and abler staff of commercial travellers to push their wares. They can acquire more easily a high reputation, which inspires their customers with confidence in their disinclination to cheat or adulterate. They can offer a greater variety of goods to suit different tastes. In the internal management of the business they are able to avail themselves of the economies which attach to organisation on a large scale. They can apply the principle of the division of labour more fully; and it may be noticed that, even where the small producer has an advantage in the personal superintendence of his workmen—in preventing them from wasting time or material—the same advantage is by no means so obvious in the business of the trader, selling to customers the goods which others have produced. There is here hardly so much opportunity for waste, and it is easier to secure the effective superintendence of subordinates. It is conceivable that economic considerations may point in the direction of large trading in goods, which are produced most successfully on a small scale. The qualities required for a competent dealer are perhaps more generally diffused, and more readily tested. On the other hand, in spite of the growth of large establishments in retail trade, which reproduce on a great scale the general shop of the country villages, and offer to customers the convenience of completing their various purchases within one building, it is still true that the personal attention, which a small shopkeeper can give to the personal idiosyncrasies of his customers, has an economic importance which is hardly realised, and with difficulty attained, in a large establishment. Time may, as it seems, be wasted, both by buyer and by seller, but the waste is agreeable to the one and is indirectly profitable to the other. It is a commonplace of economic treatises that friction is more prevalent in retail trade than in other departments of economic action; and this friction it is which assists the small shopkeeper to hold his own against the larger dealer. Mr. Charles Booth has remarked in his investigations into the conditions of *London Life and Labour* that one of the most characteristic features of London industry is, contrary to a common opinion, the number of small undertakings; and, though the more obvious feature of the times in trade as distinct from industry seems to be the concentration of small businesses, and the extended development of large concerns, this change, which often amounts in reality to a substitution of wholesale for retail trade, may still be accompanied by the constant creation of supplementary and independent shops, where scope is left for the close vigilance and minute attention of the smaller trader. From a social standpoint it may be observed, on the one hand, that individuals unable to become capitalists themselves, may secure tolerable incomes as the salaried agents of large concerns; and on the other, that the suppression of the small traders by immense companies tends to remove a useful element from the life and activities of small towns. In this, as in so many instances, it is easy and tempting to generalise, but the process is not seldom as dangerous as the results are untrustworthy.

[Cp. Arts. on EMPLOYERS AND EMPLOYED, and INDUSTRIES, LARGE AND SMALL.] L. L. P.

TRADE MARK. The term "trade mark" denotes a distinctive mark or device showing that the article to which it is affixed is manufactured or sold by a certain house or firm. By recent statutes a trade mark must consist of or contain at least one of the following essential particulars:—

(*a*) A name of an individual or firm printed, impressed, or woven, in some particular and distinctive manner; (*b*) a written signature or copy of a written signature of the individual or firm applying for registration thereof as a trade mark; (*c*) a distinctive device, mark, brand, heading, label, or ticket; (*d*) an invented word or words; (*e*) a word or words having no reference to the character or quality of the goods, and not being a geographical name.

The common law recognised the exclusive right of a manufacturer to use a trade mark which had come to be recognised as distinctive of his goods. A register of trade marks was established in 1875, and remodelled in 1883. Anybody wishing to register a trade mark must make application to the comptroller-general of patents, designs, and trade marks. The register contains the names and addresses of proprietors and a record of every change of property in a trade mark. It is necessarily open to public inspection. Registration is

prima facie evidence of a right to the exclusive use of a trade mark, and becomes conclusive evidence after the lapse of five years. It must be renewed every fourteen years. No action can be brought for the infringement of an unregistered trade mark. For an ordinary infringement the remedy consists in damages and an injunction; but fraudulent infringement is a criminal offence, punishable with fine and imprisonment, beside forfeiture of the goods in respect of which the offence has been committed. Foreign goods bearing a trade mark in use in the United Kingdom may not be imported unless the trade mark is accompanied with a definite indication of the country in which the goods were produced. As the right to a trade mark is always the exclusive right to use it in connection with a particular class of goods, it can be assigned or transmitted only in connection with the goodwill of the business concerned in making those goods. It is determinable with that good-will.

[See the *Patents, Designs, and Trade Marks Act* 1883 (46 & 47 Vict. c. 57), amended by the Act 51 & 52 Vict. c. 50; the rules and orders made in pursuance of the statutes and the cases, *Select Committee on Merchandise Marks*, 1887.]

F. C. M.

TRADE NAME. See FIRM.

TRADE REVIVAL. See REVIVAL, TRADE.

TRADER. A trader is principally distinguished from a merchant in economic phraseology, if such a distinction can be said to exist at all, by the comparative magnitude of their commercial transactions, though there is also a possible implication, approved by convention, that the former is more actively, the latter more passively engaged in trade (see TRADE). Similarly a tradesman is differentiated from a trader by being more personally occupied in the actual purchase and sale, and especially the sale of goods, while the trader rather provides them for him. In legal language any person engaged in any kind of mercantile or industrial business is called a trader. Before 1869 only traders were subject to the bankruptcy law, and even now, in the case of married women, a distinction is made between married women "carrying on an independent trade separately from their husbands" and other married women. Bankruptcy proceedings cannot be taken against the latter. R. W. C. T.

TRADE UNIONS. A trade union has been defined as "a continuous association of wage-earners for the purpose of maintaining or improving the conditions of their employment" (Sidney and Beatrice Webb, *History of Trade Unionism*, ch. i. p. 1).

No organisation corresponding exactly to this definition appears to have existed before the beginning of the 18th century, when employers and employed first became permanently differentiated in certain important industries. The principal object of the original trade unions was to secure the better enforcement of various protective laws, such as the statute of apprentices (5 Eliz. c. 4), which were fast falling into abeyance (see APPRENTICESHIP, STATUTE OF). But when the factory system had grown up and caused these laws to be repealed, the function of trade unionism changed. The workers combined no longer to enforce the law, but to maintain restrictions which the law had ceased to countenance. In so doing, they found themselves opposed by the mass of legislation that had gradually grown up against combinations to affect wages and to hamper the free course of trade. These statutes were consolidated and strengthened in 1799, and it was not till after their repeal in 1824 that membership of a trade union ceased to be a statutory criminal offence (see COMBINATION LAWS). The legalisation of trade unions, however, was not yet complete. For, in 1867, the Court of Queen's Bench held, in Hornby *v.* Close, that the objects of a trade union, though no longer necessarily criminal, were still so far illegal as being "in restraint of trade" that no contract or trust undertaken in respect of them could be enforced. No action could, therefore, be maintained against a trade-union official for wrongfully withholding a portion of the union funds. It was the agitation provoked by this decision that led to the passing of the Trade Union Act of 1871, which has given trade unions their present legal *status*. According to this act, every trade union is recognised, whether its objects be "in restraint of trade" or not, as a legitimate object of a trust. Thus, it can hold property, both real and personal, in the name of trustees, who can sue or be sued in respect of such property. But it has no legal personality so as to enable it to sue or be sued directly as a corporate body, nor can its officials be sued on behalf of its members collectively except in order to assert or defend their proprietary rights (see Temperton *v.* Russell (No. 1), 1893, 1 Q. B. 435). It cannot, therefore, either directly or through representatives, enter into collective agreements on behalf of its members, so as to become liable, in case of breach of contract, to be sued for damages payable out of its funds. The Trade Union Act, as amended in 1876, relates to "any temporary or permanent combination for regulating the relations between employers and employed or for imposing restrictive conditions on the conduct of any trade or business," and therefore applies to associations of employers as well as to associations of workmen.

It is pointed out in the 149th paragraph of the report of the royal commission on labour that, where employers and workmen have surrendered the settlement of their mutual contracts to associations which cannot sue or be sued for damages if their members break the

agreements made in their behalf, there is collective action without collective responsibility. Eight of the commissioners, accordingly, reported in favour of an act enabling trade unions "to acquire, by some process of registration, a larger legal personality and corporate character than that which they can at present possess" (see *Fifth and Final Report of the Royal Commission on Labour*, p. 116, par. 10, *Parl. Papers*, c. 7421 of 1894). Most of the labour leaders, however, appear to be opposed to any such change in the law (see *Fifth and Final Report of the Royal Commission on Labour*, p. 146).

According to the latest official statistics contained in the report of the labour department of the board of trade on trade unions in 1896 (*Parl. Papers*, c. 8374 of 1897), the total number of trade unions furnishing returns was 1330, with an aggregate membership of 1,487,562, and an aggregate income of more than £1,675,645, an aggregate expenditure of over £1,239,230, and upwards of £2,168,989 in hand. It is further computed that only about one adult male manual worker in five is a trade unionist. But the great solidarity and complete organisation of the unions, coupled with their unequal distribution among the various trades and districts, give them an influence in the industrial world out of all proportion to their membership (see Webb, *History of Trade Unionism*, pp. 409-430). In recent years, there has been a decided tendency towards the amalgamation of trade unions with one another, the federation of the trade unions connected with the same industry, and the federation of trade unions connected with different industries with a view to exercising greater force in industrial warfare. It has not, however, yet been shown by experience that trades of a totally distinct character from one another can be permanently amalgamated or federated together. For this purpose, a certain natural affinity of occupation would seem to be necessary. At the same time, the annual trade union congresses bring the various associations which take part in them into a certain connection, the chief object of which is to secure common action in matters requiring legislative treatment. In many industrial centres, moreover "trades' councils" exist, composed of the representatives of different and independent trades, and these have a great and, apparently, increasing influence in consolidating for common action the forces of local trades (see *Fifth and Final Report of the Royal Commission on Labour*, p. 32, par. 82),

The constitution of the trade unions varies considerably, but chiefly with regard to the amount of real power vested in their central executive officers. In some cases, as in that of the Durham coal miners, so many references have to be made in the case of general questions to the local "lodges" or branches, to be decided by ballot, that the central body is little more than a group of delegates, acting under immediate instructions, and having to refer points to their constituents even in the midst of negotiations with employers. In other cases, especially where a trade is scattered in various branches all over the country and through districts differing widely in local circumstances from each other, much power and discretion is frequently left with the district or branch officers, while the central executive possesses full control over the funds, and is thus able to exercise a deciding power in the last resort. The measure of control which is vested in the central executives of some trade unions is remarkably full and complete. The society of the boiler-makers and iron shipbuilders presents an example of the very successful working of a trade union strongly centralised in this manner (see *Fifth and Final Report of the Royal Commission on Labour*, pp. 28 and 29, par. 72).

Trade unions of the normal or "old unionist" type discharge two main functions—protective and benevolent—and their policy varies according to the relative importance which they attach to each. Those that exist primarily for the protection of their members against their employers, aim chiefly at substituting collective for individual bargaining between masters and workmen, and, in their struggle to obtain "recognition" for this purpose, are often ready to resort to the risky expedient of strikes. Those, on the other hand, that make the provision of benefits their main concern, are rather apt to adopt a "peace at any price" policy, for fear of risking in strikes the funds on which there are so many other claims. Many of the so-called "new unionist" leaders profess less anxiety either for obtaining the "recognition" of employers or for the integrity of the trade-union capital than for vesting all employing and capitalist functions in responsible political authorities. But the nature of the relationship subsisting between the old trade unionism and the socialist or "new unionist" movement is a matter of dispute. Some consider it to be one of essential antagonism, and point to the fact that socialism is invariably strongest among those trade unions whose organisation is weakest; while others contend that it is one of close alliance, and point to the resolutions of the trade union congress in which the socialist creed is affirmed.

Whether it be economically possible to raise wages universally by means of combination is a question long disputed. J. S. Mill, whilst he regarded capital as the wage fund, considered attempts to raise wages, except by adding to capital, to be logically absurd, but on his abandonment of this view of the source of wages, his attitude to combination changed. Modern economists, however, holding that wages are paid out of produce, argue that the gross earnings of industry often suffice to aug-

ment wages after the sum originally advanced out of capital has been refunded with interest, and conclude that combination to raise wages may succeed (see also COMBINATION LAWS). If this reasoning be sound, the issue is reduced to a question of fact—whether the net effect of the action of trade unions is to lessen production, or, as it is more often put, to "drive trade out of the country." The superior importance which they seem to attach to finding employment for all their members rather than to raising the wages of a portion of their number suggests a negative answer. But the point can only be authoritatively decided after a more detailed analysis of their working and its economic results than has yet been attempted.

[See Marshall's *Economics of Industry*, bk. v. chs. ii. and xiii.; Sidgwick's *Pol. Econ.*, bk. ii. ch. x.; Walker's *Pol. Econ.*, pt. iv. ch. v., and pt. vi. ch. v.; and Walker's *Wages Question*.]

Whatever view be held as to the character of the financial advantages gained by "trade union effort," there is no doubt as to the economic effect of the means adopted in order to obtain them. Although strikes may sometimes enable employers to dispose more easily of their surplus stocks, they are universally admitted to be, on the whole, agencies of pure destruction and wastefulness; and the strength of the economic case against them is often used as an argument against trade unionism generally. It is, accordingly, contended in reply that the connection between trade unionism and strikes is only transitory, and that the organisation that makes a large strike possible is the means of preventing the outbreak of a host of smaller ones, and thus of saving a larger portion of the national wealth than it destroys (see also STRIKES).

The foregoing statements apply only to the United Kingdom, and it is only in the United Kingdom that the higher developments of trade unionism can be studied. In the Australasian colonies, trade-unionism is certainly very strong, but its industrial environment is so imperfect that the recognition by employers of the principle of collective bargaining is hardly even hoped for. For the United States of America trade unions, see TRADES UNIONS, UNITED STATES. In Canada, industrial organisation is still backward. On the continent of Europe, generally, the real or imagined connection of workmen's organisations with the party of political revolution and the consequent alliance between the employers and the all-powerful state bureaucracies, combine to hinder the development of organisation on purely industrial lines. It is in Belgium and Switzerland that industrial organisation most nearly approaches the English type; but, even in these countries, the most important working-class associations are largely mixed up with the machinery of general party politics.

[For detailed information on the subject of the last paragraph, reference may be made to the series of reports on the labour question in foreign countries, published by the royal commission on labour (see *Parl. Papers*, c. 6795, x. of 1892; c. 6795, xi., 7063, vi., 7063, vii., 7063, viii., 7063, ix., 7063, x., and 7063, xii. of 1893-94; and c. 7063, xi., 7063, xiii., and 7063, xiv. of 1894.

In addition to the works already cited, there may be mentioned the following: Brentano, *Hours and Wages in Relation to Production*, London, 1894.—Comte de Paris, *The Trades Unions of England*, London, 1869.—Sir W. Erle, *The Law relating to Trade Unions*, London, 1869.—Howell, *The Conflicts of Capital and Labour*, London, 1890, and *Trade Unionism, Old and New*, London, 1891.—Sir J. F. Stephen, *History of the Criminal Law of England*, London, 1885.—Spyers, *The Labour Question*, London, 1894, being an epitome of the evidence and report of the royal commission on labour, and the "*Labour Gazette*," the annual reports on trade unions and strikes and other periodical publications of the labour department of the board of trade (LABOUR DEPARTMENT and STRIKES; VEND, NEWCASTLE).] T. G. S.

TRADE UNIONS (UNITED STATES).

Early History, p. 565; Present Size, p. 566; Benefits, p. 567; International Typographical Union, p. 567; Cigar-Makers International Union, p. 567; United Brotherhood of Carpenters and Joiners, p. 568; Knights of Labour, p. 568; Railroad Unions, p. 569; United Green-Glass Workers and National Association of Stationary Engineers, p. 569; The American Federation of Labour, p. 570; State Activity, p. 571; Strikes and Lockouts, p. 572; Objections to Trade Unions, p. 572; Apprentices, p. 572; Labels, p. 573; Labour Papers, p. 573; Labour Leaders, p. 573; Authorities, p. 573.

Nothing is known of labour organisations in America prior to the present century. Records exist of a strike of bakers in New York in 1741, indicating the possibility of a local union at that time, though doubtless only temporary. The strikers were convicted of conspiracy by the courts. There were four successful strikes of a shoemakers' union in Philadelphia, 1792, 1796, 1798, and 1799. Thence till 1821 occasional strikes are recorded, some successful, some unsuccessful, among sailors, cordwainers, printers, and the building trades along the Atlantic seaboard between Boston and Philadelphia, but no important unions existed. During these times the courts almost invariably convicted the strikers, when brought before them, of conspiracy in seeking through an association to raise wages more than the laws of supply and demand would otherwise allow. Such decisions of the courts have been met by statute law, especially since 1850, so that to-day men are free to belong to labour organisations, but courts still sometimes convict, when men strike on railroads or boycott an employer.

The tailors, according to Mr. George E. M'Neill, the historian of the labour movement, organised the first modern trade-union in 1806;

the hatters followed in 1819. Both had previously retained membership in English trades-unions. There was a printers' union in Philadelphia as early as 1802. In 1833 came the first union of various trades of a city—New York,—followed in 1834 by a smaller trade assembly or central trade and labour union of sixteen unions of mechanics in Boston. Prior to 1840 the following trades had local organisations in some of the largest cities; ship-carpenters and joiners, calkers, house-carpenters, printers, roofers, bricklayers, tailors, hatters, saddlers, cordwainers and shoemakers, factory operatives, marble and freestone cutters, coopers, and masons. The panics of 1837 and 1857 interfered with labour organisation, but in 1862 twenty-six trades are said to have had a national organisation. Many, however, were very weak. Through their agitation hours of labour had been reduced to eleven in a large portion of the textile factories, and the ten-hour day secured in government work and most of the building trades. The civil war again interrupted the growth of the unions, many of whose members enlisted in the armies of the north. After the war, organisation was beginning with much success when the severe depression of 1873 to 1877 again forced many of the unions to the wall and endangered nearly all of those remaining.

In 1888 the secretary of the American Federation of Labour reported 53 national and international trade unions in the United States, with a membership of 510,700 in 5247 local unions. He reported in 1893 a membership of 640,000 in 83 national unions having about 8000 local unions. Not all were affiliated with the American Federation of Labour. There were also, at both dates, several hundred unaffiliated local unions. The 12 largest trade unions in the country contained about 230,000 members in 1888. The 12 largest unions at the close of 1896, not necessarily the same as those just referred to, contained about 266,000 members. In the following table there is given the date of organisation and the membership approximately 325,000, of the 20 largest unions, as reported to the writer by their secretaries, or as shown by their representation in the convention, in December 1896, of the American Federation of Labour.

The 20 national unions that were represented at both the 1892 and 1896 conventions of the American Federation of Labour had votes, in the two conventions, indicating a membership in December 1892 of 201,500, and in 1896 of 176,200, a decline of 12·6 per cent; yet this falling off during the severe depression was small compared with the decline in the previous depression of 1873 to 1878, at the close of which it is estimated that there were not over 40,000 members left, who were keeping up their dues in the unions.

Name of Brotherhood.	Date of foundation as a national body.	Membership, 1896.
Brotherhood of Locomotive Engineers	1863	32,000
United Brotherhood of Carpenters and Joiners of America	1881	29,691
International Typographical Union	1850	28,338
Cigar-Makers' International Union of America	1864	28,700
Brotherhood of Railroad Trainmen	1883	24,000
Bricklayers' and Masons' International Union of America	1865	23,254
Brotherhood of Locomotive Firemen	1873	22,461
Iron Moulders' Union of North America	1859	20,000
United Mine Workers of America	1890	15,400
Western Federation of Miners		15,000
International Association of Machinists	1888	14,300
Boot and Shoe Makers' Union	1889	12,000
United Brewery Workmen's National Union	1886	10,000
United Garment Workers of America	1891	10,000
Order of Railway Conductors of America	1868	8,000
Amalgamated Association of Iron and Steel Workers	1876	8,000
Flint Glass Workers' Union of America	1878	7,200
Machine Wood Workers and Amalgamated Furniture Workers	1890	6,500
Brotherhood of Painters and Decorators of America	1887	5,000
Journeymen Tailors' Union of America	1883	5,000
Total	..	325,344

The membership of the unions affiliated with the American Federation of Labour in 1896 was estimated at about 400,000 by the Michigan state bureau of labour statistics. The federation at this time included 54 national unions, 361 independent local unions, and 10 state and 61 city branches, in which were included a large portion of the membership of the national and local unions.

Aside from the American Federation of Labour there were, in 1896, 6 unions connected with the steam railroads, and having a membership of about 95,000; also the Bricklayers' and Masons' International Union of America, containing 25,254 members, and approximately 105,000 members of still other unions in New York state. If to this be added the probably 125,000 members of other unions in other states, the total number of American labour organisations, at the close of 1896, would appear to be about 750,000, although it might vary 10 per cent in either direction.

According to the census of 1890, the number employed in manufacturing and mechanical industries, and upon street and steam railways, in the mines, the quarries, the merchant marine, the telegraph and telephone service, and as stationary engineers and firemen, was 5,404,865 males, ten years of age and upwards. Probably not over 5,000,000 were above the age of 17 in these industries. With the growth of population since 1890, the number

over 17 years of age in these occupations in 1896 could not have exceeded 5,500,000.

Inasmuch as trade unionism in America is almost exclusively confined to male wage-workers in these employments, it would appear that one-seventh to one-eighth of such employees are organised. There is scarcely any organisation among the agricultural labourers, domestic and personal servants, clerks and copyists other than salesmen, classes in which there were 5,300,096 male employees 10 years of age and upwards in 1890. Of 180,231 members of labour organisations in New York state in June 1895, according to the New York state bureau of labour statistics, only 10,102, or 5·6 per cent, were women; and of these, 8728 were engaged in the manufacture of clothing, cigars, and cigarettes. Of the 19,494 members of labour organisations in Michigan in 1896, according to the report of the Michigan state bureau of labour statistics, only 302, or 1·5 per cent, were women.

The best organised of the large trades or occupations are the glass workers, iron moulders, cigar-makers, locomotive engineers and firemen, printers, and the building trades.

Most of the trades unions of Canada are branches of those of the United States. In the province of Ontario in 1892, according to the report of the bureau of industries, there were 3227 knights of labour and 3294 trades unionists. All but about 300 of these were members of organisations having headquarters in the United States. Mr. Wm. B. Prescott, the president since 1891 of the International Typographical Union, was, when elected, a citizen of Toronto, Canada.

Only seven of the existing national unions commenced before 1873, and none earlier than 1850, while only fourteen national unions were organised before 1881.

The census of 1880 recorded only five unions with 13,032 members that then had benefit features for sickness, death, etc. In 1886 there were, according to an investigation then made by the author, and subsequently revised, twenty-six unions with about 135,000 members that had benefit features. In 1893 the number had grown to at least thirty-two national or international unions with about 330,000 members. A brief reference may be made to a few of the most important organisations.

The *International Typographical Union*, in common with the printing trade as a whole, is almost entirely composed of native Americans. Even few English printers migrate to the United States. In 1892 there were 706 women members, but it is harder to secure membership among women than men. The union rules demand equal pay for equal work, and it is noticed that when women join the union they often ask to be relieved from this law, as its enforcement frequently leads to the substitution of men for women by employers. This union is perhaps the only one in America that has had a historian to write a full statement in book form; this was done by John M'Vickar in 1892. The union also possesses a novel feature in the Childs-Drexel home for invalid, aged, and infirm members, located at a famous health resort, Colorado Springs, Colorado. In aid of it $10,000 (£2000) was given in 1886 by Mr. George W. Childs, late editor of the *Philadelphia Ledger*, and Anthony J. Drexel, a Philadelphia banker, also now dead. In order to complete the building, which cost $62,000 (£12,400), and to carry it on since its opening in the summer of 1892, until July 1897, the union has spent over $190,000 (£38,000). In April 1893, the average number of inmates in the two years ending 30th June 1896 was fifty-two. The distance is too great from most of the printers to tempt a large number to avail themselves of the opportunities offered. Four-fifths of all weekly papers, and nearly all religious papers, are published from so-called open offices, where union and non-union men work together at nearly union wages. Nearly all large offices employ some non-union men, but a large proportion of the important daily papers of the country employ exclusively union men. June 30th 1897, the membership was 28,096 as contrasted with 31,379 three years before. Of the expenses of $125,162·97 (£25,032) in 1896-97, the Home took $34,993·70 (£6998), the burial benefit $23,700 (£4740), trade disputes $33,676·77 (£6735), and other expenses such as the monthly *Typographical Journal*, the office, etc., $32,992·50 (£6598).

The *Cigar-makers' International Union of America* has the best developed system of benefits of any union in America, with the possible exception of a small union of German printers, the *Typographia*. It also has the largest reserve fund for each member, which amounted in 1893 to $18·75 (£3 : 15s.), but had fallen in 1896 to $8·25 (£1 : 13s.) for each member.

The title "International," in this and other American unions, indicates branches in Canada and sometimes in Mexico. The amount spent for benefit features by this union in 1892 to 1895 inclusive was $2,953,744·91 (£590,749), of which only $623,151·44 (£124,630), or 21 per cent, went to sustain strikes. The sick benefit took, in these four years, $894,542·57 (£178,908), the death benefit took $353,894·90 (£70,778). The travelling benefit, instituted like the two previous in 1881, consumed $590,414 (£118,080), and the out-of-work benefit, instituted in 1890, took $491,742 (£98,348). About the same ratio of expense for the different benefits has continued through 1896 and 1897. Travelling benefits not to exceed, in the aggregate, $20 (£4), and

not over $8 (£1 : 12s.) at any one time, are given as loans, so far as necessary to procure transportation to the nearest union in any direction that a member may desire to travel by the nearest route, but after obtaining employment 10 per cent of earnings must be devoted weekly to the repayment of the loan. The out-of-work benefits, after the first week, and not to exceed $3·50 (14s.) a week, and $54 (£10 : 16s.) a year, are given, and sick benefits of $5 (£1) a week. Funeral benefits of $50 (£10) are also paid, and, inclusive of the latter, $200 (£40) to dependent relatives, if the deceased has been a member 5 years, $350 (£70) if a member 10 years, and $550 (£110) if for 15 consecutive years. For the first 16 weeks of a strike or lock-out, $15 (£3) a week is given, and after that $3 (12s.) a week until the end of the difficulty. The total membership grew from 1016 members in 1877, 12,000 in 1885, and 26,114 in 1893, to 28,700 (in 350 locals) in 1896. In the three years ending 30th Juue 1896, 7174 members were involved in trade difficulties which did not always lead to strikes. Only 756 of the members lost in their contention, 3558 won, and the remainder secured some compromise, or had not yet settled the difficulty at the end of the third year. The entire weekly cost per member in 1895 was, for benefits, 27 cents (1s. 2d.), and all other expenses, 9 cents (5d.). The average expenses for all purposes, for the 5 years ending 30th June 1895, was 20¼ cents (10d.) per week per member. No strike is supported by the national body if involving more than 25 men, unless not only approved by the national executive committee, but by a two-thirds vote of the entire membership voting on the question. This provision was copied in 1890 by the International Brotherhood of Brass-workers.

An interesting feature of the union is that every one must vote on every election of officers, and on questions propounded through the initiative and referendum, which are in full force, or be fined 50 cents (2s.). This has increased threefold the number of voters, and is pronounced a success. Every candidate for high office must write 500 words for publication in the journal relative to the methods and aims of the union.

The *United Brotherhood of Carpenters and Joiners* in America was the largest trade union in America for some years, having 54,124 members in 1893. The paying membership declined to 29,691 in July 1896. From 1883 until July 1894, $310,583 (£62,116) was spent by the national body on strikes and $353,520·60 (£70,704) on funeral and disability benefits, while the locals spent $685,434 (£137,086) for sick benefits. During the next two years the national body spent $15,015·12 (£3003) on strikes, $91,002·10 (£18,200) on benefits, and $33,564·90 (£6713) for publishing the official organ *The Carpenter*, and other administrative expenses.

During 1889 to 1893 inclusive, the union claims that only 4 per cent of its strikes were lost, 476 were won, and 24 compromised. It also claims to have secured the eight-hour day in 49 cities, nine hours in 399 cities, and a short Saturday in 403 other places, instead of the universal ten hours' day that prevailed in 1891, while wages were also raised fully 50 per cent. There were, in the United States in 1893, 44 locals, and 2750 members of the British Amalgamated Society of Carpenters and Joiners.

The Knights of Labour, the most famous of American labour organisations, was designed by its founder, Uriah S. Stevens, to educate its members so that, through co-operation and state activity, the whole wages system might be finally subverted. It was a forerunner of the so-called new trades-unionism of England and America. It was one of the first labour organisations to admit employers, women, unskilled and negro labour. To break down trade exclusiveness, all trades were at first organised in mixed assemblies. This was found, however, to almost inevitably give those unacquainted with the conditions of any industry the right to determine strikes in that industry. To prevent this, and in a spirit possibly of rivalry with the older trades unions, there arose trade districts composed no longer of mixed assemblies, but of those exclusively belonging to a single trade: for example, the district assembly, 300 members, is composed of glass workers. These trade districts seemed to lose sight of the educational idea, and engaged in trade disputes quite recklessly, while a great antagonism with trades unions in the same trades was naturally developed. The organisation of the Knights of Labour did not provide for a thorough control of trade disputes by a national body as in the best of the trades unions. The secrecy of the order led to an exaggerated idea of its importance. Ignorant workers by the thousand were rapidly admitted without such preliminary instruction in the objects of the order as was intended, and to some extent carried out by the founders of the order in its early years. A national organisation was effected 1st January 1878. The membership was 10,000 early in 1879, 71,000 in September 1884, 111,000 in October 1885, while at the October 1886 session of the General Assembly at Richmond, Virginia, the membership was reported as 730,000. It is supposed early in 1887 to have reached 1,000,000 members. The character of the membership led to such reckless indulgence in trade disputes as to produce a very rapid decline, until at the close of 1893 the actual paying membership in good standing is generally estimated by those not in the order to be under

40,000. No official statement of membership has been made for some time. The majority of the leaders, and even a large portion of the rank and file of American trades-unions, have been at one time or another members of the Knights of Labour; and while they believe that its prominent position among organisations of labour is gone for ever, they admit that the trades unions have learned many lessons from the members of the Knights of Labour, one of which is, that an injury to one is the interest of all, and another is the importance of political activity of a non-partisan type. In accordance with the ideas of its founders, the locals of the Knights of Labour were to set aside at every meeting an educational hour for the discussion of questions other than local trade disputes. The result of this, too, has been very marked on the American labour movement (see FARMERS' ORGANISATIONS IN THE UNITED STATES).

Railroad Unions.—Of the approximately 1,000,000 men in railroad service in the United States, Canada, and Mexico, over all of which the same unions claim to extend, less than 100,000 are now members in good standing in the unions.

The *Grand International Brotherhood of Locomotive Engineers*, like the *Firemen*, *Trainmen*, and *Machinists*, refuses to admit negroes. Three black balls also exclude. About $1,000,000 (£200,000) in charity have been bestowed by the executive board since the foundation of the union, to say nothing of donations by locals. There is a special insurance department with policies of $1500 (£300) in case of death or total disability. No one can hold over three policies. Through the insurance department, about $7,000,000 (£1,400,000) have been paid to beneficiaries. The engineers have incurred the distrust of some other labour organisations by their refusal to federate with them, though occasionally they act in concert with other branches of the railroad service.

The *Brotherhood of Locomotive Firemen*, from 30th June 1880 to 30th June 1896, disbursed for death and disability benefits $3,836,621·20 (£767,324), and for four great strikes, in 1886, '88, and '93, $599,545·15 (£119,909). Very little was spent on any other strikes. In the two years ending 30th June 1896 the general expenses amounted to $141,062·02 (£28,212). There was spent on benefits $650,400·80 (£112,080), and for the protection of members in dealing with employers, $11,078·01 (£2215). Even the latter small item does not seem to have been all spent on strikes. The membership of the union 30th June 1896 was 22,461.

The *Brotherhood of Railroad Trainmen*, with about 24,000 members, has a permanent disability and a death benefit of $400 (£80), $800 (£160), and $1200 (£240), according as each person prefers to be assessed. From the organisation of the brotherhood in 1883 until 1st August 1897, $3,947,152·86 (£789,430) has been spent in payment of 3818 policies. Very little was spent for strikes—in most years nothing whatever. In 1896 the brotherhood spent nothing for strikes, $491,942·90 (£98,388) for benefits, and $73,987·01 (£14,797) for running expenses, of which $20,292·30 (£4058) was devoted to the monthly journal of the order. Through the influence of the union, the United States government, a few years ago, passed a law in accordance with which the safety appliances upon railroads have been greatly increased.

There are other brotherhoods of smaller size, such as the *Brotherhood of Railway Trainmen*, the *Brotherhood of Railway Shop Employees*, and the *Order of Railroad Telegraphers*—an organisation which, in 1893 (its first year), aimed to absorb all the railway workers, and which did secure a membership of over 25,000, went rapidly to pieces after its defeat in the great railroad strike in 1894. It was formally dissolved in 1897.

The *United Green-Glass Workers* took the initiative in 1884 in organising a universal federation of the window-glass workers of the world. Branches were organised in Belgium, France, Italy, and England, and would have been in Germany but for legal difficulties. At present the American branch pays $1000 (£200) yearly for the salary of the secretary-organiser, who is stationed in Belgium.

The American Flint Glass Workers' Union, with 7200 members, spent on a great strike, from June 1895 to June 1897, $941,843·50 (£188,368). Although the strike was largely a failure, and the earnings of all those at work, if apportioned equally among all the members of the union, was only equivalent to $7·97 (£1 : 12s.) for each week of the two years, while the strike assessments averaged $1·19 (4s. 6d.) per week in all, the membership was but slightly decreased. Disturbed by the competition of what the union claims are half-trained apprentices, non-union men, and immigrants, the union refuses to work with any non-union men or boys, and refuses to admit to its membership any foreigner, save on payment of $50 (£10).

The *National Association of Stationary Engineers*, organised in 1882, allows no strikes, differing in this respect from all the other unions which reported on this head. In the year 1892-93, $2110 (£422) were paid to the sick and disabled, 1610 books were added to the union's library, and 542 lectures were secured. In the prominence of this educational side, also, this union is unique.

In Michigan, 237 local unions of various national bodies, with a membership of 19,494, were investigated in 1896 by the state bureau of labour statistics, and the result is probably

typical of the unions generally throughout the country in the matter of benefit features. It was found that 21 unions paid out, in 1895-96, an average of $4·01 (16s.) weekly to each one out of work, while 112 made no report; 73 local unions spent, on the average, for each member who was sick, $5·04 (£1) per week, and 82 made no report; 107 unions spent on the average for strikes $6·43 (£1 : 5s.), and 79 made no report; 93 unions spent an average of $74·12 (£15) for each death in the order, and 82 made no report. The other unions, in each case, reported no expenses under these heads.

In Indiana, in 1893, according to the report of the state bureau of industrial statistics, 96 unions paid sick benefits aggregating $8254 (£1651), and 125 paid death benefits aggregating $16,409 (£3281). The membership of these unions then was 19,081 and the average number of hours per day worked was 9·7, or almost exactly the same as in Michigan.

In New York state, 474 organisations, with 121,925 members, reported to the New York state bureau of labour statistics in 1895, that they expended in benefits, in 1894, $511,817·59 (£102,363). Of this amount $89,150·04 (£17,830) was spent for strike benefits, and $10,676·74 (£2133) was donated to other labour organisations, presumably for strike purposes, or a total under this head of 19·5 per cent of the total benefits. For out-of-work benefits, $106,801·69 (£21,360) was spent; for sick benefits, $60,207·98 (£15,041); for death benefits, $93,437·92 (£18,685); and for other benefits, $151,543·22 (£30,308). A large part of the latter item seems to have been paid to members who were unable to procure employment. In 67 other labour organisations, 11,660 members reported that they financially aided their members, but failed to state the amount spent. The remaining 319 labour organisations, with 23,612 members, failed to make any report upon this head.

The first successful effort to federate a large number of American trades unions was made in 1866, when the *National Labour Union* was founded, composed of sixty organisations, only part of which, however, were national in extent. Its nomination of a presidential ticket in 1872 divided its membership, and the panic of 1873 completed the ruin of the union.

In 1881 there was organised at Pittsburgh, Pensylvania, the *Federation of Organised Trades and Labour Unions* of the United States and Canada, whose name was changed in 1886 to its present form of *The American Federation of Labour*. The growth has been steady, until to-day nearly all the important unions having a national organisation, excepting those in railway employment, are affiliated to it. It is impossible to give the number of unionists thus affiliated, because most of the unions do not pay a *per capita* tax to the federation on all their membership. This tax is three cents (1½d.) per member per year in the case of national unions and twelve cents (6d.) in the case of such locals as have no national organisation. A further difficulty arises from the fact that the same person may be represented in the federation twice, once as a member of his union and again as a member of the central labour body of his city.

At the 17th annual convention of the Federation, held in Cincinnati, Ohio, in December 1896, there were 64 delegates, representing 38 national unions which had paid in a per capita tax on 239,600 members. At the same convention 35 delegates represented local unions of perhaps as many hundred members. Three represented the state federations of Illinois, New York, and Massachusetts, and 15 represented the central bodies of Boston and Laurence, Mass.; Baltimore, Md.; Washington, D.C.; Erie, Pa.; Cincinnati, Toledo, Hamilton, and Zanesville, Ohio; Indianapolis, Ind.; Louisville, Ky.; Nashville, Tenn.; St. Louis and Kansas City, Mo.; and Duluth, Minn.

Although in 61 cities the central labour union, or federation of all the unions of the city, affiliate with the American Federation of Labour, New York, New Orleans, Buffalo, and a few other large cities do not affiliate.

The *American Federation*, though hampered by a small revenue and by contests, now growing less in number and bitterness, with the Knights of Labour, has been of value in bringing labour leaders together through correspondence in the annual conventions,—in helping forward the eight-hour movement, and all kinds of labour legislation. Occasional loans and even gifts are also made to trades unions, chiefly to secure proper legal presentation before the courts of what seem likely to be leading cases.

A few comparisons between the British trades union congress and the American convention of labour may be made, based upon an article in the *American Federationist* for December 1896 (published in Washington). Whereas in England the parliamentary committee is the only representative and executive body of the trade unionists between their congresses, a committee whose business it is to ask parliament for legislation, the representative and executive body in America between conventions, is the executive council of the American federation of labour, consisting of the president, four vice-presidents, a secretary, and a treasurer, annually chosen. The president now receives a salary of $1800 (£360) a year and travelling expenses, and the secretary $1500 (£300). It may be stated in passing that the salary, aside from travelling expenses,

of the chief of the Cigar-makers' International Union, is $30 (£6) a week, that of the Firemen $2500 (£500) a year, of the Railway Trackmen $1500 (£300), and of the secretary of the Bricklayers and Masons $1200 (£240),

The executive council of the American Federation concerns itself not only with state and national legislation, but with organisation, strikes, boycotts, grievances, etc. The president presides at all the sessions of the annual conventions, unless temporarily relieved at his own request, and appoints standing committees for the different phases of business considered by the convention, such as legislation, boycotts, labels, *The Federationist*, salaries, organisation, propaganda, grievances, etc. The British congress has no standing deliberative committees, and therefore has little time to consider anything save legislation.

In the American conventions the unit rule is unusual. The convention meets on the second Monday in December, and continues in session until all the business is transacted, usually nine or ten days. Reporters have never been excluded. Government representatives, excepting those for bureaus of statistics, are not seen at the conventions, but a few economists and others are usually in attendance.

The rank and file of American wage-earners in and out of trades unions are not yet committed to any very definite or large schemes of state activity, and are greatly kept back in this matter as compared with English wage-earners by constitutional limitations in national, state, and local government. The doctrine of *laissez-faire*, until lately fostered in America by industrial conditions that opened opportunities for advance to every one, is not at once shaken off. The greatest recent political achievement of labour in America appears to be in the law signed by President Harrison in his last year of office, prohibiting more than eight hours a day of labour on all future contracts for the national government. Another and older law forbids more than eight hours of work by government employés. These two laws are being introduced in the state and city governments. The unions are everywhere the chief supporters of factory and other labour legislation.

The years 1892 and 1893 witnessed a rapid growth of desire for state activity along the line of the so-called "new trades-unionism." The last convention of the federation in 1893 submitted to the consideration of the local unions the demands of the English trades-unionists for compulsory education; direct legislation; a legal eight-hour working day; sanitary inspection of workshops, mines, and homes; liability of employers for injury to health, body, or life; the abolition of the contract system in all public work; the abolition of the sweating system; the municipal ownership of street cars and gas and electric light plants for public distribution of heat, light, and power; the nationalisation of telegraphs, telephones, railroads, and mines; and the collective ownership by the people of all means of production and distribution. The attempt to commit the federation to this entire platform, including its last plank of pure socialism, by recommending it not only to the consideration but to the "favourable" consideration of the unions, was voted down by the slight majority of 1253 to 1185, and this was only secured by the method of voting in these conventions, which gives trades unions a vote for every 100 members for which *per capita* dues have been paid, but allows only one vote to each of the central bodies of the cities. Of the 15 representatives of the latter 14 voted to retain the word "favourable," and of the 86 delegates from all organisations 54 voted in the same way. Recent restrictions by the courts of strikes on railroads, when in the hands of receivers, as many now are, is increasing the demands by railroad employés for government ownership.

In the convention of 1894, at Denver, the federation struck out the demand for the collective ownership by the people of all means of production and distribution, but passed a vote upon all the other planks, which was interpreted by the convention in New York in 1895, by a large majority, as meaning that these planks should be considered legislative demands of the wage-workers, and not a political platform. In the convention in Cincinnati in 1896 the following resolution was passed:—

"Whereas the influences of corporations, holding, or seeking to obtain, possession of public franchises, are one of the most potent influences antagonistic to reformative measures, and the most active cause of corruption in politics and of mismanagement and extravagance in public administration; therefore, be it

Resolved, that the sixteenth annual convention of the American Federation of Labour urges upon all the members of affiliated bodies that they use every possible effort to assist in the substitution in all public utilities — municipal, state, and national, that are in the nature of monopolies— public ownership for corporate and private control."

The use of injunctions in labour disputes since 1893 has further increased the interest of the wage-earner in such political action as may check this new action of the courts. According to recent decisions, a judge may try without jury, and sentence for contempt for an indefinite period, all violators of some order of court prohibiting, perhaps, the marching on the highways in crowds, or the use of offensive epithets in the neighbourhood of a strike, or the interference in "any manner" as a recent injunction, in 1897, in Pennsylvania declared, "with the plaintiff's employees while they may be passing to and from their work . . . on or near plaintiff's premises."

Labour contests in the strongest organisations are more and more prevented by conciliation and arbitration. Conference committees of employers and employés often make yearly agreements in coal mining, glass, iron and steel making, cigar-making and the building trades. American trade-unionists, outside at least of railroad organisations, have a growing dislike to working with the non-union men, and in very many unions the members refuse to do so. This action finds its apology if not

its defence in the apparent economic success of the policy and in the use of similar methods by many combinations of capitalists, which refuse to deal with competitors who do not join the combination, or with customers who patronise such competitors. When the non-union man, denominated a "scab" by the union, tries to take the place of strikers, violence is often visited upon him by the union, as some years ago in England; but the majority of the unions do not countenance violence.

During the 13½ years from 1st January 1881 to 30th January 1894 there were 14,390 strikes in the United States, involving 69,167 establishments and 3,714,406 employés. In the 10,375 establishments having successful strikes, 1881-86 inclusive, 518,583 employés were involved. In the 3004 establishments in which strikes were partly successful, 143,976 employés were involved, while in the 8910 establishments in which the strikes were failures 660,396 or 49·9 per cent of the employés in all the establishments were thrown out of employment. In the 20,397 establishments having successful strikes from 1st January 1887 to 30th June 1894, 669,992 persons were involved. In the 4775 establishments where strikes were partly successful 318,801 employés were involved, while in the 21,687 establishments in which strikes failed, 1,400,988 persons, or 58·6 per cent, were involved.

The percentage of those failing in strikes during 1887-92 inclusive, prior to the depression, was 55·5 per cent. In the whole 13½ years 32 per cent of those thrown out of employment by strikes won, 12·46 per cent partly succeeded, while 55·5 per cent failed entirely. From the other 0·04 per cent no report has been obtained.

Of the establishments involved, 82·24 per cent, during 1881-86 inclusive, were subjected to strikes by order of labour organisations, and from 1st January 1887 to 30th June 1894, 69·6 per cent. The average duration of the strikes for the 13½ years was 25·4 days. In the first period, 1881-1886, there were 9409 establishments involved in strikes for a rise of wages. In 65·99 per cent of these the men were wholly successful, and in 8·43 per cent were partly so. In the second period 12,041 establishments were involved in strikes for this cause, and in 51·1 per cent the men were successful, and in 10·7 per cent partly so. In the first period there were 4344 establishments concerned in strikes for the reduction of wages, and in 24·29 per cent the men were wholly successful, and in 22·24 per cent partly so. The respective percentages in the 6199 establishments effected during the next period were 56·8 and 1·5. Of the 1734 establishments in which there were strikes against reduction of wages, in the first period the men succeeded in 34·2 per cent, and partly in 9·1 per cent. During the second period the percentages in the 3830 establishments were respectively 16·9 per cent and 25·4 per cent; of the 1314 establishments in which there were strikes for the recognition of the union in the second period, the men failed in 92·7 per cent. Of the 3620 settlements in which there were sympathetic strikes the men failed in the second period in 73·7 per cent.

Much of the opposition to non-union men which prevails among those not wage-earners is due to the comparative newness of unions in America and to the fact that the absorption of free government land, and the growth of manufacturing and mining, have only recently developed the need for labour organisations, a need which a majority of the American-born population reared under different conditions are yet unable to appreciate. The presence in the country of coloured, Chinese, Italian, Bohemian, Hungarian, French, Canadian, German, Irish, and many other nationalities, introduces many complications in labour disputes. These nationalities largely fill up the hard-handed industries which native Americans, perhaps in consequence of this foreign element, are loath to enter. Naturally the foreign-born enter the unions of their trade and give to many the impression that the trades unions are antagonistic to native Americans. Yet the returns of a large number of the unions indicate that the percentage of native Americans is fully as large in most trades unions as in the trade at large, and that the German only is considered to vie with the native American in aptitude for organisation. The absence, until very recently, of technical or trade schools accounts in part for the moderate percentage of Americans in some trades. In some cities every skilled tailor, for example, is of foreign birth, yet outside at least of a few trades in a few cities on the Atlantic coast there is, according to trades-union officials, more prejudice among the unions against than in favour of the immigrant. Nearly all of the trades unions organised prior to 1870 were chiefly composed of native Americans and led by them. A workman trained abroad must pay an initiation fee of $50 (£10) to enter either the *American Flint-Glass Workers' Union* or the *United Green-Glass Workers' Union of the United States and Canada*, perhaps the most successful of the large unions in keeping up wages and securing a six weeks' summer vacation, and a seven to eight hours' day.

The tableware branch of the *American Flint-Glass Workers' Union* presents the only instance known to the writer of an American union openly restricting the number of pieces its members shall make per day on piece-work.

The attitude of the unions toward apprentices attracts much attention in America. The rapid development of machinery and the dislike of both the boy and the employer for the restrictions of a three or four years' apprenticeship have dealt a fatal blow to this system of trade instruction in most trades. In industries where machinery is not the dominating factor, such as glass-making, iron-moulding, type-setting, brick-laying, and stone-work, plumbing, pattern-making, and a few very small trades like tack-making, knife-grinding, and tile-laying, there is a fairly successful effort by the unions to enforce apprenticeship laws, and even in some places to restrict the ratio of apprentices to journeymen. Even in those cases such statistics as have occasionally been gathered by state bureaus of labour statistics, as in Massachusetts in the census of 1885, indicate that there are usually more young men

in training without any formal apprenticeship, and much fewer apprentices than the trades-union rules would allow. Only about one per cent of American strikes relate to apprenticeship rules, and few of these succeed. Efforts are now being made to create a substitute for the apprenticeship system in manual training in schools.

Many unions have gained concessions from employers by having labels affixed to all goods made by their members. The members of all labour organisations are then urged to buy only such labelled goods, when purchases are made in trades where the label is in use. The secretary of the American federation of labour thus reported at the 1896 convention; "The unions now reporting the union labels are: the cigar-makers, boot and shoe workers, hatters, printers, garment workers, bakers, carriage and waggon makers, sardine packers, salmon fishermen, tobacco workers, tailors, moulders, wood workers, cracker bakers, coopers, flour-mill employés, brewery workers, mattress makers, broom makers, laundry workers, teamsters. The clerks, barbers, and waiters have cards, and the agents a badge. The growth of the union label is steady and sure. It is the backbone of some of our unions, and a great aid to them all. Label leagues are being instituted in many places, both on local and state lines, and are doing good work."

The trades unions of America have never sustained a broad, ably-edited labour paper, but support scores of monthly journals and a few weeklies devoted to the interests of the trade union which publishes such. A few have been excellent of their kind. A new and somewhat hopeful effort to bring out a strong journal has just resulted in the issue of the *Federationist*, a monthly organ of the *American Federation of Labour*.

Among the great organisers and leaders of the American labour movement in the past or present should be mentioned the following, with a word in regard to each. George E. M'Neil of Boston, author of an important history of American labour organisations, entitled *The Labour Movement*, and one of the first trade unionists to urge the eight hour day.—Uriah S. Stevens, a garment cutter of Philadelphia, and founder of the *Knights of Labour* in 1869.—Terence V. Powderly of Scranton, Pa., grand master workman of the *Knights of Labour* from 1879 to 1893.—Adolph Strasser, the virtual creator of the *Cigar-Makers' International Union*.—P. J. M'Guire of Philadelphia, secretary since 1881 of the *Brotherhood of Carpenters and Joiners*.—Samuel G. Gompers of New York, president since 1882 of the *American Federation of Labour*.—P. M. Arthur of Cleveland, O., and chief since 1874 of the *Brotherhood of Locomotive Engineers*.

[Reports, constitutions, and magazines, of the organisations treated, and correspondence with their officials.

George E. M'Neill, *The Labour Movement*.—Richard T. Ely, *The Labour Movement in America*. — *Third Report of the Minnesota Bureau of Labour Statistics*.—*Report for 1892 of New York Bureau of Labour Statistics*.—*Quarterly Journal of Economics*, January 1887, October 1891, July 1893, articles by Carroll D. Wright and Edward W. Bemis.—T. V. Powderly, *Thirty Years of Labour*.—*New York Tribune Almanac* for 1894, pp. 282-283, for list of eighty-one American trades unions, with address of secretaries and approximate membership.—*Third and Tenth Annual Report of United States Bureau of Labour Statistics*.—*Reports of the Bureaus of Statistics of Labour of New York State* for 1894, 1895, and 1896.—*Report of the Michigan Bureau of Labour Statistics* for 1896. *Journal of Political Economy*, June 1894, article, "The Homestead Strike," by Edward W. Bemis. — *Annals of the American Academy*, September 1894, article, "The Relation of Labour Organisations to the American Boy and to Trade Instruction," by Edward W. Bemis.—*The Chicago Strike of 1894*, report of the National Commission of Carroll D. Wright and others.—*Revue d'Économie Politique*, July 1895, article, "The Chicago Strike of 1894," by Edward W. Bemis.] E. W. Be.

TRAFFIC. See COMMUNICATION, MEANS OF.

TRANSFER OR "DEED OF TRANSFER" is the name for an instrument by which a mortgage or other debt or a share or debenture is assigned to a purchaser or devisee. Some companies require transfers to be executed in a special form (see FORGED TRANSFER). E. S.

TRANSFER DAYS are the days on which stock registered in the books of the Bank of England may be transferred. All business days except Saturdays are transfer days, and even on Saturdays transfers may be made on payment of a special fee. E. S.

TRANSFERS, TELEGRAPHIC. See TELEGRAPHIC TRANSFERS.

TRANSHUMANCE is the French name given to the periodical migrations of sheep and cattle from certain regions to others, for instance during summer from valleys to highly situated pasture lands in the mountains. Under this form it is still practised in Provence, Piedmont, and Switzerland, though it is falling into disuse in Southern France, where, however, some villages situated in the alpine region derive an income of 0.75 fr. to 1 fr. (say 7d. to 10d.) per head on sheep pastured on their territory. Since the necessity of replanting the slopes of the Alps became recognised, the French law of 1882 has imposed certain conditions and limitations on the passage and right of pasture of these flocks. Experience, moreover, has shown that it is more profitable to bring cows than sheep into these mountainous regions. Some French villages of the *Département des Hautes Alpes* send during the winter their cows to the neighbouring Piedmontese valleys, where the inhabitants feed them and are paid by the milk.

The system of *transhumance* is only appropriate to a low stage of agriculture, as it is apt to cause extensive damage to the fields through

which the flocks pass. In France landowners have always been able to protect themselves by inclosing their holdings, but in Spain, where this right was denied them, they suffered exceedingly (see MESTA).

In Algeria, numerous tribes of nomadic Arabs still regularly migrate every spring with their flocks of sheep from the boundaries of the Sahara, where they spend the winter, to the high table-land known under the name of *Hauts Plateaux*, and forming a broad zone parallel to the Mediterranean between Morocco and Tunis. As long as these bare and scarcely inhabited plains, held by the Arabs under their system of collective ownership, do not attract European colonisation, these migrating flocks, numbering several millions, will be allowed to continue their wanderings twice in the year, but difficulties will begin whenever European cultivation invades these regions.

[G. Couput, *Les laines et l'industrie lainière de l'Algérie*, Algiers, 1889.—J. Briot, *Étude sur l'économie pastorale des Hautes Alpes*, 1884.—Article "Transhumance" in the *Nouveau Dictionnaire d'Économie Politique*.—Roscher, *Nat. Oek. des Ackerbaues*, pp. 304-306.] E. ca.

TRANSIT, TOLLS ON. See INTERNAL CUSTOMS AND TOLLS.

TRANSPORT, COST OF INLAND. The modern organisation of industry could not have been established without improved methods of communication between producers and consumers. The railway and the factory have gone hand in hand in their development and in their economic results. With the means of transportation which existed two hundred years ago, large industries would have been impossible. The substitution of turnpikes for common roads, of canals for turnpikes, and of railways for canals, was as essential a part of industrial progress as was the development of the steam engine or of the factory system. Each of these improvements meant at once an increased investment of capital, a lessened cost of doing the actual work of transportation, and a vastly increased amount of actual carriage of goods. The large capital made it at once necessary and possible to make lower rates for the sake of developing business. The development of business, in turn, made further investments of capital and further reductions of rates possible. When the railway was first invented it was not thought possible to carry goods at less than 1½d. per ton per mile without serious loss. Twenty-five years ago most of the railway systems of the world were carrying goods at about 1d. per ton per mile. To-day the average rate in France is but ¾d.; in Germany, ⅔d.; in the United States, less than ½d. per ton-mile.[1] Nevertheless, so great has been the increase in traffic that the gross receipts per mile of road at these low rates are in many instances much greater than they had been at the higher rates which prevailed previously. The average freight charges on the New York Central and Hudson River Railway are to-day less than half what they were twenty years ago. But the traffic is four times as great.

Yet these figures by no means measure the full effect of railway transportation in abolishing the effect of distance as a limit to the sale of goods. Only a small part of these charges is actually due to differences in distance traversed. The immediate expense of carriage has decreased even faster than the general expenses of railway transportation as a whole. Every improvement in economy has rendered larger train loads possible without corresponding increase in cost, and has thereby reduced the expense of carrying goods as compared with that of loading or unloading them. A few years ago the carrying capacity of a waggon was not much greater than its dead weight. To-day the former can readily be made twice as great as the latter. In other words, two-thirds of a train load may be made paying weight instead of only one-half. Meantime, the weight of the locomotives has been somewhat increased, with a much more than proportionate increase in the carrying capacity. With a track adjusted to the standard of modern train economy and a reasonably level country, it is possible to carry gross train loads of more than nine hundred tons, of which six hundred may be actual goods carried. Omitting terminal charges and internal, the direct expenses of hauling such a train—train-men's wages, fuel, and other supplies, and repairs of rolling-stock—need not be over 2s. per mile run.[2] Or, by simple division, the direct cost of hauling a ton a mile, independent of terminal charges and interest, is not over one twenty-fifth of one penny. Or, to put the matter in another form, an added distance of one hundred miles haul makes but 4d. per ton difference in the cost of carriage. Conditions like these are not frequently realised, but they represent a possible limit of economy on any road of the first rank, and show how thoroughly railways have supplanted other means of inland transportation in efficiency and economy.[3]

While the cost of haul has been constantly reduced, the terminal charge has remained much more nearly constant. In some instances, with the overcrowding of population in large cities, it has actually increased. Such a state of facts makes equal mileage rates impossible. On a waggon road, or even on a canal, it costs nearly twice as much to carry goods two hundred

[1] The English lines give no figures of ton-mileage.

[2] This is a high estimate. The direct expenses per train-mile on English roads are barely 15d. and on American roads about 20d.

[3] Some of the wheat-carrying roads of the United States realise these conditions on parts of their main line.

miles as to carry them one hundred. On a railway, when once goods have been received, it makes comparatively little difference whether the haul be long or short. In England and America the attempt to base goods rates on a mileage system has been generally discarded. In France and Germany it is still theoretically maintained, but the exceptions are so numerous as to cover much more than half the traffic actually handled.

A more nearly correct arrangement of railway charges is based on a division of expenses into mileage and terminal. Those who would arrange rates on this system hold that the expenses of a railway are roughly divisible into two classes, one connected with the receipt and delivery of goods or passengers, the other with their actual carriage. They believe that fairness requires that each ton of goods should pay a definite terminal, plus a carriage rate proportionate to the distance. Such is the theory on which English railway schedules are arranged. But this system, though much better than the equal mileage plan, does not really meet the facts of the case. A large part of the expenses of a railway are not, properly speaking, either mileage or terminal charges. They do not attach to any particular piece of business, but to the operation of the railway as a whole. Interest on cost of construction remains nearly the same whether the traffic be large or small. Maintenance of way is to be charged by the year rather than by the ton of traffic. All these expenses are indirect, in distinction from the direct expenses of loading and hauling the goods or passengers carried. The consequence is that each railway rate really consists of three parts—a mileage rate for the carriage, a terminal for the expenses at either end, and a tax which the business is made to contribute toward the indirect expenses or fixed charges of the railway as a whole. The amount of such a tax which it is possible to pay depends more upon the value of the goods than upon anything else. Thus we find that all railways, whatever their nominal schedule of charges, actually classify their various shipments, not according to the direct cost of doing the business, but according to the value of the service rendered.

If it were possible to ascertain the cost of doing each piece of business, and to arrange railway schedules accordingly, the regulation of rates would be comparatively simple. But the introduction of this element of taxation complicates the matter almost beyond belief. It is, as Professor Taussig has pointed out (*Quarterly Journ. of Econ.*, v. 438 *seq.*), a case of "joint cost of production" on the very largest scale; one where the general expenses are so great that the apportionment of such expenses to the different parts of the traffic is a matter of vital importance. This work of apportionment or taxation gives the railway authorities a power which they are liable to use in an arbitrary manner. They are guided by the general principle of lowering rates where business will thereby be developed; in other words, where the burden of a high proportionate tax is most severely felt. But in the application of this principle they are liable to make mistakes. Nor has any satisfactory way been found of preventing these mistakes. The older systems of regulation proved illusory. Maxima were of little use, because of the right of the railways to produce inequalities by variations within the maximum limit. This power grew wider from year to year as railway economy became more highly developed, because the difference between the legal maximum and the possible minimum rate increased. Much was expected from competition of different carriers upon the same line. But this also proved futile, because of the superior public economy of having the business concentrated in the hands of one company. Nor was competition between different lines of any more avail. Where it existed at all it drove rates down so low that such points contributed almost nothing to the indirect expenses of the railway. The intermediate points were thus burdened with an undue share of the fixed charges. The growth of cities was artificially stimulated at the expense of the country. The business of large shippers was favoured, while that of smaller ones suffered. So great were these evils that contracts to abolish competition at terminal points by the division of traffic were generally regarded as useful to the public as well as the railways.

When competition was finally recognised as unsuccessful, recourse was had to legislative provisions for enforced equality between different shippers. The Railway and Canal Traffic Act of 1854 provided that no preferences should be given; in other words, that all persons shipping the same goods between the same points should be treated alike. The power to tax must not be used as a means of personal discrimination. The commission appointed under the act of 1873 attempted to carry this enforced equality still further, and to say that no greater aggregate charge must be made for a shorter than for a longer distance over the same line; and still later, that the longer distance must as a rule be charged actually more than the shorter one. Of these two principles the first is, as a rule, right; the second is of doubtful utility. Distance is often so unimportant an element as compared with terminal charges that the system of group rates is often the only practical or logical one. The Interstate Commerce Act of the United States provides that no more shall be charged for a shorter than for a longer distance, but does not forbid the roads to charge as much for one as for the other. The whole tendency of good

railway economy seems to be toward the abolition of inequalities rather than toward allowing either the perpetuation of old ones or the creation of new.

There is no doubt that the abuse of the taxing power may be very much diminished by conservative action on the part of the legislatures and courts. But the continental nations have not been satisfied with this degree of control, and have gone far in the direction of state ownership. Theoretically there are strong reasons for putting the taxing power in the hands of the state, but in practice the dangers of state railway management seem to outweigh its advantages. In the conduct of so complicated a business as railway management, the state officials have the same temptations to inequality as those of private corporations. As the Italian commission of 1881 said well—when a state attempts to tax industry it is more omnipotent and less responsible than a private corporation. The standard of efficiency reached by the continental roads is also far from being equal to those of England or the United States. Nor do the state railways of India or Australia furnish an exception to this rule. State railways sometimes give cheaper rates than private ones, but they rarely give anything like the same quantity of service, nor have they developed traffic to the same degree in proportion to the population. On the whole it may be said that government officials have no such stimulus to efficiency and economy as is felt by the representatives of a private business; and as long as this remains true, many advantages claimed for state railways will be found on closer observation to be illusory. Increased publicity of management and more direct responsibility to certain sections of the public will often do more to regulate abuses in railway management than could possibly be done by the transfer of the roads to government officials; while the difficulties and risks of the latter course would be vastly greater than those of the former.

[Within the limits of this article it has only been possible to touch upon a few of the leading points in the history of transportation rates and their regulation. International comparisons have been but sparingly made because of the different methods of keeping statistics in different countries. A large part of Mr. Jeans's book on railway problems is worse than useless on this account. The leading books on the economic side of the railway question are, for England, W. M. Acworth, *The Railways and the Traders*, London, John Murray, 1890; and Cohn, *Englische Eisenbahnpolitik*, Leipsic, 1874-83; for America, A. T. Hadley, *Railway Transportation*, New York, Putnam's, 1885; for the continent of Europe, E. Sax, *Die Eisenbahnen*, Vienna, 1879; and of a somewhat more technical character, Ulrich, *Eisenbahntarifwesen*, Berlin, 1886. A. M. Wellington's *Economic Theory of Railway Location*, though written for engineers, contains much that is useful to the student of political economy. The reports of the successive parliamentary committees of investigation, of the United States senate select committee on interstate commerce of 1885-86, and of the Italian commission of 1878-81, may also be consulted to advantage.] A. T. H.

TRANSPORTATION, The Economic Effect of. In attempting to estimate the economic effect of transportation, two things have to be considered—its effect on the country which transports the convicts, and that on the colony which receives them. To estimate the economic effect on the country which disposes of its convicts in this way is a much simpler task than to estimate the economic effect on the colony. In the latter case so much depends on conditions and methods, many of which have never had a fair trial. Only in England and Russia has the system been carried out with any thoroughness, and in the latter country much is still in the experimental stage. There are two distinct periods into which the history of transportation in England may be divided: (1) from 1619 to 1775, and (2) from 1787 to 1846.

1. In 1619, James I., by sending one hundred dissolute persons out to Virginia, practically converted a law passed by Elizabeth in 1597 for the banishment of rogues and vagabonds into an Act of Transportation. It was not, however, till the reign of George I. that the system came into common operation. The evidence as to the number of convicts transported to the American colonies is conflicting, but Dr. Lang (*An Historical and Statistical Account of New South Wales*) comes to the conclusion that there were in all about fifty thousand. The method used was very simple, and whatever may have been its moral effect, its economic effect would seem to have been beneficial. The English government sold the services of the convicts during their sentences to the captain of the ship which conveyed the convicts to America. He resold them on arrival to the colonists, who employed the convicts to work like slaves under overseers on the plantations. In England, it may be assumed these convicts would have preyed upon the community as thieves or vagabonds, or have been supported by it in prison: in the colonies the conditions of labour were such that no skill was required, while the work could be directed and enforced by an overseer. The fact that the colonists were willing to buy the services of the convicts, and also the fact that they were in the habit of kidnapping free men, shows that such labour was in demand. The resources of a new country made it easy for the convicts to obtain a living when their sentences expired. The evidence as to the extent of the

demand for convict labour is conflicting: in 1692 Maryland prohibited the landing of convicts, but in 1718 mention is made of "the great want of servants in His Majesty's plantations." While a contemporary historian, quoted by Dr. Lang, speaking of the convicts, says "their labour would be more beneficial in an infant settlement than their vices would be pernicious." The inference is that the colonists were glad to have the services of the convicts where no other labour was to be had, but for many reasons slaves, when they became easy to obtain, were more convenient, while it was not considered safe for the latter to see white men working as slaves. If the demand for convicts as labourers had ceased in the colonies, the government would have been obliged to adopt a less simple method of transportation, but the war of independence put an end to the system.

2. Transportation had more influence on the economic development of the Australian colonies. A detachment consisting of six hundred male and two hundred and fifty female convicts founded New South Wales, Van Diemen's Land, and Norfolk Island in 1788. For the first few years the convicts were engaged in clearing the land, making roads and bridges, and building houses. Road-gangs consisting of some of the worst criminals, who were employed in making roads and bridges under the direction of government officials, always remained part of the system. The inevitable hardships of the first few years were greatly increased by the ignorance of the convicts and their dislike of agriculture. In an account of the colony of New South Wales by David Collins, late judge advocate and secretary of the colony, it is stated that "more labour would have been performed in this country by one hundred free people than had at any time been derived from three hundred convicts." In 1795 convicts were, for the first time, assigned to settlers as servants. As this was the most economical way of disposing of the convicts, the government was willing to give large grants of land to any respectable settler who would employ the convicts, but the supply was generally greater than the demand. The great number of capital sentences before the amelioration of the law through the exertions of Sir S. Romilly (commenced 1808), and of consequent commutations into imprisonment for life, *i.e.* life sentences, led to an increased need for disposal of long-sentenced prisoners. There were 1314 sentences to death in 1819 (66 in 1849), and often 2000 to 3000 convicts were sent out in a single year. Gov. Macquarie (1805-1821) considered that the colonists only needed one-eighth of the convicts. This system of assignment has been allowed, even by the opponents of transportation, to have been beneficial from an economic point of view. Owing to the thinness of the soil, flocks were scattered, and shepherds in great request. The isolation of a shepherd, and the fact that his calling required no skill, were conditions favourable to convict labour. In 1849, when for moral, civil, and political reasons the rest of the colony of New South Wales was opposed to the continuance of transportation, the squatters, in a letter to Charles Buller, M.P., pleaded for its continuance on economical reasons: the cost of a convict, they asserted, was £10 a year less than that of a free labourer. The conditions of labour in towns were not so suited to the employment of convicts. Mechanics and clerks would not use their special skill without the hope of some reward. In this case, the effectiveness of transportation as a means of colonisation was opposed to its effectiveness as a punishment. As soon as free mechanics settled in New South Wales, the class of convict mechanics entirely disappeared. The condition of the emancipated convict was in every way satisfactory from an economic point of view. On his release he was given thirty acres of land, or fifty if married, and ten extra for every child. The large fortunes which were made by the convicts formed one of the chief objections urged by its opponents against transportation as a punishment. The small number of women convicts, however—in 1840 there were only seventeen women to one hundred men—interfered with the efficiency of the system as a means of colonisation. In attempting to sum up the effect of transportation on the Australian colonies, the same terms may be found applicable which were used to express the effect of the system in the American colonies. The labour of the convicts was economically beneficial to the colony, both in founding and developing it, where no better labour was to be had. Where other labour was to be had, there was no longer a demand for the services of the convicts, except as shepherds where the flocks were not valuable. As early as 1838 there was a demand in New South Wales for ten thousand free labourers, and for only three thousand convicts. In England, during this period, two points in connection with the economical effect of the system were the subjects of dispute. It was denied that it had a deterrent effect: it was also declared to be unnecessarily expensive. In the first case it was a serious drawback from the economic point of view, if it led to more citizens becoming chargeable to the community, but there is no sufficient evidence to show that this was the case. The evidence as to the expense is most conflicting. The following statement is taken from the Report on Transportation. From 1786 to 1837, one hundred thousand convicts were transported from this country to the Australian colonies.

Cost of transport	£2,729,790
Disbursement for general and convict colonial services	4,091,581
Military expenditure	1,632,302
Ordnance	29,846
Total from 1786 to 31st March 1837 . .	£8,483,519
Deducted for premium on bills, coins, etc.	507,195
	£7,976,324

In 1840 transportation to New South Wales was suspended. It was continued for a short time to Van Diemen's Land. As the result of an inquiry, undertaken in 1857, showed that there was no suitable place to which convicts from England could be transported, no more experiments are likely to be made. Western Australia was a stop-gap for a short period, when the more settled

Australian colonies objected. The Cape Colony successfully resisted a proposal to send there. In 1846 the system came to an end. The Australian objection now extends to the French use of New Caledonia, because of the escape of convicts thence.

At the present time Siberia is the only colony to which convicts are transported, with the exception of some penal settlements belonging to Spain in Africa, and also the French penal settlements in New Caledonia and French Guiana. The latter have been described as "prisons at a long distance from home." The evidence as to the economic condition of the Siberian convicts is scanty and conflicting. According to Mr. de Windt, it is obviously apparent to any one who has studied the Siberian exile system without bias that the object of the government is not so much to punish crime as to colonise Russian Asia. With this purpose in view the convicts are in many cases retained in prison for a very short part of their sentences, and every convict on release is given as much land as he can cultivate. But, according to Dr. Lansdell, this system is not always successful: the peasants will not allow their daughters to marry convicts, and the latter do not as a rule reform. In the island of Sakhalin, however, the case would seem, according to Mr. de Windt, to be somewhat different; the Government, besides granting the convict land, lends him a sum of money, and this money is as a rule returned. As convicts of Russian nationality are never allowed to leave the island, and as escape is almost impossible, the conditions are somewhat different from those on the mainland. The worst feature of the Siberian system would seem to be the want of employment for the convicts; while in prison most of them are quite idle. The silver mines of Nertchinsk are now the only ones in Siberia where convict labour is employed, the rest of the mines are falling into private hands. Even the Nertchinsk mine cannot be said to be productive; three to four thousand prisoners are employed, and in 1893 the output of the entire district did not amount to one ton. Although convicts have been sent to Siberia since the middle of the 17th century, owing to the drawbacks in the climate, the want of civilisation in the natives, the extent of the country, and the want of means of communication, the system would seem not to have achieved at present any definite economic effect, except in the island of Sakhalin, which would seem to be well cultivated by the convicts. The expense of such a system must be very great, and the different reasons for which people are sent to Siberia would make the economic effect of their absence from Russia difficult to determine.

Transportation in itself can hardly be said to have any distinguishing economic effect. Everything depends upon methods and conditions. It is evident from the above sketch of the history of the system that only some of the former have as yet had a fair trial.

[There is no work on the subject, and but little attention seems to have been paid to the economic point of view in books on transportation. The chief authorities are:—J. Hill Burton, *Emigrant's Manual*, 1851-52, esp. N.S.W. p. 17, Tasmania, p. 105.—Dr. Lang, *Transportation and Colonisation: An Historical and Statistical Account of New South Wales*, 1875. — Whately, *Remarks on Transportation*, 1834. — *Report of the Select Committee of the House of Commons on Transportation*, 1838. — Captain Maconochie, *Australiana: or Thoughts on Convict Management*, 1838.—*Letters to Charles Buller, junior, M.P.*, from "The Australian Patriotic Association," 1849.—H. de Windt, *The New Siberia*, 1896.—*Siberia as it is.*—Henry Lansdell, *Through Siberia*, 1882.] F. M. B.

TREASURY.

Treasury, p. 578; Treasury Bill, p. 579; Treasury Bond, p. 579; Treasury Department of the United States, p. 579.

TREASURY.— This department of state is generally looked upon as the chief of the departments of the British government, having at its head two great parliamentary officers, the first lord of the treasury, who usually leads the government of the day in the House of Commons, and the chancellor of the exchequer, who is responsible for the national budget and finance. In this department the budget of each financial year is prepared and settled, the estimates, when passed, are administered, and all questions of national finance and currency ultimately considered. Under its general supervision are all the revenue departments, the MINT, the General Post Office, and various minor offices.

The first germs of the present treasury office are to be found in the EXCHEQUER (*q.v.*), to which office the lord treasurer was in early times attached. The treasurer tended to become the most important of the exchequer officers, having duties in both courts—that of account and that of receipt. In early times he was empowered to appoint a vice-treasurer. The chancellor of the exchequer appears to have been originally an officer appointed with a view of controlling the treasurer. The earliest record of such an appointment is in Henry III.'s reign (1234 A.D.); the present functions of the chancellor seem to have taken their rise in Henry VIII.'s reign when he was also appointed under-treasurer.

The office of treasurer was first vested in a board of commissioners by James I. in 1612, and this paved the way for its separation from the office of exchequer, which may be considered to have been completed about 1660.

The exchequer from that time became the subject of considerable attempts at reorganisation by act of parliament, notably in 1688 and again in 1782 (Burke's Act); though the first comprehensive effort of this kind was the act 57 Geo. III. c. 84, which enacted that the duties of the officers of his majesty's exchequer should henceforth be discharged in person, and that the persons so discharging them should be unable to sit in parliament. In 1866 the old exchequer was formally abolished and the new exchequer and audit office arose (see AUDIT OFFICE).

The treasury proper, since 1714, has been administered by a board of lords commissioners consisting of the first lord, the chancellor, and two or three junior lords, the exact number not being fixed. The junior lords are nominated by the first lord.

The first lord as a rule takes no part in the general administration of the department: he is concerned chiefly with the patronage of the board and the general business of the government. Nor since 1856 has it been the practice of the board to meet except on quite extraordinary occasions.

The chancellor, who is still also by a separate patent appointed under-treasurer, is for all ordinary business purposes the parliamentary head of the treasury. He is responsible for the annual budget of revenue and expenditure (see BUDGET) and the general finance of the country.

The junior lords may take a certain share of the treasury business from time to time, but their position is mainly political.

More important in practice are the two offices of secretary to the treasury; one that of financial secretary, the other that of the patronage secretary, thus corresponding to the financial and political sides of the department which have been already indicated.

The permanent staff of the treasury, on whom the brunt of the annual work must necessarily fall, whatever ministry may be in power, consists of a permanent secretary, a financial secretary, an auditor of the civil list, four principal clerks, and various senior and junior clerks.

[Madox, *History and Antiquities of the Exchequer*, 1711.—Anson's *Law and Customs of the Constitution*, pt. ii. pp. 164 *et seq.*] C. A. H.

TREASURY BILLS. Part of the FLOATING DEBT (*q.v.*) is raised by the issue of treasury bills pursuant to 40 Vict. c. 2, as amended by 52 Vict. c. 6, § 5. These bills are distinguished from the EXCHEQUER BILL (*q.v.*) by the fact that the maximum period of their currency is twelve months, and that they are as a general rule issued for much shorter periods. They enable the government to borrow money at very low rates of interest, but it would not be advisable to issue a very large amount, as it might be difficult to renew bills falling due at a time of financial pressure or to find means to meet them. E. S.

TREASURY BOND is a term chiefly used in the United States: it answers pretty closely to our EXCHEQUER BOND (*q.v.*), that is to say it is a security issued by the public treasury for moneys lent to the government for a limited period, and not as part of the permanent debt of the nation.

A similar name is sometimes given to securities of certain British colonial governments, which are intended to have a limited currency. C. A. H.

TREASURY DEPARTMENT OF THE UNITED STATES. Between 1776 and 1789—the date of the present constitution of the United States—the treasury business of the government was loosely managed, and, for most of the period, without any real concentration of authority. During the war of independence, financial affairs were first entrusted to two treasurers, then to a standing committee of congress known as the treasury board, and finally, in 1781, to the superintendent of finance. In 1789, by the act of 2nd September, with the new form of government, the treasury department was established with a single head styled secretary of the treasury, not, however, without opposition, on the ground that it was unsafe to trust such important powers in the hands of one man. The secretary of the treasury was authorised to prepare plans for the management of the revenue and the support of the public credit, to report budget estimates, to superintend the collection of the revenue, to decide upon methods of keeping accounts, and to execute laws relating to the sale of public lands. It is to be noted that this secretary, unlike the others, reports directly to congress instead of to the president. It was further provided by the act of 10th May 1800 that the secretary should lay before congress at the beginning of every session a financial report, thus making a series of annual documents which now constitute a record of the financial history of the government. The other officers named in the original act of establishment were a comptroller, auditor, treasurer, and registrar. In brief, the comptroller looks after the propriety of the accounts; the auditor, that they are presented in proper clerical form; the registrar, that the vouchers and bills are preserved; and the treasurer, that no money leaves the vaults save by proper warrants. The treasury department is the settling office of all the accounts of the other departments of the government. In the fundamental principles as thus provided by the act of 1789, and in the methods as initiated by the first secretary, Alexander Hamilton, there has been but little change. The treasury department has grown to large proportions, and now includes a great variety of bureaus, such as the mint, internal revenue, comptroller of the currency in charge of the national banking system, the bureau of engraving and printing, marine hospital service, revenue cutter service, including the patrol of the fur seal fisheries, lighthouse service, life-saving service, steamboat inspection office, coast and geodetic survey, office of supervising architect, and the commissioner of navigation. The number of comptrollers and auditors has varied at times with the increase of business; but by the important act of 31st July 1894 the number of comptrollers was fixed at one, and the auditors at six. In general, each auditor settles the accounts of one department.

None of the principal officials can have any connection with commerce, vessels, public land, or any public property. The treasury department through its various bureaus and divisions of work has its ramifications all over the country. In the customs administration there are over one hundred ports of entry, at each of which there is a collector of customs who is the chief officer of the port. Under his direction is the surveyor or chief out-door officer, and, in addition, the naval officer who verifies and countersigns many of the more important acts of the collector in estimating, levying, and liquidating duties. In 1896 there were 847,203 entries; the average number of persons employed in this branch of service was 5085; and the cost of collecting duties of the country as a whole was 4·28 per cent. In the internal revenue department there were, in 1896, 63 different districts for the collection of duties on tobacco, beer, spirits, oleomargarine, and playing-cards. The percentage of cost of collection in this branch of service was 2·78 per cent. The number of national banks supervised by the comptroller of the currency, 31st October 1896, was 3679, and under this office are examiners constantly engaged in the investigation of the management of these institutions. Upon failure of a bank a receiver is appointed by the comptroller. For the mint bureau, see article MINT, UNITED STATES. The other bureaus referred to are not so closely identified with the economic and financial interests of the country, and further reference is therefore omitted here.

Originally the funds of the government were kept in the First United States Bank, 1791-1811; the Second United States Bank, 1816-36; or in the state banks, known in Jackson's administration as the "pet" banks. By the act of 1846, however, the independent treasury system was established, by which the government takes care of its funds in its own depositories. Such depositories at the present time are the treasury at Washington, and nine sub-treasuries under charge of assistant-treasurers. National banks are also permitted to hold government funds on deposit. For an exhaustive treatment of this branch of administration, see *The Independent Treasury System of the United States*, by David Kinley, New York, 1893. D. R. D.

TREATIES. See COMMERCIAL TREATIES.

TREITSCHKE, HEINRICH VON (1834-96), was the son of a general in the Saxon army. He became privat-dozent in history at Leipzig in 1858, and professor at Freiburg, Baden, in 1864, and in Berlin 1874.

In 1874 his growing dislike of socialism led him into a warm controversy in the *Preussische Jahrbücher*, July and September 1874, with Prof. Gustav Schmoller, who replied in Hildebrand's *Jahrbücher für Nat. Oek. und Statistik* (vols. xxiii. xxiv.). Their discussions grew into two volumes, *Socialismus und seine Gönner nebst einem Sendschreiben an G. Schmoller*, H. von Treitschke, Berlin, 1875.—*Ueber einige Grundfragen des Rechts- und der Volkswirthschaft, ein offenes Sendschreiben an Herrn Prof. Dr. H. von Treitschke*, Gustav Schmoller, Jena, 1875. Treitschke's brilliant style was undoubtedly in his favour. His merits as a historian are generally recognised. He was intensely patriotic. [See *English Historical Review*, October 1897, "Heinrich von Treitschke," by J. W. Headlam.] J. B.

TRESPASS. A name formerly applied to a variety of torts, *i.e.* delicts or civil injuries (see TORT). It is now commonly used to denote the wrong which consists in entering upon another man's land without lawful authority. Such entry does not in itself constitute a crime, and the familiar notice "Trespassers will be prosecuted" is therefore absurd; but it will support a claim for damages in a civil action. F. C. M.

TRET. See TARE AND TRET.

TRIAL OF PYX. See PYX, TRIAL OF.

TRIAL PLATE (ASSAY). A thin sheet of gold or silver of the standard fineness, from which portions can be cut to be used as check pieces when conducting assays.

In connection with the assays of coins, such plates have been in use for many centuries; the oldest trial plate of which record exists being a silver one of the reign of Henry III. (reigned 1216-1272). The practice of referring to trial plates of standard metal as reliable guides is however open to objection, because of the difficulty of preparing alloys of a precise standard and of absolute uniformity of composition. The latter quality is practically unattainable in the case of silver of the English standard of 925, owing to the operation of certain molecular changes (known as liquation), which take place while the alloy is cooling, after having been melted and mixed in the due proportions. The preparation of an accurate gold trial plate is not accompanied by any such inherent obstacle; nevertheless many of the old gold trial plates have, on careful examination, proved to vary to some extent from absolute uniformity of composition throughout the entire plate. A standard gold plate, however, which was prepared in the mint in 1873, did not vary from the exact standard to a greater extent than a two ten-thousandth part.

The difficulty in obtaining absolute accuracy in an alloy has led to the adoption in recent years, by the assay department of the royal mint, of test pieces of *pure* gold and silver, instead of standard metal, and fine gold and silver trial plates were prepared in the mint in the year 1872. Portions of these plates are still in use in the department.

The remains of the old trial plates, formerly kept in the Pyx Chapel Abbey, Westminster Abbey, were transferred to the custody of the mint in the year 1842. F. E. A.

TRIBAL SYSTEM, THE. Under this heading is loosely embraced the body of customs by which tribal societies are governed under their tribal chieftains. Each tribe has its own customs, and there are therefore many tribal systems, but they resemble one another in their main features. The more nomad and pastoral a tribe may be, the more primitive, and, in a sense, tribal, are its customs. And as from contact with the outer world, or conquest, or increased population, the stage of settlement and settled agriculture is reached, modifications take place, and often the village form of settlement becomes predominant. In VILLAGE COMMUNITIES (*q.v.*) many principles based on older tribal customs survive with modifications. Especially in India the gradual recognition of these tribal elements has been important. One tribe, *e.g.*, conquers another and takes by way of tribute part of the land or a share in the produce. The lordship becomes divided into innumerable shares in course of time, and the necessity for a village accountant arises to divide the tribute, thence under English rule the difficulties of land settlement (see under ZEMINDAR). Much information on the general subject, and especially as regards India, is contained in Sir A. C. Lyall's *Asiatic Studies*, Mr. B. H. Baden-Powell's *Indian Village Community*, and Sir H. Maine's *Early History of Institutions*.

As regards British tribal systems, the chief original sources of information are the *Brehon Laws* of Ireland and the *Ancient Codes* of Wales. According to the latter, Cymric tribal society was held together by the bond of blood relationship. The chief unit of organisation was the kindred—embracing descendants of a common ancestor to the ninth degree. And within this larger kindred, under its head chieftain, were smaller inner kindreds and family groups embracing the descendants of a common great grandfather. This inner kindred, called a *gwely* or *wele* (*lectum* or bed), formed the unit *inter alia* for land holding. In the extents made after the final conquest of North Wales, 1283 A.D., Ed. I., these holdings—mainly consisting of rights of grazing of the tribesmen's herds of cattle—are still described as *gwelys* bearing the name of the ancestor—the gwely of so and so—though he may have been long dead; and within this head gwely are described the sub-gwelys or *gavels* of his sons and grandsons and great-grandsons. The head gwely held together, according to the codes, till the great-grandsons divided, they being entitled *per capita*, and not *per stirpes*. At the time of the extents the rights of the tribesmen *inter se* were so fully recognised that a gwely or group of tribesmen with its herds of cattle could be removed from one district to another and possess in the new locality the same rights *inter se* as in the old one. And according to the ancient codes it would seem that whilst the landed rights were vested in the head of the gwely, his descendants had rights of maintenance under him on attaining a certain age independently of their parents. Under this system strangers in blood or non-tribesmen were grouped together in what were called *taeog-trevs*, and held *per capita* in equal shares, but after three generations the descendants of a common ancestor often formed a gwely as in the case of the tribesmen. These groups of non-tribesmen were *adscripti glæbe*, and paid food rents to the chieftain. The free tribesmen also contributed *guestva* or food gifts. The chieftain and his retinue on his hunting and hawking expeditions were quartered on the tribesmen and non-tribesmen according to fixed tribal custom, but already the substitution of money payments in lieu of tribal dues was becoming usual at the time of the Conquest. These tribal customs were not abolished till the "Statute of Wales" under Henry VIII. And it was not till the lawyers of Queen Elizabeth substituted leases for lives for the confused Welsh tenures that the system finally died out.

Much remains to be done before the descriptions of Cæsar and Tacitus of the tribal systems of the Germans and Gauls are understood, and before the contribution of tribal custom towards mediæval institutions can be fully appreciated.

[See Mr. F. Seebohm's *Tribal System in Wales* (1895), and for the way in which the Tudor lawyers dealt with the confused débris of this system after the "Statute of Wales," see the *Report of the Welsh Land Commission* (1896), pp. 133 *et seq.*; see also Mr. Herbert Lewis's *Ancient Laws of Wales* (1889), and Mr. A. N. Palmer's *History of Ancient Tenures of Land in the Marches of N. Wales*. As regards the Brehon Laws of Ireland, see the prefaces to the vols. already published of the *Ancient Laws of Ireland* and E. O'Curry's *Manners and Customs of the Ancient Irish*, edited by Sullivan (1873). As regards Gaul, see the works of FUSTEL DE COULANGES, and of Jubainville; and as regards Germany, the great work of Meitzen, *Siedelung und Agrarwesen der Westgermanen und Ostgermanen*.

For comparative purposes the following works may be consulted: Kovalewsky's *Droit coutumier Ossetien* (Paris, 1893); H. E. Seebohm's *The Structure of Greek Tribal Society* (1895), and Dr. A. H. Post's *Ueber die Aufgaben einer allgemeinen Rechtswissenschaft* (1891).]

TRIBUTARIUS. Under the Roman empire *tributarii* were free husbandmen who paid to their lord a share of the *tributum* due from him to the emperor (*cod. Theodos.*, xi. tit. vii. 2). There is evidence (v. tit. iv. 3) that the inhabitants of newly conquered districts were frequently transplanted to serve as free *coloni* or *tributarii*, so that, as Seebohm remarks, the Roman villa under its *villicus* began to wear the aspect of the manor of a later date.

Ammianus Marcellinus (xxvii. 8, § 7) mentions *tributarii* in Kent in 368 A.D. Ducange states that they were bound to servile work. R. H.

TRINODA NECESSITAS. See FYRD.

TRIPLE ASSESSMENT is the name given to Pitt's scheme for raising additional supplies in 1797; it formed the basis of the act 38, Geo. III. c. 16. It was adopted in order to prevent any further accumulation of the FUNDED DEBT. Pitt thought he could, by means of it, draw a considerable contribution from a class both willing and able to pay without pressing upon the labouring classes.

The ASSESSED TAXES at that time were of two sorts—(*a*) the tax on windows, first imposed in 1696, and the INHABITED HOUSE DUTY, first imposed in 1778, both of which had, from time to time, been rearranged since their first imposition; (*b*) taxes on coaches and carriages, male-servants, carriage and saddle horses, dogs, watches and clocks, imposed at various times in the second half of the 18th century.

Pitt now divided the assessed taxpayers into two new classes; those who were assessed to the duties on houses, windows, dogs, or clocks, or watches, and persons who were assessed to the duties on male-servants, carriages, or pleasure horses.

Persons of the first of these classes, assessed to an amount less than £1, were to be exempt from any additional duty; but if to that or a greater amount, they were to pay as follows:—

If the existing amount was							
Under £2	.	.	.	¼	part	thereof	addl.
If £2 and under	£3	.		½	„	„	„
„ 3 „	„ 5	.		¾	„	„	„
„ 5 „	„ 7:10s.			the amt.		add.	
„ 7:10s. „	10	.		1½	times	„	
„ 10 and	„ 12:10s.			2	„	„	
„ 12:10s. „	15	.		2½	„	„	
„ 15 and	„ 20	.		3	„	„	
„ 20 „	„ 30	.		3½	„	„	
„ 30 „	„ 40	.		4½	„	„	
„ 40 „	„ 50	.		4½	„	„	
„ 50 and upwards		.		5	„	„	

Persons of the second class were to pay an additional duty on the amount of the last assessment in the proportions following.

If the existing rate were							
Under the amt. of	£25	.	.	3	times	the amt.	add.
If £25 and under	£30	.	.	3½	„	„	„
„ 30 „	„ 40	.	.	4	„	„	„
„ 40 „	„ 50	.	.	4½	„	„	„
„ 50 and upwards		.	.	5	„	„	„

The fact that the additional amount to be paid by persons of this class was never less than three times the amount of the existing rate, caused the scheme to be named Triple Assessment.

Special provision was made for lodging-house and shop keepers. If they were assessed to an amount less than £3 to the duties on inhabited houses, windows, dogs, and watches, they were exempted from any additional duty. If the amount were £3 and less than £5, they paid one-tenth part thereof additional; if £5 and less than £7:10s., one-fifth part thereof additional; and so on in a regular scale to those assessed to an amount of £30 and upwards, who paid twice the amount additional.

The additional duties were to be paid in six instalments in the year. To prevent evasion they were based on past and not on future assessments.

Persons whose annual income was less than £60 were exempt from the additional duties; where it amounted to more than £60 they were entitled to abatements according to certain gradations of income. There were twenty-nine grades. The first applied to persons having incomes of £60 and under £65; they might claim such an abatement as would reduce the tax to a 120th part of their income. The 28th applied to persons having an income of £195 and under £200; they might claim a reduction in the duty to an eleventh part of their income. Finally those who had incomes of £200 and upwards could claim to have the tax reduced to a tenth part of their income.

To obtain such exemption or abatement the person claiming had to appeal to commissioners appointed for the purpose and to produce at the same time a signed declaration attested by two witnesses in the form set out in the schedule to the act. The claim was in no case to be allowed unless verified on oath or affirmation. The schedule also contained rules for estimating the incomes of persons appealing against an assessment under the act, and rules setting forth in what cases and on what account any deductions might be made in estimating "fair" income.

The scheme was based on the assumption that the assessed taxes were a true measure of expenditure, and expenditure a true criterion of income. The objection to a direct income-tax seems to have been that it required a disclosure of the pecuniary circumstances of the taxpayer, which, in the language of the protest by Lords Holland and Oxford (*Journals of the House of Lords*, vol. xli. p. 466), "is contrary to the customs and prejudices of Englishmen, and repugnant to the principles of the constitution." But, in spite of this objection, Pitt's legislation required such a disclosure where a taxpayer desired any exemption or abatement.

The method of raising supplies by increasing the assessed taxes was not new. On three occasions an additional tax of 10 per cent had been imposed on the existing assessed taxes. But the system of graduated taxation introduced a new principle into English finance. Triple assessment was a failure; it yielded considerably less than Pitt expected, and was abolished the following year, a direct INCOME-TAX being then substituted.

[*The Statutes—Parliamentary History*, vol. xxxiii.—Stephen Dowell, *History of Taxation and Taxes in England*, 2nd ed., 1888.] G. I. T.

TRIPLE CONTRACT. See Eck., J.; Major, John.

TRONAGE. The mediæval English term for the charge made upon the compulsory weighing of coarse goods at the public Great Beam (or Tron), as well as the right to demand such a payment.

It would seem that while the small beam was used for weighing certain fine wares, dealt in by the pound, the Great Beam was used for those sold by the wey, hundred, quarter, stone, and other heavy weights (see Measures and Weights). The most important, evidently, was wool for export, and for this there was probably a special beam at all the chief ports, as we know there was in London. The right to maintain such a beam, to compel its use, and to make a charge for the service, belonged to the king, who, of course, could grant it or farm it out to a subject. In London the right was for a long time shared between the city and the Grocers' Company. The name of the beam survives in the Tron Church, built on the site of the Tron of Edinburgh.

[The matter is not free from obscurity, and has not yet been sufficiently investigated. For London a good deal of material will be found in the *Liber Albus*, Stow's *Survey*, and Herbert's *Livery Companies*. For amercements inflicted upon butchers for selling tallow "without visitation of the tron of our lord the king," see W. Hudson, *Leet Jurisdiction in Norwich* (1892), 52, 60. Other references are given in Ashley, *Economic History*, and Mrs. Green, *Town Life in the Fifteenth Century*, ii. 27, 28. Compare for Germany Maurer, *Geschichte der Städteverfassung*, § 407.] W. J. A.

TROTTER, Sir Coutts, Bart. (1767-1837), for many years a principal partner in Coutts's Bank, began his career in the navy pay office and entered the bank in 1793. He wrote a pamphlet:

The Principles of Currency and Exchanges applied to the report from the Select Committee of the House of Commons appointed to inquire into the high price of Gold Bullion, London, 1810, 8vo —"no excess in the paper circulation of the country"; "there is a sufficient check and control in the issues of paper"; "the currency of the country is in no way depreciated by the use of paper"; "the high price of bullion is owing to the present state of the foreign commerce of the country combined with its foreign expenditure"; "our present unfavourable exchanges are in no way caused by our paper currency" (p. 5).

[*Annual Register*, 1837, p. 203.—*Gent. Mag.*, Oct. 1837, p. 423.—Jerdan's *Autobiography*, 1852, ii. 214-29.] H. R. T.

TROY POUND. See Pound.

TRUCE OF GOD. The horrors of mediæval warfare produced from time to time strong reactions in favour of peace. One of these gave rise to the famous *Pax Dei* or *Treuga Domini*.

About the end of the 10th century it was reported in Aquitaine that an angel had brought from heaven to a certain bishop a written command that men should abstain from wars and fightings. The story was generally believed; the clergy everywhere preached peace, and the people received their message with enthusiasm. At the council of Charroux, held in 989, it was agreed that for five years hostilities should cease. The undertaking was to be renewed at the end of every quinquennial period; but it next emerges, not as a solemn covenant to refrain from all war, or even all private war, but as an agreement to keep the peace from the evening of Wednesday till the morning of Monday, these days being sanctified by the institution of the Lord's Supper, His crucifixion, His rest in the grave, and His resurrection. From Aquitaine the truce spread to Burgundy, and from thence to other lands. Popes confirmed it; the church threatened with excommunication those who broke it; and it was enforced by council after council up to and including the third Lateran council of 1179. The period of its general reception is stated to have been the middle of the 11th century. Normandy, which was one of the last countries to adopt it, was convinced in 1042, when the council of Caen decreed that for four days and five nights in each week men and women should abstain from violence against their fellows. However imperfectly the Truce of God was observed, its adoption was a great triumph for Christianity and the Western Church.

[See Ward, *History of the Law of Nations*, ch. xiii., London, 1795.—Freeman, *Norman Conquest*, ch. viii., Oxford, 1877.—Milman, *Latin Christianity*.] T. J. L.

TRUCK.

Truck, p. 583; Truck Acts, p. 584; Fines and Deductions, p. 584; Truck System, p. 586.

Truck (French *Troc*) signifies barter. The existing statutes dealing generally with the "truck system," or the practice of paying wages otherwise than in cash, are the Truck Acts 1831, 1887, and 1896.

According to these acts any contract between employer and workman is illegal, null and void, if it provides for the payment of the workman's wages otherwise than in the current coin of the realm, or contains a stipulation respecting the place where, the manner in which, or the person with whom the wages shall be spent; and an employer entering into a contract declared by the acts to be illegal, is subject to a penalty. A qualified exception, however, is made in the case of agricultural labourers, with whom farmers may still contract to supply them with food, non-intoxicating drink, a cottage, or other allowances or privileges, in addition to money, as part of their wages.

It is further provided that no employer is to be permitted to make deductions from the monetary wages he has contracted to pay merely on the plea of having paid an equivalent in another form. It has been held that this

provision does not prevent him from imposing certain disciplinary fines upon his workmen and deducting the amount from their wages, or from contracting with them for periodical deductions for workroom, gas, firing, the use of machinery, and the like; but the Truck Act 1896 now provides that such deductions shall not be made unless certain stringent rules are observed in connection therewith. Deductions in respect of certain other classes of allowances, such as medicine, horse's fodder, tenancy of a house, and meals eaten on the employer's premises, with the written consent of the workmen, are expressly authorised by the former acts. It is to be observed that, inasmuch as the value of the allowances must be expressed in terms of money before it can be deducted from the monetary wages, the limited sanction which the acts grant to certain deductions is not necessarily inconsistent with their general policy of recognising no form of industrial remuneration but cash. Except in the case of agriculture, workmen's wages must always be estimated, though they need not always be paid, in money. The acts already contain several provisions for securing the fair valuation of the allowances in respect of which deductions are made; but on this point the law is considered by some to be defective.

Provisions analogous to some of those of the truck acts are contained in the Coal Mines Regulation Act 1887, the Hosiery Manufacture (Wages) Act 1874, and the Payment of Wages in Public-Houses Prohibition Act 1883. T. G. S.

TRUCK ACTS. *Fines and Deductions* are practically the only forms in which truck survives. For though occasionally a conviction still occurs for payment of wages in goods instead of money, such a case is unusual, and may be regarded only as a survival of an obsolete system. Fines and deductions, however, prevail widely, and are still of considerable importance as affecting the rate of wages in many classes of occupations.

In the case of industries isolated in a remote town or village, even the tommy-shop sometimes still exists, as in some chair-manufacturing villages in the Chiltern Hills, or small tailoring establishments.

Deductions may be classified as follows:—(1) deductions for things supplied to enable the worker to do his work, as tools, materials, help, or a workroom; (2) deductions for things supplied to the worker as part reward for his labour, as insurance, a house, funeral benefit, etc.; (3) deductions in respect of fines. Deductions of the first class are clearly survivals of the domestic system of industry. The idea that each worker was a manufacturer selling a finished product—and not merely the temporary use of his strength and skill—and himself providing the requisites of production, having lasted on after the introduction of machinery, had resulted in the drawing together of the isolated craftsmen into the factory. As an illustration of this the following "rules" from the "Price and Size List," agreed upon between masters and men in the bolt and nut trade, 17th August 1881, may be given: (i) "where fan blast is used, each hand to pay 1s. 6d. per week; (ii) each hand to pay 4d. per week for having the breeze wheeled to his hearth ready for use; and (iii) for having his hearth cleaned weekly; (iv) all work rejected by the employer or manager as useless to be put on the scrap heap in presence of the maker, and the value of the spoiled iron and breeze to be then and there assessed and agreed upon, and the same to be deducted from the maker at the first pay-day; the waste to be the property of the workman after he has paid for it." Here, apparently the material is supplied by the firm, except that in the case of spoiled work the worker pays for the material wasted, and becomes the owner of the waste. But the workman pays for the cleaning of his hearth, a modified form of rent for his place in the workroom, and for his share of the common machinery. A nut and bolt is a modified nail, and the Commission on Truck, 1871, gives us a picture of this older trade as still in the "domestic" stage, and consequently here we find the workman bearing all the charges which fall upon the manufacturer. On Saturday or Monday the nailmaker obtains from his employer the bundles of metal which are to be used during the following week, and, with the help of his wife and children, works at them in the little smithy attached to the hovel in which he lives, carrying back his tale of nails at the end of the week. It has everywhere been the endeavour of the workman, having lost the opportunity to earn profits, to rid himself also of the responsibility of the *entrepreneur* and of risks which properly fall on profits; hence his hostility to all forms of deductions. Deductions for materials and tools have frequently been a pretext for fraud on the part of the employer, who attempted to make a profit on the sale of materials to the workman, or on the use of machinery, *e.g.* the rent of knitting-frames. The Truck Act, 1896, makes it illegal for an employer to make any profit on materials supplied. His only inducement to supply them is therefore such advantage as he may obtain by insuring the use of proper materials in his business.

The second class of deductions—things supplied as part reward of labour—seems to be based upon the idea of the paternal responsibility of the employer. They were at one time numerous, and were very liable to abuse by unscrupulous employers. The pernicious results, for example, of deductions for house-rent are shown in all reports of select committees or commissions on truck. But by the Truck Amendment Act, 1887, all deductions of this class, except those for benefit societies and for schooling, were made illegal. Deductions for school have ceased with the introduction of free elementary education. Deductions for benefit societies of various kinds are now the only deductions of this class which remain, and they are of importance because they have shown a tendency to increase in recent years. All the great railway companies have one or more benefit, accident, or superannuation funds. The practice of establishing such funds has also been taken up by corporations, as well as by some private and many public firms. The sums deducted are not of course, as in the case of other deductions, altogether lost to the workman, but constitute a contingent reward of labour, the real rate of wages being sometimes actually increased by the contributions of employers to such funds. Compulsory deductions for benefit societies are often defended on the ground that expenses of collection and management are thereby saved to the worker, members are protected against the improvidence and carelessness of fellow-members, since arrears are impossible under this system, and the improvident men are coerced for their good. On the other hand, they are objected to because of the hold they give the employer over the worker, and because of the inconvenience arising from change of employment where they exist. Trade union executives and officials have always opposed them. In reference to their influence Mr. Mason, solicitor to the London and North-Western Railway Company, said in his evidence before the select committee on the Employers' Liability Act (1880) Amendment Bill, 1886: "It has been the object of most railway companies to make their service a permanent service for the men, and it is with that object that they have fostered and encouraged their provident societies and pension societies, and, for the higher classes of clerks, superannuation societies."

An important question arises. Are such deductions regarded as deferred payment of wages, or as being the property of the employer? Two illustrations may be given of the confusion which exists on this point. In a strike in 1897 a railway company threatened to forfeit a compulsory benefit fund, thus treating it as their own property and not that of the workmen who had contributed towards it. A form has come into

use which is passed through parliament without question whenever a corporation desires to start a benefit fund. It provides that in case of sickness, death, or dismissal a man or his representatives is entitled to receive from the society the sum total of the moneys contributed by him from week to week, together with the contributions added thereto by the corporation. An exception is, however, made in case of dismissal for fraud or dishonesty, causing actual pecuniary loss to the corporation. By this curious provision an act of parliament claims, under certain circumstances, to dispose of the whole of a man's savings; whereas the most that can suitably be done is to stop so much of them as may be a set-off against the injury sustained by the corporation. Nor is there any justification for stopping the portion contributed by the corporation, for this must be regarded either as deferred payment of wages or as a charitable donation. If it be looked on as wages the corporation obviously has no right to retain it. But if it be looked on as a charity, the corporation would appear to exceed its powers in granting it out of public moneys.

We now come to the third class of deductions—those in respect of fines.

As a rule fines are found wherever a large number of persons of a low degree of intelligence are employed together, or where expensive machinery is thrown out of gear, or many workers are delayed by the irregularity of one. The system implies the existence of a moral censorship in the employer whenever a fine for unpunctuality, breach of discipline, or damage to tools, materials, or work exceeds—as in part it has frequently done—the actual loss to the employer, *i.e.* when it becomes purely punitory. The Truck Act, 1896, has made it illegal for the employer to exact more than compensates for the damage received, by providing that deductions in respect of fines shall not be made unless "the fine imposed under the contract is in respect of some act or omission which causes, or is likely to cause, damage or loss to the employer, or interruption or hindrance to his business; and the amount of the fine is fair and reasonable, having regard to all the circumstances of the case" (see i. c. and d.) The act also requires that contracts shall be explicit, and provides for their publication.

The case of shop-assistants with regard to fines is interesting. In this occupation the custom of fining is very prevalent, and it is no uncommon thing for an establishment to possess a list of sixty or seventy or even a hundred rules, infringement of all of which is punished by a small fine. The sum total at the end of the week is often a serious reduction of the wage. When the Truck Act, 1896, was under consideration by the standing committee on trade, the home secretary, Sir M. White Ridley, proposed and carried an amendment whereby the first section of the act applied to the case of a shop-assistant in like manner as to that of a workman. By section 1, subsection 3, therefore, shop assistants are now within the scope of truck legislation so far as regards deductions or payments in respect of fines. It appears, however, that though the administration of the Truck Acts rests with the home office, so far as concerns factories and workshops, this department has no responsibility regarding retail shops. As no other authority has been entrusted with the duty of enforcing truck legislation, the act of 1896 remains a dead letter as regards shop-assistants, although they were specially included under it.

The occupations in which fines and deductions must be looked for therefore are, first, the less developed industries, where home-work has most recently prevailed, and which are nearest to the stage of domestic industry, such for example as tailoring (especially where this is done for Jewish contractors), many small local industries, many women's occupations, particularly where the work is taken home. They are found also in many employments where trade unionism is weak. For example, fines and deductions are very prevalent and irksome among shop-assistants, omnibus and tram-car servants, waiters, and railway employés. Among waiters especially deductions are made to an extent that can only be described as monstrous. A plausible explanation of the prevalence of the system, and particularly of fines, in these occupations is that in all of them the worker is brought into direct contact with the public, and that a high degree of discipline is necessary to secure public comfort and safety. But it is important to notice that they are also all badly organised or unorganised employments, and that all have come but partially under the protection of the Truck Acts. Thus waiters are excluded because the "Truck Amendment Act 1887," which extended the benefits of the acts to any persons included under the term "workman" as defined in the "Employers' and Workmen's Act 1875," provided that the term was not to be taken to include, for the purposes of this act, domestic or menial servants. Shop assistants, as before stated, were only included by the act of 1896. With regard to omnibus employés, it was laid down in the case of *Morgan* v. *General Omnibus Company*, 1884, 13 Q.B.D. 618, that the conductor of an omnibus does not come under the definition "workman," since he does not actually lift passengers in and out of the omnibus. Similarly, with regard to railway employés, it was decided in *Hunt* v. *Great Northern Railway*, Q.B. vol. i. 1891, p. 601, that the guard of a goods train does not come under the definition "workman," because the scope of his employment is not primarily manual.

Among miners also deductions have long been common, perhaps because they often form large isolated bodies, not easily reached by the public opinion of other workers. Among the miners of South Wales, for example, the following deductions are found:—deductions for a doctor elected by the miners, for sick and accident funds, fatal accident funds, miners' permanent relief society, colliery workers' house-coal and house-rent. In some collieries fines are inflicted in addition for breaches of Mines Acts and special rules, and for loss of tools supplied by the employers.

In consequence of the persistence of fines and deductions in small or undeveloped industries, and among workers who are unorganised or almost unorganised, we should expect to find them much more usual where women are employed than among men. This is, in fact, the case. Where men are employed fines and deductions are rarely found, except in industries not protected by the Truck Acts, *e.g.* waiters, and when the system exists it is oftenest in the form of deductions for benefit societies—this being the least repulsive form in which the principle can clothe itself. Among women, on the contrary, fines and deductions are common—even usual—and punitory fines, or deductions for materials, seem to be the most usual forms. They often materially lower the rate of wages. A case may be given which was quoted at the Conference of the National Union for Women Workers, 1896, in a paper by Mrs. Hicks:—"A woman working for a large city firm, making children's seaside suits at 2s. 9d. per dozen suits, has to pay 1d. in the 1s. for steam power that drives her machine, she has to pay 1d. in the 1s. for light, and she has to buy the cotton with which the suits are made. These suits may be of a special colour and the cotton has to match. A few weeks before I saw her work book, she had three suits to make and the cotton cost 6d.; she did not require that cotton except for those suits. For making these particular suits at the regular rate of pay she ought to have received 8½d., but when the light charge, and the steam charge, and the price of the cotton was calculated, she had 1½d. for making three."

Cases are quoted in the cotton weaving industry where the deductions for faults in the work have exceeded the weekly wage; and though such cases usually prove to be cases where the worker is learning the trade and may perhaps be considered to be compensated by the skill acquired, there are—under a system where fines are assessed by the foreman who may hope to obtain promotion by vigilance in his master's interests—many cases of hardship, and some of great injustice. It is often impossible to ascertain to whose fault the bad work should be attributed, and in such cases, fines are particularly irritating. For example, in the weaving trade the tuner may be in fault, yet the weaver only is fined.

Fines and deductions are far more practically important as lowering wages among women than among men; excepting perhaps in the case of waiters and some other classes unprotected by the acts.

[*Memorandum on Law re Truck*, with appendix of statutes and decided cases (c. 8048, 1896).—*Memorandum relating to the Truck Acts for the use of H.M. Inspectors of Mines and Factories* (c. 8330, 1897).—Hansard, *Debates on Truck Acts*, 1831, 1887, 1896.—*Report of Labour Commission*, 1893.—*Report from Select Committee on the Employers' Liability Act* (1880) *Amend-*

ment Bill, 1886, vol. viii.—*History of Truck System. Report of the Commissioners on Handloom Weavers*, 1839, vol. xlii.; 1840, vol. xxiii.; 1840, vol. xxiv.; 1841, vol. x.—*Convictions in York and Lancaster at Petty Sessions of persons guilty of paying wages in goods instead of Coin of the Realm*, 1842, vol. xxxii. p. 629.—*Report from the Select Committee on Railway Labourers*, 1846, vol. xiii.—*Report of H. Seymour Tremenheere on the operation of the Truck Acts in the Mining Districts*, 1852, vol. xxi.—*Report from Select Committee appointed to consider the stoppage of wages in the Hosiery Manufacture*, 1854-55, vol. xiv.—*Report of Commissioners appointed to inquire into the Truck System*, 1871, vol. xxxvi.—"Truck" by A. S. Harvey in *Good Words*, 1871.—Art. by Samuel Moore on the "Truck System" in *Archiv für Soziale Gesetzgebung*, II. ii., Tübingen, 1889. For legal aspect, L. Levi, *Hist. Brit. Commerce.* —F. A. Walker, *The Wages Question.*—Smith's *Mercantile Law.*] E. M. D.

TRUCK SYSTEM. The "truck system" is the barter system introduced between employer and employed, and signifies the practice of paying wages otherwise than in cash. It takes the following forms. First, the gift to the labourer of a portion of that which he produces, whether the commodity be suited to his needs or not; secondly, the gift to the labourer of commodities suited to his needs whether he produces them or not; and, thirdly, the loan to the labourer of the appliances necessary to production. In one or other of these forms, the system is recognised as expedient and even necessary, in certain circumstances; but, in the general case, workmen universally prefer the full payment of their wages in cash, because it tends to place them in a position of greater social and economic independence (see TRUCK and TRUCK ACTS). The attempt made by employers in many trades in the middle of the century to continue paying their workmen in kind after it had become possible to adopt a system of cash payment was bitterly resented. T. G. S.

TRUST AND TRUSTEE.

Trust and Trustee, p. 586; Trustee (judicial), p. 586.

TRUST AND TRUSTEE. A trust is a contrivance whereby one party holds property, real or personal, for the benefit of another. Such a person is called a trustee, and the person who benefits by the arrangement is called a *cestui que trust*. Trusts were unknown to the common law, and were first enforced by the court of chancery. They are created for a variety of purposes, public and private, but most commonly to make a provision for a family. The trustee has all those powers over the trust property which are essential for its preservation and management, but he is bound to use them solely in the interest of the beneficiaries under the trust. He has a right to be reimbursed his out-of-pocket expenses, but no right to any remuneration for the performance of his duties, unless the deed creating the trust authorises such remuneration to be paid. He is bound to the utmost diligence and good faith in the discharge of the trust. A trustee is personally liable to replace any loss occurring through non-observance of the provisions of the trust deed (*e.g.* by unauthorised investments), but a beneficiary at whose request or instigation such a breach of trust was committed was always liable to recoup the trustee, and under a recent statute (Trustee Act 1888, § 6, now reproduced by Trustee Act 1893, § 45) the court may in such a case order the interest of such beneficiary in the trust estate to be impounded by way of indemnity to the trustee, and a more recent enactment (Judicial Trustees Act 1896, § 3) provides that in any case of breach of trust, as to which the court is of opinion that the trustee "has acted honestly and reasonably and ought fairly to be excused for the breach of trust," the trustee may either wholly or partly be relieved of his personal liability for the same. Formerly no lapse of time barred the trustee's liability to be sued for breach of trust; but under an act of 1888 it will be barred, in most cases, by the lapse of six years. Fraudulent breach of trust is a crime punishable with penal servitude. The *cestui que trust* has no power to interfere in the administration of the trust, except in so far as it has been expressly reserved to him by the instrument creating the trust. But he has a right to all the benefits arising therefrom, and the fullest redress for misconduct on the part of his trustee. Trusts were known to the later Roman law under the name of *fideicommissa*, but their scope was much narrower in Rome than in England. By a FIDEICOMMISSUM the representative of a deceased person was bound to hand over to a party whom the deceased had indicated either the whole inheritance, or a part of it, or some specific object comprised in it.

[Snell, *Principles of Equity.*—Lewin, *Law of Trusts.*—Godefroi, *Law of Trusts.*—*Institutes of Justinian*, ed. Moyle.] F. C. M.

TRUSTEE (judicial). By virtue of a recent statute (Judicial Trustees Act, 1896) the high court, and the judge of any county court, to whom jurisdiction has been assigned in that behalf, may, on the application of the creator of a trust, or of any trustee or beneficiary, appoint a "judicial trustee" to act, either jointly with another trustee or alone—in respect of any trust (not being a charitable trust). Any fit or proper person nominated by the applicant may be appointed, and, in the absence of any satisfactory nomination, an official of the court to whom the application is made may be appointed. The court may, within the limits prescribed by the rules issued under

the above-mentioned act, order such remuneration to be paid to a judicial trustee out of the income of the trust property, as shall cover all his work and personal outlay. A judicial trustee, whether an official or not, is subject to the supervision and control of the court by which he was appointed, and his accounts must be audited every year, and reported on to the court. It remains to be seen whether these new provisions, which were adopted on the recommendation of a committee, which had made inquiries on the practice as to "judicial factors" in Scotland, will be much applied in England. E. S.

TRUSTS (in connection with trade combinations). Among the several forms of association which have been chosen by persons wishing to bring the whole of a trade under the control of a particular group of persons or companies, the so-called "trusts"—as established in the United States (see MONOPOLIES)—are the most prominent. Of these the Standard Oil Trust, formed in 1882 for the purpose of securing the monopoly of the American petroleum trade, is the prototype, and similar associations exist for other trades. In England and on the continent of Europe the same objects are frequently attained in other ways, *e.g.* by contractual arrangements between the traders concerned or by the formation of large companies who absorb all the smaller concerns, but the rings of monopolists are not so powerful in Europe as in the United States. In England it was attempted to obtain a declaration from the courts declaring combinations of the nature described to be illegal, but this attempt did not prove successful (Mogul Steamship Company *v.* M'Gregor, Gow, and Co.). In the United States, on the other hand, the courts have taken a less tolerant view of trusts of this nature, without, however, being able to prevent their continuance. It does not appear that the price of any article was ever permanently raised by trade combinations; and the advantages of a uniform organisation of all operations probably outweigh the evils created by the absence of competition, if the management of the combination is honest and serves no aims outside the proper objects of the combination; but this does not always seem to have been the case.

[See MONOPOLIES IN THE UNITED STATES, and the authorities there cited; also Aschrott, "Die amerikanischen Trusts" in *Archiv für sociale Gesetzgebung*, vol. ii. pt. 3, and further the article "Unternehmerverbände (wirtschaftliche)" in Conrad's *Handwörterbuch der Staatswissenschaften*.] E. S.

TRUSTS, COMBINATIONS. See MONOPOLIES; RING; SYNDICATE; TRUSTS.

TRUSTS, CHARITABLE (Present law as to). Trusts created for one of the numerous purposes summed up under the head of "charitable," including religious and educational as well as purely eleemosynary objects, are of very frequent occurrence in England, and property of enormous value is devoted to such trusts. It is clear that the public interest requires safeguards to be applied against possible abuses in the administration of the trust property, and also against the possible withdrawal of large areas of land from effective cultivation. Charities have therefore always been—and are now—to a large extent subject to regulations and restrictions imposed on them in the public interest. These may be divided into three heads: (1) the establishment of public authorities specially entrusted with the supervision of charitable institutions; (2) the rules of law under which charities are created and modified; (3) the restrictions in respect of the settlement of property for charitable objects.

(1) Charities are under the supervision of the crown, the courts of law, and the charity commissioners; and parochial charities (not being ecclesiastical charities) are also to a limited extent under the control of the parish councils (see Local Government Act 1894, § 14); but the functions of the charity commissioners are so extensive that they now do by far the most important part of the work which comes under this head. Their powers are derived under a number of acts of parliament, among which the Charitable Trust Acts of 1853, 1855, 1860, 1862, and 1869 are the most important. They are a government department consisting of four commissioners and a number of assistant commissioners and a secretary and assistant secretary, in addition to the commissioners and assistant commissioners who have charge of the endowed schools department. They have extensive powers of inquiry as to the condition and management of all charitable institutions; they are also enabled to authorise and superintend a number of transactions connected with the administration of charitable trusts, for which the trustees alone would not be competent, such as sales, exchanges, leases, repairs, improvements, purchase of sites, etc.; and their powers further extend to the removal and appointment of trustees, and other similar matters. The possibility of applying in respect of all the subjects mentioned to the charity commissioners has removed the necessity of taking proceedings in the courts in many cases, in which previously such proceedings were indispensable—which circumstance not only saves expense but also enables the parties to attain their object in a less formal and more expeditious manner.

(2) The law favours charitable trusts by exempting them from the restrictions of the rule against perpetuities, and it further gives considerable assistance by the application of the equitable doctrine of *cy-près* (being a rule according to which the donor's intentions, if they cannot be carried out literally, are given effect to in an "approximate" manner). Where a testator manifests a general intention to devote a fund to charity, although no definite purposes are named, or although the objects named are incapable of being effected, that intention is carried into effect, but the particular mode of application is determined by a "scheme" which has to be settled for the purpose, either by the courts or by the charity commissioners. The doctrine of *cy-près*, whilst thus preserving funds for charitable purposes, which would otherwise have to go to the testator's relations or residuary legatees, supplies the further advantage that it enables the administrators of any charity to disregard the literal directions of the founders, if the changes brought about by time make it desirable to introduce some alteration. In such a case as on the creation of a new charitable trust, a "scheme" may be prepared and settled by the court or by the charity commissioners.

(3) The restrictions imposed upon gifts for charities are divisible into two classes, of which the first is intended to prohibit legacies in favour of any objects which the law, for the time being, considers superstitious; whilst the second deals with gifts of land only, and is intended to resist the mischief which is thought to arise if land becomes the property of a "dead hand."

Gifts to superstitious uses formerly included all gifts for the benefit of religious communities other than the Church of England, but the disabilities of Roman Catholics, Jews, and dissenters were removed by successive statutes; and gifts for the benefit of these communities are now given effect to in the same way as other gifts, subject, however, to the exception that bequests to priests for offering masses for the soul of the dead are void in England. In Ireland such gifts are valid unless they transgress the rule against perpetuities.

The restrictions in respect to gifts of land for charitable purposes are now mainly regulated by the Mortmain and Charitable Uses Acts 1888 and 1891. The present state of the law may be shortly stated as follows:

(*a*) Gifts of land to *corporations* are void unless authorised by royal licence, and cause a forfeiture of the land to the crown. This rule is, however, subject to the following exceptions:

A. Gifts of land to a corporation for the purposes of a public park, a schoolhouse, for an elementary school or a public museum, are valid if they are made by a duly enrolled deed executed at least twelve months before the donor's death (M. and C.U.A. 1888, § 6).

B. Gifts of land to a company formed for the purpose of charity, and incorporated under the companies' acts, are valid if not exceeding two acres of land, and are valid to any extent if authorised by licence of the board of trade (Companies Act, 1862, § 21).

C. Gifts of land to a corporation for the purpose of providing dwellings for the working classes in any populous place are valid if made by duly enrolled deed (Working Classes Dwellings Act 1890, §§ 1-2).

(*b*) Gifts of land *by will* for the benefit of any charitable use are no longer subject to any restrictions; but any land given by will must, notwithstanding anything contained in the will, as a general rule be sold within twelve months from the testator's death; and personal estate directed to be laid out in the purchase of land for the benefit of any charitable use must *not* as a general rule be used for the purchase of land. Power is, however, given to the court and also to the charity commissioners:

A. In the case of land given by will, to extend the time for sale; or if satisfied that the land is wanted for actual occupation for the purposes of the charity, and not as an investment, to sanction the retention.

B. In the case of personal estate directed to be laid out in the purchase of land, if satisfied that the land proposed to be purchased is wanted for occupation, etc., to sanction the acquisition (Mortmain and Charitable Uses Act 1891, §§ 5-8).

[Bristow and Cook, *The Law of Charities and Mortmain*, 1889. See also the article "Charities" in the *Encyclopædia of the Laws of England*.] E. S.

TUCKER, GEORGE (1775-1861). Born in Bermuda; died in Virginia. In early life he was a lawyer and in public life. He retired from congress in 1825; was professor of moral philosophy and political economy in the university of Virginia for twenty years.

He wrote *Laws of Wages, Profits, and Rent Investigated*, Philadelphia, 1837, pp. v., 189, in which he criticises the Ricardian theory of distribution of wealth; *Theory of Money and Banks Investigated*, Boston, 1839; *Progress of the United States in Population and Wealth in Fifty Years*, New York, 1843. The edition of 1855 contains *Appendix*, p. 68, on the census of 1850. This is a valuable study in social statistics, dealing with sex proportions, race elements, age, maladies, progress of slavery, and annual increase of the population; *Correspondence with Alexander H. Everett on Political Economy*, 1845; and *Banks or No Banks*, New York, 1857. In this the unrestricted banking of the early period of the first third of the century is severely criticised. D. R. D.

TUCKER, JOSIAH (1712-99), son of a small Welsh farmer-squire, curate and rector at Bristol under Bishop Butler, and dean of Gloucester (1758-99); laid in his *Elements of Commerce* (1755) those four foundation-stones of political economy, the discovery of which is attributed by Zeyss (1889) and Hasbach (1891) to A. SMITH (1776).

(1) He regards political economy as a science, for commerce means with him, as with D. HUME (1752), any means whereby wealth is got; and his "elements," which deal with men's animal and social "wants," and are non-national and "universal," yield, but for "human impediments," an order like that of the stars in their courses (p. 8). HEGEL, too, called political economy a theory of wants, and compared its laws to those of astronomy (J. Bonar, *Phil. and Pol. Ec.*, p. 310). (2) In supplying wants, "self-love," SAY'S word, or "self-interest," A. Smith's word, is "the great mover"; "the strongest principle," far mightier than "benevolence," and destined to drive out "tyrant custom" from its last stronghold in the open field, and to turn proud "Gothic barons" and cringing "vassals," Hume's phrases, 1752, into "commercial" farmers bent on gain. He looks on commercial man as swayed solely by self-interest. (3) Self-interest, if untrammelled, almost always "coincides" with public interest in populous countries, for it is competition which produces this result; and in thinly-peopled countries competition is inconceivable. With competition, the producer will sell as cheap as he can, without competition as dear as he can; and in the former case "the public" or "consumer" will gain, and "the maker" will not lose. Further, industrious foreigners should be naturalised in order that wages may be beat down and labourers' "combinations" broken; and "though individuals may suffer," prices will be cheaper or wares better and the "public is a gainer" (M'CULLOCH, *Collection of Scarce Tracts on Commerce*, 1859, p. 343). He is therefore an advocate of competitive distribution as well as competitive production. His point of view is so absolutely that of the consumer that he calls monopolies and bounties "taxes on the community," and says "abolish every tax and remove all impediments whatever which might prevent self-love—the grand mover—from operating for the public good" (*E. of C.*, p. 169). "One-half at least of . . . the statutes . . . might be made a bonfire of" (p. 158), including privileged companies, parish settlements, apprenticeships, laws as to labourers' hire, hours, wages, and combinations, and as to price and quality of goods. "Remove disorders which a bad habit or a wrong treatment hath brought upon the constitution, and then leave the rest to nature, who can best do her own work"; when healed, "it would be as wrong to multiply laws relating to commerce as it would be to be for ever prescribing physic" (p. 79). He called industrial freedom a "natural right" (pp. 124, 155), echoing—not LOCKE, whom and whose disciples he abhorred (*Treatise concerning Civil Government* (1781); *Sequel to Sir W. Jones* (1784)); but Sir E. Sandys (*Journals of H. of C.*, (1602), vol. i. p. 218). At this date the PHYSIOCRATS had written nothing, and Hume still called the economic sense "avarice" (*Works*, ed. Green and Grose, vol. iii. p. 295); possibly A. Smith

was, in 1755, moving in the same direction (J. Rae, *Life of A. Smith*, p. 203); but if not, Tucker's voice was the voice of one crying in the wilderness. (4) There were a few cases in which self-interest, even when exposed to competition, does not promote public interests: (*a*) profit may be too remote, as in reclaiming bogs, growing timber, and infant industries, where *temporary* bounties and remissions of taxes were allowable (*E. of C.*, pp. 73, 74); (*b*) cheapness may involve vice, as in alehouses, which should be limited; (*c*) learned professions live on the labour of others, and therefore their members should be few (p. 92); (*d*) bad doctoring is too dangerous, therefore doctors must be selected beforehand by examination (p. 91); (*e*) in production on a large scale self-interest, by ranging masters and men into hostile camps, leads to mutual suicide, and therefore production on a small scale will alone survive.

He made politics tributary to economics, and wished the colonies to separate from England because trade laws were the only link, and that link was rotten. Burke upheld the trade laws and reviled "the profane herd of those vulgar and mechanical politicians . . . who think that nothing exists but what is gross and material" (*Speeches on Am. Tax. etc.*, ed. Selby, pp. 99, 131). Tucker replied with an audacity worthy of COBDEN, that he was proud to belong to the latter class. So too his denunciation of trade wars, and the jealousy of trade (Hume's phrase, 1758), is enlivened by a sentence worthy of Cobden. "A shopkeeper will never get the more custom by beating his customers, and what is true of a shopkeeper is true of a shopkeeping nation" (*Four Tracts and two Sermons* (1774), p. 132; cp. A. Young, *Tour in Ireland*, ed. 1892, vol. ii. p. 219). Like A. YOUNG and Mr. Goldwin Smith, he combined colonial separatism with Irish unionism, and prophesied in 1785 that the latter event would come to pass in ten or fifteen years (*Reflections*, p. 33). He knew that slave-labour was costly (*Instructions for Travellers*, p. 20), and deemed political the handmaid of industrial freedom, but scorned votes, and thought that the levelling disciples of Locke in France were harbingers of revolution (*Cui Bono*, 1781).

Why, then, is Tucker almost unknown? First, he held the views about population which prevailed from FORTREY and Sir W. TEMPLE down to R. PRICE and WALES; and asked, "What is a market but a collection of inhabitants"? wished to refasten some of the old trade fetters on bachelors, and though a champion of strict indoor relief, wished to grant out-relief to large families. His preference for small estates, like BACON and HARRINGTON, small farms and allotments, like PRICE, and his appreciation of the division of labour, are like gleams of sunshine across this gloom. Secondly, his idea that "industry and labour are the only real riches," that "commerce" is "the exchange of labour" (*Sermon*, i. p. 13), and that money is "a certificate of labour" (*E. of C.*, p. 99), is a crude version of PETTY's ideas which Hume and A. Smith refined, but which reappear yet more crudely in R. OWEN, Karl MARX, and the LABOUR EXCHANGE of this century. True, it enabled him to defend machines, and to see clearly what no mercantilist saw quite clearly, that domestic and foreign trade are on the same footing with regard to wealth, and that all trade benefits both buyer and seller (ROSCHER, *Zur Geschichte der englischen Volkswirthschaftslehre*, p. 39), but it proved that his mind was a blank on problems of cost and value. Thirdly, his panacea of taxing luxuries shows that he had not thought out taxation from his new point of view. He was only a "ways and means" man. Fourthly, his *Brief Essay on the Advantages and Disadvantages which respectively attend France and England with regard to Trade* (1748), reprinted by M'Culloch (*loc. cit.*), misrepresents the writer's mature opinions (*Cui Bono*, 3rd ed. p. xiii.); it is but a stepping-stone from Richardson's (?) mercantilist *Essay* (1744), also reprinted by M'Culloch (*loc. cit.*) to Tucker's great work, *Elements of Commerce and Theory of Taxes* (1755); continued in *Instructions for Travellers* (1757), and second *Tract* (v. i.). And this work is the merest fragment, thrown aside for want of money. Indeed, the *Elements* have only been privately printed, and the *Instructions* restate the best portion of his *Brief Essay*. His other economic works are with a few exceptions pamphlets on questions of the hour; *e.g.* on naturalisation (*Reflections*, pt. i. (1751); pt. ii. (1752); *Two Letters* (1753)); on limiting public-houses (*Inquiry into . . . Low-priced spirituous Liquors* (1751)); on opening the Turkey trade (*Reflections* (1753)); on trade wars and colonial separation (*Tract*, ii. (1763); iii. (1766); iv. (1774), and v. (1775); *Letter to E. Burke* (1775); *Humble Address* (1776); *Series of Answers* (1776); *Dispassionate Thoughts* (1780); *Cui Bono . . . Letters to Necker* (1781); *Plan for a General Pacification* (1782); on Ireland (*Tract* v. (*v.s.*); *Reflections* (1785); and extracts in *Arguments for and against an Union* (1798), and T. B. Clarke, *Union or Separation* (1799)). TURGOT translated two of these pamphlets, *Reflections*, pt. ii., and *Tract* ii.; but they are too polemical to live. The exceptions fall into two classes. (*a*) Those of passing interest are—*Reflections on the . . . Low Price of Coarse Wools* (1782) (allotments); *Manifold Causes of the Increase . . . of the Poor* (1760); *Bath Soc. for . . . Agriculture*, vol. vi. p. 252 (proposes unions, benefit clubs, etc.); to which M'Culloch adds the anonymous *Causes of the Dearness of Provisions* (1766) (?) (*b*) His *Tract* i. (1758), which arose out of a correspondence with Hume, and *Two Sermons* (1774) go to first principles. Hume wrote (1752) that a rich nation must lose its riches, because a poor nation can work more cheaply owing to low wages (*Essay* iii. in *Works*, vol. iii. p. 310). Tucker answered that if the nation was idle, its riches would "melt like snow in summer"; if the nation had been and was industrious, its fixed and circulating capital—he enumerates the different species, but does not use these words (*Tract* ii. p. 22)—its skill, division of labour, and the fact that profits must be higher in the poor country, gave the rich country an incalculable advantage, except in unskilled industries like timber-growing. Hume's reference to "the advantage of superior stocks and correspondence" in his sixth *Essay* (1758), (*loc. cit.* p. 348), was perhaps inspired by Tucker.

The argument about high profits was put better in the *Brief Essay* (ed. M'Culloch, p. 339), but is similar to that on which J. S. MILL relies (*Pol. Ec.*, bk. iii. ch. xxv.). He also adds that in advocating naturalisation he did not wish to attract moneyed idlers, who only impoverish a nation; and this was the true answer to MANDEVILLE'S paradox, which D. HUME (*q.v.*) had failed to answer (cp. T. B. Clarke, *Survey of the Strength and Opulence of Great Britain*, 1801, p. 38).

Tucker was one of those who grow with astonishing rapidity up to a certain point, which they never pass. As Bristol and the influences of Butler and Hume undoubtedly stimulated, so perhaps Gloucester stunted his spirit.

[For philosophic doctrine of self-interest, in Butler, see Hume's *Works*, ed. Green and Grose, introduction to vol. ii.; in recent writers, see M. Block, *Les Progrès de la Science Économique depuis A. Smith* (1897), ch. vii.—For Tucker's political ideas, see Leslie Stephen, *Hist. of English Thought in the Eighteenth Century.*] J. D. R.

TUNNAGE AND POUNDAGE. See TONNAGE AND POUNDAGE.

TURBOLI, GIAN DONATO (17th century), a Neapolitan writer and merchant and director of the mint at Naples. He discussed money and exchange in several speeches published in different years between 1616 and 1629. All these, except the first, were eventually published in Custodi's collection. Turboli, like many other writers of the day, investigates the causes of the want of specie in the kingdom of Naples, and gives interesting notes on the difficulties of coining in that kingdom.

He especially studies exchange, to which many proposed to fix a legal maximum limit, believing this to be a means of preventing money from leaving the country. Turboli, however, combats these measures, observing that if the rate of exchange was high in Naples, insuperable reasons caused it to be so; and if the rate of exchange was high against the kingdom, and this had deprived it of all coins, this evil was irremediable, as he who owes largely cannot have much ready money, because he is obliged to pay. Turboli's chief merit is his persistent opposition to the suggestions of a legal regulation of the rate of exchange; but his treatment of the subject is far inferior to that of SERRA (*q.v.*).

Discorso sopra le monete del regno di Napoli, ec., con diverse relationi e copie d' altri discorsi, ec., 1629 [see Fornari, *Delle teorie economiche nelle provincie napoletane*, 1882.—Gobbi, *L' economia politica, ec.*, 1889]. U. R.

TURGOT, ANNE ROBERT JACQUES TURGOT, BARON DE L'AULNE (1727-1781), one of the noblest and purest figures in history, occupies an important place on the roll of great economists. Endowed with a fine intelligence, nourished and fortified by unwearying assiduity, he became early in life a distinguished scholar, and was elected prior of the Sorbonne in 1749. In that capacity he delivered in 1750 an address on *The benefits which Christianity has procured for Humanity*, and the same year an account of *The Progress of the Human Mind*, in the course of which he predicted as inevitable the separation of the American colonies from the mother-country :— "Les colonies sont comme des fruits qui ne tiennent à l'arbre que jusqu'à leur maturité: devenues suffisantes à elles-mêmes, elles firent ce que fit depuis Carthage, ce que fera un jour l'Amérique" (*Œuvres*, ii. 66). He translated from the Greek, Latin, Hebrew, German, and Italian, and notably, from the English, some of the economic writings of D. HUME and J. TUCKER. He composed French and Latin verse with elegance and facility. His epigram on FRANKLIN has rested famous: *Eripuit coelo fulmen sceptrumque tyrannis.* The letter on paper money which he addressed to the Abbé de Cicé in 1749, criticising the system of Law, is his first excursion into economic reasoning. In 1750 he wrote an essay against the metaphysics of BERKELEY, subsequently worked up for the *Encyclopédie*, and published under the title "Existence." A criticism of Maupertuis's theory of languages similarly formed the basis of an article "Étymologie" in the same collection. In 1751 he quitted the Sorbonne. Conscientious scruples decided him to abandon the ecclesiastical career upon which his family and friends desired to see him enter; and in 1752 he embraced the profession of the magistracy, commencing as *conseiller-substitut* of the *procureur-général.* The same year he became *conseiller au parlement*, and in 1753 *maître des requêtes.* In 1756 he followed up his articles in the *Encyclopédie* with three others, "Expansibilité," "Foires," and "Fondations," the last two of economic interest. He opposes exclusive privileges of fairs and markets, and pleads for liberty for commerce to find its own channels, supporting his views by reference to GOURNAY, "to whom France will perhaps some day owe the destruction of obstacles which have been imposed upon the progress of trade in the vain hope of encouraging it." To the argument that fairs facilitate the collection of taxes upon articles sold for export, he replies that it would be wiser to exempt such goods from taxes altogether, and points out that a reduction of duties by stimulating trade and consumption, and reducing the cost of collection, may result in a larger net revenue. His criticisms of "foundations," are, though much fuller and deeper, in many respects similar to those to which twenty years later Adam SMITH gave utterance. The vanity of founders, their want of foresight, the social dangers of ill-advised charity, the degeneration of worthy objects, are vividly brought out. Self-help, and freedom to exercise one's own faculties, are conditions of a healthy society. But none the less, voluntary effort, individual or combined, in relief of suffering, is a duty incumbent upon all citizens. The poor have incontestable claims upon the abundance of the rich. Religion and

humanity call upon us to succour our fellows in distress. But in all things public utility is the supreme law, and ought not to be held in check by superstitious respect for the "intentions of founders." "If there were a tomb for every man who has lived, it would be necessary, in order to find land for cultivation, to sweep away these barren monuments and stir the ashes of the dead to provide subsistence for the living" (*Œuvres*, iii. 255). The order for the suppression of the *Encyclopédie* and its partisan reputation for agnosticism induced Turgot to abandon his intention of contributing further articles to the great dictionary, which was continued clandestinely. His translations of English writings upon trade deepened his intimacy with Trudaine and Gournay. In 1755 and 1756 he accompanied Gournay, then *intendant* of commerce, upon his official travels throughout the country, and was made to see the ramified mischief wrought by excessive and ill-judged state regulation, often inspired by interested motives, and "putting the poor still more at the mercy of the rich." In 1759 Gournay was cut off by death, and Turgot wrote his *Éloge de M. de Gournay*, a memoir struck out in a few days to assist Marmontel to deliver an official oration at the academy. This tract furnishes almost the only account we at present possess of that eminent precursor of the French school. It sets forth with conviction the eagerness of Gournay for a LAISSEZ-FAIRE policy, and warmly praises his large views and clear principles of freedom of enterprise.

In 1761 Turgot was nominated *intendant* for the generality of Limoges. Confronted by obstacles almost insurmountable, he applied himself with equal vigour and intelligence to the solution of the most difficult problems of administration. The district was poor. Its finances were in a state of chaos. The intendant's duty was to raise from his generality a certain sum, fixed annually, for the royal treasury, and to apportion the amount between the several localities. Part of the district had been surveyed in 1738; but such of these records as had been preserved were faulty or out of date. Estimates of wealth were framed upon different principles—gross revenue being sometimes reckoned as net income—and as regards the unsurveyed portion of the generality, the declarations of owners approximated to the truth with widely varying degrees of accuracy. No record was kept of changes of ownership, or other essential circumstances. To remove the glaring anomalies which resulted, and to eliminate as far as possible the arbitrary element from future apportionments, Turgot undertook the immense task of a complete survey. Another of his first steps (1762-1764) was to abolish the CORVÉE, and to replace it by the milder and more convenient burden of a highway rate based upon the TAILLE. So great was the mistrust entertained towards the government, that it would have been difficult to raise such a rate directly, for the peasants could feel no confidence that the money would not be diverted to some other purpose, and the roads left unmended. He ingeniously proposed that the parishes should have the work executed by contractors, and the cost deducted from the quota of contribution due from the parishes to the treasury. This bold reform, which Turgot executed by an *ordonnance* transgressing the strict limits of legality, was an unqualified success, and paved the way for the confidence and popularity which he subsequently enjoyed throughout his district.

In 1770-71 he found his generality menaced by famine. Rigorously enforcing the unfettered movement of corn within the district, he trusted with confidence to an influx of corn and to its commercial distribution where it was most required, as evidenced by the height of prices. At the same time he borrowed 20,000 francs, and, adding to these from his own resources, and from government subventions, he undertook public works to provide the poor with employment, and the means wherewith to purchase food. At this period he addressed to Terray, then controller-general, seven letters on the corn trade, of which three are lost. In these letters he examined the ill effects of legal restrictions upon the free circulation of corn throughout the country, and strenuously pleaded for free trade. The success which attended his abolition of the *Corvée* for repairs of the roads encouraged him next to abolish the *corvée* for the forced transport of troops and war material. The peasants, employing large numbers of slow oxen and small chariots in this service at times when their harvests urgently required them at home, were greatly benefited by a change which allowed them to pay in money a contractor who conducted the transport by horses at a quarter of the old charges. A similar reform was executed with regard to billeting. He successfully resisted the attempt to impose upon his district a new *corvée*—the hauling of boats laden with admiralty timber along the Charente. His enquiries into the wealth of his generality enabled him also to claim with success a diminution in its quota of national taxation. His unwearied efforts to promote the welfare of the people rendered him truly popular. He established veterinary schools; encouraged the society of agriculture of which he was president; introduced the potato, clover, and artificial grasses; stimulated new industries or new processes in the manufacture of paper and in tanning; and by his active and enlightened administration greatly contributed to the prosperity of his district. Particular occasions upon which it became necessary for the government to consult him drew from his able pen reports in which the

great lines of important economic principles were boldly laid down. Such are his memoir on mines and quarries (the economic and legal aspects of free mining) and his study of the laws of interest (a defence of free trade in capital). He suggested to the society of agriculture that it should offer a prize for an essay upon the advantages of employing horses as compared with oxen, and upon the effects of indirect taxes on the revenue of landowners. The latter of these offers drew forth the works of SAINT PÉRAVY and GRASLIN.

Two young Chinamen, who had been brought to France and educated by Jesuits, were sent back to Canton with a royal annuity, to maintain a correspondence upon the state of literature and science in China. Turgot wrote for them in 1766 a little treatise on political economy, which was published in the EPHÉMÉRIDES (Nov. 1769 to Jan. 1770) under the title of *Réflexions sur la Formation et la Distribution des Richesses* —his most considerable work in economic speculation. In 1774, to the great regret of his district, which he had thrice refused to leave for promotion to other generalities, he was called to the court of the new king (Louis XVI.), and made secretary of state for the navy, a post which he held for only five weeks before being appointed controller-general and minister of finance (24th August). DUPONT DE NEMOURS, giving a striking account of Turgot's maritime programme and of his enlightened views upon colonial policy, thinks it perhaps regrettable for France that Turgot had not remained in the less political office of the admiralty, to carry out the extensive proposals which his fertile brain had already framed. Entering upon his new duties, he stated the principles by which he intended to be guided in the most difficult of offices, and summarised them in a striking letter to the king in which he lays down three cardinal propositions, *point de banqueroute, point d'augmentation d'impôts, point d'emprunts;* expenses are to be kept below receipts and debts reduced, or the first cannon shot will force the state to financial ruin. The king is urged to favour economy, and to be firm against the clamour of those who resist it, for the good of his people must be his primary consideration; and those who wish to dip their hands into the treasury must remember that the revenues of the state are provided with difficulty by the humblest subjects, and that the king has no right to deprive these of subsistence to gratify even his dearest dependents. This bold appeal is as remarkable for its foresight as for its courage. Turgot clearly saw that those who profited by laxity and abuse would make a desperate fight against reform, and he endeavoured to strengthen the king's good intentions by timely warning and advice. The royal expenses for 1775 were estimated to exceed the revenue by over 22,000,000 livres, and upwards of 78,000,000 livres had been expended in anticipation. Pensions were three or four years in arrear, and each department was heavily in debt. Nevertheless Turgot did not hesitate to abolish or diminish various onerous charges upon the public, and to devote a sum of 15,000,000 towards the immediate payment of arrears due from the state. He purified the financial administration, checked the growth of parasitic *croupiers* who drew a kind of royal pension from the FARMERS-GENERAL, himself refused from them the customary commission of 100,000 crowns on a new lease and 50,000 a year, and thus secured for the state better terms than his predecessors —at once increasing the revenue and diminishing the expenditure. On the 25th September 1774 he issued a decree permitting free trade in corn within the country, but not its export. The bad harvest of the following autumn assisted Turgot's enemies in their efforts to foment corn riots throughout the country, as a protest against the new policy; but the disturbances were firmly quelled, and the government showed its spirit and reassured commerce by promptly paying 50,000 francs to a merchant for a cargo of corn which had been thrown overboard by the mob. Du Pont asserts that the really serious result of this disorder was not merely the loss of money (610,000 francs) spent in repressing it, but especially the waste of valuable time which prevented Turgot from putting into execution his matured plans for an extensive reform of local government, decentralising a large measure of power and responsibility into the hands of local elected authorities. The riots delayed the prosecution of this scheme for six weeks, and made it impossible to carry through the necessary preliminary stages by October, when the finances of the year were regulated. This compelled the plan to be delayed a whole year, and Turgot was not destined to have another opportunity for carrying it out. The abundant details which we possess of his administration illustrate the clearness, courage, consistency, and integrity of his views. Unfettered liberty, unspotted honesty, were to him the ideal requirements for promoting the financial and social welfare of the nation, and he revised with much shrewdness, to the great profit of the treasury, the financial bargains concluded with farmers-general and others by his less scrupulous or less enlightened predecessors. The credit of the state revived. The rate of interest on loans to government fell in twelve months from 5¾ to 4 per cent, and a large measure of conversion by aid of a loan from Holland, was in preparation by Turgot when he fell, and a great programme of many and far-reaching measures, calculated to promote the greatest benefits to the country, came to an untimely end.

The reforming zeal of Turgot had stirred up

an active band of enemies at court. Courtiers, who were aided to live in the giddy and costly society of Versailles by more or less thinly veiled grants from the treasury, in the shape of perquisites, sinecures, and royal gifts, saw with rancour and alarm the financial severity of the new controller-general. In almost the same words as Sully had employed to Henri IV., he pointed out to the king that his money was collected from his poorest subjects; and like Sully he successfully invoked the king's fairness and clemency towards the great mass of the labouring people as a check upon uncalled-for and unearned generosity at their expense. The financial interests, unable to advance their own profits by the corruption of the minister, and compelled even to disgorge some of their unjust gains, shared to some extent the same feeling. Most of Turgot's colleagues in the ministry had an uneasy conviction that he was going too fast and too far. Finally the queen herself held him in high disfavour by reason of the limitations which he imposed upon her extravagance. These elements of discontent came to a head when the famous Six Edicts were presented to the king by Turgot in the beginning of 1776. These proposed, 1st, to abolish the *corvées* throughout the kingdom; 2nd, 3rd, 5th, and 6th, to suppress various taxes and tolls upon corn, cattle, etc., in Paris; and 4th to suppress the JURANDES or gilds. Differences arose among ministers with regard to these measures, but the king decided in favour of their acceptance; and, after being passed by the council, they required to be registered by the parliament. That reactionary body objected to register them with the exception of one of the least importance. The king was obliged to call a *lit de justice* to compel their submission. The infuriated parliament commenced to clamour against Turgot, and ordered the burning of a treatise *Sur les inconvénients des droits féodaux*, written by his friend and subordinate BONCERF. Intrigues were set on foot in every quarter. The king, who had shortly before declared his opinion that only he and Turgot really loved the people, was worked upon and wearied by Turgot's enemies. A memoir, said to have been prepared by NECKER, was privately submitted to him pointing out some arithmetical inaccuracies in Turgot's draft budget, and suggesting that he was incapable to deal with the accounts of the nation. Du Pont alleges that damaging letters, with the forged signature of Turgot, were brought to the king from the *cabinet noir*. A coldness sprung up on the king's side. An open breach occurred over the proposed appointment of a successor to Malesherbes, Turgot's chief friend in the ministry, who had resigned his office. The queen's party proposed Amelot, an antagonist to all Turgot's ideas. Turgot remonstrated. The king vacillated. Turgot wrote him four letters, in the tones of vigorous and almost patronising exhortation which he had employed when accepting office. One of these letters remains to enable us to judge of the rest. "Do not forget, sire," he says in one place, "that it was weakness that brought the head of Charles I. to the block." . . . "You, sire, have been sometimes believed to be weak, but I have seen you in trying circumstances show real courage. You have said it yourself, sire, that you want experience, that you have need of a guide." To none of these letters did the king send a reply. It cannot have surprised Turgot to receive his dismissal, 12th May 1776.

Du Pont has summarised Turgot's ministry. He abolished twenty-three taxes onerous to industry and commerce. At a cost of 10,000,000 livres a year he got rid of the scourge of the *corvée* on the roads, which cost the country four times as much, and abolished other forms of forced labour. He arrested a devastating plague, stifled a sedition, lightened the collection of taxes, freed trade and labour from many shackles, paid four years' arrears of pensions, defrayed the extraordinary charges arising out of the coronation, a royal marriage, and a royal birth, paid off 74,000,000 of debt and 58,000,000 of advances, leaving only 10,000,000 of anticipated income to be repaid by his successor, and left behind him a surplus of 3,500,000 as compared with a deficit of 19,000,000 when he assumed office. All this and much more in a ministry of twenty months, during seven of which he was incapacitated by gout. He betook himself to a calm retreat, and to the study of literature and science, and died less than five years after his dismissal (18th March 1781). Men so different as VOLTAIRE and Adam Smith, who met him in Paris in 1766, esteemed him highly. There have been greater economists and more tactful statesmen; but no minister has ever surpassed him in combined courage, probity, patriotism, and intellectual attainments.

Some more extended account is required of Turgot's chief economic work, the *Réflexions sur la formation et la distribution des richesses*. It is divided into 100 sections, occupying 130 pages of Du Pont's edition. He traces the existence of commerce to (i) the unequal distribution of land; (ii) the diversity of the soil in fitness for production; (iii) the multiplicity of human needs; (iv) the advantages of the division of labour, which he illustrates by examples. The agricultural labourer is pre-eminent over the artisans, not in honour or dignity, but in physical necessity, for he might do without them, but they cannot do without him. In fact, what his labour produces from the soil is the only WAGES FUND (*l'unique fonds des salaires*), and the commodities which he buys are the exact equivalent of the produce which he gives in exchange. Competition forces artisans' wages down to subsistence level (the doctrine of neces-

sary wages). But the agricultural labourer produces more than this, for nature does not higgle with him for a subsistence wage, and he is thus the only producer of wealth. The extractive classes, then, are productive; the artisan classes salaried (*l'une productive, l'autre stipendée*). As society progresses and lands are all taken up, the owner becomes distinct from the labourer, the new-comers may as well earn wages on the land as in manufactures. The product is now divided into two parts—the wages of labourers and the surplus which goes to the landlord as his revenue; the landlord becomes available for social needs like war and justice, either by personal service or by deputies whom he pays. He may therefore be assigned to a third class (*classe disponible*), an available reserve. The evolution of labour on the land is traced from (i) labourers to (ii) slaves, (iii) serfs, (iv) metayers, (v) farmers. He proceeds to examine the mechanism of exchange, and describes the stage of barter and the origin and nature of money in terms reminiscent of CANTILLON, and suggestive of comparison with Adam Smith. The accumulation and social utility of capital is next sketched, and its functions in aid of production are described. It is argued that interest for the use of capital is as legitimate, and should be as free as the sum paid for the use of land or any other object of commerce, and depends, in either case, upon supply and demand. The annual net produce of the land of a country capitalised, plus the movable wealth in the country, gives the sum of the national wealth, excluding loans, for they would otherwise count twice over. The capitalist, who lends at interest, does not form part of the *classe disponible*, and his income is not available for the state, for it is not a *produit net*, but the result of a buying and selling like the profit of other merchants. It should no more be taxed than the manure which fertilises the land. "C'est toujours la terre qui est la première et l'unique source de toute richesse . . . Il n'y a de revenu que le produit net des terres." It will be seen that these conclusions are in harmony with those of the PHYSIOCRATS; but, though a friend of QUESNAY, Turgot's repugnance to all "sects" kept him aloof from the inner circle of that school.

[A complete bibliography of Turgot would be very extensive. It will suffice to mention Du Pont's edition of his works, referred to above as *Œuvres*, 9 vols., 8vo, Paris, 1809-1811, prefaced by a life of Turgot which first appeared in 1782, 2 vols. 8vo, Philadelphia.—*Œuvres de Turgot*, rearranged, with additions by DAIRE and DUSSARD, 2 vols. 8vo, Paris, 1844.—*Vie de M. Turgot*, 8vo, Londres, 1786 (by Condorcet).—Dupuy, *Éloge de Turgot* (*Mémoires de l'Académie des inscriptions et belles lettres*, vol. xlv.).—Baudrillart, *Éloge de Turgot*, Paris, 1846.—Foucin, *Essai sur le ministère de Turgot*, Paris, 1877.—Batbie, *Biographie de Turgot.*—Batbie, *Turgot Philosophe, Économiste et Administrateur*, Paris, 1861.—L. DE LAVERGNE, *Les Économistes français du XVIIIe siècle*, Paris, 1870.—G. D'Hugues, *Essai sur l'Administration de Turgot dans la généralité de Limoges*, Paris, 1859.—F. Cadet, *Turgot.*—Mostier, *Turgot, sa Vie et sa Doctrine.*—Ch. Henry, *Correspondance inédite de Condorcet et de Turgot*, 8vo, Paris, 1882.—Léon SAY, *Turgot*, Paris, 1887 (Eng. translation by G. Masson, London, 1888).—A. Neymarck, *Turgot et ses Doctrines*, 2 vols., 8vo. Paris, 1885 (careful and trustworthy).—Robineau, *Turgot*, Paris, 1889.—S. Feilbogen, *Smith und Turgot*, Vienna, 1892.—W. B. Hodgson, *Turgot; his Life, Times, and Opinions*, London, 1870.—J. Morley, "Turgot" in *Critical Miscellanies*, vol. ii. 1886.—W. Walker Stephens, *Life and Writings of Turgot*, London, 1895 (the most complete English account).—Henry Higgs, *The Physiocrats*, London, 1897.] H. H.

[Since this article was written Monsieur G. Schelle has published a volume on Gournay, and Prof. W. J. Ashley has edited a new translation of *The Reflections on the Formation and Distribution of Wealth.*]

TURKEY COMPANY, or as it was also called the Levant Company, was a fellowship or corporation of merchants who in 1605 obtained a charter from James I. licensing the persons therein named to be "one Fellowship and Body Corporate and Politic by the name of Governor and Company of Merchants of England, trading to the Levant Seas."

Unlike the French and Italians, the English had not until the late 16th century made a speciality of eastern traffic. They had been content to receive their oriental wares and spices at second hand from the Venetian merchants who, from a very early time, annually despatched a richly laden fleet to Flanders which touched at our shores. But a quarrel with the rough Southampton seamen early in the 14th century caused the offended Venetians to avoid England, and it was not till the opening of the 15th century that their trade with England was renewed. One of their argosies was, however, wrecked off the Isle of Wight, and for the second time the Venetians declined to continue the traffic. Henceforth the English were compelled to go in search of these commodities for themselves.

In 1550 Captain Bodenham (ANDERSON, vol. ii. p. 87) was the first Englishman who proceeded as far as the Grecian Isles. In 1553 Anthony Jenkinson visited Aleppo, and here paid for certain trade privileges which were made the basis of all future stipulations with the Turks. But the terrible cruelties practised by the African pirates who infested the Mediterranean very much indisposed the English merchants for the Levant trade; and it was not till 1581 that the first commercial treaty was drawn up between the queen of England (Elizabeth) and the Ottoman Porte. In accordance with this, a charter or licence for trade to the Grand Seigneur's dominions was granted for five years to certain persons forming a fellowship of merchants. The licence was subsequently renewed for twelve years, and Sir Edward Barton was sent out as first resident ambassador at Constantinople. He died in 1597.

In 1605 these terminable licences were replaced by the perpetual charter mentioned above; and Sir Thomas Glover was sent out as ambassador. In 1643 some ambiguity having arisen from the terms of the charter, an ordinance was passed explaining and extending their privileges. At the Restoration Charles II. renewed their charter.

By these instruments the company was invested with power to fine and imprison members and subordinates who disobeyed its orders. No one might send ships to the parts designated by their charter but such as were free brothers of the corporation, or otherwise licensed by them, who were to pay £20 for admission. Their commerce extended to all parts of the Grand Seigneur's dominions, in Asia, Africa, and Europe, on the shores of the Mediterranean, the Archipelago, Levant, and adjoining seas and bays as far as Constantinople, to Venice on the one side, and to Ragusa on the other, excepting, however, the coasts of Italy, France, of Spain on the Mediterranean, with Malta, Sicily, Corsica, and other islands in that sea.

The company imported silk and other oriental goods in return for English woollen cloth taken out.

The extensive powers granted to the company, justified as they were by the despotic nature of the government with which the company had to deal, excited much jealousy at home.

The company, however, had never been an exclusive or oppressive monopoly such as the EAST INDIA or the GREENLAND COMPANY was, but on the contrary was based on the assertion of the inestimable liberty of trade. Every merchant who could pay the required entrance fee was of right admitted a member, and was then entitled to trade on his own account. The trade was similarly prohibited to all who were not members of its fellowship.

The trade, however, languished, and in 1753 the case of the Governor and Company of Merchants trading to the Levant Seas having come before parliament, it was sought to freshen it up, by opening it to all comers. In 1754 was passed "An Act for enlarging and regulating the trade into the Levant seas" (26 Geo. II.) by which the company was opened to all English merchants paying £20 for admission to its rights and privileges.

In 1803 a most important change was effected with regard to the Turkey Company; government assumed the payment and appointment of the ambassador and his secretaries, with some additional consuls. In 1821 a second step was taken: it was decided that the whole of the company's establishment should be in the hands of government. This being announced to the company, by Mr. Secretary CANNING, with the assurance that "it resulted solely from considerations of public expediency, and in no degree from any disrespect, or disposition to impute any blame to their past administration," the Directors called a special court, who accorded to the propriety of the government's proposal. They also saw that their existence as a body, however useful for the protection and extension of commerce on their first establishment, was now no longer so; they therefore proposed to surrender their charter also, "as an offering to the enlarged and liberal spirit of commerce, which now distinguished England." Thus was dissolved as an "antiquated anomaly" a body which had existed with distinction for a period of 244 years, during which time, the appellation of Turkey merchant was one of the most honourable that could be acquired.

[*An account of the Levant Company* (Br. Mus. Cat., T. 1146 (8)), 1825.—Postlethwayt's *Univ. Dict. of Trade*, 1751, fol., vol. ii. p. 380, art. "Oriental Trade."—*Ency. Brit.* (8th edit.), p. 384, art. "Turkey."—J. Tucker's *Reflections on the expediency of opening the trade to Turkey, and shewing the abuse of monopolies*, Lond., 1753.—*Some observations on a late Pamphlet entitled "Reflections on the expediency of opening the trade to Turkey,"* Lond., 1753, 8vo.—*Reasons for Preserving the Public Market of Blackwell Hall, and restraining the Levant Co. from deferring their shipping as long as they please* (Br. Mus. Cat., 816 m. 14 (69)), 1696 (?), s. sh. fol.—*An Answer to the false suggestions of the Italian Merchants* (*By the Turkey Merchants*), 1720, fol.]

A. L.

TURNPIKE TRUSTS. Throughout the mediæval period the maintenance of roads in England appears to have been left to private benevolence. In the reign of Philip and Mary an act was passed to compel every parish to maintain the roads within its limits, and to appoint a parish surveyor for that purpose. But great highways traversing many parishes could not be kept in proper condition by the disjointed efforts of parochial authorities. Some parishes were unable, and most parishes were unwilling, to discharge their statutory duty. The most important roads remained in an execrable condition till the early part of the 18th century, when the extraordinary growth of commerce and manufactures compelled reform. It then appeared most convenient and equitable to make those who used the roads pay for their improvement. Turnpikes were erected and tolls exacted on the principal highways. These turnpike roads were regulated each by a separate act renewed from time to time. The execution of the acts was confided to bodies of trustees or commissioners. At one time the turnpike trusts numbered several thousands. But the inconvenience of levying tolls has led to the gradual suppression of turnpikes, and to other arrangements for keeping highways in proper condition. The

turnpike trusts began to diminish rapidly after 1850, and probably all have now disappeared.

[See Cunningham, *Growth of English Industry and Commerce*, vol. ii., and authorities therein cited.—Wright and Hobhouse, *Local Government and Local Taxation*.] F. C. M.

TURTON, THOMAS (1764-1844) of Starborough Castle, Surrey, barrister, baronet (since 1796), and M.P. for Southwark (1806-12), wrote *Address to the Good Sense and Candour of the People in behalf of the Dealers in Corn* (1st and 2nd eds. 1800), in which he advocated free trade in corn, ascribed the dear corn, like A. YOUNG, to scarcity, and deprecated the convictions of some four hundred corn dealers, etc., and especially Rusby (T. Peake, *Additional Cases in Nisi Prius*, p. 189), for regrating, etc. He denied that rings could keep up prices; as that would require "the eyes of Argus, the hands of Briareus, and the purse of Crœsus."

Turton's opposition to the "Report of the Bullion Committee" (*Hansard*, vol. xix. p. 1051, vol. xx. p. 937) was based on the usual fallacies. J. D. R.

TUSSER, THOMAS (c. 1525-1580), the one English poet of agriculture, and one of the very earliest writers on the subject in the vernacular, was the author of a collection of metrical prescriptions and comments, the *Five Hundred Points of Good Husbandry*, which enjoyed a great vogue in the 16th and 17th centuries, and is now a valuable source of information concerning the agriculture of the Elizabethan period.

[Tusser's *A hundreth good pointes of husbandrie*, composed of a hundred four-line stanzas, appeared in 1557. There were probably three or four editions of this, before, in 1573, Tusser issued his much larger and almost entirely new work, *Five hundreth pointes of good husbandry united to as many of good huswifery*. Two later editions were prepared by the author in 1577 and 1580, with numerous small changes. Between 1580 and 1638 there were as many as eleven editions; and the book was several times reprinted subsequently. The reprint (1878) by the English Dialect Society, edited by W. Payne and S. J. Herrtage, collates the edition of 1580 with those of 1573 and 1577, gives a list of all the recorded editions, provides a valuable comment both philological and historical, and reprints the *Hundred Points*. Perhaps the most interesting section of the work is that entitled *A comparison betweene champion countrie and severall* (see CHAMPION AND SEVERALTY). An account of Tudor farming as described by Tusser is given in R. M. Garnier, *History of the English Landed Interest* (1892), i. 318 *et seq.* See also R. Prothero, *Pioneers and Progress of English Farming* (1888), p. 30.] W. J. A.

TWELVE TABLES, ROMAN LAW. See ROMAN LAW.

TWISS, SIR TRAVERS (1809-1897), the son of a Denbighshire clergyman, was educated at University College, Oxford, where in 1830 he obtained a first-class in mathematics and a second in classics. He became a fellow and tutor of his college, and successively public examiner in classics and in mathematics at Oxford, Drummond professor of political economy, professor of international law at King's College, London, and Regius professor of civil law at Oxford, which post he held from 1855 to 1870. But his scholarship and energy soon won distinction for him on wider fields than those of academic work. He joined the legal profession and was attracted to that now almost extinct branch of it which is concerned with Roman, ecclesiastical, and admiralty law. He became an advocate of Doctors' Commons, and rapidly attained high professional advancement. One after another the offices of vicar-general of the Archbishop of Canterbury, chancellor of the diocese of London, advocate-general of the admiralty, and queen's advocate-general fell into his hands. Soon after his appointment in 1867 to this last post, now abolished, the honour of knighthood was conferred on him.

The catastrophe which put an end to his official career in 1872 left him more leisure for literary work. From early manhood he had been a prolific writer, and the multiplicity of the subjects he dealt with is not more remarkable than the learning displayed in one and all of them. He ranged from the pure scholarship of an edition of Livy to the practical politics of a constitution for the Congo Free State, drawn up by him in 1884 at the request of the king of the Belgians. Though he will be chiefly remembered by his writings on INTERNATIONAL LAW, he made a notable contribution to economics when he published in 1847 his *View of the Progress of Political Economy in Europe since the 16th Century*. In this, as in his other works, he showed the historical bent of his mind. His wide reading supplied him with numerous precedents, and he was happier in applying them to new cases than in harmonising accepted principles or striking out fresh lines of thought. His great work on the *Law of Nations considered as Independent Political Communities*, published in 1861, is a monument of deep erudition and patient historical research. But it must not be supposed that he was merely a scholar. He was also a skilled jurist and an able man of affairs. He served the country on several royal commissions, notably those on neutrality and naturalisation, the labours of which resulted in important modifications of our laws respecting the subjects with which they were concerned. He was also legal adviser to the British plenipotentiaries at the West African conference of 1884-85. His reputation as a publicist extended over the civilised world. He was a member and vice-president of the *Institut de Droit International* and a member of the Society for the codification and reform of the law of nations. T. J. L.

The View of the Progress of Political Economy in Europe since the 16th Century, published by Travers Twiss, 1847, was the outcome of the course of lectures delivered by him as professor of political economy at Oxford in 1846 and 1847. *Habent sua fata libelli*. It is certainly difficult to account, when reading this brilliant sketch of the early course of economic science—even remembering

that the book appeared at the low water period which intervened between the times of Malthus and Mill—for the total oblivion into which it has fallen. The earlier lectures commence with a very complete account of 16th century English, Italian, and French writers, and trace the gradual development of doctrine in this country, particularly exemplified in the theory of VALUE as shown in the opinions of our early writers from Thomas Mun to Sir W. Petty and Sir Dudley North. Considerable space is given to the works of the school of French economists, and their place in the development of the science is shown. An explanation follows of Law's great financial experiment in France, with the reaction against the principles of Colbert and his encouragement of manufactures and commerce. The later lectures contain an analysis of the chief doctrines of Adam Smith, with some remarks on his relation to those writers on economics who had preceded him, and discuss the subject of population in reference more particularly to Godwin and Malthus. Then follows a complete analysis of Say's remarks on commercial outlets and liberty of trade, with a commendation of Say's "beautiful theory" that "nations can only pay for produce with produce, and that prohibitions against buying are obstacles to selling" (p. 239). The advantages of freedom of commerce are very ingeniously put, that protected labour is labour disadvantageously employed (p. 253). The last lecture traces the history of currency questions in Europe during the preceding century, the issue of assignats in France, the suspension of specie payments in England, closing with a sketch of the Bank Act of 1844, then a recent measure.

The sentence in the preface in which Twiss explains the object that he had in view was "to exhibit political economy by example, and so to show that its leading doctrines are the conclusions of an enlarged experience, and are not, as many persons suppose, mere deductions from arbitrary premises skilfully assumed," vividly places before us not only the object which Twiss had before him, but the position of the study at the time when he wrote.

Travers Twiss also wrote *On Certain Tests of a Thriving Population*, four lectures delivered before the University of Oxford in Lent term 1845.

TWO-FIELD SYSTEM. See THREE-FIELD SYSTEM.

TYDEMAN, HENDRIK WILLEM (1778-1863), was a professor of law at the university of Leyden.

He wrote several prize essays. Among these should be mentioned *Over den voor- en nadeeligen invloed van het invoeren der werktuigen in de plaats van menschenhanden in de fabrieken van ons vaderland* (On the favourable and unfavourable influence of the substitution of machinery for manual labour in Dutch manufacture), Haarlem, 1819.—*Over de Gilden of Corporatien van neeringen en ambachten* (On gilds and crafts), 1821. From 1817 to 1822, he was on the staff of the *Magazyn voor het armwezen in het Koningryk der Nederlanden* (Magazine for studies on the question of destitution in the kingdom of the Netherlands). —As announced on the title page, his *Grondbeginselen van Staatshoudhuiskunde* — Elements of political economy—follow the doctrine of N. W. SENIOR, as stated in the lectures delivered by Count ARRIVABENE (*q.v.*) at Brussels.

[*Biograaphisch Woordenboek*, pt. xviii., Haarlem, 1874.] E. ca.

UDAL TENURE. Land is still held in Orkney and Shetland by this tenure, which has been decided by the Scotch law courts to be allodial possession (see ALOD). It is a relic of Danish rule: the land is simply held by natural right, and is transferred by giving possession on the ground by a stone or other symbol without any writing, but in the presence of the neighbouring inhabitants. Udal lands descend to all the children of the udallers in equal shares. Sometimes a tribute called *scat* (see SCEATTA) is paid to the crown.

[Erskine, *Institute of the Laws of Scotland*, ed. 1838.—Sir Walter Scott, *The Pirate*, ch. i.—S. Laing, *Norway*, cap. 5.] R. H.

ULLOA, BERNARDO DE (dates of birth and death unknown). He was first a magistrate in Seville and afterwards in Madrid under the earlier kings of the Bourbon family.

Ulloa published in 1740 his *Restablecimiento de las Fábricas y Comercio Espanol* (Madrid, 2 vols.) He mainly follows the great work of UZTÁRIZ (*q.v.*), which had been published sixteen years before, but lays stress exclusively on the baneful influence of former Spanish systems of taxation. Though often quoted, Ulloa does not supply such copious and extensive information on the state of Spain as UZTARIZ; both belong to the mercantile school. Ulloa is very bitter (vol. ii. ch. iv.) on the famous ASSIENTO TREATY with England.

A French translation, said to be made by DANGEUL (better known under his *nom de plume* Chevalier NICHOLLS, *q.v.*), appeared in Amsterdam and Paris in 1753 under the title of *Rétablissement des fabriques et du commerce d'Espagne.*

[Wirminghaus, *Zwei Spanische Merkantilisten Uztáriz und Ulloa*, Jena, 1886.] E. ca.

ULSTER TENANT RIGHT. The body of usages generally comprised under this heading is of somewhat obscure origin. It seems to have arisen from the peculiar circumstances connected with the planting of several Ulster counties with English and Scotch settlers in the 17th century. In order to retain these colonists the proprietors found it expedient to tacitly recognise the interests for which their improvements supplied a basis. Thus the tenant-right system developed by degrees without attracting observation. Even so acute an enquirer as Arthur YOUNG failed to notice it. Before the middle of the present century, however, it was firmly established, as the evidence taken by the Devon commission (1844) amply proves. The essence of the custom consists in (1) the right to undisturbed possession so long as the rent is paid, and (2) the right "to sell his interest . . . in his holding . . . to any solvent tenant to whom the landlord shall not make reasonable objection." The tenant under the custom therefore possesses in modified form "fixity of tenure" and "free sale." The further condition that the landlord shall not by undue increase of rent encroach on the tenant right was also vaguely recognised, but was naturally much more disputable.

From the very fact that it was merely customary, the Ulster tenant right varied much in the different parts of the province, and even on neighbouring estates. It is more accurate to speak of customs than of a single uniform usage. Some landlords sought to limit the amounts paid by the incoming to the outgoing tenant, and in rare cases to destroy the system altogether. But any infringement of the tenants' privilege was resisted, and led to outrages similar to those in other parts of Ireland.

By Mr. Gladstone's first Land Act 1870 (33 & 34 Vict. c. 46, § 1), the Ulster tenant right was "declared to be legal" and was at a stroke transmuted from "custom" into "law." The necessary result, in accordance with Maine's view, has been a greater rigidity in the system. A large number of legal decisions have dealt with many of the doubtful points, while the later legislation of the act of 1881 and its successors has superimposed the general system of judicial tenancies on the custom. Nevertheless a tenant under the custom still enjoys certain advantages. A breach of statutory conditions does not deprive him of the benefit of the custom, and he is not affected by the decisions (notably that in Dunseath *v.* Adams) limiting the compensation grant for improvements. Further it is at present in debate whether the Ulster custom does not confer a right to have the rent fixed at a lower amount than in the case of an ordinary tenant.

There has been a good deal of controversy as to the principle on which this custom is based. One view is that it is the result of the improvements made by successive tenants which come in time to form the source of a "profit rent" justly due to its producers. Another regarded the right as based on insurance against outrage which followed disturbance of a tenant without payment for his tenant right, and probably both elements were in operation. But the strongest reason for its growth was the advantage to both landlord and tenant. The former was secured against loss of rent in arrear, which was the first charge on the payment for tenant right; he obtained a tenant who had proved his solvency; and he was relieved from expenditure for improvements. The latter obtained security in his occupancy, he could deal more confidently with the land, and he was not exposed to the reckless competition of persons without capital which proved so injurious in other parts of Ireland. Such a custom, moreover, implied a large amount of sympathy between landlords and tenants, and in some degree tended to develop it. These advantages were manifested in the prosperous condition of Ulster.

The strongest objections urged against the Ulster custom were (1) the division of ownership that the system required; and (2) the unnecessary expenditure of capital by an incoming tenant which hampered him in working his farm. Both, it may be said, lose their force if account be taken of the peculiar circumstances of Ireland with its sharp division of classes and the insecurity of agricultural investments by the tenants.

Analogous usages existed in some other parts of Ireland, such as the custom on the Portsmouth estate, and were likewise legalised by the Land Act of 1870 (see art. F's, THE THREE).

[See the *Report* of the Devon commission (1845), also that by the Bessborough commission 1880 (C. 2779).—W. N. Hancock, *The Tenant Right of Ulster considered economically*, Dublin, 1845.—M. Longfield, "The Tenure of Land in Ireland," ch. vi. in *Cobden Club Essays*, 1870.—W. O'Connor Morris, *The Land Question of Ireland*, chs. xxiv. xxv. 1870.—R. R. Cherry, *The Irish Land Acts*, pp. 14 and 18, 2nd ed. Dublin, 1893.] C. F. B.

ULTRA VIRES. The doctrine of "ultra vires" is of importance in the case of corporations and companies, which being always created for specific purposes only, have only a limited range of powers. Any act transgressing these powers is said to be "ultra vires." In the case of a company incorporated under the Companies' Acts, an act may be "ultra vires" of the company or "ultra vires" of the directors. If the act is done for an object not covered by the object clause in the memorandum of association, it is "ultra vires" of the conpany and is void for all purposes, but if the act is authorised by the memorandum and merely transgresses the powers given to the directors by the articles, it may be ratified by a general meeting of the shareholders, and thereby is rendered valid. (Grant *v.* United Switchback Company 40, Ch. D. 135). Directors using the funds of the company for unauthorised purposes are personally liable to replace them. E. S.

UNDERTAKERS. See EMPLOYERS AND EMPLOYED; ENTREPRENEUR.

UNDERWRITER. The term applied to the insurer of ships and their cargoes from the custom of writing his name and the amount of risk he undertakes at the foot of the policy.

[Arnould, *Marine Insurance*, London, 1887 (see art. INSURANCE, MARINE).] J. E. C. M.

UNDERWRITING. The members of the association of insurers of ships known as Lloyds sign their names individually at the foot of the policy, and opposite thereto the sum insured by each in figures, and also in words, with the date of so doing. This is called underwriting the policy for so much, and each thereby makes a separate contract, in the terms of the instrument, with the assured, of the particular amount set opposite to his name.

[Arnould, *Marine Insurance*, London, 1887.] J. E. C. M.

UNEARNED INCREMENT. See INCREMENT, THE UNEARNED.

UNFUNDED DEBT. See DEBTS, PUBLIC.

UNION, POOR LAW. Unions are unions of parishes. Their formation has affected rating, settlement, and removal, and the general administration of poor relief.

By 43 Eliz. c. 2, the parish was made the local unit for administration and rating, with as its officers the churchwardens and overseers of the poor. Later, parishes were incorporated under local acts (*e.g.* Bristol, 7 & 8 Will. III.; Exeter, etc.), or joined for the provision of common work or poorhouses under 9 Geo. I. c. 7 (1722), or they might be combined by justices under Gilbert's act 1782 (22 Geo. III. c. 83). In this case guardians were appointed for each parish with the authority of overseers, except in the making and collection of rates. In 1834 there were 364 parishes incorporated under local acts, and 283 under Gilbert's act. Under the Poor-Law Amendment Act of 1834 the poor-law commissioners formed groups of parishes into unions, and by degrees recast the Gilbert and other incorporations. In each union was created a board of guardians representative of the parishes included within it, with a common administration and a common fund. The guardians formed a union assessment committee, and the overseers of each parish made out for them a valuation list of its rateable hereditaments (for forms, etc., see Archbold's *Poor-Law*, by Cunningham Glen, 1885). On the approval of these lists by the committee, the overseers and churchwardens made a poor rate according to the rateable value of the parish with the consent of two or more justices. The overseers then paid over to the guardians the sums chargeable to their parish. Later, by the Union Chargeability Act (28 & 29 Vict. c. 79) 1865, separate parochial chargeability of the poor in the union came to an end, and the overseers now pay over to the guardians such sums as they require according to the annual rateable value of each parish. From being the administrative unit the parish thus became the fiscal unit for valuation and the collection of the poor rate, and is now defined (29 & 30 Vict. c. 113) as a place for which a separate poor rate is or can be collected, and for which a separate overseer is or can be appointed. For the metropolis there are special rating arrangements.

After the act of 1865 there was no longer any object in overseers pressing for the removal of paupers from one parish to another within the union, in order to avoid their acquiring a settlement and becoming chargeable, for all parishes in the union now shared alike according to rateable value. Questions of settlement and removal thus became practically union questions.

As to general administration (*Report of Poor-Law Commissioners*, 1834, and *The Union and the Parish*, 1839), the unions were formed in order to establish union workhouses (see WORKHOUSES) for the relief of able-bodied pauperism and its prevention, to neutralise local and parochial influences by the adoption of a larger area, to introduce a system of paid relieving and other officers in the place of the annually elected unpaid overseers, and to establish a simpler and better regulated administration acting under the orders of a central board. On all these points the reform was fully justified.

The Local Government Act of 1894 (56 & 57 Vict. 73) provides for an alteration of boundaries of unions, and changes the qualifications of the local elector and of the guardian, but it does not alter the union system (cp. *The Local Government Act*, Macmorran and Dill, 1894).

(See also ALLOWANCE SYSTEM; GILBERT'S ACT; POOR LAW, ADMINISTRATION OF; POOR LAW, HISTORY). C. S. L.

UNIONS, MONETARY. See LATIN UNION.

UNIT OF ACCOUNT. The unit of account is usually, but not always, a coin. Thus in Great Britain the sovereign, in France and the countries allied in the monetary way the franc, in the United States the dollar, in Holland the guilder, are respectively the units in which accounts are reckoned. The unit of account and its subdivisions are frequently of conventional importance, through being the amounts usually paid on certain occasions or for certain services. Thus in England the entrance charge to many exhibitions is 1s. while in France it is the franc. The guilder also under some circumstances takes the place filled by the two last named coins. The unit of account is therefore not without considerable influence in mercantile transactions and in social life, though, while as in France accounts are rendered in its name, the coin itself is never used for large payments.

UNIT OF VALUE indicates "something by comparison with which we may ascertain what is the value of any other thing" (Mill, "Of a measure of Value," *Pol. Econ.*, bk. iii. ch. xv.). This ideal measure need not be a material object (Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 1, note). It should be, according to modern analysis, equivalent to a unit of marginal utility or disutility. Prof. Irving Fisher, in his *Mathematical Investigation*, conceives a unit of the former sort which he professes to call a "util." The last hour of the working day—or rather the last which a person is induced to work, which might be the earliest — measures marginal disutility (Jevons, *Theory of Political Economy*, ch. v. J. B. Clark, *Quarterly Journal of Economics*, vol. v. p. 296). But the quantity of labour which Adam Smith considered as a measure of value was not the *marginal* hour; but rather "one day's ordinary muscular exertion of one man" (Mill, *loc. cit.*).

These distinctions have a bearing on the problem of correcting the value of money by INDEX-NUMBERS. If, as in fact during recent years, the productivity of labour and the abundance of products per head of population have increased, ought the standard of deferred payments to represent a constant quantity of goods, or a constant quantity of labour? Against the first it is argued that the same quantity of goods no longer represents the same marginal utility. It is replied that,

as the goods restored would not all be employed at the margin of expenditure, the increase in the quantity of goods payable by the debtor should not be measured by the decrease in marginal utility. It may be rejoined that the labour standard, in the only form in which it could be practically applied—securing that the money value of the produce per head should be constant, —would *not* be a measure of *marginal* disutility.

[See the authorities referred to in the memorandum on "Recent Writings on Index-Numbers" in the *Economic Journal* for March 1894; and arts. INDEX-NUMBERS; TABULAR STANDARD.]

F. Y. E.

UNITE. English gold coin issued during the period 1604 to 1661 (see GUINEA). F. E. A.

UNPRODUCTIVE CONSUMPTION. Adam Smith, while dwelling repeatedly on the distinction between productive and unproductive labour, nowhere uses the term unproductive consumption, nor would it have occurred to him to do so. He saw, and saw rightly, that all consumption, all employment of wealth as revenue, is essentially the destruction of wealth, not its production, and that consequently, to speak of productive consumption, which seems necessarily implied as the counterpart of unproductive consumption, would amount indeed to a contradiction in terms. Mr. Mill, in his *Principles of Political Economy*, was the first English writer to make use of the phrase, and to emphasise the distinction. At the close of his well-known chapter, bk. i. ch. iii. on *Unproductive Labour*, he writes as follows, p. 64. "The distinction of productive and unproductive is applicable to consumption as well as to labour. All members of the community are not labourers, but all are consumers, and consume either unproductively or productively. Whoever contributes nothing directly or indirectly to production is an unproductive consumer. That alone is productive consumption which goes to maintain and increase the productive powers of the community; either those residing in its soil, in its materials, in the number and efficiency of its instruments of production, or in its people. We see, however, by this that there is a distinction more important to the wealth of a community than even that between productive and unproductive labour, the distinction, namely, between labour for the supply of productive, and the supply of unproductive consumption; between labour employed in keeping up or in adding to the productive resources of the country, and that which is employed otherwise." A glance, however, at Mill's own illustrations and the slightest reflection upon them will be sufficient to show how impossible it would be in practice to hold consistently to the distinction here insisted on, and how little is consequently gained by it. Mr. Fawcett, as was too often the case, follows somewhat blindly in this matter in the footsteps of Mill. In bk. i. ch. iii. of his *Manual*, pp. 15, 16, he gives an abstract or summary of the views already expressed by Mill. F. Walker, in his *Political Economy*, pt. v. ch. iii., approaches the question from a more hopeful side. While admitting that it is impossible to draw any very sharp line between productive and unproductive consumption, since much of what is spent on what might be called luxuries, and in an earlier age and state of civilisation would certainly have been so called, really tends to give increased productive efficiency to the labourer, he yet notes—what is indeed obvious—that various kinds of consumption have varying effects on a nation's productive powers, and he deplores the want of any treatise which discusses consumption from this purely economic point of view. "We need," he says, § 406, "a new Adam Smith or another Hume to write the economies of consumption in which would be found the real dynamics of wealth, to trace to their effects upon production the forces which are set in motion by the uses made of wealth. When this has been done, but certainly not till then, shall we be able to place upon the terms productive and unproductive consumption something like an intelligible sense." W. A. SP.

UNPRODUCTIVE LABOUR. See PRODUCTIVE AND UNPRODUCTIVE LABOUR.

UNSKILLED LABOUR. See LABOUR.

USANCE. This word is sometimes used to denote the time for payment fixed by custom for bills of exchange. This customary time varies according to the situation of the place of issue and of the place of payment. Thus the customary time for bills drawn on London from South America is ninety days' sight, whilst the customary time for bills drawn in London from Indian ports is three months' sight. In most places, however, fixed customs have ceased to exist, and the time for payment depends on the particular circumstances of each case and the arrangements between the parties.

In some countries the bills of exchange codes have stereotyped the usances by fixing once for all the time which the word "usance" implies when found in a bill of exchange, and in such countries bills may be drawn at one or more usances after date or after sight.

The following is a list of usances fixed in this manner by law:—

France, Holland, Belgium	Thirty days reckoned from the day following the date of issue, or thirty days from acceptance.
Spain	Sixty days in the case of bills drawn from Spain, Portugal, France, England, Holland, and Germany; ninety days in the case of other bills.

In the United Kingdom, Germany, Austria-Hungary, Switzerland, and a number of other countries, documents payable at one or more usances from date or from sight are not recognised as bills of exchange unless they are drawn in one of the countries the codes of which have recognised usances in the above-mentioned manner. E. S.

USE, VALUE IN. See UTILITY; VALUE.

USES, CHARITABLE (History of Law as to). Certain restraints have been imposed by English law on gifts to charitable uses. By statute 43 Eliz. c. 4, charitable uses were defined to include the relief of aged, impotent, and poor people, the maintenance of sick and maimed soldiers and mariners; schools of learning, free schools, scholars in universities; repair of bridges, ports, havens, causeways, sea-banks, and highways; education and preferment of orphans; relief stock, or maintenance for houses of correction; marriages of poor maids; support, aid, and help of young tradesmen, handicraftsmen, and persons decayed; relief or redemption of prisoners and captives; for aid or ease of any poor inhabitants concerning payment of FIFTEENTHS AND TENTHS; setting out of soldiers; and other taxes. This definition of charitable uses has been somewhat enlarged by judicial decisions, but it apparently remains authoritative in spite of the repeal of the act of Elizabeth by the Mortmain and Charitable Uses Act of 1888 (see MORTMAIN). Gifts of personalty to charitable uses have never been put under legal restriction. But, for different reasons at different periods, the law has prohibited gifts of land to corporate bodies. And even when a charity is not incorporated it has been thought advisable to forbid testamentary gifts of land to it, as such gifts may be made by dying men under solicitation and to the prejudice of their families. Hence two distinct forms of restraint on gifts of land to charitable uses:—(1) Under the law of mortmain, properly so-called, which rests on the statute *De Viris Religiosis* (7 Ed. I. c. 13) all gifts of land to corporations are void unless made with the licence of the crown. Charitable institutions which have been incorporated are therefore incapable of taking gifts of land, except with the sanction of the crown. (2) Under the Mortmain Act, improperly so-called (9 Geo. II. c. 36), a gift to any charity, of land or of money to be invested in land, had to be made by deed executed at least twelve months before the death of the donor, and enrolled in the court of chancery within six months of execution. Such gifts therefore could not be made by will. The Mortmain and Charitable Uses Act 1888 consolidates the law of mortmain in both senses of that term. There are certain statutory exceptions to the rule laid down in 9 Geo. II. c. 36, and re-enacted in the act of 1888. [As to these exceptions and as to the change in the law brought about by the Mortmain and Charitable Uses Act 1891, see TRUSTS, CHARITABLE.]

[Williams, *Principles of the Law of Real Property.*—Digby, *History of the Law of Real Property.*—Mitchison, *Charitable Trusts and Charity Commission Acts.* — Tudor, *Law of Charitable Trusts.*] F. C. M.

USSELINCX, WILLIAM (living early 17th century), inhabitant of Holland, wrote on the peace between Holland and Spain in 1608, which prevented the erection of the Dutch West India Company.

Vertoogh, hoe nootwendigh het sy voor de Nederlanden te behouden de Vryheyt van te handelen op West Indien, 4to, 1608. This work suggested the Dutch West India Company, and is the original of the *Excellent Discourse*, printed in the English edition of Jacque Le Hermite's Relation, 1625. — *Memorie van de gewichtige redenen* (Relation of the important Reasons which should persuade the States General not to abandon the Commerce and Navigation to the (East and West) Indies), 4to, 1608.—*Bedenckinghen over den Staet* (Considerations on the State of the Netherlands, their Navigation, Commerce and general Trade), 4to, 1608.—*Naerder Bedruckingen over de zeevaerdt* (Further Considerations on the Navigation, Commerce, and Trade of the Netherlands), 4to, 1608.—*Discours by Forme van Remonstrantye* (Discourse in the form of a Remonstrance, by which the Netherlands will secure as great advantage in her navigation round the Cape as through the Straits of Magellan, etc., 4to, 1608). —*Onpartydich Discours op te handelinghe van de Indien* (Impartial Discourse on the Commerce with (the East and West) Indies), 4to, 1608.

Usselincx was engaged in the formation of the proposed Swedish South Company of 1626. Great efforts were made to find the capital for this undertaking, which was fostered by Gustavus Adolphus (reigned 1611-1633). Preparations were made to send ships to "New Sweden," the proposed Swedish settlement on the Delaware. The connection of Sweden with the Thirty Years' War put an end to the enterprise. [*Handwörterbuch der Staatswissenschaften* (*s.v.*) Südseegesellschaften.]

(See EAST INDIA COMPANY.)

USTARIZ, JERONIMO DE. See UZTÁRIZ.

USUCAPIO. Ownership by quiet possession. By the early Roman law if a man had purchased *bonâ fide*, or had obtained by other legal means, a thing from a person whom he believed to be the owner but who really was not, he might acquire it by use (*usucapiat*) for one year if a movable, or for two years if an immovable which was in the *solum Italicum*. The mere *possessio* was turned into *usucapio* by time. Justinian altered the necessary time for movables to three years; and for immovables in any place, if holder and claimant lived in the same province, to ten years. If they were in different provinces twenty years were required.

[*Institutes of Justinian*, bk. ii. tit. 6.] R. H.

USURY, USURY LAWS. See CANON LAW; DRY EXCHANGE; INTEREST AND USURY.

USUS signifies (1) a mode of acquiring marital power (*manus*) over a wife by living with her continuously for a year which was recognised by the law of the Twelve Tables. (2) A personal servitude by which one person is entitled to take the fruits or produce of

another's property simply for his own use, not for the purpose of letting or selling.

E. A. W.

UTI POSSIDETIS. This interdict is the procedure by which a person in possession of land or building is protected from arbitrary interference on the part of any one, its object being to maintain a person in the possession he has acquired. The possessor at the time the interdict is granted has the benefit of this protection, provided that he has not acquired possession from the opposite party in the proceeding, either by violence (*vi*), or furtively (*clam*), or by his leave or licence (*precario*).

E. A. W.

UTILITY is the power of giving satisfaction (cp. Marshall, *Principles of Economics*, p. 78, 3rd ed.). "Political economy has nothing to do with the comparative estimation of different uses in the judgment of a philosopher or of a moralist" (J. S. Mill, *Pol. Econ.*, bk. iii. ch. i. § 2). "The use contemplated is the simple power of ministering to a purpose, though that purpose were the most absurd, wicked, or destructive to the user" (De Quincey, *Logic of Political Economy*, § vi.). For an object to have utility it must be desired, it need not be desirable. Even the immediate pleasure aimed at is possibly not proportioned to the utility as measured by the sacrifice made in order to satisfy a desire (Marshall, *loc. cit.*, Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 2, and *Methods of Ethics*, on "Nonhedonistic desire").

The relation of utility to value, which exercised the older economists, is thus simply explained by the mathematical school. The value in use of a certain quantity of commodity corresponds to its total utility; the value in exchange to its marginal utility (multiplied by the quantity). The former is greater than the latter; since the utility of the final increment of commodity is less than that of every other increment (see FINAL DEGREE OF UTILITY; MARGIN; VALUE.)

[The subject is treated by almost all economists; particularly well by those above mentioned.]

F. Y. E.

UTOPIAS

Utopias, p. 602; Utopias and Modern Socialism, p. 604.

UTOPIAS, HISTORY OF. Utopias are social romances, or "ideologies" which have appeared at certain epochs of history, especially in the presence of some social crises which turned the eyes of men away from depressing actualities to some imaginary "Nowhere land," where the social ideal might be realised. Such was the *Republic* of PLATO, and the *New Atlantis* of Lord Bacon. Such, too, was the *Utopia* of Sir Thomas More, with its numerous imitations since. These utopias, however, are often only fancy-woven dreams of poetical and philosophical thinkers, but they are also critical transcripts of the social ideas of the time expressive of views on what is, in comparison of what might be. They are pictures of a perfect society having for their background the dark state of existing society as it appears to the mind of the writer; in short they are suggestions in myth, suggesting by a story social reform—plans which the writers could not, or dared not, state in plain terms. Thus Plato sketched an ideal commonwealth based on justice, in which the opposite dangers of despotism and democracy would disappear, and where in circumscribing the power of accumulating private property, and the "intemperate craving after wealth," the danger to the capitalist class enriched then by colonial enterprise, arising from the envy and cupidity of Demos, could be avoided. Living as he did in an atmosphere of political and social fermentation, Plato wrote the *Republic* in the hope of raising the social level by counteracting the greed of egotism. For this reason he recommended a communistic state and the abolition of private property; "if they will follow their rules," he says of the moneyed aristocracy, from whom the change is to emanate, "they will be safe themselves and the saviours of the city" (bks. ii. and viii.). With the return to classical ideals which accompanied the Renaissance these speculations of the social innovator of antiquity were revived and enriched by an accretion of Christian sentiment. The millennial hopes of Christianity placed the golden age in the future, with love of the brethren, or the enthusiasm of humanity for its moving cause. In More's *Utopia* we have this coalescence of Hellenism and Hebraistic Christianity, in the conception of an economic ideal. Appearing as it did in the reign of Henry VIII. (1516), its criticism is of necessity veiled, though it suggests a sad picture of the social condition of the times—luxurious idleness and grinding poverty breeding crime and vagabondage and other evils arising from the abrogation of peasant proprietorship, the secularisation of church property, the conversion of arable land into pasture, royal monopolies, and over-taxation. Utopia by way of contrast is described as a "Commonwealth of Equals," its government is democratic and elective. The reduction of the hours of labour to six encourages cultured refinement and the enjoyment of the product of liberal arts. Yet productivity is heightened, since all alike in the community would have to work; wealth is held in contempt, the wearing of gold being a badge of slavery; only limited, not absolute ownership is permitted; voluntary ascetics perform the meanest offices; variety of pursuits, and rational means of enjoyment, add to the interests and relish of life. In the fragment of Bacon's *New Atlantis* (1624, published 1629), we notice the influence of the age of new discoveries and the

romance of travel, giving "the certainty of a new unexplored kingdom of knowledge within the reach and grasp of man." A similar prediction is found in the *City of the Sun* (1637), the utopia of CAMPANELLA, a Calabrian monk, a friend of Galileo, and one of the "Novi homines" in Italy. Here the hours of labour are reduced to four, all are to have a share in it, and under the rule of the "chief metaphysician" and his spiritual subordinates, a new social order of enlightened equality is to rise out of the old. The *Oceana* of Harrington (1656), dedicated to Cromwell, addresses itself chiefly to the problems of government, which, however, he makes to depend on the "balance of property." The *Idea of a Perfect Commonwealth*, by D. Hume (1752), is purely political. The most remarkable utopias of the 17th century which serve as links between the social schemes of the Reformation and the Revolution, are Vairasse's *La Républiqué des Sévérambes* (1677),—*Le testament de Jean Mezlier* (1690), and the *Voyage en Salente* in Fénelon's *Télémaque*. They have been aptly described as "state-romances," as they are the products of an age of state absolutism. Mezlier's *Testament*, as abridged by Voltaire, strikes the first note of the revolution. It alludes to "the abuses and errors in the conduct of governments" and demands autonomy of the commune. Next in order comes MORELLY'S *Basiliade*, conceived in the spirit of the 18th century, and giving a sketch of society framed on the principles of the *Code de la Nature* by the same author. It speaks of private property as the "author of all crimes," and of private interest as the "universal pest" of society. It proposes a commonwealth where all have a share in the work done according to their capacity, and all are rewarded out of the common fund where inequalities are discouraged, the strong supplementing the requirements of the weak. Through MABLY, Sylvain Maréchal, and Marat, their ideas found their way into the convention. But the revolution, in proclaiming the principle of natural liberty and *laissez-faire*, by establishing free competition and contract, entirely dispelled these dreams of a "republic of equals" in its diametrical opposition to centralised government under "social authorities." The utopias of the 19th century, therefore, are pictures of a state of society in which the centrifugal forces of individualism, set free by the revolution, are restrained by organisation, association, and a "centralised industrialism," where liberty and the principles of liberty and law, authority and the sovereignty of the people, are alike recognised. Such was the picture of social fraternity drawn by Etienne CABET in his *Voyage en Icarie* (1840), the utopia of the modern proletariat. Here there is neither property nor money, buying nor selling. All alike work for the community which provides for their needs. Manufactures and industries are public property, and the executive regulates the production and consumption of commodities. The principal meal is taken in common halls, and at the age of sixty-five no man, at that of fifty no woman, is required to work any more. An elaborate scheme is propounded to bring about without revolution a gradual transition from the old to the new order of things. This is the last of the pre-scientific utopias. The economic value of utopias is partly historical in furnishing the data for the historian of social evolution who sees reflected here the social tendencies, as well as those economic conditions which give rise to the conception of the social ideals of the age. They may also supply instruction. From the partial realisation of former utopias we may infer possibilities of economic progress in those now in vogue, and discover a clue to the conditions of success. Some of the achievements of social improvement may be traced to the influence of those idealised conceptions of a more perfect society which have succeeded in drawing attention to social wants, and in kindling enthusiasm for social reforms in quarters which purely scientific works would not have reached. To some degree, too, they could not fail in affecting the speculations of the economist or the political consideration of the statesman. They may also serve as object-lesson teaching ardent philanthropists and others the limited range of possibilities in social amelioration, and that it is only by patient work and hope that in the slow and steady progress of our race the fanciful conceptions of a perfect state of society become eventually translated into something approaching to reality. The disappointments to which they have given rise must be attributed to the exaggerated idea of human perfectibility on which they are founded. If all men were good and perfect, social commonwealths would be feasible, but this, as Sir Thomas More says in the *Utopia*, "will not be yet for these many years."

[*Ideal Commonwealths*, with an introduction by Henry Morley, forming No. 23 of his "Universal Library," 4th ed. 1889.—A. Gehrke, *Communistische Idealstaaten*, 1878.—*Social Utopias* in Chambers's *Papers for the People*, a very able and succinct account from the pen of Thomas Frost (date unknown).—R. Mohl, "*Die Staatsromane*" in *Zeitschrift für das gesammte Staatswesen*, 1845, vol. i.—M. Kaufmann, *Utopias, or schemes of Social Improvement*, 1879.—Fr. Kleinwächter, *Die Staatsromane*, 1891.—J. Petzler (the exile from France), *Social Architecture*, 1876.—The same, *Life in Utopia*, 1890.—J. J. Thonissen, *Le Socialisme*, 1853.—Theodore D. Woolsey, *Communism and Socialism*, 1879.—F. Villegardelle, *Histoire des Idées Sociales, etc.*, 1846.—Also Malon's articles on "La Protestation communiste

dans le passé" and "Les précurseurs du socialisme moderne" in *La Revue Socialiste* for December 1889 and January 1890.—E. de Laveleye's article in *Contemporary Review* for January 1890, on "Two New Utopias," also Eugen Richter's *Socialdemokratische Zukunftsbilder*, trans. by H. Wright, 1894, a satirical brochure on the most recent forms of socialism (see COMMUNISM).]

M. K.

UTOPIAS AND MODERN SOCIALISM.—Recent Utopias illustrate the triumph of natural science (E. Bulwer Lytton, *Coming Race*, 1871), of a moral paradox (S. Butler, *Erewhon*, 1872), or of socialism based on contract (G. Rossi, *Un Comune Socialista*, 1884), or on the state (E. Bellamy, *Looking Backward*, 1889; which merely throws Utopian drapery around Lytton Gronlund's *Co-operative Commonwealth*, 1884; Bebel's *Woman*, 1893, 1st German ed., 1883), or of anarchical communism (W. Morris, *News from Nowhere*, 1890; joy in beautiful work is the only motive which holds men together; this is the finest Utopia since More's), or of anarchical individualism (W. Bode, *Indivi*, 1892), or of individualistic co-operation *plus* a free use of land and productive capital, which is practically communism (Hertzka, *Freeland*, 1891; *Visit to Freeland*, 1894; *Entrückt in die Zukunft*, 1895; C. Secrétan, *Mon Utopie*, 1892; M. Flürscheim, *Money Island*, 1896). These recent Utopias are very similar: thus there is but a narrow line between Morris's and Bode's anarchy and between Flürscheim's co-operative societies, which cover the whole state and own land and capital, and Bellamy's state. Socialists who repudiate Utopianism include under that name any set complete scheme (F. Engels, *Socialism, Utopian and Scientific*, 1892; A. Bebel, *Zukunftsstaat*, 1893). J. D. R.

UTTER OR CIRCULATE. See BANKING; BANK NOTE.

UZTÁRIZ, JÉRONIMO DE (born in 1689); under King Philip V. (reigned 1712-1746), he was a member of the council of trade, and of the council of the Indies.

His *Teórica y práctica de Comercio y de Marina . . . para su pronta restauracion*, appeared, Madrid, 1724; two other editions, "corrected and enlarged by the author," followed 1742 and 1757.

In his preface, Uztáriz states that he has consulted all available sources of information and travelled over France, Italy, England, Flanders, Holland, and the western part of Germany, "correcting in the large ports and emporiums of trade what is always defective and doubtful in purely speculative intelligence." His book is a rich mine of information on the population of Spain, its system of taxation and of colonial government and its commercial policy; many interesting documents of the time of Isabella (reigned 1468-1504) are either given in full or in analysis. He was the earliest to point out that the Spanish official census of population generally erred on the side of under-estimating the actua numbers; made for fiscal purposes, account was only taken of the numbers of *vecinos* or householders.

Uztáriz starts from the fundamental proposition that Spain could only be restored to its former power "by a strong military force, a powerful navy, and a well-regulated and still better protected trade" (p. 4, ed. 1724) after the model established in France by COLBERT. The rules he proposes are (1) free admission or with trifling duties of raw materials; (2) high import duties on foreign manufactures; (3) free exports of national manufactures; (4) exemptions or alleviations on such inland taxes as the ALCAVALA (*q.v.*), the Cientos, etc., granted to the national manufacturers. A trade established on these lines is a *comercio útil*, or useful; on any other, it is a *comercio dañoso*, or hurtful. It signifies little whether the customs yield a good revenue; the balance of trade must be the leading aim of the statesmen and monarch. In order to have a useful trade, "we must strive with untiring zeal . . . to sell to foreign countries more produce and articles than we receive from them" (p. 10), Trade ought not to be passive, but active, namely in the hands of the *naturales* (native born subjects). However, he allows advantages to be granted to foreign Roman Catholic manufacturers and operatives in order to induce them to settle in Spain (p. 26); still he considers that the native population of Spain is quite sufficient to uphold an active industry; its numbers have been reduced, not as a consequence of the occupation of America, but of "the poverty which resulted from the destruction of trade and manufactures . . . and the excessive weight of taxation increased by fraudulent and extortionate practices in its levy" (p. 30).

Uztáriz remonstrates against most of the existing abuses: the excessive number of convents, the monopoly granted to Cadiz for the American trade, the crushing export duties levied on manufactures shipped for America, etc. It should be noticed that though anxious that exemptions or alterations of taxation should be granted to manufacturers, he is adverse to "exclusive privileges" and monopolies; thus he objects to the state monopoly of alcohol, though he admits it for tobacco.

Whatever may be our opinion about his theories, Uztáriz was a conscientious, painstaking, and well informed official, honestly striving to raise his country from the dejection into which it had been sunk by the frightful misgovernment of the Austrian dynasty.

The *Teórica* was translated into English by Kippax, *The Theory and Practice of Commerce and Maritime Affairs* (2 vols. 8vo, London, 1751), and into French by Forbonnais, *Théorie et Pratique du Commerce et de la Marine* (1 vol. 4to, Paris, 1753).

[Wirminghaus, *Zwei Spanische Merkantilisten*, Jena, 1886.] E. Ca.

VACANTIA BONA signifies the inheritance of a deceased person which is without an owner, because there is no one who is able and willing to enter upon it. The FISCUS (*q.v.*) was entitled to appropriate property in this condition. E. A. W.

VAGRANCY. From the point of view of the poor-law the vagrant is a destitute casual pauper; from that of the criminal law (Vagrant Act, 5 Geo. IV. c. 83), he is an "idle and disorderly" person, or a "rogue and vagabond" if he commits certain offences, such as wandering about to beg or gather alms, sleeping out, and so on.

Public provision for the casual poor and the repression of vagrancy are considered to be supplementary to one another, but, except on grounds of social expediency, repression by the state does not involve the obligation of state maintenance.

The number of vagrants relieved on 1st January 1896 by the poor-law guardians in England and Wales was 13,239, but a night count on that 1st January showed the actual number of vagrants to be only 7859 (Local Government Board, *A Report*, 1896, p. 419). Thus, as locomotion is easy, the number appeared to be nearly twice as large as it really was. Other night counts of vagrants in casual wards, common lodging-houses, and shelters, confirm this result (cp. for instances, *Charity Organisation Paper* No. 7; report of committee of that society on the *Homeless Poor of London*, 1891; Appendix lxxxii. to the *Report of the Scotch Departmental Committee on Vagrants, Inebriates, etc.*, 1895; and *West Midland Poor-Law Conference*, May 1894). It seems probable that in England and Wales the total number of the migratory poor, including strangers in common lodging-houses and vagrants in receipt of poor-law relief, does not much exceed 30,000. The number of prosecutions for offences under the Vagrant Act in 1895 were for begging, 15,679, for sleeping out, 8159.

The history of the individual vagrant is usually one of personal degradation or incompetency, but economic disturbance increases vagrancy. The less capable morally or intellectually drift into it. The kind of degradation that vagrancy implies is fairly constant and well understood.

The methods of dealing with vagrancy are—(1) punishment and restriction to place of abode or settlement; (2) "correction" with or without employment; (3) employment; (4) restrictive toleration. Burn's *History of the Poor-Laws* (1764) contains a good statement of penal measures, including instances of (1). In the same spirit, though not probably with the same purpose, is 14 Car. II. c. 12, that originated the present law of "settlement" (Glen's ed. of Archbold's *Poor-Law*, 1885). Of (2) "correction with employment," Bridewell, founded by Edward VI., where chastisement was administered with compulsory labour "to the overthrow of the vicious life of idleness," is an instance. By 18 Eliz. c. 5, houses of correction were substituted for jail for the committal of vagrants. Eden (iii. p. 136) gives the rules of the Bury (Suffolk) House, 1588. The adult reformatories now suggested by some are in principle the same as these houses. The Vagrant Act, 5 Geo. IV., now covers the penal side of vagrancy. Of (3) employment as a remedy, the German and other so-called colony systems are instances (see INDUSTRIAL COLONIES). Restrictive toleration (4) fairly defines the English system from the poor-law side. Every destitute casual pauper is entitled to food and lodging in exchange for work. The casual pauper is not removable. His treatment is regulated by the Casual Poor Act 1882 (44 & 45 Vict. c. 36) and subsequent poor-law orders (Macmorran and Lushington, 1890). Casual wards are now usually built on the separate cell or room system. The pauper, on admission, has to take a bath and his clothes are disinfected. He has to do a task of work, and, subject to a large discretionary power in the hands of the authorities, cannot discharge himself till the morning, second day after admission. There is a fixed dietary.

There is need of greater uniformity in the detailed enforcement of the English system. Otherwise it meets fairly the demand for considerate treatment, though coupled with irksome conditions. It does not aim at being remedial though it is restrictive. Remedial measures it leaves to other agencies or to economic change, and it is a fact that only in very few cases of vagrants are remedial measures practicable. On the other hand, if carried out with uniformity it does not foster vagrancy, while in particular cases it allows ample discretion. The history of vagrancy appears to justify it.

[Ribton-Turner, *History of Vagrants and Vagrancy*, 1887.—Eden, *State of the Poor*, 1797. *Reports of Inspectors of Poor-Law or Local Government Board*, especially 1886 and 1889-95.—*Reports of Poor-Law Conferences*, by G. Paul, 1892, and others.—*Dépôts de Mendicité*, Fasc.: No. 10; Rapport, Conseil Supérieur de l'Assistance Publique, France, 1888.—Camille Garnier, *Essai de Bibliographie Charitable*, 1891.—M. Bertsch, *Ueber Landstreicherei und Bettel*, 1894.] C. S. L.

VALERIANI, LUIGI MOLINARI (1758-1828). Born at Imola, near Bologna. A learned man, and well acquainted with the classical languages; he studied poetry, physics, law, and economics. He was appointed in 1797 a member of the legislative body in Milan, and in 1801 professor of public economy at the university of Bologna where Pellegrino Rossi was his pupil.

In his day Valeriani was widely known; he wrote many works, some of which were never published. Though diffuse and obscure in style, his writings deserve attention from the learning they display and a certain originality of conception. Trained both as a lawyer and an economist, his writings bear especially on the relation between economics

and law. He devoted himself with assiduity to the theory of value, and wrote a book on the subject. He maintains that the law of value depends rigidly on supply and demand, supporting this theory with a geometrical illustration from the relative quantities of both; he combats the theory of cost of production and engaged in a controversy on this question with Melchiorre Gioja. In illustrating the theory of value he employs mathematical formulæ. These are, however, not employed as a means of investigating the phenomena of prices, but are only symbols employed to express in mathematical language economic laws already known—as MONTANARI justly said.

Molinari Valeriani's principal works are:—*Del prezzo delle cose tutte mercantili*, 1806.—*Trattato sulle misure* 1807.—*Discorsi*, 1809.—*Trattato dei cambi*, 1823.—*Saggio di erotemi di quella parte del gius delle genti e pubblico che dicesi pubblica economia*, 1827. [A. Cavazzoni Pederzini,—*Intorno alla vita, opere e dottrine di L. Molinari Valeriani*, 1859.—Montanari A., *La Matematica applicata all' economia politica da Cesare Beccaria, Guglielmo Silio, Luigi Molinari Valeriani, ed Antonio Scialoja* (always omitted), 1892.—Cossa, *Introduction to the Study of Political Economy*, 1893.] U. R.

VALES REALES. In 1780, in order to meet the debt resulting from the war between England and Spain, a loan of 148,500,000 *reales* (say £1,485,000) was contracted in Spain under the form of state notes issued under that name, bearing interest at 4 per cent per annum, redeemable within twenty years, and which were to be legal tender at all public offices. Under the pressure of circumstances their total emission attained, in 1788, the amount of 548,905,500 *reales* (£5,489,055); they were favourably received at first, but they soon lost about 22 per cent of their nominal value. The *Banco de San Carlos*, which was founded in 1782, with a capital of 300,000,000 *reales*, having redeemed a certain number of these *vales*, they rose to a slight premium. However, at the death of King Charles III. (1789), only 15,000,000 *reales* of *vales* had been withdrawn from the circulation.

[Piernas Hurtado, *Tratado de la Hacienda Pública*, vol. ii. pp. 97 and 98 (4th ed., Madrid, 1891).] E. Ca.

VALUABLE CONSIDERATION. A mere promise is not enough in English law to create a contractual obligation. In order to form a contract the promise must either be expressed in a deed under seal, or have been made for valuable consideration. Consideration has been judicially defined as either "some right, interest, profit, or benefit accruing to one party, or some forbearance, detriment, loss, or responsibility given, suffered, or undertaken by the other." It is, in fact, a *quid pro quo*. Consideration may be either a promise or an act. It must move from, *i.e.* it must be given by, the promisee. It must be of value in the eye of the law. Thus a promise to do what I am already bound in law to perform is not consideration for a promise made to me. But the value of the consideration may not admit of precise statement in money. F. C. M.

VALUE.

Value and Utility, p. 606; Total Utility, p. 606; Monopoly, p. 607; Competition, p. 607; Cost, p. 608; Value in use, p. 608; Value, Normal, p. 609; Value, Origin of, p. 609; Value, Stability of, p. 609; Value, Standard of, p. 609; Value, Subjective and Objective, p. 609; Value, Intrinsic, p. 610; Value, Feeling of, p. 610; Value, Surplus, p. 610.

VALUE. The satisfaction of the desires of human beings is conditional, in general, on the possession and use of material objects. At any rate it is convenient, for the sake of brevity, to use phrases referring in the first place to material objects, though it must be understood that the conceptions dealt with apply equally to immaterial sources of satisfaction. In virtue of the dependence of the satisfaction on the object, this object possesses value, in one of the senses in which that word is commonly used, but which may be more conveniently denominated by the word UTILITY (*q.v.*). When there is in question a class of objects possessing the quality of utility to an individual, it may happen that this individual has at his disposal so large a supply of this class of objects that no one of his desires capable of satisfaction by the use of these objects need go unsatisfied. In such a case, though deprivation of the whole supply would perhaps leave unsatisfied desires of a very urgent nature, the loss of a single one of the class of objects in question would compel, at the worst, the non-satisfaction of a desire of small, perhaps of extremely trifling, urgency; while, if the supply exceeded what the individual were inclined to utilise, the loss of any part or the whole of such excess would not involve any restriction of satisfaction. While the class of objects, viewed as a whole, would possess value, perhaps a very great value, one single object would have a very small value, or even no value at all. It is owing to the application of the same words to such different cases as here indicated, that the apparently paradoxical statement is possible that such indispensable commodities as water are devoid of value.

The relation of the two conceptions covered by the same word is not difficult to appreciate. It is expressed by saying that in the one case what is referred to is the TOTAL UTILITY of his supply of a commodity to the consumer, in the other case the marginal utility of that supply. When value is conceived of as the power of acquiring other commodities in exchange, a comparison of utilities is involved, in general of marginal utilities, namely the utility of the commodity parted with and that of the commodity acquired in exchange for it. As it is

obvious that a person parting with a portion of his supply of a given class of objects would seek to leave undisturbed the satisfaction of the more urgent of the desires whose satisfaction is dependent on the use of these objects, any restriction in his use of the objects would apply to the less urgent of the needs to which they had been, or might have been, applied. If the commodities acquired by the exchange are estimated to possess a greater utility than those parted with, there are motives urging to further exchange. When equilibrium is attained, the commodity parted with possesses less utility than that obtained in exchange, while to part with a further portion would be to sacrifice a greater utility than was gained by the acquisition of the exchange-equivalent. Thus, in the case of the exchange of goods, the marginal utilities sacrificed and acquired tend to be equalised, which is expressed by saying that the value-in-exchange of a commodity tends to equality with its marginal utility to its possessor. It is to *value-in-exchange* that reference is usually made in economic discussions when the term *value* is used without qualification. In virtue of the empirical law (see DEMAND ; LAW OF DIMINISHING UTILITY) that the marginal utility of a commodity decreases as the supply increases, the level to which the value of a commodity attains will depend on the available supply. Given the amount of the supply and the demand schedule for the commodity, the position of the marginal use and the amount of the marginal utility at once follow. But the amount of the supply is itself not independent of the value-in-exchange, since production takes place very largely for the purpose of acquiring value by means of exchange rather than of acquiring utilities for direct enjoyment. Even if an isolated individual were considered, his supplies of enjoyable commodities would be limited by the productive energy he was capable of exerting, and he would naturally distribute his efforts so as not to waste effort in realising a small satisfaction which might have been applied to better purpose. There would emerge a relation between the amount of effort applied in any given direction and the marginal utility thereby realised. So also in a developed state of society is there a relation between COST OF PRODUCTION (*q.v.*) and the value realised as the reward for incurring such cost. The most suitable mode for expressing the relation between value and cost of production will vary with the conditions of supply.

If the supply be conditioned by the existence of a MONOPOLY (*q.v.*) the exchange-value will not be necessarily in close approximation to the cost. The monopolist will seek to establish such a value-in-exchange as to give the greatest possible net excess over the cost of production. Consumers will adjust their consumption so that to each the marginal utility is brought as close as possible to that of the equivalent given in exchange, but the difference between the cost of production and the value will only be limited by the consideration that a moderate profit on a considerable turnover may be preferable to a large profit with a very small sale ; that in fact the desirable point is not a large profit on each unit of commodity unless this coincide with the largest possible profit on the whole supply.

When we pass from commodities subject to monopoly conditions to those where commercial and industrial competition modify the problem of value, the profits of producers are subjected to limiting influences. There are three cases to be considered according to the different possible conditions of supply.

(*a*) If the conditions of supply are such that the cost of production per unit is the same whatever the scale of production, the value tends constantly to the level of cost of production. These costs are to be taken so as to include cost of labour, of hire and wear and tear of capital, and of hire of business ability—in fact, all the outlay necessary that the production may be carried on continuously, without undue losses which would tend to cause production to be restricted, or such large gains as would tempt producers to expand their businesses and tempt those in other occupations to transfer their skill and capital to the one under consideration. If the value should exceed the cost as thus estimated—or as preferably it might be expressed,—if the price exceed the expenses of production, the profits of producers will be so increased that with competition free, supply will be increased, and the marginal utility being lowered with increased supply, value diminishes towards cost of production. If, on the other hand, the value fall short of the cost of production, a tendency to restrict the amount produced results, and with restricted supply, the conditions for increased marginal utility and increased value are established. If, then, competition be free and active, cost of production will measure value.

(*b*) If the supply conform to the Law of DIMINISHING RETURNS (*q.v.*) the condition for the maintenance of the supply is that the value should be sufficient to recoup the expenses of production of that part of the supply produced at the greatest expense ; the marginal cost of production becomes the measure of exchange value, the reasoning under (*a*) applying with increased force in this case in regard to the tendency of competition to bring about this result. If the demand suffice to carry off, not merely such supplies as are produced under advantageous circumstances, but also supplies produced under less favourable conditions, the control of the more favourable conditions may produce a RENT (*q.v.*) but the cost of production under these conditions does not provide the measure of exchange value.

(*c*) If the supply conform to the law of increasing returns (see INCREASING RETURNS), the relation of cost of production to value is obtained by the consideration of a *Representative Firm* (cp. Professor Marshall's *Principles of Economics*, bk. v.), a consideration useful in every case, indispensable in this. The expenses of such a firm serve as a type of the expenses necessary to be incurred in order to obtain the usual supply of the commodity. The value of its product must suffice and just suffice to cover its expenses, or changes in the volume of production will be stimulated, the consideration of which lie outside the scope of the present account of the determination of value, changes which would set up new conditions of supply and hence new determinants of value.

In all cases, then, of commodities freely and continuously produced under a *régime* of competition, the effect of competition is constantly to stimulate a rearrangement of productive effort when the value of products diverges from the standard given by cost of production. In cost of production must be included profits. The assumption of the existence of commercial competition (see COMPETITION and CUSTOM) means that capital and organising power seek always to obtain the highest reward open to them, thus tending to produce something like a uniform level of interest and of earnings of organising ability of any given grade. By assuming the existence of industrial competition, we assume that labour also seeks to find the most profitable employment open to it, and that thus there is a tendency to equality of remuneration for labour of any given degree of skill and intensity, while differences of reward are proportioned to differences in the exertion or skill demanded. By making these assumptions, it becomes possible to attach some definite meaning to the comparison of costs of production of commodities demanding widely different combinations of labour and capital and widely different qualities in the agents employed. In the case of products obtained by the members of one industrial group by exchange of their products for those of another group, when competition between the groups does not exist, whether what is lacking be one form of competition only or both varieties, the proportionality of cost of production and value has no longer the same causes in operation to maintain it. The principles in accordance with which relative values are determined in this case of non-competing groups are precisely those applicable to the case of values in INTERNATIONAL TRADE (*q.v.*). Within the limits fixed by comparative cost (see COST, COMPARATIVE AND RELATIVE) the play of reciprocal demand of the non-competing groups for one another's products determines the proportions between the values of the products produced within such a group and the values of those obtained from without by exchange. In all cases of the determination of value, the use of SUPPLY CURVES and DEMAND CURVES (*q.v.*) is a great assistance in the clear appreciation of the points involved.

The relation between cost of production and value is of such fundamental importance that it will be worth while to add a little to the above brief and slight sketch of the theory of value in order to indicate the relation of these to one another in the theory of those modern writers, among which the Austrian School occupy the most important place, who adopt the point of view made familiar in this country by JEVONS (*q.v.*) that value is dependent entirely upon utility. With this school, the value of all goods ready for consumption is given by the utility they present to consumers. The values of instrumental goods and of labour are derived from the utilities of the products in which they may be expected to result. The writers of this school thus set themselves in direct opposition to those who derive value from the labour expended in production. With the Austrians the labour has value because it can give rise to useful goods. and has value just in the proportion of its contribution towards the production of such goods. There is a sense, however, in which the value of the product is derived from the value of the means of production even in their scheme, which ordinarily inverts this order of dependence. If we suppose a case of such an instrumental good as, say, iron, which contributes to an almost endless variety of products, we may see most easily the line of thought followed. In some uses a given quantity of iron could contribute to a larger utility than in others. If its supply be so great that it exceeds what can be so used as to produce a marginal utility of, say, forty per unit, it will push its way into uses where the marginal utility realised is less, say, thirty-six per unit. What then will happen? Under free competition there cannot remain two different values for the same object, and different units of iron are perfectly capable of mutual replacement before the elaborative process begins. If the larger supply and the lower grade of usefulness are permanent phenomena, iron in its former uses cannot retain a higher level of value, and the products to which it formerly contributed a value forty will obtain a lower value, lower precisely to the extent to which the cost-good, iron, has decreased in value. In the marginal use the value of the product determines the value of the instrument; in all but the marginal use, the product derives value from the instrument value measured by the instrument's value in its marginal use. The consideration of this view is instructive, and aids in understanding the mutual relationship of marginal utility, value in exchange, and cost of production.

Value in use is what is ordinarily designated

by *Utility*, and is sufficiently defined above and under that head (cp. UTILITY).

Value, Normal.—By this term is meant the value which tends to be established under the conditions of demand and supply existing in the case to which the term is applied. It is such as might, under those conditions, be maintained unaltered, and which would, if attained under those conditions, require some external influence to operate before deviation would result.

Value, Origin of.—The question of the origin of value has been keenly disputed. There is no doubt in any reasonable mind that value cannot exist without utility. Further, utility alone is not sufficient unless *Scarcity* or *Difficulty of Attainment*, two ways of indicating the same thing, be superadded. In the cases which are most frequent of occurrence, and most interesting to investigate as a result, such scarcity is limited by the available productive powers of the person or society concerned. The investigation of the causes of relative scarcity or abundance of commodities becomes an investigation of the conditions and cost of their production. As value exists in virtue not merely of the utility but also of the scarcity of the valuable object, to assign the origin of value entirely to one or the other of these alone is to give an insufficient account of such origin. Neither utility without scarcity nor scarcity without utility is sufficient to endow an object with value, but the two in combination. Scarcity here means merely such a degree of scarcity as leaves unsatisfied some wants to which objects like the valuable object which is in question could minister. These wants, which remain without satisfaction, may or may not be urgent. The existence of some such, which, with a larger supply of the commodity at the disposal of the person feeling the want, might be satisfied, is all that is implied by saying that there is scarcity.

Value, Stability of.—The value of a commodity is, as the preceding discussion shows, a relative term. It is great or small according to the relation existing between the wants which the said commodity could satisfy and the means available for satisfying such wants in addition to the commodity itself. In the sense of value-in-exchange, the value of the commodity is equally relative to the extent of want and the extent of the available means of satisfaction. The wants in question are now conceived of, not as those which can be directly satisfied by the consumption or use of the commodity, but such as might be satisfied by any of the indefinitely numerous kinds of commodity which might be obtained in exchange for it, in such quantity as its value enables them to be procured.

The value of the commodity may be said to be stable if, either by itself or by what can be procured in exchange for it, it can afford a utility which remains the same from one time to another. Stability of value, in the sense of stability of exchange-value, is generally meant to imply merely the capacity for procuring in exchange equal quantities of some one other commodity, or of other commodities in general. This last expression acquires definiteness through the calculation of INDEX-NUMBERS which are devised to procure a measure of the stability of value of money and hence of any commodity whose money-value is ascertained.

Value, Standard of.—In comparing the values of different commodities, recourse is generally had to the expression of the value of each in terms of some one commodity chosen as a "standard of reference." This one commodity serves as a value-measurer, the value of any particular commodity being expressed by stating the quantity of the "standard" whose value is equal to that of some definite amount of the particular commodity; as when wheat is quoted at 45s. per quarter, the value of one quarter of wheat is stated as equal to the value of 45s. If we regard money simply as an instrument of exchange, this means an equality in value with whatever commodities 45s. will purchase. This reference of all values to one standard is especially convenient, and not only so, but necessary, when the values in question are values to different persons. These, though in themselves incommensurable, are brought to a possibility of comparison by the expression of each value in terms of the value of a definite quantity of the standard. The various quantities of the standard which serve as measures of the values of many commodities to many persons are directly comparable, and thus a comparison of wants which is indispensable to enable trade to be developed is rendered not only possible but easy. It is very obvious that stability of value is a highly desirable quality in the standard. The precious metals possess many qualities rendering them suitable for use as standards of value, including a very considerable degree of stability of value. For particular purposes various writers have proposed to use corn or labour as a standard, and a composite standard arrived at by determining the average changes in money-value of numerous representative commodities is presented in various index-numbers. These may enable far better comparisons of values to be made over considerable periods of time than is possible by the simple comparison of money-values, and are constantly so used. The introduction of such a standard for common commercial use is, however, beset with many difficulties in addition to those which attend a satisfactory determination for historical purposes (see also STANDARD OF VALUE).

Value, Subjective and Objective.—The subjective value of a commodity is the importance which the commodity is considered to possess with reference to the satisfaction of desires

felt by a person; also called *personal* value. The objective value of a commodity is its capacity for producing some objective effect. The most important kind of objective value is objective exchange value, or the power a commodity possesses to procure some other commodity or commodities in exchange for itself.

Value, Intrinsic. — There is a constant tendency to use the term value as if it implied some inherent property of the object to which it is applied. Bread, for instance, is supposed by some to possess an intrinsic value in virtue of its power to satisfy hunger. Such power, however, presupposes that the hunger exists. In view of the constant recurrence of hunger this seems a reasonable supposition, but if the supply of bread were renewed as frequently as hunger recurred, and in quantity more than sufficient to satisfy the hunger, some part of such supply would possess but slight, if any, value. The illustration may serve to indicate that value is not inherent in an object, but depends on the relation of the object to unsatisfied needs. This phrase 'intrinsic value' is also used sometimes to indicate such a distinction as that between the face value of a token coin and the value of the metal of which it is made, the latter being referred to as the intrinsic value of the coin. In these cases the desired distinction can probably be made more clearly by the use of other phrases (see also INTRINSIC VALUE).

Value, Feeling of.—An expression related to the conception of personal or subjective value.

Value, Surplus.—Karl MARX (*q.v.*) in his theory of value adopts the view that value is wholly caused by cost of production, and that the necessary labour expended in that production is the only element which can impart value to the product. He asserts that, the value being determined by the amount of such necessary labour, the capitalist employer compels extra labour to be performed by the labourer while not increasing the recompense paid to the labourer. The extra product thus obtained is conceived of as being valued at the same rate as the other portion of the produce, and its value is denominated "surplus value." From such "surplus value" the payment of interest and profits is conceived to be made.

[All systematic treatises on economics contain of necessity a discussion of so fundamental a part of economic theory as the doctrine of value. No special reference need therefore be made, except to the exponents of the Austrian views. Menger, *Grundsätze der Volkswirthschaftslehre.* — Böhm-Bawerk, *Grundzüge der Theorie des wirthschaftlichen Güterwerths* in Conrad's *Jahrbücher*, 1886; comp. the same author's *Karl Marx and the close of his system*, translated. Fisher Unwin, 1898. —Wieser, *Der natürliche Werth*, besides other works referred to in an article in the *Economic Journal*, No. 1, March 1891, by Professor Wieser.—See also AUSTRIAN SCHOOL; PROGRESS, INFLUENCE OF, ON VALUE.] A. W. F.

VALUE, MEASURE OF. See VALUE, STANDARD OF.

VALUES, OFFICIAL. See OFFICIAL VALUES.

VAN HALL, FLORIS ADRIAN (1791-1866), an able Dutch statesman and financier, who distinguished himself principally by his action as minister of finance in re-establishing the disturbed credit of the state on a firm basis. As, in consequence of reckless and wasteful administration of the finances, the bankruptcy of the state was imminent, Van Hall carried, in 1844, notwithstanding a very sharp opposition, an act of the legislature for a voluntary loan of about £10,500,000, or, as an alternative if that loan were not fully subscribed, an extraordinary property and income tax of nearly £3,000,000. Fortunately the loan was subscribed, and the conversion of the 4½ and 5 per cent debt into a 4 per cent loan followed, causing an economy of about £300,000 a year. These measures, together with the very considerable contributions of the Dutch Indian possessions, re-established the equilibrium of the finances.

To bring the monetary system of the kingdom into accordance with that of most civilised countries, who at that time employed the single silver standard, or at least used silver only, Van Hall put an end to the free coinage of gold, and replaced the double standard in 1847 by the single silver standard. He also promoted a revision of the tariff and navigation acts, and took, after his resignation, an active part in parliament as leader of the conservative party in the revision of the constitution, 1848.

Van Hall was again minister of finance in 1858, and carried a railway act prescribing the construction by the state of railways on a rather large scale; he then retired from public life.

Van Hall wrote: *Lofrede op Johann de Witt* (1819).—*Onpartijdige beschouwing van den toestand des koophandels binnen de Vereenigde Nederlanden* (1820).—*Lettre d'un Hollandais indépendant à Lord Grey* (1833).—*Proeve van een onderzoek omtrent de schuld van het Koninkrijk der Nederlanden* (1840). C. A. V. S.

VANDELEUR, J. S. See CO-OPERATIVE FARMING, AND OWEN, ROBERT.

VANDERLINT, JACOB, a Dutch merchant.

Author of a notable work published in London, 1734, under the title: *Money answers all things: An Essay to make Money sufficiently plentiful amongst all Ranks of People and increase our foreign and domestick Trade, fill the empty house with inhabitants, encourage the Marriage State, lessen the number of Haukers and Pedlars, and in a great measure prevent giving long Credit and making bad debts in trade; Likewise showing the Absurdity of going to war about trade, and the most likely Method to prevent the clandestine exportation of our Wool, and also to reduce the National Debt and ease Taxes.* Influenced by LOCKE, he in his turn was studied by the PHYSIOCRATS, and may be said to have initiated scientific socialism in England. The head title of his book

(*v. Ecclesiastes*, x. 19) is no doubt suggested by Locke's use of it in *Some Considerations* . . . [on] . . . *Interest.* The little work pretends, in addition to its lengthy titular programme, to give "an evident and clear account of the foundations of the trade of the world." Its actual contents are mainly suggestions in outline, having little to do with currency, but making for a better distribution of property and the amelioration of the lower and middle classes. Vanderlint has, it is true, a "quantity" theory (*Prin.* iv.) and faith in the favourable effect of plenty of money on trade (*Prin.* viii.), but he quickly passes on to his main topics:—the desirability of increase in the national output of raw produce, and of increased and more widely diffused consumption. To effect this more land should be enclosed, with due regard to common rights, and more cultivators attracted to it. The latter would multiply if all taxes on commodities were removed. There would then be more consumption, more raw material produced, more demand for land. By the rise in rents that would ensue the landowner might be made the sole tax-payer. Increase of consumption would give luxury its "natural and proper bounds," luxury being the effect of decay of trade and not its cause. For, decay of trade leaving the comparative few in ever greater affluence, the relatively poor majority run to over-extravagance, *i.e.* luxury, in emulating their "magnificent living."

Trade, he held, should be "unrestrained," all prohibitions cutting off so much employment. Nations should develop the production of "commodities peculiar to them" as "a foundation of commerce, and by the quantity and quality of such produce be able to defy rival imports without protective legislation. Yet "every nation ought to keep trade on such foot as always on the whole to have the balance in their favour." Further points of interest are Vanderlint's theory of wages as determined by the price of necessaries, of population, and of the duty of collective afforestation.

Vanderlint's anticipations of socialism may be sought in his conviction that the hardships of the poor were unnecessary and remediable by wise and just measures, in his advocating the theory of the natural right of every man to sufficient land to enable him to live and support a family, and in his recommendation that new enclosures should be made and owned by communal authority, not by individuals. As if anticipating Rousseau, he held that, whereas a state of civil government with wealth adequately diffused was far preferable to a state of nature, yet "if the bulk of mankind be made miserable by the oppression of the rest, as they undoubtedly are . . . such an unhappy state . . . is worse than a state of nature itself."

[See Cossa, *Introd. to Pol. Ec.*, Eng. trans., Macmillan, 1893, p. 245, as to Vanderlint's views on the SINGLE TAX.] C. A. F.

VANDERMONDE, ALEXANDRE THÉOPHILE (1735-1796), was born and died at Paris. A very distinguished geometrician, he was admitted to the *Académie des Sciences* in 1771, and from the date of the institution of the *Conservatoire des arts et métiers*, he was appointed director by the decree of 10th October 1794.

When the normal school was established by the convention, under the decree of 30th October 1794, its scholars being 1500 young men, aged at least twenty-one, drawn from all parts of France, Vandermonde was appointed to teach political economy. This mathematician performed his task with remarkable skill, especially considering his date.

The closing of the school, 19th May 1795—it had been only opened 20th January of the same year—unfortunately only allowed Vandermonde to give eight lectures; these have been published under the title of *Séances des écoles normales receuillies par des sténographes et revues par les professeurs*, 1e *partie* (5 vols. 8vo). These lectures bear evidence of a mind singularly well adapted to the study of economic science.

In the *Journal des économistes*, December 1873, M. Henri Baudrillart supplied a critical epitome of the lectures in which he expressed his regret at their curtailemnt and the premature death of the professor. The chair of political economy he held was the earliest established in France. A. C. f.

VANSITTART, NICHOLAS, LORD BEXLEY (1766-1851), son of Henry Vansittart, sometime governor of Bengal, took his M.A. degree at Oxford in 1791, and was called to the bar at Lincoln's Inn, where he became a bencher in 1812. He was M.P. for Hastings in 1796, and in 1801 was sent as minister plenipotentiary with Parker and Nelson to Copenhagen to endeavour to detach Denmark from the Northern Alliance. In April 1801 he was appointed joint-secretary to the treasury by Addington.

Between 1802 and 1812 he sat for Old Sarum, and afterwards for Harwich. In 1804 he was a lord of the treasury in Ireland and in the following year secretary to the lord lieutenant. He was reappointed joint-secretary to the treasury, 1806-7, under Grenville's administration; and in 1812 became a cabinet minister, succeeding Perceval as chancellor of the exchequer. He held this office during Lord Liverpool's administration until January 1823, when he retired, and was raised to the peerage. He remained in the cabinet as chancellor of the duchy of Lancaster until 1828. He died 8th February 1851, in his 85th year.

Vansittart was a poor debater, with feeble voice and indistinct utterance, but he at one time had a certain financial reputation, and his gentle manners and benevolent character secured the attention which his natural abilities were unable to command. The eleven years during which he was chancellor of the exchequer were from a financial point of view perhaps the most critical England ever saw, but Vansittart never showed dexterity either in imposing or in remitting taxation. He introduced no measure of first importance. He was not responsible for the repeal of the income tax in 1816, the surrendering of the war malt tax, nor the return to cash payments. His resolutions on the report of the BULLION COMMITTEE have not added to his fame, and a praiseworthy scheme for

converting the navy five per cents to four per cents in 1822 was coupled with an objectionable proposal to farm the pensions known as the "dead weight annuity." He introduced alterations into the SINKING FUND (*q.v.*) far from successful. He was simply an honest and industrious clerk, finally dismissed from his office with little ceremony.

Reflections on the Propriety of an Immediate Conclusion of Peace, London, 1793, 8vo (well-written defence of the war as regards its effects upon public prosperity).—*A reply to the Letter addressed to Mr. Pitt by Jasper Wilson*, 1794, 8vo.—*Letter to Mr. Pitt on the conduct of the Bank Directors*, 1796, 8vo.—*Inquiry into the state of the Finances of Great Britain in answer to Mr. Morgan's facts*, 1796, 8vo (the last three are in defence of Pitt).—*Substance of two Speeches, 7th and 13th May 1811, in Committee of the Whole House on the Bullion Committee Report*, 1811, 8vo.—*Outlines of a plan of Finance proposed to be submitted to Parliament*, 1813, 8vo (the "Sinking Fund"; repr. in the *Pamphleteer*, i. 255; discussed by F. Silver, *ib.* ii. 313-321).—*Substance of Speech comprising the Finance Resolutions for 1819*, 1819, 8vo (*ib.* xv. pp. 15-26).

[*Gent. Mag.*, April 1851, p. 431-432 and frequent references in Ricardo's letters.—*Annual Register*, 1851.—Ld. Colchester's *Diary*, 1861, 3 vols.—Sir S. Walpole's *History of England from 1815*, 1878-86, 5 vols. 8vo.] H. R. T.

VARRO, M. TERENTIUS (B.C. 116-28). He fought in the wars against Mithridates and afterwards under Pompeius. After Pharsalia he was pardoned by Cæsar and employed by him in collecting a library for public use. He was reputed the most learned of the Romans, and was the author of 490 books. Except mere fragments, his treatises *De Lingua Latina* (imperfect) and *De Re Rustica* alone remain. The latter is a work of a very practical nature, giving directions for farming which are so clear and comprehensive as to show that Varro wrote from actual experience. In the first book he deals with the art of cultivation; its instruments and methods; the proper seasons for operations; the culture of vines, olives, and other crops; and the slave or animal labour employed. In the second book he treats of the peasantry (c. x.) and of the larger animals, of wool and other produce. Of the third book the chief subjects are fowls, pigeons, peacocks, fish-ponds, and game.

[The text is given in a convenient form by H. Keil's edition, Leipzig (B. G. Teubner), 1889.—C. T. Cruttwell, *Hist. of Roman Lit.*] R. H.

VASCO, GIOVAN BATTISTA (1733-1796), born at Turin, was a priest and doctor of law; he taught theology at the university of Cagliari for some time, and also cultivated natural science and political economy. He was continuously persecuted for his liberal ideas, and died in great poverty. He left several works on economic subjects, the most important being one on corporations and another on begging.

In the first, written for the prize competition at the Academy of Verona (see MARACHIO), Vasco advocates the utmost economic liberty and the dissolution of trade-gilds, quoting TURGOT and A. SMITH. Vasco studies, from a liberal-minded point of view, the evils arising from the regulation of occupations, and shows that governments can, even without the existence of trade-gilds, prevent certain disadvantages which may arise from freedom in these matters; he advocates absolute liberty in agriculture, manufacture, and trade. The writings of Vasco are profound and clear, and, though he adheres to the doctrines of the well-known economists of his day, his observations have a practical basis.

Vasco's book on mendicants is also noteworthy considering when it was written. In it he studies the causes of begging, and makes practical suggestions for simplifying the relief system for those incapable of work, and eliminating the causes which leave capable men unemployed and a burden on public charities. The remedies Vasco proposes, though they have the merit of simplicity, were not adequate even for his own time, far less so for the present day.

[*Delle università di arti e mestieri*, 1793.—*Mémoire sur les causes de la mendicité et sur les moyens de la supprimer*, 1790 (in Custodi's collection). [Alberti, *Le corporazioni d'arti e mestieri, etc.*, 1888.—Balletti, *L'abate Giuseppe Ferrari Bonini e le riforme civili della beneficenza nel secolo XVIII.*, 1886).] U. R.

VAUBAN, SEBASTIAN LE PRESTRE, Seigneur de, Maréchal de France (1633-1707). One would hardly expect a distinguished general to rank among the economists of his time. Such, however, is the place in history of Vauban, the celebrated marshal of France, who, after besieging fifty fortified places and receiving eight wounds, found leisure to write *La Dîme Royale* (1707), an erudite economic work much in advance of his time, and distinguished both by accuracy of method and breadth of view.

Though the book was published anonymously, and only a few copies issued, Vauban had to submit to the mortification of seeing it "pilloried" by the parliament, while he himself incurred the displeasure of the king. A few weeks later he died. The book contained no subversive doctrines. It is only a plan for financial reform, and aims at substituting for every other impost a proportional tax on every description of income:—on income derived from landed property (which should be levied on the raw produce, as was the case of ecclesiastical tithe), on income from house property, profits arising from manufactures and business, salaries and pensions of officials, government stocks, and also the wages of artisans and labourers,—in short, a kind of income tax. The amount to be raised by this tax, like the income tax, should vary according to the requirements of the treasury. Vauban considered that 10 per cent should be the maximum, never to be exceeded, and proposed 6·66 per cent as a normal rate. On the wages of artizans and labourers he would only demand, on account of the frequency of slack seasons against which they find it difficult to bear up, a rate of 3·33 per cent—"subject to being doubled in case of great necessity of the state."

To this tax Vauban added others which bore rather on expenditure than on income (though the distinction never seems to have been clear in his mind), for instance, on luxuries, servants, "exaggerated magnificence in furniture, gilded carriages, large and ridiculous perruques," and even "on swords worn by those who were neither nobles nor soldiers." He also proposed a tax on each hogshead of wine drunk at a tavern, though not on wine drunk at home, so as a little to check the expenses of the peasants who on Sundays and fête-days spend their time in taverns, and "to oblige the more steady of them to stay at home."

All this, according to the estimate of the author, who calculated each category of taxes with all the accuracy possible at the time when he lived, should supply 116,822,500 livres (French), a revenue sufficient, he thought, for public requirements, while in time of war it might at a moment's notice be raised by 2 or 3 tenths.

The value of Vauban's book lies not so much in his plans of financial reform—though, considering his period, they are remarkable—as in the mass of facts, figures, and observations of all kinds. These, as he said himself, are the outcome "not of imaginary observations and guess-work, but of exact investigation and careful statistical enquiry," which render the book a document essential to understanding the economic history of France. In it abuses of all kinds are denounced with a boldness which sufficiently explains the anger it excited among all those who benefited by these abuses. Passages such as the following would obviously not find favour with a king like Louis XIV.:—"If the people were not oppressed so severely they would marry more freely; they would be better clothed and better fed; they would work with more vigour and heart if they saw that they retained the main part of their gains. No better service can be done to monarchs than to remind them continually of this truth."

To Vauban's honour, he was one of those few at the court of Louis XIV. who protested against the revocation of the Edict of Nantes. He did this by a memorandum in which, with remarkable clearness, he called attention to the economic effects which would result from this measure to the injury of France and to the advantage of foreign countries. C. G.

VAUGHAN, Rice (17th century), son of Henry Vaughan of Machenlleth, Montgomeryshire, barrister since 1638 of Gray's Inn, registrar of the sequestration commission which sat 1643-60, prothonotary (1653), and judge-assistant (1659) in North Wales, and imprisoned for high treason "without pen and ink" 1665 *et seq.*—wrote (1635?) *A Discourse of Coin and Coinage*, pub. 1675, posthumously, by Henry Vaughan (the poet?), and reprinted by M'Culloch (1856) in *A Select Collection of Tracts on Money*, which is the first historical monograph in English on money. He knows that money means general purchasing power, it is "a pledge," "it serves actually to no use almost—potentially to all uses," and is the medium of exchange and measure of value, "either the thing is exchanged for money or if it be exchanged for another thing, the measure of that exchange is how much money either of the things exchanged is conceived to be worth," and should be of value, not common, easily stamped, and divisible, durable, and generally acceptable (he should have added portable). As for value "Use and delight, or the opinion of them, are the true causes why all things have a value" (value in use), "but the proportion of that value . . . is wholly governed by "rarity and abundance" (value in exchange) and therefore "must needs differ in several times and places," and he defines the "intrinsic" value of coin as its "proportion to other things valued by them." Doubtless he should, like W. Potter (1650), have added after "abundance," "mobility"; and Hobbes's (1651) definition of the function of money is more clearly expressed; and his arguments against "raising" the denomination of "money," and against the par of exchange, came from Misselden (1622); but he avoided the error which tainted even Misselden and Mun (1621), that raising money attracted the precious metals (pp. 77-86), substituting the truth that raising silver without raising gold money will attract silver (p. 88). He does not discuss companies, banks, usury, nor those physiological metaphors about money which Hobbes derived from Milles, Misselden, etc.

The book on coin was written while Charles I., Louis XIII., and Ferdinand II. (p. 118) reigned, and before certain Dutch and French proclamations (p. 19) were repealed; *i.e.* between 1625 and 1636. In *Plea for the Common Laws* (1651), he opposed Hugh Peters's plan of law reform, and in *Certain Proposals* (1652), made unimportant counter-proposals; his *Practica Walliae*, published (1672) posthumously by T. M. (Manley?), is merely professional; and his *Manner of the Proceedings in the Courts of Great Sessions in . . . North Wales* (1653) is the first chapter of it. J. D. R.

VAUGHAN, Robert, D.D. (1795-1868), congregationalist minister at Worcester, 1819, and Kensington, 1825-43, historical professor of University College, London, 1830-43, principal and theological professor of the Lancashire Independent College, 1843-57, founder and editor of the *British Quarterly*, 1845-66:

Wrote several English histories of fair merit in which he usually set apart chapters on "Social history," which he called "a species of science." His one work on social philosophy, *The Age of Great Cities: or Modern Society viewed in its Relation to Intelligence, Morals, and Religion* (1843), illustrates the thesis that politics, science, and literature are derived from "the state of society" in any epoch, and that our society is essentially civic, with happy quotations from Samuel Laing and Harriet Martineau, with an able argument that the dangers of town life are often exaggerated, and always outweighed by its superior opportunities for good; and with the following epigram in answer

to those who condemned factory labour as making men's work less skilled and their minds less intelligent. "Education," he wrote, "comes not from the structure of a loom but from the texture of society." This thesis is also the hypothesis of moral statisticians, to whom, however, Vaughan does not refer. The self-educated man reveals himself in his exaggeration of the effects of town life, an exaggeration which sometimes leads to a confusion of commercial, civic, and social influences, sometimes to such an assertion as this, that the eddas and sagas "hardly deserve a place in the history of literature" (p. 137).

[Landor mentions his eloquence—*Imag. Conv.*, ed. Crump, vol. vi. p. 397; Coleridge his *Wycliffe—Table Talk*, ed. Bohn, p. 223; M'Culloch his *Age of Great Cities—Lit. of Pol. Ec.*, p. 356. In the last century R. PRICE had attacked towns as the "graves of mankind," and YOUNG defended them as an "Euthanasia." Vaughan's book was a *coup de grace* to these writers.] J. D. R.

VAUVENARGUES, LUC DE CLAPIERS, Marquis de (1715-1747), was compelled, through bad health, to leave the army in 1744, and lingered on a few years, bearing this trial with equanimity, and finding a solace in the composition of his works.

He has been called a modern stoic, and was a critical and refined moralist, opposed equally to extreme austerity and self-indulgence. Those writings of his which require notice here are his *Discours sur l'inégalite des Richesses;* this inequality arises, as he shows, from natural causes. In ch. xliii. (*Du Bien et du Mal Moral*) of his *Introduction à la Connaissance de l'Esprit Humain* he demonstrates that vices never tend to the public good, refuting thus Mandeville's *Fable of the Bees*, which, however, he does not appear to have known. His often-quoted maxim (No. 310 of the collection), *Le Commerce est l'école de la tromperie*, shows a curious coincidence of opinion between a highly polished gentleman of the 18th century and the ascetic ecclesiastics of the middle ages, who held that *Contrahentibus naturale est se invicem decipere* (in bargains people naturally deceive each other). E. Ca.

VAVASSEUR. SERFDOM became extinct very early in Normandy, and from the 11th century onwards the rural population was divided between freemen (*franci*) and peasants (*rustici*). Many of the freemen were called *Vavassores;* they held land of a lord to whom they paid a rent and RELIEF on entry into possession; they were obliged to be present at his pleas, had to plough a portion of his lands, and to provide him with a horse for his cartage. But in many respects their position was distinguished. Thus in the 13th century they sometimes presented the parson of the parish; in certain fiefs (see MANOR) they were entitled to take wood or feed their cattle in the lord's forests. The *vavasseurs* of the bishop of Bayeux owed military service on horseback, armed with a lance, a shield, and a sword; elsewhere we hear of *vavassores pedites*. In old texts a *vavassorium* is carefully distinguished from a tenure in villenage and a *bordagium*. Still being a non-noble tenure, it could be divided between a great number of owners, but the lord was supposed to deal only with one of them, who collected the rents and was responsible for the rest. This tenant, being supposed to be the eldest of the various sons of one former owner, was called *l'aîné:* hence the name of *aînesses* also given to these holdings (see SERVICES, PREDIAL AND MILITARY).

[Léopold Delisle, *Études sur la Condition de la classe agricole en Normandie au Moyen Age*, Evreux, 1851, pp. 6-7 and 32.] E. Ca.

VECTIGALES AGRI signifies land let out by a municipality for a long or indefinite period, subject to the payment of a yearly rent (*vectigal*). The lessee of such land, as long as he paid his rent, had the rights of an owner over it, though the municipality was considered in law to be the owner. An analogous tenure arose in respect of waste lands of the imperial demesne, which were let out on long lease for the purpose of being planted (*agri emphyteuticarii*). From this latter custom the term *emphyteusis* (inplanting) was used to signify a long or perpetual lease, by which the tenant (*emphyteuta*), who fulfilled its conditions, was in the position of a freeholder. Under Constantine and his successors *agri vectigales* disappeared, becoming in most cases imperial or ecclesiastical property, hence they are not mentioned in the Theodosian code, or in the *Corpus Juris* of Justinian. E. A. W.

VELLON. In the old Spanish monetary system this word is used very much in the same way as our "sterling," to denote the standard money of the day. It was attached either to the word "plata" or to "real," *i.e. plata da vellon* or *real da vellon*. Which of these came first in time it is difficult to say. Barcia defines it as "ordinary copper money." The expression is thought to be derived either from *villon* or *vilis*, base; or from the sheep (*vellon*, fleece) which was stamped on certain old Roman coins. Barcia, with much probability, refers it to the same root as *French* "BILLON," *Ital.* "*biglione*," *Eng.* "BULLION," with derivation from "bulla," a round piece and so a coin.

[Barcia's *Diccionario de la lengua Española.*—Zarolo's *Dicc. Encycl. de la lengua Castellana, s.v. Real*-Vellon. For the use of the term in currency, see Kelly's *Cambist*, p. 317.] C. A. H.

VEND, NEWCASTLE (1602-1844). The received view that "there is no direct or indirect connection between the ancient and modern forms of trade combination" is contradicted by this "vend," which was once the attribute of a gild (see GILDS), then of a cross between gild and RING, then of a ring; which afterwards inspired simultaneous attempts to renovate the gild and invent TRUSTS, and which now influences the policy of TRADE UNIONS. The history of this missing link is in its earliest

stages difficult, and has not been told; it will therefore be told at length.

Preface.—In 1600 the Newcastle hostmen were formally incorporated as a gild of exclusive coal-fitters for the north of England; "fitting" was defined by the charter (Brand, *Hist. of Newcastle*, ii. 623-627, 659) as "loading and unloading," but was universally construed as "selling for export" (21 Jac. c. 3, § 12; *Cal. State Papers, Dom. Ser.*, 1655-56, p. 280). But "hostmen" and "coal-fitters" were not synonymous; thus we read in 1633 of "hostmen's fitters," and in 1700 of hostmen regulating fitters' charges (M. A. Richardson, *Newcastle Reprints, Historical*, vol. iii. *Conservatorship of the Tyne*, p. 81; Brand, ii. 302 n.). A double process was going on. On the one hand, hostmen were expanding (1600-1750) until they embraced nearly all free burgesses, and their significance evaporated; on the other hand, a nucleus of hostmen, described by foes as eighteen or twenty, and by friends as over thirty, and five of whose names have survived (Record Office, *State Papers, Domestic, Elisabeth*, vol. 263, No. 72; par. 3), were accused in 1590 and 1597 of having converted to their private use collieries leased to the hostmen at large, and of engrossing "all other collieries" (*ib.* Brand, ii. 269), and, in 1653, of making efforts to retain their monopoly of "leases of the coal-pits" (*Conservatorship*, p. 26). The fact that certain hostmen were lessees of the Gateshead and Whickham (1590?-1681), and of valuable Newcastle collieries (*ib.* pp. 59, 85; *New. Rep., Miscellaneous, Certain Matters*, pp. 9, 10), and that sometimes coal-owners (1610), sometimes hostmen, were accused of raising the price of London coal, lends colour to the charge. But the matter does not rest here. These owner-fitters have told us themselves how from the first they usurped the power and, probably, the property of the fitters' gild.

First Period of its History (1602-1768).—The hostmen's gildbook for 1602 contains an "order and agreement of partnership for the vente of coals" by twenty-nine or (counting joint-owners as one) twenty-four hostmen. Their names include the five mentioned in 1597; and they were a majority and commanded the gild, which in 1600 numbered forty-eight. The twenty-four are ranged in four groups; each member of each group may only separately sell so many "tens" of coal, the highest exceeding the lowest quantity, as nine to one. This compromise between partnership and severalty suggests the COST-BOOK company, a tenure which still exists among mining adventurers. Moreover it was usual in the next century for Northumbrian mining adventurers to club together like one of these groups, ear-marking and apportioning to each member such and such quantities of coal when sold by their fitter-agent each week (J. Bell, *Collieries and Coal Trade*, vol. i., a MS. in the Royal Geological Museum, see esp. "Washington Colliery"). Further, people only spoke of "tens" in reference to their own mine, for the "ten" was a private measure varying in each mine. We infer then that the hostmen (or some of them) owned twenty-four collieries, and resolved that they should be worked for "fitting" purposes as one company, by this same nucleus, each for his private use if his "fitting" did not exceed his allotted share. The second document is an agreement of two terms made in 1665 "at a meeting of the several principle traders in coals"—so that the gild is there, but unofficially. The first term, signed by twenty-one coal-owners—six of whose names figured in the document of 1602—and by one agent for one of the twenty-one, bound the signatory to close his colliery until the end of the third quarter or thereabouts; one quarter-group must have held aloof from this term. The second term signed by seventeen out of the twenty-one, and by eight others, bound the signatory to raise the price of his coal. Briefly, the twenty-nine coal-owning hostmen of 1602 have been transformed into twenty-nine coal-owners, many of them hostmen. A fluctuating body, held together by what was then thought the frail thread of self-interest, has been substituted for the organic cohesion of the gild. The third document, dated 1768, states the "intended" annual vend of twenty-four collieries for seven years to come, and was perhaps a response to the fitters' lists required by the Septennial Act of 1766 for regulating the Newcastle coal trade. Words of agreement are avoided, as such an agreement would be a crime under 9 Anne c. 28. The ratios of the quantities allotted vary as widely as ten to one. Gild hostmen and fitters, who were then mere agents, have all finally vanished. The singular similarity between these three shreds of evidence seems to prove that a sub-gild—if it may be so called—of coal-owners had detached itself from the doomed and decadent parent gild of owner-fitters, and exercised until 1768 such functions of its parent as concerned coal-owners. If this view is true, those functions—in other words, the vend—comprised the following features, some of which were expressed, and others implied:—

(1) It was a partnership composed of members, who, if they traded beyond a certain point traded as partners, but if they traded up to that point, they traded as though they were private traders and not partners; for this purpose (2) it limited the annual output (3) which it distributed among the collieries in certain proportions. Briefly, it was what 17th century writers called a STINT. Stints were usually annual, and were meant to secure (4) fixed prices. Prices were also directly fixed by the vend of 1665, and before then by the gild (*Cal. State Papers, Dom. Ser.*, 1655-56, p. 280) or by its "pricers" (*Conservatorship*, pp. 32, 65; cp. Surtees Society, *Newcastle Merchant Adventurers*, i. 52); and the act of 1766 assumed that the sellers fixed the "usual prices" of coal; and the coal (5) was put (in 1602) into three classes. So much for the express features; the implied features were as follows: (6) it was a condition of the charter of 1600 that the hostmen should sell direct to shipowners (R. Gardiner, *England's Grievance*, 1655, ch. ix.), and the act of 1766 assumed that the latter had a right of purchase on tendering "the usual price." (7) Labourers were at that date called "servants," and were hired gild fashion, *i.e.* by the year and by indenture, providing for payment by piecework and during suspension of work, for exclusive service, and for penalties which the magistrates enforced (5 Eliz. c. 4, § 7;

J. Bell, *l.c.*). However much the gild ministered to the interests of a class of capitalists, it was true to its ideal of organising industry all round. (8) Nor could it legislate for capitalists or producers as such, but only in so far as they were urban traders of a special kind. Therefore this stint being invented by fitters for fitters could not affect inland trade nor coals consumed at Newcastle. And further the hostmen granted, as the consideration for their charter, a duty on coal exported from the Tyne "to the free people of England," and "spente within this realm and not transported" (R. Gardiner, *l.c.*; Brand, ii. 658); probably, therefore, the grant to them was from the first construed as co-extensive with the grant by them, and they did not regulate "transported" coal. (9) The usual remedies of the decadent gild were fines, boycotting, and warnings.

These features must have characterised the vend of 1602. Their co-existence in the vend of 1768, and persistence during the intermediate period, is inferred from the fact that they were all present when the vend was put under the microscope in the second period of its history. Granted that the second, third, fourth, and ninth features might have often died and been born again, and that the fifth and seventh might have lived on in isolation, it is inconceivable that the first, sixth, and eighth could have existed by themselves, or could have been revived if they had been once suffered to lapse for any length of time at any date after the great rebellion. The theory of survival gives the only possible solution; and survival means an uninterrupted existence from the time when the things surviving had a meaning—namely, from the first half of the 17th century. But we are anticipating.

The second period of its history (1771-1844) is a replica of the first period; each of these nine features recur, but with differences due to an age of movement. London had tapped new sources of supply, and the margin within which the northern coal-owners could dictate terms grew narrower day by day. And there were foes from within. Thus Sunderland, which used Newcastle as its port in 1704 (Brand, ii. 677), soon became independent, but federated with Newcastle in 1771; and the railway of 1825 gave a new outlet to the Tees-side collieries, only some of which joined the confederacy in 1834. Again, the Tyneside collieries, which were of the traditional number (twenty-four) in 1768, were twenty-nine in 1787 (Brand, ii. 688), and forty-two in 1829 (*Rep.* (1830), vol. viii. p. 316), and although their respective quantities and prices were assigned to each colliery every year 1786-1833, and the "rules" and "agreement" of 1833-34 were elastic as well as permanent, and admitted readjustments from time to time, there were always one or two dissenters. Again, for some years before 1786, and afterwards for parts of years, corporate trading broke down and competition came romping in. It was an age of intermittent individualism. Ideas had also moved, and the coal-owners forgot their origin in the gild, and passed themselves off as a ring. This gild-ring—if it may be called so—was investigated by at least five committees in 1800, 1830 (*bis*), 1836, 1837-38, yet the word gild was never whispered by one committeeman nor by one witness; all accepted as history the legend that before 1771 there was competition, and then for the first time the coal-owners combined in order to defeat the rings on the London market—yet the coal-owners revived these very rings after their abolition in 1831! Truly, the industrial revolution had, in twenty-nine years (1771-1800), swept men's memories clean, and turned their minds topsy-turvy. Lastly, these dupes of a legend invented apologies which are of unique interest as made by men to whom economic history before 1771 was a blank.

As to (2) and (3), the apologists said that the agreement did not create a MONOPOLY (*Rep.* (1836), p. 12, and that the appointed annual totals exceeded the demand, and therefore were hypothetical figures for calculating proportions, and giving the weak a chance of sharing with the strong; yet many of the collieries worked half (*Rep.* (1830), pp. 267, 301) or one-third (*Rep.* (1836), vol. xi. pp. xv., 80) power under the vend, and the so-called weak often fared best when the vend was off (*Rep.* (1836), pp. 11, 24). Even thus Wheeler (1601) wrote of the stint, that it was not a monopoly, and that it was double of the supply (he was defending traders against producers, not producers against consumers), and therefore operated only as an "economical apportioning among the brethren of the companie of the . . . benefits of the same, so that the wealthier sort . . . are kept from engrossing the whole trade." As for (4), "regulation" or "order" kept prices stable (this was disproved in *Rep.* (1871), vol. xviii.; *Rep. E.*, App., p. 208), and was more "economical" than the "open" or "fighting" system which produced the same result at the cost of "confused" and "wasteful" alternations between over-cheapness and over-dearness (*Rep.* (1800), vol. xxvi. pp. 30, 31; (1830), pp. 295, 304). This language is natural to men who dread competition as an unknown power, and recurs on almost every page of 17th century opponents of "free trade" (individualism). As for (6), the plea that working coal is incompatible with freighting and sending coal to market (*ib.* pp. 415, 472)—although these incompatibles were habitually combined when the vend was off—is redolent of the middle ages, which separated trades as we do professions. As for (7), annual wages, they said, necessitated an annual price-list (*ib.* p. 422; (1836), p. 81)—the converse would have been equally near the mark, for most gild arrangements are annual. (8) The exclusion from the vend of coal sent inland, abroad, to the Orkneys, and to Ireland (*Rep.* (1830), pp. 433, 463) and, (5) the absurd trichotomy (*ib.* 469, 470; (1800), 14, 100), were noted but not explained; so was the partnership scheme (1), under which each paid calls proportionate to his appointed share in the sales (*Rep.* (1836), p. 18), and each took in severalty what he sold within the prescribed limit, but accounted as partner to the other coal-owners for any excess (*Rep.* (1800), pp. 19, 20, 98); indeed, a continuous history from the time when one company owned every mine furnished the only possible key. As for (9), fines were, under the constitution of 1833, secured by

deposit, but warnings (*Rep.* (1837-38), vol. xv. p. 91) and boycottings (*ib.* 89, 90, 265; (1836), p. 22) were the usual penalties.

The spirit, as well as the institutions, of the gild dominated this ring, though much was inexplicable when they proclaimed "self-interest their *primum mobile*" (*Rep.* (1836), p. 92). Industry was in a semi-conscious customary stage, and men only expected to justify part of what they did; and justified that part by repeating, as faithfully and unconsciously as parrots, all the old sophisms forged by the founders of the system—for it was a system every part of which cohered until the last. When one prop was removed, the entire edifice collapsed.

Its Death (1844-45).—Between 1837 and 1843 two collieries were worked by joint-stock companies, to which gild methods would be *ultra vires*. After 1834 the London Gas Company defied the sixth rule, and treated with the producer direct (*ib.* pp. 37, 42, 193-203). The competition of certain Tees-side collieries, which would not join the vend, sent prices down and production up, and induced the masters to snap what looked like the least essential link in the chain—the seventh—and to dictate a monthly in lieu of the old annual bond. The Tyneside, Wearside, and Tees-side miners struck against the new bond (*Rep.* (1873), vol. x. p. 304; Fynes, *Miners of Northumberland and Durham*, pp. 62, 77, 104) and lost. But the spell was broken, and the masters never even proposed to resuscitate what they had renounced, but only such parts of it as appealed to their class interest.

Its Successors: a Modernised Gild (1844).—Mr. Lambert writes, in *Two Thousand Years of Gild Life* (p. 368), that if in some national trade masters and men combined to regulate output prices, profits, and wages, this would be the nearest conceivable reproduction of the gild as it was 300 years ago. He seems unaware that a proposal to regulate the English coal trade on this basis was made by the miners, and rejected by the masters in 1844 (Fynes, p. 50).

The Trust (1845).—The leaders of the gild-ring tried, and only just failed, to erect on its ruins a joint-stock company composed of north of England coal-owners, and with the object of reviving the second, third, and fourth features of the vend (*Rep.* (1873), pp. 297 *et seq.*).

The Trades Union.—In 1836 both masters and miners wished to restrict output (*Rep.* (1836), p. xv. n.), and this policy has since then been often put into practice by the miners with the avowed object of raising prices (*Rep.* (1873), p. 10); indeed this policy and object were the *raison d'être* of the coal strike of 1893. The proposal of 1844, and the strike of 1844-45, were bids for the succession to the traditions of the vend; and when in 1845 the gild-ring tried to pass on its diminished torch to a trust, the miners snatched it from their hand.

[For the "order and agreement" of 1602, see Brand, *Hist. of Newcastle*, ii. 273, 274 n.; for "agreement" of 1665, see *Reports from Commissioners* (1871), vol. xviii. *Rep. of Committee*, E., p. 8; for that of 1768, *ib.*, App., p. 3; for "rules" and "agreement" of 1833-34, see *Reports of Committees* (1836), vol. xi. *Rep. of Committee on the Coal Trade*, pp. 6-9. Tables and accounts illustrating different vends are given in the *Report* of 1871, App., p. 3 [1768].—*Reports of Committees* (1800), vol. xxvi. *Report on the Coal Trade*, p. 98 [1799].—*Reports of Committees* (1830), vol. viii. *Rep. of Lords' Committee on the Coal Trade*, pp. 57, 58 (or 461, 462) [1828].—*Rep. of Com.* (1836), vol. xi. *Report of Committee on the Coal Trade*, pp. 246 *et seq.* [1835-36], pp. 52-55 [1836].] J. D. R.

VENDOR AND PURCHASER. The normal sale of land is in English law a process with three stages.

(1) First there is the formation of the contract for sale. The vendor usually embodies his offer in two documents: (*a*) particulars of sale which specify the locality and size of the estate, and must state if it is anything less than an estate in fee simple in possession free from incumbrances; (*b*) conditions of sale which state the time and mode in which details belonging to the second and third stages shall take effect. The acceptance of the vendor's offer must be signed by the purchaser and must refer to the parties, subject matter, and price. If verbal, it is unenforceable unless the parties have acted on it to an irrevocable extent. (2) The effect of the first stage is to introduce a stage intermediate between contract and conveyance; or in technical language, the ownership has passed in equity but not in law from vendor to purchaser. During this stage, which remotely resembles an action conducted without (until 1874) an oral hearing, the vendor may not damage nor alter the character of the property in possession of which he still remains but as constructive trustee; and he must prove his title in the method prescribed by rules which have grown up in the courts of equity, and are contained but not codified in the *Vendor and Purchaser Act* 1874, and *The Conveyancing Acts* 1881, pt. ii. and 1882, or by the conditions agreed on in the contract for sale, or more often by a mixture of these public rules and private conditions. If or in so far as there are no conditions, the contract is called an "open contract," and the rules prevail; but the conditions, unless expressed ambiguously or in a manner calculated to mislead, modify or replace the rules. If the contract is "open" the vendor must produce an abstract of all documents and events material to his title, and must produce originals of deeds, marriage and death certificates, etc., for verification with the abstract, and the abstract so verified must prove that he has power to sell the property in the way in which he has offered to sell it. The proof need only go back forty years, and must be as strict as in an action, but facts recited in documents twenty years old prove themselves; and purchasers of leaseholds cannot call for the freehold title. There are few titles which can pass unscathed through this ordeal; but the purchaser must point out flaws to the vendor within reasonable time, or else it will be assumed that he has waived them. Conditions of sale are usually framed preventing the purchaser from making these objections, or enabling the vendor to meet them by statutory declarations, by compensation, or by some answer which would not, in the absence of such conditions, be binding. If there are no flaws of title or all flaws are waived, adjusted, or removed, the vendor's case against the purchaser is complete, and the purchaser completes his case against the vendor by tendering to him the price and a deed of conveyance which is in accordance with and, if properly drawn, supersedes the preliminary contract and negotiations. Disputes on these matters or on any isolated points which do not affect the validity of the contract as a whole are, since 1874, settled by summary oral procedure in the chancery division. (3) With the execution of the conveyance and payment of the price, which until payment is a lien on the property, the relation of vendor and purchaser ceases, and the estate which the vendor had power to convey, vests in the purchaser. Up to that date they have been united by numerous reciprocal duties. The most important duty is not to mislead; and the vendor, and in rare cases the purchaser, have the additional duty to disclose "latent" defects which the other

party has no means of discovering for himself. Breaches of duty by one party, unless condoned or written off against breaches of duty by the other party, disentitle him to equitable relief. Equitable relief is now administered by the chancery division, and consists of the following ascending scale of remedies: (1) the court remains neutral; (2) or grants damage in lieu of specific performance; (3) or specific performance (*a*) of the contract (*b*) *plus* a new term, or (*c*) *plus* compensation making good any breach of duty; (4) rescinds the contract, and if purchaser is plaintiff, may order his deposit (if any) to be returned with interest, and may charge the property therewith; (5) orders the contract to be delivered up and cancelled. If equitable relief is not asked for an action for damages for breach of contract or for TORT (*Law Reports*, 1891, 2 Q.B. 456) or for money had and received, may be brought in the Queen's Bench division, or in minor cases in the county court.

Exceptional Cases. Where land is sold by forced sale to a public body under the Lands' Clauses' Act 1845, parties under disability may contract to sell and sell, the purchaser may enter into possession after paying a deposit and on giving a bond, conveyance vests in the purchaser, all estates which have been paid for, and outstanding estates when they are paid for, and if the vendor will not convey the purchaser may dispense with it. Briefly (1) the capacity to contract is enlarged; (2) the completion of the contract takes effect as an out-and-out sale in certain cases. Otherwise the process is as above.

The provisions for registration in the Land Transfer Acts 1875 and 1897 alter the whole process described in the above. The purchaser of registered land acquires no property by the conveyance, but acquires the entire ownership by entry on the registry; and no investigation of title takes place in the case of an absolute title.

In so far as the title is registered as less than absolute the ordinary rules prevail. The act of 1897 is the first to contain compulsory provisions; which, however, do not come into force in any district unless adopted by the county council.

[E. Sugden, *Vendors and Purchasers of Estates*, 1805, 1862.—J. H. Dart, *Vendors and Purchasers of Real Estate*, 1888.] J. D. R.

VENTURI, GIAMBATTISTA (1746-1822). Born at Bibbiano (Reggio Emilia). He was an abbé and a man of great and varied attainments, he studied mathematics and physics, literature and history. He occupied himself greatly with economic and financial questions on these subjects, wrote and held discussions with able economists. He held many public offices in the duchy of Modena, was professor of geometry and physics at the university, state engineer, and assayer of the mint. Later on he held offices in the government of the Cisalpine republic.

Among his works of interest to economists is a report illustrating the advantages of the decimal system, his *Pareri di finanza*, preserved in manuscript in the archives of Modena. MONTANARI attributed to Venturi an anonymous article published in the *Nuovo giornale dei letterati d'Italia*, printed in Modena in 1773; in this work the author reviews the *Meditazioni sull' economia politica* by VERRI, he mainly discusses the theory of value, and fiercely criticises the mathematical method applied to political economy, used by Frisi, who edited Verri, in a series of notes on his work—*Rapporto della commissione di commercio, etc., sopra il sistema da adottarsi nelle nuove misure, monete e pesi della repubblica*, 1798.—*Pareri di finanza* (manuscript). [De Brignoli, *Memoria biografica del cavalier abate Giambattista Venturi*, 1835.—Montanari, *La teoria matematica del valore ed uno scrittore emiliano del secolo scorso*, 1891.] U. R.

VENUSTI, M. ANTONIO MARIA (16th century), was the author of two works on commerce, one containing a defence of trade, particularly of wholesale trade; the other a development of a theory on value, which, though unoriginal and obviously inspired by the doctrines of ARISTOTLE and S. THOMAS AQUINAS, merits mention for the fluency of its explanations.

Venusti examines into the elements of a just price (see JUSTUM PRETIUM) which he considers to be the one prevailing at the time and place of a contract—the circumstances of selling and buying, the quantity of goods and money, the number of buyers and sellers, and the convenience and usefulness of the bargain, according to the judgment of upright men incapable of dishonesty.

Venusti makes a minute analysis of these elements, illustrating them by the theory of SUPPLY AND DEMAND, and to some extent opposing this by the theory of cost of production, asserting that *giusto prezzo* springs from abundance or scarcity of goods, and of merchants and money, not from cost, labour, or risk.

Discorso d' intorno alla mercantia.—Istitutione dei mercanti: both published in one volume entitled *Compendio utilissimo di quelle cose le quali a nobili e christiani mercanti appartengono*, 1591.

[Gobbi, *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, 1889.—Montanari, *Contributo alla storia della teoria del valore*, 1889.] U. R.

VERDERERS. See FORESTS, MEDIÆVAL.

VERGANI, PAOLO (18th century). The author of an important work on the custom-houses of the papal states, containing many facts and intelligent opinions. Vergani studies the principles of customs regulations, and in particular the tariff of customs duties established by Pius VI., at the same time he explains the ideas of the day on customs duties in the most civilised states.

He advocates moderate and temporary protection; criticises the PHYSIOCRATS, and explains the point of view they started from in order to support absolute freedom in trade; he combats the theory that agriculture, and above all things the cultivation of cereals, constitutes the only true wealth of a nation; he would establish a new financial system in the papal states promoting manufacture. Vergani starts from the principle of protection for national industries, with a corresponding system of taxation, at least until other states adopt a similar taxation, and until the industries have reached a certain degree of development. He admits, like VERRI, that if all nations agreed to abolish the taxation of goods, then universal and unlimited freedom would not be injurious to the arts. He also studies the details of customs duties and advises the transformation of duties *ad valorem* into specific duties, thus showing his perception of the most correct system of technical taxation.

Vergani treats the subject of customs duties with great breadth, and his book may be regarded as a complete treatise on the subject—its breadth of ideas, wide technical observation and clear

expositions, placing him among the first financial theorists of his day.

Dell' importanza e dei pregi del nuovo sistema di finanza dello stato pontificio, 1794.

[Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, 1884.—Graziani, *Le idee economiche degli economisti emiliani e romagnoli*, 1893.] U. R.

VERRI, PIETRO (1728-1796) was born at Milan, of a noble family; he first entered the army and fought at Soran in the Austro-Prussian war.

At Vienna he commenced the study of economics, and wrote the *Elementi di commercio;* he continued these studies in other publications after his return to Italy. In 1765 he was made a member of the supreme council of economics, and then privy councillor of state. He played an important part in the financial reforms of the Milanese states, especially in the reform of the customs duties tariff, which was entrusted to him. In 1786 he retired into private life and devoted himself to his studies; later on, he again took office at Milan, after the entry of the French.

Verri's principal work is the *Meditazioni sull' economia politica* several times reprinted, also in the Custodi collection and in the *Biblioteca dell' economista serie I^a*: the *Meditazioni* were translated three times into French, twice into German, and once into Dutch; they form the best summary of political economy published in Italy in the last century, and one of the best in any country.

Verri, in this work, makes a minute analysis of production, and examines the different causes which allow a country to gain wealth or prevent it from enriching itself by an excess of production over consumption, thus obtaining a maximum produce on which the increase of population depends.

Verri is not content with abstract theory, but studies the actual conditions of different countries, observing the causes which render changes necessary in legislative regulations.

He is, therefore, eclectic; this is chiefly noticeable in the question of international trade, which he examines with great width of view. Without altogether abandoning the principle of the balance of trade, Verri severely criticises it; at the same time he combats the PHYSIOCRATS, showing the productiveness of manufactories. He advocates free trade internally, and the free export of corn, at the same time he allows taxation on the export of raw materials, and on the import of foreign manufactured goods; he would protect national industries, observing that the abolition of customs duties would be prudent if simultaneously adopted by all nations, but injurious to any one nation doing so if the others continued these duties.

Verri combats an unequal division of wealth and excessive concentration of great properties. He displays sound ideas on value, though he does not attain to the conception of normal value (see VALUE), and endeavours to reduce the laws of value solely to the principle of DEMAND and SUPPLY.

Verri's *Meditazioni* contain also a perfected and in some part original theory on taxation. He considers taxation to be a payment made by a person to the public exchequer of a portion of his possessions in order that he may in safety enjoy the remainder, its necessary limit being fixed by the amount of public expenditure incurred for the good of the community. This becomes injurious when it exceeds the economic resources of a country, and is not proportional to the general wealth, or unequally imposed among private individuals. Every tax tends naturally to level itself uniformly on each citizen in proportion to that which each consumes. The most equitable tax is that which falls directly on the largest consumers, owners of land, buildings, and goods, on whom in any case all taxes would fall.

Verri, therefore, proposes a tax on land to reach land-owners, customs duties to touch merchants and those engaged in trade—maintaining that eventually these taxes would reach all consumers.

It is easy from the point of view of to-day to criticise Verri's system of taxation, but this does not prevent it from being the best plan which could then have been designed, and in principle it is the basis of the systems elaborated later.

Some of Verri's other writings are of great importance. In his philosophic discourses, *Discorsi di argomento filosofico*, he takes broad views of social economy, discussing the national inclination of man to happiness, the "calculus of pains and pleasures," and the favourable influence of the severer climates on economic development over the more relaxing southern countries of the world. His *Memorie storiche*, published after his death, on the history of trade in the Milanese states, are amongst the most noteworthy works on Italian economic and financial history.

Elementi del commercio, 1765.—*Memorie sull' economia pubblica dello stato di Milano*, 1768.—*Meditazioni sull' economia politica*, 1771.—*Riflessioni sulle leggi vincolanti principalmente nel commercio dei grani*, 1796.—*Discorsi*, etc., 1781.

[Ugoni, *Della letteratura italiana nella seconda metà del secolo XVIII.*, 1821.—Cossa, *An Introduction to the Study of Political Economy*, 1893.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1891.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, 1884.—Bouvy, *Le comte P. Verri*, 1889.] U. R.

VERT. "Bonnet Vert" or "green cap," in old French law meant a bankrupt who had satisfied the courts. In Scotland, where something like the French practice was adopted, the cleared bankrupt went about in a yellow cap (cp. WHITE BONNET).

[See Burton, *History of Scotland*, vol. viii. p. 70 (ch. lxxxv.)]. J. B.

VETHAKE, HENRY (1792-1866), was born in British Guiana and died in Philadelphia, where he had been connected with the university of Pennsylvania in various capacities for thirty years. He took his first degree at Columbia College (New York) in 1808, and taught mathematics and allied subjects in the same institution (1813), in Queen's College, now Rutger's (1813-1817), in Princeton College

(1817-1821), in Dickinson College, Carlisle, Pennsylvania (1821-1829), and in the university of the city of New York (1832-1835). In 1835 he became president of Washington College (Lexington, Virginia), and in the following year professor of mathematics in the university of Pennsylvania. Ten years later he was chosen vice-provost, and in 1854 provost. Shortly after becoming provost he exchanged his chair of mathematics for that of intellectual and moral philosophy. After resigning the provostship, he remained emeritus professor in the university, while engaged in teaching higher mathematics in the Philadelphia Polytechnic College.

Although never nominally an instructor in political economy, he probably taught that subject in at least four of the schools with which he was connected, since his *Principles of Political Economy* (Philadelphia, 1838), published two years after he became a professor in the university of Pennsylvania, is dedicated "to the numerous young men who at different periods during the last sixteen years have attended his lectures on political economy." This work is a systematic exposition of the principles of the science as then generally held in England and France. It avoids all reference to writers whose views differ from his own. He attempts a few innovations, prominent among them, the extension of the definition of wealth and of capital to include immaterial or intellectual products, which the author himself calls a *bold* innovation, though he might have discovered precedent for it among classical writers.

Of greater practical value was his American edition of J. R. M'Culloch's (*q.v.*) *Dictionary of Commerce and Commercial Navigation* (Philadelphia, 1847). He added many valuable articles, *e.g.* "A Historical Account of Banking in the United States" (36 pp.), and short supplementary notes on such subjects as *American Coinage; Aliens in the United States*, etc. E. T. D.

VICESIMA HAEREDITATUM. A tax upon successions to property, usually said to have been established by the Emperor Augustus. In the Roman republic direct taxation of citizens had never been more than occasional, and had become obsolete with the growth of the provincial revenues. The reorganisation of the state by Augustus involved a great increase in the ordinary expenditure, and it became necessary that Italy should, as well as the provinces, contribute regularly to the public expenditure. As it was not convenient to subject Italian soil to the land tax levied on the provinces, an equivalent was taken on this tax on successions. As the name shows, it was fixed at the rate of 5 per cent. Exemptions were granted in favour of direct heirs and of persons taking legacies or inheritances below a fixed minimum. The Emperor Caracalla extended this tax to the whole empire by conferring the citizenship of Rome on all its inhabitants other than slaves. He is also said to have raised it to 10 per cent. Soon after his death it was reduced to its old figure. It disappeared in the later times of the empire.

F. C. M.

VICO, Giambattista (1668-1744), was born at Naples, the son of a bookseller, studied philosophy under the Jesuits, and adopted the profession of advocate, which, however, he soon renounced. The patronage of the bishop of Ischia procured for him employment as teacher of his nephews, the sons of the Marquis Domenico Rocca; this office he held for nine years, during which he earnestly pursued his studies. He was appointed professor of rhetoric in the university of Naples, which office he filled during forty years, not having obtained the great object of his ambition—the chair of jurisprudence in that university. In 1744, the year in which he died, he was nominated historiographer to the king of Naples.

Vico was undoubtedly a great and original genius. Professor Flint is justified in the opinion that it is impossible to read him "without feeling oneself in contact with a singularly profound and powerful intelligence." The work on which his reputation rests is *Principii di una Scienza Nuova d' intorno alla commune natura delle nazioni, per li quali si ritrovano altri principii del diritto naturale delle genti* (1st ed., 1725; 2nd ed. much altered, 1730). This book, on its publication, made an impression in Italy, especially among learned circles at Venice, but was scarcely noticed at all in other European countries before the 19th century. Herder and Wolf referred to it; Salfi called the attention of the French public to it; and Michelet published, in 1835, *Œuvres choisies de Vico*, containing a paraphrase of the *Scienza Nuova*, with an introduction on the life and writings of the author. Vico's object was to construct "an ideal and eternal history," whose phases should serve as types of the actual revolutions of all ages, within which all the histories of particular nations should take their places in the order of their birth, progress, maturity, decline, and end. From the common nature of nations comes amongst all peoples a "constant and universal knowledge of things human and divine," and thus is discovered, as a principal corollary of the *Scienza Nuova*, a system of natural law—an "eternal ideal law, which is in force in the universal city, a city founded in the thought of God, and in the form of which are instituted the cities of all times and countries." His ideas are habitually clothed in theological and metaphysical forms; but many of them admit of a scientific interpretation and correspond to doctrines of positive sociology.

The threefold basis common to all societies is, in his view, religion, the institution of marriage, and respect for the tomb; every community passes through three stages—a divine, a heroic, and a human age—with successive systems of law, political constitution, morality, respectively corresponding to and characterising these. But he does not go beyond this movement of each society, which he regards as indefinitely recurrent; he does not study, or apparently recognise, the con-

tinuous life of humanity—represented, not by a series of cycles, but by a rectilineal progression, only modified by frequent oscillations. He failed to create the philosophy of history; but he gave a strong impulse to the study, supplying many hints towards solving its special problems. For the Cartesian criterion of individual feeling he substitutes the *sensus communis* of the race, the spontaneous impression of the mass — of a whole people—of mankind; considering that most writers make too much of the "inexplicable superiority of a few great men," as explaining historical facts; such men he regards as products of their age; they are, as is now said, organs of humanity.

Vico was not specially an economist; but his ideas on the nature and life of political communities are valuable to the economist, who cannot correctly understand the phenomena with which he is primarily concerned, if he does not view them in relation to the general structure and development of society.

There is a complete edition of Vico's works by Giuseppe Ferrari, in 6 vols. (Milan, 1844). The *Scienza Nuova* has been literally translated into French by the Princess Belgiojoso (1844). There is no English translation.

[Introduction to Michelet's *Œuvres de Vico.*— Professor Flint's *Vico* in Blackwood's *Philosophical Classics for English Readers.*] J. K. I.

VICTUAL BRETHREN. These were a privateering organisation formed under the patronage of the HANSEATIC LEAGUE in their wars with Waldemar of Denmark. On the restoration of peace the freebooters turned their hand against every one, and though as a federation they soon ceased to exist, the North Sea and Baltic were in a state approaching anarchy until nearly the end of the 15th century. From this disturbed state of affairs England reaped much good. For the HANSARDS claimed the commercial monopoly of the Baltic, and Denmark of Iceland, and just as their power began to wane, the attacks of the Victual Brethren gave the English an excuse for reprisals. The coasts of England were continually ravaged by the North Sea pirates; Scarborough, Sandwich, and Southampton were pillaged and burned; London and Norwich had to defend themselves. Many English ships were captured by freebooters and the inhabitants of the coast lived in fear of kidnappers. Of course reprisals were made, and now and again a payment settled the claims of England and some HANSE TOWNS upon each other. However the outcome of all this anarchy was in favour of England. Through the quarrel of Denmark and the Hansards she had gained a foothold in the Baltic, and the EASTLAND COMPANY was formed to trade with the Teutonic Knights. Regardless of INTERNATIONAL LAW, English ships carried on a clandestine trade with Iceland in furs and fish, and, in spite of reprisals, persisted in it. Moreover the need of combination forced England to realise the necessity of a navy. Convoys of ships began to be formed, and in 1406 the merchants were authorised to take dues on staple exports and 3s. on every cask of imported wine to defray the expenses of two admirals, appointed by the king, to defend the north and south coasts. In a few years this system broke down, but in 1453 the earls Salisbury, Shrewsbury, Worcester, and Wiltshire, and Lord Sturton, were empowered to collect TONNAGE AND POUNDAGE, and to raise money on the security of these taxes, in payment for the defence of the coasts. Though this arrangement also speedily failed, a precedent had been set that in the end prevailed. L. R. H.

VIDAL, FRANÇOIS (*b.* 1812), marked the transition in France from the utopian socialism of ST. SIMON and FOURIER to collectivist socialism.

In his works, as in those of his contemporary PECQUEUR — both now nearly forgotten — the principal doctrines of collectivism are clearly expressed and reduced to formulas; among these are the so-called "iron-law" of wages, the theory that wealth is the produce of the work "of others" (*d'autrui*), and that economic evolution leads infallibly to the socialisation of the land and of capital.

Vidal, however, does not go so far as this in his conclusions. He contents himself with co-operation for producers, profit-sharing for labourers, and a minimum wage fixed by law.

His principal works are *De la répartition des richesses et de la justice distributive* (1846), a critical explanation of the doctrines of the liberal school and those of the principal French socialists, interesting even at the present day; and *Vivre en travaillant* (1848). C. G.

VIGANO, FRANCESCO (1807-1891), was born at Cigognola (Como); died at Milan. In 1828 he was exiled by the Austrian government and travelled abroad for many years. While in Paris he joined the Saint Simonians (see SAINT SIMON); later on he supported Mazzini, and conspired with him in Italy. For thirty years Vigano taught commercial science at the technical high school in Milan.

After 1843 he devoted himself entirely to promoting international peace and the extension of co-operative societies, devoting himself to the cause enthusiastically and untiringly until his death, not only by words, but by giving up his fortune and by writing numerous works on the subject—many were translated into different languages.

The two most important are: *La fratellanza umana*, 1873 (translated into French).—*Le banche popolari*, 2nd ed., 1875. U. R.

VILLAGE COMMUNITIES. In theory "an organised self-acting group of . . . families exercising a common proprietorship over a definite tract of land (*Maine*)"; but setting aside for the moment this and other *dicta*, and not stopping to discuss side-issues respecting the MANOR

(*q.v.*), it may be said that a village community of the kind met with in England in the 11th century consisted of a body of men of various degrees of personal freedom, cultivating, by co-operative industry, open fields which chiefly belonged to a lord. Some were free and owned the acre strips they ploughed; some were in a modified state of bondage, and held their land by the render of agricultural services (see SERVICES, PREDIAL AND MILITARY); and a small and fast-diminishing number of others were in absolute slavery to a lord who owned both them and the bulk of the land his group of peasants were cultivating (see VILLANUS and SERVUS). The village was a cluster of cottages, often gathered closely round a church, and contained not only the cultivators and their REEVE (*q.v.*), but the smiths, carpenters, tilers, and others whose labour was essential towards rendering the village completely self-sufficing in an economic sense, and whose work at forge or bench was repaid by a settled share of the results of cultivation.

A walk through the flat country westward of Bruges, or a railway journey between Aix-la-Chapelle and Cologne, will show the lineal representatives of similar village clusters in the midst of hedgeless, houseless, stretches of open country which the present inhabitants of each cluster are tilling. Sight will not make us too readily aware of the exchange of produce for money which now goes on, or of the irrevocable change in personal status which has taken place in the course of centuries, but we may accept the assistance of external forms and realise from them what a true village community must once have been.

In races which tend towards improvement, blood-relationships and the social instincts of man would suffice to congregate the humbler elements of a population engaged in field labour into such village communities as those described; but external forces might have the same result, and thus many questions arise on the history of these groups.

Were village communities really primitive institutions? Did they start as free or unfree? If the manorial system was superinduced so as to form an external shell to the village community, when and how did it happen? What was the relation of the village community to the tribal system with its constant redistributions of land? Is it true that "joint-ownership, and not separate ownership, is the really archaic institution"? But the answers as yet given to these and other queries do not resolve all doubts.

Setting aside writers like G. L. Gomme, who draws evidence from the Russian MIR (*q.v.*) and the customs of Fiji, F. Seebohm's *English Village Community* deserves early and careful attention.

With respect to England, Seebohm states his conclusion that there have always been two rural systems, the tribal community in the west, and the village community in the east, each connected with its own special form of open-field cultivation. Both he believes to have been pre-Roman. The village community in eastern England was connected with a settled agriculture which was apparently improved during the Roman occupation, and was carried on under the THREE-FIELD form of the open-field system, which became the shell of the village community. The quality of the holdings, and the succession of a single tenant which preserved it, were signs, not of an original allodial allotment on the German MARK SYSTEM, but of a settled SERFDOM under a lordship, each tenant having but the user of the land at the will of the lord. This serfdom, Seebohm thinks, was to the masses of the population not a degradation, but a rise from a once more general slavery. In western England he sees the tribal community, of a pastoral rather than an agricultural type, bound together by ties of blood-relationship and further distinguished by the redistribution of lands (see TRIBAL SYSTEM).

The manorial system, however, was not, Seebohm thinks, a mere development from the German tribal system described by TACITUS. There was a Roman element in it, derived from the *villa* with its *coloni*, *tributarii*, and slaves working under the *villicus*, and the manorial estate became the predominant form of land ownership in what had once been Roman provinces on the continent. Thus the German successors of Roman lords of villas became in turn manorial lords, whilst the *coloni* and others remaining on the land apparently became, "with scarcely a visible change, a community of serfs." He thinks that Pliny's words (*Nat. Hist.*, xvii. 4) as to Belgic Britain indicate a one-field system, and that the three-course rotation of crops was introduced by the Roman conquerors, so that the open fields round the *villa* of the Roman lord, cultivated by his *coloni*, *tributarii*, *liti*, and slaves, may have been at once arranged on the three-field system. Indeed he quotes from Siculus Flaccus (Lachmann, p. 152) the case of *possessores* who do not own *continuas terras, sed particulas quasdam in diversis locis, intervenientibus complurium possessionibus*, "words which amount to a partial description of the open-field system."

Like many other students of history, Seebohm disbelieves in the total obliteration of the Romanised Briton, and thinks that, taking England as a whole, the continuity between the Roman and English system of land management was not really broken, and that the earlier "*hams*" and "*tuns*" of Ethelbert's laws were undoubtedly manors.

The theories included under the mark system of the Germanists have been vigorously attacked by FUSTEL DE COULANGES, who considered that he had swept away all historical basis from them, leaving primitive communism as an unproved possibility. Certainly he has shown that the word *marca* in early German law does not mean an area of land held in common, but primarily a boundary or frontier, and, in a derivative sense, the private property which it surrounds. He has shown furthermore that a blunder with respect to a word in an ancient deed, *anales* for *ariales*, led Maurer to believe in the periodical redistribution of village lands. To this writer's *Origin of Property in Land*, Professor Ashley has prefixed a valuable chapter on the English manor in which he argues from Cæsar (*Bell. Gall.*, v. 14) that the village community did not exist among the Britons, as "most of those in the interior sow no corn, but live on flesh and milk." Further than this, in Ireland, Scotland, and Wales the early population

was mainly pastoral, and there is no trace of the village community among them. On the other hand it appears from Tacitus (*Agricola*, xix.) that Britain had become a corn-growing country, and later, from Zosimus, that in A.D. 360 Julian fetched corn from thence in 800 vessels. We know too from the Theodosian code (xi. tit. vii. 2) and Ammianus, xxvii. 8. 7, that there were *coloni* and *tributarii* in England in A.D. 319-368. In other words the very classes of free, or imperfectly free, cultivators which were characteristic of the Roman *villa* were actually working in Britain under their Roman designations, and the existing traces of Roman occupation in rural districts are eloquent as to all that remains to be proved as regards the presence of the true *villa* and its personnel. These cultivators were reinforced by imported bodies of conquered barbarians who, as De Coulanges shows (*Recherches sur quelques problèmes d'histoire*, p. 43), became not PEASANT PROPRIETORS but tenants bound to the soil. The manor of continental Europe was the continuation of the *villa* of the Roman domination, and the features of the English manor run so closely parallel to those of manors across the sea that it is scarcely possible to doubt that in the English mediæval manor we have the Roman *villa* slightly modified by the Teutonic invasion.

Vinogradoff's important work on *Villainage in England* presents us with very cautious views. "The communal organisation of the peasantry," he says, "is more ancient and more deeply laid than the manorial order." He argues that the open-field system is so strange and inconvenient when viewed from the standpoint of private ownership, and so natural and convenient when regarded as a communal system, that it must be of the latter character. But apparently against this conclusion there stands the fact that there are three main sizes of holding, the VIRGATE, bovate, and cotland, and the further fact that these holdings are indivisible and are not varied according to the size of the families that have to subsist on them. These he interprets as signs that the institution is in a state of transition, and is distorted from its original shape. This distortion is due to the manor. The rigidity of the holdings would, from a communal point of view, be unjust, but from a manorial standpoint extremely convenient for keeping intact the working units of service. And yet the holdings are not formed for manorial purposes, for they depend upon another element. The virgate is one quarter of a hide because two oxen, the normal equipment of the *virgatarius*, form one fourth of the great plough-team of eight oxen. The land was thus parcelled out in units of oxen, and could not be divided because the ox could not. So we have in the scattered acre strips a trace of communal allotment, though no such redivision of the arable any longer occurs. In the treatment of meadow and waste we see, however, the former annually redistributed by lot, and the latter measured out by limitations of the number of animals that may be sent into it; and these are obviously communal methods of procedure.

The manor Vinogradoff regards as consisting of two elements, the peasant village and the demesne cultivated by its help, and he views the manor as of gradual growth and comparatively recent origin. He cites the PRESTATION—fowls, cheese, etc., sent to the lord, often at a distance—and the *firma unius noctis*, paid by a village to the king's household, as traces of something preceding the manorial system,—signs, indeed, of a former great over-lord exacting tribute from a village community, rather than a lesser lord close at hand cultivating land by the help of his peasantry. Another sign of the same he sees in those cases in which the DEMESNE consists of acre strips scattered among the rest in such a way that all is cultivated at one operation, and the villagers are not called up to the demesne farm to work on stated days. This he interprets as something intermediate between the tribute paid to a great over-lord by a practically self-dependent community, and the full manorial system. As a further sign of transition he cites the fact that in the earlier records few manorial officers appear, but in the later a large class of "sergeants." In early days the gathering of tribute for an over-lord and the supervision of a few manorial services did not need so great a staff of intermediaries. A further point against those who argue for an original servile community is the constant presence of freeholders (see FREEHOLD, HISTORICAL) who only do slight services, but yet are full members of the village group; and the manorial court furnishes another argument for their presence and effective influence, for servile suitors could never by themselves have acquired the position of judges in litigation. Furthermore the transfer of land is effected by an appeal to communal testimony (see COMMUNE), and custom and self-government prevail over attempts at capricious change. Everywhere, even during the feudal period, Vinogradoff finds traces remaining of a peasant class which formerly lived and worked in self-dependent communities, paying tribute to and owning the general authority of a great over-lord, "whose claims may be political and affect the semblance of ownership, but do not give rise to the manorial connection between estate and village."

These cautious words do not exclude the idea that the manor is due to the Roman occupation, and they permit the view that the early village community was a mixture of free and unfree elements.

The above are the theories which appear to have the best claim to public attention at present. The older notions, which are generally discarded, are amply set forth under MARK SYSTEM. Unbiassed study of the results of the Teutonic conquest on the Romano-British population may lead to settled ideas as regards England. Too great stress is undoubtedly laid by such writers as Freeman on extreme expressions used by the chroniclers. The city of Bath, to take an entirely unnoticed example, was captured from the Britons by Ceawlin in 577, and was "destroyed" by the Normans in 1088, and yet the *Gesta Stephani* (Rolls ed., 37, 38) describe the "arched chambers" of the Roman baths as the resort of invalids and loungers in the year 1138. It is clear that the heathen Saxons who would spare Roman baths might attach some value to Roman agriculture, and might retain, at least as slaves, communities of cultivators who could grow corn in plenty for their use (see SERVUS).

And two passages from Bede (*Engl. Hist. Soc.*, ed. ii. 62, 234) are significant on this point. Referring to a date before 705, he writes of the *Britones qui Occidentalibus Saxonibus subditi erant*, Britons living in subjection in Wessex, and then, under date 681, he states that there were 250 *servi* on 87 hides at Selsey. But there were 7000 hides of cultivable land in the South Saxon kingdom (see HIDE), which included Selsey, so that without for a moment insisting on strict proportion, which would give 20,000 slaves, we get figures which cannot at so early a date represent Saxons reduced to bondage, but must indicate a Romano-British population spared to act as labourers.

[All the books in the list appended to MARK SYSTEM, bear, like the article itself, directly upon village communities. To them may be added the following:—G. L. Gomme, *The Village Community*, 1890.—*The Nineteenth Century*, Jan. 1896, pp. 69-86.—F. W. Maitland, *Domesday Book and Beyond*.—Baden-Powell, *The Indian Village Community*, 1896.] R. H.

VILLANO, FILIPPO (18th century), was a Neapolitan jurist.

In his *Discorsi economico-politici* he follows the mercantile system, but would protect not only manufactures but also agriculture. He studied the condition of the kingdom of Naples and proposed the re-organisation of the taxation, particularly as to taxes on consumption, which he prefers to direct taxes.

On the other hand he quite fails to understand the question of the population, which he desired to see increased.

To combat usury, as it is injurious to agriculture, Villano proposes establishing a public bank to receive agricultural products to be sold at a reasonable profit, or to advance money on them to the agriculturists.

L'ozio autunnale; ovvero discorsi economico-politici, 1768-70.

[Fornari, *Delle teorie economiche nelle provincie napoletane*, ii., 1888;—Gobbi, *La concorrenza estera, etc.*, 1888;—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881]. U. R.

VILLANUS.

Villanus, p. 624; Villein Tenure, p. 626; Villenage, p. 626.

VILLANUS. Strictly a man of servile condition holding usually one virgate of land, that is the fourth part of a hide, in the common fields of a manor by base services; but the term is sometimes applied to one of free status who holds land by servile tenure. There were also villeins not settled on the soil who paid CHEVAGE (*q.v.*) for living outside the manor as artificers, and there must have been, as well, the sons of villeins acting as labourers, like the *homines qui serviunt extra domos patrum suorum* mentioned in the Peterborough *Liber Niger* (p. 163). The word *villanus*, the feminine of which is *nativa*, is in an economic sense opposed to *libere tenens*, while the corresponding terms *nativus* or *rusticus* denote unfree status as contrasted with the condition of a *liber homo* (see LIBERE TENENTES). Before the conquest it was the equivalent of *ceorl* or *gebur*, as in the *Rectitudines* (Thorpe, *Ancient Laws*, p. 185) and the body of 108,407 *villani* of Domesday no doubt included these classes, and probably, too, many free men holding in villeinage, for it must be remembered that Domesday treats of units of taxation and units of service, and was a census of responsibility and geldability, not of men and their status.

The ceorls had at an earlier date been personally free and could become thegn-worthy. Some were probably free at the time of the conquest; but the manorial system under the Anglo-Saxon kings had tended to reduce the peasantry to dependence, and Domesday Book shows, perhaps, their lowest depression. Later records, such as the Domesday of St. Paul's, show an upward development by which some became *libere tenentes*, while the term *custumarius* applied to the others, notably in the *Extenta Manerii* (4 Ed. I.), marks a position in which, though they were still in legal theory subject to the absolute will of the lord of the manor, that will moved in practice on the lines of custom, and left undisturbed the man who duly performed his services. The *villanus* could not quit the manor, and of course could not sell his holding; he was tallaged at the will of the lord; he paid MERCHET (*q.v.*) on the marriage of his daughter, and a fine on the sale of cattle; his son could not be ordained without the lord's leave; he was liable to serve as REEVE, and his minor offences were punished at the *halimote*. Legally he was viewed as annexed to the freehold, and so, through a technicality, could not be devised by will: but he could be sold, and deeds of sale of villeins are extant. His lands could be confiscated, but this probably seldom happened. Maitland (p. 45) gives a case in which a villein is ousted for denying that he is *nativus*, but is put back on confessing his servile status. On his death his holding passed to his youngest son (*Ramsey Cartul.*, i. 372), who paid a relief, and the widow paid a HERIOT for her life interest. To prevent claims of freedom, genealogies of villeins were carefully kept, for if a *villanus* could not be shown to be *nativus*, unfree by birth, the law would declare him free in status. If a lord treated his villein as a free man, granting, for instance, land to him and his *heirs*, the act operated as a manumission. A villein could not maintain an action against his lord except for bodily injury or deprivation of WAYNAGE (*q.v.*); but he could do so against any other person, for he was free in respect to all men except his lord. It has been asserted that villeins could not serve as jurors, but manorial records (Maitland, *Manorial Courts*, p. 94; and *Select Civil Pleas*, case 123) show that they did so in the *halimote*. They formed part of the juries which made the Domesday returns, and villeins habitually went with their

reeves to the courts of the hundred and the shire. Villeins, too, came under the system of FRANK-PLEDGE, and were thus free men as regards the criminal law. These facts would alone show that they were far removed from slavery.

A villein's normal holding, a virgate, commonly of about thirty acres, with rights of grazing cattle on the waste, and with grass rights as well, was in Anglo-Saxon times usually stocked by the lord with two oxen—that is a fourth part of the great plough team of eight oxen, a unit of labour which determined in a practical way the unit of assessment, the hide, of which a virgate was one quarter, and a bovate an eighth part. In addition, as appears from the *Rectitudines*, he had a cow and six sheep, and was provided with farming and household implements. In return he or his substitute worked, as a rule, for three or four days in the week from Michaelmas to 1st August on the lord's demesne lands at ploughing, harrowing, and other field labour. Often, too, he was bound to provide seed. At harvest time he worked still harder, and brought all his family, except his wife and grown-up daughters, with him into the field. There were the ploughing PRECARIÆ (*q.v.*) at other times in addition (see SERVICES, PREDIAL AND MILITARY). Usually he paid a small annual sum of money as well, and rendered at specified dates a fixed number of chickens and other produce. In some manors an ell of cloth was required, an exaction which points to weaving as a common home industry. The annual value of this labour varied very much. From 5s. to 8s. is a common reckoning, though there is an entry in the TESTA DE NEVILL, p. 186, c. 2, which values the annual services of a villein (probably after extensive commutations) at 8½d.; but those of a *nativus operarius*, an agricultural labourer, at 8s. 4½d. It is clear, however, that on the average the *villani* had a good margin of profit from their holdings.

Occasionally, even in early times, a villein commuted his services for money payments, and these commutations frequently led to successful assertions of freedom. The villeins on land in ancient demesne were chiefly villein SOCMEN, men free in status holding land in villenage. In all manors the lord would tend to view the mechanism as a whole, and if his demesne lands were well cultivated by the united teams of his peasantry, and if the stipulated produce was duly offered, he would have no inducement to disturb the working of a profitable co-operative organisation; while the early rolls of manorial courts show that there was in fact little wanton interference on his part. Occasionally the body of servile tenants appears to have been treated as a community, exchanging or adjusting claims with their lord, to whom they were often personally bound by an oath of fealty (Maitland, *Select Pleas, Manorial*, p. 172). In fact, throughout manorial records there is an inconsistency between the legal view of the *villanus* and his visibly sustained rights and privileges.

The early practice of commuting services for fixed money payments, the steady influence of the church, and the tendency of judicial decisions in favour of freedom, prepared the way for the breakdown of the manorial system which was to follow in the 14th and 15th centuries.

The gradual rise from the position of villein to that of copyholder began very early; but its first definite stage is marked by the Year Book of 42 Ed. III., which, in stating that if a customary tenant does not perform his services his land may be seized, shows that on due performance his holding was then legally secure (see COPYHOLD). This alone would show that the system of cultivation by a servile tenantry was breaking down. Many became free labourers, and the BLACK DEATH of 1348, by causing a dearth of cultivators, led to the statute of labourers, 23 Ed. III. c. i., by which hired service was made compulsory on all who had no definite means of living, and an artificial restriction was placed on the rates of hiring of the important class of free cultivators and workmen (see LABOUR STATUTES).

The statutes 1 Ric. II. c. 6, and 2 Ric. II. c. 7, show the smouldering of the rebellion among the peasantry which broke into flame in 1381, when the villeins extorted the charters of freedom which were annulled by 5 Ric. II. c. 7. Court rolls and other records of servitude were destroyed to an extent which necessitated the special provisions of 5 Ric. II. c. 9. Other methods by which the villeins were seeking enfranchisement were met by futile statutes, some of which restricted the power of apprenticing children of the peasant class. These appear in the 9th and 12th years of Richard II. and the 4th and 7th of Henry IV., and mark a late stage in the ruin of the system. It lingered, however, for many years, and Fitzherbert (*Surveyinge*, c. xiii. ed. 1539, p. 31) wrote of bondmen continuing in some places, while in 1536 their existence was publicly recognised by an abortive bill for their manumission. Mr. Hubert Hall has found a case in Elizabeth's reign in which predial services were exacted by a lord of a manor at Gimingham in Norfolk. But the queen exerted herself in favour of the villeins, and in 1574 issued a commission for the enfranchisement of those on certain royal manors (*Fœdera*, ed. 1713, xv. 731). Law cases in which villenage was pleaded appear as late as 1617, and relics of serfdom seem to have existed considerably later.

The case of the Scotch colliers who, it is stated in the act 39 Geo. III. c. 56, were "in

a state of bondage" in 1799 is, however, probably not one of hereditary serfdom, but of entanglement in legal difficulties.

[Vinogradoff, *Villainage in England.*—Cunningham, *Growth of English Industry and Commerce*, 1890.—F. W. Maitland, *Select Pleas in Manorial Courts* and *Select Civil Pleas* (Selden Soc.).—*Ramsey Cartulary*, Rolls Series.—*Peterborough Chronicle*, Camden Soc.—Seebohm, *Village Communities.*—Howell's *State Trials*, xx. 35-49.]

R. H.

VILLEIN TENURE, or tenure at the will of the lord of the manor by the render of base services (see SERVICES, PREDIAL; VILLANUS; and WEEK-WORK). R. H.

VILLENAGE. The servile condition in which the bulk of the English peasantry are found in the 11th century, and in which they continued down to about the middle of the 14th. From that time the villein class lasted in decreasing numbers and in improving conditions until, by the beginning of the 17th century, villenage had practically disappeared from England (see VILLANUS).

In old records the word *villenagium*, however, often means the part of a manor allocated to the villeins, or rather the sum of the scattered acre strips held by them. In the *Ramsey Cartulary*, for instance (ii. 37), we read "*de villenagio sunt ibi quinque hydæ.*" R. H.

VILLEIN. SEE VILLANUS.

VILLEINAGE. See VILLENAGE.

VILLENEUVE-BARGEMONT, VICOMTE ALBAN DE (1784-1850), born at the Chateau of St. Alban (Var.), became a prefect under the empire and the restoration, and a deputy during the monarchy of 1830. He was perhaps the earliest to describe his economic tenets as "Christian," thus subordinating the science to the teaching of the Bible and the doctrines of the Roman Catholic church.

Of his two works, the first, *Économie politique chrétienne ou recherches sur la nature et les causes du paupérisme en France et en Europe et sur les moyens de le soulager et de le prévenir* (3 vols. 8vo, 1834), as the sub-title shows us, only discusses indigence, charity, and benevolence.

He seeks to found political economy on new principles in opposition to those which the economists —especially in England—with whom he couples J. B. SAY, have taken as the bases of their works. He pities France for having undergone "the great catastrophe of the revolution of 1789," which he attributed to the anti-religious and anti-monarchical spirit diffused through that country, and he foretells for England "a catastrophe inevitable, more or less near, and without doubt terrible." Besides these faults, resulting from the spirit of the system which inspired their author, there is a great deal well said in his work, and which clashes, though unconsciously, with his expressed views. He made an exception among his countrymen, which should be noticed, in favour of MALTHUS, declaring that this author "proclaimed sorrowful though striking and serious truths."

Villeneuve-Bargemont's second book—*Histoire de l'Économie politique, ou Études historiques, philosophiques et religieuses sur l'Économie politique des peuples anciens et modernes* (2 vols. 8vo, 1841), is—even more than Blanqui's work with a nearly similar title—rather a history of facts than of ideas.

The economic literature referred to in this work shows wide reading compared to that of Blanqui, and is on this account interesting to study; unfortunately the author cannot persuade himself to break with his religious beliefs, and he too readily subordinates to these the principles of his science. Thus he reproaches the author of the *Theory of Moral Sentiments* for having omitted any consideration of moral and religious ideas in his *Wealth of Nations.* "Thus it is that modern political economy arose" —in it products are no longer made for man, but man for products. In a word, though sentiment, according to Villeneuve-Bargemont, should prevail, cold reason is the rule. But the author had happier inspirations than these. Preferring, from the religious and moral point of view, agriculture to manufactures, he assisted in founding, in 1822, the celebrated model farm at Roville (Vosges), which was directed by Mathieu de DOMBASLE until his death in 1843. A. C. F.

VILLERMÉ, LOUIS RENÉ (1782-1863), born and died at Paris. Patient and industrious, an acute observer, an able theorist, striving to reconcile, as far as possible, the requirements of the present with economic principle, Villermé had a large share in introducing the law of 12th March 1841 into France, amended 19th May 1874 and 2nd November 1892. This law aimed at the protection of children employed in factories, and to bring about similar good results to those produced in England by the acts of 1833, 1844, and 1878 (see FACTORY ACTS).

Having been directed by the Institute (*Académie des Sciences morales et politiques*), of which he had been a member since 1832, to enquire into the condition of factory workers, he visited the principal industrial centres of France, and brought out, in 1840, his *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine et de soie* (2 vols. 8vo). This work contained the results of enquiries made on the spot, and supplied information collected with the most commendable and conscientious impartiality. His conclusions were against invoking state intervention in favour of adults. Like Charles Dunoyer, whose liberal principles he adopted, he maintained that "nothing more can be done for workmen who rely on their own unaided efforts, and always keep their expenses within their means, and steadily lay by"; but he invokes the protection of the law for the children, those poor irresponsible beings whose sufferings he sympathetically describes, sometimes breaking into fierce indignation.[1]

The work quoted above is not the only book by Villermé deserving notice. He was also the

[1] At the present time this work is interesting from a historical point of view, as a description of the condition of the factory hands some half century since.

author of many reports on prisons, the movement of population, workmen's associations, CITÉS OUVRIÈRES, accidents caused by machinery, etc.

A doctor by profession, he early ceased to practise, and devoted himself to questions of public hygiene. During the 1832 epidemic of cholera in France, he resumed medical work, and courageously laboured among the sufferers, only ceasing his efforts when the scourge disappeared. A. C. f.

VILLES FRANCHES AND CHARTERED TOWNS. In the 13th century the kings of England frequently granted charters to English towns, which after receiving a charter usually became known as boroughs; but that word also applies to towns that were so called at the time of the Domesday survey, as Totnes and Barnstaple. The charters conferred many and various privileges; some were much wider and more extensive than others. Sometimes they were only granted by reference; thus the charter to Hartlepool (1201) conferred on the burgesses there the same liberties and franchises as were enjoyed by the burgesses of Newcastle-on-Tyne. In France such chartered towns were known as *Villes Franches*.

The privileges enjoyed by burgesses have been classified by Sir F. Pollock and Professor Maitland as follows: (1) Privileges of jurisdiction, such as the right of not being impleaded except in the courts of the BOROUGH; or the franchise of the return of writs, which were executed by the bailiffs or other officers of the borough instead of by the sheriff of the county. (2) Privileges of tenure, such as the right of disposing of land by will. (3) Mercantile privileges, such as freedom from toll outside the borough. (4) Power to farm the borough—that is, to take the borough tolls, to receive the profits of the borough courts, and the rents which before the grant were paid to the king. (5) Power to elect officers such as coroners and bailiffs, or a mayor; but it should be noticed that a MAYOR was not an essential officer of a borough. (6) Power to make bye-laws, though these were usually of narrow application. (7) Certain limited powers of self-taxation. (8) Power to form gilds merchant to maintain the mercantile privileges granted by the charter.

These privileges were not always enjoyed together; they were often granted by different charters. Nor did the grant necessarily make a borough; many manors enjoyed most of the usual privileges, but not the title of a borough.

During the 13th century, and especially during the reign of Edward I., many new boroughs were created, but afterwards this happened less frequently. As government became more centralised and the incidents of the feudal system less grievous, there were fewer advantages to be gained by these privileges. It has been stated that Edward I. granted charters as part of a settled policy; he certainly granted a large number to small but rising towns, such as Melcombe Regis in Dorsetshire. But his charters were of the same form as those of earlier kings; the one granted to Melcombe Regis (1280), for instance, was little wider than the one which King John granted to Northampton (1200). They, no doubt, did much to develop trade and industry; but it is probable that a charter was usually granted for pecuniary rather than political reasons; the king sold and the burgesses bought privileges (see GILDS).

[Pollock and Maitland, *History of English Law*, Cambridge, 1885, 8vo. — Maitland, *Domesday Book and Beyond*, Cambridge, 1897, 8vo. — Maitland, *Township and Borough*, Cambridge, 1898, 8vo. G. I. T.

VILLES NEUVES. In the 13th century a large number of towns were built in the south of France upon a certain definite plan; they are called Villes Neuves. Their principal streets all ran in the same direction, and were connected with one another by narrower lanes at right angles to them, so that the houses stood upon rectangular plots. There was usually a large square in the centre of the town for a market-place, but in one corner of it there was a church and graveyard. The two principal streets did not run through the square, but passed along two sides of it. Montpazier in the department of Dordogne is an excellent example of such a town. They were built to encourage commerce and were free from the jurisdiction of the neighbouring feudal lords, who looked upon their growth with much jealousy. They also enjoyed other extensive liberties and privileges. Most of them were built by Edward I. in Aquitaine; but similar towns had been founded in France before his time. Some towns of this nature were also built in England, of these Winchelsea and Kingston-upon-Hull are good instances.—Turner, *Domestic Architecture in England*, Oxford, 1851, 8vo. G. I. T.

VILLIAUMÉ, NICOLAS (1818-1877). This economist deserves notice as an early disseminator of the doctrines of State Socialism, at that time hardly recognised in France.

He published several historical works, as *Histoire de la Révolution de 1789*, and the *Nouveau traité d'Economie politique*, 2 vols. 1857, which passed through two editions. He maintained in this work the arguments in favour of government interference, progressive taxation, the suppression of the power of bequest to collateral relations, and the limitation of the rate of interest. These views, though scarcely heretical, drew upon him a severe admonition from Monsieur Hippolyte Passy in a report to the *Institut* (see *Journal des Économistes*, 15th August 1857), and a very flattering letter from John Stuart Mill. C. G.

VINCENT, J. C. M. DE. See GOURNAY.

VINGTIEME. One of the most obvious defects of French finance before the revolution was the exemption of the privileged classes

from direct taxation. The injustice of the system was strikingly depicted by VAUBAN in the DÎME ROYALE, in which he advocated the substitution of one universal tax on income in place of the existing imposts. The book was burned and the author disgraced, but the government did not forget the lesson which it so bitterly resented. In 1710 DESMARETS, the controller-general, reduced to great financial straits by the war of the Spanish Succession, induced the king and council to impose a *Dixième* based on the proposal of Vauban, not instead of, but in addition to, all the existing taxes. By the edict of 10th October all incomes, whatever their origin, and whatever the rank of the holder, were to pay the tax; the assessment was to be based on the returns of the tax-payers; all disputes were to be decided by the intendants, subject to an appeal to the royal council. No such blow had yet been struck at the edifice of privilege in France, and a cry of indignation was raised by nobles, clergy, and the official classes. As usual their agitation was successful. The clergy soon induced the pious king to grant them a formal exemption. One after another most of the powerful corporations, the *pays d'états*, and many of the larger towns, arranged to pay a commutation in place of a direct assessment.

The *dixième* was abolished in 1717, but as soon as war began its revival was at once considered necessary. Thus it was reimposed from 1733-1736 for the war of the Polish Succession, and again from 1741-1749 for the war of the Austrian Succession. The expenditure in this latter war was enormous; and though the military expenses were reduced after the peace of Aix-la-Chapelle, the burden of interest on loans had so enormously increased that MACHAULT, the controller-general, found it impossible to conduct the government without some other direct tax in addition to the TAILLE and the CAPITATION. But the *dixième* was still detested by the privileged orders. It had always been regarded as peculiarly a war tax, and the king had formally promised its abolition on the termination of hostilities. In these circumstances Machault determined to get rid of the name *dixième*, but to keep the tax itself while reducing the nominal charge by a half. He reckoned that if the exemptions and commutations were abolished the *vingtième* would bring in almost as much as its predecessor, and that its collection in time of peace would render possible the gradual reduction of the public debt.

Accordingly in May 1749, a royal edict substituted the *vingtième* for the *dixième*, and ordered its imposition upon all classes, privileged and non-privileged. On the outbreak of the Seven Years' War in 1756 a second *vingtième* was imposed, and in the later years of the war a third, but this was abolished in 1764. The *vingtièmes*, though always unpopular, were undoubtedly the fairest of the direct taxes in France. Adam SMITH (bk. v. ch. ii.), in discussing the reform of French finance, suggests the abolition of the TAILLE and the CAPITATION and the collection of an equivalent revenue by increasing the *vingtièmes*. Undoubtedly such a measure would have remedied some of the chief grievances of the lower classes. But it would be a mistake to suppose that the equality of incidence prescribed by the edict of 1749 was carried out in actual administration. The clergy were successful in maintaining the exemption they had enjoyed from the *dixième*, and the *pays d'états* and many corporations succeeded, after a lengthy struggle, in securing their right to compound, and their composition was far below their real obligations.

The only incomes which were at all regularly taxed were those derived from real property, and Adam Smith compares the *vingtièmes*, which should have been an INCOME TAX, to the English LAND TAX as settled under William and Mary. But perhaps the worst abuse arose from the private negotiations by which the nobles secured very advantageous terms from the royal officers. CALONNE admitted that the tax would have brought in twice as much but for the favour accorded to the nobles. The letter from a noble to the intendant of his district has been frequently quoted: "Your sensitive heart will never allow a father of my rank to be strictly taxed for his twentieths like one of the common people." Thus the principle of inequality, which in France seemed to be irresistible, succeeded in affecting a tax which had been originally imposed with the greatest parade of equality.

[Clamageran, *Histoire de l'Impôt en France*, tome III.—Gasquet, *Précis des Institutions de l'Ancienne France*.—Adam Smith, *Wealth of Nations*, bk. v. ch. ii.] R. L.

VIOLET, THOMAS (fl. 1635-1662), was a 17th century free trader. The *Advancement of Merchandise* (1651), republished as *Mysteries and Secrets of Trade Affairs* (1653), was, like Potter's *Humble Proposals* (1651), dedicated to the council of trade whose deliberations he had, since the 20th August 1650, been ordered to assist. The cardinal principles of his book—"Let every man come in to trade according to their skill,"—"Let no man have a greater privilege than another"—were aimed at the privileged trading companies whose privileges, he said, raised imports and exports some 30 per cent in price, and thereby impoverished "the general" (consumer) "for the benefit of the few" (producers), and enabled foreigners to undersell English producers.

The reasoning was inspired by Sir E. Sandys (1604) (*Journal of House of Commons*, i. 218), who was director of monopolising companies most of his life, and by MISSELDEN who denied that

exclusive privileges meant monopoly (*Free Trade*, 1622); I. R.'s *The Trades Increase* (1615), p. 51, and Brent's *Discourse* (1645), anticipated Violet's conclusions. Three extensions of these principles were more or less original: (1) the abolition of "alien customs"—a device tried in 1539 (Schanz, *Englische Handelspolitik*, vol. i. pp. 86, 372); (2) the plantation of foreign capitalists and artificers, and their NATURALIZATION (*q.v.*), with power to buy land—this scheme was inspired, not by Francis Bacon, whose suggestions were dictated by an old-world contempt for traders (*Works*, ed. Spedding, vi. 449), but by those twin panegyrics on trade, H. ROBINSON'S *England's Safety in Trades Encrease* (p. 18) and L. ROBERTS' *Treasure of Traffike* (p. 14); (3) his policy of "free ports," whence imports could be re-exported without duty, had been anticipated by James I.'s and Charles I.'s dispensations (Misselden's *Circle of Commerce*, pp. 121, 127; 16 Car. I. c. 25, 29, 31), and by Robinson's *Briefe Considerations* (1649), and MUN'S not yet published *English Treasure by Foreign Trade* (p. 21), and was endorsed by B. W.'s *Free Ports* (1652), the author of *The Merchants' Remonstrance* (1659), and in a tentative way by the legislature in 1656 (Scobell's *Parliament Acts*, p. 388) and 1662 (14 Car. II. c. 11, §§ 25, 27). MADDISON (1655), like Robinson in his earlier works, also urged free ports, but not for aliens. The object of this policy was to divert the carrying trade from Holland.

In advocating the prohibition of or high duties on imported luxuries, a political lent, a bank, and mercantile courts, he followed ROBINSON (*q.v.*), but his scheme for the latter is more matured than those of Robinson, Roberts (1641), Philopatris (1651), LAMBE (1657), the author of *The Merchants' Remonstrance* (1659), or CRADOCKE (1660), and may be compared with CHILD'S scheme.

He also wrote pamphlets, *e.g. Humble Declaration* (1643), *Proposals* (1656), *True Discovery* (1659), *Appeal to Cæsar* (1660), in support of the most reactionary bullionism; and in these he often borrows the language of MALYNES. Not that he did not know better (Cal. of State Papers, Dom. Ser., 1651-52, p. 25), but penal laws against melting down and exporting bullion had been meat and drink to him. Persecutor by taste—whether of Jews or the East India Company—and goldsmith by trade, he had smuggled bullion (*ib.* 1661, p. 13), then prosecuted his fellow-smugglers in the Star Chamber (1635-43), and had played these same tricks under the protectorate (*ib.* 1659, p. 273), and his sinister advocacy of bullionism—including royal dispensations and Star Chamber prosecutions—in his *Appeal to Cæsar* (1660) doubtless contributed to the anti-bullionist reaction of 1663. Like other bullionists of that date he wished also to penalise the export of corn, wool, leather, munitions of war, etc. His resistance to milled coin, *Answer to Libels of Blondeau*, 1653, and his advocacy of royal exchangers (see EXCHANGER ROYAL), and private coinages of copper, were merely interested.

[SNELLING, *View of Silver Coin*, pp. 43, 44. *View of Copper Coin*, p. 35.] J. D. R.

VIRGA. The steward of a MANOR, when admitting a new customary tenant, usually handed to him a rod (*virga*), received from the out-going tenant, as a symbol of the transfer of rights, and an entry being then made in the court roll, the transaction was complete. This custom has descended to modern times. R. H.

VIRGATE. One-fourth of a HIDE, which was the Domesday unit of assessment. The hide cannot be viewed as a measure of surface of land, for it really expressed the value as regards taxation of that portion of 120 acres which was in cultivation during the current year. This would vary according to the mode of working the land. Under the two-field system it may be regarded as the tax value of sixty acres. Under the THREE-FIELD SYSTEM (*q.v.*) it would be the equivalent on eighty acres. The share of pasture land annexed to each holding is thus not reckoned in the acreage. An average virgate was therefore about thirty acres scattered in strips over the common fields of a manor; but there were great variations in some places. It was the usual holding of a VILLEIN. From fifteen to twenty acres of it would be ploughed each year, and a proportion of the pasture land and waste would be held with it. R. H.

VIRGILIO, JACOPO (1824-1891). Virgilio taught for many years at the technical high school of Genoa, and founded and directed the higher school of commerce in that city.

Virgilio left several economic works—chiefly practical in nature; of these the principal is on emigration; he advocates spontaneous and individual emigration, which he considers very advantageous, and he shows the objections to the steps taken by governments to prevent emigration. In another work on the fundamental conception of economics, he combines a dissertation on the theory with the modern scientific train of thought, giving especial importance to the inductive method.

Virgilio in his other works discusses the merchant navy, railways, and the history of trade with much ability.

Delle migrazioni transatlantiche degli italiani, 1868.—*La questione dell' emigrazione*, 1874.—*Principii di economia politica*, 1865-66.—*Concetti fondamentali della scienza economica*, 1882.—*Storia del commercio*, 1891. U. R.

VIRGINIA COMPANY, THE. This company took its origin from a charter granted by Queen Elizabeth to Walter RALEGH, in 1584. The charter authorised him "to discover such remote heathen and barbarous lands, not actually possessed by any Christian prince nor inhabited by Christian people, as to him. . . shall seem good," with licence to remain there and to fortify them, notwithstanding the statutes against subjects departing the realm. Full licence was given "to take or lead such of our subjects as shall willingly accompany him," and to employ such shipping, etc., as might be necessary. Enjoyment was granted to Raleigh and his heirs of "all the soil of such lands or towns in the same," the fifth part of the gold

and silver obtained being reserved to the crown. The land was to be held by homage. The conception of "Greater Britain" was involved in the clause conceding to the settlers and their children "all the privileges of free denizens and persons native of England." The widest legal jurisdiction over life and property was granted to Raleigh and his heirs. In a word, a tributary kingdom was created. Armed with these prerogatives Raleigh despatched two vessels on a voyage of discovery in the spring of 1584. They took possession of the island of Roanoke, five miles from the coast of North Carolina, and returned in September with a glowing account of their acquisition. Raleigh thereupon equipped an expedition consisting of "a fleet of seven sailes with one hundred householders and many things necessary to begin a new state," which left Plymouth in April 1585 under the celebrated Sir Richard Grenville. The territory to be colonised was already designated by the name of Virginia, as a compliment to the queen. The settlers disembarked at Roanoke, and explored the coast of the mainland, but scarcity of provisions and the hostility of the natives caused them to re-embark for England with Sir Francis Drake, who at the head of an English fleet anchored at the island in June 1586. In 1587 Raleigh made an effort to retrieve this disaster. He granted a charter of incorporation to thirty-two persons, nineteen of them merchants of London, under the style of "Governor and Assistants of the city of Raleigh in Virginia." His purpose was to establish a colony at Chesapeake bay, and 150 settlers were despatched on board three ships. They returned to Roanoke, intending to pick up some men who had been left there by Sir R. Grenville, and with them to proceed to Chesapeake Bay. The men were not to be found, and after a sojourn at Roanoke of more than a year this colony was massacred by the Indians. Thus ended the Virginia Company. Its work was afterwards taken up with more success by the London Adventurers' Company, called also the South Virginia Company, which received a charter from James I. in 1606. The rest of Virginia—at this time the name assigned to the vast territory between the thirty-fourth and forty-fifth degrees of north latitude—was assigned to another chartered company called the PLYMOUTH ADVENTURERS. The modern Maryland, Virginia, and Carolina fell to the first—Pennsylvania, New Jersey, New York, and New England to the second company.

[D. Macpherson, *Annals of Commerce*, London, 1885, vol. ii.—E. Edwards, *Life of Sir W. Raleigh*, London, 1888, vol. i.—J. A. Doyle, *The English in America*, London, 1882, vol. i.—G. Bancroft, *History of the United States*, New York, 1884, vol. i.—J. Winsor (ed.), *History of America*, London, 1886, vol. iii.—G. Cawston and A. H. Keane, *The early Chartered Companies*, London, 1896.] I. S. L.

VIRICULTURE. Under this name M. de Molinari proposes the foundation of a new branch of science to be based on data provided both by moral sciences such as economics, and by natural sciences such as biology. This word has scarcely yet hitherto been used in French; it is formed on the model of such words as *agriculture*, *apiculture*, *viticulture*, etc., which are often met with in French literature.

Premising that we now witness a phenomenon exactly opposite to that which excited the fears of MALTHUS, namely the stationary or even decreasing tendency of population in several nations of Europe, accompanied by a parallel tendency towards the physical and moral deterioration of the race, M. de Molinari suggests that the threefold object of this new science of the cultivation of man ought to be the investigation and study of the means by which—(1) the numbers of population might be adjusted to its means of subsistence, without legally interfering with liberty of marriage and of sexual intercourse; (2) the progress of human deterioration might be arrested, and the standard of the moral and physical qualities of mankind might be raised; and (3) prostitution might be suppressed, or at least circumscribed within the narrowest possible limits.

[G. de Molinari, *La Viriculture*, Paris, 1897.] E. Ca.

VISA. The financial expedient known as the *visa* was only brought into operation after the downfall of John LAW. It was a violent reaction from his policy. The decree which established it appeared 26th January 1721; PÂRIS DUVERNEY was entrusted with its execution. He had, the year before, in 1720, sought to undermine the SYSTÈME, and to compete with it by establishing the *anti-système*, but, by an arbitrary act, Law had absorbed this to the advantage of the *système*. Hence the natural animosity of Pâris Duverney to Law can be understood, though he could not show this till the removal of Law from France left him a free field.

The *visa* consisted in making an inventory of every description of the property of those who, either directly or indirectly, had shared in the profits of the *système*. It was needful to trace their right of possession back to its source, and to classify the property according to this complicated investigation.

It was spoliation legally organised, rigorously carried out, or rather, what was worse, under cover of protection and favouritism.

The decree of 26th January 1721 ordered that all the contracts for income from the state—both perpetual and life annuities—the shares of the India Company, all the certificates of bank accounts, accounts of deposits, all the bonds, contracts for annuities, as well as the notes of the royal bank, in fine, all the proofs of personal property created by the *système*, should,

within two months, a time which might be extended to the 30th June, be presented before a commission to be appointed by the king. The accounts which were rendered from the 1st to the 15th of July were, as a commencement, to be reduced by a third; those which were rendered from the 16th to the 31st of July by two-thirds. If not presented before the last date mentioned they lost all value.

Every one was obliged to declare by what title they had acquired the securities, and what value they had given in exchange for them. As may be supposed, a severe drop in prices followed immediately. The shares of the India Company, which, in 1720, had been worth 27,000 livres, fell to 30 livres, and even, it is said, to six livres, the nominal value being 750 livres. Still Pâris Duverney was not satisfied.

The *Hommes Nouveaux* (*les Mississipiens*) might escape by concealing their wealth.

The notaries were obliged, within a month, to produce copies of all contracts passed since 1st July 1720. As gold and silver retained their value, what was held thus could only escape by being carried out of the country. Denouncements were frequent, and the property was often confiscated before crossing the frontier.

This was to the advantage of the countries north and east of France, where many people prudently sought a refuge for themselves and their property. Law and his *système* met, as may be seen, their match in Pâris Duverney.

The depositions before the commission actually reached 511,009 in number, and in value, 3,060,474,441 livres, of which amount 2,233,786,719 was in Paris. According to their character they were divided into five categories, each of which was further divisible into fifteen classes, according to the manner in which the property had been acquired.

All, more or less, were submitted to reduction according to a scale—small sums less than large, not so much out of consideration for small properties, but because the large were easier to get at, and brought more profit to the operation of the *visa*.

Finally, the above-mentioned sum was reduced to 1,613,911,481 livres, the final amount. But the reductions were far from being proportionate. The figures varied from the absolute admission to the absolute rejection of the claim.

To crown the work of Pâris Duverney, and to reach those who had hitherto been able to escape, the council of state, on 15th September 1722, issued a decree enforcing an additional poll-tax, namely the levy of a fine on all immovable property belonging to the *hommes nouveaux*, which produced 187,893,661 livres. The expenses of the *visa*, another loss to the country, were 9,045,874 livres.

[Du Hautchamps, *Histoire du système des finances sous Louis XV.*, 6 vols. 12mo, 1739, The Hague.—Du Hautchamps, *Histoire générale et particulière du visa*, etc., 9 vols. 12mo, 1743, The Hague.—A. Thiers, *Histoire de Law*, Paris, 1858 (last edition); 18mo.—Alph. Courtois, *Hist. des banques en France*, 2nd ed., Paris, 1881 (pt. i.).]

A. C. f.

VISA (as to a passport). Some countries (*e.g.* Russia) require that passports for the use of travellers wishing to enter their territory should be certified by their minister or consul. The minister or consul's certificate on the passport is called the "visa." E. S.

VISSERING, Simon (1818-1888), born at Amsterdam, studied law and philology at Amsterdam and Leyden (1835-42); for some time practised as a lawyer, was editor of a newspaper (1847-48), and in 1850 was appointed professor at the university of Leyden; during two years, 1879-81, he stood at the head of the department of finances.

His first economical work was a series of articles on the anti-corn-law movement in England, which he thoroughly approved; when the reform was accomplished he wrote its history.

His principal work is *Handboek voor practische staathuishoudkunde* (Manual for Practical Economy), Amsterdam, van Kampen en zoon, 1860-65, 1872, and 1878. In this and his other writings he shows himself an adherent of the school of Bastiat, whose theories we meet with as well in the speech which Vissering delivered in 1850 on "Liberty in Economy," as in his last article "Prosopographia socialistica," combating modern state-socialism. A. F. v. L.

VIVANT DE MÉZAGUES. See Mézagues.

VIVES, Juan Luis (1492-1540), one of the most notable humanists (see Humanism) of the 16th century, deserves a place in the history of economic thought for his treatise *De subventione pauperum*, written in 1524 and printed in 1532.

In this tractate, addressed to the magistrates of Bruges, who had consulted him on the subject, he proposed a complete reform of the existing methods of poor relief. The destitute should be properly registered and classified; those unable to work should be provided for in well-administered hospitals and almshouses; those able to work should be found employment; and mendicancy should be prohibited. The work is significant of the new current of thought on the subject of the relief of the poor which was making its way in western Europe, and itself contributed to still further stimulate the work of reform.

The dedicatory letter is dated 6th January 1526 (*i.e.* 1525). The *De subventione pauperum libri duo*, was printed at Lyons in 1532. It will be found in both the collected editions of Vives' *Opera*, that in 2 vols., Basel, 1555 (ii. 889-922). and that in 7 vols., Valencia, 1782-1790 (iv. 420-494). It was translated into French, Italian, and Spanish: a modern reprint of the Spanish version

is given in *Biblioteca de autores españoles*, vol. lxv. (1873).

[Of modern writers, the first to call attention to Vives' tractate was Franz Ehrle, in his *Beiträge zur Geschichte u. s. w. der Armenpflege* (Freiburg, i. B. 1881), who is followed by Ashley, *Economic History*, i. pt. ii. 343. The best biography of Vives is that by Rudolf Heine, prefixed to *Vives: Ausgewählte pädagogische Schriften* (*Pädagogische Bibliothek*, xvi., Leipzig, 1882). The traditional account of Vives' residence in England is there subjected to a necessary criticism]. W. J. A.

VIVORIO, AGOSTINO (1744-1822). An abbé, born at Vicenza. He studied mathematics, philosophy, and economics, and was secretary of the Italian scientific society called *Dei Quaranta*.

Vivorio was the author of numerous pamphlets on various subjects, among others one on corporations, written for the prize competition at the academy of Verona (see MARACHIO). In this Vivorio briefly and clearly discusses the evils of corporations; he recognises their merits in the past, and the good side they still preserved, observing, however, that this was entirely destroyed in his day by abuses and disadvantages. He concludes by advocating the absolute abolition of all corporations, and granting the greatest freedom in the pursuit of all industries.

Although this work is far inferior to that of VASCO, it deserves notice for its clearness and fluent explanations.

Sopra i corpi delle arti—risposta ad un quesito accademico, 1792 [Alberti, *Le corporazioni d' arti e mestieri, etc.*, 1888]. U. R.

VOLTAIRE, FRANÇOIS MARIE AROUET DE (1694-1778). In his long and active literary career Voltaire, whose life is too well known to require narration here, often touched on topics connected with economics. He had never studied them, however, systematically, and simply expressed the superficial commonsense views of his times, upholding with the same sparkling wit both truth and fallacy. Writing under the impulse of the moment, he frequently contradicted his former assertions. Thus we find him upholding the theory of the balance of trade and of the necessity of preventing the export of money, though at other times he remonstrated against trammels imposed on the corn trade. He saw no great harm in alterations of the currency, and only insisted that they ought to be gradual, as a nation which is its own creditor does not, according to his views, impoverish itself. Heavy debts, as well as a free spending of public and private money, are incentives to industry. The two thousand millions of debts bequeathed by Louis XIV. to France, the ruin of many families, the resulting bankruptcies, and the excessive taxation, were simply the "misfortunes of a happy nation" (*Observations sur Law, Melon, Dutot, le Commerce, le Luxe, les Monnaies et les Impôts*). At other times he sneered at the enthusiastic promoters of population. "The principal point is not to have an excess of men, but to make those we have as little unhappy as possible" (article "Population" in the *Dictionnaire Philosophique*). With his strong sense of equity in administration, he consistently claimed an equitable apportionment of taxation, and became, towards the end of his life, a warm and sincere admirer of TURGOT: see in the *Correspondance* the letter addressed to the Abbé BAUDEAU in 1775, and in his poem, the *Épître à un Homme*, addressed to Turgot after his fall.

Only a few years before, in 1772, in a note appended to his satire *Les Cabales*, he had been very bitter against the ÉCONOMISTES (*q.v.*), calling them "people who, being bankrupt themselves, teach the art of becoming rich through trade, travel round the world without leaving their closet, and, never having owned a plough, fill our granaries with corn." It is also against them that, almost a quarter of a century before, he had composed his celebrated tale, *L'Homme aux quarante écus;* in fact, the only one of his publications on a distinctly economic subject. The dogmatic and often pompous and heavy style of the PHYSIOCRATS had probably bored him, as well as their abstract and subtle mode of reasoning. *L'Homme aux quarante écus*, directed against MERCIER DE LA RIVIÈRE'S (*q.v.*) *Ordre naturel et essentiel des sociétés*, is the history of the owner of a small estate yielding a net income of forty crowns a year, who has been frightened by the appearance of several edicts promulgated "by a few gentlemen who, having some leisure, have undertaken to govern the kingdom from their firesides." In the preamble they stated that the government "being by divine- and birth-right co-proprietor of his land, he at least owes it one-half of his income," and that "as all wealth proceeds from land, land is to bear the whole burden of taxation." Overflowing with wit and sarcasm, the book consists of conversations between the man with the forty crowns and the most motley succession of people, and, with the author's usual unfairness, is not free from misrepresentations and gross exaggerations of Mercier's real meaning.

In various passages of the *Dictionnaire Philosophique* (article on *Natural Law*), Voltaire, in the insulting controversial tone which he frequently adopted, rails at ROUSSEAU'S theories on the illegitimacy of private ownership in land. How little of an optimist he was may be gathered from his *Candide ou l'Optimisme*.

[On Voltaire's social and economic opinions see the article Voltaire in the *Nouveau Dict. d'Écon. Politique* (Paris, 1892), and on his *Idées Générales*, Faguet's *Études littéraires sur le dix-huitième siècle* (pp. 219-239).] E. Ca.

VOLUME OF MONEY. See MONEY.

VOLUNTARY DEED. In English law a promise not made for valuable consideration is said to be voluntary. Such a promise is not

legally binding unless couched in the form of a deed under seal. Even then it is not binding if made in restraint of trade. English courts do not enforce specific performance of a voluntary promise under seal, but the person claiming under such a promise has a remedy in damages.

F. C. M.

In case of the insolvency of the estate of a deceased debtor, persons claiming under voluntary deeds are postponed to creditors whose claims are supported by valuable consideration, but they are preferred to legatees.

A voluntary disposition of property, whether by deed or otherwise, may be declared invalid under the statute of 13 Elizabeth, if it was made with the intention of "delaying, hindering, or defrauding creditors." And under the Bankruptcy Act 1883, a voluntary settlement may be declared void: (*a*) if the settlor be adjudged bankrupt within two years from the date of the settlement; (*b*) if he be adjudged bankrupt within ten years from such date, unless he or his representative can prove that at the time of making the settlement he was able to pay all his debts without the aid of the property comprised in the settlement. Another statute of Elizabeth was, prior to 1893, interpreted as meaning that a voluntary conveyance was defeated by the subsequent conveyance of the same property to a purchaser for valuable consideration, but the Voluntary Conveyances Act 1893 has repealed this interpretation; a voluntary conveyance of land effected with a fraudulent intent may, however, still be defeated under the same statute. A deed by which property is conveyed or settled in contemplation of marriage is deemed to be made for valuable consideration.

E. S.

VON BIELFELD, JAKOB FRIEDRICH (1717-1770), belonged to a family of Hamburg merchants, and filled his sphere in a practical public life. As a young man he travelled through Holland, England, and France, and stayed at universities in these countries. In 1739 he received some notice from Frederick the Great, at that time crown prince, who shared his taste for the French language and literature, and was drawn by him into the circle of friends at Rheinsberg. Later he was employed by the king as a diplomatist, and in this capacity spent some time in London. In 1747 he was appointed curator of all the universities of Prussia by Frederick II.

In 1758 he withdrew to his country seat at Treben in the duchy of Altenburg, to devote himself quietly to literary work. The result of this was the publication, in French, of his *Institutions politiques*, 2 vols., 1760, a German translation of which appeared a year after, under the title, *Des Freiherrn von Bielfeld Lehrbegriff der Staatskunst*, 1761. This work is dedicated to the brother of the king, Prince August Ferdinand, whom Bielfeld had been summoned to teach. The author explained that he aimed at giving instruction to statesmen concerning the objects of their vocation, not only in the art of government, but in all things connected with political economy.

The subject of this clearly-written book was *Politische Oekonomie*, which expression appeared here for the first time in German literature (after the French *Économie politique*). It dealt almost exclusively with French authors, as VAUBAN, St. PIERRE, MELON, MONTESQUIEU, FORBONNAIS, DUTOT, Nichols (DANGEUL), etc. The practical details were drawn from the *Dictionnaire du commerce* of SAVARY. COLBERT was described as the "greatest financier in history." The predominating idea in the work appears in the following passage imbued with the theories of the MERCANTILE SYSTEM (*q.v.*). "The political system of Europe at the present day is such that one state can only raise itself at the expense of some other, either by conquest or by trade." In these matters German authors did not appear to Bielfeld to have any part. In the chapter on *Political Arithmetic* (see ARITHMETIC, POLITICAL), the ENGLISH SCHOOL is applauded for their labours in this science; particularly GRAUNT, PETTY, HALLEY, DAVENANT, HUME, etc. In this chapter two Germans are also mentioned, SÜSSMILCH and Kundmann. The *Institutions politiques*, soon translated into Russian and Italian, was an epoch-making work for German CAMERALISTIC SCIENCE, in so far as it drew this out of its national isolation and under the influence of foreign thought. The professor of cameralistic science at Frankfurt on the Oder, J. G. Darjes, wrote a preface to the second German edition of the work 1764. In a later edition, after his death, a third section on practical politics was added. He had foreshadowed the appearance of this in a concluding note to the second volume.

Bielfeld later published, *Lettres familières et autres*, 1763, and towards the end of his life issued a weekly periodical in German, entitled *Der Eremit*, Leipzig, 1767-1769.

["Éloge de Bielfeld," in *Nouv. Mémoires de l'Académie royale des sciences et belles-lettres, année 1770*, Berlin, 1772. —Roscher, *Geschichte der Nationalökonomik in Deutschland*, München, 1874. —*Allgemeine deutsche Biographie*, ii. 1875.]

A. O.

VOUCHER. See RECEIPT.

VUITRY, ADOLPHE (1803-1883), born at Sens, died at St. Donnin (Seine-et-Marne). He studied engineering first 1834, and afterwards changed his profession, graduating as doctor of laws 1838. He then entered the government employ, became governor of the bank of France 1863, president of the council of state 1864, chairman of the Paris, Lyons, and Mediterranean Railway 1871.

He retired from public life in 1870, and devoted his leisure to writing the historical works on the finance of France mentioned below, *Études sur le régime financier de la France avant la Révolution de 1789*, 3 vols. 8vo, 1876-1883, ending with the death of Charles V. (1380), he was not able to carry this to the accession of Louis XI. (1462) as he had planned. *Le désordre des finances et les excès de la spéculation à la fin du règne de Louis XIV. et du commencement du règne de Louis XV.*, 18mo, 1885 A selection from his numerous reports and speeches was published in 1887.

A. C. f.

W., C. See S. W. GENT.
W., J. See WORLIDGE, JOHN.
W., S. See S. W. GENT.
W., S. See STAFFORD, W.

WAGER POLICY. A policy of insurance on the life of a person in which the insured has no insurable interest is called a wager policy, and is void by virtue of a statute passed in 1774 (14 Geo. III. c. 48) (see INSURANCE, LAW AND PRACTICE OF LIFE). E. S.

WAGES.

Wages and Prices of Commodities, p. 634; Wages Fund, p. 636; Wages, Nominal and Real, p. 639; Wages, Purchasing Power of, p. 641; Wages Statistics, p. 643; Wages, Statistics of (in United States of America), p. 643; Wages of Women, p. 646.

WAGES AND PRICES OF COMMODITIES. In all cases wages quoted are what were earned by workers for work done, free from the influences of the allowance system, as far as it is possible to ascertain this. The act 9 Geo. I. c. 7 (1722), prohibited relief to those who refused to enter a workhouse, but the 36 Geo. III. c. 23 (1795), repealed that prohibition, and ordered that any industrious poor person should be entitled to receive relief at his own house; overseers were directed to give such relief as any justice or justices of the peace might order. When prices rose during the time of the CORN LAWS (sliding scale introduced by 9 Geo. IV. c. 60 (1828); importation having been generally prohibited by Robinson's Act, 1815; Corn Laws repealed

WAGES AND PRICES OF COMMODITIES, ETC., DURING THREE IMPORTANT EPOCHS OF ENGLISH (2) The transition period from domestic to mechanical production, and the times of the corn laws

	Descriptions and Occupations.	Period I.			Period II.			
		1720-1750.	1770.	1787.	1800.	1804-1808.	1808-1815.	1815-1823.
1	Woollen cloth weaver—Hand-loom—men	13s.-15s.	18s.-21s.	15s.-17s.	14s.-16s.	14s.-16s.	16s.-22s.	15s.-20s.
2	Power-loom—women	..	..	.	..	..	..	..
3	Worsted stuff weaver—Hand-loom	11s.-13s.	12s.-15s.	10s.-12s.	11s.-13s.	17s.-20s.	24s.-32s.	20s.-24s.
4	Power-loom	..	..	..	..	..	..	..
5	Woollen and worsted spinners—single wheel—(by hand) women	8s.-9s.	9s.-10s.	8s.-9s.	9s.-11s.	9s.-11s.	..	..
6	Woollen spinners—jenny—women	..	..	..	..	..	13s.-14s.	13s.-14s.
7	Mule—men	..	..	..	..	..	..	..
8	Worsted spinners—frame—spinners and drawers, women and girls (full-timers)	..	..	..	..	..	..	..
9	Woollen and worsted spinners (by hand)—children, 8-13 yrs. old	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.
10	Spinners, doffers, etc. (half-timers at machinery)	..	..	..	..	..	..	..
11	Woolsorters	24s.-26s.	24s.-26s.	26s.-28s.	26s.-28s.	28s.-30s.	28s.-30s.	28s.-30s.
12	Woolcombers (by hand)	15s.-18s.	16s.-20s.	16s.-20s.	18s.-24s.	16s.-24s.	16s.-24s.	16s.-24s.
13	Men—feeders of machine combs, etc.	..	..	..	..	..	..	..
14	Dyers—ordinary hands, slabbers, etc.	15s.-17s.	18s.-19s.	18s.-19s.	18s.-20s.	18s.-20s.	18s.-20s.	17s.-20s.
15	Cotton weaver (by hand)	8s.-9s.	8s.-9s.	8s.-9s.	8s.-9s.	9s.-10s.	12s.-14s.	14s.-18s.
16	(By power-loom)	..	..	..	..	..	..	..
17	Carpenters	20s.-23s.	20s.-23s.	20s.-23s.	20s.-23s.	23s.-24s.	23s.-24s.	23s.-24s.
18	Masons	22s.-24s.	22s.-24s.	22s.-24s.	22s.-24s.	23s.-26s.	23s.-26s.	23s.-26s.
19	Boot and shoe makers	20s.-23s.	20s.-23s.	20s.-23s.	23s.-26s.	23s.-26s.	23s.-26s.	20s.-23s.
20	Journeymen tailors (full week's work)	17s.-20s.	17s.-21s.	19s.-23s.	22s.-26s.	23s.-27s.	23s.-27s.	21s.-26s.
21	Colliers	12s.-15s.	12s.-15s. 7d.	12s.-15s.	14s.-16s.	14s.-16s.	14s.-16s.	16s.-18s.
22	Agricultural labourers	8s.-10s.	8s.-10s.	8s.-10s.	8s.-10s.	9s.-10s.	9s.-10s.	9s.-10s.
23	Common labourer (not agricultural)	11s.-14s.	11s.-14s.	11s.-14s.	13s.-15s.	13s.-15s.	13s.-15s.	13s.-15s.

1846), and taxation was increased to meet the ruinous cost of the great French war, wages were not allowed to rise; accordingly, the lot of workers was most deplorable. Magistrates took a merciful and charitable view of their powers, and published scales of relief. The allowance system was very general from about 1795 to 1834, until the enactment of the new poor law. The economic influence of the ALLOWANCE SYSTEM (*q.v.*), intended to assist the industrious poor, was very injurious to them. Wages actually paid able-bodied men were frequently only five or six shillings a week, but relief to the extent of four, five, six, or seven shillings, according to the size of a family, would be given out of rates. The wages quoted are not pauperised wages.

Wages in the woollen and worsted trades are quoted at length, because, together with agriculture, before the industrial revolution they employed three-fourths of the productive classes; their history affords a fair comparison of wages in the days of domestic production with those now ruling under the factory system.

It is not possible in a statement of this description, carried over a period now approaching two centuries, necessarily by different hands, following perhaps different methods, to speak with absolute certainty, but every effort has been made by personal inquiry and by the use of official sources, to obtain accurate information.

INDUSTRY. (1) Before the industrial revolution, in the days of domestic industry (1720-1780). (1800-1845). (3) The modern epoch of free trade and factory production (1845-1898).

			PERIOD III.						For notes see next p.
1823-1830.	1830-1836.	1836-1845.	1845-1855.	1855-1865.	1865-1870.	1870-1875.	1886.	1898.	
15s.-18s.	14s.-17s.	14s.-17s.	14s.-16s.	14s.-16s.	..	..	..	..	A
..	..	..	..	..	one loom 12s.-14s.	one loom 13s.-15s.	one loom 13s.-14s.	12s.-14s.	A
17s.-20s.	11s.-14s.	11s.-12s.	..	..	..	..	..	..	B
..	..	..	one loom 11s.-12s.	one loom 11s.-12s. 6d.	two looms 14s.-16s.	two looms 15s.-18s.	two looms 13s.-16s.	13s.-16s.	B
..	..	..	..	..	..	..	..	..	C
11s.-12s.	8s.-10s.	7s.-9s.	..	..	..	..	..	..	C
24s.-26s.	24s.-26s.	24s.-26s.	26s.-29s.	27s.-30s.	28s.-31s.	28s.-31s.	28s.-30s.	27s.-30s.	C
..	..	..	..	8s.6d.-10s.6d.	9s.-11s.	9s. 6d.-11s. 6d.	9s.-11s.	10s.-18s.	C
4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	..	..	..	..	..	..	..	C
..	..	..	..	2s. 6d.-3s. 6d.	2s. 6d.-3s.6d.	3s.-4s.	3s.-4s.	3s.-5s.	D
28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	32s.-37s.	D
16s.-24s.	16s.-24s.	14s.-24s.	..	..	..	..	..	..	E
..	..	..	..	15s.-17s.	16s.-18s.	16s.-18s.	16s.-18s.	22s.-27s. Women 18s.-16s.	E
16s.-18s.	16s.-18s.	16s.-18s.	17s.-19s.	17s.-20s.	17s.-20s.	19s.-22s.	17s.-20s.	18s.-22s.	
14s.-18s.	..	..	..	..	..	..	..	..	
..	..	..	four looms 13s.-15s.	four looms 14s. 6d.-16s.	four looms 15s.-17s.	four looms 16s.6d.-18s.6d.	four looms 15s.-17s. 6d.	15s.-17s. 6d.	
23s.-24s.	23s.-24s.	24s.-26s.	24s.-26s.	26s.-28s.	28s.-30s.	32s.-34s.	30s.-32s.	32s.-34s.	K
23s.-26s.	23s.-26s.	26s.-28s.	26s.-28s.	28s.-30s.	32s.-34s.	34s.-36s.	32s.-34s.	34s.-36s.	K
21s.-23s.	21s.-23s.	24s.-26s.	24s.-26s.	24s.-26s.	25s.-28s.	26s.-29s.	26s.-29s.	4½d. to 6½d. p. hour, wk. of 56 hours.	F
21s.-26s.	20s.-25s.	20s.-25s.	21s.-26s.	22s.-27s.	22s.-27s.	23s.-30s.	22s.-29s.	At end of 1893. Lower at end of 1895.	K
16s.-18s.	16s.-18s.	16s.-18s.	17s.-20s.	18s.-21s.	21s.-23s.	24s.-28s.	18s.-22s.	27s.-31s.	G
9s.-10s.	9s. 6d.-11s.	10s.-12s.	10s.-12s.	12s.-14s.	12s.-14s.	12s.-16s.	12s.-16s.	12s.-16s.	H
13s.-15s.	13s.-15s.	15s.-18s.	16s.-19s.	16s.-19s.	17s.-20s.	18s.-20s.	17s.-20s.	18s.-22s.	

WAGES AND PRICES OF COMMODITIES, ETC., DURING

	Descriptions and Occupations.		PERIOD I.			PERIOD II.			
			1720-1750.	1770.	1787.	1800.	1804-1808.	1808-1815.	1815-1823.
24	Wheat—mean av. per qr.		Average 51 years, 1700 to 1750, 35s. 9d. Highest 81s. 9d. Lowest 22s.		45s.	127s.	80s.	103s.	67s.
26	Butchers' meat (beef), per lb.	Retail Prices.	3½d.-4d.	3½d.-4d.	4d.-4½d.	6½d.-7½d.	9½d.-10½d.	9½d.-10½d.	9d.-9½d.
27	Fresh farmers' butter, per 16 oz.		6d.-6½d.	6d.-6½d.	7d.-8d.	12d.-14d.	14d.-15d.	16d.-17d.	14d.-16d.
28	New milk, per qt.		1d.-1½d.	1d.-1½d.	1d.-1½d.	2d.-2½d.	2d.-2½d.	2d.-2½d.	2d.-2½d.
30	Eggs.—No. for 1s. Summer		30-36	30-36	30-36	24-30	..	..	..
	Winter		16-20	16-20	16-20	12-14	..	..	..
32	Rents.—Workmen's cottages, per yr.		With garden plot 40s.-50s.	50s.	£3-£4	£4-£5	£4-£5	£5-£6	£4-£5
33	Agricultural rents, per ac.—Farms, fair average land		10s.-15s.	..	..	..	..	40s.-45s.	..
34	Oats per qr.		1750-1780 Av. abt. 15s. Highest 17s. Lowest 13s.	..	20 yrs., 1780-1799 Av. 18s. 8d. High. 27s. 6d. Low. 13s. 2d.	..	20 yrs., 1800-1821 Av. 29s. 4d. High. 44s. 6d. Low. 19s. 6d.	..	..
35	Cheese, per lb.		3½d.-4d.	3½d.-4d.	1½d.-5½d.	7d.-7½d.	7d.-7½d.	7d.-7½d.	8d.-8½d.
36	Board of working man.—Lodging, food, and washing, per wk.		5s.-6s.	5s.-6s.	5s.-6s.	7s. 6d.-9s.	..	..	..
37	English wool, per lb.—Lincoln half hog.		1703-1790 Highest 13d. Lowest 6d. Av. 8½d.	..	..	1791-1808 Highest 16d. Lowest 9½d. Av. 12d.	..	13¾d.	16¾d.
38	National Debt		1702 £12,767,225	..	1760 £102,014,018	..	..	..	..
39	Poor rate.—Per head of population—England and Wales		1760, 3s. 7d.	..	1785, 5s.	..	1802, 9s.	1813, 13s. 6d.	..

A Production by power-loom is about 110 yards cloth, by hand-loom it was about 50 yards.

B Production by power-loom, for woman minding two looms, will now be about six times more than by hand-loom. The high wages of weavers from 1800 to 1830 were occasioned because the new spinning machinery had increased supply of yarn at much greater rate than weavers could weave it, hence the enhanced demand for weavers, and increased value of their labour.

C It is difficult to estimate the increased production of machinery as compared with the primitive single wheel of 130 years ago. The number of spindles per frame or mule is being constantly increased, so also is speed. Nine shillings paid in wages will now produce at least sixty times more yarn than could be spun for same amount of wages 100 years ago. Children 100 years ago would work 10 hours a day for 4s. to 5s. 6d. a week, now they work 5 hours a day for 3s. to 4s. Production will be forty times greater for shorter hours than it was 100 years ago for longer hours.

D Woolsorting is, and always must be, a manual operation. Wages fluctuate very little.

E As in spinning, it is difficult to estimate increased production of machine wool combs. Sixteen shillings paid in wages will now produce sixty times more than the same amount of wages produced some fifty years ago. Machinery has reduced woolcombing from a skilled to an unskilled industry. Wages have fallen accordingly.

F Boot and shoe manufacture is now a "factory" industry. Before use of machinery a workman would

WAGES FUND. The theory of a wages fund, was during fifty years, 1820-1870, the accepted doctrine of English economists. The prevalence of this doctrine during this period contributed to a great extent to render the doctrines of political economy unpopular with the working classes; for, if the teaching of political economy on the subject of wages were true, any attempts which the working-class might make to gain better terms from their employers by means of trade-unions, or otherwise, were either fore-doomed to failure, or, if successful, did but benefit one particular class or section of the labouring classes at the expense of all the rest. The doctrine, as originally stated by MALTHUS, took the following form: "It may at first appear strange, but I believe it to be true, that I cannot by means of money raise the condition of a poor man, and enable him to live much better than he did before without proportionately depressing others in the same class. . . . But if I only give him money, supposing the produce of the country to remain the same, I give him a title to a larger share of that produce than formerly, which shows he cannot receive without diminishing the share of

THREE IMPORTANT EPOCHS OF ENGLISH INDUSTRY.—*Continued.*

			Period III.						
1823-1830.	1830-1836.	1836-1845.	1845-1855.	1855-1865.	1865-1870.	1870-1875.	1886.	1898.	
67s.	51s. 6d.	..	Av. 20 yrs., 1845-1864, 47s. 6d. per quarter. High. 74s. 8d. Low. 38s. 6d.	..	..	16 yrs. 1870-1885 Av. 47s. 4d. High. 58s. Low. 32s. 10d.	Highest and Lowest Prices quoted are the Highest or Lowest Yearly Averages.	10 yrs. 1886-1895 Av. 29s. 8d. High. 37s. Low. 22s. 10d.	
8d.-8½d.	8d.-8½d.	6½d.-7½d.	7½d.-9d.	8½d.-9½d.	9d.-10d.	10d.-11d.	10d.-11d.	8½d.-9½d.	
12d.-13d. 2d.-2½d.	11d.-12d. 2d.-2½d.	10d.-11d. 2½d.-3½d.	12d.-14d.	13d.-15d. 2½d.-3½d.	13d.-15d. 3d.-4d.	15d.-17d. 3½d.-4½d.	14d.-17d. 3½d.-4½d.	14d.-17d. 3d.-4d.	L
.. ..	.. ..	20-24 10-12	.. ..	.. ..	16-18 6-8	14-16 6-7	13-16 5-7	13-16 5-7	I
£4-£5	£5-£6	£5-£6	£6-£8	£6-£9	£7-£10	£8-£12	£7-£11	£8-£12	
..	30s.-35s.	..	30s.-35s.	..	35s.-50s.	35s.-45s.	30s.-40s.	20s.-35s.	M
20 yrs. 1822-1841 Av. 23s. 3d. High. 28s. 2d. Low. 18s. 1d.	..	..	20 yrs. 1845-1864 Av. 22s. 9d. High. 28s. 8d. Low. 16s. 5d.	..	..	16 yrs. 1870-1885 Av. 23s. 10d. High. 28s. 10d. Low. 20s. 3d.	..	10 yrs. 1886-1895. Av. 17s. 10d. High. 20s. Low. 14s. 6d.	
7d.-7½d.	7d.-7½d.	6d.-6½d.	7d.-7½d.	7½d.-8½d.	7½d.-8½d.	8d.-9d.	8d.-9d.	7½d.-8½d. (1895)	
8s.-9s. 6d.	..	..	8s.-9s.	..	..	11s.-13s.	10s.-12s.	10s.-12s.	
12½d.	13d.	13d.	12½d.	1855-1865 Av. 19d. Highest 27d. Lowest 13d.	17d.	20¾d.	1880-1885 Av. 11½d. Highest 18d. Lowest 9¾d.	1890-1895 Av. 9½d. High. 10d. Low. 9d.	
1820 £834,900,000	..	..	1837 £787,529,114	..	..	1884 £748,548,798	1897 £644,909,847		
..	1830, 10s. 9d.	..	..	..	..	1881, 7s.	1885, 7s.	1897, 6s. 8¾d.	

produce about 450 pairs a year, now the average is 1300 pairs.

G Net earnings, West Yorkshire.

H The agricultural labourer was better off, because of common right, allotments, and other privileges, 100 years ago, with a third less wages than he gets to-day.

I The price of fowls has risen accordingly: 100 years ago the price of a fowl was 9d. to 12d., now it is 3s. to 3s. 6d., for table use, poulterers' prices.

K In trades where, since the repeal of the combination and conspiracy laws and alteration in the law of settlement, workmen have combined, wages have perceptibly risen. Carpenters, masons, tailors, and colliers are examples of such rises; wages have also risen since in other industries. The combination laws were repealed in 1825.

L The minimum may be taken as summer, and the maximum as winter prices.

It is difficult to give a table for vegetables and market garden produce. Before the industrial revolution workmen mostly grew their own supplies; retail prices are now, however, fully 200 per cent higher than consumers could buy at in the open market, direct from the grower, 100 years ago.

Wages in all cases stated are per week. The rates of wages quoted are mainly those prevailing in the North of England, principally in West Yorkshire and Lancashire.

M Rent of good farms in corn growing districts (1898).

others" (*Essay on Population*, bk. iii. ch. v. pp. 333, 334). The assumptions which Malthus here makes—(1) that a certain fixed proportion, and no more, of the total food produce of the country will go to the labouring classes; and (2) that that total food produce is practically a fixed amount, so that any increase in the demand for it will simply raise prices without calling out any fresh supply, grew out of and were justified by, the exceptional circumstances of Malthus's own time, but had by no means universal validity. It is further to be observed that Malthus restricted his reasonings to the food-supply of the wage-earning classes, and makes no attempt to explain the principles by which the proportion of food that fell to the wage-earning classes was determined. From Malthus the doctrine was taken over by James MILL, who, however, adopts it with two important modifications—(1) he substitutes capital for food in the reasonings which he borrows; and (2) he assumes that it is the amount of capital, meaning by this food, raw material, and instruments or machinery, devoted to productive purposes, which determines the share of the national wealth the labouring classes have to

divide. His doctrine takes thus the following form:—"Universally, then, we may affirm, other things remaining the same, that, if the ratio which capital and population bear to one another remains the same, wages will remain the same; if the ratio which capital bears to population increases, wages will rise; if the ratio which population bears to capital increases wages will fall" (*Elements of Pol. Econ.*, ch. 2, § 2). In a later section he gives a proof that "Capital has a less tendency than population to increase rapidly." J. S. MILL, in his *Principles of Political Economy*, adopts, but with further modifications, his father's doctrine, and gives its final shape to the wage fund theory. He lays it down (1)—bk. 1, ch. 5, §§ 1, 2, 3—"that industry is limited by capital, but does not always come up to that limit, while the increase of capital gives increased employment to labour without assignable bonds." (2) "It is not, however, all capital, *i.e.* all wealth saved and appropriated to reproductive employment, which constitutes the wages fund of a country, but that part only which is circulating as distinct from fixed, *i.e.* that part only which is destined for the direct purchase of labour"—bk. ii. ch. xi. § 1. (3) This being so, "wages depend mainly upon the demand and supply of labour; or as it is often expressed, on the proportion between population and capital. With these limitations of the terms, wages not only depend upon the relative amount of capital and population, but cannot, under the rule of competition, be affected by anything else. Wages, meaning of course the general rate, cannot rise but by an increase of the aggregate funds employed in hiring labourers, or a diminution in the number of competitors for hire; nor fall, except either by a diminution of the funds devoted to paying labour, or by an increase in the number of labourers to be paid" (*Principles of Political Economy*, bk. ii. ch. xi. § 1, 6th edition). These same principles furnish the basis of Fawcett's doctrine of wages both in his *Manual of Political Economy* (see especially bk. ii. ch. iv., where he discusses some of the objections which had been brought against the doctrine of a wages fund) and also in his *Lectures on the Economic Position of the British Labourer*. The first writer by whom the doctrine was attacked was Mr. F. D. Longe, who in a pamphlet entitled, *A refutation of the Wage Fund Theory of Modern Political Economy as enunciated by Mr. Mill, M.P., and Mr. Fawcett, M.P.*, pp. 9, 10 (Longmans, 1866), attempts to establish the following positions: (1) that wages do not depend on any merely mechanical cause, but that there is a "natural wage," and that wages may properly be described as "just or unjust," "fair or unfair," "reasonable or unreasonable"; and (2) pp. 22-48, that the theory of a wage fund is untenable because (*a*) the capital or wealth applicable to the payment of the wages of labour in a country, at any time or during any period, does not consist of a definite fund which is distinct from the produce of labour; (*b*) because the dependent or labouring population in a country at any time, or during any period, does not constitute a supply of labour, or body of labourers, among whom the average wage fund or capital of a country could be distributed by competition; (*c*) because the supposition that such wage fund would be all distributed among the labourers of a country by the competition of the buyers and sellers of labour, if allowed free operation, involves an erroneous notion of the demand and supply principle. Mill did not himself reply to Mr. Longe's attack, but in reviewing for the *Fortnightly Review*, May 1869, Thornton's work on *Labour and its Claims* (where much the same arguments as those advanced by Longe were promulgated and enforced, only with more illustration and in more detail), acknowledged himself convinced and prepared to surrender the position he had previously taken up. "Is there such a thing," he writes (*Dissertations and Discussions*, vol. iv. p. 44), "as a wages fund in the sense here implied? Exists there any fixed amount which, and neither more nor less than which, is destined to be expended in wages? Of course there is an impassable limit to the amount which can be so expended; it cannot exceed the aggregate means of the employing classes. It cannot even come up to those means; for the employers have also to maintain themselves and their families. But short of this limit it is not, in any sense of the word, a fixed amount."

The conflict was, however, by no means brought to an end by Mill's surrender. The cudgels were taken up in behalf of the wages fund by Professor CAIRNES in his work *Some leading Principles of Political Economy*. He in pt. ii. c. i. attempts to reply to the arguments of Longe and Thornton, maintaining against the former the possibility of a general or average rate of wages determined by the relation of population to capital, and against the latter the real existence of a natural wages fund destined to be expended on labour, though he concedes the essential point which Mill's theory seems to imply, that this fund can ever have the character of being of a determinate or fixed amount. These reasonings of Cairnes were adopted and reinforced by Fawcett in the later editions of his *Manual*, who answers in addition certain objections urged by Professor Sidgwick in his *Principles of Political Economy*, bk. ii. ch. viii.

The controversy entered on a new phase after the publication in 1876 of Professor F. A. Walker's treatise on the *Wages Question*. Professor Walker attacked the theory from a wholly new point of view. He maintains that wages stand in no necessary relation to capital at

all, that it is only for convenience sake that they are advanced out of capital, that their amount is in no sense determined by the proportion of population to capital, "rather that wages are in a philosophic view of the subject paid out of the product of present industry, and hence that production furnishes the true measure of wages" (F. A. Walker, *The Wages Question*, pt. i. chs. viii. and ix.). The same writer, in his *Political Economy*, pt. iv. ch. v. § 326, describes the labourer as the "residual claimant to the product of industry," holding that after the deduction of rent, interest, and profit, the whole remaining body of wealth, daily or annually created, is the property of the labouring class, their wages, or the remuneration of their services. Most modern writers have at least so far adopted these views as to admit the untenableness of the doctrine of a wages fund, and to consider the proportion of population to capital as one at most, though a really important one, among a number of causes by which the average or the actual rate of wages in any country will be determined.

[The following works, including those mentioned in the text, may be consulted. Malthus, *Essay on Population*, bk. iii. ch. v. bk. iv. ch. iii.—Bonar, *Malthus and his Work.*—James Mill, *Elements of Political Economy*, ch. ii. § ii.—J. S. Mill, *Principles of Political Economy*, bk. i. ch. v., bk. ii. ch. xi. xii.—Fawcett, *Manual of Political Economy*, bk. ii. ch. iv.—*Economic Condition of the British Labourer*, ch. iv.—F. D. Longe, *A Refutation of the Wage-Fund Theory of Modern Political Economy as enunciated by Mr. Mill, M.P. and Mr. Fawcett, M.P.*, Longmans, 1866.—W. T. Thornton on *Labour, its wrongful Claims and rightful Dues, its actual Present, and possible Future*, Macmillan, 1870.—J. S. Mill, *Dissertations and Discussions*, vol. iv. article ii. pp. 25, 86 on.—Thornton on *Labour and its Claims.*—J. E. Cairnes, *Some Leading Principles of Political Economy*, pt. ii. ch. i.—F. A. Walker, *The Wages Question*, chs. viii. and ix.—*Political Economy*, pt. iv. ch. v., pt. vi. article v.—Arnold Toynbee, *The Industrial Revolution*, c. xi.—Henry George, *Progress and Poverty*, bk. iii. c. vi.—Professor J. S. Nicholson, *Principles of Political Economy*, bk. ii. ch. v.—H. M. Thompson, *Theory of Wages*, ch. v.—Prof. A. Marshall, *Principles of Economics*, bk. vi. ch. ii. and note.] W. A. SP.

WAGES, NOMINAL AND REAL. In the term *nominal* wages is included the present value of all money wages, regular or occasional, and perquisites and expectations, reckoned over a given period, say one year, in the currency of a given time and place. The ordinary weekly wage, whether time or piece; a fair estimate of special earnings, from overtime or occasional work, as harvesting; the money value of all payments in kind, whether in the shape of actual receipts, or of reduced rent, or of facilities for cheap purchase of goods; a suitable estimate for residence, board, or clothing; and interest on the capital present value of the expectation of deferred pay or pensions—all these must certainly be included, while the expenses of getting to work and the annual cost of necessary implements must be subtracted. It is doubtful whether allowance should be made for lost time, when not seasonal; whether taxes direct or indirect should be subtracted; whether facilities for subsidiary earnings, indoors or out, by any member of the family, ought to be estimated; and whether account should be taken of the average number of years' work out of a lifetime that can be spent at the trade in question, this number varying very much according to the dangers or sanitary conditions of the trade, and determining the number of non-workers that must be supported by each worker (Engel, *Wesen und Preis der Arbeit*, and *Die Selbstkosten der Arbeit*, 1872; Walker, *The Wages Question*, p. 12 *seq.*). Thus by consideration of such circumstances the average *nominal* annual earnings of the English agricultural labourer in 1891 were found to be £39 ("Labour Commission," *The Agricultural Labourer*, vol. v. pt. i. pp. 57-87). By *real* wages are meant the purchasing power of nominal wages measured by a constant standard. According to Prof. Walker (*loc. cit.*) "*real* wages are the remuneration of the hired labourer as reduced to the necessaries, comforts, or luxuries of life," and differ from nominal by reason of (i) variations in the purchase power of money; (ii) variations in form of payment; (iii) opportunities for extra earnings; (iv) greater or less regularity of employment; (v) longer or shorter duration of the labour power. Of these (ii) is best corrected as described above, while the advantage of including (iii) (iv) or (v) in practical comparisons is doubtful. (For the whole definition compare Marshall, *Principles of Economics*, ed. 1895, pp. 629-635.)

When comparisons are made between the economic conditions of groups of different countries, districts, trades, or periods, it is useless to regard simply the *nominal* wages. This is most evident when a great interval of time is taken; thus a hind's annual (nominal) earnings in the 13th century were valued at 35s. 8d. (Thorold ROGERS, *Six Centuries of Work and Wages*, p. 170); now those of an agricultural labourer may be taken as about £40; and it is difficult to suppose that this ratio, 1 : 22, in any way measures their relative well-being. Hence comparison of nominal wages is, at any rate in extreme cases, futile.

A more recent example may be obtained from the divergence of currency from gold during 1861-78 in the United States. The following figures are compiled from the Senate report on wholesale prices, wages, and transportation, 1893, and the table is in the main the same as that given by Mr. Edward Atkinson in his pamphlet *The Battle of Standards and the Fall of Prices.*

In each case 100 represents the quantity in 1860.

Years	1845	1850	1855	1860	1865	1870	1875	1880	1885	1890
Average wage in currency	86	91	97·5	100	149	167	158	143	156	168
,, ,, gold	86	91	97·5	100	69	137	140	143	156	168
Average price of commodities in currency	103	102	113	100	217	142	128	107	93	92
Value of paper currency in gold	100	100	100	100	46	82	89	100	100	100
Purchasing power of wages	84	89	87	100	69	117	124	137	168	183

This shows that the course of *nominal* wages, measured in currency, is entirely different in the period 1860-80 from that of *real* wages, measured by purchasing power—so different that no change in the method of computation could make them similar. Even when wages are measured in gold, the courses of nominal and real wages possess only a rough similarity. A third example may be found in the earnings of gold-diggers. When gold is plentiful and provisions are scarce, an immense *nominal* wage is necessary for a bare subsistence. It may be noticed in passing that the cycle of commercial inflation and depression affects *nominal* more than *real* wages; for in time of inflation prices rise and wages follow, and in depression prices fall, and wages are, at any rate, hindered from rising if they do not actually fall. Thus wages measured by purchasing power fluctuate less violently than wages measured in currency. We have then to determine the best method of comparing purchasing power at different times or places. For different times the obvious method is to use index-numbers (see INDEX-NUMBERS; TABULAR STANDARD). Those formed on a consumption basis and dealing with retail prices (p. 385, col. 2 b), are theoretically the best, but in practice cannot be accurately evaluated. For approximation index-numbers like Sauerbeck's can be used, but the theoretical objections stated in the article referred to have their greatest weight when dealing with retail purchases by a special class. Numbers representing the ratio of the purchasing powers of money in different places at the same time could be compiled by similar methods, but since we should then be measuring accidental variations due to the peculiarities of a single place, and not a general movement of price due to general changes, we could no longer expect our number to be independent of the errors of weighting. The mere rate of exchange of currency between two countries is of course determined by quite other considerations than that of purchasing power (see EXCHANGE, FOREIGN). For times separated by long intervals writers are generally contented with a rough statement of the following nature:

Purchase value of the Sovereign.

Year.	Flour.	Beef.	Butter.
	lbs.	lbs.	lbs.
1820	113	70	25
1880	173	39	21

Levi, *Wages and Earnings*, 2nd ed. pp. 148, 150.

Number of days' work necessary to purchase 1 qr. of Wheat.

Year	1580	1610	1650
Artisan	12	30	32
Labourer	18	44	44

Thorold Rogers, *op. cit.* p. 427.

(Compare also table on pp. 634-637, Wages and Prices, and see Cunningham, *Growth of English Industry*, vol. ii., app.). If we attempt to combine such statements we are confronted with the difficulty of weighting the numbers representing the different commodities; this is usually done by means of budgets (see WORKMEN'S BUDGETS), the following being the most important methods.

(i) A standard budget, having no close relation to any time or place, is formed (α) of the commodities generally purchased by the working classes, corresponding to a LIVING WAGE (*q.v.*), or (β) of the minimum necessary for subsistence (Atkinson, *Distribution of Products*, p. 158 *seq.*, Carnegie, *Contemporary Review*, 1894). This standard budget is priced for any two places or times. The ratio of the two prices is inversely proportional to the two purchasing powers. The ratio of the *nominal* wages, multiplied by the ratio of the purchasing powers, gives the ratio of the *real* wages.

(ii) A similar method is to make a typical budget for one place or time, and value the budget at the prices of the place or time with which comparison is to be made. Then procedure is as in (i) (Toynbee, *Industrial Revolution*, pp. 139, 140; Leone Levi, *Wages and Earnings*, 2nd ed. p. 34; Purdy, *Stat. Soc. Journal*, 1861, and many others, *v. infra*; Porter, *Progress of the Nation*, 1851, esp. p. 583). The objections to (i) are that the standard both of living and minimum wages varies immensely from country to country (*e.g.* China and U.S.A.), and rapidly even in the same country.

The grave objection to (ii) is that the proportion of income spent on different commodities changes, and depends to a great extent on the cost of those commodities. Thus a comparison between budgets of agricultural labourers in 1800 and 1890 would be most misleading, whichever budget was taken to be priced at the other period.

M. de Foville (*Journal de la société de statistique*,

1888, p. 333) discusses a paper by M. Guyot—*Essai sur l'aisance relative du paysan lorrain*, Nancy, 1889. M. Guyot's method at first was to assume that the same proportion of income was always spent on the same commodities, giving impossible figures. M. de Foville applies method (ii) with better results (*v. infra*). The word "aisance" used by Guyot (*loc. cit.*) represents well the quantity we wish to measure. (iii) The best method theoretically for measuring "aisance relative" appears to be as follows: calculate the quantity by method (ii) twice, taking first a budget typical of the earlier, then of the later year, valuing them at the prices of both years and obtaining two ratios. The average (possibly the geometric rather than the arithmetic) of these ratios measures the relative "aisance."

Let $a_1, a_2, \ldots a_n$ units of n commodities be bought at prices $p_1, p_2, \ldots p_n$ at one date, and $b_1, b_2 \ldots b_n$ units at prices $q_1, q_2, \ldots q_n$ at another, where any of the a's or b's may be zero. Then the "aisance relative" by method two is $\frac{\Sigma ap}{\Sigma bq}$ or $\frac{\Sigma bp}{\Sigma aq}$. By the method suggested it is $\frac{1}{2}\left(\frac{\Sigma ap}{\Sigma aq}+\frac{\Sigma bp}{\Sigma bq}\right)$ or $\sqrt{\left(\frac{\Sigma ap}{\Sigma aq}\times\frac{\Sigma bp}{\Sigma bq}\right)}$.

If $c_1, c_2, \ldots c_n$ are units in standard budget (1), "relative aisance" is $\frac{\Sigma cp}{\Sigma cq}$.

M. Guyot's method was:—if $r_1 I_1$, $r_2 I_2$ are parts of income, I_1, spent on different commodities. Let $r_1 I_1$ buy α_1 goods in one year, and $r_1 I_2$ (I_2 other income) buy β_1 similar goods in another.

Then $\Sigma\left(\frac{\beta}{\alpha} r\right)$ measures "relative aisance."

[For materials for making comparisons of real wages, or for results of such comparisons, see all books mentioned under WORKMEN'S BUDGETS; —Leroy-Beaulieu, *Répartition des richesses*, ch. xvi.; and *Traité théorique et pratique d'économie politique*, ii. p. 302 *seq.*—Booth, *Life and Labour*, i. 138.—Brassey, *Foreign Work and English Wages*, p. 116.—Giffen, *Journal of Royal Stat. Soc.*, 1888. Higgs, *Journal of Royal Stat. Soc.*, 1893.—Kebbel, *The Agricultural Labourer.*—Rogers, Thorold, *Work and Wages* (*passim*).—Sauerbeck, in *Journal of Royal Stat. Society* (*passim*).—Schoenhof, the *Economy of High Wages*, p. 161 *seq.*—Wright, Carroll D., *Industrial Evolution of the United States*, 1895.—Young, A., *Northern Tour; Enquiry into Progressive Value of Money in England; Travels in France.*—*Reports of American Labour Bureaux.* Comparative (numbers refer to years)—Cal., 1883-84; Ill., 1884; Mass., 1872, '74, 1884-85; Mich., 1893; N. J., 1885; Wisc., 1884. Local—Col., 1887-88; Md., 1884-5, '90-1; Mass., 1879, '82; Mich., 1886; N. J., 1882, 1886; Ohio, 1887; Pa., 1879-80; Wisc., 1883. See also Ill., 1879-80; Me. 1889; Minn., 1889-90; Ohio, 1879-80, '85, '86; R. I., 1887-88, and Index published by Washington Central Bureau in 1893.—*Foreign Office Misc. Series*, 1892, No. 258.] A. L. B.

WAGES, PURCHASING POWER OF. In comparing records of wages paid in various occupations in the past, especially in the distant past, all sense of the proportion between the degree of well-being procured by the wages of labour at different epochs is lost, if the variations in the prices of the commodities entering into the labourer's daily consumption are not brought into the comparison. But the modes of expenditure of wages change considerably from period to period, and are by no means similar for the majority of individuals in any given class of labourers at any one time. The variations in the general purchasing power of money cannot be appropriately applied to determine the variations in the purchasing power of money wages whose varying amounts are known. Satisfactory records of prices are, from the nature of the case, records of wholesale prices, while the labourer's expenditure is a retail expenditure. Only in so far as we can assume that the variations of wholesale and of retail prices are the same in direction and similar in amount, can we regard with satisfaction any judgment on the course of the purchasing power of wages based on comparisons of wholesale prices. We cannot, therefore, pretend to any precision in the measurement of changes in the purchasing power of wages. Retail prices vary in very arbitrary fashion, and no two families will purchase the same commodities even if their incomes be the same. Even taken in large groups, no great degree of regularity in the apportionment of expenditure under different heads manifests itself in WORKMEN'S BUDGETS (*q.v.*). Recognising that it is better to know part of the facts, than to ignore them entirely on the ground that a degree of knowledge which is satisfactory is not to be attained, estimates have been framed to indicate the changes in real wages which are bound up in recorded changes of nominal wages. So long as we recognise the limits of the applicability of the conclusions, it will be a gain to have partial knowledge; were we to ignore the fact that the limits exist and are rather narrow, such partial knowledge would perhaps be worse than ignorance. In the articles PRICES, HISTORY OF, and WAGES AND PRICES OF COMMODITIES, a certain amount of material is presented which permits the variations of prices of leading commodities to be compared with those of wages. So far as England is concerned, we proceed to make some more detailed comparisons. The investigations of Thorold ROGERS supply us with the most abundant material, and the modes of comparison adopted by Rogers may be abbreviated for the purpose of summary view of the results. The amount of food necessary for the support of a family of four persons for a year is, in some of Rogers' comparisons, given at 3 quarters of wheat, 3 quarters of malt, and 2 of oatmeal (cp. *Six Centuries of Work and Wages*, ch. xiv.), while in others a provision of 4 quarters of wheat, 2 quarters of malt, and 800 lbs. of

meat (cp. *History of Agriculture and Prices*, vol. i. ch. xxix.) is considered suitable for purposes of estimating the relation of wages to necessaries of life. Referring to these as "grain diet" and "meat diet" respectively, we obtain the following comparative table :—

	1261-1350	1351-1400	1401-1540	1541-1582	1583-1642	1643-1702
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cost of grain diet .	43 10	47 0	53 6	135 6	285 8	360 0
Cost of meat diet . .	48 0	53 6	65 5	166 9	327 7	409 8
Yearly wages of carpenter	73 5	108 8	138 1	235 0	292 9	480 9
Yearly wages of labourer	61 8	91 1	94 0	176 3	227 2	300 7
Number of weeks' labour yearly needed to procure grain diet by						
(*a*) Carpenter . .	28	20	18	27	46	34
(*b*) Labourer . . .	33	24	27	42	59	55
Number of weeks' labour yearly needed to procure meat diet by						
(*a*) Carpenter . .	31	23	22	33	53	40
(*b*) Labourer . . .	37	28	33	51	68	64

Note.—In calculating the cost of malt, the prices for the first quality have been taken. Rogers takes second quality, but his tables do not give continuous records for second quality from which to form the above averages. For meat, in the first three periods the cost is based on Rogers' estimates, the prices being quoted for whole animals. In the last three periods the price per 14 lbs. is taken as basis. As in the article on PRICES, HISTORY OF, the wages for a labourer before 1400 are those of a thatcher, which are somewhat higher than those of common agricultural labour, the wages of which are quoted after 1400. Hence the relative change in the labourer's position is not truly shown, the actual position being less favourable in the first two periods than is here represented. Fractions of pence and fractions of weeks have been ignored in the table. The yearly wages have been calculated at the rate of 47 weeks in the year at the daily or weekly rates given in the article PRICES, HISTORY OF.

The fact is clear that at some periods the amount available for clothing, etc., and other purposes was adequate, while at others the provision was necessarily more stinted than that which has formed the basis of these calculations. To carry on the comparison, we may take advantage of the results stated by Rogers so far as concerns the relative position in the time of Arthur YOUNG and at various periods during preceding centuries. Compared with the fourth of the above periods for example, the case is stated (Rogers, *History of Agriculture and Prices*, vol. iv. p. 758) thus: the necessaries of life had become three to four times as dear, while the wages of labour were not much more than double. The purchasing power of wages had therefore decreased from 33 to 50 per cent. The course of the relation of wages to prices during the 18th century is shown in the table quoted from Arthur Young in the article to which reference has already been made several times (see PRICES, HISTORY OF). It there appears that agricultural wages during the 18th century did not advance as rapidly as prices. Comparing the first two-thirds of the 18th century with the first decade of the 19th, wages were doubled in the interval, while prices were increased to two and a half times their old level or more. The purchasing power of wages, therefore, fell about 20 per cent, and the fall took place in the period 1767-89, but little further loss of wages relative to prices coming later according to Young's records. The first half of the 18th century was a time when the purchasing power of wages rose to a higher level than that of the preceding century. By the beginning of the 19th century, the movement had been so unfavourable to the labourer that his command over commodities was probably not greater than in the worst period (1583-1642) of those shown in the preceding table. It may be added that the necessaries of life in the matter of clothing and shelter were much dearer, and needed certainly as large a share of the wages to be devoted to them as in the 16th or 17th centuries, probably more. The table in WAGES AND PRICES OF COMMODITIES shows the amounts of wages and the cost of a working man's board at short intervals from 1720 till recent times, and affords more than as much information on the relation of wages to the cost of living for these later times as the tables of this article afford for earlier times.

Mr. Bowley, in a paper read before the Royal Statistical Society in 1895, adopted an ingenious method of making comparisons of wage-levels at different periods. Comparing these with the movements of prices shown by Mr. Sauerbeck's Index Number, Mr. Bowley points out the resultant changes in average real wages, that is, in the purchasing power of average wages, in the following scheme :—

Date.	Real Average Wages.	Date.	Real Average Wages.
1860	100	1877 } 1880 }	139
1866	110	1883	157
1870	116	1886	180
1874	134	1891	192

Reasons for not relying implicitly on the indications of INDEX NUMBERS as to the average movements of the prices of the articles entering into the workman's expenditure, have been given above. These and other facts already alluded to, such as changes in the nature of working-class expenditure which must derange any comparisons with past centuries which pretend to precision, deter us from placing here a table showing, for the whole period covered, by a single series of numbers, the movements

of real wages. The facts adduced will, however, show the leading upward and downward movements of real wages, and no real loss is caused by their presentation in such a form as not to permit of a ready comparison of the position to-day with that at any given epoch of the past. Such comparison cannot be precise, cannot be made without taking into account many circumstances of the life of the people not mentioned here, and to offer an appearance of precision would be delusive (see WAGES, NOMINAL AND REAL; WORKMEN'S BUDGETS; and the works referred to in the bibliographies attached to those articles). A. W. F.

WAGES, STANDARD RATE OF. See STANDARD RATE OF WAGES.

WAGES STATISTICS. From figures collected and tested by the labour department of the board of trade, it appears that the normal rates of wages, plus the estimated value of allowances, such as free homes, etc., paid to the workers in thirty-eight selected occupations during 1886, were 24s. 7d. per week, or £64 per annum, for men; 12s. 8d. per week or £32 : 10s. per annum, for women; 9s. 2d. per week, or £23 : 8s. per annum, in the case of lads and boys; and 7s. per week, or £18 : 4s. per annum in the case of girls. Of the men employed in these occupations, 0·2 per cent were receiving less than 10s. per week; 2·5 per cent, from 10s. to 15s.; 20·9 per cent, from 15s. to 20s.; 35·4 per cent, from 20s. to 25s.; 23·6 per cent, from 25s. to 30s.; 11·2 per cent, from 30s. to 35s.; 4·4 per cent, from 35s. to 40s.; and 1·8 per cent, above 40s. That is to say, nearly 60 per cent were receiving from 20s. to 30s. per week, or about the average rate; and of the remainder, about 25 per cent were receiving less than 20s.; and 17 per cent, more than 30s. If to these thirty-eight occupations there be added the other important industries, as railways, building trades, etc., which it was not found possible to treat in the same way, the average annual earnings of adult males may, according to Sir R. Giffen, be approximately estimated at a little over £60; of women at £40; of lads and boys at £23 : 8s.; and of girls at £23. According to the census returns for 1881, the total adult male working population, excluding the residuum, chiefly to be found in the large towns, of persons whose employment is permanently irregular, was, in round numbers, 7,330,000; of adult female workers there were 2,900,000; of lads and boys, 1,700,000; and of girls, 1,260,000; making a total working population of 13,190,000. The aggregate earnings of the men may, therefore, be placed at £440,000,000; of the women, at £118,000,000; of the lads and boys, at £46,000,000; and of the girls, at £29,000,000; making a total annual income for the manual labourers of £633,000,000.

[See Minutes of Evidence taken before the Royal Commission on Labour, sitting as a whole, questions 6873-7165, and 8086-8381, Parl. Papers, c. 7063-i. of 1893, and Appendix to ditto, No. 124, Parl. Papers, c. 7063-iiia of 1894]. T. G. S.

WAGES, STATISTICS OF (IN THE UNITED STATES OF AMERICA). The statistics of wages for the United States labour under peculiar difficulties. Any historical account of wages encounters the enormous change that has come over a country developing from an agricultural colony into a great industrial state. The United States has participated with Europe in the development from hand-labour to the factory system, only the change has been in some respects even more abrupt, radical, and complete. Comparison of wages for successive periods is, therefore, difficult, because occupations have changed often in name and almost always in character. Such comparisons must be limited to a few common occupations. They cannot be carried very far back because of the lack of data, and because in early agricultural communities employments are scarcely differentiated. Particularly in the United States is this true, where originally every man owned his farm, and agricultural day labourers as a class were unknown. A second difficulty is that even at the present day there are very striking differences between different sections of the country, so that any statistics of wages applicable to the whole country is almost, if not altogether impracticable. The eastern states are industrial, with large cities and factory towns, and the population has many of the characteristics of the English factory and mining districts. Owing to immigration, there are, however, many contrasting bodies of working men, from the highly skilled American artisan down to the French Canadian factory hand, the Italian day labourer and the Russian-Hebrew sweated tailor and garment-maker. In the north-central states of the Mississippi valley we have a community still largely agricultural, with farmers owning the land—peasant proprietors on a large scale. In the extreme west we have some of the characteristics of newly-settled countries, *i.e.* scarcity of certain kinds of labour and a high range of wages. Finally, in the south we have the great mass of negroes, formerly slaves, unskilled, ignorant, and representing labour of a low degree of efficiency. An average wage even in the same employment for all these different sections is an impossibility. At least it means nothing. For historical and comparative purposes it is necessary to confine ourselves to one section.

Systematic attempts to collect wage statistics are of very recent date in the United States, in fact scarcely twenty years old, and are confined for the most part to the eastern states.

History of Wages.—There are scarcely any records of wages in the 18th century. The Massachusetts bureau of labour statistics has

gathered up what there are from old pay-rolls, private account books, and other documents, and presented the results in the following table (*Report*, 1885, p. 454):—

2. *Wages (Day). By Periods of Years (Massachusetts) 1800 to 1883.*

	Period ending with								
	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1880.	1883.
	$	$	$	$	$	$	$	$	$
Agricultural labourers	0·478	0·779	0·782	0·803	0·875	0·95	1·01	1·31	1·37
Blacksmiths	..	..	·842	1·12	1·40	1·47	1·69	2·28	1·92
Bookbinders	..	..	..	..	·917	1·46	1·38	1·91	1·49
Butchers	..	·50	·75	·917	..	..	..	2·03	1·36
Carpenters	·736	1·09	1·13	1·07	1·40	1·37	2·03	2·42	2·41
Carriage makers	..	..	..	..	1·34	1·59	1·85	2·40	2·27
Clock makers	..	..	1·13	1·29	1·29	1·29	1·96	2·30	..
Clothing makers	..	..	1·00	1·27	·896	1·38	1·43	1·93	1·99
Cotton mill operatives	..	..		·439	·897	·92	1·03	1·40	1·27
Glass makers	..	..		1·13	1·62	2·44	2·96	1·79	2·01
Gold and silver workers	..	..	..	..	·974	1·28	1·69	1·53	3·21
Harness makers	..	..	·88	1·13	1·25	1·46	1·65	..	..
Labourers	·623	·817	·91	·796	·872	·852	·975	1·48	1·31
Machinists	..	..	..	..	1·35	1·62	2·15	2·49	2·25
Masons	..	1·41	1·52	1·22	1·37	1·33	1·53	2·79	2·14
Metal workers	..	..	1·05	1·23	1·54	1·42	1·35	2·16	2·00
Millwrights	1·09	..	1·13	1·21	1·39	1·39	1·66	2·65	2·54
Nail makers	..	..	1·00	1·39	·86	1·50	..	..	1·84
Painters	..	1·15	1·34	1·25	1·32	1·47	1·85	2·32	1·97
Paper mill operatives		..	1·09	·666	·749	·842	1·17	1·71	1·71
Printers	..	..	1·13	1·25	1·38	1·17	1·75	2·18	2·14
Ship and boat-builders	..		1·25	1·40	1·33	1·35	·65	2·49	3·25
Shoemakers	·733		..	1·06	·873	1·12	1·70	1·76	1·87
Stone quarrymen and cutters	..		..	..	1·29	1·45	1·40	2·33	2·01
Tanners and curriers	..	..	1·00	1·13	1·46	1·13	1·67	2·09	1·86
Wooden goods makers	..	·66	1·26	1·25	1·36	1·11	1·72	2·01	2·28
Woollen mill operatives	..	..	..	1·12	·995	·865	·873	1·31	1·24

1. *Period 1760 to 1790.*

	Period ending with			
	1760.	1770.	1780.	1790.
	$	$	$	$
Agricultural labourers	0·311	0·330	0·315	0·396
Blacksmiths	..	..	..	·694
Butchers	..	..	·333	..
Carpenters	..	..	·522	·539
Labourers	·29	·325	·376	·428
Masons	..	..	·666	1·00
Nail-makers	..			·481
Ship and boat-builders	..			·889

The second great investigation of wages was that conducted by the department of labour at Washington, for the senate committee on wholesale prices, wages, and transportation (Aldrich Committee), and published in 1891. There are in this Report 61 series of wage returns which begin as early as 1840, and as many as 543 distinct series which cover the period from 1860 to 1891. The returns are actual wages, from manufacturers' pay-rolls, and quotations are given for January and July of each year.

Index Wages.—The chief object of the Aldrich Report was to determine whether wages had increased or decreased during the last fifty years. For this purpose the familiar method of the index number was used, the year 1860 being taken as the base, 100, and two methods being used, one a simple average, and the other a weighted average according to the relative number of persons engaged in each occupation. The result on a gold basis is shown by the following table, *Rept.*, pt. i. p. 14:—

Relative Wages by Years 1840-1891

Year.	Simple Average.	Average According to Importance.	Year.	Simple Average.	Average According to Importance.
1840	87·7	82·5	*1866*	108·8	111·1
1841	88·0	79·9	*1867*	117·1	121·8
1842	87·1	84·1	*1868*	114·9	119·1
1843	86·6	83·0	*1869*	119·5	123·5
1844	86·5	83·2	*1870*	133·7	136·9
1845	86·8	85·7	*1871*	147·8	150·3
1846	89·3	89·1	*1872*	152·2	153·2
1847	90·8	91·3	*1873*	148·3	147·4
1848	91·4	91·6	*1874*	145·0	145·9
1849	92·5	90·5	*1875*	140·8	140·4
1850	92·7	90·9	*1876*	135·2	134·2
1851	90·4	91·1	*1877*	136·4	135·4
1852	90·8	91·8	*1878*	140·5	139·0
1853	91·8	93·2	*1879*	139·9	139·4
1854	95·8	95·8	*1880*	141·5	143·0
1855	98·0	97·5	*1881*	146·5	150·7
1856	99·2	98·0	*1882*	149·9	152·9
1857	99·9	99·2	*1883*	152·7	159·2
1858	98·5	97·9	*1884*	152·7	155·1
1859	99·1	99·7	*1885*	150·7	155·9
1860	100·0	100·0	*1886*	150·9	155·8
1861	100·8	100·7	*1887*	153·7	156·6
1862	100·4	101·2	*1888*	155·4	157·9
1863	76·2	81·9	*1889*	156·7	162·9
1864	80·8	86·2	*1890*	158·9	168·2
1865	66·2	68·7	*1891*	160·7	168·6

From a consideration of this table, it becomes evident that there was a gradual advance in wages from 1840 to 1860; since that date the advance

has been less regular, but more rapid. The depressing effect of the premium on gold is seen during the years 1863-66. Comparison with a table of prices would show that the purchasing power of wages has increased to an even greater extent than money wages.

The increase in wages has not been the same in all industries. This is shown by the preceding table, which gives the increase from 1860 to 1891 by industries. The number of quotations is also given, so that it is possible to judge of the basis upon which the index number rests. Each quotation represents a series of wages, *Rept.*, pt. i. p. 12.

Relative Wages in 1891, compared with 1860 by Industries.

Industry.	Number of Quotations.	Relative Wages.
Agricultural implements	5	137·9
Ale, beer, and porter	5	224·7
Books and newspapers	21	148·6
Building trades	39	172·5
Carriages and waggons	4	202·4
City public works	23	164·6
Cotton goods	131	165·1
Dry goods (stores)	3	183·6
Ginghams	30	152·7
Groceries (stores)	2	194·7
Illuminating gas	22	167·7
Leather	16	137·6
Lumber	5	177·9
Metals and metallic goods	130	148·6
Paper	7	182·3
Railroads	11	146·4
Sidewalks	4	187·5
Spice	5	164·2
Stone	19	165·2
White lead	3	140·6
Woollen goods	58	167·8
Total	543	160·7

Comparative Wages.—An attempt is sometimes made to compare wages in the United States with wages in Europe. Wages are undoubtedly higher in the United States, but how much higher it is impossible to say, because of the differences in occupations and in the purchasing power of money. The most elaborate comparison of this sort was made by the Massachusetts bureau of labour statistics in 1884. The average weekly wages in twenty-four industries were as follows :—

	Massachusetts.	Great Britain.
	$	$
Men	11·85	8·26
Women	6·09	3·37
Young persons	5·10	2·40
Children	3·81	·79
All employés	10·31	5·86

The Massachusetts Report for 1895 gives actual wages in the United States and in foreign countries, but no attempt has been made to average them for purpose of comparison.

Average and Classified Wages.—Average wages are, as a rule, very unsatisfactory. There are so many differences in skill, age, sex, hand or machine labour, that an average may be mathematically correct and yet give a false impression. So, too, the inclusion of the high wages of a foreman or superintendent would raise the whole average above what the ordinary workman gets. It has been proposed, therefore, to classify wages rather than to average them, *i.e.* to give the number of men receiving between $5·00 and $6·00 per week, between $6·00 and $7·00, and so on. We are thus able to judge somewhat of the real income of the greater number of wage earners, which is the important question in wage statistics.

The eleventh census has proceeded upon this plan, and some of the results are published in the volume on manufacturing industries. For the sake of illustrating the method as well as giving wages for two important industries, the following table is given showing the number of males above sixteen years of age in the iron and steel manufacture, and in the cotton manufacture, at different rates of wages.

The advantage of such a table is that it shows the economic position of the great mass of working men in any industry. In the two industries contrasted here, it will be seen at a glance that the men in the iron and steel industry are paid much higher wages than the men in the cotton manufacture. More than one-half (57·7 per cent) of the men in the cotton industry receive less than $8·00 per week, while only 21 per cent of the men in the iron and steel industry receive less than $8·00 per week. For the question of income, such a classified wage is more interesting than an average wage.[1]

Weekly rates of Wages.	Iron and Steel Manufacture.	Cotton Manufacture.	Percentages.	
			Iron and Steel.	Cotton.
			%	%
Under $5	1,643	15,164	0·97	17·14
$5 and over, but under $6	3,424	9,924	2·02	11·22
$6 ,, ,, $7	10,198	15,491	6·03	17·51
$7 ,, ,, $8	20,265	10,485	12·00	11·85
$8 ,, ,, $9	25,041	9,120	14·82	10·30
$9 ,, ,, $10	23,727	8,712	14·04	9·84
$10 ,, ,, $12	24,516	8,409	14·51	9·50
$12 ,, ,, $15	24,458	5,427	14·47	6·13
$15 ,, ,, $20	17,974	3,027	10·63	3·42
$20 ,, ,, $25	10,502	1,291	6·21	1·46
$25 ,,	7,195	1,417	4·25	1·60
Total	168,943	88,467	100·00	100·00

For complete wage statistics it would be necessary to add some facts in regard to the cost of living and the question of employment and unemployment. These things vary, however, so

[1] There is one slight discrepancy in this comparison, viz. officers and foremen are included in the cotton industry but not in the iron and steel.

much from time to time, and in different industries, that it is impossible to enter into the subject here. Some references will be found in the bibliography.

Critical Bibliography. — The chief sources of information for wage statistics in the United States are the reports of the bureaus of labour statistics of the several states, the investigations of the department of labour at Washington, and the tenth and eleventh censuses of the United States.

Of the state labour bureaus, by far the most important is that of Massachusetts. The report for 1874 gave "Comparative Rates of Wages and Hours of Labour in Massachusetts and Foreign Countries"; also "Prices of Provisions, etc. in Massachusetts and Europe." The report for 1876 contained 71,339 wage returns. The report for 1879 contained a comparison of "Wages and Prices, 1860, 1872, and 1878." The result of this investigation showed an increase in 1878 as compared with 1860 of 24·4 per cent in wages, and 14·50 per cent in cost of living. The report for 1882 was entitled "Wages, Prices, and Profits." The report for 1883 gave statistics of wages of 207,793 employés. The report for 1884 was a very extensive investigation, comparing wages in Massachusetts and Great Britain for several years, ranging from 1860 to 1883; this report is the best piece of work of this sort ever accomplished in America. The chief results are shown in the table above. The report for 1885 contained a condensation of the report for 1884, and in addition an "Historical Review of Wages and Prices, 1752-1860." It is from this report that the first table above is taken. The report for 1889 was devoted to "Classified Weekly Wages"; it contained classified wages for 248,200 employés. Finally, the report for 1895 commences the publication of 489,600 wage returns, gathered from all sources, and 166,400 price quotations. It will be several years before all of these returns are published; they are arranged by occupations, and wages are divided into five classes: high, medium high, medium, medium low, and low. The utility of this enormous undertaking may be doubted. Other state bureaus have collected statistics of wages, notably New Jersey in 1884, and Michigan in 1885, but none of them is comparable with the Massachusetts report of 1884.

The department of labour at Washington published extensive figures of actual wages in its sixth and seventh annual reports entitled "Cost of Production in Iron, Steel, Coal, Textiles, and Glass Industries"; it also investigated the cost of living of families in these industries, and compared cost of living with income (see WORKMEN'S BUDGETS). The department of labour also collected the figures of wages for the Aldrich report mentioned in the text.

The tenth census of the United States published various returns of statistics of wages. Those of manufactures are contained in vol. ii.; they are of little value, because the average wage is calculated by dividing the total amount paid in wages in an industry by the total number of employés; such an average confuses the wages of men, women, and children, of skilled and unskilled workmen, and differences due to locality, so that the average represents nothing at all. Volume xx. of the tenth census is devoted entirely to the statistics of wages. No effort was made to classify this enormous collection of figures, so that it has remained practically useless.

The eleventh census of the United States collected statistics of wages in manufacturing industries, classified as described in the text, and published chiefly in the three volumes on manufacturing industries. In these returns a distinction is drawn between males, females, and children, between piece workers and time workers, and between officers, firm members, and clerks, as contrasted with operatives, skilled and unskilled. A summary of average annual earnings per employé in different industries and in different states will be found in Part I., and detailed wage statistics for textile industries, chemicals, glass, coke, petroleum, glue, iron and steel manufactures, locomotives, clay products, shipbuilding, forest industries, etc. in Part III. In all these industries wages are classified as illustrated in the text. The volume on transportation business also contains statistics of wages, but in a crude form. The report on mineral industries contains statistics of wages of miners, classified as foremen and overseers, miners, labourers, and boys under sixteen years, giving also the average number of days' work.

[For criticism of American wage statistics see "American Labour Statistics," in *Political Science Quarterly*, March 1886, and "Wage Statistics and the next Census of the United States," in the *Quarterly Journal of Economics*, July 1888. For criticisms of the Aldrich report see Bowley, "Wages in the United States and in Great Britain," 1860-1891, *The Economic Journal*, vol. v. (1895) p. 369]. R. M.-S.

WAGES OF WOMEN. The most striking fact about the wages of women is, as Mill said, that they are generally lower, and very much lower, than those of men. Roughly speaking they are about half. This has been usually accounted for by the inferiority of women as workers. But the explanation seems to weigh the labour of the two sexes in very unequal balances. It would certainly be hard to prove that two woman weavers, minding three or four looms for 10s. a week, are "worth" only one able-bodied navvy earning 20s. A better explanation is that women generally occupy non-competing groups relative to men; the fact being that, when women enter a trade, they generally monopolise it before long. In this case the natural and sex disabilities which prevent them combining tend to bring down the wage—however high it was when the men occupied the industry—to a level at or even below subsistence. Where women combine in the same trade union with men, as, for instance, in the Lancashire weaving, their wages keep up to the men's rates. The specific difficulty of the problem is that, while women must share

with men in the one portion of the national dividend that falls to labour as against the other factors, the great majority of them, either as living with parents or as married, are not independent units. The woman's wage is part of a "family wage." That is to say, while the demand for and the supply of "labour" regulates the wages of labour, these wages are divided among the sexes according to other than purely economic considerations.

[*Econ. Jour.* vol. i. p. 635 (S. Webb), vol. ii. p. 173 (Mrs. Fawcett).—*Studies in Econ.* (Smart), p. 105; FEMALES AND CHILDREN, EARNINGS OF.]

W. S.

WAIF. The earliest mention of this word is probably contained in a charter (*Ch. Roll, No. 42*) of 1247, by which Hen. III. granted to the hospital of Ospringe that animals called "Weyf," found in the fee of the hospital, should belong to its brethren, unless any one should sue for them who would and could prove that they were his, and unless they should be demanded and sued for within a certain term, according to the custom of the country. Subsequently the term "Estray" was used to designate such animals, and waif came to be used in a different sense; for Sir Ed. Coke states that "waif is where the felon in pursuit waives the goods, or when the felon, for fear of being apprehended, thinking that pursuit was made, having them with him in his possession, flies and waives the goods." If seized on behalf of the king they were forfeited to him unless the owner had made "fresh suit" to recover them. In the 13th century this meant that the owner had forthwith to raise the hue and cry to the four nearest townships; and after announcing his loss to the bailiffs and coroners, to appeal the thief at the next county court, and so on from court to court until attainted. Later, however, this law was considerably modified.

[Coke, *Reports*, ed. 1826. London, 8vo, part v. p. 221.]

G. I. T.

WAINAGE. See AMERCEMENTS; WAYNAGE.

WAKEFIELD, DANIEL (1776-1846), chancery barrister, and, after 1835, Q.C.:

Wrote *An Essay upon Political Œconomy, being an inquiry into the truth of the two positions of the French Œconomists that labour employed in manufactures is unproductive, and that all taxes ultimately fall upon or settle in the surplus produce of land*, 1st ed. 1799; 2nd, 1804, was a follower of Sir J. STEUART: but his comparison of rent and interest as "the surplus values" of land and capital § 20, his distinctions of positive and relative cost and use value § 39, of "physical" or necessary and "surplus" or monopoly wages § 49—are clear and correct. In § 43 n. he shows himself a protectionist. In *An Investigation of Mr. Morgan's Comparative View of the Public Finances*, 1801, he praises Dr. PRICE, his SINKING FUND, and W. PITT.

He also wrote *A letter to Thomas Paine in reply to his Decline and Fall of the English System of Finance*, 1796?—*Observations on the Credit and Finances of Great Britain*, 1797; also *Facts of Importance relative to the Present State of Great Britain.*

[W. Roscher, *Principles of Pol. Econ.*, transl. Lalor, vol. i. pp. 177, 268.

J. D. R.

WAKEFIELD, EDWARD (1774-1854), elder brother of Daniel and father of E. G. WAKEFIELD:

Wrote one book only, *An Account of Ireland Statistical and Political*, 1812, pp. 1600, 4to. He was examined as an expert Essex farmer and general landjobber and valuer by a "committee on the distillation of sugar and molasses," *Reports from Committees of the House*, 1808, iv. 109, and by a "committee on agricultural depression," *ib.*, 1821, ix. 206, and as an expert on Irish money by a "select committee on the high price of gold bullion," *ib.* 1810, iii. 133. His book was written at the instance of J. L. FOSTER, chairman of "the committee for enquiry into the state of Ireland as to its circulating paper, etc. and coin," 1804; and the Irish secretary, W. W. Pole, supplied him with statistics. In addition to these qualifications for his task, he had spent two years on tour in Ireland, travelling like so many of his contemporaries in politics, and weaving his journals into what the 17th century called "political anatomy," the 18th statistics, and the 19th "public economy." His economic bias classes him with such Irish political tourists as T. Campbell (1777) and A. YOUNG (1780), rather than with Bush (1764), Derrick (1767), Twiss (1776), and Luckombe (1780); and like Young he aims at completeness. But there the resemblance to Young, his great exemplar, ceases. No writer has a more personal note, or is more quotable, than Young. Most of the quotable sayings in Wakefield's book are themselves quotations—*e.g.* Vasco's "a large population, if proportionate to the wealth of a country, is advantageous, otherwise it is harmful" 1788 (also quoted by A. Young, *Travels in France*, ed. 1794, vol. i. p. 485), an anonymous writer's "a poorhouse was the cradle of the cotton trade of Ireland," A. Young's "the penal laws are not against the Catholic religion but against the industry and property of whoever professes that religion,"—cp. Campbell, *Philos. Survey*, p. 251. His advocacy of large farms is a reminiscence of A. Young; his views on Irish money (see IRISH CURRENCY), which he wishes to assimilate to English money, are based on SIMON'S work; his discussion of various estimates of the Irish population only confirms NEWENHAM, and his unionism is the unionism of PETTY, CHILD, Molyneux, Maxwell, DOBBS, Madden, DECKER, TUCKER, POSTLETHWAYT, FRANKLIN, BREWSTER, YOUNG, and A. SMITH. True, he has read the latest and best books, including those of MALTHUS, whose postulates appeared to him, as they did to Hallam and Hazlitt, as true "as that the earth turns round on its own axis," ii. 723, and Lecky has rescued at least one bright specimen of original observation, *Hist. of Ireland*, i. 286. His bookishness, while it makes him dull when compared with A. Young, makes him interesting when compared with the authors of the *Statistical Surveys of Irish Counties* which the

Dublin society initiated in 1801, partly at the instance of S. CRUMPE, *Essay*, 1793, p. 157, partly in imitation of the SINCLAIR Reports for Great Britain, 1793 *et seq.* Wakefield's culture and access to statistical information and to Sir J. Banks's famous library are the chief reasons why his work is valuable to economic historians of Ireland.

[*Biogr. Dict. of Living Authors*, 1816, p. 366. —M'Culloch, *Liter. of Pol. Econ.*, p. 218, and A. Young, *Autobiography*, p. 75, praised the book.—Graham Wallas, *Life of F. Place* (1898), ch. iv., describes his work as an educationalist and reformer. Comp. R. Garnett, *Life of E. G. Wakefield* (1898).] J. D. R.

WAKEFIELD, EDWARD GIBBON (1795-1862), coloniser, the son of Edward WAKEFIELD, was educated as a land-surveyor. In 1826 he was concerned in an extraordinary case of abduction, for which he was tried and sentenced to three years' imprisonment. During this term he studied with effect the English penal system, and on his release in 1831 he proceeded to Australia, to study the convict system in the colonies. This led him to the study of the improvident system, up to that time in vogue, of parting with the crown lands in these colonies, and of the question of the proper means of proportioning the number of settlers to the areas taken up. The result of this study was his formulation of the principle on which he afterwards always insisted, viz. that the unoccupied lands of a new colony should not be granted promiscuously, but portioned out and sold on a regular system at an adequate price, and that the proceeds of such sales should be made a fund for assisting further immigration to the colony. The chief difficulty incident to this system was that of fixing the "sufficient" price in each case (see *Parl. Paper*, H. of C., 512, 1836, pp. 66 *et seq.*; *View of Art of Colonisation*, pp. 331 *et seq.*; Mill's *Principles*, v. xi. § 14).

In 1833 Wakefield published his *England and America*, and immediately attracted the notice of the political chiefs in England.

In 1835 Henry George Ward obtained a committee of the House of Commons, "to inquire into the disposal of colonial lands." He obtained Wakefield's assistance as secretary, and the result of the evidence taken was the initiation of the company for the colonisation of South Australia of which Col. TORRENS (*q.v.*) was a leading spirit. Wakefield then addressed himself to arouse the public mind and obtain a parliamentary inquiry into the system of convict transportation, which thus received its death-blow. In 1837 Wakefield became a director of the New Zealand Association, intended for colonising New Zealand. But before he could take up any active work in that direction he went out to Canada as Lord Durham's private secretary in 1838 and remained there till 1845. His health soon afterwards broke down; he went first to the south of France, then to New Zealand, where he died.

Wakefield will always be best known by his system of colonisation above described. He was content to work through others rather than embody his views in any great work. The few writings he left behind served the requirements of the moment, and are obsolete for practical purposes, though Mill quotes him with approval (*Principles*, bk. iv. ch. iv. § 2). The chief of them are *Plan of a Company to be established* for the purpose of founding a colony in South Australia, 1831.—*A Commentary on Adam Smith's Wealth of Nations* (London, 1835).—*A View of the Art of Colonisation in letters between a Statesman and a Colonist* (London, 1849).

[*Gent. Mag.*, 1862, pt. ii. p. 498.—*Brit. Mus. Catalogue*, Mill, *l.c.*, art. HILL BURTON.] C. A. H.

WALES, WILLIAM (d. 1798). Captain Cook's travelling astronomer 1772-79—Master of the Royal Mathematical School at Christ's Hospital 1780-98, and F.R.S. 1777-98:

Made but one incursion into political arithmetic in his *Inquiry into the present State of Population in England and Wales*, 1781. Dr. PRICE's calculations that England was dwindling were based on the HEARTH TAX returns of 1690 and window tax returns (see TAXATION) of 1759 and 1777. A. YOUNG, *Pol. Ar.*, 1774, pp. 84, 88, 322; and Eden, *Letters to Lord Carlisle*, 1780, App. 6, pointed out that in the former "houses" meant "families" (Dr. Price's was also DAVENANT'S and MALTHUS's mistake), *Essay*, ed. Bettany, p. 232, and in the latter untaxed cottages were filled in by guess-work. WALES and then HOWLETT repeated these criticisms, not always so well—compare *Inquiry*, p. 13, and *Pol. Ar.*, p. 327 n.; and added estimates of their own which relied too much on Yorkshire statistics in which Dr. Price admitted an increase—Anon., *Uncertainty of the present population of the Kingdom* 1781; Dr. Price, *Observations on Reversionary Payments*, 4th ed. 1783, ii. 275 *et seq.* Dr. Price ignored A. YOUNG, traversed EDEN and HOWLETT, but adopted some of Wales's figures—*ib.* i. 245, 251, 260, etc. Price, Wales, and Howlett assumed that numbers meant strength, and Wales followed Sir W. TEMPLE, SHORT, Sir M. DECKER, and J. MASSIE in suggesting the adjustment of taxation, etc., so as to promote marriage.

[*Gentlemen's Magazine*, li. 326, lxviii. 1155.—Lists of the Royal Society in *Philosophical Transactions*.—M'Culloch, *Literature of Pol. Ec.*, p. 258. —Cunningham, *Growth of English Industry and Commerce*, ii. 562.—Chalmers, *Estimate*, 1782, pp. 150 *et seq.*] J. D. R.

WALKER, AMASA, LL.D. (1799-1875). As economist and statesman, the Hon. Amasa Walker exerted hardly less influence on the thought of his time than his more renowned son, General Francis A. Walker. Amasa Walker was born in Woodstock, Connecticut; too feeble in health as a boy to be sent to college, he worked as a clerk in the village store, taught school in the Brookfield districts, and worked on the farm at home as his health permitted. In 1829 he went into business for himself and began to take a prominent part in the intellectual and political life of Boston. He

organised a Lyceum, and was its first secretary, and later its president.

He was identified with the railroad movement in America from the start. In 1835 he wrote articles and made speeches to secure railroad connection between Boston and Albany. In 1837 he was a director of the Western Railroad, and in 1839 he visited St. Louis and made a remarkable address and argument for railroad communication between Boston and the Mississippi. He also championed the anti-slavery movement from the beginning. In 1839 he became president of the Boston Temperance Society, and for thirteen years previously had been writing in support of total abstinence principles. Owing to ill-health he retired from business in 1840 on a moderate fortune saved from the financial wreck of 1837-1839, and from this time on for a period of thirty-five years he was prominent in public life. Several times he was a member of the Mass. state legislature, and once was sent to congress, where he devoted himself chiefly to monetary and financial questions. He was professor of political economy from 1842-1849 at Oberlin College, which he helped to found, and later (1861-1866) was lecturer on political economy at Amherst College, Mass. He was also a delegate to several peace conventions, and in 1851 was elected secretary of state in Mass., by the "free soil" and democratic vote. He had been brought up among federalists and was a Jacksonian democrat, but because of his views on paper money, banking, and the subtreasury, he joined the liberty party in 1844 and helped to create the "free soil" party in 1848 and the republican party in 1856.

Amasa Walker published a pamphlet in 1857, *The Nature and Uses of Money*, in which he adhered to the views of the currency school of Overstone, Torrens, and Norman in England. He favoured bank notes only provided fluctuations were controlled by the movement of metallic money. His main book on economics, *The Science of Wealth*, was published in 1866. It passed through many editions, was translated into Italian and well received in Europe and America, in which latter country it became popular as a text-book, and a student's edition was specially prepared. The thought is of the Smith-Ricardian type. Much space was given to money, in which the author elaborated the views stated in his earlier pamphlet. No mention was made of the wages-fund doctrine, and on the tariff question the free-trade side of the controversy was taken. Throughout the book is optimistic, and the author's views were permeated with an enthusiastic and healthy moral tone which commanded general respect.

For biographical data see Memoir of Hon. Amasa Walker by Francis A. Walker, reprinted from New England historical and genealogical register, April 1888. In addition to the books already quoted, Amasa Walker published many magazine articles, and, together with Wm. B. Calhoun and Chas. L. Flint, issued *Transactions of the Agricultural Societies of Mass.*, 7 vols., 1848-1854.] S. M'C. L.

WALKER, FRANCIS AMASA (1840-1897), son of the preceding, was born and died in Boston, Massachusetts. He graduated from Amherst College in 1860, and began the study of law, but in 1861 joined a volunteer regiment and served with distinction for the greater part of the civil war, retiring in 1865 with the brevet rank of brigadier-general. In 1869 he was made deputy special commissioner of the revenue, and placed in charge of the bureau of statistics at Washington. His efficiency in renovating the bureau proved his capacity both as administrator and as statistician, and led to his appointment to superintend the census of 1870, and ultimately that of 1880. Although his work in 1870, especially as regards the black population, was injured by the obsolete legislative provisions under which it was done, the general result was to gain for Walker a solid reputation both at home and abroad, which was heightened by the extraordinary scope and excellence of the monumental tenth census, directed by him in 1880.

In the midst of his statistical work, Walker was called into the general field of economics by an appointment as professor of political economy in the Sheffield Scientific School of Yale College in 1872. His aptitude for such studies was inherited; he had begun to write for the press upon money in 1857, had assisted his father, and had even lectured in his father's place in Amherst College as early as 1865. By his discussion of the results of the census of 1870, and by an excellent book on the Indian question, the fruit of a short service as commissioner of Indian affairs in 1871-72, he had secured the ear of the public, and his first important treatise, *The Wages Question* (1876), therefore attracted instant attention. In this book, as a part of his comprehensive review of the whole subject, Walker made a vigorous attack upon the wages-fund theory, arguing that wages are paid from the product of labour and not from accumulated capital. Neither Longe nor THORNTON had been so fortunate, either in the time or the manner of dealing with this question, and Walker had at once a large following, although the controversy was not ended. He also developed with great clearness the function of the *entrepreneur* as distinguished from the capitalist, and the distinction thus made between business profits and interest enabled him in his *Political Economy* (1883) to work out a law of business profits analogous to the law of rent, and thus to present a theory of distribution under which rent, interest, and profit, being severally determined each by a law of its own, labour is the "residual claimant" to all that remains, be it more or less. This bold generalisation became the subject of much

discussion, and was strongly defended by Walker in his later writings.

Walker's second important treatise, *Money* (1878), appeared at a critical moment in the history of the federal legislation upon currency, and by its broad and candid review of the whole field did much to establish opinion in favour of the specie standard, although neither in form nor intention a controversial publication. Its careful survey of the question of silver coinage, and its conclusions favourable to international bimetallism, together with his appointment in the same year as a representative of the United States in the International Monetary Conference at Paris, gave him an important place in the monetary discussions of the next twenty years. His efforts in favour of an international movement, as opposed to solitary action by his own country, ended only with his death, and the last year of his life was marked by the publication of his short résumé, *International Bimetallism* (1896).

In 1881 Walker was made president of the Massachusetts Institute of Technology, and for the rest of his life was occupied in developing the plan on which this important school was founded. His administration was brilliant, but did not diminish his activity as an economist. In 1882 he became president of the American Statistical Association, in 1885 was made president of the newly-formed American Economic Association, and in 1893 president-adjunct of the International Statistical Institute at its session in Chicago. Membership in many foreign learned societies, and honorary degrees from leading universities, both American and English, attested the scientific eminence which had long been freely accorded to him in every leading country.

Some persistent controversies will have to be settled before the permanent value of Walker's special contributions to economic theory can be determined. As a leader in economic discussion, and as a director and interpreter of statistical work, he must always hold a distinguished place. His influence in the promotion of economic study in the United States was of the first importance. His strong leaning toward a rational conservatism did not make him less ready to examine the basis of accepted theories. The ardour and strong conviction with which he took his part in debate were inspiring to others. His varied experience and knowledge of men gave him a rare familiarity with the actual movements of the world, and a vivid perception of the realities among which economic laws must work. As presented by him, therefore, theory seemed unusually practical and close to life, and commanded the attention of men of the most diverse scientific tendencies, and also of general readers. In personal intercourse, as well as in his written work, he was cheerful, courageous, and hopeful, fitted by nature to grapple with large subjects and to hold a leading place among men.

[An exhaustive bibliography of Walker's writings is given in the *Publications of the American Statistical Association*, June 1897, from which the following leading titles are taken; *Ninth Census*, 3 vols. 4to, and Compendium, 8vo (1872); *Statistical Atlas of the United States* (1874); *The Indian Question* (1874); *The Wages Question* (1876); *Money* (1878); *Money in its Relations to Trade and Industry* (1879); *Tenth Census*, 22 vols. 4to, and Compendium, 8vo (1881-88); *Political Economy* (1883); *Land and its Rent* (1883); "The Eleventh Census" (in *Quarterly Journal of Economics*, January 1888); *International Bimetallism* (1896).] C. F. D.

WALKER, Robert J. (1801-1869). American statesman, graduate of the university of Pennsylvania, 1819, was a lawyer at Pittsburg, Pa., 1822-26, removed to Mississippi and took an active part in politics, and opposed nullification. He became United States senator in 1836, and supported Jackson's administration. He became secretary of the treasury under President Polk, and was the author of the tariff act of 1846, based, according to the secretary, upon the following principles:

1. That no more money should be collected than is necessary for the wants of the government, honestly administered.

2. That no duty be imposed upon an article above the lowest rate, which will yield the largest amount of revenue.

3. That below such a rate discrimination be made descending in the scale of duties, or for imperative reasons the articles may be placed on the free list.

4. That the maximum of revenue duties should be imposed on luxuries.

5. That all minimum and all specific duties should be abolished, and *ad valorem* duties substituted in their place, care being taken against fraudulent invoicing and undervaluation, and to assess the duty upon the actual market value.

6. That the duty should be so imposed as to act as equally as possible throughout the union, discriminating neither for nor against any class or section.

The repeal of the English corn laws in the same year, and the Mexican and Crimean wars, co-operated with the reduction of tariffs to open new markets, and the period of 1846-1857—in which year duties were still further reduced—is regarded as unusually prosperous.

Walker was the first to propose the annexation of Texas (1844); he opposed the repeal of the Missouri Compromise (1854), became governor of Kansas (1857), but soon resigned because of opposition to the measures in behalf of slavery in that territory which received the sanction of the administration. He earnestly supported the union on the outbreak of the civil war, and was appointed in

1863 financial agent of the United States in Europe, where he succeeded in negotiating $250,000,000 (say £50,000,000) of the 5-20 bonds. He was for a time joint editor, and later contributor, to the *Continental Monthly*. He died in Washington, where he had acquired a large law practice on his return from Europe.

E. T. D.

WALLACE, ROBERT, D.D. (1697-1771), one of the royal chaplains for Scotland, and a statistical writer of some repute.

His principal work is, *A Dissertation on the Numbers of Mankind in Ancient and Modern Times, in which the Superior Populousness of Antiquity is Maintained* (1753). The *Dissertation*, which is vigorously argued both on historical and deductive grounds, was written before the appearance of D. HUME'S essay, *Of the Populousness of Ancient Nations*, but in an appendix Dr. Wallace endeavours to answer it.

Though he "succeeded in pointing out a few errors in Hume's statements, which were rectified in subsequent editions of the essay, he wholly failed to shake its foundations, or to prove in opposition to Hume that Europe was more populous in ancient than in modern times.

Exclusive of the above, Dr. Wallace published the following works: — *Characteristics of the Present Political State of Great Britain*, 8vo, London, 1758, and *Various Prospects of Mankind, Nature, and Providence*, 8vo, London, 1761. "These works embrace sundry speculations, which evince considerable boldness and ingenuity, on matters connected with the condition and prospects of society, the influence of public debts and taxes, the increase of riches, etc. It has been alleged that MALTHUS was under considerable obligations to some of Wallace's speculations."—M'Culloch, *Literature of Political Economy*.

WALLACE, THOMAS (1769-1844), afterwards Baron Wallace of Knaresdale. Entered parliament 1790; privy councillor, 1801; a member of W. PITT'S government, 1804. He was vice-president and chairman of the committee of the privy council formed to consider the state of foreign trade, 1818; master of the mint, 1823; raised to the peerage, 1823.

He had a high reputation as a politician well versed in industrial and commercial matters, and is referred to in M'Culloch's edition of the *Wealth of Nations*, vol. iv. p. 387, as having introduced, in 1821, several important changes into the navigation laws.

WALPOLE, SIR ROBERT, afterwards Earl of Orford (1676-1745), was a statesman conspicuous for his fiscal as well as his general policy. Entering parliament in 1701, he became secretary at war in 1708, and treasurer of the navy in 1710. But shortly afterwards, being found guilty by the House of Commons of "breach of trust and notorious corruption," he was expelled the House and sent to the Tower. By another rapid change of fortune, owing to the fall of Bolingbroke, he became chancellor of the exchequer and first lord of the treasury in 1715. Difficulties soon arose, however, and in 1717 Walpole resigned office, bringing in a sinking fund bill on the day of his resignation. Three years later he accepted the post of paymaster-general, and after the collapse of the SOUTH SEA scheme the public looked to him to restore order in the national affairs. In 1721 he became first lord of the treasury and chancellor of the exchequer, and from this time until his final retirement in 1742 he was supreme, and practically sole controller of the destinies of England.

In some respects the economic measures of Walpole were in advance of his time, but his handling of the public debt and his excise schemes have been severely censured. When Walpole first came to the treasury in 1717, the national debt stood at £54,000,000, bearing an average interest of between 6 and 7 per cent. He produced a plan for reducing the interest and establishing a sinking fund for the redemption of the principal. But the net result in ten years was only a decrease of the debt by about two and a half millions. Professedly adhering to the policy of the sinking fund, Walpole effected a further reduction of interest from 5 to 4 per cent. Yet in contradiction to his own policy, he proposed in 1733 to take half a million from the sinking fund for the service of the year. To disarm opposition, he threatened parliament that if they would not let him have the money he would raise the land tax from one to two shillings in the pound. After this the sinking fund was constantly invaded, so that by the end of 1739—after seventeen years of peace—the whole sum extinguished was no more than £8,328,000, leaving a capital debt of nearly £47,000,000.

When Sir John BARNARD proposed in 1737 to reduce the interest on the national debt to 3 per cent, and to enforce the compulsory redemption of certain annuities existing at a higher rate, Walpole opposed the scheme. He not only argued that the reduction of the income of a considerable number of persons by one-fourth would prove a serious loss and embarrassment, but foreseeing an early war with Spain, he was anxious to keep on good terms with the moneyed interest, and to maintain the public faith with the national creditors.

Walpole's commercial policy was, generally speaking, wise and far-seeing. As early as 1721 he placed this important reference to the extension of commerce in the king's speech: "It is very obvious that nothing would more conduce to the obtaining so public a good, than *to make the exportation of our own manufactures and the importation of the commodities used in the manufacturing of them, as practicable and as easy as may be.*" This is regarded as the first distinct assertion of those enlightened

trade principles which half a century later found expression in Adam Smith's great work. Moreover, in this same session of 1721 Walpole persuaded parliament to remove the export duties from one hundred and six articles of British manufacture, and the import duties from thirty-eight articles of raw material.

In 1730 Walpole passed an act allowing the Carolina and Georgia planters to export their rice direct to any port in Europe south of Finisterre, provided they sent it in British ships, manned by British sailors. Consequently, the rice of the American plantations beat the rice of Egypt and Northern Italy out of the markets of Europe. At a later stage Walpole carried a measure for allowing the West India traders to export sugar direct to foreign countries, provided it were in British bottoms, and without first landing it in British ports. The result of these and similar measures was, that in twenty-five years after Walpole left the treasury, the total export trade from England with all parts of the world had risen from £6,000,000 per annum to more than £12,000,000. The minister declared that his object had always been to encourage colonial commerce because the greater the prosperity of the colonies the greater would be their demand for English goods.

Walpole's scheme for extending the excise was the one which of all others was the most canvassed. Its most important feature, the facility for warehousing imported goods for re-exportation free of duty, had been for some time in operation in Holland.[1] The bill introduced to the House of Commons in 1733 was in effect one to turn the customs duty on the importation of tobacco into an excise duty on its consumption. Walpole claimed that this policy, besides simplifying rates and putting an end to frauds upon the revenue, would practically make London a free port, and constitute it the market of the world.

But the Tobacco Bill was violently opposed. The country rang with the cry of "no slavery, no excise, no wooden shoes." Members of parliament were blockaded at the House of Commons, and the whole nation was in an uproar. Yet such was the personal power of Walpole that the first resolution was carried by 266 to 205. The opposition waxed fiercer and fiercer, until on the main question the government majority sank to 17. Then, perceiving that the act could not be carried into execution without an armed force, the minister abandoned the bill. His sensible statesmanship came into play, for he knew that England could be governed without an excise on tobacco; and while he was perfectly convinced of the wisdom of his fiscal policy, he foresaw greater dangers to the state by insisting on its adoption than could possibly result from its postponement.

[1] The "famous excise scheme of Sir Robert Walpole" is commended by A. Smith (*Wealth of Nations*, bk. v. ch. ii.; M'Culloch (*Literature, Pol. Econ.*, p. 324), speaks of it also in the highest terms, and says "its adoption would have been of the greatest advantage to the commerce and revenue of the country." (See BONDED WAREHOUSES; WAREHOUSING SYSTEM.)

Taking his fiscal policy as a whole, economic writers agree that Walpole was the greatest commercial minister that the country had seen down to his own time. Yet besides other rebuffs which he sustained, in 1723 he was compelled to withdraw the grants for WOOD'S halfpence on the storm raised by Swift's DRAPIER'S LETTERS, and he lost credit by his peaceful foreign policy. After he went to the Upper House charges of bribery were brought against him, but although a committee of investigation reported against him, the charges were ultimately dropped. There was in this great statesman a strange blending of personal power with liberal instincts.

[Coxe's *Memoirs of Sir Robert Walpole.*—John Morley's *Walpole* in "Twelve English Statesmen." The Histories of Stanhope and Lecky.—Somers's *Tracts.*] H. B. S.

WALRAS, ANTOINE AUGUSTE (1801-66) was born at Montpellier. In 1831 he became professor of rhetoric at the college of Évreux, and soon afterwards published his first book on political economy. In 1835 he went to Paris as professor of political economy at the Athénée, and was afterwards professor of philosophy and of French literature at Caen.

A. A. Walras was one of the first economists who perceived that value was not determined by utility. He was led to the study of economics from the study of the theory of property. The key to his system is clearly given in one sentence in his earliest book. "Mais l'idée de l'échange implique celle de la propriété, et la propriété elle-même suppose un fait très important et qui jusqu'ici a malheureusement échappé à l'observation des économistes; c'est la *limitation* de tous les objets qu'on peut s'approprier et qu'on peut donner ou recevoir en échange." He proceeds to explain that value does not come from utility or from cost of production, but from *rareté*, or as we should now say marginal utility (see FINAL DEGREE OF UTILITY, and MARGIN). But it is not quite certain that he completely appreciated exactly what this *rareté* or marginal utility is. His more precise description of it is not very satisfactory. "La rareté n'est et ne peut être autre chose que le rapport qui existe entre la somme des biens limités et la somme des besoins qui en réclament la jouissance." That is to say, in mathematical language, he regards final utility as a ratio rather than as a differential coefficient. On the other hand, there are many passages in his writings in which he appears to be on the point of enunciating in precise language the more correct views that are now associated with the name of his son LÉON WALRAS (*q.v.*) and JEVONS. It is difficult to form an estimate of the importance of his work, but it is probable that political economy would have got on the right lines at an earlier stage than it did if economists had been properly conversant with his works. As a critic of the works of others he is acute rather than sympa-

thetic, but always generous. His writings are unfortunately very rare; the subjoined list of his published economic writings is possibly very imperfect; but a perusal of his earliest book is quite sufficient to show that he was a man of great originality of thought, and that he expressed his views in a clear style. Probably some of his unpublished ideas are to be found in the writings of his son.

De la nature de la richesse et de l'origine de la valeur, Paris, 1831.—*De la connexité des connaissances humaines et des progrès scientifiques, en général, et en particulier de l'influence que l'étude de l'Économie politique est appelée à exercer sur l'avancement des sciences morales et historiques*, Evreux, 1833 (the opening lecture of his course on political economy).—*De la richesse sociale, ou de l'objet de l'Économie politique*, Paris, 1848.—*Théorie de la richesse sociale, ou résumé des principes fondamentaux de l'Économie politique*, Paris, 1849.—*Mémoire sur l'origine de la valeur d'échange ou Exposition critique et réfutation des opinions les plus accréditées chez les Économistes* (read at the Académie des sciences morales et politiques, 15th September 1849, and published in their proceedings).—*Considérations sur la mesure de la valeur et sur la fonction des métaux précieux dans l'appréciation de la richesse sociale* (published in the *Revue mensuelle d'Économie politique*, vol. 5). C. P. S.

WALRAS, MARIE ESPRIT LÉON (b. 1834), the son of A. A. WALRAS, was born at Évreux. He studied mathematics and published his first book on political economy in 1860, was professor of political economy at Lausanne from 1870 till 1892, when he resigned and was succeeded by Vilfredo Pareto. During the years 1866-68 he edited "*Le Travail, organ international des intérêts de la classe laborieuse revue de mouvement cooperatif*," and wrote many articles in it.

M. Léon Walras may be justly considered as the heir to his father's ideas. How much he derived from his father is a matter of conjecture, because his own generous expressions in reference to his father's work probably overstate his indebtedness. Yet in his earlier writings it is clear that the debt is a large one in spite of the fact that he has succeeded in constructing and developing an economic system where his father failed. In spite of the lucid style of A. A. Walras's books, considerable doubt is still left in the mind of the reader as to the precise nature of *rareté*. M. Léon Walras, using mathematical symbols, succeeded in making the conception a clear one; and it is as a mathematical economist that M. LéonWalras is most widely known. It is difficult for the younger generation, at the present day, to realise what was the state of economic science in the days before W. S. JEVONS in this country, and M. Walras on the continent, familiarised students with the use of exact reasoning in economic science expressed in the elegant language of mathematics. Errors in pure economics are due to either incorrect assumptions or invalid deductions. Many writers succeed in entangling their assumptions and deductions. The use of mathematical symbols enables the reader to see clearly what the underlying assumptions are, and then to follow easily the logical deductions from those assumptions. The use of mathematics is the best means of getting rid of both inaccuracy of assumption and loosesness of deduction.

The greatest achievement of M. Léon Walras is his discovery of the fact that value in exchange is determined by marginal utility or *rareté* (see FINAL DEGREE OF UTILITY; MARGIN). He shares this honour with H. H. GOSSEN (*q.v.*) and W. S. JEVONS. The question of the priority of the respective discoveries of these three economists is unimportant because each made his discovery without being aware of the work of the others. M. Walras apportions the honours as follows:—

"Gossen et M. Jevons ont trouvé avant moi l'expression mathématique de l'utilité et formulé la condition d'un maximum d'utilité dans l'échange, par un individu, d'une marchandise contre une autre; c'est une chose incontestable. M. Jevons semble disposé à concéder à Gossen une certaine supériorité sur le premier point et à se l'attribuer à lui-même sur le second. Il a raison: Gossen n'a formulé que la condition du maximum absolu; c'est lui, Jevons, qui, le premier, a formulé la condition du maximum relatif coexistant avec l'égalité de l'offre et de la demande. Seulement ils se sont arrêtés là tous les deux en ce qui concerne même le cas de l'échange de deux marchandises l'une contre l'autre en nature. Ni Gossen ni M. Jevons n'ont même abordé la question de la détermination du prix courant de chacune de ces deux marchandises l'une en l'autre en supposant une nombre indéfini d'échangeurs en présence. Or c'est là précisément l'une des deux questions par moi résolues dans mon mémoire intitulé "Principe d'une théorie mathématique de l'échange" (Août 1873) et d'où il résulte que l'on obtient le prix courant par la hausse en cas d'excédent de la demande effective sur l'offre effective et par la baisse dans le cas contraire."

The equations of statical equilibrium are now the commonplaces of economic text-books, but in the matter of the dynamics of economics—how these equations are attained in practice—M. Léon Walras has been subjected to some criticism (see an article by Professor Edgeworth in the *Revue d'Économie Politique*, Jan. 1891).

M. Léon Walras's system of economics is contained in his *Éléments d'économie politique pure*, *Études d'Économie politique appliquée* and *Études d'économie sociale*. It is difficult to exaggerate the advantage of making in this manner a vivid distinction between pure and applied economics, and also again between applied economics and what may be termed politics. If all economists had been careful to make this distinction, much of the abuse that has fallen on the "dismal" science would have been spared us.

On four subjects M. Léon Walras's views are of peculiar interest, because they are not altogether in agreement with those generally held.

On the question of land M. Walras is with the land nationalisers. He discusses Gossen's views most exhaustively, and then develops a scheme of his own by which the state is to purchase the land. His treatment may be commended to politicians.

On the question of currency he has a scheme of his own. It is that of a gold currency, supplemented by a token currency of silver in such a manner as to keep the level of prices steady. In M. Walras's own words "Tout serait pour le mieux si la rareté de la marchandise numéraire et monnaie variait comme la rareté moyenne de la richesse sociale. L'or, pas plus qu'aucune marchandise quelconque, ne saurait prendre naturellement une telle variation de rareté et de valeur; mais on peut la lui imprimer artificiellement en adjoutant à la circulation monétaire ou en en retranchant, selon les besoins, des écus d'argent. Et c'est à quoi j'ai démontré qu'on arriverait précisément en faisant ces additions ou ces soustractions de façon à ce que le prix moyen de la richesse sociale en la marchandise numéraire et monnaie ne variât plus. Sans doute il est évident qu'on ne peut pas ajouter à la circulation monétaire ou en retrancher des écus d'argent de façon à prévenir toute variation du prix moyen de la richesse sociale en or; mais il semble qu'on pourrait le faire de façon à ramener périodiquement ce prix moyen à la constance en adjoutant des écus quand il tendrait à hausser."

Finally, on the allied questions of both justice and taxation M. Walras's views are of great interest. Roughly speaking, he attempts a synthesis of interest and justice, and would solve the question of taxation by the method of land nationalisation. Any account of his views on these points that could be given here would necessarily be so brief as to be misleading.

The general characteristics of M. Walras's writings are (1) the use of the mathematical method wherever additional clearness can be attained thereby; (2) great care in distinguishing theory and practice; (3) a great interest in what, for want of a better word, may be termed sociology. The subjoined bibliography will serve to indicate the great number of his interests, and the fact that many of his articles have appeared in newspapers is a guarantee of his interest in the topics of the day. M. Léon Walras cannot be considered to belong to any special school of economics, unless he is a founder of one; his attitude is scientific. In one of his latest publications he says, "We count to-day I do not know how many schools of political economy. . . . For me, I recognise but two: the school of those who do not demonstrate, and the school—which I hope to see founded—of those who demonstrate their conclusions." In every way this utterance is thoroughly characteristic of the man.

As to the final effect of M. Léon Walras's works, it is perhaps at present too early to judge; but whatever may be the judgment of posterity in regard to some of his views, it is clear that in the history of economics his name will always be associated with those of Gossen and Jevons as one of the discoverers of the key to economic science.

Note.—In many cases M. Walras has incorporated in his books articles which have been previously published. The articles which are substantially incorporated in this way are referred to under the book, and are omitted from the list of separate articles.

L'économie politique et la justice. Examen critique et réfutation des doctrines économiques de M. P.-J. Proudhon, précédés d'une *Introduction à l'étude de la question sociale*, Paris, 1860.—*Théorie critique de l'impôt*, précédée de *Souvenirs du Congrès de Lausanne*, Paris, 1861.—*De l'impôt dans le canton de Vaud.* Mémoire auquel un quatrième accessit a été décerné ensuite du concours ouvert par le conseil d'État du canton de Vaud sur les questions relatives à l'impôt, Lausanne, 1861.—*Les associations populaires de consommation, de production et de crédit.* Leçons publiques faites à Paris en janvier et février, 1865, Paris, 1865. — *Des opérations de la Caisse d'escompte des associations populaires*, Paris, 1866.—*La Bourse et le Crédit à Paris*, Paris-Guide, 1867.—*Discours d'installation* en qualité de professeur ordinaire d'économie politique à l'académie de Lausanne, 1871. — *Éléments d'économie politique pure ou théorie de la richesse sociale*, Paris, 1st ed. 1st part, 1874; 2nd part, 1877; 2nd ed., Paris, 1889; 3rd ed., Paris, 1896. The second edition contains *Théorème de l'utilité maxima des capitaux neufs* (Revue d'économie politique, June 1889). The third edition contains *De l'échange de plusieurs marchandises entre elles* (Société des Ingénieurs Civils de Paris, 1890), *Théorie géométrique de la détermination des prix* (Recueil inaugural de l'Université de Lausanne, 1892), *Observations sur le principe de la théorie du prix de MM. Auspitz et Lieben* (Revue d'économie politique, 1890), and *Note sur la réfutation de la théorie anglaise de fermage de M. Wicksteed* (Recueil publié par la Faculté de Droit de l'Université de Lausanne, 1896). — *Théorie mathématique de la richesse sociale*, Paris, 1883, contains *Principe d'une théorie mathématique de l'échange* (Proceedings of the Académie des Sciences morales et politiques, Jan. 1874), *Correspondance entre M. Jevons et M. Walras* (Journal des Économistes, June, 1874), *Équations de l'échange, Équations de la production, Équations de la capitalisation et du crédit* (Proceedings of the Société vaudoise des sciences naturelles, Nos. 76 and 77), *Théorie mathématique du bimétallisme* (Journal des Économistes, 1876, 1881, 1882), *Théorie mathématique du billet de banque, Théorie mathématique du prix des terres et de leur rachat par l'état* (Proceedings of the Société vaudoise des sciences naturelles, Nos. 83 and 85). The first four of these articles have been translated into Italian, sub tit.: *Teoria matematica della ricchezza sociale* 1878, and into German, sub tit.: *Mathematische Theorie der Preisbestimmung der wirthschaftlichen Güter*, Stuttgart, 1881.—*Études d'économie sociale* (*Théorie de la répartition de la richesse sociale*), Paris, 1896, contains *Socialisme et libéralisme* (Le Travail, 1866, 1867), *Théorie générale de la société* (lectures delivered at Paris, 1867-68), *Méthode de conciliation ou de synthèse* (Revue Socia-

liste, 15 April 1896), *Théorie de la propriété* (Revue Socialiste, 15 June, 15 July, 1896), *La question sociale* (Gazette de Lausanne, 22 July, 1880), *De la propriété intellectuelle* (*Ibid.* 10, 11, 12 June, 1880), *Théorie mathématique du prix des terres* (see above), *Un économiste inconnu, H. H. Gossen* (Journal des Économistes, April, May, 1885), *De l'impôt sur le revenu et de l'impôt sur le capital* (part of the two brochures on taxation, see above, 1861), *Le cadastre et l'impôt foncier* (Bibliothèque universelle, Nov. Dec. 1873), *Le problème fiscal* (Revue Socialiste, 15 Oct., 15 Nov. 1896). — *Études d'économie politique appliquée*, Paris, 1898, contains *Monnaie d'or avec billon d'argent régulateur* (Revue de droit international, Dec. 1884), *Mesure et régularisation des variations de valeur de la monnaie* (Société vaudoise des sciences naturelles, 1885), *Théorie de la monnaie* (Paris, 1886), *Le problème monétaire* (Revue d'économie politique, 1887; Gazette de Lausanne, 24 July 1893, 27 Feb. 1894; and Revue Socialiste, 15 July 1895), *L'état et les chemins de fer* (Revue du droit public et de la science politique, May-June, July-August 1897), *De l'influence de la communication des marchés sur la situation des populations agricoles* (Société vaudoise d'utilité publique, 1874), *L'économique appliquée et la défense des salaires* (Revue d'économie politique, December 1897), *Théorie du libre-échange* (*ib.*, July 1897), *Théorie du crédit* (*ib.*, Feb. 1898), *Théorie mathématique du billet de banque* (Société vaudoise des sciences naturelles, 1879), *La Caisse d'épargne postale de Vienne et le Comptabilisme social* (Revue d'économie politique, March 1898), *La Bourse, la spéculation et l'agiotage* (Bibliothèque universelle, March and April 1880), *Esquisse d'une doctrine économique et sociale.* The principal memoirs and articles not included above are—*Giornale degli economisti*, "Un nuovo ramo della matematica," Padua, 1876. — *Annals of the American Academy of Political and Social Science*, "Geometrical Theory of the Determination of Prices," Philadelphia, July 1892.—*British Association Report*, "Solution of the Anglo-Indian monetary problem," 1887 (Revue d'économie politique, 1887).—*Indépendant de la Moselle*, 1863.—"Principes de la théorie des richesses, par M. Cournot," 13 July.—"De la constitution de la propriété en Algérie," 2, 21 Sept., 12 Oct.—"De l'esprit communal et de la routine administrative, par M. de Labry."—*Bibliothèque universelle*, "De la culture et de l'enseignement des sciences morales et politiques," July, Aug., 1879.—*Journal des économistes* (1860-85), "Paradoxe économique. Que le sens commun n'est point le criterium de la science en général, ni, en particulier, celui de l'économie politique."—*Gazette des tribunaux suisses* (1875-76), "La loi fédérale sur l'émission et le remboursement des billets de banque," "La loi fédérale sur le travail dans les fabriques."—*La Presse* (1860-61), "Des octrois;" "De la mise en valeur des biens communaux"; "De la cherté des loyers à Paris"; "La Bourse et le développement du capital"; De l'élévation du taux de l'escompte," "à M. Félix Solar" (1865-66), "Les sociétés coopératives et la législation," "Le mouvement d'association et la politique libérale," "L'association à la française."—*Le Travail* (1866-1868)—"Programme économique et politique"—"Société coopérative immobilière"—"De la cherté du pain et de l'établissement de boulangeries coopératives"—"A propos d'un article de M. Horn"—"Discussion sur les associations coopératives à la Société d'économie politique de Paris"—"Des doctrines en matière d'association coopérative"—"Énoncé de principes relatifs aux associations coopératives"—"Le crédit gratuit réciproque"—"La liberté des Sociétés"—"Le futur parti"—"De la gratuité par la réciprocité dans les banques d'échange"—"Les sociétés de résistance"—"Discussion sur les coalitions et les grèves à la Société d'économie politique de Paris"—"Le projet de loi sur les sociétés à capital variable"—"La discussion du corps législative sur les sociétés à capital variable"—"Syndicat du crédit à Paris"—"Congrès international coopératif"—"Société d'économie politique de Paris"—"Les syndicats de garantie mutuelle"—"De l'éducation des filles"—"La science et le socialisme"—"La sécurité générale"—"Le socialisme scientifique"—"Le mouvement d'instruction populaire"—"Les réunions publiques." See also a bibliography given in the *Revue du Droit Public et de la Science Politique*, May-June 1897. C. P. S.

WALSH, Sir John Benn (1798-1881), created Lord Ormathwaite (1868), an Irish, Welsh, and English landowner, and M.P. for Sudbury (1830-34) and Radnorshire (1840-68), wrote several Tory essays in which he combated De Tocqueville's fatalism and Macaulay's optimism with arguments resembling those afterwards used in Sir H. Maine's *Popular Government.* His economical work—*Poor-Laws in Ireland considered in their Probable Effects upon the Capital, the Prosperity, and the Progressive Improvement of that Country* (1830, 3rd ed., 1831), opposed the introduction effected in 1838 of poor-laws into Ireland; since (1) there was no middle class to work them properly, and as for landlords, "no man of education with the habits and feelings of a gentleman could submit to the endless drudgery, the constant sifting of unfounded claims" (p. 74); (2) therefore they would be used to spoil the landlords and drive away capital, and (3) increase improvident marriages, which were Ireland's bane. His positive remedies were: leave all to time; let the landlord do without the middleman lessee, and hire good small farmers, etc. Despite his aristocratic bias he was an able, judicious writer. J. D. R.

WALSH, Richard Hussey (1825-1862), born in King's County, Ireland, was educated altogether by his mother until he entered Trinity College, Dublin, where he highly distinguished himself in mathematics, obtaining a gold medal at the degree examination of 1846, when, it is interesting to observe, Cliffe Leslie also graduated with high honours in logic and ethics, and W. E. Hearn with like distinction in classics. In 1851 Walsh was elected by

competitive examination to the Whately professorship of political economy; his professorial term expired in 1856, when he was succeeded by J. E. Cairnes. He afterwards went out to Mauritius as a commissioner of education, and, whilst there, was also employed in organising the postal service and taking the census of the island. He died at Port Louis in the 37th year of his age.

He was a man of sincere and earnest nature, and of great intellectual solidity, clearness, and force. He knew accurately whatever he professed to know. His most important publication was an *Elementary Treatise on Metallic Currency*, being the substance of a course of lectures delivered in Trinity College, 1853, which is still well worth reading for its statement and proof of the true doctrine of money. He was for some years an active member of the statistical and social inquiry society of Ireland, and contributed to its *Transactions*, besides other papers, the following: "The price of silver of late years does not afford an accurate measure of the value of gold" (read also before the British Association in 1855), and "Observations on the gold crisis, the price of silver, and the demand for it" (1856).

[This notice is founded on personal knowledge and family communications.] J. K. I.

WANTS. See Demand; Luxury.

WARD, Bernardo (died about 1760). Irish by descent, Ward travelled from 1750 to 1754 through Europe on a mission from King Ferdinand VI. of Spain to study the means of remedying the state of the poor, and to promote trade and manufactures in Spain. On his return he was appointed minister of trade and of the mint, and director of the royal glass works in San Ildefonso.

He published the results of his travels of economic exploration in the *Proyecto económico en que se proponen varias providencias* (measures) *dirigidas á promover los intereses de España*, published posthumously in 1762. It is, perhaps, the best digested and most methodical book written on these topics in Spain during the last century, giving a clear insight into the causes of the decay of the country, which, like his predecessors, Uztáriz and Ulloa (*q.v.*), Ward ascribes to the neglect of trade and industry, and to the absurd system of taxation which had prevailed for more than two centuries. Like them, Ward is a mercantilist, but more discriminating and less extreme; thus he allows that, Spain being a silver-producing country, consideration ought to be taken of this fact when examining the figures of the balance of Spanish trade (p. 131); he concludes that a wholesale prohibition of foreign articles ought to be deprecated.

As measures of reform, Ward suggests:—

1. The appointment of *Comisarios de Visita*, entrusted with the personal management of a thorough enquiry made on the spot throughout Spain and America, and directed to point out the public works which ought to be done by the state, and those which ought to be left to the care of municipalities or private persons.

2. The foundation by the state of a Land Bank taking money on deposit at 4 per cent, and lending it out on mortgage.

3. The suppression of the exorbitant export duties levied on Spanish manufactures sent to the colonies.

4. Exemption of national manufactures from inland taxation.

5. Inviting industrious foreigners to settle in Spain.

6. The adoption of the English system of free inland trade in corn and bounties on export.

7. The suppression of crafts and brotherhoods (*Gremios y hermandades*), of the privileges of the Mesta, and of all exclusive privileges generally.

For America he proposes, amongst other measures, to grant natives the freehold of certain portions of land.

Ward's views on the poor were first made known in a tract called *Obra Pia*, published in 1750, and which is added as an appendix to the *Proyecto Económico*. He considers that the total sums distributed in Spain as alms would afford ample means to provide for the poor in a more rational and efficient way; excepting, perhaps, some initial funds needful to build hospitals in places devoid of these institutions, these might be obtained by state Lotteries. All the moneys thus collected, or hitherto given out to beggars, ought to be henceforth made over to the *Hermandad de la Obra Pia*, a brotherhood to be founded comprising all charitable people, especially the clergy, and to be locally managed by the parochial clergy. Disabled poor were to receive alms or outdoor relief in the place of their birth, under a law analogous to the English law of parish settlement, after a delay of six months. Able-bodied poor and vagrants ought to be shut up in hospitals and obliged to work for their livelihood.

Ward often holds up England as a model; thus he proposes the foundation of a *Junta de Mejoras* (board of improvements) on the lines of the Royal Society of Dublin. E. Ca.

WARD-PENNY. This word has two entirely different significations. (1) The Custumary of the Soke of Rothley (*Archæologia*, xlvii. 128) explains it thus: *Wardpeny. Hoc est cum animalia capta sint per ministros regis.* In this sense, therefore, it is a payment to free cattle impounded by the king's officers, and in the *Rotuli Hundredorum* (ii. 472) the lord of a certain manor pays probably on this account, *xxxij de wardpeni domino regi.* (2) In Domesday Book (i. 190) there is an entry: *reddebant warpenam . . . aut custodiam faciebant;* but the Rothley Custumary applies

the term *wardewyte* to the *nummus . . . pro warda*, the payment in lieu of keeping watch and ward. *Warda et Wardpani* occur in the charter of Henry II. to Waltham Abbey. (*Monast. Anglic.* (ed. 1673), ii. 14 *b*. 40.)

R. H.

WARDEN OF THE STANDARDS. See STANDARDS.

WARDS. Under the feudal system each knight's fee was held by the service of attending the overlord in war for forty days in each year if required, and therefore, on the death of the holder of a *feodum militare*, leaving children under age, some one was needed who could undertake the service due from the land during the minority of the eldest son, or until the heiress could be married to a husband who could perform the requisite knight-service. The person who assumed this lucrative responsibility, and became guardian in chivalry in the case of tenancies *in capite*, was usually the king himself, in other cases the overlord. The guardian took the profits of the land during the minority, providing for the performance of the required services, maintaining and educating the heir, and retaining for himself the surplus. When male heirs reached the age of twenty-one, or females that of sixteen, they could, on payment of half a year's profits, claim to be put in possession of their property.

For other details, see KNIGHT'S SERVICE; MARRIAGE (FEUDAL SYSTEM) and MARITAGIUM. R. H.

WAREHOUSES. See WAREHOUSING SYSTEM.

WAREHOUSING SYSTEM.

Warehousing System, p. 657; Warehousing System, United States, p. 658.

WAREHOUSING SYSTEM.—Technically speaking, warehoused goods are those which on importation or manufacture become liable to customs or excise duties, and hence are placed in bond for the safety of the revenue (see BONDED WAREHOUSES); and because it is to the interest of both importer and consumer that the duties should not be levied until the goods are wanted for consumption, the privilege of having the goods retained in the custody of the crown was highly valued, not only because the payment of the tax, which often far exceeded the original value of the article, was thus deferred, but because the arrangement saved the duty on that which was wasted or deteriorated. It also avoided the necessity for claiming a drawback on that which might be re-exported, and therefore was not amenable to payment of duty.

It hence became necessary that there should be set times and places at which the landing, examination, and assessment of duty should take place; naturally the goods would remain there until wanted by the retailer or ultimate purchaser. The maximum of security and convenience was attained in the docks (see DOCK), where spacious quays and warerooms were available and guardianship easily exercised. For many purposes, however, it was desirable to have readier access to the goods, and this would be obtained by their deposit at some of the numerous warehouses or bonding places, many of which had existed before docks were formed. As trade extended, a fierce competition, in London at least, sprung up between the legal quays or sufferance wharves and the docks. This pertained not only to goods on which the crown had a charge, but to all others as well, for it is evident that to secure such payments as were due on some things, the examination of all became requisite, otherwise none would have been taxed. The restriction, therefore, of absolutely free landing of even free goods was essential, and the saving of labour and expense led to the most convenient places being chosen, and the retention of the goods in the warehouses there, until they could be made use of, naturally followed.

It is in London, Liverpool, and the larger ports that the warehousing system has reached its greatest development. There the merchant or owner has his goods at all times practically as much under his own control as at his own door. For the purposes of sale they can be sampled or inspected, while every facility exists for speedy removal and distribution when sold. They can be stored in buildings or floors most suited to their proper preservation; insurance against fire or depredation can be effected completely, all this at a minimum of cost with freedom from the responsibility of personal supervision or the trouble of constant reception and delivery. It affords a good instance of DIVISION OF LABOUR (*q.v.*), without which the large and intricate operations of trade could scarcely be carried on. At the same time it has tended to the security of the revenue and lessened the cost of collection. It used to be thought necessary to have warehouses of "special security" carefully guarded by the customs or excise officers. Now the same care which is needed for the custody of the goods serves in great measure to save risk of dutiable goods from passing into the hands of those who evade payment of the duties. A comparatively cursory inspection serves to discover any error which has taken place in their removal, and should such occur it is easily traced and rectified.

The process is very simple. On the arrival of the ship the merchant or his agent having, on entering his goods at the custom house, declared the warehouse in which they are to be placed, they are either landed on the quay adjacent to the place of storage or transhipped into barges or trucks for conveyance to their destination. When wanted, a delivery order, preceded by payment of duty, where such is leviable, admits of ready despatch to any needed place at home or abroad, by any suitable or desired means of conveyance, with such economy of time and cost as either cheapens the price or enhances the profit of the transaction.

Two circumstances have contributed to the

removal of many of the warehouses to a distance from the place of sale. With the enlargement of trade it has been necessary to go further afield, and with the increased size of the vessels to build docks more suitable for their reception. For London ships there are warehouses as far down the river as Tilbury, 22 miles, and wharves close up to London Bridge. In Liverpool they are being driven further and further up the Mersey, and now, by means of the ship canal, are provided as far up as Manchester.

London has 7 docks with numerous warehouses, 8 legal quays, and 36 sufferance wharves, at which both free and dutiable goods may be landed and warehoused. It has also 38 up-town warehouses and vaults to which dutiable goods may be removed for warehousing—in all 112 such places for the deposit of goods on which the duties are not yet paid. Liverpool has 114, and other towns 476—making 702 for the United Kingdom.

The excise warehouses, 419 in number, are mainly for retaining beer and spirits produced at the breweries and distilleries until the duties are paid, but some of them are open for the reception of customs dutiable goods, and *vice versa*. British spirits can be bonded in customs warehouses (see BONDED WAREHOUSES). S. BO.

WAREHOUSING SYSTEM, UNITED STATES. Until 1842 importations of goods into the United States were given credit upon the entry of merchandise. By the Tariff Act of 30th August 1842, § 12, it was provided that the duties should be paid in cash. In case of failure the goods should be taken possession of by the collector of customs and deposited in public stores, to be sold at public auction if not redeemed before sixty days. A careful investigation was then made of the warehousing system as it existed in Great Britain, France, and Belgium, resulting in the act of 6th August 1846, establishing a complete warehousing system, and permitting goods to remain in bond in public warehouses for a period of not longer than one year (see *Report of Secretary of the Treasury*, 8th December 1847, where interesting facts are given in regard to the system as then developed in England; also *Report on the Warehousing System*, 22nd February 1849). This system was again extended 28th March 1854, providing for the establishment of private warehouses, and extending the period of deposit to three years. In 1861 "a severe attack was made on this system as merely another method of giving credits on imports." It was defended on the ground that "it gave our merchants the advantage of storing on this side instead of the other, and making our cities (instead of foreign ports) the great storehouse of the country's goods." In spite of certain modifications the principle prevailed. At the present time there are six classes of warehouses designated as follows:—

1. Stores occupied by the United States. 2. Stores occupied by importers exclusively for the storage of goods imported by or consigned to them, or purchased by them in bond. 3. Warehouses occupied for the general storage of goods. 4. Yards or sheds for storage of heavy and bulky goods. 5. Bins or parts of buildings for the storage of imported grain. 6. Warehouses exclusively for the manufacture of medicines, cosmetics, and the like, and warehouses exclusively for the cleaning of rice.

[See for present administration, W. Elmes, *Law of the Customs*, ch. x., for early period.—Bolles, *Financial History of the United States, 1789-1861*, ch. ix.; also "History of Tariff Administration in the United States," by J. D. Goss, in *Studies in History, Economics, and Public Law*, Columbia College, New York, vol. i. No. 2.] D. R. D.

WARRANDICE (Scots law). In a conveyance, an obligation to indemnify against loss arising from the act of the grantor or from defect in the title as the case may be. A. D.

WARRANTS are documents of title referring to goods stored in docks and warehouses. They are not, strictly speaking, negotiable instruments, but owing to the provisions of the Factors Act 1889, persons advancing money on the security of such warrants have been made more secure than they were under the former law (see COMMERCIAL INSTRUMENT; FACTORS ACTS). E. S.

WARRANTY. In the Sale of Goods Act 1893 warranty as regards England and Ireland is defined as an agreement with reference to goods which are the subject of a contract of sale, but collateral to the main purpose of such contract, the breach of which gives rise to a claim for damages, but not a right to reject the goods and treat the contract as repudiated. As regards Scotland a breach of warranty shall be deemed to be a failure to perform a material part of the contract.

[Anson, *Contracts*, Oxford, 1893, gives six different senses in which the word has been used.—Chalmers, *Sale of Goods Act 1893*, London, 1894, discusses the meaning of the term at length.] J. E. C. M.

WARREN, JOSIAH (1799-1874), was a citizen of the New Harmony of R. OWEN (1825-26). He then opened a "time store" or "cost grocery" in Cincinnati (1827); then in Tuscawaras; then in Mount Vernon; then (1842-44) in New Harmony. In 1847 he snatched four families from the Fourierist wreck at Clermont, and started an "equitable village" "on the principle," says M. Conway, "that each person shall mind his own business," first in Utopia, then (1851) in Modern Times, Long Island. The latter, in 1857, numbered "less than a hundred cottages" whose inmates "agreed only to differ." The civil war broke up this embodiment of Mill *On Liberty*, and in 1863 some had fled to South America; S. P. Andrews, the American Comte, was in New York; T. L. Nichols in England; while

Warren fulminated against nationalism and the Northerners from Boston. H. Edger was the only leader who remained, and he preached positivism to the desert air.

Warren's creed was formed in 1827, and expressed in many lectures and in two books—*Equitable Commerce* (1846, 1852) and *True Civilisation* (1863)—and consisted of two articles: (1) "The Sovereignty of the Individual to be exercised at his own Cost"—not at others' cost, for this was "encroachment," and should be restrained. Like H. Spencer (1857) he and Andrews (1846, 1851) deduced this maxim from a universal law of "disintegration," *i.e.* differentiation, whereby every function of the state would gradually peel off, each man would become a sect and nation to himself, and "may" would take the place of "shall." (2) The second article, "Cost the Limit of Price," was early-Owenite, and may be construed, "charge co-operative prices." Attendance, including the expense of preparatory education (Andrews, *The Science of Society* (1853), ii. 96), was often paid for by a time note (see LABOUR EXCHANGE). H. Edger treated this as a system for merely "moralising" industrial relations; but Warren, like Owen, hoped it would some day supersede money, interest on money, and unequal rewards for labour; though he confessed that its brief successes were due to "equitable competition," *i.e.* underselling, and "co-operation"; but the co-operative link was moral, not material; joint property was abhorred. As at New Lanark, stores, etc., were proprietary.

[Appleton, *Cyclopædia of American Biography*, *s.v.* Warren (incomplete).—T. L. Nichols, *Forty Years of American Life* (1864), ii. 40.—J. H. Noyes, *History of American Socialisms* (1870), ch. x.—M. Conway, *Fortnightly Review*, i. 421. (For remarks on these writers see Warren's and Andrews' works).—S. P. Andrews, *Basic Outline of Universology* (1872), pp. 31-34.] J. D. R.

WARREN. See FORESTS, MEDIÆVAL.

WARVILLE. See BRISSOT DE WARVILLE.

WASTE. A technical term of English law to signify certain acts beyond the competence of a tenant for life of real estate. Not merely wanton injury to the estate, but such acts as cutting down timber, ploughing up meadow land, or opening new mines, came under this description. If, however, the settlement declared that the tenant for life should be *unimpeachable for waste*, such acts were within his right. Even then, however, the court of chancery would hinder him from destroying ornamental timber, or pulling down or defacing the mansion. Acts thus inhibited by the chancellor in his equitable jurisdiction were comprised under the description of *equitable waste*. By the judicature act of 1873 the rules of equity prevail over the rules of common law in every case where they conflict (see Bewes, *On Waste*). F. C. M.

WASTE. See FORESTS, MEDIÆVAL.

WASTE LANDS ENCLOSING. See ENCLOSURES.

WASTE PRODUCTS. See RESIDUAL AND WASTE PRODUCTS.

WATERING STOCK, a slang expression, used to denote a well-known device of company promoters. A company is made to sell its undertaking to a new company for a sum considerably exceeding the capital of the old company, and the part of the capital of the new company not required for the shareholders in the old company is issued to the public (*e.g.* a company having a capital of £20,000 sells the undertaking for £100,000, each shareholder in the old company receiving shares for five times the nominal amount of his former holding, and shares for £50,000 are issued to the public. In this case the new company has a capital of £150,000, of which £50,000 are represented by cash paid by the new shareholders, whilst the other £100,000 represent an original payment of £20,000 only). The expression "watering" is used by way of analogy to the addition of water to wine of which wine-merchants and inn-keepers are sometimes accused. E. S.

WATTEVILLE, ADOLPHE DE GRABE, BARON DE (1799-1866), inspector general of public charity in France, and one of the ablest administrators in that department. He supported decentralisation in these matters, and spoke, 10th February 1851, before the French society of political economy against state charity; though he would have allowed the state the right of supervision and control.

The principal of his works and numerous reports are:—*Codes de l'administration charitable*, 8vo, 1st. ed. 1841, 2nd ed. 1847.—*Législation charitable*, 1st ed. 2 vols., 1843-46, 2nd ed. 1 vol. 8vo, 1847.—*Du sort des enfants trouvés et de la colonisation agricole*, 8vo, 1848.—*Essai statistique sur les établissements de bienfaisance*, 1st ed. 1847, 2nd ed. 1849. A. C. f.

WAY, RIGHT OF. A right of way, in the strict sense, is the right of the owner of a specified piece of land (called the dominant tenement) to pass over another specified piece of land (called the servient tenement), but in popular language the expression is frequently used in respect of the right of the public to use a road, footpaths, or bridle-paths passing through enclosed property. These roads or paths are in legal phraseology called "highways," and are as much public roads as any main roads, except in so far as they cannot be used for certain kinds of traffic. A right of way, in the strict sense, is acquired by express or implied grant, or uninterrupted user during a period of at least twenty years. On the other hand, a highway is created by dedication to the public on the part of the owner, and such dedication is presumed from an uninterrupted use by the public during such period of time as under the circumstances appears reasonable. If the act of dedication be unequivocal, the right may arise immediately, in other cases six years, or even shorter periods,

have been held to be sufficient. The duration of the user is not as important as the nature of the acts done by the owner of the soil, and of the adverse acts acquiesced in by him. A highway, whether a footpath or carriage road, must not be used for any purposes except one of the usual purposes for which a highway is used by the public, and any one using it for any other purpose is a trespasser.

[See Gale on *Easements*, 6th edition, 1888.—Notes to *Dovaston* v. *Payne*, 2 Smith's *Leading Cases.*—*Harrison* v. *Duke of Rutland*, *Law Reports* (1893) 1 Queen's Bench, 142.] E. S.

WAYLAND, Francis (1796-1865), teacher, clergyman, and author. He graduated from Union College (New York), in 1813, studied theology for one year in Andover Seminary, was a tutor in Union College (1817-21), pastor of the first Baptist Church of Boston (1821), professor in Union College (1826-27), and for twenty-eight years president of Brown University, Providence, R.I. (1827-55). Under his administration the university prospered, and rapidly adapted itself to modern needs. In 1850 the university was reorganised on the elective system. After resigning the presidency in 1855, he was for a year and a half pastor of the first Baptist Church of Providence.

President Wayland lectured on psychology, political economy, ethics, and allied branches of knowledge. His text-books in the subjects on which he lectured were widely used in schools and colleges throughout the country. His *Elements of Moral Science* (New York, 1835) required a second edition within five months. His *Elements of Political Economy* (New York, 1837) was published also in an abridged edition (Boston, 1840). The author expresses his belief that the works on the subject in general use present the doctrines of the science truly, but not in such order as would be most likely to render them serviceable, either to the general student or to the practical merchant. The work is, therefore, distinctly a text-book—not a contribution to science. As such it was very successful and obtained wide use. E. T. D.

WAYNAGE. The plough and plough team of a villein. These were protected from distraint by the 20th article of *Magna Carta*, and according to the true text of Bracton (f. 6) a villein had an action against his lord for deprivation of his waynage. R. H.

WAYS AND MEANS. See Supply (Parliamentary).

WAYS OF COMMUNICATION. See Communication, Means of.

WEALTH is one of the words by defining which a knowledge of things may be acquired (cp. Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 1). The term is with universal consent applied to objects which are material and exchangeable (cp. Mill, *Pol. Econ.*, preliminary remarks, and bk. i. ch. 3). The question is what other things resembling that class in certain points ought to be termed wealth. The debateable land may be contemplated by omitting now one, now another, of the four attributes comprehended in the definition above given: namely, (1) materiality, and —three attributes involved in exchangeability— (2) transferability, (3) limitation in quantity, (4) utility.

Omitting the first attribute, we have a class comprising personal services, such as those of the musician, teacher, physician, and so forth. Whether we call these unbodied utilities wealth or not, it is important to recognise that they form a part of the national income. The definition adopted by Mill in his *Political Economy* (bk. i. ch. 3) tends to obscure this, as pointed out by Mr. Cannan (*Production and Distribution*, p. 31). The class of immaterial wares might comprise persons, as well as personal services, in a *régime* of slavery. "Tutors, . . . physicians, poets, . . . —nay, sometimes philosophers, not to be sneezed at—were to be purchased in the Roman markets" (De Quincey, *Logic of Political Economy*, p. 81).

Omitting the second attribute, transferability, we have a class comprising useful natural objects which, though limited in quantity, cannot be appropriated, *e.g.* the moon.

Omitting both the first and second attributes, we have a class comprising personal faculties. We may with Mill (*Pol. Econ.*, bk. i. ch. 3) distinguish those industrial aptitudes which directly contribute to the production of material exchangeable wealth, and all other good qualities.

Omitting the third attribute, limitation in quantity, we have such goods as "the powers of wind and water which move our machinery and assist navigation . . . the pressure of atmosphere and the elasticity of steam which enables us to work the most stupendous engines" (Ricardo, *Pol. Econ.*, ch. ii.).

The general lesson to be derived from considering the class of goods which are not exchangeable is that they conduce, more than at first sight appears, not only to the higher elements of well-being, but even to the kind of welfare with which the economist is specially concerned (cp. Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 1).

The fourth attribute, utility, cannot be omitted; it is essential to wealth in any sense.

It may be required to determine the quantity—as well as to define the quality—of wealth. The problem appears to be of the same sort as the following: to determine the amount of food, or fuel, in a given mass of heterogeneous substances. Those problems would be solved by ascertaining in what quantities there was present the essential attribute, available nutriment, or heat. The corresponding essential attribute in the problem before us is utility.

The simplest course is to employ money-value as a measure of utility; correcting the imperfections of the measure by INDEX-NUMBERS. But it must be remembered that at best money measures only *marginal* utility (cp. Sidgwick, *Political Economy*, bk. i. ch. iii.).

Again, a valuation which includes goods of different "orders" ("producers' and consumers' goods") is liable to error in that the utility attained is not necessarily proportional to the amount of means employed. Wealth might seem to be diminished by an invention which reduced the amount of capital required for production. Money itself, considered as a means to effect exchanges, is an instance. If the coin in the world were doubled, the wealth of nations would not be increased in that proportion, but only so far as business might be stimulated by the change.

Again, debts and exclusive privileges, though reckoned by the creditor and monopolist as wealth, must not be included in the inventory of national wealth. True, a good system of credit is part of national wealth (in one of the secondary senses of the term). But the extent of that advantage is not to be measured by the amount of the instruments of credit employed.

Again, account should perhaps be taken of distribution; since inequality tends to diminish the sum total of utility (Sidgwick, *Pol. Econ.*, bk. iii. ch. vii. § 1).

Lastly, ought we to include with Petty the "value of the people"? Prof. Nicholson has estimated the "living capital" of the United Kingdom at £47,000,000,000. But "it seems doubtful whether an estimate of the capital value of the population as a whole can serve any useful purpose" (Marshall, *Principles of Economics*, p. 644, 3rd ed.). "In propriety of classification the people of a country are not to be counted as its wealth," thought Mill. Perhaps a man may count as wealth, of the unexchangeable variety, to others—though not to himself; for instance an immigrant into a country where the law of increasing returns is active. F. Y. E.

WEBER, FRIEDRICH BENEDICT (1774-1848), professor at Breslau:

Was author of an *Einleitung in das Studium der Cameralwissenschaften*, 1803, and of a *Systematisches Handbuch der Staatswirthschaft*, 1804. Though much more under the influence of former German cameralists, such as JUSTI and SONNENFELS (*q.v.*), than of Adam SMITH, he expressed great admiration for the latter. For instance, his ideas on the efficiency of usury and sumptuary laws followed the old traditional pattern. He apprehended an over-population of producers, but not of idle consumers, as these determine a demand for labour. He considers that CAMERALISTIC SCIENCE should be taught in special academies. In universities, he only admits it as a secondary branch of the faculty of law.

[Roscher, *Gesch. der Nat. Oek.*, pp. 472 and 602.] E. Ca.

WEBSTER, DANIEL (1782-1852), statesman, "expounder of the American Constitution," graduated at Dartmouth College, 1801, studied law in Salisbury, N.H., taught school for a few months in Maine, and then finished his preliminary law studies in the office of Christopher Gore of the Boston bar. He was admitted in 1805, and practised his profession successively in Boscawen and Portsmouth, N.H., and in Boston, Mass. He criticised the Embargo in 1808, and was opposed to the war of 1812, drawing up the Rockingham memorial, a protest against the war. He was elected to congress in 1813, from New Hampshire, favoured the strengthening of the navy, but opposed a bill for encouraging enlistments and similar measures.

His first important case was that of Dartmouth College, 1818. John Fiske says that the decision in this case "went further, perhaps, than any other in our history, toward limiting state sovereignty, and extending the jurisdiction of the supreme court." In 1822 Webster was elected to congress from Boston. Until 1828 Webster was opposed to the protective tariff policy, and made one of his best speeches in opposition to the tariff of 1824. When, however, manufactures had become established in New England and an attempt was made to overthrow the protective system, he became and remained a protectionist, supporting the "American system" of Henry Clay. He supported the "tariff of abominations" (1828) in the senate to which he had been elected in the preceding year. In the matter of internal improvements, Webster had already favoured a liberal construction of the powers of the national government, and his change of attitude on the tariff issue brought him into sympathy in all important points with the "loose constructionists."

The summit of his political fame and public service was reached in the great debate on nullification in January 1830. Webster's reply to Hayne on this occasion is the greatest speech ever delivered in the American congress. Its chief sentiment, as of Webster's speeches throughout, is that of loyalty to the union of the states and to the constitution, in the interpretation made necessary by the national growth of half a century. His support of Jackson's administration in the conflict with the nullification doctrine of Calhoun and South Carolina was no less vigorous than his opposition to the administration, in its policy with regard to the bank and the removal of the deposits. His speech on the president's protest of 1834 is second only to the reply to Hayne. He supported Harrison for the presidency in 1840, and became secretary of state, in which position he negotiated the ASHBURTON

treaty with England, settling the north-east boundary, and removing other complications which threatened a disturbance of peaceful relations. At the same time the two countries entered into the "cruising convention" for the more complete suppression of the slave trade.

Webster re-entered the senate in 1845, and in 1850 delivered the famous "seventh of March" speech in support of Clay's compromise for the complete settlement of the slavery question. This measure, with its provision for the return of fugitive slaves, was extremely obnoxious to the north, and Webster's assistance in passing it was severely condemned. Whittier's bitter poem "Ichabod" expressed the sentiments not only of abolitionists, but of the majority of Webster's constituents. He became secretary of state under Fillmore later in the same year.

Webster's occasional addresses have very high rank. Among the best are the Plymouth address in commemoration of the landing of the Pilgrims, 1820; the Bunker Hill Monument address, 1825; and the Eulogy on John Adams and Thomas Jefferson, 1826.

[See the article on Webster, by John Fiske in Appleton's *Encyclopædia of American Biography.*—George Ticknor Curtis, *Life of Webster*, 2 vols., New York, 1870.—Webster, *Works*, 6 vols., Boston, 1851.—Webster, *Private Correspondence*, 2 vols., Boston, 1856.—*Great Speeches of Webster*, Boston, 1879.—Henry Cabot Lodge, *Life of Webster*, in "American Statesmen Series," Boston, 1883.] E. T. D.

WEBSTER, PELATIAH (1725-1795), born at Lebanon, Connecticut, graduated at Yale College, 1746; was for a short time a preacher; about 1755 became a merchant in Philadelphia, and acquired a large estate; being an active Whig, he was, in 1778, thrown into prison by the British during their occupation of the city.

Webster published an essay urging the redemption of continental paper money in 1776, and subsequently issued: (1) *An Essay on Free Trade and Finance, Phila.*, 8vo, Nos. 1-7, 1779 *et seq.* (2) *A Dissertation on the Political Union and Constitution of the Thirteen United States of North America*, 1783, 8vo. See Madison Papers, 706. (3) *An Essay on Credit, in which the Doctrine of Banks is considered*, 1786, 8vo. (4) *Reasons for Repealing the Act of the Legislature of Pennsylvania which took away the Charter of the Bank of North America*, 1786, 8vo. (5) *Political Essays on the Nature and Operation of Money, Public Finances, and other Subjects*, published during the American War, and continued up to the present year, 1791, 8vo, pp. 504: London, 1791, 8vo. F. A. W.

WEEK-WORK. The *wic-weorce* of the *Rectitudines singularum Personarum* (Kemble, *Ancient Laws*, p. 185). In ancient manorial extents it is usual to find a statement that the villeins were bound to work for three or four days in each week from Michaelmas to the 1st of August. The nature of the work varied according to the season, but it consisted chiefly of ploughing, harrowing, and other farm labour.

For the villein's special duties at harvest and at the spring and autumnal ploughings, see PRECARIÆ and SERVICES (PREDIAL AND MILITARY). R. H.

WEIGHTED OBSERVATIONS. In combining the results of a series of observations, it frequently happens that some of the results deserve a greater importance to be attached to them, that they should exert greater influence on the result, than do others. This is achieved by a process of *weighting* the observations. A particular example of the process occurs in forming averages of prices. The prices of the commodities which occupy the most important places in national consumption are allowed greater importance, since changes in these prices affect a wider range of persons and affect them more deeply, than changes in price of commodities on which but little is expended. If w_1 be the amount expended on a commodity whose price undergoes a variation in the ratio of p_1 to unity and similarly for w_2, p_2, etc., the average price-variation will be given by

$$\frac{w_1p_1+w_2p_2+\ .\ .\ .\ .\ .\ +w_np_n}{w_1+w_2+\ .\ .\ .\ +w_n}$$

which is called the weighted arithmetic mean of the prices p, for the weights w. A geometric mean might also be formed for the same price-variations and weights. In the practical work of calculating price-averages, it has been proved by experience that if the commodities whose prices are used are thoroughly representative, and the level of price taken for reference is not affected by extraordinary special variations, the course of price movements, as reflected in weighted and unweighted price-averages, exhibits but few considerable or important differences (see INDEX NUMBERS; TABULAR STANDARD).

[On the theory of the effect of weighting price-averages see the reports to the British Association, 1886-7-8, by Professor F. Y. Edgeworth.—For example Royal Commission, Depression of Trade, Appendix B., R. H. Inglis Palgrave, Memorandum on Standard of Value.] A. W. F.

WEIGHTING. See WEIGHTED OBSERVATIONS.

WEIGHTS AND MEASURES. See MEASURES AND WEIGHTS.

WEITLING, WILHELM (1808-1871), has been called the father of German communism. Born at Magdeburg, he was a tailor by trade, and imperfectly educated. After travelling through Germany for some time, he went to Paris, where he resided four years, and became imbued with the doctrines of the French socialists, especially FOURIER and CABET. In 1841 he removed to Switzerland, where he formed some communistic associations, and issued at Vevay a paper entitled *Hilferuf der deutschen Jugend.* In 1843 he was imprisoned by the Swiss government, and afterwards ex-

pelled from the country. He was also obliged to leave Berlin and Hamburg. In 1849 he came to England, and, after a short stay, went to America, and founded a colony in Wisconsin entitled Communia, which soon failed. He died at New York, having continued his political agitation to the end.

His first publication was *Die Welt wie sie est und sein solle* (1838). His principal writings are *—Garantien und Harmonien der Freiheit* (1842), and *Das Evangelium eines armen Sünders* (1845, of this there is now a cheap reprint). MARX contrasts "the jejune and feeble mediocrity of the political literature of the German bourgeoisie with the incomparable and brilliant début of the German working man" in the *Garantien*. In the *Evangelium*, Weitling represents communism as a deduction from the doctrines of the New Testament.

In his view, as long as there was an abundance of unoccupied land, the institution of property was not inequitable, since it did not deprive any one of the prospect of becoming a land-owner; but, afterwards, it became a gross injustice, and is the cause of the misery of the poor, it being impossible for every free man to appropriate a portion of the soil. It was therefore to be abolished, and a system substituted for it which seems to be one of the most chimerical of all the socialist Utopias (see SOCIALISM; UTOPIAS). Families were to be associated in groups embracing the whole human race, each group being governed by an elective head, who should be charged with the distribution among them in equal shares of all necessary and useful things in return for a certain number of hours of labour; those who gave a larger amount of time receiving objects of special enjoyment, but under the condition of their consumption within a short fixed interval, so as to prevent the reappearance of economic inequalities through the agency of accumulation and hereditary transmission. Weitling advocates the introduction of this new order of things, if necessary, by violent revolution, and sets out an elaborate scheme of legislation for the reformed community.

[Lippert in *Handw. der Staatsw.*—Cossa, *Introd. allo studio dell' E. P.*, p. 541.—W. H. Dawson, *German Socialism*, p. 42.] J. K. I.

WEST, HON. SIR EDWARD (1783-1828), chief justice of Bombay, educated at Oxford, M.A. 1807, fellow of University College until 1823, called to the bar in 1814, published a *Treatise on Extents*, appointed recorder of Bombay, knighted 5th July 1822, and on the establishment of the supreme court was made chief justice. He died at Poonah.

It was in the following pamphlet that West formulated his law of DIMINISHING RETURNS, *An essay on the application of Capital to Land, with Observations showing the Impolicy of any great Restriction of the Importation of Corn, and that the bounty of 1688 did not lower the price of it. By a Fellow of University College, Oxford*, London, 1815, 8vo. He said: "The chief object of this essay is the publication of a principle in political economy which occured to me some years ago. . . simply this, that in the progress of the improvement of cultivation, the raising of rude produce becomes progressively more expensive, or, in other words, the ratio of the net produce of land to its gross produce is continually diminishing. . . . Each equal additional quantity of work bestowed on agriculture yields an actually diminished return; and, of course, if each equal additional quantity of work yields an actually diminished return, the whole of the work bestowed on agriculture in the progress of improvement yields an actually diminished proportionate return" (pp. 1, 2, 6). Mr. Cannan remarks: "It is impossible to read West's pamphlet without seeing that the form in which the 'law of diminishing returns' was subsequently taught, and the phraseology in which it was expressed, are far more due to him than is imagined by those who only know him as the subject of a civil reference in Ricardo's preface" (*History of the Theories of Production and Distribution in English Political Economy*, 1776 to 1848, London, 1894, p. 160; for the question of the priority of the date of publication of the pamphlets of West, Malthus, and Ricardo, see *ib.* p. 161, *n.*)

West's other pamphlet was: *Price of Corn and wages of Labour, with observations upon Dr. Smith's, Mr. Ricardo's, and Mr. Malthus's Doctrines upon those subjects; and an attempt at an exposition of the causes of the fluctuations of the price of corn during the last 30 Years*, London, 1826, 8vo. In the preface he complains, without reason, that Ricardo had not given to his former *Essay* the credit of the discovery that "the diminution of the net reproduction, or the profits of stock, which is observed to take place in the progress of wealth and improvement, must necessarily be caused by a diminution of the productive powers of labour in agriculture." On pp. 83-85 he refutes the wage-fund theory.

[*Gent. Mag.* June 1829, pp. 565, 566.—G. G. Cunningham's *Lives of Eminent Englishmen*, 1838, vii. 380.—M'Culloch's *Lit. of P. E.*, pp. 33, 78. —*Suppl. au Nouv. Dict. d'Écon. Pol.*, 1897, p. 270.—*Blackwood's Mag.*, xxi. 78, 311.—Cossa's Introd. tr. 1893, pp. 314, 319.—*Economic Journal*, March 1892.] H. R. T.

WEYLAND, JOHN (early 19th century), one of the contemporary critics of Malthus, wrote *A Short Inquiry into the Policy, Humanity, etc., of the Poor Laws*, 8vo, 1807.—*The Principles of Population and Production as they are affected by the Progress of Society, etc.*, 8vo, 1816.

[Malthus, *Essay*, Appendix, 1817; Bonar, *Malthus and his Work*.]

WHATELY, RICHARD (1787-1863), for thirty-two years archbishop of Dublin, entered Oriel College, Oxford, in 1805, where he owed much to the influence of his tutor Copleston, afterwards bishop of Llandaff. He had been the tutor of N. W. SENIOR (*q.v.*), whom he succeeded in 1829 in the Drummond chair of political economy. In accepting the post Whately considered that "the occupying of the office by one of my profession and station may rescue" political economy at Oxford "permanently from disrepute" . . . "it seems to me that before long political economists, of some sort or other, must govern the world." His introductory course of lectures is concerned with establishing the real

scope and purpose of the science, which are "to enquire into the nature, production, and distribution of wealth, not its connection with virtue and happiness." For the term "political economy" he would have substituted the term "catallactics," or the science of exchanges. His intention was to make a sort of continuation of Paley's *Natural Theology*. "Extending to the body-politic some such views as his respecting the natural." In 1831 we find him suggesting to Senior the starting of a political economy society. The term of his professorship was, however, abruptly cut short by his promotion, in the same year, to the see of Dublin. In his new sphere he did not forget his old tastes, and one of his first acts was the founding of a professorship of political economy at the university of Dublin. In 1833 he published in the *Saturday Magazine* some attempts to give plain instruction in political economy to children and poor people. In a letter to Senior, Whately suggested the publication of a statistical dictionary, on the lines, though on a smaller scale, of the present work. He was also one of the founders of the Dublin statistical society.

It was, however, in the active field of social questions that Whately's activity was most marked. He was a member of the commission of inquiry into the condition of the poor in Ireland, which reported against the introduction of a poor law modelled on the English system, and later he opposed the out relief clause, in the Poor Law Extension Act of 1847 (see POOR LAW). No one spoke with more authority on questions of church reform; and he was one of the earliest and ablest opponents of the system of transportation. It was in the application of the most lucid common sense to the facts of life that Whately's real greatness lay. It was observed of him by J. S. Mill that his reading was singularly scanty, in proportion to his intellectual capacity, though one may note that among his six favourite authors was included Adam SMITH (*q.v.*). Whately himself, with his usual acumen, described his own bent of mind as being towards an elementary knowledge of a great many subjects. "I resemble one whose trade is to make instruments for others to work with." But if the saying "wisdom is justified of her children" applies to political economy, there are few sons of whom she has more reason to be proud than of Richard Whately.

Among Whately's very numerous publications the principal ones, connected with the object of the present work, are *Introductory Lectures on Political Economy*, London, 1832, 8vo. (The 4th ed., revised and enlarged, contains "Remarks on Tithes and on Poor Laws and on Penal Colonies," 1855.)—*Easy Lessons on Money Matters*, 1833, 16mo (passed through at least fifteen editions).—*Thoughts on Secondary Punishments in a letter to Earl Grey*, London, 1832, 8vo.—*Remarks on Transportation in a second letter to Earl Grey*, London, 1834, 8vo.—*Speeches on Transportation*, 1840, 8vo, and on *Irish Poor Laws*, 1847, 8vo.—[*Life of Archbishop Whately* by Miss Whately, 2 vols., London, 1866, 8vo.—*Miscellaneous Remains from Commonplace Book*, 1864, 8vo; and *Addenda* to the above, 1865, 8vo.] H. E. E.

WHEATLEY, JOHN (fl. 1803-22), wrote three books:

Remarks on Currency and Commerce, 1803; *An Essay on the Theory of Money and Principles of Commerce*, vol. i. 1807; vol. ii. 1822; *A Letter to Lord Grenville on the Distress of the Country*, 1816. The second volume of the *Essay*, except chapters 6 and 7, was inspired by the later editions of MALTHUS's *Essay*, but recommended large farms, primogeniture, and a squirearchy after the English pattern as a panacea for Ireland, India, France, etc. All his other works dealt with money. He ascribed all the money troubles 1797-1819 to bank notes, and opposed H. THORNTON's theory that foreign payments were to blame, as W. PITT by limiting over-issues "might have caused the influx of money *to any extent at the same time that*" he sent the money abroad—*Essay*, i. 194: Thornton saw the fallacy of the italicised words, Lord Overstone (see Jones LOYD), *Tracts*, ii. 221. For the rest he united an implicit belief in Sir G. Schuckburgh Evelyn's misleading INDEX NUMBERS as to the depreciation of money (*Phil. Trans.*, 1798, pp. 174-176) with Thornton's revival of D. HUME's view that credit paper, though convertible, affects prices—compare Lord OVERSTONE, *Tracts*, i. 442. Indeed his paper key unlocked every monetary secret of the past century. Since 1689 depreciation was caused by bank notes, and bank notes by taxation. His notion that revenue and paper money increase *pari passu* was hinted at by Sir J. STEUART, *Pol. Ec.*, ed. 1770, iii. 251, 340, and formed a link between him and the apostles of inconvertible paper—Pearse, SINCLAIR, and ATTWOOD, and the sworn foes of paper, PAINE and COBBETT. His notion that a tax on one commodity tended to raise the price of every commodity—*Remarks*, p. 202—was shared by Locke, Massie, M. DECKER, Fauquier, Dr. Price, G. Crawfurd, and many others; but to the question "how then have taxes on commodities been paid?" LOCKE's followers answered "by the landlord," Steuart "by increased industry," FAUQUIER "by the man of fortune," Wheatley "by depreciation," and this he thought an ugly fraud on creditors of the national debt, though better than the ruin boded by Hume, Blackstone, and A. SMITH. As for the future—mines being then quiescent—stable prices might be maintained if the Bank of England had a monopoly of note-issues, and foreign governments acted likewise. If foreign governments increased their currency we should have to follow suit. Dread of falling prices, inspired perhaps by Malthus, prompted his conviction that the Bank ought not to have resumed cash payments until prices rose to the high-water mark of 1812-13—here, again, his policy and language, *Essay*, ii. 134, recalls T. Attwood,—and though he wrote that "a high price of corn is the best test of prosperity," *Essay*, ii. 110, unlike Malthus he saw in the importation of foreign corn a sign only of

manufacturing prosperity, and opposed the corn laws. He was a consistent free trader—*Essay*, ii. ch. vii. Other political questions did not interest him. This man of one idea was after all one of the earliest exponents of the CURRENCY DOCTRINE.

J. D. R.

WHEELER, JOHN (17th century) secretary to the society of Merchant Adventurers: was the author of a *Treatise of Commerce*, 1601, written to show the superiority of the Merchant Adventurers over unorganised traders (see ADVENTURERS, MERCHANTS). He argued that competition among merchants was minimised, that the large fleets employed by such a company secured commerce, increased exports, cheapened imports, raised the customs revenue, and benefited the nation in time of war. Much of the interest of the book consists in a detailed account of English alliances with the Low Countries, with special reference to our trade with Antwerp, and in a survey of the trade between England and the Hanse towns, and of Elizabeth's negotiations with the latter, with a refutation of their charge against the Merchants Adventurers of being monopolists.

[Cunningham, *Eng. Indus. and Commerce, Mod. Times*, 24, 88, 119, 120.—Cossa, *Introduction*, trans. Dyer, 1893, p. 200.] E. G. P.

WHEWELL, WILLIAM (1794-1866), was born at Lancaster, the son of a master-carpenter. Educated at Lancaster Grammar School and Heversham School, Westmoreland, he went up, in 1812, to Trinity College, Cambridge, where he soon earned marked distinction, not only in mathematics, but in other branches of learning also. In 1816 he graduated as second wrangler, and the following year was elected a fellow of his college. From that time his rise was rapid and continuous. He became fellow of the Royal Society in 1820, and in 1828 professor of mineralogy, a post he resigned a few years afterwards. In 1838 he was chosen to fill the chair of casuistry or moral philosophy. In 1841 he was president of the British Association. In the autumn of the same year he was appointed by the crown master of Trinity College.

All Whewell's mature life was associated with Cambridge. He quickly won for himself a position of commanding influence in college and university affairs. His vast ability and enormous industry were always at the service of a masterful disposition and a strong will. He seldom failed to carry his point; and, when he became head of the greatest and most influential of the foundations of Cambridge, it is hardly too much to say that he dominated the university, in spite of the opposition sometimes aroused by a brusque manner and a habit of magnifying his authority. His position was that of a conservative reformer. He believed that the university should reform itself from within, but strenuously objected to legislative interference from without. It was mainly owing to his influence that the natural and moral sciences obtained due recognition in the Cambridge curriculum. Political economy was one of the many subjects dealt with by him, and its study received a strong impetus when in 1861, under his guidance, a B.A. degree in honours was offered for proficiency in it and a group of kindred sciences.[1] International law

[1] Whewell's mathematical exposition of certain doctrines of Pol. Econ. in the *Cambridge Philos. Trans.*, vol. iii. pp. 191-230 is referred to in the art. on POLITICAL ECONOMY: METHOD, vol. iii. p. 136.

The principal contribution, however, which he made to economic literature was the volume of *Six Lectures on Political Economy, delivered at Cambridge in Michaelmas Session* 1861 (printed at the Univ. Press, 1862). These lectures, which were never published, were prepared for the use of the present Prince of Wales, to whom they were delivered while he was resident at Cambridge. Dr. Whewell, who had been requested by Prince Albert to prepare the course "as the matter of the lectures required repeated thought," desired, for his "own satisfaction at least, to put it in a more permanent form than a spoken lecture."

Besides the interest which the volume possesses as being prepared for the use of the heir to the throne, it possesses a special attraction to economists as showing the manner in which the main subject presented itself to a thinker of considerable power, as Whewell undoubtedly was, and who, as the editor of the works of R. JONES (*q.v.*), may be regarded as being abreast of the economic thought of his time.

The scheme of the lectures was necessarily limited by the conditions under which they were composed. They are six in number, entirely elementary in character, and, in the words of the preface, do not "aim at any originality beyond that which selects the best passages of writers of acknowledged authority, and weighs them against one another." The works principally referred to are:—Smith's *Wealth of Nations* (M'Culloch's ed.).—The *Principles* of M'Culloch, Ricardo, and J. S. Mill.—Malthus, *Definitions* (ed. 1831).—Chalmers, *Pol. Econ. in connection with the Moral State and Prospects of Society* (1832).—Harriet Martineau, *Illustrations of Pol. Econ.* (1832, etc.).—Senior, Appendix to Whately's *Elements of Logic*, 1848.—Travers Twiss, *View of the Progress of Pol. Econ.*, 1847.—Jones, *On Wealth and Taxation*, pt. i., "Rent," 1831.—De Lavergne, *Essai sur l'Économie Rurale de l'Angleterre*, 1858.—F. Bastiat, *Essays on Pol. Econ.* (English translation, 1853). This list precedes the lectures. Besides the writers named, De Quincey is referred to, through the quotations in J. S. Mill, on difficulty of attainment. DAVENANT is mentioned, as quoted in T. TOOKE, and Dr. James ANDERSON and Sir Edward WEST (as also Malthus) as quoted by M'Culloch in connection with "the theory of rent."

This list itself is of interest as showing the English writers regarded as authorities at that time, and the selection of foreign writers is equally curious. The subject matter of the lectures is entirely elementary. The first three are wealth, productive and unproductive labour; price, the different effects of fixed and circulatory capital on price; that profits are not the result of labour; that profits are justifiable; on value in use and value in exchange; on demand and supply. The last three are on rent in different aspects. The theory of rent as set forth by R. Jones is explained, and "that tenants may be divided . . . into four classes—métayers, serfs, ryots, and cottiers—in addition to farmers." That cultivators of the land were thus divided was probably but little known in England at the time. Commenting on it Dr. Whewell observes, "that we have, in this new view of the subject, an example of the *inductive* method applied to political economy, in distinction from the *deductive* method, which is that of Ricardo and his school," and he goes on to further illustrations. The illustration of the subject from this point of view is slight, but the treatment is worthy of the writer of the *History of the Inductive Sciences*.

Read in the light of recent events these lectures have an interest of their own. Particularly the reference by Whewell to "the great problems which I have had to deal with in lectures V. and VI., namely, the nature of the recent agricultural progress of England." In lecture V. itself Whewell speaks with even more force on the same subject, and considers that the proportion of the non-agricultural to the agricultural population

also occupied a large share of his attention; and by his will he made liberal provision for the foundation of a professorship of that subject at Cambridge, and also for no less than eight university scholarships in it. Fighting man as he was to the last, he had the deepest reverence for the college and university of which he was the most conspicuous ornament. His services and his means were given to both ungrudgingly; and in all his conflicts he strove for what he deemed to be right without any thought of personal advancement or private interest. He was a man of strong family affections, and in his domestic circle loving and tender to a degree that seemed incredible to those whose relations with him were merely official.

Dr. Whewell was a most voluminous author. Reports, articles, sermons, pamphlets, books on a vast variety of subjects issued in rich abundance from his untiring pen. His chief works were his *History of the Inductive Sciences* (1837); his *Philosophy of the Inductive Sciences* (1840); and his *Elements of Morality including Polity* (1845). In philosophy he belonged to the intuitive and *a priori* school, and strongly opposed the utilitarian view of morality. He founded no new school of thought, but his writings and lectures roused interest in speculative problems and formed striking contributions to many of the controversies connected with them.

[Mrs. Stair Douglas, *Life of William Whewell*, (1881); Todhunter, *William Whewell* (1876).]

T. J. L.

WHITE BONNET. One who in an auction bids for his own goods, or is employed by the owner to bid for them (Jamieson, *Scott. Dict.*).

[For analogous term, see VERT.]

WHITTINGTON, SIR RICHARD (c. 1350-1423), mercer, the son of a Gloucestershire gentleman, was apprenticed to Sir John Fitzwarren of the Mercers' Company, and afterwards married his daughter. Whittington's name first occurs in an assessment of 1379, where he is put down for 5 marks, the lord mayor of that day contributing £10. Ten years later Whittington was able to contribute his share of £10 towards civic defence, so that during this time he had probably made his fortune, as this was the contribution of only the richest citizens.

In 1393 Whittington was elected alderman and sheriff, and in 1396 shared the mayoralty for several months with Sir Adam Bamme, whom next year he succeeded in the office, as Sir Richard Whittington. In 1406 he was again elected mayor, and ten years later he represented the city in parliament. Whittington maintained his popularity to the last, so much so that in 1419 he was elected mayor for the third, or if we count his joint occupation of that office for a few months in 1396, for the fourth time. It was during this his last tenure of the office that he so magnificently entertained Henry the Fifth and his wife at a banquet where, on a fire of cedar wood, he burnt the bonds he and others held of the king to the value of £60,000, equivalent to upwards of a million of our money.

Whittington's name has deservedly come down to us as an example of the just and prosperous merchant. His continued popularity among those of his own generation is the best proof of his equitable dealings. His vast fortune was without doubt amassed by a system of bold but honest speculation in the most varied kind of merchandise. We know that he was what his modern biographers style "the court mercer" (Besant and Rice, *Sir Richard Whittington*, London, 1881), and supplied precious silks, cloths, and jewels to the king's daughters, but, like the great merchants who preceded him, he was probably more than this—he was doubtless purveyor to the crown of food stuffs, apparel, and household appliances (see PURVEYANCE); doubtless also a large cloth merchant, and contractor for "sea-coal." Most probably, as has been suggested, the story of the "cat" originated from his early and successful ventures in this last-mentioned article of commerce, then in universal demand, as the "coal" vessels of that period were styled "cats." Whittington was also one of the largest money-lenders of his time; and as money was usually advanced only on reliable security, these were not necessarily risky investments.

Among Whittington's bequests to the City were a library at Grey-Friars, the enlarging of the Guild Hall, an Alms House—God's House—for thirteen poor men, and a college to be called after him.

The *Liber Albus* was compiled at Whittington's instigation and completed during his last mayoralty, in 1419. The initiation of such a work proves Whittington to have been not only a man of business and a prosperous merchant, but one who had the honour of his city and the right understanding of its unique liberties very near to his heart. Whittington left instructions in his will for the rebuilding of the gaol of Newgate.

A. L.

WILL, GEORG ANDREAS (1727-1798), lectured in the university of Altdorf on history, poetry, political science, and logic.

He wrote a *Versuch über die Physiocratie, deren Geschichte, Literatur, Inhalt und Werth*, Nürnberg, 1782. The doctrines of the physiocrats

"proves, in the most conclusive manner, that the course of events by which England has come into its present condition, has been an increase in the productive powers of its agriculture, such as has placed it in advance of other countries." England remains in advance of other countries in respect of the yield from the soil, but in the present position of agriculture no one could speak of its influence on the national welfare in the same terms. Reading the lectures causes a feeling of regret that Whewell did not give a closer attention to their subject. The remarks on Ricardo, M'Culloch, and Travers Twiss show that Whewell could bring considerable critical power, as well as very extensive reading, to bear on the questions dealt with.

had, in Germany, been both hailed with enthusiasm and severely criticised; Will takes a rather sceptical attitude. He considers that the doctrines of the IMPÔT UNIQUE, the *produit net*, unrestricted free trade, and of the sterility of manufactures and money, are the really new contributions of the Physiocrats to political economy, but that whenever the natural consequences of these premises occur, the PHYSIOCRATS exclaim that they have been misunderstood.

[Roscher, *Gesch. der Nat. Oek.*, p. 496.] E. Ca.

WILL, BEQUEST BY. The right of the owner of property to determine by his will who is to take such property after his death is by many persons assumed to be part of the law of nature, and any interference with this right a dangerous attack on the institution of property itself. Yet this right, as it exists now in England and elsewhere, has been developed by a very slow process, and by the help of impulses which in our days would not be thought worthy of much consideration. There seems to be a universal rule in all countries that what is now called succession "ab intestato" is more ancient than testamentary succession. In the first stages of the development of the law of property the right of some members of the family of the deceased to take his property cannot be displaced by any testamentary succession. The necessity of appointing a successor arose in cases where there was nobody who might inherit under the ordinary rules. In such a case there would be no one to perform the religious rites incumbent on the successors of a deceased person, and a remedy had to be found to avoid a consequence which in these early stages of history was looked upon as a terrible disaster. The first step to meet this difficulty appears everywhere to have been the custom of creating an artificial family by the adoption of a stranger. Such an alteration in the composition of a family was generally impossible without the concurrence of the other members of the community to which the parties belonged; this was undoubtedly the case in ancient Rome, and accordingly, when, in course of time, by the side of adoption pure and simple, we find the "institution of an heir"—that is to say "an adoption, the effect of which was to make the *heres institutus* the son of the testator—not indeed immediately, but as from the testator's death" (Sohm's *Institutes*, translated by Ledlie, p. 449), the concurrence of the *comitia calata* was required in the same way as in the case of an ordinary adoption. It was probably due to the desire of the plebeians to acquire the benefits of testamentary succession without the concurrence of the aristocratic assembly, in which they were unrepresented (see Sir H. S. Maine, *Ancient Law* (4th ed. p. 201), that a new mode of appointing heirs came subsequently into use which received recognition by the law of the XII Tables (450 B.C.). The form of the testament thus introduced was that of a sale of the inheritance to a purchaser: *familiae emptor*, who on the vendor's death took the place of his heir, and administered the property according to the vendor's directions. The sale was carried out in the form known as *mancipatio*; five Roman citizens were present as witnesses as well as the *libripens*. The *familiae emptor* having expressed his readiness to purchase the inheritance, and having had the purchase money weighed and handed to the testator, the testator, holding the tablet on which the will was inscribed, said the words: "Haec ita ut in his tabulis cerisque scripta sunt, ita do, ita lego, ita testor, ita que vos Quirites testimonium mihi perhibetote."

At a subsequent stage the *familiae emptor* became a mere dummy, the heirs being named in the will itself; and afterwards, through the influence of Prætorian law, a private will was accepted as authentic if signed and sealed by seven attesting witnesses. In this latter form private wills must still be executed in some parts of Germany at the present time (1898).

As mentioned before, a will had two functions: the disposal of the testator's property, and the institution of an heir who became the testator's universal successor and performed his funeral rites, but did not necessarily take much of his estate beneficially, being liable to satisfy the testator's debts as well as his legacies and trust dispositions. The latter were, however, by successive enactments, subjected to certain restrictions, the latest being the *Lex Falcidia* (40 B.C.) and the *S. C. Pegasianum* (75 A.D.) which provided that an heir must receive at least one-quarter of his share of the inheritance free from legacies and trust dispositions. Originally, as mentioned above, a testamentary heir was instituted in the event of their being no natural heir; if there was a natural heir the latter became heir by right of descent; but as time went on it became sometimes desirable to exclude the natural heirs and to appoint strangers, or to give larger shares to some of the natural heirs or some of them; but a will which neither instituted the natural heirs as heirs nor expressly disinherited them was treated as an invalid testamentary disposition.

This rule did not affect the beneficial rights of the natural heirs, as it was quite sufficient for its purpose to appoint them heirs for a much smaller share than the share to which they were naturally entitled; but another rule soon grew up which gave natural heirs, who did not receive their proper share, the right to have the will declared invalid on the ground that the testator, by omitting to benefit his relatives, had proved to be of unsound mind (*querela inofficiosi testamenti*). This right was, however, excluded if the testator gave each natural heir one-quarter of the share to which he would have been entitled if the testator had died intestate. This quarter was called *legitim portia*. There was therefore the formal right to be instituted heir, which could be displaced by express disinheritance, and the material right to receive at least the *portio legitima* which could not be displaced. The law of Justinian, *Novella* 18 and *Novella* 115 (542 A.D.), which is still the existing law in some parts of Europe, modified the two rules in the following manner:—

(1) A testator must appoint his issue, or if he leaves no issue his ancestors, as heirs, or expressly disinherit them, but he cannot disinherit any of them except on certain specified grounds. If any of them is not instituted heir or disinherited on insufficient grounds, the person so passed over is entitled to claim the full share to which he would have been entitled if the testator had died intestate, but subject to the diminution of the estate resulting herefrom, the will is treated as valid. If any person entitled as aforesaid is appointed heir, but not to the extent of his legitim portion, he is entitled to claim the difference between the share bequeathed to

him and the legitim portion. (*Actio ad supplendam legitimam.*) The amount of the legitim portion is increased to ⅓ and in some cases to ½ of the intestate portion.

(2) As regards collaterals the ante-Justinian law remains unchanged.

The development of the rules relating to testamentary dispositions in Roman law, may therefore be summed up as follows:—

1. Originally only the members of the family inherit.

2. Strangers are allowed to inherit if no member of the family can inherit; this result is obtained (*a*) by adoption of the strangers; (*b*) by a will made in the assembly of *gentes* in the form of a modified adoption.

3. Under the influence of those classes of the community who took no part in the assembly of *gentes*, the same result was attained by the fiction of a sale of the inheritance. This fiction was sanctioned as the regular form for making a will by the law of the XII. Tables. Its traces remain in the private will, attested and sealed by seven witnesses, which in later Roman law became common and is still used in some parts of Europe.

4. The custom of burdening the inheritance with legacies and trust dispositions leads to legislation which secure to the heirs one-fourth of the estate clear of legacies and trusts, *Quarta Falcidia*.

5. As the custom springs up to institute strangers as heirs, even when natural heirs are in existence, it becomes necessary to protect the natural heirs (*a*) by preserving their formal right to be instituted as heirs; (*b*) by preserving their material right to receive at least one-fourth of the share to which they would have been entitled in case of intestacy. Both rights are safeguarded in a modified way by Justinian's *Novella*, 115, which still governs the law on the subject in some parts of Europe.

A similar development may be traced in Germanic countries on the Continent, but there the process is modified by the interference of the feudal system and also by the influence of the church, and finally by the reception of Roman law. In England the same modifying influences existed, subject, however, to the circumstance that Roman law was not "received" here in the same sense as it was "received" on the Continent. In any event the final result is entirely different from the result of the continental development. Our space is not sufficient for an account of the latter, but the following short sketch of the English history of wills enumerates a number of facts which, as to part thereof, also existed on the Continent.

In Germanic countries, as in Rome, a person's property was on his death originally given to his natural heirs, and it was not in his power to deprive them of this right by any testamentary disposition. The process by which this right was gradually interfered with was different in many ways from the development of testamentary capacity in Roman law, but the motive power was the same in both cases—the solicitude for the donor's fate after death. As the citizen of Rome wanted an heir whose duty it was to perform the funeral rites, so the Anglo-Saxon landowner altered the regular course of succession in order to devote part of his property to pious uses, so as to secure the welfare of his soul. In Anglo-Saxon times gifts for the benefit of the poor and the church were made in two ways; either by the conveyance of land to the donees, but so that the donor remained in possession during his life, or by death-bed confession, including a gift of his chattels to his confessor for pious uses (Pollock and Maitland, vol. ii. p. 317). At a later period the two kinds of disposition became blended together in a written document, which was called "cwiðe" (from which word the modern "bequeath" is derived), and the practice of making such dispositions became very common and was continued for several centuries after the conquest.

FEUDALISM interfered with the custom to a certain extent, inasmuch as the lord had a right to object to all gifts of land made without his consent, either during the donor's lifetime or on his death, but when the lord's consent could be obtained the gift was recognised. The Royal Courts, however, which during the energetic reign of Henry II. had been newly organised and acquired a large extension of powers, began to invalidate death-bed gifts of land, the reason being that a man was not supposed to be in full possession of his faculties when making such gifts, an argument which, to a certain extent, reminds us of the *querela inofficiosi testamenti* of the Roman law. About the same time (12th century) the right of PRIMOGENITURE was established in England with reference to land; the realty went henceforth to the heir-at-law, that is to say, the person entitled according to the rules of primogeniture, and became on the owner's death severed from the movable property, to which another course of devolution was applicable. Testamentary gifts of *land* were no longer recognised.

As the chattels bequeathed by a testator's will were generally given to pious uses, the administration of this part of a testator's estate had already been for some time in the hands of the ecclesiastical authorities; and when the devolution of land was finally separated from the devolution of chattels, all questions relating to the validity of wills were taken over by the ecclesiastical courts. This led to the introduction of wills more akin to the wills of Roman law, and to the appointment of an EXECUTOR, a mode of procedure derived from Germanic sources, but adopted by the CANON LAW. The executor was not, however, to dispose of the entire property of the testator in accordance with the direction contained in the will. These directions do not seem at any time—except under special custom—to have displaced the rights of the testator's widow and children.

It appears that the general rule was that one-third went to the widow, one-third to the children, whilst the remaining third was called the dead man's part, and went according to the direction of his will. If there were no children, or if there was no wife surviving the testator, the property was divided into halves. During the early stages of the law of primogeniture the heir-at-law seems to have claimed the children's part (Glanville, vii. 5), but already in 1215 the children's right is definitely recognised (Magna Charta, 27).

In most of the southern parts of England the rule according to which the wife and children had indefeasible rights in respect of a part of the husband and father's chattels, gradually fell into disuse, but it remained in force in the city of London with respect to freemen, in the principality of Wales, and in the ecclesiastical province of York, until it was repealed by statutes respectively passed in 1724, 1696, and 1692. The act relating to the city of London recites that many wealthy inhabitants refuse to become freemen of the city "by reason of an ancient custom within the said city restraining the freemen of the same from disposing of their personal estates by their last wills and testaments."

In the meantime the rule according to which real estate could not anywhere—except under local custom—be disposed of by will, but went to the heir-at-law, had also been repealed by the Wills Act of Henry VIII. in 1540, the result being that from the beginning of the 18th century absolute freedom existed throughout England of disposing of real and personal estate by will.

It deserves mention that the wills gradually introduced into England in the manner described above, originally differed in several essential respects from the wills of Roman law (see Pollock and Maitland, vol. ii. pp. 312-314), and that the last remaining important difference did not disappear until the 1st January 1898. According to Roman law the whole of a testator's property became vested in universal successors, or one universal successor, called the heirs or the heir. According to English law there was from an early period a universal successor as regards personal property, viz. the executor or administrator, but the real estate, from the time that wills disposing of real estate were sanctioned by statute, did not necessarily vest in one person, but passed in respect of each part of it to the person to whom it was devised by the will, whilst such parts of the real estate as were not disposed of by the will passed to the heir-at-law. By virtue of the Land Transfer Act 1897, which came into force on the 1st January 1898, real estate now passes to the executor or administrator in the same way as personal estate; the executor or administrator being now exactly in the same position as an heir who had accepted the inheritance subject to the BENEFICIUM INVENTARII (*q.v.*).

The development of the English law of wills may be recapitulated as follows:—At first there are no regular wills, but only gifts in contemplation of death, mainly for ecclesiastical purposes. Under the influence of the clergy, regular wills appointing executors are gradually introduced, but such wills dispose of personalty only, the realty, except under special local customs, goes to the heir-at-law, until in 1540 wills disposing of realty are sanctioned. Universal succession as regards personalty and singular succession as regards realty continue

to exist until 1898, when universal succession is established for the whole estate. To this extent English law has now become assimilated to the laws derived from Roman law, but on the other hand the gradual abolition of the rights of legitim originally existing in favour of wife and children, which occurred in England, have created a new difference between England and Ireland and the rest of Europe including Scotland.

The following table illustrates the rights of children as to legitim in a number of European countries, it being understood that the issue of deceased children represent their deceased parent or ancestor. The widow or widower has no claim to legitim except in Scotland, where she is entitled to one-third if there are children, and to one-half if there are none; but the widow or widower has in many countries other claims on the estate. In many countries the parents or more distant ancestors of a testator are entitled to legitim if he leaves no issue, but the ancestor's portion is generally smaller than the children's portion.

Amount of Legitim in case of Survival of

Countries governed by	1 child	2 children.	3 or 4 children.	5 or more children.
Scotch Law	1/3 *		1/3 *	1/3 *
German Common Law	1/2		1/2	1/2
Prussian Code	1/2		1/2	1/2
Saxon Code	1/3		1/3	1/2
Baden Code	1/2	2/3	2/3	2/3
French Code	1/2	2/3	2/3	2/3
Austrian Code	1/2		1/2	1/2
Swedish Statute	1/2		1/2	1/2
Italian Code	1/2		1/2	1/2
Portuguese Code	2/3		2/3	2/3
Spanish Code	2/3 †		2/3 †	2/3 †

* If no parent survives, 1/3.

† 1/3 must go in equal parts; the remaining 1/3 may be appointed in unequal parts.

Many codes contain elaborate provisions as to the calculation of the shares, and as to the grounds on which children may be disinherited (*e.g.* certain crimes committed against the testator, immoral or dishonourable conduct, etc.).

The undesirable economic effects of the exaggerated rules as to legitim existing in countries governed by French law have been frequently discussed, but a moderate restriction of the power to give property by will to strangers, or to some children to the exclusion of others, is thought advantageous in countries where such restrictions exist. On the other hand, the complete freedom of English law does not seem to have caused discontent, and it is quite possible that the greater spirit of enterprise which has hitherto distinguished the English race is not unconnected with the fact that, except in so far as any settlement provides to the contrary, no child is of right entitled to any part of his parent's fortune. It is, however, clear, from the historical sketch given above, that the difference between the English and the continental rules was not caused by deliberate choice, but by a combination of accidental circumstances.

[Sir Henry S. Maine, *Ancient Law*, chs. vi. and vii.—Salkowski, *Institutionen*.—Sohm, *The Institutes of Roman Law*, translated by Ledlie.—Schulin, *Das griechische Testament verglichen mit dem romischen*.—Brunner, *Deutsche Rechtsgeschichte*, vol. i. p. 79.—Heusler, *Institutionen des deutschen Privatrechts*, vol. ii. pp. 621-654.—Pollock and Maitland, *History of English Law*, vol. ii. pp. 312-361.—Lassalle, *Das System der erworbenen Rechte*.]

E. S.

WILSON, Glocester, may be regarded as the wildest of all the writers on currency. This is evinced in his doctrines that "gold is no more essential to the guinea than the brass or ivory of the ruler is to its inches. . . ." "Paper, as the more abstract expression of value, is more likely to be uniform in value than gold." It is charitable to surmise that beneath these phrases there may have lurked some rudiment of the conceptions which we now connect with a Tabular Standard.

Defence of Abstract Currencies in Reply to the Bullion Report and Mr. Huskisson, by Glocester Wilson, F.R.S., 1811.—*A Further Defence of Abstract Currencies*, by Glocester Wilson, F.R.S., London, 1812.

[F. A. Walker, *Money*, p. 296. See also *Quarterly Review*, 1811, vol. v. p. 252 *et seq.*, Canning on the kindred fallacies of Smith and Eliot.]

F. Y. E.

WILSON, Rt. Hon. James (1805-1860), financial member of the council of India. He went into business early in life, but retired in 1844, after having started the *Economist* to represent free-trade principles. The first number appeared 2nd September 1843; he was the sole editor, down to his departure for India, when he was succeeded by Walter Bagehot, who married Wilson's eldest daughter. In 1847 he became M.P. for Westbury, between 1848 and March 1852 was secretary to the board of control, and was financial secretary to the treasury in the Aberdeen coalition ministry until March 1856. In 1859 he was vice-president of the board of trade. He resigned in order to take the post of financial minister in India, and died at Calcutta.

"Wilson dealt with political economy like a practical man . . . [His] predominating power was what may be called a business-imagination. He had a great power of conceiving transactions. Political economy was to him the science of buying and selling, and of the ordinary bargains of men he had a very steady and distinct conception" (W. Bagehot, "Memoir," *Economist*, 17th Nov. 1860, p. 1289).

Influences of the Corn Laws as affecting all Classes of the Community, and particularly the Landed Interests, London, 1839, 8vo (3rd ed., 1840. "One of the best and most reasonable of the late tracts in favour of the unconditional repeal of the corn laws," M'Culloch, *Lit. P. E.*, p. 80).—*Fluctuations of Currency, Commerce, and Manufactures referable to the Corn Laws*, London, 1840, 8vo.—*The Revenue; or, what should the Chancellor do?* London, 1841, 8vo (foreshadows the financial policy commenced by Peel and continued by Gladstone).—*Capital, Currency, and Banking; being a collection of a series of articles published in the Economist in 1845, on the Principles of the Bank Act of 1844, and in 1847, on the recent Monetarial and Commercial Crisis; concluding with a plan for a secure and economical Currency*, London, 1847, 8vo (advocating severe bullionist views).—*Financial Measures for India: a Speech*, London, 1860, 8vo (the principal proposal was the introduction of the income tax, severely criticised in Sir W. Trevelyan's minute).

[Biography by Bagehot in *Economist* (*ut supra*) and shorter life by the same writer in *Ency. Brit.*, 8th ed.—*Annual Register*, 1860, pp. 500-509.—*Gent. Mag.*, October 1860, p. 432.]

H. R. T.

WILSON, THOMAS, LL.D. (about 1520-1581), was a statesman and divine under Elizabeth; he sat in parliament in 1563 for Mitchell in Cornwall, and in 1571 and 1572 for Lincoln city; he was master of requests, secretary of state in 1577, and after holding the post of master of St. Katherine's Hospital, then on its original site near the Tower of London, for several years, was made dean of Durham in 1579.

Besides treatises on rhetoric and logic he was the author of a *Discourse upon Usurie* (published, according to the title-page, in 1584, though the prefatory epistle is dated 1569), a dialogue between a preacher, a lawyer, a merchant, and a civilian. The preacher, supporting his position by Scripture and the Fathers, utterly condemns all interest on every kind of loan, and would have usurers punished like thieves or murderers; the lawyer, with other texts of Scripture, and a law of Justinian to bear him out, draws a distinction between fair interest and "biting" usury, between business investments and charitable loans; and points out that interest is not merely a reward for the kindness of lending, but compensation for risk and for foregoing the use of the money. The merchant takes his stand on the argument that trade would stop if nothing were to be gained by it, but the civilian in a tedious oration supports the preacher's position with quotations from the canon law, and like him allows no interest on loans except when the principal money is not repaid at the date originally fixed. To solve the merchant's difficulty, however, he seems to allow interest to be paid on capital lent for business purposes, evading inconsistency by calling such lending letting out to hire, on the ground that the capital, if lost by the borrower, will not be restored to the lender. To the surprise of the modern reader the preacher's final rejoinder entirely converts his audience, and the penitent merchant engages to lend freely in future, and even to restore all he has taken by usury in the past.

[*Gent. Magazine*, new series, iii. 468.—Fuller, *Worthies* (Lincoln).—Willis, *Not. Parl.*—Wood, *Fasti Oxon.*—*Parl. Hist.*, i. 756, for speech on usury bill.—Cooper, *Athenae Cantab.* (with full list of authorities).—Cunningham, *Eng. Indus. and Commerce, Mod. Times*, pp. 79-95.] E. G. P.

WINCHCOMBE, JOHN. See NEWBURY, JACK OF.

WINDING-UP. This expression is used as a general term for the transactions necessary on the dissolution of a partnership or company, to realise the assets, to pay off the liabilities, and to divide the surplus among the parties entitled. In the case of companies, the winding-up also takes the place of bankruptcy proceedings. A company may be wound up voluntarily or by the court, but in the case of a voluntary winding-up the court may, on application, make an order placing the liquidation under the supervision of the court, and a voluntary winding-up may also at any time be transformed into a compulsory winding-up by the court.

[See companies acts generally, and more particularly The Companies (Winding-up) Act, 1890.—Palmer's *Company Precedents*, pt. ii. (Winding-up) 6th edition, 1896.] E. S.

WINDOW TAX. See TAXATION.

WINKELBLECH, K. G. See MARLO, KARL.

WITT, JOHAN DE (1623-1672), born at Dordrecht, murdered at the Hague, was without doubt one of the greatest, if not the greatest statesman of his age. Descended from a very able family, whose members served their country in several different capacities, the young De Witt very early distinguished himself by his extraordinary ability and perspicacity. The mathematical sciences especially interested him. Notwithstanding, however, his early predilections, he studied law at the university of Leyden, and in 1647 became an advocate at the court of Holland at the Hague. His capacity, however, procured him as early as 1650 the position of "pensionaris" of Dordrecht, one of the oldest and richest cities of Holland, and in 1656 that of "raadpensionaris" of Holland. In this capacity he was for about twenty years the leader of the internal and external politics of the united provinces, and he intended to make the republic fully independent of the authority of the House of Orange (the stadtholder William II. died in 1650 without leaving an adult successor), and to secure a place for it at the head of the nations of Europe. His opposition to the restoration of the stadtholdership was the cause of many a conflict with the people, and afterwards with England after Charles II.'s accession to the throne.

His policy as a statesman falls out of the scope of this dictionary. Into the region of theoretic political economy De Witt, who wrote but little, never entered. His opinions on the practical financial and economic questions of his time may be gathered from the little book of P. DE LA COURT entitled *Interest van Holland*. This book contains a complete defence of De Witt's policy, and the manuscript, corrected by De Witt himself in a number of places, and enlarged by two chapters, was published at his instigation. Chapter xxxix., written by De Witt, contains an ample defence of his financial policy, and of the conversion of the debt, at that time amounting to 140 million florins, in 1655, from a 5 per cent into a 4 per cent stock. The amount thus saved was reserved for amortisation of the debt, and this amortisation-fund would every year be augmented by the saved interest, in order to pay off the whole debt in forty-one years. In consequence of this conversion and amortisation, maintained until 1665, the burden of the interest was, notwithstanding the raising of new loans to an amount of about 15 millions, diminished in 1672 by nearly 1½ millions.

De Witt's pamphlet on *Waardije van lyfrente in proportie tot losrente* appeared in 1671, and

contains, for that time, a very remarkable demonstration of the desirableness of negotiating life annuities as a means of borrowing money, for, on the basis of a payment of 6¼ per cent, it proved even more advantageous to the state than an ordinary loan at 4 per cent. De Witt did not fear a diminution of the national capital as a consequence of his proposal, trusting that it would give his countrymen a strong inducement to save. And the rapid amortisation of life-annuities was an advantage to the state when compared with ordinary loans. His calculations were based on the hypothesis that, beginning from the third year, the chance of life for 50 years more was 1 : 1; at the age of 53 years the chance to live still 10 years was ⅞ : 1; at the age of 63 years ½ : 1; at the age of 73 the chance to live further 7 years ⅛ : 1; and at the age of 80 years the chance of death 1 : 1.

[From the very numerous books about De Witt and his age, we mention: James Geddes, *History of J. de Witt* (English), the Hague, 1879.—A. Lefèvre Pontalis, *John de Witt*, translated by A. Stephenson, London, 1885, 2 vols.] C. A. V. S.

WOLFF, CHRISTIAN VON (1679-1754), professor of mathematics in Halle, 1706-23, 1740-54, and Marburg, 1724-40, and of the law of nature and nations in Halle, 1740-54:

Wrote a system of philosophy speculative, *i.e.* cosmological, psychological, and theological, and practical, *i.e.* ethical, economical, and political, which held its own until superseded by that of KANT. He was an eclectic follower of LEIBNIZ, and therefore an individualist and an idealist. He derives society from the contract or quasi-contract of its members, but sometimes omits quasi-contract (*V. G.*, § 2). The object of the contracting parties is to attain their own "perfection" (*J. N.*, vii. § 144), not "happiness," though the two ideas are closely allied. The motives and means to attain perfection can be deduced from "human nature," as the successive propositions of Euclid are from Euclid's axioms and definitions; and each proposition contains a duty. This code of duties is called, after PUFENDORF, *The Law of Nature*, and contains an inextricable tissue of moral and social maxims, and of legal enactments, in which no allowance is made for social and legal growth.

He is quite devoid of the historical faculty, and the Chinese government, the praise of which caused his exile, 1723-40, figures alongside of the current prejudices of his time as expressions of the law of nature. In politics he is an absolutist, but justifies passive resistance. In economics, in the modern sense, he writes that the law of nature (1) fixes the price of such things and services as conduce to the "necessities, conveniences, and amusements of life" (cp. A. SMITH) so that none may want for necessaries; (2) therefore necessaries common to all have no price; (3) it determines value by the labour and expense of production, (4) plus interest on money proportionate to the returns on *res fructuosae*. We might on reading this be tempted to think of (1) living profits and wages; (2) modern ideas as to cost and use-value; (3) and scarcity and value; and (4) the productivity of capital; but Wolff meant by a law of nature not what happens, but what ought to happen, and his only notion of bringing these "laws" into operation is to make them state-laws. He is a high priest of the Police School (see POLICE). He is a mercantilist, and calls that state the strongest which has most men and money, and especially the latter—for there cannot be too much money, and money can buy men, but men who want for food are too many—and he calls that man rich who has "money to spare," and writes of trades and other pursuits as "ways of making money" (*Oec.*, index *s.v. pecunia*), and condemns gold and silver plate as making money less, besides being luxurious. But he does not identify wealth and money. Thus money, he writes, when used as the test of wealth, is used in a loose sense, and includes debts that are due, *res fructuosae*, and all things having money value (*J.N.*, pt. iv. § 352): and one of his works cites the fable of Midas (*Oec.*, § 791). Money in the strict sense "represents" things for the purpose of measuring their value, and is general purchasing power. At least these things are written in the book of natural law; and natural law is not a social tendency, but a counsel of individual perfection. He does not discuss economical problems from any other point of view than that of an all-pervading didacticism.

Works by Wolff connected with political economy belong to his practical, not his speculative philosophy; and are —*Vernünftige Gedanken von dem gesellschaftlichen Leben der Menschen*, 1721, 1756 ("society" includes "economics" and politics).—*Jus Naturae methodo scientifica pertractatum*, 1740-48, 1764-66; 8 parts; *Jus Gentium m. s. p.* 1749, being the ninth part: these works are abridged in *Institutiones J.N. et G.*, 1751, trans. German, 1754, also in a French version by Formey, 1758. Pt. i. states duties to self, others, and God; pts. ii. and iii. rights of ownership; pts. iv. and v. contractual rights, including iv. 2 *De Pretio rerum et pecunia*; pt. vi. is miscellaneous; pt. vii. gives laws of societies less than states; pt. viii. of states.—*Oeconomica*, 1754, ed. and partly written by Hanovius; "economics" is used in Aristotle's sense as the policy of societies less than states.—*Discovery of the cause of the multiplication of Corn*, 1734, an Engl. trans. of the first of two treatises on scientific agriculture, 1718 and 1730.—*The real happiness of a People under a philosophical King*, *i.e.* Chinese Emperors, 1750, an Engl. trans. of his *Oratio*, 1726, which caused his exile when delivered in 1723; see Carlyle, *Frederick the Great*, in his *Works* (1882), xxii. p. 179, vol. xxiv. p. 207.

[Erdmann, *History of Philosophy*, trans. by W. S. Hough, 1892, vol. ii. p. 219.—W. ROSCHER, *Geschichte der National Oekonomik in Deutschland*, p. 347.] J. D. R.

WOLOWSKI, LOUIS FRANÇOIS MICHEL RAYMOND (1810-1876), born at Warsaw, died at Paris. He was educated in France, returning, at the age of eighteen, to Warsaw, to graduate at that university. The revolution of 1830 excited violent emotion and baseless hopes among the youth of Poland. Wolowski's French education and his personal popularity caused him to be suspected, imprisoned, and condemned to death by the Russian government. When the revolution broke out he regained his liberty, took up arms, and was sent to Paris by the provisional government as secretary to the legation. When the rebellion was suppressed he remained in Paris, where his family joined him. He quickly passed his examinations in law, and was employed in the office of the famous lawyer Dalloz. He was naturalised in 1834, began to write, and started the *Revue de Législation et de Jurisprudence*.

The government in 1838 attempted to suppress all limited companies. Wolowski opposed this severe measure with such force that it did not pass. This success rendered him popular, and in 1839 he was placed in the chair of *Législation Industrielle*, recently established at the *Conservatoire des arts et métiers*.

Wolowski's eloquence enabled him to instruct his hearers without wearying them. He spoke several languages, was familiar with foreign literature, especially that connected with moral and political science, and soon won for himself a distinguished place among French economists.

After the revolution of 1848, he boldly attacked

the socialist doctrines of Louis BLANC who presided over the Government commission on labour. Unfortunately his arguments were not all equally good—that on the limitation of competition being lamentably weak. With DUNOYER he believed in immaterial capital. The reforms, though incomplete, in the mortgage system of France, were due to Wolowski, who proposed that there should be an open syndicate of all the landed proprietors in France, this syndicate to issue, with or without government guarantee, but with its approval, mortgage bonds like those employed in Germany and Poland, which was only effected after the *coup d'état* of 1851. In 1852 a decree was issued authorising the establishment of the *Banques Foncières*, replacing the costly and difficult notarial contract of circulation of bonds payable to bearer. A *Banque Foncière* was established at Paris of which Wolowski was director, and he formed two others at Nevers and Marseilles.

There were troubles at the outset, and the necessity of unity was immediately perceived. Wolowski, who had originally thought of only one syndicate, desired the reunion of the three into one, working throughout France — and, appointing a governor, became himself simply an administrator in his own institution. He soon after became interested in the monetary question, supporting the system in existence before the suspension of the coinage of silver. He considered the ratio of 15 : 1 between gold and silver to be fixed by nature, or to be one which would vary but slightly. With regard to banks of circulation he approved of unity, and considered that where the state did not itself issue notes to bearer payable at sight, it should directly supervise this operation. The creation of bank notes was, in his eyes, coining money, and he highly admired the Bank Act of 1844 of Sir Robert PEEL. In 1848 he was elected to the constituent and legislative assemblies. A sincere republican, he held no office during the empire, but in 1871 he again offered himself for election, and became a member of the national assembly. He was a vigorous supporter of the income-tax as preferable to the semi-protectionist system of taxation proposed by M. Thiers. In 1876 he was, shortly before his death, appointed senator for life.

In 1855 he succeeded to the chair vacated by Blanqui's death at the academy of moral and political science. He wrote much, and early showed a great predilection for the historical over the deductive method — he believed all masters of the science to be of that way of thinking, except J. B. SAY, whom he reproached with dogmatism. He translated the *Principes d'économie politique* of Roscher, 1855, 2 vols. 8vo, into French, and the *Économie politique* of G. A. L. Cibrario, 1859, 2 vols. 8vo, writing introductions for both. That to Roscher's book is an economic manifesto in favour of the HISTORICAL METHOD (*q.v.*). This perhaps is the best thing he wrote. He supported free trade without reserve, but too often allowed himself to lean on official regulations and centralisation.

His first book, *Études d'économie politique et de statistique*, 8vo, 1848, is made up of separate works. In 1864 he brought out *Les finances de la Russie*, 8vo, which, supporting as it did the Polish view, excited loud complaints in Russia, and *La question des banques*, 8vo, the reproduction of his lectures at the *Conservatoire des arts et métiers*, followed in 1867 by *La Banque d'Angleterre et les banques d'Écosse*, 8vo (trans. into English by Somers), another form of the same subject, *La Liberté commerciale et les résultats du traité de commerce de 1860* (1869), 8vo, appeared at the time when the commercial treaties with England and other countries began to be given up, and *Le change et la circulation*, 1869, 8vo, when the bank question and the monetary question were being discussed. The latter subject was treated on more directly in *L'or et l'argent* (8vo, 1870). He also translated two remarkable and original works, *Petit traictie de la première invention des monnoies*, by Nicholas ORESME, Bishop of Lisieux, written in 1376, and *Traité de la monnaie*, by Nicholas COPERNICUS, the celebrated astronomer (1526)—the two form a large volume, published in 1864. We need only notice among many pamphlets on subjects of the day, *Résultats économiques du payement de la contributions de guerre en Allemagne et en France*, 1874, which consisted mainly of extracts from different publications with which he was connected and which are quoted below. He also wrote in *Revue de législation et de jurisprudence* (1834-50), and for *Le siècle* a daily paper, from 1837 to 1848, for the *Revue des deux mondes*, from 1857 to 1868; finally for *Journal des économistes* and the *Compte rendu des séances de l'Académie des sciences, morales, et politiques*, from the date of their commencement (1842) till his death. From 1843 onwards he was one of the most industrious and distinguished members of the society of political economy, of which he became vice-president in 1858; and was one of the founders of the statistical society of Paris, and president from 1874.

[Émile Levasseur, *La vie et les travaux de Wolowski*, 8vo, 1877.—Ant. Rouillet, *Wolowski, sa vie et ses travaux*, 8vo, 1880.—J. Rambaud, *L'œuvre économique de L. Wolowski*, 8vo, 1882.]

A. C. f.

WOMEN'S WAGES. See WAGES OF WOMEN.

WOOD, W. (fl. about 1724), a Bristol iron merchant, notorious through his purchase of a patent for the issue of copper coins in Ireland. The agitation thus produced, and fanned by the DRAPIER'S LETTERS (see also SWIFT, JONATHAN), was stopped by cancelling the obnoxious patent with compensation to Wood, who at first refused to yield up his privilege.

[Lecky, biographical introduction to Swift's *Prose Works* (London, 1897), pp. lxx-lxxv.]

C. F. B.

WORK, REGULATION OF. See INDUSTRY, ORGANISATION OF; LABOUR IN RELATION TO THE LAW.

WORKHOUSES.

Workhouse, p. 672; Workhouse Test, p. 674.

WORKHOUSE.—A workhouse may be defined as an institution supported by the poor-rate

for the necessary relief of the aged, sick, casual, and able-bodied poor and their children. By considering the history of poor relief in regard to these classes, we may trace how the workhouse has been developed.

Before any legal system of relief for the "impotent" was introduced, the aged and infirm poor were in some measure provided for in hospitals or by alms. Legislation (12 Rich. II. c. 7) first required the impotent to abide in the place where they were; then (22 Hen. VIII. c. 12) licensed them to beg within appointed limits; then (27 Hen. VIII. c. 25) provided that alms should be collected for them; then (1 Ed. VI. c. 3) ordered that they should be lodged in convenient houses and employed, "if not so lame and impotent but that they may work"; and then (14 Eliz. c. 5) no longer suffered them to beg, but provided for them "in hospitals or 'other abiding or working houses,'" or (39 Eliz. c. 3) supported them by necessary relief out of the rates. This act, and the Poor Law Act (43 Eliz. c. 2) still in force, provide generally for raising competent sums of money for the "necessary relief" of the "lame, impotent, old, blind, and such other among them being poor and *not able to work*." It did not provide "hospitals or other abiding or working houses" for them; but, apart from outdoor relief, they would continue to be lodged in such houses and in almshouses. (The Hospitals, part of the system of ecclesiastical relief, were in many instances municipalised. Cp. in Henry VIII.'s and Ed. VI.'s reigns, St. Bartholomew's and St. Thomas's, and St. Peter's Hospital at Bristol, which became the workhouse.) In the workhouses of 9 Geo. i. 7, they would be maintained and possibly employed (cp. GILBERT'S ACT). At the present time workhouses are, in fact, in great part "hospitals" or almshouses for the "impotent." To a limited extent employment or occupation is provided for them. The sick are provided for in sick wards, or, in the larger towns, in separate poor-law infirmaries. They are not specially referred to in 43 Eliz., but are included in the "others not able to work."

The casual poor, or vagrants, were punished in various ways, and subsequently (18 Eliz. and 39 Eliz.) committed to work in houses of correction, which also bore the name of workhouses—the word now applied to a house of correction in the United States. Afterwards, in its later form, the workhouse of the poor law, with its casual ward, met the needs of the casual poor or vagrant. The house of correction became and remained a prison for offenders under the vagrancy acts.

Next, as to the able-bodied poor: poor relief is closely related to labour questions. At any time of difficulty the questions of wage, vagrancy, and the care of the aged or "impotent," arise almost simultaneously. Statutes and the history of the workhouse indicate this. The able-bodied poor person, "not exercising any craft, nor having whereon to live," under a system of regulating wages by law, was required (23 Ed. III.) to serve at the accustomed wage, with committal to jail as a penalty. And on this system, if employment were scarce, he would, on the other hand (as in 18 Eliz. c. 3), be provided with work if willing to labour. Accordingly (39 Eliz.), he was to be supplied with work on profitable terms without or within a house of correction possessed of the necessary stock. This general provision is limited by the Poor Law Act (43 Eliz.) to the setting to work of children and "such persons as, being married or unmarried, having no means to maintain them, use no ordinary or daily trade of life to get their living by." In that act no mention is made of a workhouse; but, as has been shown, the thing already existed.

Two interpretations of the Poor Law Act, and two theories, have dominated at different times. One, which accorded rather with 39 Eliz., would impose on the overseers the provision of work to all poor and needy persons being willing to labour. This coincided with a theory that the labour of the poor might be made profitable as well as educational and disciplinary, and thus led to the workhouse being adapted to a "house of industry"; or, as in Gilbert's Act, 22 Geo. III. c. 83, which excluded areas incorporated under it from the operation of the Poor Law Act, it harmonised with the view that employment should be provided for the poor outside the house, and that the workhouse should be used only for the aged and infirm—*i.e.* as an abiding or working house, which, as it happened, was its old, possibly its original use. These two conceptions had great influence at different times, but especially in the latter part of the 18th century. The failure of the house of industry and industrial farm was due to the following amongst other causes. The work depended on contracts, and the failure to obtain contracts—especially at times of commercial depression—threw the whole organisation of indoor relief out of gear. The contracts were accepted on terms of pauper labour, and were often of little or no profit. Thus the workman outside was effectively undersold. The labour in the workhouse was frequently undisciplined and bad; and the paupers were so troublesome to manage that they were often left absolutely idle. To carry on a farm, outside labour had at times to be procured, while in winter work enough could not be provided, and the people had to be put on the roads. There was a disinclination to refer people to the workhouse as a house of industry, and thus after a few years it failed to serve as a test.

The other theory relied on a strict interpretation of the words quoted above from the Poor Law Act. It insisted that the position of the pauper should be less eligible than that of the independent workman, and that the poor law had to provide necessary relief to the able-bodied on this condition, and had not to furnish employment to the poor at large. On this theory the workhouse became a poorhouse for the maintenance and employment of those who would accept "the offer of the house," *i.e.* relief on the less eligible condition. The plan succeeded in several parishes for a time about the year 1722 (9 Geo. I. 7), and in other instances here and there, proving its efficacy at the period of extreme pauperisation at the beginning of the present century. It was afterwards revived under new conditions in 1834 under the new Poor Law Act (4 & 5 Will. IV. c. 76), when pauperism was wide-spread, and the administration of poor relief was in the greatest confusion. The union workhouse was then established (see UNION, POOR LAW), and by the outdoor relief prohibitory (1844) and regulation (1852) orders, framed under § 52 of the new Poor Law Act, relief to able-bodied men was refused except in the house, while a central authority, the poor-law commission or board, was established to give unity and guidance to the new administration. By the outdoor labour test order (1842) permission was given to the guardians, at times of distress, to relieve able-bodied men out of the house in return for a task of work, on the understanding that half the relief at least was given in kind; and in the regulation order, which applies to most large towns, this plan was adopted without the proviso required by the test order that it should apply only to times of distress, and subject to report to the poor-law board. Thus the rigour of the new poor law was modified conditionally at the discretion of the guardians. The result, towards which no doubt other causes have co-operated, has been an enormous reduction of able-bodied pauperism. Thus in 1850, when already it had been largely diminished, it was 1·2 per cent of the population above fifteen years of age; but in 1891 it was only 0·5. With regard to the aged the test was not pushed, but the poor-law commissioners advised its use to prevent "partial" relief, *i.e.* relief to persons who have "some," not "no," means. The commissioners advised the erection of workhouses for different classes, and recent reform appears to be taking that direction.

It is difficult to see how, from the economic standpoint, any other policy of relief to the able-bodied than that of 1834 is defensible. There is now no state regulation of wage to justify as its counterpart the provision of work to the poor and needy generally; and if relief in aid of wages, or in substitution of wages, is injurious, it follows that, in the main, those relieved should be so assisted as to be, as far as possible, industrially a negative quantity. The offer of the house ensures that, if they accept relief, this will be the result.

With regard to the workhouse for children—in the "house of industry" the labour of children was of great importance. Now education in district or separate schools, or in country unions at the public elementary schools, has taken its place.

[Burn, *History of the Poor Law*, 1764.—Eden, *State of the Poor*, 1797.—Golding, *Historical Account of St. Thomas's Hospital, Southwark*, 1819.—Poor Law Commissioners, *Report* (*large edition*), 1834; and *Annual Reports*, 1835, 1836, especially Appendices and Inspectors' Reports.—

Aspects of the Social Problem, 1896.—*Poor Law Orders*, Macmorran and Lushington, 1890.—*Annual Reports of Local Government Board.*—"The State and the Unemployed," *Charity Organisation Review*, vol. ix. p. 439, 1893; and generally Ashley, *Economic History*, vol. i. pt. 2, 1893.] C. S. L.

WORKHOUSE TEST. By the workhouse test, as it is called, relief is granted by the poor-law guardians on the condition that the applicant accepts an order for admission to the workhouse or poorhouse. The method appears to have come into vogue in the early part of the 18th century. By 9 Geo. I. c. 7 (1723) parishes were enabled to combine to provide a workhouse, and "any poor person" who refused to enter the house lost his title to relief. Wherever and so long as the test was applied, it reduced pauperism.

The poor-law commissioners of 1834 adopted as "the first and most essential of all conditions" applicable to all administration of poor relief, for which funds were levied compulsorily, the principle that the situation of the "individual relieved" should "not, on the whole, be made really or apparently so eligible as the situation of the independent labourer of the lowest class." They based this principle both on evidence which showed that necessary relief given conditionally on admission to a well-regulated workhouse, or under similar restrictions, tended to reduce pauperism; and on the observation, that, while others applied freely for relief, non-parishioners—who could only obtain it after they had been passed back to their parish,—did not apply for it, since relief subject to removal was less "eligible" than self-maintenance. In their report they applied the principle more particularly to able-bodied men, and advised its adoption in the form of an offer of maintenance to them in a well-managed workhouse, where the necessaries of life only would be provided, and where, in general, as much labour would be required as would be done by the independent labourer outside. The applicant is thus made the arbiter, and has to make his choice between relief under unattractive conditions and maintenance by his own exertions. If the two restrictions just mentioned be neglected the test will lose its efficacy. Residence in the workhouse may then become more eligible than independence—a danger that cannot be considered altogether visionary if the standard of comfort in the house tends to rise above that of the independent labourer of the lowest class. Since 1834 the policy sketched by the commissioners has, with limitations, been enforced under the orders of the poor law, now the local government, board.

For results, see article WORKHOUSES. C. S. L.

WORKMEN'S BUDGETS are statements compiled from information furnished by workingmen of their income, its sources, nature, and amount, and their expenditure with details of the nature and quantity of commodities purchased. Such budgets have long been regarded as forming the basis of social statistics, giving the only means of knowing the economic condition of a people, and of tracing the relative progress of different nations towards civilisation and economic independence, of studying the effect of climate on custom, and of estimating the incidence of indirect taxation. Much attention has been given, especially by the school of Le Play (see LE PLAY) and at international congresses, to the collection of budgets in their most scientific and easily comparable form. The following budget, which shows the approved method of tabulation for international comparisons, and indicates the chief points to be studied, is from *Les ouvriers des deux mondes* (see LE PLAY).

Budget (for one Year) of a Nottingham working-tanner's family, 1888 (*condensed*). *Reduced from French currency and weights.*

RECEIPTS.

	In kind.	In money.	Percentage of Total.
FROM CAPITAL—	£ s. d.	£ s. d.	
Real Property	..	..	..
Personal Property—Cash, £8	..	..	..
Implements for trade £0 5 6 } at 5%	..	0 0 3	..
,, for domestic work 2 10 0 } at 5%	0 2 6	..	..
Right to trades-union benefit balanced by subscription	..	..	..
GIFTS	..	..	..
	Approx. s. d.		
WAGES of *head* of family 284 days at 6 8	..	94 12 7	*33·6*
,, *eldest son* (lithographer) 284 ,, 5 10	..	82 16 4	*29·4*
,, *second son* (clerk) 106 ,, 2 0	..	10 12 0	*3·8*
,, *daughter* (lace maker) 286 ,, 3 3	..	46 6 8	*16·5*
,, ,, (hat maker) 208 ,, 2 0	..	20 16 0	*7·4*
,, ,, (lace maker) 286 ,, 1 2½	..	17 7 9	*6·2*
Household work (mother and daughter) 215 ,, 0 0	..	..	..
Mending clothes 77 ,, 1 2½	4 12 5	..	*1·6*
Washing 20 ,, 2 5	2 8 0	..	*·9*
HOME INDUSTRY—			
Household washing	1 15 5		*·6*
	8 18 4	272 11 7	*100·*
Family: father, aged 55; mother, 54; two sons, 22 and 19; four daughters, 29, 25, 13, 11.		Total . . .	£281 9 11

EXPENDITURE.

	Weight in lbs. approx.	Price per lb. approx.	Total Expenses. Value of goods consumed in kind.	Total Expenses. Money spent.	Percentage of Total.
I. Food.		s. d.	£ s. d.	£ s. d.	
(a) Food consumed at home.					
Cereals—					
Bread	3691	0 1·1	..	16 14 10	
Fats—					
Butter	201	1 0·6	..	10 11 1½	
Lard	57	0 7	..	1 18 3½	
Oil	4·4	1 1·2	..	0 4 9½	
Dairy produce—					
Milk	..	..	..	5 16 6	
Eggs (108 dozen)	108 doz.	1s. per doz.	..	5 8 0	
Cheese	229	0 7·9	..	7 9 9	
Meat and Fish—					
Beef	606	0 7	..	17 12 0	
Veal	22	0 8·8	..	0 16 0	
Mutton	688	0 6·1	..	17 9 5	
Pork	44	0 7	..	1 5 7	
Fowls	9	0 8·5	..	0 6 1½	
Fish	476	0 4·4	..	8 12 9½	
Vegetables and Fruit—					
Potatoes	3669	0 0·95	..	14 12 10	
Greens	1153	0 0·75	..	3 12 5	
Roots	115	0 0·5	..	0 4 2	
Onions	58	0 1·3	..	0 6 5	
Tomatoes	18	0 10·7	..	0 16 0	
Fruit	498	0 1·2	..	2 10 10	
Condiments and Stimulants—					
Salt	115	0 0·2	..	0 2 1	
Pepper	4·4	0 7	..	0 2 7	
Vinegar	29	0 2·4	..	0 5 8½	
Sugar	459	0 2·2	..	4 3 2½	
Tea, coffee, cocoa	150	1 8·3	..	12 11 4	
Fermented drinks—					
Beer				12 16 0	
Wine				1 0 0	
Whisky				5 11 4	
(b) *Food and drink* outside house				40 15 2½	
Total Food				193 10 4	68·8
II. Dwelling Expenses—					
Rent				13 0 0	
Furniture				5 0 0	
Coal				4 4 6	
Light (Gas, £1 : 6 : 6; Candles, 12s. 6d.)				1 19 0	
Total II.				24 3 6	8·6
III. Clothes—					
Father and sons: bought				14 0 0	
home-made (including repairs)			£1 19 5		
Mother and girls: bought			..	18 16 0	
home-made (including repairs)			2 12 11½		
washing (cost if done outside)			4 5 11½	2 2 1	
Total III.			8 18 4	34 18 1	15·5
IV. Instruction, Recreation, Medical Attendance—					
Religion			..	2 14 7	
Education			..	0 19 8	
Music and books			..	0 9 7	
Charity			..	1 3 0	
Amusements: Tobacco, theatres, dancing lessons, £4 : 16s. Entertainments: Newspapers, £1 : 5 : 8			..	6 1 8	
Doctors and Medicine			..	1 0 0	
Total IV.			..	12 8 6	4·4
V. Expenses connected with By-Industries, Debts, Taxes, and Insurance—					
Debts and Taxes, nil			..	..	
Interest on value of tools			..	0 0 3	
Subscription to trades-union balanced by potential benefit			..	..	
Savings, principally of the young girls			..	7 10 11	2·7
Totals			8 18 4	272 11 7	
			231 9 11		100·

Budget (*Week*) *of a shepherd* (*Dorset*). *From the Labour Commission, 1893*, The Agricultural Labourer, vol. i. part v. For other budgets see the Reports of the Assistant-Commissioners, *passim*.

Family: a shepherd, wife, and three children, aged one to six years.

	s.	d.
Receipts per week—		
Man's wages (house, garden, wood, and potato-patch free)	12	0
Expenditure per week—		
Six loaves	3	0
Milk, 7 pints	0	7
Tea, ¼ lb.	0	6
Sugar, 2 lbs.	0	4½
Bacon, 3 lbs.	1	6
Butter, ½ lb.	0	6
Cheese, 4 lbs.	1	0
Meat (for Sunday)	1	0
Salt, etc.	0	2
Lights	0	4
Coal, ½ cwt.	0	8
Soap, soda, and starch	0	5
	10	0½

This is typical of a simple budget useful for furnishing data for rough calculations.

Collections of budgets are distinguished as intensive and extensive. An intensive budget or monograph is shown in the tanner's budget here given, the table being accompanied with minute descriptions of the social and economic circumstances of the class represented. The extensive method is best illustrated by the mammoth collections of the American labour bureaux. Numerous "blanks" are issued asking for income and expenditure under a limited number of headings, and an average budget of an average family is obtained. All the detailed accuracy of Le Play's method is lost, but compensation is found in the broadness of the view obtained, and in the elimination of individual errors by virtue of the general properties of large numbers. The two methods are held to be complementary to each other. Inaccuracies chiefly arise from the neglect of subsidiary earnings, the difficulty of allowing for income from capital and subsidiary earnings, and the wrong grouping of items, expenditure on luxuries being badly entered. There is also a risk that budgets may give too favourable a view of the thrift and consequently of the well-being of the working classes.

The general results obtained by a comparative study of budgets are summed up by Dr. Engel thus:—The greater the income, the smaller the relative percentage of outlay for subsistence. The percentage of outlay for clothing is approximately the same, whatever the income. The percentage of outlay for lodging, or rent, and for fuel and light, is invariably the same, whatever the income. As the income increases in amount the percentage of outlay for "sundries" becomes greater (quoted from *16th Annual Report, Bureau of Statistics of Labour, Mass.*, p. 152).

[WAGES, NOMINAL AND REAL. Le Play, *Les ouvriers européens. Compte rendu des travaux du congrès général de statistique à Bruxelles*, Jan. 1853; preliminary discussion.—*Bulletin de l'institut international de statistique*, tome ii. Engel; tome iii. Guérin; tome v. Cheysson et Toqué, with bibliography; tome vi. vol. i., Ogle, and vol. ii., Landolt, with bibliography; tome ix. Engel, analysis of *Salaires et budgets ouvrières en Belgique*, 1891.—Gruber, *Die Haushaltung der arbeitenden Klassen*, thorough discussion of and reference to continental budgets.—For English budgets see Eden, *The State of the Poor*, 1797.—Daniel Davies, *The Case of Labourers in Husbandry*, 1795; *The Companion to the British Almanack*, 1834.—Kebbel, *The Agricultural Labourer*, 1857.—*Journal of the Stat. Soc.*, London, 1841, p. 320; 1861, Purdy; 1893, Higgs (complete discussion).—Schulze-Gaevernitz, *The Cotton Trade in England and on the Continent*, trans. 1895.—Tuckett, J. D., *Past and Present State of the Labouring Population*, 1846.—R. D. Baxter, *The Taxation of the United Kingdom*, 1869.—Government publications: *Statements made by men in London* (*c.* 5228, 1887) and *Returns of Expenditure of Working-men* (*c.* 5861, 1889); *1st Annual Report of the Congested Districts Board for Ireland*, pp. 32-37. For American budgets see the following reports (numbers indicate years):—Washington, 1st, 6th, 7th; Senate reports, retail prices, 1892, wholesale prices, 1893; Conn., 1888; Ill., 1880, '82, '84; Kans., 1885, '87, '88, '89; Me., 1887, '89, '91; Mass., 1872, '73, '74, '75, '84; Mich., 1893; Miss., 1889-91; Nebr., 1890; R. I., 1887-88; N. J., 1879, '80, '83, '85, '86; Ohio, 1877, '78, '79, '80, '85, '86; Pa., 1878, 1878-9, '87.—Goold, *The Social Condition of Labour*, 1893, or *La Reforme Sociale* 1894.—V. Studnitz, *Nordamerikanische Arbeiterverhältnisse* 1879.—For European budgets, see Ballin, *Der Haushalt der arbeitenden Klassen* (bibliography), 1883.—Blanqui, *Des classes ouvrières en France pendant l'année 1848*.—Dehn in Hirth's *Annalen des deutschen Reiches*, 1880, 1881, and 1882; see also 1877 (Goltz).—Goltz, *Die Lage der ländlichen Arbeiter im deutschen Reich*, 1875, and others.—Laspeyres in *Concordia*, a working-class newspaper, Berlin, 1875.—V. Lengerke, *Die ländliche Arbeiterfrage*, 1849.—Ducpétiaux, *Budgets économiques des classes ouvrières en Belgique*, 1855.—Singer, *Untersuchungen über die sozialen Zustände in den Fabrikbezirken des nordöstlichen Böhmen*, 1885. Reports of H.M. consuls on the condition of the industrial classes in foreign countries, 1870-72. See also Engel, *Das Rechnungsbuch der Hausfrau*, 1882, and *La réforme sociale*, 1892, pp. 680 and 687, and Marshall, *Principles of Economics*, 1895, p. 191.—*Salaire et durée du travail dans l'industrie française*, 1897.—Hirschberg, *Die soziale Tage der arbeitenden Klassen in Berlin*, 1897.—*Statistisches Jahrbuch der Stadt Berlin*, vii. and viii.]

A. L. B.

Workmen's Budgets are detailed statements of the income and expenditure of working men classified in such a way as to show the sources of income and the expenditure (absolute and relative) for the satisfaction of various wants such as food, clothing, shelter, education, etc. The primary object is to give a picture of the condition of the working class, and to compare its well-being among different nations and at different times in the same country (progress of the working classes). A

secondary object is to provide data for a theory of consumption by measuring the relative expenditure in different directions, and the variations due to differing size of income and of family. Practical use may be made of the budgets in estimating the burden of taxation on different classes, in considering the possibility of excluding women and children from factories, in inaugurating measures to encourage thrift and saving, etc.

Method.—There are various methods of preparing workmen's budgets; they are commonly classified as *intensive* and *extensive*. The intensive consists of the detailed study of a single working man's family by some person intimately acquainted with its condition, and who gets his information at first hand. The most famous example of this method is the Le Play monograph (see LE PLAY). Such a monograph gives the history, character, and social environment of each family, as well as an estimate of the sources of income and the items of expenditure. These minute biographies give us interesting pictures of social life, but they depend for their truthfulness upon the tact and knowledge of the observer, and are so few in number that it seems rash to regard them as typical of the whole working class. Out of the one hundred budgets published by Cheysson and Toqué, there is only one from the United States, a miner in California. A second method, advocated by Engel and explained in great detail by Landolt, may also be classed as intensive. It consists in persuading a workman to keep an exact account for a certain period (say a year) of all items of income and expenditure, giving quantities and prices of commodities purchased. These items are then classified by the observer, who must also add explanations in regard to the character and habits of the family (Landolt, *Haushalt-Statistik*).

The extensive method is to collect from a large number of families statements of their income and estimates of their chief items of expenditure. Merely sending out schedules to be filled out by working men is almost sure to result in failure. Thus in 1887, 730 schedules were sent out by the labour correspondent of the board of trade (England) to selected workmen, trade-union officials, and co-operators, asking for information upon their family income and expenditure. Only 36 returns were received, of which 2 were too imperfect for publication. An important modification of the extensive method is to have the schedules filled out under the supervision of an official who makes a personal visit to each family. By this method the United States department of labour in 1890 collected budgets of 5284 families, representing 27,577 persons. Of these 3265 could be treated as normal families, and the results analysed and tabulated.[1] The investigation covered families employed in nine industries (cotton, woollen, glass, pig iron, bar iron, steel, bituminous coal, coke, and iron ore), and distributed among 24 states of the United States, and Belgium, France, Germany, Great Britain, and Switzerland. In the United States families were also distinguished according to nationality.

The advantage of the extensive method is that it gives us material for comparing the expenditure of families with different incomes, of different size, of different country, of different nationality living in the same country (*e.g.* American, Irish, German, etc. in the United States), of the same nationality at home and in a new country (*e.g.* British iron workers in England and the United States), and in different occupations. The intensive method (Le Play) gives the best picture of the actual life of the labourer, and is undoubtedly the most accurate. But the extensive method has its use in the directions just mentioned.

For most of the comparisons mentioned above it is necessary to have some common basis, for it is obviously absurd to compare the expenditure of a family composed of two adults with that of a family with from two to five children. The famous Belgian inquiry of 1853 (Ducpétiaux) sought typical families composed of a man, wife, and four children of the age of sixteen, twelve, six, and two years. This greatly embarrasses the investigation, for it is not always easy to find families exactly so constituted which lend themselves to the investigation in other respects. A second method is to count two children as equal to one adult and use the adult as the standard. The American department of labour uses a rough system of weights. A consuming power is attributed—

To husbands of	.	.	.	.	.	100	units
To wives of	.	.	.	.	.	90	,,
To children from 11 to 14 years inclusive of						90	,,
To ,, ,, 7 ,, 13 ,, ,,						75	,,
To ,, ,, 4 ,, 6 ,, ,,						40	,,
To ,, ,, 1 ,, 5 ,, ,,						15	,,

For purposes of comparison 100 units is taken as the standard. Engel takes as basis 1 for the infant and adds $\frac{3}{10}$ for each year, making 3 for the age of twenty which is a maximum for women, and 3·5 at the age of twenty-five which is the maximum for men. A family composed of man, wife, and four children, of the ages ten, eight, six, and four years, would count as 13·3 units or "quets" (from Quetelet), as Engel calls them; while another family with four children, but of the ages eighteen, sixteen, fourteen, and twelve years, would count as 16·5 units or "quets." By this convention, comparison may be made between budgets from different sources, however various the size of the family.

Results.—The chief results obtained from family budgets thus far is to show certain relations between expenditure for food, clothing, rent, fuel, and other objects, and that these proportions vary for incomes of different size according to fixed rules. This was shown clearly by Engel in 1857 on the basis of the Belgian budgets of 1853, and his results may be reproduced here as the earliest of these comparative tables. The Belgian budgets were divided into three classes:—

I. Class—Very poor families with average income of 648·68 francs.
II. Class—Poor families with average income of 845·44 francs.
III. Class—Well-to-do families with average income of 1214·44 francs.

[1] "By normal family is meant one with the following attributes. It has no boarders or dependents; it does not own its dwelling-place; it has an expenditure given for rent, fuel, lighting, clothing, and food; it has both a husband and a wife; it has not more than five children, no one of whom is over fourteen years of age." *Seventh Annual Report of the Commissioner of Labour*, 1891, pt. ii. p. 858.

Items.	The Proportionate Expenditure of a Family of			
	I. Class.	II. Class.	III. Class.	All Classes.
	%	%	%	%
Food	70·89	67·37	62·42	65·33
Clothing . . .	11·74	13·16	14·03	13·26
Dwelling . . .	8·72	8·33	9·04	8·75
Fuel, etc. . . .	5·63	5·51	5·41	5·49
Furniture, etc. .	0·64	1·16	2·31	1·58
Education . .	0·36	1·06	1·21	0·98
Public burdens .	0·15	0·47	0·88	0·58
Care of health .	1·68	2·78	4·30	3·25
Personal service .	0·19	0·16	0·40	0·28
Total . . .	100·00	100·00	100·00	100·00

(Republished in *Bulletin de l'Institut de Statistique*, tome ix. Annexe I. p. 27.)

On the basis of this table, and the budgets published by Le Play, Engel formulated the following law since known by his name—that, "the poorer a family is, the larger the proportion of its income necessarily spent on bare subsistence," and still further, "that under similar circumstances, the proportion of the income spent for food is an unfailing index of the material well-being of a community" (*Bull.*, etc., ix. p. 26).

This earliest table may be compared with the latest, that of the American department of labour, which distributes the expenditure as follows: (*Seventh Annual Report*, vol. ii. p. 865.)

EXPENDITURES IN NORMAL FAMILIES: UNITED STATES.

Income.	Food.	Rent.	Clothing.	Fuel and Lighting.	All other Purposes.
	%	%	%	%	%
Under $200	49·64	15·48	12·32	8·08	13·98
$200-300	44·26	14·65	14·33	7·55	19·21
300-400	45·59	14·98	14·14	7·02	18·27
400-500	45·08	15·29	14·38	6·62	18·63
500-600	43·84	15·15	15·27	6·60	19·14
600-700	41·18	15·54	15·86	5·86	21·56
700-800	38·89	15·60	16·33	5·30	23·88
800-900	38·09	16·09	15·09	5·25	25·48
900-1000	34·34	14·96	16·34	4·74	29·12
1000-1100	34·74	15·12	17·53	4·50	28·11
1100-1200	30·65	12·23	16·51	3·89	36·72
1200 & over	28·63	12·59	15·71	3·02	40·05
All sizes	41·05	15·05	15·31	5·91	22·68

The proportionate expenditure for food decreases with increasing income; that for fuel and lighting also decreases; rent remains about stationary; clothing increases with increasing income; and a constantly increasing proportion of the income is set free for expenditures outside of the necessaries of life.

In all cases the absolute expenditure increases, but it increases in varying proportion, that is, the demand is more elastic in some cases than in others. Engel has illustrated this by giving in great detail the absolute expenditure for different objects in different incomes, from under 600 francs to over 2000 francs. The expenditure for animal food is 6·77 times as great in the higher as in the lower income, while that for vegetable food is only 3·08 fold. Clothing increases by 7·05 fold, while expenditure for shelter is only 3·88 times, and for fuel and lighting only 2·73 times as great. The expenditure for moral and intellectual needs increases faster still; and income increases faster than outgo. (The complete table is given in the note.)

PROPORTIONATE EXPENDITURE OF DIFFERENT INCOMES (ENGEL, p. 41).

	Under 600 fr.	600-900 fr.	900-1200 fr.	1200-2000 fr.	Over 2000 fr.
1. Food—					
Animal . . .	1·00	1·67	3·01	4·91	6·77
Vegetable . .	1·00	1·37	1·57	1·98	3·08
Alcoholic Liquors	1·00	3·10	5·89	12·06	27·80
Garden cultivation	1·00	2·97	3·60	6·80	2·30
Total food . .	1·00	1·47	1·89	2·58	4·01
2. Clothing . .	1·00	2·06	2·81	4·37	7·05
3. Shelter . .	1·00	1·42	1·73	2·30	3·88
4. Fuel and Lighting . . .	1·00	1·35	1·74	2·28	2·73
5. Care of health .	1·00	1·53	3·24	5·36	9·83
Total for physical existence . .	1·00	1·52	1·97	2·76	4·29
6. Intellectual needs	1·00	2·56	6·78	20·77	17·78
7. Moral culture .	1·00	2·00	5·00	7·00	1·00
8. Taxes, etc. . .	1·00	2·75	8·50	19·10	25·00
9. Amusements, etc.	1·00	1·97	1·75	3·33	5·36
10. Miscellaneous .	1·00	14·50	8·00	17·00	21·50
Total expenditures	1·00	1·24	1·61	2·32	3·55
Total income . .	1·00	1·55	2·11	3·01	4·68
Deficit . . .	1·00	1·46	1·14	1·42	1·57

In few cases also is there any detailed record of the furniture, the condition of which shows perhaps more clearly than anything else the prosperity or the reverse of a family. The information as to the incomes would be more useful if the occupations also were generally stated. With the incomes any supplementary earnings should be included, but it is difficult to secure the particulars of these.

The United States tables enable us to trace consumption in a different direction, viz., as affected by increasing size of family. The budgets were arranged according to the number of children, giving the following results (*Sixth Report*, p. 679):—

Size of Family.	Average expense per family for						
	Food.	Clothing.	Rent.	Fuel.	Lighting.	Sundries.	Total.
	$	$	$	$	$	$	$
No children .	178·39	64·33	68·75	19·78	4·61	107·73	443·59
One child . .	189·20	77·17	64·96	21·56	4·29	110·66	467·84
Two children .	211·10	83·64	76·23	22·59	4·56	94·68	492·80
Three children .	227·56	90·15	73·79	24·42	4·77	103·89	524·58
Four children .	233·21	100·12	70·91	24·01	4·61	92·50	525·36
Five children .	252·72	109·14	73·95	27·03	4·80	104·94	572·59
Total and average	206·37	82·07	70·87	22·43	4·57	103·13	489·44

With increasing family, expenditure for food and clothing increases very rapidly—faster than income, while rent, fuel, and lighting increase comparatively little or vary irregularly.

We have thus instituted two comparisons on the basis of the expenditures of families differing either in income or in size of family. By these means we have thrown some light upon the theory of consumption. It appears that food requires an expenditure among the lower classes of more than one-half of the total income. Still further, that the demand for food is inelastic, the proportionate amount devoted to it decreasing with increasing income. Although inelastic, the demand for food is very pressing, increasing with the increasing number of children, and increasing faster than the total income. The demand for clothing is both elastic and pressing, increasing with increasing income, and increasing with increased size of family, and very much faster than the total increased income. The demand for shelter is inelastic, and not pressing, decreasing with increasing income, and remaining nearly stationary even with increasing family. The same may be said to be true in regard to fuel and lighting.

Other Uses.—Workmen's budgets suggest many other comparisons, as, for instance, between the labouring classes of different countries and of different nationalities. Some comparisons of this sort may be found in the United States Report. It must be said, however, that the material seems hardly accurate enough for safe generalisation. So, too, we have not sufficient material yet to compare budgets of successive periods, in order to show whether income is increasing, and how increasing income is spent. Engel found that incomes of the working classes had nearly doubled in Belgium from 1853 to 1891, but that about the same proportion was still spent on food, which seemed to show that the food-supply in 1853 must have been very insufficient. For further practical application of the facts learned from budgets, the reader is referred especially to the writings of Engel and Cheysson.

[The most exhaustive treatment of the whole subject is that begun by Ernst Engel under the title "Die Lebenskosten belgischer Arbeiter-Familien," published in the *Bulletin de l'Institut international de Statistique*, tome ix. 1895. This contains an introduction on Method, a critical examination and elaborate analysis of Belgian budgets, and a reprint of his original essay published in 1857 on *Die Productions und Consumptions-Verhältnisse des Königreichs Sachsens*. Engel intended to extend the examination to all countries, but his death (1896) will probably make the work a torso. Cheysson and Toqué, "Les budgets comparés des cent monographies de familles publiées dans 'Les ouvriers Européens' et 'Les ouvriers des deux mondes,'" published in the *Bulletin de l'Institut international de Statistique*, tome v. 1890. Landolt, "Haushaltstatistik." Bauer in Conrad's *Handwörterbuch der Staatswissenschaften*, s.v. "Konsumption," with exhaustive bibliography. Higgs, "Workmen's Budgets," *Journal of Statistical Society*, vol. lvi. June 1893. Sixth and Seventh Annual Reports of the Department of Labour, Washington, 1890 and 1891. Numerous budgets have been collected by state bureaus of labour statistics in the United States, especially Massachusetts, and by private individuals in various countries. Perhaps the latest is *Family Budgets, being the income and expenses of twenty-eight British Households*, 1891-94, compiled for the Economic Club, London, 1896.] R. M.-S.

WORKMEN'S LIVRET. See LIVRET.

WORKSHOP. This term first acquired a definite legal meaning on the passing of the Workshop Regulation Act 1867. A workshop is there defined to be "any room or place whatever, whether in the open air or under cover, in which any handicraft is carried on by any child, young person, or woman, and to which and over which the person by whom such child, young person, or woman is employed has the right of access and control"—factories and bakehouses being alone excepted (30 & 31 Vict., c. 146, §§ 4, 5). A later statute, Factory and Workshop Act 1878 (41 Vict., c. 16), distinguishes several kinds of workshops. These are domestic workshops, workshops in which neither children nor young persons are employed, where adult men only are employed, and where the labour is performed "in a private house or private room by the family dwelling therein," and "exercised at irregular intervals, and does not furnish the whole or principal means of living to such family" (sec. 98); concerning the conduct of which different regulations were made, further revised, and in some respects altered, by the Factory and Workshop Act 1891 (54 & 55 Vict., c. 75) and the Factory and Workshop Act 1895 (58 & 59 Vict. c. 37). This definition of a workshop is in some respects wider, in some narrower, than that of the cognate term factory. It is wider in respect of the extensive signification assigned to the term "handicraft," and of the circumstance that the definition of a factory requires that the process of production shall, with some named exceptions, be aided by mechanical motive power. In the words of the act, "Handicraft shall mean any manual labour exercised by way of trade or for purposes of gain in or incidental to the making any article or part of an article, or in or incidental to the altering, repairing, ornamenting, finishing, or otherwise adapting for sale any article"; the condition of producing for sale being a condition common to both categories. It is narrower by reason of the qualification that this handicraft must be carried on by a child, young person, or woman (not by men), and in a place "to which and over which the person by whom such child, young person, or woman is employed has the right of access and control."

The enforcement of the legal regulations as to workshops was at first vested in local authorities, but was transferred by the Factory and Workshop Act 1871 (34 & 35 Vict., c. 104) to the inspectors of factories. Some

further alterations of administration were made afterwards. The present system is the following: the sanitary inspection of workshops rests with the local authority in the first instance, but where this obligation remains unfulfilled the factory department has power to intervene. Their inspection for all other purposes, *i.e.* as to hours of labour, education of child workers, etc., is the duty of factory inspectors, as in factories; and a sort of reciprocal action is instituted between these two authorities, according to which it is the duty of either to assist the other.

[George Jarvis Notcutt, *The Factory and Workshop Acts* (Stevens and Sons).—Alexander Redgrave, C.B., *The Factory and Workshop Acts*, 1878 to 1891 (Shaw and Sons).—Victorine Jeans, *Factory Act Legislation* (Fisher Unwin).—R. Whately Cooke-Taylor, *The Modern Factory System* (Kegan Paul).—Evans Austin, *The Factory and Workshop Acts*, 1878-1895 (Knight and Co.).—May E. Abraham and A. Llewelyn Davies, *The Law relating to Factories and Workshops* (Eyre and Spottiswoode).] R. W. C. T.

WORLIDGE, JOHN (17th century), published in 1669, under the name of J. W., Gent., a work entitled, *Systema Agriculturae: the Mystery of Husbandry Discovered*, a compendious treatise, ranging more or less systematically over the whole field of agriculture, but not very discriminating, and, except in the remarks on bee-keeping, seeming to be compiled from earlier books and from hearsay, rather than founded on independent observation. The views propounded at the beginning of the book on the principles of life savour of alchemy, and those at the end on the weather of superstition; but there is plenty of sound sense in the practical chapters. The comparison of enclosures with champion or "chilterne" lands is interesting, especially the suggestion that enclosures discouraged drinking, because barley had been grown more easily than wheat in the open fields. The recommendation to grow clover, sainfoin, and lucern—more than a century before Arthur Young—as well as hemp and flax, shows that Worlidge was in the van of his age; and his advice to extend the cultivation of silkworms, and to imitate the Egyptians in the artificial hatching of eggs, prove him to have been readier than practical farmers usually are to try experiments.

[Cunningham, *Eng. Indus. and Commerce, Modern Times*, pp. 182, 183, 205.] E. G. P.

WORSENESS (in Assaying). The deficiency below standard fineness expressed in carats and carat grains is recorded by an assayer under the title of worseness (see ASSAY; FINENESS OF COINS). F. E. A.

WRIT. This word is generally used for documents by which proceedings are initiated in the courts of law. An action is begun by "writ of summons." A judgment is enforced by a "writ of execution," which may be a writ of FIERI FACIAS (*q.v.*), or of ELEGIT (*q.v.*), or some other specially named "writ." A writ of "Habeas Corpus" is issued when a person is alleged to be imprisoned without justification; a writ of "Mandamus" when an official is alleged to have omitted to perform some act which he ought to perform. A writ of "certiorari" is used when proceedings are to be removed from one court into another court. E. S.

XENOPHON. As is the case with so many of the celebrated men of antiquity, the exact date of the birth of Xenophon cannot now be determined. The date most commonly received is 445 B.C. Xenophon's father, Gryllus, seems to have been in easy circumstances, and Xenophon doubtless received the usual education of an Athenian gentlemen. He was one of the young men who gathered round Socrates. Serious, but not speculative, he was impressed rather by the philosopher's homely wisdom and strenuous virtue than by the subtler qualities of his genius. Soon after the close of the Peloponnesian war, Xenophon was induced by a friend, Proxenus the Bœotian, to join the expedition of the younger Cyrus against his brother Artaxerxes. The battle of Cunaxa, in which Cyrus was slain, was followed by the treacherous arrest of the Greek generals, which left the Greek army without a leader. In consequence Xenophon was chosen, together with the Spartan Chirisophus, to conduct the retreat. Its success is proof of his warlike energy and resource. But Cyrus had been the close ally of Sparta, the bitter enemy of Athens, and after the retreat had been accomplished Xenophon, like most of his comrades, took service with the Spartans in Asia. It is not surprising, therefore, that about the year 399 B.C. he should have been sentenced to banishment by the Athenians. Xenophon continued to serve with the Spartans, returning into Greece with Agesilaus and taking part in the battle of Coroneia (B.C. 394) against his countrymen and their allies. Subsequently he settled at Scillus in Triphylia, recently emancipated by the Spartans from the Eleans, where he devoted himself to literature and country occupations. He was married and had two sons, Gryllus and Diodorus, whom he is said to have brought up in the Spartan fashion. Upon the overthrow of the Spartan power at the battle of Leuctra B.C. 371, Xenophon was expelled from Scillus when it was re-conquered by the Eleans. The Athenians, who had transferred their jealousy from Sparta to Thebes, seem to have revoked his sentence of banishment soon afterwards, but he did not return to Athens, preferring to reside at Corinth. His sons served in the Athenian force sent to the assistance of Sparta in 362 B.C., and Gryllus was slain in the skirmish which preceded the battle of Mantineia.

Xenophon lived to a ripe old age, it is said upwards of ninety years, but the date of his death is unknown.

Xenophon was a man of action and of letters, but in no sense a man of science. His surviving works are numerous and range over a wide field. The *Cyropaedia* is a historical novel; but Book viii. 2 (see Bonar, *Philos. and Pol. Econ.*, p. 31) "shows us a more 'modern' Division of Labour and Separation of Trades in full operation"; the *Hellenica* is a set history; the *Anabasis* an account of the expedition of Cyrus, including the retreat of the Greeks; the *Memorabilia* a collection of reminiscences of Socrates. Two of his works can be said to relate to economics, though in an indirect way. The *Oeconomicus* is not, as its title might suggest to English readers, a treatise on political economy. Œconomics (Gk. *οἰκονομική*) signified simply the art of housekeeping. The *Oeconomicus* is a Socratic dialogue designed to show that there is such an art, and to illustrate its character, partly by conversations between an Athenian husband and his wife. It contains much good sense and sound morals, and gives a conception of Greek domestic life, but little or nothing that is economic in the technical sense. The treatise on the revenues of Athens is equally practical in its character. It contains suggestions for improving the revenue which the state derived from resident aliens under its protection, and for increasing the returns from the famous silver mines at Laurium, which were public property. It is interesting to the student of Greek history, and also to students of the history of public finance.

[See Smith, *Dictionary of Classical Biography and Mythology*, art. "Xenophon." The editions of Xenophon's writings are numerous. The treatise on the revenues of Athens has been illustrated by Hildebrand, *Xenophontis et Aristotelis de oeconomia publica doctrinae illustrantur.*—Boeckh, *Public Economy of the Athenians.*—Schömann, *Athenian Constitutional History.*—Gilbert, *Greek Constitutional Antiquities*, etc.]

F. C. M.

YANTAR, the Spanish equivalent of the English royal right of PURVEYANCE (*q.v.*). It had been commuted into money in Castile as early as the 13th century. It was called *Cena* in Aragon. E. Ca.

YARDLAND, a virgate, the amount of land usually held by a villein.

[See VILLANUS and VIRGATE.] R. H.

YARDLING OR YERDLING. One of the English designations of a villein, whose typical holding was a virgate or YARDLAND (*q.v.*). The holder of half a virgate was a Half-yerdling.

[See VILLANUS and VIRGATE. In the north of England *husband* was the equivalent.] R. H.

YARRANTON, ANDREW (? 1616-1685) He gives a sketch of his own life. "I was apprentice to a linen draper when this king was born [Chas. II., 1630], and continued at it some years . . . but the shop was too narrow for me . . . I took leave of my master . . . lived a country life some years . . . was a soldier, and sometimes had the honour and misfortune to lodge and dislodge an army. In 1652 I entered on iron works for several years . . . surveyed the three great rivers of England and some small ones, and made two navigable and a third almost completed . . . next, studied rye-lands . . . and wrote two books (on clover), on which the country-men fell pell-mell, and in great part of five shires it doubled the value of the land, and I served the countries with the seed for many years."

Some time before 1660 Yarranton was commissioned by eleven gentlemen to travel through Germany and the Netherlands to make observations on husbandry and trade. He went on a second commission about 1668, to discover the mode of manufacturing tin-plates in Bohemia, and was also at Dresden in 1667, when the news came of the Dutch attack on Chatham. This suggested to him the idea of his second book. His first work was published 1661. Its second edition in 1663 was called *The Improvement Improved, or the great Improvement of Land by Clover.* It claims that 6 acres in clover are worth 30 in natural grass; gives rules for sowing it, for choice of soils, for feeding cattle on it, and a list of twenty-nine places, all in the West Midlands, where good seed may be had cheap. Incidentally he reviews the four obstacles to husbandry; they are ignorance, custom, "penny-wise, pound-foolish," and taking more land than one can manage. His second book, 1677, bore a title which, as he said himself, reads like a romance, and might stamp him as a projector and a hot-brain. *England's Improvement by Sea and Land, to outdo the Dutch without fighting, to pay Debts without Moneys, to set at work all the Poor of England with the Growth of our own Lands, to prevent unnecessary Suits in Law, with the Benefit of a Voluntary Register; Directions where vast Quantities of Timber are to be had for the Building of Ships, with the Advantage of making the great Rivers of England navigable; Rules to prevent Fires in London and other great Cities, with Directions how the several Companies of Handicraftsmen in London may always have cheap Bread and Drink*, by Andrew Yarranton, Gentleman, London, printed for the author 1677.

In the three and half years before the second part of this book was issued (1681), he somewhat altered the scheme he had laid down for it in 1677. The second part as it stands is a little less irregular in plan than the first part. It is divided into chapters, and has a table of contents, and more elaborate plates. There are several dialogues inserted, to bring out the secrets of the timber-trade, the iron manufacture, and even a lengthy outburst of poetry in praise of a land register. The pamphlets against him 1679-81 sprang out of the Popish plot agitation. Yarranton, as a Presbyterian and old commonwealth soldier, had himself been imprisoned 1661 on a "Presbyterian sham-plot," which he describes with some spirit in his tract of 1680 bearing that title. But for all the odium theologicum as well as odium politicum that inspired them, the pamphleteers can find little serious to attack in him. They are reduced to jeering at him, on the ground that his navigation projects had to be abandoned; his land-register bill was "kicked out" by the Commons; his club of threescore gentlemen, "the improvers of England," which met twice a week, had been broken up. His title page was parodied; "to make the streets navigable rivers, to harbour ships on a hill," and so on. All this, according to a sturdy champion on the other side, betrays "the Popish pettifogger," and "only made Yarranton's deserts more public, and England's improvements more honoured."

Yarranton's originality lies in his faculty of popularising and making practical the ideas current at the time. It was not he but (as he says himself), Sir R. Weston who brought in clover "about thirteen years ago," from Brabant; but it was Yarranton who by five years' careful experiment detected the causes of its failure at first—bad and dear seed, sowing too thin, choice of unsuitable soils, etc. His scheme of land registration was not new, it was often proposed in the projects of land-law reform encouraged by the great act of 1660; and in a debate in the Lords 1669 the decay of rents was traced to the want of a register. Indeed the same object had been aimed at in the statute of enrolments 1536, and only defeated by the later device of lease and release, which reintroduced secrecy of conveyance, a practice repugnant to the whole course of our law in ancient and in mediæval times (see LAND REGISTRATION).

As the advocate of a state bank, he was only one of many writers, beginning with Heath in 1622, who wanted a bank of credit on the Venetian model, rather than a bank chiefly of deposit on the Dutch model, proposed by LAMBE in 1659. The further idea that the fund of this bank might be the land itself, had already been urged by POTTER 1659 in *The Tradesman's Jewel*, and CRADOCKE 1660, who promised by this means to lend landowners nearly the full value of their land, to make these land bills pass as current money, and thus to increase trade, to raise a revenue without taxes, and yet to incur no hazard.

When he guaranteed "to set all the poor of England on work," he was equally following in the steps of other writers. His panacea was the development of the manufactures of linen and iron. The others had prescribed a similar development either of fishing (Goffe, 1625), or of spinning (Taylor, 1652), or of crown lands (CHAMBERLEN, 1649), or of enclosures, or even the identical things Yarranton was recommending—iron, Dudley, 1661; linen, HAINES, 1649.

His proposals for making rivers navigable had been often anticipated, as in a bill 1635 to deal withthe Bristol Avon, and in other cases which he himself describes to us. The study of foreign countries had been already illustrated by Sir W. TEMPLE, *Observations on the Netherlands* (1672). The very title of Yarranton's book, *England's Improvement*, was a common formula, and had been appropriated by more than one of his predecessors; *e.g.* John SMITH, *England's Improvement Reviv'd*, 1673, to oust the Dutch from the fishing trade, and Blith's book, *The English Improver Improved, a new survey of husbandry*, 1652.

In fact, Yarranton was eminently a man of his time; an adapter rather than an originator; a man of practical insight rather than a theorist; a "projector" within sound business limits. What makes him attractive is his own character. He had exceptional versatility; he could turn his hand to anything, and in everything he had some success. He had a healthy curiosity and keen observation. He was eager and alert for the material welfare of his country. He had an affectionate zeal for his "children," as he calls them, "all poor men in England that labour in mechanic arts." His manifold interests, his resourcefulness, his optimism, his zeal for material progress, his readiness to learn from the foreigner, his belief in England's future, his combination of shrewd practice with imperfect theory, his half-vision of great principles, all are characteristic marks of the 17th century.

He has no literary pretensions. His writing is full of tautologies and repetitions; his argument is extraordinarily discursive; he is always going off at a tangent as soon as he sights one of his favourite topics. But what he has to say is said in a clear and unaffected way; and he is not cursed with the ambition to write in the tedious "high style" of the time. He is no scientific economist, and very far from being "the genuine founder of political economy in England" (DOVE); but he has an unrivalled eye for detail, and a great skill in vivid presentation of it.

Not a few of Yarranton's contemporaries surpassed him in grasp of economic truth. He cannot claim to have seized the true function of money like CHILD, the need of statistics like DAVENANT, or the grounds of free trade like Dudley NORTH. There is in him none of the penetrating analysis which led PETTY to the true nature of value and of rent, or which enabled BARBON to lay down the essential definitions of wealth, price, and exchange. Yet guided solely by native wit and by business experience, Yarranton often comes near to the light. Our climate and soil, the character of our people, and our constitution should, he says, make us great beyond any nation in the world. The prosperity of our neighbours is a gain to us and need not be a cause of envy. The lands of England ought to rise to thirty years' purchase. The use of a bank is to facilitate credit, not so much to hold deposits. The great obstacle to improvement in husbandry is obstinate custom. Honour, honesty, riches, strength, and trade are five sisters. The way to deal with the poor is by increasing employments. To secure this and to provide cheap food for the people, are the two things to study. "I appeal to every unprejudiced man if cheap corn, beef, wool, and candles will not make cheap cloth." Patents, as now granted, drive trade out of the kingdom. Most pamphlets miss the mark because their authors are not practical men and have never travelled. The Turk has failed because he never got the power of the seas. "It is the navy that must, under God, save this nation." His criticism of the working of corn-bounties, and of the Irish cattle acts, is almost worthy of Adam SMITH.

In Saxony he saw not a single beggar; so much employment was there, by the linen-tape, thread, and tin-plate trades. In Holland he saw that we could never beat the Dutch in fighting; their sands defend them, and enable them to use ships which draw five feet less than ours. Trade is their mistress, whom we never woo away for long; she loves "that dull and flegmatick air." The reasons are that their land is registered, their banks make paper as good as money, they have "lumber houses"[1] attached which lend money on goods at easy interest, they have "cut rivers" to aid traffic, and merchants' courts to determine cases. When he says, "every acre of Dutch land is as good as ready money," "land registered will equal cash, and will do in trade what ready money does," we can scent the land bank fallacy 1693-96. But when he goes on, "if here a man of £1000 a year wants a loan of £4000 he can hardly get it," and traces this to the difficulty of proof of title, he is right. Not for nothing had he been commissioner (probably 1653-54) for settlement of estates in Worcestershire. He would have had all the houses in London registered as they were rebuilt after the fire, and three or four similar registers in different parts of England. Then London would have as great a bank as Amsterdam, fishing would revive at Bristol and Hull, cloth trade at Lynn, wool at Exeter, and interest would sink from six to four per cent. Lawyers and debtors will oppose the scheme, but the register will be voluntary. There is such registration in Scotland, and land there is at twenty-four years' purchase; and in some copyhold manors as Taunton, and there it is twenty-three; but not in England generally, and land therefore goes for only sixteen.

Next in importance comes the linen trade; he would have flax grown in the counties of Oxford, Warwick, Leicester, Northampton; on an acre there would be 3 cwts. flax, which would make 400 ells of cloth at 8s. "I and my wife to employ the poor did promote the making of much fine linen." We might save the £2,000,000 a year now spent on foreign linen. Spinners, bleachers, weavers, fullers, should be brought over from Friburg, Harlem, Dort, Dresden. Children can hardly begin too young. Similar measures should be taken for the iron manufacture; the neighbouring commons should be enclosed and planted to supply fuel. There are 100,000 poor now costing 4d. a day who might instead be earning 8d.

The new manufactures should be protected for seven years by import duties on Dutch and German linen, and on Swedish, Flemish, and Spanish iron. They should be further aided by establishing, on the Saxon model, bank granaries for corn, at the head of rivers, *e.g.* Banbury, Witney, Radcot, Stratford. This would give the manufacturing populations and all the London handicraftsmen plenty of cheap food and drink, which should be prepared in public bakehouses and brewhouses at each populous centre. The rivers must be made navigable, particularly Trent, Thames, Cherwell, Stour, Avon, Wye, Dee. He had surveyed these rivers, and himself experimented with the Avon and the Stour successfully. His plans seem to be in a transition stage to the later age of canals; he is sanguine that the rivers only want some dredging and a few lock-

[1] Lumber houses, *i.e.*, Lombard houses, where advances on goods were attainable.

gates; the only canal he names is one to join Severn at Welshpool to Thames at Lechlade. In this connection he draws out plans for harbours, *e.g.* at Kingstown and Newhaven, and for new and cheaper dockyards at Wexford and at Christchurch. Other projects sketched in this book are a plan to prevent fires in London by providing special watchmen and stations for the supply of water and a sort of rude fire engines; "a university to improve art by endowing travelling students, as is done in mechanics at Neuringburg" (Nuremberg); a factory and water wheel for the manufacture of pins; the establishment of "a sea city" at Blackwall to accommodate a fishing population; the encouragement of the fisheries by improving the supply of cheap timber, iron, and salt, by registering and harbouring the fishing busses, by giving to the trade several years' exemption from taxes, by naturalising immigrants, by creating an old-age and pension fund; and, finally, two full descriptions of the proper way to cut out the foreign tin plate and linen-bleaching trades by superior materials and by the superior methods which had already been demonstrated by him in actual working.

[Eden, *State of the Poor*, p. 285.—M'Culloch, *Literature of Pol. Econ.*, p. 350.—Cunningham, *The Growth of English Industry and Commerce*, ed. 1892, vol. ii. pp. 190, 202, 229-255, 356.—Dove, P. E., *Elements of Political Science* (Edinburgh, 1854) has in an appendix a diffuse but readable account of Andrew Yarranton's chief book, and a eulogy of him as the "genuine founder of political economy in England."—*Social England* (Cassell and Co.) vol. iv. c. xv. pp. 439-60; c. xvi. pp. 517-31.] A. L. S.

YEARS, Estate for. See Term of Years.

YEN. 1. A gold yen weighs 25·72 grains; purity 0·9.

2. A silver yen weighs 416 grains; purity 0·9.

3. A Nippon Ginko (*Nippon*, Japan; *Ginko*, Bank) yen bank-note, always exchangeable there for one silver yen.

4. A paper yen must be accepted by all government offices, and for all payments as "one yen." Its redeemable value in silver or gold is not expressly stated.

In 1876 (at the time of a great excess of exportation) the paper yen was at a premium of 4 per cent above the silver yen; after the Satsuma rebellion, at a time of an increased issue of paper money, and a great excess of importation of paper money, it fell greatly in value below par; during the last few years, under favourable conditions, with a less amount of paper money in circulation, and after the intervention of the bank-notes of the Nippon Ginko, issued in consideration of the needs of the money-market, the paper yen has been always at par with the silver yen. The fluctuations of the relations of the values of gold and silver naturally affect the value of the paper yen.

5. Silver yen = 2 silver florins, formerly always reckoned equal to about 4 marks, now in reality worth three marks only.

[P. Mayet, *Agricultural Insurance*, London, 1893.]

YEN. The money of account in Japan, and also gold and silver coins bearing the same name.

The Japanese mint at Osaka was opened in December 1870, the currency system then introduced being as follows:—

10 rin = 1 sen
100 sen = 1 yen (or dollar)

The coins to be struck were:—

Gold:—			
20 yen	514·41 grains	900 fine	
10 yen	257·20 ,,	,,	
5 yen	128·60 ,,	,,	
2 yen	51·44 ,,	,,	
yen	25·72 ,,	,,	(the standard of value).
Silver:—			
50 sen	193·00 grains	800 fine	
20 sen	77·2 ,,	,,	
10 sen	38·6 ,,	,,	
5 sen	19·3 ,,	,,	
Copper Coins:—			
1 sen	110 grains		
½ sen	55 ,,		
1 rin	14 ,,		
Trade Coin (silver):—			
yen	416 grains	900 fine	

Gold was the standard of value, and the gold coins were legal tender to any amount. Silver coin was limited in legal tender to ten yen in any one payment, and copper coin to one yen.

The issue of the trade dollar, or *silver yen* (coined either for Japanese or foreign applicants), was intended to facilitate the operations of foreign trade. So far as Japan itself was concerned, this silver coin was only legal tender for the payment of import and export duties, and of other taxes at the open ports. It could not be tendered in payment for any internal taxes, and was not current throughout the country. It was also ordered that "in payment of duties and taxes at the open ports, the relative value of the silver yen and the standard gold coin will be for the present at the rate of 100 silver yen for 101 gold yen."

On the 28th February 1876, the weight of the silver yen was altered to 420 grains, in order to conform with that of the United States trade dollar, a coin which at that time largely circulated throughout the coast towns of China, and at Hong-kong. Subsequently, however, by a notification of 26th November 1878, the coinage of yen of this increased weight was discontinued, and the original weight 416 grains, reverted to.

On the 27th May 1878, a notification was made by the prime minister of Japan to the effect that "the trade dollar which has hitherto been coined for the convenience of commerce at the open ports, will henceforth be made universally current, and may therefore be used in making and receiving payments of taxes, and in all other public and private transactions."

From the 12th September 1879 the silver yen became the standard of value, the text of the notification of this further change in the currency system of Japan being as follows:—

"The Japanese silver yen of 416 grains weight and 900 fineness will henceforth be received at par with Mexican dollar by every department of the imperial government when tendered in payment of custom duties or on any other account opened, in Mexican dollars."

"On and after the 19th instant, aforesaid yen shall, when tendered in payment of any sum payable in Mexican dollars now due, or hereafter to become due, be received by all Japanese subjects in full payment thereof."

The number of silver yen coined and issued from the Japanese mint from the time of its opening, December 1870, to the 31st March 1896, was 151,210,000. During the same period the gold yen pieces struck had amounted to 2,037,055 only. The total value, however, of the five and ten yen gold pieces struck, being 45,890,000 and 18,710,000 yen respectively.

The Japanese government have announced their intention to revert to the gold standard of value, and a currency law has been passed giving effect to this decision. This law came into operation on the 1st October 1897.

The principal provisions of the new law are as follows:—

The standard of value is to be a gold yen weighing 11·574 grains of pure gold.

Coins will be issued in gold, silver, nickel, and bronze of the weights and fineness given below. The nickel coins will contain 75 per cent of copper and 25 per cent of nickel, the bronze pieces being of the composition of 95 per cent copper, 4 per cent tin, and 1 per cent zinc.

	Weight.	Fineness.
Gold Coins:—		
20 yen	257·2 grains	900
10 yen	128·6 ,,	,,
5 yen	64·3 ,,	,,
Silver Coins:—		
50 sen	208·0 grains	800 fine
20 sen	83·2 ,,	,,
10 sen	41·6 ,,	,,
Nickel Coins:—		
5 sen	71·9 grains	
Bronze Coins:—		
sen	110·0 grains	
5 rin	55·0 ,,	

Gold coins will be legal tender to any amount, silver coins to 10 yen, and nickel and bronze coins to 1 yen.

Worn coins diminished in weight by fair wear and tear will be exchanged by the government free of charge.

As regards coins now in use, it is provided that the "gold coins already issued shall circulate at twice the value of the gold coins issued under the provisions of this law." The silver yen "shall be gradually exchanged for gold coins according to the convenience of the government, at the rate of one gold yen for one silver yen. Pending the completion of the exchange . . . silver one yen coins shall be legal tender to an unlimited extent, at the rate of one silver yen for one gold yen; and the suspension of their circulation shall be notified six months in advance by imperial ordinance. Any of these coins not presented for exchange within a period of five full years reckoned from the day on which their circulation is suspended, shall be regarded thenceforth as bullion."

The five sen silver coins, and the copper coins of the old currency, will continue to circulate as before.

The coinage of silver yen has been brought to a close from the date of the promulgation of the new law. F. E. A.

YEOMANRY OF CRAFTS. See JOURNEYMAN and JOURNEYMEN'S SOCIETIES.

YEOMEN

Meaning of the Term, p. 684; Their Numbers, p. 685; Their History, p. 686.

Meaning of the Term. Students of social history may be misled if they rely only on Macaulay's description of the yeomanry as "petty proprietors who cultivated their own fields with their own hands without affecting to have scutcheons, and enjoyed a modest competence." It is wiser to follow, point by point, Sir T. Smyth (*De Republica Anglorum*, 1583, I. xxiii.) and W. Harrison (*Description of England*, II. v. in Holinshed's *Chronicle*, 1577). The second edition of Holinshed, 1587, pp. 163b, 164b, which blends Smyth's and Harrison's views, states that yeomen have (1) "free land" (2) worth £6 annually, or in times past 40s.; and are (3) not entitled to a crest, being (4) "for the most part farmers to gentlemen." (1) includes "free tenants" of manorial lords, although W. Hale Hale insinuates that free tenants became yeomen on exchanging prædial for pecuniary dues (*Domesday of St. Paul's*, p. lv.). Again it would be difficult to exclude copyhold and customary tenants who are not freeholders in an age like that of Harrison, when it required an expert to distinguish them apart. Chamberlayne includes them (*Angliae Notitia*, 1669, pt. i. p. 179, ed. 1755), and so does Logan in Guillim's *Heraldry* (1679), and so does W. Marshall (*Norfolk*, 1787, vol. i. p. 7, and most Cumberland and Westmoreland "statesmen" were customary freehold tenants. Again Smyth's and Harrison's words directly recall those of the statute of 1429 which created those 40s. freeholders whose votes ruled England for 400 years, and of whom lessees for life were important members. In 1726 Swift (*Gulliver's Travels*, pt. iii. ch. 8) and in 1765 Blackstone (*Commentaries*, bk. i. ch. 12) identified yeomen with duly qualified rural voters. Chamberlayne's "yeomen freeholders" who were "more in number and richer than in any country of the like extent in Europe," refer largely to lessees for life. The wide prevalence of the lease for life was due partly to the fact that it had been substituted for a copyhold for life (E. Laurence, *Duty of a Steward*, 1727, pp. 59, 60), but chiefly to the fact that it conferred a vote (E. Wakefield, *Ireland*, 1812, ii. 300). Further, Harrison's "these are they that in times past made all France afraid," is unintelligible if it means that Frenchmen quailed before a lessee for life while they viewed a lessee for years with indifference; and (4) suggests that, like Bacon, he drew no hard and fast line between farmer and farmer. Bacon, too, attributes the French conquests to our yeoman infantry,

whom he defines as "the middle people between gentlemen and peasants," and he writes of the "tenancies for years, lives, and at will whereupon much of the yeomanry lived" (*Works*, vi. 94). In the great rebellion "the middle people" in this sense fought on the same side, so probably in the French wars. Latimer's first sermon before Edward VI., "My father was a yeoman, but had no land of his own," at £4 rent (ed. Arber, p. 39), clearly dubs a tenant farmer yeoman. The author of *Britannia Languens* wrote, in 1680, "our late wealthy yeomanry are forced to sink their rents or . . . fling up their farms" (*Early English tracts on Commerce*, 1856, p. 377; cp. Massie, *Ways and Means*, 1757, p. 45); and Lord Taafe uses the word of leaseholders only (*Observations*, 1766, p. 13). If these writers could not, still less could strict economists consistently exclude the general body of tenant farmers once they included lessees for life—a class whom they unanimously put on a lower level than other lessees (Defoe, *Tour through Great Britain*, 1725, ed. 1753, ii. 46; A. Smith, *Wealth of Nations*, bk. iii. ch. ii. and iv., pp. 174a, 186a, ed. M'Culloch; Jas. Caird, *English Agriculture*, 1851, p. 50). Consequently, there has been a tendency during the last century either to include or to exclude every one who could be called a tenant farmer. A. Smith calls all English farmers yeomen, adding that "a great part" of them are lessees for life (*l.c.*). A. Young's yeoman rarely occurs, but is always owner pure and simple. But the wide prevalence down to 1832 of the political sense of the term has caused much confusion; thus Caird, while rejoicing over the promotion of Devonshire lessees for life into lessees for years, never dreams that yeomanry are being extirpated (*l.c.*); indeed all writers since 1832 exclude all tenant farmers from the privileged category, and then wonder why yeomen have disappeared. (2) Every writer draws only a lower limit. Chamberlayne gives as their income £40 to £50, £100 to £200, or £200 to £400, the first class being commonest. In Cumberland and Westmoreland they have £5 or £10 to £50; in Surrey £200 to £400 (see *Reports to the Board of Agriculture*, 1793-1817, presided over by Sir J. Sinclair, Westmoreland, p. 18, Surrey, p. 73).

One of Marshall's Midland yeomen had £2000 a year. A. Young wrote "Of all the divisions of landed property, that which is most to be approved is small and middling proprietors occupying their own estates, but not being gentlemen," and instances Suffolk yeomen of £200 to £400 per annum (*Annals*, vii. 523). "Respectable," "independent" are the Homeric epithets applied to them. Kay uses "yeomen" as something more than "peasant proprietors" (*Free Trade in Land*, 1879, pp. 106, 113, etc.). These qualifications ought perhaps to exclude the Wiltshire "yardlanders" (Marshall's *Abstract of the Reports. Southern Counties*, p. 206; contrast J. Phillip, *Memoirs of W. Smith*, 1844, p. 1), and the 144 co-owners of 3500 acres at Kirton (*Abstract. Eastern Reports*, p. 101), and those peasant owners of Axholme, who still thrive and multiply; and we should look for the analogue of yeomen in the middle-sized owners of foreign countries. In a recent report this middle class (23 to 115 acres) were said to own more of France than either large owners or peasant proprietors, and to have increased between 1862 and 1882 from 636,309 to 727,222, while the letting of land decreased from 27·49 to 27·09 per cent (*Parl. Reports*, 1890-91, vol. 83, p. 52). (3) This point has little importance after the last visitation of the Heralds (1686), but survives in A. Young who, in his *Southern Tour* (pp. 47, 70) and *Rural Economy* (Essay V.), refers to owner-farmers who are not called yeomen, and in modern reluctance to class farming squires and clergy as yeomen. It should be added to (4) that all writers by tacit consent exclude lessors except Brodrick (*English Land*, 1881, p. 173).

Their Numbers. (1) Domesday book, which omits the four northern counties, and possibly all who paid rent only (Nasse, p. 35), estimates English lords at 9271, villeins at 108,407, free tenants at 35,474. (2) Gregory King (misquoted in C. Davenant, *Works*, ii. 185, Macaulay, Rae, Prothero, and others) in his *Natural Observations, etc. upon the state of England*, 1696, says there were 26,586 nobles, esquires, clergy, and gentlemen, 40,000 larger and 140,000 lesser "freeholders," and 150,000 "farmers." Assuming that "farmers" do not, then "freeholders" must mean farmer-owners and lessees for life, and must also mean copyholders and customary tenants, including lessors and owners of minute patches upon those common fields which, according to J. Laurence (*System of Agriculture*, 1726, p. 45), covered one-third of the land. But it is useless to make critical assumptions about a vaguely-expressed guess for which the author gives no grounds. (3) A. Young selected some 250 farms at random, and generalising to the kingdom at large, estimated English farmers once as 111,498 (*Northern Tour*, iv. 341, 364), later at 57,040 (*Eastern Tour*, iv. 462), and so on (cp. *Letters to the Yeomanry*, pp. 37, 60). (4) Beeke says there were "at least 200,000 proprietors" in England and Wales in 1800 (*Observations on the Income Tax*, 1801, p. 21). (5) Our "New Domesday Book" (1874, vol. lxxii.) filled in owners from the rate-books in each parish, urban and rural; but it was not the business of rating authorities to fill in owners' names; so that the return being founded on irresponsible local hearing is worthless for our purpose. (6) According to our "agricultural statistics" for England (1887-97)

rented farms were, in 1895, 313,478; owned farms 48,601; farms partly rented and partly owned were 18,100; and 14 per cent of English farm lands were farmed by owners. "Owners" include squires with farms in hand, clergy with glebe lands over an acre, and possibly some copyholders. These are the only trustworthy general statistics since Domesday Book; (2), (3), and (4) ought never to have been or to be quoted by social historians.

Their History. (1) In the 16th century hereditary copyholders were cajoled out of their holdings or commonable rights (Strype's *Eccl. Mem.* II. i. 172 and 439), and yardlands were purchased (W. Stafford's *Compendious Examination, etc.*, 1581, *Pamphleteer*, v. 297), but the first process must have been rare since 43 Edw. III. and 7 Edw. IV., when villeins vindicated their rights as copyholders; and the second process may or may not mean that cottagers grew up into yeomen. Further, Latimer and More (*Utopia*, ed. Arber, 38, 41, etc.) do not inveigh against these evils, but against the evictions and rack-rents of lessors, and the adding of farm to farm by tenants (Strype, II. i. 167); and all the acts which directly limit the size of farms refer exclusively to "letten farms" (4 Hy. VII. c. 16 and c. 19; 25 Hy. VIII. c. 13 §§ 7-14; 27 Hy. VIII. c. 22; 2 & 3 Phil. and M. c. 2); so that their effect was to make squires farm their own land, a process which Mr. Leadham has vividly illustrated (Royal Historical Society, *Domesday of Enclosures*, 1517-18, ed. Leadham, 1897, p. 70), and which a second series of acts (6 Hy. VIII. c. 5; 7 Hy. VIII. c. i.; 5 and 6 Ed. VI. c. 5; 39 Eliz. c. 1 and c. 2), aimed at arresting. The crisis which was caused by the substitution of large pastoral for small agricultural farms affected tenant-farmers mainly if not solely. "Tenant-farmers," of course, include those who held for life, whether by freehold or copyhold tenure. (2) *In the 18th* and *19th centuries* two contradictory myths obscure history. (*a*) "There existed a race of men in the country, besides the gentlemen and husbandmen, called yeomanry, men who cultivated their own property, consisting chiefly of farms . . . the pride of the nation in war and peace; hardy, brave, and of good morals; by the influx of riches and a change of manners they were nearly annihilated in the year 1750, and are now but faintly remembered" (Letter to Sir T. C. Bunbury, 1795, British Museum, T. 1466), comp. Marshall's *Abstract. Western Counties*, p. 125), is a mere echo of Rousseau's primitive man, but suggested to Karl Marx, Laveleye, and numerous others, sober history. (*b*) The second myth is that the end of last century witnessed the heyday of the since vanished yeomanry, and the *Sinclair Reports* are cited as evidence. But their references to Devonshire and West Dorsetshire (Marshall's *Abstract. Southern Counties*, 268, 554, 570), to the 9000 "freeholders" of Kent[1] (Boys, ed. 1813, p. 28), and 5790 freehold voters for Gloucestershire (Rudge, p. 34), and North Riding freehold electors (Tuke, pp. 28, 30), refer to districts in which life lessees were exceptionally numerous; and Homer's "there is scarce any county in which the number of freeholders does not turn out upon an election poll much more considerable than formerly" (*Essay on Inclosure*, 1766, p. 15), very likely refers to similar districts. Mavor (*Berks*, 1808, p. 113) wrote that "one-third of the whole county is occupied by the proprietors of the soil"; but he assumed that the remaining two-thirds were occupied by yearly tenants or lessees for years, consequently under "proprietors" he must have included copyholders, etc., who were doubtless one-third of the county. Bishton's "infinite yeomen's estates" in Shropshire (*Shropshire*, 1794, p. 31) dwindled down on a closer inspection to "3000 copyholders and freeholders" (Plymley, *Shropshire*, 1803, p. 91). Brown's Derbyshire yeomen (*Derbyshire*, 1794, p. 14), and Kent's Norfolkshire yeomanry (*Norfolk*, 1796, p. 125), meant tenant farmers. To come now to history. A. Young perhaps thought that owner-farmers of a certain class were diminishing: "there are some parts of England (where small yeomen still remain) that resemble Bearne" (*Travels in France*, ed. 1889, p. 61); "small" means 40 to 80 acres (ed. 1794, ii. p. 412), and he means enclosed land; "still," of course, may mean that A. Young believed the Rousseauesque myth. He adds, "small properties are found everywhere" in France "to a degree we have no idea of in England," where they were "exceedingly rare" (*ib.* 402). John Arbuthnot (*Inquiry into the Price of Provisions*, 1773, pp. 126, 139, cited by Toynbee as A. Young) deplores "the loss of our yeomanry," by which he means the absorption of small by large hereditary freeholders, a phenomenon noted too by A. Hunter (*Georgical Essays*, 1803, vol. iv. p. 108); but Arbuthnot derives his facts from Dr. Price's figures (*Observations on Reversionary Payments*, published the year after Goldsmith's *Deserted Village*), which eventually proved the opposite of what they were meant to prove (Chalmers's *Estimate*, 1803, p. 216), and, as Arbuthnot admitted, were meant to prove the very different thesis that where wealth accumulates men decay, and that tenant-farmers were turning pluralists. This pluralising tendency of tenant-farmers is also deprecated by S. Addington (*Enquiry into enclosing open fields*, 1772) and T. Wright (*Short address on the Monopoly of Small Farms*, 1795),

[1] "A Gentleman of Wales,
A Knight of Cales,
And a Laird of the North Countrie,
But a Yeoman of Kent
With his Yearly Rent
He will buy them out all three."
Old Rhyme.

and the *Sinclair Reports* (*Abstract. Southern Counties*, 157, 247, 330, *Midlands*, 33) in certain districts; and for a reason obvious to us, but not to them, this tendency is sometimes noted as most active in those counties where there was money going and wages were high (*Abstract. Northern Counties*, 259, 282; cp. W. Stafford's pamphlet, *l.c.* p. 260). Consolidation, too, was the necessary preliminary and avowed object of the enclosure of intermingled copyhold estates (Davis, *Wiltshire*, 1813, pp. 48, 49). It is difficult to suppose that this movement did not implicate farmer-owners in some districts. In two large and four small districts this implication of farmer-owners can be traced. In Cumberland and Westmoreland the small "statesmen" disappeared with the disappearance of the hand-loom (Wordsworth in *Prose Works*, ii. 263, 286, and in Sir H. Bunbury's *Correspondence of Hammer*, 440, and in *The Brothers*; cp. *Gentleman's Magazine*, 1806, p. 871; Pringle's *Westmoreland*, p. 40), and are now nearly extinct (Caird's *English Agriculture*, 1851, p. 360; *Parl. Reports*, 1881, vol. xvi. p. 236; 1895, vol. xvii., "Cumberland," p. 32). Marshall's 300 of Pickering (*Yorkshire*, p. 20); Stevenson's Portland Colony (*Dorsetshire*, p. 76); Th. Rogers' Hampshire village (*Six Centuries*, p. 502). A. Young's yeomen of the redland district of Oxfordshire (*Oxfordshire*, p. 16) have followed in their wake. Further, in Kent and Essex, farmers are mentioned in the *Sinclair Reports* as purchasing their holdings; and yeomen owners existed in Lincolnshire; they are still as numerous as ever they were in Kent and Lincolnshire (*Parl. Reports*, 1881, xvi. 385 *et seq.*; 1882, xv. 299); and still exist in Essex (*Parl. Reports*, 1894, xvi. pt. i. p. 52). A. Young's accounts of Norfolk and Suffolk, and Vancouver's accounts of Hampshire yeomen still hold (*Parl. Reports*, 1894, vol. xvi. pt. iii. pp. 203, 204; 1895, vol. xvii., "Norfolk," p. 36). Add that individuals have withered here and there, and their place has been inadequately supplied by gentlemen farmers on the one hand, and by allottees under inclosure acts since 1845 on the other hand (Caird's *Landed Interest*, 123 *et seq.*), and beyond this farmer-owners (if we except the squire of Coke's type and the Villein who passed through the stage of copyholder into that of labourer) have not played a great part in our history, and have only been important when inextricably intermingled with the great body of tenant-farmers or voters. They have for the most part kept outside the main stream of development, which has been from the manor to the triple system of to-day.

[Stubbs, *Constitutional History*, iii. 595.—Nasse, *Agricultural Community*, trans. 1872.—Seebohm in *Fortnightly Review*, N.S. vii. 226.—A. Toynbee, *Industrial Revolution*, ch. 5.—J. Rae, *Contemporary Review*, October 1883; comp. Brentano, *Agrarpolitik*, 1897, p. 123.—H. Traill, *Social England*, 1897, vi. 82.—A. Meitzen, *Siedelung und Agrarwesen der West-Germanen*, 1895, *et seq.*, ii. 119 *et passim.*] J. D. R.

YOUNG, Arthur (1741-1820), the most noteworthy of English writers on agriculture, came of a Suffolk family. After being engaged in farming for a few years, he began his career as a writer on agricultural subjects with *The Farmer's Letters* in 1767. For the next thirty-eight years an increasing stream of books and pamphlets, many of which passed into several editions, and were translated into French and German, poured from his pen. He travelled up and down England for months at a time, making the careful observations published in his series of *Tours;* and for the same purpose he travelled in Ireland in the years from 1773 to 1776; he founded the *Annals of Agriculture* in 1783, and contributed largely to its forty-six volumes; his journeys in France in 1787-1790 produced his most considerable work, the *Travels in France*, since recognised as the best authority for the condition of that country on the eve of the revolution; and in 1793 he became secretary of the newly-established board of agriculture.

Young's place in history is due, first, to his remarkable qualities as a keen observer, which give his works a permanent value as sources of information on the conditions of his time; and, secondly, to his own considerable share in stimulating the movement for the substitution of large farming for small, of enclosures for open fields, and of rotation of crops for periodical fallows. It would be a mistake to regard him as an economic theorist; his utterances on such subjects as rent and wages are all determined by his desire to increase the produce of agriculture; and he was no stickler for system or consistency. His best known phrase "The magic of property turns sand to gold"—which has been repeated incessantly since J. S. Mill quoted it in his chapter on peasant proprietors—is a thoroughly characteristic one.

[*The Autobiography of Arthur Young*, with selections from his correspondence, has recently (1897) been printed under the editorship of Miss Betham-Edwards. The most important of his works were the following: *The Farmer's Letters to the People of England* (1767).—*A Six Weeks' Tour through the Southern Counties of England and Wales* (1768).—*A Six Months' Tour through the North of England* (1770).—*Rural Œconomy* (1770).—*The Farmer's Tour through the East of England* (1771).—*The Farmer's Calendar* (1771).—*Political Arithmetic* (1774); pt. ii. (1779).—*A Tour in Ireland* (1780).—*Travels in France* (1792).—*General Views of the Agriculture of Suffolk* (1794), *Lincoln* (1799), *Hertfordshire* (1804), *Norfolk* (1804), *Essex* (1807), *Oxfordshire* (1809), *Sussex* (1793) was the work of his son, Rev. Arthur Young.—*General Report on Inclosures* (1807). There has been a new and inexpensive edition of the *Tour in Ireland*, ed. A. W. Hutton (1892);

to the second volume of the latter is appended an exhaustive bibliography by J. P. Anderson.

Among the numerous comments and critical essays upon Young may be mentioned T. R. Malthus, *The Principle of Population*, 8th ed. pp. 449-455.—J. S. Mill, *Principles of Political Economy*, bk. ii. ch. vi. § 7.—H. Baudrillart in *Publicistes modernes* (1863).—R. E. Prothero, *Pioneers and Progress of English Farming* (1888), ch. vi.—F. S. Stevenson in *The Westminster Review*, cxxxix. (1893), p. 109; and, above all, for Young's personality, Leslie Stephen in *The National Review*, xxvii. (1896), p. 489.] W. J. A.

The first and foremost feature of A. Young's two great books on France (ed. 1794) and Ireland (ed. 1892) is that utility in a materialistic sense is their ideal. He prefers turnips to "fat ecclesiastics" (*Fr.*, i. 77), and writes in the very spirit of Mandeville, that "a king had better make love to a handsome woman," like Louis XV., "than to his neighbour's provinces," like Frederick the Great (pp. 82, 265). He hates military history (p. 255), distant dominions (pp. 193, 437), war debts (p. 576), the middle ages (p. 67), *grands seigneurs* (p. 62), jobbing gentlemen, and idlers, too feudal in their ideas to occupy themselves with trade (*Ir.*, ii. 26, 248), with the hatred of Tucker, and for the same reason—they are so much waste. But utility, though the test of political and social health, is not with him the sole spring of individual action; "prejudice and habit govern mankind as much even as their interest" (p. 128), and though he loves the naturalness of Rousseau (*Fr.*, i. 22, 72), like Burke he condemns "natural right" as unhistorical (p. 119). Secondly, he traces economic evils to political causes; the French and Irish had a better soil than the English, but no spirit of freedom, and were therefore backward (*Fr.*, i. 80; *Ir.*, ii. 55). Lavergne pointed the converse moral as to England (1855). The French Land Tax discouraged improvements, and, as T. Campbell (1777) said, *Phil. Survey*, p. 251, the Irish anti-Catholic laws penalised industry but not religion (*Ir.*, ii. 66). His belief that "government" was the "one all-powerful cause" (*Fr.*, i. 43) of that misery which he saw, is the secret of his optimistic forecast; and sometimes he expresses pure Laissez-Faire doctrines. Thus he writes: "The sole policy . . . is freedom; let the state take no party" as between agriculture and manufactures (p. 437); he argues for "absolute freedom" (pp. 573, 625), and his proofs that French measures, meant to avert, created famine (pp. 489-498, 625, etc.), and that Irish measures, meant to stimulate, discouraged the wool and silk trade (*Ir.*, ii. 133), and that the Irish bounty on linen was an impertinence, and that on inland carriage of corn was an extravagance (pp. 157-188), are worthy of A. Smith at his best; but he does not quote A. Smith here, nor, we believe, elsewhere, except as a historian of prices. He wishes the state to be neutral as to small farms (*Fr.*, i. 407, but see p. 417; comp. *Annals*, vii. 510), and "diffused," *i.e.* integrated, village industries (*Fr.*, i. 573; *Ir.*, ii. 216), although both, he thought, weakened Ireland and France. Segregated or town manufactures were his ideal as well as that of Steuart. But all this wisdom illustrated by example came to him only through his eyes; and when it clashed with another empiric truth, *e.g.* the truth—traced by him to Davenant (why not Sir W. Temple?), but based on his own English, Irish, and French comparative statistics—that high rents, prices, and wages are signs (he once wrote "causes," *Northern Tour*, iv. 343, 376) of wealth, the man who wrote "a free import and export" of corn "would be the very best police of that commodity" (*Annals*, iii. 419; *Ir.*, ii. 338) began to dread American competition (*Pol. Ar.* (1774), p. 279), and with Malthus resisted the free-trade movement championed by Ricardo. The comparative statistics referred to demonstrated what J. Tucker argued *a priori* that "labour is generally in reality the cheapest where it is nominally the dearest" (*Fr.*, i. 565), *i.e.* in England; and so with rents.

Young's English, like his French and Irish tours, fall roughly into two divisions: first a diary, then a summary. But the English tours are non-political, and are rather notes for books than books. The English tours suggested those of Marshall and Sinclair, and all these suggested the English *Reports*, the *enquêtes* of the French directorate, and the surveys authorised by the Irish House of Commons, 10th March 1800. The *Reports* contain a summary and no diary. Most of each report treats of practical husbandry, including ch. vi. on enclosures. Of the rest the first chapter is on physical geography; chaps. ii. and iv. are juristic, and relate but somewhat meagrely to tenures, leases, Yeomen, etc.; chaps. xiv. and xv. are economical in title, and give statistical data as to wages, *e.g.* of the boarded farm servant whom he preferred, and who was then disappearing; population, which he thought increasing; farmers' capital, which he thought should be £5 an acre; rent, usually ⅓ of the gross produce; and net profits, *i.e.* the amount taken "free" of rent, tythe, rates, etc., to market. Apropos of poor rates, he notes that "box clubs" and the policy of "three acres and a cow" did, and that workhouse manufactures and pauper allotments did not, decrease poor's rates. Apropos of population, he proposed a census in his *Proposals to the Legislature for Numbering the People*, 1771; and believed that no country had too few, though some, *e.g.* France, had too many people (cp. Wales). On slave-labour, parish settlement laws, relief to large families, and radicalism as opposed to whiggery, his conclusions are those of Tucker, but his method is always different.

[The following are references to A. Young:—

(1) By *agronomists*:—J. Anderson, *Essays* (1796), iii. 4.—P. Balsamo, *Memorie inedite* (1845), pp. iv. 2, 8, etc.—E. Caird, *English Agriculture* (1850), pp. ix. 144, etc.—A. Coventry, *Discourses* (1808), p. 187.—Léonce de Lavergne, *Rural Economy of England, Scotland, and Ireland* (1855), pp. 11, 146, 148, 343, etc.; Pref. to French translation of *Travels in France* (1860); *Économie rurale de la France*, 2nd ed. (1861), pp. 23, 50-59.—J. R. M'Culloch, *Statistical Account of the British Empire*, 4th ed., 1854 (contains many extracts from *Reports*).—J. Simonde de Sismondi, *Agriculture Toscane* (1801), pp. 4, 13, etc.—A. D. Thaer, *Englische Landwirthschaft: Einleitung* (1798), pp. 40-63; *Beiträge* (1800), vol. ii. pp. 254-264.—E. Wakefield, *Account of Ireland* (1812).—D. Zolla in Say et Chaillet, *Dict. d'Éc. Pol.* (1892).

(2) By juristic historians:—G. Hannsen, *Agrarhistorische Abhandlungen* (1880), vol. i. pp. 484 *et seq.*—Sir H. Maine, *Early History of Institutions* (1875), pp.

121 *et seq.*—A. Meitzen, *Siedelung und Agrarwesen der West Germanen* (1895), vol. ii. p. 129.—E. Nasse, *Agricultural Community of the Middle Ages* (1871), pp. 3 *et seq.*—J. Rae, "Why have the Yeomanry Perished?" in *Contemp. Rev.* xliv. 546.

(3) By writers on *Poor Law*:—J. Bentham, *Pauper Management*, Pref.—J. Bonar, *Malthus and his Work*, p. 380.—W. Cunningham, *Growth of English Industry* (1892), ii. 507.—F. M. Eden, *State of the Poor* (1797), vol. i. pp. 340, 485.—Sir G. C. Lewis, *Local Disturbances in Ireland* (1836), p. 56.

(4) By social historians:—A. Babeau, *La vie rurale dans l'ancienne France* (1883).—Cunningham, Lecky, and Sir G. C. Lewis, *ubi supra*.—H. Traill, *Social England*, vol. v. (1896), 452-459.

(5) By statistical historians:—Chalmers, *Estimate* (1782), pp. 178, 179.—W. Cunningham, *l.c.*, vol. ii. p. 691.—A. de Foville, *Le morcellement* (1885).—W. E. H. Lecky, *Hist. of Eng.* (1883-90), vol. i. p. 568; vol. v. p. 384; vol. vi. p. 190.—R. Prothero, *l.c.*, pp. 269, 281.—J. E. T. Rogers, *Industrial and Commercial History* (1892).—H. v. Sybel, *French Revolution*, trans. by Perry, vol. i. pp. 23, 25, 27, 30, 37, etc.—Tooke and Newmarch, *Hist. of Prices* (1857), vol. vi. pp. 386-392.] J. D. R.

[Young was a Suffolk man, he passed his boyhood and much of his later life at Bradfield, near Bury St. Edmunds, an estate which remained in his family till 1896. The influence of his surroundings is visible in all his writings.]

YOUNG, Major Gavin, of the Bengal army, described by M'Culloch as "a gentleman of talent and varied attainments" (*Literature of Political Economy*, p. 109), wrote:

Observations on the Opinions of several Writers on various historical, political, and metaphysical Questions, Calcutta, 1817, 8vo (contains articles on "Funding System," "British Finance," and "Distinction between Productive and Unproductive Labour").—*An Inquiry into the Expediency of applying the Principles of Colonial Policy to the Government of India*, London, 1822, 8vo.—*A Further Inquiry into the Expediency, etc.*, London, 1827, 8vo (both anonymous; to induce Englishmen to settle in India).—*An Essay on the Mercantile Theory of Wealth*, Calcutta, 1832, 8vo (defending the theory). H. R. T.

ZACCHIA, L. (17th century). An Emilian jurist.

Zacchia was the author of a Latin treatise on wages which deserves mention for the rarity of the consideration of that subject in the days when he wrote. He distinguishes different forms of wages, but he was unable to make a comprehensive study of a phenomenon, such as wages, which was the exception at that time; the two distinct classes—workmen and employers—not being then fully formed. Zacchia regards wages as the reward for any description of work, and he gives very little thought to workmen's wages. He limits himself to the statement that an adequate wage is fixed by a monarch or by law, by custom or contract, and failing these by a judge, who in fixing them should take account of the ability of the workman, the quality of his work, and the price of food. Zacchia studies the judicial effects on wages of alterations in the value of money.

Tractatus de salario seu operariorum mercede, 1658.

[See Graziani, *Le idee economiche degli economisti emiliani e romagnoli*, 1893.] U. R.

ZACHARIAS, Otto (19th century), a doctor in Silesia, wrote:

Die Gefährdung der socialen Wohlfahrt durch die zu fruhen Eheschliessungen der Besitzlosen (1880).

ZANON, Antonio (1696-1770), was born at Udine, and was a merchant, a manufacturer, and student of economics. In Friuli he improved the cultivation of the mulberry-tree and the silk trade, and established a silk manufactory in Venice. He founded the *Società Georgica* in Udine for the promotion of agriculture.

Zanon left many letters and works on agrarian economics, agriculture, and commerce, and the silk industry; all his works were reprinted in nine volumes in Udine (1828-1831). Theoretically he followed the school of Genovesi, that is to say, he advocated a moderate mercantilism, but his writings are chiefly of practical importance.

Dell' agricoltura, arti, commercio, ec., Lettere, 1763-67.—*Della utilità morale, economica e politica delle accademie di agricoltura, etc.*, 1771.—[See Errera, *Storia dell' economia politica nei secoli XVII e XVIII negli Stati della Repubblica Veneta*, 1877; Piemonte, *Antonio Zanon, economista friuliano*, 1891.] U. R.

ZECCHI, Lelio (1532-1610).

A political writer and theologian of Brescia.

In his writings he discusses various economic subjects; his treatise on usury traces usury in different contracts and in its different forms, according to the strict ideas prevailing in his day.

His work on the political method to be followed by a monarch bears on the question of food-supply—he advocates encouraging agriculture, the import of provisions, fixed prices for food, and the infliction of penalties on monopolists; further he would promote the arts, forbid the export of raw material and the emigration of skilled artisans.

On the subject of taxation and its different forms he gives the preference to the Cens (*q.v.*) or general taxation of hereditary estates; this opinion was also held by Mancini, and was traditional in Italy, based on the still surviving conception of the Roman census and the theory of taxation as interpreted and carried out by the Italian communes in the middle ages. He perceives without thoroughly understanding it, the fact—so obvious to us—that increase of population depends on the increase of the means of subsistence.

Tractatus de usuris, 1598.—*Politicorum, sive de principe et principatus administratione*, 1600.—*Libri tre, authore Lelio Zechio, theologo*, Verona, 1600.—*De juribus principatum*, Verona, 1603.

[See Supino, *La scienza economica in Italia, etc.*, 1888.—Gobbi, *L' economia politica, etc.*, 1889.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881.] U. R.

ZECCHINO. See Sequin.

ZEMINDAR (literally "landholder"), denotes the Indian farmer of a Land-tax, who between the Mughal and British conquests

claimed lordship over the soil. The land-tax was, in the laws of Manu (500 B.C.), a right to $\frac{1}{6}$th produce, under the Mughal laws to $\frac{1}{3}$rd value of the produce of the soil. The farmer retained, say $\frac{1}{10}$th the land-tax, and was appointed for life, but his son or sons succeeded on paying fines. As the central power decayed he usurped hereditary rights, rights to the soil, and to make arbitrary levies on its occupants.

The first British land settlement was that by Lord Cornwallis (1793) of Bengal; in which he treated with large zemindars, each of whom was regarded as owning a village or several villages, including the waste, but excluding certain free, or nearly free estates, called "taluq," carved out of the larger unit. The chief flaws in this scheme were that (1) it was permanent (permanent settlements were finally condemned in 1882); (2) it alienated the waste (see Sir J. Caird, *India, the Land and the People*, p. 95); and (3) ignored (*a*) the status of the RYOT—whom it regarded as an English tenant prior to the Agricultural Holdings Acts, but whom subsequent legislation in 1859 and 1885 has turned into something like the English copyholder; (*b*) and the relation of co-proprietors in village communities.

In the village community—from which Sir H. Maine tries to derive other forms of tenure, but which is unknown in the laws of Manu—a group of families are found who take rent or services from the artisan officials; and sometimes the dominant group employ others to plough, etc. They exist all over the North-West Provinces and Panjab. There the state treats with the community—represented by its council of elders,—but usually makes one member stand surety for the rest. The state reserves a fraction, usually $\frac{1}{2}$, of what we should call the total fair rents of the village, including waste. This tenure is called "Zamíndárí mushtarka"; settlements like that of Bengal being called Zamíndárí Khális"; but the settlement is usually called "Mahál," village, to distinguish it from the individualism of the normal "Zamíndárí" settlements. In Oudh both forms of settlement are sometimes applicable to the same area.

Economists adduce facts such as these to show that in the beginning there was no difference "between the power which gives the right to tax and the power which confers the right to exact rent" (H. Maine, *Village Communities*, 1876); that "the distinction between a tax and a rent is merely "a matter of amount" (Sir G. Campbell in *Systems of Land Tenure* (Cobden Club), p. 219); that is to say, either to deduce rents from taxes, or, with Richard JONES, *Literary Remains* (1859), pp. 279-290, taxes from rent.

[B. H. Baden Powell, *Land Revenue and Tenure in British India* (1894) (the best short account); *Land Systems of British India*, 3 vols. (1892); *Indian Village Community* (1896); and Sir G. Campbell, *ubi supra*. Yule and Burnett's *Hobson Jobson*, a glossary of Anglo-Indian words.]

J. D. R.

ZERBI, GIOVANNI ANTONIO (16th century). A Milanese merchant.

During his travels he studied the Spanish and Sicilian banks, especially the bank of San Giorgio of Genoa (BANKS, EARLY EUROPEAN), and conceived the idea of establishing a similar bank in Milan; he wrote three dialogues on this subject. In the first, Zerbi proposes the establishment of banks in general, in the second he explains their organisation, and in the third he completes his explanation by illustrating the advantages of the institution he proposes. On the general theory of money he falls into serious errors. The results of the bank of Sant Ambrogio, promoted by Zerbi, were very unsatisfactory; it was started in 1598, and was almost bankrupt in 1630; it was then converted into an office in connection with the public debt.

Dialogo del Banco de Santo Ambrosio, 1593 (and two other dialogues on the same subject, 1597 and 1599).

[See Cossa, *Introduction to the study of Political Economy*, 1893.—Gobbi, *L' economia politica, etc.*, 1889.—Greppi, *Il banco di S. Ambrogio*, 1883.]

U. R.

ZINCKE, Rev. FOSTER BARHAM (1817-93), vicar of Wherstead, near Ipswich, from 1847 to his death; greatly interested himself in educational and latterly in economic and agricultural questions, to which his books of travel are specially devoted; wrote:

Last Winter in the U.S., Lond., 1868, Crown 8vo.—*Egypt of the Pharaohs and of the Khedive*, 2nd ed., Lond., 1873, 8vo.—*A Month in Switzerland*, Lond., 1873, crown 8vo.—*Swiss Allmends, or a Walk to see Them*, Lond., 1874, crown 8vo (an investigation into the Swiss commonable land).—*A Walk in the Grisons, being a Third Month in Switzerland*, Lond., 1875, crown 8vo (the industry, thrift, and helpfulness of the Swiss peasant proprietors).

[*Athenæum*, Aug. 26, 1873, p. 290.] H. R. T.

ZINCKE, GEORG HEINRICH (1692-1769), was born in the neighbourhood of Naumburg. After a complete theological course he studied law and cameral science, and entered first the Prussian service, and afterwards that of Weimar, where, however, he fell into disgrace, and suffered imprisonment with confiscation of his property. From 1740 to 1745 he delivered lectures in the university of Leipzig, and in 1746 was appointed curator of the recently established Collegium Carolinum at Brunswick, where he died.

Zincke has the distinction of having founded and conducted the first valuable economic journal which appeared in Germany, the *Leipziger Sammlungen von wirthschaftlichen, Polizei- und Finanz-Sachen.* Besides the many articles he contributed to this journal, he published, amongst other works, *Grundriss einer Einleitung zu der Cameralwissenschaft*, 1742; a cameralistic bibliography 1751, and two dictionaries, one of *General Economy*, 1742,

of which the 7th ed. appeared in 1820, and the other of *German Trade and Manufactures*, 1745.

Zincke exhibits a reformed mercantilism, such as was preached in France by FORBONNAIS; he even shows tendencies towards the new doctrine which was destined to supplant it. He holds that a country does not necessarily lose by the export of the precious metals. He sets himself against the extravagances on the subject of population which afterwards prevailed in his school, and accentuates the importance of agriculture as a source of national wealth more than the members of that school commonly did.

[Roscher, *Gesch. der N. O.*, p. 432.] J. K. I.

ZOLLVEREIN (*Customs Union*), a word practically adopted into the English language to express the idea of a customs union. The name was originally given by the Prussians to the union which, under the treaty of March 1833, they formed with various independent German states (in the first instance Hesse Cassel, Hesse Darmstadt, Bavaria, and Würtemberg) for the purpose of establishing a uniform tariff against the outside world. Up to that time each of these states had levied its own customs duties, and had treated the neighbouring states just as it treated the most distant countries. Under the compact on which the zollverein was based all these states undertook to abolish import duties between one another, and adopt a common tariff of import duties as against the rest of the world. This is the essence of a customs union, which is designed to break down interprovincial restrictions, and to simplify commercial intercourse. The Zollverein is still one of the best instances of a customs union, because it comprised several states, and the effect at which it aims is clearer, the greater the number of restrictions abolished.

There are, however, several instances where a small state has grouped itself with a larger state for customs purposes. There is a customs union of San Marino with Italy under treaty of 22nd March 1862; of Monaco with France under treaty of 9th November 1865; Lichtenstein with Austria under treaty of 11th December 1875; Portuguese India with British India, 26th December 1878.

The most complete attempt to form a customs union in recent years has been the South African customs union of 1889. The original members of this were two only, Cape Colony and the Orange Free State, but British Bechuanaland, Basutoland, the British Bechuanaland Protectorate, and the Transvaal and Southern Rhodesia (1903) successively joined. In this case there is no continuity of land-frontier, and one of the members was a foreign state; but the essence of the union is the same—free trade between the members of the union, and on the external boundary of the union one customs tariff as against the rest of the world.

The terms "Zollverein" and "Customs Union" have been frequently used during the past ten or twelve years in connection with projects for the closer commercial union of the British Empire; but they have almost always been used loosely without any true sense of the conditions which they import. No definite proposal has as yet been publicly formulated for placing all the parts of the empire under one tariff. In 1887, at the colonial conference, Mr. Hofmeyr for the first time developed a scheme for a uniform extra differential duty upon all foreign imports. In 1891, in the House of Lords, Lord Dunraven formally pressed the same sort of scheme. In 1894 at the Ottawa conference the possibility of special customs arrangements for the empire was discussed at length. These discussions belong rather to the question of FEDERATION, COMMERCIAL (*q.v.*). C. A. H.

ZUCCOLO, LODOVICO (17th century), a political writer of Faenza.

His *Dialoghi* form an interesting discussion on socialistic ideas; he asserts, with some spirit, that moderate wealth is essential for citizens, and in order to maintain this, he would prohibit the sale or mortgage of farms on the part of citizens with small fortunes. He understands the relations between the division of wealth and the increase of population, and points out the rapid increase of the latter; he considers that to equalise wealth would be an adequate remedy for the difficulties which might arise from over-population. Zuccolo criticises the *Utopia* of Thomas MORE, expressing the opinion that such a republic could only exist if all men were good and just; he gives a plan of an ideal state of things, as he would desire to see them—but not based on economical communism.

Dialoghi, 1625.

[See Gobbi, *L' economia politica, etc.*, 1889.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, 1893.] U. R.

ZUNFT is the term commonly employed by modern German writers for what English writers usually call a "craft gild"; and "Zunft-System" is used in the same general sense as "gild system" (see CORPORATIONS OF ARTS AND TRADES, *Germany;* and GILDS). The word itself, however,—which is variously explained as originally meaning "order" or "gathering,"—was specifically High German, and was unknown in North Germany until the Reformation. In North Germany its place was taken by *Amt*, *Gilde*, and other terms. In South Germany, moreover, if we may generalise from the policy of the authorities of Nuremberg in the 16th century, *Zunft* was understood to imply a degree of autonomy in matters of trade regulation which the organised craft or *Handwerk* was not always allowed to exercise, and in such cases the term was sedulously avoided.

[An excellent brief account and history of the *Zunftwesen* will be found in the article under that title by W. Stieda in Conrad's *Handwörterbuch der Staatswissenschaften*, vi. On the term itself cp. Ashley in *Political Science Quarterly*, xii. 129.] W. J. A.

INTRODUCTION TO APPENDIX

THE necessity for reprinting the third volume of the Dictionary, caused by the continued demand for the work, has, through the liberality of the publishers, Messrs. Macmillan, allowed the opportunity for the addition of a short appendix. Fully fourteen years have elapsed since the publication of the first volume, while many more have passed since the foundations of the work were laid.

Meanwhile many changes have taken place in the Economic conditions of life in the United Kingdom and in our Colonies, especially among those which are self-governing. The power, the wealth, and the population of many foreign countries have greatly expanded during the same period. So far as space has permitted, I have endeavoured to chronicle the changes which have occurred. At no period of the history of the world has applied science done more to assist industry, to facilitate the means of communication, and to promote the developments of business than during recent years. Meanwhile the unprecedented addition to the stock of the precious metals has enlarged the medium for negociating the increased commercial exchanges resulting from the greater industrial activity.

Nor has the study of Economics stood still. While we still have to lament that it does not form a more serious part of the general education of the country, the development of Academic teaching has favoured the extension of the university system—principally in the North of England, the Midlands, and Wales, and in that system Economics has taken a definite place. The recognition of the importance of the study by the establishment of the new Tripos devoted to it at Cambridge and the corresponding Diploma at Oxford, with the work of the London School of Economics and our other Academic centres, is all encouraging. With this we may specially mention the Faculty of Commerce in the University of Birmingham. A remarkable proof of the hold which Economic Teaching has secured in that centre is shown by the establishment of the Advisory Board of Business men there, which marks a desire to join practical work with scientific study. The carrying out of this plan may be very useful for both sides. We have, however, still to regret that Economic training is at present extended only to a very small proportion of the rising youth of the country. The general teaching may be merely elementary, but it ought to be as useful as the grounding in first principles given in other branches of knowledge.

Together with the increase in the opportunities for instruction there has been a development of Economic Libraries. I have been able to collect some information about these both in the United Kingdom and elsewhere. The Free Libraries in our towns and larger industrial centres should encourage the growth of such collections. When united with statistics of local industries, the collection of which is best conducted on the spot, the volumes become more

interesting to the inhabitants, and should be useful towards obtaining the information desired for the Census of Production which has recently been established.

I have endeavoured to give some reference to subjects of the day—as of the slackening increase of population in some countries, the development of municipal and government trading, the tariff reform movement, the deliberations at the Hague Conferences, and the extension of Socialistic ideas. Among matters of domestic concern the greater enterprise shown by the Board of Trade gives hope that wider official assistance may be given to the industrial activity of the country, while the encouragement to the co-operation of Labour and Capital through the system of Copartnership commemorated in the following pages shows a valuable opening for improvement in the relations between employers and their work-people.

These points have throughout been dealt with as far as possible from the Economic and not from the political sides of the questions concerned.

Economic questions which affect the well-being of our people as much, perhaps more than any other social problems, require to be examined under the dry light of scientific research. It is impossible that such matters should receive due consideration when attempting to measure their importance in the midst of popular clamour.

In the notices of the lives of Economists, some have been commemorated whom we have lost since the last volume of the Dictionary was completed. In other cases an effort has been made to chronicle the work of the less known Economists of this country who laboured during the days when the teaching of Ricardo and James and John Stuart Mill was supreme, and who have been, in some instances, but imperfectly recognised, owing to the fact that their opinions were not in harmony with the orthodox teaching of the day. In arranging these I have had the assistance of Professor E. R. A. Seligman's papers "On some neglected British Economists" in the *Economic Journal*, London, 1903. Such scattered notices are almost the only recognition that many of these writers have received. Those who are interested in Economics have much for which to thank Professor Seligman. There is much work of the same class to be done, to which I trust our younger scholars will turn their attention.

In conclusion, while expressing my sorrow that so many of my old friends whose kind assistance was of great service to me in my earlier volumes have passed away, I am thankful that many still remain. From these I have received much valuable help, which, with the welcome aid of fresh contributors, will, I trust, render this work of service to those interested in Economic Study.

R. H. INGLIS PALGRAVE.

HENSTEAD HALL,
WRENTHAM, SUFFOLK,
Easter 1908.

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APPENDIX

ACCOUNTANCY—ALIEN IMMIGRATION

ACCOUNTANCY. See COMMERCE, FACULTY OF, IN THE UNIVERSITY OF BIRMINGHAM, Appendix.

ADVISORY BOARD OF BUSINESS MEN. See COMMERCE, FACULTY OF, IN THE UNIVERSITY OF BIRMINGHAM, Appendix.

AGRICULTURAL HOLDINGS ACTS. The Agricultural Holdings Act, 1883, was extended with some slight modifications in favour of the tenant to market gardens by the Market Gardeners' Compensation Act, 1895, and market gardeners may now obtain compensation for improvements made by them during their tenancy, and are otherwise entitled to the benefits of the principal Act. By the Agricultural Holdings Act, 1900, provision was made for the assessment of compensation by arbitration.

The Agricultural Holdings Act, 1906, which does not come into force until Jan. 1, 1909, makes some serious changes in the law. Its principal provisions fall under three heads: (*a*) game; (*b*) cropping and disposal of produce; (*c*) compensation for unreasonable disturbance.

(*a*) A tenant who has sustained damage to his crop from game is entitled to recover from his landlord compensation for such damage, if it exceeds the sum of one shilling per acre of the area over which such damage extends. Any agreement negativing the right to compensation or limiting its amount is void.

(*b*) Notwithstanding any custom of the country, or any agreement to the contrary, a tenant is entitled to practise any system of cropping of the arable land on his holding, and to dispose of the produce of his holding in such manner as he thinks fit. The tenant is bound, however, to exercise his rights so as not to deteriorate the holding in any way, and during the last year of his tenancy he must comply with the custom of the country or the terms of his agreement.

(*c*) The right of a tenant to recover compensation from his landlord for expenses incurred by him on quitting his holding is extremely limited. The amount recoverable is confined to the direct loss unavoidably incurred in connection with the sale or removal by the tenant of his household goods, farm stock, and implements of husbandry. Further, the tenant has no right to recover any compensation except where the landlord has given notice to quit, or has refused to renew, without good and sufficient cause, and for reasons inconsistent with good estate management, or where the landlord has demanded an increased rent on account of improvements executed by the tenant, for which the tenant is not entitled to recover compensation, and the tenant has quitted his holding by reason of such demand. The right of the tenant cannot be excluded by agreement. The onus of proving that a claim to compensation has arisen falls on the tenant, and the nature of the facts to be proved will render it extremely difficult, if not impossible, for him to establish his claim.

The Agricultural Holdings Acts, 1900 and 1907, and the Market Gardeners' Compensation Act, 1895, apply to Scotland. A. A. U.

ALIEN IMMIGRATION. By the Aliens Act, 1905, it is enacted that no "immigrant" as defined in the Act shall be landed in the United Kingdom from an "immigrant ship" (also there defined), except at a port at which there is an immigration officer appointed under the Act, or shall be landed at any such port without the leave of that officer given after an inspection of the immigrants made by him on the ship, and that the immigration officer shall withhold leave in the case of any immigrant who appears to him to be an "undesirable immigrant," as therein defined; but that the Secretary of State for the Home Department may, subject to such conditions as he thinks fit to impose, make "exemption orders," relieving particular immigrant ships from the above-mentioned provisions, if he is satisfied that a proper system is being maintained for preventing the embarkation of undesirable immigrants on these ships, or if security is given to his satisfaction that undesirable immigrants will not be landed in the United Kingdom from those ships except for the purpose of transit; and he may also, if he thinks fit, make "expulsion orders," requiring particular aliens to leave

the United Kingdom within a time fixed by the order, and thereafter to remain out of the United Kingdom on certain prescribed facts being proved in a certain prescribed manner. The expression "immigrant" is defined as meaning an alien steerage passenger (not being a "transmigrant"), who is to be landed in the United Kingdom, and the expression "steerage passenger" as including all passengers except such persons as may be declared by the Secretary of State to be "cabin passengers," by order made either generally or as regards any special ships or ports. Pursuant to the Act, the Secretary of State has made numerous exemption orders relieving second-class passengers from inspection, upon the shipowners giving security by bond not to land any undesirable immigrants from among such passengers, and has also made a general order declaring all such passengers as are entitled to use the cabins, state-rooms, or saloons, where the accommodation is superior to that provided in any other part of the ship devoted to the carrying of passengers, to be cabin passengers for the purposes of the Act (Aliens Act, 1905). It appears from the parliamentary return showing the result of the first year's working of the Act, that for the twelve months ending 31st December 1906, out of a total of 465,500 alien passengers, 493 were finally refused leave to land, and expulsion orders were made in 287 other cases. And it appears from the first annual report of H.M. Inspector under the Act that, after making the necessary deductions for cabin passengers, exempted second-class passengers, transmigrants, and others who are not within the Act, only 38,527 of the 465,500 alien passengers are left unaccounted for. Of these, 22,986 were males, 11,049 females, and 4492 children. Russians and Poles numbered 12,832; French, 10,116; Italians, 5360; Germans, 3186; Norwegians, Swedes, and Danes, 1295; Austrians, Hungarians, and Bohemians, 1223; Swiss, 983; Dutch, 798; Spaniards and Portuguese, 572; Americans (U.S.), 552; Belgians, 380; and other nationalities, 1230. The total number of aliens who received Poor Law relief during 1906 in London and certain provincial unions was 6050, and the number sent to lunatic asylums was 266. As pointed out in the report, the statistics of convicted prisoners already yield indications that the liability to expulsion created by the Act is exercising considerable influence. For the alien prison population, which had reached its highest point in 1904, having increased ever since 1893, and at a greater rate than the total prison population, suddenly dropped in 1905 by 7·01 as compared with a fall of only 1·12 per cent in the total number of prisoners, and this change, which is suggested to have been due to the shadow of the coming Aliens Act, was continued and accelerated in 1906, the first year of the operation of the Act, when the total number of convicted persons received into prison fell by 6·32 per cent, while the number of aliens among them fell by 16·85 per cent, leaving the proportion of aliens to the total number at 1·85 per cent, the lowest figure since 1899. (*Aliens Act, 1905, First Annual Report of H.M. Inspector under the Act, c. 3473.*) (*Parl. Papers, c. 3316 of 1907.*) T. G. S.

AUTUMNAL DRAIN. In continuation of the statement contained in vol. i. of this Dictionary, the table which follows shows that the movement of coin there mentioned continues, and on the whole increases in amount:—

Beginning of September to about middle of November, years 1901-06.

(000's omitted.)

Year.	Gold Coin: Received from or taken for abroad on balance.		Taken for Scotland on balance.	Taken for Ireland on balance.	Received from or taken for home circulation on balance.		Total Decrease.	Silver Coin. Increase.	Silver Coin. Decrease.
	£	£	£	£	£	£	£	£	£
1901	..	2237	342	65	27	..	2617	222	..
1902	..	3714	772	525	650	..	4661	49	..
1903	..	3796	570	115	542	..	3939	..	51
1904	..	2933	480	210	..	451	4074	..	35
1905	..	5517	550	170	60	..	6177	..	33
1906	..	5648	482	350	778	..	5702	..	185

BANK OF ENGLAND, 13*th March* 1907.

In connection with this subject, the estimate made by the Deputy-Master of the Mint as to the extent to which the summer holidays affected the transfer of silver coin from one locality to another, should be mentioned. In order to see how far the summer holidays affected the transfer of silver coin from one locality to another, he obtained through the Central Association of Bankers a return showing the amount of silver coin held by banks in the United Kingdom on September 30, 1905. The returns showed that on the latter date the amount held by banks in England was some £660,000, and by banks in Wales some £21,000 less than on the 30th June, whereas Scotland showed an increase of £26,000, and Ireland remained practically the same.

The following table shows the distribution of silver amongst banks on the two dates in 1905:—

Date.	London.	England.	Wales.	Scotland.	Ireland.
	£	£	£	£	£
June 30	1,490,926	2,389,601	153,016	735,530	506,821
Sept. 30	1,195,331	2,019,062	131,728	761,484	508,437

[*Thirty-Sixth Annual Report of the Deputy-Master and Comptroller of the Mint, 1905*, p. 15.]

It appears thus that about £680,000 was withdrawn from the banks in England and Wales to meet the requirements of the holiday season. The greater part of these figures must be taken into consideration with those included in the autumnal drain.

The rate of discount charged by the Bank of England was raised in the period of the year affected by the movement described in this table in five out of the six years covered by it. The dates are as follows :—

Dates.	Bank Rate.	Dates.	Bank Rate.	Dates.	Bank Rate.
1901. Jan. 3	5	1903. May 21	3½	1906. April 4	3½
,, Feb. 7	4½	,, June 18	3	,, May 2	4
,, ,, 21	4	,, Sept. 3	4	,, June 20	3½
,, June 6	3½			,, Sept. 13	4
,, ,, 13	3	1904. April 14	3½	,, Oct. 11	5
,, Oct. 31	4	,, ,, 21	3	,, ,, 19	6
1902. Jan. 23	3½	1905. Mar. 9	2½		
,, Feb. 6	3	,, Sept. 7	3		
,, Oct. 2	4	,, ,, 28	4		

Although one cannot ascribe the whole of the influence which caused the rate to be raised at the dates given to this drain of specie, it is obviously a point to be reckoned with. The movements of silver coin are very considerable. "The returns for the 30th June, 1906, showed that on that date the banks in the United Kingdom (excluding the Isle of Man and the Channel Islands) held £4,713,233 as against £5,275,894 in 1905. The large difference may be attributed to the activity of trade which had correspondingly increased the amount held by the public" (*Thirty-Seventh Ann. Rep. of the Mint, 1906*, p. 12).

The following table recapitulates the distribution on the 30th June 1905 and 1906 :—

Year.	London.	England.	Wales.	Scotland.	Ireland.
	£	£	£	£	£
1905	1,490,926	2,389,601	153,016	735,530	506,821
1906	1,429,091	2,026,478	125,901	671,780	459,983

AVERAGE, UNWEIGHTED. See AVERAGE, WEIGHTED.

AVERAGE, WEIGHTED (in Statistics). When we seek to take an average of a number of figures, it is frequently the case that the importance attached to the different figures ought not to be the same throughout, but that some of them ought to be *weighted* relatively to others. Suppose, for example, that in a given market the price of corn on one day is thirty-two shillings, and on the following day thirty-six shillings a quarter, but that the amount of corn bought and sold on the first day is three times as much as on the second. Then, if we consider simply the prices, the average for the two days will be thirty-four shillings; while, if we also take into account the amount sold, the average will be thirty-three shillings. The former is the *unweighted average*, the latter the *weighted average*; and the latter will for most purposes have the greater utility. An important case in which a weighted average is desirable is in the construction of an index-number for measuring changes in the purchasing power of money. It is clear that, if we wish to measure the value of money for the average consumer, a commodity which is in general consumption in large quantities should have greater weight attached to it than one which is consumed by certain classes of the community only, and by them perhaps in small quantities.

[See INDEX NUMBERS, and cf. Bowley, *Elements of Statistics*, pp. 111-118.]

BAUDRILLART, HENRI JOSEPH LÉON (1821-1892), was in 1852 appointed deputy professor to Michel CHEVALIER in the Collège de France; in 1866 he was called to the chair of history of economic doctrines in the same *collège*. He was also Professor of Political Economy in the *École des ponts et chaussées* and a member of the *Académie des sciences morales et politiques*.

An untiring and well-informed investigator of historical, philosophical, and economic matters, it may be said that as an economist his ruling preoccupation has been to demonstrate that no contradiction exists between the doctrines of the liberal school, to which he belonged, and the rules of conduct as laid down by moral science. These views he already defended in one of his first and principal works, *Les Rapports de la morale et de l'économie politique* (Paris, 1860), and thirty years later, in the article "Morale" which he contributed to Léon Say's *Nouveau Dictionnaire d'économie politique* (1892).

The first book, by which he attracted the notice of learned circles, is his volume on *Jean Bodin et son temps; tableau des théories politiques et des idées économiques au seizième siècle* (Paris, 1853), describing after an introduction on the leading economic and political ideas of the period, the life and writings of Bodin, and giving a full analysis with commentaries of his *République*. It remains the standard book on the subject.

Baudrillart's *Histoire du luxe public et privé depuis l'antiquité jusqu'à nos jours* (Paris, 4 vols., 1878 and 1880) is another outcome of his favourite studies on the reciprocal influences having existed and existing between ethics and social economics; it is a sort of encyclopedic and historical account of the character of public and private luxury from the dawn of history to our own times.

The three volumes of his *Populations agricoles de la France* (Paris, 1880 to 1893) were written as the report of an extensive inquiry entrusted to his

care by the *Académie des sciences morales et politiques*. The first volume comprises Normandy and Brittany; the second Maine, Anjou, Touraine, Poitou, the country around Paris, Picardy, and Artois; the third volume on Central France was published by his son after his death, and is in fact as much the work of the son as of the father. The object of his inquiry was, not cultivation itself, but the moral and material situation of the agricultural populations; to reach his aim, he combined direct observations of the present with the study of the past.

Baudrillart was also a frequent contributor to the *Journal des économistes*, to the *Revue des deux mondes*, and to Franck's *Dictionnaire des sciences philosophiques*. Besides the four large works mentioned above, he published: *Manuel d'économie politique* (1857); *Études de philosophie morale et d'économie politique* (1857); *Publicistes modernes* (1862); *La liberté du travail, l'association et la démocratie* (1865); *Éléments d'économie rurale, industrielle et commerciale* (1867); *Économie politique populaire* (1869); *La famille et l'education en France* (1874). E. Ca.

BILLS OF EXCHANGE ACT 1882, AMENDMENT AND INTERPRETATION OF, 1906. In the case of Capital and Counties Bank *v.* Gordon [1903], A.C. 240, the House of Lords decided that where a banker credited a customer with a crossed cheque as cash before receiving payment thereof, he did not subsequently receive payment only for the customer, but for himself, so that in the event of a forged endorsement, he lost the protection of sec. 82 of the Bills of Exchange Act 1882, and was liable for conversion, or money had and received, to the true owner. To obviate the risks and inconvenience occasioned to bankers by this decision, the Bills of Exchange (Crossed Cheques) Act 1906 was passed, after several previous futile introductions. It enacts that "a banker receives payment of a crossed cheque for a customer within the meaning of sec. 82 of the Bills of Exchange Act 1882, notwithstanding that he credits the customer's account with the amount of the cheque before receiving payment thereof." Presumably crediting in the pass-book is included, not only the uncommunicated entry in the bank-books. The effect of the Act appears to be confined to cheques, *i.e.* bills of exchange drawn on a banker payable on demand, excluding orders for payment conditional on signature of an annexed receipt and drafts drawn by a branch on head office of the same bank, or *vice versa*, both of which were held in the Gordon case not to be cheques. The new Act further affects only the position between the collecting banker and the true owner, leaving untouched the other rights and liabilities arising from such crediting as cash. These, as deducible from the Gordon case, include the right of the customer to draw against uncleared cheques credited as cash, in the absence of any agreement to the contrary express or implied, and the right of the banker to debit his customer with such cheques, if returned unpaid, or to sue the parties thereto, irrespective of the state of the customer's account.

Two other points were finally decided by the above case: First, that a collecting banker can acquire no protection by crossing to himself, under sec. 77 (6), a cheque received by him uncrossed. Second, that a banker's draft, of the nature before mentioned, though not a bill or cheque, is a draft or order drawn on a banker within the meaning of sec. 19 of the Stamp Act 1853, so that the banker is not liable for paying such documents on a forged endorsement. Again, apart from legislation, sec. 7, subsec. 3, of the Bills of Exchange Act received a somewhat narrow interpretation in the two cases of Vinden *v.* Hughes [1905], 1 K.B. 795, and Macbeth *v.* North and South Wales Bank [1906], 2 K.B. 718, affirmed by C.A. Oct. 16 [1907], 123 L.T. p. 529, in which it was held that the payee of a cheque who is existing and intended to receive the money is not fictitious or non-existing within the meaning of the subsection, though the drawer was not indebted to him, and his name was suggested or even inserted by a third person merely to give colour to the transaction for his own ends. In Colonial Bank of Australasia *v.* Marshall [1906], A.C. 557, the Judicial Committee of the Privy Council decided that the leaving blank spaces when drawing a cheque is not a sufficient breach of the customer's duty to his banker to justify the latter in debiting the customer with more than the original amount of the cheque, should that amount be fraudulently raised and the larger sum paid by the banker innocently and without negligence. The old, but somewhat discredited case of Young *v.* Grote, it was held, can no longer be regarded as of any authority. (See BILL OF EXCHANGE, Vol. I.) J. R. P.

BLOCK, MAURICE (1816-1901). Born in Germany, but educated in France, he became a Frenchman by naturalisation as soon as he was of age, and was attached from 1843 to 1861 to the statistical department of the ministry of Agriculture, Industry, and Trade; in 1880 he was elected a member of the *Académie des sciences morales et politiques*.

An untiring worker in the field of statistics, Block edited during forty-four years (1856-1900) the *Annuaire de l'économie politique et de la statistique*; he also published the *Statistique comparée de la France* (2 vols., 2nd edit. 1875); the *Traité théorique et pratique de la statistique* (1886), and several works of reference, such as the *Dictionnaire de l'administration française* (4th edit. 1898), the *Dictionnaire général de la politique* (1874), and the *Petit dictionnaire politique et social* (1896).

Conversant with most European languages, Block from 1866 to the end of his life wrote for the *Journal des économistes*, a quarterly review

of periodical economic publications issued out of France (*Revue des principales publications périodiques de l'étranger*). He condensed the fruits of his extensive reading and of his lifelong interpretation of foreign thought in the two volumes of his *Progrès de la science économique depuis Adam Smith* (two editions, 1890 and 1897). The plan adopted is the treatment of each subject (nature, labour, capital, credit, etc.) in a distinct chapter; at the beginning the present state reached by science is exposed, and at the end the views of the leading French and foreign economists are summed up, mostly in their own words.

A clear and exact thinker, with a tendency to sarcastic humour, Block remained faithful to the doctrines prevalent at the time of his youth, and considers reason a safer scientific guide than feeling and ethics. E. Ca.

BOCCARDO, Girolamo (1829-1904), born in Genoa, died in Rome. He began his career as a journalist in 1848, but refused to enter into political life when Cavour offered him the undersecretaryship of the ministry of Agriculture, Industry, and Commerce. He was president of the Technical Institute of Genoa and professor at the university. In 1877 he was appointed senator, and in 1888 councillor of state. As an economist he was a very learned but not original thinker. He worked for the diffusion of economic science by writing in 1853 a very concise and clear manual of political economy, substantially on the lines of John Stuart Mill and his French contemporaries, a manual which had a great success, especially among students preparing for examinations in public offices where political economy was requisite and amongst students of technical institutes. In 1859 he published a *Universal Dictionary of Political Economy and Commerce*, which was republished 1875. But Boccardo influenced the studies of political economy more particularly when he succeeded Ferrara in the editorship of the *Biblioteca dell' Economista*. Ferrara used to say he knew of no German economist worth reading except Roscher, and would not publish translations of German economists; Boccardo went in the opposite direction and opened the *Biblioteca* to all dissenters from the so-called classical school (see Classical Economists). He published, besides Roscher, Schäffle, Wagner, Schönberg, Marx, Lassalle, and amongst the English Macleod and Owen. Boccardo, very naturally, considering his receptive mind, was under the sway of Spencer's evolutionism, and strongly inclined to sociological studies. His prefaces to the economists whose works he published are easy and interesting reading, like articles in the *Revue des Deux Mondes*; but they are very far from being comparable to those of Ferrara, his predecessor. The principal subjects they discuss are: the economic and social problem in Germany; the heretics of political economy and social legislation; the principles of science and art in finance; quantitative methods applied to economics, statistics, and social science; the philosophical principles of political economy; method and limits of political economy; man and animal; sociology in history, science, religion, and the Cosmos; credit and banks. In these essays he tried to render classical and political economy more complete and correct by utilising mathematics, biology, and history. Boccardo published also Jevons and Walras. Besides these purely scientific publications, he took a very active share in questions of the day, concerning the Italian banks of issue, forced currency, mercantile marine, labour problems. He was a free trader and opposed socialism on many occasions. When wearied with economic studies he used to turn to physical geography, and wrote on earthquakes and volcanoes, and also on the physical structure and formation of our globe. He was a man full of character, and esteemed for his strong sense of duty. M. P.

BUREAU OF LABOUR. See Vol. I., and Unemployed, Appendix.

BUTT, Isaac (1813-79), born at Glenfin, Donegal, scholar of Trinity College, Dublin, during his collegiate course showed great ability in classical studies. He succeeded M. Longfield as Whately professor of Political Economy at Dublin 1836-41, and accepted his predecessor's conclusions on the productivity theory of wages and the marginal productivity theory of interest in economic science. (See Longfield, vol. ii., and in Appendix.)

Butt repeated and developed the doctrine in a monograph entitled *Rent, Profit, and Labour*. Professor Seligman tells us that the theory of marginal productivity as applied to capital and labour "seems obvious and simple enough, but until the appearance of Dr. Longfield's letters it was not thought of." Butt was called to the Irish Bar in 1838, and to the English Bar, Inner Temple, in 1859. Of his ability and brilliancy as an advocate, or of his association with politics and his parliamentary career, we cannot speak at any length here. He is stated to have been the first to have used Home Rule as an effective election cry, and to have been probably the inventor of the phrase. Latterly he found himself unable to manage the party he had created. The treatment he received almost broke his heart.

Butt wrote—*Rent, Profits, and Labour: A Lecture delivered before the University of Dublin in Michaelmas Term, 1837* (Dublin, 1838), and a larger *Introductory Lecture delivered before the University of Dublin in Hilary Term 1837*, Dublin, 1837. In this he follows Say in defining production as the "creation of utility," rather than the "creation of value," and is especially severe on those economists who wish to limit the term wealth to material objects. Immaterial, like material,

objects are equally forms of wealth. He also objects to identifying capital with the instruments of production. His writings on other subjects are numerous and able.

[Prof. E. R. A. Seligman—"On some Neglected British Economists," in the *Economic Journal*, London, 1903.—*The Dictionary of National Biography*.]

CENSUS OF PRODUCTION IN THE UNITED KINGDOM. The census of production to be carried on under the Act of 1906 will give statistics of considerable importance on the economic activity of the country. But the difficulty of making the inquiry in such a manner as to secure an accurate statement is very great, for it is only too easy to add in the value of the constituent portions of many productions two or three times over. Take, for instance, so simple an industry as that of the basket-maker. If the basket-maker buys osiers from a grower, the grower should return, say, £500, as the value of his osiers sold to the basket-maker. When the basket-maker makes his return he enters, we will say, £1500 as the value of his finished productions, the difference between the two being made up by the cost of the labour employed. As the cost of the osiers is part of this value, they have been counted twice if the osiers have been purchased—though once only if the grower of the osiers makes them himself into baskets. Again, in textile manufactures, if the spinning and weaving industries are separated the yarn is counted twice; if the wool is produced in the same country, and the census include agriculture, it is valued three times.

The whole difficulties are referred to in a very careful paper by Mr. G. Udny Yule, printed in vol. lxx. (31st March 1907) of the *Proceedings of the Royal Statistical Society*. Here we can only call attention to the fact of the inquiry being made. When one remembers the great objection felt by both producers and traders to giving any information as to their businesses, some idea may be formed as to the difficulty of this part of the work. And the further difficulty as to getting clear information must also be borne in mind.

Agriculture is not included in the British Census of Production Act, as the Board of Agriculture and Fisheries already covers the ground very completely. Statistics of the mining industry are also given by the Home Office. As these returns are already made in a satisfactory manner by the departments to whom they are entrusted, there was no need to include them.

The first census is to be taken in 1908. The intervals at which the census will be repeated have not at present been determined. It is desired first to obtain some experience as to the working of the Act. The value of the materials used, whether purchased or partly manufactured, will be included, with the numbers of the workpeople and the days they have worked, and the horse-power employed. When the whole arrangements have been brought into working order, we shall have far better information than exists at present as to the real condition of the industry and internal trade of the kingdom.

CERNUSCHI, Henri (1821-1896), born at Milan, is principally known by his writings on finance, and as a strong adherent of bimetallism, holding that the ratio should stand unalterably at 15½, notwithstanding variations in the market price of silver. He is regarded as the originator of the term "Bimetallism." He was educated for the legal profession, but his studies were interrupted by the revolutionary movement of 1848, in which he took part. He sat in the National Assembly at Rome in 1849-50, till the revolutionary government fell, when he escaped to Paris. There, naturalized as a French subject, he made a considerable fortune in banking, and took a strong interest in politics. He opposed the Socialist movement, and especially the *plébiscite* of 1870, spending large sums of money in doing this, as well as in putting into practice his theories of co-operation.

He wrote: *Mécanique de l'Échange*, 1865.—*Illusion des Sociétés Co-opératives*, 1866.—*Or et Argent*, 1874.—*La Monnaie Bimétallique*, 1876.—*La Bimétallisme en Angleterre*, 1879.—*La Bimétallisme à quinze et demi necessaire*, 1881.—*Le grand procès de l'Union Latine*, 1884.

CLAMAGERAN, Jean Jules (1827-1904). Although born in New Orleans, he was in 1850 admitted as a member of the Parisian bar, and later on made himself known as an opponent of the Imperial Government and an adherent of republican opinions. During the siege of Paris in 1870-1871 he superintended the service of public subsistence as *adjoint* (deputy) of the *Maire* of Paris. In 1879 he was appointed a councillor of state, and in 1882 he was elected a life senator.

Clamageran has largely contributed to periodical publications on questions of the day, both juridical, economical, and even religious (he was a Protestant). In 1873 he published a volume of constitutional, economic, and administrative essays under the title *La France républicaine*, and in 1874 another entitled *L'Algérie, impressions de voyage, avec une étude sur la Colonisation*, but his main claim to be remembered as an economist is his great history of taxation: *Histoire de l'impôt en France*, 3 vols., 1867-1868 and 1876. It is the only extant general work on the subject, beginning

with Roman Gaul, and ending at the accession of Lewis XVI. It is full of detailed and extensive information, and although no trained mediæval scholar, the author leads the reader safely through the maze of mediæval financial policy. His last volume, devoted to the last century of the *Ancien régime* (1683-1774), acknowledges the improvement of French finance since the death of Lewis XIV., but concludes that monarchy, fallen into disrepute by the vile reign of Lewis XV., had lost the moral power necessary to bring the task of reform to a satisfactory close.

Immediately after his death his widow collected and issued a volume of *Études politiques, économiques et financières* (1904), amongst which should be mentioned a Study on French finance from 1814 to 1889. E. Ca.

CLEARING HOUSE, THE LONDON BANKERS'. Little is known of the early history of the London Bankers' Clearing House. Tradition says that the clearing system had its origin in the daily meeting in their luncheon hour of certain bankers' clerks at a chop house, probably the Five Bells in Dove Court, Lombard Street, between St. Mary Woolnoth and Smith's Bank, where the clerks used to lunch and exchange the cheques they had upon each other's firms.

The convenience of the system was evident, and the meeting in the public room was officially recognised by the joint renting by the bankers of a room in the chop house.

In 1773 we find entries in bankers' books: "To quarterly charge for use of the clearing room, 19s. 6d."

The next step, probably taken about 1784, was the renting of a larger room at Mrs. Irving's, next door to the Five Bells. Complaints being made that the room was too small, the first floor was taken out to make the light better and the room cooler.

In 1800 there were forty-three banks in the Clearing House, and some five years later a larger room was taken next to Messrs. Smith Paynes, and two inspectors were appointed, Mr. Thomas and Mr. White, the wine merchant of Lime Street.

In 1810 Mr. Thomas stated in his evidence before the Bullion Committee, that there were forty-six banks in the Clearing House, and that the average amount cleared was £4,700,000 daily, or on Stock Exchange settling days about £14,000,000, but it seems probable that the amounts quoted were for both sides, received and paid.

In early days the differences were paid by bank notes and gold, but later only notes of £50 and upwards were used, the balance in excess of the last £50 being carried forward to the next day's account. In 1839 the average amount of bank notes thus used was £213,100, the largest amount used in one day being £593,300, the smallest £108,000.

In 1829, when the house became too small and was rebuilt, there were thirty-nine banks clearing. By 1841 these had been reduced to twenty-nine. Until 1854 the private banks alone shared the control of the Clearing House, and refused with scorn the repeated applications for admission made by the joint stock banks, which had come into existence after 1833, and were regarded as scarcely respectable by the private banks. By 1854, however, it had become obvious that the joint stock banks had come to stay, and would, if perpetually repulsed from the Clearing House, start a Clearing House of their own, and in that year the following joint-stock banks were admitted, London and Westminster (founded 1834), London Joint-Stock Bank (1836), Union Bank of London (1839), London and County Bank (1839), Commercial Bank of London (1840), followed shortly afterwards by others, most of whom were admitted on amalgamation with a private clearing bank.

Another important change took place in this year 1854, for on May 11th the system of paying the balance due to or from the Clearing House in bank notes ceased, and the accounts have since been settled by cheque on the Bank of England, with which it is essential that each of the clearing banks should have an account. In 1858, as a countermove to the Country Bankers, who were proposing a separate Clearing, the Country Clearing was established on the lines of a scheme proposed by Mr. John Lubbock, now Lord Avebury, with the result that country cheques, being henceforth easily collected, took the place of notes and bankers' drafts, and became part of the currency system of the country, thus effecting an enormous saving in the use of notes and coin.

In 1864 the Bank of England entered the Clearing House, but clears on one side only, the outside, for while the bank presents to the clearing bankers at the Clearing House all cheques payable by them, all cheques and bills drawn on the bank are presented by the clearing bankers direct to the bank. In 1907 the Metropolitan Clearing was established.

The totals for the years of the paid clearing were :—

1839	£954,401,000
1868	3,425,185,000
1876	4,963,480,000
1886	5,901,925,000
1896	7,574,853,000
1906	12,711,334,000

Owing to trade conditions, the periodical recurrence of trade payments, and of Stock Exchange and Consol settling days, the average daily total of the clearing has, taken by itself, little or no statistical value. The returns are therefore divided into four groups: Stock Exchange Settling Days, Consol Settling Days, Fourths of the months, and Ordinary Days. The averages being:

Dates.	1868.	1876.	1886.	1896.	1906.*
	£	£	£	£	£
Stock Exchange Settling Days	21,806,200	31,712,100	49,939,800	48,452,700	84,649,200
Consol Settling Days	11,212,600	18,829,000	21,958,000	31,696,100	53,711,200
Fourth of the Month	12,922,800	18,828,000	17,959,900	24,228,400	43,734,700
Ordinary Days	9,637,800	14,162,600	15,869,800	21,633,000	36,479,000
Daily Average	10,978,200	16,167,700	19,224,500	24,593,700	41,405,000

* *N.B.*—Country Clearing returns not included in these figures for 1906.

A total of over £100,000,000 for one day's working has been reached on more than one Stock Exchange Settling Day, and for the first ten months of 1907 the daily total of the clearing had only on four occasions fallen under £30,000,000, and that only by a few thousands. Such growth as is shown above is amazing in the vastness of its figures, and has been steadily continuous for some years. In the past twelve years the work has doubled. Indeed, did the old conditions, when the figures of all cheques had to be taken down by hand, still obtain, the present Clearing House would be far too small for the staff of clerks that would be necessary. However, mechanical ingenuity has solved the difficulty, and by the aid of the Burroughs machine cheques are not only listed, but the amounts totalled at one operation, and all errors, save those caused by taking down the amount of a cheque wrongly, are eliminated.

The actual figures of the returns are as follows :—

Dates.	1868.	Proportion to Total.	1876.	Proportion to Total.	1886.	Proportion to Total.	1896.	Proportion to Total.	1906.	Proportion to Total.
	£		£		£		£		£	
On the 4th of the Month	155,068,000	4·5	225,936,000	4·5	215,519,000	3·7	290,681,000	3·8	524,816,000	4·1
On Stock Exchange Account Days	523,349,000	15·3	761,091,000	15·3	1,198,557,000	20·3	1,162,866,000	15·3	2,031,582,000	16·0
On Consols Settling Days	134,552,000	3·9	225,948,000	4·6	263,473,000	4·5	380,354,000	5·0	644,534,000	5·1
On Ordinary Days	2,612,216,000	76·3	3,750,505,000	75·7	4,224,376,000	71·5	5,740,952,000	75·9	9,510,402,000	74·8
Totals for the years	3,425,185,000	100	4,963,480,000	100	5,901,925,000	100	7,574,853,000	100	12,711,334,000	100

In comparing the above figures with those of other Clearing Houses, it must be remembered that the Bank of England clears only on one side. Did it clear on both sides, the annual amount would be very largely increased.

The Clearing House is situated in Post Office Court, Lombard Street. Of the building itself little need be said ; it possesses no architectural features within or without, but has been added to and altered as the work has increased, till it now, 1907, consists on the ground floor of a large room of irregular shape, in which the town clearing is conducted, and of other rooms upstairs in which the country and metropolitan clearings are carried on.

Desks are placed round the walls and in the centre of the rooms, a certain number being allotted to each bank, according to its requirements. The banks are arranged more or less in alphabetical order, and sufficient space is left between the central and wall desks to enable the clerks to pass round the room and deliver their charges as the bundles of cheques are called. For the working of the Clearing House each bank has, in principle, though modified by the use of the Burroughs machine, two special sets of books ruled in columns, in which the cheques are entered under the head of each of the clearing banks. One set of these books, the out-clearing books, are written up at the office ; the other, the in-clearing books, at the Clearing House. It must be remembered that "out" and "in" clearing are only relative terms, and that what is sent to the Clearing House by Bank A as out-clearing, becomes when delivered to B at the Clearing House the latter's in-clearing.

The first step in the clearing is the sorting, in the office of each bank, of the cheques drawn on the other clearing banks under the names of those banks. Each parcel of cheques so sorted is entered by the out-clearer in his books at the bank under the head of the paying bank. If the list is a long one casts are made at intervals, and the total of these casts recorded as a check to accuracy on the back of the last cheque of each cast, which is turned over to draw the attention of the receiving clerk at the Clearing House to the cast, so that he can agree as he completes each cast. From the bank a clerk takes the charges to the Clearing House, and delivers them at the desk of each paying bank. The process is now repeated. The paying bank's in-clearing clerk takes down the charges in his books, or on the type-written rolls of the Burroughs adding and listing machines, taking care to see that the casts agree, and the cheques when taken down are sent to

the office of the paying bank for verification or return.

At the close of the clearing each bank sends down its out-clearing books to the Clearing House, in order that they may be agreed with the in-clearing books of the banks there.

If the totals do not agree the books are compared and mistakes rectified. If the mistake is in the cast, the bank making the mistake corrects it; if the figures differ, the out-clearers alter their books to agree with the in-clearers; and should it ultimately prove that the mistake was the other way, the draft is produced and the difference claimed.

When the totals of the out- and in-clearing books are agreed, a sheet, having the printed list of the clearing banks in the centre, and a cash debtor or creditor column on either side, is drawn up by the head clearer of each bank, showing the balance due from or payable to each other bank; the two sides are then cast up, and the balance receivable or to be paid entered on a green ticket if the former, and a white if the latter. This ticket, which has to be signed by the inspector of the Clearing House, is an order to the Bank of England, either to transfer from the money at the credit of the account of the clearing bankers to the receiving bank's account, or from the money at the credit of the paying bank's account to the account of the clearing bankers, the amount of the balance, according as the balance is debtor or creditor.

As described above, the clearing will have taken place without any difficulties, but in practice certain other factors have to be reckoned with.

In the first place, every cheque that passes through the clearing cannot be paid by the banker it is drawn on; some have to be returned from lack of funds on the customer's account, or because the drawer has stopped the cheque, or because the endorsements are not in order, as well as for other reasons.

Such cheques, which must bear a written statement as to the reason for which payment is refused, on being returned to the Clearing House, are distributed so soon as the in-clearer has entered them on the debtor side of his sheet in the same way as the charges, and are included in the balance-sheet before the final balance is struck.

The day's work at the Clearing House now, 1907, commences with the newly established *Metropolitan clearing*. This opens at 9 A.M. on ordinary days, and 8.45 A.M. on Saturdays, and closes at 10.30 A.M. on ordinary days, and 9.50 A.M. on Saturdays.

By the institution of this clearing the necessity for each bank to send out walk clerks to collect payment for cheques drawn on clearing bankers in the Metropolitan area has ceased. Each bank receives at the Clearing House all cheques drawn upon its Metropolitan branches, and forwards them direct to each branch, getting back the returns before 4.5 P.M. on ordinary days, and 1.30 P.M. on Saturdays.

All differences in the Metropolitan clearing are adjusted through the Town clearing.

The total of the "in" and "out" charges of the Metropolitan clearing are added to the amount of the Town clearing sheets.

In order to simplify the sorting of the cheques into the three clearings—Town, Country and Metropolitan—the letters T, C, or M, as the case may be, are now added at the bottom left-hand corner of the cheques.

To render the Metropolitan clearing more effective, the numerous branches within the Metropolitan area of the London and Provincial Bank, which is not in itself a clearing bank, clear through their agents Messrs. Glyn and Co., and it is probable that before long the West End and Smithfield Banks will be invited by their clearing agents, subject to the consent of the committee of clearing bankers, to clear in the same way.

Following on the Metropolitan clearing comes the Country clearing from 10.30 A.M. to 12.30 P.M., except on Saturdays, when the work begins at 10 A.M. and closes at 11.30 A.M. Owing to the fact that cheques in this clearing have to be forwarded to the country, and any returned cheques notified, it is impossible to adjust the balances the same day, or indeed until the next day but one, when they are entered on the Town clearing sheet.

Until 1902 the figures of the Country clearing were merged in those of the Town, but since that year they have been given separately.

The total for 1902 was £870,189,000, which had increased to £992,313,000 for 1906.

The Town clearing commences in the morning, but the heavy work begins at the opening of the afternoon clearing at 2.30 P.M., and increases in volume till 4.5 P.M. on ordinary days, when the doors are shut, and no more articles can be received that day. The next half-hour is spent in receiving returns (returned cheques) and adjusting the balances, and shortly before 5 P.M., if the day is not a very heavy one, the work is done. On Stock Exchange settling days and other busy days the work continues for some little time longer. R. M. H.

COGNETTI DE MARTIIS, SALVATORE (1844-1891), born at Bari, died in Turin. When still a student of law at Pisa, the war of 1866 broke out. Cognetti marched with Garibaldi and was wounded at the battle of Condino. In 1868 he was appointed teacher of political economy in the Technical Institute of Mantua, and stayed there till 1878, when he obtained the chair of political economy at the University of Turin.

Cognetti considered economics as a branch of sociology. His mind was completely under the

sway of Darwin (see DARWINISM and SPENCER). He also thought that economics was not in its proper place in the curriculum of faculties of law, as is the case at all Italian universities, unless taught so as to connect it with other branches of social science, history, ethnology, morals, law, politics, etc. The publication which gained for him his position at Turin was a book on *The Primitive Forms of Economic Evolution* (*Le forme primitive dell' evoluzione economica*), 1881, Loescher, Turin. In this book he discusses economic phenomena—and other social phenomena—among savage tribes and even among animals. His use of the latter illustration was often laughed at. But the book contains many interesting particulars, and became more appreciated in course of time. Among questions discussed therein, and later taken up again by Cognetti himself, I may mention the *origin of barter*, and consequently descriptions of *silent barter*. This topic was then a very novel one. In 1889 he published a book on *Ancient Socialism* (*Socialismo Antico*), Bocca, Turin, in which he traces socialism in ancient legends of Greece and Rome, of India and China, and gives summaries of doctrines of Chinese socialists, such as Mih Teih and Uang Ngan Shi, of Persians, such as Mazdac, and Hindus, such as Vishnu Das Kavi, besides going through all the Greeks. This book, again, was rather unusual, as coming from an economist, but had a better success than the former. It will be explained if I say that Cognetti was a passionate student of literature, and translated Plautus into very good Italian verses, and wrote historical essays. As an economist he wrote in 1891 an interesting book on *Socialism in the United States* (*Il Socialismo negli Stati Uniti*), Turin, a book which is eminently a history of the many socialist sects which have tried experiments in the States. He continued the *Biblioteca dell' Economista*, a collection of translations of foreign authors, which had been started by FERRARA. His prefaces, however, to the various authors whose works are translated, fall very far short from the excellency of those of Ferrara. When a discussion turned on what may be called economic niceties, he was soon out of his depth; very close reasoning was less agreeable to him than historical research. He wrote two more books, one in his true line: *On the Formation, Structure, and Life of Commerce*, and one on *Protectionism and Free Trade*, for which he was less fitted. Cognetti created at Turin a laboratory of political economy, collecting for it funds and a very large library. In this seminary of economic studies he trained some distinguished scholars. He had an extremely genial character, and his house was of an evening open to many friends. He was still full of vigour when he died of pneumonia. A complete bibliography of his writings is to be found in the *Riforma Sociale*, Anno viii. vol. xi. p. 705. M. P.

COLONIAL POLICY—RECENT DEVELOPMENTS.—This article does not purpose to give a history of the growth of self-government in the British Colonies, a good account of which will be found in Professor Egerton's *Short History of British Colonial Policy*. Neither does it deal with the basis and limits of colonial self-government from the point of view of constitutional theory. For that aspect of the case the reader may be referred to Professor A. V. Dicey's admirable work on *The Law and the Constitution*. The present inquiry is neither historical nor technical nor legal. It is an attempt to examine the relations at present existing between the self-governing Colonies and the United Kingdom, and between these Colonies *inter se* from a purely political and practical point of view.

The inquiry is confined to the Colonies which are commonly described as having "complete self-government" or "responsible government," *i.e.* an Executive responsible to a popularly elected Legislature, and requiring a majority in at least one of the chambers of that Legislature in order to remain in power. This system, which is a reproduction *mutatis mutandis* of the existing unwritten, but none the less unquestioned, constitution of the United Kingdom, prevails in all the larger and more populous Colonies of the Empire mainly inhabited by people of European race. These are the Dominion of Canada, the Commonwealth of Australia, New Zealand,[1] Newfoundland, and three of the South African Colonies, viz. Cape Colony, Natal, and the Transvaal. By the time this article is in print a fourth South African Colony, viz. Orange River, will have been added to the list of the "completely self-governing" Colonies.

Enormously as these communities differ *inter se* in size, wealth, and population, they are all equals in constitutional status, and they are all intensely jealous of their right to manage their own affairs without interference from the United Kingdom or from one another. So strong has this feeling grown that even the term "Colony" is now objected to, as implying some degree of dependence, and it would, no doubt, conduce to a good understanding if we could all agree to abstain from describing these communities as "Colonies," and call them by some more dignified and appropriate title, such as "States of the Empire."

But this designation at once brings us face to face with the anomalous character of this so-called "Empire," which, as a political entity, has no analogy in history. It is, indeed, far less misleading to describe Canada, Australia, and the other self-governing communities above referred to as "States," than to describe them and the United Kingdom collectively as an "Empire." The United Kingdom and its dependencies, such as India, our various "Protectorates," and the Colonies which are not completely self-governing, may indeed be described as an "Empire" in the ordinary sense of the word. But when we extend the term "British Empire" to include the self-governing

[1] Since this article was written, New Zealand has received the title of "Dominion," like Canada.

States, it is necessary to remember that we are stretching language, and using the word "Empire" in a novel and, etymologically, indefensible sense.

But this abuse of language is justified by practical considerations. It serves to indicate the continued existence of a political bond between the genuine Empire and the self-governing States, which is not the less real because it is exceedingly difficult to analyse and define. And it is worthy of note that the self-governing States are, as a rule, no less jealous of their claim to be regarded as members of the Empire than they are jealous of their "independence" of the United Kingdom and of one another. The word "Empire" is as popular with the people of these States as the word "Colony" is unpopular, and this fact is of immense significance. It testifies to an underlying sense of unity, an enduring desire to remain, in some way or other, though the way is seldom formulated or clearly thought out, members of a single body politic distinct from the rest of the world.

The problem of the future, as far as the British Empire is concerned, is how to satisfy that desire without curtailing the autonomy or hampering the individual growth of a number of self-governing States. Independence on the one side, Imperial unity on the other—are these irreconcilable ideals? Undoubtedly they are if we push the idea of independence too far. There is no binding relationship, however voluntary, no alliance, no partnership, no contract even, which leaves the parties to it absolutely independent of one another. Every form of union implies some limitation to freedom of action on the part of its individual members. But then it is not independence in the sense of the absence of any binding relationship with other parts of the Empire, which the people of the self-governing "Colonies," or at least the majority of them, really desire. They are determined to be independent in the management of their local affairs. And even with regard to affairs not purely local, they have a growing dislike of subordination to any external authority except that of the Crown. But it does not follow that they would not fall in with, and indeed welcome, any arrangement for the management of affairs not purely local, even though it limited their freedom of action, provided that it was based on the principle of co-ordination, not of subordination. It is perfectly evident that any common institutions, and even any common action, embracing the self-governing Colonies and the rest of the Empire, must start with the idea of partnership, of the voluntary combination of a number of units, equal in status, though no doubt greatly varying in strength, and not with any idea of tutelage or dependence.

The very fact, already referred to, that the self-governing Colonies accept, and even glory in the authority of the Crown, is sufficient evidence that they do not desire independence in the sense of absolutely separate existence. It may be said that they accept that authority only because it is nothing more than nominal; and there is some truth in this argument, but it is not the whole truth. That strong loyalty to the sovereign, which is undoubtedly felt in the self-governing Colonies, is due to something more than gratitude for non-interference. It is due to a feeling of pride in the Crown as an august institution, common to the whole Empire, in which they have just as much lot and part as the people of the United Kingdom. The traditional relationship between the King and his subjects is just the same relationship, whether these subjects are born and reside in Canada, or Australia, or in Great Britain. He is their sovereign, just as much as he is the sovereign of the people of these islands. This is not mere theory. It is the actual sentiment of the people of the self-governing States, and in such a matter sentiment is everything. Wholly different is the Colonial attitude towards every other institution of the "Mother Country," not excepting the British Parliament. That body enjoys and always will enjoy a certain prestige with the younger States of the Empire as being the progenitor and archetype of their own Parliaments, but though they may regard it with respect, they do not feel that they owe it any allegiance. It is in no sense theirs as the Crown is. It does not represent them, but only the people of the United Kingdom. And still less do they feel disposed to bow to the authority of the British Ministry of the day, deriving its power, as it does, solely from the British Parliament in which the Colonies are not represented.

Here then is the problem in a nutshell. The self-governing Colonies, speaking broadly, are "loyal to the Empire." They desire to remain in some sort of political union with the United Kingdom and its dependencies, and with one another. They gladly recognise the authority of the King as the head of that union. But, according to constitutional theory and practice, "the King reigns, but does not govern." And there is no *governing* power, no actual executive authority, under the King, which commands the complete allegiance of the self-governing Colonies, because there is no such authority in the constitution of which they have any share —no common Parliament, no common Minister.

No doubt in theory the Parliament of the United Kingdom is supreme throughout the Empire. It could legislate for the self-governing Colonies as well as for any other part of the dominions of the Crown. But in practice it no longer does so, except at the request of these Colonies themselves, because it recognises its non-representative character as far as they

are concerned. The British Ministry, on the other hand, does from time to time take executive action affecting even the self-governing Colonies, as in the case of treaties and negotiations with Foreign Powers, and that action may be not only independent of, but actually contrary to the desires of the Colony or Colonies concerned. In the recent case of the Newfoundland fisheries the action of the British Government was contrary to the wishes of Newfoundland; in the case of the New Hebrides it was contrary to the views of Australia and New Zealand.

Such incidents are clearly injurious to good relations between the mother-country and the Colonies, and even fraught with danger to the unity of the Empire. Yet under present conditions it may be difficult to prevent their recurrence. They are not due to any want of good-will on the part of British Ministers, but to a difficulty inherent in the loose political organisation of the "Empire." There must be some authority capable of representing the Empire as a whole in dealing with Foreign Powers. As matters stand, the only possible authority is the British Foreign Office, which is a branch of an executive Government in which the Colonies have no part. The practical justification for that government, the government of the United Kingdom, acting on behalf of the Colonies, which it does not truly represent, as well as of the United Kingdom which it does represent, must be sought in the fact that the burden of the defence of the Empire rests almost wholly on the people of the United Kingdom. It is they who would have to bear the brunt of any difference with Foreign Powers, even if it arose over some question directly affecting only one or more of the self-governing Colonies, and in which the United Kingdom itself had only an indirect interest. There is thus a genuine and permanent dilemma. It is only natural that that part of the Empire which is responsible for the safety of the whole should control the relations of the Empire with Foreign Powers. Yet it can never be satisfactory that the United Kingdom should take action affecting the other "self-governing" States without their consent. In so far as it does that, it treats them, not as partner States, but as dependencies, and that, as we have seen, is a position to which they are no longer inclined to submit, and to which, having regard to their growing strength and importance in the world, it is not reasonable or desirable that they should submit.

The only logical solution lies in a federal system, under which the "self-governing" States would share, to the extent of their ability, the burden of the common defence, and would receive in return a proportional share in the control of policy. But the adoption of anything like a complete federal system is beset with difficulties, which are certainly at present and may be at all times, insuperable. On the other hand, the pressure of circumstances will certainly necessitate the introduction of makeshift arrangements having a federal tendency. And it is possible that the ultimate result may be the creation of a network of special arrangements between the mother-country and the self-governing Colonies, and between these Colonies *inter se*, providing for the co-operative regulation of various common interests. The alternative is complete separation, to which however, as we have seen, the sentiment of the majority of the people in all parts of the Empire is opposed.

Recent history, no doubt, contains evidence of a movement in both directions—a movement towards separation, and a movement towards closer union, and there is room for difference of opinion as to which is the stronger of the two. On the one hand, the dissatisfaction felt in the Colonies with the manner in which their external relations have been handled by the Imperial Government has led (notably in Canada after the unpopular settlement of the Alaska Boundary question) to a demand for "the treaty-making power." Great latitude is already enjoyed by the Colonies in dealing with their commercial relations between themselves and Foreign States. But if this tendency were to be carried to the length of giving to each self-governing Colony the right to make treaties with Foreign Powers irrespective of the United Kingdom and of the other self-governing Colonies, it is difficult to see how their position could be differentiated from that of a number of wholly separate States. On the other hand recent years have witnessed not only a remarkable increase in the sentiment of relationship and community of interest, but a series of attempts, so far not very successful, yet persistently renewed, to provide some means for enabling the governments of the United Kingdom and of the self-governing Colonies to act together in matters of common concern. The most important of these have been the meetings in 1887, 1897, 1902, and again in the spring of the present year, 1907, of the body formerly known as the "Colonial" and now as the "Imperial" Conference. These meetings, at first occasional and informal, have now, by virtue of a resolution unanimously adopted at the latest of them, held in London in April and May 1907, acquired a more definite and permanent character, and the "Imperial Conference" may therefore be regarded as having become part of the institutions of the Empire. It is, in fact, the only live political institution common to the United Kingdom and the self-governing Colonies, with the exception of the Crown. Its nature and functions were defined by the resolution just mentioned, which, in view of the importance of

the matter, it may be desirable to quote in full. The resolution runs as follows:—

"*That it will be to the advantage of the Empire if a Conference, to be called the Imperial Conference, is held every four years, at which questions of common interest may be discussed and considered as between His Majesty's Government and His Governments of the self-governing Dominions beyond the seas. The Prime Minister of the United Kingdom will be* ex officio *President, and the Prime Ministers of the self-governing Dominions* ex officio *members of the Conference.*

"*The Secretary of State for the Colonies will be an* ex officio *member of the Conference, and will take the chair in the absence of the President. He will arrange for such Imperial Conferences after communication with the Prime Ministers of the respective Dominions.*

"*Such other Ministers as the respective Governments may appoint will also be members of the Conference—it being understood that, except by special permission of the Conference, each discussion will be conducted by not more than two representatives from each Government, and that each Government will have only one vote.*

"*That it is desirable to establish a system by which the several Governments will be kept informed during the periods between the Conferences in regard to matters which have been or may be subjects for discussion, by means of a permanent secretarial staff, charged, under the direction of the Secretary of State for the Colonies, with the duty of obtaining information for the use of the Conference, of attending to its resolutions, and of conducting correspondence on matters relating to its affairs.*

"*That upon matters of importance requiring consultation between two or more Governments which cannot be conveniently postponed until the next Conference, or involving subjects of a minor character, or such as call for detailed consideration, subsidiary Conferences should be held between representatives of the Governments concerned specially chosen for the purpose.*"

The importance of this curious resolution consists almost entirely in its implicit homage to the conception of the United Kingdom and the "self-governing dominions beyond the seas" as a potential confederation, and in any case standing to one another on some exceptionally intimate relation of a permanent kind. Apart from this its practical value is small. The function of the Conference does not go beyond the "discussion" and "consideration" of "questions of common interest." Any decision it may arrive at will still require to be confirmed by each of the States individually before common action can result. And even as a purely consultative assembly the Conference is of very limited utility. "Questions of common interest" are growing in number and importance. They cannot be disposed of in a discussion limited to a few weeks every four years, nor can they be expected to be obliging enough only to crop up, or only to become acute, when such a meeting is impending. Clearly, if the consultation is to be serious, it must be entrusted to some body capable of more continuous activity. An "Imperial Council," not indeed constantly sitting, but capable of being summoned at any time as occasion requires, would appear to be indispensable, if the idea of the several Governments habitually taking counsel together on questions of common interest is to be realised in practice.

But for the establishment of such a Council, even though limited to purely consultative duties, the recent Conference was not prepared. No doubt there was a forward party, consisting of the representatives of Australia, New Zealand, and Cape Colony, who would have been ready to go that length. But the Prime Ministers of Canada and of the Transvaal decisively hung back, and they were supported in that attitude by the representatives of the United Kingdom. And for so important a step as the creation of a common council, unanimity, or at least a great preponderance of favourable opinion, was evidently necessary. So, on the principle that "the pace of a squadron is the pace of its slowest ship," the Conference confined itself to the creation of what may best be described as an Imperial Information Office, in the shape of a "Secretariat," the duties of which would seem to consist in keeping up some sort of touch between the members of the Conference in the four years intervening between any one session of that body and the succeeding session. No doubt such an office, energetically worked, would be capable of considerable development. And the forward party at the Conference were anxious to give it the maximum of influence and prestige by making it an institution common to the whole Empire, independent of any one Government, and responsible to the Conference alone. But conservatism again prevailed, and in the end the Secretariat was made a department of the Colonial Office. Its existence can, therefore, only be regarded as a small concession to the principle of continuous common consultation between the several Governments.

Time alone can show whether these tentative first steps in what has been not inaptly called "Imperial organisation" will lead hereafter to important results. Generally speaking, it is the mass of the people in the different parts of the Empire who are most favourable, if not very deliberately or articulately, to the idea of closer union. It is in government and political circles that there is opposition or reluctance. And this is perfectly natural. The bulk of the people, where they are of British origin, are dimly conscious of the ties arising from community of race, history, and traditions, as well as of the advantages of a common citizenship, and it would appear to them unnatural to

find themselves wholly separated from their fellow-Britons across the seas. Politicians, on the other hand, even when not playing up to the non-British elements, which in some of the Colonies form a large or even preponderant part of the population, are more alive to the practical difficulties which closer union presents. And they are not uninfluenced by the feeling that the independent Governments and Parliaments, to which they respectively belong, would suffer some diminution of individual importance by entering into a real Imperial partnership. Here and there statesmen of exceptional originality and largeness of mind may rise superior to considerations of that nature. But the average politician is certainly affected by them, alike in the Colonies and the United Kingdom. Indeed, it is especially in the United Kingdom that statesmen of the older school, whether Liberals or Conservatives, seem to find a difficulty in conceiving how the foreign policy of the country could be carried on, if it were complicated by the necessity of acting in conjunction with the self-governing Colonies. And yet it is certain that, as these communities grow in importance and play an increasing part in the world, we must "call them into our counsels," if they are not to develop foreign policies of their own and so to become in time wholly separate States, as the British statesmen of fifty years ago, almost without exception, expected and desired that they ultimately should do. Nowadays such a desire is felt by few and avowed by none. But "he who wills the end must will the means." And if we seriously desire the United Kingdom and the self-governing Colonies to remain one body politic, it follows that, whatever its difficulties, the policy of deliberate co-operation in matters of common interest, of which the Imperial Conference and the proposed Secretariat are the first rudimentary expressions, must be steadily pursued, and pursued on lines which in the long-run will entirely transform the present constitution of the Empire.

But that transformation will be gradual, and it is impossible to forecast the exact course of it. Whatever the new institutions which may be evolved to meet the new needs, they are likely to be very different from anything which political theorists have yet imagined. It is only possible here to glance at one or two of the common interests which may compel the creation of common institutions. Among projects tending to promote communication between different parts of the Empire there are none which find more general favour than an all-British steamship route and an all-British system of submarine cables. If either of these were established, it could only be by contributions from the several portions of the Empire directly interested; and, indeed, it is probable that, either in the first instance, or ultimately, the ships and the cables would be the property of the contributing States. The administration of that property would require a Board on which all the owners must be represented. But the common property would not only have to be administered, it might need to be defended. It would only be logical that all the owners should combine to guarantee its protection from external interference. Another and an even more important case for co-operation is in future likely to arise in connection with the dependencies of the Empire. At present the dependencies, from the great dominion of India down to the smallest coaling station which is not situated in one of the self-governing Colonies, are under the exclusive control of the United Kingdom. But there are some of them in which certain of the self-governing Colonies are even now more directly interested than the United Kingdom is, and with regard to others the interest of the self-governing Colonies is certain to increase. Australia and New Zealand are bound to make themselves felt in respect of the British islands of the Pacific. A Federated South Africa will certainly have something to say about the Protectorates beyond the Zambesi. But Great Britain is not likely to abdicate her authority in either of these quarters. The necessities of the case will involve the conclusion of some arrangement by which the burden and the responsibility will be shared between the mother-country and the self-governing Colonies immediately concerned. The above are only a few instances of the way in which the growing complexity of Imperial relations is calculated to compel changes in the machinery of government.

In this brief review of the tendencies making for or against the closer union of the different portions of the Empire nothing has been said on the subject of Preferential Trade. In the opinion of many—and it is an opinion shared by the present writer—the adoption of preferential trade arrangements between Great Britain and the self-governing Colonies would be a powerful factor in promoting Imperial consolidation. But the question is too large to be treated within the limits of the present article, and the history of the movement has received special consideration under another head. [See TARIFF REFORM MOVEMENT.]

The object of the preceding observations has been to direct attention to other aspects of the situation, which are at present liable to be thrown into the shade by the concentration of public interest on the question of preference and the acuteness of the controversy which has arisen with regard to it.

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COMMERCE, FACULTY OF, IN THE UNIVERSITY OF BIRMINGHAM. This faculty began work in October 1902 under the direction of Professor W. J. Ashley, whose varied experience at Oxford and at Harvard University, U.S.A., specially qualifies him for the task of making the first attempt in this country to systematise the preliminary teaching requisite for the higher positions of commercial and financial responsibility, and to raise such teaching to a university standard. As the scheme is entirely new in this country it will be advisable to commence with a description of the method proposed. Its objects are (1) to provide a course of training for men destined for business, and intending to become principals, directors, managers, secretaries, heads of departments, etc., in business firms; (2) to prepare men for the consular service, for masterships on the modern sides of schools, for work in the service of municipalities, or as accountants.

The programme of study includes courses on *Commerce*, on *Accounting*, and on *Finance*, arranged to extend over three years.

(1) *Commerce.* These courses deal with the present condition of trade and of the chief industries of Great Britain and the Empire, and of the leading countries of the world, and include recent industrial history, commercial geography, and training in economic analysis; and further on, the economics of transport, dealing with railway rates, ocean freights, etc. In the third year the courses are different and far more difficult. They are concerned with such subjects as: the Location of Works; Capitalisation; Production on Large and Small Scale; Differentiation and Consolidation of Manufactures; Capitalist Combinations; Limited Companies (Private and Public), their Advantages and Disadvantages; Factoring and Manufacturing; Machinery, its Financial and Industrial Consequences; Works Management; Relations of Employers and Employed, Methods of Remuneration, Hours of Labour; Markets; Advertising; Relation of Selling Price to Cost; Fixed Charges; Methods of Sale and Purchase; Credit and Trade Cycles. The study of these subjects involves the discussion of large questions of business policy with which merchants and manufacturers have to grapple in the conduct of their affairs.

They are supplemented by a short course on the *Methods of Statistics*, the advantage of which will be appreciated by all who have to deal with the history of any industry.

(2) *Accountancy; Accounting.* In this course the first year is devoted to the simpler systems of book-keeping. In the second instruction is given in the method of drawing up accounts to suit different classes of undertakings, so that a set of books may be planned for a particular enterprise. It then enters into an analysis of accounts in order to compute earnings and values. The third year is devoted to departmental accounts and cost accounts. Many concrete illustrations and practical examples of balance sheets are used for purposes of instruction in this course. As Professor Ashley says in his paper entitled *A Science of Commerce and some Prolegomena*, accounting deserves a large place in any scheme of higher commercial education. "Properly taught, it is a subject of great educational value; for it makes its appeal in the last resort not to arithmetical dexterity, but to a sound judgment of a business situation. Moreover, accounting, adequately taught, will handle in a thorough manner the whole difficult question of 'costing.'" And though it is true that cost accounts are mere tools in the hands of their users, "yet they are tools which possess the quality of themselves stimulating reflection. To determine the wise policy to adopt with regard to selling price at a particular juncture is a different thing, it is true, from the mere knowledge of what the thing cost to make. But there is nothing so likely as a knowledge of what a thing costs under varying circumstances, and of the proportion to be assigned to fixed charges, to promote a wise decision as to the price to be asked for it."

Those who have experience in business know how important a good system of accounts is to the prosperity of the particular business, and hence in the natural course of affairs to the general business prosperity of the country.

Although in a small retail business accounts are very simple things, yet in a large manufacturing concern employing expensive materials imported from great distances, and exporting the finished products to many foreign countries, with different tariffs and charges on the imported goods they receive, accountancy becomes a difficult study, and one which affords in itself the basis of a large part of commercial education.

(3) *Finance.*—These courses are given to students only in their third years. They deal with Banking, the Money Market, and the Foreign Exchange, the Stock Exchange, etc.; there is also a short course on Public Finance.

Commerce Seminar.—"All the students working for the degree of B.Com. are brought together once a week at the *Commerce Seminar*, the purpose of which is to train students in independent investigation and reasoning. A subject is assigned some weeks beforehand to each member of the Seminar. He consults the literature of the subject, and makes such inquiries from men in business as the professor may suggest, and then prepares a paper, which is read in the Seminar, and there discussed and criticised. Incidentally, an effort is made to give the members of the Seminar some practice in the art of clear and vigorous exposition, and to accustom them to the preparation of terse and business-like reports."

There are besides a large number of subjects from which students taking the degree of B.Com. must choose. The selection is made according to aptitude and future requirements. One modern foreign language (German, Spanish, French, or Italian) must be studied throughout the course, so that facility may be gained in correspondence and also a knowledge of foreign commercial, financial, statistical, and industrial literature. "It should be as usual for a business man who has dealings with Germany to read the *Industrie-zeitung* or the *Wirthschafts-zeitung* as the *Iron and Coal Trades' Review* or the *Statist*, and no more difficult." A choice is allowed between a second foreign language and a science applicable to manufacture, such as engineering, chemistry, electricity, etc. Students are also allowed to take up any course that they may have time for during their first two years in any of the departments under the Faculties of Science or Arts, such as the courses on British Institutions, European History since 1789, or to enter upon courses with a view to acquiring further scientific knowledge of the main branch of study they have undertaken.

The aim of these courses is (*a*) "to make business more interesting to those engaged in it; (*b*) to enable them to follow the general movement of technological progress, and to realise the directions in which changes of process are probable or possible; (*c*) to show them when they ought to call in an expert, and how much weight they should attach to his opinion."

An account of the institution and aims of the Faculty of Commerce is given by Professor Ashley in a paper, "A Science of Commerce and some Prolegomena," published in *Science Progress*, July 1906; and in his pamphlet, *The Faculty of Science in the University of Birmingham: its Purposes and Programme*, he says, "It was believed that a training could be devised which, while strengthening the powers of judgment, widening the sympathies, and stimulating the imagination—the aims of all really liberal education—would yet be of real value as a *preparation for the practical duties of business life*," and it was desired thus to "gather, arrange, and present the lessons of practical experience," and to "explain the interrelation of those conclusions which, in actual affairs, are arrived at singly and in isolation one from another; and to show that they are not merely accidental happenings, but the natural outcome of the situation."

In connection with the Faculty of Commerce the Council of the University has established an Advisory Board of business men, "believing that the active co-operation of such a body with the academic staff will tend to bring those who control large undertakings throughout the country into closer touch and sympathy with the aims of this section of the University."

[See INDUSTRIAL EDUCATION IN THE UNITED STATES; and in the Appendix, ECONOMICS, TEACHING OF.]

COMMERCIAL INTELLIGENCE BRANCH (BOARD OF TRADE). To meet the desire expressed by the British commercial community for greater assistance by the Government in the development of their trade abroad and in the Colonies, a committee was appointed by the Board of Trade, July 1897, to inquire into and report upon "the dissemination of commercial information, and the collection and exhibition of patterns and samples." The Report was published in 1898 (Cd. 8962).

As a result of this report, the Commercial Intelligence Branch was opened, October 1899, at offices in Parliament Street, with satisfactory results, but in April 1904, in order to be of greater advantage to business men, it was transferred to the City, to 73 Basinghall Street, E.C., where information on all subjects of commercial interest is collected and focussed in a form convenient for reference. The offices of the Branch contain an Inquiry Room where personal inquiries can be made on the subjects dealt with; a Sample Room for the exhibition of specimens of interest received from the Imperial Institute, India, and the Colonies, or illustrative of reports of H.M. Consuls or of the correspondents or special commissioners of the Board of Trade; and a Reading Room, where the latest official publications—British, Colonial, and Foreign—and the latest issues of Trade Directories may be consulted. In the same building special Trade Inquiry Offices have been opened for India, Canada, Transvaal and Orange River Colony, and Queensland, by the Governments concerned, whose representatives attend daily to deal with inquiries and applica-

tions in connection with Colonial trade matters. On application being made to the Commercial Intelligence Branch, either personally or by letter, information is supplied on commercial statistics, Foreign and Colonial import, excise, and consumption duties; port, harbour and tonnage dues and other charges on shipping; customs regulations; consular fees; certificates of origin; regulations concerning commercial travellers and their samples; trading licences; Foreign and Colonial contracts open to tender; firms abroad engaged in particular lines of business, and likely to become purchasers of British goods; sources of supply and prices, etc., of trade products, and other matters of interest to British trade. Information of general interest to British trade, apart from that obtained in response to specific applications, is communicated by the Branch to Chambers of Commerce, and in some cases to individual firms, or, if desirable, is published in the press. The Commercial Intelligence Branch also forwards to Chambers of Commerce, for the confidential use of their members, but not for publication, information to which it has appeared desirable in the interests of British trade to draw attention confidentially. This latter plan met with general approval, and the Board of Trade have continued and extended it. In order to reach all British manufacturers or traders interested, it was decided to supplement the existing system, by opening, 1st January 1907, a Register of British firms who desired to receive confidential information relative to their respective trades. British firms desiring to have their names registered must apply to the Commercial Intelligence Branch on the form which has been prepared for the purpose, copies of which may be obtained on application at the offices of the Branch. (See BRITISH CONSULAR REPORTS.) No charge is made for information supplied, but every firm admitted to the Register is required to subscribe to the *Board of Trade Journal*, in order to ensure that those who wish to receive confidential information should first be in possession of all the information relating to their particular trade published in that journal. The Commercial Intelligence Branch also co-operates with the Imperial Institute, where scientific investigations are carried on with a view to the commercial utilisation of the economic products of the British Empire. This object is supplemented by arranging comprehensive exhibitions of natural products, and providing for their examination and valuation, and by the collection and dissemination of scientific and technical information relating thereto.

The organ of the Commercial Intelligence Branch is the *Board of Trade Journal*, published weekly (price 3d.), containing notices relating to openings for British trade, tariff changes, actual and proposed, shipping and transport, including port and dock dues, railway rates, etc., minerals, metals, and machinery, agriculture, etc., besides statistical tables, notes on important Government publications, and information on other matters of commercial interest. In addition to editing the *Journal* the Branch prepares indexes to the Consular Reports, special reports on particular industries, regulations relating to commercial travellers, etc., and by arrangement with the Foreign Office, a commercial expert attached to the Branch edits the Consular Reports from a commercial point of view. Information on the subjects dealt with at the Intelligence Branch is received chiefly through the Foreign Office and the Colonial Office, or direct from H.M. Diplomatic or Consular officers in foreign countries, and from specially appointed commercial correspondents in British Colonies. Correspondents have been appointed by the Board of Trade in Australia, New Zealand, and South Africa. Some of them are officials in the service of the Colonial Governments in close touch with commercial matters, appointed in conjunction with the Colonial Office. Others are non-official correspondents specially conversant with conditions of trade in their particular districts. Their primary duty is to send information to the Commercial Intelligence Branch with a view to promoting and fostering British trade.

As regards foreign countries, the Branch is in constant communication with His Majesty's diplomatic and consular officers, who have been instructed to forward without delay information of interest to British commerce. Further, with a view to consular officers becoming better acquainted with commercial matters, and with the nature of the information they are expected to supply, all Vice-Consuls (by arrangement with the Foreign Office) now spend some time in the Branch before proceeding to their posts abroad. The Board of Trade further despatches to various countries special trade commissioners to ascertain both the nature and extent of foreign competition which British goods have to meet in those countries, and the means by which such competition may best be met, and to report on possible openings for British trade abroad, and on the selection of suitable correspondents. Commercial missions have been despatched to Persia, Siberia, South Africa, Australia, and New Zealand, Canada and Newfoundland, and Asiatic Turkey, and proposals to despatch missions to other countries are considered from time to time.

In carrying out the objects of the Branch the Board of Trade are assisted by an Advisory Committee, known as the Commercial Intelligence Committee, first appointed in May 1900 for a period of five years, subsequently reconstituted and enlarged, now consisting of twenty-six members, including representatives of the Board of Trade, the Foreign, Colonial, and India Offices, of the principal self-governing Colonies, and of the commercial community. Much valuable work has been performed by the committee in suggesting improvements in the means of collecting and disseminating commercial information, in the selection of suitable trade commissioners and correspondents, and in reporting, after consultation with the leading Chambers of Commerce, on the probable effect of changes in foreign tariffs.

T. G. G.

COMPANIES, INCREASE OF. The following table, compiled from the last return of the Board of Trade, shows the number of limited companies registered in each year, since

1890, under the Companies Acts, and brings down to date the figures comprised in the original article under the same title in Vol. I. of this *Dictionary*:—

Year.	England.	Scotland.	Ireland.
1891	2363	153	81
1892	2279	157	69
1893	2238	184	93
1894	2593	203	89
1895	3458	258	89
1896	4219	304	135
1897	4675	328	145
1898	4550	379	136
1899	4444	323	112
1900	4408	336	115
1901	3069	203	86
1902	3526	247	77
1903	3620	257	115
1904	3421	241	103
1905	3872	284	97
1906	4331	323	112

A. A. U.

CONIGLIANI, CARLO, died in 1901, little more than thirty years old. His death was much deplored. He began his scientific career under Prof. Ricca Salerno and COSSA. He was considered, together with MAZZOLA, the most talented of the younger Italian economists. Notwithstanding his early death, he had accomplished a task which will not soon be forgotten, viz. to write the best book on Italian local taxation, *La riforma delle leggi sui tributi locali*, Modena, 1898, *Societa tipografica*.

His first publication was a book on the theoretical effects of taxation (*Effetti economici delle imposte*), 1890, principally discussing the difficult problem of the incidence of taxation. This book is certainly not his best work and forms no real contribution to the progress of science. It is nevertheless remarkable for the acuteness of many of the observations and strength of reasoning, and surprised all who knew how very young the author was when he wrote it. Conigliani then took to writing essays, collected after his death under the title, *Saggi di Economia politica e di Scienza delle Finanze*, 1903, Turin, Bocca. In these essays he principally discusses financial problems, such as are dealt with in the works of Sax, of Wagner, and of De Viti, placing before the public the theoretical aspects of public finance. His economic essays deal with questions connected with the functions of capital. Conigliani, as economist, was a scholar of the AUSTRIAN SCHOOL (*q.v.*). M. P.

CONSULS, BRITISH, DUTIES OF. A British Consul is required to advise H.M.'s trading subjects and others in his district, to avert and compose differences among them, or between them and the natives of the country, to check the evasion of local revenue laws by British traders, to uphold the treaty rights of British subjects in a temperate manner, to report on the trade of his district, and to sen home promptly items of important commercia information.

Births and deaths occurring among Britis subjects are registered by him, and som Consuls are also empowered to celebrat marriages.

He may grant certificates of naturalisatio to aliens and issue passports to British subjects He may also advance for the erection o upkeep of Anglican churches, hospitals, an places of interment, sums equal to the amount subscribed for the purpose by British subjects.

A Consul's duties with regard to Britis shipping are very important. Consuls ar bound to send to the Board of Trade suc reports and returns as they may require, an to see that all British vessels carry the docu ments and colours prescribed by law, and h may grant terminable and provisional certificate of registry as British ships.

If a Consul suspects that the shipping law are being evaded, he may require the productio of the official log-book or other ship documents muster the crew, and demand explanations wit regard thereto.

Every British ship not carrying passengers o entering a port must deposit with the Consu the agreement with the crew, indentures, etc.

The Consul superintends the engagement an discharge of British seamen abroad, investigate complaints made by crews as to the quality and quantity of the provisions on board, collect the property and arrears of wages, if any, o British seamen or apprentices dying abroa and remits them to the United Kingdom, an provides, out of public funds, for the mainten ance and repatriation of seamen who are ship wrecked, discharged, or left behind. He issue money orders to seamen, receives deposits an pays withdrawals from the Seamen's Saving Bank, and conducts, at certain ports, th transmission of seamen's wages home.

Masters of passenger vessels are bound t give the Consul facilities for the inspection o the ship and the passenger list, and for com munication with the passengers. The Consu may defray costs of maintaining and forwardin to their destination passengers taken off o picked up from wrecked or injured vessels.

The Consul makes inquiry on oath int offences committed by British seamen on th high seas or abroad ashore, and may sen home the offender and witnesses by a Britis ship, at the same time reporting the facts t the Board of Trade.

He may detain a foreign ship which ha caused injury to a British vessel until satisfac tion or security therefor has been given, an when a salvage claim is made against a Britis vessel he takes evidence as to the service rendered and the remuneration claimed, an endeavours to effect a settlement.

Much notarial business is imposed on Consuls, partly by statute and partly by the request of private parties, and consists largely in taking declarations relating to the registry, sale, mortgage, etc., of British vessels, and to other commercial matters.

In Morocco, China, Siam, Egypt, Persia, etc., British consular officers exercise extensive judicial and executive powers in connection with the consular courts established in those countries. T. G. G.

CONSULAR REPORTS, BRITISH. Prior to the year 1886 the reports of diplomatic and consular officers abroad on trade, finance, etc., were published by the Foreign Office only during the Session of Parliament, or shortly after its close, when a sufficient number had been received to make a fair-sized Blue Book. Under this system, a person requiring a particular report was compelled to purchase a volume containing much extraneous matter, possibly of no interest to him, and at a cost in excess of the value of what he required. Moreover, while one report might be printed and ready for publication, it had to wait till others were received in a sufficient number to make up a Blue Book. The value of the earlier reports was thus diminished by delay. In 1886, in view of these objections, it was decided to publish each report separately, both during the Session of Parliament and in the recess, and they were thenceforward issued promptly and at a price which rarely exceeds a few pence.

Ordinary Consular Reports are divided into two categories, "Annual" and "Miscellaneous." The former comprises reports on Trade, Finance, Agriculture, etc., annually required from His Majesty's missions and consulates abroad, the latter reports on subjects of general economic interest, either specially called for by the Secretary of State, or voluntarily submitted for publication by their authors. Between 1886 and 1906, 3739 Annual Reports and 655 Miscellaneous Reports were issued in the separate form. About 250 reports are published annually. Occasionally information is required from different countries on a specific subject, in connection with current legislative problems, etc. The replies are then all published together, thus consolidating the information in one book. Such collective reports are known as the "Commercial" series, *e.g.* the collection of reports respecting "Bounties on Shipbuilding, etc." (Commercial No. 4, 1901). Annual Reports are intended, when possible, to reach the Foreign Office on or about the 31st March following the year to which they relate. The majority of the reports appear between April and August. Vice-Consuls send their annual reports to the superintending Consul of their district, who forwards them, after revision, as annexes to his own report. Thus the report of the Consul-General at Smyrna covers also the reports of the Vice-Consuls at Adalia, Aivali, Mitylene, Rhodes, Samos, Scala Nuova, Scio, and Tenedos.

Consuls are required to divide their Annual Trade Reports into distinct sections in the following manner :—

1. *Trade and Commerce*, with special reference to : (*a*) The movement of trade in the articles in which British trades are principally interested ; and similar information as to Indian or Colonial products or manufactures ; (*b*) Openings for British trade. (*c*) The comparative progress, if any, of foreign competition, and the reasons therefor. (*d*) Commercial law or practice in regard to trade matters. (*e*) Trade regulations. (*f*) Local products. (*g*) The establishment or developments of new industries, changes in channels of business or in local financial conditions, due to legislative, monetary, tariff, or other causes. The course of market prices of staple commodities should be noted.
2. *Shipping and Navigation.*—Returns of British, foreign, and coasting ships, matters relating to ports and harbours, alterations in dues, shipbuilding, return cargoes, facilities for landing and embarking, average rates of freight, lights and lighthouses, etc., should be embodied under this head.
3. *Population and Industries.*—All matters relating to mines and mining operations, factories, employment, census results, rates of wages, and the public health, should be embraced under this heading.
4. *Other matters.*—Under this heading should be included information as to public works, new railways, roads, canals, bridges, telegraphs, etc., and other industrial subjects.

In important agricultural districts separate reports on Agriculture are required.

In the Agricultural Reports particular attention has to be paid to the nature and yield of crops, to the import and export of cattle, and other matters of interest to agriculturists. Mention must be made of any diseases that may appear among cattle, which, however, are to be specially reported at the time of their outbreak. The Miscellaneous Reports cover a very wide range of subjects, from the paper industry of Japan to the sea fisheries of Germany. During the past few years Consuls have reported on such matters as Japanese paper mills ; the arms industry of Liège ; the German paper industry ; the chemical, metal, and other industries of Lyons ; the condition of the Italian silk trade ; the iron and steel exhibits at the St. Louis Exhibition ; the coal industry of the United States ; and on commercial instruction in Germany. These form a valuable addition to our commercial intelligence. With a view to improve the quality of Consular Reports generally, an arrangement was made in 1906 between the Board of Trade and the Foreign Office, by which newly appointed Vice-Consuls spend some time at the COMMERCIAL INTELLIGENCE BRANCH (BOARD OF TRADE) (*q.v.*), 73 Basinghall Street, E.C., in order to become acquainted with the kind of information needed by business men. In 1907, it was arranged that the Annual Reports should be edited, from a commercial point of view, by a commercial expert at the Board of Trade, in order that their form should be serviceable to

business men. Consuls are also required to send important items of commercial information home without delay, by telegraph if necessary. In order to secure the prompt transmission of such information to commercial men, and without making it equally available to their foreign rivals (as would be the case if it were published in the press), the Board of Trade have established at their Commercial Intelligence Branch a special register of business firms to whom intelligence of the kind is sent direct as soon as received at the Branch. Any business man who subscribes for the *Board of Trade Journal* may have his name put upon the list, the Board of Trade reserving the right of rejection. Cases of urgency include information as to important contracts offered for tender, and important shipping movements or dock strikes in foreign ports.

A complete index to the Reports is published annually. The Reports and Index can be purchased, directly or through any bookseller, from Messrs. Wyman and Sons, Ltd., Fetter Lane, E.C. T. G. G.

COPARTNERSHIP. *Labour and Capital.* The Copartnership system of the South Metropolitan Gas. Co., referred to in the article on TRADE UNIONS AND STRIKES, is the largest system of this description existing in the United Kingdom. It will be of use to explain how this system grew up out of the plan of profit-sharing which had been in force in that company since 1889.

In that year simple PROFIT-SHARING (*q.v.*) was introduced to attach the employees to the company, and to give them an opportunity to improve their position in life and to make provision for the future. The whole bonus was payable in cash on a week's notice, but nearly half was left with the company at interest, and a small portion was invested in the company's ordinary stock. In 1894 the bonus was increased on condition that only one-half should be withdrawable, the other half to be invested in the company's ordinary stock. Thus shareholding by employees was established. The system was revised in 1901, and became so popular that in 1906, out of a bonus amounting to £43,962, the sum actually invested in the stock of the company was £41,683, the value of these investments being over £250,000, with deposits at interest over £55,000 and £24,500, invested in the purchase of houses—the total reaching the sum of £334,709. In 1896 and 1897 Acts of Parliament were passed to enable employee shareholders to elect directors, and in 1901 the original scheme for the election of workmen directors having proved satisfactory in working, it was renewed for nine years, and provision was made for the election of a director by the officers. These directors are elected by the 4998 employee shareholders whose stock is in their own names, besides those whose stock is in the names of the trustees. When the question of employee directors was first considered there was the fear that they might take a narrow view of their duties. Even the late Mr. Mundella, whose sympathies were strongly with the workmen, had this fear. He approved of the idea and wished to see the experiment tried, but he was not sure that workmen directors would take a broad view of their duties, consider all interests, and do their best for the company as a whole. There was the risk that they might regard themselves as simply the representatives of their class, and that there their duties began and ended. The directors and shareholders of the Metropolitan Gas Co. took that risk, and have had no cause to regret their action. Copartnership, as Sir George Livesey has said, is neither philanthropy nor charity, but business—or as a member of Parliament who adopted the system once said to him, "Business up to date,"—that is, the foremost and best method of uniting capital and labour. He continues, "The directors would not be justified in continuing the copartnership if an equivalent in hearty service is not given for the bonus, which must not be regarded as a gift to the employees," but that every man "is responsible for earning his share of the bonus."

Copartnership was established because the term "Profit-Sharing" did not truly express the predominating idea of the system, and also because simple profit-sharing—the distribution of an annual bonus in cash—has been found to be a failure, doing more harm than good, in fact, doing little good and much harm. Instead of encouraging thrift it did exactly the reverse, and instead of permanently benefiting the recipients it encouraged waste and extravagance. Unless any system permanently benefits, no good will be done. By investing the bonus in the stock of the company the position of the workman is improved. He becomes an owner of property, and has hope for the future and a feeling of security in the present. Sir George Livesey continues: "Partners in profits and losses and in responsibility is what we are aiming at. The last is obtained by the election of employee directors by the employee shareholders. In 1898 the workmen shareholders elected two workmen directors, and in 1901 the clerical shareholding staff elected a clerk as a director. These three sit on the Board and take part in everything that comes before the Board just the same as the ordinary directors, with all-round satisfaction." The South Suburban Gas Co. (later the Crystal Palace District) have had an exactly similar and equally successful system in force since 1893, and in 1905 workmen directors were introduced, the choice of the men being the best possible, as in the case of the South Metropolitan. The Commercial Gas Co. introduced a similar system in 1901, which has met with the same success as the other two, but

they have not advanced to employee directors at present. The Chester and the Newport (Mon.) Gas Companies have introduced the system also with success, but they stop at the investment of the bonus in stock.

Schloss, D. F., *Report on Profit-Sharing*, Board of Trade (Labour Department) [C. 7458], 1894. — *Report on "Gain-Sharing,"* Board of Trade (Labour Department) [C. 7848], 1895.— Sir George Livesey, *Employers and Employed and Co-Partnership*. London: Walter King.—South Metropolitan Gas Company, *Co-Partnership Journal*.

COSSA, Luigi (1831-1896), born in Milan, professor of Political Economy at the University of Pavia from 1858 till his death, was an economist to whom Italy is greatly indebted. He was educated first at the University of Milan and then in Germany under Roscher and Stein, the former of whom influenced him strongly.

He was an indefatigable and ardent student of economic literature both past and present, both of Italian economists and those of other nations. The results of his studies are to be seen in his works, which are truly described as "noteworthy for the vast learning they contain, sobriety of expression, and temperateness and accuracy of method." His books have been translated into many languages, and one in particular, the *Introduction to the Study of Political Economy*, may be ranked as a classic.

Though it is by his books that Cossa is known to the world in general, it was by his personal influence as a teacher and a leader that he was valued in Italy. He was not only a brilliant and careful lecturer, but was always ready to help and encourage his pupils, inspiring them and exhorting them to labour. Though himself an adherent of the classical school, his sympathies were extended to all honest and industrious students no matter what method of thought they might have selected to follow. His principal works are:—

Guida allo Studio dell' Economia Politica, Milan, 1st ed. 1876. English translation entitled *Introduction to the Study of Political Economy*, 1892.—*Primi Elementi di Economia Politica*, Milan, 1st ed. 1876.—*Primi Elementi di Scienza delle Finanze*, — *Saggi di Economia Politica*, Milan, 1st ed. 1878.

[See *Economic Journal*, vol. vi., London, 1896.—*Handwörterbuch der Staatswissenschaften*, giving complete list of writings, vol. iii., Jena, 1900.]

COTTERILL, Charles Foster (earlier half of 18th century), criticised the theories of Ricardo in his *Examination of the Doctrines of Value*. He followed the arguments of Samuel Bailey (*q.v.*), and opposes to the labour theory the cost of production theory of value.

The full title of his book is *An Examination of the Doctrines of Value as set forth by Adam Smith, Ricardo, M'Culloch, Mill, the author of A Critical Dissertation, etc., Torrens, Malthus, Say, etc., being a Reply to those Distinguished Authors*, London, 1831. [See Prof. E. R. A. Seligman "On some Neglected British Economists" in the *Economic Journal*, London, 1903.]

CRAIG, John. In addition to the notice of Craig, vol. i., we may mention that his *Elements of Political Science* contain an exposition of the futility of Adam Smith's distinction between productive and unproductive labour. Craig never accepted the fundamental tenets of the economics of Ricardo. He does not believe that wages are fixed by the standard of life, and he is "opposed to the doctrine that wages and profits must vary inversely to each other." "Craig is the first English economist to emphasise the connection between value and utility, to disclose the fallacy of the supposedly necessary opposition between profits and wages, and to dwell on the analogy between the revenue from land and from capital."

[See *Economic Journal*, London, 1903.]

DANSON, J. T. (1817-1898), a man of great versatility and varied experience, wrote on many economic questions, among them on our colonial policy, strongly setting forth the need of controlling colonists in their dealings with natives and with unappropriated land. He also wrote on our maritime trade both in peace and war, a subject he was conversant with through his connection as underwriter with the Thames and Mersey Marine Insurance Company. For a short time (1875-76) he lectured at Queen's College, Liverpool, on Political Economy—his lectures, almost homely in their simplicity, being published first as *Eleven Short Lectures on the Political Economy of Daily Life*, 1876, and afterwards forming the basis of one of his most important works, *The Wealth of Households*, 1886. Danson also assisted Thomas Tooke in the fourth volume of the *History of Prices*, the help he gave being warmly acknowledged in the Preface to that volume. He practised for a time as a barrister, and had some experience in journalistic work and in farming.

Danson also wrote on the accounts of the Bank of England, *Journal of Statistical Society*, 1847. — *Observations on the Speech of Sir William Molesworth on Colonial Expenditure and Government*, 1848.—*Notes on the Pilotage of the Port of Liverpool*, 1871.—*The Underwriting of 1872*, 1873.—*Of the proposed Legislation touching Maritime Contracts*, 1876.—*Underwriting in England, France, and America during the last three Years*, 1883.—*Underwriting of 1883-84 in England and Abroad*, 1885.—*Our next War in its Commercial Aspect; with some Account of the*

Premiums paid at Lloyd's from 1805 to 1816, 1894.—*Our Commerce in War and how to protect it*, 1897.

DAVIDSON, JOHN (died 1905), professor of Political Economy in the University of New Brunswick, Canada, was educated at the Royal High School, Edinburgh, and at the University of that city. He graduated M.A. in 1891 and D.Phil. in 1897. In 1892 he was appointed professor of Philosophy and Political Economy in the University of New Brunswick.

His first published work was *The Bargain Theory of Wages*, 1898, which contains a criticism of the wage doctrines of the 19th century, and a statement of the theory which the author himself held. There are two limits to the value of labour, the superior limit (determined by the employer's estimate) and the inferior (determined by the labourer's estimate). These limits "are not absolutely fixed; but, within the undisputed and permanent frontiers, each is comparatively free from the danger of aggression." The exact rate between these limits at which wages will be fixed "is determined by the comparative strength of the bargainers." The mobility of labour, trade unionism, and the methods of industrial remuneration, are then examined as factors in the determination of this rate. In this section the author argues that immigration is a consequence rather than a cause of prosperity.

In 1900 was published his *Commercial Federation and Colonial Trade Policy*, in which he describes England's commercial policy towards her colonies since the treaty of Paris, and examines the present commercial relations of the mother-country with the rest of the empire. He concludes that the two proposals, free trade within the empire, and preferential treatment for the Colonies in the English market, are impracticable. The English Government, however, should discriminate against the foreigner, and stimulate colonial trade by granting "subsidies to freight steamers running between England and colonial ports."

Professor Davidson also contributed articles to the *Economic Journal* on "Canadian Preferential Tariff," 1900, and "Financial Relations of Canada and Provinces," 1905. At the time of his death "he had almost completed a history of the Scottish staple, which, from the fulness of treatment, was practically an economic history of Scotland for the period covered." J. H. J.

DIRECTORS, LEGAL DUTY OF. The liability of directors with regard to prospectuses has been modified by the Companies Acts 1900 and 1907. Section 38 of the Companies Act 1867 was repealed by the Companies Act 1900, and every prospectus must now disclose everything which it can possibly concern the recipient to know in order to determine whether he will or will not apply for shares or debentures in the company. A director who is responsible for the issue of a prospectus which does not contain the statutory particulars is liable to an action for damages at the suit of any person injured by the non-compliance, and is also guilty of a misdemeanour. The director may escape liability by proving that he was not cognisant of a matter which was not but ought to have been disclosed, or by proving that the non-disclosure arose from an honest mistake of fact on his part.

It does not appear that directors incur any liability by failure to file the statement in lieu of a prospectus required after July 1, 1908, in the case of certain companies which do not issue a prospectus. (See PROSPECTUS.)

Directors are liable to penalties if they fail to comply with the statutory provisions relating to the filing of the prospectus, the return of allotments, commencement of business, registration of mortgages, and other like matters connected with the management of the company.

By the Companies Act 1907, sect. 32, the court may, in any proceedings against a director for negligence or breach of trust, relieve the director in whole or in part of his liability, if it appear that the director has acted honestly and reasonably, and ought fairly to be excused.

A. A. U.

DOCKS. Since the article on docks in the first volume of this Dictionary was written in 1894 (see DOCK), not much progress in the important parts of the dock system of the country has to be chronicled. Some additions to the dock accommodation at Swansea, for the fishing at Grimsby, a new quay on the Humber for the traffic between Hull and Zeebrugge, a new wharf at Newport, South Wales, new docks at Southwold to assist the herring fishery, may be mentioned with other works of the same description. A considerable development has taken place in dock accommodation at Bristol. In 1894 this was stated as being 108 acres. At the present time, including the works in course of construction, the accommodation is 144 acres. The Royal Edward Dock will accommodate vessels much larger than any now (1907) afloat. The railway connections of the dock are very complete, and quick-working hydraulic cranes and grain elevators afford exceptional facilities for the loading and quick despatch of cargoes of all descriptions from grain, ore, to green fruit, etc. At Southampton considerable improvements have been effected. The depth of water available and the quay accommodation have been increased. Two very fine graving-docks are provided, and the arrangements for dealing with cargoes, both for import and export, have been greatly improved.

One of the most important questions for the prosperity of the trade of England—namely, the development of the Port of London—has remained for several years in abeyance, through the inability of those concerned, who include

authorities as different in character as the managers of the Docks Companies, the wharfingers, the shipowners, the London Corporation, the Thames Conservancy Board, the London County Council, and the Government, to come to an agreement on the many questions included. The speech of Mr. Lloyd George, the President of the Board of Trade, in the House of Commons, on the London Port and Docks Bill, on April 23, 1907, showed the enormous number of interests concerned, and the difficulty of arriving at a decision on the course to be followed. As this cannot be reached during the present year, it will be impossible for us to give any history of the solution of the many difficulties involved in bringing the riverside arrangements of the Port of London, the harbour which deals with the most important trade of the world, up to the requirements of the present time. We must, however, refer to the enormous injury to the trade of the country caused by the delay which has practically lasted since the Royal Commission of 1902. The urgency of the problem may be understood from the fact that during this period of delay the tonnage using the Port has increased yearly by about 1,200,000 tons. The work is carried on under great difficulties, and it is understood that it would be practically impossible to establish any new line of steamers from the Port of London at the present time. Meanwhile the tonnage at the ports of Rotterdam, Hamburg, and Antwerp, three of the principal competitors of London, has increased in a far greater proportion, with greatly improved methods of dealing safely and rapidly with the goods consigned. Mr. Lloyd George's journey (1907) to these three ports for the purpose of ascertaining by a personal inspection and investigation whether modern shipping requirements can be best met by riverside quays or by the old system of docks and warehouses in combination, gives the promise of careful attention being given to the subject. Closer communication with the entire railway system of the country is essential. The whole system of the Port of London requires to be thoroughly overhauled and brought up to modern conditions. We will content ourselves here with recording the principal requirements of the Port, as stated in the *Times* of April 15, 1907 :—

The Port of London. "The chief requirements of the Port which should be kept in view are :—

(1) A 35-feet channel up to Gravesend. A 30-feet channel from Gravesend up to the old London and India Docks at least, and the full width of the river wherever possible.

(2) New wet docks with a *minimum* width of entrance 100 feet, a *minimum* depth 40 feet, and capable of affording berthage to at least eight of the largest liners, with all necessary quay space, sheds, etc.

(3) Three dry docks, with a *minimum* width of entrance 100 feet, a *minimum* depth over sill at low water 40 feet, and 750 feet to 1000 feet in length, all fully equipped.

(4) The existing docks to be brought up to date, with plenty of quayage and shed accommodation, and every appliance for dealing with cargoes with the greatest possible despatch."

DOWELL, STEPHEN (1833-1898), for many years Assistant Solicitor to the Board of Inland Revenue, wrote a useful work on the *History of Taxation and Taxes in England*, a subject with which, through his official duties, he was thoroughly familiar. Of the four volumes into which the work is divided, the first two are devoted to the history of taxation as connected with the general current of English political events, arranged in periods, extending from the days of the Romans in Britain to the year 1885, while in volumes iii. and iv. the different taxes taken separately are discussed and grouped under their several headings, as Direct Taxes, Taxes on Persons, on Property, etc. A second edition of the *History* appeared in 1888.

Dowell also published: *History and Explanation of the Stamp Duties*, 1873.—*The Income-Tax Laws in force in the United Kingdom*, 1885.—*The Acts relating to the Tax on Inhabited Dwelling-Houses*, 1893.

DROZ, NUMA (1844-1900), a Swiss statesman of considerable distinction, was born of humble parents. By his own efforts he raised himself to the position of a teacher at the University of Neuenberg, and at a very early age edited a liberal newspaper. Turning his attention to politics, he quickly rose to occupy high positions in the government of his country. He was for a time Minister of Agriculture, and as Minister of Trade did good service to his country in assisting to draw up many of the commercial treaties with which Switzerland is concerned. His sympathies lay in the direction of Free Trade.

Among other things, he wrote a treatise, *L'instruction civile*, and *Essais Économiques*, 1896. Paris.

[See *Economic Journal*, London, 1897, p. 409.]

DUNBAR, CHARLES FRANKLIN (1830-1900). Born at Abingdon, Pennsylvania. Died at Cambridge, Massachusetts. Graduated from Harvard College in 1851. Engaged for short time in business, then, because of failing health, spent a year in farming. He then studied law and was admitted to the bar in 1858. From 1859 to 1869 he was associate editor of the *Boston Daily Advertiser*, making it one of the leading papers in New England. In 1871 he was made Professor of Political Economy in Harvard University, but spent two years in study and travel in Europe before entering upon the professorship. From 1876 to 1882 he was Dean of Harvard College, and in 1890 became the first Dean of the Faculty of Arts and Sciences, serving in that capacity until 1895. In 1886 he became the first

editor of the *Quarterly Journal of Economics*. Professor Dunbar was the second president of the American Economic Association, but never made any presidential address. He wrote comparatively little, the only book from his pen published during his life being *Chapters on the Theory and History of Banking*, 1891, which had been privately printed in 1885. This was an eminently clear and sensible text-book on the subject, which has been so widely used in the American colleges as almost to become a classic. A second edition was published after his death in 1901. A number of miscellaneous articles on banking and public finance were collected into a volume entitled *Economic Essays*, and edited by O. M. W. Sprague in 1904. Professor Dunbar also published in 1891 a volume entitled *Laws of the United States on Currency, Finance, and Banking*, which was a reprint of the statutes on the subjects, condensing, however, the less important sections. Until the publication by the Government in 1895 and subsequently of all of the laws of the United States relating to loans, paper money, banking, and coinage, this compilation of Professor Dunbar's was much used. E. R. A. S.

ECONOMIC LIBRARIES.

The Goldsmiths' Company's Library, p. 720; Manchester Libraries, p. 722; Foreign Office and other Libraries, p. 723; United States Libraries, p. 723; John Crerar Library, Chicago, p. 723.

THE GOLDSMITHS' COMPANY'S LIBRARY OF ECONOMIC LITERATURE. This is a collection of books and tracts intended to serve as a basis for the study of the industrial, commercial, monetary, and financial history of the United Kingdom, as well as of the gradual development of economic science generally. The first impulse to the making of the collection, which was formed by Professor H. S. FOXWELL, came from his predecessor at University College, the late Professor Stanley JEVONS, about 1875, and the first book purchased for it was a copy of Lardner's *Railway Economy*, bought at Mr. Jevons's suggestion from a bookstall—Mr. Jevons observing that this book had led him to begin his famous researches into the mathematical theory of economics.

The collection thus commenced at first aimed at the provision of material for a thoroughly historical edition of the *Wealth of Nations*. Afterwards Arnold Toynbee's special interest in the INDUSTRIAL REVOLUTION (*q.v.*) led to the collection of material for his use covering the period 1760-1860. Later, again, the evils resulting from the demonetisation of silver became marked, and called attention to currency and banking history. The library having thus assumed a general character, efforts were made to make it fairly complete so far as English history was concerned, and in some aspects at least fairly representative of foreign movements. After thirty years of labour the catalogue contains over 30,000 distinct entries, without taking account of a mass of political literature acquired incidentally, and a large collection of original Acts of Parliament of special economic interest. Very much, of course, remains to be done; thirty years more might well be spent on the work. From this account of its origin the stronger points of the collection will be inferred. The history of economic thought is practically complete so far as England is concerned, and very full so far as concerns the French economists before and during the Revolutionary period. No attempt has been made to deal in the same thorough way with the literature of other European countries; but there is a fair collection of works in Italian, Spanish, German, Dutch, etc.; and American economics is well represented.

To come more to detail, the following subjects, among others, will be found fully illustrated: the early history of English Trade, Companies, and Colonies; Mercantilism and Colonial Policy; the Navigation Laws; Guilds and the Towns; Fairs and Markets; Interest and Usury; Early Banking; the history of Agriculture, Enclosures, Commons, Allotments; the rise of foreign trade, especially of the East Indian, and the French and American trades; the Agrarian Revolution of the 18th century; growth of English industries; Machine Industry, the Industrial Revolution, the large towns and their problems; Municipal and Political Reform; Factory Legislation; Trade Unionism; Friendly Societies and Savings Banks; the Co-operative Movement; Education; the condition of the people generally; Socialism in all its forms—Owenism, Chartism, the English socialistic movements generally, indigenous or imported; French, German, and American Socialism; Emigration and Population movements; the history of the Poor Law, and especially of the New Poor Law of 1834; the question of Land Tenure in England, Scotland, and Ireland; Tariff policy in various countries, especially the Anti-Corn Law agitation, the German Zollverein, the protectionist reaction in Europe and America after the Peace of 1815; Financial policy and tax systems: the development of communication, roads, posts, canals, railways, and telegraphs; the growth and changes of Foreign Trade; Competition, its modern developments, abuses, and regulation; the rise of great industrial and commercial combinations; the modern developments of Banking; the history of currency and various currency systems; the history of prices and wages; index numbers; international monetary policy; the great markets for securities and for produce; the history and theory of statistics; the mathe-

matical theory of economics; public control and the economic functions of the State generally; economic criticism and social philosophy. It may be added that those interested in local history will find in the library books or tracts printed in almost every part of the British dominions at home or abroad.

In the selection of literature for the library the main purpose kept in view has been to make it historical and catholic. No pains or expense have been spared to ensure that, as far as possible, all sides in a controversy should be represented. It therefore differs widely from such a collection as that of M'Culloch, who excluded, with rare exceptions, all books which did not come up to his standard of orthodoxy. The object has been to mirror opinions, not to judge them. If, for instance, the mercantilist view was predominant in the early 18th century, it will be found predominant in the library over that period, and so on. But the dissentient opinions are as faithfully represented as the fashionable ones; no standards have been imposed. If any partiality has been shown, it has been in the desire to put in evidence the scanty and obscure literature which gives a clue to the opinions of the almost inarticulate masses of the people, literature which will probably have for future ages a very special and pathetic interest. Whatever the subject in question, a collection made on these lines would necessarily include a large quantity of tracts and fugitive publications. But in economics, more perhaps than in any other subject, its historical sources are largely of an occasional, non-formal character; and the brief contributions of practical men are often of much greater value than the more systematic disquisitions of professed writers. Hence there is an exceptionally large proportion of pamphlets and tracts in the library, not much less in number than 20,000; among which may be included a large collection of extracts from reviews. The opinions of Dr. Johnson and Macaulay as to the value of such literature are well known. It is to no one of more value than to the historian of economics.

The library also contains a large number of broadsides, many of them from the fine collection of Lord Lauderdale. There are also hundreds of MSS., many of them of great interest, and a large number of autograph letters of economists and statesmen. Among other collections mention may be made of the biographies, the portraits, the prints, some examples of paper moneys, etc.; and the bibliographical collection, which includes a copy of the Catalogue of the Massie Library, the most remarkable collection of English economic literature previously formed.

The main purpose of the library being to facilitate historical research, the contents have in general been arranged chronologically, with subject classification under each year where indicated. But the ordinary forms of catalogue are also in process of preparation. The same arrangement, so far as may be, is observed in the shelving and disposition of the books, but many departures from it have been found necessary. Before 1800 only one general chronological arrangement is adopted for each size—folio, quarto, octavo, and duodecimo; after 1800 special subjects have separate chronological arrangements in special cases. Very long series, and certain classes of books not likely to be so often consulted, will generally be found in the galleries.

Taken as a whole the Goldsmiths' Library is specially remarkable for the condition of its books. Books on Trade, Finance, and Social History, which were not considered to be "literature" by any one before the appearance of the *Wealth of Nations*, nor by most people till a century later, are usually found in bad condition both internally and externally, not having been preserved in good libraries. Those in this collection are for the most part picked copies. Many are presentation copies to the statesmen and magnates whose libraries are referred to below. Many are in sumptuous English and French morocco bindings of the 18th, and in less number of the 17th centuries. The condition of the French 18th century books is particularly fine, most of them being in original extra bindings. Where rebinding was required, the sound general rule has been observed of never binding together what were published separately; and generally everything has been done to facilitate historical and comparative research, which seems the main *raison d'être* of special collections.

The exceptional condition of the books is largely explained, as hinted above, by their *provenance*. Owing to agricultural depression and other well-known causes, the period subsequent to 1875, over which their collection has extended, has been specially remarkable for the number of old and famous libraries brought to the hammer. The following list contains the names of some of those libraries which deserve mention here for the importance of their contributions to this collection:—

The Sunderland, Clandon, Osterley Park, Hamilton Palace, Duke of Sussex, Duke of Cambridge, Duke of Buccleuch, Duke of Portland, Earl of Lauderdale, Stanesby Alchorne, George Chalmers, Gunning, Sir Robert Peel, Lord Monteagle, Agar-Ellis, Lord Prestongrange, Visct. Bruce of Ampthill, Gibson Craig, James Crossley, Frere of Roydon, General Wilson, Gardyne, Lord Ripon, Speaker Onslow, Lord Ashburton, Pleydell Bouverie, Sir John Fenn, Lord St. Leonards, Sir R. C. Hoare, Cornelius Walford, Capelle, Pole-Carew, Trentham; and amongst economists and reformers, Arthur Young, Dean Tucker, Adam Smith, Ricardo, Colquhoun, Cobbett, Francis

Place, Quetelet, Joplin, Baring, Senior, William Allen, Oastler, Sadler, Kydd, Lovett, Truelove, Considérant, Paul Janet, Sabatier, Roscher, Col. Hyde, Ruding, Cliffe Leslie, Bonamy Price, Smiles, Hyde Clarke, Gerritsen, etc., not to mention the names of many living donors. Indications of *provenance* have been as far as possible preserved in the books themselves, and in the shape of book-plates, where it has been necessary to break up the original volumes.

It will be obvious that a library of this kind could not be formed except at a very heavy expense. This expense, always a strain on the modest income of an English professor, became insupportable in view of new demands on that income; and, accordingly, with much regret, arrangements were made to accept an offer of purchase on behalf of a great American library. But the completion of the sale was very generously allowed by the trustees to stand over for six months, ending June 30, 1901, to give opportunity to arrange an English purchase. After various abortive attempts to effect this, the Council of the Royal Economic Society made an appeal to the public in *The Times* of June 25, 1901, supported in a vigorous leader of the same date. Two days later an offer of purchase was received and accepted from the Worshipful Company of Goldsmiths; and the collection was thus retained for the country whose history it had been designed to illustrate.

The Goldsmiths' Company subsequently presented the library to the reconstituted University of London, to be deposited in its central building, now at the Imperial Institute, South Kensington. The transfer of the collection began the next year, and is still in process. The greater proportion of the bound volumes are now at South Kensington, but the bulk of the pamphlets have yet to be dealt with. There is a rough catalogue of nearly the whole collection; but a great deal of work has yet to be done, both in cataloguing and in completing and binding the books; and fresh accessions are continually being made by the generosity of the Goldsmiths' Company, who have also made large gifts for binding and for library furniture.

In concluding this notice, it is only the barest justice to mention the very large share taken in the laborious work of compiling, cataloguing, and generally perfecting the collection, by the assistant-librarian of St. John's College, Cambridge, Mr. E. W. Lockhart. Without his very skilled, intelligent, and untiring help, the collection could never have attained its present extent or degree of excellence. His name should always be associated with the Goldsmith's Economic Library.

All communications respecting the use of the Goldsmiths' Company's Library of Economic Literature must be addressed to the librarian at the University of London. H. S. F.

Economic Literature in the Manchester Libraries. Manchester is unusually well provided with important libraries. Humphrey Chetham, who died 1653, left the bulk of his estate for the foundation of a blue-coat school and public library which now contains 60,000 volumes. Although no special feature has been made of political economy, it contains some of the earlier books, especially of the 18th century, and has a remarkable collection of broadsides presented by J. O. Halliwell-Phillipps, who printed a catalogue of them in 1851. This is merely a numerical list devoid of either alphabetical order or classification. The collection contains much unused material for the history of commerce and industry. The Portico Library and Newsroom, which contains 60,000 vols., is a proprietary institution owned in shares and dates from 1806, and includes some of the modern literature of political economy. A remarkable collection of pamphlets formed by Charles Leigh of Adlington contains many items of interest respecting the affairs of the 18th century. The Athenæum, founded in 1835, largely by Cobden's influence, is essentially modern, and contains 21,000 vols. The largest collection is that of the Free Library, which was the first founded under the Public Libraries Acts, and was opened in September 1852. It consists of a central library and nineteen branches and newsrooms. The Reference Library contains 155,000 vols., and from the beginning special attention has been paid to the collection of material relating to the literature of political economy in its widest sense. A complete set of the *London Gazette* may be named. The collection on trade formed by Nicholas Magens, the banker, at the end of the seventeenth and beginning of the eighteenth centuries was acquired in 1852, with the exception of some Americana, and forms the foundation of one of the largest economical collections in the country. To this have been added the tracts collected by Fullerton of Carstairs, by Sir Edwin Chadwick, and others. In recent years special attention has been given to the literature of municipal institutions, but the collection is also rich in material for the history of trade, the organisation of labour, and the fiscal controversy. The librarians from the commencement have paid special attention to the collection of pamphlets, and this has been facilitated by the fact that Manchester has been a centre of the active discussion of economic problems. The library of the Manchester Statistical Society, the oldest in the kingdom, now forms part of the city library, which has also absorbed the foreign library. The collection of parliamentary papers and official publications is large, and foreign and colonial documents have been freely added. Another strong point is the extensive series of periodical publications in long sets, including, for instance, the *Journal des Économistes*. This feature is also seen in

the library of the Manchester Literary and Philosophical Society, which was founded in 1781, and, chiefly by exchange of publications, has formed a library which contains the issues of the most important academies and learned societies of the world. It contains 29,700 vols. in a house which dates from the early years of the 19th century, and has memories of Thomas Percival, John Dalton, and other famous men. The Law Library, whilst formed only for professional purposes, contains 12,000 vols., including some books which are of importance for the history of certain branches of economics. The University of Manchester has developed from the college founded under the will of John Owens, a wealthy merchant, who died in 1846. The library now contains 100,000 vols. and includes the important collection made by William Stanley Jevons, who held the chair of Political Economy in Owens College before his removal to London. His books extend to 2394 volumes, and form about one-half of the University's economic section. In connection with the Faculty of Medicine there is the library of the Medical Society (established 1834) extending to 32,000 vols., and containing many books, some of great rarity, dealing with topics common to medical and economic science. The latest addition to the literary institutions of Manchester is the John Rylands Library, founded in 1899 by Mrs. Enriqueta Rylands in memory of her husband, who was one of the merchant princes of the city. It contains 110,000 volumes, and by the purchase of the Althorp Library it has become one of the greatest storehouses of early printed books and of the Italian literature of the Renascence—departments in which the student of economics may find some fresh fields of research.

Although there is no organic connection between the various Manchester libraries, except that the Medical Library is housed in the University, there is much unofficial co-operation, so that any one engaged in serious research will easily be guided, when necessary, from any one institution to all the others. W.E.A.A.

The Foreign Office is in possession of a very interesting Library containing a considerable number of works of reference dealing to a large extent with the Colonies, and also with the condition of other countries of the world, as existing in the first half of the 19th century and down to a somewhat later date. A very complete index was added by Mr. W. M. Bucknall at the time he was the librarian.

This Library was formed by the Board of Trade before the year 1866. It would be a useful thing if it were returned to the office where it was originated and brought up to date, and we are glad to record that a suggestion to this effect has recently been made. Many of the works it contains are rather rare. The Royal Statistical Society and the London School of Economics and Political Science both possess valuable collections of economic works.

United States. The most important libraries bearing on economics in the United States besides the Crerar and Newberry Libraries in Chicago are as follows:—

1. The New York Public Library on the Astor, Tilden, and Lenox Foundation (librarian, Dr. John S. Billings) is believed to have the best collection of economics of any public library in the world outside the British Museum. This is certainly true of American economics.

2. The Congressional Library at Washington, which has added immense stores in recent years.

3. Of the university libraries; among these the most important in economics are, in order mentioned, Columbia, Harvard, and on a level Yale, Johns Hopkins, and Chicago.

4. The University of Pennsylvania has the old collection of Carey and Baird, which is strong in eighteenth-century English literature. (See H. C. Carey.)

5. The Boston Public Library is a very fine one.

6. The Wisconsin Historical Society Library is also very strong.

7. Of private libraries, that of Professor Seligman of Columbia University contains about thirty thousand volumes in economics. It is especially strong in the early English literature and in the early French literature. Professor Seligman has also devoted great attention to the literature of labour and socialism, having even as to England a number of titles not found in the bibliography of Professor Foxwell. The nineteenth-century pamphlet literature in this library is especially strong in American finance, that is, money and banking, American free trade and protection, and American labour. It contains also a very strong collection of English nineteenth-century pamphlets from 1810 to 1850, on money, labour, and the corn laws, and a speciality has been made of books and reports on taxation.

On socialism this library is said to have a more complete collection of the German socialists, including Marx, Rodbertus, and Lassalle, than is to be found in any German library, with a great mass of pamphlets on the finances of the French Revolution and on the socialistic movements in France, especially 1830 and 1848.

It contains also a good collection of the chief German, Italian, Spanish, and Russian works on economics.

As regards English literature, it has every work mentioned in M'Culloch's bibliography, and many items which he does not mention.

John Crerar Library, The, Chicago. The John Crerar Library, the latest established of the free public libraries of Chicago, owes its existence to the bequest of the late John Crerar, for many years a prominent merchant of the city. The endowment realised from this bequest

is conservatively estimated at $3,400,000 (say £680,000), producing an annual income of over $160,000 (say £32,000).

The library was incorporated 12th October 1894, organised 12th January 1895, and opened to the public 1st April 1897. Its character and scope as a free public reference library of scientific literature were determined by the directors from their personal knowledge of the views and wishes of the founder, and after consultation with the governing boards of the other public libraries of the city.

Its field may be defined as that of the natural, physical, and social sciences, and their applications. In view of Mr. Crerar's desire that the books and periodicals might be "selected with a view to create and sustain a healthy moral and Christian sentiment in the community," the directors have always regarded the social sciences as one of the most important portions of this field. For convenience in dealing with appropriations, statistics, etc., the books are divided into six departments: general works, social sciences, physical sciences, natural sciences, medical sciences, and applied sciences.

On 1st January 1907 the department of social sciences had the largest number of volumes, in round numbers, 55,000 out of a total of 200,000; the second largest number of pamphlets, 20,000 out of 65,000; and received currently the second largest number of periodicals, 500 out of 2500.

The department of social sciences has eleven divisions: general works (including sociology), ethics, religion, statistics, political science, political economy, law, administration (including public documents), charities and correction, education, commerce and communication, manners and customs (including folk-lore and the woman question). Of these the most important is political economy, with about 16,000 volumes and 12,000 pamphlets. Then follow administration and documents, 14,000 volumes and 1000 pamphlets; general works, 6500 volumes; education, 5000 volumes; and manners and customs, 3500 volumes and 3000 pamphlets. While commerce and communication as a division of the social sciences is credited with only 2500 volumes, it might be said that if the works dealing with the technical and administrative sides of the subject were included, the number would be more than doubled.

It has been the purpose of the directors to develop the Library symmetrically, and by the addition of the latest works and the completion of the files of periodicals, rather than by purchases *en bloc*. Nevertheless they have not hesitated to take advantage of exceptional opportunities. Thus they were ready to purchase the collection of Prof. H. S. Foxwell on economic history (see p. 720), had it not been kept in England. Of these special acquisitions the largest and most important, except the transfer of the medical department of the Newberry Library, is tha of the private library of the late Mr. C. V Gerritsen, of Amsterdam. It consisted of som 18,000 volumes and 15,000 pamphlets on socia and economic subjects, being especially full o finance, banking, labour, and socialism. I included a collection, formed by Mrs. Gerritse (Dr. Aletta H. Jacobs), of nearly 6000 volume and pamphlets on the social, political, and lega status of woman. A printed catalogue of thi part of the library, complete to 1900, wa exhibited at the Paris Exposition of that yea under the title of *La femme et le féminisme* and received a diploma of honour.

The private library of Professor R. T. Ely, o the University of Wisconsin, was acquired i 1902. It covered the whole of political economy but was especially strong in works dealing wit American labour and social movements. I consisted of some 6000 volumes (600 of whic were bound volumes of labour periodicals) an 4000 pamphlets.

The income of a bequest from its secon president, the late Huntington Wolcott Jackson is applied to the formation of a collection o constitutional law. The total number o volumes in this collection is now about 350.

In public documents the Library is rathe stronger than might be expected, considerin the short time it has been established. It is "designated depository" of the Congressiona documents, a special depository of the Con gressional documents, a special depository o the publications of the U.S. Geological Survey and one of three depositories of all bills, resolves and acts of Congress since 1901. Many stat and some city documents have been acquired Of foreign documents it has all the parlia mentary papers of Great Britain since 1896 and most of the earlier ones on economi subjects; a nearly complete set of the parlia mentary papers of Canada; a very full set o those of the Netherlands; a good set of thos of Sweden; an unusual collection of Frenc documents of the 15th to the 18th centuries o economic subjects; many serial official publica tions of Austria, France, and Germany; and noteworthy collection of Australian document dealing with the labour question, presented b the late Henry D. Lloyd.

In periodical literature also the Library stronger than might be expected. Many of th 500 periodicals on the Social Sciences whic are currently received are represented by com plete sets, and in addition the 8000 volumes o periodicals and society transactions classed a general works offer much to the student of th social sciences. The publications of over on hundred such societies are currently received and complete or nearly complete sets ar available of about half of them.

As the public libraries of the city have adopte the policy of avoiding unnecessary duplication

a union list of the serials in them was thought to be desirable. In 1901 the Chicago Library Club issued such a list, and the John Crerar Library has issued a supplement, the second edition of which appeared in 1906. The original list and the supplement give the location of 12,000 serials in nineteen libraries.

One other of the publications of the Library is of some general interest. The list of Bibliographies of Special Subjects gives not only the distinctly bibliographical works on each subject, but also the works which contain bibliographical material thought to be of value. The arrangement is systematic, and there are about 400 entries on the social sciences. C. W. A.

ECONOMICS, TEACHING OF.

General, p. 725; Cambridge (Economics Tripos), p. 726; Oxford, p. 729; United States, p. 731.

GENERAL. It is the main purpose of this article to describe the position of economics in the various universities other than Oxford and Cambridge, university colleges, and similar institutions in the United Kingdom. In the University of London Political Economy may be taken for the B.A., and there is an economic group for the M.A. There is also in the university a Faculty of Economics and Political Science (including Commerce and Industry), in which the degrees of B.Sc. and D.Sc. are granted. For the former candidates may present themselves for a pass or for honours. A more definitely commercial variant of the B.Sc. is at present under discussion by the university. Teaching in economics for the degrees of the University of London is provided in several institutions, of which special mention may be made of the London School of Economics (Clare Market), University College, King's College, and the Birkbeck Institute. The School of Economics was founded in 1895. In economic subjects its "appointed teachers in the University of London" number five, who deal respectively with Economic Theory, Statistics, Banking and Currency, Economic History, and Foreign Trade. There are other "appointed teachers" on such allied subjects as Economic Geography, and many lecturers in addition on general and special subjects. Instruction is given both in the day and in the evening. University College includes a professor (the chair was established in 1828, M'CULLOCH being the first occupant), an assistant professor, a lecturer on Statistics, and a lecturer on Commercial Methods. In addition the professor of Mathematics holds a statistical honours class. King's College has also a professor whose chair was not established until 1859, though lectures had been given for some time previously. At the Birkbeck Institute the present principal has taught economics for a quarter of a century. He is now assisted by a lecturer.

Closely related in design to the Faculty of Economics in the University of London (the first degree of which is B.Sc.) are the Faculties of Commerce of the University of Birmingham (see p. 711), of Manchester, and of Leeds (the first degrees of which are B.Com.). The first was founded in 1901, and the second and third at intervals of two years. At Birmingham the economic teaching is in the hands of a professor of Commerce (chair established 1901), and another of Finance, whose lectureship, created in 1902, was transformed into a chair in 1906. The course extends over three years, and can be taken only by day students. The same holds at Leeds, where the economic instruction is imparted entirely by one professor whose office was created in 1903. At Manchester, where attendances for three years are required in ordinary circumstances, and for four years when attendances cover less than seven hours a week, lectures held in the evening as well as those held in the day are recognised for the degree in Commerce. As in London, full courses of lectures are provided both in the day and evening. A professor of Political Economy and a lecturer on Economic History (first appointed in 1903), who assists also in other economic teaching, are responsible for the bulk of the instruction in Economics provided at Manchester, apart from Economic Geography, which is the subject of a distinct lectureship. The teaching of Economics at Manchester extends backwards for nearly half a century. Usually it was united with other subjects, but some years ago a distinct lectureship was instituted, and in 1901 the lectureship was transformed into a chair. In this university and at Birmingham and Leeds economic subjects figure in another faculty or other faculties than that of Commerce. At Manchester honours may be taken in the Faculty of Arts in Economic and Political Science, as they may also at Liverpool. At Liverpool a professorship, created out of an earlier lectureship in 1891, and a lectureship, added in 1907, exist in Political Economy, in addition to a lectureship on Geography. A School of Commerce, the course in which does not lead to a degree, is slightly connected with the Liverpool university, and in this school lectures are given on commercial methods as well as upon other subjects. A proposal to institute a degree in Commerce in now under consideration. At the University of Sheffield Economics and Mental and Moral Science constitute the domain of a lectureship created in 1897. The subject has a place in the curriculum for graduation. In the University of Durham Political Economy is a voluntary subject for the B.A. and B.Litt. Two persons are engaged in the teaching, but only two courses are offered.

In addition to the universities some mention should be made of the university colleges and institutions of similar standing in England.

Of University College, Bristol, Professor Marshall (professor of Political Economy at Cambridge) was the first principal, but after his retirement economics did not occupy a large place in the teaching of the college, until in 1901 a chair of Economics and Public Administration was created. There is, in addition, a lecturer in Economics, who has been holding small classes for some years, and doing the limited amount of work required until lately. In connection with the scheme for a University at Bristol, it is proposed to establish a degree in Public Administration and Economics or in "Commerce." At University College, Reading, the Professor of Mathematics and Economics (whose chair was created in 1907 out of a lectureship) devotes a limited amount of time to imparting economics for the commercial diploma granted by the college and for the London B.A. Courses in Economics are offered by the professors of History at the Royal Albert Memorial College, Exeter, and Hartley University College, Southampton, but practically no advantage is taken of them. At University College, Nottingham, an evening course is delivered by the professor of History. At Armstrong College, Newcastle-upon-Tyne, the lecturer on Philosophy used to be required to teach Economics also, but no lectures were given, and there is no provision of economic teaching to-day.

In all the universities of Scotland Political Economy may be taken as one of the subjects for the M.A. The group of honours known as Economic Science means Political Economy with either (*a*) Moral Philosophy, or (*b*) one of the history subjects of the honours standard, as supplementary subjects. At Aberdeen there is a lectureship in Economics established in 1905. At Edinburgh, where the staff is now one professor, whose chair dates back to 1871, and one assistant, made also lecturer on Economic History in 1904, the Court has decided to institute full courses in Economic History, qualifying for both the ordinary and honours degrees. When this is done, honours in Economic Science may be based entirely on a knowledge of economics. At Glasgow there is one professor (a lectureship founded in 1892 being replaced by a chair in 1896) who hitherto has engaged an assistant or assistants, and Economic History is taught, and work is done for both pass and honours. At St. Andrews one lecturer (the post was created in 1889) imparts all the instruction for pass and honours. University College, Dundee, now part of the University of St. Andrews, offers no economic teaching, though it did in the sessions 1885-87, when successful classes were held under the present professor at Glasgow. Usually in the Scottish universities, before the institution of separate posts, lectures on Political Economy were delivered by professors of allied subjects which sometimes were understood to include it.

The University of Wales comprises three constituent colleges, viz., Bangor, Aberystwyth, and Cardiff, and in the last two of these Economics is taught for graduation,—at Cardiff by an associate professor (work was begun by a lecturer in 1899), who devotes the whole of his time to Economic and Political Science, and at Aberystwyth by a lecturer who unites with this work some teaching in Philosophy. Political Economy may be taken as an intermediate subject and with Political Science for honours. At Bangor all that is attempted at present is an annual course of six lectures, on the George Rae foundation, on "Some aspects of Political Economy, with special reference to Banking."

As regards Ireland, Trinity College, Dublin, has enjoyed a professorship since 1832, in which year a chair was founded by Archbishop Whately, the occupant of which also teaches Commercial Law. Students are prepared in Political Economy for the examinations, pass and honours, of the Royal University of Ireland at the Queen's Colleges of Belfast and Cork. At the former there is one professor who also teaches Jurisprudence, and at the latter a professor of Mental and Social Science who delivers lectures on Political Economy.

From the above sketch it is evident that provision of instruction in Economics in the United Kingdom has received a distinct stimulus in the last dozen years, but the amount of work done, in respect both of the number of teachers of the subject and of the number of students, is still far inferior to that done in Germany and the United States. In Germany Economics figures in all the universities, and plays a leading part in some, and there are, in addition, four higher commercial schools, the kernel of the courses in which is economic. In the United States (see ECONOMIC TEACHING IN THE UNITED STATES) there are some specialised higher commercial schools, and in the departments of Economics of some of the most prominent universities, large staffs of teachers and crowds of students are to be found. In France the teaching of Economics is in a peculiar position. As it has recently received a place in the curriculum of the Faculty of Law the amount of work done is considerable, but in the Faculty of Law it is practically confined to preparation for prescribed examinations of a somewhat limited scope, and inasmuch as all teachers in this Faculty must be doctors of law, it tends at present to border upon Jurisprudence. Outside the Faculty of Law there are in France few teachers and few students. S. J. C.

ECONOMICS TRIPOS, CAMBRIDGE. The Tripos in Economics and associated branches of Political Science was instituted by the University of Cambridge in 1903 in order to give encouragement to an important form of liberal education, and at the same time to make special

provision for students who are proposing to devote their lives to the professional study of Economics, and for those who are looking forward to a career in the higher branches of business or in public life. And a curriculum of education, which is fairly complete so far as the main requirements go, was set up soon after. There are, however, several gaps which could be advantageously filled, if adequate funds were forthcoming.

No attempt is made to fill the mind of the student with a mass of technical information connected with the particular branch of business in which he is to be engaged. Such instruction may perhaps suitably be given in commercial schools to lads who are expecting to begin to earn their livelihood at an early age; and it may be given to even better purpose in the evening classes of universities and colleges in great industrial centres, for the benefit of those already engaged in business. Cambridge is not well placed for this work. But she has exceptional facilities for strengthening and developing the mental and social faculties of those who in after-life will bear the higher responsibilities of business; and who are prepared to work hard. The curriculum aims rather at giving an education which will enable men in the higher posts of business and of the public service to meet the ever-increasing demands on their intelligence and power of going to the root of difficult questions. For while there is in some directions a tendency towards increased specialisation in the work of subordinates; there is an even more marked tendency towards greater breadth and diminished specialisation in the work of those who are responsible for the main decisions in the conduct of large affairs.

So much is this the case that a man may be more fitly equipped to be a leader in business by an education which has braced his mind to hard work in subjects that have no connection with it, than if he had occupied himself with an enervating form of technical instruction, however directly that might bear on his after-work. But, provided the studies be themselves of a truly liberal character, the closer their bearing on his after-work, the more active is his interest in them likely to be during his stay at a university and in after-life. To a colliery manager who has made a thorough study of geology the shafts and galleries of a mine are a scientific museum and laboratory: his mind grows with his work, and he may increase the world's wealth of knowledge. But if the same man had neglected geology, and pursued other studies at a university, his B.A. degree would not improbably have been the end, instead of the starting-point, of the chief intellectual work and interests of his life. As geology is related to mining, so is economics to general business.

But in addition to a strong and alert mental faculty, the business man needs to have acquired a knowledge of human nature, together with the power of managing men, and to this end the social training afforded by life in a residentiary university of the Anglo-Saxon type is specially serviceable. For such a life draws out the faculties which are needed in the social relations of those who have to deal with large bodies of men and large public interests. On the river and in the football field the student learns to bear and forbear, to obey and to command. Constant discussion sharpens his wits; it makes him ready and resourceful; it helps him to enter into the points of view of others, and to explain his own; and it trains his sense of proportion as regards things and movements and persons, and especially as regards himself.

In short, the curriculum claims to give a liberal education; *i.e.* one which in the late Sir Richard Jebb's words "trains the intelligence, gives elasticity to the faculties of the mind, humanises the character; and forms, not merely an expert, but an efficient man"; while none the less it is a practical education for large affairs.

With these aims in view, the study of economics is supplemented by a compulsory study of the recent economic and general history of the chief countries of the western world; by a study partly compulsory and partly optional of the elements of political science; and by an optional study of Civil Law as applied to economic questions, and of International Law.

The distinctive feature of this scheme is the prominence given to recent international history. If the study of history is to be international, time cannot be found during the short three years of undergraduate life for carrying it further back than the beginning of the 19th century; though some general knowledge of the antecedents of that century is included. Of course there are some students of economics for whom the earlier centuries of English history have a special attraction; and provision is made for this important class of students by their liberty to substitute one part of the Historical Tripos, in which prominence is given to this subject, for one of the parts of the Economics Tripos. For each of these Triposes is divided into two parts, the first of which is taken, under ordinary conditions, at the end of the second year.

The chief reason for giving this prominence to international studies is the belief that the exceptional insularity of the thought and studies of Englishmen is prejudicial to the best interests of the nation both intellectual and material. Especially is the notion that England may be contented to study economics simply from her own point of view passing away. It is admitted that some generations ago, when she

was favoured by exceptional advantages, and was far in advance of other countries, she could afford almost to neglect their experience without much loss. But it is seen that the habit of depending solely on her own resources, which she thus acquired, continued after it had lost all justification; and, that as meanwhile all other progressive countries were giving much of their energies to learning from her and to learning from one another, she has been grievously handicapped in the race. Suddenly she has awakened to the fact that others, with certainly not greater natural vigour, have so profited by world experience as to advance faster than she has done in many directions, and to reach beyond her in a few. The studies encouraged by the Economics Tripos will help to free England from this great reproach.

The following is the schedule of the examination; the subjects marked with an asterisk are compulsory. In Part II. the student must take not less than two and not more than five papers besides those which are compulsory:—

Part I.

1. Subjects for an Essay. One paper.*
2. The existing British Constitution. One paper.*
3. Recent Economic and General History. Two papers.*
4. General Principles of Economics. Three papers.*

Part II.

1. Subjects for an Essay. One paper.*
2. General Economics. Three papers.*
3. Advanced Economics, mainly realistic. Two papers.
4. Advanced Economics, mainly analytic. Two papers.
5. Modern Political Theories. One paper.
6. International Law with reference to existing political conditions. One paper.
7. International Law with reference to existing economic conditions. One paper.
8. Principles of Law as applied to economic questions. Two papers.
9. Special subject or subjects. One paper each.

Some of the papers in each part include quotations from French and German writers. The Examiners have regard to the style and method of the answers.

The following are some details relating to Part I.:—

The paper on the existing British Constitution deals with the main outlines of the existing political and administrative organisation (central and local) of the United Kingdom, and with the government of colonies and dependencies, comparatively treated.

The questions on Recent Economic History deal chiefly with the United Kingdom and with the 19th century. They also take special account of other English-speaking peoples, and of France and Germany, during that period. Some knowledge of physical geography in relation to recent economic development is required.

The questions on Recent General History deal with the British Empire, Continental Europe, and the United States, and chiefly with the 19th century. They do not include military or literary history. Some knowledge of political geography is required.

The following are some details relating to Part II.:—

In Part II. an attempt is made to introduce into the Tripos system some of that elasticity and freedom of choice for each individual student which in some other Universities is obtained by a *viva voce* examination directed specially to branches of study which the candidate has selected for himself; his choice being, of course, subject to the condition that they shall be sufficiently broad, and yet have a certain unity.

The main purpose of the three compulsory papers on General Economics is to secure that those who take Part II. of this Tripos after another Tripos (or a part of it), should have a sound knowledge of the main principles of Economics at large; and that those who have already taken Part I. of this Tripos should not specialise even their later studies too narrowly. In addition, these papers are to lay stress on Public Finance, the Economic Functions of Government, and the ethical aspects of Economics generally; some discussion of socialism being included under this head; since all these matters are more appropriate to the later than to the earlier years of a student's career. But that work in Economics which is most distinctive of Part II. must necessarily be directed into rather narrower channels; for no one can do really advanced work over the whole field. And here a double bifurcation is required.

The first bifurcation has reference to the divergent needs of active life and of professional study. Those who are preparing for public or private business must in their third year give their chief attention to realistic work, to the facts of business life, and to the direct application of economic principles to them. Accordingly two papers, arranged specially for this class of students, are mainly realistic. Two similar papers are of a more exclusively academic character, and make provision (*a*) for some of the more obscure problems of value, such as those connected with the shifting and ultimate incidence of the burden of taxes; (*b*) for the history of Economic doctrines; and (*c*) for mathematical problems in Economics and Statistics. These papers are optional, but there is nothing to prevent any student from taking all of them.

The second bifurcation has reference to the different groups of subjects which are included under the broad title "Economics." They are all intimately connected with one another. There is scarcely any of these which can be studied at all thoroughly without some considerable knowledge of almost every other. But yet each professional student according to his bent of mind, and each man of affairs according to his work in life, will wish to give his chief attention to certain branches; and accordingly while each of the four papers on Advanced Economics contains some general questions, the majority of the questions in each paper is divided in about equal proportions among the four groups:—A, *Structure and Problems of Modern Industry;* B, *Wages and Conditions of Employment;* C, *Money, Credit, and Prices;* D, *International Trade and its Policy.*

A and B will be of special interest to those who expect to be employers of labour, or landowners, or to be engaged in the service of railways, or in the administration of government, central or local. C and D, together with the latter part of A, will meet the needs of those who are to be engaged in large financial transactions, as bankers, members of the stock exchange, etc.; while merchants and those members of manufacturing firms who are chiefly responsible for the external relations of the business rather than its internal organisation, will perhaps give their chief attention to D and part of either C or A. Those who expect to be engaged in the service of the poor will give the first place to B. The studies of any one who hopes to take part in legislation need to be broad; but he may reasonably specialise to some extent on one, or even two of the four.

The remaining subjects in Part II. lie outside the range of Economics, but are closely connected with it. They are all optional. Modern Political Theories will attract these who are likely to hold responsible political positions at home and abroad. The combination of economics, recent history, and political science with international law affords an introduction to the diplomatic and consular services. And lastly the fusion of economic and legal studies, which has given good results in Germany, the United States, and other countries, may perhaps be promoted by the optional papers on the Principles of Law.

Instruction in some of the subjects is given for the present not in lecture, but by personal guidance and advice as to reading. A. M.

ECONOMICS, TEACHING AT OXFORD.—The subject presents the following questions: To what ends is the teaching of Economics at Oxford directed? by whom is it given? to whom, and in what manner?

1. Success at examinations is for the most part the object directly aimed at. Doubtless there is an admixture of higher motives, and learning is not courted only for the sake of her dower. The examinations for which preparation is made are either instituted by the University or are external. The examinations at Oxford into which Economics enter pertain to the Final Honour school of Literæ Humaniores, the Honour school of Modern History, the Final Pass school, and the diploma in Economics. Candidates for Honours in Literæ Humaniores are examined, *inter alia*, in "the outlines of Political Economy." Out of some twelve papers one or two questions on one paper may bear directly on Economics. Those who have been taught to admire the Greek ideal of demonstrative knowledge are not encouraged to study the one department of Social Science in which deductive reasoning is practised with success. This deficiency is partly compensated by the permission which is given to candidates to offer "Political Economy with special study of two or more treatises" as an additional "special" subject. According to the statutes "in the arrangement of Honours great weight will be attached to excellence in a special subject." In spite of this assurance very few candidates for Honours in this school offer Political Economy as a special subject.

In the Honour school of Modern History a paper is set on "Political Economy with Economic History." But "candidates who do not aim at a place in the first or second class" may omit either this subject or Political Science. Additional weight accrues to Political Economy in this school when it is taken up as a "special subject." The curriculum for Political Economy as a special subject prescribes the study of two main topics—for the present year (1907), for instance, International Trade and Public Finance—partly in general treatises, partly by means of historical documents. For instance, under the head of Public Finance there are prescribed Bastable's treatise on the subject and a part of Wagner's *Finanzwissenschaft*, together with several parliamentary reports and speeches which throw light on the history of English finance from the beginning of the Great War to the end of the 19th century. This curriculum may appear somewhat discontinuous; but it would be difficult otherwise to comply with the condition imposed on a "special subject," that it should be "studied with reference to original authorities."

The "Elements of Political Economy," taken along with certain other subjects, forms one of the avenues by which the student who does not aspire to Honours may *pass* to the degree of B.A. Candidates are examined in Walker's *Political Economy*, and selected portions—nearly twenty chapters—of Adam Smith's *Wealth of Nations*. They are also "expected to show an acquaintance with the chief facts of the economic condition of England at the present time."

For the diploma in Economics there is an examination at which five papers are set to each candidate,—two in Economic Theory, one in Economic History, and two in special subjects which the candidate selects out of three groups of special subjects, viz.: A. Either (1) some special branch of economic theory, or (2) some particular school of economic thought, or (3) the treatise of some leading economist, *e.g.* (*a*) the theory of rent, or (*b*) the Austrian economists, or (*c*) Ricardo's *Principles* (fifteen possibilities are enumerated). B. On some special period of economic history (*e.g.* the Industrial Revolution). C. Some special branch of applied economics (*e.g.* the statistical measurement of changes in prices). The number of pairs that can be made out of the alternatives specified in the published list amounts to 231; and candidates are not restricted to selection from the list. They have also the option of offering a dissertation in lieu of a special subject.

The principal external examination to which the efforts of economic students at Oxford are directed is that which constitutes the open competition for the Civil Service of India, clerkships (Class I.) in the Home Civil Service, and Eastern cadetships. Candidates are expected to possess a knowledge of economic theory as treated in the larger text-books, also a knowledge of the existing economic conditions and of statistical methods as applied to economic inquiries, together with a general knowledge of the history of industry, land tenure, and economic legislation in the United Kingdom.

Success in an examination is not the only tangible result at which students may aim. There is the Cobden prize for the best essay on a subject set every four years; there are the degrees of Bachelor of Literature and Bachelor of Science, which may be won by economic as well as other kinds of research.

2. The subdivision of the second head follows that of the first; so far as the *raison d'être* of the teachers is the preparation for examinations. Of the numerous courses organised by the Faculty of Literæ Humaniores one may occasionally relate to an economic subject. For instance, there was announced for the Hilary Term 1907 "Informal Instruction in the Relation of Economics and Ethics (Problem of Collective Bargaining)." The Faculty of Modern History gives more prominence to Political Economy. One or more of the ablest historical tutors usually deliver a course of lectures on Political Economy. A larger number of teachers, six or seven at a time, are told off to assist candidates for the Final Pass school. In all these cases the teacher is usually a tutor in, or otherwise intimately connected with a particular college; but the benefit of his teaching is extended to members of other colleges by a kind of intercollegiate exchange which is not without economic interest. The diploma in Economics also calls forth teachers, some addressing themselves to the general part of the examination, some to the special subjects.

This classification of teachers does not comprehend the professor of Political Economy who is not tied down to any particular course. But he must not reckon upon an audience if he ignores the motive by which students are mainly attracted to lectures. The present professor usually lectures on one or two of the subjects prescribed for some of the examinations which have been mentioned, as well as in other subjects adapted to the needs both of those who are preparing for examinations and those who aim at higher objects. That there should be only one professorial teacher of so important a subject as Political Economy in so large a university as Oxford is an anomaly which has at length been mitigated by the creation of a lectureship in Economic History, the first holder being Mr. L. L. Price of Oriel College. The subject is also taught by many private teachers.

3. The persons taught at Oxford are mostly undergraduates, destined in due time to take the degree of B.A. by way of a Pass or an Honour examination. But to this general statement there are important exceptions. The Rhodes scholars are undergraduates *sui generis*; some of whom can only spend a year or two at Oxford, and so cannot take a regular degree—but at most a diploma. The diploma in Economics is open to students who are not members of the university, provided that they have pursued an approved course of study at Oxford. Also, men who have qualified themselves for the degree of B.A. by taking Honours in Literæ Humaniores may afterwards read for Honours in Modern History. Men who have taken Honours in either of these schools may afterwards read for the diploma in Economics. Women may undergo all the Oxford examinations which have been mentioned. In the case of the diploma they receive the same recognition as the men. In the case of the Honours Schools they are arranged in classes like the men. But they are not yet admitted to the "B.A." degree, the "B.Lit.," nor the "B.Sc." Among exceptional classes of students should be mentioned visitors from other academic worlds who occasionally attend the lectures of the professor. Mention may also be made of the students at Ruskin college, at present numbering fifty or sixty. They are usually members of the working class, often selected as men of mark by trade unions.

4. The commonest method of teaching is the lecture. Lectures are not usually interrupted by questions and answers. The advantages of dialectic, considerable in the case of economics, may be obtained by the "informal instruction" which often supplements lecturing. The teacher usually has read to him by the pupil—some

times himself reads—an essay written on a subject of the kind set in the schools. The teacher then comments on the paper, correcting the form and adding to the matter. Sometimes two men with two papers will attend simultaneously, or a larger number may assemble for the discussion of a paper read by one of them, after the manner of a seminar (see COMMERCE, FACULTY OF, UNIVERSITY OF BIRMINGHAM). Doubtless it is a great advantage to a student to obtain for an hour, or even a shorter period, the full attention of a first-rate teacher. On the other hand numbers have a certain stimulating effect. Moreover, the distribution of knowledge on a large scale economises the labour of the teacher. The Modern History tutors discharge many of the functions which in foreign universities devolve upon professors. To impose exhausting work on these tutors is to diminish the efficiency of economic teaching at Oxford. F. Y. E.

ECONOMIC TEACHING IN THE UNITED STATES. The teaching of economics as a university discipline is essentially a modern development. The first professorship of the subject was at Columbia College, New York, where John M'Vickar was made professor of Moral Philosophy and Political Economy in 1819. The second professorship was at South Carolina College, Columbia, South Carolina, where Thomas Cooper, Professor of Chemistry, had the subject of Political Economy added to the title of the chair in 1826. The first professorship of Political Economy was established at Harvard College in 1871, and at Yale College in 1872, although the subject had been taught at Harvard by Francis Bowen since 1853.

Comparatively little attention was paid to economic questions apart from the problems of currency and free trade until after the civil war (1861-65). The new economic problems which forced themselves upon the attention of the country after the crisis of 1873 led to the migration of a number of young men to Germany to study economics. With their return in the years 1878-85, rapid additions were made to the body of instructors in the larger institutions, and a number of new chairs were created. Since then the interest in economics has spread throughout the length and breadth of the land, until at the present time most of the several hundred colleges in the United States afford instruction in the subject, while the larger institutions have a staff of instructors devoted to it. At institutions like Columbia, Harvard, Yale, Chicago, and Wisconsin, there are from six to eight professors of Economics and Social Science, together with a corps of lecturers, instructors, and tutors.

The character of the instruction in economics in the United States varies largely with the institution. In the smaller colleges the courses are confined to one or two years of text-book work, and the instructor must devote so much time to teaching separate sections and to administrative work that there is comparatively little leisure for original research or productive work. In the larger institutions ample opportunities are afforded not only for a specialisation of courses on the part of the students, but also for scientific output on the part of the professors. In this respect, however, the American institutions are still in process of transition. There is being built up on the basis of the undergraduate or college department, which gives the degree of A.B., the post-graduate work, which in some places is called the strictly university work, leading to the higher degree of A.M. and especially to that of Ph.D. In such places an increasing share of the attention of the professors is thus being devoted to the post-graduate or strictly university work. In only one institution, *i.e.* Columbia University, is the line drawn at all strictly. Here one-half of the entire force, four out of the eight professors, have seats only in the University Faculty of Political Science, and not in the college or undergraduate department; and their work is almost exclusively confined to strictly post-graduate work. In most of the other great institutions the college still plays so large a part in the whole that a far more considerable share of the instruction is devoted to the undergraduates.

Owing to the great expansion of facilities separate courses are now delivered in most of the leading universities on various detailed questions of economics. These may be classified as follows:—

1. Economic History and History of Economics.—Such are courses, on the one hand, on the financial history of the United States, the industrial history of the United States, the tariff history of the United States, and the economic history of Europe in general and of the various European countries in particular; and, on the other hand, courses on the general history of economics, with special courses on the English economists and the foreign economists.

2. The General Theory of Economics.—Here we find preliminary and advanced courses on general principles, and especially courses on the theories of distribution. Here also belong the various courses on mathematical economics, on the theory of statistics, and on statistical practice.

3. Practical Economic Questions.—Such are courses on agriculture, on money, on labour, on transportation, on trusts and industrial organisation, on domestic and foreign trade, on banking, on insurance, on crises, and the like.

4. The subjects of Finance and Accounting.—Here we find courses on taxation, on public debts, on budgetary methods, and on the principles of accounting, private and public.

5. Courses on Sociology and Social Economy. —Among these are courses on the general principles of sociology, problems of social legislation, of pauperism, of criminology, and the like.

The result is that in the largest institutions sometimes as many as thirty or forty separate courses are offered.

The instruction for undergraduates is still largely given by means of text-book instruction. For the university work the instruction is almost exclusively by lectures supplemented by the system of "seminars" or special classes of advanced students meeting for research work under the direction of the professor.

The number of students in economics and social science has increased enormously in recent years. The American Economic Association publishes every year a list of the doctors' dissertations which are in progress. According to this list, the institutions having the largest number of advanced students working for a degree during the past few years are in the respective order: Columbia University, University of Wisconsin, Harvard University, Johns Hopkins University, and Cornell University. Several of the universities also now publish series of studies on economic questions. Among these are the Johns Hopkins University Studies, founded in 1883; Studies of the School of Political Science of Columbia University, founded in 1891; the University of Wisconsin Bulletin, founded in 1904; and the Harvard Economic Studies founded in 1906. Virtually all of the academic teachers of economics are members of the American Economic Association, which has over a thousand members, and which holds annual reunions in various parts of the country. Of recent years the study of economics has also been introduced into the high schools. But the study is limited to the barest elements of the science, and is generally included in what is known as Civics, or a discussion of the framework and fundamental principles of government.

Altogether the outlook for the academic study of economics in the United States has never been so bright as it is at the present time, and the interest is increasing from year to year. E. R. A. S.

ENGEL, Ernst (1821-1896), born at Dresden, began life as a civil engineer, but in 1850 undertook the direction of the newly founded Royal Saxon Bureau of Statistics. In 1858 he resigned this post, and after the death of Dieterici, in 1859, was appointed in 1860 Head of the Prussian Bureau of Statistics, holding the office for twenty-two years, during which period he carried on the work with such energy, that the Bureau, up to that date little known, became a most useful institution of great value to the government and the country in general in all social and economic matters. He also edited a statistical journal and founded a "Statistical Seminary" for students. He retired from the Bureau in 1882, owing partly to disagreement with the government and partly to failing health, but continued to work in retirement. Though brilliant and full of enthusiasm, he was not always a strictly accurate thinker. His principal work was to stimulate and develop the study of statistics.

Among his works are: *Das sächsische Obererzgebirge und seine gewerbliche Bedeutung in Gegenwart und Zukunft*, Dresden, 1855.—"Der Arbeitsvertrag und die Arbeitsgesellschaft" (in the *Arbeiterfreund*, 1867).—"Die Industrie der grossen Städte, eine sozial-statistische Betrachtung" (in the Berlin municipal calendar and year-book, 1868).—*Die industrielle Enquête und die Gewerbezählung im deutschen Reich und im preussischen Staate*, Berlin, 1878.—*Die Gewerbezählung vom i. xii. 1875 und ihre Resultate*, Berlin, 1878. *Deutschlands Getreideproduktion, Brotbedarf und Brotbeschaffung*, Berlin, 1881.—*Das Rechnungsbuch der Hausfrau und seine Bedeutung im Wirtschaftsleben der Nation*, Berlin, 1882. (Vol. xxiv. of the *Volksw. Zeitfragen.*)—*Der Wert des Menschen.* Part 1: *Der Kostenwert des Menschen*, Berlin, 1883. (Vols. xxxvii. and xxxviii. of the *Volksw. Zeitfragen*, forming the first part of a work planned by him in 3 vols. *Domos*, of which nothing further has been published.) In the *Assekuranz-Jahrbuch*, "Ein praktisches Beispiel der Altersfürsorge," 1886, and "Die Tilgung der Erziehungsschuld," 1887.

He published many articles in the *Zeitschrift des Statistischen Bureaus des Königlich-Sächsischen Ministeriums des Innern*: "Der Nutzen der Statistik," 1855;—"Ueber die Bedeutung der Bevölkerungsstatistik mit besonderer Beziehung auf die 1855er Volkszählung im Königreich Sachsen und die Produktions- und Konsumtionsstatistik," 1855.—"Beiträge zur Gewerbegeographie und Gewerbestatistik des Königreichs Sachsen," 1856-1857.—"Der Wohlthätigkeitskongress in Brüssel im September 1856," 1856.—"Der Viehstand auf dem grossen und kleinen Grundbesitz im Königreiche Sachsen, ein Beitrag zur Beantwortung der Frage: Ist die Grosskultur oder die Kleinkultur dem Staate nützlicher?" 1857.

In the *Zeitschrift des königlich-preussischen statistischen Bureaus* he published many articles: "L. A. J. Quetelet, eine Gedächtnisrede, gehalten in der Plenarversammlung des ix. intern. statistischen Kongresses zu Budapest am i. ix. 1876," 1876.—"Wer ist Konsument? Wer Produzent? Zwei international-statistische Fragen, versuchsweise beantwortet," 1879.—He further published in the *Zeitschr. f. d. ges. Staatsw.* 1853, "Die amtliche Statistik und das statistische Bureau im Königreich Sachsen mit einem Blick auf die statistische Centralkommission in Brüssel"—in the *Bulletin de l'Institut internat. de statist.*, vol. ii., Rome, 1887, "Rapport sur la consommation comme mesure de bien-être des individus des familles et des nations";—vol. ix. Rome, 1895-96, "Die Lebenskosten belgischer Arbeiterfamilien früher und jetzt. Ermittelt aus Familienhaushaltrechnungen und vergleichend

zusammengestellt." A number of important German old statistical writings were collected by Engel and published in the *Compte rendu* of the ix. International Statistical Congress (Budapest, 1876-78).

[See *Economic Journal*, vol. vii., London, 1896.—*Handwörterbuch der Staatswissenschaften*, giving a complete list of his works, vol. iii. 1900.]

ENGELS, FRIEDRICH (1820-1895), born at Barmen, Rhenish Prussia, died in England, where he had lived for many years. The son of a wealthy cotton manufacturer, he was connected with the business for a considerable part of his life. In his economic activity he was closely associated with Karl MARX, and his most important work was his assistance in the publication of the second and third parts of *Das Kapital* by that author, of which only the first part had appeared during the life of Marx. The readers of that book will recognise how greatly it is indebted to Engels for being issued in an intelligible form. The *Communistic Manifesto* of 1848 was written by the two friends. Several of the works of Engels are published in English.

"Umrisse zu einer Kritik der Nationalökonomie," in the *Deutsch-französischen Jahrbüchern*, 1844, and again in the *Neue Zeit*, vol. ix., 1890-91.—*Die Lage der Arbeitenden Klasse in England*, Leipzig, 1st ed. 1845, reprint, Stuttgart, 1892. Translated into English, *The Condition of the Working Classes in England in 1844*, New York, 1887, with a preface and appendix, the latter published separately as *The Working Class Movement in America*, New York, 1887; London, 1888; in German as *Die Arbeiterbewegung in Amerika*. — "Einleitung über Freihandel," a speech delivered in Brussels, 1849, translated into English, "K. Marx, Free Trade," Boston and London, 1889.—*Die preussische Militärfrage und die deutsche Arbeiterpartei*, Hamburg, 1865. —*Der deutsche Bauernkrieg*, 1875.—*Zur Wohnungsfrage*, 3 vols., Leipzig, 1872; Zurich, 1887. —*Soziales aus Russland*, Leipzig, 1875.—*Die Entwickelung des Sozialismus von der Utopie zur Wissenschaft*, Berlin, 1891.—*Der Ursprung der Familie des Privateigentums und des Staats*, 1894.—From the *Neue Zeit*: "Ueber den Bürgerkrieg in Frankreich," vol. ix., 1890-91. — "In Sachen Brentano contra Marx wegen angeblicher Citatsfälschung," vol. ix., 1890-91.—"Marx und Rodbertus," vol. iii., 1885.—"Der Sozialismus in Deutschland," vol. x., 1891-92.—"Ueber historischen Materialismus," vol. xi., 1892-93.—"Die Bauernfrage in Frankreich und Deutschland," vol. xiii., 1894-95.—Besides his work with Marx mentioned above (Marx, *Capital*, revised and edited by F. Engels, translated into English by Moore and Aveling, London, 1887), he also assisted him in the following works, writing prefaces, introductions, etc.,—introduction to *Vor den Kölner Geschworenen 1849*, 1885;—introduction (on the history of the "Bundes der Kommunisten") to *Enthüllungen über den Kölner Kommunistenprozess 1851*, 1885;—introduction to *Lohnarbeit und Kapital*, 1891;—note on Brentano in *Kapital*, vol. i., 1890; —and note on Rodbertus in vol. ii., 1885;—note on Rodbertus in *Das Elend der Philosophie*, 1885; —also introd., with biography of the author and history of the Prussian peasantry, to Wolff's *Die Schlesische Milliarde*, 1886;—introduction, with biography of author, to Borkheim's *Zur Erinnerung an die deutschen Mordspatrioten*, 1888.

[See *Handwörterbuch der Staatswissenschaften*, with complete list of his works, vol. iii., Jena, 1900.]

ENGINEERING TRADES INDUSTRIAL TREATY. During the early part of 1907 an important industrial treaty was drawn up and signed by the chairmen and secretaries of the executive bodies of the "Engineering Employers' Federation and the Engineering Trade Unions[1] as to working conditions and avoidance of disputes."

This treaty was practically the outcome of the "Terms of Settlement" between masters and men arranged at the close of the great strike in the engineering and ship-building trades of 1897-98. One of the most remarkable results of that strike was that confederation on both sides followed. While the engineering employers united in a carefully arranged organisation, the various trade unions concerned joined together in an alliance. These two great federations have done much since to keep the peace between masters and men. But it has gradually been felt that between two such powerful organisations an agreement should exist of a different nature from that of the "Terms of Settlement" made when the men were the vanquished and the employers the dictating parties. The revision of the treaty, which has been discussed from time to time during the last ten years, has now been carried out. To quote from the article on the subject in the Financial and Commercial Supplement to the *Times* of Monday, April 29, 1907: It is doubtful if, in all our industrial affairs, a more comprehensive and fair-minded document was ever evolved. Its principle is justice, and its essence is what, in trade-union phraseology, is called "mutuality." It is the product of mutual respect engendered in the long term of peace since one of the most severe industrial wars on record. Here, for instance, is the note as sounded in the preamble:—

"The representatives of the Engineering Employers' Federation on the one hand and of the Engineering Trade Unions on the other hand, being met in joint conference, and being convinced that the interests of each will be best served and the rights of each best maintained by a mutual agreement, hereby decide to adopt measures to avoid friction and stoppage of work."

This statement implies a "permanent abolition of the militant element."

[1] The engineering trade unions are the Amalgamated Society of Engineers, the Steam Engine Makers' Society, and the United Machine Workers' Association.

The present agreement carries out this feeling. "It provides for the effective recognition of trade unions and also of non-union labour."

We quote from the most important clauses which define the general principles.

(1) The federated employers shall not interfere with the proper functions of the trade unions, and the trade unions shall not interfere with the employers in the management of their business.

(2) Every employer may belong to the Federation, and every workman may belong to a trade union or not, as either of them may think fit. Every employer may employ any man, and every workman may take employment with any employer, whether the workman or the employer belong or not to a trade union or to the Federation respectively. The trade unions recommend all their members not to object to work with non-union workmen, and the Federation recommend all their members not to object to employ union workmen on the ground that they are members of a trade union. No workman shall be required to make a declaration as to whether he belongs to a trade union or not.

(5) Employers have the right to employ workmen at rates of wages mutually satisfactory to the employer and the workman or workmen concerned. In fixing the rates of skilled workmen, the employer shall have regard to the rates prevailing in the district for fully trained and skilled men. Unions, while disclaiming any right to interfere with the wages of workmen other than their own members, have the right in their collective capacity to arrange the rate of wages at which their members may accept work. General alterations in the rates of wages in any district shall be negotiated between the employers' local association and the local representatives of the trade union or unions concerned.

(6) There shall be no recognised proportion of apprentices to journeymen, but it shall be open to the unionists to bring forward for discussion the proportion of apprentices generally employed in the whole federated area. An apprentice shall be afforded facilities for acquiring a practical knowledge of the branch of trade he adopts, and shall be encouraged to obtain a theoretical knowledge thereof as far as circumstances permit.

(7) Selection, training, and employment of operatives and manning of machine tools:—

Employers have the right to select, train, and employ those whom they consider best adapted to the various operations carried on in their workshops, and to pay them according to their ability as workmen. Employers, in view of the necessity of obtaining the most economical production, whether by skilled or unskilled workmen, have full discretion to appoint the men they consider suitable to work all their machine tools, and to determine the conditions under which they shall be worked. The Federation recommend their members that, when they are carrying out changes in their workshops which will result in displacement of labour, consideration should be given to the case of the workmen who may be displaced, with a view, if possible, of retaining their services on the work affected or finding other employment for them.

(8) With a view to avoid disputes, deputations of workmen shall be received by their employers, by appointment, for mutual discussion of any question in the settlement of which both parties are directly concerned; or it shall be competent for an official of the trade union to approach the local secretary of the Employers' Association with regard to any such question; or it shall be competent for either party to bring the question before a local conference to be held between the local association of employers and the local representatives of the trade unions. In the event of either party desiring to raise any question, a local conference for this purpose may be arranged by application to the Secretary of the Employers' Association or of the trade union concerned, as the case may be. . . . There shall be no stoppage of work either of a partial or of a general character, but work shall proceed under the current conditions until the procedure provided for above has been carried through.

In the constitution of conferences common sense appears to have prevailed. Satisfactory rules have been made as to the selection of delegates.

It was decided that, "An employer who refuses to employ trade unionists will not be eligible to sit in conferences."

With regard to overtime and piece-work, the employers agree to discourage overtime (which no rational employer favours), and no union workman shall give more than thirty-two hours' overtime in any four weeks except in emergencies. The employers also concede that no man on piece-work shall earn less than he would if he were being rated according to time.

The statement here given explains the main provisions of a treaty which reflects credit on the reason and good sense of those who have drafted it, and which may well stand as a pattern to the whole industrial world. It assures the "proper" authority of the trade unions who can now afford to recognise what they have sometimes attempted to ignore or destroy—freedom of employment and freedom of labour—in other words, the liberty of the subject, while trade union rights to collective bargaining are established, the right of employers to elect and rate workmen according to their ability or industry, and not merely according to dead-level scale, is also established. With regard to machine tools the employers have accorded the workmen the freedom which they claimed, but they in turn agree to give special consideration to the case of workmen displaced by the adoption of machine tools. The terms and the temper of the agreement on both sides give good hope of industrial peace and industrial prosperity.

A similar movement is taking place in America, where much distress has been caused by violent and lawless agitators and by irresponsible trade unions of a low stamp.[1] Employers' organisations have been formed to meet

[1] See Engineering Supplement, *Times*, July 17, 1907.

and avert these evils all over the United States, the largest being that of Chicago, including 3000 to 4000 firms employing about 200,000 men and with a united capital of about £50,000,000. This association differs from those formed in England, which include businesses of one kind only, in being a federation of smaller associations of individual trades united under one organisation. It originated about the year 1902 when representatives of the great firms of Chicago met together to discuss how to deal with the unbearable tyranny of certain trade unions and labour organisations, and decided to enter into a mutual defensive alliance pledged to stand by any one of the firms concerned in the event of attack.

A central body, "The Citizens' Industrial Association of America," has since been formed of all associations having similar views, one of their principal objects being to educate the public, and especially working men, by means of literature, lectures, etc., so that they may understand the economic conditions under which they live, and be intellectually equipped to withstand the misleading influence of unscrupulous or ignorant agitators. Their work is, however, by no means confined to instruction. The associations maintain much the same principles as the Engineering Federation of Great Britain. The most important of these is the "Open Shop," by which is meant the power of masters to employ union or non-union men without discrimination. They also strive for the suppression of "sympathetic strikes," that is to say, the practice—far less common in England than in the United States—of declaring a strike in one trade because there happens to be one in another, though quite unconnected. It is also desired to prevent restriction of output, and of the number of apprentices. Finally, some of the most important part of the work has been carried out by the Legal Department, which during the year November 1905 to November 1906 considered and handled "2007 cases, both civil and criminal. A large proportion of these cases were criminal ones, growing out of the recent teamsters' strike in Chicago. The total number of convictions arising out of that strike were 803, of which 725 were cases of violence against members of the association. No effort was made to obtain severe punishments, the general principle followed being that it is the certainty rather than the severity of the punishment that deters crime. Many prosecutions were instituted against union men, although the evidence was weak, simply for the moral effect of the prosecution. The attorney for the association claims that because of these prosecutions union men have far more respect for the law to-day than in previous years."

These views, like those of the similar associations of England, are by no means unreasonable. They are prepared to treat labour organisations with great fairness and openness as long as the latter are in their turn reasonable and law-abiding. As in England, their primary objects are industrial freedom, the avoidance of labour disputes and of the stoppage of trade, and they claim, no doubt with great justice, that they have already inculcated a better understanding of the points at issue and strongly influenced public feeling in the direction of peace.

Few persons are aware how much our industries and also the workmen employed in them have lost through the unwillingness in years gone by of men of ability to expend their energies and their fortunes in businesses in which they would be compelled to subject themselves to the tyranny of the trade unions.

[See ARBITRATION BETWEEN EMPLOYERS AND EMPLOYED; CONCILIATION, BOARDS OF; CONSEILS DE PRUD'HOMMES; EMPLOYERS AND EMPLOYED; INDUSTRY, CAPTAINS OF; LABOUR AND CAPITAL; STRIKES; TRADE UNIONS; and in the Appendix COPARTNERSHIP; TRADE UNIONS AND STRIKES; UNEMPLOYED.]

EXPORTS, INVISIBLE. The large excess of imports over exports in the trade of this country has long been a subject of remark. How can the difference between these two sets of figures be accounted for?

The figures of recent years are as follows:—

	Total Imports.	Total Exports.	Excess of Imports.
	£	£	£
1900	523,000,000	354,000,000	*169,000,000*
1901	522,000,000	348,000,000	*174,000,000*
1902	528,000,000	349,000,000	*179,000,000*
1903	543,000,000	360,000,000	*183,000,000*
1904	551,000,000	371,000,000	*180,000,000*
1905	565,000,000	408,000,000	*157,000,000*

The excess of the imports over the exports of the United Kingdom was larger for the year 1900 than it had been any year before. This excess increases in the main progressively. Thirty years ago the figures were but a quarter of what they are now. To understand the real meaning of the phenomenon, we have, in the first place, to remember that while the value of the imports is correctly stated, the value of the exports is necessarily understated, and that largely. The figures stating the cost of the exports are taken from the declarations made either by the owner of the goods or the agent who forwards them for shipping abroad. It can neither include the profit which the exporter expects to make, nor the whole of the cost of conveying the goods to their destination. Into these heads many items are brought which few people unconnected with business would ever think of. For instance, there is the whole expense of agency, no small charge in itself. The cost of freight

is very large. Ships are very perishable. They become rapidly out of date; they require constant repair. The payment for freight provides, among other things, practically the cost of the construction, maintenance, and navigation of those powerful lines of enormous steamers which connect this country with the rest of the world. Sir R. Giffen, who gave the amounts received in this manner the name of "Invisible Exports," about 1904 estimated these in the form of earnings of ships, commissions, and brokerage as not less than £100,000,000 a year.

Besides these amounts which do not appear in our ordinary statistics, there are the payments of the annual interest due on the capital which was exported many years back and invested abroad. These are estimated as being some £60,000,000 a year. We need not pursue the subject further into detail, but we think that enough has been said to explain that the difference between the amounts of our exports and imports which occasionally puzzles the untrained reader of the official statistics of the trade of the country is largely a matter of account.

Sir R. Giffen, *Essays in Finance*, First Series 1880, Second Series 1886; Bell. — *Economic Inquiries and Studies*, two vols., 1904, Bell.

FERRARA, FRANCESCO (1810-1900), born in Palermo, died in Venice. Italians consider him their best Economist of the 19th century.

Ferrara's works have been nearly all collected in four large volumes, published by the *Unione Tipografica editrice* of Turin, 1889-91. This publication, however, never had his consent, although he could not legally oppose it. To Ferrara is due the renewal of economic study in Italy. He obtained this result by putting into the hands of Italian students translations of a collection of all the principal foreign writers on economics, and editing the *Biblioteca dell'Economista*, with historical and critical prefaces, constituting a complete treatise on economics. From Sicily, where he had been imprisoned in 1848, and soon after liberated by the successful revolution, he had been sent to Turin to offer the throne of Sicily to the second son of Charles Albert. He could not return to Sicily where the Bourbons had re-established their government. He joined the staff of the *Risorgimento*, which paper was edited by CAVOUR. On the 16th of November 1849, he gave his inaugural speech at the university of Turin, where he taught till 1859. This speech proclaimed him then and there as an economist superior to any other Italian economist ever since the times of GALIANI, GENOVESI, VERRI, GIOIA, etc., and superior to SCIALOJA, his predecessor in the chair of Turin, and to Pellegrino ROSSI, who had been teaching at the Institute in Paris and had just been murdered in Rome. In the ten years during which he occupied the chair of political economy in Turin his time was exclusively taken up by scientific work, and we owe to this period his writings on the theory of value, in which many of the most recent views are anticipated, on material and immaterial products, in which this problem, so difficult to many writers, seems definitively settled, on net and gross produce, on wages, on economic crises, on money, on free trade and protection, on banks, and banking, etc. Into this period fall also his historical and critical explanations of the doctrines of the MERCANTILE SCHOOL, the PHYSIOCRATS, A. SMITH, of Smith's successors, RICARDO, MALTHUS, SAY, etc. Ferrara's lectures were collected on two occasions by students of his, in 1856-57, and 1857-58, but in a very inadequate way. In 1859 he had to resign, accused of having offended against the laws of the State in his lectures. He was offered a chair at Bologna and at Pisa, and preferred going to Pisa. From here, however, he was soon called to Sicily, occupied by the Italians in 1860, and he there took charge of a branch of the financial administration. Soon afterwards he entered parliament. He prepared the bill for the grist-tax (see MACINATO), the bill for the general tax on all income not already taxed by the land tax and the tax on houses—*imposta di ricchezza mobile*—spoke and wrote on inconvertible paper money, on banks of issue, was minister of finance for a short time, and retired in 1875 from active politics to Venice, taking the directorship of the first Superior School of Commerce founded in Italy. There he returned to science and to teaching, remaining a deputy till 1880, when he was made a senator. The Superior School of Commerce in Venice, besides forming merchants, has sections whose purpose it is to train future consuls, teachers of political economy, and accountants. Through these sections a large number of scholars of Ferrara are disseminated in the several branches of public administration, or are managing directors in commercial concerns. Ferrara, as a teacher, had the same conspicuous quality that CAIRNES had — to make the most complex problems appear so clear and simple, by reducing them to a few fundamental forces, that his solutions of problems remained indelibly impressed in the minds of scholars, and his method of working became a mental habit with his pupils. In polemics he was most formidable through his masterly use of irony. He often had occasion to make use of this quality, and rarely avoided these occasions. As a strenuous free-trader and personal friend of COBDEN, the reviews and papers of the time are full of polemical articles. He also strongly opposed the teaching of the SOCIALISTS OF THE CHAIR, imported from Germany after the famous Congress of Eisenach in 1874. Some of the leading Italian economists, such as Lampertico, COSSA, Luzzatti, having shown sympathy with socialism of the chair, historicism, relativity of economic laws, etc. (see RELATIVITY, PRINCIPLE OF), and having founded in Milan an economic association, Ferrara created the Adam SMITH society in Florence, with Martello, Pareto, Peruzzi, MAGLIANI, and others, and wrote on that occasion, among

other things, a pamphlet against Lampertico, a masterpiece of Italian literature, apart from its value as an economic memoir. His writings are too numerous to be quoted here. A good bibliography has been drawn up by Professor Bertolini and published in the *Giornale degli Economisti* for January 1895, pp. 45-58. Ferrara was then living, but the writer is not aware that anything important has been added to the list. M. P.

FIRMS, PUBLIC REGISTER. See PARTNERSHIP; LIMITED PARTNERSHIPS ACT 1907, and STYLE or TRADE NAME, in Appendix.

FOOD SUPPLY OF THE UNITED KINGDOM, THE. The pressure of population on the means of subsistence—a question which at one time seriously disturbed the minds of economists and statesmen—has in the United Kingdom long since reached a stage which, if these islands were dependent upon their own resources, would be most serious. The opening up of new countries accompanied by, or consequent upon, the development of rapid and cheap means of communication with all parts of the world has rendered the supply of food to nearly forty-five millions of people easier and more regular than it was a century ago to about fifteen millions. Food in this country was never more plentiful, and the risk of starvation from absolute scarcity was never less than it is in the early years of the 20th century. So far, indeed, from any difficulty arising in meeting the demands of the ever-increasing population for sustenance, their individual requirements have enormously extended. The consumption of food per head is probably actually larger in amount, and is much more varied. The national dietary now comprises many articles which were unknown to our grandfathers, or restricted as luxuries to very few.

The total amount of food produced in the United Kingdom is not known, nor is it easy to make any close estimate of its amount. The returns of produce annually collected by the Board of Agriculture are confined to the chief farm crops, which include Wheat and Potatoes, the two products of which the consumption is greatest. The returns of farm animals provide a basis for calculating the home supply of meat and dairy products, and estimates of these have been made by a Committee of the Royal Statistical Society. The following approximate estimate,[1] based as far as possible on the returns of the three years 1904-6, of the amount of produce sold off the farms of the United Kingdom annually for human consumption presents as complete a statement as is at present available.

	Cwts.
Wheat	23,000 000
Barley	20,000,000.
Oats	2,000,000
Peas	100,000
Potatoes	90,000,000
Other Vegetables	27,500,000
Fruit	14,500,000
Meat	25,000,000
Milk	56,000,000
Cheese and Butter	4,500,000
Poultry and Eggs	3,500,000

These quantities, it is to be observed, represent not the total production of the land, but that proportion of it which is estimated as being used for human food. In the case of barley nearly the whole of the above quantity is made into beer, the amount used for human consumption otherwise being reckoned at not more than one-tenth. Game and rabbits are not included in this list, while a very considerable item in the national food supply—fish—is altogether excluded. Not reckoning the products of inland waters or shell fish, the quantity of fish landed annually on our coasts is about 20,000,000 cwts. It must also be remembered that a large quantity of food is produced in private gardens and consumed by the producers, which cannot be included in a general estimate of the output of the land, but which nevertheless forms in the aggregate a very substantial contribution to the sustenance of the nation.

The food supplies which come in ever-increasing volume to our ports may be shortly catalogued from the Trade Returns, the average of the three years 1904-6 being taken. The chief items are :—

	Cwts.
Wheat and Flour (as Wheat)	115,000,000
Rice, Sago, and other farinaceous substances	11,100,000
Potatoes	5,830,000
Raw Fruit (except Bananas) and Nuts	13,360,000
Meat (live and dead)	20,000,000
Butter	4,242,000
Margarine	1,050,000
Cheese	2,545,000
Milk (condensed)	902,000
Fresh Milk and Cream	11,000
Lard	1,964,000
Sugar	31,665,000

To this statement should be added 2,305,000 thousands of eggs, 8,000,000 bushels of onions, and 5,358,000 bunches of bananas, as well as an uncertain but comparatively small proportion of barley, oats, and peas which are directly consumed as food. A considerable quantity of imported barley is used for malting, but probably a great part is utilised as food for stock. No account is taken of the imports of tea, coffee, cocoa, wine, spirits, and other beverages which ought properly to be included in the food supply.

Without attempting too close a calculation—which the data do not justify—of the proportion of our total supplies of food which are produced at home and abroad respectively, it will suffice

[1] See "The Food Production of British Farms," *Journal Royal Agricultural Society*, vol. 64.

to note the relation in the case of a few principal items. Thus we obtain from extraneous sources about 83 per cent of our wheat, 45 per cent of our meat, and 60 per cent of our cheese and butter, while it would also appear (though this is a very uncertain figure) that nearly half the supplies of fruit which come into the market are of foreign or colonial origin. When to this is added the whole supply of sugar, as well as the supply of all beverages except beer, spirits, and mineral waters, the dependence of the national commissariat on over-sea contributions is sufficiently apparent.

Under normal conditions of trade this dependence, which is the result of purely economic causes, affords grounds for neither surprise nor anxiety. Indeed, the extent and variety of our sources of supply furnish a substantial guarantee against scarcity. But it is impossible to avoid the reflection that the reliance of four-fifths of the population for their daily bread on the uninterrupted maintenance of over-sea communications involves a risk, which, however small, is nevertheless appalling to contemplate. A strict investment of these islands, in the sense in which Paris was invested, is practically inconceivable. It could not begin to come within the bounds of possibility until our fleet was over-mastered and the supremacy of the sea was absolutely lost. And in that disastrous event it may be argued that, as the nation would lie at the mercy of invading armies, it would matter little if it were conquered by starvation or by assault. But without contemplating such a catastrophe, there is still a serious risk, not indeed of starvation, but of such a reduction in supplies and a rise in price as might materially affect the power of the nation to wage successful war. The various considerations involved in this proposition are exhaustively discussed in the Report and Evidence of the Royal Commission on the Supply of Food and Raw Material in Time of War and space does not here permit of more than a reference to the voluminous information therein contained. Amid much difference of opinion it is generally admitted that there is a probability, if not indeed a certainty, that in the event of war with one or more maritime powers, there would be a panic rise of price, even exceeding that estimated by D'Avenant. (See vol. i. of this Dictionary, p. 484 *c*, and vol. iii. p. 498 *c*.) Nor, apart from war, is the possibility of a failure or serious shortage of the harvest, leaving all exporting countries with little more than sufficient for their own requirements, a contingency to be altogether ignored. While, therefore, our ever-increasing dependence for the means of subsistence as a nation on over-sea supplies need cause no alarm in times of peace and plenty, it cannot fail to induce misgivings as to a position in circumstances which, however unlikely, are by no means impossible. At any rate, it provides an additional incentive on national grounds for the adoption of all practicable means for maintaining the land of the country in cultivation and increasing its productiveness. R. H. R.

GEISSLER, Dr. Adolf (*c.* 1834-1902), was, like many other German economists, originally trained for another branch of study, having received a very thorough education in medicine. He also obtained a complete mastery of the mathematical theory of statistics. His earlier publications dealt with questions of weakness and diseases of the eyesight. In 1865 he produced a book dealing with injuries to the eyes in relation to the needs of practical physicians; and this was followed in 1882 by one on colour-blindness. Apparently his most important economic work was a monograph on the mortality and duration of life among Saxon doctors, published in 1887. He became director of the Royal Saxon Bureau of Statistics in succession to Böhmert, and published several other medico-economic monographs, on the proportion of males to females at birth, on the influence of mortality on the birth-rate, and on the mortality of invalids. He also published some anthropometrical studies. His chief works were:—

Die Verletzungen des Auges.—Monographsicht mit besonderer Rücksicht auf die Bedürfnisse des praktischen Aertzes, etc., 1865.—*Die Farbenblindheit ihre prüfungsmethoden und ihre praktische bedeutung*, 1882.—*Die Sterblickheit und Lebensdauer die sächsisschen Aertze*, 1887. [See *Economic Journal* for March 1902.] N. B. D.

GEORGE, Henry (1839-1897), was the son of a Custom House clerk in Philadelphia, Pennsylvania. He left school when less than fourteen years of age, and after spending two years in a store went to sea as a foremast boy; when seventeen he returned and entered the printing trade. In 1858 he went to San Francisco, became first a miner, then a government inspector, and finally a journalist. He visited New York in 1868 to set up a telegraphic news bureau for a San Francisco newspaper. Failing in his endeavour he returned to the western city the following year. But his stay in New York had opened his eyes to the poverty which accompanied increasing aggregate wealth, and two years after his return he wrote a pamphlet entitled *Our Land and Land Policy*. This did not create much impression, but it contains his leading idea. He then set to work to prepare for a more thorough study of the problem and more detailed exposition, and in 1877 the writing of *Progress and Poverty*, which appeared in 1879,

was begun. This book attracted great attention, and the author soon found he had many disciples. It has since been translated into all the chief tongues of Europe.

Progress and Poverty is "an inquiry into the cause of industrial depressions and of increase of want with increase of wealth." The increase of productive power has "neither lessened the toil of those who most need respite, nor brought plenty to the poor." Poverty is deepest and the struggle for existence sharpest where "the conditions to which material progress everywhere tends are most fully realised." This fact proves that the social difficulties existing "do not arise from local circumstances, but are, in some way or another, engendered by progress itself." The reason for the growth of poverty "is that, with increase in productive power, rent tends to even greater increase, thus producing a constant tendency to the bringing down of wages." Rent and wages depend on the margin of cultivation, rent "rising as it falls, and falling as it rises"; wages "falling as it falls, and rising as it rises." The true remedy, then, is to make land common property. It is not necessary, however, to confiscate the land, "it is only necessary to confiscate rent." "What I propose as the simple yet sovereign remedy . . . is to appropriate rent by taxation," "to abolish all taxation save that upon land values." The entire rent, earned and unearned, should be confiscated. When improvements become indistinguishable from the land itself "the title to improvements becomes blended with the title to the land; the individual right is lost in the common right." All that justice or policy requires is the separation of "the value of the clearly distinguishable improvements made within a moderate period, from the value of the land, should they be destroyed." The danger of these opinions has become more apparent as time goes on.

In 1882 George wrote a pamphlet on *The Irish Land Question*, took the side of the Land Leaguers, and spoke for them. The remainder of his life was spent in propagating his philosophy by means of books, newspapers, agitation, and organisation. He made New York his headquarters, but made lecturing tours in America, England, and Australia. He was a candidate for mayor of New York in 1886 and 1897, but during the election campaign in the latter year he died suddenly of apoplexy. A biography has been written by his son. George's chief writings are—

Our Land and Land Policy, 1871.—*Progress and Poverty*, 1879.—*The (Irish) Land Question*, 1881.—*Social Problems*, 1883.—*Protection and Free Trade*, 1885.—*The Condition of Labour*, 1891.—*A Perplexed Philosopher*, 1892.—*The Science of Political Economy* (posthumous publication). An adverse criticism of the theory contained in *Progress and Poverty* appears in *Contemporary Socialism*, by Rae. J. H. J.

GIBBINS, The Rev. Henry de Beltgens (1865-1897), born at Port Elizabeth, Cape Colony, was educated at Bradford Grammar School and at Wadham College, Oxford, obtaining the Cobden University prize in 1890. After holding various posts connected with education in England, he was appointed Principal of Lennoxville University, Canada, in 1906, but resigned soon after owing to ill-health and returned to England. He retained an interest in economics during his life, and his works, which were largely historical, were widely read and popular. His *Industrial History of England* went into ten editions in fifteen years; his *Industry in England* and *The English People in the Nineteenth Century* are both in their third edition; and he also wrote *The History of Commerce in Europe*, 1891, *English Social Reformers*, 1892, *British Commerce and Colonies*, 1893, *Industrial and Commercial Progress of the Nineteenth Century*, *Economics of Commerce*, 1905, and a history of Kidderminster School, of which he was for a time headmaster. He also edited the *Social Questions of To-day* series, and frequently wrote in the reviews.

He contributed to this *Dictionary* the articles on Goldsmiths, Goldsmiths' Notes; Government Regulation of Industry, discussing the earlier history of Taxation; Pre-Roman Industry in Britain, and the Biographies of Richard Oastler and Max Stirner.

Mr. Gibbins' early death by an accident cut short a career which, if prolonged, might have produced further useful results.

GOLD, INCREASE IN THE PRODUCTION OF. It is a matter of common knowledge that the production of the precious metals, and especially of gold, during recent years has increased to an amount unknown before. We wish in our present remarks to discuss not only this fact, but also some of the results to business, and particularly to banking, which will naturally follow. These are sometimes lost sight of. The increase in amount has been more than was anticipated, while the influence of the increased supply has been in some respects different from what has been expected. Some people have thought that changes in price would result which would correspond in some degree with what occurred some fifty or sixty years since, when the gold discoveries of California and Australia surprised the world. But history has on this occasion not repeated itself, and very remarkable differences have been noticed between what has occurred now and what took place then. Cairnes's *Essays on the Gold Question* are the best chronicle of what occurred after the gold discoveries in Australia. A general rise of prices took place. Butchers' meat and most other animal and agricultural products rose greatly in price. On the other hand, since the recent gold discoveries, producing a yield largely in excess of those of

half a century since, which alarmed the French economist, M. CHEVALIER, so greatly, and had an influence on the judgment of RICHARD COBDEN, no similar effect on prices has at present followed. Sauerbeck's Index Number shows that at the present time the prices of articles of food are distinctly lower than they were thirty years since, and prices generally stand very nearly at the level at which they were marked then. The annual production of gold recorded is more than twice as large now as it was at that period, as the tables which will be found farther on in this paper show conclusively, and the coinages of gold have even been larger in proportion. It must not be forgotten that banking also has developed itself very largely during the period now under discussion, and one result of banking is to economise the use of the precious metals, thus assisting the development of credit, which has always so great an effect on prices.

The question naturally arises, What has been the reason of the different effect of similar events at different periods? A good deal of information on this point can be obtained from the interesting summary of monetary events published annually in the *Reports of the Director of the United States Mint* and from the tables which the reports contain. The fact is simply this: the use of gold as a standard and as currency has increased more rapidly than the amount produced. We must carry our retrospect some distance back. Within the last thirty years all the great countries of the world have adopted either gold as a standard, or the use of gold in a manner which practically has the same influence in promoting the use of gold as a medium of exchange. Germany was the first great country of Europe to make the change. The fundamental coinage laws were those of Dec. 4, 1871, and July 9, 1873. Before that time the currency of Germany was mainly silver, the coinage being of great complexity.

Meanwhile all the countries forming the Latin Union, which includes France, Belgium, Italy, Switzerland, and Greece, and has probably the largest gold coinage—in the 20 and 10 franc piece—in the world, are legally bimetallic; but as the private coinage of silver was suspended (in France and Belgium in 1873), and is solely in the hands of the Governments concerned, the only important coinage is of gold. These countries may therefore be regarded as gold coinage countries. The change from the use of silver to gold has taken a considerable time to bring about in the LATIN UNION, the last monetary convention among the countries of the Union having been that of 1885. The condition of matters in these countries is somewhat like that of England in the early part of the 19th century. For many years the use of gold prevailed here, though legally the double standard was in force.

In the United States an Act of Congress, of the 14th March 1900, expressly declared the gold standard to be the legal standard of value with which a parity must be maintained by all other forms of money issued or coined by that country. (*United States Mint Report*, 1900, p. 149.)

Russia in 1897, India in 1899 (at the rate of 15 rupees to £1 sterling, thus making the silver rupee worth 1s. 4d.), Austria-Hungary in 1892, the Scandinavian Monetary Union (Denmark, Sweden, and Norway) in 1873, have all adopted gold. Holland also is on a gold system, the coinage of silver having been suspended at the same date as in France and Belgium. Italy, which had long a large over-issue of paper, suspended the coinage of silver in 1875, and is now on the same level as France and Belgium.

The following countries adopted gold at the dates mentioned:—Costa Rica, 1896; Japan, 1897; Ecuador, 1900; Panama, 1903; Colombia, 1903; Mexico, 1905. Chile adopted gold in 1895, but a year or two afterwards she suspended the gold standard. Peru has ceased to coin silver since 1897, except recoinages into fractional money. Gold coin to the value of £369,841 was coined in Peru during the years 1903-5, but this small issue does not appear to have been repeated.

Having thus indicated in a general way the principal events which have influenced the use of gold as a standard, or as the coin in general use, we learn from this rough summary of history what has occurred, which is briefly this. The United Kingdom was, down to the year 1870, the only important country with a gold standard. At the present time all the important countries of the world use gold.

We will proceed to give all the particulars we can as to the production and use of gold.

Table I. gives the estimated production of gold from the year 1841 to 1905. 1844 is the date of our Bank Act in England, and is taken as indicating the commencement of the modern banking system.

This table enables us to see to what an extent the circumstances of the world in respect to the supply of gold have altered since that date. The table commences with the annual average of production for the years 1841-1850. The columns of proportional figures enable us to trace the course of events, taking the first ten years as equalling 100. From this point the table is divided into periods of five years. The result of the discoveries of gold in California, 1848, and Australia, 1851, are shown by the rise of the proportional figure from 100 to an average of more than 350; that is to say, fully three and a half times within five years. This proportion is continued in the main for the next forty years. About 1891 the production of gold began to receive a considerable impetus, principally from South Africa, and in

the last five years the annual production was nearly nine times as large as in the years 1841-1850. Great as this increase has been, larger figures are expected by the Mint of the United States. The Report of November 1905 contains an estimate that "an increase to our stock of gold within twenty years of $15,000,000,000 [£3,000,000,000] need not surprise us." Comparing these figures with the estimated production from 1841 to 1905, it means that in twenty years from this time it may be expected that the stock of gold in the world will have received an increase of about twice as large as the whole production in the sixty years from 1841 to 1905 (*Report on the Production of the Precious Metals, United States Treasury*, 1905).

TABLE I.—*Production of Gold and Silver in the World since 1841, in Periods of Five Years.*

GOLD.

Years.	Annual Average for Period.	Proportion of each group to 1841-1850. 1841-1850 =100.	Total for Period.
1841-1850	£7,239,000	*100*	£72,786,000
1851-1855	26,503,000	*368*	132,513,000
1856-1860	26,817,000	*372*	134,083,000
1861-1865	24,598,000	*341*	122,989,000
1866-1870	25,922,000	*360*	129,614,000
1871-1875	23,115,000	*321*	115,577,000
1876-1880	22,917,000	*318*	114,586,000
1881-1885	19,823,000	*275*	99,116,000
1886-1890	22,579,000	*313*	112,895,000
1891-1895	32,589,000	*453*	162,947,000
1896-1900	51,460,000	*714*	257,301,000
1901-1905	64,412,000	*894*	322,060,000
			£1,776,467,000

SILVER.

Years.	Annual Average Coining Value for Period.	Proportion of each group to 1841-1850. 1841-1850 =100.	Total for Period.
1841-1850	£6,488,000	*100*	£64,880,000
1851-1855	7,365,000	*114*	36,824,000
1856-1860	7,524,000	*116*	37,618,000
1861-1865	9,154,000	*141*	45,772,000
1866-1870	11,133,000	*171*	55,665,000
1871-1875	16,373,000	*252*	81,864,000
1876-1880	20,370,000	*314*	101,851,000
1881-1885	23,791,000	*367*	118,955,000
1886-1890	28,163,000	*433*	140,815,000
1891-1895	40,748,000	*618*	203,742,000
1896-1900	42,846,000	*661*	214,229,000
1901-1905	42,674,000	*657*	213,370,000
			£1,315,595,000

Meanwhile the demonetisation of silver has continuously gone on; but it is very remarkable that the annual production of that metal has increased, though not to the same extent as the gold, during the same time. The annual average production, which was £6,500,000 in the years 1841-1850, reaches nearly £43,000,000 in the period 1901-1905, being more than six times, nearly seven times, as large as in the earlier period.

We cannot trace the coinages of the world farther back than for the last thirty years. The figures are as follows:—

TABLE II.—*Coinage of Gold and Silver of the Mints of the World, 1876-1905.*

Years.	Gold Coinage Value.	Silver Coinage Value.
1876	£42,624,000	£25,315,000
1877	40,323,000	22,872,000
1878	37,677,000	32,238,000
1879	18,151,000	20,978,000
1880	29,945,000	16,922,000
1881	29,403,000	21,602,000
1882	19,939,000	22,157,000
1883	20,969,000	21,861,000
1884	19,886,000	19,166,000
1885	19,152,000	25,353,000
1886	18,928,000	24,971,000
1887	24,999,000	32,682,000
1888	26,966,000	26,984,000
1889	33,780,000	27,873,000
1890	29,850,000	30,459,000
1891	23,907,000	27,659,000
1892	34,495,000	31,103,000
1893	46,484,000	27,591,000
1894	45,584,000	22,619,000
1895	46,217,000	25,375,000
1896	39,180,000	31,908,000
1897	87,544,000	33,558,000
1898	79,096,000	29,856,000
1899	93,223,000	33,246,000
1900	70,987,000	37,072,000
1901	49,619,000	27,783,000
1902	44,081,000	38,743,000
1903	48,099,000	42,359,000
1904	91,085,000	35,302,000
1905	49,191,000	34,544,000
	£1,261,384,000	£850,151,000

The statement of the production and consumption of gold in arts and industry, and the coinage of the world, given in the reports of the United States Mint, do not exactly correspond, but, considering the enormous figures involved, they are probably as close an estimate as can be made.

TABLE III.—*Production and Coinage of Gold, 1895-1905.*

Years.	Production.	Coinage of the Mints of the World.
1895	£40,081,000	*£46,217,000*
1896	40,450,000	*39,180,000*
1897	47,215,000	*87,544,000*
1898	57,376,000	*79,096,000*
1899	61,345,000	*93,223,000*
1900	50,915,000	*70,987,000*
1901	52,198,000	*49,619,000*
1902	59,209,000	*44,081,000*
1903	65,105,000	*48,099,000*
1904	69,378,000	*91,085,000*
1905	75,258,000	*49,191,000*
	£618,530,000	*£698,322,000*

The consumption of gold in the arts and industry during this period is estimated by the Director of the United States Mint as having been £157,178,000, and the recoinage as

£113,833,000. These figures, added to the coinages that are known of, amount collectively to £969,333,000. How much of the consumption in the arts was of old material cannot be traced. But the statement makes it fairly clear that a value fully equal to the production has been employed in the coinages of the world.

Meanwhile the amount of gold held by the great banks of Europe has steadily increased. The annual average of the total coin and bullion held by the Bank of England, which was about £14,600,000 in 1844, was £33,300,000 by 1900. The Bank of France, which possessed £46,500,000 in 1877, held, in round numbers, £107,000,000 in 1906, having parted with something like £7,000,000 in that year. At the Imperial Bank of Germany the gold held on December 31, 1876, was £2,000,000. This had increased to £24,000,000 by the end of 1906, having, like that held by the Bank of France, undergone a considerable diminution during the same year. The stock of gold in the European banks on the last day of 1905 is stated as follows in Table IV. :—

TABLE IV.—*Stock of Gold in European Banks, December* 31, 1905.

Country.	1905.
Bank of France	£111,091,000
Germany—Imperial Bank	28,680,000
Local Banks	2,239,000
Bank of England	27,522,000
Banks of Scotland	5,636,000
Banks of Ireland	2,779,000
Bank of Austria-Hungary	43,541,000
Bank of Belgium	3,783,000
Bank of Bulgaria	579,000
Bank of Denmark	4,979,000
Bank of Spain	14,514,000
Bank of Greece	39,000
Bank of Netherlands	6,446,000
Bank of Italy	24,009,000
Bank of Naples	5,442,000
Bank of Sicily	1,660,000
Bank of Norway	1,544,000
Bank of Portugal	1,042,000
Bank of Roumania	3,011,000
Bank of Russia	75,887,000
Bank of Finland	888,000
Bank of Servia	463,000
Sweden Royal Bank	3,667,000
Bank of Switzerland	4,091,000
	£373,532,000

The amount held by the Banks of England and Wales may be roughly estimated as £75,000,000: thus about £450,000,000 was held by European banks in 1905. The total stock of gold specie held in the principal countries of the world is estimated, in the reports of the Director of the United States Mint, as being at the end of 1896, £871,920,000, and in 1905, £1,296,700,000. This estimate refers to a population estimated as numbering 950,000,000 in 1905, while in 1896 the population of the strictly gold-using countries was estimated in a similar way as being 297,900,000.

After examining all these figures of the production of the precious metals and the coinages of the different countries of the world, we are led to the conclusion that the larger use of gold for the standard of value combined with the greater commercial energy of the present time, as compared with the period of the discoveries in California and Australia, accounts for the fact that the vast increase in specie has been followed by a lowering in some respects, and not by a general rise in prices.

Though the production is so enormously increased, the population which makes use of a gold standard is also proportionately more increased. The gold coin is no longer accumulated in two or three small centres, but it is diffused over the whole world. To a great extent also gold has taken the place of silver as the standard of value and as the means of circulation.

There is another point which particularly concerns us in England. The larger the number of countries which employ gold, the larger their seasonal requirements of specie become. We have an instance of this on a small scale in England, where the autumn demands for holidays and harvest run up probably to six or eight millions sterling (see AUTUMNAL DRAIN). In the United States and in Canada the requirements of this description are on a far larger scale, while those which follow on any time of stringency run up to enormous sums, as in the autumns of 1906-7. When these demands reach amounts which local supplies are inadequate to meet, this country is the first to which other nations turn as the cheapest market for gold. Hence, paradoxical as it may appear, it is probable that one of the results of the increase in the production and the use of gold will be that greater demands will be made on London, with the necessary corollary that larger supplies will have to be kept here to meet them if we are to maintain our position as the Clearing House of the world. But to discuss this further would lead us into questions beyond the limits of these remarks.

[*Annual Reports of the Deputy Master and Comptroller of the Mint*, London.—*Annual Reports of the Director of the Mint*, United States.—*Production of the Precious Metals, Annual Reports*, United States.—*Report on the Introduction of the Gold-Exchange Standard into China and other Silver-using Countries*, submitted to the Secretary of State, Oct. 1, 1903, by the Commission on International Exchange, Washington, 1903.]

GOSCHEN, GEORGE JOACHIM, VISCOUNT (1831-1907), was educated at Rugby and Oxford, where he took a first class in *Literis Humanioribus*. His father was a partner in the financial house of Frühling and Göschen, which he joined immediately on his leaving Oxford. He soon became a director of the Bank of England and entered Parliament in 1863. Into Lord Goschen's brilliant career in Parliament and the many services he rendered to the country, especially as First Lord of the

Admiralty, it is not the place to enter here. As an economist he is known by his masterly book on *The Theory of the Foreign Exchanges*, which, written early in his business life, is still the text-book on the subject. *Reports and Speeches on Local Taxation* followed in 1872, and was one of the first books to call attention to this very important subject, as important in its way as imperial taxation. In the volume of *Essays and Addresses on Economic Questions*, published in 1905, Lord Goschen brought together his most important minor writings and speeches on these subjects, among which may be specially mentioned the address he delivered in 1883 to the Philosophical Society of Edinburgh on *Laissez Faire and Government Interference*, in which he showed his alarm at the rapid advance of state socialism. Besides these Lord Goschen read a paper before the Institute of Bankers on April 18, 1883, on *The Probable Results of an Increase in the Purchasing Power of Gold*. Speaking as he did at a time when the annual supply of gold had fallen off from £36,000,000 a year in 1852, the first year after the gold discoveries, to about £20,000,000 a year, and following on a fresh demand for the precious metal through the establishment of new gold currencies established in Germany, Italy, and the United States, the increase in the purchasing power of gold occupied the minds of many almost as much as its depreciation had done in 1848. This paper was a valuable contribution to the elucidation of the extremely difficult and complicated questions involved in the then position of matters. Lord Goschen also published a biography of his grandfather, the publisher of Goethe and Schiller.

In 1890 the Royal Economic Society was founded, Lord Goschen holding the office of president from that year till the date of his death.

The principal part of his economic work, however, was not done in his writings, but in Parliament, where, after holding high office under various administrations, he was Chancellor of the Exchequer, Lord Salisbury being Prime Minister, and between February 1887 and June 1892 he produced and carried through six budgets in succession. In addition to these he conducted in 1888 the immense operation of the conversion of the greater part of the National Debt, in round figures £558,000,000, from 3 per cent, first to 2¾ per cent, and then in 1903 to 2½ per cent, by which a saving of about £2,800,000 a year was made. The reform of the gold coinage, also executed during his term of office, though a much smaller thing in itself, was by no means unimportant, withdrawing as it did some £47,000,000 light-weight coins from the circulation—a work of great convenience to every one in the country, as the condition of the coin of the realm enters into the convenience of the whole population.

Lord Goschen was opposed to Mr. Joseph Chamberlain's policy of tariff reform, but he defended the re-imposition by Lord St. Aldwyn, then Sir Michael Hicks-Beach, of the 1s. duty on corn, though he was hostile to any large levy of revenue by taxes on food.

A career spent as Lord Goschen's was, partly in political and partly in business activity, necessarily leaves behind it few written records in comparison with its importance, but those who knew him will long remember his force of character and great acuteness of mind, joined with a width of judgment which rendered his opinions most valuable and influential.

HAGUE CONFERENCES (1899; 1907). The first Hague Conference was an assembly of representatives from twenty-six of the independent and civilised states of the world. They came together at the Hague on May 18, 1899, on the invitation of the Netherlands Government—the prime mover being the Emperor Nicholas II. of Russia, who, in August 1898, had proposed an International Conference with the twofold aim of checking and eventually reducing national armaments, and devising means for averting wars "by the employment of pacific methods of international diplomacy." The humanitarian enthusiasm of the young Tsar was, of course, pronounced foolish and impractical. But public opinion was touched by its dramatic expression and evident sincerity; and there were statesmen of experience who felt that the evils so forcibly described in the Russian rescript were capable of abatement, if not of removal. When a detailed programme was published in January 1899, it became evident that the scope of the proposed Conference had been enlarged by the inclusion of many subjects connected with the laws and customs of warfare. These were matters which appealed strongly to those who prided themselves on being practical as well as progressive. Accordingly, when the Conference met many of the delegates who had come to the Hague expecting to take part in a useless emission of pious hopes and benevolent aspirations were soon convinced, to quote the expressive words of Lord Pauncefote's despatch of July 31, 1899, that "with a little good-will it would be possible to arrive at a common understanding on some of the questions propounded." In fact, all of them were dealt with more or less successfully, except that of disarmament or the limitation of armaments; and, to quote again from the despatch previously cited, "in the brief space of two months, a great international work was accomplished.

fraught with the highest promise for the advancement of civilisation and the good of mankind."

But in reality the Conference won its greatest triumph by the mere fact of meeting and recording its wish that another Conference should assemble in the near future. It thus endeavoured to provide the society of nations with a legislative or quasi-legislative body. After some hesitation statesmen came to take for granted that a second Hague Conference must come together before long. The vigorous initiative of President Roosevelt of the United States of America brought matters to a head, though he soon surrendered the leading part to the Russian Emperor. Delays were caused, first by the Russo-Japanese war of 1904-1905, and afterwards by the Pan-American Congress of 1906, but, nevertheless, the second Hague Conference met in June 1907, and sat till October 18, 1907. Forty-six powers were represented at it, as against twenty-six at the previous assembly. Just as the first Conference assumed that it would soon be followed by another, so the second Conference assumed that similar gatherings would take place in future. It regarded itself as a world parliament, and made some kind of rudimentary provision for the periodical assembly of a series of successors, in order that they might deal as regular organs of civilised humanity with its collective concerns. The importance of these steps can hardly be overestimated. They have been taken quite quietly by men, most of whom were driven by forces they hardly comprehended towards aims of which they were scarcely conscious. They are a natural development of international society. They are, therefore, far more likely to be permanent than if they had been forced on by one masterful will, however just and good. Their full significance lies in the distant future. But we can discern even now that in the ethical sphere they mean that justice and reason are to count for more, and brute force for less, and that in the economic sphere they promise a fuller scope for the productive and constructive energies of mankind.

The first Hague Conference drew up three conventions, passed three declarations, gave expression to six wishes, and adopted with unanimity a resolution to the effect that the restriction of military budgets was "extremely desirable for the increase of the material and moral welfare of mankind." This resolution has been confirmed by the present Conference, with the addition that "in view of the fact that military charges have been considerably increased in all countries since that year, 1899, the Conference declares that it is highly desirable that the Governments should resume the serious study of this question." The British Government did its best to secure a more practical result; but the more the matter was examined the more difficult did it seem in the present state of feeling to limit the activity of independent states in providing themselves with means of defence. There must be much less of mutual suspicion, and much more of humanitarian zeal, before such restraints can be imposed by general assent and with a fair prospect of general observance. Meanwhile, progress is possible on the line of providing other means than war for the settlement of international disputes. When the vast majority of quarrels are adjusted without war, peoples will first grow restive under economic burdens which every year become less necessary for the protection of national interests, and then find ways to diminish the intolerable strain.

The second Hague Conference was greater than the first, not only in size, but in attempts, in achievements, and in failures. It produced no less than thirteen conventions. It renewed the three declarations of its predecessor. It passed, as we have seen, a resolution on disarmament, and it registered five wishes. But it tried in vain to reach an agreement on the law of contraband and blockade; it proved unable to settle the vexed question of the destruction of prizes at sea; and it laid down most imperfect rules with regard to submarine mines and the duties of neutral states in maritime warfare. Among the best results of its four months' activity may be mentioned the prohibition of the bombardment by naval forces of undefended ports and coasts, the establishment of the immunity of inshore fisheries and authorised mail bags, and the improvement of the work of the previous Conference in matters connected with the laws of warfare on land and the application of the principles of the Geneva Convention to warfare at sea. Restrictions of space compel the omission of many other topics which were dealt with more or less successfully by the delegates at the Hague. And it is necessary to add that at the present time, November 1907, no one can speak authoritatively as to the commitments of our own country with regard to the questions under discussion. The Conventions are left open for signature till June 30, 1908. Great Britain has not yet adhered to them; and though there can be no doubt that we shall in due time sign and ratify the greater number, it is quite possible that in the end two or three may be accepted with wide reservations, or even rejected entirely. International courts are most important and must be dealt with separately.

The Conference of 1899 established by convention a court of arbitration, consisting of four members nominated by each of the signatory powers; and when two states agreed to resort to this court they were to create their tribunal by choosing their judges from the general list. Failing agreement on their part, each of them was to select two arbitrators from the list, and the four so appointed were to choose a fifth.

Between 1899 and 1907 several cases were submitted to the Hague tribunal. The credit of providing the first of them rests with the United States, whose Government in 1902 referred to a court of arbitrators, constituted according to the provisions of the Hague convention, a long-standing dispute with Mexico as to the proper destination of what was called the Pious Fund of California. The Venezuelan Indemnities case followed. Great Britain and France were concerned in the Muscat Dhows case, and Japan and several other states in the Perpetual Leases case. So much satisfaction was felt with the decisions, that a strong desire arose for the further development of the principle of arbitration. The arrangements of 1899 were defective in two important particulars. They bound no power beforehand to place its case before a court, and the court they provided was left in a very nebulous condition. The recent Conference endeavoured to remedy both these defects. It attempted to formulate a list of subjects which the powers would bind themselves by treaty to refer to arbitration; and it endeavoured to create a permanent court ready at any moment to deal with whatever case might be brought before it by international litigants. The difficulties were too great to be overcome. Some arose out of procedure, some referred to the constitutions of various states, some were connected with the enforcement of awards on recalcitrant litigants, and some were due to the insistence by the smaller states on absolute equality with the greater powers as regards the constitution of the court. It may be hoped that a future conference will see a satisfactory settlement.

It is remarkable how the idea of international courts has developed side by side with the idea of an international legislature. The rudimentary court of the first Hague Conference will find its procedure considerably improved by the labour of the second Hague Conference, from whose deliberations yet another court is likely to result. Hitherto the validity of captures at sea has been tried in the courts of the capturing belligerent. As a result each maritime country has had its own prize law, and these laws have sometimes differed from each other in important particulars. Now an international prize court is to be established, to which neutrals, and in some cases belligerents also, may carry cases of maritime capture on appeal from the courts of the captor. The decisions of this court will undoubtedly do much to harmonise conflicting systems, especially if a future Conference finds it possible to establish a code of maritime warfare by general agreement. Meanwhile it remains to be seen whether Great Britain will submit herself to the decisions of the International Prize Court unless the maritime powers come to a preliminary agreement on some of the important legal questions which baffled the Conference. In these matters the possibilities of to-day sometimes become the realities of to-morrow. The first Hague Conference was enabled to adopt a convention relating to the laws and customs of war on land, largely because a conference on the subject had sat at Brussels in 1874, and though it failed to obtain the consent of the Governments concerned to the code of rules it drew up, its proposals influenced both opinion and practice in a truly remarkable degree during the years that followed. May we not hope for a similar process with regard to the laws and customs of war at sea? The Conference of 1907 disappointed many expectations with regard to this branch of its work. But it will be succeeded by other conferences, and its discussions will be the seed of the harvests they will reap.

In some quarters great dissatisfaction has been expressed with the results hitherto achieved. But those who are loudest in lamentations and denunciations forget the great things that have been accomplished, and the strong foundations that have been laid for future work. If any one had predicted these things ten years ago he would have been laughed at for his pains. After centuries of effort the civilised portion of mankind has at last been placed on the road which leads to the substitution of law for force in international affairs. It remains for the earnest-minded and thoughtful to appreciate the greatness of the achievement, and generate the spiritual forces which will carry us onwards to the distant goal of universal peace.

[Holls, *The Peace Conference at the Hague*, New York, The Macmillan Co., 1900.—British Parliamentary Papers, *Miscellaneous*, No. 1. (1899).—Higgins, *The Hague Conference*, London, Stevens & Sons, 1904.—Holland, *The Laws and Customs of War on Land*, London, Harrison and Sons, 1904.—Barclay, *Problems of International Practice and Diplomacy*, London, Sweet and Maxwell, 1907.—Westlake, *International Law*, vol. ii. ch. xi., Cambridge University Press, 1907.] (See ANGARIE, DROIT DE; BLOCKADE; CONTRABAND; DECLARATION OF WAR; ENEMY GOODS; INTERNATIONAL LAW; NEUTRAL MARKETS; NEUTRAL PROPERTY.)

T. J. L.

HANSSEN, GEORG (1809-1894), was born at Hamburg and educated there until 1827, when he went to Heidelberg University to study jurisprudence and political economy. Here he came under the influence of RAU. Later he studied agriculture at Württemberg, and finally graduated at Kiel, where also he lectured. In 1834 he was appointed to a post in the government of Schleswig-Holstein at Copenhagen, and was nominated to the Chamber in 1835. In 1837 he returned to Kiel as professor of Political Economy and Statistics; from 1842 he taught Political Economy at the University of Leipzig till 1848, moving then to Göttingen, where he remained till his death—with an interval from 1860 to 1869, during which he held

a professorship at the University of Berlin and a post in the Royal Prussia Bureau of Statistics. In 1869 he resumed his professorial chair at Göttingen, which he gave up in 1884.

Agriculturæ doctrina Cathedris Universitatum Vindicata. Dissert. inaugur., Altonæ, 1832.—*Ueber die Errichtung von Sparkassen mit besonderer Rücksicht auf Landdistrikte*, Leipzig, 1845.—*Agrarhistorische Abhandlungen*, 2 vols., 1880, 1884 (his most important work). He also contributed largely to periodicals and collective works. Many of his articles and works dealt with details of the economic position of Germany, with the duchy of Schleswig-Holstein, and with agriculture.

[See *Economic Journal*, vol. v., London, 1895.—*Handwörterbuch der Staatswissenschaften*, giving complete list of works, vol. iv., Jena, 1900.]

HELM, ELIJAH (1837-1904), was the son of a Blackburn cotton-spinner and manufacturer. He was educated at Whalley Grammar School and at Blackburn. On leaving school he entered the cotton trade, and spent a few years at Padiham, where he acquired a knowledge of cotton spinning and weaving. In 1855 he entered a warehouse at Manchester, and continued in the business until, in 1889, he was elected to the post of secretary of the Manchester Chamber of Commerce, of which he had been director for three years. This appointment he held till his death in 1904.

When a young man he attended the evening classes in Political Economy at Owens College, and here came under the influence of JEVONS, and when the latter died Helm lectured at the college until his successor was appointed. He also lectured for a few sessions on Political Economy to the evening classes at the college. The honorary degree of M.A. was conferred upon him in 1902 by the Victoria University. He was an active member of the Manchester Statistical Society, of which he was president for the two sessions 1879-81. Mr. Helm was one of the chief authorities on the economics of the cotton industry, and was well known as journalist and author. He began to write for the *Manchester Guardian* about 1875, and for many years wrote leading articles on financial and commercial questions, especially those relating to India, and on the cotton trade. He was also a frequent contributor to the *Statist*, the *New York Nation*, and other commercial and financial journals in England and America.

His chief writings are—

Chapters in the History of the Manchester Chamber of Commerce, 1899.—*Introduction to Young's American Cotton Industry*, 1902.—The chapters on the Cotton Industry which appear in *British Industries*, Ashley, 1903.—Contributions to the Manchester Statistical Society, published in the Transactions, on the Cotton Trade, Trade Unions, Crises, Bimetallism, etc.—*The Joint Standard*, 1894, attacking the monometallic system, and advocating the establishment of the joint standard. In this dictionary he wrote the articles on CHILDREN'S LABOUR, COTTON FAMINE, and the MANCHESTER SCHOOL. For many years he rendered much service as a social worker in Manchester and district. J. H. J.

HERRMANN, EMANUEL[1] (1839-1902), was born at Klagenfurt in Carinthia and educated at his native place from 1848-1856. He afterwards studied Jurisprudence, History, and Natural Science at various universities, finally proceeding to the degree of Doctor of Law at Gratz in 1862, and acquiring the right to lecture there in 1864. In 1865 he became a lecturer (Dozent) at the Technical University, and Professor at the Trade Schools, in Economics and Statistics, whilst after various similar appointments he obtained the Professorship of Economics and Financial Science at the Technical Academy at Vienna in 1871. He had, however, since 1861 been occupied with work on the Civil Service, and in 1872, though he did not give up his professorial duties, he became head of the newly-formed departments for furthering trade and industry at the Austrian Board of Trade. His position appears to have been somewhat similar to that held by permanent officials in England, as he served under and was controlled by the ministry of the day, and he appears to have played a somewhat similar part in organising the work of his department to that of Sir Robert Giffen and others at the English Board of Trade. The first work of importance that was undertaken was the foundation, apparently by Dr. Anton Bauhaus under his direction, of a large number of the technical schools which did much for the prosperity of many Austrian industries, and which have been to a great extent copied by foreign countries. The condition of Domestic Industries in Austria appears to have occupied much of his thought, for he published an article entitled "Hausindustrie" on the subject in 1873, and in his *Technische Fragen und Probleme der Modernen Volkswirthschaft*, 1891, he speaks of the sad impression he had obtained of their condition. In 1882 he was elected to Professorships in Economics and Finance, including one at the Viennese Technical University, and his retirement from the Board of Trade in this year had been preceded by his absence during 1881 on a long furlough, devoted to the study of applied chemistry. He still continued to hold the title of Imperial Privy Councillor conferred on him in 1874, and before his death also became Aulic Councillor (Hofrath). He is one of the two men to be credited with the invention of the Postcard. After his retirement he still continued to publish books at fairly frequent intervals, some of the most important being written between 1882 and 1896.

[1] Referred to as Emil Herrmann in the *Economic Journal*, December 1902.

His work at the Austrian Board of Trade seems to have influenced his development as an economist. His earlier works, though showing signs of those technical and other interests that are so marked in his later ones, are yet mainly—as for instance the *Allgemeine Wirtschaftslehre*, 1868—of a theoretical character. He seems, indeed, to have conceived of a wide general system of economics, with narrower applications to narrower areas. "He had especially in view in his work the relations of technical to industrial developments, and also the creation of a system in which Universal Economics should be the basis, and national and communal economy the superstructure" (*Handwörterbuch der Staatswissenschaften*, q.v.). In his later works, and especially after his retirement from the Board of Trade, his devotion to technical questions connected with Economic Science and their application to it was most marked.

His chief works were:—*Allgemeine Wirtschaftslehre*, 1868.—*Theorie der Versicherung vom Wirtschaftlichen Standpunkte*, 1868, 3rd ed. 1897.—*Leitfaden der Wirtschaftslehre*, 1870.—*Miniaturbilder aus dem Gebiete der Wirtschaft*, 1872.—*Principien der Wirtschaft*, 1873.—*Kultur und Natur, Studien im Gebiete der Wirthschaft*, 1887.—*Volkswirthschaft und Unterricht*, 1888.—*Die Familie vom Standpunkte der Gesamtwirthschaft*, 1889.—*Sein und Werden in Raum und Zeit, Wirtschaftslehre Studien*, 1889.—*Technische Fragen und Probleme in der Modernen Volkswirthschaft*, 1891.—*Wirthschaftliche Fragen und Probleme*, 1893—and *Das Geheimnis der Macht*, 1896. [See *Handwörterbuch der Staatswissenschaften* for a biography of Dr. Herrmann by the Editors, Jena, 1900.] N. B. D.

HOLYOAKE, George Jacob (1817-1906), born at Birmingham, was a weakly child, brought up in poverty. From the age of nine to twenty-two he worked as a whitesmith, when seventeen he obtained some education at the Birmingham Mechanics' Institution and gained prizes in mathematics. In 1839 he became superintendent of the educational classes at the Institution, and afterwards kept a day school in Sheffield. He was appointed a lecturer in 1841 to explain the social system of Robert Owen, and in the following year was imprisoned at Gloucester for six months for alleged atheism, being the last person put on trial for this cause in England. In 1846 he came to London and started *The Reasoner*, which he edited for twenty years. He opened a bookseller's shop in Fleet Street in 1853. In the course of a long and strenuous life he wrote much on political and social questions, advocated the system of thought which he was one of the earliest to call secularism, and took an active part in the promotion of co-operation, temperance, and education among the working classes.

Holyoake told the story of his struggles in *Sixty Years of an Agitator's Life*, 1892, 2 vols. 8vo, and in *Bygones worth Remembering*, 1905, 2 vols. 8vo; the last work describing the progress of the nation within his memory, with special reference to the conditions of life among manual workers. He remembered when men were only paid late on Saturday night, and "poor nailers trudged miles into Birmingham, with their week's work in bags on their backs, who were to be seen hanging about merchants' doors up to ten and eleven o'clock to get payment for their goods."

His writings on co-operation are: *Self-Help for the People, the History of the Rochdale Pioneers*, 1857, 10th ed. 1893, sm. 8vo (the earlier chapters appeared in the *Daily News*); *Life and Last Days of R. Owen*, 3rd ed. 1866, 8vo; *The Logic of Co-operation*, 1873, 8vo; *The History of Co-operation in England*, 1875-79, 2 vols. 8vo, revised and completed 1906, 2 vols. 8vo; *Manual of Co-operation*, New York, 1885 (an epitome of the *History* arranged by the Sociological Society of America); *Growth of Co-operation in England* (from *Fortnightly Review*), 1887, 8vo; *Policy of Commercial Co-operation*, 1888, 8vo; *The Co-operative Movement of To-day*, 1891, sm. 8vo; *Self-Help One Hundred Years Ago*, 1888, 8vo (describes the Society for Bettering the Condition and Increasing the Comforts of the Poor, established in 1796); *Ten Letters, being the Case stated between Co-operators and Private Traders*, 1903, 8vo. H. R. T.

IMMIGRATION, ALIEN, see Alien Immigration in Appendix.

INCOME TAX, Position of, in France. It is as well to mention that the general Income Tax, that is to say, a tax touching within certain limits the whole income of the tax-payer, as in this country, Germany, or Switzerland, does not yet exist in France, in spite of many bills successively laid before parliament during the last twenty years endeavouring to establish it.

But as it is quite possible that the result of the proposal made at the present time (1907) by the finance minister of France, M. Caillaux, may not be known before these pages are printed, we make this reference to it here to explain matters in case the principle of the tax is agreed to. The present proposal rouses the most vigorous protests. The reasons for this resistance in France are many. The following are some of them:—

It is believed that the fear that an Income Tax may be established is likely to diminish the inclination of private purchasers to hold French *rente*. To this feeling the diminution in the amounts held in the inscribed stock of irredeemable *rente* between 31st December 1902 and 31st December 1903 also bears witness, because the holder of the inscribed stock would be known, but the holder of a bond payable to bearer would not. The holders of French *rente* are able to convert their holdings from inscribed stock to bonds payable to bearer with

coupons attached whenever they please, and to convert them back again without charge.

At the present time all the incomes proposed to be submitted to the Income Tax are also touched by taxation already, only these taxes are not based on the declaration of the taxpayer, but are levied according to certain legal presumptions, as, for example, the PATENTE (*q.v.*) which still continues, and apparently it is not proposed to repeal. The *Patente* touches all lucrative industries (manufacturers, merchants, and certain liberal professions, lawyers, etc., but not agriculturists); it is levied, not according to the profits made, but on a complicated calculation which takes for the basis the amount of the rent paid, the number of persons employed, the population of the town, and also the special category to which the business belongs.

It may even be said that there is a general tax on income in *La Contribution Mobilière*. This is a most complicated tax. It is based on the rent of the dwelling-house, and is leviable when the house is furnished. The only classes of income which are not taxed at the present time are: the salaries of functionaries, the incomes arising from labour, the interest on Government *rente*, and the interest on debts paid by individuals. Under these circumstances the establishment of a tax upon French *rente* may not be found possible.

INCOME TAX STATISTICS—USE OF, IN ESTIMATING THE NATIONAL INCOME. Estimates of national income have always been largely based on Income Tax assessments, and such estimates have been commoner in this country than elsewhere, owing no doubt to the existence since 1842 of an Income Tax in England. The most important of these calculations have been Mr. Dudley Baxter's *National Income*, 1868, Mr. Leone Levi's *Wages and Earnings of the Working Classes in 1881*—following similar researches in 1867 and 1879; others, dealing also with the incidence of taxation upon different classes, are: one in the *Edinburgh Review*, January 1860, one by Sir Louis Mallet in 1885, and Mr. Sanger's articles in the *Yale Review*, February 1898, and *Economic Journal*, March 1899. To these must be added Sir Robert Giffen's estimate before the Financial Relations Commission, 1894-96 (Q. 7723); his *Economic Inquiries*, 1904, vol. ii. p. 364; and his *Growth of Capital*; Mr. A. L. Bowley's *National Progress in Wealth and Trade since 1882* (1904); Mr. Inglis Palgrave's article "The Economic Condition of the Country" (*National Review*, November 1903); and Mr. Bowley's "Tests of National Progress" (*Economic Journal*, September 1904), in which he analyses the Income Tax returns in detail and gives the latest carefully reasoned estimate of the total National Income, viz. £1,800,000,000. In all of these the method followed has been to get at a sum total of individual incomes by estimating and adding together the total incomes of three classes of the community, viz.: (1) the manual labour class, from official and unofficial estimates of wages and unemployment—see, *e.g.*, the *Board of Trade Fiscal Blue Book*, C.D. 1761, 1903, p. 361; (2) the class above manual labour but below the Income Tax limit, based on an assumed family income (Baxter and Levi) in the absence of independent estimates of earnings; and (3) the Income Tax-paying classes, *i.e.* all those whose income exceeds £160 per annum. The latest estimates for the total incomes of the latter class are those which were given in evidence before the Select Committee on Income Tax (House of Commons, 365 of 1906), viz. £830,000,000 (Mr. Money, M.P.), £750,000,000 (Mr. Bowley), and £728,000,000 (Sir H. Primrose), who proposed to deduct from this total an estimated sum of £50,000,000 as representing non-personal income to arrive at a total of individual incomes. All these estimates were based exclusively on the Income Tax assessments.

The utmost caution, however, is necessary in using the Income Tax returns either for the purpose of estimating the National Income or of testing its growth. As Mr. Bowley observed (*Economic Journal*, vol. 1904, p. 461): "They are full of concealed pitfalls, and it is unsafe to travel in those regions without a guide." Lord Goschen (*Essays and Addresses*, 1905, p. 244) commented on these pitfalls, and explained that "the methods by which the Income Tax is levied and the grouping of the figures by the Inland Revenue in their tables have naturally been devised from the point of view of administrative efficiency and not for the purpose of scientific inquiry." One of these difficulties arises out of the use of the terms "gross" and "net." The *46th Report of the Inland Revenue Commissioners* (1903), p. 172, remarks that "it is by the figures of gross income that national prosperity is to be measured." It is true that for purposes of comparison either "gross" or "net" figures, provided that they were throughout taken on the same basis and that no disturbing circumstances had occurred, would be equally useful. This, however, is not the case. These terms have not been used throughout the Reports and for different schedules in the same sense. There have also been alterations both in the limit of exemption (£100, £150, £160, at different dates) and in the abatement limits, such as those which forced Lord Goschen, who examined all the indications supplied by the Income and other taxes, to apply all sorts of "harassing qualifications" to his deductions as to the "growth of moderate incomes" in the volume above mentioned. Finally improvements in administration have undoubtedly accounted for

some portion of the increase in the assessed income of the country, and the increasing conversion of private trading concerns into public companies has immensely facilitated the assessment of income and the collection of the tax. These causes must to some extent vitiate comparisons. Whether the "gross" or the "net" assessments afford the best indication is a further question. The "gross" assessments (Table clxxii. of the *Inland Revenue 49th Report*, 1906) do not correspond to the income on which tax is received. They include, for instance, a mass of incomes under £160 per annum and of double or excessive assessments which do not represent income at all. Therefore though they have been used by some inquirers, *e.g.* Mr. Levi, they cannot be taken as the real income of the Income Tax-payers. But it is equally impossible to rely on the totals of "net" assessments alone (Table clxxvi.), for to that total must be added (from Table clxxv.) the income to which abatement allowances and life insurances are applicable, the income of charities, etc., exempt from Income Tax (unless individual incomes alone are required), together with an estimate for income evaded or under-assessed, and for certain purposes a deduction for taxed income belonging to foreigners. This seems to be the method followed by recent inquirers. Another possible pitfall is an assumption often made that the classification of Schedule D assessments (Table ccxxx.) supplies evidence of total income or total number of taxpayers. Yet another is that mentioned by Mr. Inglis Palgrave in his "The Economic Condition of the Country" (*National Review*, November 1903), in which he pointed out that the improved yield of the 1d. in the £ of the Income Tax cannot be taken as an index of the growth of wealth unless the growth of population is also brought into the account. The figures of the produce of the 1d. as they stand in Table clxx. are compiled for revenue purposes, not for the purpose of testing the growth of income. For some purposes of this latter kind, however, the assessment of the Income Tax by schedules automatically provides useful statistical material. It enables us for instance to gauge the growth of income from foreign investments (Table clxix.). If general statistical information were aimed at, such analyses might probably be carried a good deal further, and classifications provided which would illustrate the progress or the reverse of many of the leading industries in the country. For certain other purposes the Income Tax statistics are, owing to structure of the tax itself, not naturally available. They do not tell us, for instance, the number of Income Tax-payers or the distribution of income among them. Mr. Chiozza Money in *Riches and Poverty*, 1905, has shown how deductions may usefully be drawn from them on these points, and they have recently been interrogated with interesting results as regards incomes to which the abatement allowances apply (see evidence by various witnesses before the Select Committee on Income Tax, 1906); but they do not yield information for other classes such as is yielded by the admirable statistics of the Prussian and Saxon Graduated Income Taxes. There is, however, no doubt a quantity of valuable statistical material in connection with the collection of the Income Tax (as well as of the Death Duties and House Duty) which might be utilised if any institution in the nature of a Central Statistical Bureau, which statisticians like Lord Goschen and Mr. Bowley have suggested, and which was recommended by the Official Statistics Committee of 1878-79, existed in this country.

The Income Tax assessments, with the limitations and possibilities thus indicated, supply, of course, only one among many indications which must be consulted before any estimate of National progress can be attempted. Besides wages, there are the banking and savings bank statistics, statistics of consumption, and the statistics of export and import trade, to which should be added statistics of home trade and production and census statistics—see Mr. A. L. Bowley's *National Progress in Wealth and Trade since 1882* (1904), a forcible plea for the better organisation of the statistical information bearing on this question. And as regards the Income Tax itself, a serious question arises, connected not with the form of the statistics, but with economic considerations, which an inquirer must answer before he can decide how far a growth of the assessments is a real guide to national progress. It has often been maintained that certain classes of income, described by Mr. Levi as "second hand" or "dependent" incomes, ought to be excluded from the calculation in computing the national income; such incomes especially as are derived in increasing numbers in the form of salaries from the State or municipalities, *i.e.* from taxes and rates. The question may be taken in connection with that raised by J. S. Mill when, in the introduction to his *Principles of Political Economy*, he maintained that the National Debt cannot be counted as part of the national wealth, nor the interest on it as a part of the national income. And if the argument involves the exclusion of the interest on the National Debt on the ground that this interest is paid out of the income of other people, and the assumption that to include it would be to count "one portion of the general income twice over," does it apply equally to the case of all "second-hand" incomes — not only to the incomes derived from the State or from municipalities, *i.e.* from taxes or rates, but also to incomes like those of employees of public companies or those paid by private employers?

The theory alluded to was accepted by Mr. Dudley Baxter, who accordingly in his estimate of the National income in 1868 divided income into that of the "Productive," "Auxiliary," and "Non-productive" classes; and also partially by Mr. Leone Levi in 1885 when he gave what he called a "gross" and "net" figure of National income. Sir Robert Giffen in his *Growth of Capital*, it may be added, excluded the National Debt from the computation—not proportionately a very serious deduction from his total figures,—but in giving his reason he said (p. 21) that he "should not censure very much any one who included the National Debt as a part of the capital of the community."

More recent calculations of the national income do not appear to have made these allowances for "second-hand" income, to which indeed no very practical importance seems ever to have been attached, inasmuch as in the comparison of the growth of the National income founded on Mr. Baxter's and Mr. Levi's figures their "gross" figure has usually been quoted. Theoretically, however, and in some senses practically, the point is of importance. Take the case of a landowner and a manufacturer respectively each with a gross income of £50,000 a year. The landowner may pay £5000 a year in rates and taxes, £1000 to an agent or secretary, and £300 to a cook. On Mr. Levi's theory not only would these payments have to be deducted before reaching the taxable income, but all other payments in the shape of wages or ordinary expenses of living which go to form the income or increase the profits of any other person. This is obviously not the practice on which taxation of his income would be based in this or any other country. Income Tax would be payable on the whole £50,000, and again on the incomes passed on from it in exchange for services rendered to other persons, in which case fresh incomes are called into existence. The same remark is true of the income of the manufacturer, with an important exception, viz. that all salaries and wages which he paid in the course of his business would be allowed as a set-off against his gross income, so that supposing that these payments amounted to £30,000 a year, he would pay Income Tax only on £20,000 a year. There is then from this point of view a difference of treatment as between Schedule A and Schedule D, the "gross" and "net" figures not being on the same basis in the two Schedules, but this hardly affects the general argument. As this argument runs, an individual's income consists not merely of money, but of the various commodities, services and enjoyments consumed within the year and measured in money, plus savings. It is this which is the measure of his annual share of wealth and of his ability to bear taxation. If our landowner's money income is reduced by £5000 for taxes, he receives services in exchange for it, and so with the salaries paid to his agent or cook. And the civil servant, town clerk, or agent who may be indirectly remunerated out of this and similar incomes each creates an addition to the annual product by the fresh income which his service represents, and is rightly called upon to pay tax upon such income. If Prof. Marshall's definition of national income (*Principles*, p. 136; see p. 79, 5th ed.) be admitted, that "Everything that is produced in the course of a year, every service rendered, every fresh utility brought about, is a part of the national income," then this income must be composed of the aggregate of all individual incomes in the general sense above described; and in that case the validity of the practice of basing calculations of the national income—as regards the Income Tax-paying class—upon the Income Tax returns may, in so far as those returns contain "dependent" incomes of all kinds, apparently be admitted.

[A full discussion of the economic point will be found in the late Sir L. Mallet's essay on "National Income and Taxation" (1885), *Free Exchange*, pp. 167-180. See INCOME TAX IN THE UNITED KINGDOM, vol. ii. for history and bibliography; MUNICIPALITY, vol. ii.; and MUNICIPAL AND GOVERNMENT TRADING, Appendix.] B. M.

INGRAM, Dr. JOHN KELLS (1824-1907), was an economist of considerable ability, with a wide knowledge of many collateral subjects. The first work which brought him into notice was his vigorous poem on the disturbed state of Ireland at the close of the 18th century. On being asked in 1892 as to how far the sentiments of his poem, "Who fears to speak of Ninety-eight?" represented his later views, Dr. Ingram answered, "You will not suppose that the effusion of the youth exactly represents the convictions of the man. But I have never been ashamed of having written the verses. They were the fruit of genuine feeling" (*Times*, May 4, 1907). He was for many years senior Fellow and Vice-Provost of Trinity College, Dublin, where at seventeen he had been elected a scholar and later won a fellowship. In 1878 he was President of the Statistical Section of the British Association, having filled the office of president of the Statistical Society of Ireland. This *Dictionary* was largely indebted to him for many notices of foreign economists, on which his intimate study of modern literature, both English and foreign, enabled him to work with great skill and freedom. It was in the same spirit that he wrote his principal work, *A History of Political Economy*, published in 1888, founded on his article in the 9th edition of the *Encyclopædia Britannica*. The object with which this history is written is sufficiently explained in the following extract from the preparatory note to the volume, as being "rather to exhibit the historic development of economic thought in its relations with general philosophic ideas, than to give an exhaustive account of economic

literature. An attempt has, however, been made, so far as was consistent with the main design, to notice all the really important works on the science." Commencing with Plato and Aristotle, and including Pliny and Cicero, the volume embraces an enormous amount of valuable information. The influence of Thomas Aquinas and the canonists is described. The mercantile system, Petty and Locke, Turgot, the Physiocrats, Adam Smith, J. S. Mill, Cairnes, down to Henry Sidgwick, Bagehot, Cliffe Leslie, and Jevons, all received notice, with remarks on the course which the study has taken both in England and the principal countries of Europe. The masterly knowledge of the subject which the book displays causes only regret that the writer did not carry his labours further. The manner in which the volume is put together, presenting as it does a mere outline where a detailed work was necessary, prevents the volume from exercising the influence on the general reader which it ought to possess. The student will find in it a mine of learning which he will do well to explore.

INSURANCE AGAINST UNEMPLOYMENT. See UNEMPLOYED, Appendix.

INTERNATIONAL LAW. Since the article in vol ii. was written many developments have taken place. It is impossible to do more here than allude to a few of the most important of them. The acquisition of territorial rights smaller than those of complete and exclusive sovereignty has ceased to be exceptional. Great Britain shares with Egypt a *condominium* in the Soudan. Several Powers have leased territory from China. A large number of Protectorates over districts inhabited by barbarous or semi-barbarous tribes have come into existence; and even such nebulous entities as Spheres of Influence have been created in abundance. A code for the regulation of war on land, and another for the protection and direction of red-cross work at sea, were agreed to at the first HAGUE CONFERENCE, and improved at the second, which prohibited the commencement of hostilities without due warning and the bombardment of undefended ports, and exempted inshore fishing boats and authorised mail-bags from hostile seizure. Moreover, progress has been made in the creation of international courts. But many burning questions remain for future settlement; for example, the scope of the doctrine of continuous voyages and the limitations on the use of submarine mines.

[Nys, *Droit International.*—Rivier, *Principes du Droit des Gens.*—Perels, *Das Internationale Oeffentliche Seerecht.*—Westlake, *International Law.*] T. J. L.

INTERPOLATION. In statistics falling into a series (such as statistics of population or wages over a period of years), figures obtained by actual observation may be available at certain points only in the series, and if for any purpose the figures for intermediate points are required they must in some manner be inferred. The process of estimating and filling in the intervening figures is spoken of as *statistical interpolation.* Thus, supposing that the census of population is taken every ten years only, we must obtain the figures for the intermediate years, if we are to have them at all, by interpolation. In a case of this kind the decennial figures will enable us to calculate the proportionate increase (or decrease) over a given period, and our process of interpolation will probably be based on the assumption that the rate of increase (or decrease) throughout the period in question has been uniform. The problem of statistical interpolation is often a complex and difficult one, and mathematical principles of a more or less elaborate character are involved.

[For further details, reference may be made to Bowley's *Elements of Statistics*, chap. x., and to Elderton's *Frequency Curves and Correlation*, pt. i.]

JUGLAR, CLÉMENT (1824-1905). A physician by profession, he took an early interest in economic problems, for he was elected in 1852 a member of the *Société d'économie politique* of Paris; still, the researches into the origin and development of commercial and financial crises, by which he made himself known, were only initiated a quarter of a century later.

He began by expressing his views in numerous pamphlets and reprints of articles contributed to the *Journal des économistes*, the *Économiste français*, and the *Journal de la statistique*; his only extensive work is entitled *Des crises commerciales et de leur retour périodique en France, en Angleterre et aux États Unis* (Paris, 2 vols., 1889, with diagrams); see also his article "Crises Commerciales" in Léon Say's *Nouveau Dictionnaire d'économie politique* (vol. i., 1891).

He lays great stress on the three unfailing successive periods which he discovers in every crisis: the period of growing activity, and latterly of inflation leading to a short period of *explosion* followed by a protracted and painful period of *liquidation*, generally lasting several years. The *explosion* is sure to occur at the end of a long period of rising prices, when no *new* buyers appear on the market, and the banks are compelled to resist the drainage of their metallic reserves. Their balance sheets are thus the barometer in which can be read the approach of a crisis, and this reading combined with the observation of the movements of prices, the rates of discount, and the foreign exchange with the fluctuations of exports and imports, makes it even possible to determine the state of affairs prevailing at the moment. It has been objected that these conclusions can only be applied to ordinary commercial or monetary crises, but are deficient when the crisis is the result of a wide change in the conditions of production. E. CA.

KNIES, KARL (1821-1898), born at Marburg, Hesse, lectured for a short time on History and Political Economy at the University of that town and taught Political Economy at the Polytechnic School at Cassel. Later, after a brief absence from Germany owing to the political disturbance of 1848, he was appointed, 1855, Professor of Political Economy at the University of Freiburg, Baden. From 1861 to 1865 he was occupied in politics, sitting in the second Chamber of the Diet of the Grand Duchy of Baden as member for the University, his sympathies being with the liberal party. He was made President of the Board of Education in 1862. In 1865 he returned to university life as professor of Political Economy at Heidelberg, which office he held till shortly before his death.

Knies is distinguished as the earliest and most energetic promoter of the historical method of economic science in Germany. His principal work was *Die politische Oekonomie vom Standpunkte der geschichtlichen Methode*, 1st ed. 1853, 2nd ed., much enlarged, 1883. He also wrote on mercantile questions—Money, Capital, Credit, Value, Transport and the means of Communication, to the literature of which subjects he made valuable additions as well as to the study of the science of statistics. His faculty of close reasoning and power of analysis were remarkable.

Besides the works mentioned above, he wrote: *Die Statistik als selbständige Wissenschaft. Zur Lösung des Wirrsals in der Theorie und Praxis dieser Wissenschaft. Zugleich ein Beitrag zu einer kritischen Geschichte der Statistik seit Achenwall*, Cassel, 1850.—*Die Dienstleistung des Soldaten und die Mängel der Konskriptionspraxis. Eine volkwirtschaftlich-finanzielle Erörterung.* Freiburg in Breisgau, 1860.—*Zur Lehre vom volkswirtschaftlichen Güterverkehr*, 1862.—*Geld und Kredit*, Berlin, 1873.—*Weltgeld und Weltmünze*, Berlin, 1874.—*Karl Friedrichs von Baden brieflicher Verkehr mit Mirabeau und Dupont.* Published by the *Badischen Historischen Kommission.* Arranged, with an Introduction giving a short history of the period preceding the first French Revolution and of the Physiocrats, by K. Knies, 2 vols. Heidelberg, 1892. He also contributed many articles to collective works and periodicals.

[See *Economic Journal*, vol. ix., London, 1899.—*Handwörterbuch der Staatswissenschaften*, giving complete list of works, vol. v., 1900.]

LABOUR COLONIES. See INDUSTRIAL COLONIES, Vol. II., and UNEMPLOYED, Appendix.

LABOUR EXCHANGE. See Vol. II., and UNEMPLOYED, Appendix.

LLOYD, The REV. WILLIAM FOSTER, F.R.S. (1794-1853), was educated at Westminster and Christchurch, Oxford, at which university he was Drummond Professor of Political Economy 1835-37. He discusses the question of utility and value. In this he anticipated "more than a generation before its rediscovery by JEVONS, MENGER, and WALRAS" the theory of marginal utility. He considers that not only can value not be intrinsic, but the utility of an object is not intrinsic any more than value. Utility, like value, is predicated of an object with reference to the wants of mankind.

With regard to value he holds "the proud position of having been the first thinker in any country to advance what is known to-day as the marginal theory of value, and to explain the dependence of value, on marginal utility."

The complete list of Lloyd's published Oxford lectures is as follows:—

Two Lectures on the Checks to Population, delivered before the University of Oxford in Michaelmas Term 1832, Oxford, 1833.—*A Lecture on the Notion of Value as distinguishable not only from Utility, but also from Value in Exchange, delivered before the University of Oxford in Michaelmas Term 1833*, Oxford, 1834.—*Four Lectures on Poor Laws, delivered before the University of Oxford in Michaelmas Term 1834*, Oxford, 1835.—*Two Lectures on Poor Laws, delivered before the University of Oxford in Hilary Term 1836*, Oxford, 1837.—*Two Lectures on the Justice of Poor Laws, and one Lecture on Rent, delivered in the University of Oxford in Michaelmas Term 1836*, Oxford, 1837.—*Lectures on Population, Value, Poor Laws, and Rent, delivered in the University of Oxford during the years 1832, 1833, 1834, 1835, and 1836*, London, 1837.

[See notice in *On some neglected British Economists*, by Professor E. R. A. Seligman, *Economic Journal*, London, 1903.]

LONGFIELD, MOUNTIFORT (1802-1884). We may quote in addition to the notice on Longfield in vol. ii. from Professor Seligman's reference to his writings. "Longfield's general theory of value is noteworthy, in that he not only puts very lucidly the influence of cost of production upon the supply side of the equation between supply and demand, but calls attention to the demand side as well." He expounds "the doctrine of marginal demand. It is this marginal idea which he applies to the supply side of the schedule as well, and which results in his most characteristic contribution to economics." In his writings "we have an exposition of the theory of marginal cost, as well as that of marginal demand. It is in the theory of profits and interest that we find the

application not only of the marginal idea, but of the productivity idea as well, thus combining to form the conception of marginal productivity."

Professor Seligman continues: "The discovery of the marginal productivity theory of interest is not Longfield's only claim to distinction. In his theory of wages he also marks a decided advance." According to him, the correct theory may be summed up in the statement that "the wages of the labourer depend upon the value of his labour, and not on his wants whether natural or acquired."

Space does not allow us to quote further from Professor Seligman's remarks on Longfield; he is also mentioned by Mr. Cannan, who states in reference to his originality, that Longfield in his Dublin lectures "ignores altogether the doctrine that wages depend on the proportion between capital and population," and while considering that Longfield has not completely mastered the subject, he remarks that "his theory shows a great advance on that of James Mill, Ricardo, and M'Culloch." [See notices on these writers.] Again, in regard to profit as discussed by J. S. MILL, Cannan remarks, that Longfield "had approached far nearer to a true appreciation of the causes which determine the rate of profit."

[E. R. A. Seligman, "On some neglected British Economists," *Economic Journal*, 1903. — E. Cannan, *A History of the Theories of Production and Distribution in English Political Economy from 1776 to 1848*, London, 1893.]

MACLEOD, HENRY DUNNING (1821-1902), M.A. Cambridge, and barrister (1849), writer on banking and economics, was a man of vigorous personality, with much industry and historical knowledge, but of mediocre judgment.

The whole or parts of some of Macleod's works were reissued under new titles. His most useful publication was *Dictionary of Political Economy, biographical, bibliographical, historical, and practical*, 1863, vol. i. large 8vo. A–C only appeared. In 1878 he advertised a second edition of vol. i., and stated that vol. ii. completing the work was in progress. Five editions were published of his *Theory and Practice of Banking*, 1st, 1855-56; 2nd, 1866; 3rd, 1875; 4th, 1883-86; 5th, 1892-93, 2 vols. 8vo. An Italian translation was produced in the *Biblioteca dell' Economista*, 1879.

He also wrote *The Elements of Political Economy*, 1858, 8vo. The second edition was entitled *The Principles of Economic Philosophy*, 1872-75, vol. i., vol. ii. part 1, 2 vols. 8vo. (severely criticised by Cliffe Leslie, translated in the *Bibl. dell' Economista*); the third edition was called *The Elements of Economics*, 1881-86, 2 vols. sm. 8vo. *Definition and Nature of the Science of Political Economy* was a paper read at Cambridge 1862. *Elements of Banking*, 1878, 7th ed. 1883, sm. 8vo. *Economics for Beginners*, 1878, 5th ed. 1899, sm. 8vo. *Lectures on Credit and Banking*, delivered at request of Institute of Bankers in Scotland, 1882. *On the Modern Science of Economics* was read before the Manchester Statistical Society 1887. *The Theory of Credit*, 1889-91, 2 vols. 8vo, 2nd ed. 1893-97, 2 vols. in 3, 8vo, reissued in one vol. 1898, 8vo. *Address to Civil Service Commissioners on the Teaching of Economics in the Civil Service*, 1892, folio. *Bimetallism*, 1894, 1st and 2nd ed. 8vo (enlargement of ch. vii. *of Theory of Credit*). *Gresham's Law* and *Bimetallism in France (1803-74)* were two pamphlets issued by the Gold Standard Defence Association, 1895. *History of Banking in Great Britain*, being vol. ii. of *History of Banking in all Nations*, 1896. *The History of Economics*, 1896, 8vo. *Credit*, paper read before National Liberal Club, 1897. *Indian Currency*, 1898, 8vo. *Draft Tentative Scheme for restoring a Gold Currency to India*, 1898, privately printed, folio. H. R. T.

MARTIIS, SALVATORE COGNETTI DE. See COGNETTI DE MARTIIS, Appendix.

MARTIN, JOHN BIDDULPH (1841-97). Educated at Harrow and Exeter College, Oxford, he entered the Banking House in Lombard Street with which his family have so long been connected, at an early age. Assiduous in his business duties even to the minutest detail—thus when his turn came round he was most careful to attend to the unlocking the safe of a morning at 9 A.M., as his father and uncles had done before him and as his partners did—he yet found time to work on many subjects of public interest connected with his profession. His paper on "Our Gold Coinage," 1882, an able statistical inquiry into its defective condition at the time, with extremely careful statements showing the depreciation of the coinage from 1817, the date when our gold coinage was resumed in its present form, followed as it was by another paper in 1883 on the same subject by the present writer, was of great service in promoting the recent reform of the gold currency. This paper appeared in the *Journal of the Bankers' Institute*, to which, as well as to the *Journal of the Royal Statistical Society*, he was a frequent and valued contributor. He was President of the last-named Society at the time of his death. His article on "The Evolution of our Banking System" in the *Economic Journal* for 1891 is a very able sketch of the growth of the business, written as it only could have been by a man who had an accurate knowledge both of the history of the past and of the practice of present times. To this Dictionary he contributed the article on RESPONDENTIA BONDS. When the Editor asked him to write this article, he felt there was hardly any other man in the City who could have undertaken it.

The most important work by John Biddulph Martin was "*The Grasshopper*" *in Lombard Street*,

the premises where the business of the firm is still carried on, the history of the Banking House which was at one time the property of Sir Thomas GRESHAM, whose crest, the Grasshopper, the name commemorates. The family of Martin has long been connected as Goldsmiths with the City. Sir Richard Martin was Lord Mayor of London in the Armada year, 1588-89, and again in 1593-94, and the name has long been conspicuous in the annals of Lombard Street. The volume is a most interesting record, both of families connected with the business of banking and of the rise and progress of the business itself.

MAZZOLA, UGO (1863-1899), was born at Naples and died at Courmayeur. The son of a merchant, he had been accustomed to see the application of economic laws ever since his childhood. He studied economics at Naples, under Professor Ciccone and from the works of Fr. FERRARA, taking his degree at an age at which most others are only beginning to prepare for it. Possessing most modern languages —including Dutch—and gifted with uncommon intelligence, the Government appointed him, at the age of twenty-two, to study the question of workmen's insurance by the State. For this object he went in 1884 to Berlin, where he had the privilege of attending the lectures of Professor A. Wagner. His first book, on *Insurance of Workmen*, was published by the Ministry of Agriculture, Industry, and Commerce, and was considered as exhaustive. He was early appointed to the chair of political economy in the small university of Camerino, teaching there public finance and statistics besides political economy. A convinced free-trader, he undertook to write the "Chronique" (history of current events) for the *Giornale degli Economisti*, which he had bought with a couple of friends. His chronicles were as witty and caustic as if BASTIAT had reappeared to write them, and naturally gained for him as many enemies as friends. Not content with writing chronicles, he would travel all over Italy delivering speeches. His scientific activity was principally roused by financial problems, viz. the alterations in economic equilibrium through governmental interference, in the shape of taxation and of public services substituted for private enterprise. A book on the *Fundamental Data of Public Finance* obtained for him the chair of finance at Pavia, where COSSA was teaching political economy. The sudden death of Mazzola's father obliged him to break off his scientific work for more than two years, in order to unravel the intricate affairs of a wholesale cloth importer. Disease began to undermine his health. When he returned to scientific work he wrote on German colonisation in the Polish provinces of Prussia. His book was republished by the Ministry of Agriculture, Industry, and Commerce as a guide for and to supply materials for those who are interested in internal colonisation in Italy (Sardinia and several regions of the south of Italy). His last book was on *Progressive Taxation*, in which he shows, by historical analysis, that theoretical principles have, as a matter of fact, always had very little to do with it in comparison with political forces which have decided its acceptance or rejection. Besides his books, Mazzola has left two excellent monographs, one on *Fiscal Monopolies*, and one on the *Land Tax*. Increasing ill-health put an end to his activity before he was thirty-six. He was considered the ablest of the younger Italian economists of his time. M. P.

MEAN, FREQUENTIAL (in Statistics). This form of average proposed by Fechner, and called by him *Dichtester Werth*, is determined by the frequency of occurrence. "If we arrange the data according to their value or quantity, and then divide this series into equal portions, a certain unevenness of distribution will be noticeable; if we then take the most crowded portion and from it its central item, we shall obtain a value which, in certain cases, may be used as the representative of the whole series, it being the one which actually occurs more frequently than any other" [see AVERAGE; MODE, in Statistics, Appendix].

[See Ernst G. F. Gryzanovski "On Collective Phenomena and the Scientific Value of Statistical Data," *Publications of the American Economic Association*, August 1906.]

MEDIAN. See AVERAGE, Appendix; INDEX NUMBERS, Vol. II. p. 386 *d*.

MENGER, DR. ANTON (1841-1906), was born at Maniow in Galicia and died at Rome, being the youngest of three brothers, all of them writers on social and economic questions, of whom the eldest, Maximilian, was a member of the Austrian Reichsrath, and the youngest, Carl, was one of the most celebrated champions of the deductive against the historical school. Anton was trained as a jurisconsult at Vienna University, and after obtaining the right of Private Lecturing in 1872, and becoming Professor Extraordinary in 1874, was in 1877 elected Professor of Civil Procedure, which post he held until he retired on a pension in 1899. His earliest publications apparently dealt solely with legal procedure, but he soon turned his mind to the treatment of social problems from their juristic aspect, and the publication in 1886 of his first and perhaps greatest economic work, *Das Recht auf den vollen Arbeitsertrag in geschichtlicher Darstellung*, marked the completion of the change. This work was translated into several languages, and in 1890, in "The Civil Law and the Non-propertied Classes," he criticised the proposed Bill for a code of civil law for the German Empire. His practical influence, indeed, was not confined to this measure, but is visible in the German Statute Book generally and in two Austrian Statutes, Civil Procedure, 1895, and Civil Executions,

1896. In 1895 he became Rector of Vienna University, and chose "The Social Problems of Jurisprudence" as the subject of his Rektoratsrede. On his retirement from the Chair of Civil Law in 1899 he became Honorary Professor of the Law of Civil Procedure and of the Philosophy of Law; and he has left some further works on social and ethical theory, and an unpublished manuscript on "Politics for the People." He died at Rome in February 1906.

The combination in Dr. Menger of legal training and legal methods with socialistic opinions and sympathies enabled him to give birth to a new type of juristic socialism. He never wholly ceased to be a jurisconsult, and as a result he subjects the projects of his party to a severe and impartial though sympathetic analysis. In the introduction to his chief work he declares "a juridical elaboration of socialism to be the most important task of modern jurisprudence, the right accomplishment of which will materially assist the peaceful reform of our social conditions," and he despaired of much practical achievement until "socialistic theories are laid down as bare legal conceptions denuded of the endless economic and socialistic literature which form their main contents." *Das Recht* was, indeed, intended by its author to be the "fragment" of a synthesis of socialism as a body of legal rules; but this work unfortunately was never completed. This aspect, however, was not so much that of the practical jurisconsult as based on the philosophy of law; for, as Professor Foxwell (*see below*) points out, it was not legal rules (*lex, loi, gesetz*) but ideal right (*jus, droit, recht*) with which Menger dealt. "To him jurisprudence was merely a reflection of traditional legal customs, but the new philosophy, the jurisprudence of the have nots, was in his opinion the real science of socialism"; and to the support of such a system all his published works have in some form or other been devoted.

The influence of this standard is most marked when we come to his economic method, which is as critical and analytic as the most precise could desire. *Das Recht*, his chief work, is partly abstract in character, but the remainder of it is historical. The former method is found in his analysis of the main socialistic doctrine of the Right to the whole produce of labour, and in tracing the development of this all defects of reasoning and insufficiency of research obtain short shrift. On the North German School he is particularly severe, describing their method as "subversive of all rules of historical research and resulting in a constantly increasing dead-weight of errors and misconceptions." An analysis of some of the chief socialistic doctrines leads him to the conclusion that they are mutually incompatible, and he adjudges the Right to Subsistence to be the more important claim to which therefore the Right to the Whole Product must give way. The rest of the book traces historically the origin of the latter theory from the earliest English and French socialists —Godwin, Hall, Thompson, and the St. Simonians (see St. Simon)—whose originality he vindicates against the Northern German School and the pilfering of Marx and Rodbertus, who borrowed the theory from them without acknowledgment. "To men," he wrote, "who bore in their lives besides other persecutions the grief of being unappreciated and forgotten, there is at least due the justice of immortality as the originators of world-moving thoughts."

Unlike his brother Carl, Anton Menger contributed little or nothing to the pure theory of economics; but his work gave him a place of his own as the founder of Juristic Socialism, in which he has had no prominent follower, and Jurisprudence itself has benefited by this connection with Socialism. The *Das Recht* itself, Professor Foxwell says, is "a most felicitous and vigorous study of the historical evolution of socialist doctrine. . . . Broad but sketched with singular accuracy of learning." "The pattern of a fearless thinker who shrinks from no consequences, of a warm-hearted advocate of the non-propertied classes," wrote Mr. Victor Graetz in the *Economic Journal*. His works were:—

Das Recht auf den vollen Arbeitsertrag in geschichtlicher Darstellung, 1886-1891; translated into English with introduction by Professor Foxwell, 1899.—*Gutachten zur Errichtung einer Eidgenössischen Hochschule für Rechts- und Staatswissenschaft*, 1889.—*Das Bürgerliche Recht und die Besitzlosen Volksklassen*, 1890.—*Die Sozialen Aufgaben der Rechtswissenschaft*, Rektoratsrede, 1895.—*Neue Staatslehre*, 1903.—*Neue Sittenlehre*, 1905.—*Volkspolitik* (in Manuscript); and two articles "Sozialismus und der Sozialpolitik in der Zukunft," 1887.—"Die Soziale Bewegung und Kulturwelt," 1899.

[See Professor Foxwell's Introduction to M. E. Tanner's Translation of *Das Recht*, London, 1899.—Luigi Cossa, *Introduction to the Study of Political Economy*, English Translation, 1893.—*Handwörterbuch der Staatswissenschaften* (Jena, 1900) for Biography by Josef Stammhammer, and *Economic Journal*, June 1906, for obituary notice by Victor Graetz.—*Jahrbuch für Nationalökonomie und Statistik*, 1888, by A. Adler; 1890, by E. Loening; and Gustav Schmoller in *Jahrbuch für Geschichte und Verwaltung*, 1889.] N. B. D.

MESSEDAGLIA, Angelo (1820-1901), was born at Villafranca, Verona, and died in Rome. Three men have been the direct teachers of all Italian economists since the renewal of economic studies in Italy: Cossa, Ferrara, and Messedaglia. Each of them acted in his own special way. Cossa was incomparable in bibliographical knowledge and in systematising economic doctrines. Ferrara was an original thinker, a creator of new knowledge. Messedaglia was a statistician, a logician, a teacher of method. He was a slow worker, and would

keep a problem he was studying for years and years on his desk without being induced to utter an opinion.

His publications are not numerous, but each of them became in time a standard book of Italian economic literature. In 1850 he published a volume on public debts and the best methods of consolidation, *Dei prestiti pubblici e del miglior sistema di consolidazione*, Milan. In 1858 he began his demographic publications by *The Methods of the Theory of Population Considered* (*Della teoria della popolazione principalmente sotto l'aspetto del metodo*), Verona. They were continued in 1864 in an essay on GUERRY DE CHAMPNEUF, and in 1866-67 in *Studies on Population*, published like the last mentioned in the acts of the Venetian academy (*R. Istituto Veneto*). The general methods of statistical research were the subject of introductory lectures to his courses of lectures in 1872, 1874, 1877, published in the annals of the universities of Padua and Rome, and in the *Archivio di Statistica*. They were also the subject of monographs whose titles are: *Methods in Statistics*, 1879; *Criminal Statistics*, 1879; *Some Problems in Theoretical and in Italian Statistics*, 1880; *Calculus of Mean Values and their use in Statistics*, 1880; all published in the *Archivio di Statistica*. In 1881 he took up monetary problems and wrote one of the very best books Italian literature has on this argument, dividing it into two parts, *The History and Statistics of Precious Metals*, and *Money and Monetary Systems in General*. This publication also appeared in the *Archivio* for 1881, 1882, 1883. Messedaglia was for several years a deputy and was then appointed a senator. In this latter quality he reported on several economic subjects. One of his reports, on the reform of the land tax, has become a standard book on the *History and Methods of the Cadastre*, 1882.

Messedaglia's drift of mind would always lead him to a minute study of facts. In the question of land tax he would go into the most minute technical details of the *Cadastre* (see CADASTRAL SURVEY); in monetary problems he would go into technical details of banking, of mint methods, of industrial uses of metals, of customs and habits of hoarding, of practices in negotiating drafts, and did his best not to omit the action of the most minute influence. In public finance he would again take into consideration not only positive legislation, but also its working in real practice. He was a positivist by temperament. Concise in speaking and writing, slow and monotonous in oral lectures, he was attractive in that he never said a useless thing. He would never indulge in polemics, and it was impossible to make him lose his temper. He was highly respected by students and colleagues for his great breadth of knowledge, which never made a person who was speaking before him feel sure that he was not in the presence of a man who, though remaining silent, knew more about the argument than the speaker. M. P.

MEYER, HERMANN RUDOLPH (1839-1899), born at Friedeberg, described as a "social conservative" (*Konservativer Volkswirth*), assisted Hermann Wagener in journalistic work, sharing his views as well as those of RODBERTUS on economic questions. These led him into conflict with the Prussian Government and to his departure from Germany in 1877. For a time he lived in Austria, where, his sympathies drawing him to the conservative party, he lent his assistance to the reform of the law concerning factories and corporations of artisans. Being unable to reconcile his views on corn duties with those of the Austrian aristocracy, he left Vienna, and after further travel settled in Canada in 1881, became naturalised as a British subject, and engaged in farming. Ill-health compelling him to return to Vienna, he again became interested in Austrian politics on the conservative side, while his experience in farming enabled him to oppose agrarian protectionism.

His principal writings were *Der Emancipationskampf des vierten Standes*, 1872-74, 2 vols., 2nd ed. of vol. i., 1882, an impartial statement of Socialism.—*Capitalismus fin de siècle*, 1894.—*Hundert Jahre Conservativer Politik und Literatur*, 1896.

[See *Economic Journal*, vol. ix., London, 1899.—*Handwörterbuch der Staatswissenschaften*, giving complete list of works, vol. v., Jena, 1900.]

MIKLASHEVSKY, IVAN (1858-1901), Professor of Political Economy and Statistics at the University of Kharkoff, took a keen interest in the economic and social movements of his day. His principal work was a *History of Village Economy in the State of Moscow: the Formation and Management of the Villages in the Southern Frontier of Russia in the Seventeenth Century*. At the time of his death he was preparing further work in continuation of this. He contributed a brief but brilliant sketch of the history of economics in Russia to this Dictionary (see RUSSIAN SCHOOL).

MODE (in Statistics). If we consider a series of instances of a kind of quantity, that value of the quantity in whose neighbourhood the largest number of instances is found is termed the *mode* of the series. In other words, the mode, or, as it is also called, the maximum ordinate average, is the value in whose neighbourhood the instances cluster most densely. See AVERAGE.

MUNICIPAL AND GOVERNMENT TRADING. In my book on Municipal and Government Trading I have endeavoured to prove, and I see no reason to change my opinion,

1. That local expenditure is increasing more rapidly than rateable property.

2. That local indebtedness is increasing more rapidly than rateable property.

3. That municipal trading cannot fail to give rise to difficult labour problems, and may lead to serious corruption.

4. That profits are only made, if at all, when municipalities have a monopoly; they are con-

fined to businesses such as the manufacture of gas, which has long been established and reduced to regular rules; that even in such cases the accounts have been so kept as to make it impossible to determine what the real result has been; that the profit, if any, has been but small; and that much more satisfactory and remunerative results might have been obtained if the works had been leased to private companies or firms.

5. That municipal trading has seriously interfered with private enterprise and our foreign commerce.

6. That the State management of railways is open to similar objections; that on State railways the fares are higher, the trains slower, fewer, and less convenient, and that to introduce questions of railway management into the domain of politics is open to serious objections.

7. That it is unwise to give votes to those who pay no rates, and unjust to withhold them from those who do.

8. That Government and Municipal Trading, by reducing the demand for labour, while increasing prices and raising rates, has not only injured the ratepayers generally, but especially the working classes; and that if carried to its logical conclusion, it will involve the loss of their freedom.

That the burden of our rates is not only excessive but increasing, no one can deny; and they will inevitably continue to rise unless some change is made in our policy.

Sir J. W. Benn, though he has himself been one of the most able and active supporters of municipal trading and lavish expenditure, recently admitted in the debate on the Agricultural Rates Bill in the House of Commons that "the position of the London ratepayer has become critical. The increasing rates of London are driving away industries by the dozen," and what is true of London holds good also with reference to other great cities.

In spite of the prosperity of our commerce, the building trade is depressed, and no wonder. If it had not been for the increase in the rates many a man would have improved his house, many a railway company would have enlarged their stations, or in other ways have afforded more accommodation to the public, and thus given additional employment to labourers and artisans. We are told, no doubt, that municipalities make profits. But this is only the case where, as in gas works, they have a monopoly. Of course if you have a monopoly and can charge what you like, it is easy to make a so-called profit. They charge the ratepayer a high price and call it a profit.

All monopolies are bad, but Government and Municipal monopolies are the worst, because, when once established, they can neither be regulated, controlled, nor abolished.

By recklessly running the Thames steamers the County Council admit that they lost over £50,000.

The more this policy has been carried out the worse for the working man. West Ham is a case in point. The rates are very high, industry is driven away, there is too little employment, and the working man suffers in consequence.

The programme of Socialists is that "all the means and instruments of material production, distribution, and exchange should be owned and controlled by the State."[1] Socialists no doubt think that they are acting in the interest of the working classes. They are entitled to their opinion, and I make no reproach, though I do not agree with them.

Under their system not only railways, tramways, and gas works, not only manufactories and building concerns, but shops also,—milk shops, bakers, butchers, grocers, and the rest,—would be run by the County Council.

Perhaps it will be said that tramways and waterworks should be worked by the London County Council, but that shops would not be interfered with. But where are we to stop? Why tramways and not omnibuses or cabs? Why water and not bread or meat? Indeed, at a meeting of the Society of Arts, Mr. Burns was asked "Whether it was his view that all private property, what he called the instruments of production, should be in the hands of the State or the municipality?" Mr. Burns replied, "Yes."[2]

Moreover, it is surely evident that municipal employees should not elect their own employers. Town councillors will have to regulate the wages of their electors. The temptation to set the wages against the votes must increase till our municipal governors are placed in a difficult, if not an impossible position.

This policy is generally advocated as being in the interests of the working man. But those who are engaged in commerce know that success depends on close attention to details, on watching the turn of the market, on giving mind and thought to the business. It is impossible for the members of municipalities to do this, and, consequently, municipal management cannot be as economical or as successful as private management.

Sir H. Campbell Bannerman, Sir Edward Grey, and Lord Rosebery all agree that the London County Council is greatly overworked. The London County Council cannot look after the details as private firms and companies would; the services and products must therefore be more expensive. The national output will be less. Wages in the long-run are governed and determined by international competition. Municipal Councils could not raise their wages or they would ruin their markets. Moreover,

[1] *The Times*, Oct. 6, 1906.
[2] *Journal of the Society of Arts*, No. 2413, vol. xlvii. 269, 270.

as governments and municipalities would not increase their works, or adopt improvements so rapidly as private firms and companies, the demand for labour would be less. The difference could not then be thrown on private enterprise as it is now, because private enterprise by the hypothesis will have been done away with, or rather, will have been driven over-sea. With the same, therefore, or probably with lower wages, working men would have to pay a higher price for the necessaries of life.

But this is not all. At present they are free. They can choose their employer and their employment. Under the new system this would not be possible. They could not choose their employer, for there would only be one. Nor could they choose their employment. If the State or the municipality is to be responsible for them, workmen would have to do as they are bid. At present, if they do not like their work or their employer, they can change. That would be impossible under the new system which they will have created for themselves. Socialists frankly admit this. For instance, the Fabian Society says—"Every one should have a legal right to an opportunity of earning his living in the society in which he has been born; but no one should or could have the right to ask that he shall be employed at the particular job which suits his peculiar taste and temperament. Each of us must be prepared to do the work which Society wants doing, or take the consequences of refusal." (Fabian Tract, No. 127, "Socialism and Labour Policy. Municipal and National Trading," p. 154.)

But who is to determine what "Society wants doing"? Some superior official. I shall be indeed surprised if British workmen are prepared to surrender their personal freedom and reduce themselves to the position of slaves! Bureaucracy is the worst form of tyranny.

The result to the working classes, then, would be less employment, lower wages, dearer necessaries of life, and—the direst misfortune of all—the loss to a great extent of the personal freedom they now enjoy.

As regards the conduct of commercial undertakings by Government, perhaps the best case to take is that of railways. It is extremely difficult to compare the work done in Government dockyards with that of private shipbuilding yards, though it would doubtless be wise to restrict the former within narrower limits. As regards railways, it is more easy to contrast the two systems.

Take, for instance, the case of India. Mr. Horace Bell, of the Railway Department of the Government of India, not long ago read an interesting paper before the Society of Arts. He said that he was at first very much in favour of the management of railways by the Government, but the result of his experience was to convince him that . . . "the only means of introducing a new and vigorous life into Indian railways is by inducing a free and unrestricted flow of private capital to India, and that this implies the gradual, but eventually complete, abandonment of State administration." (*Journ. Soc. of Arts*, No. 2371, vol. xlvi.)

In the course of the discussion Sir Juland Danvers, who represented the Government on the Boards of the Indian railways from their infancy, and speaks with perhaps unrivalled experience, expressed his opinion that . . . "the agency of companies was, upon the whole, the most satisfactory mode of carrying out railway enterprise. That seemed to be now the opinion of the Government. Railways, being commercial concerns, were better in the hands of those who could manage them on commercial principles, if the choice was between a State and a Company, the latter was, on the whole, most desirable."

The results, indeed, have been so unsatisfactory that the Government recently selected Mr. Thomas Robertson to make a Report on the Administration and working of the Indian railways. After an elaborate inquiry, he came to the conclusion that . . "the working of the Indian railways cannot be regarded as at all satisfactory. But I attribute this more to the system than to any individual action on the part of the railway or Government officers. . . . But after long and anxious consideration, the conclusion forced on me is that root-and-branch reform alone will be productive of lasting good and that if the development of railways in India is not to be hampered, and if they are to render that full and efficient service to the country of which they are capable, they must be permitted to be worked more as commercial enterprises than they have in the past." (*Report on the Administration and Working of Indian Railways*, 1903.)

He points out that the average speed "is not as high as might have been expected"; that it "is so slow as seriously to interfere with the proper development of the traffic"; and that "before the rates and fares in India can be regarded, relatively, as equal to those in England, the former will require to be lower than the rates now charged—for passengers, by about 18 per cent to 40 per cent; for general merchandise, by about from 30 per cent to 60 per cent; and for coal, by about 40 per cent to 60 per cent." As to the result of Government interference in the construction of railways, we have an object lesson if we compare India with Argentina, where the construction and management of railways have been wisely left to private enterprise. The population of India is (1904) over 290,000,000, and the miles of railway 27,000, or one mile to every 11,600 people. In Argentina the population is mainly Spanish, and the country is agricultural. The Government has been in great financial troubles. Nevertheless, with a population of 4,500,000, they have over 12,000 miles of railway—mostly made with English capital,—or a mile to every 450 persons. If India had the same mileage of railways in proportion to population, she would have, not 25,000 miles of railway but 644,000 miles. Now why does English capital go to make railways in a foreign country, and not to India, a part of our Empire? Because, as the Government interfere, others are deterred from entering the field. They naturally say, if any line is proposed

by private enterprise, that, if it were likely to pay, the Government would make it. I cannot doubt that the policy of successive Governments in this respect has had a serious and unfortunate effect on the prosperity of India.

The present Lord Farrer,[1] in conclusion, tells us that after his careful comparison . . . "it certainly appears from our figures that those countries which have been given freest scope for private energy have obtained the fullest reward. It is frequently forgotten that in questions of administration, Government officers are only human beings after all, and do not differ in kind from other individuals, while the able and original-minded men among Government servants are certainly more hampered —by quite unnecessary red-tape regulations—in carrying out fresh ideas than are the servants of private enterprise. The danger of this criticism developing into complete control is the rock ahead, for as soon as Government obtains control, private enterprise will wither."

Mr. Acworth[2] concludes his enquiry as follows:— "A careful study of the evidence has convinced me that in the long-run State control ends in keeping down the best to the level of the worst, and that, taking them for all in all, the private railway companies of England and the United States have served the public better than the Government railways of the Continent or of our Australian Colonies, and—which is still more to the point—are likely to serve it better in the future." The late Lord Farrer said,[3] "The development of railway communication in Great Britain has been such as no Government management, however good, could possibly have produced."

No one, indeed, who looks dispassionately into the evidence can doubt that the State management of the railways has been a great misfortune for the Continent, and that our trade and commerce have benefited immensely by the energy and enterprise of our railway companies and their very able officials.

In cases where a monopoly is almost inevitable the "sliding scale system," adopted in London and several other places, is better for the ratepayers than that of municipal management.

Under this system a sliding scale of price and dividend has been adopted, under which, starting from a given point of price and dividend, the gas companies are enabled for every penny per thousand feet by which they reduce the price of gas to add a quarter per cent to their dividend, so as to divide any additional profit they may make between the companies and their consumers. As regards capital, gas companies coming to Parliament for power to raise money are required to put up to auction all the fresh capital they require, so that any premium upon the shares goes into the plant and stock of the company, and not into the pockets of the shareholders. This plan not only gives the consumer a share in increased profits, but also gives the companies a motive for economy.

[Lord Avebury, *On Municipal and National Trading*, London, 1906.—Hugo Robert Meyer, *Municipal Ownership in Great Britain*, New York, 1906.] A.

MUNRO, J. E. C. (1849-1896), born in County Down, was educated in Ireland at the Royal Belfast Academical Institution, and at Queen's College, Belfast, graduating as B.A. in 1871, and at Cambridge, where he studied law and economics, obtaining in 1874 the second place in the Law Tripos. After being called to the Bar and practising for a short time, he was appointed, in 1882, Professor of Law and Cobden Lecturer in Political Economy at Owens College, Manchester. He resigned these posts in 1892 and 1890 respectively, and returned to London to practise as a barrister. He was Reader in Roman Law to the Inns of Court for some years, and Examiner in Jurisprudence to the University of London, 1889-94.

Besides the numerous articles which he contributed to this Dictionary, he wrote various pamphlets and papers for the *Economic Journal*, the *Proceedings of the British Association for the Advancement of Science*, and the *Proceedings of the Manchester Statistical Society*, the papers on the "Sliding Scale in the Coal Industry," the "Sliding Scale in the Iron Industry," and the "Probable Effect of an Eight Hours' Day on the Production of Coal and the Wages of Miners," being some of the most important. He was a member of the Council of the British Economic Association and of the Royal Commission on Mines, President of the Manchester Statistical Society for one year, and worked for Section F (Economics) of the British Association.

[See *Economic Journal*, vol. vi., London, 1896.]

NAZZANI, Emilio (1832-1904), was born in Pavia, and was a scholar and friend of Professor L. Cossa. He is known as the author of a clear and concise text-book—*Sunto di Economia politica*—which has passed through ten editions, being used in the classes of nearly all the technical institutes—schools corresponding to the German *Realschulen*. Nazzani was himself president of the technical Institute of Forli, and refused, being exceedingly modest, to quit this position for the chair of political economy of the University of Pisa. His manual is entirely on the lines of classical English political economy. So are also his four essays: on rent, on the wages fund, on profit, and on the classical school of political economy. These essays were collected in one volume in 1881, Milan, and were written between 1872 and 1880. The first edition of his text-book appeared in Milan, 1875, and the last in Forli in 1905, after his death, under the direction of Professor Loria. M. P.

[1] Foxwell and Farrer, *Express Trains.*
[2] *The Railways and the Traders.*
[3] Farrer and Giffen, *The State in its Relation to Trade.*

OCTROI. In France a law of the 29th December 1897 allows municipalities to suppress all *octroi duties*, and even compels them to do so with regard to wines. It is, in fact, especially to benefit the sale of wine that the law making the alteration in the duties has been passed.

The receipts from the octroi have been as follows in 1897, before the law was enacted, and 1905, the latest figures to hand, converting the franc as 25 = £1 :—

	1897.	1905.
Octrois of the Departments	£6,855,883	£6,726,471
City of Paris . . .	6,270,754	4,338,377
District of Paris . .	126,338	122,713
	£13,252,975	£11,187,561

The principal effect appears to have occurred in Paris, and in the consumption of spirits on which higher duties have been laid.

Quantities of Alcohol taxed under the General Duty.

	1897. Gallons.	1901. Gallons.	Diminution. Gallons.	Proportion Per Cent.
Towns imposing octroi duties[1] .	18,610,834	14,331,746	4,279,088	22·98
Other places .	17,336,462	15,294,224	2,042,238	11·78
Total .	35,947,296	29,625,970	6,321,326	..

The number of gallons on which duty is paid decreased actually about 46 per cent, principally owing to the raising of the communal tax.

It may be seen from this how dangerous it would be for the finances of the State to leave it in the power of the communes for the future to establish, for their own profit, unduly high duties on alcohol.

A very small number of municipalities have made use of this power to abolish their octroi duties. Out of 1514 in 1895 which have such duties, only nine suppressed them (leaving therefore 1505), and among them were only two towns of importance: Lyons (500,000 inhabitants); Dijon (60,000); the others are only very small communes.

Still, it cannot be said that they have entirely abolished the *octroi*, for they have retained the tax on spirits, and increased it to replace the abolished duty on wines.

The economic results of this reform in the towns which have carried it out are not easy to analyse; they are, in all cases, very indecisive. The consumer does not appear to have derived as great an advantage as might have been expected through the diminution of the price of the goods consumed. It is mainly the middlemen who have profited by it. On the other hand, the owners of houses in towns have greatly suffered, for, as a general rule, the octroi duties have been compensated for by raising the taxes on houses.

A small commune near Argenteuil had suppressed the octroi duties in 1900, but it answered so badly that it re-established them the following year, except in the case of wine.

The law of 1897 indicates the taxes by which municipalities can make up for the octroi duties (additional centimes on direct taxes, duties on alcohol, licences on the vendors of alcoholic drinks, etc.). They may, nevertheless, establish any other taxes they wish, but on condition of obtaining the consent of the central government.

OPIUM, AS A STATE MONOPOLY. Recent political developments have profoundly modified the position of the opium question, and its history during the next few years promises to be of the deepest interest to all economists.

Our article on the subject in vol. iii. p. 36 was approximately synchronous with the appearance of the exhaustive *Report* of the Royal Commission on opium that had been appointed by Mr. Gladstone's Government in 1893, with Lord Brassey as its president; and also with the publication of the second edition of Sir John Strachey's important work on Indian administration.

The position of the question at that time, 1895, and for some years after, was largely dominated by the very definite conclusions arrived at and set forth in these two authoritative documents. Those of the Royal Commission may be thus summarised :—

With regard to the export trade to China, the Commission held that it would be for that country to take action if it wished the existing treaties annulled on the ground that the import of opium is injurious to its population. Opium is now largely manufactured in China, and if the Indian supply ceased the deficiency would be soon filled by an increase in the home production. It may be added that so far from having encouraged the production of opium in India, as is often alleged, the British authorities found it produced wherever this could profitably be done; and that their whole policy has been to restrict the production to authorised areas.

And with regard to the restriction both on production and on home consumption vigorously imposed by the Indian Government, Sir John Strachey, with a wider knowledge of the whole subject than perhaps any other living person, wrote as follows :—

[1] *Bulletin de Statistique et de législation comparée* (Janvier à Juin, 1903), p. 667.

There is little doubt that more opium was consumed in India under native rule 150 years ago than now, and the stringent system of excise established by our Government has so greatly increased the price of the drug that consumption is reduced to a minimum. The danger is that this policy may be carried too far, and that by making opium too dear and too difficult to obtain, we may not only encourage smuggling, but may cause people who have been content with the moderate and beneficial use of opium to have recourse to alcohol, or to cheaper or more noxious stimulants, the consumption of which no government can prevent.

And as regards these restrictions on internal consumption, the Commission were of opinion that the evil effects ascribed to the drug have been much exaggerated. They summarised the preponderant medical evidence in saying that "the temperate use of opium in India should be viewed in the same light as the temperate use of alcohol in England. Opium is harmful, harmless, or even beneficial, according to the measure and discretion with which it is used." They did not advise prohibition; they recommended the maintenance of the Bengal monopoly system of production; and they found that the arrangements for retail vend were in general sufficiently restrictive.

Further, the Commission reported that it would be unjust, impolitic, and oppressive for the Government of India to interfere seriously with the production and sale of opium in the Native States; and also, that Indians of all classes were unanimous in holding that it would be unfair to impose taxation on them for the purpose of making good the revenue that would be lost by prohibition or further restriction.

The Report of the Commission, which thus gave the *quietus* to the more extreme forms of the agitation against the "opium traffic," was unanimous, with the sole exception of Mr. H. J. Wilson, M.P., who, with Mr. Arthur Pease, had been appointed to represent the views of the Anti-Opium Society. Mr. Wilson presented a minority report, traversing the conclusions of his colleagues, and complaining of the one-sided character of much of the evidence. The *personnel* of the Commission was remarkably strong and representative. The late Maharaja of Darbhanga and Mr. Haridas Veharidas represented Indian public opinion very admirably; and their strongly expressed opinion, both as to the impolicy of interference with the opium policy of Native States, and as to the facts that (1) prohibition or restriction of the opium trade with China would "mean sacrifice of a large revenue, fresh taxation, and probably great discontent," and (2) that opium in India "is largely used as a harmless stimulant, and people should not in such case be deprived of its use," has naturally carried great weight throughout the civilised world.

Sir William Roberts, M.D., F.R.S., represented the highest medical science with absolute impartiality; while Mr. Arthur Pease and Sir Robert Mowbray represented the religious objections to even the slightest State encouragement of vice, and the same might be said of Sir James B. Lyall, G.C.I.E., K.C.S.I., and Mr. Arthur Fanshawe, two Indian civil servants of the highest experience and authority.

The situation, as left by the Report of this great Commission, was this:—

It was held to be authoritatively established—

1. That the agitation against the opium trade had been largely built on the uninstructed philanthropy of well-meaning stay-at-home Englishmen. Sir John Strachey applied to the zealots of the anti-opium crusade the words of Condorcet, "*l'enthousiaste ignorant est la plus terrible des bêtes féroces.*"

2. That opium is one of the most valuable products of India. Its cultivation and manufacture afford lucrative employment to millions in British India and in the Native States. In many of the latter it forms an important element in the revenue of the chiefs; while in the poppy-growing districts of British India it is not only the support of the cultivators, but largely affects the revenue paid to Government by the landowners.

3. That while the direct revenue from opium, derived mainly from the China trade and paid by the Chinese consumers, and also from the restrictive duties on the comparatively small home-consumption, is one of the most important items in the Indian revenue, its loss would be almost insignificant when compared with the enormous economic loss that would be entailed on the country at large by the destruction of one of its most valuable assets. Sir John Strachey computed that this loss would not be covered by a payment of £100,000,000.

4. That even if ethical or other reasons should ever induce the Imperial parliament to use the despotic power of the Government to force this loss on the Indian peoples, it would be morally and politically impossible to compel the Native States to submit to a similar loss.

5. That consequently compensation, whether from British or Indian taxation, is practically out of the question. The fresh taxation needed even for the comparatively small matter of replacing the direct revenue would be certain to cause serious discontent, while full compensation would be beyond the power of the Indian Government. And, as Lord Kimberley had pointed out when Secretary of State for India, no serious politician had ever proposed that the taxpayers of England should furnish the enormous sums required. And Mr. Morley, in the same capacity, when the proposition was made in the House of Commons in 1907, that, we ought to put "Righteousness before Revenue," pointed out that we hardly ought to satisfy our

own righteousness at the cost of other people's revenue, but that there was practically no hope of a British Chancellor of the Exchequer ever consenting to increase British taxation to replace the Indian opium revenue.

6. That the Chinese had never formulated any settled policy in regard to the production and import of opium; that their occasional objections to the import of the Indian drug had been due simply to the suspicion with which they regarded all import-trade except as an excuse for taxation; and that they had refused to prohibit the import, not on account of coercion, but because of the loss of the import-duties it would have entailed.

While these conclusions, based on the report of the Opium Commission, have been very generally accepted in the United Kingdom, there has always been, and still is, a considerable number of people who dislike the idea of the British Government of India appearing as the monopolist manufacturer of an intoxicant, and who look with suspicion on the proofs offered that the monopoly is the best method of restriction, and that our commercial treaties with China are for the general maintenance of the "open door," and not for the special maintenance of the opium traffic. The general election of 1906 resulted in the return to Parliament of a majority holding these views, and the result has been a great advance in the direction of suppressing the trade with China, though no suggestions have as yet been offered as to how the loss of Indian revenue is to be made up otherwise than from the Indian taxation, nor as to the means by which the restrictions on the internal production and consumption of opium in India are to be maintained.

The existing situation (September 1907) must therefore be regarded as a transitional one, dominated by the following conditions:—

1. The Secretary of State for India, in his Budget speech for 1906, intimated to the Chinese Government his willingness to co-operate with China in measures for the reduction and ultimate extinction of the import into China of Indian opium, *pari passu* with the reduction and ultimate suppression of the production and consumption of the drug in China.

2. Negotiations ensued between the British Government, the Government of India, and the Chinese Government. The interest of China in the maintenance of the import of Indian opium had presumably been weakened by the results of the intervention of the Powers (Great Britain, France, Germany, the United States, Holland, and Japan), after the "Boxer" troubles—for the settlement of 1901 imposed on China the enormous indemnity of 450,000,000 Haikwan taels (approximately £67,500,000) payable, in half-yearly instalments up to the year 1940, mainly out of the revenues of the Imperial Maritime customs.

3. In September 1906 the Chinese Government issued an Imperial edict, decreeing the gradual abolition of the cultivation of the poppy and the non-medicinal consumption of opium, within ten years from that date. Since then a number of "opium dens" have been officially closed in Foo-chow and Canton.

4. In Calcutta, in the Budget statement, March 1907, the Finance Minister made an important statement on the subject of the then pending negotiations with China, practically abandoning the attitude towards this question formerly taken up by the Government of India. The Hon. Mr. Baker, after stating that the object in view was "the eventual extinction of the opium habit among the Chinese," mentioning that this would involve the loss to India of a revenue of 5½ crores per annum (£3,666,666), and detailing the steps already taken in this direction, took the following somewhat inscrutable view of the outlook:—

If our revenues continue to expand as they have recently done, and if no unforeseen mischance should befall us, we may hope that the void will be made good without imposing on Indian taxpayers a burden greater than they can bear. I am far from suggesting that the loss of revenue is the sole outcome of the Chinese proposals that concerns India. The economic loss to the country occasioned by the proscription of a valuable crop and an important industry; the contraction of our exports by the exclusion of a staple valued at over 9 crores (£6,000,000) a year, and its effect on our balance; and the loss inflicted on the people and Durbars of the poppy-growing States in Malwa—all these are considerations which deserve the most anxious attention. The point which I wish to emphasise at present is that there is no need for despondency, and that, if all goes well, there is nothing worse to fear than the absorption for a few years of the means of affording further relief to the tax-payer, and of incurring useful expenditure for the development of the country.

It is difficult to find in this statement an intelligible ground for any other feeling than one of despondency, except the fact that the closing of the mints—itself a tax on exports—will perhaps enable the Government of India to meet the loss of opium revenue by no more directly unpopular means than those indicated in Mr. Baker's last words.

5. In July 1907, the Secretary of State for India was able to announce, as the result of the negotiations, that, after consulting the Government of India—

His Majesty's Government have informed the Chinese Government that they accept in principle the proposal that the import of Indian opium into China shall be diminished by one-tenth annually, *pari passu* with an equal decrease in the production of the native drug, up to the year 1910, and they will continue to reduce at the same rate the export in 1911 and subsequent years, on proof that China has carried out its share of the arrangement; and that steps have been taken to reduce the area under

poppy in Bengal, which in the five years preceding 1906-7 averaged 615,000 acres, and in 1907-8 is not to exceed 562,000 acres. In 1907 the number of chests of Bengal opium fixed for sale was originally 4400 a month. This has now been reduced to 4000 a month, while for 1908 it has been fixed at 3900 a month. Further reductions will be made in succeeding years if the proposed arrangement with the Chinese Government becomes operative.

6. On July 25, 1907, it was announced in Peking that the Chinese Government had, on July 24, formerly assented to a proposal of the United States, that China should co-operate with the six powers—the United States, Great Britain, France, Germany, Holland, and Japan—in an inquiry into the whole question of the opium trade and production. But this assent was given on the express condition that no foreign commissions were contemplated "with a view to inspecting in the interior of China what steps had been taken to enforce the decree abolishing within ten years the cultivation of the poppy." This was in the nature of a reply to the statement of the Secretary of State for India, quoted above, that His Majesty's Government would require "proof that China has carried out its share of the arrangement." What sort of proof will be required has not been stated; but the Chinese Government here state that they will not permit a foreign inquiry in the interior of China.

7. All the above considerations only affect the comparatively small portion of this question involved in the opium trade between India and China, the production of the "provision" opium for this purpose, and the 5½ crores of Indian revenue dependent thereon. But this has hitherto been the pivot of the general opium policy of the Government of India. If the arrangement with China now tentatively entered upon by the British Government be carried out, the loss of revenue incurred, and the production of Indian opium greatly curtailed or prohibited, the Government of India will find itself face to face—as Mr. Baker foreshadowed in March 1907—not merely with the question of providing for the lost revenue, but with the far more serious and thorny economic problems connected with the cultivation of the poppy both in British India and in the Native States, with the rights of the native cultivators and landowners, and of the feudatory princes, and above all, with the costly and unpopular preventive measures that will be required to coerce the vast populations, who will resent what they will regard as hypocritical tyranny. No attempt seems to have been made as yet to deal with these almost insoluble problems—possibly owing to the extreme probability, frankly pointed out by the Indian Finance Minister,[1] that the arrangement with China will break down. For it must not be forgotten that the British Government has made it a condition precedent, that the Chinese Government—a far less powerful Government in regard to its internal authority than that of India—shall first of all face these economic difficulties and these home difficulties, and overcome them, before the Indian Government can be called on to do so. How insuperable those difficulties are likely to be, alike for India and for China, has been forcibly pointed out by Mr. Batten, one of the most experienced of Indian civil servants, who remarks that whatever our Government may attempt they will never persuade the Chinese to "abandon the ever-increasing culture of the poppy."

[Sir John Strachey, G.C.S.I., *India: its Administration and Progress*, 1903.—*Indian Financial Statement for* 1907-8.—*Final Report of the Royal Commission on Opium*, 1895.—*Correspondence relating to the Affairs of China. Presented to both Houses of Parliament*, 1902.—*Returns, East India* (*Opium*), *20th March* 1902 [120], *and 27th November* 1902 [383]; also *Burma* (*Opium*), *12th November* 1906 [349] *and* [348].—*Annual Reports of the Bengal Opium Department, and of the Bombay Opium Department.*—*China, Diplomatic and Consular Reports* (*Foreign Trade of China*), 1902, 1903, 1904-5.—*Imperial Gazetteer of India, The Indian Empire*, vol. iv. pp. 242-247.] R. Le.

PARTNERSHIP: Limited Partnerships Act, 1907 (7 Edw. VII. c. 24). This Act will come into force on Jan. 1, 1908. By the institution of what it terms "limited partnerships," it enables bodies corporate or individuals to join unincorporated combinations without incurring unlimited liability.

A limited partnership must not exceed in number of members the limit imposed by the Companies Acts, namely, ten in a banking partnership, twenty in any other partnership, but the individual members of a corporate body which becomes a limited partner are, of course, not reckoned. A limited partnership must consist of one or more persons called general partners, who are liable for all debts and obligations of the firm, and one or more persons called limited partners, who, at the time of entering into such partnership, contribute either money or property valued at a stated amount, and who are not to be liable for the debts or obligations of the firm beyond the amount so contributed. A limited partner must not, during the continuance of the partnership, directly or indirectly draw out or receive back any part of his contribution; if he does so, he is liable for the debts

[1] The Hon. Mr. Baker, on March 20, 1907, in his Budget statement, said:—"What the eventual outcome will be it is impossible to foresee, for the practical difficulties of the task which China has imposed on herself are enormous, and may prove insuperable."

and obligations of the firm up to the amount so withdrawn. It is not clear whether this means in addition to his original liability, or only that the withdrawal shall not diminish that liability. The Act clearly contemplates and refers to the possible increase by a limited partner of his original contribution, but, so far as its wording goes, it confines the liability to the amount contributed at the date of entering the partnership. The liability should, logically, be co-extensive with the limited partner's interest in the business. A limited partnership must be registered as such with the registrar of Joint Stock Companies, particulars being given of the firm name, the general nature and principal place of business, full name of each of the partners, a statement that the partnership is limited, with a description of every limited partner as such, and a statement of the sum contributed by each such partner, and whether paid in cash or how otherwise. In default of such registration the partnership is to be deemed a general one, and every limited partner a general partner with consequent full liability. Changes in the constitution or business of the firm, or the sum contributed by any limited partner, must be notified to the registrar. The registrar is to keep a register and index of all limited partnerships registered, with particulars such as above mentioned, which is to be open to the inspection of the public. No limited partner can take part in the management of the business under penalty of being held liable for all debts and obligations incurred during the period he does so, nor has a limited partner power to bind the firm. A general partner may become a limited partner, and *vice versa*, such change being notified to the registrar, and, in the former case, advertised in the *Gazette*. In the absence of agreement to the contrary, a limited partner may, with the consent of the general partners, assign his share in the partnership business, whereupon the assignee becomes limited partner in his stead with the rights and, presumably, the liabilities of his assignor. The Act equally applies to the reconstruction of existing partnerships and the formation of new ones. J. R. P.

PATENT. The English law as to patents has been consolidated in the Patents Act, 1907, which re-enacts the old law with some modifications. The examination by the patent authorities prior to the grant of a patent is no longer confined to the correctness of the description of the patent and the completeness of the specification. An investigation (limited to complete specifications published within the previous fifty years) is now made for the purpose of ascertaining the novelty of the invention. If the invention has in whole or in part been covered by a previous complete specification, the applicant may still obtain his patent, but there will be inserted in the specification as published a reference to such prior specifications as the comptroller thinks right by way of notice to the public. In a clear case, where the invention has been wholly and specifically claimed by a prior specification, the comptroller may refuse to grant the patent altogether. In no case is the novelty of the patent in any way guaranteed (section 7).

Duration of Patent.—Any application for the extension of a patent must now be made to the High Court (section 18).

Provisions for ensuring Working of Invention.—The grant of a patent may now be revoked altogether, if the reasonable requirements of the public are not satisfied, or if the patent is worked exclusively or mainly outside the United Kingdom (sections 24 and 27). A. A. U.

PAUPERISM. See articles in Appendix on POOR LAW, UNEMPLOYED, and PENSIONS, OLD-AGE.

PEDREGAL, MANUEL (died 1896), a Spanish official occupying important administrative posts, was a strong adherent of the principle of LAISSEZ FAIRE. For the vigour of his style he has been compared to Léon SAY.

His most important works are: *Nociones de Hacienda pública.—Derecho, libertad Estado.—Instituciones de Crédito.—Sociedades Co-operativas.—Florez Estrada.*

PENSIONS, OLD-AGE. Old-age pension schemes may be classified into—

I. State-provided pensions
   (*a*) For all who have passed a certain age.
   (*b*) For the deserving poor who are unable to support themselves.
II. Pensions to subsidise private thrift which is
   (*a*) Voluntarily undertaken, or
   (*b*) Enforced by the State.

Each type of pension may be adequate or inadequate alone. Universal State-provided pensions must almost inevitably be inadequate because of their great cost. The old-age and infirmity pensions paid in Germany (instituted in 1889) are of the type II. (*b*). Certain classes of persons, which, generally speaking, include all wage-earners and the lower salaried officials, must insure. Half the premium is paid by employers, and the pensions are subsidised by the State. Pensions and premiums vary with the wage. Several bills for the institution of old-age pensions on the German plan have been introduced in France, but no measure has yet been adopted. Pensions are, however, provided on very favourable terms by the Caisse Nationale des Retraites pour la Vieillesse (established in 1085), which enjoys State subsidies, and for seamen and miners compulsory schemes already exist. The pensions paid in Denmark are of the class I. (*b*), and their cost is relatively low. Old-age pensions were introduced into New Zealand in 1898, and into

New South Wales and Victoria in 1901. The following table shows costs in the year 1904.

	Persons 65 years and over (in thousands).	Thousands of persons receiving pensions.	Percentage of pensioners to those over 65.	Annual amount payable (in £1000's).
Victoria . . .	67·5	11·4	17	198
New South Wales .	52·2	20·9	40	498
New Zealand . .	37·5	11·9	32	201

The Victorian scheme is much the cheapest. The cause is mainly that careful investigation is made before pensions are paid. In none of the colonies are pensions paid when need cannot be shown, and eligibility in all begins at 65. In 1904 maximum weekly pensions were 8s. in Victoria, 10s. in New South Wales, and (approximately) 7s. in New Zealand. All the schemes since their inception have undergone important modifications. Power is given to the Federal Parliament of Australia to institute pensions, and a Royal Commission appointed to consider the matter in 1905 has recently recommended a plan.

In the United Kingdom an agitation for the foundation of old-age pensions has gone on for many years, and the present Government (1908) has fulfilled their promise to introduce a scheme. A Royal Commission (appointed in 1893) sat for two years, and was followed by Lord Rothschild's Committee of Experts which examined one hundred schemes and sat also for two years. The findings in both cases were unfavourable. A few months after Lord Rothschild's Committee had completed its work Mr. Chaplin's Committee was appointed, and this after a three months' sitting recommended pensions for the needy who were aged and deserving. It was estimated by the treasury that the cost would be £10,300,000. More popular support, however, is accorded to Mr. Charles Booth's proposal, which, as revised, is that pensions of 7s. weekly should be paid to all men over seventy, and pensions of 5s. weekly to all women over seventy. It would cost about £13,000,000. It avoids the difficulty of settling 'desert,' and also the objection to schemes which subsidise definite forms of thrift which are tangible, that many wise sorts of expenditure, such as large outlay on children's education and the use of savings to start business, would be discouraged. The great defect of contributory schemes on a compulsory basis (type II. (*b*), the German plan) is the difficulty of collecting small contributions, and obvious disadvantage attaches to any rigid age-limit. The latter flaw is to some extent surmounted by the discounting of the pension expectation at an earlier age, which is allowed in Mr. Booth's scheme. Advocates of pensions hope that thrift will thereby be encouraged, and certainly the German scheme with its very inadequate pensions will be of very doubtful value if it is not. Several inquiries made in Germany leave it still uncertain whether any effect upon the disposition to save is being wrought or not.

Authorities. — Official publication containing statistics and estimates relating to different schemes, 1907; reports of Commissions mentioned above; a collection of essays published for the Charity Organisation Society entitled *Old-Age Pensions* (1903); on Denmark, a pamphlet (reprinted from the *Yale Review*) by Professor Flux, and a little work by Miss Sellers; on Germany, Lass and Zahn's semi-official publication on Workmen's Insurance, and some recent articles (1904 and 1905) in the *Yale Review* by Professors Pinkus and Farnam, and two reports (1895 and 1901) published by the Verein für Armenpflege und Wohlthätigkeit; on the Australasian Colonies, Reeves' *State Experiments, etc.*, and official publications. [See PENSIONS; STATE-AIDED PENSIONS; THRIFT.] S. J. C.

POOR LAW, ADMINISTRATION OF. The work of the officials, described in the article under this heading in Volume II. (*q.v.*), is now supplemented by that of the Distress Committees instituted by the Act of 1904 (see UNEMPLOYED). Old-age pension proposals and experiments are dealt with in an article headed PENSIONS, OLD-AGE. A Royal Commission upon Poor Relief is now sitting.

POPULATION, THE SLACKENING INCREASE OF. Since the publication of the third volume of the Dictionary (1899), the slackening increase among European nations has become more evident. For the United Kingdom, the annual reports of the Registrars-General (to say nothing of the census of 1901) tell of fewer marriages, fewer births, and fewer deaths. The death-rate of England in the first five years after the census of 1901 has declined more than the birth-rate, and the result is a natural increase of 12·10 per thousand as against 11·58 in the preceding five years (*Reports (England) for 1905*, p. xxxvii.). In the 35 years ending with 1905 the marriage-rate, measured "crudely" by the total population, has declined 8 per cent, measured more accurately by the marriageable part of the population (between the ages of 15 and 45) it has declined 19 per cent, though some allowance must be made for increased accuracy in the record of age (*ib.* vii. *cf.* vi.).

The birth-rate, measured "crudely," has fallen nearly 23 per cent in the 35 years; measured by the female population of ages from 15 to 45, it has fallen 29 per cent (*ib.* xxi.). Taken by themselves, illegitimate births declined nearly 52 per cent, and legitimate nearly 24 (*ib.* xxi.). The decline in the birth-rate is explained in some small part by the decline

in illegitimacy, in larger part by the lessened proportion of the married to the unmarried (of the marriageable ages); but there remains a much greater part, not much less than three-fourths, set down by the Registrar-General to deliberate limitation of families (*ib.* xxiii.).

The death-rate, measured "crudely," was 2 per thousand below the mean rate of the previous 10 years. By taking a certain distribution of males and females, and a certain distribution of ages as typical, we get a corrected rate, a standard for interpreting the death-rate as between district and district in England itself (*ib.* xxxviii., xxxix.). When we compare England with foreign countries we have not the help of a corrected rate. The comparison of the crude rates will show that in a list of 32 countries England stands 11th for her average annual marriage-rate in the 10 years ending 1904, showing 15·8 per thousand persons living, Germany (8th) showing 16·4, and France (16th) 15·2. In the matter of births, England has the 20th place with 29 per thousand, Germany (10th) having 35·5, and France (32nd) 21·7. As regards death-rate, England comes 21st with 17·2 per thousand, Germany 12th with 20·8, France 15th with 20·4, New Zealand lowest with 9·8. The last entry shows the need of a corrected rate. The crude death-rate in an old country is not comparable with the crude death-rate in a colony where the distribution of sex and age is entirely different.

The balance is still in favour of natural increase in all countries except France, where the decrease is masked by the effects of immigration. There are over a million of foreigners in France, the Belgians coming in from the north, and the Italians from the south. Perhaps the worst feature of France is the high rate of infant mortality. Otherwise a low death-rate might be expected to go with a low birth-rate. When reference is made to the "interdependence" of death-rate and birth-rate, the phrase may have one of two senses: (1) the simple statement of the arithmetical fact that when the births exceed the deaths there is, *cæteris paribus*, an increase of population; (2) the statement that the births are the cause of the deaths, either the infants being worse fed and tended in proportion to their numbers, or the deaths the cause of the births, the deaths leaving a gap, and which may mean more room and food. The last is not the best kind of interdependence. There is greater economy in a moderate birth-rate together with a low death-rate than in a greater birth-rate with a high infant mortality. Very few will argue that the greater the number competing for life the greater the chances of the surviving fittest being the very best.

Our emigrants in 1905 exceeded our immigrants by about 57,000 (*Stat. Abstr.*, *ib.* 351). Spain and Italy and Austria-Hungary are now ahead of us, not only in the number of emigrants, but in their proportion to the whole population (*Stat. Abstr.*, *Foreign Countries*, 1903-4, pp. 24, 25). A French observer has connected this fact with the decline in the English birth-rate, and drawn the conclusion that the Anglo-Saxon race is not now the strongest rival of the Far Eastern peoples for the honour of replenishing the earth. But the first duty of a nation is to be strong within its own borders, and with that in view to reduce its death-rate and lessen its sickness even at the expense of the birth-rate.

"Marriage and Birth Rates in England," discussion by Mr. G. Udny Yule, Dr. Newsholme, and Dr. Stevenson, in *Statistical Journal*, March 1906, pp. 34 to 147.—Discussion in *Times*, Oct. 1906, on the "Decline of the Birth-Rate," raised by Mr. Sidney Webb. See especially Prof. Karl Pearson's letters of 23rd Oct. and 1st Nov.—Dr. W. Schallmeyer, *Vererbung und Auslese* (Fischer, Jena, 1903).—Prof. René Gonnard, *Émigration Européenne du 19ème siècle* (Arm. Colin, 1906).

J. B.

POST OFFICE, THE (since 1898). Until Ralph Allen gradually established his cross-country posts between the six great post-roads in the first half of the 18th century, letters for all places off these roads reached their destination only by local conveyances, and there was no delivery even in the chief post towns. In London Dockwra's Penny post had been continued since 1680, but it was not till 1764 that Penny posts were authorised for other large towns. From 1801 a few outlying places had posts under guarantees, and some Penny posts worked within a limit of 10 miles from post towns. In 1840, on the introduction of the Penny post, an effort was made to extend the posts and deliveries. In 1843 the rule was adopted of giving a "Receiving Office" and a free delivery at all places receiving more than a hundred letters a week. In 1850 the rule was adopted that a post and delivery should be established wherever it would pay its way, reckoning the revenue at ½d. for each letter. This rule with favourable modifications in detail continued until, in 1897, on the Queen's Jubilee day, it was decided to give a delivery at least once a week to every house in the United Kingdom. In 1906 a delivery at least three times a week was promised, "save in very exceptional cases." Under this rule the delivery of letters has become more general and frequent than in any other country.

In 1864 the free redirection of letters was allowed within the same "free delivery" area. In 1874 the Postal Union Convention allowed free redirection from one country to another, but it was not till 1892 that free redirection was allowed for letters throughout the United Kingdom. In 1895 the rule was extended to all postal articles except parcels.

From 1890 to 1897 the average annual number of letters was about 1,796,000,000. From 1897 to 1902 the average number 2,244,200,000. From 1902 to 1906 it was 2,627,200,000, and in 1906-7 2,804,400,000. The rate of increase grows each year. The annual number of post-cards increases more slowly, and in 1906-7 was 831,400,000. The corresponding numbers of other articles sent by post was in the same year: circulars, 933,200,000; newspapers, 189,100,000; parcels, 104,820,000.

In 1906 the rules of the Book post were modified and admit nearly all commercial documents besides circulars. A cheap rate was also introduced for papers and books impressed for the use of the blind. From 2 ozs. to 2 lbs. the rate is 1d., from 2 lbs. to 5 lbs. 1½d., and from 5 lbs. to 6 lbs. 2½d. A cheap rate of 1d. per pound has been arranged for newspapers and magazines sent to Canada.

In 1906-7, 2,575,891 parcels were exported by post, of the value of £4,638,917. The number imported was 1,471,785, of the value of £1,535,661. The Parcel post has therefore become an important channel of foreign trade.

An arrangement has been made in 1907 for the issue of stamps which can be used for replies to letters sent abroad, and also as a cheap means of remitting small sums to foreign countries. These reply coupons will cost 3d. each in England, and will be accepted abroad as the equivalent of 25 centimes.

Letters with insufficient or no addresses form an increasing proportion of the articles posted. In 1906-7 nearly 30 million letters, etc., were undelivered for this reason, and these included 353,000 registered letters, containing £17,000 in cash and £671,000 in cheques, money orders, etc. The increasing hurry of modern life is probably responsible.

The Post Office is now the chief agency for transmission of small sums of money. In 1906-7 the number of money orders issued was 10,844,509, value £37,997,339. Of these 523,454, value £1,812,909, were sent by telegraph. The decrease in the number of money orders since the introduction of postal orders has now ceased, owing to an increase in the limit of value from £10 to £40 in 1904, coupled with a reduction in the rates of commission. The telegraphic money order system was extended to Germany in 1898, Austria, Belgium, Holland, Norway, and Switzerland in 1900, and since then to France, Egypt, Denmark, and some smaller countries.

The number of postal orders issued in 1906-7 was 102,247,000, value £40,878,000. In 1881-2, when orders were first issued, the number was about 4,500,000, value about £2,000,000. There have been successive increases in the number of values for which orders are issued, and decreases in the commission. In 1881 the series included ten orders from 1s. to 20s. In 1903 the series of values was extended to every complete 6d., from 6d. to 20s., and includes 21s. Since 1903 the postal order system has been gradually extended to India and all British Colonies except Australia and Canada.

The Savings Bank business of the Post Office began in 1861, and a large number of post offices were opened as savings banks. At the end of 1862 about 180,000 accounts had been opened, amounting to 1¾ millions sterling. The funds are handed over to the National Debt Commissioners for investment. The business has rapidly extended. From 1875 to 1880 the average number of accounts was 1,889,000, amounting to £29,000,000. The average amount deposited was £15 : 12 : 5, and the number of offices 5742. In 1906 the number of accounts was 10,332,784, and the amount deposited £155,996,446. The average deposit was £15 : 1 : 11, and the proportion of depositors to population was as 1 to 4·24. The proportion of depositors and the average deposit have always been lowest in Scotland and highest in Ireland. They vary inversely with the number of local banks and other private agencies which attract savings. The Post Office holds many large deposits from friendly societies, charitable institutions, and trades unions. Accounts are opened by County Court Registrars under the Workmen's Compensation Acts. Special arrangements are made to encourage the use of the Savings Banks in schools and the army. The Post Office also undertakes to invest the money of its depositors in Government stock, and to issue life insurances and annuities. The original limits for ordinary deposits were £30 in one year, and £150 in all. In 1891 the total limit was raised to £200. In 1893 the annual limit was raised to £50, and telegraphic withdrawals were allowed. In 1905 withdrawals on demand at any office up to £1 were authorised. The rate of interest allowed to depositors has always been 2½ per cent. Until 1896 the expenses of working and a profit were earned by surplus interest on investments. A surplus amounting to £1,598,767 was thus accumulated. From 1896 to 1899, owing to the reduced return on Consols, there was a total deficit of £34,123. From 1900 to 1902 there was again a profit of £65,451, but the reduction of interest on Consols to 2½ per cent changed this to an annual loss of about £100,000. This has been minimised by some reduction in working expenses, formerly 7d. per transaction, and 5·4d. in 1906. The chief difficulty in working arises from changes in the price of Government stocks in which the funds are invested. The low general return on investments when stocks are high leads to a great increase in deposits. When interest rises and Government stocks fall these deposits are withdrawn for investment elsewhere. If stock

has to be sold by the Savings Bank to meet these withdrawals there may be a considerable loss of capital.

The Telegraph service continued to increase until 1899-1900, when over 90 million telegrams were sent. Since then there has been a slight reduction, especially in short distance telegrams, owing to the increasing use of telephones. The number in 1906-7 was 89,493,000. The number of public telegraph offices has increased to about 13,000. There is no country where small and remote places are so well served. Each year the proportion of telegrams involving long transmission increases. Free delivery was given in 1897 within three miles, and this often costs more than the whole charge. The increasing cost of the ordinary service and the cheap rate for press telegrams, together with increases in the wages of the staff, involve a considerable annual loss.

The telegraphic monopoly created by the Act of 1869 extends to the working of public telephones (Attorney-General *v.* Edison Telephone Co., 1880). Licences to work exchanges were issued to several companies between 1881 and 1891. Mr. Fawcett hoped that free competition would develop the new business, but the United Telephone Company, with subsidiary companies, obtained control of the Bell and Edison patents, and thus gained a virtual monopoly till 1892. The Post Office opened a few exchanges, but was not allowed to compete actively. In 1896 the trunk lines of the National Telephone Company, which in 1891-2 had absorbed the United and other Companies, were purchased by the Post Office, and the company's working was limited to restricted local areas. In 1898 a select committee recommended the issue of licences to local authorities. Licences were issued to Glasgow and five other towns. The unsatisfactory results of working have caused the Glasgow and Brighton systems to be sold to the Post Office, and the Tunbridge Wells and Swansea systems to the National Telephone Co. Two remain now (1907) in Portsmouth and Hull. In 1902 the Post Office opened a competitive exchange system in London, and agreed in 1905 to purchase the National Telephone Company's plant on "tramway terms" in 1911, on the expiration of the licence. The Post Office trunk wire system, connecting areas, which in 1896 had only 29,000 miles of wire, now has about 146,000 miles. The capital expenditure to March 31, 1907, was £3,376,252. The Post Office has opened between 1900 and 1907 about 500 small exchanges in country places neglected by the company as unprofitable, but the company serves all the larger places and has an important system in London. The whole number of working telephones in June 1907 was, approximately, London 130,000, provinces 370,000. A. M. O.

POTTER, THOMAS BAYLEY (1817-1898), member of an influential Manchester family, carried on business in that city. In Parliament he occupied the seat formerly held by COBDEN, whose friend and follower he was. A vigorous exponent of the principles of the MANCHESTER SCHOOL, he was the founder of the Cobden Club, and wrote many of the tracts which it published. These comprise his principal written work.

PRICES, HISTORY OF. In continuation of the article on this subject in vol. iii. we give the following statement of the prices of commodities from 1897 to 1906:—

The following table shows the course of prices of forty-five commodities during the last twenty years as compared with the standard period of eleven years, 1867-77, which in the aggregate is equivalent to the average of the twenty-five years 1853-77 (see the *Journal of the Statistical Society*, 1886, pp. 592 and 648, and 1893, pp. 220 and 247):—

Summary of Index Numbers. Groups of Articles, 1867-77 = 100.

	Vegetable Food.	Animal Food.	Sugar, Coffee, and Tea.	Total Food.	Minerals.	Textiles.	Sundry Materials.	Total Materials.	Grand Total.
1897	60	79	52	65	66	51	62	59	*62*
1898	67	77	51	68	70	51	63	61	*64*
1899	60	79	53	65	92	58	65	70	*68*
1900	62	85	54	69	108	66	71	80	*75*
1901	62	85	46	67	89	60	71	72	*70*
1902	63	87	41	67	82	61	71	71	*69*
1903	62	84	44	66	82	66	69	72	*69*
1904	63	83	50	68	81	71	67	72	*70*
1905	63	87	52	69	87	72	68	75	*72*
1906	62	89	46	69	101	80	74	83	*77*
Average 1897-1906	62	84	49	67	86	64	68	72	*70*

The following figures show in each case the average index numbers of all the forty-five commodities for ten years; they give the best picture of the gradual movement of the *average* prices of *whole periods*, as the ordinary fluctuations are still further obliterated:—

1818-1827 = 111	1884-1893 = 71	1891-1900 = 66
1828-1837 = 93	1885-1894 = 69	1892-1901 = 66
1838-1847 = 93	1886-1895 = 68	1893-1902 = 66
1848-1857 = 89	1887-1896 = 68	1894-1903 = 66
1858-1867 = 99	1888-1897 = 67	1895-1904 = 67
1868-1877 = 100	1889-1898 = 66	1896-1905 = 68
1878-1887 = 79	1890-1899 = 66	1897-1906 = 70

From the decade 1889-98 to the decade 1894-1903 the average of ten years remained 66, the really lowest decade more closely calculated being 1890-99; the average for the last ten years has advanced to 70.

The table of *index numbers* is based on the average prices of the eleven years 1867-77, and the index numbers have been calculated in the ordinary arithmetical way; for instance, English wheat:—

	s.	d.	
Average, 1867-1877	54	6	=100, average point.
,, 1855	74	8	=137, or 37 per cent above the average point.
,, 1906	28	3	= 52, or 48 per cent below the average point.

The index numbers therefore represent simple percentages of the average point.

Certain articles which appear to have something in common have been grouped together, with the following result:—

		Example for 1906.	
		Total Numbers.	Average.
1. Vegetable food, corn, etc. (wheat, flour, barley, oats, maize, potatoes, and rice)	With 8 index nos.	498	62
2. Animal food (beef, mutton, pork, bacon, and butter)	With 7 index nos.	622	89
3. Sugar, coffee, and tea .	With 4 index nos.	184	46
1–3. *Food* . .	With 19 index nos.	1304	69
4. Minerals (iron, copper, tin, lead, and coal)	With 7 index nos.	710	101
5. Textiles (cotton, flax, hemp, jute, wool, and silk)	With 8 index nos.	643	80
6. Sundry materials (hides, leather, tallow, oils, soda, nitrate, indigo, and timber)	With 11 index nos.	815	74
4–6. *Materials* .	With 26 index nos.	2168	83
General average	With 45 index nos.	3472	77

The *general average* is drawn from all forty-five descriptions, which are treated as of equal value, and is the simple arithmetical mean as shown above.

The particulars given here were all derived from the information in Mr. A. Sauerbeck's communication to the Statistical Society, March 31, 1907.

PROSPECTUS. By the Companies Act 1900, as amended by the Companies Act 1907, which comes into force on July 1, 1908, section 38 of the Companies Act 1867 is repealed, and provision is made for the compulsory inclusion in every prospectus of many matters which the Legislature has thought material to be disclosed to an intending investor.

The Act requires every prospectus to contain certain particulars about the company,—the contents of the MEMORANDUM OF ASSOCIATION, the number of founders' shares, and the interests of the holders in the profits of the company, the voting rights attached to the various classes of shares, the names of the directors, their remuneration and qualification, and full particulars of the nature and extent of the interest of every director in the promotion of the company and the property to be acquired by it, particulars of previous issues, the minimum subscription, the names of the vendors, the amount and nature of the purchase consideration, the amounts of underwriter's commission, promotion money, and preliminary expenses, and the dates and parties to every material contract, with provision for inspection—in fact, everything which it is material for an intending investor to know.

Companies formed after July 1, 1908 (other than private companies), which do not issue a prospectus, are bound, before the allotment of any shares or debentures, to file with the Registrar a statement in lieu of a prospectus. The particulars to be disclosed in this statement correspond generally with the particulars to be disclosed in a prospectus, but the disclosure required is of a slightly less stringent character.

The criticism which suggests itself on the policy of the Act—and experience of the Companies Act 1900 confirms its truth—is that the information to be given is so extensive that the recipient of a prospectus is hardly likely to go through these answers to the statutory interrogatories, more particularly those which mainly concern him,—the vendors, their contracts, and interests. And, moreover, it is not difficult for the compiler of a prospectus to evade the spirit of the Act while complying with the letter, and to bewilder rather than enlighten. A. A. U.

PUBLIC ASSISTANCE. See articles in Appendix on UNEMPLOYED, and PENSIONS, OLD-AGE.

PUBLIC TRUSTEE ACT 1906 [6 Edw. VII. c. 55]. This Act comes into force on the 1st of January 1908, but so much, both as regards its scope and procedure, is left to rules to be framed thereunder, that its effective working will necessarily be delayed beyond that date. The main objects of the Act are to establish a government official, appointed by the Lord Chancellor, who shall take the place of the Court in the administration of solvent estates, the gross capital value of which does not exceed £1000, and who may act as "custodian trustee," or as a private trustee, executor, or administrator, either alone or conjointly with any person or persons appointed to such office in the ordinary way. It further provides for the investigation and audit of trust accounts. The public trustee, if applied to by the proper person, cannot refuse to administer small estates, unless he sees a good reason for so doing: with this exception, it is left to his option whether or no he will accept any trust, but he is debarred from doing so when the trust involves the management or carrying on of any business, or is created by a deed of arrangement for the benefit of creditors, or which is exclusively for religious or charitable purposes. The public trustee is constituted a corporation sole with

perpetual succession, so that all property vested in him passes automatically to his successor. The "custodian trustee" is a new personality in law. The public trustee may, if he consent to act as such, be appointed custodian trustee by order of the Court, by a testator, settlor, or other creator of a trust, or by a person having power to appoint new trustees. Any banking or insurance company, or other corporate body, may be authorised by the rules to act as custodian trustee, and may retain out of the trust property fees not exceeding those chargeable by the public trustees as custodian trustee. When a custodian trustee is appointed all the trust property is transferred to him as if he were sole trustee, and he has the custody of all securities and documents of title relating thereto, and all sums payable to or out of the income or capital of the trust property are paid to or by him, but he may allow dividends or other income to be paid to the other trustees, or to such person, or into such bank, and to the credit of such person as they may direct. The other trustees retain the management of the trust and provision is made for their access to the securities and for the necessary concurrence of the custodian trustee in legitimate dealings by them with the property. Under the definition of "trust" these facilities apply to property under a will or intestacy as well as to trust property strictly so called. The innovation is a salutary one, tending to meet the danger of trust securities and funds being left in the hands of private persons. The public trustee may, unless the will, settlement, or instrument creating the trust otherwise direct, and even then, if the Court so order, be appointed as trustee, executor, or administrator, whether the trust be constituted before or since the passing of the Act. Such appointment may be original, or in substitution for or addition to persons already acting. The public trustee may be appointed sole trustee notwithstanding that two or more were originally appointed. If so authorised by the rules, he may accept and apply for probate or letters of administration, but in ordinary cases the widower, widow, or next of kin of the deceased are to have the preference if they apply. An executor or administrator, although he has acted, may, with the sanction of the Court, transfer the estate to the public trustee, either solely or jointly with the continuing executors, or administrator, if any. No special powers are conferred upon the public trustee when acting as an ordinary or private trustee. Any liability which the public trustee, if he were a private trustee, would be personally liable to discharge, is to be made good out of the Consolidated Fund of the United Kingdom, except when the liability is one to which neither he nor any of his officers has in any way contributed, and which neither he nor they could by the exercise of reasonable diligence have averted, in which case neither he nor the Consolidated Fund is subject to any liability. The fees to be charged by the public trustee are to be fixed by the Treasury with the sanction of the Lord Chancellor, and the incidence of fees and expenses as between capital and income is to be determined by the public trustee. An appeal to a judge of the Chancery Division is given to any person aggrieved by any act or omission of the public trustee in relation to a trust. As before stated, the Act institutes procedure for the investigation and audit of trust accounts, the term, as elsewhere, including executorship or administration accounts. Subject to rules under the Act, and unless the Court otherwise orders, the condition and accounts of any trust shall, on application to a judge of the Chancery Division, be investigated and audited by such solicitor or public accountant as may be agreed on by the applicant and the trustees, or in default of agreement, by the public trustee or some person appointed by him. Any trustee or beneficiary can apply for such investigation and audit, but it will not usually be granted more than once in twelve months. The auditor is given full powers of access to books, accounts, securities, and title-deeds, and of acquiring information from the trustees. At the close of the investigation and audit he is to forward to the person who obtained the audit, and to every trustee, a copy of the accounts, a report thereon, and a certificate to the effect that the accounts exhibit the true state of the trust, and that he has had the securities for the investments produced to and verified by him, or that the accounts and securities are deficient and in what respects. Every beneficiary is to be entitled to copies of the accounts, report, and certificate, at his own expense.

The remuneration of the auditor and other expenses are to be prescribed by rule, and, unless the public trustee otherwise directs, are to be borne by the estate, but the public trustee may order them to be borne by the applicant or the trustees personally, or partly by them and partly by the applicant.

The above provisions obviously do not apply to trusts in which the public trustee is himself concerned, but the Act specifies that the rules shall deal with the accounts to be kept by the public trustee and an audit thereof. Mr. C. J. Stewart has been appointed public trustee for a period of five years.

It is difficult to forecast the practical results of the Act, especially in the absence of the rules. The confidence and apathy of beneficiaries may tend to make it nugatory, while the absolute option of refusal given to the public trustee will probably deter settlors, still more testators, from appointing him sole and original trustee, the position the Act seems to contemplate as his normal one. J. R. P.

RABBENO, Ugo, was only thirty-three when he died on the 3rd of September 1897. He had been shortly before called to the University of Modena.

Rabbeno's mind was always directed towards concrete and practical problems. The theoretic aspects of a problem, or pure scientific inquiry, never suggested research to him, though these points came in later, as results discovered by a research commenced for practical purposes. His scientific production is consequently generally descriptive. Attention was first attracted to him when he published his essays on co-operation in England and in Italy, *La cooperazione in Inghilterra*, 1885; *La cooperazione in Italia*, 1886; and his reputation was consolidated in 1889 by his book on co-operative production in Europe and America (*La società cooperativa di produzione*). The study of facts, their proper classification and analysis, led him to the conviction that co-operative production could only in very particular conditions result in success, and that he had himself originally overestimated its powers. After co-operation he turned to examine protection in America, again avoiding arguments deduced from principles and trying to get facts to speak for themselves. His book, published in 1893 in Italian, was translated into English. When he was overtaken by death he was accumulating facts concerning land legislation in Australia. His studies on this subject were published by his friends. Rabbeno was a disciple of Professor Ricca Salerno, but the drift of his mind led him to oppose all those whom he considered disciples of the classical economists and not purely and simply historians, statisticians, observers, and analysts of facts. He wrote in foreign reviews some articles on current Italian literature—which were considered biassed through his horror of theory. As a teacher he was very highly appreciated for the breadth of his knowledge and his enthusiasm for his vocation. M. P.

RAILWAYS

Railways, p. 771. Light Railways, p. 773.

In an industry as modern as are railways, it is not surprising that the changes since this work was originally published are great. [See Railways, vol. iii.] The world's mileage was then 450,000; in 1905 it was about 560,000. Europe has 192,000 against 155,000 miles. But it is outside Europe that the increase has been greatest; more than half the total mileage —290,000 miles—is on the American continent, 220,000 in the United States alone. Asia has over 50,000 miles, Africa 16,000, Australia 17,500. The capital invested in the world's railways, estimated in 1895 as £7,336,000,000, is estimated ten years later as £9,136,000,000. International statistics of traffic are not available, but it is probable that the volume has doubled in the last ten years, for the railways of the world have become vastly more efficient in recent years. In the United States, which nowadays leads the world in railway affairs as definitely as England did a generation ago, net loads of 2000 tons drawn by a single engine are now an every-day practice. In the matter of net profit, the Prussian railways which return over 6 per cent on their total capital, and pay out of their surplus income a large part of the expenses of the Prussian Government, still lead the world, but the relation between the railways of Great Britain and those of the United States has been practically inverted in the last decade. Ten years ago the figures of net receipts on the total capital involved were for Great Britain and the United States respectively 4·33 per cent and 3·34 per cent. In 1906 Great Britain had fallen to 4·03 per cent, while the United States had risen to 5·68 per cent. The change has naturally been accompanied by a corresponding appreciation of the value of the railway stocks in the United States and depreciation here. When we find that the density of goods traffic on American lines has increased from 519,000 ton miles per mile of line in 1896 to 982,000 ton miles in 1906, and that the 138 per cent increase of traffic has been worked with only 22¼ per cent increase of train mileage,—an increase of 90 per cent in the density of goods traffic having been attended by no increase in the number of trains per mile of road,—we have no difficulty in understanding the origin of the increased prosperity of the American railways. While there can be no doubt that economies of operation on a similar scale are impossible in this country, it remains for the future to show what economy, more scientific study and control of operating methods can produce with us.

Even more important from a public point of view than questions of operating efficiency, is the question of the relation between the railways and the state (Municipal and Government Trading, App.). The two main arguments against state ownership, more especially in democratic countries, are, 1, improper political interference, and, 2, inferior operating efficiency. Both shall be indicated from recent utterances of responsible public men. In reference to political pressure, Mr. Price, formerly general manager of the Cape Government railways, now general manager of the Central South African railways, reports to the Cape Government under date of Feb. 22, 1907, as follows:—

> The drawbacks in the management of railways in the Cape that call for removal arise from the extent to which, and the manner in which the authority of Parliament is exercised. . . . Public authorities, influential persons, and others bent on securing concessions or other advantages which the general manager has either refused in the conscientious exercise of his functions, or is not likely to grant, make representations to the commissioner (as the ministerial head of the Government), supplemented by such pressure, political influences, or other means, as are considered

perfectly legitimate in their way, and are best calculated to attain the end applicants have in view. Many members of Parliament act similarly in the interests of their districts, constituents, or railway employees, in whom they happen to be interested. It is by no means unknown for the requests in both classes of cases to coincide somewhat with a critical division in Parliament present or in prospect. . . . I do not regard it as open to doubt that the Colony as a whole has suffered severely in consequence . . . and that the need for a remedy is pressing if the railways are to be conducted as a business concern for the benefit of the Colony. . . . There can be little doubt that in the Cape Colony political considerations have influenced the adoption of new lines and their construction, many if not most of them of an unprofitable character. . . . A material change is imperatively necessary in this respect if only to insure the solvency of the Colony.

Similar charges are made, if not with such exact personal knowledge from the inside, yet doubtless on grounds of equal or almost equal strength, against the state railway administration in other democratically governed countries. It should be added that where, as in Prussia, the administration is mainly autocratic, these considerations do not apply with equal force.

The second objection may be given in the words used by Mr. Taft, secretary of war, and possibly future president of the United States. In August 1907, he stated that—

Existing Government railroads are not managed with either the efficiency or economy of privately managed roads, and the rates charged are not as low and, therefore, not as beneficial to the public.

This point has been worked out in detail by M. Marcel Peschaud, in two articles on "Les Chemins de Fer de l'État Belge" in the *Revue Politique et Parlementaire* for May and June 1896, which have been recently translated by Mr. E. A. Pratt, *State Railways*, London, 1907, and which compare the efficiency of the Belgian state railways with the privately owned Northern Railway of France.

A similar comparison between the private French railways and the Government railways of Germany has been worked out by M. Colson. It may be summarised as follows: Rates and fares in the two countries are practically identical; wages on French railways are higher; coal is much dearer; the proportion of heavy, cheaply-handled traffic is much smaller; gradients are certainly not less severe; the density of traffic is much less; and the service given to the public is certainly not inferior. Yet, whereas the French railways are worked at about 53 per cent of the gross receipts, the percentage of operating expenses in Germany is fully 10 per cent higher. It is true that the average haul of goods on French railways is 25 per cent longer than in Germany, but this difference certainly does not counterbalance the other advantages, still less account for the immense difference in operating economy.

Yet, in spite of these unanswered and probably unanswerable objections of theory, private ownership of railways is becoming more and more exceptional. Switzerland, largely moved by resentment at the alleged dictation of foreign capital and by desire to strengthen the Federal Union, has nationalised its railways. Italy, finding it impossible to adjust the relationship between the owning state and the leasing companies, has taken the working into its own hands, with results that so far have been the reverse of successful. In Austria and in Japan the companies are being bought out one by one. In Russia the same process was going on till interrupted by the war. In Ireland the popular opinion, as voiced by the evidence given before the Vice-Regal Commission on Irish Railways now sitting in Dublin, runs strongly in the same direction. On the other hand, the Indian Government has declared itself in favour of the encouragement of private enterprise, while in the United States the pronouncement of Mr. Bryan in favour of Government ownership has disclosed an overwhelming mass of public opinion opposed to that policy. The most interesting development is, however, in the republic of Mexico. In that country the Government has, by arrangement with the existing owners of the railroads, become a deferred shareholder in all important lines. The Government gets at present no profit, but it has a valuable reversion, and holds the predominating voting power. The existing directorates remain undisturbed, but on condition that unless their policy in broad outline conforms to the Government view, the Government can use its votes as a shareholder to turn them out of office.

The main argument for government ownership lies in the fact that, while uncontrolled private ownership is impossible, government control is difficult and has so far not been over successful. The English public are by no means satisfied with private management here, while bitter hostility to that management in the United States has been manifested in a vast mass of recent legislation, not only at Washington, but at almost every State capital throughout the Union. In America the railways are steadily being brought under closer control and supervision, and the conflict between the respective rights of the State and Federal Governments seems likely to raise the most serious constitutional difficulties that the country has had to face since the civil war. In England considerable changes are apparently coming. What form they will take cannot yet be seen; but, we shall do well to remember that there are two undeniably successful pieces of machinery for keeping railways in touch with public opinion. The one is the Massachusetts State

Railway Commission, the other the Prussian Local and National Railway Councils. Neither of them possess any compulsory powers whatever.

Of indirect means of controlling railways successfully none are more important than full and accurate information and adequate economic teaching. Under both heads considerable progress has been made here in recent years. A committee is now sitting at the Board of Trade to consider the revision of our present archaic railway accounts and statistics, while courses of lectures on railway questions have been established in the universities of Manchester, Liverpool, and Birmingham, and have been developed on a quite considerable scale and with great success at the London School of Economics.

Light Railways.—The Light Railways Act of 1896 has failed to produce the effects that were hoped for. To some extent it has been used (*a*) by existing railway companies for the promotion of new branches, thereby obtaining land cheaper and avoiding certain burdensome and expensive requirements of the ordinary law, and (*b*) by tramway promoters who have thus been enabled to escape compliance with the exacting requirements of the Tramways Act. But of light railways in poor districts, such as exist by thousands of miles in France, Belgium, Germany, and Italy, the mileage constructed is practically negligible. The failure of such lines to come into existence is, however, no evidence that they are not wanted. At present they are commercially impossible. Assistance from public funds, which the Act of 1896 contemplated, has only been forthcoming to a trifling extent. The cost of construction has been excessive, and restrictions unknown on the Continent are required by English public opinion. But the very rapid development of motor carriage, both of passengers and goods, on ordinary roads has within the last year or two entirely altered the conditions of the problem.

Of recent books published in England there may be mentioned Acworth, *Elements of Railway Economics*, Oxford, 1905.—Pratt, *Railways and Their Rates*, London, 1905.—Disney, *The Law of Carriage by Railway*, London, 1905.—Cunningham, *Railway Nationalisation*, Dunfermline, 1906; and Paish, *British Railway Position*, London, 1902. American literature is both more voluminous and more valuable. There may be mentioned Ripley, *Railway Problems*, Boston, 1907.—Eaton, *Railroad Operations; How to Know Them*, New York, 1900.—B. H. Meyer, *Railway Legislation in the United States*, New York, 1903.—Hugo R. Meyer, *Government Regulation of Railway Rates*, New York, 1905.—M'Pherson, *Working of the Railroads*, New York, 1907; and T. F. Woodlock, *The Anatomy of a Railroad Report and Ton Mile Cost*, New York, 1900.—*The Report of the Senate Committee on Bills to amend the Inter-State Commerce Act*, Washington, 1905, 5 vols., is a mine of information on the whole subject, while the section dealing with "Transportation" in the *Final Report of the Industrial Commission*, Washington, 1902, is of very considerable value.

The nucleus of a railway library is now being formed in connection with the London School of Economics. W. M. A.

RAVENSTONE, PERCY (early 19th century), wrote in 1821, *A few Doubts as to the Correctness of some Opinions generally entertained on the subjects of Population and Political Economy.* Ravenstone was the earliest advocate of the theory of surplus value subsequently adopted by MARX (*q.v.*), but he was not a communist, nor did he deny the natural right to private property, which he said is "the right to the work of one's own hands."

[E. R. A. Seligman, "On some neglected British Economists," *Economic Journal*, London, 1903].

RITCHIE, DAVID GEORGE (1853-1903), late professor of Logic and Metaphysics in the University of St. Andrews.

He was educated at Jedburgh Academy and Edinburgh University, where he obtained the degree of M.A. with first class honours in classics. He then proceeded to Balliol College, Oxford, where he gained a first class both in moderations and in the "final greats" school. In 1878 he was elected a Fellow, and in 1881 a tutor of Jesus College, and from 1882 to 1886 he also acted as tutor at Balliol.

During his stay at Oxford he devoted his studies mainly to Moral Philosophy, but in 1894 he was appointed professor of Logic and Metaphysics in St. Andrews University.

In the early days at Oxford he came under the influence of T. H. Green and Arnold TOYNBEE. He was originally destined for the clerical profession, but he ceased to be able to accept the orthodox creed. At Oxford he was a zealous democrat, and strongly believed in state action wherever possible; but he did not become a doctrinaire socialist, "nor did he accept as a whole any of the numerous socialistic systems of recent times. But he believed profoundly in the socialistic attitude as against any form of individualism, empirical or *a priori*." The extent to which the state may interfere should depend, however, on the form of government.

He applied the theory of natural selection to human society, and concluded that it "lends no support to the political dogma of *laissez faire*."

The principles of state interference, and practical questions of social and political ethics he discusses from the point of view of evolutionary utilitarianism. The ethical and political ideal is social well-being. "If we say the ultimate end is the well-being of all mankind, and the end we should aim at is the well-being of all that portion of mankind whom we can practically affect, we mean the same thing as the utilitarian when he speaks of the greatest happiness of the greatest number,

but it is put in a less misleading way." State interference in accordance with this principle will permit of the realisation of the individual, and will not restrict liberty. "There is no necessary or absolute antithesis between state action and individual liberty. . . . All salutary state action must be such as will give individuals as far as possible the opportunity of realising their physical, intellectual, and moral capacities. In a genuine and honestly worked democratic state, state action and individual liberty will no longer be opposing principles, as they are under despotism tempered by partial anarchy; individual liberty will exist, not in spite of, but by means of state action."

The chief writings of Ritchie are: essay on "The Rationality of History" to the volume of essays on *Philosophical Criticism* edited by Seth and Haldane, 1883.—Translation into English (along with Lodge and Matheson) of Bluntschli's *Theory of the State*, 1889.—*Darwinism and Politics*, 1889.—*Principles of State Interference*, 1891.—*Darwin and Hegel*, 1893.—*Natural Rights*, 1895.—*Studies in Political and Social Ethics*, 1902.—*Plato*, 1902.—*Philosophical Studies* (edited, with memoir, by Robert Latta), 1905.—He contributed to *Mind*, *The Philosophical Review*, and *The International Journal of Ethics*, and wrote papers for the Aristotelian Society. J. H. J.

ROOKE, JOHN (late 18th century, early 19th century), was led by the political events of 1811 and 1812 to publish in the *Farmer's Journal* of 1814, 1815, upwards of fifty essays on the economic basis of English prosperity. The substance of these he published in 1824, as *An Inquiry into the Principles of National Wealth, illustrated by the Political Economy of the British Empire*. Professor Seligman says, in his article "On some neglected British Economists" (*Economic Journal*, 1903), that Rooke was "the first to lay down the rule of marginal cost as a universal principle," and "that the doctrine of rent was developed practically simultaneously by MALTHUS, WEST, TORRENS, and Rooke in 1814."

To make his title to having been the first to put forward these opinions clear, Rooke wrote the *Claim to the Original Publication of certain new Principles in Political Economy in a Letter to E. D. Davenport, Esq.*, London, 1825.

RUSKIN, JOHN (1819-1900), first known as a writer on art, was drawn into the discussion of economics by study of the social and political conditions which he deemed requisite for the production of great works of art. The point of transition is best seen in ch. vi. of vol. ii. (1853) of *The Stones of Venice* (separately published 1854 as *On the Nature of Gothic Architecture and herein of the True Functions of the Workman in Art*; re-issued from the Kelmscott press with an introduction by William Morris, 1892). As the friend and disciple of Carlyle, Ruskin's criticism of the economic doctrines and methods, current at the time, followed the lines of his master; in denunciation of the abstraction of the "economic man," and of society bound by the "nexus of cash payments," in protests against *laissez faire* and unrestricted competition, and in exhortations for social reorganisation under "captains of industry." These criticisms were all contained in *Unto this Last*, and were reiterated in the opening letters of *Fors Clavigera*, which Carlyle applauded as "fierce lightning bolts poured into the black world of anarchy all around him" (*Corr. of Carlyle and Emerson*, ii. 352). Ruskin's protest against the egoistic basis of abstract political economy was accompanied by criticisms of some of its specific doctrines. He insisted on the substitution, for exchange value, of a biological basis in discussions of wealth; "there is no wealth but life" (*Unto this Last*, § 77), "intrinsic value is the absolute power of anything to support life" (*Munera Pulveris*, § 13). Also wealth is relative to the capacity of the man, or the society, to use it, and he coined the word *illth* to express the negative condition (*ib.* § 37). The "faultless definition of wealth" was to be found, he said, in Xenophon: "Things are only property to the man who knows how to use them" (see his preface to a translation of *The Economist* of XENOPHON, issued as vol. i. in his *Bibliotheca Pastorum*). He devoted many pages to a destructive criticism of the doctrine that "a demand for commodities is not a demand for labour" (*Unto this Last*, § 76, and *Fors*, Letter 2), and insisted on the importance of the theory of consumption. In these respects the validity of Ruskin's criticisms is now widely admitted; but, unmindful of his own conception, that wealth can be increased by placing the right things in the right hands, he went on to assert that there can be no profit in exchange (*e.g.*, *Unto this Last*, § 67, and *Fors*, Letter 45, § 82). In his earlier essays he attacked exorbitant rates of interest (*Munera Pulveris*, § 98); in his later, he denounces all interest as "usury" and illegitimate. His denunciation of machinery is often somewhat misunderstood. He held that the use of steam to do what could be done by agency of wind and water was a waste both of natural force and of human life; but he hoped great things from the development of electricity (*Lectures on Art*, § 123, and *Fors*, Letter 44).

Ruskin essayed to be a social reformer as well as an economist, and started a "Guild of St. George" to bring the people back to the land, and to educate and sustain them there under ideal conditions of his own devising. His studies in Utopia are contained in *Time and Tide* and *Fors Clavigera*. The story of his actual attempts at realisation, which amounted to no great things, is told in the Introduction to vol. xxx. of his complete works (1907). Of more importance has been his influence in the field of politics. His economic ideas led him in

1862 to advocate free compulsory education; technical schools, in connection with which the State, without any attempt to establish monopolies, would set standards of "exemplary work" and "pure and true substance"; state provision for the unemployed by labour colonies (with penal work for those who "could work if they would"); and a reform of the Poor Law. He was an earnest advocate, at the same date, of old-age pensions for "soldiers of the ploughshare as well as soldiers of the sword" (*Pol. Econ. of Art*, § 15). He also urged fixed wages in all employments. He was opposed to land nationalisation, but insisted upon the principles, "The land to those who can use it," and "By whomsoever held to be made the most of" (see *Time and Tide*, § 151). His *Unto this Last* has had a very wide circulation, both in its complete form and in a penny pamphlet of extracts from it called *The Rights of Labour*, and many of the labour leaders of to-day have been among his readers (see *Review of Reviews*, June 1906). Ruskin's treatment of economic subjects is very discursive, and there are few of his later books in which some discussion of them is not to be found. The following are those which deal principally, or largely, with them:—

1. *The Political Economy of Art*, 1857 (reissued, with additional matter, in 1880 as *A Joy for Ever and its Price in the Market*). 2. *Unto this Last*, four essays in the *Cornhill Magazine*, 1860; collected, with additions, 1862 (translated into French, German, and Italian, 1902). 3. *Gold: a Dialogue* (written 1863 in reply to J. E. Cairnes in *Macmillan's Mag.* Nov. 1863, not printed till 1891). 4. "Essays on Political Economy," *Fraser's Mag.* 1862-63; collected, with additions, as *Munera Pulveris*, 1872. 5. *Time and Tide by Weare and Tyne*, 1867. 6. *Notes on the General Principles of Employment for the Destitute and Criminal Classes*, 1868 (reprinted, with additions, in *The Queen of the Air*, 1869). 7. *Fors Clavigera, Letters to the Workmen and Labourers of Great Britain*, 1871-1884. 8. "Home and its Economies" in the *Contemporary Rev.*, May 1873 (reprinted in *On the Old Road*, 1885). 9. "Usury" in the *Contemporary Rev.*, February 1880 (similarly reprinted). 10. Introduction to R. J. Sillar's *Usury and the English Bishops*, 1885 (similarly reprinted).

Of the writings in the above list, No. 1 is in vol. xvi. of *The Works of Ruskin*: Library edition; while Nos. 2-6 and 8 are collected in vol. xvii. of the same, with a large number of letters to the daily press on economic subjects, and an expository introduction. In vol. xxvii. of the same there is a similar introduction dealing with the economic matter in *Fors Clavigera*. Among numerous other studies of Ruskin as an economic writer are:—*John Ruskin, his Life and Work*, and *A Disciple of Plato*, by William Smart, 1883; *John Ruskin, Economist*, by Patrick Geddes, F.R.S., 1884; "Ruskin as a Political Economist," by F. J. Stimson in *Quarterly Journal of Economics* (Boston, 1888); *John Ruskin, Social Reformer*, by J. A. Hobson, 1898; and "Lessons from Ruskin," by C. S. Devas in *Economic Journal*, March 1898. E. T. C.

SAINT-MARC, HENRI (1854-1896), an economist of much ability and promise. He had very shortly before his death been appointed to deliver a course of lectures on the history of economic theories at the University of Paris.

His principal works are: *Étude historique et juridique sur l'entreprise du canal du Midi*, 1888. —*Étude sur l'enseignement de l'Économie politique dans les Universités d'Allemagne et d'Autriche*, 1892.—He also translated Cossa's *Primi Elementi di Scienza delle Finanze* into French, and contributed many magazine articles, in particular to the *Revue d'Économie Politique*, edited by Professor Gide, who discusses Saint-Marc in an article published in that periodical, November 1896.

SEMINAR. See COMMERCE, FACULTY OF, IN THE UNIVERSITY OF BIRMINGHAM.

SIDGWICK, HENRY (31st May 1838-28th August 1900), was born at Skipton in Yorkshire, where his father, the Rev. William Sidgwick, was headmaster of the Grammar School. After a brilliant career at Rugby, he entered at Trinity College, Cambridge, in October 1855. In 1859 he was Senior Classic, Senior Chancellor's Medallist, and a Wrangler. In October 1859 he was elected to a Trinity Fellowship; and at the early age of twenty-one he settled down to the work of a University teacher, which was destined to constitute the main occupation of his life. At first he held a Lectureship in Classics, but this was exchanged in 1867 for a Lectureship in Moral Science, and he soon became the acknowledged head of the Moral Sciences School in Cambridge. In 1869—two years before the passing of the Act for the Abolition of Tests—he resigned his Fellowship and Assistant Tutorship at Trinity on account of scruples which he felt in regard to the religious tests then in force; but he retained his lectureship, and was thus enabled to continue his work at Cambridge, though with a considerably diminished income. Appointed in 1875 to a Praelectorship in Moral and Political Philosophy at Trinity College, in 1883 he was elected Knightbridge Professor of Moral Philosophy in the University. This post he held until within a few months of his death. In 1876 he married Eleanor Mildred Balfour, a granddaughter of the second Marquess of Salisbury.

In his college and university teaching Sidgwick covered a wide field, giving courses of a varied character on ethics, metaphysics, political science, and political economy. At

the same time he did not limit himself to purely teaching work. He was one of the leaders in the academic reorganisation which followed the coming into force, in 1882, of the statutes framed by the University Commission of 1877; and the development of new studies, which dated from the establishment of the Moral Sciences and Natural Sciences Triposes in 1861, owed much not merely to his initiative and influence, but also to his generosity in temporarily endowing new posts at critical periods. In promoting the higher education of women at Cambridge, and more particularly in the foundation of Newnham College, of which his wife afterwards became Principal, he was one of the moving spirits. He devoted much attention to investigating the phenomena of "spiritualism," chiefly in connection with the Society for Psychical Research, of which he was the first president. Another subject in which he took great interest was the organisation of private charity, and the formation of the Cambridge Charity Organisation Society was mainly due to his initiative.

Although for nearly forty years little of importance happened in the University of Cambridge with which Sidgwick had not some concern, his life apart from academic affairs was an uneventful one. It was a very beautiful life, inspired by a singularly high sense of duty, and realising in a peculiar degree the ideal of plain living and high thinking. Apart from his writings, Sidgwick exerted a wide personal influence, and his counsel was much sought after on many questions. As a talker, he had deservedly a high reputation. His personal charm was great, and in all social intercourse he was kindly, courteous, and considerate.

Sidgwick's first work of importance, and on the whole his greatest work, was *The Methods of Ethics*. In this work the methods of egoism, intuitionism, and utilitarianism are discussed, and the most striking results reached are the relations brought out between these different methods. Sidgwick is frequently described as a utilitarian: so far as this description is accurate, it needs to be supplemented by the statement that he was a utilitarian upon an intuitionist basis. As regards the final reconciliation of utilitarianism and egoism, he admits that he cannot offer a solution apart from the assumption of a "sanction," the validity of which cannot be established on ethical grounds alone. His other ethical works are mentioned at the end of this article.

Sidgwick's general attitude as a metaphysician was critical and negative, and his special antagonism to KANT and the transcendental school is shown in a volume published after his death containing courses of lectures on the metaphysics of Kant and T. H. Green. Another volume, also published posthumously, contains lectures on the scope of philosophy, and its relations to other studies, especially psychology, history, sociology.

Political philosophy was treated by Sidgwick from the analytical and deductive standpoint in *The Elements of Politics*, and from the evolutionary standpoint in *The Development of European Polity*.

In political economy, Sidgwick's work was mainly of an analytical and deductive character. His general view of the proper method of economic science was that it varies with the department or aspect of the science under consideration; and he held that in the treatment of the theory of production, the deductive element is necessarily subordinate. For the determination of the fundamental laws of distribution and exchange, however, he maintained the general legitimacy of the deductive and hypothetical method, recognising at the same time the need for specific experience in the application of economic laws to concrete cases. In a letter to a friend he once remarked on the pleasure that he derived from political economy as an intellectual exercise; and his own *Principles of Political Economy*, with its subtle analyses and acute criticisms, must always be a source of intellectual enjoyment to a reader whose own bent of mind is deductive and critical. As an exercise in deductive reasoning, and in the analysis and balancing of arguments and counter arguments, there are few works that afford a more admirable intellectual discipline for the student.

The work contains some striking analyses of fundamental economic conceptions, such as wealth, value, capital. Sidgwick held that economists, generally speaking, were inclined to underrate the importance of *seeking* for the best definition of each cardinal term, and to overrate the importance of *finding* it. He remarks that "what we gain by discussing a definition is often but slightly represented in the superior fitness of the formula that we ultimately adopt; it consists chiefly in the greater clearness and fulness in which the characteristics of the matter to which the formula refers have been brought before the mind in the process of seeking for it." Judged by the standard here proposed, Sidgwick's own discussions of definitions must be pronounced thoroughly successful.

His treatment of the theories of distribution and exchange is based primarily on J. S. MILL's treatise. But he did not leave Mill's doctrines as he found them. His mind was pre-eminently critical, and indeed his criticisms of his own conclusions tended to restrict his production of constructive work. Mr. Bryce remarks of him that "his natural bent was to distrust all that was obvious and to discover flaws in every accepted doctrine." Thus every position taken by Mill is subjected by Sidgwick to searching criticism, and at every point corrections and

limitations are introduced. The progress is no doubt from comparative simplicity, or at least apparent simplicity, to complexity; and this work of Sidgwick's, like his other works, is difficult reading.

One of the most original portions of the *Principles* is the theory of international values therein set forth. The view of Mill and CAIRNES was that the peculiarity of the theoretical determination of international values depends upon the imperfect mobility of labour and capital between different countries, whereby cost of production is prevented from determining the normal value of imported commodities. Sidgwick holds, in opposition to this view, that the peculiarity depends primarily not on the imperfect mobility of labour and capital, but on the cost of carriage between different countries. Take two countries, England and Spain, and suppose that, after trade is established between them, there is at least one commodity—say corn—which is produced in both countries. Then, according to Mill's general theory of value, "the relative values of cloth and corn in England must be determined by their comparative costs of production; and, again, the relative values of corn and wine in Spain must be determined in the same way." Hence, if we suppose cost of carriage eliminated, "the values of both cloth and wine relatively to corn, and therefore relatively to each other, must be as much determined by cost of production as the values of home commodities are," although it does not of course follow that the cloth and wine will exchange for each other in proportion to their respective costs. Sidgwick goes on to show how the problem is altered when cost of carriage is no longer supposed to be eliminated.

In addition to the *science* of political economy, Sidgwick recognises, in the Introduction to the *Principles*, an *art* of political economy, which he describes as concerned mainly with the theory of what ought to be done by government to improve production and distribution, and to provide for governmental expenditure; the art includes also the consideration of the general principles of distributive justice, and of the principles that ought to govern private conduct in economic matters. The great value of Sidgwick's treatment of these practical problems is admitted by critics who do not find his treatment of theoretical economic problems altogether to their taste. In weighing judicially the advantages and disadvantages of given courses of action, Sidgwick was unrivalled; and the whole discussion is marked in a high degree by practical wisdom.

[The following is a chronological list of Sidgwick's works, omitting magazine articles and reviews, etc.:—*The Methods of Ethics*, 1874 (6th edition, differing in important respects from the 1st, 1901); *The Principles of Political Economy*, 1883 (3rd edition, 1901); *Outlines of the History of Ethics for English Readers*, 1886 (5th edition, 1902); *The Elements of Politics*, 1891 (2nd edition, 1897); *Practical Ethics*, 1898; *Philosophy, its Scope and Relations*, 1902; *Lectures on the Ethics of T. H. Green, H. Spencer, and J. Martineau*, 1902; *The Development of European Polity*, 1903; *Miscellaneous Essays and Addresses*, 1904; *Lectures on the Philosophy of Kant and other Philosophical Lectures and Essays*, 1905. The last five of these works were published posthumously. To this Dictionary Sidgwick contributed the articles on ECONOMIC SCIENCE AND ECONOMICS, vol. i.; POLITICAL ECONOMY, SCOPE AND METHOD; POLITICAL ECONOMY AND ETHICS, vol. iii. *A Memoir of Henry Sidgwick* by Arthur Sidgwick and Eleanor Mildred Sidgwick was published in 1906.] J. N. K.

SILVER, PRODUCTION AND COINAGE OF, 1896-1905. In continuation of the article, SILVER, DISCOVERIES OF, which gave the annual average production of fine silver to the year 1895, the following statement continues the total for the ten years from 1896-1905:—

Production of Silver in the World since 1896.

	Fine Ounces.	Commercial Value.	Coining Value.
		£	£
1896	31,412,274	21,171,860	40,613,840
1897	32,084,216	19,250,540	41,482,600
1898	33,811,051	19,948,520	43,715,360
1899	33,667,490	20,200,520	43,529,640
1900	34,718,273	21,525,280	44,888,240
1901	34,602,257	20,761,140	44,738,260
1902	32,552,696	17,252,940	42,088,380
1903	33,537,864	18,110,440	43,362,080
1904	32,867,281	19,063,020	42,495,080
1905	33,545,587	20,462,800	43,372,060
	332,798,989	197,747,060	430,285,540

The coinage of the world for the same period has been as follows:—

Coinage of Silver in the World.

	Silver.	
	Fine Ounces.	Coining Value.
	£	£
1896	24,678,848	31,908,005
1897	25,955,016	33,558,001
1898	23,092,204	29,856,587
1899	25,713,233	33,245,393
1900	28,672,589	37,071,631
1901	21,487,933	27,782,378
1902	29,965,345	38,743,072
1903	32,231,902	42,359,166
1904	29,066,467	35,301,729
1905	28,976,663	34,543,820
	269,840,200	344,369,782

The commercial value, as will be observed, differs largely from the coining value.

The increased use of gold as standard renders it impossible to give any closer estimate. In the United States, where the gold standard was adopted in 1900, it is suggested that the limit of the stock of subsidiary silver coin in that country should be raised to $120,000,000 (£24,000,000), and there appears to be no good reason why the coinage of silver dollar pieces should not altogether cease, and in that country the entire stock of silver bullion on hand be used for the subsidiary coins.

The recoinage of the older coins in France and Germany during the last three years has been considerable.

Thus in France the value of the recoinage of silver has been in—

	£
1903	63,351
1904	480,000
1905	447,758
	991,109

This was all in pieces of less than 5 francs, and except for a value of £80,000 in 1904, was met from the recoinage of old coins, principally 5 franc pieces.

In Germany the value of the recoinages during the last three years was as follows:—

	£
1903	3,006,952
1904	3,239,896
1905	3,420,288
	9,667,136

This was derived entirely from old coin, and was, with the exception of a value of £1,799,953 in 1903 and of £994,366 in 1904, used for coins below the value of 5 marks.

[See GOLD, THE INCREASE IN THE PRODUCTION OF, Appendix.]

SMALL HOLDINGS. An increase in the number of small agricultural holdings has been very widely advocated in recent years, with the object of affording further opportunities of advancement to the rural population, and of placing some check on the migration to the towns. Experiments have been made in many parts of the country by public-spirited landlords and philanthropic associations, many of which have attained a considerable measure of success, but there is still much difference of opinion as to whether under the existing conditions, fiscal and other, affecting agriculture, a large extension of small holdings is likely to prove an economic success. Various attempts have been made by the Legislature to facilitate their establishment, but hitherto with no appreciable result (see SMALL HOLDINGS ACT, 1892), and, following an inquiry by a Departmental Committee of the Board of Agriculture in 1906 [Cd. 3277], the Small Holdings and Allotments Act 1907 has been passed and comes into operation on Jan. 1, 1908.

During a great part of last century there was a very general consensus of opinion, largely based on the teaching of JOHN STUART MILL and the observations of ARTHUR YOUNG, in favour of the creation of PEASANT PROPRIETORS (*q.v.*), but, in recent years, the experience of such a system both at home and abroad, and the opportunities which it offers for mortgages and uneconomic subdivision, has convinced the majority of those interested in the subject that a system of tenancy, provided there is reasonable security of tenure, offers a better chance of success to the small holders than a system of ownership. Accordingly the Act of 1907 has a strong bias towards the letting rather than the selling of small holdings.

The machinery of the Act consists of a careful combination of State initiative and local management, the duty of providing small holdings being placed on the County Councils, while a central authority is set up to supervise and control their work. The Small Holdings Commissioners, appointed by the Board of Agriculture, are entrusted with the duty of ascertaining the demand for small holdings. They report to the Board, who may require the County Council to prepare a scheme for providing the small holdings needed. If the County Council unreasonably refuse to act, the Board may order the Commissioners to prepare a scheme and to carry it out, the cost being charged against the County Council. If the Commissioners, acting in default of the County Council, incur a loss the Board may pay the whole or part of the loss, and if a County Council incurs a loss in carrying out a scheme the Board pay half of the loss.

The Board are themselves empowered to establish small holdings with the object of demonstrating their feasibility on an economic basis, and they may out of the funds at their disposal pay to the County Councils the whole or part of the expenses of the acquisition of land (other than the purchase price, compensation, or rent).

The period for the repayment of loans raised by County Councils for the purchase of land may be extended to eighty years, and they are enabled to borrow from the Public Works Loans Commissioners on very favourable terms. Compulsory powers for the purchase and hiring of land for small holdings are conferred on County Councils, and they may delegate any of their powers to borough or urban District Councils. Land near towns may be hired at its agricultural value, the landlord being given a right of resumption for building, mining, or industrial purposes. The Board of Agriculture and County Councils may give grants to Co-operative Societies and credit banks, and County Councils may let land to philanthropic associations formed

for the encouragement of small holdings. Land acquired compulsorily may only be let to tenants, but if acquired by agreement it may be either let or sold under the provisions of the Act of 1892.

Experience alone can show how far the establishment of small holdings under the Act will prove an economic success, but it may be said that the conditions at the present time are on the whole very favourable. It is probable that in the first instance the chief use made of the facilities given by the Act will be in the direction of letting accommodation land to those who have already some employment which does not occupy their whole time. The acquisition of small pieces of land greatly increases the prosperity of this class, and from it should develop in future the small holders proper. It seems likely also that the enormous increase in recent years in the demand for such articles as dairy produce, eggs, bacon, poultry, vegetables, and fruit, offers an opportunity to the home producer which can best be taken advantage of by the more intensive culture (see INTENSIVE CULTIVATION) usually practised on small holdings as compared with large farms. The experience of Denmark, where two-thirds of the agricultural land is devoted to field crops, as compared with only one-third in this country, and where every 1000 acres occupies seventy-three persons in agriculture, as compared with thirty-six in this country, is a striking testimony to the advantages of intensive cultivation under a small-holding system. It is true that the growth of co-operative methods has been an important factor in the success of small holdings in Denmark, but it is essentially in small holding countries that co-operation has found an environment favourable to its growth, and there is no reason to doubt that the same process will be repeated if small holdings are established to any considerable extent in this country. It is, of course, impossible that the whole of the food-stuffs now imported from abroad can economically be produced at home, but there is a considerable margin which might be supplied, and as to which the small holder in this country is at no disadvantage as regards soil or climate with his principal competitors abroad, while he has the advantage of proximity to markets.

Many social reformers are keen advocates of small holdings on the ground of the collateral advantages which would accrue to the nation from the establishment of a vigorous and healthy peasant class on the soil in greater numbers than exist at present, and by this means they hope to mitigate the evils of town life and the physical degeneration consequent upon it. But it is evident that it would be fatal to encourage such hopes, unless it can be shown that small holdings will prove not only self-supporting, but also a more profitable and successful system of land cultivation than that which has been customary in this country for the last century.

One of the principal obstacles in the way of the formation of small holdings by private landowners has always been the increased cost of equipment necessary in comparison with what is required for large farms. This difficulty will, however, be largely overcome if the work is undertaken by local authorities with the use of public credit, and experience has shown that the additional rent involved can be well afforded by the small holder in view of the increased productiveness of the land under intensive cultivation.

In estimating the possibility of the successful establishment of small holdings there are a number of considerations which must be borne in mind. The more important conditions of success are suitable soil, favourable climate, accessibility to markets, security of tenure, rights of common grazing, and the possibility of obtaining piece-work employment in the neighbourhood; but none of these are so important as the selection of suitable men, preferably those with a small amount of capital. If the right men can be found, success may be attained in the absence of practically all the other conditions, and even under what appear to be the most unfavourable circumstances.

[See text of *Small Holdings and Allotments Act*, 1907.—*Report of Select Committee*, 1890, (H.C. 223).—*Report of Departmental Committee*, 1906 (Cd. 3277).—Impey, *Three Acres and a Cow*, 1885.—Moore, *Back to the Land*, 1893.—Pratt, *The Organisation of Agriculture*, 1905, and *The Transition in Agriculture*, 1906.—Collings, *Land Reform*, 1906.—Macdonald, *Systems of Land Tenure*, 1906.—Adams, *Garden City and Agriculture*, 1907.—Craigie, article in *R. A. S. E. Journal*, 1906.—Kebbel, *The Agricultural Labourer*, 1907.—Gilbey, *Farms and Small Holdings*, 1907.—Green, *How I work my Small Farm*, 1907.—Masterman and others, *To Colonise England*, 1907.—Jebb, *Small Holdings*, Murray, 1907.—Adams, article in *R. S. S. Journal*, September, 1907.]

F. L. C. F.

SOCIAL CONDITIONS: THE NEED OF TRAINED INQUIRERS INTO. A remarkable illustration of the turn which economic thought in this country is taking towards questions of social interest is shown by the effort of Bishop Gore (the present Bishop of Birmingham), in the meeting of the Convocation of the province of Canterbury in May 1907, to cause social questions to be studied in all the training colleges where men are being prepared for Orders in the Church of England.

(1) "That provision should be made to assist the clergy in the systematic study of social relations with special reference to Christian principles, and of the ethical character of the actual organisation of industrial society, and also to call the attention of the authorities of

the diocesan colleges and the men who are being trained for holy orders to the importance of this subject."

(2) "That provision should be made, where possible, for the instruction of Church workers, and especially of district visitors, in the elements of industrial and sanitary law."

(3) "That more attention should be given in the public teaching of the Church to the exposition of the duty of the Christian to his neighbour, with special reference to the moral character of the actual conditions of industrial life."

Other workers have already been trained for these duties, but the recognition of them by a large and fresh class of educated men will no doubt awaken a larger number of people to a sense of their social responsibilities. These have hitherto been frequently ladies working under the Charity Organisation Society, and have done good service in the slums of our large cities. The Right Hon. Charles Booth's book on the *Labour and Life of the People* shows what needs to be done; and it is a hopeful sign that this work is being continued in other directions. A few years ago such a suggestion would never have been made. The use which such a trained body of men might be if they were instructed in the task they had to undertake would be very considerable. The course they would be put through might be compared to the instructions in "First Aid" which enable the otherwise untrained to assist in simple surgical cases, accidents, and such-like. They would learn what difficulties they might be expected to meet in visiting the working classes generally, and the best way in which they should cope with them and the various organisations from which they might receive assistance. For instance, in dealing with indigent families, by whom gifts of money and clothing are frequently misused in a manner which renders them rapidly valueless. The details are innumerable, from the supply of boots to large families of children walking long distances to school, to suggestions about food, old people past work, cottage accommodation insufficient or insanitary. Thus also they would probably encounter cases in which it might be better that a boy who had committed some youthful offence should be sent to be trained for the navy or merchant service. Suggestions as to the course to be followed might be useful to them.

Again, they might learn the extreme difficulty of giving assistance in such a manner that the position of the recipient may be really improved by the gifts they receive—remembering that no fewer than 42·7 per cent of the people in this country who reached the age of sixty years died paupers. It is a very serious accusation against the social condition of any country that such a state of things should exist. It must either arise from extreme poverty, or from great wastefulness, and probably from the latter quite as much as the former.

As was said in the House of Commons in 1907, when the proposal for old-age pensions was discussed in that House, great care will have to be taken that the proposed measure for relief does not land the poorer part of the population in lower depths than they at present occupy.

The first object of such workers as have been mentioned must be to build up our national life on its social, intellectual, and economic sides. This must be done while strengthening the moral and industrial character. The problem, which is an exceedingly difficult one to solve, can be examined in many ways better in the country than in the town. Those who work there will soon discover that while they will find some of the elements more obvious in the town, they may find the basis of physical comfort even lower in some respects in the country. The people are not without appreciation for the comforts of a home, but the home is often very poorly provided with the ordinary requisites of life, owing to the depressing effects of poverty. The concentration of population has brought with it many difficulties, but the sapping the strength of the rural population, through weeding out the inhabitants who were stronger both in mind and body, has been perhaps more injurious.

Similar subjects were discussed at the July meeting of Convocation (1907), and it may be hoped that a fresh impetus will be given to the intelligent development of social questions, such as the housing problem. The proposed inclusion of medical men in the enquiry is encouraging.

SOCIALISM, PRESENT POSITION OF. Socialism, never a precise term, is now used even more loosely than it was when the first edition of this Dictionary was published. (See SOCIALISM, vol. iii.) It never designated a consistent body of doctrines. It is now applied to very diverse systems. It may mean a disposition of mind more than any set of doctrines, hatred or dislike of the present economic order of things, or desire of change. It is applied to advanced forms of Liberalism, to Communism, or to Anarchism. The points of likeness between the Socialism of Tolstoi, RUSKIN, Mr. Wells, MARX, ENGELS, RODBERTUS, Bebel, or Bernstein, that of the Anarchists (see ANARCHISM) and CHRISTIAN SOCIALISM, the Fabians, the SOCIALISTS OF THE CHAIR, and the Labour Party in Australia and New Zealand, are few. It has become little more than a catch-word to indicate a heterogeneous mass of opinions, sympathies, and desires. The late Arnold TOYNBEE was a socialist in one sense; but, a strong believer in the efficacy of the free association of free men, and averse to all that weakened character or self-reliance, he was opposed to many common forms of Socialism.

The confusion in the use of the term is greater than it was. Until 1848, and for some time after, there were well-known schools of Socialism, whose disciples were more or less faithful to ST. SIMON, OWEN, FOURIER, PROUDHON, and Louis BLANC. For a time Marx exercised a wide influence. *Das Kapital* was the Bible of Socialism; it was what the *Contrat Social* of ROUSSEAU had been to the 18th century. Even in Germany Marx's influence is no longer what it was; and elsewhere it has waned. A peculiarity of the Socialism of to-day is that it has few teachers with faithful disciples.

Another characteristic is that it is taught very much by men of letters, novelists, and playwrights, who do not attempt to be consistent or complete in their teaching. An epigram, a sketch of a character, a situation in a novel, a song, a striking presentment of one side of the question, with indifference to other sides, or ignorance of them, take the place of argument. There is a return to the methods of the writers of the *New Atlantis* and the *City of the Sun* (see BACON; CAMPANELLA; UTOPIAS). Dr. Stein (in *Die Sociale Frage*, p. 333) has pointed out that since socialists attained practical power in the Press and Parliament, Socialism has advanced chiefly by means of epithets and catch-words.

A definition applicable to all forms of modern Socialism is out of the question. A few may be cited to show their diversity. "The organisation and conduct of the necessary industries of the country, and the appropriation of all forms of economics, rent of land and capital by the nation as a whole, through the most suitable public authorities, parochial, municipal, provincial, or central" (Fabian Society, cited by Mr. Keir Hardie). "The aim of Socialism is to organise a collective existence for humanity —to replace the lower, the physically disordered struggle for existence, by the higher, the intelligently ordered, co-operation for existence" (*The Religion of Socialism*, by E. B. Bax, p. 80). "J'appelle socialisme toute tendance ayant pour objet l'égalité réelle entre les hommes" (Faguet, *Le Socialisme avant 1789*, p. 1).—A definition, by the way, equally applicable to communism. "Nous appellerons doctrines socialistes les doctrines qui estiment pouvoir abolir la misère par une réforme du droit" (Andler in his *Origines du Socialisme d'État en Allemagne*, quoted by M. Pareto, ii. 81). Bishop Westcott defined Socialism as "the opposite of Individualism. . . . The method of Socialism is co-operation; the method of Individualism is competition." Socialism may mean "the mitigation of the harshest inequalities in the present distribution of wealth" (Sidgwick's *Elements of Politics*, 152). "Au point de vue philosophique, le socialisme est une réaction de la collectivité contre l'individualisme, un retour au passé" (Le Bon, *Psychologie du Socialisme*, p. 7).

(For other definitions of Socialism see *Democracy versus Socialism*, chap. ii., Max Hirsch (1901), and appendix to Keir Hardie, *From Serfdom to Socialism*. For criticism of the term, Stammler, *Wirtschaft und Recht*, p. 45, and Durkheim, *Revue Philosophique*, 36, p. 506.)

Many modern writers, dissatisfied with the loose use of the word, seek to give it precision. One group of writers would identify it with a movement towards closer union among men; they describe it as no accident, but an inevitable step in the evolution of society; the creation of a new form of society; the result of the growth of altruism and greater sympathy with the poor and weak; a new conception of the objects of the State, each person being regarded as a part of a whole for the good of which he should work. This group is sometimes designated Ethical Socialists. One class of writers habitually describe Socialism as the next stage in the evolution of property. Another group, seeking to connect Socialism with Darwinism and the struggle for existence, see in this movement an illustration of the truth that history is the record of a struggle between classes. It was once the turn of the aristocracy to be supreme. Then it was the turn of the middle class. Now comes the turn of the proletariat, and Socialism is its effort to triumph. In the view of Marx, Socialism is the application to economics of a scientific theory of value; the *Mehrwerth* (surplus value) is the creation of labour; Socialism would give it to its makers. In certain parts of the literature of modern Socialism are attempts, for the most part somewhat vague, to find a biological explanation of it. One of the earliest of such attempts is Schäffle's *Bau und Leben des socialen Körpers*; one of the latest is to be found in Mr. J. R. Macdonald's *Socialism and Society*. The claims of Socialism to be in accordance with modern science are rejected by writers of whom Ziegler is a representative; its methods and results are declared to be opposed to those of science (*Die Naturwissenschaft und die socialdemokratische Theorie*).

One class of so-called scientific socialists contend that the maximum productiveness, which they generally admit was once attainable under a system of private property, is no longer so attainable; that the appropriation of the means of production by private persons may now involve a diminution of the aggregate wealth; that producers who are monopolists may have an interest in limiting production; that there may be a conflict between maximum profit and maximum production. They argue that the interest of the private owner as, for example, to the planting of woods, which requires for maturity many years, or the working of mines by a wasteful generation may be opposed to the permanent interests of society. The great amount of wealth which private property,

it is argued, has produced will make the transition to Socialism easier.

Now, as always, two classes of socialists are to be noted: (*a*) those who rely upon the State as the instrument for carrying out the changes which they desire, which is the prevalent class to-day; (*b*) those who are opposed to State intervention, and who trust to the action of individuals influenced by higher considerations than the desire of gain; the latter class including groups of persons who see in co-operation the spread of the Christian virtues, and a higher conception of citizenship, the way to a reconstruction of society. By a striking paradox the only section of the believers in self-help viewed with favour by the State socialists consists of those most removed from them in doctrine, *i.e.* Anarchists, such as BAKOUNIN, Reclus, Krapotkin, or the late Mr. Auberon Herbert, who regard the State as an evil, or at best an organisation to be endured only for a time.

M. Pareto (*Les Systèmes Socialistes*, i. 110) suggests a classification of socialists according to the degrees to which they admit the existence of private property as justifiable, and he divides them into three classes: (1) those who would forthwith abolish private property. This is a class at present comparatively rare. The socialists who hold with Proudhon "property is theft," or with Saint Just "L'opulence est un délit," are few, if we include only such as would advocate the abolition at once; (2) those who would permit the continuance of private property in the produce of industry, but not in the means of production, which they would "socialise" or put into the hands of the State; (3) those who would not permit private property except as to the means of production (a class which does not avowedly exist, but which includes many who would increase the taxation of wealth to a point only just short of that which would stop all saving); those who mean by Socialism making the rich pay for the growing wants of the poor.

At present the second class is increasing; their object being the acquisition by the State of the chief means or instruments of production. Professor Gonner remarks truly: "It is not too much to assert that its (the State's) position as sole capitalist is of the essence of the Socialist State" (*The Socialist State*, p. 23).

Many who do not go as far as this maintain that land, all means of transport, industries, and production connected with the necessaries of life, should belong to the State.

A large group of persons, loosely described as socialists, seek a change only in regard to one form of property, viz. land. They would "nationalise" the land (see LAND, NATIONALISATION OF); or appropriate the unearned increment (see INCREMENT, THE UNEARNED); or vest in the State compulsory powers of purchase of land to be freely used for public purposes; or subject land to special taxation; or compel the owner to use it in such a manner as to be most to the advantage to the community. One very large group dwell much on the evils attending competition in trade, its wastefulness, incentive to fraud, bad quality of materials, bad workmanship, its cruelty to the weak, etc. They would replace it by association in some form. Often they drop the name of Socialists, and call themselves Collectivists, their creed, COLLECTIVISM (*q.v.*).

Many socialists are interested in only one kind of changes: those which will better the conditions of manual workers, secure to them higher remuneration, shorter hours, better housing, better facilities for education. According to them, labour, being the origin of all value, capital being only stored-up labour, the great bulk of the community consisting of people who labour with their hands, the model State is one in which such reforms are the chief objects of legislation. They desire to see a labour or workmen's State, *Arbeitstaat*, one in which there shall be an actual and complete emancipation of the workman from his position of dependence (Lange, *Arbeiterfrage*, 379); or, as it is sometimes expressed, in which the manual working classes, being the most numerous in the community, should be supreme. To quote a recent manifesto of the Independent Labour Party, the objects in view should be "abolition of indirect taxation and the gradual transference of all public burdens on to unearned incomes with a view to their ultimate extinction"; a maximum working day; a minimum wage; State pensions; free education.

While certain new groups of socialists have been formed, other groups have disappeared, or have become less powerful. Few now advocate the total and immediate abolition of private property; even most of those who theoretically condemn it admit that at present this is out of the question. M. Jaurés, for example, states that he contemplates the survival of private property: "Je suis convaincu que dans l'évolution revolutionnaire qui nous conduira au communisme, la propriété collectiviste, la propriété industrielle, le communisme seront longtemps juxtaposés" (*Études Socialistes*, xxiv.). M. Millerand (*Le Socialisme réformiste français*, 1903), who advocates the immediate appropriation of all the means of production, holds that there should be no appropriation without indemnity. M. Malon, the author of *Socialisme Intégral*, is the advocate of the "théorie possibiliste," as distinguished from "collectivisme intransigeant" of M. Guesde, that is, the slow and gradual acquisition of public services by the communes and the State. Many strongly deprecate "catastrophe" plans, or "catastrophes libératrices" (Jaurés, p. lxvii.). I may quote on this point the observation of Rodbertus, who, after discussing his own socialist

system, adds, "I am very far from proposing such a system as suitable for the present." . . . "I certainly do not believe in the absolute necessity of property in land and capital, but I believe in its relative necessity, that is, so far as the present is concerned." A modern writer of great influence makes a still further concession: "Socialists do not object to property, they are not opposed to private property, and are therefore not opposed to inheritance" (*Socialism*, by J. Ramsay Macdonald, M.P., p. 105). But the ultimate solution in the view of most socialists is the abolition of private property.

The most common proposal is to establish collective ownership in place of private. This is to be done either by expropriation of the present owners or by establishing State undertakings. To accomplish this, taxation is to be placed on a socialist basis; the object will be not merely to raise the largest amount of revenue; one aim will be to redress the inequalities of wealth; to tax the rich or well-to-do; to abolish indirect taxes, and to substitute a graduated income tax. The revenue and credit of the State will be employed not merely to provide for the current expenses of the State, but enable it to take over and work many industries. Beginning with the acquisition of water and gas and tramways, it would push on and acquire railways, land, canals; it would set up factories which would effectually compete with, and in the end destroy, private industries. The serious objections to the State becoming manufacturer do not apply, it is said, to municipalities entering into the field and supplying cheaply the chief necessaries of life. The examples of London, Glasgow, and Paris are cited as instances of successful enterprises; little is generally said of the failure or costliness of some of such experiments, the corruption, jobbery, or other evils which may be connected with them, and the multitude of officials who must be appointed to carry them out.

How far this process is to go is a point upon which socialists greatly differ. Some think that private ownership will ultimately disappear. Mr. Keir Hardie, for example, pointing to the advance made in collective ownership, says: "There is no logical halting-place short of complete State Socialism" (p. 16). Some hold that the State should take over the industries which "conform to the law of increasing returns," retaining for private enterprise those which conform to the law of diminishing returns. Others think that the ultimate province of collective and of private ownership cannot be foretold, but is a matter for experiment. Nor is there any agreement as to the mode in which collective property is to be managed. The view now prevalent is that it should be administered by municipalities or other local authorities. But this is not universally accepted. According to Eugen Dühring, small economic associations, "kleine oekonömische Republiken," are to replace the large undertakings; every association being free to buy and sell with every other, but bound to permit its members to share in its benefits.

There is a distinction between socialists who, in accordance with ancient models, would recast many institutions, including marriage and the family, and those who seek only changes in the production and distribution of wealth and the relation of Capital and Labour, that is, the so-called economic socialists. Both varieties are now to be found; some strenuously asserting their desire to preserve marriage; others declaring that Socialism repudiates the private ownership of the head of the family as completely as it repudiates any other sort of private ownership. It would be inaccurate to identify Socialism with a desire to break up the family, or to revolutionise marriage; it would be equally wrong to ignore those who, seeing in these institutions the strength of private property, attack all of them and advocate freedom from "sex ties."

Of one form of Socialism much has been heard of late. There is a demand for what is vaguely called the "socialisation of Law," the legal protection of the economically weak; "the conscious subordination of the interests of the individual to those of a larger common whole, which, gradually extending, will finally include the whole of humanity" (*Die Sociale Frage im Lichte der Philosophie*, Ludwig Stein, 1897). "Rechtsocialismus," says one of its most capable exponents, "means the largest amount of freedom with the greatest possible economic and legal equity" (Stein, 603); "Unter Socialisirung des Rechts verstehen wir den rechtlichen Schutz der wirthschaftlich Schwachen" (Stein, 607). Those who advocate the "socialisation of law" point to the Workmen's Compensation Acts, the Employers' Liability Acts, the Irish Land Acts, the many instances in which freedom of contract has of late been set aside, as recognition of their principle that true freedom and equality can only be got if the State ensures to every one an opportunity of doing that which is permanently best for himself. True freedom for the weak is attainable only under the protection of the State; protection against abuses of physical or economic strength.

Any analysis of the causes of modern Socialism, that is, of many different things bearing one name, must be imperfect. Some of the conditions of modern industry have, no doubt, favoured the growth of Socialism. There is the contrast between enormous wealth and poverty; the concentration of wealth in few hands, which is visible; its diffusion among many is apt to be forgotten. There is the existence of evils which competition has not effaced, and which in some instances it has increased. There is the successful operation of large con-

cerns by Joint Stock Companies, which seem to show great possibilities for collectivism. The root in certain minds may be envy. Socialism may also express the impatience of the weaklings, the thriftless, those who are ambitious but incapable, at the success of those better equipped. With not a few it is the outcome of pity for the poor, sympathy with their lot, and a sense that the present order produces results which offend the sense of justice. Professor Nitti, an exponent of Roman Catholic Socialism, sees in modern forms of Socialism the result of the undermining and decay of religious belief in the masses. It has been asked, "What wonder if, robbed of the Gospel of Christ, they embrace that of Ruskin."

Undoubtedly Socialism has spread largely by reason of its attraction to highly emotional natures which once threw themselves into religious movements. These are socialists through their feelings; they believe in what they desire.

A further cause of its spread is the fact that it is rarely examined in a judicial spirit; advocates and opponents rely upon exaggerations which do not bear close scrutiny. Chief among the causes of the spread of Socialism is a disposition to ignore or make little of the real objections to it. Rarely is there a frank discussion of the difficulties in its way. There is the recurring fallacy that certain evils accompanying the present economic order must disappear when it disappears. There is the assumption that because poverty co-exists with private property, the abolition of the latter will mean the abolition of the former. Disease, passion, thriftlessness, idleness, intemperance, weakness, physical and mental, will continue to exist; it is forgotten that they will bring their usual results. There is, too, the fallacy that the present stimulus to exertion will continue if some of the present motives are withdrawn or weakened. It is assumed that if the right to work exists, if subsistence is assured, if old-age pensions are provided, if there need be no dread of poverty and no hope of great wealth, there will not be a slowing down of the productive activities. If inheritance is not to be permitted (as certain socialists contend), one stimulus will be gone; if it is permitted, private property will reappear. Socialistic systems connected with religion attempted to guard against these dangers; they are not met by modern systems which speak almost uniformly of rights and rarely of duties, which appeal to self-interest, and which, destroying some of the present most potent motives for exertion, do not substitute others equally widespread and strong. The shirker, the idler, the weakling will have their own way unless they are compelled to work. The right to compel to work according as the State thinks best seems the necessary complement of the right to work.

Nor do socialists make it clear that STATE SOCIALISM is consistent with freedom of action. The description by Prince Bülow of the socialistic State as a prison State, *Zuchthausstaat*, refers to a weakness in almost all socialistic systems. They almost all assume that economic relations are to be regulated by some authority. Officials are to be substituted for "masters" or "employers," and these officials, clerks, and others, will act as they think fit, with the whole power of the State at their command. With them, in the last resort, will rest the remuneration of the various kinds of labour and the assignment to each person of his work. Socialism may mean bureaucracy writ large; bureaucracy, according to some systems, on a larger scale than any despot has ever attempted to carry out. Whether competition is to be permitted between different countries; whether races content with lower remuneration than highly civilised Europeans are to share in the benefits of Socialism; how a spread of routine and dislike of changes characteristic of bureaucracy is to be avoided under Socialism, is not made clear. It may mean immobility as well as bureaucracy. Collectivism has invented and can invent nothing. It can be, and often has been, obstructive. Many ignore the causes deep-seated in human nature which have brought about private property. Enormous difficulties of detail are slurred over in the vague expression, "Society will be organised."

Many who advocate Socialism or Collectivism are ignorant of the history of society, and are unaware that some of their so-called novelties are a revival of methods and systems which existed in barbarous times.

Among the causes of the growth of Socialism have been unreasonable optimism and overconfidence that free competition between men and a policy of *laissez faire* on the part of the State, would bring about the best possible results. Exaggerations of this kind were followed by disillusion and disappointment, and call for an opposite course of action. M. Faguet sees in Socialism, "Une idée fausse en réaction contre une idée fausse" (Faguet, 363), the idea that the aim of civilisation is the continual increase of general wealth.

Socialism has spread also by reason of the failure of attempts to formulate precise limits as to the functions of the State. There is a growing disposition to believe that this can be determined only by experiments, and that the results will vary in different countries and at different times. Accordingly, in almost all countries the functions of the State are being extended. History tells of societies in which the modes of distribution have differed much from ours. There may be in the future great variety as there has been in the past. In many countries a great development of the powers of the State as to national defence and public order,

including public hygiene and public services and utilities, has taken place. In several countries there is great expansion of their powers in the direction of what is vaguely termed "police"; under cover of this the Supreme Court of the United States, for example, has refused to declare unconstitutional some socialist legislation. There is, too, a tendency to ignore good which the socialist movement may have done. It may have helped to correct some of the fallacies into which the older economists fell. (See "The Economic Lessons of Socialism," *Economic Journal*, 1905, p. 337.) It has emphasised the human, as distinct from the mechanical factors in society. It has corrected the errors incident to regarding labour as an ordinary commodity. Some writers maintain that, thanks to Socialism, capitalists themselves have adopted part of its teaching; that there is now a new recognition of the duties of the employer and of the fact that capital and labour are engaged in a common enterprise, and that industrial liberty is no solution of economic problems. "Already we have begun to pass from the era of individual industrialism into the era of fraternal industrialism." [1]

Many attempts are made to identify Socialism with the essence of Christianity. The Christian Socialist movement begun by MAURICE, KINGSLEY, LUDLOW, Hughes, and NEALE has been continued by writers and workers who seek in the New Testament the earliest and best exposition of Socialism. Bishop Westcott, Bishop Gore, the Rev. Stewart Headlam, and the Rev. R. J. Campbell, for example, see in it a revival of primitive Christianity; "a too tardy rediscovery of the essential teaching of Jesus Christ," to quote Dr. Lyman Abbott. "The nineteenth century," said the Bishop of Stepney, "was a period of individualism and competition, the twentieth century will take its place as the era of socialism and co-operation." Christian Socialism dwells upon certain sayings in the gospel; it is apt to lose sight of the individualist side of Christianity.

The forms of socialism in each country vary, though they tend more and more to approximate. The International Congresses (*e.g.* Marseilles, 1892; Zurich, 1893; London, 1896; Amsterdam, 1904; Stuttgart, 1907) have tended to efface differences. Sombart (*Sozialismus und soziale Bewegung im 19ten Jahrhundert*) describes the movement in England as non-political and purely economical; in France as revolutionary; in Germany, legal, parliamentary, political. Such descriptions, never very correct, are less apt than they were. In England the chief socialist organisations are: The Social Democratic Federation, founded about 1880; the Independent Labour Party, founded about 1892; the Fabian Society, and the Christian Social Union. Attempts have been made to convert the Trade Union Congresses to Socialism. It is enough to say that the Trade Unions, since the Congress of 1899, no longer stand aloof from the socialist movements; the majority of votes obtained at the recent Labour Congress at Hull shows a close approximation.

In France are many varieties of Socialism, some of which would be in England described as Liberalism. Dr. Brousse, for a time the leader of "possibilistes," M. Jaurés and M. Millerand, who took office under M. Waldeck Rousseau, are sharply distinguished from M. Guesde and other irreconcilables. The working men's Syndicates, legalised by M. Waldeck Rousseau, have been powerful agencies of Socialism.

In Germany the influence of the writings of Lassalle and Marx has greatly decreased. Bebel is still the official leader. But younger socialists find in his teaching no satisfactory theoretical basis. Marx's theory of the *Mehrwerth* is discarded not merely by Bernstein (who has subjected it to a destructive criticism) but by most of the younger socialists. The difficulties in the way of the acceptance of his theory, which he promised in the first volume of *Capital* to explain, became clearer in the posthumous volume published by Engels, and have been exposed by several critics, notably by Professor Böhm-Bawerk. The *Katheder-socialisten* are not the force which they were, but occupying as they do several of the chairs in universities, they influence greatly the educated classes. The Government efforts to check Socialism in the shape of such measures as the Insurance Laws (the Sick Insurance Act 1883, the Accident Law 1884, the Invalid and Old-Age Insurance Law 1889) have indirectly helped its growth.

The socialists in our colonies are pre-eminently "socialists without doctrines." They desire the State to actively intervene in industries; to attempt to regulate wages; to repress sweating; to limit the hours of work; to settle labour disputes; to encourage "collective contracts"; to prevent the intrusion of low-priced labour.

"The practical objects of the labour party are not so much socialist as social democratic. They look towards Collectivism, but recognise wages, profits, and the conditions of capitalist production as matters to be accepted in present legislation. . . . There is little social idealism among the rank and file of the working class. They are mostly seeking immediate and concrete results, and, so far as any directive purpose on their part is concerned, it is merely an accident that the policy thus determined tends towards socialism." "The farmers are steady partisans of freehold tenures and the sale of the State domain to settlers" (*The Labour Movement in Australia* (1907), Victor S. Clark, 118, 119, 283).

Some of the characteristics of the present

[1] *The Industrial Problem*, by Lyman Abbott (1905), p. 52.

socialistic movement may be summed up thus: proneness to exaggeration; one-sided discussion on the part of its friends and adversaries; refusal to believe that Individualism and Socialism can be complementary or that compromise between them is possible; a general assumption contrary to experience, that the future economic condition and organisation will be on the whole uniform, and can be predicted. Socialists are for the most part pessimists in their judgments as to the past and optimists in their expectations. Individualists are optimists as to the past, pessimists as to the future. The former dwell upon the evils which private property and other economic institutions, creations of the past, have left; the latter extol the wealth and civilisation which are the products of these institutions.

Both are alike in this respect; with them both laws and environment count for almost everything; human nature, scarcely changed, it may be, by laws and environment, counts for little. In this they may both be wrong. I note one other characteristic: the movement is advanced and spread very much as religions have been; there are appeals to reason, but these are sometimes weakest where the convictions produced are strongest. The real impulse comes from emotions, often unavowed, which Socialism arouses.

It may, and to-day does, mean very diverse things—an outbreak of mere predatory instincts; or an earnest, disinterested desire for a better social order; or a belief that the present economical conditions could by proper regulation be improved. It may originate in some of the best or worst impulses of human nature.

[*Bibliography.*—It would be totally impossible to give even a faint idea of the enormous literature of modern Socialism. Hundreds of books and pamphlets (to say nothing of articles in newspapers and magazines), dealing with all aspects of Socialism, are annually published. Here are set down the titles of only a few:—

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SPENCER, HERBERT (1820-1903), the son of a schoolmaster at Derby, as a child was more fond of games and rural pursuits than lessons. From the age of thirteen to sixteen he was taught by his uncle, the Rev. Thomas Spencer (1796-1853), curate of Hinton Charterhouse, a broad-minded man, the first Church of England clergyman who publicly engaged in the agitation for the Repeal of the Corn Laws, and a practical reformer in poor law matters. The classics did not attract young Spencer, but he made great progress in mathematics. After being occupied in desultory study and teaching at home he accepted an engagement on the

engineering staff of the constructor of the London and Birmingham Railway. In 1840 he became the private secretary of Captain Moorsom, then laying the Birmingham and Gloucester Railway, and superintended engine constructing and testing. He invented the velocimeter for gauging the speed of locomotives, and contributed to the *Civil Engineer and Architect's Journal*. It was in 1840 that the reading of Lyell's *Principles of Geology* led him to the first conception of the system of philosophy to which he devoted his life. In 1841 he returned to Derby, and spent two years in study and devising improvements in watch-making and typefounding and in the glyptograph. He reported on the great flood at Derby in 1842, and contributed letters to the *Nonconformist*, "On the proper sphere of Government," which appeared as a pamphlet in 1843. One communication dealt with commercial restrictions. For a short time he was sub-editor of the *Pilot* in 1844, and then returned to railway engineering, which he abandoned in 1846 and occupied himself with inventions. He wrote in the *Westminster Review* and the *Philosophical Magazine*, and in 1848 was appointed sub-editor of the *Economist*, an office he held for five years. In 1850 appeared the first edition of his *Social Statics; or, the Conditions essential to Human Happiness specified, and the first of them developed*. The primary inception of the general doctrine of evolution was in an article on "Progress; its Law and Cause," published in the *Westminster Review* in 1855, in which year was issued his *Principles of Psychology*. It was in 1857 that the ideas he afterwards elaborated first became crystallised, and in 1860 he circulated the programme carried out in his works on the Synthetic Philosophy (1862-1896), commencing with *First Principles*, followed by *Principles of Biology*, 2 vols., *Psychology*, 2 vols., *Sociology*, 3 vols., and *Ethics*, 2 vols. Spencer's writings on sociological subjects are those mentioned below and *The Study of Sociology* (1873). He also printed eight folio volumes of *Descriptive Sociology* (English, Ancient American, Lowest, African, Asiatic, and American races, Hebrews, and French), consisting of facts collected and abstracted by several assistants.

The last twenty years of Spencer's work were devoted to the completion and revision of the volumes of his *Philosophy*, with intervals of exciting controversy, chiefly anti-socialistic. At an early date he read Adam Smith, with whose ethics he had many points of contact. "Justice and beneficence have a common root," sympathy (*Social Statics*, ch. v. § 5). "There exists in us a mental mechanism by which the essential prerequisite to greatest happiness is recognised and enforced," and that is the moral sense (*ib.* ch. v. § 8). Legislation cannot create moral force, the essential function of the state is to maintain the law of equal freedom, to maintain men's rights, and to prevent aggression. "Protected trades have afforded many proofs of the impolicy of injustice" (*Introd.* p. 61). Spencer points out the encroaching of government in the regulation of commerce, religious establishments, poor laws, national education, colonisation, sanitary supervision, currency, and postal arrangements. "The injunctions of the moral law as now interpreted coincide with and anticipate those of political economy. Political economy teaches that restrictions upon commerce are detrimental: the moral law denounces them as wrong" (ch. xxiii.). Other instances of the coincidence of the moral law and the teaching of political economy are: the loss entailed by a forced trade with Colonies (ch. xxvii.); the condemnation of interference with food markets; the infringement of rights in making penalties upon usury; the law of equal freedom forbids all attempt to restrict the use of machinery as well as artificial regulation of wages and prices; direct taxation is the only kind of taxation against which the law of equal freedom does not protest; the harm of tampering with currency and of endeavouring to benefit one occupation at the expense of others; legislative interference with manufacturing processes, etc. "The laboured arguments of Adam Smith and his successors are forestalled, and for practical purposes made needless, by the simplest deductions of fundamental morality" (ch. xxxi. § 4). "The so-called moral law is in reality the law of complete life" (*ib.* § 6). This view is reproduced in *Data of Ethics*. "Not for the human race only, but for every race, there are laws of right living. . . . The leading traits of a code under which complete living through voluntary co-operation is secured, may be simply stated. The fundamental requirement is that the life-sustaining actions of each shall severally bring him the amounts and kinds of advantage naturally achieved by them; and this implies, firstly, that he shall suffer no direct aggressions on his person or property, and, secondly, that he shall suffer no indirect aggressions by breach of contract" (pp. 132, 149). With the decline of militancy and the rise of industrialism there have gradually arisen "multitudinous voluntary associations among citizens for discharging numerous kinds of functions"; "one result is that there can now be achieved without governmental power various ends which in early days governmental power alone could achieve" (*Principles of Ethics*, § 368). "All-embracing state-functions characterise a low social type; and progress to a higher type is marked by relinquishments of functions" (*ib.* § 369).

"It results that to recognise and enforce the rights of individuals is at the same time to recognise and enforce the conditions of a normal social life. There is one vital requirement for

both" (*Man versus the State*, p. 102). "The function of liberalism in the past was that of putting a limit to the powers of kings. The function of true liberalism in the future will be that of putting a limit to the powers of parliaments" (*ib.* p. 107). Free trade is advocated in chs. xv. and xvi., and direct taxation at the end of ch. xxiv. of *Justice* (*Principles of Ethics*, vol. ii.). "The histories of all nations are alike in exhibiting the enormous evils that have been produced by legislation guided merely by 'the merits of the case'" (*ib.* pp. 249-50). As to the land question, Spencer believes that, "the aggregate of men forming the community are the supreme owners of the land," yet, "a fuller consideration of the matter has led me to the conclusion that individual ownership, subject to state-suzerainty, should be maintained." As to state ownership, "the vices of officialism would inevitably entail immense evils" (*ib.* vol. ii. App. p. 444). "From the outset the growth of revenue has, like that growth of the political headship which it accompanies, been directly or indirectly a result of war" (*Political Institutions*, § 546). "With the repression of militant activities and decay of militant organisations, will come amelioration of political institutions as of all other institutions" (§ 582).

Spencer always opposed the compulsory introduction of the metric system, and directed in his will that his pamphlet *Against the Metric System* should be circulated among peers and members of parliament should a bill be introduced.

He distinguishes between militant and industrial co-operation and between voluntary and compulsory co-operation (*Principles of Sociology*, § 833, etc.). In dealing with socialism (§ 840, etc.) he points out that the chief question at issue concerns the mode of regulating labour.

Most of Spencer's fundamental economic views are to be found in his early *Essays* (vol. iii.). In *Railway Morals and Railway Policy* (1854) he criticises railway finance and management, especially the practice of companies taking up illegitimate businesses (*e.g.* docks, hotels, steam packets), and the unnecessary increase of new lines; there should have been formed "running companies" separate from the companies owning the roads. In *The Morals of Trade* (1859) he points out that "men who deal in bales and tons differ but little in morality from men who deal in yards and pounds"; as to douceurs and bribes, the frauds of wholesale houses, manufacturers, banking delinquencies—"are these evils growing worse?" He answers partly Yes and partly No. The morals of trade are so bad because of "the indiscriminate admiration of wealth." He forcibly drew attention to *State Tamperings with Money and Banks* (1858). "The progressive accumulation and depreciation of promises to pay and the commercial disasters" of 1814-15-16 "were state-produced evils." The Bank Act of 1844 is "this remnant of protectionism." In *Specialized Administration* (1871) he says: "The evils that have arisen from the positively regulative action of the State on banks are too multitudinous to be here enumerated." H. R. T.

STRINGENCY IN THE MONEY MARKET, 1906-1907. In continuation of the article on this subject in the third volume of the *Dictionary*, it is advisable to record the instances of a state of stringency which occurred in the autumns of 1906-1907. On neither occasion was there any special cause for anxiety as to the position of any bank or great mercantile house, but the stringency was caused by the extraordinary movements in the market, and of which it will be interesting to give a sketch. The rough history is as follows:—

The movements of gold bought by, and taken from the Bank up to the end of October 1906 had very fairly balanced each other, and the applications for capital on account of new loans and new capitals during the year had not been unusually large,—considerably smaller, indeed, than they had been the preceding year. The bank rate had stood at the low point of 3½ per cent from 30th June to 13th September, when it moved upwards to 4 per cent. A rise of this description in the autumn is by no means unusual, and the occurrence was not a surprise to the City, nor did a further movement upwards to 5 per cent on 11th October really cause alarm, though we had not experienced a 5 per cent rate since 1901.

It was known that London had financed commercial and speculative activity in New York to some considerable extent, and rumour exaggerated the amount. The reserve of the Bank dropped fully two millions between the 3rd and the 10th, but the proportion of the reserve to the liabilities was 35½ per cent, and while there was no definite cause for anxiety when the rate, after being placed at 5 per cent on Thursday the 11th, was raised to 6 per cent on Friday the 19th, the Thursday, the usual day for an alteration of the rate, having passed by without any change being made, the market began to be alarmed.

The rate continued at 6 per cent till 17th January 1907, a period of ninety days. This of itself was very unusual. During more than twenty-five years, from January 1882 to January 1907, the rate had only been 6 per cent five times, and then only for 24 days in 1882, fifty-two in 1889-90, twenty-seven in 1890, and forty-two in 1899-1900.

A similar condition of the money market extended over a considerable district and space of time. At Berlin the rate had been raised to 6 per cent on the 10th October 1906, and to 7 per cent on 18th December, returning again to 6 per cent in January; New York marked 6 per cent to 6½ per cent on the 27th October. The Bank

of Belgium moved to 4½ per cent on the 25th October, and the Bank of Amsterdam to 5 per cent on the 11th. Meanwhile the Bank of France remained at 3 per cent, and did not alter till between 16th and 23rd March, raising its rate then only to 3½ per cent, and lowering it again to 3 per cent in April.

The immediate cause of the 6 per cent rate was the drain of gold from the Bank which, between 20th September and 20th October, exceeded £5,600,000 against about £960,000 received. A considerable part of this, nearly £4,500,000, went to Egypt, but it was only on account of the ordinary business demands for that country.

The help given by the Bank of France was of great service in assisting matters to return to a satisfactory position. The description of the action of that Bank in its report for 1906 states what occurred so clearly that we reproduce it here. The stringency passed off gradually without having had any serious effect on our trade, though in many quarters the high rate was very unwelcome.

The Report says: "The rate of discount rose rapidly, it rose to 6 per cent in London, without this increase being able to prevent the outward movement of gold sufficiently, and there was reason to fear that the monetary tension, if it could not be relieved, would recoil on France, and compel us, in our turn, to raise our rate.

"In this position we had a double duty: we had, on the one hand, to secure to our market, both for our internal and our foreign trade, the resources necessary to prevent a rise in the exchange which would inevitably have recoiled on France; we had, on the other hand, to discourage the speculation which always follows in the train of great business activity, and which causes, if not stopped in time, a risk of ending in a crisis. The Bank of France has fulfilled these two duties as completely as possible.

"Adopting a monetary policy which has, up to the present time, been justified by events, we have, by discounting English paper, supplied the London market with the amount required to enable it to meet these difficulties.

"We thus only issued our gold voluntarily, and with the conviction that we directed it to those points where its action would be efficacious, where it was of importance to us, from the point of view of the trade of France, to prevent the possibility of a crisis.

"The Bank has thus fulfilled its primary duty, which is to regulate the rate of discount on the home market and to keep it low; it has obtained this result by various methods, but in particular and above all by a new form of procedure which, moreover, has met with general approval; the extent of its resources enabled it to limit its action not to the French market alone. The difficulties came from foreign countries; it is to the very place where they began, to the London market, that the action of the Bank of France extended to make arrangements to secure that the rate of discount in Paris should remain both steady and low. This extension of the influence of the Bank of France can only be regarded with approval, since it provides a new proof of the development of the financial power of the country and the wide circle to which it extends."

It is interesting to compare what occurred in England and in France. In England an export of some eight or nine millions sterling of specie in all caused a considerable enhancement of the bank rate, while a rather larger export from France left the rate in that country undisturbed at 3 per cent.

What occurred in 1906 and 1907 appears to mark distinctly the fact that the specie reserves in London are not sufficiently large to meet the present requirements of the money market. The number of countries in which a gold standard exists increases, and the greater wealth of those countries causes their demands to be larger. The inference is obvious that a more considerable specie reserve is required in the only open market for gold.

A somewhat similar, but more extreme period of stringency took place in the autumn and early winter months of 1907. The rates charged by the Bank of England in both years show this very clearly.

Rates charged by the Bank of England, 1906-7.

1906.		1907.	
1st Jan. to 5th April	4	1st Jan. to 17th Jan.	6
,, 5th ,,	3½	,, 17th ,,	5
,, 3rd May	4	,, 11th April	4½
,, 21st June	3½	,, 25th ,,	4
,, 13th Sept.	4	,, 15th Aug.	4½
,, 11th Oct.	5	,, 31st Oct.	5½
,, 19th ,,	6	,, 4th Nov.	6
		,, 7th ,,	7

Average rate for 1906, £4:5:3. Average for 1907, £4:18:6. The average rate from 1845 to 1906 inclusive had been no more than £3:12:8.

In 1907, as in the previous year, the requirements of specie mainly arose from New York, accentuated by the extremely awkward methods of the Treasury of the United States (see TREASURY OF THE UNITED STATES), joined with a certain amount of over-speculation among the Banks of that country. The rates in London were even more severe than in 1906, the Bank of England having charged 7 per cent from 7th November 1907 to 2nd January 1908, a period of fifty-six days; 7 per cent, it should be observed, had not been charged by the Bank since 1873, and the possibility of so high a charge had almost passed out of the minds of business people. There had been no speculation in the United Kingdom or over-activity in business which in the slightest degree justified so high a charge as far as the requirements of the country were concerned. We can only reiterate what was said in reference to the period of stringency in 1906, that the specie reserves of the United Kingdom are not sufficiently large to meet demands of this nature, to which recent experience shows that we are increasingly liable. Similar assistance, it may be mentioned, to that afforded by the Bank of France in 1906 was

also rendered in 1907. While we commemorate thus our obligations to Paris, we have to ask whether help of this character can be continually afforded and real independence maintained. We are attempting, in fact, to carry on our banking system with arrangements sufficient for our domestic needs, but inadequate for the requirements of a country, which besides its own immediate business, undertakes the duties of the Clearing House of the World (see STRINGENCY IN THE MONEY MARKET, vol. iii.).

STYLE OR TRADE NAME. Some slight provision for the registration of the trade name of partnerships is made by the Limited Partnerships Act 1907 (see PARTNERSHIP; LIMITED PARTNERSHIPS ACT 1907, Appendix). To obtain the benefit of limited liability for the limited partners, every limited partnership formed under the Act is required to register certain particulars with the Registrar of joint stock companies. These particulars include the firm name and the names of all the partners, whether general or limited, and due notice must be given of any alteration in such particulars. The Act does not extend to any partnerships other than limited partnerships, nor has any provision been made (except in the case of money-lenders by the Money-lenders Act 1900) for the registration of trade names generally. A. A. U.

TARIFF REFORM MOVEMENT, THE, is a movement for a reform of the fiscal practice of the United Kingdom, for the purpose, primarily, of encouraging the growth of trade between Great Britain and the provinces of the empire, by means of a customs tariff giving preferential treatment to imports from British India and the Colonies. Although the project of imperial preferential trading had many earlier advocates, it is convenient to date the inception of the movement from a speech delivered at Birmingham on May 15, 1903, by Mr. Joseph Chamberlain, then Colonial Secretary. Discussions generally favourable to preference had taken place at inter-colonial conferences in 1887, 1894, and 1897. In 1897 Canada allowed a reduction of 25 per cent (enlarged in 1900 to 33⅓ per cent) of the normal duty on dutiable goods in favour of imports produced or manufactured in the United Kingdom; and thenceforward a rapid and continuous increase was observed in the volume of British exports to Canada, which had been steadily decreasing for some years. The value of British goods imported into Canada, according to the Canadian returns, fell, before preference, from £13,800,000 in the year ending June 30, 1873, to £10,400,000 (1883), £8,600,000 (1893), £5,800,000 (1897), and rose annually after preference as follows:—£6,600,000; £7,400,000; £9,000,000; £8,600,000; £9,800,000; £11,800,000; £12,400,000; £12,000,000 (1898 to 1905), converting the $ as 5=£1. It is true that Canadian imports from countries not enjoying preference have simultaneously increased; but the coincidence of the sudden change from a downward to an upward tendency in British imports with the grant of preference cannot be accidental. Mr. Chamberlain had frequently spoken favourably of preferential trading. As early as 1896, in the second year of his tenure of the Colonial office, he had been censured at the jubilee dinner of the Cobden Club for "giving a conditional support to the demand that England should renounce the freedom of her trade in order to differentiate in favour of the Colonies." In July 1902, Mr. Chamberlain presided over a conference of the colonial premiers visiting London on the occasion of the coronation of King Edward VII. The conference unanimously adopted five resolutions, declaring (1) that preferential trading between the United Kingdom and the King's dominions beyond the seas would facilitate commercial intercourse and strengthen the empire; (2) that a general system of free trade within the empire was not immediately practicable; (3) that it was desirable that Colonies should give substantial preference to products and manufactures of the United Kingdom; (4) urging on the Imperial Government the expediency of granting preference to products and manufactures of the Colonies, by exemption from or reduction of duties then or thereafter imposed; and (5) pledging the premiers to ask their respective Governments to take measures necessary to give effect to the principle of the resolutions. In the speech of May 15, 1903, Mr Chamberlain declared himself in favour of assent to the colonial proposals, and also of resuming the power of negotiation, and if necessary of retaliation, whenever British interests or the relations between Britain and her Colonies were threatened. In this there was a reference to the penal tariff imposed by Germany on Canadian merchandise by way of retaliation for the preference granted in Canada to British imports. Mr. Chamberlain's views were repudiated by some of his colleagues in the Cabinet; and on 16th September he secured freedom by resigning office. In the autumn of the same year he spoke at Glasgow (7th October), Greenock (8th October), Newcastle (20th October), Tynemouth (21st October), Liverpool (27th and 28th October) and Birmingham (4th November). In these speeches, which were published under the title of "Imperial Union and Tariff Reform," he completed the argument in support of his project, except as regards its relation to the agricultural industry, with which he dealt at Welbeck and Luton (4th August and 5th October, 1904). The speeches named are still the chief document of

the case for tariff reform; in many other speeches new illustrations were adduced, but no substantial addition made to the argument.

The details of the proposed reform are as follows:—(1) *The Preferential Tariff.*—Since imports from the Colonies consist mainly of gold, raw materials, and food-stuffs, and as the inexpediency of levying duties on raw materials is not disputed, import duties must be imposed on foreign food-stuffs if adequate recompense is to be offered to the Colonies for substantial favour to British manufactures. In a sketch plan submitted at Glasgow, Mr. Chamberlain proposed a duty of 2s. a quarter, or 6d. a cwt., on foreign grain, except maize, with higher duties, not specified, on flour and meal, and a duty of 5 per cent *ad valorem* on foreign dairy produce and meat, except bacon, the products of British possessions giving preference being admitted duty free. A preference, unspecified, was also suggested on colonial wine and fruit. To compensate consumers for these duties it was proposed to remit three-fourths of the existing duties on tea, coffee, and cocoa, and one-half of the sugar duty. A calculation was offered showing that, even on the assumption, disputed by tariff reformers, that the selling prices of the food newly made dutiable were raised by the whole amount of the duties, the effect of the remissions would at least counterbalance that of the new duties in the weekly expenditure of working men. (2) *The General Tariff.*—It is proposed to levy on manufactured goods imported from foreign countries a duty averaging 10 per cent *ad valorem*, but varying according to the amount of labour and wages represented in the cost price. The purposes of the general tariff are, (*a*) to make good the loss of revenue incurred by the proposed reduction of the taxation of food, and (*b*) to put the manufacturer at home on more equal terms with foreign competitors when competition is unfair. Competition is held to be unfair when the competing industry is helped by bounties, subsidies, or indirect aids from the State; or when the cost of British production is raised by legislation for the protection of workmen; or when surplus products are sold in the British market at less than the full cost of production, the capital and establishment charges of the industry having been covered by sales in the protected home market. The general tariff is also recommended (*c*) for purely fiscal reasons as a means of broadening the basis of taxation; (*d*) many tariff reformers also look to it to provide the means of expensive social reforms. (3) *Retaliation.*—The general tariff is also to supply the means of negotiation for more favourable treatment of British goods, being raised in retaliation for hostile treatment, or lowered in return for valuable concessions.

It is arguable that the preferential tariff, and hardly to be disputed that the general tariff, fall within some current definitions of protection. The case against the reform, therefore, rests mainly on the reasons against protective tariffs which were worked out by the Ricardian economists, and are repeated in most English text-books of political economy. On the political side it is contended that negotiations for exchange of preference, so far from promoting imperial unity, would provoke jealousy and disputation, and introduce a sordid element into imperial loyalty. Some stress is also laid on the consideration that the policy would involve the sacrifice of advantages enjoyed under most-favoured-nation clauses.

Tariff reformers, while refusing to admit that they are committed to the full doctrine of protection, suggest in defence reasons for distrusting or for qualifying many of the positions laid down in support of the orthodox or free-trade theory of fiscal policy. They take exception to the unqualified statement of the doctrine that import duties fall wholly or mainly on the purchaser, citing such observations as that the selling price of Canadian farm-products in the United States was not raised by the M'Kinley tariff, and that no reduction of the price of wheat, equivalent to the remitted duty, followed the repeal of the corn law in 1846. They also, without challenging the accepted doctrine of equivalence of imports and exports, hold that a tariff enables a country to control the character of its imports without lessening their volume, and that the effect of such control, as exercised to our detriment, has been seen in the diminishing proportion of fully manufactured goods in our exports, and the increasing proportion in our imports, to and from protected foreign countries.

The proposal of retaliatory duties met with considerable popular favour; but opponents were able to attach to the proposed new duties on food the odium of the old corn laws, and this repugnance was doubtless one of many causes contributing to the Unionist defeat of January 1906. In the Colonies, however, substantial progress has been made in the practice of preference. Tariffs giving preference to British goods have been adopted by New Zealand and by the five South African colonies. In Australia preference was delayed by the opinion, held by some statesmen who accepted the principle, that it was prudent to wait for a definite proposal from the mother country; but a beginning was made in 1906, and in August 1907 a tariff was submitted, giving preference to all manufactured goods made in Great Britain and imported in British ships. At the Colonial Conference of 1907 the representatives of Canada, Newfoundland, Australia, New Zealand, Cape Colony, Natal, and the Transvaal, unanimously reaffirmed the resolutions of 1902,—the Imperial Government alone dissenting,—and added a request for a preference

on articles already dutiable in the United Kingdom.

The Tariff Commission is a voluntary committee, including representatives of all leading industries, with Mr. W. A. S. Hewins as secretary, formed to examine the tariff reform proposals in the light of evidence collected from manufacturers and traders, and to prepare the draft of a tariff. The seven volumes of its report already issued deal with the following industries: vol. i. iron and steel; ii. textiles (in seven parts: 1, cotton; 2, wool; 3, hosiery; 4, lace; 5, carpets; 6, silk; 7, flax, hemp, and jute); iii. agriculture; iv. engineering; v. pottery; vi. glass; vii. sugar and confectionery. This report, based on a collation of the evidence, oral or written, of 15,000 witnesses, supplies much information respecting the actual facts of British trade, as well as statistics collected from many sources, and will be of great service to economists willing to submit their conclusions to the test of experience.

The publications elicited by the controversy have been many. The following may be mentioned as containing contributions of some permanent value to economical or statistical discussion:—By writers favourable to tariff reform: W. J. Ashley, *The Tariff Problem* (1903, 2nd. ed. 1904); *Progress of the German Working Classes*, 1904.—Sir V. Caillard, *Imperial Fiscal Reform*, 1903.—*Compatriots' Club Lectures*, ed. L. J. Maxse, 1905.—J. H. Schooling, *British Trade Year Book* statistical, 1905, 1906.—Rev. W. Cunningham, *Rise and Decline of the Free Trade Movement*, 1904; *The Wisdom of the Wise*, 1906.—Sir Roper Lethbridge, *India and Imperial Preference*, 1906.—L. S. Amery, *Fundamental Fallacies of Free Trade*, 1906.—J. W. Welsford, *The Strength of Nations*, 1907. By writers opposed to tariff reform: W. Smart, *The Return to Protection*, 1904.—A. C. Pigou, *The Riddle of the Tariff.—Protective and Preferential Import Duties*, 1903.—W. H. Dawson (Ed.) and other writers, *Protection in Various Countries* (series of vols.), 1904.—*Fact versus Fiction: the Cobden Club's Reply to Mr. Chamberlain*, 1904.—L. G. Chiozza-Money, *Elements of the Fiscal Problem*, 1903.—Lord Farrer, *Free Trade versus Fair Trade*, new ed. by C. H. Chomley, 1904.—P. Ashley, *Modern Tariff History*, 1904. C. A. V.

TITHES. In continuation of the article on TITHES in volume iii. the amount for the ten years which have elapsed since is given below. During this period the tithe has not continued to fall so rapidly as in the previous decade.

It will be seen that the price of wheat is now 51·9 per cent of its price in 1837. Barley is 75·5 per cent and oats 81·1 per cent. The tithe being £98 : 13 : 10 in 1837, and £68 : 19 : 6½ now (1907), is 70 per cent of its value seventy-one years ago.

The collection of tithe is sometimes now conducted under difficulties owing to the depression of agriculture. Thus an application was made to the High Court, in the spring of 1907, by a tithe owner to whom arrears of tithe on land in Chiddingfold, Surrey, which had previously gone out of cultivation, had been due from Oct. 1, 1904, to April 1, 1907, for a jury to assess the arrears and to define the land upon which the tithe was appointed. This finding of the jury was to go back to the High Court, by whom the land was to be handed over to the tithe owner who could cultivate the land. He was to keep an exact account of his transactions, and when he had obtained from the land the sum to which he was entitled, about £35, the land would revert to the owner. Such cases are rare, but that they should occur at all is illustrative of the condition of agriculture at the time mentioned.

The details are as follows:—

Table showing the average Prices of Wheat, Barley, and Oats, for Seven Years preceding each Year from 1898 to 1907, together with the value of a Rent Charge of £100 calculated at such Prices.

Years.	Average Prices per Imperial Bushel.						Value of a Rent Charge of £100.		
	Wheat.		Barley.		Oats.				
	s.	d.	s.	d.	s.	d.	£	s.	d.
1898	3	5¾	3	1	2	2	*68*	*14*	*11*
1899	3	5½	3	0¾	2	1¾	*68*	*2*	*4¾*
1900	3	4½	3	0½	2	1	*66*	*15*	*9¾*
1901	3	4½	3	0½	2	0¾	*66*	*10*	*9¼*
1902	3	5½	3	0½	2	1	*67*	*3*	*8¾*
1903	3	6½	3	1¼	2	2¼	*69*	*7*	*5*
1904	3	6½	3	1¼	2	2¾	*69*	*19*	*6*
1905	3	6	3	1	2	2¾	*69*	*12*	*0¼*
1906	3	5	3	0½	2	2¾	*68*	*12*	*0¾*
1907	3	5¾	3	0¼	2	2¾	*68*	*19*	*6¼*
						10	*683*	*18*	*2¼*
General average for the 10 years, 1898-1907							*68*	*7*	*9¾*
General average for the 71 years, 1836-1907							*93*	*16*	*1*

TORRENS, COL. ROBERT (1780-1864). We may add to the article on Col. ROBERT TORRENS, vol. iii., the following remarks derived from Professor Seligman's "On some neglected British Economists":—

"A careful reading of his productions seems to justify us in making the following claims for Torrens:—

"In the first place, he discovered, independently of MALTHUS and RICARDO, the law of rent.

"Secondly, he advanced a theory of wages which was adopted by Ricardo.

"Thirdly, he discovered the law of comparative cost, the credit of which is usually ascribed to Ricardo.

"Fourthly, he advanced a theory of profits which differed from that of Ricardo, and which is considerably nearer the truth.

"Torrens first put forward the theory of the natural rate of wages as influenced by the standard of life, and it is this theory which soon became the stock in trade of the classical school.

"The doctrine of comparative cost has almost universally been regarded as one of the great achievements of Ricardo, yet not only the principle itself, but many of its applications, are found in Torrens."

The influence of Torrens on the opinions of Ricardo is very clearly stated by Mr. Cannan.

[Cp. Seligman, "On some neglected British Economists," *Economic Journal*, London, 1903.—E. Cannan, *A History of the Theories of Production and Distribution in English Political Economy from 1776-1848*, London, 1893.]

TRADE DISPUTES ACT 1906. See TRADE UNIONS AND STRIKES.

TRADE UNIONS AND STRIKES. The law relating to these subjects has been further defined and amended by the legislature since the original articles were written (TRADE UNIONS; STRIKES), and it is now expressly laid down by the Trade Disputes Act 1906: (*a*) that an act done in pursuance of an agreement or combination by two or more persons, if done in contemplation or furtherance of a "trade dispute," is not actionable unless the act, if done without any such agreement or combination, would be actionable; (*b*) that it is lawful for two or more persons, in contemplation or furtherance of a "trade dispute," to attend at or near a house or place where a person resides or works or carries on his business or happens to be, if they so attend merely for the purpose of peacefully obtaining or communicating information, or of peacefully persuading any person to work or abstain from working; (*c*) that an act done by a person in contemplation or furtherance of a "trade dispute" is not actionable on the ground only that it induces some other person to break a contract of employment, or that it is an interference with the business or employment of some other person, or with the right of some other person to dispose of his capital or his labour as he wills; (*d*) that an action against a trade union, whether of workmen or masters, or against any members or officials thereof on behalf of themselves and all other members of the trade union, in respect of any tortious act alleged to have been committed by or on behalf of the trade union, may not be entertained by any court, though the trustees of the trade union are liable to be sued in cases concerned with its property, except in case of any tortious act committed by or on behalf of the trade union in contemplation or in furtherance of a "trade dispute." And, for the purpose of this legislation, the expression "trade dispute" is defined as meaning any dispute between employers and workmen, or between workmen and workmen, which is connected with the employment or non-employment, or the terms of the employment, or with the conditions of labour, of any person. (Trade Disputes Act 1906.)

Now, inasmuch as the very large majority of these "trade disputes" are concerned with alterations in the rates of wages, it is an increasingly common practice with firms that can afford it to adopt some "profit sharing" or "copartnership" scheme in order to provide for the necessary fluctuations in earnings without altering the rates of wages at all, and to regulate those fluctuations so far as possible in accordance with some settled principle. One of the best examples of a successful experiment of this kind is afforded by the system of bonuses instituted by the South Metropolitan Gas Company in the year 1889, and continued to the present date (1907). That system consists in an adaptation of the statutory sliding scale, whereby the dividends of the shareholders are regulated, to the remuneration of the Company's employees. The bonuses payable under the scale, like the dividends payable to the shareholders, vary inversely as the price of gas to the consumer. Thus, if the price of gas stands at 2s. 9d. per 1000 feet, the employees are entitled to a bonus of 3 per cent on their annual salary or wages, if the price falls to 2s. 8d. per 1000 feet, they are entitled to a bonus of $3\frac{3}{4}$ per cent, and if it rises to 2s. 10d., they are entitled to a bonus of $2\frac{1}{4}$ per cent, and so on. One-half of the bonus is invested in the names of trustees in the Company's ordinary stock until the amount credited to the person entitled to it is sufficient to enable a stock certificate to be given to him in his own name, and the remaining half is left in the Company's hands to accumulate at interest, but may either be withdrawn at a week's notice or be invested in stock in the names of the trustees. There are at the present time about five thousand employee shareholders, who under the scheme have become entitled to more than one-thirtieth part of the capital of the Company, and, by an extension of its principles, are entitled to elect one-third of the directors from among their own number. The Board consists of nine directors, and three out of the nine are elected by the employees. In the particular instance of this Company, the profit sharers are non-unionists, but their wages are paid at the full trade union rate, so that they may be said to benefit to that extent by the existence of trade unionism elsewhere as well as by their own copartnership scheme, and in the case of most other profit sharing concerns, it is expressly provided that profit sharers are free to become or remain members of any trade or friendly society.

Palmer's *Company Precedents*, 8th ed. p. 879.

[See PROFIT SHARING; STRIKES; TRADE DISPUTES; TRADE UNIONS, vol. iii.; COPARTNERSHIP, Appendix.] T. G. S.

TRANSPORT (INLAND, OTHER THAN RAILWAY). The recent history of inland transport presents a startling combination of the new and the old. In some countries inland water transport is still of great importance. In

every country road motor traffic—practically the creation of the last half a dozen years—has already taken an important place.

Canals.—France and Germany still continue their policy of subsidising water navigation to compete with the state-owned or state-guaranteed railways, and if the subsidy is sufficient the water navigation can more than hold its own. To quote one instance: in the year 1900 there were carried into and out of Mannheim 7,000,000 tons of freight by water and 5,300,000 tons by rail. If, on the other hand, competition between the two modes of carriage is left free the result is different. In the same year 1900 there were carried into and out of St. Louis 700,000 tons of freight by water and 24,600,000 tons by rail. Yet, as natural waterways, the Mississippi and Missouri are hardly inferior to the Rhine and the Main. In England there is sitting at the present moment a Royal Commission on Canals to consider whether there is any future for inland water navigation in this country. One thing is already abundantly clear. Many witnesses are prepared to invest other people's money in canal navigations, but few seem to manifest any strong desire to invest their own. Quite apart from the general inability of artificial waterways to compete with efficiently built railways on equal terms, which experience seems to have proved sufficiently, there are two special difficulties in England. The first is, that as a result of two generations of highly efficient though possibly expensive railway service, the whole trade of the country is organised on the basis of small quantities of commodities delivered with great promptitude—traffic for which canals admittedly cannot compete. The second is that owing to the configuration of the country large numbers of locks are required. To work locks frequently implies either expensive pumping or very ample supplies of water at a high level, and the latter condition is certainly not generally prevalent.

Motors.—Motors are so new that it is difficult at present to forecast their future, but it is already evident that the prejudice against their use, strong though it be in many quarters, will not be sufficient, as it was when in 1828 they seemed on the verge of commercial success, to prevent their development. It is also already clear that for large volumes of traffic, whether in passengers or in goods, a road motor is not likely to compete in economy with a railway or even a tramway. The reduction in the cost of haulage on the smooth rail more than counterbalances the extra capital cost involved where that cost can be spread over a considerable volume of traffic. For sparse traffic the opposite applies; the working cost per unit of traffic is greater, but not so great as the combined working and capital cost where rails are laid down. But the carriage of goods, at least by motors, will always be handicapped in this country by the fact that though we have no mountains, we have also no plains, that the country has long been thickly populated, and that the roads have grown at haphazard instead of being laid out on a settled plan by competent engineers.

The London Traffic Problem.—The advent of the road motor coincidently with the conversion of the underground steam railways to electric traction, the opening of a number of new underground lines, and a large extension of electric tramways, has resulted in London in a somewhat acute financial problem. It is estimated that in 1906 about £47,000,000 invested in the provision of London passenger traffic facilities received an average rate of about $\frac{3}{4}$ per cent. The doctrine that public funds should provide free locomotion, as they provide free parks and libraries, has hitherto not found much acceptance, and there is a general agreement that means must be found to put an end to a financial situation that in the long-run is impossible. Two things seem necessary for this end: the one, common and harmonious action between all the different interests affected; the other, the establishment of a Board of Control on the lines of the Traffic Commission sketched out by the recent Royal Commission on London Traffic (*Report*, 1905-6, 8 vols.). The former at the time of writing seems likely to come into operation, but the latter requires legislation which so far the Government have not seen their way to introduce.

Tramways.—The controversy on the subject of municipal trading has raged with especial fierceness round the question of the operation—not the ownership—of street tramways. The logical system would appear to be that the municipalities should own the physical tramway, and maintain it as they maintain the rest of the street, but that the working, which implies technical and commercial qualities not necessarily found in elected town councillors, should be entrusted to private enterprise. And this was the system contemplated by the original Tramways Act of 1870. It is also the system that was recommended after exhaustive investigations both in America and Europe by a special commission appointed by the Massachusetts State legislature. It is, however, a *via media* that has not found general acceptance. In America the private companies own the rails as well as work the service. In this country, in almost all the great cities,—Edinburgh (where the Corporation owns, but a company works), Dublin and Bristol (where companies both own and work) are perhaps the most important exceptions,—the tramways are both owned and worked by the municipalities. It can hardly be denied that in technical efficiency and in quantity and quality of service given, the American private street railroads surpass

our municipally owned tramways, nor can it be denied that municipal pride and jealousy have in this country often interposed obstacles to desirable intercommunication between neighbouring cities which commercially minded companies would have avoided. On the other hand, English tramway policy has been free from the discreditable bribery and corruption that has been associated all along with the grant of street railway charters in the United States. (See MUNICIPAL AND GOVERNMENT TRADING, Appendix.) W. M. A.

THE TREASURY OF THE UNITED STATES. To us in England who regard the treasury simply as a customer of the Bank of England, the arrangements with regard to the management of the United States treasury appear strange and unsuited to the requirements of the country. Originally the accumulations of the treasury were stored up and kept absolutely disused. The result was that an immense supply of ready cash was withdrawn from active use. This led to great inconvenience when the harvest or other economic demands rendered it necessary that these funds should be used in the ordinary business transactions of the country. With a view to meeting these difficulties it was provided by the Act of 1863 that some of the money thus held might be deposited in the national banks, who were required "to give satisfactory security by the deposit of United States bonds and otherwise." This provision gave the Secretary of the Treasury great power, as it enabled him to make favourites among the banks by supplying them thus with deposits. The recent action of Secretary Shaw (1907) in this connection has not been approved. Professor A. P. Andrew, of Harvard University, wrote a very brilliant article on the subject in the *Quarterly Journal of Economics* (Boston, U.S.A.) for August 1907, which has subsequently appeared as a separate pamphlet. The rearrangement of the legislation regulating the Treasury has been at the present time (Jan. 1908) under consideration in the United States, but no immediate action appears likely to be taken.

["The Treasury and the Banks under Secretary Shaw," reprinted from the *Quarterly Journal of Economics*, August, 1907. See *Treasury Department of the United States*, and articles in London *Banker's Magazine*, August and October 1907.]

UNBIASSED ERROR (in Statistics). Statisticians are accustomed to distinguish two classes of errors in the collection or averaging of statistics, namely (i.) those which are more likely to be in one direction than in the other, whether of excess or of defect; and (ii.) those which, on the data to hand, are equally likely to be in the one direction or the other. Errors in wage-statistics due to class-bias, or errors in measurement due to a wrongly graduated measuring instrument, may be taken as examples of the former; errors in statements of daily wages due to a tendency to take the nearest round number (above or below the correct figure), or errors in measurement due to casual slips on the part of a number of independent investigators, as examples of the latter. Errors of these two kinds are called *biassed* and *unbiassed* errors respectively. It is clear that it is not possible to allow in calculation for unbiassed errors, but that they are, relatively to biassed errors, unlikely to matter much when an average is taken, as they will tend to cancel one another. In practice, therefore, unbiassed errors must be neglected, whereas biassed errors do not tend to eliminate themselves in the same way, and must be allowed for. On the other hand, when comparisons are made between similar sets of statistics, biassed errors matter less than unbiassed, since they are likely to affect each side of the comparison in the same direction, whilst unbiassed errors, though possibly less in absolute magnitude, are as likely to be in opposite directions as in the same direction.

UNEMPLOYED. It is important to distinguish between the unemployment of the efficient and industrious and the unemployment of loafers and the physically unfit, but it must not be ignored that the two classes are connected and that enforced idleness is demoralising. In the first class, in addition to the persons who cannot get any work, are those voluntarily out of work because they cannot earn the minimum wages at which they are prepared to accept employment. Because of the existence of the latter the "unemployment" returned by trade unions must not be taken to measure the deficiencies of the community in providing occupation for its members. No figures exist from which the distribution of unemployment in any country by capacity and character can be ascertained, but it has been found from analysis of the returns of certain London Distress Committees, under the Unemployed Workmen's Act, that 86 per cent of the applicants were unskilled, 56 per cent were casual labourers, 37 per cent owed their position to age, inefficiency, or bad character, 41 per cent were of indifferent efficiency and had an indifferent record, while 22 per cent were of good character and possessed good industrial records.

Unemployment which is not chronic owing to moral or physical defects may be classified into Cyclical, Seasonal, and what will be termed here "Residual." As the result of an investigation made by the Board of Trade (Cd. 2337, pp. 97 *et seq.*) a general idea may be framed of the fluctuations among trade unionists for the last fifty years. The range is greatest in the metal trades, because in bad trade the demand

for instruments of production collapses far more than the demand for other things. The fluctuations are found to be closely correlated with the cyclical trade movements. It is not easy to see how this periodic failure on the part of the community to make the most of its productive power can be repaired. Its effects may be counteracted in some degree by public authorities taking care that their demand for labour shall vary inversely rather than directly as the trade cycle, which is probably getting less intense. Much unemployment is caused by the fluctuating needs of the seasonal trades, but in these trades as a rule weekly wages are higher for the same quality of labour than they are in those which offer steadier employment.

By "residual" unemployment of "the employable," that among the industrially fit, which is still found even in good trade and good seasons, is meant. The reason for its existence is that industrial changes are always taking place in some degree, and necessitating continual readjustments of labour. Occasionally the rate of change is very rapid, and some labour in consequence may suffer great irregularity of occupation. Ordinarily, however, no severe shock is experienced by any class, and the change upon which the unemployment is a reaction, which may represent merely people moving to the work that suits them, is all to the good in the long-run.

The cause of this kind of unemployment may be termed the social "time-lag," by which is meant the average time intervening between the loss of one job and the discovery of another. This must be appreciable, because an operative cannot look for work while he is occupied; and when he is unoccupied it is doubtful whether he receives much guidance in his search unless he is a member of some well-organised trade union. It would appear to be highly important that efficient labour exchanges should in some way be brought into action. They are especially requisite for casual labour (*e.g.* labour at docks), as in the case of casual labour employment is most broken.

We shall now consider some recent attempts made abroad and in this country to diminish unemployment or mitigate its effects. The encouragement and development of insurance against unemployment has been widely recommended. Three schemes have been tried, viz. —(1) voluntary, or (2) compulsory insurance, both State-administered and subsidised by public grants or voluntary contributions, and (3) the subsidising under State direction of trade union unemployed insurance. On the first plan extensive experiments were carried out at Cologne, and it was found that the allowances paid were nearly double the receipts from premiums, one reason being that most of those who insured were liable to unemployment in a very high degree. In 1903 Leipzig followed the example of Cologne. The St. Gall (Switzerland) scheme is of the second type, *i.e.* it invokes the aid of compulsion. After two years' trial it was discontinued. It was found impossible to coerce people into insuring. One difficulty connected with both schemes is that persons liable to slight risks will object to paying the same premium as those subject to heavy risks, and very complex schemes are therefore requisite. A further difficulty has also been urged, namely, that unemployment is not properly an insurable risk, as the extent to which a person suffers from it depends in some degree upon the inconvenience it would cause. For this reason some have contended that it is best to subsidise trade union unemployment pay wherever it is possible, since the trade unions will see to it that their members are reasonably alert in applying for places, and reasonably capable of keeping them. There are, however, two leading objections to this solution: the one that independent schemes must be started for non-unionists, since otherwise a bonus is paid on unionism; the other that it would be almost impossible to prevent the subsidies from being used to support "strikes in detail" for standard wages and conditions. This matter of the standard rate crops up also in relation to independent insurance, and with it is associated the question of the kind of work which a man is not permitted to refuse. Friction with individuals and with trade unions may easily arise over these points, and it goes without saying that a labour exchange must almost inevitably be run side by side with insurance against unemployment in order to keep down the cost. The subsidising of trade union unemployed benefit has been tried in some places, and in France certain municipalities—*e.g.* Limoges and Dijon —assist all legally constituted local unemployment insurance societies. In France the Conseil Supérieur du Travail has recommended this course, and declared against a national compulsory system.

Labour Exchanges or Bureaux have been tried extensively, and more particularly in Germany, where they are frequently grouped in systems around central offices, which again are united. In Germany, in round numbers, about a million places a year are filled through the agency of these public offices, which constitute probably about one-fifth of the engagements actually made. In all other countries the percentage is much lower. The public registries in Germany are now arranged in seven big federations, and in connection with the registries many relief stations for those wandering in search of work are dotted about the country. In France the bulk of the work done outside private registry offices is shared between municipal offices and the Bourses du Travail, roughly in the proportion of one-third to two-thirds. Together they fill about

150,000 places a year. In France every commune with more than 10,000 inhabitants is compelled to maintain a public labour bureau, and power is given to the authorities to close private offices, providing compensation is paid to those instituted prior to 1904. In the United States the State unemployment offices fill about 100,000 places a year. In the United Kingdom labour exchanges have been comparatively insignificant. In the last three or four years, however, more enterprise has been shown, but still in 1905 the places filled probably did not much exceed 20,000, if indeed they reached that number. London is now leading the way with a centralised system of district offices, and much energy is being devoted to it. The step forward has been encouraged by the Unemployed Workmen's Act of 1905 (5 Edw. VII. c. 18). This is a tentative piece of legislation, which in effect empowers local authorities to make experiments. Any funds dispensed must be raised voluntarily, but the proceeds of a rate of ½d. in the pound—or even more, provided the sanction of the local Government Board is procured—may be spent on establishment charges (of labour exchanges, for instance), and for certain prescribed objects. Control is in the hands of distress committees, which must be instituted by defined authorities, and may be instituted by others. These committees are representative of Local Government Councils and Boards of Guardians, and contain co-opted members. It is too early yet to speak of their work. Grants have been made by the Government in proportion to the needs of places and the voluntary contributions raised locally, and a special fund instituted by Queen Alexandra (1906) has also been distributed. It is to be hoped that, as a consequence of the institution of these committees, the problem of unemployment will be dealt with more continuously than was usual in the past. The Local Government Board has not shown itself favourably inclined to the maintenance of labour colonies.

There are some labour colonies in operation in this country, but they are not so significant a feature of England as they are of Germany or Belgium. About 10,000 people are admitted to the German colonies in the course of the year, and there is accommodation in them for about 4000 at one time. There are between thirty and forty colonies in all, and they are now united in some degree in the Labour Colony Central Board. Hitherto the chief flaw has been the harbouring of loafers and vagabonds. They have been described as mere open-air casual wards, where lengthy residence is possible. Now attempts are being made to render them more reformatory. In Belgium the labour colonies have quite different objects. They are of two sorts: (1) the houses of refuge, and (2) the beggars' depôts. The latter are penal. They are a part of the policy adopted in 1892 of suppressing vagrancy and begging. The former were instituted for the less hardened offenders as a reaction against the severity practised in the latter. It appears to be the view of the authorities that these colonies are only slightly reformatory, and that their chief merit is in keeping the vagrant class of social parasites from preying on the community. Labour colonies will probably be found of most service (1) as penal, (2) as reformatory, (3) as aiding in restoring health to the physically unfit, (4) as assisting to agricultural occupations those who are suitable and desire work on the land. Each should be specialised to its end. They hardly touch the problems of seasonal, cyclical, or "residual" unemployment.

As regards statistics of unemployment of the leading countries, figures are returned by the trade unions. English figures alone, however, afford a sufficiently lengthy review for the course of unemployment to be gauged. According to trade-union returns it would not seem to have tended much either upwards or downwards in the last half-century. The distribution of unemployment by age, and the numbers out of work for different lengths of time, are stated for the Amalgamated Society of Engineers in the Board of Trade inquiry referred to above. Some ideas of unemployment may be gathered from the numbers on the books of labour bureaux, and the number of places offered. These may be supplemented in Germany by figures of membership of sick funds, as payments are not required from those out of work. There are also official returns as to days worked in certain industries, which are, however, very sparse for some countries. Unemployment is also returned in the French industrial censuses, and by the censuses of Massachusetts and Australia.

Authorities.—Only a few can be mentioned here. Official figures and reports are issued periodically or occasionally by most countries. Foreign experience has twice been reported upon by the English Labour Department, the last time by Mr. D. F. Schloss in 1906. Adler's article, *Arbeitslosigkeit*, in the *Handwörterbuch der Staatswissenschaften* of Conrad and Lexis, which concludes with a lengthier bibliography than could be attempted here, should be referred to. On insurance against unemployment there is a useful work in French by Cagninacci. Of works on Labour Exchanges special mention should be made of Conrad's *Organisation des Arbeitsnachweises in Deutschland* (1904) as one of the most recent, and the journal *Arbeitsmarkt*. Labour Colonies have frequently been described: Mr. Schloss' report, *The Continental Outcast* (by W. Carlile and V. W. Carlile), and Alden's *Unemployed Problem* (which deals with other matters also), may be referred to as useful recent material. There is also the journal *Der Wanderer*. A useful collection of facts and views will be found in

the Report of a Special Committee of the Charity Organisation Society on the relief of distress due to want of employment (1904). The Royal Commission on Poor Relief, etc., now sitting, is also considering the matter of unemployment.

S. J. C.

[See BOURSE DU TRAVAIL; BUREAU OF LABOUR; BUREAU OF LABOUR IN THE UNITED STATES; DEPRESSION OF TRADE; EMPLOYERS AND EMPLOYED; EMPLOYMENT; GOVERNMENT REGULATION OF INDUSTRY; INDUSTRIAL COLONIES; IRREGULARITY OF EMPLOYMENT; LABOUR DEPARTMENT; LABOUR EXCHANGE; LABOUR, MOBILITY OF; RESTRICTIONS ON LABOUR; STANDARD RATE (OF WAGES); STRIKES; TRADE UNIONS; TRUCK; WAGES; and in App. TRADE UNIONS AND STRIKES.]

WAGES, NOMINAL AND REAL, CHANGES IN, IN THE UNITED KINGDOM SINCE 1850. For the definition of these terms, see WAGES, NOMINAL AND REAL; for an outline historical view, see WAGES AND PRICES OF COMMODITIES, and WAGES, PURCHASING POWER OF; for the level of wages in 1886, see WAGES STATISTICS; and for wage changes in the United States, see WAGES, STATISTICS OF. The present article is concerned with such detailed information as exists for changes of wages and of retail prices in recent years. No complete authoritative statement can yet be given as to the course of average wages, and all generalisations must be taken as tentative, and viewed in the light of the partial material on which they rest. When the Wage Census of 1906 is published, a fairly complete comparison will be possible with that of 1886. The Labour Department of the Board of Trade has published monthly and annually since 1893 records of changes of wages and of standard time and piece rates (see STANDARD RATE (OF WAGES)). Other official publications contain accounts of changes of piece-lists and sliding-scale rates (see SLIDING SCALE (WAGES)), and historical records of Trade Union minimum rates are copious and increasing in number. The records of wages for certain large industries have been compiled and discussed by Mr. A. L. Bowley and Mr. G. H. Wood in a series of articles in the *Journal of the Royal Statistical Society*, and a general view of the progress in the half-century ending in 1883 has been given by Sir Robert Giffen.

Change in Average Wages.—The following table gives the general result of calculations as to the change in the *average wages of all employed* in particular industrial groups. The method used is similar to that for expressing the changes in the value of money by index numbers (see INDEX NUMBERS). For each group the average wage of the period 1900-04 is equated to 100, and the average wages of earlier periods are expressed as percentages. In the last columns the change of average wages in general, as indicated by these and similar estimates, is given. In all cases the numbers must be regarded as only approximate, especially over long periods; but where authorities disagree, or the evidence is incomplete, the number is either given as between limits, *e.g.* 65-70, or in brackets, *e.g.* (95).

Index Numbers of Change in Nominal *Wages for a Normal Week's Work. United Kingdom.* 1850-1904.

Period.	Agriculture.				Building.	Engineering and Shipbuilding.	Coal.	Printing (Time-rates).	General Average.	
	England and Wales.	Scotland.	Ireland.	Together.					Unweighted.	Weighted.
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1850-54	70	55-60	45-55	60	59	71	..	81	*1878-79 only	(55)
1855-59	75-80	60-65	50-60	65-70	65	75	..	81		(60)
1860-64	75-80	60-65	65	65-70	68	75	..	81		62
1865-69	80	65-70	65-70	70-75	74	78	(65)	82	..	67
1870-74	90-100	80-85	75	85-90	79	83	90	86	..	78
1875-79	95-105	90-100	80-90	(95)	89	86	70	93	86*	80
1880-84	90	85	85	85	87	87	78	94	87	77
1885-89	87	85-90	88	85	88	87	72	94	86	79
1890-94	91	90	90	91	91	92	91	98	92	87
1895-99	94	(95)	95	94	96	96	84	98	93	92
1900-04	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	100

NOTES.—Columns 1, 2, 3, 4 are based on *Stat. Soc. Journal*, 1899, pp. 562-570, and on Cd. 2876. No allowance is made for the increasing regularity of work in Ireland. Column 5 is based on *Stat. Soc. Journal*, 1901, p. 112, and Cd. 1761, p. 260. Columns 6 and 8 are based on *Stat. Soc. Journal*, 1906, p. 185, and 1899, pp. 709-711 respectively; column 8 only refers to compositors on 'stab rates, book and jobbing. Column 7 is mainly from Cd. 1761, p. 260, with reference also to *Stat. Soc. Journal*, 1895, pp. 270-72. Column 9 is from Cd. 1761, p. 260, continued to 1904 with the help of the Reports on Changes of Wages; it represents the unweighted (or simple) average of over 150 rates. Column 10 is from *The Economic Journal*, 1904, p. 459, and is ultimately based on a table in the *Stat. Soc. Journal*, 1899, p. 639, supplemented by the great bulk of the other evidence referred to in this article; the numbers represent the changes in general average wages, so far as they are known, allowing for the changes in the numbers employed in different industries.

The numbers in column 10 in this table give the tentative answer to the question, "What has been the change in average wages of the working population of the United Kingdom as a whole?" but certain important groups of industries (*e.g.* most of the clothing and food industries, domestic service, railways) are omitted, and it may be that their inclusion (if the necessary data are ever obtained) will modify the result. Theoretical considerations, both of the general equality of real efficiency wages, and of the principles of averages, however, suggest that an index based on a heterogeneous group of work-people of all grades of skill and age, and both sexes, is likely to be substantially correct for fully employed efficient labour in general.

The material for the textile industries is not sufficiently detailed for the treatment in the above table, though it has been allowed influence in columns 9 and 10. A fairly accurate comparison may be made as follows: men, women, lads, and girls are included:—

Average Weekly Wage of all Grades in Textile Industries.

	Cotton.		Wool.		Worsted.		Linen.	
	Rate.	Per-centage Change.	Rate.	Per-centage Change.	Rate.	Per-centage Change.	Rate.	Per-centage Change.
1886. Wage Census. C. 6889 .	15s.	79	15s. 6d.	86	12s. 3d.	87	9s. 10d.	86
1905-06. Returns to Labour Department.	19s.	100	18s. 0d.	100	14s. 0d.	100	11s. 6d.	100

The average wage is, of course, greatly influenced by the number of women and children included, and a diminution in the latter has its effect on the rise shown. The average rise in this group is very nearly the same as that shown in column 10 above. It should be observed that, while in the coal industry the percentage changes, under the sliding scales or other agreements, bear a close relation to change of earnings, in the textile industries the changes in piece-lists have continually to be supplemented by other information, for the continually increasing efficiency of machinery increases earnings relatively to piece-rates.

Illustrative Statistics for particular Occupations.—In the tables given so far the rates of payment for particular occupations are merged in the average for industries. It is clearly impossible here to give wage-changes for all employments, but the following table shows the changes in detail for ten occupations, chosen so as to illustrate the varieties of the dates and amounts of increments of wages, and the stationariness of some rates as contrasted with the variability of others:—

Selected List of Wages, 1850-1906.

	For Normal Week.									Per Diem.
	Agriculture.			Engineering.			Building.		Printing.	Coal.
	Durham.	Lincoln-shire.	Hereford-shire.	London.	Tyne.		Liverpool.		Glasgow.	Lanark.
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	Summer Wages.			Fitter.	Fitter.	Labourer.	Mason.	Bricklayer's Labourer.	Composi-tor.	Hewer.
	s. d.	s. d.	s.	s.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1850	12 6	10 0	8	..	21s.–24s.	13 0	27 0	..	25 0	2 9
1851	,,	,,	,,	31	..	..	,,	..	,,	2 6
1852	,,	,,	,,	,,	..	..	,,	..	,,	,,
1853	,,	13 0	9	,,	..	..	,,	..	,,	3 9
1854	13 0	15 0	11	,,	..	..	28 6	..	,,	4/ to
1855	13 6	,,	,,	,,	..	..	,,	18 0	,,	5 0
1856	,,	,,	,,	,,	..	..	,,	,,	,,	4 3
1857	,,	,,	,,	,,	..	..	,,	,,	,,	4 0
1858	,,	12 0	,,	,,	..	..	,,	,,	,,	3 0
1859	,,	,,	,,	,,	..	..	30 0	,,	,,	,,
1860	14 0	13 6	,,	,,	24 0	15s.–16s.	,,	,,	,,	3 6
1861	..	,,	,,	,,	,,	..	,,	,,	,,	3 2

Selected List of Wages, 1850-1906—*Continued.*

	For Normal Week.									Per Diem.
	Agriculture.			Engineering.			Building.		Printing.	Coal.
	Durham.	Lincoln-shire.	Hereford-shire.	London.	Tyne.		Liverpool.		Glasgow.	Lanark.
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	Summer Wages.			Fitter.	Fitter.	Labourer.	Mason.	Bricklayer's Labourer.	Composi-tor.	Hewer.
	s. d.	s. d.	s.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1862	..	13 6	11	35	24 0	..	30 0	..	25 0	3 1
1863	..	12 0	,,	,,	,,	..	33 0	..	27 6	3 7
1864	..	,,	10	,,	,,	..	,,	..	,,	4 0
1865	..	,,	,,	,,	25 0	..	,,	..	,,	4 1
1866	13 6	13 6	,,	36	..	..	,,	..	,,	4 6
1867	14 6	15 0	11	,,	24 0	14s.–18s.	,,	18 0	,,	4 3
1868	14 8	,,	,,	,,	,,	,,	,,	..	,,	3 7
1869	14 6	,,	,,	,,	,,	..	,,	..	,,	3 7
1870	15 0	13 6	,,	,,	..	..	,,	..	,,	3 9
1871	15 4	15 0	,,	,,	25 0	18 0	..	..	30 0	4 6
1872	15 3	16 6	,,	,,	28 0	..	35 6	..	,,	7 0
1873	16 6	18 0	,,	,,	..	..	,,	..	,,	9 11
1874	17 0	,,	12	,,	31 0	..	,,	..	,,	7 2
1875	16 6	,,	,,	,,	..	..	36 8	..	,,	5 4
1876	17 0	,,	14	,,	30 0	..	37 1	..	,,	4 8
1877	..	,,	,,	,,	..	..	,,	..	32 6	4 2
1878	17 6	15 0	13	,,	29 0	..	,,	25 2	,,	3 2
1879	,,	,,	,,	,,	28 0	..	37 10	24 1	,,	4 6
1880	,,	,,	,,	,,	29 0	..	36 8	,,	,,	4 11
1881	18 0	,,	,,	,,	29 9	..	,,	,,	,,	4 6
1882	17 9	,,	,,	,,	30 0	..	,,	,,	,,	,,
1883	17 6	,,	,,	38	32 0	..	,,	,,	,,	5 2
1884	18 0	,,	,,	,,	31 0	19 0	,,	,,	,,	4 6
1885	17 6	13 6	,,	,,	30 0	..	,,	,,	,,	4 1
1886	18 0	,,	12	,,	,,	18 0	,,	,,	,,	3 11
1887	17 10	12 0	,,	,,	,,	..	,,	,,	,,	4 2
1888	18 0	,,	,,	,,	32 0	18 0	,,	,,	,,	4 2
1889	,,	13 6	,,	,,	34 0	..	,,	,,	,,	5 2
1890	18 6	..	,,	,,	35 0	21 0	35 1	22 11	,,	6 2
1891	19 0	15 0	,,	,,	,,	..	,,	,,	34 0	,,
1892	,,	,,	,,	,,	33 6	20 0	37 1	,,	,,	5 7
1893	,,	13 6	,,	,,	31 6	..	,,	,,	,,	6 2
1894	,,	,,	,,	,,	,,	18s.–20s.	,,	,,	,,	5 3
1895	,,	,,	,,	,,	..	..	,,	,,	,,	4 9
1896	,,	,,	,,	,,	33 6	..	..	,,	,,	,,
1897	,,	15 0	,,	,,	35 0	21s.–27s.	39 2	22 8	,,	4 10
1898	,,	,,	,,	,,	36 0	..	,,	,,	,,	6 3
1899	,,	,,	,,	,,	,,	..	,,	,,	,,	6 7
1900	19 6	16 6	,,	,,	,,	..	,,	,,	,,	8 1
1901	20 0	,,	,,	39	,,	22 0	,,	,,	,,	6 4
1902	,,	15 0	,,	,,	..	..	,,	,,	,,	6 1
1903	,,	,,	,,	,,	35 0	..	,,	,,	,,	5 8
1904	,,	,,	,,	,,	,,	22 0	,,	,,	,,	,,
1905	..	..	..	,,	,,	21 6	,,	,,	,,	,,
1906	..	..	..	40	36 0	22 0	37 2	,,	,,	,,

NOTES TO TABLE.—Columns 1, 2, 3 are from the *Second Report on Earnings of Agricultural Labourers*, Cd. 2376, pp. 173, 197, 210. The wages are consecutive records from three farms. In Durham house and garden are free, and there are minor allowances in Durham and Hereford; no material change occurred in this respect during the period taken. Columns 4, 5, and 6 are compiled from *Stat. Soc. Journal*, 1905, pp. 109-125, 584-5; the wages stated for fitters are mainly the standard minimum rates, those for labourers are from divers sources and are not strictly comparable. Columns 7 and 8 are mainly from *Stat. Soc. Journal*, 1900, pp. 306-7; labourers' hourly wages were raised from 5d. to 5½d. in 1893, and the hours per week reduced from 55 to 50 in 1893, and to 49½ in 1897. Column 9 comes from *Stat. Soc. Journal*, 1899, pp. 709-11, brought up to date; the wages are for ordinary day work. Column 10 is from Bowley's *Wages in the United Kingdom*, pp. 104-7, the last eight years being computed roughly. It is to be observed as to columns 4 to 9, that the number of hours per working week has fallen considerably in the period, so that rates per hour have risen more rapidly than the rates shown in the table.

Change in purchasing Power of Wages.—To compute the change of real wages it is necessary to know the changes of retail prices (PRICES, HISTORY OF), and to show their effects on the purchasing power of wages with the help of detailed statements of expenditure (WORKMEN'S BUDGETS). There are no adequate returns of retail prices, except in the case of bread in quite recent years. The Board of Trade (H. of C. 321 and Cd. 2337) has brought together much information, but of a heterogeneous nature; it is doubtful whether their final index numbers can be safely used except to show the course of the general semi-wholesale price of food in London since 1877. It is noticeable that this so-called retail index number follows very nearly the

same course as that showing wholesale prices, and we may therefore be justified in carrying it back to 1850 by the help of Sauerbeck's index number for wholesale food prices. After food the principal expenditure of the workman is on rent, and there is a general impression that workman's rent has risen, even relatively to the accommodation provided, an impression possibly justified by the rise in ground-rent and rates.

As a working hypothesis, it seems reasonable to assume that the sum remaining in the workman's hands, after food has been purchased, has not varied greatly in purchasing power, the general fall in prices being counterbalanced for this residuum by the rise in rent and in the cost of personal services. We may further assume, without serious error in the result, that two-thirds of wages are on the avreage spent on food, though the proportion has no doubt fallen in the last half-century. The result is not to be regarded as final in any sense, but rather as showing the direction of the effect of the change of prices, *i.e.* the nature of the numerical relation between nominal and real wages.

Hypothetical Conversion of Nominal into Real Wages.

Periods.	Index Nos. of Nominal Wages from previous Table. 1.	One-third of Col. 1 assumed unchanged in Purchasing Power. 2.	Two-thirds of Col. 1. 3.		Index No. of Food. 4.		Purchasing Power of Two-thirds of Col. 1. 5.	Sums of Cols. 2 and 5. 6.	Col. 6 in round numbers. 7.
1850-54	55	18	37	÷	1·21	=	31	49	50
1855-59	60	20	40	÷	1·40	=	28	48	50
1860-64	62	21	41	÷	1·36	=	30	51	50
1865-69	67	22	45	÷	1·40	=	32	54	55
1870-74	78	26	52	÷	1·47	=	35	61	60
1875-79	80	27	53	÷	1·41	=	37	64	65
1880-84	77	26	51	÷	1·32	=	38	64	65
1885-89	79	26	53	÷	1·06	=	50	76	75
1890-94	87	29	58	÷	1·02	=	57	86	85
1895-99	92	31	61	÷	·95	=	64	95	95
1900-04	100	33	67	÷	1·00	=	67	100	100

Index numbers of real wages.

The following table, put less definitely, and carrying the record farther back, is probably substantially correct:—

General View of the Course of Prices, and of Nominal and Real Wages in the United Kingdom.

Periods.	Nominal Wages.	Prices.	Real Wages.
1790-1810	Rising fast	Rising very fast	Falling slowly
1810-1830	Falling	Falling fast	Rising slowly
1830-1852	Nearly stationary	Falling slowly	Rising slowly
1852-1870	Rising fast	Rising	Rising considerably in the whole period
1870-1873	Rising very fast	Rising fast	Rising fast
1873-1879	Falling fast	Falling fast	Nearly stationary
1879-1887	Nearly stationary	Falling	Rising
1887-1892	Rising	Rising and falling	Rising
1892-1897	Nearly stationary	Falling	Rising
1897-1900	Rising fast	Rising	Rising
1900-1904	Falling a little	Falling and rising	Stationary

If the view shown in these tables is correct, it follows that in the period 1880-1900 real wages have on the average progressed with unexampled continuity and rapidity.

[See Bowley, *Wages in the United Kingdom*, and *National Progress in Wealth and Trade*, and *Stat. Soc. Journal*, 1895, 1898, 1899, 1900, 1901, 1902, 1905, 1906; and *Econ. Journal*, 1904, p. 459.—Giffen, *Essays in Finance*.—Wood, *Econ. Journal*, 1901, p. 151.—C. 5172, *Returns of Wages between 1830 and 1886*.—C. 5807, C. 6161, C. 6455, C. 6715, and C. 6889, viz. *The Wages Census of 1886*.—Cd. 346 and Cd. 2376, *Wages of Agricultural Labourers*.—C. 7567 I. and Cd. 144, *Standard Piece Rates*.—C. 7567 II., Cd. 317, Cd. 3245, *Standard Time Rates*.—C. 7567 and annually, *Changes in Rates of Wages*.—Cd. 1761, Mem. XIX.—Cd. 2337, Mem. I. and II. (see criticism *Stat. Journal*, 1905, p. 176).—H. of C. 321, *Wholesale and Retail Prices*.—See also "Bibliography of Wage Statistics," *Econ. Review*. Oct. 1898.] A. L. B.

WELLS, DAVID AMES (1827-1898). Born in Springfield, Mass.; died in Norwich, Connecticut. Graduated from Williams College in 1847, and from the Lawrence Scientific School, Cambridge, 1851. He was engaged in scientific pursuits, principally in chemistry, until the outbreak of the Civil War, and published several widely used manuals, like *The First Principles of Geology*, *Principles and Applications of Chemistry*, and *Natural Philosophy*, the last of which went through fifteen editions by 1874.

At the outbreak of the Civil War Mr. Wells became interested in economic questions, and in 1864 delivered a lecture in Troy, New York, entitled *Our Burden and our Strength*, devoted

to the resources and the tax-paying abilities of the United States. It was at first privately printed, but attracted wide attention, and was then published by the Loyal Publication Society of New York. It became one of the most noted publications of the war period, and no less than 200,000 copies were issued, being also translated into French and German. It was a time when confidence in the United States Government was at a low ebb, when the greenback was depreciated almost 50 per cent, and when the United States bonds had sunk nearly as low. Many were full of apprehension at the prospect of further issues of paper money, of enormous loans, and of crushing taxation. It was now that Mr. Wells endeavoured to prove that the nation's credit was still unimpaired, and that a wise use of the resources of the country would tide it over all possible dangers. As a result of this monograph President Lincoln, on the recommendation of Mr. Fessenden, Secretary of the Treasury, appointed Mr. Wells on the National Revenue Commission, together with Stephen Colwell of Pennsylvania, and S. S. Hayes of Illinois. Their report of 1866, written by Mr. Wells, contained recommendations which were made the basis of subsequent important legislation. A few months later the office of Special Commissioner of Revenue was created, and Mr. Wells was appointed to this office. His successive reports have become classics on the subject. It was during this period that Mr. Wells was converted from protectionism to free trade, and his energetic advocacy of free trade in the report of 1869 caused President Grant to abolish in 1870 the position of Special Commissioner of the Revenue, but not until after Mr. Wells had made the most valuable suggestions as to the reform of the internal revenue, most of which were enacted into legislation. Perhaps the most important single change was his suggestion of the use of stamps for the collection of taxes on spirits, beer, and tobacco. He also created the Bureau of Statistics, and called to its head General Francis A. Walker.

When Mr. Wells retired from his office at Washington, Governor Hoffman of New York offered him the chairmanship of the New York State Tax Commission. The two reports of this commission, published in 1871-72, were written by Mr. Wells, and were the first thorough investigation of local taxation in America. Mr. Wells devoted the rest of his life to study and writing on economic topics, his chief books being his *Our Merchant Marine*, 1882, devoted to a study of the decline of American shipping; his *Practical Economics*, 1885, dealing primarily with tariff problems and questions of internal revenue; his *Recent Economic Changes*, 1898, which was an attempt to show that the industrial depressions since the Civil War were not due to scarcity of money, but that the changes in price were due to alterations in the conditions of production of the commodities themselves; and, finally, his *Theory and Practice of Taxation*, 1900, in which he summed up his life-work, on the question of direct taxation. Mr. Wells' reputation as an economist is due primarily to his marvellous capacity for using facts and statistics, and to his wide acquaintance with the actual phenomena of economic life. He had, however, never enjoyed the advantages of a scientific training in the theory of economics, and he was by no means so strong in his discussions of general principles as he was in his treatment of particular problems. He was the chief American advocate of the principle of general diffusion of taxes.

The various aspects of the public and scientific activities of Mr. Wells are treated in the Report of a Memorial Meeting of the Economic Conference of the Johns Hopkins University, November 22, 1898. His chief writings are as follows:—

Our Burden and Our Strength, 1864.—*Reports of the Special Commissioner of the Revenue*, 1866, 1867, 1868, 1869.—*First and Second Reports of the Commissioners appointed to Revise the Laws for the Assessment of Taxes in New York*, 1871-1872.—*The Relation of the Government to the Telegraph*, 1873.—*The True Story of the Leaden Statuary*, 1874.—*The Relation of the Federal Government to the Railways*, 1874.—*The Cremation Theory of Specie Resumption*, 1885.—*Robinson Crusoe's Money*, 1876.—*Contraction of Legal Tender Notes* vs. *Repudiation*, 1876.—*Plain Talk with a South-western Inflationist*, 1876.—*The Silver Question*, 1877.—*The Sugar Industry in the United States and the Tariff*, 1878.—*Why We Trade and How We Trade*, 1878.—*How the Bankers and the Public deal with a Great Revenue and Industrial Problem* (The Sugar Question), 1880.—*Our Merchant Marine*, 1882.—*Free Trade Essential to Future National Prosperity and Development*, 1882.—*Practical Economics*, 1885.—*A Primer of Tariff Reform*, 1885.—*Relation of the Tariff to Wages*, 1888.—*Recent Economic Changes*, 1898.—*Theory and Practice of Taxation*, 1900.

E. R. A. S.

WORKMEN'S INSURANCE. Workmen's insurance may be classified into insurance against accident, sickness, invalidity, and old-age (see Pensions, Old-Age). Germany first introduced the principle of making the cost of accidents a charge upon industry in 1881, and provided that industries should be grouped in associations upon which the burden should fall. The object of the associations was to protect the workmen against the failure of the employer to meet his liabilities. The new principle was adopted in France in 1898, and modified in 1902. In France, however, owing to difficulties in the way of providing compulsorily for associations of industries, the obligation to compensate was imposed on the employer, the State affording some additional protection to the workmen by guaranteeing certain parts of

the compensation and including the rest in the privileged debts which have priority. In England the charge rests wholly on the employer, and compensation is neither State guaranteed nor given priority among other debts; but in effect the English system reduces to the German by firms voluntarily insuring as a rule when they are not strong enough to bear the risks themselves. England began her new course in 1897, and embarked further upon it in 1900 and 1906. Now, in addition to industrial workers and clerks with small incomes, even domestic servants are brought under the law. The new laws, in attaching the cost of accidents directly to the expenses of production, should stimulate the provision of safety appliances. Insurance should not check this effect, as insurance companies will regulate their premiums according to the precautions taken. It is feared by some that workmen may be rendered more careless, and that "malingering" will be encouraged. Statistical evidence is not convincing one way or the other. The laws of all three countries provide for weekly allowances in the case of non-fatal accidents and for lump payments to dependants in the event of death. In France and Germany medical treatment is also provided, and in the latter country an injured person may be compelled to undergo a cure. The new principle for compensating accidents has not been introduced into the United States—where, however, the law on the old English plan is administered very favourably to the workmen—but it has already won its way into many other countries.

Compulsory insurance against sickness in the case of the wage-earning and similar classes was adopted in Germany in 1883. Existing insurance institutions were generally recognised and new offices were established to supplement them. Generally speaking the premiums are divided between work-people and employers in the ratio of two-thirds to one-third. Sick relief may continue for as long as twenty-six weeks. Thereafter, if needful, an invalidity pension is paid under the scheme for old-age and invalidity pensions (see article on PENSIONS, OLD-AGE). In England, France, and the United States, to cite the three other leading countries, sickness insurance is still on a voluntary basis, though the French Government has for years subsidised and encouraged private enterprise in this matter, and the English Government accords certain privileges to such friendly societies as consent to register.

Authorities.—Willoughby, *Workmen's Insurance* (now a little out of date); Lass and Zahn, *Einrichtung und Wirkung der deutschen Arbeiterversicherung* (third ed. 1904); Memorandum of the Home Office on Foreign and Colonial Laws relating to Compensation for Injuries to Workmen (Cd. 2458), 1905. S. J. C.

LIST OF ABBREVIATIONS USED IN INDEX.

Afr. = Africa
Afrn. = African
Amer. = America
Amern. = American
anc. = ancient
appl. = applied
arith. = arithmetic
arithl. = arithmetical
assoc. = association

Brit. = Britain, British

calcul. = calculation
centy. = century
char. = character
circ. = circulation
Co. = Company
compd. = compared
conn. = connected
const. = constitution
crit. = criticism
curr. = currency

Decl. = Declaration
decr. = decrease
decrg. = decreasing
def. = definition
deprec. = depreciation
diff. = difference
diffic. = difficulty
dimin. = diminishing
disadv. = disadvantage
disorgn. = disorganisation
dist. = distinguished
distr. = distribution
divis. = division
doctr. = doctrine

E. = east
econ. = economic, economics
Eng. = England, English
estab. = established
Eur. = Europe, European
expln. = explanation

Fr. = France, French
fr. = from

Ger. = German, Germany
gov. = government

hist. = history
Holl. = Holland

illustr. = illustrated
illustn. = illustration
inconv. = inconvertible
incr. = increase
Ind. = India, Indian
indep. = independent
infl. = influence
inher. = inheritance
instr. = instrument
int. = interest
introd. = introduced
introdn. = introduction
invd. = invented
Irel. = Ireland
irreg. = irregular
Ital. = Italian

jnt.-stk. = joint-stock

legisl. = legislation
liab. = liability

medvl. = mediæval
Merc. Syst. = Mercantile System
meth. = method
mod. = modern

N. = north
N.W. = north-west

Parlt. = Parliament
parly. = parliamentary
P.E. = political economy
princ. = principles
prodn. = production
prohib. = prohibition
Prot. = Protestant
protn. = protection

qual. = quality
quant. = quantity
quest. = question

reguln. = regulation
rel. = relation
restrd. = restricted
restrns. = restrictions
R.C. = Roman Catholic
Russ. = Russia, Russian

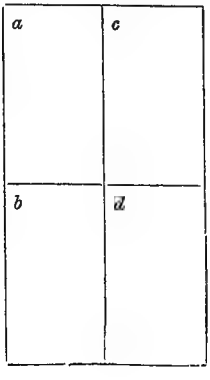
Sch. = School
sci. = science
Sc. = Scotch
Scot. = Scotland
secs. = securities
S. = south
Span. = Spanish
stan. = standard
stk. ex. = stock exchange
suspn. = suspension
Switz. = Switzerland
syst. = system

U.K. = United Kingdom
U.S.A. = United States of America

W. = west
wh. = which

Names of persons noticed in the Dictionary appear, in the index, in small capitals, as J. S. MILL titles of other articles in heavy type, as **Value**; foreign words, not being titles of articles, and name of books, in italics, as *Villa*, *Wealth of Nations*. A colon indicates the end of the index-heading individual references are separated by a semicolon; groups of references by .——

In each reference the number indicates the page, while the letter indicates a *division* of that page *a* and *b* referring to the *upper* and *lower* halves of the *left*-hand column, *c* and *d* to the *upper* and *lower* halves of the *right*-hand column. Thus, **Absentee**: Evils of, i. 3 *d*, refers to volume i. page 3 the lower half of the right-hand column. The diagram subjoined shows the method followed :—



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